WELL 6407/4-1

DATE 06.10.1985

RUN NO. 5 B

PRETEST RECORDED DATA (RFT)

TAB

Max. recorded temp.: 133.6° C

Test No.	Depth	Tem	Log hydr. before t.	Corr. hydr. before t.	Draw down	Build up time	Log Pretest pressure	Cor. Pretest pressure	Log hydr. after t.	Cor. hydr. after t.	Remarks
	m	C	bar	bar	bar	sec	bar	bar	bar	bar	
1	3891.2	123.3	537.70	536.05	4.74	186	488.33	486.68	537.84	536.18	Very low perm.
2	3893.2	123.9	537.77	536.18	264.53	108	487.37	485.78	537.77	536.18	Low perm.
3	3896.0	124.6	538.39	536.81	1.91	390	491.23	489.58	538.46	536.87	Supercharged
4	3896.2	125.0	-	-	-	-	-	-	-	-	Tight formation
5	3898.5	125.9	538.74	537.15	229.57	192	487.71	486.13	538.80	537.22	Low perm.
6	3906.5	126.9	-	-	-	-	-	-	-	-	Tight formation
7	3908.3	127.5	-	-	-	-	-	-	-	-	"
8	3912.0	127.8	-	-	-	-	-	-	-	-	"
9	3928.1	128.2	-	-	-	-	-	-	-	-	"
10	3933.0	128.7	-	-	-	-	-	-	-	-	"
11	3933.2	129.0	-	-	-	-	-	-	-	-	"
12	3946.2	129.3	-	-	-	-	-	-	-	-	"
13	3957.0	129.3	-	-	-	-	-	-	-	-	Seal failure
14	3956.8	129.1	-	-	-	-	-	-	-	-	Tight formation
15	3957.7	129.3	-	-	-	-	-	-	-	-	Seal failure
16	3956.7	129.3	-	-	-	-	-	-	-	-	"
17	3972.5	129.6	-	-	-	-	-	-	-	-	"
18	3971.5	129.6	-	-	-	-	-	-	-	-	Tight formation
19	4028.0	129.7	-	-	-	-	-	-	-	-	Seal failure
20	4070.5	129.7	-	-	-	-	-	-	-	-	"

WELL 6407/4-1

DATE 18.09.1985

RUN NO. 5 B

PRETEST RECORDED DATA

TAB

Max. recorded temp.: 121° C

Test No.	Depth	Tem	Log hydr. before t.	Corr. hydr. before t.	Draw down	Build up time	Log Pretest pressure	Cor. Pretest pressure	Log hydr. after t.	Cor. hydr. after t.	Remarks
	m	C	bar	bar	bar	sec	bar	bar	bar	bar	
1	3891.0	106.9	518.60	515.64	3.15	210	489.30	486.27	518.12	515.16	Not stabilized/very low perm.
2	3905.3	110.9	520.46	517.43	3.22	522	494.75	491.71	520.33	517.29	" "
3	3906.6	113.4	520.46	517.43	3.01	-	-	-	520.46	577.43	Tight formation
4	3906.7	114.7	520.60	517.57	2.73	-	-	-	520.53	517.57	"
5	3918.9	115.5	521.98	518.88	2.53	1062	513.22	510.12	521.71	518.60	Supercharged
6	3919.04	117.1	521.98	518.88	5.15	282	493.85	490.75	521.84	518.67	Very low perm./Supercharged
7	3934.2	119.7	523.64	520.53	5.42	180	491.71	488.54	523.57	520.46	Very low perm.
8	3944.4	121.1	525.08	521.98	5.08	468	498.19	495.09	524.81	521.71	Very low perm./Supercharged
9											
10											
11											
12											
13											
14											
15											
16											
17											
18											
19											
20											

WELL 6407/4-1

DATE 06.10.85

RUN NO. 6 C

PRETEST RECORDED DATA

TAB

Max. recorded temp.: 133.6° C

Test No.	Depth	Tem	Log hydr. before t.	Corr. hydr. before t.	Draw down	Build up time	Log Pretest pressure	Cor. Pretest pressure	Log hydr. after t.	Cor. hydr. after t.	Remarks
	m	C	bar	bar	bar	sec	bar	bar	bar	bar	
1	4160.5	132.7	573.90	572.38	2.12	192	533.70	532.32	573.42	571.97	Plugging/low perm.
2	4181.9	133.6	576.66	575.21	195.10	150	535.22	533.84	576.38	574.93	Low perm
3	3946.2	131.5	-	-	-	-	-	-	-	-	Tight formation
4	3895.8	126.7	537.49	535.91	1.70	-	489.92	488.33	537.15	535.63	Supercharged
5	3891.2	129.0	536.46	534.94	94.16	204	489.71	488.27	536.25	534.81	"
6	3898.5	129.6	537.29	535.84	148.98	-	487.99	486.54	534.53	533.01	Sampling
7											
8											
9											
10											
11											
12											
13											
14											
15											
16											
17											
18											
19											
20											

WELL 6407/4-1

DATE 07.10.1985

RUN NO. 6 D

PRETEST RECORDED DATA

TAB

Max. recorded temp.: 151.5° C

Test No.	Depth	Tem	Log hydr. before t.	Corr. hydr. before t.	Draw down	Build up time	Log Pretest pressure	Cor. Pretest pressure	Log hydr. after t.	Cor. hydr. after t.	Remarks
	m	C	bar	bar	bar	sec	bar	bar	bar	bar	
1	4094.0	135.9	-	-	-	-	-	-	-	-	Seal failure
2	4279.0	139.9	-	-	-	-	-	-	-	-	"
3	4282.0	140.7	-	-	-	-	-	-	-	-	"
4	4283.0	140.7	-	-	-	-	-	-	-	-	"
5	4283.0	141.3	-	-	-	-	-	-	-	-	Tight formation
6	4304.4	141.8	-	-	-	-	-	-	-	-	Seal failure
7	4304.3	141.8	-	-	-	-	-	-	-	-	"
8	4340.0	144.9	-	-	-	-	-	-	-	-	Tight formation
9	4361.5	145.4	-	-	-	-	-	-	-	-	Seal failure
10	4362.2	145.4	-	-	-	-	-	-	-	-	"
11	4361.7	145.8	-	-	-	-	-	-	-	-	"
12	4375.5	146.0	-	-	-	-	-	-	-	-	"
13	4403.7	146.7	603.41	602.24	580.04	42	584.03	582.86	-	-	Good perm.
14	4403.8	147.3	602.51	601.27	457.65	114	583.97	582.66	602.03	600.86	Fair perm.
15	4407.7	147.7	602.44	601.27	572.11	108	584.38	583.14	601.27	600.10	Good perm.
16	4403.6	147.8	600.58	599.41	551.35	78	583.90	582.66	600.37	599.13	"
17	4411.0	148.1	601.62	600.31	550.39	60	584.59	583.41	601.62	600.37	"
18	4430.0	148.5	-	-	-	-	-	-	-	-	Seal failure
19	4429.4	148.5	604.65	603.41	562.11	42	586.24	585.00	604.51	603.27	Good perm.
20	4437.9	149.1	605.06	603.82	573.55	54	587.00	585.76	605.06	603.75	"

WELL 6407/4-1

DATE 07.10.1985

RUN NO. 6 D

PRETEST RECORDED DATA

TAB

Max. recorded temp.: 151.5° C

Test No.	Depth	Tem	Log hydr. before t.	Corr. hydr. before t.	Draw down	Build up time	Log Pretest pressure	Cor. Pretest pressure	Log hydr. after t.	Cor. hydr. after t.	Remarks
	m	C	bar	bar	bar	sec	bar	bar	bar	bar	
1	4476.0	149.7	-	-	-	-	-	-	-	-	Seal failure
2	4476.5	151.2	-	-	-	-	-	-	-	-	"
3	4495.0	151.1	-	-	-	-	-	-	-	-	"
4	4495.6	151.5	-	-	-	-	-	-	-	-	"
5	4407.8	151.5	601.34	600.10	-	-	584.17	582.93	600.93	599.75	Sampling/Seal failure
6	4404.0	149.3	-	-	-	-	-	-	-	-	Seal failure
7	4403.8	149.3	600.51	599.27	-	-	583.62	583.14	600.24	598.93	Sampling/Tight formation
8	4403.8	149.3	-	-	-	-	-	-	-	-	Seal failure
9											
10											
11											
12											
13											
14											
15											
16											
17											
18											
19											
20											

TABLE

WELL TEST
DATA
6407/4-1

Test No.	Formation	Perf. int. (m RKB)	Duration (t)	Choke (mm)	Water-rate (SM^3/D)	Kond. rate (SM^3/D)	Gas-rate (SM^3/D)	GOR (SM^3/SM^3)	Density (KG/SM^3)	Gas sp.grav. (air=1)	WHP (bar)	WHT (^oC)	BHP (bar)	Res. pressure (bar)
		4159-4166	12.3	15.9	30*	*	*	*	1050	-	1	11	400	520
		3889-3919	25.4	17.5	-	20	32500	1625	807	0.81	15	8	57	486

* Formation fluid is water.

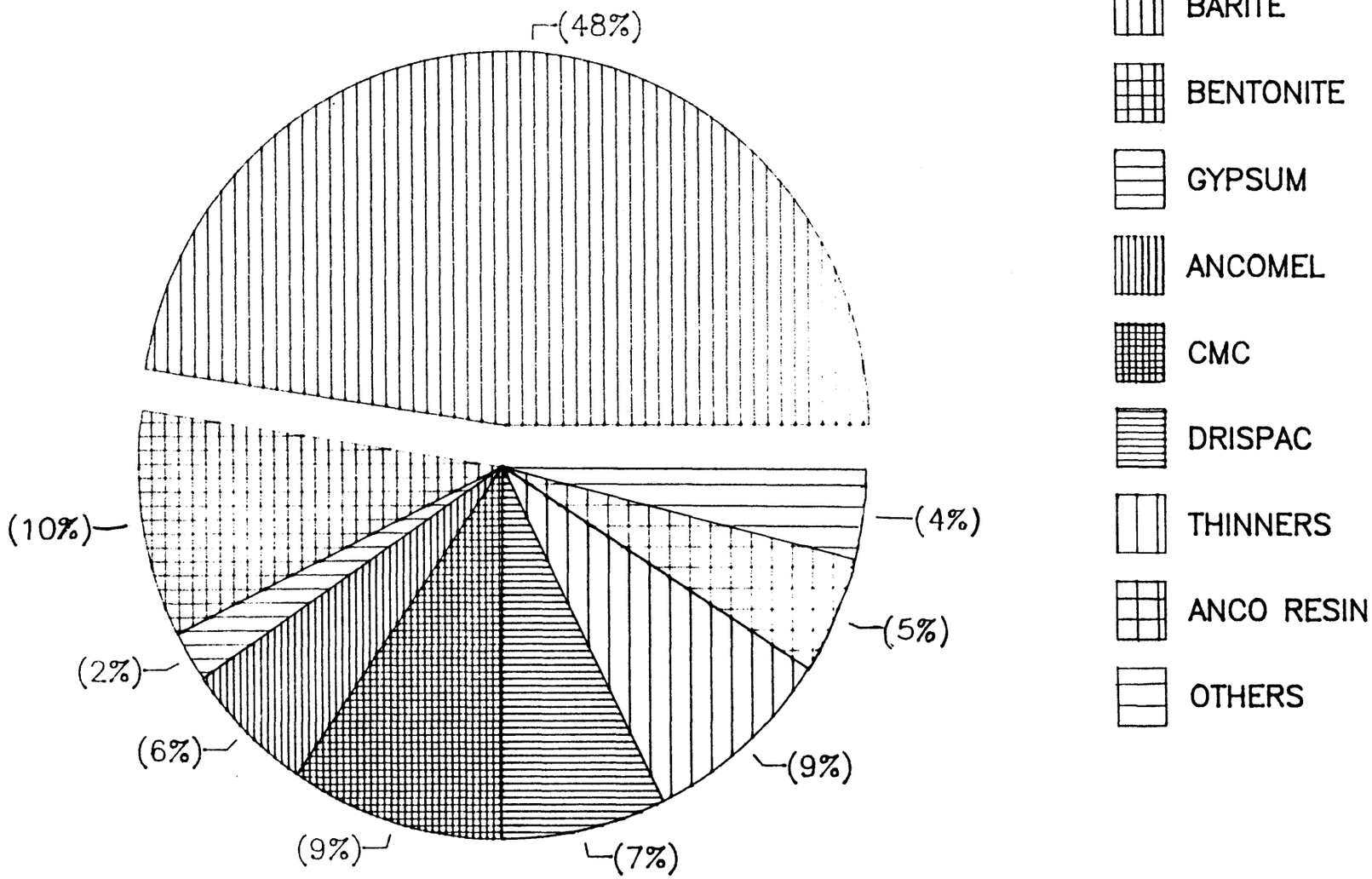
STATOIL WELL NO. 6407/4-1

MATERIAL COST AND CONSUMPTION ANALYSIS

PRODUCT	UNIT SIZE	UNIT PRICE $	36" SECTION	COST $	26" SECTION	COST $	17.5" SECTION	COST $	12.25" SECTION	COST $	8.5" SECTION	COST $	6" SECTION	COST $	TEST	COST $	TOTAL USED	TOTAL COST $
BARITE	M.T.	148.00		.00	188	27824.00	500	74000.00	1014	150072.00	58	8584.00	87	12876.00	130	19240.00	1977	292596.00
BENTONITE	M.T.	380.00	29	11020.00	35	13300.00	4	1520.00	27	10260.00	17	6460.00	40	15200.00	7	2660.00	159	60420.00
CAUSTIC SODA	25 KG	20.00	14	280.00	98	1960.00	180	3600.00	399	7980.00	140	2800.00	9	180.00		.00	840	16800.00
BICARBONATE	50 KG	24.00		.00		.00	18	432.00	10	240.00	24	576.00	42	1008.00			94	2256.00
SODA ASH	50 KG	21.00	8	168.00	3	63.00		.00	3	63.00	3	63.00	10	210.00		.00	27	567.00
GYPSUM	40 KG	10.50		.00		.00	1052	11046.00	217	2278.50		.00		.00		.00	1269	13324.50
ANCOMEL	25 KG	52.00		.00		.00	615	31980.00	83	4316.00		.00		.00		.00	698	36296.00
CMC LV	25 KG	65.00		.00		.00	187	12155.00	502	32630.00		.00		.00		.00	689	44785.00
CMC HV	25 KG	67.00		.00		.00	180	12060.00	21	1407.00		.00		.00		.00	201	13467.00
DRISPAC REG	25 KG	154.00		.00		.00	81	12474.00	4	616.00	2	308.00		.00		.00	87	13398.00
DRISPAC SL	25 KG	165.00		.00		.00		.00	148	24420.00	44	7260.00		.00		.00	192	31680.00
DESCO	25 LB	51.00		.00		.00		.00	180	9180.00	31	1581.00	67	3417.00		.00	278	14178.00
SPERCELL C	25 KG	19.50		.00		.00	119	2320.50	533	10393.50	232	4524.00	7	136.50	7	136.50	898	17511.00
ANCOLIG C	25 KG	32.00		.00		.00		.00	133	4256.00	261	8352.00	283	9056.00			677	21664.00
ANCO RESIN	25 KG	81.25		.00		.00		.00		.00	209	16981.25	171	13893.75			380	30875.00
DETERGENT	200 LIT	495.00		.00		.00	6	2970.00		.00		.00		.00			6	2970.00
AL.STEARATE	25 KG	89.00		.00		.00		.00		.00		.00	4	356.00			4	356.00
DEFOAMER	25 LIT	118.00		.00		.00	1	118.00	1	118.00	2	236.00	13	1534.00		.00	17	2006.00
NUT PLUG	25 KG	22.00		.00		.00	12	264.00		.00		.00		.00		.00	12	264.00
TOTALS				11468.00		43147.00		164939.50		258230.00		57725.25		57867.25		22036.50		615413.50
DAYS ON SECTION			2		7		11		33		29		17		19		118	
COST PER DAY $				5734.00		6163.86		14994.50		7825.15		1990.53		3403.96		1159.82		5215.37
HOLE DRILLED (METRES)			74		544		1269		1691		704		306				4588	
COST PER METRE				154.97		79.31		129.98		152.71		82.00		189.11				134.14

STATOIL WELL NO. 6407/4-1

MATERIAL COST AND CONSUMPTION ANALYSIS



STATOIL WELL NO. 6407/4-1

DRILLING MUD PROPERTIES RECORD

AREA HALTENBANKEN

MUD SYSTEM: SPUD MUD/GYP POLYMER/LIGNITE-RESIN RIG DYVI DELTA

DAY No.	DATE 1985	DEPTH metre	M.W. sg	F.V. s/qt	A.V. cps	P.V. cps	Y.P.	Gel 0	Gel 10	API Filt.	Cake 32nds	HPHT Filt.	pH	Chl.ppm *1000	Calc. ppm	Pf	%Oil	%sol.	%Sand	MBT ppb	GYP ppb
1	18.07																				
2	19.07																				
3	20.07	277	1.08	150									10.9								
4	21.07	321	1.06	50	26	6	40			nc			9.8								
5	22.07	417	1.07	50	27	6	42	17	17	nc			9.8						tr	8	
6	23.07	817	1.12	46	24	6	36	18	19	nc			9.8						tr	8	
7	24.07	867	1.12	43	22	5	34	18	19	nc			9.6						tr	9	
8	25.07	522	1.12	43	22	5	34	19	19	nc			9.7						tr	9	
9	26.07	818	1.12	45	20.5	5	31	19	21	nc			9.7						tr	9	
10	27.07	865	1.26	43	23.5	7	33	19	22	nc			9.5						tr	9	
11	28.07	865	1.1	52	12.5	8	9	1	1	5	1	nc	9.5	22.50	1500	.1	0		tr	9	8
12	29.07	865	1.1	52	12.5	8	9	1	1	5	1	nc	9.5	22.50	1500	.1	0		tr	0	8
13	30.07	870	1.1	49	14	12	4	2	3	3.8	1	nc	9.5	21.00	3000	.05	0	4	tr	3	5.5
14	31.07	1292	1.14	49	20.5	14	13	2	12	4.4	1	nc	10	18.00	2200	.05	0	7	.25	9	2.3
15	1.08	1378	1.2	49	19.5	13	13	3	23	4.8	1	nc	9.9	17.00	2320	.05	0	9	.25	13	2.7
16	2.08	1825	1.3	54	25	13	24	18	75	6.3	2	nc	9.3	20.00	2520	.01	0	14	.25	25	2.2
17	3.08	1920	1.4	54	22.5	12	21	20	68	6.9	2	nc	8.9	20.00	2320	.01	0	14	.25	24	2.8
18	4.08	2058	1.48	45	24	15	18	22	40	5.3	2	nc	9	21.00	3200	.1	0	17	.5	25	4
19	5.08	2134	1.48	52	24	14	20	18	46	4.6	1	nc	9.1	20.00	2160	.01	0	20	.75	26	4.1
20	6.08	2134	1.51	52	22	13	18	16	37	4.5	1	nc	8.9	20.00	2160	.01	0	21	.5	26	4
21	7.08	2134	1.54	51	22	13	18	18	49	4.8	1	nc	9	20.00	2000	.05	0	20	.5	25	3.8
22	8.08	2134	1.54	51	23.5	14	19	18	47	4.8	1	nc	8.8	20.00	2120	.01	0	21	.5	25	5
23	9.08	2222	1.54	49	26	19	14	12	38	5.8	2	nc	10.7	20.50	2040	.3	0	20	.75	24	6.2
24	10.08	2304	1.6	56	26.5	18	17	19	34	5	2	nc	10	21.00	2160	.04	0	21	.75	22	6.1
25	11.08	2384	1.76	59	31	21	20	20	42	5	2	nc	9.3	20.00	2400	.1	0	25	.75	20	5.9
26	12.08	2461	1.76	55	29.5	21	17	22	55	5.8	2	21	9.8	21.50	2200	.1	0	26	1	18	5.2
27	13.08	2670	1.76	57	31.5	22	19	18	70	5.8	2	18	9.6	21.50	2160	.1	0	25	1	15	3.9
28	14.08	2741	1.76	57	32.5	23	19	18	70	5.8	1	20	10.1	20.00	1960	.15	0	26	.75	16	3.9
29	15.08	2807	1.76	54	32	23	18	10	60	6.1	1	20	10.1	20.00	1800	.12	0	26	.5	15	3
30	16.08	2890	1.76	55	32	23	18	12	61	6	1	20	10	20.00	1640	.1	0	26	.5	15	1.9
31	17.08	2940	1.76	55	33	24	18	12	60	5.8	1	20	9.9	20.00	1720	.1	0	26	.5	15	1.5
32	18.08	2988	1.76	53	32.5	24	17	10	55	6	1	20	10	20.00	1600	.15	0	26	.5	15	1.3
33	19.08	3020	1.76	53	32	24	16	9	55	6	1	20	10.1	20.50	1600	.15	0	26	.5	15	1.2
34	20.08	3076	1.76	51	29.5	22	15	8	44	6.1	1	20	9.9	21.00	1600	.15	0	26	.5	16	.7
35	21.08	3124	1.76	53	32.5	24	17	8	53	6.1	1	19	10	21.00	1560	.15	0	26	.5	16	.6
36	22.08	3156	1.76	53	32.5	24	17	8	55	6.1	1	19	10	22.00	1600	.15	0	26	.5	16	.65
37	23.08	3228	1.76	50	29	21	16	8	54	6.1	1	20	9.7	22.00	1520	.1	0	26	.25	15	
38	24.08	3322	1.76	49	31.5	24	15	8	54	6.1	1	20	10.1	22.00	960	.1	0	26	.25	15	
39	25.08	3404	1.76	48	29.5	22	15	7	46	6	1	20	9.8	22.00	800	.1	0	26	.25	14	
40	26.08	3491	1.76	48	30.5	23	15	6	47	6	1	21	10	21.50	500	.1	0	26.5	.25	14	
41	27.08	3539	1.76	48	31.5	24	15	6	40	5.6	1	20	9.7	21.50	460	.1	0	26	.25	14	
42	28.08	3563	1.76	48	31.5	24	15	7	47	5.6	1	19	9.7	21.50	480	.1	0	26	.25	14	
43	29.08	3630	1.76	52	31.5	24	15	5	37	5.3	1	19	10.2	21.00	220	.15	0	26	.25	15	
44	30.08	3668	1.76	50	31	24	14	7	37	5.8	1	20	9.8	20.00	240	.1	0	26	.5	14.5	
45	31.08	3743	1.76	49	33	25	16	7	38	5.8	1	20	10.2	20.00	140	.2	0	26	.5	14.5	
46	1.09	3799	1.76	48	32.5	25	15	6	31	5.6	1	19	10.1	20.00	100	.3	0	26	.5	14.5	
47	2.09	3816	1.76	52	32.5	25	15	7	39	5.6	1	20	10.1	20.00	80	.1	0	26	.5	14.5	
48	3.09	3825	1.76	49	32.5	25	15	6	35	5.6	1	21	10.3	20.50	80	.5	0	26	.5	14.5	
49	4.09	3825	1.76	55	32.5	25	15	6	35	5.5	1	21	10	20.50	80	.4	0	26	.5	14.5	
50	5.09	3825	1.76	59	33.5	26	15	8	42	5.8	1	21	10.2	20.50	100	.5	0	26	.5	14.5	
51	6.09	3825	1.76	59	33.5	26	15	8	39	5.8	1	21	10	20.50	80	.4	0	26	.5	14.5	
52	7.09	3825	1.76	70	32.5	25	15	8	40	5.8	1	20	9.9	20.00	100	.3	0	26	.5	15	
53	8.09	3825	1.76	60	31	25	12	7	42	10	2	nr	9.5	14.00	400	.15	0	26	tr	13	
54	9.09	3825	1.76	60	33	26	14	8	45	10	2	nr	9.6	12.00	240	.2	0	26	tr	13	
55	10.09	3825	1.76	65	33	25	16	9	50	10	2	nr	9.6	12.00	160	.3	0	26	tr	13	
56	11.09	3825	1.45	57	27.5	22	11	5	42	6.2	1	19	9.2	10.00	100	.1	0	18	tr	17	

STATOIL WELL NO. 6407/4-1

DRILLING MUD PROPERTIES RECORD

AREA HALTENBANKEN

MUD SYSTEM: SPUD MUD/GYP POLYMER/LIGNITE-RESIN RIG DYVI DELTA

DAY No.	DATE 1985	DEPTH metre	M.W. sg	F.V. s/qt	A.V. cps	P.V. cps	Y.P.	Gel 0	Gel 10	API Filt.	Cake 32nds	HPHT Filt.	pH	Chl.ppm *1000	Calc. ppm	Pf	%Oil	%sol.	%Sand	MBT ppb	GYP ppb
57	12.09	3828	1.45	54	29	23	12	13	61	7	1	19	11.2	9.50	80	.1	0	18	tr	17	
58	13.09	3878	1.45	57	29	23	12	5	34	5.3	1	15	10.2	9.00	120	.25	0	17	tr	21	
59	14.09	3889	1.35	56	28	22	12	5	17	5.1	1	14	9.9	8.00	140	.2	0	13	tr	22	
60	15.09	3898	1.35	56	27.5	22	11	4	17	5.2	1	15	10.3	7.50	120	.2	0	13	tr	23	
61	16.09	3926	1.35	56	26	21	10	4	15	5.1	1	14	10.3	7.50	100	.2	0	13	tr	22	
62	17.09	3953	1.35	57	27	22	10	5	15	5	1	14	10.4	7.50	100	.25	0	13	tr	23	
63	18.09	3972	1.35	60	27	22	10	4	15	5	1	14	10.2	7.50	100	.2	0	13	tr	23	
64	19.09	4001	1.35	58	28.5	23	11	4	15	5	1	14.2	10.4	7.50	100	.3	0	13	tr	23	
65	20.09	4042	1.35	60	27.5	22	11	4	13	5	1	14	10.2	8.00	100	.35	0	13	tr	23	
66	21.09	4076	1.35	64	26.5	21	11	4	10	5.1	1	14	10.2	8.00	100	.35	0	13	tr	23	
67	22.09	4156	1.35	61	27.5	22	11	4	12	5	1	14.5	10.1	8.00	80	.35	0	13	tr	22.5	
68	23.09	4220	1.38	65	30	24	12	5	13	5	1	14.6	10.1	8.00	100	.3	0	14	tr	23	
69	24.09	4253	1.38	64	32	26	12	5	14	4.9	1	14	10.1	8.50	80	.4	0	14	tr	23	
70	25.09	4278	1.38	70	32	26	12	6	15	5	1	14.6	10	9.00	100	.4	0	16	tr	22.5	
71	26.09	4287	1.38	75	28.5	23	11	4	13	5.1	1	14.8	10	9.00	100	.3	0	15	tr	22	
72	27.09	4304	1.38	75	31	25	12	4	14	5.1	1	14.8	1010	9.50	80	.3	0	16	tr	21.5	
73	28.09	4327	1.38	71	30.5	25	11	4	12	5	1	14.8	10.2	10.50	100	.4	0	16	tr	21.5	
74	29.09	4335	1.38	89	32.5	26	13	4	12	5	1	14.8	10.4	10.50	100	.6	0	16	.5	21	
75	30.09	4388	1.38	75	27.5	22	11	3	10	5	1	14.1	10.1	11.50	80	.4	0	18	.25	21	
76	1.10	4388	1.38	100	32.5	25	15	4	16	5.3	1	14.2	9.7	11.50	120	.4	0	18	.5	21	
77	2.10	4394	1.38	99	31	24	14	4	16	5.3	1	13	10.2	12.00	100	.5	0	19	.25	22	
78	3.10	4497	1.38	62	23.5	17	13	3	20	5.8	1	12	10	13.00	60	.5	0	18	.5	20	
79	4.10	4529	1.41	64	28	20	16	3	22	5.5	1	13.3	10.2	14.00	100	.63	0	20	.25	21	
80	5.10	4529	1.41	72	27.5	20	15	3	19	5.4	1	13.5	10	14.00	80	.5	0	19	tr	20	
81	6.10	4529	1.41	120	34	23	22	4	30	5.6	1	14	9.7	14.00	100	.7	0	18.5	tr	18	
82	7.10	4529	1.41	68	26	19	14	3	18	5.8	1	14	9.8	13.50	60	.8	0	18	tr	18	
83	8.10	4529	1.41	70	23.5	18	11	3	22	5.8	1	14.5	9.9	13.50	80	.8	0	18	tr	18	
84	9.10	4529	1.41	80	25.5	20	11	4	40	7	3	17	11.8	13.30	200	2.3	0	18	tr	18.5	
85	10.10	4529	1.41	54	26	20	12	4	29	7.5	3	17	11.8	13.50	320	4	0	18	tr	18.5	
86	11.10	4540	1.41	59	22	17	10	2	20	7.8	3	18	11.8	12.00	60	2.8	0	16	tr	18.5	
87	12.10	4572	1.41	56	20.5	16	9	3	24	7.4	3	18	11.6	11.50	120	1.7	0	16	tr	19.5	
88	13.10	4605	1.41	58	20.5	16	9	3	26	6.8	3	17	11.4	11.00	200	1.1	0	16.5	tr	19.5	
89	14.10	4622	1.41	69	20.5	16	9	3	28	6	2	16	11.2	10.50	140	1	0	16	tr	20	
90	15.10	4669	1.41	60	19	15	8	2	24	5.8	1	15	11	11.00	180	.7	0	16	tr	21	
91	16.10	4700	1.41	63	19.5	15	9	2	24	5.6	1	15	10.6	10.50	100	.7	0	16	tr	21.5	
92	17.10	4714	1.41	75	20.5	16	9	2	26	5.6	1	15	10.5	10.50	100	.65	0	16	tr	21.5	
93	18.10	4757	1.41	62	20	16	8	2	22	5.8	1	15	10.4	10.50	160	.6	0	16	tr	21.5	
94	19.10	4808	1.41	56	21	17	8	3	27	5.8	1	15	10.3	10.00	140	.55	0	16	tr	22	
95	20.10	4835	1.41	60	21	17	8	3	26	5.8	1	15	10.4	9.80	140	.6	0	17	0	22	
96	21.10	4835	1.41	78	23.5	19	9	3	30	5.8	1	15.6	10.2	10.00	120	.6	0	17	0	21.5	
97	22.10	4835	1.41	79	23	19	8	3	30	5.6	1	15.3	10	10.10	120	.5	0	17	0	21.5	
98	23.10	4835	1.41	72	21	17	8	2	21	5.5	1	15.6	10	10.10	100	.5	0	17	0	21.5	
99	24.10	4450	1.41	69	27.5	23	9	6	45	7.1	2	17.3	11.2	9.80	360	1.6	0	18.5	0	22	
100	25.10	4440	1.41	65	21.5	17	9	3	30	7.8	2	17.5	11.5	9.70	180	1.6	0	17	0	22	
101	26.10	4166	1.41	85	22.5	18	9	3	34	7.9	2	17.6	11.2	9.50	180	1.3	0	17	0	22	
102	27.10	4131	1.41	88	21	17	8	4	35	7.9	2	17.8	11.2	9.50	180	1.3	0	17	0	21.5	
103	28.10	4131	1.41	87	21	17	8	4	34	7.9	2	17.9	11.2	9.50	180	1.3	0	17	0	21.5	
104	29.10	4131	1.41	70	23	18	10	6	53	7.9	2	18	11.2	9.50	180	1.3	0	17	0	23	
105	30.10	4131	1.41	67	22	17	10	5	52	8	2	17.9	11.2	9.50	180	1.3	0	17	0	23	
106	31.10	3861	1.41	79	22	18	8	4	54	8.5	2	18	11.3	9.30	200	1.75	0	18	0	22.5	
107	1.11	3861	1.41	83	23	18	10	3	55	8.6	2	18.2	11.2	9.30	240	1.75	0	17.5	0	23	
108	2.11	3861	1.41	83	23	18	10	3	55	8.6	2	18.4	11.3	9.30	240	1.8	0	17.5	0	23	
109	3.11	3861	1.41	83	23	18	10	3	55	8.6	2	18.5	11.1	9.20	200	1.65	0	17.5	0	23	
110	4.11	3861	1.41	90	19.5	15	9	3	42	8.4	2	18.5	11.3	9.20	200	1.7	0	17.5	0	23	
111	5.11	3861	1.41	90	21.5	17	9	3	58	8.4	2	18.5	11	9.20	200	1.65	0	17.5	0	23	

STATOIL WELL NO. 6407/4-1

DRILLING MUD PROPERTIES RECORD

AREA HALTENBANKEN

MUD SYSTEM: SPUD MUD/GYP POLYMER/LIGNITE-RESIN RIG DYVI DELTA

DAY No.	DATE 1985	DEPTH metre	M.W. sg	F.V. s/qt	A.V. cps	P.V. cps	Y.P.	Gel 0	Gel 10	API Filt.	Cake 32nds	HPHT Filt.	pH	Chl.ppm *1000	Calc. ppm	Pf	%Oil	%sol.	%Sand	MBT ppb	GYP ppb
112	6.11	3856	1.41	63	20.5	16	9	3	59	8.4	2	18.5	11	9.20	200	1.6	0	17.5	0	23	
113	7.11	3856	1.41	74	19	15	8	3	50	9	2	19.6	10.9	9.30	200	1.5	0	17	0	23	
114	8.11	3500	1.41	90	23	19	8	9	72	9.6	2	19	11.6	9.00	400	1.8	0	17	0	22.5	
115	9.11	2015	1.76	79	28	24	8	5	66	8.8	2	nr	11.4	9.00	220	1.4	0	27	0	19	
116	10.11	830	1.76	100	25	21	8	5	53	8.8	2	nr	11.7	9.80	220	1.4	0	27	0	20	
117	11.11	750	1.54	45	10.5	8	5	3	22	12.1	2	nr	11.2	14.30	540	nr	nr	21	tr	13	
118	12.11	740	1.41	47	11	9	4	2	21	12.1	2	nr	11.5	14.50	540	nr	nr	21	tr	13	

société nationale
elf aquitaine (production)

U-474

EP/S/EXP/LAB.Pau n°87/124RP Pau , le Août 1987

3

HALTENBANKEN AREA (NORWAY)

Geochemical study of the core samples from Hitra formation

Wells : 64-07/9-2
64-07/4-1
65-06/12-1
65-07/12-3

EP/S/EXP/LAB.Pau n°87/124RP

Asbjørn 6407/4-1

CONFIDENTIAL
NO REPRODUCTION

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The aim of this study was to determinate the source rock of the Haltenbanken fluids.

