

COMP.#	RT	ION	COMPOUND	HEIGHT	SATURATE BIOMARKERS
STERANES					
8	38.60	217.00	21aa	77	File name (sample):
9	40.25	217.00	21bb	96	2024.D
10	40.37	217.00	22aa	74	File path:
12	42.58	217.00	22bb	67	C:\HPCHEM\1\DATA\SAT\W712221\
18	48.82	217.00	27dbS	152	Misc information:
19	49.45	217.00	27dbR	97	123456785
22	51.76	218.00	27bbR	134	Sample name:
24	51.92	218.00	27bbS	103	STD. 1/3
27	52.31	217.00	27aaR	70	Operator:
30	53.50	218.00	28bbR	59	elin
31	53.64	218.00	28bbS	75	Method:
35	54.59	217.00	29aaS	55	MSD_S_B
37	54.90	218.00	29bbR	122	Date analyzed:
38	55.00	218.00	29bbS	107	07/09/93
41	55.59	217.00	29aaR	69	
44	56.07	218.00	30bbR	30	
45	56.12	218.00	30bbS	20	

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TERPANE ratios			SATURATE BIOMARKERS
100*23/3 (191)	%23/3	44	File name (sample): 2024.D
23/3+24/3+25/3 (191)			
100*24/4 (191)	%24/4	42	File path: C:\HPCHEM\1\DATA\SATW712221
24/4+24/3+25/3 (191)			
100*20/3 (191)	%20/3	11	Misc information: 123456785
20/3+21/3+23/3+24/3+25/3+26/3(R+S) (191)			
100*27Ts (191)	%27Ts	42	Sample name: STD. 1/3
27Ts+27Tm (191)			
100*28ab (191)	%28ab	1	Operator: elin
28ab+30ab (191)			
100*29Ts (191)	%29Ts	34	Method: MSD S B
29Ts+29ab (191)			
100*25nor30ab (191)	%25nor30ab	0	Date analyzed: 07/09/93
25nor30ab+30ab (191)			
100*29ab (191)	%29ab	31	
29ab+30ab (191)			
100*30ba (191)	%30ba	6	
30ba+30ab (191)			
100*30D (191)	%30D	13	
30D+30ab (191)			
100*30G (191)	%30G	6	
30G+30ab (191)			
100*32abS (191)	%32abS	60	
32abS+32abR (191)			
100*35ab(S+R) (191)	%35ab	35	
SUM 34-35ab(S+R) (191)			
100*(27Ts+27Tm) (191)	%27HOP	8	
27(Ts+Tm)+28ab+SUM 29-30(ab+ba)+SUM 31-35ab(S+R) (191)			
100*28ab (191)	%28HOP	0	
27(Ts+Tm)+28ab+SUM 29-30(ab+ba)+SUM 31-35ab(S+R) (191)			
100*(29ab+29ba) (191)	%29HOP	11	
27(Ts+Tm)+28ab+SUM 29-30(ab+ba)+SUM 31-35ab(S+R) (191)			
100*(30ab+30ba) (191)	%30HOP	26	
27(Ts+Tm)+28ab+SUM 29-30(ab+ba)+SUM 31-35ab(S+R) (191)			
100*(31ab(S+R)) (191)	%31HOP	20	
27(Ts+Tm)+28ab+SUM 29-30(ab+ba)+SUM 31-35ab(S+R) (191)			
100*(32ab(S+R)) (191)	%32HOP	14	
27(Ts+Tm)+28ab+SUM 29-30(ab+ba)+SUM 31-35ab(S+R) (191)			
100*(33ab(S+R)) (191)	%33HOP	9	
27(Ts+Tm)+28ab+SUM 29-30(ab+ba)+SUM 31-35ab(S+R) (191)			
100*(34ab(S+R)) (191)	%34HOP	6	
27(Ts+Tm)+28ab+SUM 29-30(ab+ba)+SUM 31-35ab(S+R) (191)			
100*(35ab(S+R)) (191)	%35HOP	3	
27(Ts+Tm)+28ab+SUM 29-30(ab+ba)+SUM 31-35ab(S+R) (191)			

