DST No. 1

Summary of Test Results.

Date of Test	: 23 November, 1984
Formation Type	: Middle Jurassic Sandstones
Perforated Interval	: 4338 - 4374 m (14232 - 14350 ft)
Mid. Perfs.	: 4356 m (14291 ft).
Initial Flow Period	: 9 mins.
Intial Buildup	: 69 mins.
Final Flow Period	: 5 Hrs. 41 mins.
Final Buildup	: 16 Hrs. 10 mins.

Flow Period Results

Water Flowrate	: 1152 BPD
Total Water Production	: 318 +/-20 bbls.
Gas Flowrate	: Less than 1 million estimated.
Flowing BHP (at gauge depth)	: 6270 psig
FFBHP (at gauge depth)	: 6971 psig
Gauge Depth	: 4334.6 m (14221 ft)
Flowing WHP	: 20 psig
FFWHP	: 706 psig.
Gas Gravity	: 0.65 at 60° F
H_2S Content	: Zero
CO_2 Content	: Max. 4% while flowing, 19% while sampling.
Chlorides Content	: 52,000 ppm.
Formation Water Gradient	: 0.45 psi/ft.
Rw at 300°F	: 0.025 m

NORWEGIAN WELL 6507/7-1 : DST NO. 1

Table No. 2

RECORD OF SAMPLES

Wellhead Samples

Type	Bottle Size	Bottle No.	Pressure		Temp.	
			psig.	MPa	°F	°C
Gas	20 L	817 A	490	3.380	47.9	8.83
Gas	20 L	811 A	446	3.075	47.2	8.44
Gas	20 L	818 A	427	2.944	47.0	8.33
Gas	20 L	812 A	419	2.889	47.0	8.33

Reversing Samples

Twenty-seven one litre water samples were taken while reversing out the contents of the test string. Samples taken at intervals of approx. 6 bbls.

Notes

1. Wellhead gas samples were taken towards end of final build-up, assuming segregation of gas towards the top of the string. However, a fine spray of water was still being produced and the samples may be contaminated.

2. All samples were sent to Core Laboratories in Bergen for Analysis. Results are included in Section 5.6.

WELL NAME: 6507/7-1

NORSK PETROLEUM SERVICES

MUD PROPERTY RECAP

DATE	DEPTH	DENSITY	VISC-OSITY	FILTRATE		HT/HP filt		pH	RHEOLOGY				FILTRATE ANALYSIS					RETORT ANALYSIS			CEC	OTHER		
		PPG			Cake	°500psi			PV	YP	10"	10'	Cl	Ca	Pf	Mf	Gyp	Oil	Water	Corr. Solids	PPB			
	metres		secs	ccs	1"/32/mm	ccs	1"/32/mm		cp	lbs/100ft²-gms/100cm²			mg/litre	ppm			ppb	%	%	%	Bent. Eq.	ASG		
36"hole		Sea water																						
26"		Sea water																						
21/8	952	10.7	46	13	1			10	24	16	2	3	3000		.5/1	1.1	3.7	-	92	8	8	4.10		
22/8	1202	10.7	50	8.6	1			9.5	22	17	6	24	1000		.02	.07	4.6	-	87	13	12	3.2		
23	1550	10.9+	63	8.4	1			9.5	18	22	18	22	4000	1500	.1	.3	6.5	0	86	13	20	3.25		
24	1785	11.5+	70	8.4	1			9.5	28	24	28	36	4000	1800	.1	.3	3.9	0	84	16	24	3.42		
25	2061	12.0	110	8.0	1			9.0	28	30	30	42	3000	1400	.1	.3	4.5	0	83	17	20	3.60		
26	2180	12.5	61	7.8	1			9.0	24	25	20	33	3000	1400	.15	.35	5.5	0	82	18	25	3.79		
27	pit	12.5	55	7.6	1			9.0	20	18	12	36	3000	1400	.15	.4	5.5	0	82	18	25	3.79		
28	2193	12.6	80	8.0	1			9.0	26	28	22	38	3000	1400	.1	.4	5.5	0	81	19	25	3.70		
29	pit	12.5	100	8.0	1			9.0	26	20	20	38	3000	1400	.1	.4	5.5	0	82	18	25	3.76		
30	2225	12.5	105	8.8	2			10.2	26	32	29	51	5000	1300	.2	.5	5.2	0	82	18	22	3.76		
31	2421	12.6+	89	8.4	2			9.0	30	31	24	40	4000	1160	.1	.3	5.0	0	80	20		3.60		
1/9	2660	12.5+	53	7.8	2			9.0	24	28	27	38	2000	800	.1	.4	5.6	0	82	18	22	3.82		
2	2760	12.5	46	8.4	2			8.8	20	39	25	39	2000	1000	.1	.4	5.5	0	82	18	26	3.78		
3	2817	12.6	48	8.0	2			9.0	20	35	24	35	2000	1000	.05	.35	5.48	0	81	19	22	3.70		
4	2887	12.7+	47	7.8	2			9.0	19	30	23	36	2000	1000	.05	.4	5.5	0	81	19	22	3.80		
5	2911	12.8	54	7.8	2			9.0	20	32	25	40	2000	1020	.08	.4	5.4	0	80	20	21	3.68		
6	3014	13.1	50	7.2	3			9.4	22	35	24	43	2300	840	.12	.54	4.4	0	79	21	21	3.73		

WELL NAME: 6507/7-1

NORSK PETROLEUM nps SERVICES

MUD PROPERTY RECAP

DATE	DEPTH	DENSITY	VISC-OSITY	FILTRATE		HT/HP fill		pH	RHEOLOGY				FILTRATE ANALYSIS					RETORT ANALYSIS			CEC	OTHER		
					Cake	°500psi			PV	YP	10"	10'	Cl	Ca	Pf	Mf	Gyp	Oil	Water	Corr. Solids	PPB			
		PPG	secs	ccs	1"/32/mm	ccs	1"/32/mm		cp	lbs/100ft²-gms/100cm²			mg/litre	ppm			ppb	%	%	%	Bent. Eq.	ASG		
7/9	3080	13.3	49	6.4	2			9.1	18	30	22	36	2100	880	.05	.3	4.9	-	78	22	23	3.75		
8	3114	13.5+	55	6.8	3			8.7	20	34	24	41	2100	900	.1	.45	4.9	-	77	23	21	3.75		
9	3149	13.9	55	6.6	2			8.6	20	35	25	40	2000	1000	.1	.4	4.8	-	74	26	20	3.56		
10	3184	13.7+	55	5.8	2			9.0	20	36	27	39	2100	1000	.05	.4	5.3	-	77	23	20	3.80		
11	3245	13.3	56	5.8	1			9.2	20	35	23	37	4700	2000	.2	.6	5.1	-	78	22	20	3.72		
12	3303	13.3	54	6.0	1			9.3	18	34	23	38	1900	620	.15	.5	5.-	-	78	22	19	3.70		
13	3321	13.4	56	5.9	1			9.1	18	35	20	36	2000	880	.15	.5	4.9	-	78	22	19	3.77		
14	3351	13.7	56	6.-	2			9.-	20	35	24	38	2000	1000	.15	.5	5.1		76	24	19	3.69		
15	3395	13.7	61	6.-	2			9.-	20	35	25	38	2300	880	.1	.4	4.9		76	24	19	3.69		
16	3462	13.7	63	6.-	2			8.5	22	36	25	41	2100	1000	.1	.5	4.9		75	25	22	3.58		
17	3505	13.7	69	6.-	2			8.3	23	38	27	44	2300	1000	.05	.55	5.-		75	25	22	3.58		
18	3523	13.7	65	6.-	2			8.3	20	35	20	36	2200	1120	.05	.6	4.9		76	24	22	3.69		
19	3600	13.7	52	6.3	2			9.-	20	30	20	31	2100	920	.05	.7	4.9		76	24	21	3.70		
20	3600	13.7	52	6.1	2			9.1	20	30	20	30	2200	1000	.05	.8	5.0	0	75	25	21	3.70		
21	3653	13.7	53	4.6	2			9.0	22	18	12	28	2400	1160	.05	.7	4.2	0	76	24	16	3.69		
22	3709	13.7	57	4.6	1			9.8	35	22	8	33	2300	1120	.25	1.1	5.1	0	75	25	22	3.58		
23	3716	14.1	64	4.0	1			9.5	27	20	10	30	2500	1160	.2	1.0	4.2	0	74	26	22	3.67		
24	3761	14.2	69	3.7	1			10.0	31	24	7	30	2400	1280	.25	1.1	3.41	0	74	26	21	3.71		
25	3778	14.2	69	3.8	1			10.0	30	22	5	20	2600	1360	.3	1.2	4.1	0	73	27	22	3.61		

WELL NAME: 6507/7-1

NORSK PETRO nps SERVICES

MUD PROPERTY RECAP

DATE	DEPTH	DENSITY	VISC-OSITY	FILTRATE		HT/HP filt		pH	RHEOLOGY				FILTRATE ANALYSIS					RETORT ANALYSIS			CEC	OTHER		
		PPG			Cake	°500psi			PV	YP	10"	10'	Cl	Ca	Pf	Mf	Gyp	Oil	Water	Corr. Solids	PPB			
	metres		secs	ccs	1"/32/mm	ccs	32/mm		cp	lbs/100ft²-gms/100cm²			mg/litre	ppm			ppb	%	%	%	Bent Eq.	ASG		
26/9	3815	14.2	62	3.6	1			10	34	23	9	27	2500	1240	.25	1.2	4.14	0	74	26	23	3.71		
27	3821	14.2	62	3.6	1			10	34	23	9	25	2500	1240	.25	1.2	4.00	0	74	26	23	3.71		
28	3821	14.2	65	3.6	1			9.8	30	20	6	20	2500	1200	.3	1.2	4.00	0	74	26	22	3.71		
29	3821	14.1+	60	3.6	1			10	28	17	5	15	3000	1360	.2	1.2	4.28	0	73	27	22	3.59		
30	3821	14.2	61	3.6	1			10	28	17	5	16	3000	1360	.2	1.1	4.1	0	73	27	22	3.61		
1/10	3802	14.2	61	3.6	1			10	28	17	5	16	3000	1360	.2	1.1	4.1	0	73	27	22	3.61		
2	3802	NO CHECK - MIXING DILUTION FLUID																						
3	3825	12.5	49	3.0	1			10	18	13	3	12	11000	2000	.15	1.1	6.5	0	80	20	15	3.55		
4	3863	11.9	54	3.2	1			10	22	18	3	15	5400	1960	.1	.95	4.8	0	83	17	14	3.53		
5	3933	11.6+	52	3.1	1			9.5	21	20	5	19	5000	1800	.2	.9	4.9	0	84	16	14	3.50		
6	3953	11.7+	52	3.1	1			9.7	20	15	5	18	5100	1600	.1	.9	4.8	0	82	18	15	3.32		
7	4012	11.5	52	3.4	1	13.5	2	9.5	20	19	6	20	5000	1600	.2	.9	4.8	0	83	17	14	3.3		
8	4057	11.4+	51	3.6	1	14.-	2	9.5	19	19	4	19	5000	1800	.15	.95	4.9	0	83	17	14	3.3		
9	4081	11.2	59	2.9	1	-	-	9.4	17	17	3	15	4600	1600	.15	1.-	5.3	0	83	17	13	3.1		
10	4142	11.4	59	3.2	1	12.-	2	9.5	17	17	5	15	4800	1920	.15	1.1	5.3	0	83	17	13	3.17		
11	4163	11.3+	55	3.-	1	13.-	2	9.5	18	16	3	17	5100	1720	.1	1.-	5.-	0	83	17	13	3.12		
12	4163	11.6+	64	3.1	1	-	-	9.5	18	16	3	15	5000	1720	.1	.9	5.-	0	82	18	13	3.22		
13	4163	11.6+	64	3.1	1	-	-	9.5	18	16	3	15	5000	1720	.1	.9	5.-	0	82	18	13	3.22		
14	4211	11.4	60	3.5	1	-	-	9.1	~~18~~	~~15~~	~~5~~	~~15~~	~~6300~~	~~1720~~	~~.1~~	~~1.-~~	5.1	0	83	17	12	3.2		

WELL NAME: 6507/7-1

NORSK PETROL nps SERVICES

MUD PROPERTY RECAP

DATE	DEPTH	DENSITY	VISC-OSITY	FILTRATE		HT/HP filt		pH	RHEOLOGY				FILTRATE ANALYSIS					RETORT ANALYSIS			CEC	OTHER		
		PPG			Cake	°500psi			PV	YP	10"	10'	Cl	Ca	Pf	Mf	Gyp	Oil	Water	Corr. Solids	PPB			
	metres		secs	ccs	1"/32/mm	ccs	1"/32/mm		cp	lbs/100ft²-gms/100cm²			mg/litre	ppm			ppb	%	%	%	Bent. Eq.	ASG		
15	4226	11.4	62	3.6	1	-	-	9.2	18	16	4	16	7100	1720	.1	.9	5.-	0	83	17	12	3.2		
16	4259	11.8+	60	3.8	1	14.8	2		20	16	3	11	6900	1880	.15	.1	5.-	0	80	20	13	3.2		
17	4319	11.9	60	3.8	1	14	2	9.2	20	16	3	11	6900	1880	.15	.1	5.-	0	82	18	13	3.4		
18	4340	11.8+	60	4.0	1	16	2	9.2	20	16	3	11	6000	1800	.15	1.1	5.0	0	82	18	13	3.36		
19	4346	12.2	67	4.0	1	16	2	9.2	25	19	6	12	7000	1600	.15	1.2	5.0	0	80	20	12	3.33		
20	4356	12.3	64	4.2	1	18	2	10.2	23	18	6	17	7000	1600	.1	1.4	4.9	0	82	18	14	3.66		
21	4356	12.6	60	4.6	1	20	2	10.2	23	16	5	12	7400	1600	.3	1.4	5.0	0	79	21	15	3.45		
22	4358	12.6	62	4.6	1	20	2	10.2	22	18	5	12	7500	1600	.3	1.3	5.0	0	79	21	15	3.45		
23	4376	12.6	65	4.4	1	20	2	10.2	27	18	5	13	7400	1400	.3	1.4	4.8	0	79	21	15	3.45		
24	4400	12.5+	70	4.0	1	16	2	10.3	26	20	5	12	7500	1400	.32	1.2	4.8	2	78	20	22	3.57		
25	4432	12.6	63	3.4	1	15	2	10.0	23	19	5	10	7600	1200	.37	1.6	4.0	2	79	19	14	3.74		
26	4463	12.6	68	3.5	1	14	2	10.5	28	20	6	16	7700	1240	.4	1.6	3.8	2	77	21	14	3.47		
27	4488	12.6	65	3.4	1	14	2	10.5	26	20	5	14	7500	1300	.4	1.5	3.8	2	78	20	15	3.60		
28	4515	12.6	63	3.8	1	14	2	10.5	25	17	6	13	7500	1400	.35	1.8	3.5	3	77	20	16	3.61		
29	4584	12.6	64	4.2	1	14	2	10.5	24	19	5	11	7500	1500	.4	1.6	4.5	3	77	20	15	3.61		
30	4593	12.6	80	4.6	1	14	2	10.5	30	28	8	20	8000	1800	.2	1.4	4.4	3	77	20	15	3.61		
31	4600	12.6	72	4.4	1	14	2	10.5	28	19	8	19	7500	1800	.25	1.4	4.4	3	77	20	16	3.61		
1/11	4645	12.6	110	4.6	1	14	2	10.2	32	18	6	21	7400	1400	.4	1.6	4.1	3	75	22	16	3.4		
2	4712	12.6	108	4.5	1	14	2	10.3	32	20	6	19	7500	1320	.4	1.6	3.6	3	76	21	16	3.5		

WELL NAME: 6507/7-1

NORSK PETRO nps SERVICES

MUD PROPERTY RECAP

DATE	DEPTH	DENSITY	VISC-OSITY	FILTRATE		HT/HP filt		pH	RHEOLOGY				FILTRATE ANALYSIS					RETORT ANALYSIS			CEC	OTHER		
		PPG			Cake	°500psi			PV	YP	10"	10'	Cl	Ca	Pf	Mf	Gyp	Oil	Water	Corr. Solids	PPB			
	metres		secs	ccs	1"/32/mm	ccs	1"/32/mm		cp	lbs/100ft²-gms/100cm²			mg/litre	ppm			ppb	%	%	%	Bent. Eq.	ASG		
3/11	4781	12.6	100	4.3	1	14	2	10.2	30	20	5	18	7400	1320	.4	1.8	4.2	3	75	22	15	3.4		
4	4825	12.5	77	4.6	1	14	2	10.5	26	17	5	20	6700	1320	.4	1.8	4.1	3	76	21	15	3.5		
5	4825	12.6	77	4.6	1	14	2	10.5	27	18	5	20	6800	1400	.4	1.7	4.-	3	76	21	15	3.5		
6	4825	12.6	105	4.8	1	14	2	10.4	29	20	18	29	6600	1400	.4	1.8	4.-	2	76	22	15	3.4		
7	4825	12.7	107	4.8	1	14	2	10.3	28	22	9	22	6500	1280	.4	1.8	3.8	2	73	25	16	3.15		
8	4825	13.2	85	4.8	1	15 270°	2	9.8	29	26	11	24	7500	1300	.3	1.3	3.8	6	70	24	17	3.5		
9	4825	13.2	85	4.8	1	15 270°	2	9.8	29	26	11	24	7500	1300	.3	1.5	3.8	6	70	24	17	3.5		
10	4825	13.2	85	4.8	1	15 270°	2	9.8	29	26	11	24	7500	1300	.3	1.5	3.8	6	70	24	17	3.5		
11	4825	13.2	85	4.8	1	15 270°	2	9.8	29	26	11	24	7500	1300	.3	1.5	3.8	6	70	24	17	3.5		
12	4825	13.2	85	4.8	1	15 270°	2	9.8	29	26	11	24	7500	1300	.3	1.5	3.8	6	70	24	17	3.5		
13	4825	13.2	85	4.8	1	15 270°	2	9.8	29	26	11	24	7500	1300	.3	1.5	3.8	6	70	24	17	3.5		
14	4825	13.1	52	6.4	1	15 270°	2	9.7	21	21	16	25	7500	1180	.1	1.3	3.2	5	72	23	16	3.55		
15	4750	13.4	69	6.0	1	15 270°	2	10.5	25	16	4	18	7500	1200	.3	1.1	3.4	6	70	24	16	3.60		
16	4600	13.4	57	5.8	1	15 270°	2	10.5	24	19	5	17	7500	1200	.3	1.1	3.4	5	71	24	16	3.59		
17	4500	13.4+	52	6.0	1	15 270°	2	10.5	24	15	4	17	7500	1200	.3	1.1	3.2	5	71	24	16	3.61		
18	3653	13.4	50	7.0	1	17 270°	2	10.5	20	16	8	20	7500	1200	.5	1.8	3.0	5	71	24	16	3.59		
19	4456	13.4	49	7.2	1	17 270°	2	11.0	20	16	7	21	7500	1150	.4	1.4	3.0	5	71	24	16	3.59	Test section	
20	4472	13.4	49	7.2	1	-	-	11.0	20	16	6	21	7500	1200	.5	1.6	-	5	71	24	16	-		
21	4300	13.4+	49	-	-	-	-	11.4	18	14	7	20	-	-	-	-	-	-	-	-	-	-		

WELL NAME: 6507/7-1

NORSK PETROLEUM nps SERVICES

MUD PROPERTY RECAP

DATE	DEPTH	DENSITY	VISC-OSITY	FILTRATE		HT/HP filt		pH	RHEOLOGY				FILTRATE ANALYSIS					RETORT ANALYSIS			CEC	OTHER		
		PPG			Cake	@500psi			PV	YP	10"	10'	Cl	Ca	Pf	Mf	Pm	Oil	Water	Corr. Solids	PPB			
	metres		secs	ccs	1"/32/mm	ccs	1"/32/mm		cp	lbs/100ft²-gms/100 cm²			mg/litre	ppm				%	%	%	Bent. Eq.			
22	4325	13.4	49					TEST STRING IN HOLE																
23	4325	13.4	49																					
24	3606	13.3	49																					
25		13.4	51																					