This report presents the results of the geochemical analyses carried out on the organic matter from the wells 64-07/4-1, 65-06/12-1 and 65-07/12-3, and from two very small samples from well 64-07/9-2 (location map in fig. 1).

The analytical results are given in the tables 1 to 13.

The optical report (reflectance - fluorescence) is in annex 1.

1 - ORGANIC INVENTORY - PETROLIGEN POTENTIAL

(see fig. 2 to 7)

ANNEX 1E

Summary of organic matter petrology data
HALTENBANKEN area

WELL	DEPTH	SAMPLE	Ro %	eq Ro	FLUO INDEX	REMARKS
64-07/9-2	1638.9	K1		0.45	2	
	1640.9	K1		0.45	2	
64-07/4-1	4471-4474	Cutting	1.0		ε	
	4498-4501	Cutting	1.10		ε	
	4561-4564	Cutting	1.20		0	
	4601.21	K15	1.20		ε	
	4684-4687	Cutting	1.25		ε	
	4774-4777	Cutting	1.30		ε	
	4834-4835	Cutting	1.35		ε	
65-06/12-1	4011.60	K2	∿ 0.8		0.25	
	4027.90	K3		0.8-0.9	0.75	
	4038.50	K3		0.9-1.0	1.5	
	4042.60	K3		0.8-0.9	3.5	
	4582.75	K15	1.0		ε	
	4586.60	K15	0.95		0.5	
	4590.90	K15	0.95		0.75	
	4593.40	K15	> 0.9			fluo vitrinite
65-07/12-3	2504.50	K3	0.5		0.25	
	2807.20	K3	0.5		2	
	2518.55	K3	0.35		0	vitrinite nodule
		K3	> 0.4		2.5	vitrinite in shale

ABBREVIATIONS AND UNITS USED IN THE TABLES

S	Sample type (K=core, S=SWC, C=cutting)
TOC	Total Organic Carbon (% weight of rock)
S1	Hydrocarbons present in the rock (mg HC/g rock)
S2	Hydrocarbons produced by pyrolysis (mg HC/g rock)
S3	CO2 produced by pyrolysis (mg CO2/g rock)
PI	Production Index = S1/(S1+S2)
HI	Hydrogen Index (mg HC/ g TOC)
OI	Oxygen Index (mg CO2/g TOC)
TM	Temperature recorded at the maximum of pyrolysis (°C)
EOM	Extractible Organic Matter (ppm of rock)
SAT.	Saturated HC)
ARO.	Aromatic HC) (% of EOM)
POL.	Polar compounds)
S/A	Saturated HC/Aromatic HC ratio
Pr,Ph	Pristane,Phytane
A/B	(Pristane/n-C17)/(Phytane/n-C18)
CPI	Carbon Preference Index
MPI 1	Methylphenantrene Index 1 = 1.5(2MP+3MP)/(P+1MP+9MP)
MPI 2	Methylphenantrene Index 2 = 3(2MP)/(P+1MP+9MP)

TABLE 1 64-07/9-2 ORGANIC INVENTORY

DEPTH	S	TOC	S1	S2	S3	PI	HI	OI	TM
1638.9	K1	4.08	0.69	10.30	0.79	0.06	252	19	406
1640.9	K2	5.96	0.97	18.74	1.20	0.05	314	20	408

TABLE 2 64-07/4-1 ORGANIC INVENTORY

DEPTH	S	TOC	S1	S2	S3	PI	HI	OI	TM
4606.21	K1S	28.21	1.70	40.52	0.34	0.04	143	1	473
4608.52	"	0.58	0.06	0.14	0.57	0.30	24	98	-
4610.0	"	1.17	0.06	0.24	0.27	0.20	20	23	-
4613.12	"	0.27	0.14	0.05	0.33	0.78	18	122	-
4614.32	"	2.46	0.15	1.12	0.25	0.12	45	10	487
4616.53	"	0.31	0.04	0.04	0.18	0.50	12	58	-
4618.10	"	1.63	0.14	0.71	0.23	0.17	43	14	481
4618.95	"	6.02	0.54	5.43	0.16	0.09	90	2	474
4619.23	"	4.40	0.36	3.29	0.25	0.10	74	5	478

TABLE 3 65-06/12-1 ORGANIC INVENTORY

DEPTH	S	TOC	S1	S2	S3	PI	HI	OI	TM
4582.75	K1S	13.71	1.12	13.32	1.28	0.08	97	9	466
4586.6	"	24.90	5.66	53.88	1.58	0.10	216	6	462
4590.9	"	0.75	0.07	0.19	0.65	0.27	25	86	-
4593.4	"	35.09	6.36	66.72	1.48	0.09	190	4	453

TABLE 4 65-07/12-3 ORGANIC INVENTORY

DEPTH	S	TOC	S1	S2	S3	PI	HI	OI	TM
2504.3	K3	56.80	2.54	104.40	7.84	0.02	183	13	423
2505.8	"	61.05	4.14	137.12	7.28	0.03	224	11	418
2507.2	"	6.47	0.53	8.80	1.40	0.06	136	21	429
2509.2	"	2.04	0.24	2.21	2.88	0.10	108	141	432
2510.5	"	0.92	0.03	0.45	2.44	0.06	48	265	435
2514.9	"	0.23	0.02	0.06	0.81	0.25	26	352	-
2516.3	"	24.36	1.02	60.48	2.60	0.02	248	10	429
2518.55	"	53.77	5.60	148.64	5.76	0.04	276	10	429
2518.55 A	"	37.02	1.25	69.70	4.45	0.02	188	12	424
2518.55 B	"	60.27	2.30	104.40	14.20	0.02	173	23	415

A shale
B lens of homogenous vitrinite

IATROSCAN

TABLE 5 64-07/9-2 EXTRACTS

DEPTH m	EOM ppm	EOM %TOC	SAT. %	ARO. %	POL. %	S/A	MOE /S1	d13C ‰
1638.9	2300	5.64	10.5	9.9	79.6	1.1	3.3	-29.9
1640.9	2930	4.92	8.9	11.6	79.5	0.8	3.0	-30.3

TABLE 6 64-07/4-1 EXTRACTS

DEPTH	EOM	EOM %TOC	SAT.	ARO.	POL.	S/A	MOE /S1	d13C ‰
4606.21	680	0.24	4.3	.28.4	67.3	0.15	0.4	-25.05
4618.95	210	0.35	10.1	32.6	57.3	0.3	0.4	-25.7

TABLE 7 65-06/12-1 EXTRACTS

DEPTH	EOM	EOM %TOC	SAT.	ARO.	POL.	S/A	MOE /S1	d13C ‰
4586.6	1740	0.70	11.9	37.7	50.5	0.3	0.3	-25.9
4593.4	2100	0.60	18.4	42.0	39.6	0.4	0.3	-26.7

TABLE 8 65-07/12-3 EXTRACTS

DEPTH	EOM	EOM %TOC	SAT.	ARO.	POL.	S/A	MOE /S1	d13C ‰
2505.8	29420	4.82	3.4	19.7	76.9	0.2	7.1	-27.2
2518.55 A	9850	2.66	5.8	18.1	76.1	0.3	7.9	-
2518.55 B	23260	3.86	<2	15	83	<0.1	10.1	-

A shale (-27.5

B lens of homogenous vitrinite A et B (-26.4

TABLE 9 64-07/9-2 CHROMATOGRAPHICAL DATA

DEPTH	nALK! %SAT	Pr /n-C17	Ph /n-C18	Pr /Ph	A/B	CPI 20-30	MPI1	MPI2
1640.9	9	0.84	1.26	1.33	0.67	1.13	-	-

TABLE 10 64-07/4-1 CHROMATOGRAPHICAL DATA

DEPTH	nALK! %SAT	Pr /n-C17	Ph /n-C18	Pr /Ph	A/B	CPI 20-30	MPI1	MPI2
4606.21	11	0.58	0.68	0.68	0.86	0.98	1.42	1.64
4618.95	14	0.73	0.94	0.84	0.78	0.96	1.47	1.71

TABLE 11 65-06/12-1 CHROMATOGRAPHICAL DATA

DEPTH	nALK! %SAT	Pr /n-C17	Ph /n-C18	Pr /Ph	A/B	CPI 20-30	MPI1	MPI2
4586.6	32	0.37	0.13	2.40	2.91	1.03	1.01	1.21
4593.4	33	0.41	0.16	2.35	2.60	1.04	0.90	1.02

TABLE 12 65-07/12-3 CHROMATOGRAPHICAL DATA

DEPTH	nALK! %SAT	Pr /n-C17	Ph /n-C18	Pr /Ph	A/B	CPI 20-30	MPI1	MPI2
2505.8	8	2.85	0.81	4.13	3.50	2.38	0.53	0.74
2518.55 A	28	0.93	0.65	2.42	1.42	2.32	0.51	0.51
2518.55 B	8	2.62	0.47	3.76	5.53	1.95	0.44	0.47

A shale
B lens of homogenous vitrinite

COMPUTERIZED GC/MS CONDENSED ANALYTICAL REPORT ON STERANES AND TERPANES

Table 13 : HALTENBANKEN AREA .

SAMPLE SNEA(P) Ref. / Fraction	WELL DEPTH	C 29 STERANES RATIOS: 29bb S 29aa 29aa R	29aa S 29aa R	27Sdia 29aa R	22 4Me 29aa R	X20S C29	Zbb C29	21st 22st	22 4Me 22st	TERPANES RATIOS: C29H C30H	Tm Ts	23/3 24/4	X22S C31	X22S C32	ba/ab C30 X 100	Terp./Ster.: 23/3 21st	TT ST	OPTIONAL ANALYSIS 1: 29DH 29H	28BNH 29H	29/5 29H	Oln 30H	Ocrn 30H	30/3* 29H	30/3* 23/3	35/6 2 35H*	35H* 33H*	29+30 35H*
64-07/04-1	4606.20 (Meters)	0.87	0.56	0.65	v. low.	41.	55.	2.53	v. low.	0.67	1.29	N/A	51.	58.	12.	v. low.	12.35	low.	low.	0.33	low.	0.10	N / A	N / A	N / A	N / A	high
64-07/04-1	4618.90 (Meters)	0.92	0.68	0.74	0.25	43.	55.	3.25	0.40	0.66	1.34	3.31	48.	56.	12.	1.66	9.22	low.	low.	0.32	low.	low.	low.	low.	N / A	N / A	high
64-07/9-2	1640.90 (Meters)	N/A	N/A	N/A	N/A	N/A	N/A	3.06	v. low.	1.22	N/A	N/A	13.	N/A	N/A	v. low.	v. low.	low.	low.	0.46	low.	N / A	N / A	N / A	N / A	N / A	high
65-06/12-1	4586.60 (Meters)	1.20	0.80	0.16	N/A	47.	58.	3.09	N/A	0.89	1.04	0.52	N/A	N/A	N/A	2.00	5.67	low.	low.	0.26	low.	low.	1.20	3.34	N / A	N / A	high
65-06/12-1	4593.40 (Meters)	1.19	0.79	0.17	N/A	48.	57.	1.48	N/A	0.95	1.82	N/A	59.	N/A	6.	v. low.	5.93	low.	low.	0.17	low.	N / A	N / A	N / A	N / A	N / A	high
65-07/12-3	2505.80 (Meters)	0.59	0.61	N/A	N/A	43.	43.	N/A	N/A	0.25	1.08	N/A	N/A	N/A	N/A	N/A	7.37	low.	low.	N / A	low.	low.	low.	N / A	N / A	N / A	high
65-07/12-3	2518.55 (Meters)	0.42	0.22	v. low.	v. low.	29.	45.	N/A	N/A	0.40	2.34	N/A	N/A	N/A	N/A	v. low.	5.08	low.	low.	N / A	low.	low.	low.	N / A	N / A	N / A	high

SAMPLE SNEA(P) Ref. / Fraction	WELL DEPTH	C 29 STERANES RATIOS: 29bb S 29aa 29aa R	29aa S 29aa R	27Sdia 29aa R	22 4Me 29aa R	X20S C29	Zbb C29	21st 22st	22 4Me 22st	TERPANES RATIOS: C29H C30H	Tm Ts	23/3 24/4	X22S C31	X22S C32	ba/ab C30 X 100	Terp./Ster.: 23/3 21st	TT ST	OPTIONAL ANALYSIS 1: 29DH 29H	28BNH 29H	29/5 29H	Oln 30H	Ocrn 30H	30/3* 29H	30/3* 23/3	35/6 2 35H*	35H* 33H*	29+30 35H*

N/A = Not Available

3

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REPORT TYPE	REPORT NO.	DATE
	IFE/KR/F-86/021	1986-02-10
	REPORT TITLE REPORT ON STABLE ISOTOPES ($\delta^{13}C$, δD, $\delta^{18}O$) ON NATURAL GASES FROM WELL 6407/4-1	DATE OF LAST REV. REV. NO.
	CLIENT Statoil	NUMBER OF PAGES 5
	CLIENT REF. T-6269, avrop nr. 65	NUMBER OF ISSUES 15

SUMMARY

The gas components C_1-C_4 and CO_2 have been separated from the natural gas of well 6407/4-1 and the $\delta^{13}C$ values of these components have been measured. The isotopic composition of hydrogen from CH_4 has also been measured.

DISTRIBUTION

Statoil 10
Andresen, B.
Brevik, E.M.
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KEYWORDS

	NAME	DATE	SIGNATURE
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APPROVED BY	Karen Garder	1986-01-10	Karen Garder

1. ANALYTICAL PROCEDURE

The natural gas has been separated into the different gas components by a Carlo-Erba 4200 instrument. This gas chromatograph is equipped with a special injection loop in order to concentrate the samples, in the case of low concentration of the gas components. The hydrocarbon gas components were oxidized in separate CuO-ovens in order to prevent cross contamination. The combustion products CO_2 and H_2O were frozen into collection vessels and separated.

The water was reduced with zinc metal in a sealed tube to prepare hydrogen for isotopic analysis. The isotopic measurements were performed on a Finnigan Mat 251 mass spectrometer. Our $\delta^{13}C$ value on NBS-22 is -29.77 $\pm$ .06 o/oo.

2. RESULTS

The composition of the samples are given in Table 1. The results have been normalized. The stable isotope results are given in Table 2.

Our uncertainty on the $\delta^{13}C$ value is estimated to be $\pm$ 0.3 o/oo and includes all the different analysis step. The uncertainty on the δD value is likewise estimated to be $\pm$ 5 o/oo.

Table 1 Composition of a gas sample from well 6407/4-1

Sample	IFE no.	C_1 %	C_2 %	C_3 %	i-C_4 %	n-C_4 %	CO_2 %	ΣC_1-C_4	$\frac{\Sigma C_2 - C_4}{\Sigma C_1 - C_4}$	$\frac{i\text{-}C_4}{n\text{-}C_4}$
6407/4-1 DST 2 A 14612 3889-3919 m	4280	77	10	6	0.7	1.8	4.5	95.5	0.19	0.39

Table 2 Isotopic composition of a gas sample from well 6407/4-1

Sample	IFE no.	C_1 $\delta^{13}C$	δD	C_2 $\delta^{13}C$	C_3 $\delta^{13}C$	i-C_4 $\delta^{13}C$	n-C_4 $\delta^{13}C$	CO_2 $\delta^{13}C$	$\delta^{18}O$ PDB
6407/4-1 DST 2 A 14612 3889-3919 m	4280	-43.5	-225	-30.4	-28.1	-27.2	-28.2	-7.1	-9.1

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Title		
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Requested by	**Project**	
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Abstract

See next page.

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GEOCHEMICAL SOURCE ROCK EVALUATION AND OIL CORRELATION STUDY OF STATOIL'S 6407/4-1 HALTENBANKEN WELL

INTRODUCTION

This report presents a geochemical evaluation of the section between 330 metres and 4835 metres (TD) in Statoil's 6407/4-1 Haltenbanken well.

The analytical format employed in this study was specified by Trygve Meyer and was designed to achieve the following objectives:-

a) to investigate the hydrocarbon source potential of the section in terms of source richness, maturity and potential for oil or gas.
b) to detect and characterise shows of migrated hydrocarbons.
c) to test the correlation between the shows and between the shows and their potential parent source rocks. The DST 2 fluid and a suite of sandstone cores were included in the study to facilitate the correlation.

Detailed discussions of Organic Facies, Source Richness, Thermal Maturity, Show Detection, Show Characterisation and Oil Correlation are presented in the appropriate text chapters and have been integrated to form the Conclusions.

This project was authorised by Trygve Meyer of Statoil under Contract T-6192 numbers 17 and 19.

ANALYTICAL

A total of two hundred and seventy eight (278) canned ditch cuttings samples were received from 330-4835 metres in this well. These samples were composited over fifty (50) metres above 2270 metres and, below 2580 metres, over ten (10) metres. In addition four (4) mud samples from the interval 4284-4336 metres, five (5) core pieces (from the interval 4606.3-4618.9 metres) and forty four (44) sidewall cores were included in the study. No canned samples were received from 4380-4400 metres or 4720-4730 metres, although two samples were labelled 4730-4740 metres. These samples (T-6192 No. 17) were assigned the Geochem job number 1175.

Subsequently, the DST 2 fluid and thirty (30) core samples from 2391.2 metres, 3890.5-3969.6 metres, 4021.5-4073.1 metres and 4305.1-4327.4 metres were submitted for inclusion in this study. These samples (T-6192 No. 19) were assigned the Geochem job number 1194.

Depths are reported relative to KB. Geochem were advise of the following coring points: 30" at 320 metres, 20" at 849 metres, 13 3/8" at 2121 metres, 9 5/8" at 3817 metres and 7" at 4528 metres. The interval 3156-3799 metres was turbodrilled.

No significant contamination was observed during the sample preparation procedures.

Geochem were instructed to analyse the canned samples according to the following programme:-

400-3100m	every	100m	: 26 samples
3010-3710m	every	30m	: 23 samples
3710-3890m	every	10m	: 18 samples
3890-4450m	every	30m	: 19 samples
4450-4835m	every	10m	: 38 samples

The total number of analyses performed in this study are tabulated below.

ANALYSIS	NUMBER OF ANALYSES			
	CUTTINGS	SWC	CORE	FLUID
Headspace and cuttings gas	127			
Sample preparation (canned samples)	127			
Total organic carbon	227	44	4	
Pyrolysis	138	43	5	
Vitrinite reflectance	26	23	3	
Kerogen type and spore colouration	26	22	2	
C_{15+} extraction and chromatography	20	5	32	1
Capillary GC - paraffin-naphthenes	20	5	32	1
Capillary GC - aromatics	20	5	32	1
Pyrolysis-GC	18	15	3	
Carbon isotopes - extract fractions	74	17	116	
Carbon isotopes - kerogen	13	5	2	
GC-MS biomarker analysis	14	5	31	1

There was insufficient sample recovery, even after repeated extractions, for further carbon isotope analyses.

The data are presented in tables 1 through 13 and graphically in figures 1 through 20. Where appropriate, the data for the correlation study (job 1194 T-6192 No. 19) are tabulated second. A brief description of the analytical techniques employed in this study is included in the back of this report.

TABLE 1
ORGANIC CARBON RESULTS AND GROSS LITHOLOGIC DESCRIPTIONS

GEOCHEM SAMPLE NUMBER	DEPTH	GROSS LITHOLOGIC DESCRIPTION	GSA Colour Code	TOTAL ORGANIC CARBON (Wt. % of Rock)
1175-002	380-430m	A 70% Claystone, blocky, soft, sl. calc., aren., light olive grey	5Y6/1	0.31
		B 20% Sand, unconsolidated, medium grained, subangular, poorly sorted, clear, white	N9	
		C 10% Igneous, basaltic, blocky, hard, greyish black	N2	
		Minor shell fragments		
1175-004	480-530m	A 60% Claystone, as 1175-002A	5Y6/1	0.36
		B 30% Sand, as 1175-002B	N9	
		C 10% Igneous, as 1175-002C	N2	
		Minor shell		
1175-006	580-630m	A 70% Claystone, as 1175-002A	5Y6/1	0.30,0.29
		B 20% Sand, as 1175-002B	N9	
		C 10% Igneous, as 1175-002C	N2	
		Minor shell		
1175-008	680-730m	A 85% Claystone, blocky, soft, sl. calc., sl. silty, light olive grey	5Y6/1	0.36
		B 15% Igneous, as 1175-002B	N9	
		Minor sand and shell		
1175-010	780-830m	A 75% Claystone, as 1175-008A	5Y6/1	0.35
		B 25% Sand, unconsolidated, fine to medium grained, subangular, fairly well sorted, clear, white	N9	
		Minor igneous and shell		
1175-013	880-930m	A 80% Claystone, as 1175-008A	5Y6/1	0.44
		B 20% Sand, as 1175-010B	N9	
		Minor shell		
1175-015	980-1030m	A 80% Claystone, as 1175-008A	5Y6/1	0.38
		B 20% Sand, as 1175-010B	N9	
		Minor shell		
1175-017	1080-130m	A 98% Claystone, blocky, soft, sl. calc., sl. aren., light olive grey	5Y6/1	0.29
		Minor sand		
1175-019	1180-230m	A 85% Clay, as 1175-017A	5Y6/1	0.46,0.45
		B 15% Sand, unconsolidated, fine grained, subangular to subrounded, well sorted, clear, white	N9	
1175-021	1280-330m	A 85% Claystone, blocky, soft, sl. calc., sl. silty, brownish grey to olive grey	5YR4/1-5Y4/1	0.89
		B 15% Limestone, blocky, hard, dolomitic, brownish grey	5YR4/1	0.36
		Minor sand		
1175-023	1380-430m	A 95% Claystone, as 1175-021A	5YR4/1-5Y4/1	1.74
		B 5% Igneous, basaltic?, blocky, hard, medium dark grey	N4	
		Minor sand and limestone		

Abbreviations = **arena**ceous, **argil**laceous, **calc**areous, **Cut**, **dol**omitic, **F**luorescence, **foram**inifera, **foss**iliferous
Lost **C**irculation **M**aterial, **mod**erately, **occ**asionally, **sl**ightly, **v**ery

TABLE 1
ORGANIC CARBON RESULTS AND GROSS LITHOLOGIC DESCRIPTIONS

GEOCHEM SAMPLE NUMBER	DEPTH	GROSS LITHOLOGIC DESCRIPTION	GSA Colour Code	TOTAL ORGANIC CARBON (Wt. % of Rock)
1175-025	1480-530m	A 98% Mudstone, blocky, soft, sl. calc., sl. silty, minor cavings, medium olive grey to olive grey Minor pyrites and igneous	5Y5/1-5Y4/1	2.29
1175-027	1580-630m	A 98% Mudstone, blocky, soft, non-calc., sl. silty, minor cavings, light grey to v. light olive grey	N7-5Y7/1	1.64,1.60
1175-029	1680-730m	A 65% Mudstone, as 1175-027A, minor cavings	N7-5Y7/1	1.55
		B 35% Shaly mudstone, subfissile, mod. hard, non-calc., olive grey to brownish grey	5Y4/1-5YR4/1	2.54
1175-031	1780-830m	A 75% Mudstone, as 1175-027A, minor cavings	N7-5Y7/1	1.64
		B 25% Shaly mudstone, as 1175-029B, minor cavings Minor other mudstone	5Y4/1-	2.66,2.66
1175-033	1880-930m	A 85% Shaly mudstone, subfissile, soft to mod. hard, non-calc., minor cavings, light olive grey	5Y6/1	0.59,0.59
		B 15% Shaly mudstone, as 1175-029B, sig. cavings Minor other mudstone	5Y4/1-5YR4/1	2.04
1175-035	1980-2030m	A 75% Shaly mudstone, as 1175-033A, minor cavings	5Y6/1	0.53
		B 15% Shaly mudstone, as 1175-029B, sig. cavings	5Y4/1-5YR4/1	2.59
		C 10% LCM - walnut shell		
1175-037	2080-130m	A 50% Shaly mudstone, as 1175-033A, minor cavings	5Y6/1	0.54
		B 35% Mudstone, blocky to subfissile, soft, non-calc., minor cavings, olive grey	5Y4/1	0.65,0.65
		C 15% Mudstone, subfissile to blocky, soft to mod. hard, non-calc., greyish red	5R4/2	0.16
1175-038 SWC	2159m	A 98% Shaly mudstone, subfissile, soft, non-calc., sl. silty, olive grey	5Y4/1	1.17
1175-040	2180-230m	A 75% Mudstone/claystone, blocky, soft, non-calc., medium dark grey	N4	1.17
		B 25% Claystone, blocky, soft, non-calc., yellowish grey Minor other mudstone	5Y8/1	0.15
1175-041 SWC	2228m	A 98% Claystone, subfissile, soft, non-calc., medium dark grey to olive grey	N4-	0.80

Abbreviations = **arena**ceous, **argil**laceous, **calc**areous, Cut, **dolo**mitic, Fluorescence, **foram**inifera, **foss**iliferous
Lost Circulation Material, **mod**erately, **occ**asionally, **sl**ightly, very

TABLE 1
ORGANIC CARBON RESULTS AND GROSS LITHOLOGIC DESCRIPTIONS

GEOCHEM SAMPLE NUMBER	DEPTH	GROSS LITHOLOGIC DESCRIPTION	G S A Colour Code	TOTAL ORGANIC CARBON (Wt. % of Rock)
1175-046	2300-310m	A 85% Mudstone, subfissile, mod. hard, non-calc., minor cavings, medium dark grey	N4	0.80
		B 15% Mudstone, subfissile to blocky, soft, non-calc., minor cavings, yellowish grey Minor anhydrite and other mudstone	5Y8/1	0.27
1175-050 SWC	2420.5m	A 98% Claystone, blocky, soft, silty horizons, non-calc., medium grey	N5	0.86
1175-051	2400-450m	A 98% Claystone, blocky, soft, shaly in part, non-calc., minor cavings, medium dark grey to medium grey	N4-5	0.78
1175-053 SWC	2473m	A 60% Claystone, subfissile, soft, non-calc., medium dark grey, interbedded with	N4	1.07
		B 40% Siltstone, soft, calc., grading to sandstone, v. light grey	N8	0.56
1175-054	2500-520m	A 85% Claystone, shaly in part, soft to mod. hard, non-calc., minor cavings, medium dark grey to medium grey	N4-5	0.78,0.75
		B 15% Siltstone/sandstone, blocky, fine grained, calc., v. light grey	N8	0.49
1175-057 SWC	2561m	A 98% Claystone, blocky to subfissile, soft, non-calc., medium grey to medium dark grey	N5-4	0.69
1175-061	2600-610m	A 98% Claystone, blocky, soft, non-calc., medium dark grey to medium grey Minor siltstone	N4-5	0.76
1175-067 SWC	2665.4m	A 98% Shaly mudstone, subfissile to blocky, mod. hard, non-calc., medium dark grey	N4	0.52
1175-072	2700-710m	A 98% Claystone, blocky to subfissile, soft to mod. hard, non-calc., minor cavings, medium dark grey Minor siltstone	N4	0.92
1175-082	2800-810m	A 98% Claystone, as 1175-072A, sig. cavings Minor siltstone and other claystone Minor LCM	N4	0.71,0.72
1175-092	2900-910m	A 98% Claystone, as 1175-072A, minor cavings Minor siltstone	N4	1.05
1175-103	3010-020m	A 90% Claystone, blocky, soft, non-calc. to v. sl. calc., minor cavings, medium dark grey to medium grey	N4-5	1.06
		B 10% Sand, unconsolidated, medium grained, subangular, fairly well sorted, clear, white Minor shale	N9	

Abbreviations = **are**naceous, **arg**illaceous, **calc**areous, **Cut**, **dol**omitic, Fluorescence, **foram**inifera, **foss**iliferous
Lost Circulation Material, **mod**erately, **occ**asionally, slightly, very

TABLE 1
ORGANIC CARBON RESULTS AND GROSS LITHOLOGIC DESCRIPTIONS

GEOCHEM SAMPLE NUMBER	DEPTH	GROSS LITHOLOGIC DESCRIPTION	G S A Colour Code	TOTAL ORGANIC CARBON (Wt. % of Rock)
1175-106	3040-050m	A 85% Claystone, blocky, soft, non-calc. to v. sl. calc., minor cavings, medium dark grey to medium grey	N4-5	0.88
		B 15% Shale, platy, mod. hard, sl. calc., sig. cavings, medium dark grey Minor limestone and sandstone	N4	0.86
1175-109	3070-080m	A 80% Claystone, as 1175-106A, minor cavings	N4-5	0.78,0.78
		B 20% Shale, as 1175-106B, sig. cavings Minor limestone and sand	N4	0.71
1175-112	3100-110m	A 85% Claystone, as 1175-106A, minor cavings	N4-5	0.90
		B 15% Shale, as 1175-106B, sig. cavings Minor limestone	N4	0.83
1175-115	3130-140m	A 85% Claystone, as 1175-106A, minor cavings	N4-5	0.79
		B 15% Shale, as 1175-106B, sig. cavings	N4	0.82,0.84
1175-118	3160-170m	A 60% Claystone, blocky, soft, non-calc., minor cavings, medium grey	N5	0.84
		B 40% Shale, platy to subfissile, mod. hard, non-calc., sig. to abundant cavings, medium dark grey	N4	0.78
1175-120 SWC	3182.9m	A 98% Shaly mudstone, blocky to subfissile, soft, non-calc., medium dark grey	N4	0.84
1175-122	3190-200m	A 50% Claystone, as 1175-118A, minor cavings	N5	0.68
		B 50% Shale, as 1175-118B, sig. to abundant cavings Minor mudstone	N4	0.78,0.77
1175-125 SWC	3223.4m	A 98% Shaly mudstone, subfissile, soft, non-calc., medium dark grey	N4	0.78
1175-126	3220-230m	A 75% Claystone, blocky, soft, non-calc., medium grey	N5	0.69
		B 25% Shale, platy, mod. hard, non-calc., sig. to abundant cavings, medium dark grey Minor mudstone	N4	0.78
1175-129	3250-260m	A 45% Silty mudstone, blocky, mod. hard, non-calc., medium dark grey	N4	0.86
		B 40% Claystone, as 1175-126A, minor cavings	N5	0.94
		C 15% Shale, as 1175-126B, sig. cavings	N4	0.91
1175-132	3280-290m	A 45% Silty mudstone, as 1175-129A, minor cavings	N4	0.82,0.83
		B 40% Claystone, as 1175-126A, minor cavings	N5	0.85
		C 15% Shale, as 1175-126B, sig. cavings	N4	0.85

