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820-L  
BA-96-393-1

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15 APR. 1996

REGISTRERT

OLJEDIREKTORATET

Title

Petroleum Geochemistry well 15/5-5,  
and hydrocarbon correlations with well 15/5-3

Keywords

Petroleum geochemistry, reservoir geochemistry, migrated hydrocarbons, gas characterization,  
oil correlation

Document category

Report

Document ID

R-073181

Amendment no.

Area code

System code

Procurement ref./Package no.

SCM reference

22-00-NH-G15-00010

Tag no.

Quadrant/Block/Well

15/5-5

Licence no.

Project

04801206DG (35208)

Pages/appendices/volume(s)

18 + tabs. and figs./ 4 / 2

Replaces

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Rev / status

Date

Reason for issue

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Disc. appr.

Proj. appr.

Hydro appr.

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## INTRODUCTION

A list of the samples analyzed in this study is given in Table 1.1. The analytical methods used are listed below:

- Rock Eval Screening - to evaluate possible content of migrated hydrocarbons in the core samples.
- Volume and isotope measurements of gas sample -used for characterization.
- Extraction
- Asphaltene precipitation
- Preparative group type separation, MPLC
- Analytical group type separation TLC-FID
- Gas chromatography of saturated hydrocarbons
- Gas chromatography/mass spectroscopy (GC/MS) of saturated hydrocarbons
- Gas chromatography/mass spectroscopy (GC/MS) of aromatic hydrocarbons
- Stable carbon isotope measurements



- GC/MS-MS of saturated biomarkers

All the methods from extraction to GC/MS-MS of saturated hydrocarbons are used for characterization and correlation of samples.

Analytical procedures are based upon "The Norwegian Industry Guide to Organic Geochemical Analyses, 3rd edition 1993".

Gas analysis were performed by "Institutt for Energiteknikk" (IFE) , Kjeller Norway. Stable carbon isotope measurements were undertaken by "Geolab Nor", Trondheim Norway. All other analytical work together with interpretation of data and compilation of this report was done at Norsk Hydro Research Center, Bergen Norway.

All depths in this report are in mRKB, core samples are related to drillers depth, SWC and fluid samples are related to loggers depth. The depth shift for all cores is -4m (loggers depth - drillers depth).

TABLE: 1.1

Petroleum Geochemistry Group  
Research Centre Bergen



HYDRO

## ANALYSIS PROGRAMME, WELL NOR:15/5-5

Depth (m)	Group/Fm.	Lithology	Type	R-Ev	REEx	Extr	MPLC	Iatr	SatGC	PyGC	Isot	Biom	Vitr
2157.00	HEIMDAL	SST	COCH	1		1		1			1		
2157.00	HEIMDAL	SST	SWC	1		1		1			1		
2157.70	HEIMDAL		OIL			1		1			1		
2158.00	HEIMDAL	SST	SWC	1		1		1					
2158.00	HEIMDAL	SST	COCH	1									
2159.00	HEIMDAL	SST	COCH	1		1		1					
2160.00	HEIMDAL	SST	COCH	1		1		1					
2161.00	HEIMDAL	SST	COCH	1									
2162.00	HEIMDAL	SST	COCH	1		1		1					
2163.00	HEIMDAL	SST	COCH	1									
2164.00	HEIMDAL	SST	COCH	1		1		1					
2165.00	HEIMDAL	SST	COCH	1		1		1			1		
2165.76	HEIMDAL	SST	COCH	1									
2167.00	HEIMDAL	SST	COCH	1		1		1					
2168.00	HEIMDAL	SST	COCH	1									
2169.00	HEIMDAL	SST	COCH	1		1		1					
2170.00	HEIMDAL	SST	COCH	1									
2171.00	HEIMDAL	SST	COCH	1		1		1					
2172.00	HEIMDAL	SST	COCH	1		1		1					
2173.00	HEIMDAL	SST	COCH	1									
2174.00	HEIMDAL	SST	COCH	1		1		1					
2175.00	HEIMDAL	SST	COCH	1									
2175.50	HEIMDAL	SST	COCH	1		1		1					
2176.10	HEIMDAL	SST	COCH	1									
2177.50	HEIMDAL	SST	COCH	1		1		1					
2181.50	HEIMDAL	CLYST	COCH	1		1		1					
2182.50	HEIMDAL	SST	COCH	1		1		1					

TABLE: 1.1



ANALYSIS PROGRAMME, WELL NOR:15/5-5 (cont'd)

Depth (m)	Group/Fm.	Lithology	Type	R-Ev	REEx	Extr	MPLC	Iatr	SatGC	PyGC	Isot	Biom	Vitr
2183.50	HEIMDAL		OIL			1		1			1		
2183.50	HEIMDAL		GAS								1		
2183.55	HEIMDAL	SLST	COCH	1		1		1					
2184.75	HEIMDAL	SLST	COCH	1		1		1					
2185.90	HEIMDAL	SST	COCH	1		1		1			1		
2186.50	HEIMDAL	SST	COCH	1									
2186.75	HEIMDAL	SST	COCH	1		1		1					
2188.75	HEIMDAL	SST	COCH	1									
2189.75	HEIMDAL	SST	COCH	1									
2191.60	HEIMDAL	SLST	COCH	1									
2192.30	HEIMDAL	SLST	COCH	1									
2193.60	HEIMDAL	SST	COCH	1									
2195.25	HEIMDAL	SST	COCH	1									



TABLE: 1.1

ANALYSIS PROGRAMME, WELL NOR:15/5-3

Depth (m)	Group/Fm.	Lithology	Type	R-Ev	REEx	Extr	MPLC	Iatr	SatGC	PyGC	Isot	Biom	Vitr
0.00			OIL			1		1				1	

R-Ev = RockEval,      MPLC = Separation,      SatGC = Saturated GC,      Isot = Isotope,      Vitr = VRo(ave)%,  
 Extr = Extraction,      Iatr = Iatroskan,      PyGC = Pyrolysis GC,      Biom = Biomarkers,      REEx = R-Ev on EXTRACT

TABLE: 2.1



ROCK EVAL SCREENING DATA, WELL NOR:15/5-5

Depth (m)	Group/Fm.	Lithology	Type	Tmax DegC	S1 kg/t	S2 kg/t	TOC %	HI	PI	Analysing Company
2157.00	HEIMDAL	SST	COCH	420	17.2	6.9	2.2	313	0.71	NORSK HYDRO
2157.00	HEIMDAL	SST	SWC	424	7.9	1.8	1.0	185	0.81	NORSK HYDRO
2158.00	HEIMDAL	SST	COCH	420	29.4	11.1	3.7	300	0.73	NORSK HYDRO
2158.00	HEIMDAL	SST	SWC	420	9.0	0.9	1.0	88	0.91	NORSK HYDRO
2159.00	HEIMDAL	SST	COCH	417	22.0	7.2	2.7	270	0.75	NORSK HYDRO
2160.00	HEIMDAL	SST	COCH	414	23.8	8.8	3.0	291	0.73	NORSK HYDRO
2161.00	HEIMDAL	SST	COCH	423	46.1	19.0	5.8	326	0.71	NORSK HYDRO
2162.00	HEIMDAL	SST	COCH	419	38.5	13.5	4.8	283	0.74	NORSK HYDRO
2163.00	HEIMDAL	SST	COCH	419	33.9	11.9	4.2	284	0.74	NORSK HYDRO
2164.00	HEIMDAL	SST	COCH	416	28.3	8.7	3.4	258	0.76	NORSK HYDRO
2165.00	HEIMDAL	SST	COCH	416	28.7	9.4	3.6	263	0.75	NORSK HYDRO
2165.76	HEIMDAL	SST	COCH	419	33.8	12.8	4.3	301	0.73	NORSK HYDRO
2167.00	HEIMDAL	SST	COCH	417	29.7	10.3	3.7	279	0.74	NORSK HYDRO
2168.00	HEIMDAL	SST	COCH	418	29.2	10.2	3.6	284	0.74	NORSK HYDRO
2169.00	HEIMDAL	SST	COCH	419	32.6	10.9	4.0	274	0.75	NORSK HYDRO
2170.00	HEIMDAL	SST	COCH	417	28.0	8.8	3.5	256	0.76	NORSK HYDRO
2171.00	HEIMDAL	SST	COCH	417	18.4	4.6	2.2	210	0.80	NORSK HYDRO
2172.00	HEIMDAL	SST	COCH	413	30.3	9.1	3.7	244	0.77	NORSK HYDRO
2173.00	HEIMDAL	SST	COCH	423	30.7	11.8	3.8	309	0.72	NORSK HYDRO
2174.00	HEIMDAL	SST	COCH	416	34.4	11.4	4.3	264	0.75	NORSK HYDRO
2175.00	HEIMDAL	SST	COCH	420	41.5	16.6	5.3	312	0.71	NORSK HYDRO
2175.50	HEIMDAL	SST	COCH	424	5.2	2.6	1.2	221	0.67	NORSK HYDRO
2176.10	HEIMDAL	SST	COCH	418	10.9	3.5	1.3	262	0.76	NORSK HYDRO
2177.50	HEIMDAL	SST	COCH	418	18.1	5.6	2.2	261	0.76	NORSK HYDRO
2181.50	HEIMDAL	CLYST	COCH		0.0	0.5	0.3	148	0.06	NORSK HYDRO
2182.50	HEIMDAL	SST	COCH	419	11.1	3.7	1.4	273	0.75	NORSK HYDRO
2183.55	HEIMDAL	SLST	COCH	425	3.1	1.7	0.5	339	0.64	NORSK HYDRO
2184.75	HEIMDAL	SLST	COCH	406	0.8	4.8	4.1	117	0.14	NORSK HYDRO
2185.90	HEIMDAL	SST	COCH	483	0.5	0.3	0.1	208	0.68	NORSK HYDRO
2186.50	HEIMDAL	SST	COCH		0.0	0.5			0.06	NORSK HYDRO
2186.75	HEIMDAL	SST	COCH	420	7.9	2.6	1.4	184	0.75	NORSK HYDRO
2188.75	HEIMDAL	SST	COCH		0.0	0.4			0.07	NORSK HYDRO
2189.75	HEIMDAL	SST	COCH		0.0	0.4			0.03	NORSK HYDRO



TABLE: 2.1

ROCK EVAL SCREENING DATA, WELL NOR:15/5-5 (cont'd)

Depth (m)	Group/Fm.	Lithology	Type	Tmax DegC	S1 kg/t	S2 kg/t	TOC %	HI	PI	Analysing Company
2191.60	HEIMDAL	SLST	COCH		0.1	0.2			0.29	NORSK HYDRO
2192.30	HEIMDAL	SLST	COCH		0.1	0.8	0.9	86	0.10	NORSK HYDRO
2193.60	HEIMDAL	SST	COCH		0.0	0.2			0.00	NORSK HYDRO
2195.25	HEIMDAL	SST	COCH		0.0	0.2			0.04	NORSK HYDRO



TABLE: 2.2

EXTRACTION/DEASPHALTING DATA (SEDIMENTS), WELL NOR:15/5-5

Depth (m)	Group/Fm.	Lithology	Type	Rock (g)	EOM (mg)	ASP (mg)	EOM (%)	ASP (%)	EOM (ppm)	TOC (%)	EOM/TOC (%)	Analysing Company
2157.00	HEIMDAL	SST	COCH	1.7	52.0	2.0	3.06	3.8	30600	2.2	1.4	NORSK HYD
2157.00	HEIMDAL	SST	SWC	5.4	64.0	2.1	1.19	3.3	11900	1.0	1.2	NORSK HYD
2158.00	HEIMDAL	SST	SWC	4.4	62.0	2.2	1.41	3.5	14100	1.0	1.4	NORSK HYD
2159.00	HEIMDAL	SST	COCH	1.5	54.0	1.2	3.60	2.2	36000	2.7	1.4	NORSK HYD
2160.00	HEIMDAL	SST	COCH	1.5	52.0	2.0	3.47	3.8	34700	3.0	1.1	NORSK HYD
2162.00	HEIMDAL	SST	COCH	1.1	58.0	2.1	5.27	3.6	52700	4.8	1.1	NORSK HYD
2164.00	HEIMDAL	SST	COCH	1.5	70.0	2.3	4.67	3.3	46700	3.4	1.4	NORSK HYD
2165.00	HEIMDAL	SST	COCH	1.3	65.0	2.6	5.00	4.0	50000	3.6	1.4	NORSK HYD
2167.00	HEIMDAL	SST	COCH	0.8	34.0	1.0	4.25	2.9	42500	3.7	1.2	NORSK HYD
2169.00	HEIMDAL	SST	COCH	1.1	57.0	1.8	5.18	3.2	51800	4.0	1.3	NORSK HYD
2171.00	HEIMDAL	SST	COCH	1.8	50.0	1.3	2.78	2.6	27800	2.2	1.3	NORSK HYD
2172.00	HEIMDAL	SST	COCH	1.0	38.0	0.8	3.80	2.1	38000	3.7	1.0	NORSK HYD
2174.00	HEIMDAL	SST	COCH	1.1	61.0	2.9	5.55	4.8	55500	4.3	1.3	NORSK HYD
2175.50	HEIMDAL	SST	COCH	4.7	56.0	3.1	1.19	5.5	11900	1.2	1.0	NORSK HYD
2177.50	HEIMDAL	SST	COCH	1.6	43.0	2.2	2.69	5.1	26900	2.2	1.2	NORSK HYD
2181.50	HEIMDAL	CLYST	COCH	9.3	6.0	0.3	0.06	5.0	600	0.3	0.2	NORSK HYD
2182.50	HEIMDAL	SST	COCH	4.0	63.0	9.2	1.58	14.6	15800	1.4	1.2	NORSK HYD
2183.55	HEIMDAL	SLST	COCH	10.0	16.0	5.6	0.16	35.0	1600	0.5	0.3	NORSK HYD
2184.75	HEIMDAL	SLST	COCH	13.1	6.0	3.4	0.05	56.7	500	4.1	0.0	NORSK HYD
2185.90	HEIMDAL	SST	COCH	17.3	72.0	3.4	0.42	4.7	4200	0.1	3.5	NORSK HYD
2186.75	HEIMDAL	SST	COCH	3.0	47.0	2.1	1.57	4.5	15700	1.4	1.1	NORSK HYD