NORSK PETROLEUM nps SERVICES I

OPERATING AREA NORTH SEA

OPERATOR CONOCO

WELL NAME/No. 6507/7-1

CONTRACTOR GOLAR NOR

RIG NORTRYM

BAROID ENGINEERS G. Ferguson, B. Homme, B. Baarnes, P. Brooks, B. Whitt

T.D. 15831 ft/ 4825m

HOLE SIZE	CASING SIZE	CASING SET AT	MUD TYPE	MUD COST	DRILLING DAYS
36"	30	1605 ft 489 m	Sea water Hi Vis Pills	8.339,26	3.42
26"	20	2973 ft 906 m	- " -	11.449,70	2.29
17½	13 3/8	7145 ft 2178 m	Gyp Polymer	62.322,67	5.48
12 1/4	9 5/8	12 476ft 3 803m	Gyp Polymer	139.024,27	27.3
8½	7" liner	14 765ft 4 500m	Gyp Lignite	81.008,25	31.63
Test	Interval		Gyp Lignite	3.111,66	

OPERATING AREA 6507/7-1

36" section

INTERVAL MATERIAL CONSUMPTION

MATERIAL	PACKAGING	QUANTITY
Aquagel	Metric ton	33
Caustic Soda	25 kg sack	20
Soda Ash	50 kg sack	6

NORSK PETROLEUM nps SERVICES I

OPERATING AREA 6507/7-1

26" section

INTERVAL MATERIAL CONSUMPTION

MATERIAL	PACKAGING	QUANTITY
Baroid	Metric ton	25
Aquagel	Metric ton	36
Caustic Soda	25 kg sack	9
Ligno Sulfonate	25 kg sack	25

OPERATING AREA 6507/7-1

17½" section

INTERVAL MATERIAL CONSUMPTION

MATERIAL	PACKAGING	QUANTITY
Baroid	Metric tons	387
Aquagel	Metric tons	14
Gypsum	40 kg sacks	727
Caustic Soda	25 kg sacks	72
Dextric	50 lb sack	258
Stayflo Reg.	25 kg sacks	69
Stayflo SL	25 kg sacks	61
CMC LV	25 kg sacks	26
XC Polymer	50 lb sacks	2
Lignosulfonate	25 kg sacks	93
Condet	55 gal drums	8

OPERATING AREA 6507/7-1

12 1/4" section

INTERVAL MATERIAL CONSUMPTION

MATERIAL	PACKAGING	QUANTITY
Baroid	Metric tons	1157
Bicarbonate of soda	50 kg	15
Lime	40 kg	31
Gyp	40 kg	845
Caustic	25 kg	193
Dextrid	50 lb	591
Stayflo R	25 kg	27
Stayflo XLO	25 kg	96
CMC LV	50 lb	54
Lignosulphonate	25 kg	612
Condet	55 gal	12
W300	5 gal	1
Desco	25 lbs	119
Aktaflos	55 gal	2

OPERATING AREA 6507/7-1

8½" section

INTERVAL MATERIAL CONSUMPTION

MATERIAL	PACKAGING	QUANTITY
Baroid	Metric tons	355
Aquagel	Metric tons	6
Bicarbonate of soda	50 kg sack	16
Soda Ash	50 kg sack	1
Lime	40 kg sack	54
Gypsum	40 kg sack	252
Caustic	25 kg sack	158
Dextrid	50 lb sack	180
Stayflo B21	50 lb box	14
Stayflo R	25 kg sack	69
Stayflo XL	25 kg sack	24
XC Polymer	50 lb sack	4
Soltex	25 kg sack	288
Lignosulphonate	25 kg sack	192
Surflo W300	5 gal can	2
CC16	25 kg sack	484
Desco	25 lb sack	12

OPERATING AREA 6507/7-1

INTERVAL MATERIAL CONSUMPTION

MATERIAL	PACKAGING	QUANTITY
Baroid	Metric tons	1957
Aquagel	Metric tons	89
Caustic	25 kg	455
Soda Ash	50 kg	13
Bicarbonate of Soda	50 kg	31
Lignosulfonate	25 kg	922
Dextrid	50 lb	1029
Stayflo R	25 kg	165
Stayflo XL	25 kg	181
CMC LV	25 kg	80
XC Polymer	50 lb	6
Desco	25 kg	131
CC 16	25 kg	484
Soltex	25 kg	288
Gypsum	40 kg	1824
Lime	40 kg	85
Condet	55 gal	20
W300	5 gal	4
Aktaflos	55 gal	2
Surflo B21	50 lb	14

NORSK PETROLEUM nps SERVICES I

OPERATING AREA 6507/7-1

MATERIALS USED IN TEST INTERVAL

PRODUCT	PACKAGE	QUANTITY
Baroid	Metric tons	33
Caustic	25 kg	3
Soda Ash	50 kg	6
W300	5 gal	1

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Saga Petroleum a.s.

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Title

GEOCHEMICAL DATA REPORT FOR WELL 6507/7-1

Authors(s)

VENCHE BJERKREIM PEDERSEN

Abstract

61 samples from the cored interval in well 6507/7-1 have been analysed by Iatroscan (TCL-FID). 3 samples were analysed by GC-FID and GC/MS.

NOT INCLUDED IN WELL TRADE.

Key Words

6507/7-1, geochemistry, Iatroscan, GC-FID, GC/MS

Classification: ☐ Free ☒ Saga and partners ☐ Internal ☐ Confidential ☐ Strictly confidential

Org. Unit	EUG				
Reviewed	N.Mills				
Accepted					
Approved	T.Haaland				

Hovedkontor/Head Office Oslo:

Adresse/Address: Kjerboveien 16, Postboks 490, N-1301 SANDVIKA
Telefon/Telephone: Nasjonalt 67 12 66 00, Intern. +47 67 12 66 00
Teleks/Telex: 78852 Saga n, Telefax Nasjonalt 67 126666, Intern. +47 67 126666

Driftsdivisjon/Operations Division Stavanger:

Adresse/Address: Godesetdalen 8, Postboks 117, N-4003 FORUS
Telefon/Telephone: Nasjonalt 04 57 40 00, Intern. +47 4 57 40 00
Teleks/Telex: 33244 sagap n, Telefax Nasjonalt 04 570261, Intern. +47 4 570261

1 Objectives

The objective of this study was to characterise the extractable hydrocarbons in 61 core samples from well 6507/7-1.

2 General well information

The well was drilled by Conoco as operator of licence 095 from 10.8.84 to 1.12.84 and reached a total depth of 4825 mRKB. The KB of the rig was 25 metres and the water depth was 367 metres.

3 Samples and analytical scheme

61 samples were picked from the cored interval in August 1991. All samples were analysed by Iatroscan (TLC-FID), and the saturated hydrocarbon fractions of 3 samples were analysed by GC-FID and GC/MS.

4 Vitrinite reflectance

No samples were analysed.

5 TOC and Rock Eval

No samples were analysed.

6 Iatroscan (TLC-FID)

61 samples were analysed, and the results are tabulated in Table 1.

7 GC-FID

The saturated hydrocarbon fractions from 3 samples were analysed by Saga Petroleum a.s.. The GC-FID chromatograms are shown in figure 1.

8 GC/MS

The GC/MS analyses were performed by Saga Petroleum a.s. The saturated hydrocarbon fractions from the samples were analysed by GC/MS and the mass chromatograms for m/z 191, 177, 217 and 218 are shown in figure 2. Selected biological marker parameters manually measured by Saga are given in table 2.

9 Stable carbon isotopes

No samples were analysed.

Table 1.

SAGLAB RESULTS MANAGEMENT : EXTRACTION ANALYSIS RESULTS in mg/g Rock

Data for Well 6507/7-1

Type	St.Depth	En.Depth	Weight (g)	EOM mg/g Rock	EOM mg/g TOC	Sat (mg/g)	Aro (mg/g)	NSO (mg/g)	Asph (mg/g)	Polars (mg/g)	TOC (%)	M/I
CCP	3504.50	3504.50		1.25		1.03	0.17		0.02	0.02		I
CCP	3505.50	3505.50		2.67		2.16	0.47		0.00	0.03		I
CCP	3506.50	3506.50		1.95		1.48	0.42		0.01	0.04		I
CCP	3507.50	3507.50		0.08		0.05	0.00		0.01	0.01		I
CCP	3508.50	3508.50		2.96		2.49	0.42		0.01	0.04		I
CCP	3509.50	3509.50		2.11		1.69	0.38		0.01	0.03		I
CCP	3510.50	3510.50		2.17		1.69	0.43		0.01	0.03		I
CCP	3511.50	3511.50		3.14		2.68	0.36		0.02	0.09		I
CCP	3512.50	3512.50		2.73		2.29	0.40		0.00	0.03		I
CCP	4340.20	4340.20		2.07		2.07	0.00		0.00	0.00		I
CCP	4340.50	4340.50		1.06		1.04	0.00		0.01	0.01		I
CCP	4341.50	4341.50		0.88		0.50	0.00		0.37	0.01		I
CCP	4342.50	4342.50		0.12		0.11	0.00		0.01	0.00		I
CCP	4343.50	4343.50		0.08		0.07	0.00		0.00	0.00		I
CCP	4344.50	4344.50		0.22		0.21	0.00		0.00	0.01		I

529 Analyses selected ..., from the following search criteria:
Nat: NOR, Well: 6507/7%, Depth
between: 0.000 and 99999.990 m,
MPLC: I

SAGLAB RESULTS MANAGEMENT : EXTRACTION ANALYSIS RESULTS in mg/g Rock

Data for Well 6507/7-1

Type	St.Depth	En.Depth	Weight (g)	EOM mg/g Rock	EOM mg/g TOC	Sat (mg/g)	Aro (mg/g)	NSO (mg/g)	Asph (mg/g)	Polars (mg/g)	TOC (%)	M/I
CCP	4345.50	4345.50		0.01		0.00	0.00		0.00	0.01		I
CCP	4346.50	4346.50		0.18		0.17	0.00		0.00	0.01		I
CCP	4347.50	4347.50		0.09		0.08	0.00		0.00	0.01		I
CCP	4348.40	4348.50		0.16		0.14	0.00	0.02	0.00			I
CCP	4349.50	4349.50		0.08		0.07	0.00		0.00	0.01		I
CCP	4350.50	4350.50		0.30		0.10	0.15		0.02	0.03		I
CCP	4351.50	4351.50		0.11		0.08	0.00		0.02	0.01		I
CCP	4352.50	4352.50		0.09		0.08	0.00		0.00	0.01		I
CCP	4353.50	4353.50		0.10		0.08	0.00		0.01	0.00		I
CCP	4354.50	4354.50		0.10		0.09	0.00		0.00	0.01		I
CCP	4355.50	4355.50		0.14		0.12	0.00		0.01	0.01		I
CCP	4356.50	4356.50		0.09		0.08	0.00		0.01	0.01		I
CCP	4357.70	4357.70		0.06		0.05	0.00		0.01	0.00		I
CCP	4358.70	4358.70		0.08		0.07	0.00		0.00	0.00		I
CCP	4359.70	4359.70		0.07		0.06	0.00		0.01	0.00		I

529 Analyses selected ..., from the following search criteria:
Nat: NOR, Well: 6507/7%, Depth
between: 0.000 and 99999.990 m,
MPLC: I

SAGLAB RESULTS MANAGEMENT : EXTRACTION ANALYSIS RESULTS in mg/g Rock

Data for Well 6507/7-1

Type	St.Depth	En.Depth	Weight (g)	EOM mg/g Rock	EOM mg/g TOC	Sat (mg/g)	Aro (mg/g)	NSO (mg/g)	Asph (mg/g)	Polars (mg/g)	TOC (%)	M/I
CCP	4360.70	4360.70		0.12		0.10	0.00		0.02	0.01		I
CCP	4361.70	4361.70		0.12		0.10	0.00		0.02	0.01		I
CCP	4362.70	4362.70		0.08		0.06	0.00		0.01	0.01		I
CCP	4363.70	4363.70		0.16		0.08	0.00		0.00	0.07		I
CCP	4364.70	4364.70		0.16		0.16	0.00		0.00	0.01		I
CCP	4365.70	4365.70		0.06		0.06	0.00		0.00	0.00		I
CCP	4366.70	4366.70		0.11		0.07	0.00		0.02	0.02		I
CCP	4367.70	4367.70		0.30		0.08	0.17		0.03	0.02		I
CCP	4368.70	4368.70		0.13		0.06	0.05		0.01	0.01		I
CCP	4369.70	4369.70		0.26		0.16	0.09		0.01	0.01		I
CCP	4370.70	4370.70		0.20		0.12	0.06		0.01	0.01		I
CCP	4371.70	4371.70		0.20		0.17	0.00		0.02	0.01		I
CCP	4372.50	4372.50		0.69		0.19	0.11		0.37	0.02		I
CCP	4373.00	4373.00		0.17		0.14	0.00		0.01	0.01		I
CCP	4374.00	4374.00		0.73		0.58	0.12		0.02	0.02		I

529 Analyses selected ..., from the following search criteria:
Nat: NOR, Well: 6507/7%, Depth
between: 0.000 and 99999.990 m,
MPLC: I

SAGLAB RESULTS MANAGEMENT : EXTRACTION ANALYSIS RESULTS in mg/g Rock

Data for Well 6507/7-1

Type	St.Depth	En.Depth	Weight (g)	EOM mg/g Rock	EOM mg/g TOC	Sat (mg/g)	Aro (mg/g)	NSO (mg/g)	Asph (mg/g)	Polars (mg/g)	TOC (%)	M/I
CCP	4374.55	4374.55		0.04		0.04	0.00		0.00	0.01		I
CCP	4375.10	4375.10		0.16		0.07	0.08		0.01	0.01		I
CCP	4475.00	4475.00		0.25		0.05	0.00		0.18	0.01		I
CCP	4477.00	4477.00		0.13		0.06	0.00		0.07	0.01		I
CCP	4479.00	4479.00		0.02		0.00	0.00		0.02	0.00		I
CCP	4481.00	4481.00		1.24		0.13	0.00		0.01	1.10		I
CCP	4483.00	4483.00		0.10		0.07	0.00		0.01	0.02		I
CCP	4485.00	4485.00		0.16		0.13	0.00		0.02	0.01		I
CCP	4487.00	4487.00		0.14		0.11	0.00		0.02	0.01		I
CCP	4488.00	4488.00		0.09		0.07	0.00		0.01	0.00		I
CCP	4593.00	4593.00		0.28		0.17	0.09		0.00	0.01		I
CCP	4595.00	4595.00		0.30		0.24	0.04		0.01	0.01		I
CCP	4597.00	4597.00		0.18		0.16	0.00		0.00	0.01		I
CCP	4599.00	4599.00		0.11		0.10	0.00		0.00	0.01		I
CCP	4600.00	4600.00		0.20		0.12	0.05		0.02	0.01		I

529 Analyses selected ..., from the following search criteria:
Nat: NOR, Well: 6507/7%, Depth
between: 0.000 and 99999.990 m,
MPLC: I

SAGLAB RESULTS MANAGEMENT : EXTRACTION ANALYSIS RESULTS in mg/g Rock

Data for Well 6507/7-1

Type	St.Depth	En.Depth	Weight (g)	EOM mg/g Rock	EOM mg/g TOC	Sat (mg/g)	Aro (mg/g)	NSO (mg/g)	Asph (mg/g)	Polars (mg/g)	TOC (%)	M/I
CCP	4600.35	4600.35		0.12		0.10	0.00		0.00	0.01		I
Averages this Well:				0.53	0.00	0.40	0.07	0.02	0.02	0.03	0.00	

529 Analyses selected ..., from the following search criteria:
Nat: NOR, Well: 6507/7%, Depth
between: 0.000 and 99999.990 m,
MPLC: I

Table 2.

) well	1	2 nat	3 formation	4	5 upper depth	6 lower depth	7 sample type	8 Ts/Tm
. 6507/7-1	6507/7-1	nor		saga_sept92	3508.80	3508.8	ccp	1.636364
: 6507/7-1	6507/7-1	nor		saga_sept92	3511.50	3511.5	ccp	1.589286
3 6507/7-1	6507/7-1	nor		saga_jan93	4340.20	4340.2	ccp	1.339623

) well	9 Z/C	10 Z/Z+E	11 X/E	12 X/X+D	13 E/E+F	14 22S	15 a/a+j	16 20S
L 6507/7-1	0.284314	0.107807	0.179167	0.781818	0.895522	56.953642	0.814332	0.553846
2 6507/7-1	0.375000	0.139535	0.223938	0.783784	0.890034	59.171598	0.832740	0.557692
3 6507/7-1	0.116129	0.070866	0.105932	0.446429	0.855072	58.169935	0.743056	0.517986

) well	17 bbS 217	18 %C27 abbS	19 %C28 abbS	20 %C29 abbS
L 6507/7-1	0.568106	31.060606	32.196970	36.742424
2 6507/7-1	0.578947	30.237154	32.213439	37.549407
3 6507/7-1	0.553055	34.615385	30.769231	34.615385

3

PETRA
-CHEM

Petra-Chem Limited, Old Court House, Trinity Road, Marlow,
Buckinghamshire SL7 3AN England
Telephone (06284) 75175/6 Telex 847837 PETRA G

Geochemical Consultants to the Oil Industry

PROJECT NO: 290285

SOURCE ROCK EVALUATION

OF SEDIMENTS FROM

HALTENBANKEN WELL: 6507/7-1

A Petroleum Geochemistry Report

prepared by Petra-Chem Limited

on behalf of

Conoco Norway Inc.

April 1985

PETRA-CHEM

VITRINITE REFLECTANCE DATA

WELL NO: HALTENBANKEN 6507/7-1

DEPTH (m)	VITRINITE REFLECTANCE ($R_{o\ ave}$%) AUTOCHTHONOUS		ALLOCHTHONOUS		UV COLOUR
1250-1260	0.08 (27)				
2000-2003	0.09 (3)				Y
2255-2258		0.48 (11)	0.71 (1)	0.95 (8)	Y
2399-2402		[w]0.54 (20)			Y
2489-2492	[b]0.34 (11)	0.57 (2)	0.79 (5)	0.94 (2)	Y
2789-2792		0.52 (16)	0.66 (4)		Y+YO
2879-2882	0.38 (19)		0.69 (1)		Y
2969-2972	0.46 (14)		0.63 (6)		Y+YO
3176-3179		0.59 (8)			Y+LO

TABLE 1

continued...

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DEPTH (m)	VITRINITE REFLECTANCE ($R_{o\ ave}$%) AUTOCHTHONOUS		ALLOCHTHONOUS		UV COLOUR
3269-3272		**0.59**$_{(20)}$			LO
3458-3461	$^{b}0.45_{(1)}$	**0.64**$_{(11)}$	$0.84_{(7)}$	$1.08_{(1)}$	LO
3509-3512	$^{w}0.37_{(20)}$				Y+YO
3539-3542	$0.51_{(2)}$	**0.64**$_{(2)}$	$0.83_{(12)}$	$1.00_{(6)}$	L+MO
3599-3602	$0.49_{(2)}$	**0.67**$_{(13)}$	$0.95_{(11)}$	$1.20_{(1)}$	L+MO
3668-3671	$0.53_{(20)}$				YO+LO
3698-3707	$^{b}0.42_{(2)}$	**0.65**$_{(2)}$	$0.78_{(15)}$	$0.98_{(2)}$	MO
3758-3761	$^{b}0.42_{(6)}$	**0.63**$_{(9)}$	$0.82_{(5)}$		MO
3938-3941	$0.53_{(1)}$		$0.71_{(1)}$		
4058-4061	$0.61_{(20)}$				MO
4148-4151	$0.44_{(6)}$	**0.64**$_{(14)}$	$0.80_{(1)}$		MO

TABLE 1

continued...

PETRA
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DEPTH (m)	VITRINITE REFLECTANCE ($R_{o\ ave}$%) AUTOCHTHONOUS		ALLOCHTHONOUS	UV COLOUR
4238-4241		NDP		
4418-4421 C		**<u>0.89</u>**$_{(20)}$		DO
4598-4601	$0.56_{(2)}$	**<u>0.77</u>**$_{(18)}$	$1.07_{(2)}$	DO
4727-4720		**<u>0.95</u>**$_{(24)}$		M+DO

KEY

b = Bitumen stained
w = Wide distribution of values
C = Coal
NDP = No determination possible
Y = Yellow
YO = Yellow orange
LO = Light orange
MO = Mid orange
DO = Dark orange

Figures in parentheses refer to the number of measurements completed.