Abbreviations = **arena**ceous, **argil**laceous, **calc**areous, **Cut**, **dolo**mitic, Fluorescence, **foram**inifera, **foss**iliferous
Lost Circulation Material, **mod**erately, **occ**asionally, **slight**ly, very

TABLE 1
ORGANIC CARBON RESULTS AND GROSS LITHOLOGIC DESCRIPTIONS

GEOCHEM SAMPLE NUMBER	DEPTH	GROSS LITHOLOGIC DESCRIPTION	G S A Colour Code	TOTAL ORGANIC CARBON (Wt. % of Rock)
1175-135	3310-320m	A 50% Silty mudstone, blocky, mod. hard, non-calc., minor cavings, medium dark grey	N4	0.71
		B 35% Claystone, blocky, soft, non-calc., minor cavings, medium grey	N5	0.71
		C 15% Shale, platy, mod. hard, non-calc., sig. cavings, medium dark grey	N4	0.76,0.77
1175-138	3340-350m	A 80% Silty mudstone, as 1175-135A, minor cavings	N4	0.68
		B 15% Claystone, as 1175-135B, minor cavings	N5	0.62
		C 5% Shale, as 1175-135C, sig. cavings	N4	0.76
1175-141	3370-380m	A 80% Silty mudstone, as 1175-135A, minor cavings	N4	0.72
		B 20% Shale, as 1175-135C, sig. cavings Minor claystone	N4	0.76
1175-144	3400-410m	A 90% Silty mudstone, blocky, mod. hard, non-calc., minor cavings, medium grey	N5	0.69,0.70
		B 10% Shale, platy, mod. hard, non-calc., sig. cavings, medium dark grey Minor other mudstone	N4	0.81
1175-147	3430-440m	A 98% Silty mudstone, as 1175-144A, minor cavings Minor shale and other mudstone	N5	0.70
1175-150	3460-470m	A 80% Silty mudstone, as 1175-144A, minor cavings	N5	0.73
		B 20% Shale, as 1175-144B, sig. cavings Minor other mudstone	N4	0.71
1175-153	3490-500m	A 95% Silty mudstone, as 1175-144A, minor cavings	N5	0.79,0.79
		B 5% Shale, as 1175-144B, sig. cavings Minor other mudstone	N4	
1175-155 SWC	3511m	A 98% Shaly mudstone, subfissile, soft, non-calc., medium dark grey to medium grey	N4-5	2.66
1175-157	3520-530m	A 90% Silty mudstone, blocky, mod. hard, non-calc., medium dark grey	N4	0.68
		B 10% Shale, platy, mod. hard, non-calc., sig. to abundant cavings, medium dark grey Minor other mudstone	N4	0.68
1175-160	3550-560m	A 55% Silty mudstone, as 1175-157A, minor cavings	N4	0.89
		B 25% Shale, as 1175-157B, sig. to abundant cavings	N4	0.78
		C 20% Shaly mudstone, platy to subfissile, mod. hard, non-calc., sig. to abundant cavings, medium grey to medium light grey	N5-6	0.71,0.71

Abbreviations = **arena**ceous, **argi**llaceous, **calc**areous, **Cut**, **dolo**mitic, **F**luorescence, **foram**inifera, **fossi**liferous
Lost **C**irculation **M**aterial, **mod**erately, **occ**asionally, **sl**ightly, **v**ery

TABLE 1
ORGANIC CARBON RESULTS AND GROSS LITHOLOGIC DESCRIPTIONS

GEOCHEM SAMPLE NUMBER	DEPTH	GROSS LITHOLOGIC DESCRIPTION	GSA Colour Code	TOTAL ORGANIC CARBON (Wt. % of Rock)
1175-163	3580-590m	A 85% Silty mudstone, blocky, mod. hard, non-calc., minor cavings, medium dark grey	N4	1.20
		B 15% Shale, platy, mod. hard, non-calc., sig. to abundant cavings, medium dark grey	N4	0.78
		Minor other mudstone		
1175-166	3610-620m	A 90% Silty mudstone, as 1175-163A, minor cavings	N4	0.96
		B 10% Shale, as 1175-163B, sig. cavings	N4	0.79
		Minor other mudstone		
1175-169 SWC	3645.5m	A 98% Shaly mudstone, subfissile, soft, non-calc, medium dark grey	N4	0.52,0.52
1175-170	3640-650m	A 80% Silty mudstone, as 1175-163A, minor cavings	N4	1.29
		B 20% Shale, as 1175-163B, sig. cavings	N4	0.80
		Minor other mudstone		
1175-173	3670-680m	A 65% Silty mudstone, as 1175-163A, minor cavings	N4	1.29
		B 35% Shale, as 1175-163B, sig. cavings	N4	1.10
		Minor other mudstone		
1175-177	3700-710m	A 65% Shaly mudstone, blocky to subfissile, soft, non-calc., dusky yellowish brown	10YR2/2	5.30
		B 20% Shale, platy, mod. hard, non-calc., sig. cavings, medium dark grey	N4	1.17
		C 15% Calc. mudstone, grading to arg. limestone, blocky, soft, minor cavings, light grey to medium light grey	N7-6	0.34
1175-178 SWC	3710.5m	A 98% Shale, blocky to subfissile, soft to mod. hard, non-calc., medium dark grey to dark brownish grey	N4-5YR3/1	5.44
1175-179 SWC	3712m	A 98% Shale, as 1175-178A	N4-5YR3/1	5.56,5.58
1175-180 SWC	3717.5m	A 98% Shale, as 1175-178A	N4-5YR3/1	5.62
1175-181 SWC	3719m	A 98% Shale, as 1175-178A	N4-5YR3/1	5.44
1175-182	3710-720m	A 90% Mudstone, blocky, soft, non-calc., dusky yellowish brown	10YR2/2	5.69
		B 10% Shale, platy to thinly fissile, mod. hard, non-calc., sig. cavings, medium dark grey	N4	1.37
1175-183 SWC	3721m	A 98% Shaly mudstone, subfissile, soft, non-calc., medium dark grey to brownish grey	N4-5YR4/1	6.52,6.50
1175-184 SWC	3724.9m	A 98% Shaly mudstone, as 1175-183A	N4-5YR4/1	6.30

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TABLE 1
ORGANIC CARBON RESULTS AND GROSS LITHOLOGIC DESCRIPTIONS

GEOCHEM SAMPLE NUMBER	DEPTH	GROSS LITHOLOGIC DESCRIPTION	G S A Colour Code	TOTAL ORGANIC CARBON (Wt. % of Rock)
1175-185 SWC	3729m	A 98% Shaly mudstone, subfissile, soft, non-calc., medium dark grey to brownish grey	N4-5YR4/1	5.75
1175-186	3720-730m	A 90% Mudstone, blocky, soft, non-calc., dusky yellowish brown	10YR2/2	5.20
		B 10% Shale, platy to thinly fissile, mod. hard, non-calc., sig. cavings, medium dark grey	N4	1.90
1175-187 SWC	3733.5m	A 98% Shaly mudstone, subfissile, soft to mod. hard, sl. silty, non-calc., medium dark grey to dusky yellowish brown	N4-10YR2/2	4.61,4.56
1175-188 SWC	3739m	A 98% Shaly mudstone, blocky, mod. hard, sl. silty, non-calc., medium dark grey to dusky yellowish brown	N4-10YR2/2	4.97
1175-189	3730-740m	A 98% Mudstone, blocky, soft, non-calc., dusky yellowish brown Minor shale	10YR2/2	5.24
1175-190 SWC	3742.5m	A 98% Mudstone, subfissile to blocky, mod. hard, sl. silty and micaceous, non-calc., medium dark grey to dusky yellowish brown	N4-10YR2/2	6.57
1175-191 SWC	3746m	A 98% Mudstone, subfissile to blocky, soft to mod. hard, non-calc., medium dark grey to dusky yellowish brown	N4-10YR2/2	4.43
1175-192 SWC	3749.5m	A 98% Mudstone, subfissile, soft, non-calc., medium dark grey	N4	0.75
1175-193	3740-750m	A 98% Mudstone, blocky, soft, non-calc., minor cavings, dusky yellowish brown Minor shale	10YR2/2	4.77,4.75
1175-194 SWC	3754m	A 98% Mudstone, blocky to subfissile, soft to mod. hard, non-calc., dusky yellowish brown	10YR2/2	5.27
1175-195 SWC	3757.5m	A 98% Mudstone, as 1175-194A	10YR2/2	5.19
1175-196	3750-760m	A 90% Mudstone, blocky, soft, non-calc., dusky yellowish brown	10YR2/2	5.29
		B 10% Shale, platy to thinly fissile, mod. hard, non-calc., medium dark grey	N4	1.59,1.56
1175-197 SWC	3760.5m	A 98% Shaly mudstone, subfissile, soft to mod. hard, sl. micaceous, non-calc., medium dark grey to dusky yellowish brown	N4-10YR2/2	4.93
1175-198 SWC	3763.8m	A 98% Shaly mudstone, as 1175-197A	N4-10YR2/2	7.80

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Lost Circulation Material, **mod**erately, **occ**asionally, **sl**ightly, very

TABLE 1
ORGANIC CARBON RESULTS AND GROSS LITHOLOGIC DESCRIPTIONS

GEOCHEM SAMPLE NUMBER	DEPTH	GROSS LITHOLOGIC DESCRIPTION	G S A Colour Code	TOTAL ORGANIC CARBON (Wt. % of Rock)
1175-199 SWC	3766m	A 98% Shaly mudstone, subfissile, soft, non-calc., medium dark grey to dusky yellowish brown	N4-10YR2/2	5.16
1175-200 SWC	3768.5m	A 98% Shaly mudstone, subfissile, soft, sl. micaceous, non-calc., medium dark grey to brownish grey	N4-5YR4/1	6.73
1175-201	3760-770m	A 90% Mudstone, blocky, soft, non-calc., dusky yellowish brown	10YR2/2	4.35,4.34
		B 10% Shale, platy to thinly fissile, mod. hard, non-calc., sig. cavings, medium dark grey	N4	1.00
1175-202 SWC	3771m	A 98% Shaly mudstone, subfissile, soft, non-calc., medium dark grey to dusky yellowish brown	N4-10YR2/2	6.23
1175-203	3770-780m	A 85% Mudstone, blocky, soft, non-calc., medium dark grey to dark yellowish brown	N4-10YR4/2	3.64
		B 15% Shale, platy to thinly fissile, mod. hard, non-calc., sig. cavings, medium dark grey Minor other mudstone	N4	1.19,1.17
1175-204	3780-790m	A 85% Mudstone, as 1175-203A	N4-10YR4/2	1.48
		B 15% Shale, as 1175-203B, sig. cavings Minor other mudstone	N4	1.00
1175-205	3790-800m	A 70% Mudstone, as 1175-203A	N4-10YR4/2	1.65,1.69
		B 30% Shale, as 1175-203B, sig. cavings Minor other shale and mudstone Minor LCM	N4	1.11
1175-206	3800-810m	A 35% Shale, platy, mod. hard, non-calc., sig. cavings, medium dark grey	N4	1.29
		B 35% Shale, platy, mod. hard, non-calc., sig. cavings, medium grey	N5	0.61
		C 30% Mudstone, blocky to subfissile, soft, non-calc., minor cavings, medium grey to medium light grey Minor other shale	N5-6	0.85
1175-207 SWC	3813.5m	A 98% Shaly mudstone, subfissile, soft, non-calc., medium dark grey	N4	1.08,1.11
1175-208	3810-820m	A 50% Shale, as 1175-206A, sig. cavings	N4	0.78
		B 30% Shale, as 1175-206B, sig. cavings	N5	0.72
		C 20% Mudstone, as 1175-206C, minor cavings Minor other shale LCM - lignite	N5-6	0.92

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Lost **C**irculation **M**aterial, **mod**erately, **occ**asionally, **sl**ightly, **v**ery

TABLE 1
ORGANIC CARBON RESULTS AND GROSS LITHOLOGIC DESCRIPTIONS

GEOCHEM SAMPLE NUMBER	DEPTH	GROSS LITHOLOGIC DESCRIPTION	G S A Colour Code	TOTAL ORGANIC CARBON (Wt. % of Rock)
1175-209 SWC	3822.0m	A 98% Shale, subfissile, mod. hard, non-calc., sl. micaceous, medium dark grey	N4	1.04
1175-210 SWC	3825.5m	A 98% Shale, as 1175-209A	N4	1.07,1.09
1175-211	3820-830m	A 45% Shale, platy, mod. hard, non-calc., sig. cavings, medium dark grey	N4	0.82
		B 35% LCM - cement and lignite		
		C 15% Mudstone, blocky, soft to mod. hard, non-calc., minor cavings, medium grey	N5	0.89
		D 5% Shale, subfissile, mod. hard, non-calc., minor to sig. cavings, dark grey	N3	1.30
		Minor other shale		
1175-212	3830-840m	A 50% Shaly mudstone, subfissile, soft to mod. hard, non-calc., sig. cavings, medium dark grey to dark grey	N4-3	1.07
		B 40% Mudstone, as 1175-211C, minor cavings	N5	0.93,0.96
		C 10% LCM - cement and lignite		
1175-213	3840-850m	A 80% Mudstone, blocky, soft, sl. calc. to non-calc., minor cavings, medium grey	N5	1.11
		B 15% Shale, platy to subfissile, mod. hard, non-calc., sig. cavings, medium dark grey to dark grey	N4-3	1.10
		C 5% LCM - cement and lignite		
		Minor other shale		
1175-214	3850-860m	A 85% Mudstone, as 1175-213A, minor cavings	N5	1.09
		B 15% Shale, as 1175-213B, sig. cavings	N4-3	1.09
		Minor LCM - cement and lignite		
		Minor other shale and limestone		
1175-215 SWC	3864m	A 98% Shaly mudstone, subfissile, soft, non-calc., medium dark grey to medium grey	N4-5	1.60,1.61
1175-216	3860-870m	A 85% Mudstone, blocky, soft, non-calc., minor cavings, medium grey	N5	1.38
		B 10% Shale, subfissile, soft to mod. hard, non-calc., sig. cavings, medium dark grey	N4	1.16
		C 5% Limestone, blocky, soft to mod. hard, v. light brownish grey	5YR7/1	0.47
		Minor LCM - lignite		
1175-217	3870-880m	A 90% Mudstone, as 1175-216A, minor cavings	N5	1.59
		B 10% Shale, as 1175-216B, sig. cavings	N4	1.24,1.24
		Minor limestone		
		Minor LCM - lignite		
1175-218 SWC	3888m	A 98% Mudstone, blocky to subfissile, sl. silty, non-calc., medium dark grey to brownish grey	N4-5YR4/1	1.1-

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ORGANIC CARBON RESULTS AND GROSS LITHOLOGIC DESCRIPTIONS

GEOCHEM SAMPLE NUMBER	DEPTH	GROSS LITHOLOGIC DESCRIPTION	G S A Colour Code	TOTAL ORGANIC CARBON (Wt. % of Rock)
1175-219	3880-890m	A 55% Silty mudstone, blocky, soft, non-calc., minor cavings, medium grey to medium brownish grey	N5-5YR5/1	2.24
		B 25% Shale, subfissile, soft to mod. hard, non-calc., medium dark grey to brownish grey	N4-5YR4/1	2.04
		C 20% Sand, unconsolidated, medium grained, subangular, fairly well sorted, clear, white Minor LCM - lignite	N9	
1175-220	3890-900m	A 60% Sandstone, mostly unconsolidated, medium grained, subangular, fairly well sorted, grain supported, pale milky cut, pinkish grey	5YR8/1	
		B 35% Shale, as 1175-219B, minor cavings	N4-5YR4/1	1.33
		C 5% LCM - paint		
1175-223	3920-930m	A 55% Sandstone, as 1175-220A, pale milky cut	5YR8/1	
		B 40% Shale, as 1175-220B, minor cavings	N4-5YR4/1	1.18,1.18
		C 5% LCM - paint		
1175-226	3950-960m	A 70% Shale, as 1175-220B, minor to sig. cavings	N4-5YR4/1	1.15
		B 30% Sandstone, as 1175-220A, pale milky cut	5YR8/1	
1175-229	3980-990m	A 90% Shale, as 1175-220B, sig. cavings	N4-5YR4/1	1.21
		B 10% Sandstone, as 1175-220A, pale milky cut Minor mudstone	5YR8/1	
1175-231 SWC	4000m	A 98% Shale, subfissile, soft to mod. hard, non-calc., sl. silty and micaceous, medium dark grey to brownish grey	N4-5YR4/1	1.48
1175-233 SWC	4014m	A 98% Shale, as 1175-231A	N4-5YR4/1	1.46
1175-234 SWC	4018.5m	A 98% Shale, as 1175-231A	N4-5YR4/1	1.54
1175-235	4010-020m	A 50% Mudstone, blocky, soft, silty, non-calc., minor cavings, medium brownish grey	5YR5/1	1.29
		B 40% Shale, subfissile, soft to mod. hard, sl. silty and micaceous, non-calc., minor to sig. cavings, medium dark grey to brownish grey	N4-5YR4/1	1.63
		C 10% Sandstone, as 1175-220A, pale milky cut	5YR8/1	

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TABLE 1
ORGANIC CARBON RESULTS AND GROSS LITHOLOGIC DESCRIPTIONS

GEOCHEM SAMPLE NUMBER	DEPTH	GROSS LITHOLOGIC DESCRIPTION	G S A Colour Code	TOTAL ORGANIC CARBON (Wt. % of Rock)
1175-238	4040-050m	A 60% Sandstone, medium grained, subangular, fairly well sorted, non-calc. matrix, pale milky cut, pinkish grey	5YR8/1	
		B 40% Shale, subfissile, soft to mod. hard, sl. silty and micaceous, non-calc., sig. cavings, medium dark grey to brownish grey Minor mudstone	N4-5YR4/1	1.26
1175-241	4070-080m	A 80% Sandstone, as 1175-238A, pale milky cut	5YR8/1	
		B 20% Shale, as 1175-238B, sig. cavings Minor mudstone	N4-5YR4/1	1.21
1175-244	4100-110m	A 85% Sandstone, as 1175-238A, pale milky cut	5YR8/1	
		B 15% Shale, as 1175-238B, sig. cavings Minor mudstone	N4-5YR4/1	1.07
1175-245 SWC	4113m	A 98% Shaly mudstone, subfissile, soft, non-calc., medium dark grey	N4	1.26
1175-248	4130-140m	A 65% Silty sandstone, blocky, fine grained, subangular, well sorted, non-calc. matrix, light grey to v. light brownish grey	N7-5YR7/1	0.84,0.83
		B 20% Shale, platy to subfissile, soft to mod. hard, non-calc., minor cavings, medium dark grey	N4	1.53
		C 15% Sandstone, as 1175-238A, pale milky cut	5YR8/1	
1175-249 SWC	4142m	A 95% Coal, blocky, brittle, greyish black	N2	53.10
		B <5% Shaly mudstone, subfissile, soft, non-calc., medium dark grey to brownish grey	N4-5YR4/1	
1175-252	4160-170m	A 98% Sandstone, blocky, medium grained, subangular, fairly well sorted, grain supported, pale milky cut, white to pinkish grey Minor shale and coal	N9-5YR8/1	
1175-255	4190-200m	A 50% Sandstone, as 1175-252A, pale milky cut	N9-5YR8/1	
		B 50% Shaly mudstone, subfissile, mod. hard, non-calc., minor cavings, medium dark grey to brownish grey Minor other sandstone	N4-5YR4/1	1.14
1175-258 SWC	4225m	A 98% Shaly mudstone, subfissile, soft, non-calc., sl. micaceous, medium dark grey to brownish grey.	N4-5YR4/1	1.49

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ORGANIC CARBON RESULTS AND GROSS LITHOLOGIC DESCRIPTIONS

GEOCHEM SAMPLE NUMBER	DEPTH	GROSS LITHOLOGIC DESCRIPTION	GSA Colour Code	TOTAL ORGANIC CARBON (Wt. % of Rock)
1175-259	4220-230m	A 55% Sandstone, blocky, medium grained, subangular, fairly well sorted, grain supported, pale milky cut, white to pinkish grey	N9-5YR8/1	
		B 40% Shale, platy, mod. hard, non-calc., minor cavings, dark grey to medium dark grey	N3-4	1.15,1.17
		C 10% Shaly mudstone, subfissile, mod. hard, non-calc., minor to sig. cavings,medium dark grey to brownish grey	N4-5YR4/1	1.08
1175-262	4250-260m	A 60% Shale, as 1175-259B, minor cavings	N3-4	1.16
		B 20% Shaly mudstone, as 1175-259C, sig. cavings	N4-5YR4/1	1.01
		C 20% Sandstone, as 1175-259A, pale milky cut	N9-5YR8/1	
1175-263 SWC	4263m	A 98% Shaly mudstone, subfissile, mod. hard, sl. micaceous, non-calc., medium dark grey to brownish grey	N4-5YR4/1	1.35
1175-266	4280-290m	A 55% Shale, platy, mod. hard, non-calc., minor cavings, dark grey to medium dark grey	N3-4	1.31,1.32
		B 30% Shaly mudstone, subfissile, soft to mod. hard, non-calc., medium dark grey to brownish grey	N4-5YR4/1	1.12
		C 15% Sandstone, blocky, medium grained, subangular, fairly well sorted, grain supported, pale milky cut, pinkish grey Minor coal LCM - paint	5YR8/1	
1175-271	4310-320m	A 55% Shale, as 1175-266A, sig. cavings	N3-4	1.23
		B 30% Sandstone, as 1175-266C, pale milky cut	5YR8/1	
		C 15% Shaly mudstone, as 1175-266B, sig. cavings	N4-5YR4/1	1.04
1175-276	4340-350m	A 95% Sand, unconsolidated, medium grained, subangular, well sorted, white	N9	
		B <5% Shale, as 1175-266A	N3-4	
1175-279	4370-380m	A 85% Sand, as 1175-276A	N9	
		B 15% Shale, as 1175-266A	N3-4	1.22
1175-280 SWC	4389m	A 98% Silty shale, subfissile, mod. hard, micaceous, non-calc., medium grey	N5	0.71,0.74
1175-281	4400-410m	A 60% Shaly mudstone, subfissile to blocky, soft to mod. hard, non-calc., minor cavings, medium dark grey to brownish grey	N4-5YR4/1	0.98

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TABLE 1
ORGANIC CARBON RESULTS AND GROSS LITHOLOGIC DESCRIPTIONS

GEOCHEM SAMPLE NUMBER	DEPTH	GROSS LITHOLOGIC DESCRIPTION	G S A Colour Code	TOTAL ORGANIC CARBON (Wt. % of Rock)
1175-281	4400-410m	B 30% Shale, platy, mod. hard, non-calc., minor to sig. cavings, dark grey to brownish grey	N3-5YR4/1	1.28
		C 10% Sandstone, mostly unconsolidated, medium grained, subangular, well sorted, pinkish grey	5YR8/1	
1175-284	4430-440m	A 45% Shaly mudstone, subfissile to blocky, soft to mod. hard, non-calc., minor to sig. cavings, medium dark grey to brownish grey	N4-5YR4/1	1.05
		B 45% Sandstone, as 1175-281C	5YR8/1	
		C 10% Shale, as 1175-281B, minor to sig. cavings Minor coal	N3-5YR4/1	1.41
1157-286	4450-460m	A 50% Shaly mudstone, as 1175-284A, minor cavings	N4-5YR4/1	1.10
		B 35% Sandstone, as 1175-281C	5YR8/1	
		C 15% Shale, as 1175-281B, sig. cavings	N3-5YR4/1	2.24,2.27
1175-287 SWC	4465m	A 98% Coal, blocky, brittle, greyish black	N2	75.30
1175-288	4460-470m	A 85% Sandstone, mostly unconsolidated, medium grained, subangular, well sorted, pinkish grey	5YR8/1	
		B 15% Shale, platy to subfissile, mod. hard, non-calc., sl. micaceous, medium dark grey to brownish grey Minor coal and mudstone	N4-5YR4/1	1.24
1175-289	4470-480m	A 95% Sandstone, as 1175-288A	5YR8/1	
		B 5% Shale, as 1175-288B, minor cavings Minor mudstone	N4-5YR4/1	1.62
1175-290	4480-490m	A 95% Sandstone, as 1175-288A	5YR8/1	
		B 5% Shale, as 1175-288B, minor cavings	N4-5YR4/1	1.40,1.42
1175-291	4490-500m	A 95% Sandstone, as 1175-288A	5YR8/1	
		B 5% Shale, as 1175-288B Minor mudstone	N4-5YR4/1	1.24
1175-292 SWC	4501m	A 98% Silty sandstone, blocky, fine to medium grained, micaceous, minor coal inclusions, pale milky cut, medium brownish grey	5YR5/1	1.31
1175-293	4500-510m	A 85% Sandstone, mostly unconsolidated, medium grained, subangular, fairly well sorted, non-calc., pinkish grey	5YR8/1	
		B 15% Shaly mudstone, subfissile to platy, soft to mod. hard, non-calc., minor cavings, medium dark grey to medium brownish grey Minor limestone	N4-5YR4/1	1.30

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Lost Circulation **M**aterial, **mod**erately, **occ**asionally, **sl**ightly, **v**ery

TABLE 1
ORGANIC CARBON RESULTS AND GROSS LITHOLOGIC DESCRIPTIONS

GEOCHEM SAMPLE NUMBER	DEPTH	GROSS LITHOLOGIC DESCRIPTION	G S A Colour Code	TOTAL ORGANIC CARBON (Wt. % of Rock)
1175-294	4510-520m	A 80% Sandstone, mostly unconsolidated, medium grained, subangular, fairly well sorted, non-calc., pale milky cut, pinkish grey	5YR8/1	
		B 15% Shaly mudstone, subfissile to platy, soft to mod. hard, non-calc., minor cavings, medium dark grey to medium brownish grey	N4-5YR4/1	1.18
		C 5% Coal, platy to blocky, brittle, greyish black	N2	49.80,49.30
1175-295	4520-4530m	A 98% Coal, brittle, sig. cavings, greyish black Minor shale and sandstone	N2	72.40
1175-296	4530-540m	A 98% LCM - cement Minor coal and shale		
1175-297	4540-550m	A 45% Sandstone, mostly unconsolidated, medium grained, subangular, fairly well sorted, pale milky cut, pinkish grey	5YR8/1	
		B 30% LCM - cement		
		C 15% Coal, blocky, brittle, greyish black	N2	45.30
		D 10% Silty mudstone, subfissile, soft to mod. hard, sl. micaceous, non-calc., medium dark grey to brownish grey	N4-5YR4/1	2.84
1175-298	4550-560m	A 95% Sandstone, blocky, fine to medium grained, subangular, well sorted, non-calc., pinkish grey	5YR8/1	
		B 5% Coal, blocky, brittle, greyish black Minor shale	N2	46.10
1175-299	4560-570m	A 80% Sandstone, as 1175-298A	5YR8/1	
		B 15% Coal, as 1175-298B	N2	52.40
		C 5% Silty mudstone, blocky, soft, micaceous, non-calc., sl. carb.?, medium dark grey to brownish grey	N4-5YR4/1	6.26
1175-300	4570-580m	A 75% Sandstone, as 1175-298A	5YR8/1	
		B 15% Coal, as 1175-298B	N2	34.75,35.15
		C 5% Silty mudstone, as 1175-299C	N4-5YR4/1	3.84
		C 5% LCM - cement		
1175-301	4580-590m	A 90% Sandstone, as 1175-298A	5YR8/1	
		B 5% Coal, as 1175-298B	N2	17.30
		C 5% Silty mudstone, as 1175-299C Minor LCM - cement	N4-5YR4/1	
1175-302	4590-600m	A 98% Sandstone, as 1175-298A Minor coal and mudstone	5YR8/1	
1175-303 CORE	4606.30-4606.31m	A 55% Coaly shale, platy, mod. hard, non-calc., dark grey to greyish black	N3-2	33.10
		B 45% Coal, blocky, brittle, black	N1	79.2

Abbreviations = **are**naceous, **arg**illaceous, **calc**areous, **Cut**, **dol**omitic, **F**luorescence, **foram**inifera, **foss**iliferous
Lost **C**irculation **M**aterial, **mod**erately, **occ**asionally, **sl**ightly, **v**ery

TABLE 1
ORGANIC CARBON RESULTS AND GROSS LITHOLOGIC DESCRIPTIONS

GEOCHEM SAMPLE NUMBER	DEPTH	GROSS LITHOLOGIC DESCRIPTION	G S A Colour Code	TOTAL ORGANIC CARBON (Wt. % of Rock)
1175-304	4600-610m	A 75% Sandstone, blocky, medium grained, subangular, well sorted, non-calc., pinkish grey	5YR8/1	
		B 45% Shale, subfissile to platy, mod. hard, sl. micaceous, sl. carb., non-calc., minor cavings, dark grey to brownish grey	N3-5YR4/1	1.80
		C 10% Coal, blocky, brittle, greyish black	N2	22.90
1175-305 CORE	4611.13-4611.15m	A 98% Silty shale, subfissile, mod. hard, non-calc., sl. micaceous, sl. carb?, medium dark grey	N4	2.29
1175-306 CORE	4613.38-4613.40m	A 98% Siltstone, blocky to subfissile, mod. hard, non-calc., medium grey to medium dark grey	N5-4	0.36,0.37
1175-307 CORE	4614.38-4614.40m	A 98% Shale, platy, hard, non-calc., dark grey to medium dark grey	N3-4	5.09
1175-308 CORE	4618.90-4618.92m	A 98% Shale, platy, hard, non-calc., minor coal, dark grey to medium dark grey	N3-4	3.61
1175-309	4610-620m	A 45% Sandstone, blocky, medium grained, subangular, fairly well sorted, pinkish grey	5YR8/1	
		B 30% Shale, platy to subfissile, sl. silty, non-calc., rare coal inclusions, minor cavings, dark grey to dark brownish grey	N3-5YR3/1	2.90
		C 20% Siltstone, blocky to subfissile, hard, non-calc., medium dark grey to brownish grey	N4-5YR4/1	1.74
		D <5% Coal, blocky, brittle, black	N1	63.00,63.40
1175-310	4620-630m	A 45% Sandstone, as 1175-309A	5YR8/1	
		B 40% Shale, as 1175-309B, minor cavings	N3-5YR3/1	2.23
		C 10% Siltstone, as 1175-309C, sig. cavings	N4-5YR4/1	1.46
		D <5% Coal, as 1175-309D LCM - paint and grease	N1	53.40
1175-311	4630-640m	A 65% Sandstone, mostly unconsolidated, medium grained, subangular, fairly well sorted, pinkish grey	5YR8/1	
		B 20% Shale, subfissile, sl. silty, mod. hard, sl. carb., non-calc., rare coal inclusions, medium dark grey to dark grey	N4-3	1.06
		C 15% Coal, blocky, brittle, black Minor siltstone	N1	63.60,64.00

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Lost **C**irculation **M**aterial, **mod**erately, **occ**asionally, **sl**ightly, **v**ery