TABLE: 2.3

COMPOSITION OF DEASPHALTED EXTRACT (IATROSCAN), WELL NOR:15/5-5

(all values in %)

Depth (m)	Group/Fm.	Lithology	Type	Hydrocarbons				Non-HC TOTAL	TOTAL HC/Non-HC	Analysing Company
				SAT	ARO	TOTAL	SAT/ARO			
2157.00	HEIMDAL	SST	COCH	34.0	44.0	78.0	0.8	22.0	3.5	NORSK HYDRO
2157.00	HEIMDAL	SST	SWC	35.0	45.0	80.0	0.8	20.0	4.0	NORSK HYDRO
2158.00	HEIMDAL	SST	SWC	38.0	35.0	73.0	1.1	27.0	2.7	NORSK HYDRO
2159.00	HEIMDAL	SST	COCH	40.5	28.0	68.5	1.4	31.5	2.2	NORSK HYDRO
2160.00	HEIMDAL	SST	COCH	40.0	31.0	71.0	1.3	29.0	2.4	NORSK HYDRO
2162.00	HEIMDAL	SST	COCH	39.0	35.0	74.0	1.1	26.0	2.8	NORSK HYDRO
2164.00	HEIMDAL	SST	COCH	35.0	46.0	81.0	0.8	19.0	4.3	NORSK HYDRO
2165.00	HEIMDAL	SST	COCH	37.5	35.0	72.5	1.1	27.5	2.6	NORSK HYDRO
2167.00	HEIMDAL	SST	COCH	36.0	32.5	68.5	1.1	31.5	2.2	NORSK HYDRO
2169.00	HEIMDAL	SST	COCH	39.0	35.5	74.5	1.1	25.5	2.9	NORSK HYDRO
2171.00	HEIMDAL	SST	COCH	32.5	44.5	77.0	0.7	23.0	3.3	NORSK HYDRO
2172.00	HEIMDAL	SST	COCH	40.0	31.5	71.5	1.3	28.5	2.5	NORSK HYDRO
2174.00	HEIMDAL	SST	COCH	35.0	37.0	72.0	0.9	28.0	2.6	NORSK HYDRO
2175.50	HEIMDAL	SST	COCH	35.0	38.5	73.5	0.9	26.5	2.8	NORSK HYDRO
2177.50	HEIMDAL	SST	COCH	37.0	40.0	77.0	0.9	23.0	3.3	NORSK HYDRO
2181.50	HEIMDAL	CLYST	COCH	46.0	13.0	59.0	3.5	41.0	1.4	NORSK HYDRO
2182.50	HEIMDAL	SST	COCH	36.5	38.0	74.5	1.0	25.5	2.9	NORSK HYDRO
2183.55	HEIMDAL	SLST	COCH	14.0	33.0	47.0	0.4	53.0	0.9	NORSK HYDRO
2184.75	HEIMDAL	SLST	COCH	6.5	27.0	33.5	0.2	66.5	0.5	NORSK HYDRO
2185.90	HEIMDAL	SST	COCH	33.0	40.0	73.0	0.8	27.0	2.7	NORSK HYDRO
2186.75	HEIMDAL	SST	COCH	34.0	40.0	74.0	0.9	26.0	2.8	NORSK HYDRO

Sample:	Well:	Analysis:	Seq.#	NH proj	Instrument	Remarks	I-C16	N-C15	N-C16	I-C18	N-C17	PRISTANE	N-C18
2157.7, mdt	W15/5-5	1555oil1	4	35208	FID_SAT3	sat	1.71	4.13	3.8	1.46	3.13	1.96	2.72
2154-2183, dst 1	W15/5-5	1555oil1	6	35208	FID_SAT3	sat	2.41	6.1	5.54	2.19	4.53	2.89	3.97
15/5-3, casing	W15/5-3	1555oil1	5	35208	FID_SAT3	sat	2.57	6.11	5.98	2.21	5.05	3.23	4.49
2157	W15/5-5	1555_sa1	3	35208	FID_SAT3	sat	2.46	6.21	6.56	2.66	5.33	3.42	4.85
2157 swc	W15/5-5	1555_sa1	4	35208	FID_SAT3	sat	2.83	6.83	7.17	2.92	5.48	3.51	4.92
2158 swc	W15/5-5	1555_sa1	5	35208	FID_SAT3	sat	2.9	7	6.87	2.73	5.58	3.58	4.88
2159	W15/5-5	1555_sa2	3	35208	FID_SAT3	sat	2.27	5.73	6.13	2.52	5.08	3.19	4.6
2160	W15/5-5	1555_sa2	4	35208	FID_SAT3	sat	2.59	6.74	6.93	2.84	5.48	3.45	5.06
2162	W15/5-5	1555_sa2	5	35208	FID_SAT3	sat	2.62	6.82	6.83	2.76	5.58	3.51	4.93
2164	W15/5-5	1555_sa1	6	35208	FID_SAT3	sat	3.04	7.18	7.15	2.82	5.93	3.79	5.17
2165	W15/5-5	1555_sa2	19	35208	FID_SAT3	sat	2.16	5.85	6.25	2.61	5.21	3.23	4.63
2167	W15/5-5	1555_sa2	7	35208	FID_SAT3	sat	1.78	4.89	6.33	2.67	5.64	3.57	5.24
2169	W15/5-5	1555_sa2	8	35208	FID_SAT3	sat	1.98	5.33	5.87	2.44	4.88	3.09	4.43
2171	W15/5-5	1555_sa1	7	35208	FID_SAT3	sat	2.53	6.31	6.39	2.59	5.43	3.48	4.79
2172	W15/5-5	1555_sa2	9	35208	FID_SAT3	sat	2.14	5.95	7.14	2.92	6	3.83	5.43
2174	W15/5-5	1555_sa2	11	35208	FID_SAT3	sat	2.35	6.25	6.51	2.68	5.33	3.36	4.79
2175.5	W15/5-5	1555_sa1	8	35208	FID_SAT3	sat	2.75	6.67	6.66	2.66	5.65	3.65	4.91
2177.5	W15/5-5	1555_sa2	12	35208	FID_SAT3	sat	2.25	6.14	6.61	2.72	5.22	3.26	4.8
2181.5	W15/5-5	1555_sa2	13	35208	FID_SAT3	sat, weak	0.08	0.17	0.17	0.09	0.1	0.11	0.09
2182.5	W15/5-5	1555_sa2	14	35208	FID_SAT3	sat	1.03	2.63	3.64	1.9	3.54	2.65	3.7
2183.55	W15/5-5	1555_sa2	15	35208	FID_SAT3	sat, weak	0.12	0.33	0.23	0.08	0.16	0.28	0.15
2184.75	W15/5-5	1555_sa2	16	35208	FID_SAT3	sat, weak	0.13	0.17	0.13	0.06	0.07	0.41	0.07
2185.9	W15/5-5	1555_sa2	17	35208	FID_SAT3	sat	1.14	3.35	4.75	2.19	4.36	2.88	4.31
2186.75	W15/5-5	1555_sa3	3	35208	FID_SAT3	sat	1.95	5.49	5.98	2.48	5.23	3.37	4.66
biomn02s		1555oil1	2	35208	FID_SAT3	Lab.ref. NSO1/SAT	2.64	6.48	6.27	2.12	4.98	3.16	4.2
biomn07s		1555oil1	7	35208	FID_SAT3	Lab.ref. NSO1/SAT	2.83	6.66	6.24	2.12	4.95	3.08	4.2
biomn02s		1555_sa1	2	35208	FID_SAT3	Lab.ref. NSO1/SAT	2.87	6.62	6.29	2.18	4.99	3.14	4.16
biomn09s		1555_sa1	9	35208	FID_SAT3	Lab.ref. NSO1/SAT	2.87	6.93	6.32	2.19	5.06	3.2	4.28
biomn02s		1555_sa2	2	35208	FID_SAT3	Lab.ref. NSO1/SAT	2.83	7.14	6.24	2.06	5.04	3.13	4.22
biomn10s		1555_sa2	10	35208	FID_SAT3	Lab.ref. NSO1/SAT	2.82	7.12	6.23	2.12	5.01	3.05	4.25
biomn18s		1555_sa2	18	35208	FID_SAT3	Lab.ref. NSO1/SAT	2.66	6.77	6.26	2.12	5.06	3.11	4.24

Table 2.4 Absolute amounts of components, saturated hydrocarbons

Sample:	Well:	PHYTANE	N-C19	N-C20	N-C21	N-C22	N-C23	N-C24	N-C25	N-C26	N-C27	N-C28	N-C29	N-C30	N-C31	N-C32	N-C33
2157.7, mdt	W15/5-5	2.07	2.42	2.36	2.01	1.92	1.74	1.8	1.56	1.51	1.12	1.06	1.03	0.94	0.81	0.67	0.54
2154-2183, dst 1	W15/5-5	3.09	3.59	3.48	3.01	2.91	2.61	2.76	2.31	2.23	1.58	1.54	1.45	1.23	1.19	1.02	0.79
15/5-3, casing	W15/5-3	3.04	4.07	3.93	3.44	3.33	3.01	3.1	2.69	2.54	1.85	1.7	1.6	1.39	1.28	1.05	0.89
2157	W15/5-5	3.75	4.39	4.35	3.75	3.51	3.13	3.28	2.75	2.4	1.86	1.87	1.71	1.57	1.46	1.22	0.98
2157 swc	W15/5-5	3.78	4.51	4.36	3.85	3.73	3.28	3.5	2.91	2.84	2.02	1.89	1.83	1.63	1.45	1.18	1.05
2158 swc	W15/5-5	3.75	4.39	4.34	3.71	3.6	3.25	3.43	2.9	2.65	1.99	1.82	1.71	1.45	1.36	1.26	0.99
2159	W15/5-5	3.57	4.18	4.07	3.49	3.36	2.94	3.13	2.62	2.51	1.8	1.8	1.67	1.57	1.36	1.1	0.93
2160	W15/5-5	3.95	4.67	4.55	3.95	3.84	3.43	3.45	3.04	2.89	2.27	2.06	1.92	1.71	1.49	1.26	1.05
2162	W15/5-5	3.77	4.8	4.48	3.85	3.71	3.26	3.44	2.87	2.79	2.01	1.93	1.77	1.61	1.49	1.14	1.03
2164	W15/5-5	3.97	4.66	4.52	3.93	3.74	3.29	3.49	2.99	2.88	2.18	1.99	1.88	1.69	1.47	1.24	1.05
2165	W15/5-5	3.6	4.45	4.1	3.52	3.54	3.21	3.35	2.84	2.74	2	1.97	1.8	1.49	1.25	1.14	0.92
2167	W15/5-5	4.1	4.84	4.66	4.07	4.02	3.58	3.79	3.15	3.03	2.21	2.12	1.82	1.69	1.44	1.31	0.98
2169	W15/5-5	3.47	4.06	3.94	3.41	3.27	2.94	3.07	2.6	2.46	1.92	1.74	1.64	1.52	1.21	1.1	0.91
2171	W15/5-5	3.58	4.37	4.3	3.73	3.47	3.07	3.17	2.74	2.55	1.89	1.72	1.67	1.55	1.39	1.26	0.98
2172	W15/5-5	4.15	5.07	5.08	4.36	4.17	3.63	3.94	3.25	3.21	2.28	2.31	2.18	1.84	1.6	1.27	0.97
2174	W15/5-5	3.74	4.37	4.22	3.65	3.55	3.15	3.29	2.8	2.69	2.05	1.93	1.74	1.53	1.27	1.08	0.88
2175.5	W15/5-5	3.75	4.44	4.3	3.79	3.6	3.25	3.41	2.82	2.66	1.93	1.86	1.72	1.55	1.41	1.2	0.96
2177.5	W15/5-5	3.64	4.42	4.28	3.77	3.6	3.18	3.42	2.99	2.7	1.93	1.82	1.71	1.4	1.34	1.19	0.9
2181.5	W15/5-5	0.01	0.07	0.16	0.16	0.15	0.16	0.17	0.17	0.14	0.14	0.11	0.06	0.06	0.05	0.05	0.05
2182.5	W15/5-5	3.08	3.71	3.86	3.57	3.44	3.17	3.29	2.87	2.87	2.18	2.2	2.17	2.03	1.8	1.68	1.38
2183.55	W15/5-5	0.13	0.16	0.18	0.23	0.16	0.17	0.17	0.14	0.14	0.14	0.11	0.19	0.08	0.11	0.06	0.07
2184.75	W15/5-5	0.09	0.07	0.05	0.06	0.05	0.1	0.08	0.09	0.09	0.16	0.14	0.14	0.15	0.22	0.05	0.09
2185.9	W15/5-5	3.46	4.14	4.17	3.62	3.52	3.24	3.34	2.85	2.74	1.95	1.91	1.79	1.75	1.41	1.26	1.03
2186.75	W15/5-5	3.60	4.25	4.22	3.64	3.54	3.10	3.35	2.77	2.67	1.83	1.88	1.73	1.49	1.35	1.16	0.96
biomn02s		2.21	3.76	3.32	2.93	2.71	2.48	2.51	2.08	1.75	1.43	1.32	1.28	0.97	0.95	0.75	0.61
biomn07s		2.2	3.69	3.36	2.94	2.72	2.58	2.51	2.07	1.75	1.49	1.4	1.28	1.02	0.88	0.66	0.6
biomn02s		2.2	3.78	3.4	3.12	3.23	3.4	3.69	3.49	3.17	2.68	2.57	2.4	1.86	1.6	1.13	0.94
biomn09s		2.32	3.77	3.37	3.12	3.26	3.48	3.84	3.54	3.29	2.72	2.51	2.27	1.81	1.62	1.18	0.81
biomn02s		2.23	3.68	3.34	2.9	2.72	2.48	2.46	2.14	1.85	1.51	1.3	1.27	1.1	1.01	0.69	0.65
biomn10s		2.29	3.77	3.34	2.93	2.73	2.5	2.61	2.13	1.77	1.42	1.4	1.28	1.05	0.98	0.73	0.68
biomn18s		2.23	3.75	3.35	2.99	2.76	2.54	2.67	2.31	2.01	1.72	1.47	1.55	1.13	0.9	0.77	0.69