Emboldened and underlined figures are the values considered representative of the autochthonous vitrinite.

TABLE 1

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-CHEM

LITHOLOGICAL AND ORGANIC RICHNESS DATA

WELL NO: HALTENBANKEN 6507/7-1

DEPTH (m)	STRATIGRAPHY	LITHOLOGY (% CUTTINGS IN PLACE)	TOTAL ORGANIC CARBON % wt.
1250-1260		Light grey-green siltstone (3%)	0.39
2000-2003		Light grey-green claystone (90%)	0.27
2159-2162		Mid-dark grey-green claystone (70%)	0.58
2255-2258		Light grey claystone (100%)	0.44
2399-2402		Light grey green claystone (100%)	0.70
2489-2492		Light grey claystone (100%)	0.70
2549-2552		Light grey laminated calc. claystone (100%)	0.69 (0.63R)
2579-2582		Light grey laminated claystone (100%)	0.67
2609-2612		Light grey calc. claystone (100%)	0.53

TABLE 2

continued...

PETRA
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DEPTH (m)	STRATIGRAPHY	LITHOLOGY (% CUTTINGS IN PLACE)	TOTAL ORGANIC CARBON % wt.
2639-2642		Light grey calc. claystone (100%)	0.72
2669-2672		Light grey calc. claystone (100%)	0.96
2699-2702		Light grey laminated claystone (100%)	0.90
2729-2732		Light grey laminated calc. claystone (100%)	0.92
2759-2762		Light grey laminated claystone (100%)	0.95
2789-2792		Light grey laminated claystone (100%)	1.00
2819-2822		Light grey calc. claystone (100%)	0.94
2849-2852		Light-mid grey laminated claystone (100%)	0.92
2879-2882		Light grey laminated calc. claystone (100%)	0.89
2909-2912		Light grey banded sli. silty claystone (100%)	0.82

TABLE 2

continued...

PETRA
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DEPTH (m)	STRATIGRAPHY	LITHOLOGY (% CUTTINGS IN PLACE)	TOTAL ORGANIC CARBON % wt.
2939-2942		Light grey claystone (3%)	0.92
2969-2972		Light-mid grey claystone (75%)	1.25
2999-3002		Light grey laminated claystone (100%)	0.92
3029-3032		Light grey claystone (100%)	0.93 (0.98R)
3059-3062		Mid grey laminated claystone (100%)	1.12
3089-3092		Light-mid grey calc. claystone (100%)	1.03 (1.00R)
3119-3122		Light grey laminated calc. claystone (100%)	1.06
3149-3152		Mid grey claystone (100%)	1.00
3176-3179		Light-mid grey claystone (100%)	1.01

TABLE 2

continued...

PETRA -CHEM

DEPTH (m)	STRATIGRAPHY	LITHOLOGY (% CUTTINGS IN PLACE)	TOTAL ORGANIC CARBON % wt.
3239-3242		Mid grey calc. claystone (100%)	0.91
3269-3272		Mid grey claystone (100%)	1.06
3299-3302		Mid grey laminated mic. calc. silty claystone (100%)	0.94
3329-3332		Mid grey calc. claystone (100%)	0.88
3359-3362		Mid grey calc. iron stained claystone (100%)	1.00
3389-3392		Mid grey claystone (100%)	0.97 (0.94R)
3419-3422		Mid grey calc. claystone (100%)	0.97
3449-3452		Mid grey claystone (100%)	0.99 (0.98R)

TABLE 2

continued...

PETRA-CHEM

DEPTH (m)	STRATIGRAPHY	LITHOLOGY (% CUTTINGS IN PLACE)	TOTAL ORGANIC CARBON % wt.
3458-3461		Mid grey-green claystone (100%)	0.96
3467-3470		Mid grey laminated calc. sli. silty claystone (100%)	0.94
3479-3482		Light-mid grey claystone (100%)	1.02
3488-3491		Mid grey green claystone (100%)	0.99
3497-3500		Mid grey laminated calc. claystone (100%)	0.97
3509-3512		Mid grey laminated claystone (100%)	0.93
3518-3521		Mid-dark grey calc. claystone (100%)	0.94 (0.93R)
3527-3530		Light-mid grey-green laminated calc. mic. sli. silty claystone (100%)	0.96
3539-3542		Mid-dark grey claystone (100%)	0.99 (1.06R)
3548-3551		Mid grey laminated claystone (95%)	0.99

TABLE 2

continued...

PETRA
-CHEM

DEPTH (m)	STRATIGRAPHY	LITHOLOGY (% CUTTINGS IN PLACE)	TOTAL ORGANIC CARBON % wt.
3560-3563		Light-mid grey claystone (100%)	1.08
3569-3572		Light grey claystone (100%)	0.95
3578-3581		Mid grey-green claystone (100%)	1.07
3587-3590		Mid grey-green laminated calc. silty claystone (100%)	0.96
3599-3602		Mid-dark grey claystone (100%)	1.12
3608-3611		Mid-dark grey claystone (100%)	1.21
3617-3620		Mid grey sli. mic. calc. claystone (100%)	1.17
3629-3632		Mid-dark grey laminated claystone (100%)	1.13
3638-3641		Mid grey claystone (100%)	1.08
3647-3650		Mid grey laminated calc. claystone (100%)	0.99 (0.97R)

TABLE 2

continued...

PETRA-CHEM

DEPTH (m)	STRATIGRAPHY	LITHOLOGY (% CUTTINGS IN PLACE)	TOTAL ORGANIC CARBON % wt.
3659-3662		Mid grey banded claystone (100%)	0.95
3668-3671		Mid-dark grey calc. sli. silty claystone (98%)	1.09 (1.13R)
3677-3680		Mid-dark grey calc. claystone (100%)	2.88
3689-3692		Dark grey-brown sli. silty claystone (30%)	6.78
3698-3707		Dark grey-black claystone (100%)	4.43
3707-3710		Dark grey-green sli. silty claystone (60%)	6.83 (6.65R)
3719-3722		Light-mid grey-green claystone (100%)	1.57
3728-3731		Light grey sli. silty claystone (100%)	1.37
3737-3740		Light-mid grey calc. claystone (100%)	1.37
3749-3752		Dark brown laminated claystone (20%)	9.42 (9.70R)

TABLE 2

continued...

PETRA -CHEM

DEPTH (m)	STRATIGRAPHY	LITHOLOGY (% CUTTINGS IN PLACE)	TOTAL ORGANIC CARBON % wt.
3758-3761		Mid-dark grey-brown calc. claystone (100%)	3.62
3767-3770		Dark brown claystone (15%)	9.37
3779-3782		Mid-dark grey claystone (100%)	3.12 (3.06R)
3788-3791		Light-mid grey calc. claystone (100%)	0.94
3820-3823		V.light grey-green muddy limestone (98%)	0.14 (0.16R)
3848-3851		Mid-dark grey calc. claystone (100%)	3.54
3878-3881		Light-mid grey highly calc. claystone (100%)	1.15
3908-3911		Light-mid grey calc. claystone (80%)	1.87
3938-3941		Mid-dark grey claystone (100%)	1.98
3968-3971		Mid grey calc. claystone (100%)	2.13

TABLE 2

continued...

PETRA -CHEM

DEPTH (m)	STRATIGRAPHY	LITHOLOGY (% CUTTINGS IN PLACE)	TOTAL ORGANIC CARBON % wt.
3998-4001		Mid grey calc. claystone (100%)	2.13
4028-4031		Mid-dark grey calc. claystone (100%)	1.87
4058-4061		Mid-dark grey calc. claystone (100%)	1.65
4088-4091		Mid-dark grey calc. claystone (100%)	1.59
4118-4121		Mid-dark grey calc. claystone (100%)	1.60 (1.66R)
4148-4151		Black calc. claystone (3%)	1.48 (1.46R)
4178-4181		Mid-dark grey calc. claystone (100%)	1.44
4208-4211		Mid grey calc. claystone (100%)	1.59
4238-4241 CL		Mid-dark grey calc. claystone (95%)	1.67
4238-4241 LS		Black limestone (5%)	0.25

TABLE 2

continued...

PETRA
-CHEM

DEPTH (m)	STRATIGRAPHY	LITHOLOGY (% CUTTINGS IN PLACE)	TOTAL ORGANIC CARBON % wt.
4268-4271		Mid-dark grey calc. claystone (100%)	1.58
4298-4301		Dark grey calc. claystone (100%)	1.68
4328-4331		Mid-dark grey calc. claystone (100%)	1.62
4358-4361		Mid-dark grey silty claystone (100%)	1.44
4388-4391		Mid-dark grey calc. claystone (70%)	1.41
4418-4421 C		Coal (5%)	49.63
4418-4421 CL		Dark grey calc. sli. silty claystone (65%)	1.41
4448-4451		Mid-dark grey calc. claystone (50%)	1.80
4478-4481		Mid-dark grey calc. claystone (65%)	1.65
4508-4511		Mid grey calc. claystone (90%)	1.16 (1.65R)

TABLE 2

continued...

PETRA
-CHEM

DEPTH (m)	STRATIGRAPHY	LITHOLOGY (% CUTTINGS IN PLACE)	TOTAL ORGANIC CARBON % wt.
4568-4571		Mid grey sli. silty claystone (97%)	1.57
4598-4601		Mid-dark grey sli. mic. silty claystone (97%)	1.63
4628-4631		Mid-dark grey hard calc. claystone (40%)	1.55
4658-4661		Dark grey silty claystone (50%)	1.73
4685-4688		Mid-dark grey calc. claystone (64%)	1.46
4727-4730 CL		Dark grey silty claystone (55%)	1.62
4748-4751		Mid dark grey calc. claystone (55%)	1.50
4778-4781		Dark grey calc. sli. silty claystone (40%)	2.17
4808-4811		Mid grey calc. claystone (1%)	1.54
4820-4823 CL		Dark grey claystone (52%)	2.15

TABLE 2

continued...

PETRA
-CHEM

DEPTH (m)	LITHOLOGY (% CUTTINGS IN PLACE)	TOTAL ORGANIC CARBON % wt.
4820-4823 C	Coal (3%)	79.17

KEY

R = Repeat value
CL = Claystone
C = Coal
LST = Limestone
mic. = micaceous

TABLE 2

PETRA
-CHEM

PYROLYSIS DATA

WELL NO: HALTENBANKEN 6507/7-1

DEPTH (m)	P1 YIELD (ppm)	P2 YIELD (ppm)	EXTRACTED P2 YIELD	% USEABLE CARBON	T MAX
2399-2402	27	303		4.3	439
3029-3032	41	920		9.9	438
3089-3092	80	864		8.4	443
3329-3332	127	932		10.6	438
3359-3362	138	972		9.7	447
3458-3461	75	820		8.5	448
3479-3482	109	950		9.3	449
3488-3491	83	815		8.2	445
3518-3521	85 (91R)	789 (830R)		8.3	449 (446R)
3539-3542	79 (90R)	796 (852R)		8.0	447 (447R)
3560-3563	92	754		6.9	446
3578-3581	91	893		8.3	447
3599-3602	103	953		8.5	444

TABLE 3

continued...

PETRA
-CHEM

DEPTH (m)	P1 YIELD (ppm)	P2 YIELD (ppm)	EXTRACTED P2 YIELD	% USEABLE CARBON	T_{MAX}
3617-3620	160	1012		8.6	451
3638-3641	115	918		8.5	451
3659-3662	197	949		9.9	445
3677-3680	1242	7139	6539	22.7	441
3689-3692	4313	16185	13331	19.6	443
3698-3707	2410 (2453R)	8982 (8608R)	6945 (6772R)	20.3	440 (440R)
3707-3710	4344 (4196R)	12770 (12923R)		18.6	438 (438R)
3719-3722	437	2181	1830	11.6	446
3737-3740	287	1795		13.1	449
3749-3752	5641	17934	18688	19.2	445
3758-3761	1187	5706	4927	13.6	447
3767-3770	4584	15077	13863	14.7	448
3779-3782	926	3423	2512 (2408R)	8.0	447
3848-3851	852	4084		11.5	443
3908-3911	516	2419		12.9	446

TABLE 3

continued...

PETRA
-CHEM

DEPTH (m)	P1 YIELD (ppm)	P2 YIELD (ppm)	EXTRACTED P2 YIELD	% USEABLE CARBON	T MAX
3938-3941 CL	572 (548R)	3060 (2954R)	2123	10.7	452 (450R)
3968-3971	744	3416	2397 (2577R)	16.0	452
3998-4001	1025	3169	2136 (2034R)	10.0	459
4058-4061	539	2874	1988	12.0	450
4088-4091	616	2659	1460	9.1	452
4148-4151	595 (624R)	2515 (2717R)	1639	11.0	449
4208-4211	706 (677R)	2746 (2595R)	1625	10.2	449
4238-4241 CL	495	2108		12.6	455
4268-4271	642	2337	1701	10.7	447
4298-4301	440	2322		13.8	452
4328-4331	578	2253	1615	9.9	452
4388-4391	525	1652		11.7	454
4418-4421 CL	332	1264		8.9	449

TABLE 3

continued...

PETRA
-CHEM

DEPTH (m)	P1 YIELD (ppm)	P2 YIELD (ppm)	EXTRACTED P2 YIELD	% USEABLE CARBON	T_{MAX}
4418-4421 C	5376	71063	77809	15.6	468
4448-4451	797	2632	1920	10.6	452
4478-4481	461	1816		11.0	459
4508-4511	1167	1943		11.9	454
4568-4571	495	1924		12.2	454
4598-4601	665	1745		10.7	451
4628-4631	710	1921		12.4	454
4658-4661	532	1771		10.2	
4685-4688	667	1755		12.0	452
4727-4730 CL	411 (384R)	1236 (1219R)		7.6	457 (459R)
4778-4781	484	2049		9.4	456
4808-4811	422	1750		11.3	459
4820-4823 CL	978	2443	1545	7.1	452
4820-4823 C	14891	87509	65536	8.2	467

KEY

CL = Claystone
C = Coal
R = Repeat value

TABLE 3

PETRA
-CHEM

SOLVENT EXTRACT EXAMINATIONS

WELL NO: HALTENBANKEN 6507/7-1

DEPTH (m)	TSE (% wt)	SAC (% TSE)	CPI	PR/PH	C_{17}/PR	C_{18}/PH
2609-2612	0.003	11.8	1.81	2.18	1.21	2.27
2759-2762	0.003	35.5	NDP	2.86	0.46	1.05
3059-3061	0.004	22.2	1.23	2.62	0.55	1.30
3149-3152	0.006	28.1	1.25	2.67	0.55	1.33
3329-3332	0.009	37.2	NDP	1.83	0.37	0.67
3560-3563	0.010	31.8	1.07	2.00	0.53	1.18
3608-3611	0.011	29.1	1.14	2.24	0.50	1.24
3659-3662	0.014	34.0	1.05	1.88	0.85	1.32
3737-3740	0.036	26.0	0.99	1.53	0.57	0.91
4058-4061	0.057	41.7	1.04	3.00	1.63	4.20
4208-4211	0.079	42.0	1.05	3.11	1.68	4.22
4388-4391	0.024	39.0	1.04	2.50	1.56	3.7
4448-4451	0.066	38.4	1.11	3.22	1.69	4.22
4628-4631	0.051	34.9	1.05	2.67	2.04	4.22

TABLE 4

continued...

PETRA
-CHEM

DEPTH (m)	TSE (% wt)	SAC (% TSE)	CPI	PR/PH	C_{17}/PR	C_{18}/PH
4778-4781	0.028	40.2	1.02	2.55	1.39	3.45

KEY

NDP = No determination possible due to co-elution of steranes and pentacyclanes with n-alkanes

TABLE 4

PETRA
-CHEM

VISUAL KEROGEN DESCRIPTIONS

WELL NO: HALTENBANKEN 6507/7-1

DEPTH (m)	STRUCTURED KEROGEN			AMORPHOUS KEROGEN	SPORE COLOUR (1-7)	POTENTIAL RATING
	CUTICLE	BROWN WOOD	BLACK WOOD			
2255-2258	Trace	-	Trace	Trace	3	None
2639-2642	Trace	Trace	Lean	Trace	2	None
2759-2762	Trace	Trace	Lean	Trace	3/4	None
2819-2822	Trace	Trace	Lean	Trace	3/4	Gas/None
2909-2912	Lean	Lean	Lean	Trace	3/4	Gas/None
3119-3122	Trace	Trace	Lean	-	3/4	Gas/None
3359-3362	Trace	Trace	Common	Trace	3/4	Gas/None
3449-3452	Trace	Lean	Lean	Trace	3/4	Gas/None
3479-3482	Trace	Lean	Lean	Trace	3/4	Gas/None

TABLE 5

continued...

PETRA
-CHEM

DEPTH (m)	STRUCTURED KEROGEN CUTICLE	BROWN WOOD	BLACK WOOD	AMORPHOUS KEROGEN	SPORE COLOUR (1-7)	POTENTIAL RATING
3518-3521	Trace	Lean	Common	Trace	4	Gas/None
3548-3551	Lean	Lean	Common	Trace	4	Gas/None
3719-3722	Lean	Lean	Common	Common	4	Gas/Sub Oil
3779-3782	Lean	Lean	Common	Common	4	Gas/Sub Oil
3820-3823	V I R T U A L L Y		B A R R E N			None
3938-3942	Lean	Lean	Common	Lean	4	Gas
4088-4091	Trace	Lean	Common	Common	4/5	Gas/Sub Oil
4178-4181	Trace	Lean	Common	Lean	4	Gas
4248-4271	Trace	Trace	Common	Common	4	Gas/Sub Oil
4418-4421	Trace	Trace	Lean	Lean	4	Gas

TABLE 5

continued...

PETRA
-CHEM

DEPTH (m)	STRUCTURED KEROGEN			AMORPHOUS KEROGEN	SPORE COLOUR (1-7)	POTENTIAL RATING
	CUTICLE	BROWN WOOD	BLACK WOOD			
4568-4571	Trace	Trace	Common	Common	4/5	Gas/Sub Oil
4658-4661	Trace	Lean	Common	Lean	4/5	Gas/Sub Oil
4727-4730	Trace	Lean	Common	Common	4/5	Gas/Sub Oil
4820-4823	Trace	Lean	Common	Common	4/5	Gas/Sub Oil

TABLE 5

PETRA -CHEM

KEROGEN CHARACTERISATION BY PYROLYSIS

WELL NO: HALTENBANKEN 6507/7-1

DEPTH (m)	% GASES & GASOLINE	% KEROSENE	% DIESEL	% HEAVY GAS OIL	% LUBE OIL	SOURCE FACTOR
3677-3680	37.0	11.2	16.2	16.3	19.0	19.8
3689-3692	33.1	10.7	14.8	14.8	26.3	17.8
3698-3707	38.4	11.3	16.3	16.0	17.7	20.9
3749-3752	33.0	9.8	14.3	14.8	27.8	19.4
3758-3761	38.4	10.3	15.4	15.3	20.3	22.1
3767-3770	32.7	10.2	14.4	15.0	27.4	18.6
3779-3782	48.9	12.5	15.4	10.4	12.5	28.7
3938-3941 CL	46.6	13.8	16.4	12.1	11.1	27.1
3968-3971	48.7	13.3	15.8	11.4	10.5	29.0

TABLE 6

continued...

PETRA
-CHEM

DEPTH (m)	% GASES & GASOLINE	% KEROSENE	% DIESEL	% HEAVY GAS OIL	% LUBE OIL	SOURCE FACTOR
3998-4001	50.9	14.7	16.1	10.5	7.5	29.5
4418-4421 C	27.7	8.2	13.3	15.1	35.4	17.7
4820-4823 C	38.5	7.0	11.0	12.6	30.6	26.8

KEY

C = Coal lithology
CL = Claystone

TABLE 6

PETRA
-CHEM

LITHOLOGY SHEET

WELL NO: HALTENBANKEN 6507/7-1

DEPTH (m)	GROSS SAMPLE DESCRIPTION	LITHOLOGICAL DESCRIPTION OF CUTTINGS
900-910	Cuttings (70%) Cavings (30%)	Unconsolidated sand with micropebbles of granite, granodiorite diorite and amphibolite (100%) Bivalve shell fragments (trace)
1000-1010	Cuttings (80%) Cavings (20%)	Light-medium grey unconsolidated quartzo-feldspathic sand (100%)
1100-1110	Cuttings (90%) Cavings (10%)	Light grey unconsolidated quartzofeldspathic sand (100%)
1250-1260	Cuttings (95%) Cavings (5%)	Light grey poorly consolidated sand contains clasts of feldspar and gabbro (97%) Light grey green siltstone (3%)

TABLE 7

continued...