TABLE 1
ORGANIC CARBON RESULTS AND GROSS LITHOLOGIC DESCRIPTIONS

GEOCHEM SAMPLE NUMBER	DEPTH	GROSS LITHOLOGIC DESCRIPTION	G S A Colour Code	TOTAL ORGANIC CARBON (Wt. % of Rock)
1175-312	4640-650m	A 40% Shale, subfissile, sl. silty, mod. hard, sl. carb., non-calc., rare coal inclusions, medium dark grey to dark grey	N4-3	5.41
		B 30% Sandstone, mostly unconsolidated, medium grained, subangular, fairly well sorted, pinkish grey	5YR8/1	
		C 30% Coal, blocky, brittle, black	N1	69.80
		Minor LCM		
1175-313	4650-660m	A 60% Sandstone, mostly unconsolidated, medium grained, subangular, fairly well sorted, pinkish grey	5YR8/1	
		B 25% Coal, as 1175-312C, minor cavings	N1	60.90
		C 15% Shale, as 1175-312A, minor cavings	N4-3	2.21
1175-314	4660-670m	A 60% Shale, platy to subfissile, hard, non-calc., sl. silty, sl. carb., minor cavings, medium dark grey to dark grey	N4-3	1.15
		B 30% Sandstone, as 1175-313A	5YR8/1	
		C 10% Carb. shale, blocky to subfissile, hard, non-calc., sig. cavings, dark grey	N3	10.58,10.52
		Minor coal		
1175-315	4670-680m	A 80% Shale, as 1175-314A, minor cavings	N4-3	0.95
		B 10% Sandstone, as 1175-313A	5YR8/1	
		C 10% Coal, as 1175-314C, minor cavings	N3	61.40
1175-316	4680-690m	A 80% Sandstone, mostly unconsolidated, medium grained, subangular, fairly well sorted, pinkish grey	5YR8/1	
		B 20% Shale, subfissile, mod. hard, sl. silty, non-calc., minor cavings, medium dark grey to brownish grey	N4-5YR4/1	0.56
		Minor coal		
1175-317	4690-700m	A 80% Shale, as 1175-316B, minor to sig. cavings	N4-5YR4/1	0.74
		B 15% Sandstone, as 1175-316A	5YR8/1	
		C 5% Coal, blocky, brittle, greyish black	N2	48.20
1175-318	4700-710m	A 90% Shale, as 1175-316B, sig. cavings	N4-5YR4/1	0.50,0.53
		B 10% Sandstone, as 1175-316A	5YR8/1	
		Minor coal and siltstone		
		Minor LCM		
1175-319	4710-720m	A 50% Shale, platy to subfissile, mod. hard, sl.silty, non-calc., sig. cavings, medium dark grey to brownish grey	N4-5YR4/1	1.22
		B 40% Siltstone, blocky, hard, non-calc., sig. cavings, medium grey	N5	0.53
		C 5% Coal, blocky, brittle, greyish black	N2	52.20
		D 5% Sandstone, as 1175-316A	5YR8/1	

Abbreviations = **arena**ceous, **argil**laceous, **calc**areous, **Cut**, **dol**omitic, Fluorescence, **foram**inifera, **foss**iliferous
Lost Circulation **M**aterial, **mod**erately, **occ**asionally, **sl**ightly, very

TABLE 1
ORGANIC CARBON RESULTS AND GROSS LITHOLOGIC DESCRIPTIONS

GEOCHEM SAMPLE NUMBER	DEPTH	GROSS LITHOLOGIC DESCRIPTION	GSA Colour Code	TOTAL ORGANIC CARBON (Wt. % of Rock)
1175-320	4730-740m	A 50% Shale, platy to subfissile, mod. hard, sl.silty, non-calc., sig. cavings, medium dark grey to brownish grey	N4-5YR4/1	1.92
		B 35% Sandstone, mostly unconsolidated, medium grained, subangular, well sorted, pinkish grey to white	5YR8/1-N9	
		C 15% Siltstone, blocky, hard, non-calc., sig. cavings, medium grey	N5	0.53
		Minor coal		
1175-321	4730-740m	A 40% Shale, as 1175-320A, sig. cavings	N4-5YR4/1	1.71
		B 40% Sandstone, as 1175-320B	5YR8/1-N9	
		C 15% Siltstone, as 1175-320C, sig. cavings	N5	0.35,0.34
		D <5% Coal, blocky, brittle, greyish black	N2	19.70
1175-322	4740-750m	A 50% Shale, as 1175-320A, sig. cavings	N4-5YR4/1	1.21
		B 45% Sandstone, as 1175-320B	5YR8/1-N9	
		C 5% Coal, as 1175-321D	N2	42.30
		Minor siltstone		
1175-323	4750-760m	A 65% Shale, as 1175-320A, sig. cavings	N4-5YR4/1	3.04,3.00
		B 25% Siltstone, blocky, mod. hard, medium grey	N5	0.37
		C 5% Sandstone, as 1175-320B	5YR8/1-N9	
		D 5% Coal, as 1175-321D	N2	52.20
1175-324	4760-770m	A 70% Shale, as 1175-320A, sig. cavings	N4-5YR4/1	3.17
		B 15% Siltstone, as 1175-323B, sig. cavings	N5	0.39
		C 10% Sandstone, as 1175-320B	5YR8/1-N9	
		D 5% Coal, as 1175-321D, minor cavings	N2	46.40
1175-325	4770-780m	A 55% Shale, as 1175-320A, sig. cavings	N4-5YR4/1	2.33,2.33
		B 25% Sandstone, as 1175-230B	5YR8/1-N9	
		C 15% Siltstone, as 1175-323B, sig. cavings	N5	0.50
		D 5% Coal, as 1175-321D, minor cavings	N2	37.80
1175-326	4780-790m	A 45% Sandstone, blocky, mostly unconsolidated, medium grained, subangular, fairly well sorted, pinkish grey	5YR8/1	
		B 40% Shale, as 1175-320A, sig. cavings	N4-5YR4/1	1.16
		C 10% Siltstone, as 1175-323B, sig. cavings	N5	0.52
		D 5% Coal, as 1175-321D, minor cavings	N2	29.40,29.30

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Lost Circulation Material, **mod**erately, **occ**asionally, **sl**ightly, very

TABLE 1
ORGANIC CARBON RESULTS AND GROSS LITHOLOGIC DESCRIPTIONS

GEOCHEM SAMPLE NUMBER	DEPTH	GROSS LITHOLOGIC DESCRIPTION	G S A Colour Code	TOTAL ORGANIC CARBON (Wt. % of Rock)
1175-327	4790-800m	A 80% Sandstone, blocky, mostly unconsolidated, medium grained, subangular, fairly well sorted, pinkish grey	5YR8/1	
		B 15% Shale, platy to subfissile, mod. hard, sl.silty, non-calc., sig. cavings, medium dark grey to brownish grey	N4-5YR4/1	2.28
		C 5% Coal, blocky, brittle, greyish black	N2	22.40
1175-328	4800-810m	A 65% Silty shale, platy, mod. hard, non-calc., sig. cavings, medium dark grey to brownish grey	N4-5YR4/1	1.03
		B 20% Sandstone, as 1175-327A	5YR8/1	
		C 10% Siltstone, blocky, mod. hard, non-calc., sig. cavings, medium grey	N5	0.91
		D 5% Coal, as 1175-327C, minor to sig. cavings	N2	64.4,64.8
1175-329	4810-820m	A 60% Silty shale, as 1175-328A, sig. cavings	N4-5YR4/1	3.92
		B 20% Siltstone, as 1175-328C	N5	0.42
		C 15% Sandstone, as 1175-327A	5YR8/1	
		D 5% Coal, as 1175-327C, minor cavings	N2	49.20
1175-330	4820-830m	A 65% Silty shale, as 1175-328A, sig. cavings	N4-5YR4/1	1.35
		B 20% Sandstone, as 1175-327A	5YR8/1	
		C 10% Siltstone, as 1175-328C, sig. cavings	N5	0.43,0.43
		D 5% Coal, as 1175-327C, minor cavings	N2	47.70
1175-331	4830-835m	A 55% Shale, as 1175-328A, sig.cavings	N4-5YR4/1	2.81
		B 25% Siltstone, as 1175-328C, sig. cavings	N5	0.29
		C 15% Sandstone, as 1175-327A	5YR8/1	
		D <5% Coal, as 1175-327C, minor cavings	N2	

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Lost Circulation Material, **mod**erately, **occ**asionally, **sl**ightly, very

TABLE 1a
ORGANIC CARBON RESULTS AND GROSS LITHOLOGIC DESCRIPTIONS

GEOCHEM SAMPLE NUMBER	DEPTH	GROSS LITHOLOGIC DESCRIPTION	G S A Colour Code	TOTAL ORGANIC CARBON (Wt. % of Rock)
1194-002 CORE	2391.20-2391.27m	A 98% Siltstone, subfissile, soft, micaceous, non-calc., sandy in part, medium grey to medium light grey	N5-6	
1194-003 CORE	3890.51-3890.57m	A 98% Sandstone, massive, medium-coarse grained, subangular, fairly well sorted, non-calc. matrix - pyritised in part, dull yellow F., milky cut, light brownish grey	5YR6/1	
1194-004 CORE	3900.00-3900.09m	A 98% Sandstone, massive, medium grained, subangular, fairly well sorted, non-calc. matrix, dull yellow F., milky cut, light brownish grey	5YR6/1	
1194-005 CORE	3903.04-3903.08m	A 98% Sandstone, massive, medium grained, subangular, fairly well sorted, grain supported, non-calc. matrix, dull yellow F., milky cut, very light brownish grey to light brownish grey	5YR7/1-5YR6/1	
1194-006 CORE	3905.55-3905.61m	A 98% Sandstone, massive, medium grained, subangular, fairly well sorted, grain supported, non-calc. matrix, dull yellow F., milky cut, medium brownish grey	5YR5/1	
1194-007 CORE	3910.81-3910.89m	A 98% Sandstone, massive, medium to coarse grained, subangular to subrounded, fairly well sorted, grain supported, sl. micaceous, dull yellow F., milky cut, medium brownish grey to light brownish grey	5YR5/1-5YR6/1	
1194-008 CORE	3912.56-3912.66m	A 98% Sandstone, massive, medium to coarse grained, subangular to subrounded, fairly well sorted, grain supported, non-calc. matrix, dull yellow F., milky cut, light brownish grey	5YR6/1	
1194-009 CORE	3916.86-3916.91m	A 98% Sandstone, massive, medium grained, subangular to subrounded, fairly well sorted, micaceous horizons, non-calc., matrix, dull yellow F., milky cut, light brownish grey	5YR6/1	
1194-010 CORE	3928.00-3928.05m	A 98% Sandstone, massive, medium grained, subangular, fairly well sorted, grain supported, micaceous, dull F., milky cut, light brownish grey	5YR7/1	
1194-011 CORE	3933.00-3933.07m	A 98% Sandstone, massive, medium-coarse grained, subangular, poorly sorted, grain supported, sl. micaceous, non-calc., dull yellow F., milky cut, very light brownish grey	5YR7/1	

Abbreviations = **aren**aceous, **arg**illaceous, **calc**areous, Cut, **dol**omitic, Fluorescence, **foram**inifera, **foss**iliferous Lost Circulation Material, **mod**erately, **occ**asionally, **sl**ightly, very

TABLE 1a
ORGANIC CARBON RESULTS AND GROSS LITHOLOGIC DESCRIPTIONS

GEOCHEM SAMPLE NUMBER	DEPTH	GROSS LITHOLOGIC DESCRIPTION	G S A Colour Code	TOTAL ORGANIC CARBON (Wt. % of Rock)
1194-012 CORE	3938.02-3938.10m	A 98% Sandstone, massive - medium to fine grained, subangular, fairly well sorted, grain supported, non-calc. matrix, micaceous horizons, dull yellow F., milky cut, very light brownish grey	5YR7/1	
1194-013 CORE	3941.51-3941.58m	A 98% Sandstone, massive, medium grained, subangular, fairly well sorted, grain supported, non-calc. matrix, sl. micaceous, dull yellow F., milky cut, very light brownish grey	5YR7/1	
1194-014 CORE	3947.52-3947.61m	A 98% Sandstone, massive, medium grained, subangular, fairly well sorted, grain supported, non-calc. matrix, sl. micaceous, dull yellow F., milky cut, very light brownish grey	5YR7/1	
1194-015 CORE	3953.78-3953.85m	A 98% Sandstone, massive, medium-fine grained, subangular, well sorted, grain supported, non-calc. matrix, dull yellow F., milky cut, very light brownish grey	5YR7/1	
1194-016 CORE	3960.00-3960.09m	A 98% Sandstone, massive, fine-medium grained, subangular, well sorted, grain supported, bioturbated?, frequent argillaceous/carbonaceous? laminae, pyritized in part, rare oil stain, very light grey to medium grey	N8-5	
1194-017 CORE	3964.01-3964.09m	A 98% Sandstone, massive, fine grained, subangular, well sorted, grain supported, non-calc. matrix, very light grey to light grey	N8-7	
1194-018 CORE	3969.52-3969.59m	A 98% Sandstone, massive, fine-medium grained, subangular, well sorted, grain supported, non-calc. matrix, minor organic?/argillaceous? structures, very light grey	N8	
1194-019 CORE	4021.53-4021.59m	A 98% Sandstone, massive, fine-medium grained, subangular, well sorted, non-calc. matrix, micaceous laminae, light grey to very light grey	N7-8	
1194-020 CORE	4032.00-4032.09m	A 98% Sandstone, massive, fine grained, well sorted, non-calc. matrix, very light grey	N8	
1194-021 CORE	4035.28-4035.35m	A 98% Sandstone, as 1194-020A	N8	
1194-022 CORE	4041.06-4041.14m	A 98% Sandstone, massive, fine grained, well sorted, sl. micaceous, non-calc., very light grey	N8	

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Lost **C**irculation **M**aterial, **mod**erately, **occ**asionally, **sl**ightly, very

TABLE 1a
ORGANIC CARBON RESULTS AND GROSS LITHOLOGIC DESCRIPTIONS

GEOCHEM SAMPLE NUMBER	DEPTH		GROSS LITHOLOGIC DESCRIPTION	G S A Colour Code	TOTAL ORGANIC CARBON (Wt. % of Rock)
1194-023 CORE	4049.19-4049.28m	A 98%	Sandstone, massive, fine grained, subangular, well sorted, grain supported, cross-bedded, micaceous laminae, very light grey to light grey	N8-7	
1194-024 CORE	4056.43-4056.50m	A 98%	Sandstone, massive, coarse grained, subangular, poorly sorted, grain supported, very light grey to very light brownish grey	N8-5YR7/1	
1194-025 CORE	4061.15-4061.23m	A 98%	Sandstone, massive, fine grained, subangular, well sorted, cross bedded, micaceous laminae, light grey to very light grey	N7-8	
1194-026 CORE	4065.65-4065.74m	A 98%	Sandstone, massive, fine grained, well sorted, bioturbated, light grey to very light grey	N7-8	
1194-027 CORE	4070.07-4070.14m	A 98%	Sandstone, massive, medium grained, subangular, well sorted, grain supported, very light brownish grey	5YR7/1	
1194-028 CORE	4073.04-4073.10m	A 98%	Sandstone, massive, medium grained, subangular, fairly well sorted, grain supported, minor argillaceous laminae, very light grey to light grey	N8-7	
1194-029 CORE	4305.16-4305.22m	A 98%	Sandstone, massive, medium grained, subangular, well sorted, grain supported, occ. argillaceous and carbonaceous horizons, very light grey to light grey	N8-7	
1194-030 CORE	4314.00-4314.06m	A 98%	Sandstone, massive, coarse grained, subangular, grain supported, fairly well sorted, minor argillaceous laminae, very light brownish grey to pinkish grey	5YR7/1-5YR8/1	
1194-031 CORE	4327.35-4327.40m	A 98%	Sandstone, massive, fine-medium grained, compact, well sorted, non-calc., sl. micaceous, dull yellow gold F., milky cut, very light brownish grey	5YR7/1	

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Lost Circulation Material, **mod**erately, **occ**asionally, **sl**ightly, very

TABLE 2A
CONCENTRATION (VOL. PPM OF ROCK) OF C_1 - C_7 HYDROCARBONS IN AIR SPACE GAS

GEOCHEM SAMPLE NUMBER	DEPTH	C_1 Methane	C_2 Ethane	C_3 Propane	iC_4 Isobutane	nC_4 Butane	TOTAL C_1 - C_4	TOTAL C_2 - C_4	% GAS WETNESS	TOTAL C_5 - C_7	$\frac{iC_4}{nC_4}$
1175-002	380-430	8	4	3	1	1	17	10	55.8	3	0.71
1175-004	480-530	1375	180	147	0	2	1704	329	19.3	4218	0.12
1175-006	580-630	1213	2	3	0	0	1218	4	0.4	64	0.00
1175-008	680-730	1609	6	3	0	1	1619	10	0.6	33	0.08
1175-010	780-830	2990	12	9	0	1	3012	22	0.7	53	0.51
1175-013	880-930	3255	11	1	0	1	3268	13	0.4	42	0.05
1175-015	980-1030	2224	12	4	0	1	2240	16	0.7	6	0.33
1175-017	1080-1130	1137	9	11	1	1	1158	21	1.8	117	1.11
1175-019	1180-1230	2069	11	5	0	0	2085	16	0.8	12	1.92
1175-021	1280-1330	3001	21	13	3	2	3040	39	1.3	17	1.48
1175-023	1380-1430	2164	30	25	4	4	2225	62	2.8	17	0.93
1175-025	1480-1530	3378	33	23	6	3	3443	65	1.9	15	1.99
1175-027	1580-1630	4238	51	15	6	3	4313	75	1.7	12	1.91
1175-029	1680-1730	332	3	1	0	0	336	4	1.2	4	0.00
1175-031	1780-1830	2332	147	34	6	4	2522	190	7.5	16	1.64
1175-033	1880-1930	1584	139	47	8	9	1786	203	11.3	23	0.88
1175-035	1980-2030	1648	185	99	22	32	1987	339	17.1	26	0.69
1175-037	2080-2130	3571	887	674	219	291	5642	2071	36.7	327	0.75
1175-040	2180-2230	1039	401	353	84	136	2013	974	48.4	82	0.62
1175-046	2300-2310	1182	433	645	240	485	2985	1803	60.4	736	0.49
1175-051	2400-2450	662	178	177	49	75	1141	479	42.0	130	0.65
1175-054	2500-2520	64	23	28	7	11	134	69	51.8	34	0.68
1175-061	2600-2610	278	75	73	18	33	478	200	41.8	230	0.56
1175-072	2700-2710	206	70	241	112	235	864	658	76.1	1081	0.48
1175-082	2800-2810	68	39	85	28	66	287	219	76.4	284	0.43
1175-092	2900-2910	544	113	159	31	42	888	345	38.8	63	0.75
1175-103	3010-3020	759	135	115	29	21	1060	301	28.4	29	1.37
1175-106	3040-3050	120	24	27	7	5	184	64	34.9	12	1.38
1175-109	3070-3080	1516	51	39	11	8	1626	110	6.7	13	1.25
1175-112	3100-3110	238	30	24	7	4	304	66	21.6	8	1.77

TABLE 2A

CONCENTRATION (VOL. PPM OF ROCK) OF C_1 - C_7 HYDROCARBONS IN AIR SPACE GAS

GEOCHEM SAMPLE NUMBER	DEPTH	C_1 Methane	C_2 Ethane	C_3 Propane	iC_4 Isobutane	nC_4 Butane	TOTAL C_1 - C_4	TOTAL C_2 - C_4	% GAS WETNESS	TOTAL C_5 - C_7	$\frac{iC_4}{nC_4}$
1175-115	3130-3140	836	182	127	29	35	1209	373	30.9	46	0.84
1175-118	3160-3170	1162	49	31	8	6	1255	93	7.4	2	1.35
1175-122	3190-3200	757	188	134	26	31	1137	380	33.4	31	0.85
1175-126	3220-3230	818	148	123	21	33	1143	325	28.5	36	0.65
1175-129	3250-3260	346	121	92	13	27	600	253	42.3	31	0.48
1175-132	3280-3290	272	76	58	9	17	432	160	37.1	24	0.52
1175-135	3310-3320	920	160	98	11	28	1217	297	24.4	31	0.41
1175-138	3340-3350	511	180	153	15	27	887	375	42.4	16	0.56
1175-141	3370-3380	239	53	45	6	14	356	117	33.0	15	0.39
1175-144	3400-3410	435	116	96	9	27	682	247	36.3	27	0.34
1175-147	3430-3440	683	132	100	17	54	987	303	30.8	57	0.31
1175-150	3460-3470	765	401	512	112	319	2109	1344	63.7	559	0.35
1175-153	3490-3500	369	89	128	37	119	742	373	50.2	987	0.31
1175-157	3520-3530	793	86	55	7	24	965	172	17.8	44	0.30
1175-160	3550-3560	1373	108	63	16	29	1590	216	13.6	81	0.54
1175-163	3580-3590	1196	264	79	7	29	1574	379	24.1	94	0.23
1175-166	3610-3620	484	143	31	3	11	671	188	27.9	16	0.26
1175-170	3640-3650	844	288	74	6	13	1225	380	31.1	2	0.46
1175-173	3670-3680	1121	764	678	124	375	3063	1941	63.4	1183	0.33
1175-177	3700-3710	8358	6203	7870	3215	9681	35328	26969	76.3	14126	0.33
1175-182	3710-3720	1197	926	1115	822	1586	5647	4450	78.8	3069	0.52
1175-186	3720-3730	2663	2030	2534	1622	3658	12507	9844	78.7	6418	0.44
1175-189	3730-3740	1811	1283	1626	483	1775	6977	5166	74.0	2378	0.27
1175-193	3740-3750	3584	2725	3647	920	3638	14515	10931	75.3	5492	0.25
1175-196	3750-3760	1640	1232	1485	389	1471	6218	4578	73.6	2005	0.26
1175-201	3760-3770	1850	1333	1523	391	1457	6554	4704	71.8	1528	0.27
1175-203	3770-3780	724	497	550	212	620	2603	1879	72.2	526	0.34
1175-204	3780-3790	1048	639	873	169	650	3378	2331	69.0	1117	0.26
1175-205	3790-3800	919	553	712	136	560	2880	1961	68.1	1125	0.24
1175-206	3800-3810	669	385	323	63	219	1660	990	59.7	562	0.29
1175-208	3810-3820	1430	1179	1165	198	636	4608	3178	69.0	1134	0.31

TABLE 2A
CONCENTRATION (VOL. PPM OF ROCK) OF C_1 - C_7 HYDROCARBONS IN AIR SPACE GAS

GEOCHEM SAMPLE NUMBER	DEPTH	C_1 Methane	C_2 Ethane	C_3 Propane	iC_4 Isobutane	nC_4 Butane	TOTAL C_1 - C_4	TOTAL C_2 - C_4	% GAS WETNESS	TOTAL C_5 - C_7	$\frac{iC_4}{nC_4}$
1175-211	3820-3830	1335	1165	1353	306	1083	5242	3907	74.5	1157	0.28
1175-212	3830-3840	249	491	627	102	353	1823	1574	86.3	397	0.29
1175-213	3840-3850	1485	1191	1265	202	676	4820	3334	69.2	1107	0.30
1175-214	3850-3860	581	387	480	110	336	1893	1312	69.3	433	0.33
1175-216	3860-3870	359	220	360	85	236	1260	901	71.5	286	0.36
1175-217	3870-3880	824	689	785	165	372	2835	2011	70.9	264	0.44
1175-219	3880-3890	1681	1110	939	145	347	4222	2541	60.2	455	0.42
1175-220	3890-3900	604	739	1228	224	647	3441	2837	82.4	793	0.35
1175-223	3920-3930	2952	1532	1578	410	857	7330	4378	59.7	816	0.48
1175-226	3950-3960	2566	1267	1714	320	786	6652	4087	61.4	915	0.41
1175-229	3980-3990	1115	799	827	175	359	3274	2160	66.0	358	0.49
1175-235	4010-4020	2264	1711	2081	671	2040	8768	6504	74.2	2695	0.33
1175-238	4040-4050	792	688	820	155	439	2894	2102	72.6	826	0.35
1175-241	4070-4080	452	361	469	94	243	1618	1167	72.1	492	0.39
1175-244	4100-4110	951	545	544	95	204	2339	1388	59.4	297	0.47
1175-248	4130-4140	864	575	451	86	156	2132	1268	59.5	268	0.55
1175-252	4160-4170	5438	2943	2337	524	610	11852	6414	54.1	950	0.86
1175-255	4190-4200	2598	1299	1447	304	676	6323	3725	58.9	1136	0.45
1175-259	4220-4230	3329	1980	1991	361	917	8578	5249	61.2	1499	0.39
1175-262	4250-4260	1725	1015	1013	204	460	4417	2692	60.9	712	0.44
1175-266	4280-4290	2426	1546	1385	225	549	6132	3706	60.4	821	0.41
1175-271	4310-4320	964	762	802	144	374	3045	2082	68.4	696	0.39
1175-274	4327-4336	15509	7849	7049	1748	4150	36305	20796	57.3	5507	0.42
1175-276	4340-4350	5696	1503	795	127	253	8373	2677	32.0	1078	0.50
1175-279	4370-4380	4752	1428	996	180	417	7773	3021	38.9	2791	0.43
1175-281	4400-4410	701	847	1088	167	444	3247	2547	78.4	847	0.38
1175-284	4430-4440	93	149	491	84	264	1081	987	91.4	731	0.32
1175-286	4450-4460	3170	1713	1221	211	450	6765	3594	53.1	1098	0.47
1175-288	4460-4470	2166	788	489	90	219	3753	1586	42.3	507	0.41
1175-289	4470-4480	2759	926	638	123	269	4714	1956	41.5	941	0.46
1175-290	4480-4490	4548	1260	729	149	292	6978	2430	34.8	1156	0.51

TABLE 2A
CONCENTRATION (VOL. PPM OF ROCK) OF C_1 - C_7 HYDROCARBONS IN AIR SPACE GAS

GEOCHEM SAMPLE NUMBER	DEPTH	C_1 Methane	C_2 Ethane	C_3 Propane	iC_4 Isobutane	nC_4 Butane	TOTAL C_1 - C_4	TOTAL C_2 - C_4	% GAS WETNESS	TOTAL C_5 - C_7	$\frac{iC_4}{nC_4}$
1175-291	4490-4500	195	177	254	55	140	820	626	76.3	677	0.39
1175-293	4500-4510	4253	2362	1085	204	350	8255	4002	48.5	844	0.58
1175-294	4510-4520	9805	4961	2208	304	312	17589	7784	44.3	647	0.97
1175-295	4520-4530	10050	4404	565	38	50	15107	5057	33.5	325	0.75
1175-296	4530-4540	2621	1432	175	14	20	4262	1641	38.5	644	0.69
1175-297	4540-4550	11261	4452	519	59	50	16341	5080	31.1	181	1.19
1175-298	4550-4560	8999	3716	314	26	24	13079	4080	31.2	97	1.06
1175-299	4560-4570	15472	5640	601	44	30	21787	6315	29.0	56	1.48
1175-300	4570-4580	7106	2455	178	21	15	9775	2669	27.3	51	1.43
1175-301	4580-4590	5510	966	76	8	8	6567	1057	16.1	51	1.05
1175-302	4590-4600	8672	1640	194	32	23	10561	1889	17.9	82	1.36
1175-304	4600-4610	4686	1634	115	12	9	6455	1769	27.4	19	1.42
1175-309	4610-4620	2290	880	78	8	6	3262	972	29.8	5	1.47
1175-310	4620-4630	6234	2132	177	34	17	8594	2360	27.5	28	2.00
1175-311	4630-4640	28713	6442	759	145	75	36134	7421	20.5	233	1.92
1175-312	4640-4650	11639	3030	207	23	17	14916	3277	22.0	49	1.35
1175-313	4650-4660	5299	981	71	10	6	6368	1069	16.8	33	1.73
1175-314	4660-4670	6679	2317	230	28	14	9266	2588	27.9	47	2.06
1175-315	4670-4680	6967	2465	180	20	11	9643	2676	27.8	29	1.87
1175-316	4680-4690	3277	1109	66	9	4	4464	1188	26.6	16	2.58
1175-317	4690-4700	5817	2070	123	18	52	8080	2263	28.0	40	0.35
1175-318	4700-4710	6041	1777	98	12	7	7935	1893	23.9	34	1.73
1175-319	4710-4720	5352	1820	106	15	11	7304	1952	26.7	116	1.36
1175-320	4730-4740	4144	1547	128	35	10	5864	1720	29.3	145	3.62
1175-321	4730-4740	5082	1946	180	49	18	7276	2193	30.1	310	2.79
1175-322	4740-4750	2379	893	58	9	3	3342	962	28.8	87	3.36
1175-323	4750-4760	4564	1680	108	15	5	6372	1808	28.4	79	3.01
1175-324	4760-4770	4414	1458	72	10	3	5958	1544	25.9	85	3.22
1175-325	4770-4780	3767	1146	58	9	4	4984	1217	24.4	78	2.38
1175-326	4780-4790	10218	2391	118	29	14	12770	2552	20.0	306	2.04

TABLE 2A
CONCENTRATION (VOL. PPM OF ROCK) OF C_1 - C_7 HYDROCARBONS IN AIR SPACE GAS

GEOCHEM SAMPLE NUMBER	DEPTH	C_1 Methane	C_2 Ethane	C_3 Propane	iC_4 Isobutane	nC_4 Butane	TOTAL C_1 - C_4	TOTAL C_2 - C_4	% GAS WETNESS	TOTAL C_5 - C_7	$\frac{iC_4}{nC_4}$
1175-327	4790-4800	1815	432	18	2	1	2268	453	20.0	32	2.81
1175-328	4800-4810	3842	1253	64	8	3	5171	1329	25.7	55	2.23
1175-329	4810-4820	1628	568	36	4	1	2238	610	27.3	21	3.46
1175-330	4820-4830	1176	412	26	3	1	1618	442	27.3	19	2.52
1175-331	4830-4835	1748	563	23	3	2	2339	591	25.3	42	1.31

TABLE 2B

CONCENTRATION (VOL. PPM OF ROCK) OF C_1 - C_7 HYDROCARBONS IN CUTTING GAS

GEOCHEM SAMPLE NUMBER	DEPTH	C_1 Methane	C_2 Ethane	C_3 Propane	iC_4 Isobutane	nC_4 Butane	TOTAL C_1 - C_4	TOTAL C_2 - C_4	% GAS WETNESS	TOTAL C_5 - C_7	$\frac{iC_4}{nC_4}$
1175-002	380-430	196	15	9	1	3	223	27	12.3	453	0.23
1175-004	480-530	173	25	15	0	0	213	40	19.0	1084	0.30
1175-006	580-630	611	11	3	0	0	627	15	2.5	137	0.22
1175-008	680-730	950	8	3	1	1	963	13	1.4	70	0.59
1175-010	780-830	404	6	3	1	1	414	10	2.5	71	1.11
1175-013	880-930	261	14	6	2	8	291	29	10.0	171	0.19
1175-015	980-1030	1049	11	8	2	2	1072	23	2.2	67	1.06
1175-017	1080-1130	237	4	4	0	0	245	8	3.1	72	0.00
1175-019	1180-1230	1442	16	8	0	0	1467	25	1.7	49	0.44
1175-021	1280-1330	1300	16	11	3	3	1333	33	2.5	60	0.86
1175-023	1380-1430	1409	21	24	5	8	1468	59	4.0	26	0.62
1175-025	1480-1530	1214	25	31	14	12	1296	82	6.3	42	1.20
1175-027	1580-1630	1906	36	26	16	10	1994	88	4.4	45	1.56
1175-029	1680-1730	287	15	10	6	5	323	36	11.2	37	1.10
1175-031	1780-1830	2828	119	51	13	14	3025	197	6.5	91	0.89
1175-033	1880-1930	1633	111	72	18	28	1862	230	12.3	143	0.65
1175-035	1980-2030	1860	232	205	64	113	2474	614	24.8	254	0.57
1175-037	2080-2130	402	132	195	95	170	994	592	59.6	130	0.56
1175-040	2180-2230	1744	790	1474	554	1297	5859	4115	70.2	1494	0.43
1175-046	2300-2310	360	188	530	317	879	2274	1914	84.2	2835	0.36
1175-051	2400-2450	988	479	812	304	786	3370	2382	70.7	4004	0.39
1175-054	2500-2520	400	289	572	181	480	1921	1521	79.2	1442	0.38
1175-061	2600-2610	409	174	319	120	267	1288	879	68.2	2598	0.45
1175-072	2700-2710	112	67	374	341	967	1861	1749	94.0	8920	0.35
1175-082	2800-2810	375	323	1212	430	1025	3366	2990	88.8	1608	0.42
1175-092	2900-2910	313	155	437	85	213	1203	890	74.0	376	0.40
1175-103	3010-3020	342	150	246	50	74	861	519	60.3	133	0.67
1175-106	3040-3050	209	65	93	19	29	416	207	49.6	75	0.66
1175-109	3070-3080	1786	147	156	44	81	2214	427	19.3	384	0.55
1175-112	3100-3110	321	79	101	23	33	556	235	42.3	10	0.69