Table 2.4 Absolute amounts of components, saturated hydrocarbons

Sample:	Well:	N-C34	N-C35	C12D26	C16D34	C20D42	C24D50	C30D62
2157.7, mdt	W15/5-5	0.55	0.51	3.41	3.41	3.38	3.45	1.84
2154-2183, dst 1	W15/5-5	0.95	0.91	3.45	3.45	3.42	3.49	1.87
15/5-3, casing	W15/5-3	0.95	0.94	3.62	3.62	3.59	3.66	1.96
2157	W15/5-5	1.14	1.03	4.27	4.27	4.23	4.32	2.31
2157 swc	W15/5-5	1.17	1.02	3.47	3.47	3.44	3.51	1.87
2158 swc	W15/5-5	1.09	0.94	3.58	3.58	3.55	3.62	1.94
2159	W15/5-5	0.97	0.91	4.12	4.12	4.07	4.16	2.22
2160	W15/5-5	1.24	1.19	4.27	4.27	4.23	4.32	2.31
2162	W15/5-5	1.02	0.89	3.83	3.83	3.79	3.87	2.07
2164	W15/5-5	1.13	1	3.17	3.17	3.14	3.21	1.71
2165	W15/5-5	0.94	0.74	3.42	3.42	3.38	3.45	1.85
2167	W15/5-5	1.08	0.98	6.54	6.54	6.47	6.6	3.53
2169	W15/5-5	0.93	1	3.9	3.9	3.86	3.94	2.11
2171	W15/5-5	1.21	1.16	4.44	4.44	4.4	4.49	2.4
2172	W15/5-5	1.68	1.62	5.68	5.68	5.62	5.74	3.07
2174	W15/5-5	1.17	1.31	3.64	3.64	3.61	3.68	1.97
2175.5	W15/5-5	1.08	1	3.97	3.97	3.93	4.01	2.14
2177.5	W15/5-5	1.08	1.07	5.17	5.17	5.12	5.22	2.79
2181.5	W15/5-5	0.16	0.11	7.41	7.41	7.33	7.48	4
2182.5	W15/5-5	1.28	1.3	3.53	3.53	3.49	3.56	1.9
2183.55	W15/5-5	0.27	0.17	13.89	13.89	13.75	14.03	7.5
2184.75	W15/5-5	0.05	0.12	7.41	7.41	7.33	7.48	4
2185.9	W15/5-5	1.18	1.12	3.09	3.09	3.06	3.12	1.67
2186.75	W15/5-5	1.23	1.28	4.33	4.33	4.28	4.37	2.34
biomn02s		0.66	0.47	4	4	3.96	4.04	2.16
biomn07s		0.66	0.55	4	4	3.96	4.04	2.16
biomn02s		0.77	0.55	4	4	3.96	4.04	2.16
biomn09s		1.11	0.67	4	4	3.96	4.04	2.16
biomn02s		0.78	0.53	4	4	3.96	4.04	2.16
biomn10s		0.69	0.49	4	4	3.96	4.04	2.16
biomn18s		0.62	0.51	4	4	3.96	4.04	2.16

Table 2.4 Absolute amounts of components, saturated hydrocarbons

Sample:	Well:	Pr/n-C17	Ph/n-C18	(Pr/n-C17)/(Ph/n-C18)	Pr/Ph	n-C17/(n-C17+n-C27)	CPI-1	CPI-2 (nC26:nC27)
2157.7, mdt	W15/5-5	0.63	0.76	0.82	0.95	0.74	0.97	0.85
2154-2183, dst 1	W15/5-5	0.64	0.78	0.82	0.94	0.74	0.96	0.83
15/5-3, casing	W15/5-3	0.64	0.68	0.94	1.06	0.73	0.98	0.84
2157	W15/5-5	0.64	0.77	0.83	0.91	0.74	0.98	0.87
2157 swc	W15/5-5	0.64	0.77	0.83	0.93	0.73	0.96	0.83
2158 swc	W15/5-5	0.64	0.77	0.83	0.95	0.74	0.98	0.86
2159	W15/5-5	0.63	0.78	0.81	0.89	0.74	0.95	0.84
2160	W15/5-5	0.63	0.78	0.81	0.87	0.71	0.98	0.88
2162	W15/5-5	0.63	0.76	0.82	0.93	0.74	0.96	0.84
2164	W15/5-5	0.64	0.77	0.83	0.95	0.73	0.97	0.86
2165	W15/5-5	0.62	0.78	0.8	0.9	0.72	0.95	0.84
2167	W15/5-5	0.63	0.78	0.81	0.87	0.72	0.93	0.84
2169	W15/5-5	0.63	0.78	0.81	0.89	0.72	0.96	0.88
2171	W15/5-5	0.64	0.75	0.86	0.97	0.74	0.97	0.85
2172	W15/5-5	0.64	0.76	0.84	0.92	0.72	0.95	0.83
2174	W15/5-5	0.63	0.78	0.81	0.9	0.72	0.96	0.86
2175.5	W15/5-5	0.65	0.76	0.85	0.97	0.75	0.96	0.84
2177.5	W15/5-5	0.62	0.76	0.82	0.9	0.73	0.99	0.83
2181.5	W15/5-5	1.1	0.11	9.9	11	0.42	1.02	1
2182.5	W15/5-5	0.75	0.83	0.9	0.86	0.62	0.95	0.86
2183.55	W15/5-5	1.75	0.87	2.02	2.15	0.53	1.32	1
2184.75	W15/5-5	5.86	1.29	4.56	4.56	0.3	1.37	1.28
2185.9	W15/5-5	0.66	0.8	0.82	0.83	0.69	0.93	0.83
2186.75	W15/5-5	0.64	0.77	0.83	0.94	0.74	0.94	0.81
biomn02s		0.63	0.53	1.21	1.43	0.78	1.04	0.9
biomn07s		0.62	0.52	1.19	1.4	0.77	1.02	0.92
biomn02s		0.63	0.53	1.19	1.43	0.65	1.03	0.92
biomn09s		0.63	0.54	1.17	1.38	0.65	1.02	0.91
biomn02s		0.62	0.53	1.18	1.4	0.77	1.04	0.9
biomn10s		0.61	0.54	1.13	1.33	0.78	1.01	0.89
biomn18s		0.61	0.53	1.17	1.39	0.75	1.05	0.92

Table 2.5 Molecular ratios, saturated hydrocarbons

S-Depth(m)	E-Depth(m)	Well	Type	Lith.	Org.ID#	Proj#	Seq.#	File name	File path	Method	Operator	Acquired dat	Remarks
2157.7	2157.7	15/5-5	oil	mdt		35208	4	2157_7.D	1555OIL1	MSD_S_C	JKB	15-nov-95	
2154	2183	15/5-5	oil	dst #1		35208	6	2183.D	1555OIL1	MSD_S_C	JKB	15-nov-95	
0	0	15/5-3	oil	casing		35208	5	15_5_3.D	1555OIL1	MSD_S_C	JKB	15-nov-95	
2157	2157	15/5-5	SWC			35208	4	2157SWC.	1555_SA1	MSD_S_C	JKB	06-nov-95	
2158	2158	15/5-5	SWC			35208	5	2158SWC.	1555_SA1	MSD_S_C	JKB	06-nov-95	
2157	2157	15/5-5	COCH			35208	3	2157COCH.	1555_SA1	MSD_S_C	JKB	06-nov-95	
2159	2159	15/5-5	COCH			35208	3	2159.D	1555_SA2	MSD_S_C	JKB	28-nov-95	sat, coch
2160	2160	15/5-5	COCH			35208	4	2160.D	1555_SA2	MSD_S_C	JKB	28-nov-95	sat, coch
2162	2162	15/5-5	COCH			35208	5	2162.D	1555_SA2	MSD_S_C	JKB	29-nov-95	sat, coch
2164	2164	15/5-5	COCH			35208	6	2164.D	1555_SA1	MSD_S_C	JKB	06-nov-95	
2165	2165	15/5-5	COCH			35208		2165S.D	1555_SA2	MSD_S_C	JKB	#VALUE!	sat, coch
2167	2167	15/5-5	COCH			35208	7	2167.D	1555_SA2	MSD_S_C	JKB	29-nov-95	sat, coch
2169	2169	15/5-5	COCH			35208	8	2169.D	1555_SA2	MSD_S_C	JKB	29-nov-95	sat, coch
2171	2171	15/5-5	COCH			35208	7	2171.D	1555_SA1	MSD_S_C	JKB	06-nov-95	
2172	2172	15/5-5	COCH			35208	9	2172.D	1555_SA2	MSD_S_C	JKB	29-nov-95	sat, coch
2174	2174	15/5-5	COCH			35208	11	2174.D	1555_SA2	MSD_S_C	JKB	29-nov-95	sat, coch
2175.5	2175.5	15/5-5	COCH			35208	8	2175_5.D	1555_SA1	MSD_S_C	JKB	06-nov-95	
2177.5	2177.5	15/5-5	COCH			35208	12	2177_5.D	1555_SA2	MSD_S_C	JKB	29-nov-95	sat, coch
2181.5	2181.5	15/5-5	COCH			35208	15	2181_5.D	1555_SA2	MSD_S_C	JKB	29-nov-95	sat, coch
2182.5	2182.5	15/5-5	COCH			35208	13	2182_5.D	1555_SA2	MSD_S_C	JKB	29-nov-95	sat, coch
2183.55	2183.55	15/5-5	COCH			35208	16	2183_55.D	1555_SA2	MSD_S_C	JKB	29-nov-95	sat, coch
2184.75	2184.75	15/5-5	COCH			35208	17	2184_75.D	1555_SA2	MSD_S_C	JKB	29-nov-95	sat, coch
2185.9	2185.9	15/5-5	COCH			35208	14	2185_9.D	1555_SA2	MSD_S_C	JKB	29-nov-95	sat, coch
2186.75	2186.75	15/5-5	coch			35208	3	2186_75S.	1555_sa3	MSD_S_C	JKB	29-jan-96	
BIOMN02	BIOMN02		oil	dst #1		35208	2	BIOMN02	1555_SA1	MSD_S_C	JKB	06-nov-95	Lab. ref. sa
BIOMN09	BIOMN09		oil	dst #1		35208	9	BIOMN09	1555_SA1	MSD_S_C	JKB	07-nov-95	Lab. ref. sa
BIOMN02	BIOMN02		oil	dst #1		35208	2	BIOMN02	1555OIL1	MSD_S_C	JKB	15-nov-95	Lab. ref. sa
BIOMN07	BIOMN07		oil	dst #1		35208	7	BIOMN07	1555OIL1	MSD_S_C	JKB	16-nov-95	Lab. ref. sa
BIOMN02	BIOMN02		oil	dst #1		35208	2	BIOMN02	1555_SA2	MSD_S_C	JKB	#####	Lab. ref. sa
BIOMN10	BIOMN10		oil	dst #1		35208	10	BIOMN10	1555_SA2	MSD_S_C	JKB	#####	Lab. ref. sa