PETRA -CHEM

DEPTH (m)	GROSS SAMPLE DESCRIPTION	LITHOLOGICAL DESCRIPTION OF CUTTINGS
1350-1360	Cuttings (90%) Cavings (10%)	Light unconsolidated quartzo-feldspathic sand with gabbroic and psammitic micropebbles (97%) Light green-grey siltstone (3%) Bivalve shell fragments (trace)
1500-1510	Cuttings (100%)	Light-mid grey unconsolidated sand with micropebbles of gneiss and amphibolite (100%)
1590-1600	Cuttings (90%) Cavings (5%) Fibre additives (5%)	Light grey unconsolidated sand with micropebbles of gneiss and bivalve shell fragments (98%) Light grey claystone (2%)
1740-1750	Cuttings (100%)	Light-mid grey claystone (95%) Sand with micropebbles of diorite and gabbro (5%)
1840-1850	Cuttings (50%) Cavings (50%)	Light grey unconsolidated sand (50%) Light grey-green claystone (50%)

TABLE 7

continued...

PETRA -CHEM

DEPTH (m)	GROSS SAMPLE DESCRIPTION	LITHOLOGICAL DESCRIPTION OF CUTTINGS
2000-2003	Cuttings (65%) Cavings (35%)	**Light grey-green claystone (90%)** Off white soft claystone (10%)
2159-2162	Cuttings (60%) Cavings (40%)	**Mid-dark grey-green claystone (70%)** Light grey-green claystone (30%)
2255-2258	Cavings (60%) Cuttings (40%) Blue plastic (trace)	**Light grey claystone (100%)**
2399-2402	Cavings (55%) Cuttings (45%)	**Light grey-green claystone (100%)**
2489-2492	Cuttings (70%) Cavings (30%) Metal filings (trace)	**Light grey claystone (100%)**
2549-2552	Cuttings (85%) Cavings (15%)	**Light grey laminated calc. claystone (100%)**
2579-2582	Cuttings (70%) Cavings (30%)	**Light grey laminated claystone (100%)**
2609-2612	Cuttings (75%) Cavings (25%)	**Light grey calc. claystone (100%)**

TABLE 7

continued...

PETRA -CHEM

DEPTH (m)	GROSS SAMPLE DESCRIPTION	LITHOLOGICAL DESCRIPTION OF CUTTINGS
2639-2642	Cuttings (80%) Cavings (20%)	Light grey calc. claystone (100%)
2669-2672	Cavings (85%) Cuttings (15%)	Light grey calc. claystone (100%)
2699-2722	Cavings (50%) Cuttings (50%)	Light grey laminated claystone (100%)
2729-2732	Cavings (75%) Cuttings (25%)	Light grey laminated calc. claystone (100%)
2759-2762	Cavings (65%) Cuttings (35%)	Light grey laminated claystone (100%)
2789-2792	Cavings (55%) Cuttings (45%)	Light grey laminated claystone (100%)
2819-2822	Cavings (55%) Cuttings (45%)	Light grey calc. claystone (100%)
2849-2852	Cavings (70%) Cuttings (30%)	Light-mid grey laminated claystone (100%)
2879-2882	Cavings (80%) Cuttings (20%)	Light grey laminated calc. claystone (100%)
2909-2912	Cavings (80%) Cuttings (20%)	Light grey silty banded claystone (100%)

TABLE 7

continued...

PETRA -CHEM

DEPTH (m)	GROSS SAMPLE DESCRIPTION	LITHOLOGICAL DESCRIPTION OF CUTTINGS
2939-2942	Cuttings (95%) Cavings (5%) Mica flakes (trace)	Off white-light grey medium grained unconsolidated quartzitic sand (97%) Light grey claystone (3%)
2969-2972	Cuttings (65%) Cavings (35%)	Light-mid grey claystone (75%) Light grey fine-medium grained sandstone (25%)
2999-3002	Cavings (75%) Cuttings (25%)	Light grey laminated claystone (100%)
3029-3032	Cavings (85%) Cuttings (15%)	Light grey claystone (100%)
3059-3062	Cavings (75%) Cuttings (25%)	Light-mid grey laminated claystone (100%)
3089-3092	Cavings (75%) Cuttings (25%)	Light-mid grey calc. claystone (100%)
3119-3122	Cavings (80%) Cuttings (20%)	Light grey laminated calc. claystone (100%)
3149-3152	Cavings (70%) Cuttings (30%)	Mid grey claystone (100%)
3176-3179	Cavings (70%) Cuttings (30%)	Light-mid-grey claystone (100%)

TABLE 7

continued...

PETRA -CHEM

DEPTH (m)	GROSS SAMPLE DESCRIPTION	LITHOLOGICAL DESCRIPTION OF CUTTINGS
3209-3212	Cavings (55%) Cuttings (45%)	Mid grey claystone (100%)
3239-3242	Cavings (50%) Cuttings (50%)	Mid grey calc. claystone (100%)
3269-3272	Cavings (75%) Cuttings (25%)	Mid grey claystone (100%)
3299-3302	Cavings (85%) Cuttings (15%)	Mid grey laminated calc. micaceous silty claystone (100%)
3329-3332	Cavings (85%) Cuttings (15%)	Mid grey calc. claystone (100%)
3359-3362	Cavings (75%) Cuttings (25%)	Mid-grey calc. iron oxide stained claystone (100%)
3389-3392	Cavings (75%) Cuttings (25%)	Mid grey claystone (100%)
3419-3422	Cavings (60%) Cuttings (40%)	Mid-grey calc. claystone (100%)
3449-3452	Cavings (55%) Cuttings (45%)	Mid grey claystone (100%)
3458-3461	Cavings (70%) Cuttings (30%)	Mid grey-green claystone (100%)

TABLE 7

continued...

PETRA -CHEM

DEPTH (m)	GROSS SAMPLE DESCRIPTION	LITHOLOGICAL DESCRIPTION OF CUTTINGS
3467-3470	Cavings (65%) Cuttings (35%)	Mid grey laminated calc. slightly silty claystone (100%)
3479-3482	Cavings (75%) Cuttings (25%)	Light-mid grey claystone (100%)
3488-3491	Cavings (75%) Cuttings (25%)	Mid grey-green claystone (100%)
3497-3500	Cavings (80%) Cuttings (20%)	Mid grey laminated calc. claystone (100%)
3509-3512	Cavings (65%) Cuttings (35%)	Mid grey laminated claystone (100%)
3518-3521	Cavings (55%) Cuttings (45%)	Mid-dark grey calc. claystone (100%)
3527-3530	Cavings (70%) Cuttings (30%)	Light-mid grey-green laminated calc. micaceous slightly silty claystone (100%)
3539-3542	Cavings (65%) Cuttings (35%)	Mid-dark grey claystone (100%) Light grey micaceous siltstone (trace)

TABLE 7

continued...

PETRA -CHEM

DEPTH (m)	GROSS SAMPLE DESCRIPTION	LITHOLOGICAL DESCRIPTION OF CUTTINGS
3548-3551	Cavings (65%) Cuttings (35%)	**Mid-grey laminated claystone (95%)** Unconsolidated medium grained quartzitic sand (5%)
3560-3563	Cavings (70%) Cuttings (30%)	**Light-mid grey claystone (100%)**
3569-3572	Cavings (85%) Cuttings (15%)	**Light grey claystone (100%)**
3578-3581	Cavings (85%) Cuttings (15%)	**Mid grey-green claystone with occassional iron oxide stains (100%)** Mid grey micaceous siltstone (trace)
3587-3590	Cavings (55%) Cuttings (45%)	**Mid grey-green laminated calc. micaceous silty claystone (100%)** Quartzitic fine gained sand (trace)
3599-3602	Cavings (65%) Cuttings (35%)	**Mid-dark grey claystone (100%)** Light grey micaceous silty sandstone with carbonaceous partings (trace)

TABLE 7

continued...

PETRA -CHEM

DEPTH (m)	GROSS SAMPLE DESCRIPTION	LITHOLOGICAL DESCRIPTION OF CUTTINGS
3608-3611	Cavings (70%) Cuttings (30%)	**Mid-dark grey claystone (100%)**
3617-3620	Cavings (65%) Cuttings (35%)	**Mid-grey micaceous calc. claystone (100%)** Off white-light grey micaceous calc. siltstone (trace)
3629-3632	Cuttings (65%) Cavings (35%)	**Mid-dark grey laminated claystone (100%)**
3638-3641	Cavings (75%) Cuttings (25%)	**Mid grey claystone (100%)** Light-grey micaceous sandstone (trace)
3647-3650	Cavings (80%) Cuttings (20%)	**Mid grey laminated calc. claystone (100%)**
3659-3662	Cavings (75%) Cuttings (25%)	**Mid grey banded claystone (100%)**
3668-3671	Cavings (60%) Cuttings (40%)	**Mid-dark grey slightly silty calc. claystone (98%)** Mid dark grey siltstone (2%)
3677-3680	Cavings (80%) Cuttings (20%)	**Mid-dark grey calc. claystone (100%)**

TABLE 7

continued...

DEPTH (m)	GROSS SAMPLE DESCRIPTION	LITHOLOGICAL DESCRIPTION OF CUTTINGS
3689-3692	Cavings (65%) Cuttings (35%)	Mid-dark grey claystone (70%) Dark grey-brown slightly silty claystone (30%)
3698-3707	Cavings (75%) Cuttings (25%)	Mid-dark grey-black claystone (100%)
3707-3710	Cuttings (55%) Cavings (45%)	Dark grey-green slightly silty claystone (60%) Dark grey claystone (40%)
3719-3722	Cavings (85%) Cuttings (15%)	Light-mid grey-green claystone (100%)
3728-3731	Cavings (90%) Cuttings (10%)	Light grey slightly silty claystone (100%)
3737-3740	Cavings (80%) Cuttings (20%)	Light-mid grey calc. claystone (100%)
3749-3752	Cavings (90%) Cuttings (10%)	Light-mid grey claystone (80%) Dark brown laminated claystone (20%)
3758-3761	Cavings (55%) Cuttings (45%)	Mid-dark grey-brown calc. claystone (100%)
3767-3770	Cuttings (70%) Cavings (30%)	Light-mid grey claystone (100%)

TABLE 7

continued...

PETRA
-CHEM

DEPTH (m)	GROSS SAMPLE DESCRIPTION	LITHOLOGICAL DESCRIPTION OF CUTTINGS
3779-3782	Cavings (65%) Cuttings (35%)	Mid-dark grey claystone (100%)
3788-3791	Cavings (85%) Cuttings (15%)	light-mid grey calc. claystone (100%)
3820-3821	Cuttings (90%) Cavings (10%)	Very light grey-green muddy limestone (98%) Mid grey claystone (2%)
3848-3851	Cuttings (70%) Cavings (30%)	Mid-dark grey calc. claystone (100%)
3878-3881	Cuttings (65%) Cavings (35%)	Light-mid grey highly calc. claystone (100%)
3908-3911	Cuttings (65%) Cavings (30%) Organic fibres (5%)	Light-mid grey calc. claystone (80%) Off white calc. claystone (20%)
3938-3941	Cavings (85%) Cuttings (15%)	Mid-dark grey claystone (100%) Black carbonaceous silty claystone (trace)
3968-3971	Cavings (65%) Cuttings (45%)	Mid-grey calc. claystone (100%)
3998-4001	Cavings (85%) Cuttings (15%)	Mid grey calc. claystone (100%)

TABLE 7

continued...

PETRA -CHEM

DEPTH (m)	GROSS SAMPLE DESCRIPTION	LITHOLOGICAL DESCRIPTION OF CUTTINGS
4028-4031	Cuttings (55%) Cavings (45%)	**Mid-dark grey calc. claystone with abundant iron oxide staining (100%)** Off white calc. claystone (trace)
4058-4061	Cavings (70%) Cuttings (30%)	**Mid-dark grey calc. claystone (100%)**
4088-4091	Cavings (80%) Cuttings (20%)	**Mid-dark grey calc. claystone (100%)**
4118-4121	Cavings (80%) Cuttings (20%)	**Mid-dark grey calc. claystone (100%)**
4148-4151	Cavings (75%) Cuttings (20%)	Mid-dark grey hard claystone (97%) **Black calc.claystone (3%)**
4178-4181	Cavings (70%) Cuttings (30%)	**Mid-dark grey calc. claystone (100%)**
4208-4211	Cavings (55%) Cuttings (45%)	**Mid grey calc. claystone with iron oxide staining (100%)** Coal (trace)
4238-4241	Cuttings (85%) Cavings (15%)	Mid-dark grey calc. claystone (95%) **Black limestone (5%)**

TABLE 7

continued...

PETRA -CHEM

DEPTH (m)	GROSS SAMPLE DESCRIPTION	LITHOLOGICAL DESCRIPTION OF CUTTINGS
4268-4271	Cavings (50%) Cuttings (50%)	Mid-dark grey calc. claystone (100%)
4298-4301	Cuttings (70%) Cavings (30%)	Dark grey calc. claystone (100%)
4328-4331	Lignite additive (55%) Cavings (30%) Cuttings (15%)	Mid-dark grey calc. claystone (100%)
4358-4361	Cuttings (65%) Lignitic mud additive (25%) Cavings (10%)	Mid-dark grey silty claystone (100%)
4388-4391	Cuttings (80%) Cavings (20%)	Mid-dark grey calc. claystone (70%) Off white fine grained sandstone (28%) Coal (2%)
4418-4421	Cavings (50%) Cuttings (50%)	Dark grey slightly silty calc. claystone (65%) Off white fine grained sandstone (30%) Coal (5%)

TABLE 7

continued...

PETRA -CHEM

DEPTH (m)	GROSS SAMPLE DESCRIPTION	LITHOLOGICAL DESCRIPTION OF CUTTINGS
4448- 4451	Cavings (55%) Cuttings (45%)	**Mid-dark grey calc. claystone (50%)** Off white-light grey extremely fine grained sandstone (50%)
4478- 4481	Cuttings (50%) Cavings (50%)	**Mid-dark grey calc. claystone (65%)** Beige extremely fine grained silty sandstone (35%)
4508- 4511	Cavings (50%) Cuttings (50%)	**Mid-grey calc. claystone (90%)** Buff very fine grained silty sandstone (10%) Black carbonaceous siltstone (trace)
4568- 4571	Cavings (80%) Cuttings (20%)	**Mid grey slightly silty claystone (97%)** Off white very fine grained sandstone (3%)
4598- 4601	Cuttings (75%) Cavings (25%)	**Mid-dark grey slightly micaceous silty claystone (97%)** Light grey micaceous silty sandstone (3%)

TABLE 7

continued...

PETRA -CHEM

DEPTH (m)	GROSS SAMPLE DESCRIPTION	LITHOLOGICAL DESCRIPTION OF CUTTINGS
4613-4616	Cuttings (80%) Cavings (20%)	**Dark grey claystone (52%)** Mid-dark grey silty claystone (45%) Off white silty sandstone (3%)
4628-4631	Cuttings (50%) Cavings (50%)	Light grey friable silty - sandstone (60%) **Mid-dark grey calc. hard claystone (40%)**
4658-4661	Cuttings (85%) Cavings (15%)	**Dark-grey calc. silty claystone (50%)** Beige fine-medium grained sandstone (50%)
4685-4688	Cavings (65%) Cuttings (35%) Metal filings (trace)	**Mid-dark grey calc. claystone (64%)** Light grey extremely fine grained sandstone (35%) **Coal (1%)**
4727-4730	Cuttings (70%) Cavings (30%)	**Dark-grey silty claystone (55%)** Beige fine-medium grained sandstone (44%) **Coal (1%)**

TABLE 7

continued...

PETRA
-CHEM

DEPTH (m)	GROSS SAMPLE DESCRIPTION	LITHOLOGICAL DESCRIPTION OF CUTTINGS
4748- 4751	Cuttings (70%) Cavings (30%)	**Mid-dark grey calc. claystone (55%)** Light-mid grey fine grained sandstone (45%)
4778- 4781	Cuttings (50%) Cavings (50%)	Beige-light grey silty sandstone (60%) **Dark-grey calc. slightly silty claystone (40%)**
4808- 4811	Cuttings (90%) Cavings (10%)	Off white - light grey fine grained sandstone (99%) **Mid grey calc. claystone (1%)**
4820- 4823	Cuttings (85%) Cavings (15%)	**Dark grey claystone (52%)** Light grey fine grained micaceous sandstone (45%) **Coal (3%)**

TABLE 7

GEOLAB NOR
GEOCHEMICAL LABORATORIES OF NORWAY A.S

REGIONAL PETROLEUM GEOCHEMICAL STUDY
MID-NORWAY

NOCS WELL 6507/7-1

Part 1

Authors: Peter B. Hall
Ian L. Ferriday
Sunil Bharati

Geolab Nor A/S
Hornebergveien 5
7038 Trondheim
Norway

Date : 07.05.90

Table 2 : Rock-Eval table for well NOCS 6507/7-1

Depth unit of measure: m

Depth	Typ	Lithology	S1	S2	S3	S2/S3	TOC	HI	OI	PP	PI	Tmax	Sample
2900.00	cut	Sltst : lt gy to m gy	0.05	0.67	0.26	2.58	0.84	80	31	0.7	0.07	432	0001-1L
2912.00	ccp	Sltst : lt gy to m gy	0.07	0.77	0.28	2.75	0.92	84	30	0.8	0.08	430	0002-1L
2927.00	ccp	Sltst : lt gy to m gy	0.09	0.80	0.27	2.96	0.92	87	29	0.9	0.10	431	0003-1L
3504.00	ccp	S/Sst : lt gy to lt brn gy	1.58	0.88	0.80	1.10	0.47	187	170	2.5	0.64	409	0004-1L
3509.00	cut	S/Sst : lt gy to lt brn gy	0.69	0.41	0.17	2.41	0.23	178	74	1.1	0.63	395	0005-1L
3512.70	cut	S/Sst : lt gy to lt brn gy	1.62	0.59	0.15	3.93	0.30	197	50	2.2	0.73	378	0006-1L
3680.00	cut	Sh/Clst: drk gy	0.36	0.41	0.10	4.10	1.15	36	9	0.8	0.47	443	0007-1L
3680.00	cut	Sltst : dsk y brn	0.21	0.82	0.20	4.10	0.88	93	23	1.0	0.20	433	0007-2L
3686.00	cut	Sltst : dsk y brn	0.70	1.92	0.35	5.49	2.01	96	17	2.6	0.27	434	0008-2L
3692.00	cut	Sltst : dsk y brn	3.43	14.03	0.74	18.96	3.03	463	24	17.5	0.20	428	0009-2L
3698.00	cut	Sltst : dsk y brn	3.51	14.71	0.72	20.43	5.11	288	14	18.2	0.19	430	0010-2L
3704.00	cut	Sltst : dsk y brn	2.57	10.46	0.83	12.60	3.21	326	26	13.0	0.20	427	0011-2L
3716.00	cut	Sh/Clst: drk gy	0.20	0.57	0.38	1.50	0.97	59	39	0.8	0.26	440	0013-1L
3728.00	cut	Sltst : dsk y brn	4.02	16.75	0.70	23.93	4.53	370	15	20.8	0.19	435	0015-2L
3740.00	cut	Sltst : dsk brn to dsk y brn	3.65	15.89	0.71	22.38	7.29	218	10	19.5	0.19	439	0017-2L