TABLE 2B

CONCENTRATION (VOL. PPM OF ROCK) OF C_1 - C_7 HYDROCARBONS IN CUTTING GAS

GEOCHEM SAMPLE NUMBER	DEPTH	C_1 Methane	C_2 Ethane	C_3 Propane	iC_4 Isobutane	nC_4 Butane	TOTAL C_1 - C_4	TOTAL C_2 - C_4	% GAS WETNESS	TOTAL C_5 - C_7	$\frac{iC_4}{nC_4}$
1175-115	3130-3140	849	294	398	74	196	1811	962	53.1	446	0.38
1175-118	3160-3170	1996	121	137	27	47	2328	333	14.3	98	0.57
1175-122	3190-3200	822	317	360	54	130	1683	861	51.2	220	0.41
1175-126	3220-3230	907	221	287	36	145	1596	688	43.2	193	0.25
1175-129	3250-3260	1151	403	478	49	221	2303	1151	50.0	253	0.22
1175-132	3280-3290	2820	778	756	65	351	4770	1950	40.9	415	0.19
1175-135	3310-3320	1593	292	229	17	116	2248	654	29.1	266	0.15
1175-138	3340-3350	601	192	396	24	166	1379	778	56.4	102	0.14
1175-141	3370-3380	1373	355	331	25	122	2207	833	37.8	123	0.20
1175-144	3400-3410	2193	221	226	14	107	2761	567	20.6	124	0.13
1175-147	3430-3440	2068	385	329	42	269	3093	1025	33.1	403	0.16
1175-150	3460-3470	5185	1124	1518	314	1425	9567	4382	45.8	4647	0.22
1175-153	3490-3500	2595	372	284	63	387	3701	1107	29.9	2461	0.16
1175-157	3520-3530	1159	167	156	26	135	1644	485	29.5	513	0.19
1175-160	3550-3560	1588	312	278	47	126	2350	762	32.4	332	0.37
1175-163	3580-3590	500	258	165	25	82	1028	529	51.4	183	0.30
1175-166	3610-3620	882	284	112	18	60	1357	474	35.0	102	0.30
1175-170	3640-3650	1059	710	414	17	129	2329	1270	54.5	126	0.13
1175-173	3670-3680	5300	2921	4288	860	3504	16873	11573	68.6	6935	0.25
1175-177	3700-3710	4501	1828	4697	1548	5834	18407	13907	75.5	13191	0.27
1175-182	3710-3720	3661	4815	7496	6152	12880	35004	31343	89.5	32633	0.48
1175-186	3720-3730	2196	3786	6875	5282	12036	30175	27979	92.7	33710	0.44
1175-189	3730-3740	2722	4173	7079	5385	12306	31666	28944	91.4	33298	0.44
1175-193	3740-3750	1490	2425	5926	3058	10212	23111	21622	93.6	26593	0.30
1175-196	3750-3760	1937	3701	6489	3741	11027	26897	24959	92.8	31469	0.34
1175-201	3760-3770	6222	5688	7965	6236	13218	39329	33107	84.2	31665	0.47
1175-203	3770-3780	4609	4767	6692	2742	9863	28673	24064	83.9	13740	0.28
1175-204	3780-3790	1955	1390	3390	952	4765	12452	10497	84.3	14096	0.20
1175-205	3790-3800	1896	1033	2056	540	2780	8304	6408	77.2	9801	0.19
1175-206	3800-3810	937	1934	2481	554	2476	8383	7446	88.8	6899	0.22
1175-208	3810-3820	1482	2742	3244	672	2856	10996	9514	86.5	8651	0.24

TABLE 2B
CONCENTRATION (VOL. PPM OF ROCK) OF C_1 - C_7 HYDROCARBONS IN CUTTING GAS

GEOCHEM SAMPLE NUMBER	DEPTH	C_1 Methane	C_2 Ethane	C_3 Propane	iC_4 Isobutane	nC_4 Butane	TOTAL C_1 - C_4	TOTAL C_2 - C_4	% GAS WETNESS	TOTAL C_5 - C_7	$\frac{iC_4}{nC_4}$
1175-211	3820-3830	895	1888	3060	705	3109	9657	8761	90.7	9378	0.23
1175-212	3830-3840	730	2659	5495	1468	6503	16855	16124	95.7	10087	0.23
1175-213	3840-3850	1696	1816	3597	814	3439	11361	9666	85.1	7714	0.24
1175-214	3850-3860	1646	1144	2242	640	2570	8243	6597	80.0	7115	0.25
1175-216	3860-3870	1790	1176	2910	768	3163	9808	8018	81.7	5097	0.24
1175-217	3870-3880	1611	1949	3800	819	3151	11330	9718	85.8	4094	0.26
1175-219	3880-3890	2288	3969	4992	768	2707	14725	12437	84.5	2456	0.28
1175-220	3890-3900	1593	857	2423	629	2188	7689	6096	79.3	2792	0.29
1175-223	3920-3930	4628	1414	1785	387	1213	9427	4798	50.9	2449	0.32
1175-226	3950-3960	1790	2146	5119	1645	4566	15266	13476	88.3	3663	0.36
1175-229	3980-3990	4099	4325	5684	1566	5333	21007	16908	80.5	7567	0.29
1175-235	4010-4020	1233	1923	4518	1240	5181	14095	12862	91.3	12742	0.24
1175-238	4040-4050	679	1099	2505	604	2010	6897	6218	90.2	2546	0.30
1175-241	4070-4080	424	395	875	236	897	2827	2403	85.0	2624	0.26
1175-244	4100-4110	1498	934	1041	204	624	4303	2804	65.2	1721	0.33
1175-248	4130-4140	1116	1367	1661	322	999	5466	4350	79.6	2706	0.32
1175-252	4160-4170	7166	2744	1347	283	457	11997	4830	40.3	1615	0.62
1175-255	4190-4200	2242	1067	1859	493	1853	7513	5272	70.2	5924	0.27
1175-259	4220-4230	2384	1153	1811	437	1712	7497	5113	68.2	6160	0.26
1175-262	4250-4260	2774	1460	2275	553	2111	9173	6399	69.8	6466	0.26
1175-266	4280-4290	1325	1264	2605	660	2568	8423	7098	84.3	5817	0.26
1175-271	4310-4320	2207	3142	4686	1064	3601	14701	12493	85.0	5294	0.30
1175-276	4340-4350	533	182	172	31	99	1017	484	47.6	739	0.31
1175-279	4370-4380	327	70	112	30	117	656	329	50.1	773	0.26
1175-281	4400-4410	910	1338	3209	719	2740	8917	8007	89.8	5516	0.26
1175-284	4430-4440	149	83	200	46	157	635	486	76.6	2630	0.29
1175-286	4450-4460	3327	1932	2548	513	1625	9946	6619	66.5	4047	0.32
1175-288	4460-4470	1332	482	559	132	394	2899	1567	54.0	1570	0.33
1175-289	4470-4480	1524	558	891	251	895	4118	2594	63.0	3398	0.28
1175-290	4480-4490	1410	528	449	107	291	2785	1375	49.4	1717	0.37

TABLE 2B
CONCENTRATION (VOL. PPM OF ROCK) OF C_1 - C_7 HYDROCARBONS IN CUTTING GAS

GEOCHEM SAMPLE NUMBER	DEPTH	C_1 Methane	C_2 Ethane	C_3 Propane	iC_4 Isobutane	nC_4 Butane	TOTAL C_1 - C_4	TOTAL C_2 - C_4	% GAS WETNESS	TOTAL C_5 - C_7	$\frac{iC_4}{nC_4}$
1175-291	4490-4500	1040	259	311	82	292	1985	945	47.6	1667	0.28
1175-293	4500-4510	2498	1095	555	129	311	4588	2090	45.6	1756	0.41
1175-294	4510-4520	6733	2316	372	46	82	9549	2816	29.5	326	0.56
1175-295	4520-4530	13371	7386	2894	215	209	24074	10704	44.5	200	1.03
1175-296	4530-4540	5806	3606	668	44	110	10234	4428	43.3	243	0.40
1175-297	4540-4550	4648	1315	172	14	25	6174	1525	24.7	150	0.58
1175-298	4550-4560	9612	4998	744	51	71	15475	5864	37.9	189	0.71
1175-299	4560-4570	10808	5512	919	73	58	17369	6561	37.8	77	1.27
1175-300	4570-4580	8554	4647	785	91	85	14163	5609	39.6	180	1.08
1175-301	4580-4590	6494	1486	156	16	25	8176	1683	20.6	155	0.64
1175-302	4590-4600	7047	1355	137	17	19	8575	1528	17.8	108	0.93
1175-304	4600-4610	6728	2127	240	23	30	9148	2420	26.5	67	0.76
1175-309	4610-4620	9472	5328	1011	78	70	15959	6487	40.6	68	1.12
1175-310	4620-4630	7505	3718	503	56	57	11840	4335	36.6	113	0.97
1175-311	4630-4640	7372	3071	387	42	46	10918	3546	32.5	103	0.92
1175-312	4640-4650	9715	5011	711	81	66	15585	5870	37.7	89	1.23
1175-313	4650-4660	8783	3066	349	42	41	12280	3498	28.5	72	1.01
1175-314	4660-4670	10262	4723	561	59	49	15654	5391	34.4	106	1.22
1175-315	4670-4680	10192	5048	711	76	55	16083	5891	36.6	114	1.39
1175-316	4680-4690	8660	3366	296	39	30	12390	3730	30.1	114	1.30
1175-317	4690-4700	6834	2201	199	18	17	9270	2436	26.3	63	1.06
1175-318	4700-4710	7823	3539	458	78	145	12042	4219	35.0	456	0.54
1175-319	4710-4720	9882	4893	586	70	50	15481	5599	36.2	585	1.39
1175-320	4730-4740	8751	3977	449	75	56	13309	4558	34.2	803	1.35
1175-321	4730-4740	9075	4493	678	138	92	14477	5402	37.3	990	1.50
1175-322	4740-4750	8665	3816	402	67	49	13000	4335	33.3	1006	1.36
1175-323	4750-4760	9565	4941	580	72	37	15194	5629	37.0	312	1.95
1175-324	4760-4770	10669	5219	690	92	49	16719	6049	36.2	367	1.89
1175-325	4770-4780	9394	3817	321	47	49	13628	4234	31.1	662	0.96
1175-326	4780-4790	6798	2172	197	23	27	9218	2419	26.2	674	0.85

TABLE 2B

CONCENTRATION (VOL. PPM OF ROCK) OF C_1 - C_7 HYDROCARBONS IN CUTTING GAS

GEOCHEM SAMPLE NUMBER	DEPTH	C_1 Methane	C_2 Ethane	C_3 Propane	iC_4 Isobutane	nC_4 Butane	TOTAL C_1 - C_4	TOTAL C_2 - C_4	% GAS WETNESS	TOTAL C_5 - C_7	$\frac{iC_4}{nC_4}$
1175-327	4790-4800	9193	4128	338	35	36	13730	4537	33.0	442	0.97
1175-328	4800-4810	7890	2358	171	20	16	10456	2565	24.5	346	1.23
1175-329	4810-4820	10236	5154	723	85	61	16259	6023	37.0	463	1.39
1175-330	4820-4830	8227	3151	248	28	30	11684	3457	29.6	382	0.95
1175-331	4830-4835	7606	2755	222	23	24	10629	3024	28.4	118	0.99

TABLE 2C
TOTAL CONCENTRATION (VOL. PPM OF ROCK) OF C_1 - C_7 HYDROCARBONS (2A + 2B)

GEOCHEM SAMPLE NUMBER	DEPTH	C_1 Methane	C_2 Ethane	C_3 Propane	iC_4 Isobutane	nC_4 Butane	TOTAL C_1 - C_4	TOTAL C_2 - C_4	% GAS WETNESS	TOTAL C_5 - C_7	$\frac{iC_4}{nC_4}$
1175-002	380-430	203	20	12	2	4	241	37	15.5	456	0.39
1175-004	480-530	1548	205	162	0	2	1917	369	19.3	5302	0.14
1175-006	580-630	1825	13	6	0	0	1844	20	1.1	201	0.20
1175-008	680-730	2558	14	7	1	1	2582	23	0.9	103	0.38
1175-010	780-830	3394	18	11	1	2	3426	32	0.9	124	0.80
1175-013	880-930	3516	25	6	2	9	3558	42	1.2	213	0.17
1175-015	980-1030	3273	23	12	2	3	3312	40	1.2	73	0.83
1175-017	1080-1130	1375	13	15	1	1	1403	29	2.0	189	0.96
1175-019	1180-1230	3512	26	13	1	1	3552	40	1.1	60	0.93
1175-021	1280-1330	4301	37	24	6	5	4373	72	1.6	76	1.10
1175-023	1380-1430	3573	50	49	9	12	3693	121	3.3	43	0.72
1175-025	1480-1530	4592	58	54	20	15	4739	147	3.1	57	1.36
1175-027	1580-1630	6144	87	41	22	14	6307	163	2.6	57	1.64
1175-029	1680-1730	619	19	11	6	5	659	40	6.1	40	1.09
1175-031	1780-1830	5160	266	85	19	18	5547	387	7.0	107	1.04
1175-033	1880-1930	3216	250	119	26	37	3649	432	11.9	166	0.70
1175-035	1980-2030	3509	418	304	86	145	4462	953	21.4	280	0.59
1175-037	2080-2130	3973	1020	869	314	461	6637	2664	40.1	456	0.68
1175-040	2180-2230	2783	1190	1828	638	1434	7872	5089	64.6	1575	0.44
1175-046	2300-2310	1541	621	1175	557	1365	5259	3717	70.7	3570	0.41
1175-051	2400-2450	1650	657	990	353	861	4511	2861	63.4	4134	0.41
1175-054	2500-2520	464	312	600	188	490	2055	1590	77.4	1476	0.38
1175-061	2600-2610	687	249	392	138	299	1765	1078	61.1	2828	0.46
1175-072	2700-2710	318	136	615	453	1202	2725	2407	88.3	10000	0.38
1175-082	2800-2810	443	362	1297	458	1091	3652	3209	87.9	1893	0.42
1175-092	2900-2910	857	268	596	116	254	2091	1235	59.0	439	0.46
1175-103	3010-3020	1100	286	361	79	95	1920	820	42.7	162	0.83
1175-106	3040-3050	329	89	121	27	34	600	271	45.1	87	0.77
1175-109	3070-3080	3302	198	196	54	89	3840	537	14.0	397	0.61
1175-112	3100-3110	559	109	125	30	37	860	301	35.0	17	0.81

TABLE 2C

TOTAL CONCENTRATION (VOL. PPM OF ROCK) OF C_1 - C_7 HYDROCARBONS (2A + 2B)

GEOCHEM SAMPLE NUMBER	DEPTH	C_1 Methane	C_2 Ethane	C_3 Propane	iC_4 Isobutane	nC_4 Butane	TOTAL C_1 - C_4	TOTAL C_2 - C_4	% GAS WETNESS	TOTAL C_5 - C_7	$\frac{iC_4}{nC_4}$
1175-211	3820-3830	2230	3053	4413	1010	4192	14898	12668	85.0	10535	0.24
1175-212	3830-3840	980	3150	6122	1570	6856	18677	17698	94.8	10484	0.23
1175-213	3840-3850	3181	3008	4862	1016	4114	16181	13000	80.3	8822	0.25
1175-214	3850-3860	2226	1532	2722	750	2906	10136	7910	78.0	7548	0.26
1175-216	3860-3870	2149	1396	3270	853	3399	11068	8919	80.6	5383	0.25
1175-217	3870-3880	2435	2638	4585	983	3523	14165	11730	82.8	4358	0.28
1175-219	3880-3890	3969	5080	5931	913	3055	18947	14978	79.1	2911	0.30
1175-220	3890-3900	2197	1595	3650	853	2835	11131	8933	80.3	3585	0.30
1175-223	3920-3930	7581	2946	3363	797	2069	16757	9176	54.8	3264	0.39
1175-226	3950-3960	4356	3414	6833	1965	5351	21919	17563	80.1	4578	0.37
1175-229	3980-3990	5213	5124	6511	1741	5692	24282	19068	78.5	7925	0.31
1175-235	4010-4020	3497	3634	6599	1911	7222	22863	19366	84.7	15437	0.26
1175-238	4040-4050	1471	1787	3325	759	2449	9791	8320	85.0	3372	0.31
1175-241	4070-4080	876	756	1344	330	1139	4445	3570	80.3	3116	0.29
1175-244	4100-4110	2449	1479	1586	300	828	6641	4193	63.1	2018	0.36
1175-248	4130-4140	1980	1942	2112	408	1156	7598	5618	73.9	2973	0.35
1175-252	4160-4170	12604	5687	3684	807	1067	23849	11245	47.2	2565	0.76
1175-255	4190-4200	4839	2366	3306	796	2529	13837	8997	65.0	7060	0.31
1175-259	4220-4230	5713	3133	3802	798	2629	16074	10362	64.5	7658	0.30
1175-262	4250-4260	4498	2476	3288	756	2571	13590	9091	66.9	7178	0.29
1175-266	4280-4290	3751	2810	3991	885	3118	14555	10804	74.2	6638	0.28
1175-271	4310-4320	3171	3904	5488	1209	3975	17746	14575	82.1	5990	0.30
1175-274	4327-4336	15509	7849	7049	1748	4150	36305	20796	57.3	5507	0.42
1175-276	4340-4350	6229	1686	967	157	352	9391	3162	33.7	1817	0.45
1175-279	4370-4380	5079	1498	1107	210	534	8429	3350	39.7	3564	0.39
1175-281	4400-4410	1611	2186	4297	886	3184	12164	10554	86.8	6362	0.28
1175-284	4430-4440	242	232	691	130	421	1716	1473	85.9	3361	0.31
1175-286	4450-4460	6498	3645	3769	724	2075	16711	10213	61.1	5145	0.35
1175-288	4460-4470	3499	1271	1049	221	613	6652	3153	47.4	2077	0.36
1175-289	4470-4480	4282	1484	1528	374	1164	8832	4550	51.5	4339	0.32
1175-290	4480-4490	5958	1788	1177	256	583	9763	3805	39.0	2873	0.44

TABLE 2C

TOTAL CONCENTRATION (VOL. PPM OF ROCK) OF C_1 - C_7 HYDROCARBONS (2A + 2B)

GEOCHEM SAMPLE NUMBER	DEPTH	C_1 Methane	C_2 Ethane	C_3 Propane	iC_4 Isobutane	nC_4 Butane	TOTAL C_1 - C_4	TOTAL C_2 - C_4	% GAS WETNESS	TOTAL C_5 - C_7	$\frac{iC_4}{nC_4}$
1175-115	3130-3140	1685	476	525	103	231	3020	1335	44.2	492	0.45
1175-118	3160-3170	3157	171	167	35	53	3583	426	11.9	100	0.65
1175-122	3190-3200	1580	505	494	80	161	2820	1241	44.0	250	0.50
1175-126	3220-3230	1725	369	410	57	178	2738	1014	37.0	229	0.32
1175-129	3250-3260	1497	524	570	62	248	2902	1405	48.4	284	0.25
1175-132	3280-3290	3092	855	813	74	368	5203	2111	40.6	438	0.20
1175-135	3310-3320	2513	452	328	28	144	3465	952	27.5	297	0.20
1175-138	3340-3350	1112	371	549	39	193	2265	1153	50.9	118	0.20
1175-141	3370-3380	1612	408	376	30	136	2563	951	37.1	138	0.22
1175-144	3400-3410	2628	337	321	23	133	3443	815	23.7	151	0.17
1175-147	3430-3440	2751	517	430	59	323	4079	1328	32.6	460	0.18
1175-150	3460-3470	5950	1525	2030	426	1744	11675	5725	49.0	5206	0.24
1175-153	3490-3500	2964	461	412	100	507	4443	1480	33.3	3448	0.20
1175-157	3520-3530	1953	253	211	33	159	2609	657	25.2	558	0.21
1175-160	3550-3560	2961	420	341	63	155	3939	978	24.8	413	0.40
1175-163	3580-3590	1695	522	244	31	111	2603	908	34.9	278	0.28
1175-166	3610-3620	1366	427	143	21	71	2028	662	32.6	118	0.30
1175-170	3640-3650	1903	998	488	23	141	3554	1651	46.4	128	0.16
1175-173	3670-3680	6421	3685	4967	984	3878	19936	13515	67.8	8117	0.25
1175-177	3700-3710	12859	8031	12567	4763	15516	53735	40876	76.1	27317	0.31
1175-182	3710-3720	4858	5741	8611	6974	14466	40651	35793	88.0	35702	0.48
1175-186	3720-3730	4859	5816	9409	6904	15694	42683	37823	88.6	40128	0.44
1175-189	3730-3740	4533	5456	8705	5869	14081	38643	34110	88.3	35677	0.42
1175-193	3740-3750	5074	5150	9573	3978	13851	37627	32553	86.5	32085	0.29
1175-196	3750-3760	3578	4934	7975	4130	12498	33115	29537	89.2	33474	0.33
1175-201	3760-3770	8073	7021	9488	6627	14675	45883	37811	82.4	33193	0.45
1175-203	3770-3780	5333	5264	7242	2953	10483	31276	25943	82.9	14266	0.28
1175-204	3780-3790	3003	2030	4262	1121	5414	15831	12828	81.0	15213	0.21
1175-205	3790-3800	2814	1586	2767	677	3340	11184	8370	74.8	10926	0.20
1175-206	3800-3810	1607	2319	2804	617	2695	10042	8436	84.0	7461	0.23
1175-208	3810-3820	2912	3921	4409	870	3492	15604	12692	81.3	9786	0.25

TABLE 2C

TOTAL CONCENTRATION (VOL. PPM OF ROCK) OF C_1 - C_7 HYDROCARBONS (2A + 2B)

GEOCHEM SAMPLE NUMBER	DEPTH	C_1 Methane	C_2 Ethane	C_3 Propane	iC_4 Isobutane	nC_4 Butane	TOTAL C_1 - C_4	TOTAL C_2 - C_4	% GAS WETNESS	TOTAL C_5 - C_7	$\frac{iC_4}{nC_4}$
1175-291	4490-4500	1235	436	565	137	432	2805	1570	56.0	2344	0.32
1175-293	4500-4510	6751	3457	1641	333	661	12843	6092	47.4	2600	0.50
1175-294	4510-4520	16538	7277	2579	349	393	27137	10599	39.1	972	0.89
1175-295	4520-4530	23421	11790	3459	252	259	39181	15761	40.2	525	0.97
1175-296	4530-4540	8427	5038	843	58	130	14496	6069	41.9	887	0.45
1175-297	4540-4550	15909	5767	691	74	74	22515	6606	29.3	330	0.99
1175-298	4550-4560	18611	8714	1057	77	96	28555	9944	34.8	286	0.80
1175-299	4560-4570	26280	11152	1520	118	88	39156	12877	32.9	132	1.34
1175-300	4570-4580	15660	7103	963	113	100	23938	8278	34.6	231	1.13
1175-301	4580-4590	12004	2452	232	24	33	14744	2740	18.6	206	0.74
1175-302	4590-4600	15718	2995	331	49	42	19136	3417	17.9	190	1.17
1175-304	4600-4610	11414	3761	355	35	39	15603	4189	26.8	87	0.90
1175-309	4610-4620	11762	6208	1089	86	75	19221	7458	38.8	74	1.15
1175-310	4620-4630	13739	5850	681	90	74	20434	6695	32.8	140	1.21
1175-311	4630-4640	36085	9512	1146	187	122	47052	10967	23.3	336	1.54
1175-312	4640-4650	21354	8041	918	105	83	30501	9147	30.0	137	1.26
1175-313	4650-4660	14082	4047	420	52	47	18648	4566	24.5	105	1.10
1175-314	4660-4670	16941	7039	790	87	62	24920	7979	32.0	153	1.40
1175-315	4670-4680	17159	7513	891	96	66	25726	8567	33.3	143	1.47
1175-316	4680-4690	11937	4475	362	48	33	16854	4918	29.2	130	1.43
1175-317	4690-4700	12652	4271	322	37	70	17351	4699	27.1	102	0.52
1175-318	4700-4710	13864	5315	556	90	152	19976	6112	30.6	490	0.59
1175-319	4710-4720	15234	6713	692	85	61	22785	7551	33.1	701	1.38
1175-320	4730-4740	12895	5524	578	111	66	19172	6278	32.7	949	1.68
1175-321	4730-4740	14157	6439	859	188	110	21752	7595	34.9	1300	1.71
1175-322	4740-4750	11045	4709	460	76	52	16342	5297	32.4	1093	1.46
1175-323	4750-4760	14129	6621	688	87	42	21566	7437	34.5	392	2.07
1175-324	4760-4770	15083	6677	763	102	52	22676	7593	33.5	452	1.97
1175-325	4770-4780	13161	4964	379	56	53	18612	5451	29.3	740	1.06
1175-326	4780-4790	17016	4564	315	52	41	21987	4971	22.6	980	1.26

TABLE 2C

TOTAL CONCENTRATION (VOL. PPM OF ROCK) OF C_1 - C_7 HYDROCARBONS (2A + 2B)

GEOCHEM SAMPLE NUMBER	DEPTH	C_1 Methane	C_2 Ethane	C_3 Propane	iC_4 Isobutane	nC_4 Butane	TOTAL C_1 - C_4	TOTAL C_2 - C_4	% GAS WETNESS	TOTAL C_5 - C_7	$\frac{iC_4}{nC_4}$
1175-327	4790-4800	11008	4561	357	37	37	15998	4991	31.2	474	1.01
1175-328	4800-4810	11733	3611	236	28	20	15626	3894	24.9	401	1.41
1175-329	4810-4820	11864	5722	759	89	62	18497	6633	35.9	484	1.43
1175-330	4820-4830	9403	3563	274	31	31	13303	3900	29.3	402	1.00
1175-331	4830-4835	9353	3318	245	26	26	12968	3615	27.9	160	1.01

TABLE 3
KEROGEN TYPE AND MATURATION

GEOCHEM SAMPLE NUMBER	DEPTH	ORGANIC MATTER DESCRIPTION					THERMAL MATURATION	
		TYPES 40%; 10-40%; 10%	REMARKS	RE-WORKED (%)	PARTICLE SIZE	PRESERV-ATION	INDEX	1 – 10 SCALE
1175-004A	480-530m	W;I-H-Al;Am		50	F-C	F-G	1+	
1175-008A	680-730m	W;I-H;Al-Am		45	F-C	F-G	1+	
1175-013A	880-930m	W;I-H;Am-Al	H at 2- and 2- to 2	30	F-M/C	F-G	1+	
1175-019A	1180-230m	W;I-H-Am;Al	Am like contamination	40	F-M	F	1+	
1175-023A	1380-430m	-;W-Al-H-Am;I	differentiation difficult sapropelisation H at 2- and 2- to 2	10	F-M/C	F-G	1+/1+ to 2-	
1175-025A	1480-530m	-;W-Al-H-Am;I	as 023A	10	F-C	F-G	1+/1+ to 2-	
1175-027A	1580-630m	Am*;W-Al-H;I	*disseminated, not prime quality	5	F-M	F	1+/1+ to 2-	
1175-031B	1780-830m	Al*;Am*-W-H*;I	differentiation difficult *includes material passing to amorphous	10	F-C	F	1+/1+ to 2-	
1175-035B	1980-2030m	-;Al*-W-Am+-H;I	differentiation difficult *as 031B	15	F-M	F-G	1+/1+ to 2-	
1175-038A	2159m SWC	-;H-W-Al-I;Am		25	F-M/C	F-G	1+ to 2-	
1175-041A	2228m SWC	W-I;H;Al-Am	reworked H at 2- through 3-	85	F-M	F	1+ to 2-(?)	
1175-046A	2300-310m	W-I;H;Al-Am		65	F-M	F	1+ to 2-	
1175-050A	2420.5m SWC	W-I;Al-H;Am		60	M	G	2- max	
1175-053A	2473m SWC	W-I;H-Al;Am		70	F-C	F-G	2-	
1175-057A	2561m SWC	W;I-Al-H;Am	H at 2- through 2	70	F-M	G	1+ to 2-	
1175-067A	2665.4m SWC	W-I;-;H-Al	H at 2- through 2	90	F-M	F	2- to 2	
1175-082A	2800-810m	W-I;-;H-Al-Am	H at 2 through 2+	85	F-M	F	2-	
1175-092A	2900-910m	W-I;H;Al-Am		75	F-M	F	2- max	
1175-103A	3010-020m	W-I;-;H-Al	H at 2	85	F-M	G	2- to 2	

Algal, Amorphous, Herbaceous, Inertinite, Resin, Wood

postscript = coarse, cuticle, cysts, degraded, fine, other,. structured, spore-pollen, thick-walled, unstructured

Dominant, Major, Significant, Minor

TABLE 3

KEROGEN TYPE AND MATURATION

GEOCHEM SAMPLE NUMBER	DEPTH	ORGANIC MATTER DESCRIPTION					THERMAL MATURATION	
		TYPES 40%; 10-40%; 10%	REMARKS	RE-WORKED (%)	PARTICLE SIZE	PRESERV-ATION	INDEX	1 – 10 SCALE
1175-112A	3100-110m	W-I;-;H-Al		85	F-M	F	2- to 2/2(?)	
1175-120A	3182.9m SWC	W-I;-;H-Al	frequent disseminated amorphous-like contamination	90	F-M	P-F	2	
1175-125A	3223.4m SWC	W-I;-;H-Al	H at 2	90	F-M	F	2	
1175-138A	3340-350m	W-I;-;H-Al-Am	lean apart from contamination, cavings	--	F-M	P	---	
1175-147A	3430-440m	I;W;H-Al	lean, chiefly contamination **unreliable, sparse H variable between 1+ to 2- and 2 to 2+	90	F-M	?	**	
1175-155A	3511m SWC	Al*;I-W-Am*;H	differentiation difficult due to abundant fine pyrite *includes Al passing to Am	40	F-VC	F	2	
1175-163A	3500-590m	I;W;H-Al	contaminatiom	70	F-M	F	2 to 2+(?)	
1175-169A	3645.5m SWC	I;W;Am-H-Al		90	M	G	2 to 2+(?)	
1175-173A	3670-680m	I;W;H-Al	frequent contamination and lignite additive	--	F-M	F-G	---	
1175-178A	3710.5m SWC	Am*-Al*;W;I-H	*includes Al passing to Am	15	F-M/C	F	2 to 2+	
1175-183A	3721m SWC	-;Am*-Al*-I-W;H	*as 178A	10	F-C	F	2 to 2+	
1175-190A	3742.5m SWC	I;W-Am*-Al;H	*poor quality	70	F-C	F-G	2 to 2+	
1175-198A	3763.8m SWC	-;I-Am*-Al*-W;H	*as 178A H at 2+	50	F-C	F-G	2+	
1175-207A	3813.5m SWC	W;I-H;Am-Al	material at 2+	50	F-M	F-G	2 to 2+/2+	
1175-215A	3864m SWC	I-W;-;H-Al-Am		70	M	G	2 to 2+/2+	
1175-219A	3880-890m	W;I-H;Al-Am		50	F-C	G	2 to 2+	
1175-226A	3950-960m	W-I;H;Am-Al		65	F-M/C	F-G	2 to 2+	

Algal, Amorphous, Herbaceous, Inertinite, Resin, Wood

postscript = coarse, cuticle, cysts, degraded, fine, other,. structured, spore-pollen, thick-walled, unstructured