Table 2.6 Absolute amounts of biomarkers, saturated hydrocarbons

E-Depth(m) Well	Contri	Amount	24baa	19/3	20/3	21/3	23/3	24/3	25/3	26/3R	26/3S	28/3R
2157.7 15/5-5	NOR		24.6	3	3.3	5.5	10	7.9	4.9	2.6	2.9	5
2183 15/5-5	NOR		24.9	3.8	4.1	7.7	13.8	10.5	6.7	3.8	4.2	6
0 15/5-3	NOR		26.1	5	4.6	8.7	15.8	11.2	6.8	4.2	4.7	6.7
2157 15/5-5	NOR		25	5.2	5	9.6	17.3	13.6	8.9	4.9	4.9	7.8
2158 15/5-5	NOR		25.8	5	4.8	9.6	18	13.2	8.6	5	5.2	7.2
2157 15/5-5	NOR		30.8	4.9	4.5	9.4	17.7	13.2	8.5	4.7	4.6	7.1
2159 15/5-5	NOR		29.6	4.7	4.8	9	17.1	13.9	8.3	4.6	5	7.4
2160 15/5-5	NOR		30.8	5.2	5.2	10.3	17.9	14.5	9.1	5.4	5.5	8.3
2162 15/5-5	NOR		27.6	5	5.1	10.6	19	14.5	9.1	4.9	5.4	8.7
2164 15/5-5	NOR		22.9	5.3	4.9	9.7	17.4	14.4	8.9	5.4	5	8
2165 15/5-5	NOR		24.6	4.8	5.4	9.5	19.1	13.7	8.4	4.9	5	8.3
2167 15/5-5	NOR		47.1	4.9	4.9	9.9	17.7	13.7	8.8	4.9	4.9	8.1
2169 15/5-5	NOR		28.1	4.6	4.7	8.7	15.5	12.8	7.8	4.2	4.6	7.7
2171 15/5-5	NOR		32	4.7	5	9.9	17	13.4	8.1	4.6	5.6	7.9
2172 15/5-5	NOR		42.1	5.8	6	11.1	20.3	16.7	9.7	6.3	5.9	9.2
2174 15/5-5	NOR		26.2	4	4.7	9.3	16.6	12.1	8.2	4.8	4.3	7.2
2175.5 15/5-5	NOR		28.6	5	4.8	9.7	16.2	13.2	8.2	4.7	4.7	7.6
2177.5 15/5-5	NOR		37.2	4.3	4.5	8.5	15.6	12.3	7.7	4.3	4.4	6.9
2181.5 15/5-5	NOR		48	0.4	0.6	1.4	4.5	16.4	1.7	1.4	1.3	2.6
2182.5 15/5-5	NOR		25.4	3.9	4.1	8.5	15.5	12.1	8.6	4.6	4.7	7.7
2183.55 15/5-5	NOR		90	1.8	1.9	0.6	1	0.8	0.5	0.3	0.4	0.4
2184.75 15/5-5	NOR		48	10.3	12.2	0.4	1.1	18.4	11.6	0.8	0.6	1.3
2185.9 15/5-5	NOR		22.2	4.3	4.6	9.2	17.4	12.9	8.5	4.6	5.1	7.6
2186.75 15/5-5			31.2	5.6	5.5	10.8	20.4	15.3	9.5	5.6	5.9	8.5
BIOMN02E	NOR		28.8	9.8	7.6	10.3	18.7	14.1	7.5	5.5	4.9	8.4
BIOMN09E	NOR		28.8	9.4	7.8	10.7	17.4	13.6	7.4	5.9	5.4	8.1
BIOMN02E	NOR		28.8	9.1	7.1	9.9	16.2	12.7	7.2	4.5	4.7	7.6
BIOMN07E	NOR		28.8	9.6	6.7	9.9	16.4	12.6	6.9	4.4	4.5	7.3
BIOMN02E	imple		28.8	8.6	6.6	8.6	14.8	10.7	6.1	4.4	4.2	6.4
BIOMN10E	imple		28.8	8.8	6.9	9.1	15.3	11.4	6.4	4.8	4.5	6.8

Table 2.6 Absolute amounts of biomarkers, saturated hydrocarbons



E-Depth(m) Well	28/3S	29/3R	29/3S	24/4	27Ts	25nor28ab	27Tm	27b	25nor29ab	28ab	25nor30ab	29ab
2157.7 15/5-5	3.4	5.2	4.7	7.1	23.4	2	15.3	5.6	1.7	23.2	1.2	57.4
2183 15/5-5	4.7	7.5	6.3	8	26.9	1.2	13.4	5.5	1	35.3	0.7	49.9
0 15/5-3	5.2	7.9	6.5	8.2	26.2	1.1	12.4	5.6	2.1	28.2	1.3	48.1
2157 15/5-5	6.1	9.4	7.2	8.9	35.6	1.8	16.1	6.7	1.3	44.3	0.8	62.8
2158 15/5-5	6.1	9.2	8	8.6	34.2	1.9	16	7.1	1.7	43.8	1.1	63.6
2157 15/5-5	6.1	9.3	7.8	8.7	33.3	1.9	16.1	6.7	1.1	41.6	0.7	58.2
2159 15/5-5	6.3	9.7	7.5	9.7	32.2	2	15.6	7	1.1	42.2	1.1	61.5
2160 15/5-5	6	10.4	8.6	9.7	35.1	2.3	16.4	7.1	0.7	44.9	0.9	66
2162 15/5-5	6.3	11.1	8.4	9.8	36.6	2	17.8	6.7	1.3	48.1	1	67.2
2164 15/5-5	6	9.6	8.5	9.3	38.2	1.8	16.1	6.5	1.5	46.1	0.8	66.1
2165 15/5-5	5.8	9.9	7.9	9.6	34.4	1.6	15.7	6.4	1.1	42.1	0.8	63.7
2167 15/5-5	6.2	9.9	8.7	9.3	35.2	2.1	17.1	7.2	0.8	46.2	0.8	62.6
2169 15/5-5	5.8	9.2	7.2	9	30.8	1.6	14.8	6.1	1.2	42.7	1	58.3
2171 15/5-5	6.2	9.7	8.3	8.9	35.9	2.4	16.8	7	1.5	41.8	0.6	63.4
2172 15/5-5	7.1	11.2	9.9	10.7	40.9	2.1	19.3	8.3	0.7	53.5	0.8	73
2174 15/5-5	5.5	9	7.7	9.3	32.5	1.4	15.4	5.9	1	40.8	0.8	63.8
2175.5 15/5-5	5.7	9	8.2	9	35.8	2.1	16.2	6.3	1.3	44.9	0.7	63.8
2177.5 15/5-5	5.2	9.4	6.8	8.7	30.7	1.8	14.4	6.4	1.1	40.4	0.8	56
2181.5 15/5-5	1.8	2.1	2.3	3.1	7	2.8	7.2	6	6.2	2.4	3	19.3
2182.5 15/5-5	5.7	9.1	7.5	8.7	34.1	1.8	15.7	6.7	0.5	42.8	0.9	59.9
2183.55 15/5-5	0.5	0.8	1.1	0.8	1.6	19.6	2	11	2.6	5.2	3.7	5.4
2184.75 15/5-5	1	1.7	2.2	1.3	1.4	40.5	4.5	9.3	4.8	71.2	8	7.3
2185.9 15/5-5	6.3	9.8	8.3	9.2	33.4	2.7	17.5	6.8	1.7	44.5	1	63
2186.75 15/5-5	6.8	10.9	9.0	10.8	41.4	2.5	18.8	6.5	1.0	53.4	1.0	74.3
BIOMN02E	6.8	10.3	7.4	12.3	37.8	27.1	32.9	7.3	17.5	51.7	14.9	103.8
BIOMN09E	6.3	9.8	7.4	11.5	36.2	26	32.3	6.9	15.5	48.2	13.5	100
BIOMN02E	5.5	8.9	6.9	11.7	38.8	25.6	32.2	6.5	16.3	51.1	14.1	97.9
BIOMN07E	6	9.3	7.1	12.1	40.3	27.4	32.2	6.8	16.1	51.1	14.9	101
BIOMN02E	5.1	8.4	7.1	10.8	36.9	25.1	30.7	5.9	14.9	48.2	13.4	88.8
BIOMN10E	5.5	8.5	6.3	11.5	38.5	28.9	31.6	5.8	15	47.1	14.5	91.6

Table 2.6 Absolute amounts of biomarkers, saturated hydrocarbons

E-Depth(m) Well	29Ts	29ba	30D	30ab	30D13	30ba	30G	31abS	31abR	31ba	32abS	32abR
2157.7 15/5-5	24.4	5	10.3	75.8	8.3	5.2	7.7	61.4	43.3	3.5	41.3	29.6
2183 15/5-5	32.4	5.3	12.8	89.1	10	6.4	8.8	73	47.7	4.5	49.9	38.5
0 15/5-3	30.7	3.9	15	85.9	9.4	6.3	10.4	67.8	48.4	5	48.5	32.4
2157 15/5-5	41.4	6.6	17.2	118.4	13.2	7.6	12.5	89.9	60.9	5.6	61.6	44.2
2158 15/5-5	38.6	6.3	14.3	111.3	12	7.7	12	91.9	60.9	5.9	61.1	42.1
2157 15/5-5	37.5	6.4	15.1	109.2	12.2	8.2	12	85.4	62	5.3	63.2	41.8
2159 15/5-5	37.3	6.2	14.2	111.9	12.2	7.7	10.9	86.7	60.7	5.3	63.5	42.8
2160 15/5-5	40.2	6	16.3	117.9	12.2	7.9	11.4	98	63.5	6.2	65.7	47
2162 15/5-5	41.6	6.5	17	123.7	12.9	9	14.1	95.5	69.2	6.2	71.4	47
2164 15/5-5	40.9	6.8	16.2	113.5	13.4	8.2	12.2	98.4	67.9	5.4	64.5	46.3
2165 15/5-5	40.6	6.1	16.7	111	12.2	8.1	12.1	90.4	63.4	5.4	64.7	42.8
2167 15/5-5	38.9	6.3	16.8	123.2	13	8.1	13.2	97.4	64	6.2	72.8	47.3
2169 15/5-5	35.5	5.4	15.7	95.6	11.5	7.9	10.7	83.8	57.2	5.7	59.2	38.9
2171 15/5-5	37.3	5.9	15.8	119.4	12.7	7.9	10.9	93.9	62	5.8	62.1	42.1
2172 15/5-5	43.7	7.4	17.5	130.8	14.8	9.8	12.5	106	71.6	6.5	78.4	50.5
2174 15/5-5	36.2	5.5	14.5	104.4	12.3	6.8	10.2	82.8	60.3	5.3	60.7	40
2175.5 15/5-5	40.1	6.4	15.4	111.1	12.7	8	12	90.5	63.8	5.6	62.7	42.4
2177.5 15/5-5	36	5.5	14.2	96	11.1	6.6	10.2	85	58.2	4.6	59.1	41.6
2181.5 15/5-5	5.9	3.8	2.2	22.4	2.9	3.4	2.1	11.5	9.7	2.9	6.9	5.3
2182.5 15/5-5	37.4	5.6	14.3	110.8	11.6	7.5	11.1	89	66.6	4.1	61.4	43.1
2183.55 15/5-5	1.8	1.9	2.5	7.2	3.5	1.5	0.4	4.4	8.3	6.2	2.8	2.7
2184.75 15/5-5	8.1	5.3	2.6	11.2	11.8	4.1	1.1	3.8	18.1	19	1.6	3.6
2185.9 15/5-5	37.9	6.2	15.2	116.8	13.2	7.5	12.4	91.8	62.9	5.8	62.9	43.6
2186.75 15/5-5	43.3	7.1	16.4	135.0	14.0	9.3	12.5	106.7	75.6	6.5	76.7	54.3
BIOMN02E	38.8	21.5	21.7	169.8	16.8	15.4	14.9	87.6	64.6	10.7	62.6	44.7
BIOMN09E	41.2	19.9	20.8	158.6	17.2	16.3	14	84.4	62.6	10	57.5	43
BIOMN02E	37.9	20.1	23.7	168.2	16	17	14.4	89.5	64.2	10.4	66.3	47.1
BIOMN07E	39.2	19.4	22.7	163.4	15.9	14.6	14.1	90.4	67.1	9.5	63.6	46.1
BIOMN02E	36.6	17	21.4	150.9	14.3	14	13.5	83.3	60	8.7	56.8	42.3
BIOMN10E	36	18	19.9	150.5	14.4	16.1	13.4	86.9	62.6	9	64.4	43.6