GEOLAB NOR
GEOCHEMICAL LABORATORIES OF NORWAY A/S

Table 2 : Rock-Eval table for well NOCS 6507/7-1

Depth unit of measure: m

Depth	Typ	Lithology	S1	S2	S3	S2/S3	TOC	HI	OI	PP	PI	Tmax	Sample
3752.00	cut	Sltst : dsk brn to dsk y brn	4.74	17.27	0.97	17.80	3.98	434	24	22.0	0.22	435	0019-2L
3764.00	cut	Sltst : dsk brn to dsk y brn	4.88	22.87	0.78	29.32	3.30	693	24	27.8	0.18	436	0021-2L
3782.00	cut	Sh/Clst: m gy to drk gy	0.16	0.56	0.34	1.65	0.83	67	41	0.7	0.22	434	0025-1L
3812.00	cut	Sh/Clst: m gy to drk gy	0.36	1.08	0.37	2.92	1.46	74	25	1.4	0.25	442	0030-1L
3818.00	cut	Sltst : dsk brn to dsk y brn, brn gy	1.34	5.69	1.06	5.37	3.47	164	31	7.0	0.19	439	0031-2L
3836.00	cut	Sltst : dsk brn to dsk y brn, brn gy	0.82	3.59	0.79	4.54	2.89	124	27	4.4	0.19	440	0034-2L
3884.00	cut	Ca : brn gy to dsk y brn	0.08	0.21	1.35	0.16	1.02	21	132	0.3	0.28	454	0041-4L
3938.00	cut	Sh/Clst: dsk brn to dsk y brn, brn gy	0.49	2.35	0.27	8.70	1.43	164	19	2.8	0.17	445	0047-2L
3950.00	cut	Sh/Clst: dsk brn to dsk y brn, brn gy	0.56	2.65	0.30	8.83	1.59	167	19	3.2	0.17	445	0049-2L
3968.00	cut	Sltst : dsk brn to dsk y brn, brn gy	0.47	2.28	0.29	7.86	0.89	256	33	2.8	0.17	446	0052-2L
3980.00	cut	Sltst : dsk brn to dsk y brn, brn gy	0.58	2.59	0.32	8.09	1.60	162	20	3.2	0.18	444	0054-2L
3992.00	cut	Sltst : dsk brn to dsk y brn, brn gy	0.64	3.06	0.20	15.30	1.77	173	11	3.7	0.17	446	0056-2L

Table 2 : Rock-Eval table for well NOCS 6507/7-1

Depth unit of measure: m

Depth	Typ	Lithology	S1	S2	S3	S2/S3	TOC	HI	OI	PP	PI	Tmax	Sample
4004.00	cut	Sltst : dsk brn to dsk y brn, brn gy	0.59	2.63	0.26	10.12	1.62	162	16	3.2	0.18	445	0058-2L
4016.00	cut	Sltst : dsk brn to dsk y brn, brn gy	0.46	1.92	0.50	3.84	1.44	133	35	2.4	0.19	445	0060-2L
4034.00	cut	Sltst : dsk brn to dsk y brn, brn gy	0.38	1.33	0.52	2.56	1.17	114	44	1.7	0.22	445	0063-2L
4055.00	cut	Sltst : dsk brn to dsk y brn, brn gy	0.41	1.99	0.22	9.05	1.12	178	20	2.4	0.17	446	0066-2L
4064.00	cut	Sltst : dsk brn to dsk y brn, brn gy	0.44	2.13	0.35	6.09	1.34	159	26	2.6	0.17	446	0068-2L
4076.00	cut	Sltst : dsk brn to dsk y brn, brn gy	0.42	1.75	0.34	5.15	1.28	137	27	2.2	0.19	447	0070-2L
4088.00	cut	Sltst : dsk brn to dsk y brn, brn gy	0.48	2.05	0.29	7.07	1.37	150	21	2.5	0.19	446	0072-2L
4100.00	cut	Sltst : dsk brn to dsk y brn, brn gy	0.45	2.15	0.29	7.41	1.35	159	21	2.6	0.17	445	0074-2L
4112.00	cut	Sltst : dsk brn to dsk y brn, brn gy	0.41	2.01	0.24	8.38	1.24	162	19	2.4	0.17	447	0076-2L
4124.00	cut	Sltst : brn gy to dsk brn	0.51	1.85	0.31	5.97	1.28	145	24	2.4	0.22	447	0078-2L

Table 2 : Rock-Eval table for well NOCS 6507/7-1

Depth unit of measure: m

Depth	Typ	Lithology	S1	S2	S3	S2/S3	TOC	HI	OI	PP	PI	Tmax	Sample
4142.00	cut	Sltst : brn gy to dsk brn	0.41	1.80	0.26	6.92	1.19	151	22	2.2	0.19	447	0081-2L
4154.00	cut	Sltst : brn gy to dsk brn	0.53	2.17	0.38	5.71	1.18	184	32	2.7	0.20	445	0083-2L
4166.00	cut	Sltst : brn gy to dsk brn	0.41	1.90	0.22	8.64	1.16	164	19	2.3	0.18	446	0085-2L
4178.00	cut	Sltst : brn gy to dsk brn	0.47	1.77	0.30	5.90	0.76	233	39	2.2	0.21	448	0087-2L
4190.00	cut	Sltst : brn gy to dsk brn	0.37	1.66	0.22	7.55	0.88	189	25	2.0	0.18	447	0089-2L
4205.00	cut	Sltst : brn gy to dsk brn	0.49	2.06	0.18	11.44	0.57	361	32	2.5	0.19	448	0091-2L
4220.00	cut	Sh/Clst: brn gy to dsk brn	0.44	1.97	0.23	8.57	1.28	154	18	2.4	0.18	448	0093-2L
4232.00	cut	Sltst : brn gy to dsk brn	0.41	1.44	0.21	6.86	1.11	130	19	1.9	0.22	447	0095-2L
4244.00	cut	Sltst : brn gy to dsk brn	0.47	1.65	0.24	6.88	1.12	147	21	2.1	0.22	449	0097-2L
4256.00	cut	Sltst : brn gy to dsk brn	0.46	1.97	0.16	12.31	1.22	161	13	2.4	0.19	447	0099-2L
4268.00	cut	Sltst : brn gy to dsk brn	0.45	1.90	0.23	8.26	1.31	145	18	2.3	0.19	447	0101-2L
4280.00	cut	Sltst : brn gy to dsk brn	0.44	1.96	0.17	11.53	1.05	187	16	2.4	0.18	448	0103-2L
4310.00	cut	Sltst : brn gy to dsk brn	0.41	2.09	0.16	13.06	1.33	157	12	2.5	0.16	448	0107-1L
4322.00	cut	Sltst : brn gy to dsk brn	0.40	1.68	0.29	5.79	1.05	160	28	2.1	0.19	446	0109-1L
4340.00	ccp	S/Sst : w	0.07	0.07	0.03	2.33	0.09	78	33	0.1	0.50	439	0191-1L

Table 2 : Rock-Eval table for well NOCS 6507/7-1

Depth unit of measure: m

Depth	Typ	Lithology	S1	S2	S3	S2/S3	TOC	HI	OI	PP	PI	Tmax	Sample
4344.00	ccp	S/Sst : w to pl y brn	0.13	0.05	0.03	1.67	0.03	167	100	0.2	0.72	297	0192-1L
4348.40	ccp	S/Sst : w to pl y brn	0.06	0.04	0.04	1.00	0.03	133	133	0.1	0.60	337	0193-1L
4353.20	ccp	S/Sst : w to pl y brn	0.04	0.13	0.01	13.00	0.04	325	25	0.2	0.24	559	0194-1L
4357.90	ccp	S/Sst : w to pl y brn	0.09	0.07	0.15	0.47	0.04	175	375	0.2	0.56	405	0195-1L
4362.20	ccp	S/Sst : w to pl y brn	0.13	0.20	0.15	1.33	0.09	222	167	0.3	0.39	427	0196-1L
4366.35	ccp	S/Sst : w to pl y brn	0.08	-	0.01	-	0.14	-	7	0.1	1.00	233	0197-1L
4372.30	ccp	Sltst : dsk y brn to brn blk	0.33	1.13	0.07	16.14	0.95	119	7	1.5	0.23	463	0198-1L
4374.40	ccp	Sltst : dsk y brn to brn blk	0.98	9.21	0.26	35.42	3.19	289	8	10.2	0.10	455	0199-1L
4385.00	cut	Sltst : brn gy to dsk brn to dsk y brn	1.13	1.84	0.15	12.27	1.14	161	13	3.0	0.38	447	0119-1L
4397.00	cut	S/Sst : w to pl y brn	0.15	0.05	0.04	1.25	0.07	71	57	0.2	0.75	440	0121-3L
4409.00	cut	S/Sst : w to pl y brn	0.11	0.06	0.04	1.50	0.08	75	50	0.2	0.65	352	0123-3L
4421.00	cut	Sltst : brn gy to dsk brn to dsk y brn	1.13	1.91	0.32	5.97	1.41	135	23	3.0	0.37	446	0125-1L
4433.00	cut	Sltst : brn gy to dsk brn to dsk y brn	1.93	2.70	0.25	10.80	1.60	169	16	4.6	0.42	447	0127-1L

Table 2 : Rock-Eval table for well NOCS 6507/7-1

Depth unit of measure: m

Depth	Typ	Lithology	S1	S2	S3	S2/S3	TOC	HI	OI	PP	PI	Tmax	Sample
4445.00	cut	Sltst : brn gy to dsk brn to dsk y brn	1.36	1.62	0.29	5.59	1.26	129	23	3.0	0.46	446	0129-1L
4451.00	cut	S/Sst : w to pl y brn	0.24	0.08	0.04	2.00	0.12	67	33	0.3	0.75	405	0130-3L
4463.00	cut	S/Sst : w to pl y brn	0.12	0.06	0.03	2.00	0.10	60	30	0.2	0.67	297	0132-3L
4475.35	ccp	S/Sst : lt gy to m gy	0.07	0.06	0.01	6.00	0.13	46	8	0.1	0.54	366	0200-1L
4479.35	ccp	S/Sst : lt gy	0.08	0.07	0.03	2.33	0.13	54	23	0.2	0.53	389	0201-1L
4483.65	ccp	S/Sst : m gy to drk gy	0.23	0.33	0.07	4.71	0.47	70	15	0.6	0.41	452	0202-1L
4486.75	ccp	S/Sst : m gy to drk gy	0.18	0.21	0.08	2.63	0.28	75	29	0.4	0.46	422	0203-1L
4488.35	ccp	S/Sst : m gy to drk gy	0.35	0.29	0.01	29.00	0.33	88	3	0.6	0.55	410	0204-1L
4496.00	cut	Sltst : brn gy to dsk brn	1.37	1.98	0.19	10.42	1.34	148	14	3.4	0.41	447	0135-1L
4508.00	cut	Sltst : brn gy to dsk brn to dsk y brn	1.88	2.00	0.27	7.41	1.39	144	19	3.9	0.48	446	0137-1L
4520.00	cut	Sltst : brn gy to dsk brn to dsk y brn	1.56	2.04	0.41	4.98	1.31	156	31	3.6	0.43	446	0139-1L
4532.00	cut	S/Sst : w to pl y brn to brn gy	0.20	0.09	0.09	1.00	0.14	64	64	0.3	0.69	370	0141-3L
4550.00	cut	Sltst : brn gy to dsk brn to dsk y brn	1.68	2.31	0.28	8.25	1.54	150	18	4.0	0.42	448	0144-1L

Table 2 : Rock-Eval table for well NOCS 6507/7-1

Depth unit of measure: m

Depth	Typ	Lithology	S1	S2	S3	S2/S3	TOC	HI	OI	PP	PI	Tmax	Sample
4562.00	cut	S/Sst : w to brn gy to dsk brn	0.41	0.24	0.13	1.85	0.35	69	37	0.6	0.63	458	0146-3L
4574.00	cut	S/Sst : w to brn gy to dsk brn	0.38	0.23	0.09	2.56	0.27	85	33	0.6	0.62	452	0148-3L
4586.00	cut	S/Sst : w to pl y brn	0.43	0.13	0.06	2.17	0.14	93	43	0.6	0.77	385	0150-3L
4593.05	ccp	Sltst : brn gy to dsk brn	0.12	0.21	0.08	2.63	0.17	124	47	0.3	0.36	471	0205-1L
4600.30	ccp	Sltst : brn gy to dsk brn	0.27	1.01	0.07	14.43	0.91	111	8	1.3	0.21	470	0206-1L
4610.00	cut	S/Sst : w to pl y brn	0.62	0.15	0.17	0.88	0.18	83	94	0.8	0.81	398	0154-3L
4622.00	cut	Sltst : brn gy to dsk brn to dsk y brn	1.17	1.64	0.36	4.56	1.32	124	27	2.8	0.42	448	0156-1L
4634.00	cut	Sltst : brn gy to dsk brn to dsk y brn	1.08	1.87	0.46	4.07	1.39	135	33	3.0	0.37	449	0158-1L
4646.00	cut	S/Sst : w to pl y brn	0.53	0.13	0.62	0.21	0.15	87	413	0.7	0.80	390	0160-3L
4658.00	cut	S/Sst : w to pl y brn	0.39	0.05	0.10	0.50	0.09	56	111	0.4	0.89	297	0162-3L
4670.00	cut	S/Sst : w to pl y brn	0.38	0.09	0.21	0.43	0.15	60	140	0.5	0.81	337	0164-3L
4682.00	cut	S/Sst : w to pl y brn	0.21	0.05	0.07	0.71	0.07	71	100	0.3	0.81	297	0166-3L
4694.00	cut	S/Sst : w to pl y brn	3.52	0.59	0.23	2.57	0.46	128	50	4.1	0.86	372	0168-3L
4706.00	cut	Sltst : brn gy to dsk brn to dsk y brn	2.34	2.01	0.15	13.40	1.39	145	11	4.3	0.54	447	0171-1L

Table 2 : Rock-Eval table for well NOCS 6507/7-1

Depth unit of measure: m

Depth	Typ	Lithology	S1	S2	S3	S2/S3	TOC	HI	OI	PP	PI	Tmax	Sample
4718.00	cut	S/Sst : w	0.18	0.02	0.05	0.40	0.07	29	71	0.2	0.90	428	0172-3L
4730.00	cut	Sltst : brn gy to dsk brn to dsk y brn	1.77	1.52	0.18	8.44	1.28	119	14	3.3	0.54	448	0174-1L
4742.00	cut	S/Sst : w	0.27	0.05	0.01	5.00	0.07	71	14	0.3	0.84	399	0176-3L
4760.00	cut	bulk	0.52	0.08	0.10	0.80	0.11	73	91	0.6	0.87	374	0179-0B
4772.00	cut	S/Sst : w to pl y brn	0.29	0.12	0.08	1.50	0.10	120	80	0.4	0.71	387	0181-3L
4784.00	cut	S/Sst : w to pl y brn	0.37	0.10	0.06	1.67	0.09	111	67	0.5	0.79	344	0183-3L
4796.00	cut	S/Sst : w to pl y brn	0.35	0.11	0.06	1.83	0.10	110	60	0.5	0.76	366	0185-3L
4808.00	cut	S/Sst : w to pl y brn	0.42	0.13	0.07	1.86	0.13	100	54	0.6	0.76	376	0187-3L
4820.00	cut	Coal : blk	12.60	107.39	0.86	124.87	34.04	315	3	120.0	0.11	473	0189-4L
4823.00	cut	S/Sst : w to pl y brn	0.62	0.22	0.12	1.83	0.15	147	80	0.8	0.74	393	0190-3L
4823.00	com	bulk	1.33	1.33	0.25	5.32	1.23	108	20	2.7	0.50	452	0207-0B

Table 3 : Pyrolysis GC Data (S2 peak) as Percentage of Total Area for Well NOCS 6507/7-1

Depth unit of measure: m

Depth	Typ	Lithology	C1	C2-C5	C6-C14	C15+	S2 from Rock-Eval	Sample
2912.00	ccp	Sltst : lt gy to m gy	8.77	35.67	52.15	3.42	0.77	0002-1L
3504.00	ccp	S/Sst : lt gy to lt brn gy	2.54	18.45	43.46	35.56	0.88	0004-1L
3512.70	cut	S/Sst : lt gy to lt brn gy	3.75	25.37	50.97	19.91	0.59	0006-1L
3680.00	cut	Sltst : dsk y brn	7.63	29.07	54.71	8.59	0.82	0007-2L
3692.00	cut	Sltst : dsk y brn	2.88	17.67	38.76	40.70	14.03	0009-2L
3704.00	cut	Sltst : dsk y brn	6.67	34.79	36.27	22.27	10.46	0011-2L
3764.00	cut	Sltst : dsk brn to dsk y brn	5.28	19.81	33.45	41.46	22.87	0021-2L
3818.00	cut	Sltst : dsk brn to dsk y brn, brn gy	7.34	20.34	34.46	37.87	5.69	0031-2L
3968.00	cut	Sltst : dsk brn to dsk y brn, brn gy	6.27	24.03	48.41	21.29	2.28	0052-2L
3992.00	cut	Sltst : dsk brn to dsk y brn, brn gy	5.83	19.10	40.47	34.60	3.06	0056-2L
4055.00	cut	Sltst : dsk brn to dsk y brn, brn gy	5.76	20.11	45.11	29.03	1.99	0066-2L
4088.00	cut	Sltst : dsk brn to dsk y brn, brn gy	7.42	29.35	48.89	14.34	2.05	0072-2L

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Table 3 : Pyrolysis GC Data (S2 peak) as Percentage of Total Area for Well NOCS 6507/7-1

Depth unit of measure: m

Depth	Typ	Lithology	C1	C2-C5	C6-C14	C15+	S2 from Rock-Eval	Sample
4205.00	cut	Sltst : brn gy to dsk brn	5.93	20.20	45.96	27.91	2.06	0091-2L
4280.00	cut	Sltst : brn gy to dsk brn	6.66	22.54	45.10	25.70	1.96	0103-2L
4344.00	ccp	S/Sst : w to pl y brn	8.60	26.95	50.57	13.88	0.05	0192-1L
4362.20	ccp	S/Sst : w to pl y brn	4.55	23.24	45.32	26.89	0.20	0196-1L
4374.40	ccp	Sltst : dsk y brn to brn blk	6.48	23.80	43.81	25.91	9.21	0199-1L
4433.00	cut	Sltst : brn gy to dsk brn to dsk y brn	5.83	22.10	40.80	31.27	2.70	0127-1L
4451.00	cut	S/Sst : w to pl y brn	7.43	32.39	44.69	15.49	0.08	0130-3L
4488.35	ccp	S/Sst : m gy to drk gy	8.31	44.26	43.33	4.10	0.29	0204-1L
4520.00	cut	Sltst : brn gy to dsk brn to dsk y brn	6.49	23.79	42.73	27.00	2.04	0139-1L
4562.00	cut	S/Sst : w to brn gy to dsk brn	7.55	29.40	42.69	20.37	0.24	0146-3L
4586.00	cut	S/Sst : w to pl y brn	6.78	29.65	44.19	19.38	0.13	0150-3L
4610.00	cut	S/Sst : w to pl y brn	3.95	18.56	35.75	41.75	0.15	0154-3L
4634.00	cut	Sltst : brn gy to dsk brn to dsk y brn	7.39	24.49	42.65	25.47	1.87	0158-1L

Table 3 : Pyrolysis GC Data (S2 peak) as Percentage of Total Area for Well NOCS 6507/7-1

Depth unit of measure: m

Depth	Typ	Lithology	C1	C2-C5	C6-C14	C15+	S2 from Rock-Eval	Sample
4646.00	cut	S/Sst : w to pl y brn	5.48	31.15	46.56	16.82	0.13	0160-3L
4694.00	cut	S/Sst : w to pl y brn	5.10	34.71	44.44	15.75	0.59	0168-3L
4730.00	cut	Sltst : brn gy to dsk brn to dsk y brn	8.28	27.28	44.24	20.20	1.52	0174-1L
4760.00	cut	bulk	3.69	19.13	32.79	44.40	0.08	0179-0B
4784.00	cut	S/Sst : w to pl y brn	4.00	26.78	33.54	35.64	0.10	0183-3L
4820.00	cut	Coal : blk	12.87	23.86	25.71	37.57	107.39	0189-4L
4823.00	cut	S/Sst : w to pl y brn	2.77	17.22	38.96	41.06	0.22	0190-3L