Dominant, Major, Significant, Minor

TABLE 3

KEROGEN TYPE AND MATURATION

GEOCHEM SAMPLE NUMBER	DEPTH	ORGANIC MATTER DESCRIPTION					THERMAL MATURATION	
		TYPES 40%; 10-40%; 10%	REMARKS	RE-WORKED (%)	PARTICLE SIZE	PRESERV-ATION	INDEX	1 – 10 SCALE
1175-233A	4014m SWC	W-I;H;Am-Al		60	M	G	2+	
1175-234A	4018.5m SWC	I-W;H;Am-Al	H at 2+	65	F-C	F-G	2+	
1175-245A	4113m SWC	W-I;-;H-Am-Al		65	F-C	F-G	2+	
1175-263A	4263m SWC	W-I;H;Am-Al		60	F-C	F-G	2+(?)	
1175-280A	4389m SWC	I-W;H;Am-Al		60	F-C	G	2+ to 3-	
1175-286C	4450-460m	W-I;H;Am-Al		60	F-C	F-G	2+ to 3-	
1175-292A	4501m SWC	W;I-H-Al;Am	sapropelisation	45	F-C	F-G	2+(?)	
1175-299C	4560-570m	Am*-W;-;Al-I-H	*degraded, includes incompletely developed material	15	F-C	F	2+ to 3-	
1175-303A CORE	4606.30-.31m	W;Al-H;Am-I	differentiation extremely difficult	--	F-VC	F-G	2+ to 3-	
1175-307A	4614.38-.40m	Am*;W-Al-H;I	differentiation difficult *degraded, frequently incompletely developed	10	F-C	F-G	2+ to 3-(?)	
1175-312A	4640-650m	-;Am*-W-Al*-I;H*	differentiation difficult *includes material passing to amorphous	25	F-VC	F-G	2+ to 3-	
1175-321A	4730-740m	W-I;H;Al-Am	significant H at 3- to 3 and 3	60	F-C	F-G	3-	
1175-323A	4750-760m	W-I;H;Am-Al	cavings, H at 3	50	F-C	F-G	3-(?)	
1175-331A	4830-835m	W-I;H;Am-Al	H at 3	60	F-C	G	3-	

Algal, Amorphous, Herbaceous, Inertinite, Resin, Wood

postscript = coarse, cuticle, cysts, degraded, fine, other,. structured, spore-pollen, thick-walled, unstructured

Dominant, Major, Significant, Minor

TABLE 4

STANDARD PYROLYSIS DATA

GEOCHEM SAMPLE NUMBER	DEPTH	ORGANIC CARBON	S1 (mg/g)	S2 (mg/g)	PRODUCTION INDEX	HYDROGEN INDEX	Tmax (%C)
1175-002A	380-430	0.31	0.09	0.15	0.38	48.4	422
1175-004A	480-530	0.36	0.14	0.31	0.31	86.1	427
1175-006A	580-630	0.29	0.05	0.12	0.29	41.4	426
1175-008A	680-730	0.36	0.06	0.18	0.25	50.0	435
1175-010A	780-830	0.35	0.05	0.17	0.23	48.6	423
1175-013A	880-930	0.44	0.08	0.40	0.17	90.9	421
1175-015A	980-1030	0.38	0.06	0.29	0.17	76.3	421
1175-017A	1080-1130	0.29	0.04	0.17	0.19	58.6	421
1175-019A	1180-1230	0.45	0.07	0.33	0.17	73.3	422
1175-021A	1280-1330	0.89	0.13	0.88	0.13	98.9	426
1175-021B	1280-1330	0.36	0.07	0.21	0.25	58.3	435
1175-023A	1380-1430	1.74	0.22	2.38	0.08	136.8	424
1175-025A	1480-1530	2.29	0.45	4.15	0.10	181.2	426
1175-027A	1580-1630	1.62	0.30	2.84	0.10	175.3	419
1175-029B	1680-1730	2.54	0.16	3.00	0.05	118.1	433
1175-031A	1780-1830	1.64	0.23	2.76	0.08	168.3	425
1175-031B	1780-1830	2.66	0.16	3.37	0.05	126.7	437
1175-033A	1880-1930	0.59	0.06	0.33	0.15	55.9	422
1175-033B	1880-1930	2.04	0.11	2.22	0.05	108.8	434
1175-035B	1980-2030	2.59	0.17	2.67	0.06	103.1	434
1175-037B	2080-2130	0.65	0.07	0.42	0.14	64.6	430
1175-038A	2159	1.17	0.08	1.18	0.06	100.9	423
1175-040A	2180-2230	1.17	0.13	1.53	0.08	130.8	419
1175-041A	2228	1.17	0.05	0.14	0.26	12.0	422
1175-046A	2300-2310	0.84	0.08	0.33	0.20	39.3	429
1175-046B	2300-2310	0.27	0.04	0.08	0.33	29.6	431
1175-051A	2400-2450	0.78	0.10	0.73	0.12	93.6	440
1175-050A	2420.5	0.86	0.06	0.57	0.10	66.3	434
1175-053A	2473	1.07	0.06	0.86	0.07	80.4	429
1175-053B	2473	0.56	0.10	0.63	0.14	112.5	427
1175-054A	2500-2520	0.76	0.10	0.64	0.14	84.2	434
1175-057A	2561	0.69	0.07	0.35	0.17	50.7	427
1175-061A	2600-2610	0.76	0.16	0.60	0.21	78.9	434
1175-067A	2665.4	0.52	0.06	0.12	0.33	23.1	435
1175-072A	2700-2710	0.92	0.38	1.01	0.27	109.8	436
1175-082A	2800-2810	0.71	0.13	0.41	0.24	57.7	429
1175-092A	2900-2910	1.05	0.12	0.78	0.13	74.3	441
1175-103A	3010-3020	1.06	0.10	0.55	0.15	51.9	434
1175-106A	3040-3050	0.88	0.09	0.41	0.18	46.6	435
1175-109A	3070-3080	0.78	0.06	0.28	0.18	35.9	431
1175-112A	3100-3110	0.90	0.11	0.39	0.22	43.3	428
1175-115A	3130-3140	0.79	0.09	0.33	0.21	41.8	435
1175-115B	3130-3140	0.83	0.13	0.29	0.31	34.9	436
1175-118A	3160-3170	0.84	0.09	0.31	0.22	36.9	433
1175-118B	3160-3170	0.78	0.06	0.28	0.18	35.9	429
1175-120A	3182.9	0.84	0.06	0.38	0.14	45.2	435
1175-122A	3190-3200	0.68	0.06	0.22	0.21	32.4	427
1175-126A	3220-3230	0.69	0.06	0.19	0.24	27.5	429
1175-125A	3223.4	0.78	0.09	0.60	0.13	76.9	417
1175-129A	3250-3260	0.86	0.07	0.07	0.50	8.1	428

TABLE 4

STANDARD PYROLYSIS DATA

GEOCHEM SAMPLE NUMBER	DEPTH	ORGANIC CARBON	S1 (mg/g)	S2 (mg/g)	PRODUCTION INDEX	HYDROGEN INDEX	Tmax (%C)
1175-129B	3250-3260	0.94	0.09	0.31	0.22	33.0	434
1175-132A	3280-3290	0.82	0.19	0.09	0.68	11.0	314
1175-135A	3310-3320	0.71	0.06	0.09	0.40	12.7	315
1175-138A	3340-3350	0.68	0.08	0.06	0.57	8.8	420
1175-141A	3370-3380	0.72	0.07	0.05	0.58	6.9	436
1175-144A	3400-3410	0.69	0.07	0.06	0.54	8.7	433
1175-147A	3430-3440	0.70	0.08	0.08	0.50	11.4	439
1175-150A	3460-3470	0.73	0.11	0.11	0.50	15.1	430
1175-153A	3490-3500	0.79	0.12	0.14	0.46	17.7	431
1175-155A	3511	2.66	0.31	2.69	0.10	101.1	435
1175-157A	3520-3530	0.68	0.06	0.03	0.67	4.4	418
1175-160A	3550-3560	0.89	0.09	0.29	0.24	32.6	431
1175-163A	3580-3590	1.20	0.08	0.60	0.12	50.0	436
1175-166A	3610-3620	0.96	0.17	0.18	0.49	18.7	440
1175-170A	3640-3650	1.29	0.08	0.21	0.28	16.3	426
1175-169A	3645.5	0.52	0.08	0.08	0.50	15.4	445
1175-173A	3670-3680	1.29	0.19	0.28	0.40	21.7	437
1175-173B	3670-3680	1.10	0.16	0.25	0.39	22.7	428
1175-182A	3710-3720	5.69	8.35	14.03	0.37	246.6	435
1175-178A	3710.5	5.44	4.81	9.47	0.34	174.1	436
1175-179A	3712	5.57	5.65	12.34	0.31	221.5	440
1175-180A	3717.5	5.62	6.28	10.08	0.38	179.4	444
1175-181A	3719	5.44	5.79	8.71	0.40	160.1	442
1175-186A	3720-3730	5.20	4.69	7.56	0.38	145.4	432
1175-183A	3721	6.51	8.16	10.89	0.43	167.3	437
1175-184A	3724.9	6.30	4.68	6.38	0.42	101.3	437
1175-185A	3729	5.75	7.82	11.03	0.41	191.8	437
1175-189A	3730-3740	5.24	3.76	5.23	0.42	99.8	434
1175-187A	3733.5	4.58	2.97	6.80	0.30	148.5	443
1175-188A	3739	4.97	6.47	6.29	0.51	126.6	435
1175-193A	3740-3750	4.76	3.81	5.43	0.41	114.1	433
1175-190A	3742.5	6.57	5.46	7.87	0.41	119.8	438
1175-191A	3746	4.43	3.55	4.72	0.43	106.5	437
1175-192A	3749.5	0.75	0.14	0.17	0.45	22.7	447
1175-196B	3750-3760	1.57	0.62	0.32	0.66	20.4	440
1175-194A	3754	5.27	5.61	8.86	0.39	168.1	442
1175-195A	3757.5	5.19	5.28	6.69	0.44	128.9	448
1175-201A	3760-3770	4.34	2.29	4.59	0.33	105.8	442
1175-197A	3760.5	4.93	6.74	9.87	0.41	200.2	441
1175-198A	3763.8	7.80	4.45	7.46	0.37	95.6	450
1175-199A	3766	5.16	3.95	6.67	0.37	129.3	442
1175-200A	3768.5	6.73	4.44	12.64	0.26	187.8	453

TABLE 4

STANDARD PYROLYSIS DATA

GEOCHEM SAMPLE NUMBER	DEPTH	ORGANIC CARBON	S1 (mg/g)	S2 (mg/g)	PRODUCTION INDEX	HYDROGEN INDEX	Tmax (%C)
1175-201A	3760-3770	4.34	2.29	4.59	0.33	105.8	442
1175-203A	3770-3780	3.64	0.87	1.84	0.32	50.5	441
1175-202A	3771	6.23	4.70	11.38	0.29	182.7	450
1175-204A	3780-3790	1.48	0.33	0.64	0.34	43.2	438
1175-205A	3790-3800	1.67	0.39	0.81	0.32	48.5	444
1175-206A	3800-3810	1.29	0.20	0.28	0.42	21.7	441
1175-208A	3810-3820	0.78	0.13	0.15	0.46	19.2	432
1175-207A	3813.5	1.09	0.37	0.79	0.32	72.5	439
1175-211A	3820-3830	0.82	0.12	0.38	0.24	46.3	441
1175-209A	3822.0	1.04	0.32	1.14	0.22	109.6	446
1175-210A	3825.5	1.08	0.15	0.48	0.24	44.4	471
1175-212A	3830-3840	1.07	0.36	1.37	0.21	128.0	449
1175-213A	3840-3850	1.11	0.28	0.88	0.24	79.3	442
1175-214A	3850-3860	1.09	0.35	0.79	0.31	72.5	438
1175-216A	3860-3870	1.38	0.39	0.85	0.31	61.6	446
1175-215A	3864	1.60	0.30	0.83	0.27	51.9	456
1175-217A	3870-3880	1.59	0.36	0.95	0.27	59.7	442
1175-219B	3880-3890	2.04	0.54	1.92	0.22	94.1	444
1175-218A	3888	1.10	0.16	0.48	0.25	43.6	469
1175-220B	3890-3900	1.33	0.70	2.41	0.23	181.2	445
1175-223B	3920-3930	1.18	0.36	1.27	0.22	107.6	447
1175-226A	3950-3960	1.15	0.42	1.56	0.21	135.7	447
1175-229A	3980-3990	1.21	0.31	1.04	0.23	86.0	447
1175-231A	4000	1.48	0.22	0.65	0.25	43.9	471
1175-235A	4010-4020	1.29	0.44	1.05	0.30	81.4	450
1175-235B	4010-4020	1.63	0.45	2.82	0.14	173.0	452
1175-233A	4014	1.46	0.25	0.70	0.26	47.9	468
1175-234A	4018.5	1.54	0.32	0.78	0.29	50.6	472
1175-238B	4040-4050	1.26	0.61	2.49	0.20	197.6	442
1175-241B	4070-4080	1.21	0.37	1.34	0.22	110.7	445
1175-245A	4113	1.26	0.22	0.63	0.26	50.0	461
1175-248A	4130-4140	0.83	0.21	0.59	0.26	71.1	451
1175-249A	4142	53.10	6.44	102.20	0.06	192.5	457
1175-255B	4190-4200	1.14	0.33	1.28	0.20	112.3	445
1175-259B	4220-4230	1.16	0.25	0.79	0.24	68.1	450
1175-258A	4225	1.49	0.25	0.85	0.23	57.0	466
1175-262A	4250-4260	1.16	0.28	0.97	0.22	83.6	453
1175-263A	4263	1.35	0.23	0.62	0.27	45.9	475
1175-266A	4280-4290	1.31	0.28	0.91	0.24	69.5	449
1175-266B	4280-4290	1.12	0.35	1.01	0.26	90.2	447
1175-271A	4310-4320	1.23	0.22	0.69	0.24	56.1	451
1175-280A	4389	0.72	0.21	0.48	0.30	66.7	468
1175-281A	4400-4410	0.98	0.27	0.97	0.22	99.0	449
1175-281B	4400-4410	1.28	0.33	1.02	0.24	79.7	452
1175-284A	4430-4440	1.05	0.34	0.91	0.27	86.7	452
1175-286A	4450-4460	1.10	0.29	0.99	0.23	90.0	451
1175-286C	4450-4460	2.25	0.48	1.46	0.25	64.9	458
1175-288B	4460-4470	1.24	0.30	0.96	0.24	77.4	451
1175-287A	4465	75.30	7.79	63.09	0.11	83.8	476

TABLE 4

STANDARD PYROLYSIS DATA

GEOCHEM SAMPLE NUMBER	DEPTH	ORGANIC CARBON	S1 (mg/g)	S2 (mg/g)	PRODUCTION INDEX	HYDROGEN INDEX	Tmax (%C)
1175-289B	4470-4480	1.62	0.34	1.16	0.23	71.6	457
1175-290B	4480-4490	1.41	0.37	0.99	0.27	70.2	455
1175-292A	4501	1.31	0.51	1.00	0.34	76.3	468
1175-294B	4510-4520	1.18	0.33	1.02	0.24	86.4	451
1175-295A	4520-4530	72.40	10.53	104.40	0.09	144.2	466
1175-297C	4540-4550	45.30	12.33	97.99	0.11	216.3	470
1175-297D	4540-4550	2.84	0.74	2.26	0.25	79.6	466
1175-299B	4560-4570	52.40	2.99	55.67	0.05	106.2	479
1175-299C	4560-4570	6.26	1.12	4.94	0.18	78.9	473
1175-300B	4570-4580	34.95	6.29	70.40	0.08	201.4	473
1175-304B	4600-4610	1.80	0.21	1.15	0.15	63.9	486
1175-303A	4606.30-1	33.10	2.99	53.90	0.05	162.8	474
1175-303B	4606.30-1	79.20	8.20	183.10	0.04	231.2	467
1175-309B	4610-4620	2.90	0.28	2.33	0.11	80.3	469
1175-309C	4610-4620	1.74	0.62	2.10	0.23	120.7	469
1175-305A	4611.13-5	2.29	0.19	1.04	0.15	45.4	474
1175-306A	4613.38-	0.36	0.06	0.15	0.29	41.7	477
1175-307A	4614.38-	5.09	0.27	5.11	0.05	100.4	474
1175-308A	4618.90-2	3.61	0.29	2.94	0.09	81.4	482
1175-310B	4620-4630	2.23	0.16	0.67	0.19	30.0	446
1175-311B	4630-4640	1.06	0.07	0.17	0.29	16.0	473
1175-311C	4630-4640	63.80	1.23	25.08	0.05	39.3	483
1175-312A	4640-4650	5.41	1.64	11.40	0.13	210.7	475
1175-313B	4650-4660	60.90	2.50	48.75	0.05	80.0	477
1175-314A	4660-4670	1.15	0.10	0.42	0.19	36.5	477
1175-314C	4660-4670	10.55	0.56	7.43	0.07	70.4	480
1175-315A	4670-4680	0.95	0.07	0.28	0.20	29.5	486
1175-316B	4680-4690	0.56	0.04	0.10	0.29	17.9	491
1175-317A	4690-4700	0.74	0.05	0.28	0.15	37.8	491
1175-318A	4700-4710	0.51	0.04	0.14	0.22	27.5	486
1175-319A	4710-4720	1.22	0.09	0.53	0.15	43.4	478
1175-320A	4730-4740	1.92	0.14	0.80	0.15	41.7	477
1175-321A	4730-4740	1.71	0.04	0.16	0.20	9.4	480
1175-322A	4740-4750	1.21	0.11	0.51	0.18	42.1	480
1175-323A	4750-4760	3.02	0.19	1.71	0.10	56.6	482
1175-323D	4750-4760	52.20	5.26	136.30	0.04	261.1	482
1175-324A	4760-4770	3.17	0.22	2.07	0.10	65.3	482
1175-325A	4770-4780	2.33	0.22	1.36	0.14	58.4	482
1175-326B	4780-4790	1.16	0.10	0.42	0.19	36.2	480
1175-327B	4790-4800	2.28	0.14	0.99	0.12	43.4	485
1175-328A	4800-4810	1.03	0.10	0.41	0.20	39.8	447
1175-329B	4810-4820	3.92	0.19	1.76	0.10	44.9	488
1175-330A	4820-4830	1.35	0.08	0.37	0.18	27.4	493
1175-331A	4830-4835	2.81	0.26	1.80	0.13	64.1	478

TABLE 5

GOGI INDEX

GEOCHEM SAMPLE NUMBER	DEPTH	% C_1	% C_2-C_5	% C_6-C_{14}	% C_{15+}
1175-025A	1480-1530m	13.28	37.99	47.37	1.36
1175-029B	1680-1730m	17.18	24.84	51.89	6.09
1175-031B	1780-1830m	16.73	23.79	57.46	2.02
1175-035B	1980-2030m	19.09	35.67	42.98	2.26
1175-038A	2159m SWC	12.88	46.77	38.45	1.90
1175-053A	2473m SWC	29.51	35.62	34.87	0
1175-092A	2900-2910m	19.09	42.74	38.17	0
1175-155A	3511m SWC	24.20	17.58	52.64	5.58
1175-179A	3712m SWC	11.36	11.85	55.99	20.80
1175-181A	3719m SWC	16.01	19.54	51.10	13.35
1175-182A	3710-3720m	10.57	30.02	52.07	7.34
1175-183A	3721m SWC	15.18	11.08	60.95	12.79
1175-184A	3724.9m SWC	7.74	17.29	55.23	19.74
1175-187A	3733.5m SWC	19.13	26.82	48.35	5.70
1175-190A	3742.5m SWC	18.19	20.47	54.07	7.27
1175-194A	3754m SWC	19.51	9.19	56.44	14.86
1175-198A	3763.8m SWC	20.08	20.05	54.55	5.32
1175-200A	3768.5m SWC	29.63	8.38	47.06	14.93
1175-201A	3760-3770m	20.68	31.73	45.35	2.24
1175-202A	3771m SWC	13.60	17.00	54.18	15.22
1175-209A	3822.0m SWC	12.14	37.49	43.78	6.59
1175-220B	3890-3900m	22.71	39.23	35.30	2.76
1175-235B	4010-4020m	22.35	35.45	36.70	5.50
1175-258A	4225m SWC	18.45	39.04	39.49	3.02
1175-286C	4450-4460m	22.88	54.60	22.52	0
1175-297C	4540-4550m	22.85	21.40	51.76	3.99
1175-299C	4560-4570m	49.91	18.92	31.17	0
1175-303A CORE	4606.30-4606.31m	59.34	8.85	26.90	4.91
1175-303B CORE	4606.30-4606.31m	31.93	5.64	28.28	34.15
1175-307A CORE	4614.38-4614.40m	59.80	13.30	26.90	0
1175-312A	4640-4650m	55.84	10.96	24.12	9.08
1175-313B	4650-4660m	39.00	7.92	31.75	21.33
1175-314C	4660-4670m	54.30	8.02	26.99	10.69
1175-323D	4750-4760m	57.35	8.78	27.81	6.06
1175-324A	4760-4770m	56.00	17.21	26.06	0.73
1175-331A	4830-4835m	50.29	29.95	19.76	0

TABLE 6a

CONCENTRATION (PPM) OF EXTRACTED C_{15+} MATERIAL IN ROCK

GEOCHEM SAMPLE NUMBER	DEPTH	TOTAL EXTRACT	HYDROCARBONS			NON HYDROCARBONS			
			Paraffin - Naphthenes	Aromatics	TOTAL	Precipt'd. Asphaltenes	Eluted NSO's	Non-eluted NSO's	Sulphur
1175-025	1480-1530	43	9	8	18	12	13	1	0
1175-072	2700-2710	801	576	115	692	32	66	11	0
1175-082	2800-2810	516	427	50	478	7	25	6	0
1175-092	2900-2910	481	335	71	406	34	31	9	0
1175-155A	3511	1291	515	408	922	180	150	39	0
1175-163A	3580-3590	147	65	41	107	14	25	2	0
1175-173A	3670-3680	313	116	97	213	36	58	7	0
1175-182A	3710-3720	10275	6807	1982	8789	429	997	59	0
1175-178A	3710.5	9100	5027	3053	8080	120	817	83	0
1175-193A	3740-3750	7792	4374	1857	6231	912	619	29	0
1175-190A	3742.5	8826	4855	2760	7615	454	678	79	0
1175-203A	3770-3780	6710	3814	1750	5565	448	651	47	0
1175-205A	3790-3800	866	306	282	588	102	160	16	0
1175-212A	3830-3840	798	391	221	612	86	93	8	0
1175-217A	3870-3880	703	239	244	483	119	98	2	0
1175-219A	3880-3890	889	196	230	426	311	138	14	0
1175-226A	3950-3960	1014	607	169	776	120	97	21	0
1175-258A	4225	793	185	185	370	299	114	11	0
1175-266A	4280-4290	517	248	120	368	65	78	6	0
1175-274	4327-4336	1128	768	134	902	104	113	9	0
1175-292A	4501	738	384	152	536	125	68	9	0
1175-303A	4606.30	1613	423	204	628	872	102	11	0
1175-307A	4614.38	583	216	72	289	249	37	8	0
1175-312A	4640-4650	1119	433	179	612	398	80	30	0
1175-323A	4750-4760	282	146	53	199	51	28	4	0
1175-327A	4790-4800	299	79	55	134	39	118	8	0
1175-331A	4830-4835	395	49	82	132	221	36	7	0

TABLE 6a

CONCENTRATION (PPM) OF EXTRACTED C_{15+} MATERIAL IN ROCK

GEOCHEM SAMPLE NUMBER	DEPTH	TOTAL EXTRACT	HYDROCARBONS			NON HYDROCARBONS			
			Paraffin - Naphthenes	Aromatics	TOTAL	Precipt'd. Asphaltenes	Eluted NSO's	Non-eluted NSO's	Sulphur
CORE SAMPLES									
1194-002A	2391.20	334	201	44	245	43	42	5	0
1194-003A	3890.51	1178	886	134	1020	56	89	12	0
1194-004A	3900.00	626	466	70	536	43	41	6	0
1194-005A	3903.04	1173	879	121	1000	74	87	12	0
1194-006A	3905.55	771	564	86	650	56	50	15	0
1194-007A	3910.81	549	419	62	481	32	36	0	0
1194-008A	3912.56	2724	2088	343	2432	80	183	29	0
1194-009A	3916.86	1056	769	142	911	37	96	12	0
1194-010A	3928.00	1569	1201	205	1406	49	98	15	0
1194-011A	3933.00	2099	1677	225	1901	54	132	12	0
1194-012A	3938.02	1445	1123	162	1285	40	113	7	0
1194-013A	3941.51	1383	1080	160	1239	49	80	14	0
1194-014A	3947.52	1225	879	171	1050	83	80	12	0
1194-015A	3953.78	1299	997	149	1146	56	89	8	0
1194-016A	3960.00	105	17	24	41	45	16	2	0
1194-017A	3964.01	102	14	19	33	48	21	0	0
1194-018A	3969.52	76	13	14	27	35	12	2	0
1194-019A	4021.53	84	9	19	28	46	10	0	0
1194-020A	4032.00	107	53	10	62	26	15	4	0
1194-021A	4035.28	119	55	12	67	34	17	2	0
1194-022A	4041.06	52	20	10	30	18	3	0	0
1194-023A	4049.19	57	16	5	21	26	9	1	0
1194-024A	4056.43	173	57	24	82	60	31	1	0
1194-025A	4061.15	85	26	16	42	32	10	1	0
1194-026A	4065.65	40	6	8	13	21	5	0	0
1194-027A	4070.07	135	54	18	72	36	25	1	0
1194-028A	4073.04	74	16	8	24	35	15	0	0
1194-029A	4305.16	565	414	84	498	47	18	3	0
1194-030A	4314.00	360	226	58	283	51	23	3	0
1194-031A	4327.35	911	703	120	823	32	54	2	0

TABLE 6b

COMPOSITION (NORMALISED %) OF C_{15+} MATERIAL EXTRACTED FROM ROCK

GEOCHEM SAMPLE NUMBER	DEPTH	HYDROCARBONS		NON HYDROCARBONS			
		Paraffin – Naphthenes	Aromatics	Preciptd. Asphaltenes	Eluted NSO's	Non eluted NSO's	Sulphur
1175-025	1480-1530	21.15	19.23	26.92	30.77	1.92	0.00
1175-072	2700-2710	71.97	14.38	4.04	8.26	1.35	0.00
1175-082	2800-2810	82.83	9.78	1.40	4.79	1.20	0.00
1175-092	2900-2910	69.63	14.86	7.06	6.51	1.93	0.00
1175-155A	3511	39.85	31.58	13.91	11.65	3.01	0.00
1175-163A	3580-3590	44.36	28.00	9.45	17.09	1.09	0.00
1175-173A	3670-3680	37.12	30.90	11.37	18.45	2.15	0.00
1175-182A	3710-3720	66.24	19.29	4.18	9.71	0.58	0.00
1175-178A	3710.5	55.24	33.55	1.31	8.98	0.91	0.00
1175-193A	3740-3750	56.13	23.84	11.71	7.95	0.38	0.00
1175-190A	3742.5	55.00	31.27	5.15	7.68	0.89	0.00
1175-203A	3770-3780	56.84	26.08	6.67	9.70	0.70	0.00
1175-205A	3790-3800	35.33	32.59	11.78	18.48	1.83	0.00
1175-212A	3830-3840	48.98	27.65	10.75	11.60	1.02	0.00
1175-217A	3870-3880	33.96	34.77	16.98	14.02	0.27	0.00
1175-219A	3880-3890	22.01	25.92	35.03	15.50	1.54	0.00
1175-226A	3950-3960	59.87	16.69	11.80	9.61	2.02	0.00
1175-258A	4225	23.29	23.29	37.67	14.38	1.37	0.00
1175-266A	4280-4290	47.90	23.25	12.61	15.13	1.12	0.00
1175-274	4327-4336	68.08	11.88	9.19	10.02	0.83	0.00
1175-292A	4501	52.02	20.56	16.94	9.27	1.21	0.00
1175-303A	4606.30	26.24	12.67	54.07	6.33	0.68	0.00
1175-307A	4614.38	37.14	12.44	42.76	6.30	1.36	0.00
1175-312A	4640-4650	38.67	16.00	35.56	7.11	2.67	0.00
1175-323A	4750-4760	51.88	18.80	18.05	9.77	1.50	0.00
1175-327A	4790-4800	26.32	18.42	13.16	39.47	2.63	0.00
1175-331A	4830-4835	12.50	20.83	55.90	9.03	1.74	0.00
1194-001	3889-3919 DST-2	84.19	10.90	0.80	3.36	0.67	0.07

TABLE 6b

COMPOSITION (NORMALISED %) OF C_{15+} MATERIAL EXTRACTED FROM ROCK

GEOCHEM SAMPLE NUMBER	DEPTH	HYDROCARBONS		NON HYDROCARBONS			
		Paraffin – Naphthenes	Aromatics	Preciptd. Asphaltenes	Eluted NSO's	Non eluted NSO's	Sulphur
CORE SAMPLES							
1194-002A	2391.20	60.10	13.08	12.82	12.56	1.42	0.00
1194-003A	3890.51	75.23	11.40	4.76	7.60	1.01	0.00
1194-004A	3900.00	74.44	11.15	6.86	6.52	1.03	0.00
1194-005A	3903.04	74.91	10.33	6.32	7.45	0.98	0.00
1194-006A	3905.55	73.19	11.10	7.31	6.50	1.90	0.00
1194-007A	3910.81	76.30	11.27	5.75	6.60	0.08	0.00
1194-008A	3912.56	76.66	12.61	2.95	6.71	1.08	0.00
1194-009A	3916.86	72.82	13.43	3.50	9.12	1.12	0.00
1194-010A	3928.00	76.52	13.09	3.14	6.27	0.98	0.00
1194-011A	3933.00	79.87	10.72	2.57	6.29	0.56	0.00
1194-012A	3938.02	77.76	11.22	2.78	7.79	0.46	0.00
1194-013A	3941.51	78.08	11.56	3.56	5.76	1.04	0.00
1194-014A	3947.52	71.74	13.99	6.76	6.52	0.99	0.00
1194-015A	3953.78	76.74	11.49	4.34	6.82	0.61	0.00
1194-016A	3960.00	16.43	23.21	43.21	15.36	1.79	0.00
1194-017A	3964.01	13.89	18.75	47.22	20.14	0.00	0.00
1194-018A	3969.52	17.33	18.67	46.00	16.00	2.00	0.00
1194-019A	4021.53	10.34	22.99	54.60	11.49	0.57	0.00
1194-020A	4032.00	49.26	9.26	24.07	14.07	3.33	0.00
1194-021A	4035.28	45.95	10.03	28.16	14.24	1.62	0.00
1194-022A	4041.06	39.23	19.23	34.62	6.15	0.77	0.00
1194-023A	4049.19	27.68	8.93	45.54	16.07	1.79	0.00
1194-024A	4056.43	32.97	14.05	34.59	17.84	0.54	0.00
1194-025A	4061.15	30.70	18.42	38.16	11.84	0.88	0.00
1194-026A	4065.65	14.55	19.09	51.82	13.64	0.91	0.00
1194-027A	4070.07	40.38	13.25	26.81	18.93	0.63	0.00
1194-028A	4073.04	22.29	10.24	46.99	19.88	0.60	0.00
1194-029A	4305.16	73.31	14.81	8.26	3.13	0.47	0.00
1194-030A	4314.00	62.77	16.06	14.11	6.33	0.73	0.00
1194-031A	4327.35	77.11	13.17	3.54	5.94	0.24	0.00

TABLE 7

SIGNIFICANT RATIOS (%) OF C_{15+} FRACTIONS AND ORGANIC CARBON

GEOCHEM SAMPLE NUMBER	DEPTH	ORGANIC CARBON (wt. %)	HYDROCARBONS / TOTAL EXTRACT	HYDROCARBONS / ORG. CARBON	TOTAL EXTRACT / ORG. CARBON	P-NAPHTHENES / AROMATICS
1175-025	1480-1530	2.33	40.38	0.08	0.19	1.10
1175-072	2700-2710	0.88	86.35	7.86	9.10	5.00
1175-082	2800-2810	0.74	92.61	6.46	6.97	8.47
1175-092	2900-2910	1.03	84.50	3.94	4.67	4.69
1175-155A	3511	2.99	71.43	3.08	4.32	1.26
1175-163A	3580-3590	1.07	72.36	1.00	1.38	1.58
1175-173A	3670-3680	1.62	68.03	1.32	1.93	1.20
1175-182A	3710-3720	4.92	85.54	17.86	20.88	3.43
1175-178A	3710.5	5.97	88.79	13.53	15.24	1.65
1175-193A	3740-3750	3.67	79.97	16.98	21.23	2.35
1175-190A	3742.5	6.34	86.28	12.01	13.92	1.76
1175-203A	3770-3780	3.59	82.93	15.50	18.69	2.18
1175-205A	3790-3800	1.66	67.92	3.54	5.22	1.08
1175-212A	3830-3840	1.09	76.62	5.61	7.32	1.77
75-217A	3870-3880	1.73	68.73	2.79	4.06	0.98
75-219A	3880-3890	2.49	47.93	1.71	3.57	0.85
1175-226A	3950-3960	0.99	76.56	7.84	10.24	3.59
1175-258A	4225	1.05	46.58	3.52	7.56	1.00
1175-266A	4280-4290	1.20	71.15	3.07	4.31	2.06
1175-274	4327-4336	1.14	79.96	7.91	9.90	5.73
1175-292A	4501	1.38	72.58	3.88	5.35	2.53
1175-303A	4606.30	33.60	38.91	0.19	0.48	2.07
1175-307A	4614.38	4.81	49.57	0.60	1.21	2.99
1175-312A	4640-4650	8.27	54.67	0.74	1.35	2.42
1175-323A	4750-4760	1.14	70.68	1.75	2.47	2.76
1175-327A	4790-4800	0.11	44.74	12.17	27.20	1.43
1175-331A	4830-4835	1.32	33.33	1.00	2.99	0.60