Table 2.6 Absolute amounts of biomarkers, saturated hydrocarbons

E-Depth(m)	Well	33abS	33abR	34abS	34abR	35abS	35abR	21aa	21bb	22aa	22bb	27dbS	27dbR
2157.7	15/5-5	31.4	22	22.5	14.4	21.1	14.2	15.2	16.2	11.4	9.1	44.5	26.8
2183	15/5-5	43.9	30.2	27	17.9	27.7	18.4	20.9	24	18.4	12.3	67.4	38.4
0	15/5-3	40.3	27.3	27.6	18	25	17.4	22.5	22.5	17.2	11.5	63.4	39.5
2157	15/5-5	54.7	35.9	35	23.3	35	22.7	28.7	29.9	20.9	15.3	84.2	49.7
2158	15/5-5	53.4	34.9	33	24	34	22.8	28	30.1	22.5	15.5	82.7	52.2
2157	15/5-5	51.3	35.1	34.3	21.2	33.6	21.6	27.1	27.5	19.9	14.6	76.2	49.7
2159	15/5-5	53.7	34.1	36.8	22.5	36.6	22.4	27.4	29.4	20.7	15.6	75.6	47.4
2160	15/5-5	58.5	35.5	35.3	22.5	38.1	24.8	28.6	32.5	23	17.3	83.9	53.4
2162	15/5-5	58.1	36.3	34.9	24.2	37.6	26.6	30.2	30.5	24.1	17.7	86.1	53.2
2164	15/5-5	52.2	35.7	36.1	23.1	37.1	24.2	28.9	30.2	21.3	16	87.9	49.1
2165	15/5-5	54.9	36.5	38.5	24.1	37.2	24	27.9	28.9	20.8	15.5	76.3	47
2167	15/5-5	57.4	37.4	38	23.1	39.2	24.8	29.8	30.7	22.1	16.8	91.8	52.1
2169	15/5-5	51.5	32.9	32	20.5	34.9	22.6	25.3	28.2	18.8	14.7	74.6	46.1
2171	15/5-5	52.5	35.1	33.3	20.5	34.6	21.8	27.8	30	21.4	15.4	80.3	48.7
2172	15/5-5	64.1	42.7	40.6	27.2	42.2	26.8	31.2	33.2	23.7	18.2	100.1	58.4
2174	15/5-5	46.3	34.3	31.5	22.3	33.8	22.3	26.2	27.2	20.7	14.9	76.8	44.7
2175.5	15/5-5	55.9	34.1	35.9	21.3	33.1	23.2	28.6	28.7	21.1	15.5	80	50.1
2177.5	15/5-5	46.5	33.8	32	18.9	33.7	21.1	26.3	27.5	18	14.7	77.2	42.6
2181.5	15/5-5	4.6	3.9	3.5	2.2	3	1.7	0.8	1.3	0.8	1.2	5.8	3.5
2182.5	15/5-5	50.6	34.8	33.6	22	35.1	24.1	26.2	25.3	18.6	13.8	78.9	48.1
2183.55	15/5-5	2	1.5	1.7	0.9	1.4	1.3	1.4	2	1	1.1	3.4	1.8
2184.75	15/5-5	13.4	1.3	5.9	1.5	2	0.6	0.7	1.7	2.6	2.4	2.1	1.3
2185.9	15/5-5	54.1	36.8	34.3	23.2	38.3	23.4	27.5	28	18.8	15.1	78.2	47
2186.75	15/5-5	62.8	42.3	41.3	25.4	41.5	26.4	29.1	31.2	21.0	16.3	84.7	55.6
BIOMN02E		54.9	36.9	35.4	22.4	28	18.9	27.7	38.4	24.9	22.2	74.9	44.6
BIOMN09E		51.8	34.3	33.8	21.5	26.9	18.2	27.1	34	24.3	22.5	69	42.5
BIOMN02E		53.8	39.3	37.7	23.5	27.2	20.1	27.6	36	24	21.5	68.7	43.1
BIOMN07E		56.8	39.1	37.3	22.5	29.1	19.4	27.5	35.5	24.1	21.9	70.4	42.2
BIOMN02E		48	32.9	33.4	19.4	26.4	17.1	26.8	35.1	20.7	19.5	61.1	39.7
BIOMN10E		52	35.6	34.6	21.4	29.3	17.9	27.6	34.7	22.9	19.8	68.1	44.5

Table 2.6 Absolute amounts of biomarkers, saturated hydrocarbons

E-Depth(m)	Well	27bbR	27bbS	27aaR	28bbR	28bbS	29aaS	29bbR	29bbS	29aaR	30bbR	30bbS
2157.7	15/5-5	39.9	28.5	15.3	22.3	24.6	11.8	29.8	27.6	12.5	9.7	8.8
2183	15/5-5	50.6	38.4	19.7	35.8	36.7	14.1	39	36.9	17.5	14.9	12.6
0	15/5-3	46.4	33.8	17.3	27.9	32.1	13.1	37.1	34.3	14.2	12.3	11
2157	15/5-5	68.5	46.2	26.7	41.2	46	20.4	50	48.3	21.1	19.2	16.8
2158	15/5-5	68.2	47.8	25.9	38.2	47.9	18.2	52.2	46.5	22.5	17.6	16.7
2157	15/5-5	63.2	46.7	23.8	41.9	44.2	18.7	50.1	44.9	20.4	17.6	16.3
2159	15/5-5	63	43.7	24.9	42.9	45.6	17.9	47.1	44.1	21.2	18.2	16.4
2160	15/5-5	68.1	51.4	26.6	41.9	49.4	19.4	50.6	53	22.7	19.4	16.7
2162	15/5-5	70.9	46	27.6	43.6	45	20.3	49.9	49.2	23.4	18.6	16.1
2164	15/5-5	66.8	50.7	25.5	40.1	47.8	18.9	55.3	46.5	21.3	18.9	17.6
2165	15/5-5	60.7	44.8	25.6	38.8	43.1	17.8	48.4	47.3	20.8	17.6	16.4
2167	15/5-5	64	44.5	26.7	42.7	45.4	20.5	49.3	46.9	21.1	17.3	16.5
2169	15/5-5	63.6	44.9	24.6	36.4	39.2	16.2	40.2	45	21.2	17.1	14.5
2171	15/5-5	65.2	50.8	25.2	40	45.3	20.5	51.6	47.5	20.8	18.9	16.5
2172	15/5-5	74.4	57.1	30.5	48.4	51.9	21.9	57.1	57.8	27.1	22.5	19.1
2174	15/5-5	58	44.3	23.6	37.7	40.4	18.8	43.1	44.3	19.8	16.9	15.4
2175.5	15/5-5	66.9	48.1	24.4	43.6	46.1	19	48.5	43.7	21.8	18.8	16.6
2177.5	15/5-5	60.1	46.2	24.2	33.2	41	16.5	44.8	42.1	19.5	16.1	15
2181.5	15/5-5	6	4.1	3.5	3.2	3.8	3	5.2	5.2	3.9	1.1	1
2182.5	15/5-5	64.6	47.5	25.9	38	41.6	18.2	44.4	44.8	19.9	17.5	16.9
2183.55	15/5-5	3.5	2.1	2.1	2.5	2.6	2.2	5.7	2.7	3.1	0.8	0.9
2184.75	15/5-5	4.1	1.6	4.2	2.3	2.4	6.3	12.4	4.6	11.3	0.8	0.4
2185.9	15/5-5	66.9	47.7	25.7	39.7	44.1	18.7	48.1	45	21.7	20.3	16.5
2186.75	15/5-5	65.9	48.1	25.3	42.3	48.6	20.6	51.9	48.6	21.9	19.6	17.5
BIOMN02E		52.9	38.3	23.5	31.4	41.9	25.9	43.6	42.9	28.1	17.7	15.6
BIOMN09E		51.7	33.7	20.9	28.1	38.2	24.1	44.6	44.2	25.4	16.7	15
BIOMN02E		51.7	36	20.6	28.9	37.9	26.6	46.9	43.2	25.8	16.8	14.7
BIOMN07E		51.5	35.5	21.1	30.9	36.8	23.4	45.7	40.9	25.4	17.3	14
BIOMN02E		45.8	30.6	19.3	27.3	35.4	21.8	42.1	38	23.5	15.5	13.4
BIOMN10E		51	34.5	20.9	30	39.6	23.2	44.2	42.3	25.3	15.7	13.1

Table 2.6 Absolute amounts of biomarkers, saturated hydrocarbons

<u>E-Depth(m) Well</u>	%27Ts	%29Ts	%28ab	%29ab	%30D	%30ba	%32abS	%29aaS	%29bb	%27dia
2157.7 15/5-5	60.5	29.8	23.4	43.1	12.2	6.4	58.3	48.6	70.3	51.0
2183 15/5-5	66.7	39.4	28.4	35.9	12.9	6.7	56.4	44.6	70.6	54.3
0 15/5-3	67.9	39.0	24.7	35.9	15.7	6.8	60.0	48.0	72.3	56.2
2157 15/5-5	68.9	39.7	27.2	34.7	13.1	6.0	58.2	49.2	70.3	53.9
2158 15/5-5	68.1	37.8	28.2	36.4	11.6	6.5	59.2	44.7	70.8	53.8
2157 15/5-5	67.4	39.2	27.6	34.8	12.4	7.0	60.2	47.8	70.8	53.4
2159 15/5-5	67.4	37.8	27.4	35.5	11.4	6.4	59.7	45.8	70.0	53.5
2160 15/5-5	68.2	37.9	27.6	35.9	12.5	6.3	58.3	46.1	71.1	53.5
2162 15/5-5	67.3	38.2	28.0	35.2	12.4	6.8	60.3	46.5	69.4	54.4
2164 15/5-5	70.3	38.2	28.9	36.8	12.8	6.7	58.2	47.0	71.7	53.8
2165 15/5-5	68.7	38.9	27.5	36.5	13.6	6.8	60.2	46.1	71.3	53.9
2167 15/5-5	67.3	38.3	27.3	33.7	12.3	6.2	60.6	49.3	69.8	57.0
2169 15/5-5	67.5	37.8	30.9	37.9	14.7	7.6	60.3	43.3	69.5	52.7
2171 15/5-5	68.1	37.0	25.9	34.7	12.0	6.2	59.6	49.6	70.6	52.7
2172 15/5-5	67.9	37.4	29.0	35.8	12.0	7.0	60.8	44.7	70.1	54.7
2174 15/5-5	67.8	36.2	28.1	37.9	12.4	6.1	60.3	48.7	69.4	54.3
2175.5 15/5-5	68.8	38.6	28.8	36.5	12.4	6.7	59.7	46.6	69.3	53.1
2177.5 15/5-5	68.1	39.1	29.6	36.8	13.3	6.4	58.7	45.8	70.7	53.0
2181.5 15/5-5	49.3	23.4	9.7	46.3	8.7	13.2	56.6	43.5	60.1	47.9
2182.5 15/5-5	68.5	38.4	27.9	35.1	11.7	6.3	58.8	47.8	70.1	53.1
2183.55 15/5-5	44.4	25.0	41.9	42.9	23.4	17.2	50.9	41.5	61.3	48.1
2184.75 15/5-5	23.7	52.6	86.4	39.5	11.3	26.8	30.8	35.8	49.1	37.4
2185.9 15/5-5	65.6	37.6	27.6	35.0	11.7	6.0	59.1	46.3	69.7	52.2
2186.75 15/5-5										
BIOMN02E	53.5	27.2	23.3	37.9	11.6	8.3	58.3	48.0	61.6	56.7
BIOMN09E	52.8	29.2	23.3	38.7	11.8	9.3	57.2	48.7	64.2	56.6
BIOMN02E	54.6	27.9	23.3	36.8	12.9	9.2	58.5	50.8	63.2	56.0
BIOMN07E	55.6	28.0	23.8	38.2	12.7	8.2	58.0	48.0	64.0	56.4
BIOMN02E	54.6	29.2	24.2	37.0	13.0	8.5	57.3	48.1	63.9	56.9
BIOMN10E	54.9	28.2	23.8	37.8	12.1	9.7	59.6	47.8	64.1	56.8