Table 4 a: Weight of EOM and Chromatographic Fraction for well NOCS 6507/7-1

Depth unit of measure: m

Depth	Typ	Lithology	Rock Extracted (g)	EOM (mg)	Sat (mg)	Aro (mg)	Asph (mg)	NSO (mg)	HC (mg)	Non-HC (mg)	TOC(e) (%)	Sample
3504.00	ccp	S/Sst : lt gy to lt brn gy	11.8	26.3	18.7	4.8	0.5	2.3	23.5	2.8	0.37	0004-1L
3512.70	cut	S/Sst : lt gy to lt brn gy	10.0	25.0	19.4	4.0	0.3	1.3	23.4	1.6	0.40	0006-1L
3692.00	cut	Sltst : dsk y brn	1.2	12.4	4.4	4.4	1.7	1.9	8.8	3.6	7.30	0009-2L
3764.00	com	Composite sample - see table 4 e	2.5	24.7	5.9	7.6	5.8	5.4	13.5	11.2	9.81	0208-0B
3992.00	com	Composite sample - see table 4 e	3.2	6.8	2.4	0.6	1.0	2.8	3.0	3.8	2.19	0209-0B
4205.00	cut	Sltst : brn gy to dsk brn	6.2	11.4	4.1	1.5	0.7	5.1	5.6	5.8	1.68	0091-2L
4374.40	ccp	Sltst : dsk y brn to brn blk	7.0	32.6	21.9	3.2	1.7	5.8	25.1	7.5	4.18	0199-1L
4488.35	ccp	S/Sst : m gy to drk gy	7.0	4.7	0.6	0.9	0.5	2.7	1.5	3.2	0.47	0204-1L
4520.00	cut	Sltst : brn gy to dsk brn to dsk y brn	7.7	20.6	9.2	4.9	2.8	3.7	14.1	6.5	2.07	0139-1L
4586.00	cut	S/Sst : w to pl y brn	1.0	1.7	0.3	0.5	0.3	0.6	0.8	0.9	0.25	0150-3L
4610.00	cut	S/Sst : w to pl y brn	1.2	1.8	0.5	0.2	0.4	0.7	0.7	1.1	0.30	0154-3L
4634.00	cut	Sltst : brn gy to dsk brn to dsk y brn	5.5	10.9	3.6	1.8	0.8	4.7	5.4	5.5	1.82	0158-1L
4646.00	cut	S/Sst : w to pl y brn	1.4	1.4	0.2	0.2	0.2	0.8	0.4	1.0	0.28	0160-3L

Table 4 a: Weight of EOM and Chromatographic Fraction for well NOCS 6507/7-1

Depth unit of measure: m

Depth	Typ	Lithology	Rock Extracted (g)	EOM (mg)	Sat (mg)	Aro (mg)	Asph (mg)	NSO (mg)	HC (mg)	Non-HC (mg)	TOC(e) (%)	Sample
4694.00	cut	S/Sst : w to pl y brn	1.2	4.6	2.0	0.2	0.4	2.0	2.2	2.4	0.73	0168-3L
4760.00	cut	bulk	8.6	6.8	3.3	0.8	0.5	2.2	4.1	2.7	0.52	0179-0B
4820.00	cut	Coal : blk	0.9	45.8	1.5	3.3	40.3	0.7	4.8	41.0	59.70	0189-4L
4823.00	cut	S/Sst : w to pl y brn	0.8	1.0	0.2	0.2	0.4	0.2	0.4	0.6	0.33	0190-3L

Table 4 b: Concentration of EOM and Chromatographic Fraction (wt ppm rock) for well NOCS 6507/7-1

Depth unit of measure: m

Depth	Typ	Lithology	EOM	Sat	Aro	Asph	NSO	HC	Non-HC	Sample
3504.00	ccp	S/Sst : lt gy to lt brn gy	2236	1590	408	42	195	1998	238	0004-1L
3512.70	cut	S/Sst : lt gy to lt brn gy	2505	1943	400	30	130	2344	160	0006-1L
3692.00	cut	Sltst : dsk y brn	10163	3606	3606	1393	1557	7213	2950	0009-2L
3764.00	com	Composite sample - see table 4 e	9959	2379	3064	2338	2177	5443	4516	0208-0B
3992.00	com	Composite sample - see table 4 e	2131	752	188	313	877	940	1191	0209-0B
4205.00	cut	Sltst : brn gy to dsk brn	1853	666	243	113	829	910	943	0091-2L
4374.40	ccp	Sltst : dsk y brn to brn blk	4670	3137	458	243	830	3595	1074	0199-1L
4488.35	ccp	S/Sst : m gy to drk gy	675	86	129	71	387	215	459	0204-1L
4520.00	cut	Sltst : brn gy to dsk brn to dsk y brn	2692	1202	640	366	483	1843	849	0139-1L
4586.00	cut	S/Sst : w to pl y brn	1619	285	476	285	571	761	857	0150-3L
4610.00	cut	S/Sst : w to pl y brn	1512	420	168	336	588	588	924	0154-3L
4634.00	cut	Sltst : brn gy to dsk brn to dsk y brn	1996	659	329	146	860	989	1007	0158-1L
4646.00	cut	S/Sst : w to pl y brn	992	141	141	141	567	283	709	0160-3L

Table 4 b: Concentration of EOM and Chromatographic Fraction (wt ppm rock) for well NOCS 6507/7-1

Depth unit of measure: m

Depth	Typ	Lithology	EOM	Sat	Aro	Asph	NSO	HC	Non-HC	Sample
4694.00	cut	S/Sst : w to pl y brn	3770	1639	163	327	1639	1803	1967	0168-3L
4760.00	cut	bulk	792	384	93	58	256	477	314	0179-0B
4820.00	cut	Coal : blk	50329	1648	3626	44285	769	5274	45054	0189-4L
4823.00	cut	S/Sst : w to pl y brn	1204	240	240	481	240	481	722	0190-3L

Table 4 c: Concentration of EOM and Chromatographic Fraction (mg/g TOC(e)) for well NOCS 6507/7-1

Depth unit of measure: m

Depth	Typ	Lithology	EOM	Sat	Aro	Asph	NSO	HC	Non-HC	Sample
3504.00	ccp	S/Sst : lt gy to lt brn gy	604.43	429.77	110.31	11.49	52.86	540.08	64.35	0004-1L
3512.70	cut	S/Sst : lt gy to lt brn gy	626.25	485.97	100.20	7.52	32.57	586.17	40.08	0006-1L
3692.00	cut	Sltst : dsk y brn	139.23	49.40	49.40	19.09	21.33	98.81	40.42	0009-2L
3764.00	com	Composite sample - see table 4 e	101.53	24.25	31.24	23.84	22.20	55.49	46.04	0208-0B
3992.00	com	Composite sample - see table 4 e	97.34	34.35	8.59	14.31	40.08	42.94	54.39	0209-0B
4205.00	cut	Sltst : brn gy to dsk brn	110.34	39.68	14.52	6.78	49.36	54.20	56.14	0091-2L
4374.40	ccp	Sltst : dsk y brn to brn blk	111.73	75.06	10.97	5.83	19.88	86.03	25.71	0199-1L
4488.35	ccp	S/Sst : m gy to drk gy	143.68	18.34	27.51	15.28	82.54	45.85	97.82	0204-1L
4520.00	cut	Sltst : brn gy to dsk brn to dsk y brn	130.09	58.10	30.94	17.68	23.37	89.04	41.05	0139-1L
4586.00	cut	S/Sst : w to pl y brn	647.62	114.29	190.48	114.29	228.57	304.76	342.86	0150-3L
4610.00	cut	S/Sst : w to pl y brn	504.20	140.06	56.02	112.04	196.08	196.08	308.12	0154-3L
4634.00	cut	Sltst : brn gy to dsk brn to dsk y brn	109.69	36.23	18.11	8.05	47.30	54.34	55.35	0158-1L
4646.00	cut	S/Sst : w to pl y brn	354.61	50.66	50.66	50.66	202.63	101.32	253.29	0160-3L

Table 4 c: Concentration of EOM and Chromatographic Fraction (mg/g TOC(e)) for well NOCS 6507/7-1

Depth unit of measure: m

Depth	Typ	Lithology	EOM	Sat	Aro	Asph	NSO	HC	Non-HC	Sample
4694.00	cut	S/Sst : w to pl y brn	516.51	224.57	22.46	44.91	224.57	247.02	269.48	0168-3L
4760.00	cut	bulk	152.41	73.96	17.93	11.21	49.31	91.90	60.52	0179-0B
4820.00	cut	Coal : blk	84.30	2.76	6.07	74.18	1.29	8.84	75.47	0189-4L
4823.00	cut	S/Sst : w to pl y brn	365.10	73.02	73.02	146.04	73.02	146.04	219.06	0190-3L

Table 4 d: Composition of material extracted from the rock (%) for well NOCS 6507/7-1

Depth unit of measure: m

Depth	Typ	Lithology	Sat / EOM	Aro / EOM	Asph / EOM	NSO / EOM	HC / EOM	Non-HC / EOM	Sat / Aro	HC / Non-HC	Sample
3504.00	ccp	S/Sst : lt gy to lt brn gy	71.10	18.25	1.90	8.75	89.35	10.65	389.58	839.29	0004-1L
3512.70	cut	S/Sst : lt gy to lt brn gy	77.60	16.00	1.20	5.20	93.60	6.40	485.00	1462.50	0006-1L
3692.00	cut	Sltst : dsk y brn	35.48	35.48	13.71	15.32	70.97	29.03	100.00	244.44	0009-2L
3764.00	com	Composite sample - see table 4 e	23.89	30.77	23.48	21.86	54.66	45.34	77.63	120.54	0208-0B
3992.00	com	Composite sample - see table 4 e	35.29	8.82	14.71	41.18	44.12	55.88	400.00	78.95	0209-0B
4205.00	cut	Sltst : brn gy to dsk brn	35.96	13.16	6.14	44.74	49.12	50.88	273.33	96.55	0091-2L
4374.40	ccp	Sltst : dsk y brn to brn blk	67.18	9.82	5.21	17.79	76.99	23.01	684.38	334.67	0199-1L
4488.35	ccp	S/Sst : m gy to drk gy	12.77	19.15	10.64	57.45	31.91	68.09	66.67	46.88	0204-1L
4520.00	cut	Sltst : brn gy to dsk brn to dsk y brn	44.66	23.79	13.59	17.96	68.45	31.55	187.76	216.92	0139-1L
4586.00	cut	S/Sst : w to pl y brn	17.65	29.41	17.65	35.29	47.06	52.94	60.00	88.89	0150-3L
4610.00	cut	S/Sst : w to pl y brn	27.78	11.11	22.22	38.89	38.89	61.11	250.00	63.64	0154-3L
4634.00	cut	Sltst : brn gy to dsk brn to dsk y brn	33.03	16.51	7.34	43.12	49.54	50.46	200.00	98.18	0158-1L
4646.00	cut	S/Sst : w to pl y brn	14.29	14.29	14.29	57.14	28.57	71.43	100.00	40.00	0160-3L

Table 4 d: Composition of material extracted from the rock (%) for well NOCS 6507/7-1

Depth unit of measure: m

Depth	Typ	Lithology	Sat EOM	Aro EOM	Asph EOM	NSO EOM	HC EOM	Non-HC EOM	Sat Aro	HC Non-HC	Sample
4694.00	cut	S/Sst : w to pl y brn	43.48	4.35	8.70	43.48	47.83	52.17	1000.00	91.67	0168-3L
4760.00	cut	bulk	48.53	11.76	7.35	32.35	60.29	39.71	412.50	151.85	0179-0B
4820.00	cut	Coal : blk	3.28	7.21	87.99	1.53	10.48	89.52	45.45	11.71	0189-4L
4823.00	cut	S/Sst : w to pl y brn	20.00	20.00	40.00	20.00	40.00	60.00	100.00	66.67	0190-3L

Table 4 e: List of composite samples appearing in the extraction tables for well NOCS 6507/7-1

Depth unit of measure: m

NOTE: Depths shown in tables 4 a to d correspond to the composite samples' lower depth.

Upper depth	Lower depth	Typ	Sample	Depth	Typ	Lithology	Sample
3752.00	3764.00	com	0208-0B is composed of:	3752.00	cut	Sltst : dsk brn to dsk y brn, mic	0019-2L
				3758.00	cut	Sltst : dsk brn to dsk y brn, mic	0020-2L
				3764.00	cut	Sltst : dsk brn to dsk y brn, mic	0021-2L
3980.00	3992.00	com	0209-0B is composed of:	3980.00	cut	Sltst : dsk brn to dsk y brn, brn gy, cly, mic	0054-2L
				3992.00	cut	Sltst : dsk brn to dsk y brn, brn gy, cly, mic	0056-2L

Table 5 : Saturated Hydrocarbon Ratios for well NOCS 6507/7-1

Depth unit of measure: m

Depth	Typ	Lithology	Pristane nC17	Pristane Phytane	Pristane + Phytane nC17 + nC18	Phytane nC18	CPI	Sample
3504.00	ccp	S/Sst : lt gy to lt brn gy	0.59	1.20	0.51	0.43	1.04	0004-1L
3512.70	cut	S/Sst : lt gy to lt brn gy	0.57	1.20	0.47	0.39	1.01	0006-1L
3692.00	cut	Sltst : dsk y brn	0.99	1.21	0.94	0.89	1.00	0009-2L
3764.00	com	bulk	1.10	1.79	0.91	0.70	1.07	0208-0B
3992.00	com	bulk	0.57	3.10	0.40	0.21	1.15	0209-0B
4205.00	cut	Sltst : brn gy to dsk brn	0.57	3.02	0.41	0.22	1.05	0091-2L
4374.40	ccp	Sltst : dsk y brn to brn blk	0.19	1.41	0.16	0.13	1.12	0199-1L
4488.35	ccp	S/Sst : m gy to drk gy	0.48	2.34	0.40	0.28	1.04	0204-1L
4520.00	cut	Sltst : brn gy to dsk brn to dsk y brn	0.52	1.47	0.46	0.40	0.82	0139-1L
4586.00	cut	S/Sst : w to pl y brn	0.65	1.08	0.55	0.48	1.17	0150-3L
4610.00	cut	S/Sst : w to pl y brn	0.62	0.98	0.55	0.49	1.13	0154-3L
4634.00	cut	Sltst : brn gy to dsk brn to dsk y brn	0.67	1.45	0.59	0.51	1.13	0158-1L
4646.00	cut	S/Sst : w to pl y brn	0.80	1.08	0.65	0.54	1.27	0160-3L

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Table 5 : Saturated Hydrocarbon Ratios for well NOCS 6507/7-1

Depth unit of measure: m

Depth	Typ	Lithology	Pristane / nC17	Pristane / Phytane	Pristane + Phytane / nC17 + nC18	Phytane / nC18	CPI	Sample
4694.00	cut	S/Sst : w to pl y brn	1.80	1.02	1.53	1.33	1.06	0168-3L
4760.00	cut	bulk	0.72	1.12	0.66	0.59	1.09	0179-0B
4820.00	cut	Coal : blk	0.41	1.44	0.37	0.33	1.04	0189-4L
4823.00	cut	S/Sst : w to pl y brn	0.64	1.05	0.54	0.46	1.09	0190-3L

Table 6 : Aromatic Hydrocarbon Ratios for well NOCS 6507/7-1

Depth unit of measure: m

Depth	Typ	Lithology	MNR	DMNR	BPhR	2/1MP	MPI1	MPI2	Rc	DBT/P	4/1MDBT	(3+2) /1MDBT	Sample
3504.00	ccp	S/Sst : lt gy to lt brn gy	-	1.22	-	-	-	-	-	0.28	12.20	1.80	0004-1L
3512.70	cut	S/Sst : lt gy to lt brn gy	-	1.13	-	-	-	-	-	0.25	11.89	1.61	0006-1L
3692.00	cut	Sltst : dsk y brn	0.51	1.13	-	0.74	0.61	0.64	0.77	0.51	4.16	0.74	0009-2L
3764.00	com	bulk	0.88	1.53	0.10	0.58	0.47	0.50	0.68	0.42	3.59	1.51	0208-0B
3992.00	com	bulk	-	1.54	-	0.75	0.60	0.66	0.76	-	9.49	2.44	0209-0B
4205.00	cut	Sltst : brn gy to dsk brn	1.01	2.15	0.07	0.76	0.58	0.65	0.75	0.07	13.56	2.65	0091-2L
4374.40	ccp	Sltst : dsk y brn to brn blk	1.64	5.58	0.37	1.55	0.89	1.07	0.93	0.08	178.70	20.95	0199-1L
4488.35	ccp	S/Sst : m gy to drk gy	-	-	-	-	-	-	-	-	-	-	0204-1L
4520.00	cut	Sltst : brn gy to dsk brn to dsk y brn	1.17	1.67	0.20	0.96	0.71	0.82	0.83	0.26	16.25	2.02	0139-1L
4586.00	cut	S/Sst : w to pl y brn	-	-	-	-	-	-	-	-	-	-	0150-3L
4610.00	cut	S/Sst : w to pl y brn	-	-	-	-	-	-	-	-	-	-	0154-3L
4634.00	cut	Sltst : brn gy to dsk brn to dsk y brn	0.51	1.51	0.09	1.02	0.77	0.88	0.86	0.24	18.67	2.49	0158-1L
4646.00	cut	S/Sst : w to pl y brn	-	-	-	-	-	-	-	-	-	-	0160-3L
4694.00	cut	S/Sst : w to pl y brn	-	-	-	-	-	-	-	-	-	-	0168-3L

Table 6 : Aromatic Hydrocarbon Ratios for well NOCS 6507/7-1

Depth unit of measure: m

Depth	Typ	Lithology	MNR	DMNR	BPhR	2/1MP	MPI1	MPI2	Rc	DBT/P	4/1MDBT	(3+2) /1MDBT	Sample
4760.00	cut	bulk	-	1.16	0.06	1.14	0.91	1.07	0.95	0.32	14.27	1.70	0179-0B
4820.00	cut	Coal : blk	2.34	5.84	0.41	2.63	1.33	1.56	1.20	0.17	134.04	26.47	0189-4L
4823.00	cut	S/Sst : w to pl y brn	-	-	-	-	-	-	-	-	-	-	0190-3L

Table 7 : Thermal Maturity Data for well NOCS 6507/7-1

Depth unit of measure: m

Depth	Typ	Lithology	Vitrinite Reflectance (%)	Number of Readings	Standard Deviation	Spore Fluorescence Colour	SCI	Tmax (°C)	Sample
2912.00	ccp	bulk	0.46	3	0.03	3	-	-	0002-0B
2912.00	ccp	Sltst : lt gy to m gy	-	-	-	-	4.5	430	0002-1L
3680.00	cut	Sh/Clst: drk gy	-	-	-	-	5.0(?)	443	0007-1L
3686.00	cut	bulk	0.42	5	0.03	5(6?)	-	-	0008-0B
3686.00	cut	Sltst : dsk y brn	-	-	-	-	5.0	434	0008-2L
3704.00	cut	Sltst : dsk y brn	-	-	-	-	5.5(?)	427	0011-2L
3740.00	cut	bulk	0.68	6	0.02	5-6	-	-	0017-0B
3812.00	cut	Sh/Clst: m gy to drk gy	-	-	-	-	6.0	442	0030-1L
3824.00	cut	bulk	0.76	3	0.03	6?	-	-	0032-0B
3938.00	cut	bulk	0.66	9	0.03	6	-	-	0047-0B
3938.00	cut	Sh/Clst: dsk brn to dsk y brn, brn gy	-	-	-	-	5.5-6.0	445	0047-2L
3992.00	cut	bulk	0.68	6	0.05	5-6	-	-	0056-0B
4055.00	cut	bulk	0.69	3	0.01	5-6?	-	-	0066-0B