TABLE 7

SIGNIFICANT RATIOS (%) OF C_{15+} FRACTIONS AND ORGANIC CARBON

GEOCHEM SAMPLE NUMBER	DEPTH	ORGANIC CARBON (wt. %)	HYDROCARBONS / TOTAL EXTRACT	HYDROCARBONS / ORG. CARBON	TOTAL EXTRACT / ORG. CARBON	P-NAPHTHENES / AROMATICS
CORE SAMPLES						
1194-002A	2391.20	0.68	73.19	3.60	4.91	4.59
1194-003A	3890.51	0.11	86.63	92.75	107.07	6.60
1194-004A	3900.00	0.13	85.59	41.23	48.17	6.68
1194-005A	3903.04	0.11	85.24	90.91	106.65	7.25
1194-006A	3905.55	0.13	84.30	49.96	59.27	6.59
1194-007A	3910.81	0.17	87.57	28.28	32.30	6.77
1194-008A	3912.56	0.10	89.26	243.16	272.42	6.08
1194-009A	3916.86	0.20	86.25	45.54	52.80	5.42
1194-010A	3928.00	0.07	89:61	200.88	224.17	5.85
1194-011A	3933.00	0.09	90.58	211.27	233.23	7.45
1194-012A	3938.02	0.07	88.97	183.63	206.39	6.93
1194-013A	3941.51	0.11	89.64	112.68	125.70	6.76
1194-014A	3947.52	0.07	85.73	150.05	175.04	5.13
1194-015A	3953.78	0.07	88.23	163.73	185.58	6.68
94-016A	3960.00	0.29	39.64	1.43	3.61	0.71
94-017A	3964.01	0.11	32.64	3.04	9.32	0.74
1194-018A	3969.52	0.12	36.00	2.29	6.36	0.93
1194-019A	4021.53	0.11	33.33	2.55	7.66	0.45
1194-020A	4032.00	0.07	58.52	8.91	15.23	5.32
1194-021A	4035.28	0.04	55.99	16.67	29.77	4.58
1194-022A	4041.06	0.05	58.46	6.10	10.43	2.04
1194-023A	4049.19	0.08	36.61	2.61	7.12	3.10
1194-024A	4056.43	0.07	47.03	11.65	24.77	2.35
1194-025A	4061.15	0.27	49.12	1.55	3.15	1.67
1194-026A	4065.65	0.19	33.64	0.71	2.10	0.76
1194-027A	4070.07	0.10	53.63	7.22	13.46	3.05
1194-028A	4073.04	0.09	32.53	2.67	8.21	2.18
1194-029A	4305.16	0.14	88.13	35.56	40.35	4.95
1194-030A	4314.00	0.12	78.83	23.62	29.97	3.91
1194-031A	4327.35	0.11	90.29	74.81	82.86	5.85

TABLE 8
VITRINITE REFLECTANCE DATA

GEOCHEM SAMPLE NUMBER	DEPTH	SAMPLE TYPE	AVERAGE REFLECTIVITY Ro (%), (NUMBER OF PARTICLES)			REMARKS
			1	2	3	
1175-004A	480-530m	WR	0.33(7)	-	-	
1175-008A	680-730m	WR	0.33(5)	0.93(4)*	-	
1175-013A	880-930m	WR	0.40(3)	0.82(2)*	-	
1175-019A	1180-230m	WR	0.38(3)	0.99(2)*	-	
1175-023A	1380-430m	WR	0.39(2)	0.84(3)*	-	
1175-025A	1480-530m	WR	0.36(10)	-	-	
1175-027A	1580-630m	WR	0.38(7)	0.94(4)*	-	
1175-031B	1780-830m	WR	0.38(8)	0.98(4)*	-	
1175-035B	1980-2030m	WR	0.40(2)	1.02(6)*	-	
1175-038A	2159m SWC	WR	0.43(6)	1.03(8)*	-	
1175-041A	2228m SWC	WR	1.06(13)*	-	-	
1175-046A	2300-310m	WR	0.46(2)	1.08(10)*	-	
1175-050A	2420.5m SWC	WR	0.47(8)	1.06(2)*	-	
1175-053A	2473m SWC	WR	0.50(9)	1.08(4)*	-	
1175-057A	2561m SWC	WR	0.53(3)	1.06(10)*	-	
1175-067A	2665.4m SWC	WR	1.39(13)*	-	-	
1175-082A	2800-810m	WR	0.56(10)	1.05(5)*	-	
1175-092A	2900-910m	WR	0.67(22)	-	-	
1175-103A	3010-020m	WR	0.63(9)	1.00(5)*	-	
1175-112A	3100-110m	WR	0.69(15)	-	-	
1175-120A	3182.9m SWC	WR	0.74(6)	1.18(9)*	-	
1175-125A	3223.4m SWC	WR	0.76(8)	1.20(7)*	-	
1175-138A	3340-350m	WR	NO DETERMINATION POSSIBLE			
1175-147A	3430-440m	WR	1.22(5)*	-	-	
1175-155A	3511m SWC	WR	0.79(9)	1.19(4)*	-	
1175-163A	3580-590m	WR	NO DETERMINATIONS POSSIBLE			
1175-169A	3645.5m SWC	WR	1.64(14)*	-	-	
1175-173A	3670-680m	WR	2.41(12)*	-	-	
1175-178A	3710.5m SWC	WR	0.75(13)	-	-	
1175-183A	3721m SWC	WR	0.86(12)	-	-	
1175-190A	3742.5m SWC	WR	0.90(30)	-	-	
1175-198A	3763.8m SWC	WR	0.53(5)	0.94(9)	-	
1175-207A	3813.5m SWC	WR	0.96(14)	-	-	
1175-215A	3864m SWC	WR	1.12(16)	-	-	
1175-219A	3880-890m	WR	1.03(17)	-	-	
1175-226A	3950-960m	WR	1.22(12)	-	-	
1175-233A	4014m SWC	WR	1.17(17)	-	-	

CT—ditch cuttings; **CO**—core; **WR**—whole rock; **KC**—kerogen concentrate. Colours — spore fluorescence. ***Reworked**

TABLE 8

VITRINITE REFLECTANCE DATA

GEOCHEM SAMPLE NUMBER	DEPTH	SAMPLE TYPE	AVERAGE REFLECTIVITY Ro (%), (NUMBER OF PARTICLES)			REMARKS
			1	2	3	
1175-234A	4018.4m SWC	WR	1.20(14)	-	-	
1175-249A	4142m SWC	WR	1.05(39)	-	-	
1175-263A	4263m SWC	WR	1.26(19)	-	-	
1175-280A	4389m SWC	WR	1.27(14)	-	-	
1175-287A	4465m SWC	WR	1.14(14)	-	-	
1175-292A	4501m SWC	WR	1.14(30)	-	-	
1175-295A	4520-530m	WR	1.19(40)	-	-	
1175-299A	4560-570m	WR	1.17(40)	-	-	
1175-303A CORE	4606.30-.31m	WR	1.28(40)	-	-	
175-307A ORE	4614.38-.40m	WR	1.23(40)	-	-	
1175-213A	4640-650m	WR	1.28(20)	-	-	
1175-322D	4740-750m	WR	1.29(40)	-	-	
1175-323A	4750-760m	WR	1.32(14)	-	-	
1175-331A	4830-835m	WR	1.35(20)	-	-	

CT—ditch cuttings; **CO**—core; **WR**—whole rock; **KC**—kerogen concentrate. Colours – spore fluorescence. *Reworked

TABLE 9

METHYL PHENANTHRENE INDEX

GEOCHEM SAMPLE NUMBER	DEPTH	% AREA	% HEIGHT
1175-025	1480-1530m	0.78	0.83
1194-002A	2391.20-2391.27m	0.62	0.86
1175-072	2700-2710m	0.48	0.42
1175-082	2800-2810m	0.61	0.60
1175-092	2900-2910m	0.49	0.52
1175-155A	3511m	0.51	0.56
1175-163A	3580-3590m	0.52	0.60
1175-173A	3670-3680m	0.61	0.68
1175-178A	3710.5m	0.45	0.53
1175-182A	3710-3720m	0.46	0.52
1175-190A	3742.5m	0.46	0.56
1175-193A	3740-3750m	0.50	0.58
1175-203A	3770-3780m	0.59	0.57
1175-205A	3790-3800m	0.61	0.64
1175-212A	3830-3840m	0.61	0.65
1175-217A	3870-3880m	0.69	0.78
1175-219A	3880-3890m	1.25	1.35
1194-003A	3890.51-3890.57m	0.70	0.83
1194-001	3889-3919m	0.70	0.73
1194-004A	3900.00-3900.09m	0.65	0.81
1194-005A	3903.04-3903.08m	0.69	0.80
1194-006A	3905.55-3905.61m	0.73	0.87
1194-007A	3910.81-3910.89m	0.72	0.84
1194-008A	3912.56-3912.66m	0.72	0.82
1194-009A	3916.86-3916.91m	0.71	0.73
1194-010A	3928.00-3928.05m	0.70	0.83
1194-011A	3933.00-3933.07m	0.72	0.84
1194-012A	3938.02-3938.10m	0.69	0.87
1194-013A	3941.51-3941.58m	0.65	0.77
1194-014A	3947.52-3947.61m	0.70	0.86
1194-226A	3950-3960m	0.80	0.84
1194-015A	3953.78-3953.85m	0.81	0.93
1194-016A	3960.00-3960.09m	0.77	0.84
1194-017A	3964.01-3964.09m	0.94	1.04
1194-018A	3969.52-3969.59m	0.80	0.79
1194-019A	4021.53-4021.59m	1.18	1.20
1194-020A	4032.00-4032.09m	1.08	1.14
1194-021A	4035.28-4035.35m	0.99	1.14
1194-022A	4041.06-4041.14m	1.01	1.09
1194-023A	4049.19-4049.28m	0.87	0.95
1194-024A	4056.43-4056.50m	0.77	0.85
1194-025A	4061.15-4061.23m	0.84	0.83
1194-026A	4065.65-4065.74m	0.80	0.89
1194-027A	4070.07-4070.14m	0.80	0.93
1194-028A	4073.04-4073.10m	0.95	0.98
1194-258A	4225m	1.62	1.79
1194-266A	4280-4290m	0.64	0.68
1194-029A	4305.16-4305.22m	1.18	1.27

TABLE 9

METHYL PHENANTHRENE INDEX

GEOCHEM SAMPLE NUMBER	DEPTH	% AREA	% HEIGHT
1194-030A	4314.00-4314.06m	1.17	1.21
1194-031A	4327.35-4327.40m	1.19	1.18
1175-274	4327-4336m	0.95	0.85
1175-292A	4501m	1.26	1.29
1175-303A	4606.30-4606.31m	1.42	1.32
1175-307A	4614.38-4614.40m	1.47	1.46
1175-312A	4640-4650m	1.46	1.50
1175-323A	4750-4760m	1.35	1.34
1175-327A	4790-4800m	1.35	1.35
1175-331A	4830-4835m	1.22	1.25

TABLE 10

COMPOSITION (NORMALISED %) OF C_{15+} PARAFFIN – NAPHTHENE HYDROCARBONS

GEOCHEM SAMPLE NUMBER	-025	-002A	-072	-082	-092	-155A	-163A
DEPTH	1480-1530m	2391.20-2391.27m	2700-2710m	2800-2810m	2900-2910m	3511m SWC	3580-3590m
SAMPLE TYPE							
nC_{15}	1.01	8.93	8.76	3.76	3.97	2.86	4.38
nC_{16}	1.92	8.97	10.05	6.61	5.03	6.40	9.32
nC_{17}	3.47	9.90	10.08	10.17	6.06	8.82	9.65
nC_{18}	5.14	9.86	10.02	9.58	5.78	8.47	9.32
nC_{19}	6.35	9.79	9.93	9.61	6.47	10.27	10.46
nC_{20}	6.54	7.86	9.46	7.39	5.54	7.97	8.75
nC_{21}	5.85	6.57	6.63	4.91	3.57	7.43	5.35
nC_{22}	5.73	6.01	6.83	4.89	3.88	6.59	6.04
nC_{23}	6.76	4.57	5.47	3.80	3.20	6.46	6.06
nC_{24}	5.25	5.30	4.95	7.03	5.69	5.37	5.40
nC_{25}	6.92	4.59	4.16	4.64	5.06	5.54	5.14
nC_{26}	4.34	3.81	2.79	4.99	5.21	4.89	3.58
nC_{27}	6.80	2.77	2.15	2.23	2.93	3.45	3.07
nC_{28}	5.16	2.37	1.76	2.83	3.63	3.29	2.85
nC_{29}	8.31	2.00	1.60	1.88	3.98	2.90	2.41
nC_{30}	5.61	1.58	1.17	1.87	8.98	2.00	1.73
nC_{31}	6.42	1.71	0.84	1.23	3.68	1.86	1.55
nC_{32}	2.32	0.89	0.73	1.83	2.98	1.33	1.01
nC_{33}	2.90	1.16	0.93	2.75	2.44	1.85	1.13
nC_{34}	1.84	1.15	1.04	4.55	6.97	1.26	1.70
nC_{35}	1.37	0.22	0.66	3.44	4.96	1.00	1.10
PARAFFIN	22.19	21.23	19.29	7.70	6.94	19.48	14.40
ISOPRENOID	0.67	2.57	2.44	0.75	0.97	5.73	1.84
NAPHTHENE	77.14	76.20	78.27	91.55	92.10	74.79	83.76
CPI INDEX A	1.25	0.93	0.95	0.72	0.76	1.03	0.96
CPI INDEX B	1.51	1.06	1.09	0.73	0.71	1.04	1.11
PRISTANE/PHYTANE	0.65	1.51	1.17	0.97	2.36	4.06	1.61
PRISTANE/nC_{17}	0.34	0.74	0.68	0.47	1.62	2.67	0.82

TABLE 10

COMPOSITION (NORMALISED %) OF C_{15+} PARAFFIN – NAPHTHENE HYDROCARBONS

GEOCHEM SAMPLE NUMBER	-173A	-178A	-182A	-190A	-193A	-203A	-205A
DEPTH	3670-3680m	3710.5m SWC	3710-3720m	3742.5m SWC	3740-3750m	3770-3780m	3790-3800m
SAMPLE TYPE							
nC_{15}	7.00	12.10	10.97	14.19	10.01	11.04	4.13
nC_{16}	11.02	12.93	11.31	11.67	10.36	11.24	6.98
nC_{17}	10.41	11.38	10.28	10.21	10.18	9.52	8.16
nC_{18}	9.45	10.76	9.34	9.28	8.81	9.23	7.84
nC_{19}	9.86	9.23	9.54	7.53	9.06	9.51	9.25
nC_{20}	7.62	8.02	8.06	7.38	7.93	8.05	7.63
nC_{21}	5.48	6.22	6.36	5.32	5.79	6.13	6.90
nC_{22}	5.40	6.23	6.45	5.02	5.51	6.15	6.81
nC_{23}	5.43	4.98	4.54	3.74	4.83	5.12	5.96
nC_{24}	4.76	4.26	5.19	4.81	4.82	5.10	6.59
nC_{25}	4.03	3.48	4.29	3.95	4.10	4.26	5.64
nC_{26}	3.54	2.65	3.67	2.67	2.85	3.44	4.33
nC_{27}	2.91	1.55	1.81	2.15	2.36	2.27	4.25
nC_{28}	2.65	1.44	1.75	2.33	2.27	2.00	3.33
nC_{29}	2.33	1.11	1.25	1.79	1.98	1.54	3.35
nC_{30}	2.16	0.84	1.05	1.45	1.71	1.30	2.36
nC_{31}	1.74	0.74	0.68	1.27	1.64	0.86	1.97
nC_{32}	1.06	0.59	0.75	0.99	1.18	0.96	1.20
nC_{33}	1.31	0.47	0.85	1.36	1.36	1.17	0.97
nC_{34}	1.13	0.60	1.01	1.60	1.81	0.85	1.42
nC_{35}	0.70	0.42	0.86	1.29	1.44	0.26	0.94
PARAFFIN	20.10	15.55	15.13	14.61	15.43	14.69	27.59
ISOPRENOID	2.24	1.80	1.81	1.87	2.06	1.82	1.85
NAPHTHENE	77.66	82.64	83.06	83.52	82.51	83.49	70.56
CPI INDEX A	0.96	0.94	0.86	0.89	0.96	0.92	0.99
CPI INDEX B	1.00	1.00	0.90	1.02	1.06	0.96	1.14
PRISTANE/PHYTANE	1.75	1.06	1.01	1.18	1.28	1.17	2.11
PRISTANE/nC_{17}	0.68	0.53	0.59	0.68	0.74	0.70	0.56

TABLE 10

COMPOSITION (NORMALISED %) OF C_{15+} PARAFFIN – NAPHTHENE HYDROCARBONS

GEOCHEM SAMPLE NUMBER	-212A	-217A	-219A	-003A	-004A	-005A	-001
DEPTH	3830-3840m	3870-3880m	3880-3890m	3890.51-3890.57m	3900.00-3900.09m	3903.04-3903.08m	3889-3919m
SAMPLE TYPE							DST-2
nC_{15}	5.68	4.36	1.81	8.85	5.77	5.25	11.82
nC_{16}	8.20	6.06	5.38	8.90	6.33	6.76	10.00
nC_{17}	9.17	7.36	7.67	8.57	7.51	6.99	9.49
nC_{18}	9.75	8.16	9.58	8.90	8.00	7.12	8.49
nC_{19}	9.49	8.41	9.88	9.05	8.62	8.24	8.40
nC_{20}	8.03	8.18	8.29	7.45	7.90	7.59	6.96
nC_{21}	7.16	7.46	7.74	6.56	6.51	6.49	5.92
nC_{22}	6.65	6.76	7.69	6.21	6.76	7.01	5.59
nC_{23}	6.76	6.33	8.09	5.23	6.41	5.35	4.54
nC_{24}	6.10	6.40	7.13	5.20	6.42	6.44	5.03
nC_{25}	5.35	5.31	6.23	4.80	5.69	5.74	4.36
nC_{26}	4.13	4.67	4.92	3.66	6.60	4.86	3.75
nC_{27}	3.33	4.44	4.40	3.16	3.79	4.59	2.75
nC_{28}	2.54	3.41	2.73	2.74	3.20	3.60	2.41
nC_{29}	2.17	3.41	2.42	2.76	2.86	3.32	2.44
nC_{30}	1.30	2.36	1.47	1.91	1.95	2.69	1.82
nC_{31}	1.20	2.07	1.28	1.48	1.38	1.96	1.52
nC_{32}	0.81	1.14	0.75	1.26	1.16	1.34	1.25
nC_{33}	0.96	1.72	1.22	1.26	1.19	1.35	1.35
nC_{34}	0.73	1.17	0.82	1.24	1.13	1.65	1.21
nC_{35}	0.47	0.83	0.49	0.81	0.81	1.68	0.92
PARAFFIN	32.13	29.71	32.11	26.03	26.50	25.42	22.94
ISOPRENOID	1.53	1.34	2.01	3.22	2.84	2.74	2.83
NAPHTHENE	66.34	68.95	65.88	70.75	70.65	71.84	74.23
CPI INDEX A	1.04	1.01	1.06	0.99	0.89	0.93	0.94
CPI INDEX B	1.12	1.11	1.17	1.09	0.91	1.07	1.03
PRISTANE/PHYTANE	2.42	2.24	2.40	1.60	1.70	1.71	1.86
PRISTANE/nC_{17}	0.37	0.42	0.58	0.89	0.90	0.97	0.84

TABLE 10

COMPOSITION (NORMALISED %) OF C_{15+} PARAFFIN – NAPHTHENE HYDROCARBONS

GEOCHEM SAMPLE NUMBER	-006A	-007A	-008A	-009A	-010A	-011A	-012A
DEPTH	3905.55-3905.61m	3910.81-3910.89m	3912.56-3912.66m	3916.86-3916.91m	3928.00-3928.05m	3933.00-3933.07m	3938.02-3938.10m
SAMPLE TYPE							
nC_{15}	5.67	5.92	5.52	6.39	5.87	6.60	7.04
nC_{16}	7.13	7.00	6.92	6.50	6.99	6.76	7.13
nC_{17}	7.38	7.88	7.16	6.06	7.38	7.48	8.30
nC_{18}	7.48	7.08	7.42	5.96	7.44	7.20	7.72
nC_{19}	8.62	6.24	8.50	7.02	8.51	8.10	8.53
nC_{20}	7.59	5.41	7.69	6.00	7.61	7.55	7.79
nC_{21}	6.50	4.95	6.81	5.89	6.66	6.37	7.03
nC_{22}	6.75	5.20	7.09	6.10	6.71	6.62	6.91
nC_{23}	6.30	5.42	6.72	5.99	6.64	6.19	6.45
nC_{24}	6.19	6.02	6.41	5.86	6.62	5.79	6.24
nC_{25}	5.64	6.15	5.94	5.91	5.88	5.67	5.35
nC_{26}	5.01	5.68	5.15	5.37	4.92	4.75	4.20
nC_{27}	3.84	5.12	4.36	4.48	4.12	3.93	3.39
nC_{28}	3.54	4.72	3.30	4.06	3.37	3.43	2.92
nC_{29}	3.37	4.15	2.96	4.18	3.06	3.43	2.79
nC_{30}	2.39	3.15	2.00	3.05	2.08	2.40	1.98
nC_{31}	1.85	2.59	1.66	2.57	1.60	1.85	1.58
nC_{32}	1.25	2.01	1.03	2.23	1.08	1.53	1.10
nC_{33}	1.39	2.08	1.29	2.33	1.39	1.69	1.38
nC_{34}	1.23	1.96	1.25	2.19	1.21	1.55	1.27
nC_{35}	0.88	1.27	0.81	1.85	0.87	1.12	0.90
PARAFFIN	26.69	27.42	29.17	27.36	29.62	27.70	27.03
ISOPRENOID	2.86	2.50	3.15	3.20	3.39	3.24	3.55
NAPHTHENE	70.45	70.08	67.68	69.44	66.98	69.07	69.42
CPI INDEX A	0.95	0.99	1.00	1.00	0.99	0.99	0.99
CPI INDEX B	1.03	1.04	1.09	1.05	1.07	1.07	1.07
PRISTANE/PHYTANE	1.69	1.82	1.70	0.96	1.81	1.87	2.15
PRISTANE/nC_{17}	0.91	0.75	0.95	0.95	1.00	1.02	1.08

TABLE 10

COMPOSITION (NORMALISED %) OF C_{15+} PARAFFIN – NAPHTHENE HYDROCARBONS

GEOCHEM SAMPLE NUMBER	-013A	-014A	-015A	-226A	-016A	-017A	-018A
DEPTH	3941.51-3941.58m	3947.52-3947.61m	3953.78-3953.85m	3950-3960m	3960.00-3960.09m	3964.01-3964.09m	3969.52-3969.59m
SAMPLE TYPE							
nC_{15}	8.84	7.04	6.83	0.46	0.86	0.57	0.40
nC_{16}	8.55	7.10	7.65	1.91	3.43	0.48	1.67
nC_{17}	8.84	8.62	7.24	0.79	4.87	1.53	3.89
nC_{18}	7.20	6.93	7.12	4.67	4.48	4.86	4.34
nC_{19}	7.40	6.99	7.36	7.49	3.82	6.48	4.95
nC_{20}	6.53	6.88	7.18	8.51	3.75	7.05	5.40
nC_{21}	6.15	6.88	6.89	9.01	4.28	6.96	5.10
nC_{22}	5.96	6.60	6.65	8.83	5.40	7.34	5.20
nC_{23}	5.48	6.09	5.60	8.35	7.18	7.34	4.90
nC_{24}	5.28	6.04	5.60	6.88	8.70	7.05	5.35
nC_{25}	5.00	5.65	5.08	8.11	8.89	7.53	5.20
nC_{26}	4.42	4.97	4.50	5.39	8.70	6.01	5.56
nC_{27}	3.94	4.53	4.20	5.37	7.05	5.72	5.15
nC_{28}	3.27	5.20	3.79	4.70	5.80	5.15	5.35
nC_{29}	3.46	3.58	3.56	4.11	5.27	5.53	6.06
nC_{30}	2.59	2.40	2.63	3.21	4.22	3.53	5.96
nC_{31}	2.11	1.96	2.34	2.74	3.56	4.10	6.36
nC_{32}	1.44	1.29	1.63	2.32	3.03	3.15	5.81
nC_{33}	1.44	1.29	1.52	2.47	2.70	3.24	5.35
nC_{34}	1.25	1.06	1.52	2.33	2.37	3.05	4.70
nC_{35}	0.86	0.73	1.11	2.35	1.65	3.34	3.28
PARAFFIN	45.44	45.33	50.44	21.33	63.30	35.32	49.56
ISOPRENOID	5.24	5.02	5.68	0.35	3.34	0.71	1.88
NAPHTHENE	49.32	49.66	43.88	78.31	33.36	63.97	48.56
CPI INDEX A	1.01	0.98	0.98	1.12	1.00	1.04	0.95
CPI INDEX B	1.08	0.99	1.06	1.15	1.02	1.17	1.01
PRISTANE/PHYTANE	1.86	1.87	1.80	0.91	1.96	0.40	1.08
PRISTANE/nC_{17}	0.85	1.06	1.00	1.00	0.72	0.38	0.51

TABLE 10

COMPOSITION (NORMALISED %) OF C_{15+} PARAFFIN – NAPHTHENE HYDROCARBONS

GEOCHEM SAMPLE NUMBER	-019A	-020A	-021A	-022A	-023A	-024A	-025A
DEPTH	4021.53-4021.59m	4032.00-4032.09m	4035.28-4035.35m	4041.06-4041.14m	4049.19-4049.28m	4056.43-4056.50m	4061.15-4061.23m
SAMPLE TYPE							
nC_{15}	0.12	0.31	0.71	1.55	8.27	4.01	1.46
nC_{16}	0.47	1.96	2.76	4.49	11.44	5.32	4.04
nC_{17}	1.66	5.96	5.76	7.59	9.36	4.01	7.30
nC_{18}	3.79	8.86	7.89	7.89	6.90	2.91	7.73
nC_{19}	5.04	10.34	10.33	6.97	5.36	2.25	8.51
nC_{20}	6.40	10.66	10.49	6.50	5.54	2.14	7.90
nC_{21}	6.46	10.42	9.70	5.73	4.90	2.03	7.65
nC_{22}	6.28	9.40	9.07	4.95	4.72	2.63	6.01
nC_{23}	5.86	8.07	8.12	4.33	3.81	3.95	5.58
nC_{24}	6.28	6.58	6.86	4.64	3.81	5.54	6.62
nC_{25}	6.34	5.80	5.91	5.73	5.81	6.37	6.62
nC_{26}	5.39	4.70	5.05	4.33	3.63	7.35	4.64
nC_{27}	5.04	3.84	3.94	4.64	3.45	6.92	3.35
nC_{28}	4.92	3.13	3.31	4.80	4.09	6.64	4.47
nC_{29}	5.39	2.59	2.52	4.18	3.81	6.53	3.61
nC_{30}	5.39	1.96	1.89	4.02	2.91	6.31	3.09
nC_{31}	5.39	1.65	1.66	4.33	3.27	6.59	3.01
nC_{32}	4.98	1.25	1.34	3.72	2.72	5.71	2.49
nC_{33}	5.27	1.02	1.10	3.41	2.54	5.16	2.32
nC_{34}	5.63	0.86	0.95	3.41	2.18	4.06	2.06
nC_{35}	3.91	0.63	0.63	2.79	1.45	3.57	1.55
PARAFFIN	29.02	53.95	53.34	34.73	21.71	56.97	24.44
ISOPRENOID	0.50	0.80	0.80	1.83	1.58	1.44	1.22
NAPHTHENE	70.48	45.24	45.86	63.44	76.71	41.59	74.34
CPI INDEX A	1.00	1.04	1.01	1.05	1.06	0.98	0.99
CPI INDEX B	1.04	1.05	1.02	1.09	1.18	1.02	1.00
PRISTANE/PHYTANE	0.81	2.17	2.17	1.27	1.96	2.29	1.32
PRISTANE/nC_{17}	0.46	0.17	0.18	0.39	0.51	0.44	0.39

TABLE 10

COMPOSITION (NORMALISED %) OF C_{15+} PARAFFIN – NAPHTHENE HYDROCARBONS

GEOCHEM SAMPLE NUMBER	-026A	-027A	-028A	-258A	-266A	-029A	-030A
DEPTH	4065.65-4065.74m	4070.07-4070.14m	4073.04-4073.10m	4225m SWC	4280-4290m	4305.16-4305.22m	4314.00-4314.06m
SAMPLE TYPE							
nC_{15}	2.80	6.95	21.70	0.20	6.08	4.35	6.49
nC_{16}	6.93	6.64	19.13	0.32	9.67	5.26	6.82
nC_{17}	8.26	5.54	10.61	0.79	10.34	6.16	6.88
nC_{18}	8.54	4.86	6.75	2.59	10.13	6.67	6.94
nC_{19}	7.77	4.39	4.66	4.85	9.46	7.12	7.39
nC_{20}	7.49	4.18	4.34	7.12	8.27	7.07	7.22
nC_{21}	7.56	4.91	3.54	9.32	7.56	7.12	7.33
nC_{22}	5.18	4.70	3.38	10.43	6.53	7.35	6.71
nC_{23}	4.55	5.54	2.73	8.90	5.40	6.90	6.66
nC_{24}	4.20	6.12	2.89	10.58	4.94	6.61	6.26
nC_{25}	4.48	7.06	3.38	8.22	4.09	6.67	6.09
nC_{26}	4.06	6.01	2.73	7.15	3.10	5.26	5.02
nC_{27}	3.85	5.85	2.57	6.13	3.01	5.37	4.68
nC_{28}	3.92	6.38	2.25	5.83	2.69	4.07	3.55
nC_{29}	3.99	4.81	2.41	4.70	2.09	3.67	3.33
nC_{30}	3.78	4.08	1.61	3.27	1.68	2.71	2.31
nC_{31}	3.43	3.61	1.77	2.49	1.30	2.32	1.97
nC_{32}	2.94	2.98	1.13	2.15	0.58	1.75	1.41
nC_{33}	2.73	2.40	0.96	1.87	1.25	1.75	1.35
nC_{34}	2.17	1.78	0.80	1.82	1.09	1.02	0.85
nC_{35}	1.33	1.20	0.64	1.27	0.76	0.79	0.73
PARAFFIN	36.77	62.58	42.93	14.83	23.93	58.87	60.84
ISOPRENOID	1.44	1.44	2.55	0.26	1.32	1.20	1.75
NAPHTHENE	61.79	35.98	54.52	84.91	74.75	39.93	37.41
CPI INDEX A	1.08	1.06	1.00	0.94	1.02	1.06	1.07
CPI INDEX B	1.03	1.02	1.19	0.99	1.07	1.14	1.12
PRISTANE/PHYTANE	1.55	2.38	3.11	0.48	2.24	2.27	2.64
PRISTANE/nC_{17}	0.29	0.29	0.42	0.72	0.37	0.23	0.30