Table 2.7 Biomarker ratios

S-Depth, m	E-Depth, m	Well	Type	Lith.	Org.ID#	Proj.#	Seq.#	File name	File path:	Method:	Operator:	Date analyzed:	Misc.info.
2157.70	2157.70	w15/5-5	OIL	mdt		35208	10	2157_7A.D	1555OIL1	MSD_ARO	JKB	16-nov-95	
2154.00	2183.00	w15/5-5	OIL	DST # 1		35208	12	2183A.D	1555OIL1	MSD_ARO	JKB	16-nov-95	
0.00	0.00	w15/5-3	OIL	casing		35208	11	15_5_3A.D	1555OIL1	MSD_ARO	JKB	16-nov-95	
2157.00	2157.00	w15/5-5	SWC			35208	12	2157SWCA	1555_SA1	MSD_ARO	JKB	07-nov-95	
2158.00	2158.00	w15/5-5	SWC			35208	13	2158SWCA	1555_SA1	MSD_ARO	JKB	07-nov-95	
2157.00	2157.00	w15/5-5	COCH			35208	11	2157A.D	1555_SA1	MSD_ARO	JKB	07-nov-95	
2159	2159	15/5-5	COCH			35208	20	2159A.D	1555_SA2	MSD_ARO	JKB	29-nov-95	aro, coch
2160	2160	15/5-5	COCH			35208	21	2160A.D	1555_SA2	MSD_ARO	JKB	29-nov-95	aro, coch
2162	2162	15/5-5	COCH			35208	22	2162A.D	1555_SA2	MSD_ARO	JKB	30-nov-95	aro, coch
2164.00	2164.00	w15/5-5	COCH			35208	14	2164A.D	1555_SA1	MSD_ARO	JKB	07-nov-95	
2165	2165	15/5-5	COCH			35208	23	2165A.D	1555_SA2	MSD_ARO	JKB	30-nov-95	aro, coch
2167	2167	15/5-5	COCH			35208	24	2167A.D	1555_SA2	MSD_ARO	JKB	30-nov-95	aro, coch
2169	2169	15/5-5	COCH			35208	25	2169A.D	1555_SA2	MSD_ARO	JKB	30-nov-95	aro, coch
2171.00	2171.00	w15/5-5	COCH			35208	15	2171A.D	1555_SA1	MSD_ARO	JKB	07-nov-95	
2172	2172	15/5-5	COCH			35208	26	2172A.D	1555_SA2	MSD_ARO	JKB	30-nov-95	aro, coch
2174	2174	15/5-5	COCH			35208	27	2174A.D	1555_SA2	MSD_ARO	JKB	30-nov-95	aro, coch
2175.50	2175.50	w15/5-5	COCH			35208	16	2175_5A.D	1555_SA1	MSD_ARO	JKB	07-nov-95	
2177.5	2177.5	15/5-5	COCH			35208	28	2177_5A.D	1555_SA2	MSD_ARO	JKB	30-nov-95	aro, coch
2181.5	2181.5	15/5-5	COCH			35208	29	2181_5A.D	1555_SA2	MSD_ARO	JKB	30-nov-95	aro, coch
2182.5	2182.5	15/5-5	COCH			35208	31	2182_5A.D	1555_SA2	MSD_ARO	JKB	30-nov-95	aro, coch
2183.55	2183.55	15/5-5	COCH			35208	32	2183_55A.I	1555_SA2	MSD_ARO	JKB	30-nov-95	aro, coch
2184.75	2184.75	15/5-5	COCH			35208	33	2184_75A.I	1555_SA2	MSD_ARO	JKB	#VALUE!	aro, coch
2185.9	2185.9	15/5-5	COCH			35208	34	2185_9A.D	1555_SA2	MSD_ARO	JKB	#VALUE!	aro, coch
2186.75	2186.75	W15/5-5	coch			35208	4	2186_75A.I.C	HPCHEM	MSD_A_C	JKB	29-jan-96	
BIOMN10A	BIOMN10A	NSO-1	OIL	DST # 1		35208	10	BIOMN10A	1555_SA1	MSD_ARO	JKB	07-nov-95	Lab.ref. AR
BIOMN17A	BIOMN17A	NSO-1	OIL	DST # 1		35208	17	BIOMN17A	1555_SA1	MSD_ARO	JKB	07-nov-95	Lab.ref. AR
BIOMN08A	BIOMN08A	NSO-1	OIL	DST # 1		35208	8	BIOMN08A	1555OIL1	MSD_ARO	JKB	16-nov-95	Lab.ref. AR
BIOMN13A	BIOMN13A	NSO-1	OIL	DST # 1		35208	13	BIOMN13A	1555OIL1	MSD_ARO	JKB	16-nov-95	Lab.ref. AR
BIOMN19A	BIOMN19A		OIL	DST # 1		35208	19	BIOMN19A	1555_SA2	MSD_ARO	JKB	29-nov-95	Lab.ref. AR
BIOMN30A	BIOMN30A		OIL	DST # 1		35208	30	BIOMN30A	1555_SA2	MSD_ARO	JKB	30-nov-95	Lab.ref. AR

Table 2.8 Absolute amounts of aromatic hydrocarbons

E-Depth m		Well	Amounts:	d8 N	d10BP	d10 P	d12 C	N	2-MN	1-MN	2-EN	1-EN	2,6+ 2,7- DMN
2157.70	w15/5-5		ng/mg	29	30	29	29	269	465	540	80	65	233
2183.00	w15/5-5		ng/mg	29	30	29	29	431	771	939	118	101	355
0.00	w15/5-3		ng/mg	31	32	31	31	728	1065	1176	141	103	520
2157.00	w15/5-5		ng/mg	30	30	30	30	418	783	917	137	111	374
2158.00	w15/5-5		ng/mg	30	31	30	30	457	778	910	129	108	378
2157.00	w15/5-5		ng/mg	36	37	36	36	357	734	859	128	108	348
2159	15/5-5		ng/mg	35	36	35	35	67	278	397	74	66	222
2160	15/5-5		ng/mg	36	37	36	36	98	351	474	88	76	262
2162	15/5-5		ng/mg	33	34	33	33	214	550	751	108	92	317
2164.00	w15/5-5		ng/mg	27	28	27	27	465	817	948	142	116	396
2165	15/5-5		ng/mg	29	30	29	30	56	229	338	63	57	196
2167	15/5-5		ng/mg	56	57	56	56	22	105	178	38	37	120
2169	15/5-5		ng/mg	33	34	33	33	62	235	355	67	58	194
2171.00	w15/5-5		ng/mg	38	39	38	38	319	491	663	127	106	364
2172	15/5-5		ng/mg	51	53	51	51	59	191	312	61	57	177
2174	15/5-5		ng/mg	31	32	31	31	98	310	436	80	69	232
2175.50	w15/5-5		ng/mg	34	35	34	34	339	716	878	130	108	373
2177.5	15/5-5		ng/mg	44	45	44	44	237	441	538	94	81	282
2181.5	15/5-5		ng/mg	63	65	63	63	786	745	636	92	64	282
2182.5	15/5-5		ng/mg	30	31	30	31	44	58	83	19	21	61
2183.55	15/5-5		ng/mg	106	109	106	106	1532	1936	2227	246	211	793
2184.75	15/5-5		ng/mg	63	65	63	63	8983	7328	7643	785	658	2627
2185.9	15/5-5		ng/mg	26	27	26	26	38	80	90	22	18	71
2186.75	W15/5-5		ng/mg	37	38	37	37	39.5	108	141	43	39	139
BIOMN10A	NSO-1	O	ng/mg	34	35	34	34	955	732	623	148	74	750
BIOMN17A	NSO-1	O	ng/mg	34	35	34	34	947	754	663	158	75	797
BIOMN08A	NSO-1	O	ng/mg	34	35	34	34	946	610	533	166	82	807
BIOMN13A	NSO-1	O	ng/mg	34	35	34	34	925	629	566	169	82	836
BIOMN19A		O	ng/mg	34	35	34	34	906	855	760	177	83	865
BIOMN30A		O	ng/mg	34	35	34	34	928	859	708	162	81	821

Table 2.8 Absolute amounts of aromatic hydrocarbons

E <sup>2</sup> Depth m	Well	1,3+1,7-		2,3+1,4-		1,2-DMN	C3- N	C3-N	1,3,7-TMN	1,3,5+1,4,6-		1,6,7+1,2,7-	
		DMN	1,6-DMN	DMN	1,5-DMN					TMN	2,3,6-TMN	TMN	TMN
2157.70	w15/5-5	454	401	169	143	124	38	66	131	224	248	119	128
2183.00	w15/5-5	705	631	268	239	189	59	104	200	368	360	175	190
0.00	w15/5-3	862	830	325	271	207	67	118	293	460	448	250	247
2157.00	w15/5-5	780	713	298	253	221	69	122	235	388	436	199	214
2158.00	w15/5-5	746	696	290	239	213	67	115	220	394	415	195	202
2157.00	w15/5-5	703	673	281	242	211	66	114	223	366	422	191	205
2159	15/5-5	487	435	188	169	141	50	89	173	316	339	157	178
2160	15/5-5	565	504	215	189	163	59	102	191	346	375	175	198
2162	15/5-5	625	636	264	234	195	62	105	218	364	400	192	203
2164.00	w15/5-5	794	731	308	264	227	70	118	244	392	430	200	214
2165	15/5-5	399	368	168	148	126	45	80	165	286	319	148	159
2167	15/5-5	280	251	114	100	90	41	72	140	259	283	130	149
2169	15/5-5	420	394	164	144	128	49	84	159	298	302	151	164
2171.00	w15/5-5	787	696	318	272	230	72	128	274	460	501	218	247
2172	15/5-5	410	356	172	145	132	52	90	173	301	348	157	177
2174	15/5-5	496	457	194	167	152	52	94	185	325	343	166	175
2175.50	w15/5-5	755	715	307	258	222	70	121	226	393	431	200	213
2177.5	15/5-5	611	550	230	203	173	59	103	201	359	371	180	195
2181.5	15/5-5	465	458	207	160	150	30	57	105	206	184	123	110
2182.5	15/5-5	192	134	71	83	52	26	43	99	147	202	82	110
2183.55	15/5-5	1545	1541	695	566	505	99	180	368	680	714	382	381
2184.75	15/5-5	4697	5060	2202	1824	1565	310	552	1079	2029	2101	1198	1239
2185.9	15/5-5	158	144	69	57	54	24	44	84	162	179	86	100
2186.75	W15/5-5	316	282	132	114	101	44	72	136	244	286	135	145
BIOMN10A	NSO-1	1121	910	429	269	185	105	121	535	753	714	479	418
BIOMN17A	NSO-1	1186	971	463	269	202	112	132	494	819	704	521	446
BIOMN08A	NSO-1	1338	987	481	288	218	130	149	589	914	811	581	518
BIOMN13A	NSO-1	1352	1028	486	305	216	126	153	632	952	861	579	515
BIOMN19A		1292	1067	505	301	226	121	140	585	884	758	569	480
BIOMN30A		1177	930	454	281	205	110	131	546	768	716	492	422

Table 2.8 Absolute amounts of aromatic hydrocarbons



E-Depth m Well		1,2,6-TMN	1,2,4-TMN	1,2,5-TMN	BP	3-MBP	4-MBP	2,3'- DMBP	2,4 & 2,4'- 2,5-DMBP	DMBP	2,3-DMBP	3-EBP
2157.70	w15/5-5	115	44	147	65	62	20	8	3	7	24	15
2183.00	w15/5-5	187	69	232	106	103	30	12	5	11	39	24
0.00	w15/5-3	224	67	253	160	169	57	15	6	15	39	31
2157.00	w15/5-5	203	81	266	107	117	32	14	6	12	46	27
2158.00	w15/5-5	194	77	259	107	113	33	14	5	12	42	26
2157.00	w15/5-5	195	74	255	100	112	30	14	5	12	44	25
2159	15/5-5	174	61	220	57	81	25	11	4	9	33	23
2160	15/5-5	190	68	242	69	94	28	12	4	11	38	25
2162	15/5-5	204	73	258	89	104	31	13	5	12	44	27
2164.00	w15/5-5	208	80	260	113	120	33	14	6	12	46	27
2165	15/5-5	166	58	202	48	74	23	9	4	9	10	22
2167	15/5-5	147	57	189	25	60	17	8	3	7	27	21
2169	15/5-5	161	57	205	47	77	22	10	4	9	31	21
2171.00	w15/5-5	246	91	303	96	127	38	15	6	13	49	32
2172	15/5-5	170	67	223	42	79	23	11	4	9	35	23
2174	15/5-5	179	66	219	60	88	25	11	4	10	34	23
2175.50	w15/5-5	205	82	267	105	117	33	14	5	12	44	26
2177.5	15/5-5	191	73	244	83	98	29	11	5	11	37	26
2181.5	15/5-5	115	36	147	127	94	34	5	2	5	28	14
2182.5	15/5-5	86	36	130	12	38	10	5	2	4	17	13
2183.55	15/5-5	403	138	500	303	240	79	16	6	15	68	44
2184.75	15/5-5	1190	419	1562	1175	795	287	44	18	44	83	194
2185.9	15/5-5	95	36	123	23	41	13	4	2	4	5	18
2186.75	W15/5-5	142	56	185	32	61	18	8	3	7	28	19
BIOMN10A	NSO-1	285	85	270	272	418	150	29	13	30	54	76
BIOMN17A	NSO-1	278	94	288	273	455	154	30	14	32	56	73
BIOMN08A	NSO-1	309	106	336	282	502	170	35	16	36	60	83
BIOMN13A	NSO-1	321	110	354	284	490	182	37	16	38	61	89
BIOMN19A		288	102	310	301	490	168	32	15	33	57	80
BIOMN30A		293	90	291	290	428	160	29	14	31	10	78