Table 7 : Thermal Maturity Data for well NOCS 6507/7-1

Depth unit of measure: m

Depth	Typ	Lithology	Vitrinite Reflectance (%)	Number of Readings	Standard Deviation	Spore Fluorescence Colour	SCI	Tmax (°C)	Sample
4055.00	cut	Sltst : dsk brn to dsk y brn, brn gy	-	-	-	-	6.0	446	0066-2L
4112.00	cut	bulk	0.71	12	0.04	6?	-	-	0076-0B
4142.00	cut	Sltst : brn gy to dsk brn	-	-	-	-	5.0-6.0	447	0081-2L
4154.00	cut	bulk	0.68	15	0.04	6?	-	-	0083-0B
4244.00	cut	Sltst : brn gy to dsk brn	-	-	-	-	6.0-6.5	449	0097-2L
4256.00	cut	bulk	0.73	11	0.07	6?	-	-	0099-0B
4310.00	cut	bulk	0.72	15	0.06	NDP	-	-	0107-0B
4372.30	ccp	bulk	0.83	8	0.04	6-7	-	-	0198-0B
4374.40	ccp	Sltst : dsk y brn to brn blk	-	-	-	-	7.0	455	0199-1L
4433.00	cut	bulk	0.87	4	0.02	NDP	-	-	0127-0B
4445.00	cut	Sltst : brn gy to dsk brn to dsk y brn	-	-	-	-	6.5	446	0129-1L
4496.00	cut	bulk	0.89	6	0.06	NDP	-	-	0135-0B
4550.00	cut	Sltst : brn gy to dsk brn to dsk y brn	-	-	-	-	6.5-7.0	448	0144-1L

Table 7 : Thermal Maturity Data for well NOCS 6507/7-1

Depth unit of measure: m

Depth	Typ	Lithology	Vitrinite Reflectance (%)	Number of Readings	Standard Deviation	Spore Fluorescence Colour	SCI	Tmax (°C)	Sample
4593.05	ccp	bulk	1.05	4	0.03	NDP	-	-	0205-0B
4634.00	cut	Sltst : brn gy to dsk brn to dsk y brn	-	-	-	-	6.5-7.0(?)	449	0158-1L
4706.00	cut	bulk	1.00	5	0.04	NDP	-	-	0171-0B
4730.00	cut	Sltst : brn gy to dsk brn to dsk y brn	-	-	-	-	6.0-6.5	448	0174-1L
4742.00	cut	bulk	1.13	10	0.04	NDP	-	-	0176-0B
4790.00	cut	bulk	1.23	7	0.04	NDP	-	-	0184-0B
4820.00	cut	bulk	1.27	24	0.07	NDP	-	-	0189-0B
4820.00	cut	Coal : blk	-	-	-	-	7.5(??)	473	0189-4L

Table 8 : Visual Kerogen Composition Data for well NOCS 6507/7-1

Depth unit of measure: m

Depth	Typ	Lithology	LIPT %	Amor L	Lip Det	Sp/Pol	Cutic l	Resin	Alga e	Dinof l	Acrit	Bit L	INERT %	Fusin	Sem Fus	Sent Det	Micr ein	Sclero	Bit I	VITR %	Tel in	Coll inn	Vit Det	Amor V	Bit V	Sample
2912.00	ccp	Sltst : lt gy to m gy	30		**	**			*				15	*	*	**				55	*		**			0002-1L
3680.00	cut	Sh/Clst: drk gy	NDP										NDP							NDP						0007-1L
3686.00	cut	Sltst : dsk y brn	80	**	**	*	*		*	*			10		*	**				10	*		**			0008-2L
3704.00	cut	Sltst : dsk y brn	85	**	*	*			*				5			*				10	*		**			0011-2L
3812.00	cut	Sh/Clst: m gy to drk gy	15		*	**	**		*				40	*	**					45	*	*		*		0030-1L
3938.00	cut	Sh/Clst: dsk brn to dsk y brn, brn gy	85	**	*	**			*				5			**				10	*		**			0047-2L
4055.00	cut	Sltst : dsk brn to dsk y brn, brn gy	70		*	**	**	*	*				10			*				20	*		**			0066-2L
4142.00	cut	Sltst : brn gy to dsk brn	65	**	**	**	*		*				10		*	*				25	*		*			0081-2L
4244.00	cut	Sltst : brn gy to dsk brn	60	**	**	**	*		*				15		*	*				25	*		**			0097-2L
4374.40	ccp	Sltst : dsk y brn to brn blk	80	**	**	*			*				10			*				10	*		**			0199-1L
4445.00	cut	Sltst : brn gy to dsk brn to dsk y brn	65	**	*	**			*			?	15		*	*				20	*	*	*			0129-1L
4550.00	cut	Sltst : brn gy to dsk brn to dsk y brn	85	**	*	**	*		*				10		*	*				5	*		**			0144-1L

Table 8 : Visual Kerogen Composition Data for well NOCS 6507/7-1

Depth unit of measure: m

Depth	Typ	Lithology	LIPT %	Amor L	Lipdet	Sp/Pol	Cutic	Resin	Alg	Dinofl	Acrit	Bit L	INERT %	Fusin	Semfus	Intdet	Micrin	Sclero	Bit I	VITR %	Telin	Colin	Vitdet	Amor V	Bit V	Sample
4634.00	cut	Sltst : brn gy to dsk brn to dsk y brn	NDP										NDP							NDP						0158-1L
4730.00	cut	Sltst : brn gy to dsk brn to dsk y brn	50	**	*	**	*		*				25		**	*				25	*	*	*			0174-1L
4820.00	cut	Coal : blk	TR			*			?				10		*					90	*	*		*	*	0189-4L

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Table 9a : Tabulation of carbon isotope data for EOM/EOM - fractions or Oils for well NOCS 6507/7-1

Depth unit of measure: m

Depth	Typ	Lithology	EOM/Oil	Saturated	Aromatic	NSO	Asphaltenes	Kerogen	Sample
3504.00	ccp		-28.21	-28.43	-28.55	-27.96	-27.13	-	0004-1L
3692.00	cut		-29.45	-30.58	-29.35	-29.40	-27.90	-	0009-2L
3992.00	com	Composite sample	-	-26.12	-25.04	-25.00	-24.42	-	0209-0B
4205.00	cut		-25.91	-26.64	-27.44	-25.52	-24.43	-	0091-2L
4488.35	ccp		-	-27.46	-28.64	-28.15	-25.79	-	0204-1L
4520.00	cut		-26.36	-28.10	-27.30	-25.94	-24.97	-	0139-1L
4634.00	cut		-25.79	-26.69	-24.15	-23.83	-24.31	-	0158-1L
4760.00	cut		-	-28.16	-27.77	-27.89	-25.25	-	0179-0B

Table 9b : Tabulation of cv values from carbon isotope data for well NOCS 6507/7-1

Depth unit of measure: m

Depth	Typ	Lithology	Saturated	Aromatic	cv value	Sample
3504.00	ccp		-28.43	-28.55	-3.10	0004-1L
3692.00	cut		-30.58	-29.35	0.56	0009-2L
3992.00	com	Composite sample	-26.12	-25.04	-1.16	0209-0B
4205.00	cut		-26.64	-27.44	-5.17	0091-2L
4488.35	ccp		-27.46	-28.64	-5.76	0204-1L
4520.00	cut		-28.10	-27.30	-1.16	0139-1L
4634.00	cut		-26.69	-24.15	2.26	0158-1L
4760.00	cut		-28.16	-27.77	-2.05	0179-0B

Table 10A: Variation in Triterpane Distribution (peak height) for Well NOCS 6507/7-1

Depth unit of measure: m

Depth	Lithology	B/A	B/B+A	B B+E+F	C/E	C/C+E	X/E	Z/E	Z/C	Z/Z+E	Q/E	E/E+F	C+D C+D+E+F	D+F/C+E	J1 J1+J2%	Sample
3504.00	S/Sst	0.86	0.46	0.15	0.41	0.29	0.08	0.11	0.26	0.10	0.06	0.95	0.29	0.05	60.31	0004-1
3692.00	Sltst	1.11	0.53	0.13	0.43	0.30	0.06	0.21	0.48	0.17	0.08	0.94	0.30	0.07	59.74	0009-2
3992.00	Sltst	0.97	0.49	0.13	0.27	0.22	0.15	-	0.01	-	-	0.91	0.21	0.09	57.57	0209-0
4205.00	Sltst	0.99	0.50	0.22	0.59	0.37	0.12	0.02	0.03	0.02	0.04	0.88	0.37	0.13	59.37	0091-2
4488.35	S/Sst	1.07	0.52	0.13	0.54	0.35	-	0.02	0.05	0.02	0.09	0.96	0.36	0.06	100.00	0204-1
4520.00	Sltst	0.93	0.48	0.14	0.30	0.23	0.11	0.02	0.08	0.02	0.02	0.96	0.23	0.04	59.42	0139-1
4634.00	Sltst	0.80	0.44	0.16	0.30	0.23	0.19	0.01	0.03	0.01	0.02	0.91	0.24	0.10	58.76	0158-1
4760.00	bulk	1.84	0.65	0.27	0.74	0.43	0.02	0.06	0.08	0.06	0.17	0.91	0.43	0.11	50.55	0179-0

Table 10B: Variation in Sterane Distribution (peak height) for Well NOCS 6507/7-1

Depth unit of measure: m

Depth	Lithology	Ratio1	Ratio2	Ratio3	Ratio4	Ratio5	Ratio6	Ratio7	Ratio8	Ratio9	Ratio10	Sample
3504.00	S/Sst	0.87	59.89	78.16	1.23	0.75	0.41	0.27	0.64	1.49	4.46	0004-1
3692.00	Sltst	0.82	61.06	77.91	1.31	0.74	0.45	0.30	0.64	1.57	4.53	0009-2
3992.00	Sltst	0.76	63.30	64.99	0.51	0.59	0.37	0.29	0.48	1.72	2.53	0209-0
4205.00	Sltst	0.64	43.21	63.84	0.91	0.67	0.43	0.33	0.47	0.76	1.55	0091-2
4488.35	S/Sst	0.66	43.59	64.68	0.97	0.68	0.80	0.69	0.48	0.77	1.62	0204-1
4520.00	Sltst	0.86	60.51	80.90	0.80	0.78	0.82	0.68	0.68	1.53	5.36	0139-1
4634.00	Sltst	0.76	66.89	65.96	0.84	0.59	0.51	0.40	0.49	2.02	2.93	0158-1
4760.00	bulk	0.85	49.55	79.66	1.39	0.80	0.75	0.63	0.66	0.98	3.88	0179-0

Ratio1: a / a + j
Ratio2: q / q + t * 100%
Ratio3: 2(r + s)/(q + t + 2(r + s)) * 100%
Ratio4: a + b + c + d / h + k + l + n
Ratio5: r + s / r + s + q

Ratio6: u + v / u + v + q + r + s + t
Ratio7: u + v / u + v + i + m + n + q + r + s + t
Ratio8: r + s / q + r + s + t
Ratio9: q / t
Ratio10: r + s / t

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Table 10C: Raw GCMS triterpane data (peak height) for Well NOCS 6507/7-1

Depth unit of measure: m

Depth	Lithology	p	q	r	s	t	a	b	z	c	Sample
		x	d	e	f	g	h	i	j1		
		j2	k1	k2	l1	l2	m1	m2			
3504.00	S/Sst	33.88	18.68	13.46	23.42	7.69	71.74	61.51	35.29	135.53	0004-1
		25.55	4.41	327.99	18.98	123.49	76.80	9.04	74.14		
		48.80	29.25	17.80	15.32	5.60	8.82	3.21			
3692.00	Sltst	144.76	90.67	33.66	56.40	15.86	170.46	188.79	238.50	493.85	0009-2
		63.38	36.60	1137.15	74.30	532.08	395.46	35.46	330.62		
		222.84	197.96	122.58	93.33	57.11	73.69	31.24			
3992.00	Sltst	56.32	15.66	13.31	204.94	0.00	706.18	688.11	11.53	1104.57	0209-0
		588.77	71.40	4029.96	392.17	1373.42	960.72	215.34	880.21		
		648.73	379.19	283.48	174.84	101.61	42.46	16.95			
4205.00	Sltst	159.49	123.53	46.69	373.84	38.27	958.14	950.10	55.86	1788.53	0091-2
		355.62	233.16	3049.39	410.52	893.27	675.76	135.97	495.50		
		339.14	182.10	118.14	62.12	33.74	0.00	0.00			
4488.35	S/Sst	23.09	5.79	1.51	7.98	0.00	9.13	9.79	1.53	33.62	0204-1
		0.00	2.68	62.09	2.75	8.54	4.26	0.00	2.78		
		0.00	1.27	0.00	0.00	0.00	0.00	0.00			

Table 10C: Raw GCMS triterpane data (peak height) for Well NOCS 6507/7-1

Depth unit of measure: m

Depth	Lithology	p	q	r	s	t	a	b	z	c	Sample
		x	d	e	f	g	h	i	j1		
		j2	k1	k2	l1	l2	m1	m2			
4520.00	Sltst	25.06	13.64	4.81	30.33	0.00	120.10	112.21	15.94	203.28	0139-1
		72.88	8.33	672.16	27.55	200.70	106.99	9.64	91.54		
		62.52	26.29	12.77	6.04	2.67	0.00	0.00			
4634.00	Sltst	140.76	76.68	31.02	257.11	34.19	858.19	687.40	31.42	963.96	0158-1
		603.76	112.11	3182.70	297.23	1051.83	834.05	185.86	739.76		
		519.28	293.45	236.06	148.51	80.71	29.56	15.32			
4760.00	bulk	143.89	74.45	26.65	59.82	13.33	94.16	173.68	26.88	318.44	0179-0
		10.51	40.72	429.24	41.42	120.36	79.80	10.25	23.34		
		22.83	5.60	2.51	0.00	0.00	0.00	0.00			

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Table 10D: Raw GCMS sterane data (peak height) for Well NOCS 6507/7-1

Depth unit of measure: m

Depth	Lithology	u	v	a	b	c	d	e	f	g	Sample
		h	i	j	k	l	m	n	o		
		p	q	r	s	t					
3504.00	S/Sst	37.88	13.16	109.47	66.61	17.71	28.13	32.97	26.63	22.71	0004-1
		99.13	36.88	16.79	43.99	12.22	3.77	25.55	32.24		
		8.38	15.72	23.14	23.83	10.53					
3692.00	Sltst	196.21	83.56	344.06	222.99	85.16	136.43	125.01	94.42	127.15	0009-2
		294.12	165.33	76.49	129.82	54.66	17.84	122.44	121.03		
		40.53	76.49	96.42	124.53	48.78					
3992.00	Sltst	117.84	41.84	93.85	54.32	20.27	23.71	37.74	22.77	41.86	0209-0
		163.34	49.81	30.01	133.00	32.34	12.65	45.04	37.96		
		11.20	91.17	68.29	65.40	52.86					
4205.00	Sltst	151.70	80.58	157.61	113.85	37.56	64.30	62.61	49.36	78.80	0091-2
		182.78	82.05	88.23	143.38	30.86	31.92	52.83	52.82		
		43.05	70.18	61.03	82.31	92.22					
4488.35	S/Sst	18.24	3.07	4.59	2.51	1.02	0.00	1.74	0.00	2.77	0204-1
		3.92	2.23	2.32	2.45	0.00	0.00	2.00	3.26		
		0.00	1.19	1.41	1.09	1.54					

Table 10D: Raw GCMS sterane data (peak height) for Well NOCS 6507/7-1

Depth unit of measure: m

Depth	Lithology	u	v	a	b	c	d	e	f	g	Sample
		h	i	j	k	l	m	n	o		
		p	q	r	s	t					
4520.00	Sltst	72.33	14.96	20.00	14.16	3.06	4.77	5.63	4.91	7.12	0139-1
		29.13	11.83	3.29	13.23	4.15	3.06	6.16	7.11		
		2.67	3.80	4.53	8.77	2.48					
4634.00	Sltst	256.13	87.70	165.66	114.94	43.09	59.82	57.92	36.20	64.27	0158-1
		218.08	86.42	51.00	137.80	35.87	28.05	64.33	72.66		
		23.16	113.57	73.15	91.34	56.21					
4760.00	bulk	181.46	42.52	104.43	54.54	15.33	18.46	35.96	15.77	23.53	0179-0
		79.15	35.17	17.94	31.88	9.05	5.17	18.25	25.74		
		12.10	12.55	21.87	27.73	12.78					

Table 10E: Variation in Monoaromatic Sterane Distribution for Well NOCS 6507/7-1

Depth unit of measure: m

Depth	Lithology	Ratio1	Ratio2	Ratio3	Ratio4	Sample
3504.00	S/Sst	0.43	0.30	0.29	0.24	0004-1
3692.00	Sltst	0.33	0.24	0.21	0.18	0009-2
3992.00	Sltst	0.69	0.73	0.42	0.44	0209-0
4205.00	Sltst	0.33	0.25	0.18	0.17	0091-2
4488.35	S/Sst	-	-	-	-	0204-1
4520.00	Sltst	0.84	0.62	0.66	0.57	0139-1
4634.00	Sltst	0.75	0.61	0.56	0.42	0158-1
4760.00	bulk	0.63	0.39	0.49	0.40	0179-0

Ratio1: A1 / A1 + E1
Ratio2: B1 / B1 + E1

Ratio3: A1 / A1 + E1 + G1
Ratio4: A1+B1 / A1+B1+C1+D1+E1+F1+G1+H1+I1

Table 10F: Variation in Triaromatic Sterane Distribution for Well NOCS 6507/7-1

Depth unit of measure: m

Depth	Lithology	Ratio1	Ratio2	Ratio3	Ratio4	Ratio5	Sample
3504.00	S/Sst	0.81	0.76	0.55	0.57	0.65	0004-1
3692.00	Sltst	0.71	0.69	0.36	0.38	0.42	0009-2
3992.00	Sltst	0.93	0.90	0.80	0.80	0.90	0209-0
4205.00	Sltst	0.91	0.87	0.70	0.74	0.80	0091-2
4488.35	S/Sst	-	-	-	-	-	0204-1
4520.00	Sltst	0.87	0.87	0.72	0.68	0.81	0139-1
4634.00	Sltst	1.00	1.00	0.92	0.92	0.93	0158-1
4760.00	bulk	0.90	0.90	0.68	0.71	0.73	0179-0

Ratio1: a1 / a1 + g1
Ratio2: b1 / b1 + g1
Ratio3: a1 + b1 / a1 + b1 + c1 + d1 + e1 + f1 + g1
Ratio4: a1 / a1 + e1 + f1 + g1
Ratio5: a1 / a1 + d1

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Table 10G: Aromatisation of Steranes for Well NOCS 6507/7-1

Depth unit of measure: m

Depth	Lithology	Ratio1	Ratio2	Sample
3504.00	S/Sst	0.70	0.91	0004-1
3692.00	Sltst	0.45	1.00	0009-2
3992.00	Sltst	0.38	0.83	0209-0
4205.00	Sltst	0.57	1.00	0091-2
4488.35	S/Sst	1.00	-	0204-1
4520.00	Sltst	0.42	1.00	0139-1
4634.00	Sltst	0.72	-	0158-1
4760.00	bulk	0.76	1.00	0179-0

Ratio1: $$\frac{C1+D1+E1+F1+G1+H1+I1}{C1+D1+E1+F1+G1+H1+I1 + c1+d1+e1+f1+g1}$$

Ratio2: g1 / g1 + I1

Table 10H: Raw GCMS monoaromatic sterane data (peak height) for Well NOCS 6507/7-1

Depth unit of measure: m

Depth	Lithology	a1	b1	c1	d1	e1	f1	g1	h1	i1	Sample
3504.00	S/Sst	93.02	53.31	85.54	55.23	124.09	32.53	107.98	55.98	3.33	0004-1
3692.00	Sltst	176.26	116.63	274.11	201.82	362.66	79.60	287.98	110.85	0.00	0009-2
3992.00	Sltst	11.95	14.51	3.30	6.01	5.25	4.74	10.97	1.57	2.11	0209-0
4205.00	Sltst	6.85	4.57	7.19	6.40	13.61	3.24	17.50	7.30	0.00	0091-2
4488.35	S/Sst	0.00	0.00	0.00	6.13	2.82	6.41	6.78	2.60	0.00	0204-1
4520.00	Sltst	35.65	11.38	0.00	6.44	6.89	6.80	11.71	3.23	0.00	0139-1
4634.00	Sltst	9.16	4.69	0.00	3.98	3.02	4.74	4.13	3.13	0.00	0158-1
4760.00	bulk	52.64	19.36	18.77	18.75	30.26	5.32	24.28	10.36	0.00	0179-0

Table 10I: Raw GCMS trioaromatic sterane data (peak height) for Well NOCS 6507/7-1

Depth unit of measure: m

Depth	Lithology	a1	b1	c1	d1	e1	f1	g1	Sample
3504.00	S/Sst	138.07	102.64	14.69	75.37	42.13	31.52	32.44	0004-1
3692.00	Sltst	464.34	425.80	181.45	650.74	247.57	336.44	187.76	0009-2
3992.00	Sltst	132.65	95.71	6.83	15.14	17.93	5.34	10.37	0209-0
4205.00	Sltst	57.31	37.31	5.88	14.71	11.90	3.03	5.54	0091-2
4488.35	S/Sst	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0204-1
4520.00	Sltst	59.65	64.49	5.63	13.88	13.69	5.54	9.27	0139-1
4634.00	Sltst	46.99	36.49	0.00	3.57	3.94	0.00	0.00	0158-1
4760.00	bulk	37.31	34.08	4.43	14.13	6.97	4.47	3.98	0179-0

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REGIONAL PETROLEUM GEOCHEMICAL STUDY
MID-NORWAY

NOCS WELL 6507/7-1

Part 2

Authors: Peter B. Hall
Ian L. Ferriday
Sunil Bharati

Geolab Nor A/S
Hornebergveien 5
7038 Trondheim
Norway

Date : 07.05.90

ROBERTSON RESEARCH INTERNATIONAL LIMITED

REPORT NO. 5940P/D

A GEOCHEMICAL EVALUATION AND CORRELATION OF OIL AND ROCK SAMPLES SELECTED BY CONOCO NORWAY INC. FROM HEIDRUN AREA WELLS 6507/7-1, -2, -3, -4, -5 AND -5A.

by

S. THOMPSON

PROJECT NO. RRPS/867/D/25425

Prepared by:
Robertson Research International Limited
Llandudno
Gwynedd LL30 1SA
United Kingdom

Prepared for:
Conoco Norway Inc.
P.O. Box 488
4001 Stavanger
Norway

JULY, 1986

Robertson Research

2 INTRODUCTION

Samples of oils and source rocks selected by Conoco Norway from the 6507/7-1, -2, -3, -4, -5 and 5A wells have been analysed within an analytical programme set out in Conoco Norway Service Order No. 264 of 16th June 1986.