TABLE 10

COMPOSITION (NORMALISED %) OF C_{15+} PARAFFIN – NAPHTHENE HYDROCARBONS

GEOCHEM SAMPLE NUMBER	-031A	-274	-292A	-303A	-307A	-312A	-323A
DEPTH	4327.35-4327.40m	4327-4336m	4501m SWC	4606.30-4606.31m	4614.38-4614.40m	4640-4650m	4750-4760m
SAMPLE TYPE							
nC_{15}	4.67	3.81	1.54	4.95	6.06	5.69	0.66
nC_{16}	5.58	5.13	3.64	6.71	9.24	10.79	4.34
nC_{17}	6.31	6.28	5.22	9.32	9.81	11.30	7.76
nC_{18}	6.55	7.66	7.38	6.03	10.93	9.19	11.31
nC_{19}	7.28	7.77	8.52	5.78	8.76	8.92	10.43
nC_{20}	7.58	7.82	8.66	3.83	7.64	7.05	9.92
nC_{21}	8.31	7.81	8.77	2.94	4.88	4.96	6.51
nC_{22}	7.77	6.77	8.77	2.82	6.36	4.76	8.00
nC_{23}	7.95	7.52	7.68	2.09	3.50	4.50	6.27
nC_{24}	7.46	6.44	8.07	3.46	6.01	5.24	6.82
nC_{25}	7.71	7.09	6.81	5.98	3.99	4.73	5.60
nC_{26}	5.40	5.06	5.49	1.64	3.56	3.62	3.48
nC_{27}	5.28	4.43	4.68	1.53	2.45	3.03	3.20
nC_{28}	3.03	2.90	4.05	9.13	3.16	3.90	4.50
nC_{29}	2.55	2.89	3.21	2.32	2.31	2.67	2.76
nC_{30}	1.76	2.13	2.28	2.42	1.56	1.88	1.58
nC_{31}	1.52	1.75	1.76	3.00	1.80	2.48	1.77
nC_{32}	1.09	1.81	1.11	8.22	1.48	1.12	0.92
nC_{33}	1.21	2.02	1.19	3.38	1.97	1.70	1.61
nC_{34}	0.55	1.49	0.72	2.98	2.33	1.54	1.81
nC_{35}	0.42	1.42	0.45	11.45	2.20	0.91	0.74
PARAFFIN	71.84	17.26	49.53	4.49	12.83	16.82	18.81
ISOPRENOID	0.70	0.75	2.40	0.45	1.56	1.91	1.65
NAPHTHENE	27.46	81.99	48.07	95.07	85.61	81.28	79.54
CPI INDEX A	1.14	1.15	0.98	0.90	0.70	0.91	0.86
CPI INDEX B	1.24	1.17	1.05	0.68	0.91	1.05	1.04
PRISTANE/PHYTANE	3.00	1.51	2.16	1.36	1.56	1.82	1.01
PRISTANE/nC_{17}	0.12	0.42	0.64	0.62	0.75	0.65	0.57

TABLE 10

COMPOSITION (NORMALISED %) OF C_{15+} PARAFFIN – NAPHTHENE HYDROCARBONS

GEOCHEM SAMPLE NUMBER	-327A	-331A
DEPTH	4790-4800m	4830-4835m
SAMPLE TYPE		
nC_{15}	0.18	4.01
nC_{16}	0.66	8.56
nC_{17}	3.06	10.04
nC_{18}	6.51	10.64
nC_{19}	8.71	8.91
nC_{20}	9.66	8.68
nC_{21}	7.55	5.27
nC_{22}	8.90	7.53
nC_{23}	6.56	4.42
nC_{24}	6.82	4.23
nC_{25}	6.81	5.31
nC_{26}	4.83	3.50
nC_{27}	4.92	4.05
nC_{28}	6.65	2.84
nC_{29}	4.47	3.02
nC_{30}	2.89	2.17
nC_{31}	3.20	1.96
nC_{32}	1.67	1.14
nC_{33}	2.16	1.44
nC_{34}	2.48	1.25
nC_{35}	1.33	1.04
PARAFFIN	23.56	20.53
ISOPRENOID	1.51	2.76
NAPHTHENE	74.83	76.71
CPI INDEX A	0.90	0.92
CPI INDEX B	1.06	1.31
PRISTANE/PHYTANE	0.66	2.12
PRISTANE/nC_{17}	0.84	0.91

TABLE 11

DETAILED GASOLINE (C4-C7) ANALYSIS

CHEM SAMPLE NUMBER	001
DEPTH	3889-3919 DST-2
isobutane	1.23
n-butane	3.65
isopentane	3.71
n-pentane	6.05
2,2-dimethylB	0.12
cyclopentane(CP)	1.21
2,3-dimethylB	0.00
2-methylP	3.73
3-methylP	2.32
exane	7.99
hylCP(MCP)	5.49
2,2-dimethylP	0.35
2,4-dimethylP	0.04
2,2,3-trimethylB	0.00
benzene	3.34
cyclohexane(CH)	8.77
3,3-dimethylP	0.00
1,1-dimethylCP	0.00
2-methylH	3.28
2,3-dimethylP	0.57
3-methylH	2.95
1,c,3-dimethylCP	1.25
1,t,3-dimethylCP	1.17
1,t,2-dimethylCP	2.13
3-ethylP	0.00
n-heptane	9.71
methylCH(MCH)	18.16
1,c,2-dimethylCP	0.00
toluene	12.79
ABUNDANCE	
nC7/C7nap x100	42.78
MCP/Bz	1.64
MH/DMCP	1.37
nC6/MCP	1.46
%n-PARAFFINS	27.40
%iso-PARAFFINS	18.30
% NAPHTHENES	38.18
% AROMATICS	16.13

TABLE 12

CARBON ISOTOPE RESULTS

°/oo PDB

GEOCHEM SAMPLE NUMBER	DEPTH	PARAFFIN-NAPHTHENE	AROMATICS	NSO'S	ASPHALTENES	TOTAL EXTRACT	KEROGEN
1175-025	1480-530m	N/A	N/A	N/A	N/A	-27.38	-24.91
1194-002 CORE	2391.20-.27m	-30.31	-28.43	-28.86	-28.78	-29.08	-
1175-072	2700-710m	-31.18	-30.04	-29.60	-28.46	-30.19	-
1175-082	2800-810m	-29.20	-27.86	-27.77	-27.20*	-28.52	-
1175-092	2900-910m	-28.80	-27.58	-27.53	-27.30	-27.98	-
1175-155A	354m SWC	-29.44	-28.00	-27.78	-27.64	-28.61	-24.45
1175-163A	3580-590m	N/A	N/A	N/A	N/A	-28.16	-
1175-173A	3670-680m	-28.55	-27.77	-27.22	-27.80	-28.52	-26.14
1175-177A	3700-710m	N/A	N/A	N/A	N/A	N/A	-29.50
1175-178A	3710.5m SWC	-30.97	-29.71	-29.46	-29.31	-29.90	-29.49
1175-182A	3710-720m	-30.55	-29.16	-29.73	-29.91	-29.82	-29.28
1175-190A	3742.5m SWC	-30.78	-27.77*	-27.34	-28.08	-30.23	-27.36

* - very small sample

N/A - Insufficient sample material

TABLE 12

CARBON ISOTOPE RESULTS

$^{o}/_{oo}$ PDB

GEOCHEM SAMPLE NUMBER	DEPTH	PARAFFIN-NAPHTHENE	AROMATICS	NSO'S	ASPHALTENES	TOTAL EXTRACT	KEROGEN
1175-193A	3740-750m	-26.88	-24.75	-27.01*	-26.89*	-25.47	-25.78
1175-203A	3770-780m	-26.61	-24.85	-27.74*	-27.48	-25.67	-25.61
1175-205A	3790-800m	-27.52	-26.04	-26.52	-26.03	-26.44	-25.45
1175-212A	3830-840m	-28.05	-26.78	-27.87*	-26.80	-27.11	-26.30
1175-217A	3870-880m	-26.84	-24.52	N/A	-25.08	-26.27	-25.74
1175-219A	3880-890m	-26.40	-24.84	-25.10	-24.40	-25.63	-24.86
1194-001 DST 2	3889-919m	-29.05	-27.06	-27.80	-27.66	-28.58	-
1194-003 CORE	3890.51-.57m	-29.19	-27.59	-28.38	-28.34	-28.24	-
1194-004 CORE	3900.00-.09m	-29.11	-27.62	-29.03	-28.73	-28.01	-
1194-005 CORE	3903.04-.08m	-29.05	-27.24	-28.57	-27.98	-28.30	-

* - very small sample

N/A - insufficient sample material

TABLE 12

CARBON ISOTOPE RESULTS

$^{o}/_{oo}$ PDB

GEOCHEM SAMPLE NUMBER	DEPTH	PARAFFIN-NAPHTHENE	AROMATICS	NSO'S	ASPHALTENES	TOTAL EXTRACT	KEROGEN
1194-006 CORE	3905.55-.61m	-28.84	-27.42	-28.13	-29.00	-28.22	-
1194-007 CORE	3910.81-89m	-29.12	-27.39	-27.53	-27.88	-28.55	-
1194-008 CORE	3912.56-.66m	-28.08	-26.35	-27.95	-28.31	-28.00	-
1194-009 CORE	3916.86-.91m	-29.15	-27.56	-28.42	-28.30	-27.76	-
1194-010 CORE	3928.00-.05m	-29.40	-27.83	-29.10	N/A	-28.03	-
1194-011 CORE	3933.00-.07m	-29.43	-27.32	-28.48	-29.14	-27.81	-
1194-012 CORE	3938.02-.10m	-28.92	-27.10	-28.07	-28.41	-28.01	-
1194-013 CORE	3941.51-.58m	-29.22	-27.98	-28.57	-28.73	-28.16	-

* - very small sample

N/A - insufficient sample material

TABLE 12

CARBON ISOTOPE RESULTS

$^{o}/_{oo}$ PDB

GEOCHEM SAMPLE NUMBER	DEPTH	PARAFFIN-NAPHTHENE	AROMATICS	NSO'S	ASPHALTENES	TOTAL EXTRACT	KEROGEN
1194-014 CORE	3947.52-.61m	-28.55	-27.16	-28.35	-28.86	-28.26	-
1175-226A	3950-960m	-27.76	-26.44	-28.30	-27.65	-27.15	-
1194-015 CORE	3953.78-.85m	-28.55	-26.71	-27.39	-28.10	-28.42	-
1194-016 CORE	3960.00-.09m	-29.06	-25.95	-28.34	-27.69	-27.39	-
1194-017 CORE	3964.01-.09m	N/A	N/A	N/A	N/A	-27.27	-
1194-018 CORE	3969.52-.59m	N/A	N/A	N/A	N/A	-28.85	-
1194-019 CORE	4021.53-.59m	N/A	N/A	N/A	N/A	-27.12	-
1194-020 CORE	4032.00-.09m	N/A	N/A	N/A	N/A	-25.38	-

* - very small sample

N/A - insufficient sample material

TABLE 12

CARBON ISOTOPE RESULTS

°/oo PDB

GEOCHEM SAMPLE NUMBER	DEPTH	PARAFFIN-NAPHTHENE	AROMATICS	NSO'S	ASPHALTENES	TOTAL EXTRACT	KEROGEN
1194-021 CORE	4035.28-.35m	N/A	N/A	N/A	N/A	-25.95	-
1194-022 CORE	4041.06-.14m	N/A	N/A	N/A	N/A	-28.80	-
1194-023 CORE	4049.19-.28m	N/A	N/A	N/A	N/A	-31.12	-
1194-024 CORE	4056.43-.50m	N/A	N/A	N/A	N/A	-30.48	-
1194-025 CORE	4061.15-.23m	N/A	N/A	N/A	N/A	-27.40	-
1194-026 CORE	4065.65-.74m	-28.79*	-27.29*	-27.76*	-27.94*	-27.04	-
1194-027 CORE	4070.07-.14m	N/A	N/A	N/A	N/A	-28.24	-

* - very small sample

N/A - insufficient sample material

TABLE 12

CARBON ISOTOPE RESULTS

$^{o}/_{oo}$ PDB

GEOCHEM SAMPLE NUMBER	DEPTH	PARAFFIN-NAPHTHENE	AROMATICS	NSO'S	ASPHALTENES	TOTAL EXTRACT	KEROGEN
1194-028 CORE	4073.04-.10m	N/A	N/A	N/A	N/A	-28.09	-
1175-258A	4225m SWC	N/A	N/A	N/A	N/A	-26.81	-26.11
1175-266A	4280-290m	-28.76	-26.33	-27.08	-26.86	-26.84	-25.95
1194-029 CORE	4305.16-.22m	-30.30	-27.21*	-28.66*	-28.27*	-30.10	-
1194-030 CORE	4314.00-.06m	-28.61	-25.37*	N/A	-28.41	-27.25	-
1194-031 CORE CORE	4327.35-.40m	-31.10	-26.40	28.68	-29.01	-29.16	-
1175-274	4327-336m	-28.40	-26.80	-27.34	-27.39	-27.56	-
1175-292	4501m SWC	N/A	N/A	N/A	N/A	-26.93	-26.64

* - very small sample

N/A - insufficient sample material

TABLE 12

CARBON ISOTOPE RESULTS

$^{o}/_{oo}$ PDB

GEOCHEM SAMPLE NUMBER	DEPTH	PARAFFIN-NAPHTHENE	AROMATICS	NSO'S	ASPHALTENES	TOTAL EXTRACT	KEROGEN
1175-303 CORE	4606.30-.31m	N/A	N/A	N/A	-26.30	-25.90	-25.46
1175-307A CORE	4614.38-.40m	-27.88	-26.06	-26.78	-26.93	-26.67	-26.89
1175-312	4640-650m	N/A	N/A	N/A	N/A	-	-25.99
1175-323A	4750-760m	N/A	N/A	N/A	N/A	-27.26	-
1175-327A	4790-800m	N/A	N/A	N/A	N/A	-29.34	-
1175-331A	4830-835m	N/A	N/A	N/A	N/A	-27.21	-25.82

TABLE 13a

GC-MS DATA INTEGRATED PEAK AREAS

TERPANES (MZ 191)

GEOCHEM SAMPLE NUMBER	DEPTH	A	B	C	D	E	F	X	Z	G	H
1175-072	2700-2710m	40595	29962	45957	22082	113192	23272	21326	5673	57548	59881
1175-082	2800-2810m	67968	88119	253415	58222	319247	72745	17006	16741	170233	135586
1175-092	2900-2910m	18157	26080	70651	16730	116488	19543	4087	5002	39749	32777
1175-155	3511m SWC	44745	96201	226133	39148	298988	87699	38844	-	200379	137857
1175-173	3670-3680m	6176	10237	20178	4491	32472	5714	3930	738	15059	57139
1175-178	3710.5m SWC	9742	1960	2598	-	10192	907	3840	-	4686	3330
1175-182	3710-3720m	20805	4024	3135	-	17820	1380	8155	-	8325	7470
1175-190	3742.5m SWC	11538	2591	1189	-	6565	959	6000	780	3595	2108
1175-193	3740-3750m	9947	11617	9702	850	25614	3041	11320	679	11609	9400
1175-203	3770-3780m	60945	59778	51929	7620	140253	13947	64615	2830	65001	53485
1175-205	3790-3800m	12250	16168	14489	2396	29838	1506	16278	716	14992	49497
1175-212	3830-3840m	1695	1998	1922	423	3715	443	1767	262	1473	2023
1175-217	3870-3880m	4837	7255	5072	7710	8195	1230	1235	-	4023	22878
1175-219	3880-3890m	7541	13110	18755	3988	31132	4522	8891	-	12546	46592
1175-226	3950-3960m	27824	35497	91115	17059	152612	24303	11222	4990	49994	36493
1175-258	4225m SWC	3190	4527	12877	1700	17107	1944	829	1240	7829	9370
1175-266	4280-4290m	20083	23902	58342	11946	97868	13336	7649	2512	29971	24702
1175-274	4327-4336m	16583	23319	64963	14282	104291	15148	4387	4387	5344	80418
1175-292	4501m SWC	2530	3442	10215	1291	12404	1596	967	601	5572	5489
1175-303 CORE	4606.30-4606.31m	14271	15217	33810	4499	61027	6232	9326	10023	28774	19228

TABLE 13a

GC-MS DATA INTEGRATED PEAK AREAS

TERPANES (MZ 191)

GEOCHEM SAMPLE NUMBER	DEPTH	A	B	C	D	E	F	X	Z	G	H
1194-002 CORE	2391.20-2391.27m	10856	9534	25483	22198	74722	9911	6255	10587	18982	42581
1194-003 CORE	3890.51-3890.57m	8838	4984	5668	604	10762	867	6195	1162	5000	3341
1194-004 CORE	3900.00-3900.09m	8645	5699	6198	-	11110	989	6876	1384	4985	3430
1194-005 CORE	3903.04-3903.08m	20531	12079	9945	1193	21660	1987	14018	1807	9023	5622
1194-001	3889-3019m DST-2	19965	12195	10040	-	21145	2576	15949	3303	9078	5545
1194-006 CORE	3905.55-3905.61m	16091	9871	8280	-	15450	1678	125331	2626	8097	4736
1194-007 CORE	3910.81-3910.89m	17032	9510	11419	1140	21414	2064	12693	2905	8879	5969
1194-008 CORE	3912.56-3912.66m	20615	11496	11175	570	22573	2130	13610	2533	9654	9965
1194-009 CORE	3916.86-3916.91m	17877	10455	10196	1095	22618	2458	12624	4012	9108	5944
1194-010 CORE	3928.00-3928.05m	19372	13297	14822	1485	30336	2607	13981	3916	12965	8313
1194-011 CORE	3933.00-3933.07m	16446	11520	12949	-	25920	2199	13140	3955	10974	6042
1194-012 CORE	3938.02-3938.10m	30305	19299	21371	1440	43311	4485	19305	6046	17330	14678
1194-013 CORE	3941.51-3941.58m	23967	15778	18875	1620	37572	3506	16807	5160	16322	10539
1194-014 CORE	3947.52-3947.61m	29123	19972	19862	1658	45479	4642	20337	6547	19233	11935
1194-015 CORE	3953.78-3953.85m	32444	24417	27484	2628	55193	5656	22545	6893	22580	14245
1194-016 CORE	3960.00-3960.09m	16357	20437	49500	4569	65854	7249	11627	5017	35361	23620
1194-017 CORE	3964.01-3964.09m	1455	2535	8027	554	8772	960	693	568	4417	2899
1194-018 CORE	3969.52-3969.59m	11700	16777	45016	5631	66918	6907	4927	6285	35785	25542
1194-019 CORE	4021.53-4021.59m	18763	25599	61785	5681	84313	9776	9322	6712	39734	31470
1194-020 CORE	4032.00-4032.09m	6346	7930	19175	2897	27521	3469	2881	2209	12201	7431
1194-021 CORE	4035.28-4035.35m	6716	9697	24211	3453	37404	4822	3015	-	16881	10674
1194-022 CORE	4041.06-4041.14m	6540	10170	31960	3967	40065	4694	1702	3078	19837	16159
1194-024 CORE	4056.43-4056.50m	11932	18922	54032	7342	71604	7327	3431	4314	32900	25290
1194-025 CORE	4061.15-4061.23m	6712	9900	23336	2600	27565	2714	2630	1890	12855	93952

TABLE 13a

GC-MS DATA INTEGRATED PEAK AREAS

TERPANES (MZ 191)

GEOCHEM SAMPLE NUMBER	DEPTH	A	B	C	D	E	F	X	Z	G	H
1194-027 CORE	4070.07-4070.14m	5872	8747	24737	3212	33262	3707	3758	2554	17479	11025
1194-028 CORE	4073.04-4073.10m	4856	7455	21039	2427	27885	3162	1363	1333	12340	10838
1194-029 CORE	4305.16-4305.22m	6564	9415	15410	-	23477	3318	18322	3577	10203	5537
1194-030 CORE	4314.00-4314.06m	10017	10315	19334	1875	24353	2482	7762	1595	10703	7116

TABLE 13b

GC-MS DATA INTEGRATED PEAK AREAS

STERANES (MZ 217)

GEOCHEM SAMPLE NUMBER	DEPTH	A	B	Q	R	S	T
1175-072	2700-2710m	56946	39656	14425	17329	16131	12829
1175-082	2800-2810m	27407	23711	48269	51536	56569	63374
1175-092	2900-2910m	6915	5307	7123	7485	7279	8503
1175-155	3511m SWC	42016	28647	18122	15202	16038	17571
1175-178	3710.5m SWC	6261	4567	1698	2182	1935	1297
1175-182	3710-3720m	8448	6330	2025	2417	2329	1218
1175-190	3742.5m SWC	9164	6297	1881	1847	1618	1299
1175-193	3740-3750m	7328	5543	2514	3123	2931	1789
1175-203	3770-3780m	52678	37196	15160	23731	17761	9461
1175-205	3790-3800m	8812	5600	3143	5122	4795	3736
1175-212	3830-3840m	1464	968	510	704	732	534
1175-217	3870-3880m	1005	850	551	860	693	386
1175-219	3880-3890m	1845	1515	1723	2297	2086	1770
1175-226	3950-3960m	8196	6262	11185	11853	12430	12865
1175-258	4225m SWC	1447	1027	869	1147	1254	1093
1175-266	4280-4290m	3175	2127	3375	3551	4081	4051
1175-274	4327-4336m	6067	4767	8467	9616	9582	8819
1175-292	4501m SWC	697	495	547	599	557	539
1175-303 CORE	4606.30-4606.31m	17081	12880	18545	17037	20543	14481

TABLE 13b

GC-MS DATA INTEGRATED PEAK AREAS

STERANES (MZ 217)

GEOCHEM SAMPLE NUMBER	DEPTH	A	B	Q	R	S	T
1194-002 CORE	2391.20-2391.27m	16492	14352	6432	7807	10331	14701
1194-003 CORE	3890-51-3890.57m	13604	9412	4541	6039	4517	2563
1194-004 CORE	3900.00-3900.09m	10645	7635	2762	4272	3342	1744
1194-005 CORE	3903.04-3903.08m	31282	23202	9483	10400	10581	6026
1194-001	3889-3019m DST-2	18332	13069	5100	6077	5443	2261
1194-006 CORE	3905.55-3905.61m	19090	14186	6384	7860	6433	3375
1194-007 CORE	3910.81-3910.89m	15172	11674	5018	6829	5070	2795
1194-008 CORE	3912.56-3912.66m	21306	15450	6146	7532	7321	4050
1194-009 CORE	3916.86-3916.91m	12889	9341	4269	5442	4294	2171
1194-010 CORE	3928.00-3928.05m	21077	15409	6273	8549	6352	3375
1194-011 CORE	3933.00-3933.07m	14902	10840	4712	6309	4870	2505
1194-012 CORE	3938.02-3938.10m	28884	21210	8379	9414	8428	4241
1194-013 CORE	3941.51-3941.58m	25359	18040	7895	9519	8336	4220
1194-014 CORE	3947.52-3947.61m	30170	22905	9162	10387	10147	5305
1194-015 CORE	3953.78-3953.85m	37715	27112	9374	11392	12169	5218
1194-016 CORE	3960.00-3960.09m	10245	7804	6509	7625	8005	5843
1194-017 CORE	3964.01-3964.09m	1039	766	665	743	1059	741
1194-018 CORE	3969.52-3969.59m	8174	5612	6570	6960	9135	6072
1194-019 CORE	4021.53-4021.59m	11310	8520	7587	9914	8790	7447
1194-020 CORE	4032.00-4032.09m	2530	2006	2141	3761	2234	1910
1194-021 CORE	4035.28-4035.35m	3720	2197	2317	2563	2753	2887
1194-022 CORE	4041.06-4041.14m	2326	1719	2107	2802	2733	2197
1194-024 CORE	4056.43-4056.50m	4356	3120	3829	4585	4475	4252
1194-025 CORE	4061.15-4061.23m	-	-	6689	4100	4595	3420

TABLE 13b

GC-MS DATA INTEGRATED PEAK AREAS

STERANES (MZ 217)

GEOCHEM SAMPLE NUMBER	DEPTH	A	B	Q	R	S	T
1194-027 CORE	4070.07-4070.14m	2299	1737	1967	2389	2532	2295
1194-028 CORE	4073.04-4073.10m	1558	1034	1136	1125	1188	1065
1194-029 CORE	4305.16-4305.22m	3655	2830	2827	4994	4655	2819
1194-030 CORE	4314.00-4314.06m	3584	2650	2185	2792	2515	1948
1194-031 CORE	4327.35-4327.40m	1552	1080	997	1673	1592	1261

TABLE 13c

GC-MS DATA INTEGRATED PEAK AREAS

TERPANES (MZ 177)

GEOCHEM SAMPLE NUMBER	DEPTH	A
1175-072	2700-2710m	1203
1175-082	2800-2810m	4149
1175-092	2900-2910m	-
1175-155	3511m SWC	-
1175-173	3670-3680m	289
1175-178	3710.5m SWC	1522
1175-182	3710-3720m	4025
1175-190	3742.5m SWC	3714
1175-193	3740-3750m	1705
1175-203	3770-3780m	4897
1175-205	3790-3800m	439
1175-212	3830-3840m	419
1175-217	3870-3880m	576
1175-219	3880-3890m	787
1175-226	3950-3960m	1581
1175-258	4225m SWC	711
1175-266	4280-4290m	900
1175-274	4327-4336m	2176
1175-292	4501m SWC	377
1175-303 CORE	4606.30-4606.31m	2535

TABLE 13c

GC-MS DATA INTEGRATED PEAK AREAS

TERPANES (MZ 177)

GEOCHEM SAMPLE NUMBER	DEPTH	A
1194-002	2391.20-2391.27m CORE	-
1194-003	3890.51-3890.57m CORE	1200
1194-004	3900.00-3900.09m CORE	1673
1194-005	3903.04-3903.08m CORE	3516
1194-001	3889-3019m DST-2	-
1194-006	3905.55-3905.61m CORE	2644
1194-007	3910.81-3910.89m CORE	4569
1194-008	3912.56-3912.66m CORE	3493
1194-009	3916.86-3916.91m CORE	4264
1194-010	3928.00-3928.05m CORE	4316
1194-011	3933.00-3933.07m CORE	3434
1194-012	3938.02-3938.10m CORE	5132
1194-013	3941.51-3941.58m CORE	5367
1194-014	3947.52-3947.61m CORE	5825
1194-015	3953.78-3953.85m CORE	6781
1194-016	3960.00-3960.09m CORE	3396
1194-017	3964.01-39.64.09m CORE	495
1194-018	3969.52-3969.59m CORE	5778
1194-019	4021.53-4021.59m CORE	4495
1194-020	4032.00-4032.09m CORE	3464
1194-021	4035.28-4035.35m CORE	1491
1194-022	4041.06-4041.14m CORE	1605
1194-024	4056.43-4056.50m CORE	2556
1194-025	4061.15-4061.23m CORE	958

TABLE 13c

GC-MS DATA INTEGRATED PEAK AREAS

TERPANES (MZ 177)

GEOCHEM SAMPLE NUMBER	DEPTH	A
1194-028	4073.04-4073.10m CORE	1747
1194-029	4305.16-4305.22m CORE	-
1194-030	4314.00-4314.06m CORE	1667
1194-031	4327.35-4327.40m CORE	-

TABLE 13d

GC-MS DATA INTEGRATED PEAK AREAS

STERANES

MZ 218

GEOCHEM SAMPLE NUMBER	DEPTH	A	B	C	D	E	F	Q	T
1175-072	2700-710m	24659	13699	19170	17463	16046	19928	7616	6861
1175-082	2800-810m	47768	37737	35844	35828	62196	72672	28607	35828
1175-092	2900-910m	5619	4383	3884	3875	6675	6720	3004	2918
1175-155	3511m SWC	25952	15407	21749	17542	17638	20280	10652	8790
1175-173	3670-680m	3395	2183	2527	2963	3601	5030	1510	2505
1175-178	3710.5m SWC	2462	1924	1779	1822	1630	2156	759	556
1175-182	3710-720m	3178	1969	2070	2115	1939	2407	866	822
1175-190	3742.5m SWC	2497	1324	1585	1400	1336	1720	615	595
1175-193	3740-750m	3523	1568	2025	1826	2572	2607	1183	1041
1175-203	3770-780m	29210	13196	16814	15516	22656	26202	8857	5810
1175-205	3790-800m	4775	2862	3613	3509	5606	6349	1986	2434
1175-213	3840-850m	964	619	567	607	787	908	322	272
1175-217	3870-880m	531	238	267	260	547	601	160	247
1175-219	3880-890m	1557	901	789	977	1774	1957	722	688
1175-226	3950-960m	9328	6565	5294	5593	10153	10779	4755	5521
1175-258	4225m SWC	1440	1065	1026	947	1252	1612	577	515
1175-266	4280-290m	2887	2085	1673	1766	3093	3546	1545	1607
1175-274	4327-336m	6256	4730	4470	4880	8077	8619	3452	3164
1175-292	4501m SWC	510	322	337	341	517	487	210	165
1175-303	4606.30-.31m CORE	20072	15712	15909	16776	19352	26820	9406	7770

TABLE 13d

GC-MS DATA INTEGRATED PEAK AREAS

STERANES

MZ 218

GEOCHEM SAMPLE NUMBER	DEPTH	A	B	C	D	E	F	Q	T
1194-001	3889-919m DST 2	8013	4132	5167	5217	5412	6255	2353	1314
1194-002	2391.20-.27m CORE	9107	4829	9096	6583	6885	9948	3146	7024
1194-003	3890.51-.57m CORE	7597	3513	4350	4923	5102	6204	2218	1581
1194-004	3900.00-.09m CORE	5184	2764	3262	3409	3992	4101	1627	998
1194-005	3903.04-.08m CORE	15988	9334	9443	9881	10775	12608	4626	3402
1194-006	3905.55-.61m CORE	9520	5883	5593	6490	6858	8868	3143	2100
1194-007	3910.81-.89m CORE	8460	3885	5095	6085	5989	6681	2662	1695
1194-008	3912.56-.66m CORE	10433	5823	6597	7969	7898	8979	3554	2137
1194-009	3916.86-.91m CORE	6778	4016	4154	4899	5222	5608	2096	1183
1194-010	3928.00-.05m CORE	10689	5623	6247	7595	7538	9071	3265	2019
1194-011	3933.00-.07m CORE	7762	4414	4770	5668	5698	6339	2388	1363
1194-012	3938.02-.10m CORE	14475	7871	8496	9930	9994	12246	4306	2545
1194-013	3941.51-.58m CORE	13331	7157	7544	8481	9716	10290	3949	2255
1194-014	3947.52-.61m CORE	14744	7822	9307	9744	10415	11802	4537	2455
1194-015	3953.78-.85m CORE	20719	10514	11640	13254	12411	14754	5403	3201
1194-016	3960.00-.09m CORE	8700	5993	5345	6590	8271	9197	3336	2666
1194-017	3964.01-.09m CORE	963	733	735	855	955	1210	420	338
1194-018	3969.52-.59m CORE	7971	5830	5732	6454	8355	10075	3392	2916

TABLE 13d

GC-MS DATA INTEGRATED PEAK AREAS

STERANES

MZ 218

GEOCHEM SAMPLE NUMBER	DEPTH	A	B	C	D	E	F	Q	T
1194-019	4021.53-.59m CORE	11265	7258	7455	7740	9262	11673	4007	3470
1194-020	4032.00-.09m CORE	2955	2176	1957	1907	2347	2842	1186	947
1194-021	4035.28-.35m CORE	3274	2518	2160	2227	2848	3232	1528	1240
1194-022	4041.06-.14m CORE	2325	1961	1849	1977	2850	3383	1179	935
1194-024	4056.43-.50m CORE	3939	3204	2753	3066	3949	4925	1807	1521
1194-025	4061.15-.23m CORE	4429	6486	3062	4232	3641	4411	2177	1460
1194-027	4070.07-.14m CORE	1923	1378	1290	1379	2076	2452	965	881
1194-028	4073.04-.10m CORE	1009	786	643	721	866	111	430	342
1194-029	4305.16-.22m CORE	4230	2033	2137	2596	4660	4630	1827	1264
1194-030	4314.00-.06m CORE	2294	1350	1510	1537	1917	2326	932	802
1194-031	4327.35-.40m CORE	1382	751	552	827	1402	1480	570	543