Table 2.8 Absolute amounts of aromatic hydrocarbons

E-Depth m	Well	3,5-DMBP	3,3'- DMBP	4-EBP	3,4'- DMBP	4,4'- DMBP	3,4'- DMBP	DBF	MDBF	MDBF	MDBF	F	C1-F
2157.70	w15/5-5	15	39	5	25	4	18	38	85	37	37	56	23
2183.00	w15/5-5	18	57	6	33	5	24	62	134	60	57	88	35
0.00	w15/5-3	32	100	10	65	11	39	79	144	82	68	101	33
2157.00	w15/5-5	22	64	8	40	6	29	64	156	68	68	91	35
2158.00	w15/5-5	21	63	7	37	6	27	63	151	64	63	89	33
2157.00	w15/5-5	20	60	9	37	6	28	60	148	64	64	91	39
2159	15/5-5	17	56	7	34	5	25	47	133	60	57	70	31
2160	15/5-5	20	60	7	36	6	29	54	145	65	62	67	27
2162	15/5-5	23	66	8	42	6	31	61	166	72	69	85	40
2164.00	w15/5-5	23	66	8	39	6	28	65	155	65	67	99	37
2165	15/5-5	18	53	7	34	5	25	43	134	60	61	68	35
2167	15/5-5	17	52	6	33	5	25	35	119	58	55	58	34
2169	15/5-5	16	53	6	32	5	24	44	122	59	52	73	33
2171.00	w15/5-5	26	73	8	47	7	31	71	175	78	74	109	41
2172	15/5-5	20	59	7	37	6	27	43	144	66	63	71	38
2174	15/5-5	18	57	7	34	6	26	49	130	61	57	76	35
2175.50	w15/5-5	22	64	8	40	7	28	72	165	70	72	78	31
2177.5	15/5-5	19	60	7	36	6	28	59	144	66	60	90	39
2181.5	15/5-5	11	31	5	24	4	17	100	131	75	65	101	27
2182.5	15/5-5	12	36	4	20	3	17	20	90	37	38	48	31
2183.55	15/5-5	31	93	14	69	12	52	317	493	272	264	262	89
2184.75	15/5-5	94	315	48	203	32	163	1067	1589	883	707	905	241
2185.9	15/5-5	11	34	5	21	3	17	27	88	44	36	45	24
2186.75	W15/5-5	16	44	6	29	5	22	33	110	47	44	60	27
BIOMN10A	NSO-1	112	275	31	216	42	111	94	224	153	124	180	102
BIOMN17A	NSO-1	119	*304	30	220	44	123	92	235	158	128	191	97
BIOMN08A	NSO-1	135	343	32	235	49	135	107	257	179	143	213	122
BIOMN13A	NSO-1	139	345	31	243	47	138	112	267	191	151	215	121
BIOMN19A		129	317	31	235	48	131	105	260	166	142	201	113
BIOMN30A		279	112	273	226	44	112	100	234	164	132	189	109

Table 2.8 Absolute amounts of aromatic hydrocarbons

E-Depth m	Well	C1-F	1-MF	3+2-				P	3-MP	2-MP	9-MP	2EP+9EP+	
				DBT	4-MDBT	MDBT	1-MDBT					1-MP	3,6-DMP
2157.70	w15/5-5	99	17	22	25	9	11	94	46	45	100	86	17
2183.00	w15/5-5	143	28	37	39	15	19	155	71	67	157	127	28
0.00	w15/5-3	131	21	31	35	11	14	198	91	94	187	155	30
2157.00	w15/5-5	164	27	44	47	16	20	195	83	88	190	162	33
2158.00	w15/5-5	144	25	45	47	16	20	195	85	89	196	163	34
2157.00	w15/5-5	163	30	41	44	14	19	182	80	78	182	147	33
2159	15/5-5	132	22	40	46	16	22	156	79	80	177	141	31
2160	15/5-5	128	19	44	51	18	25	180	93	93	205	162	36
2162	15/5-5	170	31	49	55	20	26	185	95	96	203	176	36
2164.00	w15/5-5	164	29	44	46	16	22	193	81	83	187	149	34
2165	15/5-5	147	27	45	48	18	24	169	83	88	182	159	33
2167	15/5-5	147	24	44	50	18	22	165	86	96	198	169	35
2169	15/5-5	154	27	40	45	16	21	155	73	76	163	140	29
2171.00	w15/5-5	179	32	37	40	13	18	174	77	78	181	136	31
2172	15/5-5	166	28	53	52	21	27	201	104	112	243	197	41
2174	15/5-5	150	27	46	50	18	24	177	82	87	181	160	32
2175.50	w15/5-5	150	24	51	52	18	22	228	92	102	213	187	35
2177.5	15/5-5	158	30	43	47	18	23	167	81	84	192	144	33
2181.5	15/5-5	139	20	61	29	17	20	274	84	102	203	182	24
2182.5	15/5-5	140	25	33	40	14	21	144	76	77	168	158	30
2183.55	15/5-5	515	62	234	171	74	93	989	344	430	918	760	114
2184.75	15/5-5	1517	168	592	370	138	180	2895	710	817	1675	1439	216
2185.9	15/5-5	112	19	28	30	10	14	125	54	55	115	95	23
2186.75	W15/5-5	120	20	35	14	12	17	145	61	64	135	110	25
BIOMN10A	NSO-1	361	61	15	23	7	8	232	126	142	204	158	38
BIOMN17A	NSO-1	354	60	16	24	7	8	250	126	140	197	168	38
BIOMN08A	NSO-1	409	74	17	26	8	9	248	146	145	226	178	41
BIOMN13A	NSO-1	436	70	17	26	8	9	256	139	144	221	174	39
BIOMN19A		377	68	18	28	9	9	258	149	153	217	187	41
BIOMN30A		371	63	17	25	8	8	234	132	148	212	167	39

Table 2.8 Absolute amounts of aromatic hydrocarbons

E-Depth m Well		2,6+2,7+3, 5-DMP	,9+3,10- DMP	1,6+2,5+2, 9-DMP	1,7-DMP	2,3-DMP	1,9+4,9+4, 10-DMP	1,8-DMP	Retene	20TA	21TA	S26TA	
2157.70	w15/5-5	12	6	75	39	36	8	25	13	24	3	3	2
2183.00	w15/5-5	16	9	104	57	52	13	41	21	39	4	4	2
0.00	w15/5-3	23	14	125	71	72	18	48	24	55	4	4	2
2157.00	w15/5-5	22	11	147	77	72	17	56	28	47	4	4	2
2158.00	w15/5-5	21	11	141	75	71	16	53	27	47	4	4	2
2157.00	w15/5-5	21	10	138	68	64	15	50	24	45	4	4	2
2159	15/5-5	19	10	125	62	64	15	47	24	46	5	5	3
2160	15/5-5	22	11	140	76	72	18	54	28	54	5	5	3
2162	15/5-5	25	12	140	80	79	18	55	27	49	5	4	3
2164.00	w15/5-5	22	11	137	74	73	16	51	26	49	5	5	3
2165	15/5-5	20	10	130	69	69	17	53	25	46	4	4	3
2167	15/5-5	22	12	136	74	75	17	55	27	53	5	5	3
2169	15/5-5	20	10	115	65	62	14	48	24	44	4	4	2
2171.00	w15/5-5	18	8	127	65	59	16	47	24	48	4	4	3
2172	15/5-5	25	13	167	90	85	20	64	33	65	5	5	3
2174	15/5-5	23	11	132	72	67	15	53	25	50	4	4	3
2175.50	w15/5-5	24	12	151	76	77	17	57	28	49	4	4	3
2177.5	15/5-5	21	10	131	68	63	16	48	24	49	5	5	3
2181.5	15/5-5	14	8	98	53	60	12	39	24	14	1	0	0
2182.5	15/5-5	19	9	118	68	65	17	49	32	47	5	5	3
2183.55	15/5-5	76	42	476	283	288	62	195	112	96	8	7	0
2184.75	15/5-5	126	65	707	376	377	100	289	152	154	4	2	1
2185.9	15/5-5	14	7	84	46	42	10	33	16	42	4	4	3
2186.75	W15/5-5	17	8	103	54	53	13	39	18	36	4	4	2
BIOMN10A	NSO-1	40	22	174	91	85	26	53	22	101	3	3	3
BIOMN17A	NSO-1	42	22	172	97	90	25	56	22	100	3	3	4
BIOMN08A	NSO-1	42	23	185	101	92	27	59	24	106	4	5	5
BIOMN13A	NSO-1	39	24	185	96	88	27	55	23	106	3	4	5
BIOMN19A		44	23	194	102	100	29	59	25	106	4	4	4
BIOMN30A		39	24	175	93	89	27	56	23	101	3	4	4

Table 2.8 Absolute amounts of aromatic hydrocarbons

E-Depth m	Well	R26TA/S2			
		7TA	S28TA	R27TA	R28TA
2157.70	w15/5-5	8	4	4	4
2183.00	w15/5-5	11	5	6	6
0.00	w15/5-3	10	5	4	5
2157.00	w15/5-5	12	6	6	7
2158.00	w15/5-5	11	5	6	6
2157.00	w15/5-5	11	5	6	7
2159	15/5-5	11	6	6	7
2160	15/5-5	14	7	7	8
2162	15/5-5	12	6	6	7
2164.00	w15/5-5	12	6	6	7
2165	15/5-5	12	6	6	6
2167	15/5-5	12	6	6	7
2169	15/5-5	10	5	6	6
2171.00	w15/5-5	12	6	6	7
2172	15/5-5	15	7	8	8
2174	15/5-5	11	6	6	6
2175.50	w15/5-5	12	6	6	7
2177.5	15/5-5	12	7	7	7
2181.5	15/5-5	0	0	0	0
2182.5	15/5-5	14	6	7	7
2183.55	15/5-5	1	0	0	0
2184.75	15/5-5	1	1	1	1
2185.9	15/5-5	14	7	7	7
2186.75	W15/5-5	11	5	6	6
BIOMN10A	NSO-1	10	6	5	6
BIOMN17A	NSO-1	11	6	5	6
BIOMN08A	NSO-1	13	7	7	8
BIOMN13A	NSO-1	14	8	6	7
BIOMN19A		12	6	6	7
BIOMN30A		13	6	6	7

Table 2.8 Absolute amounts of aromatic hydrocarbons

E-Depth, n Well	mpi1	f1	f2	dnr	%las	2/1mn	2/1 en	4/1mdbt
2157.7 w15/5-5	0.5	0.3	0.2	1.6	25.2	0.9	1.2	2.2
0 w15/5-3	0.5	0.4	0.2	1.9	28.5	0.9	1.4	2.5
2183 w15/5-5	0.5	0.3	0.2	1.5	26.6	0.8	1.2	2.0
2157 w15/5-5	0.5	0.3	0.2	1.4	26.9	0.9	1.2	2.3
2158 w15/5-5	0.5	0.3	0.2	1.6	27.6	0.9	1.2	2.3
2157 w15/5-5	0.5	0.3	0.2	1.5	26.2	0.9	1.2	2.3
2159 15/5-5	0.5	0.3	0.2	1.3	27.2	0.7	1.1	2.1
2160 15/5-5	0.5	0.3	0.2	1.4	24.8	0.7	1.1	2.0
2162 15/5-5	0.5	0.3	0.2	1.4	27.6	0.7	1.2	2.1
2164 w15/5-5	0.5	0.3	0.2	1.5	26.3	0.9	1.2	2.1
2165 15/5-5	0.5	0.3	0.2	1.3	26.0	0.7	1.1	2.0
2167 15/5-5	0.5	0.3	0.2	1.2	26.8	0.6	1.0	2.2
2169 15/5-5	0.5	0.3	0.2	1.3	26.5	0.7	1.2	2.1
2171 w15/5-5	0.5	0.3	0.2	1.3	25.4	0.7	1.2	2.2
2172 15/5-5	0.5	0.3	0.2	1.2	26.2	0.6	1.1	1.9
2174 15/5-5	0.5	0.3	0.2	1.4	26.2	0.7	1.2	2.1
2175.5 w15/5-5	0.5	0.3	0.2	1.4	25.5	0.8	1.2	2.3
2177.5 15/5-5	0.5	0.3	0.2	1.4	27.1	0.8	1.2	2.0
2181.5 15/5-5	0.4	0.3	0.2	1.8	52.6	1.2	1.4	1.4
2182.5 15/5-5	0.5	0.3	0.2	0.7	25.3	0.7	0.9	1.9
2183.55 15/5-5	0.4	0.3	0.2	1.4	89.5	0.9	1.2	1.8
2184.75 15/5-5	0.4	0.3	0.2	1.4	71.7	1.0	1.2	2.1
2185.9 15/5-5	0.5	0.3	0.2	1.2	23.0	0.9	1.2	2.1
2186.75 15/5-5	0.5	0.3	0.2	1.2	26.0	0.8	1.1	0.8
BIOMN19/	0.7	0.4	0.2	2.9	21.3	1.1	2.1	3.0
BIOMN30/	0.7	0.4	0.2	2.9	19.7	1.2	2.0	3.1
BIOMN13/NSO-1	0.7	0.4	0.2	2.7	18.2	1.1	2.1	2.9
BIOMN17/NSO-1	0.6	0.4	0.2	3.0	20.0	1.1	2.1	3.0
BIOMN10/NSO-1	0.7	0.4	0.2	2.8	19.6	1.2	2.0	3.1
BIOMN08/NSO-1	0.7	0.4	0.2	2.8	19.9	1.1	2.0	2.9