The 15 core chip samples, 16 washed, dried cuttings samples, and 4 oil samples arrived at the laboratories of Robertson Research International on 28th April 1986. Analyses were carried out in parallel according to telexed instructions of 24th April 1986 (telex no. 388/TD/DAJ/PWDH) and a subsequent telephone conversation of 1st May 1986.

The numbers of analyses carried out were as follows:

Cuttings and core chips	
Total organic carbon	31
Spore colouration	31
Kerogen typing	31
Vitrinite reflectivity	31
'Rock-Eval' pyrolysis	8
Solvent extraction	8
Extract fractionation	8
Gas chromatography	8
Carbon isotopes	16
GC-MS	8

Oils	
Physical properties, bulk chemical properties, fractionation, gas chromatography, carbon isotopes, GC-MS	4

Our contacts in Conoco Norway throughout this study have been Messrs. D.A. Jenkins, P. Van Den Heuvel and J.L. Miller.

COMPANY: CONOCO NORWAY **WELL:** VARIOUS **LOCATION:** HEIDRUN AREA

SAMPLE DEPTH (METRES)	SAMPLE TYPE	GENERALISED LITHOLOGY	SPORE COLOUR INDEX (1-10)	VITRINITE REFLECTIVITY R oil av %	KEROGEN COMPOSITION (%) (by microscopic examination)			KEROGEN COMPOSITION (%) (by calculation from pyrolysis data)			
					INERTINITE	VITRINITE	SAPROPEL	INERTINITE	VITRINITE	ALGAL SAPROPEL	WAXY SAPROPEL
		6507/7-1									
3302-329	Ctgs	SH, med gy+ tr LST, v lt gy	3.5 - 4.0C 6.0 - 8.0R	.55(13) .76(6)R	50	40	10				
3455-482	"	SH, med-dk gy+ tr LST, v lt gy	4.5C 7.0 - 8.0R	.60(11) .83(11)R	50	40	10				
3683-692	"	SH, dk gy+ tr LST, v lt gy	5.0 - 7.0?	.64(10) .46(11)C .90(9)R	10	20	70				
3695-701	"	SH, dk gy	6.0	.65(17) .98(9)R	10	20	70				
3970-4000	"	SH, med-dk gy+ tr SH, mod brn+ tr LST, lt gy, arg	7.0	.70(4) .49(3)C .84(3)R	20	20	60				
4190-220	"	SH, dk gy+ tr LST, lt gy, arg	7.0	.84(8) .64(17)C 1.07(4)R	50	30	20				
4490-520	"	SH, dk gy+ 10% SST, lt gy	7.0 - 7.5	.79(12) .61(14)C 1.05(10)R	50	30	20				
4550-570	"	SH, dk gy, calc	7.5 - 8.0	.92(8) .65(5)C 1.20(8)R	30	50	20				
		6507/7-2									
2050-070	"	SH, med gy+ tr CALT+ tr LST, brn-gy	3.0 - 3.5 5.5 - 6.0R	.34(1) .77(29)R	20	80	*				
2150-170	"	SH, med gy+ tr CALT	3.5 5.0 - 6.5R	.73(27)R 1.03(12)R	30	70	Mnr				
2250-260	"	SH, med gy	4.5	.42(13) .60(15)R .93(10)R	40	60	Mnr				
2270-280	"	SLTST, med gy+ tr CALT	4.0 - 4.5	.43(5) .32(3)C .85(5)R	30	70	Mnr				
		6507/7-3									
2250-280	"	SLTST, med-lt gy + tr ANH	3.0C 7.0R	.66(19)R .91(3)R	80	20	Mnr				
2365	Core	SH, med-dk gy, slty	3.5 - 4.0	.63(13)R .88(8)R	80	20	Mnr				
2453.5	"	SLTST, med-dk gy + 10% SST, lt gy + tr mic	4.0	.40(41) .65(1)R .91(8)R	10	30	60				
2469.6	"	SLTST, med-dk gy sndy+ tr mic	4.0 - 4.5	.43(19) .81(3)R	20	30	50				
		6507/7-4									
2250-280	Ctgs	SH, med gy	3.0 - 3.5	.40(4) .56(34)R .87(11)R	70	20	10				
2350-370	"	SH, med gy+ tr CALT	3.0 - 3.5	.43(5) .62(10)R .99(5)R	60	30	10				
2405-408	"	SH, med gy+ tr CALT	3.5 - 4.0 7.0R	.65(7)R 1.06(2)R	80	20	Mnr				
2436.5	Core	SH, med-dk gy, slty+ tr mic	4.0 - 4.5	.62(10)R 1.25(18)R	90	Mnr	10				

Maturity and Kerogen Composition Data

TABLE 1A

COMPANY: CONOCO NORWAY **WELL:** VARIOUS **LOCATION:** HEIDRUN AREA

SAMPLE DEPTH (METRES)	SAMPLE TYPE	GENERALISED LITHOLOGY	SPORE COLOUR INDEX (1 - 10)	VITRINITE REFLECTIVITY R oil av %	KEROGEN COMPOSITION (%) (by microscopic examination)			KEROGEN COMPOSITION (%) (by calculation from pyrolysis data)			
					INERTINITE	VITRINITE	SAPROPEL	INERTINITE	VITRINITE	ALGAL SAPROPEL	WAXY SAPROPEL
2442.4	Core	SH, med-dk gy, slty+ tr mic	4.0 - 4.5	.58(24)R .92(5)R	80	10	10				
2575	"	SLTST, med gy, sndy+ tr mic	4.0 - 4.5	.42(50)	10	30	60				
2585	"	SLTST, med gy, mic+ mnr SST, v lt gy 6507/7-5	4.5	.44(29) .76(5)R 1.08(5)R	10	30	60				
2311	"	SH, gy-blk, calc + tr mic	4.0	.43(53) .78(2)R	20	10	70				
2314	"	SLTST, med-dk gy mic	4.0 - 4.5 7.0 R	.58(46)R .86(6)R 1.08(3)R	60	30	10				
2330	"	SLTST, med-dk gy mic+ 30% SST, yel-gy	3.0 - 5.0	.65(11)R .84(8)R 1.22(11)R	90	10	Mnr				
2340	"	SH, med-dk gy, mic	4.0 - 4.5	.49(4) .75(18)R 1.24(14)R	90	10	Mnr				
2445	"	SLTST, med gy, mic+ mnr SST, yel-gy	4.0 - 4.5	.43(40) .75(4)R 1.08(1)R	10	20	70				
2460	"	SLTST, med-lt gy mic+ 30% SST, yel-gy 6507/7-5A	4.0	.42(45)	10	20	70				
2585	"	SLTST, med-dk gy mic+ tr SST, yel-gy	2.5 - 3.0C	.43(46) .90(3)R	20	70	10				
2590	"	SLTST, med gy, mic+ tr SST, yel-gy	3.5C	.46(38)	20	50	30				

Maturity and Kerogen Composition Data

TABLE 1B

COMPANY: CONOCO NORWAY WELL: VARIOUS LOCATION: HEIDRUN AREA

GENERAL DATA			CHEMICAL ANALYSIS DATA												
				PYROLYSIS					SOLVENT EXTRACTION						
												HYDROCARBONS			
SAMPLE DEPTH (METRES)	SAMPLE TYPE	ANALYSED LITHOLOGY	ORGANIC CARBON % OF ROCK	TEMP - ERATURE °C	HYDROGEN INDEX	OXYGEN INDEX	PRODUCTION INDEX	POTENTIAL YIELD (ppm)	TOTAL EXTRACT (ppm)	HYDRO-CARBONS (ppm)	EXTRACT % OF ORGANIC CARBON	mg/g OF ORGANIC CARBON	% OF EXTRACT	ALKANES % OF HYDRO-CARBONS
		6507/7-1												
3302-329	Ctgs	SH, med gy+ tr LST, v lt gy	1.00											
3455-482	"	SH, med-dk gy+ tr LST, v lt gy	1.22											
3683-692	"	SH, dk gy+ tr LST, v lt gy	3.84											
3695-701	"	SH, dk gy	4.03											
3970-4000	"	SH, med-dk gy+ tr SH, mod brn + tr LST, lt gy, arg	1.43											
4190-220	"	SH, dk gy+ tr LST, lt gy, arg	1.72											
4490-520	"	SH, dk gy+ 10% SST, lt gy	1.32											
4550-570	"	SH, dk gy, calc	1.64											
		6507/7-2												
2050-070	Ctgs	SH, med gy+ tr CALT+ tr LST, brn-gy	.44											
2150-170	"	SH, med gy+ tr CALT	.82											
2250-260	"	SH, med gy	.90											
2270-280	"	SLTST, med gy+ tr CALT	1.12											
		6507/7-3												
2250-280	Ctgs	SLTST, med-lt gy+ tr ANH	1.11											
2365	Core	SH, med-dk gy, slty	1.06											
2453.5	"	SLTST, med-dk gy+ 10% SST, lt gy+ tr mic	1.04											
2469.6	"	SLTST, med-dk gy, sndy+ tr mic	1.13											
		6507/7-4												
2250-280	Ctgs	SH, med gy	1.09	435	19	58	.36	210	825	665	7.6	61	81	85
2350-370	"	SH, med gy+ tr CALT	1.16	463	47	134	.31	550	690	530	5.9	46	77	82
2405-408	"	SH, med gy+ tr CALT	1.38											
2436.5	Core	SH, med-dk gy, slty+ tr mic	1.07											
2442.4	"	SH, med-dk gy, slty+ tr mic	1.48											
2575	"	SLTST, med gy, sndy+ tr mic	1.09											
2585	"	SLTST, med gy, mic+ mnr SST, v lt gy	1.28											
		6507/7-5												
2311	Core	SH, gy-blk, calc+ tr mic	1.38	424	136	55	.04	1890	235	95	1.7	7	41	56
2314	"	SLTST, med-dk gy, mic	2.77	428	45	24	.10	1260	350	215	1.3	8	62	42
2330	"	SLTST, med-dk gy, mic+ 30% SST yel-gy	1.18	429	20	58	.17	240	75	45	.6	4	59	80
2340	"	SH, med-dk gy, mic	1.20	430	15	61	.18	180	80	60	.7	5	76	81
2445	"	SLTST, med gy, mic+ mnr SST, yel-gy	1.22	436	127	46	.03	1550	150	95	1.2	8	62	73

Chemical Analysis Data

TABLE 2A

COMPANY: CONOCO NORWAY WELL: VARIOUS LOCATION: HEIDRUN AREA

GENERAL DATA			CHEMICAL ANALYSIS DATA												
				PYROLYSIS					SOLVENT EXTRACTION						
												HYDROCARBONS		
SAMPLE DEPTH (METRES)	SAMPLE TYPE	ANALYSED LITHOLOGY	ORGANIC CARBON % OF ROCK	TEMP - ERATURE °C	HYDROGEN INDEX	OXYGEN INDEX	PRODUCTION INDEX	POTENTIAL YIELD (ppm)	TOTAL EXTRACT (ppm)	HYDRO-CARBONS (ppm)	EXTRACT % OF ORGANIC CARBON	mg/g OF ORGANIC CARBON	% OF EXTRACT	ALKANES % OF HYDRO-CARBONS
2460	Core	SLTST, med-lt gy, mic+ 30% SST yel-gy	1.20	434	163	43	.03	1960	190	100	1.6	8	52	65
		6507/7-5A												
2585	Core	SLTST, med-dk gy, mic+ tr SST, yel-gy	1.66											
2590	"	SLTST, med gy, mic+ tr SST, yel-gy	1.72											

Chemical Analysis Data

TABLE 2B

Sample	Fractionation Data			Alkanes/ Aromatics	Carbon Isotope Ratios °/oo PDB	
	Alkanes %	Aromatics %	Polars %		Alkanes	Aromatics
6507/7-4						
2250-2280m	69	12	19	5.8	-	-
2350-2370m	63	14	23	4.5	-	-
6507/7-5						
2311m	23	18	59	1.3	-	-
2314m	26	36	38	.72	-	-
2330m	47	12	41	3.9	-	-
2340m	62	14	24	4.4	-	-
2445m	45	17	38	2.6	-	-
2460m	34	18	48	1.9	-	-

Table 3 Source Rock Hydrocarbon Composition Data

- : no results due to insufficient hydrocarbon

Isoprenoid Ratios

Sample	Pr/n-C_{17}	Ph/n-C_{18}	Pr/Ph	n-C_{17}/n-C_{27}	CPI
6507/7-4					
2250-2280m	.67	.50	1.2	4.2	1.0
2350-2370m	.64	.45	1.3	6.5	1.2
6507/7-5					
2311m	2.7	3.1	.85	1.4	1.5
2314m	1.7	1.1	1.6	1.6	1.2
2330m	.88	.64	1.2	6.9	1.1
2340m	.84	.79	.82	.85	1.8
2445m	.82	.60	1.4	2.2	1.6
2460m	1.5	.88	2.1	1.7	1.9

Table 4 Source Rock Alkane Composition Data

Sample	1	2	3	4	5	6	7	8	9	10	11	12
6507/7-4												
2250-2280m	1.26	.16	.58	32	25,37,38	.62	.37	.16	.77	.59	.11	.68
2350-2370m	1.66	.22	.69	32	29,34,37	1.96	.84	.26	.61	1.96	.46	1.75
6507/7-5												
2311m	.97	.45	.16	18	31,29,40	1.34	*	*	.19	6.2	.11	*
2314m	.24	.43	.33	33	25,25,50	2.48	.88	*	*	2.74	*	*
2330m	.23	.40	.32	24	36,23,41	2.31	.03	*	2.2	.49	*	*
2340m	.31	.32	.23	8	31,21,48	3.23	*	*	.08	.57	.07	.84
2445m	.39	.28	.14	9	29,18,53	1.81	*	*	*	1.30	*	*
2460m	.26	.33	.18	4	30,23,47	.84	.18	*	*	3.95	*	*

Table 5 Source Rock GC-MS Ratio Data

Key:

1 18α(H) trisnorneohopane/17α(H) trisnorhopane (Ts/Tm) (m/e 191)

2 Moretane/hopane (m/e 191)

3 22S/22R C_{31} homohopanes (m/e 191)

4 % 20S of (20S+20R) ααα C_{29} steranes (m/e 217)

5 % C_{27}, % C_{28}, % C_{29} αααR steranes (m/e 217)

6 C_{30} hopane/(ααα [R+S] C_{29} steranes (m/e 217) + αββ [R+S] C_{29} steranes (m/e 218)

7 18α(H) trisnorneohopane (m/e 191)/C_{27}, 25, 28, 30 trisnorhopane (m/e 177)

8 Unidentified C_{30}/C_{30} hopane (m/e 191)

9 C_{28} bisnorhopane/C_{30} hopane (m/e 191)

10 C_{27} 5α(H) 20R+C_{28} 5β(H) 20S monoaromatic steroids (m/e 253)/n-C_{27} (m/e 253)

11 C_{29} 25-norhopane (demethylated)/C_{30} hopane (m/e 191)

12 C_{29} 25-norhopane (demethylated)/unidentified C_{30} (m/e 191)

Sample	°API	Pour Point °C	Viscosity cSt 20°C	40°C	60°C	Volatile Content %	Asphaltenes %	Sulphur %
6507/7-2 DST-2	22	<-37	78	28	13	7	.2	.55
6507/7-2 DST-3	25	<-37	55	21	10	9	.06	.58
6507/7-2 DST-4A	31	-25	14	10	8	14	.06	.40
6507/7-3 DST-1	29	<-37	14	9	7	16	.03	.42

Table 6 Oil Physical Properties and Oil Composition Data

Sample	Fractionation Data				Carbon Isotope Ratios °/oo PDB	
	Alkanes %	Aromatics %	Polars %	Alkanes/ Aromatics	Alkanes	Aromatics
6507/7-2 DST-2	49	28	9	1.8	-29.6	-28.5
6507/7-2 DST-3	46	25	8	1.8	-29.7	-28.3
6507/7-2 DST-4A	49	22	8	2.2	-29.8	-28.5
6507/7-3 DST-1	49	22	8	2.2	-29.1	-28.2

Table 7 Oil Hydrocarbon Composition Data

	Isoprenoid Ratios			
Sample	Pr/$\underline{n}$-C_{17}	Ph/$\underline{n}$-C_{18}	Pr/Ph	$\underline{n}$-C_{17}/$\underline{n}$-C_{27}
6507/7-2 DST-2	*	*	c.1.5	*
6507/7-2 DST-3	*	*	1.1	*
6507/7-2 DST-4A	.79	.66	1.3	2.5
6507/7-3 DST-1	.86	.67	1.3	3.7

Table 8 Oil Alkane Composition Data

GC-MS Ratio	Oil Sample 6507/7-2 DST-2	6507/7-2 DST-3	6507/7-2 DST-4A	6507/7-3 DST-1
18α(H) trisnorneohopane/17α(H) trisnorhopane (Ts/Tm) (191)	2.3	2.9	1.6	1.6
Moretane/hopane (191)	.03	.02	.05	.03
22S/22R C_{31} homohopanes (191)	1.6	1.6	1.2	1.4
% 20S of (20S+20R) ααα C_{29} steranes (217)	53	59	58	58
% C_{27}, % C_{28}, % C_{29} ααR steranes (217)	?26,16,68	?68,3,29	?29,8,63	?33,9,58
C_{30} hopane/C_{29} steranes (ααα [R+S] (217) + αββ [R+S] (218))	1.4	1.5	1.0	1.1
18α(H) trisnorneohopane (191)/C_{27}, 25, 28, 30 trisnorhopane (177)	.88	.80	.96	.71
Unid. C_{30}/C_{30} hopane (191)	.18	.19	.23	.16
C_{28} bisnorhopane/C_{30} hopane (191)	.18	.30	.17	.21
C_{27} 5α(H) 20R+C_{28} 5β(H) 20S monoaromatic steroids/n-C_{27} (253)	3.4	3.6	.71	2.7
C_{29} 25-norhopane (demethylated)/C_{30} hopane (191)	.24	.24	.38	.22
C_{29} 25-norhopane (demethylated)/unid. C_{30} (191)	1.3	1.3	1.6	1.3

Table 9 Oil GC-MS Ratio Data