Table 2.9 Aromatic hydrocarbon ratios

HYLAB RESULTS MANAGEMENT : Gas Volume Composition Data

<u>Well</u>	<u>Type</u>	<u>En.Depth</u>	<u>C1(%)</u>	<u>C2(%)</u>	<u>C3(%)</u>	<u>iC4(%)</u>	<u>nC4(%)</u>	<u>iC5(%)</u>	<u>nC5(%)</u>	<u>CO2(%)</u>	<u>C1-C5(%)</u>	<u>Total(%)</u>	<u>Wetness(%)</u>	<u>iC4/nC4(%)</u>
15/5-5	GAS	2183.50	74.3	9.9	8.7	1.6	3.7	0.7	0.9	0.2	99.9	100.1	24.35	0.43

Table 3.1 Volume composition of gas sample

HYLAB RESULTS MANAGEMENT : ISOTOPE ANALYSIS RESULTS SELECTED FROM SCREEN

<u>Well</u>	<u>Type</u>	<u>St.Depth</u>	<u>En.Depth</u>	<u>Meth</u>	<u>Etha</u>	<u>Prop</u>	<u>Buta</u>	<u>IBut</u>	<u>13CO2</u>	<u>18CO2</u>	<u>Sample ID</u>	<u>Dup</u>
15/5-5	GAS	2154.00	2183.50	-50.50	-28.80	-28.90	-32.20	-29.70	-22.40	-11.30	570444	1

Table 3.2 Isotope results, gas sample



Sample:	Name:	Analysis:	Instrument:	Seq.#	Project	Amount Abs:	methane	ethane	propane	iso-butane	n-butane	iso-pentane	n-pentane	cyclopentane
15/5-3.	casing	o155a	c4c19	3	35208		0.00	0.00	1.12	1.00	4.12	3.73	6.09	0.07
15/5-5, dst1	2154-83.5r	o155a	c4c19	6	35208		0.00	0.00	1.16	0.99	4.24	3.90	7.01	0.05
15/5-5,mdt	2157.7m	o155a	c4c19	5	35208		0.00	0.00	0.03	0.05	0.28	0.45	0.98	0.01
Lab.ref.03	lab.ref.	o155a	c4c19	4	35208		0.00	0.00	0.62	1.10	4.38	4.45	6.93	0.22
Lab.ref.01	lab.ref.	okritt	c4c19	1	35079		0.00	0.00	0.67	1.11	4.59	4.76	7.44	0.22

Table 3.3 Absolute amounts of components, light hydrocarbons

2.3dm-butane	2m-pentane	3m-pentane	n-hexane	2.2dm-pentane	m-cyclopentane	2.4dm-pentane	2.2.3tm-butane	benzene	3.3dm.pentane	cyclohexane	2m-hexane
1.01	3.60	2.09	6.21	0.08	3.87	0.25	0.03	2.17	0.06	4.75	1.86
1.34	3.75	2.27	7.21	0.05	4.31	0.25	0.01	0.75	0.04	4.29	2.06
0.22	0.81	0.51	1.76	0.02	1.13	0.07	0.68	0.23	0.01	1.23	0.63
1.00	4.09	2.50	8.36	0.21	4.56	0.46	0.05	2.60	0.16	7.67	3.00
0.99	4.23	2.55	8.50	0.20	4.32	0.48	0.04	2.54	0.16	7.53	2.80

Table 3.3 Absolute amounts of components, light hydrocarbons

2.3dm-pentane	1.1dm-cyclopentane	3m-hexane	C1.3dm-cyclopentane	T1.3dm-cyclopentane	T1.2dm-cyclopentane	Iso-octane	n-heptane	m-cyclohexane	2.2dm-hexane
0.93	0.43	2.48	0.89	0.82	0.26	7.65	6.91	8.62	0.46
1.05	0.42	2.86	0.98	0.91	0.30	6.78	8.03	7.83	0.44
0.31	0.13	0.87	0.31	0.29	0.09	7.40	2.58	2.98	0.17
1.04	0.75	3.45	1.11	1.01	1.70	7.83	9.91	13.12	0.79
1.01	0.74	3.22	1.06	0.97	1.80	7.58	9.46	13.06	0.87

Table 3.3 Absolute amounts of components, light hydrocarbons

e-cyclopentane	2,4dm-hexane	1T.2C.4tm-cyclopentane	1.T2.C3tm-cyclopentane	toluene	2m-heptane	3.4dm-hexane	T1.3dm-cyclohexane	n-oktane	e-cyclohexane	I-C9
0.81	0.37	0.50	0.62	3.62	2.62	2.42	1.23	6.99	2.60	1.03
1.07	0.41	0.55	0.72	0.74	2.92	2.28	1.17	7.69	2.77	1.21
0.42	0.15	0.22	0.29	0.30	1.22	0.90	0.48	3.15	1.25	0.55
0.79	0.59	0.67	0.72	6.30	3.49	3.31	1.54	10.80	3.26	1.14
0.78	0.58	0.65	0.68	6.10	3.41	2.90	1.49	10.28	3.20	1.11

Table 3.3 Absolute amounts of components, light hydrocarbons

e-benzene	meta xylene	para xylene	ortho xylene	n-nonane	1-C10	n-decane	1-C11	n-C11	n-C12	i-C13	phenylhexane	i-C14	n-C13	i-C15	n-C14	i-C16	n-C15	n-C16	i-C18
1.62	2.14	1.35	1.68	5.53	1.16	5.43	1.44	5.24	4.71	1.09	7.65	1.27	4.92	1.18	4.60	1.94	4.66	3.96	1.23
1.05	1.39	1.15	1.31	5.98	1.28	5.65	1.49	5.21	4.60	1.10	6.78	1.23	4.70	1.23	4.13	1.90	4.38	3.76	1.23
0.50	0.66	0.54	0.60	2.81	0.53	2.72	0.83	3.31	4.23	0.84	7.40	0.96	4.71	0.77	3.58	1.10	2.60	2.11	0.66
1.60	3.95	1.90	2.41	7.56	1.16	7.44	1.77	6.81	5.98	1.16	7.83	1.47	5.89	1.10	5.18	2.01	5.07	4.02	1.10
1.19	3.81	0.81	2.37	7.37	1.42	6.90	1.55	6.94	5.91	1.56	7.58	1.49	5.60	1.22	5.58	1.82	4.99	4.19	1.22

Table 3.3 Absolute amounts of components, light hydrocarbons

n-C17	pristane	n-C18	2.6.10m-7-(3mb)-dodecane	phytane	n-C19	n-C20
4.19	2.48	3.48		0.12	2.09	3.04
3.90	2.35	3.07		0.11	2.21	2.73
2.09	1.18	1.63		0.06	1.14	1.40
3.99	2.25	3.24		0.10	1.42	2.45
3.71	2.26	3.06		0.11	1.30	2.21

Table 3.3 Absolute amounts of components, light hydrocarbons

Sample:	Heptane value	Isoheptane value	Paraffinicity	Aromaticity	Pristan/n-C17	Phytane/n-C18
15/5-3.	24.25	1.26	0.8	0.5	0.59	0.6
15/5-5, dst1	27.37	1.28	1.03	0.33	0.6	0.72
15/5-5,mdt	26.74	1.22	0.87	0.38	0.56	0.7
Lab.ref.03	23.67	1.62	0.76	0.54	0.56	0.44

Table 3.4 Molecular ratios, light hydrocarbons

TABLE: 3.5

Petroleum Geochemistry Group  
Research Centre Bergen



ISOTOPE ANALYSIS RESULTS (OIL SAMPLES), WELL NOR:15/5-5

St.Depth (m)	En.Depth (m)	Group/Fm	Name	d13C OIL	d13C SAT	d13C ARO	d13C POL	d13C ASP	Analysing Company
2157.70	2157.70	HEIMDAL	MDT		-29.04	-29.30			GEOLABNOR
2154.00	2183.50	HEIMDAL	DST # 1		-30.08	-29.67			GEOLABNOR





TABLE: 3.5

ISOTOPE ANALYSIS RESULTS (OIL SAMPLES), WELL NOR:15/5-3

St.Depth (m)	En.Depth (m)	Group/Fm	Name	d13C OIL	d13C SAT	d13C ARO	d13C POL	d13C ASP	Analysing Company
0.00	0.00		CASING		-30.24	-29.63			GEOLABNOR

S-Depth,m	E-Depth,m	Well	Type	Lith.	Org.ID#	Proj#	Seq.#	File name	File path	Method	Operater	Company	Remarks	Quality	Signal	24baa	20/3	21/3	23/3	24/3
2154.00	2183.00	W15/5-5	OIL	DST # 1			3	MQS1A010296A		MQS1B	Arne	F-Bergen		OK	HE	0	4	8	10	8
1.00	1.00	W15/5-3	OIL				5	MQS1A010296A		MQS1B	Arne	F-Bergen	Casing	OK	HE	0	5	7	12	8
2157.70	2157.70	W15/5-5	OIL	MDT			6	MQS1A010296A		MQS1B	Arne	F-Bergen		OK	HE	0	4	6	9	6
biom02			OIL	DST # 1			2	MQS1A010296A		MQS1B	Arne	F-Bergen	Lab.ref. NSO1	OK	HE	0	5	5	6	4
biom10			OIL	DST # 1			10	MQS1A010296A		MQS1B	Arne	F-Bergen	Lab.ref. NSO1	OK	HE	0	5	4	6	4

Table 3.6 Saturated biomarkers, GC/MS-MS, processed and normalized peak heights

S-Depthm	25/3	26/3R	26/3S	28/3R	28/3S	29/3R	29/3S	24/4	27Ts	25nor28ab	27Tm	27b	25nor29ab	28ab	25nor30ab	29ab	29Ts	29ba	30D	30O	30ab	30D13	30ba	30G	30bb	31abS	31abR
2154.00	5	2	2	0	0	0	0	7	26	0	10	0	0	24	2	38	26	3	6	0	100	4	3	1	0	40	24
1.00	5	3	2	0	0	0	0	7	27	0	10	0	0	25	2	40	27	3	8	0	100	4	4	1	0	41	26
2157.70	4	2	2	0	0	0	0	9	25	0	12	0	0	25	2	48	25	3	6	0	100	4	4	1	0	40	26
biom02	3	2	2	0	0	0	0	7	20	0	13	0	0	25	8	40	18	6	7	0	100	4	5	1	0	30	19
biom10	3	2	1	0	0	0	0	6	21	0	13	0	0	25	8	39	17	6	5	0	100	3	4	1	0	26	19

Table 3.6 Saturated biomarkers, GC/MS-MS, processed and normalized peak heights

S-Depth,m	31ba	31C	32abS	32abR	33abS	33abR	34abS	34abR	35abS	35abR	21aa	21bb	22aa	22bb	23aa	23bb	27dbS	27dbR	27daR	27daS	27aaS	27bbR	27bbS	27aaR	28dbSA	28dbSB
2154.00	2	1	13	9	8	5	3	2	3	2	25	29	20	11	5	2	75	51	10	17	12	19	18	12	27	29
1.00	2	1	16	11	10	6	3	2	3	2	28	30	21	11	6	2	90	55	12	18	12	20	17	11	31	34
2157.70	2	1	16	10	10	6	3	2	3	2	21	24	16	9	6	2	70	40	9	14	12	18	15	10	24	25
biom02	2	2	17	11	11	7	2	1	2	1	20	25	15	10	6	2	48	31	7	10	8	10	9	7	17	19
biom10	2	2	26	17	16	10	2	1	1	1	21	29	17	12	9	3	52	33	7	11	8	11	10	8	20	21

Table 3.6 Saturated biomarkers, GC/MS-MS, processed and normalized peak heights