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STERANE ratios			SATURATE BIOMARKERS
100 * 29aaS (217)	%29aaS	44	File name (sample): 2024.D
(29aa(S+R) (217))			
100 * 29bb(S+R) (218)	%29bb	65	File path: C:\HPCHEM\1\DATA\SAT\W712221
(29bb(S+R) (218) + 29aa(S+R) (217))			
100 * 27bb(S+R) (218)	%27STER	36	Misc information: 123456785
27bb(S+R)+28bb(S+R)+29bb(S+R)+30bb(S+R) (218)			
100 * 28bb(S+R) (218)	%28STER	21	Sample name: STD. 1/3
27bb(S+R)+28bb(S+R)+29bb(S+R)+30bb(S+R) (218)			
100 * 29bb(S+R) (218)	%29STER	35	Operator: elin
27bb(S+R)+28bb(S+R)+29bb(S+R)+30bb(S+R) (218)			
100 * 30bb(S+R) (218)	%30STER	8	Method: MSD_S_B
27bb(S+R)+28bb(S+R)+29bb(S+R)+30bb(S+R) (218)			
			Date analyzed: 07/09/93

TERPANE-STERANE GROUP ratios		
27(Ts+Tm)+28ab+SUM 29-30(ab+ba)+SUM 31-35ab(S+R) (191)	Ho/St2	1060
27bb(S+R)+28bb(S+R)+29bb(S+R)+30bb(S+R) (218)		
100*(21+22)bb	%Preg	20
(21+22)bb+27bb(S+R)+28bb(S+R)+29bb(S+R)+30bb(S+R) (218)		
100*(20/3+21/3+23/3+24/3+25/3+26/3(R+S)) (191)	%Tri	7
(20/3+21/3+23/3+24/3+25/3+26/3(R+S)+27(Ts+Tm)+28ab+SUM 29-30(ab+ba)+SUM 31-35ab(S+R)) (191)		

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COMP.#	RT(min)	ION(m/z)	COMPOUND	HEIGHT	SATURATE BIOMARKERS
INT. STANDARD (if added)					
1	40.18	221.00	4D21aa	2	File name (sample): 2056_0.D
2	56.36	193.00	2D29ba	1	File path: C:\HPCHEM\1\DATA\SAT\W712221\
3	52.19	221.00	4D27aaR	2	Misc information: 123456785
4	46.10	217.00	24baa	3	Sample name: STD. 1/3
DITERPANES					Operator: elin
5	34.12	191.00	19/3	43	Method: MSD_S_B
6	36.08	191.00	20/3	33	Date analyzed: 07/09/93
7	38.09	191.00	21/3	17	
11	42.02	191.00	23/3	45	
13	43.12	191.00	24/3	30	
14	45.35	191.00	25/3	18	
16	46.98	191.00	26/3R	13	
17	47.12	191.00	26/3S	16	
20	50.68	191.00	28/3R	40	
21	50.85	191.00	28/3S	18	
23	51.63	191.00	29/3R	24	
25	51.92	191.00	29/3S	20	
15	46.88	191.00	24/4	102	
TRITERPANES:					
26	52.77	191.00	27Ts	109	
28	53.01	177.00	25nor28ab	13	
29	53.43	191.00	27Tm	358	
33	53.91	191.00	27b	40	
32	53.81	177.00	25nor29ab	14	
34	54.98	191.00	28ab	32	
36	55.20	177.00	25nor30ab	9	
39	55.68	191.00	29ab	777	
40	55.78	191.00	29Ts	109	
43	56.46	191.00	29ba	68	
42	56.02	191.00	30D	80	
46	57.02	191.00	30ab	841	
47	57.38	191.00	30D13	43	
48	57.63	191.00	30ba	133	
51	59.13	191.00	30G	52	
49	58.60	191.00	31abS	598	
50	58.79	191.00	31abR	408	
52	59.32	191.00	31ba	94	
53	59.81	191.00	32abS	310	
54	60.08	191.00	32abR	213	
55	61.24	191.00	33abS	172	
56	61.60	191.00	33abR	130	
57	62.74	191.00	34abS	94	
58	63.21	191.00	34abR	60	
59	64.42	191.00	35abS	46	
60	65.12	191.00	35abR	29	

COMP.#	RT	ION	COMPOUND	HEIGHT	SATURATE BIOMARKERS
STERANES					
8	38.58	217.00	21aa	8	File name (sample):
9	40.23	217.00	21bb	17	2056_0.D
10	40.35	217.00	22aa	8	File path:
12	42.56	217.00	22bb	12	C:\HPCHEM\1\DATA\SAT\W712221\
18	48.80	217.00	27dbS	58	Misc information:
19	49.43	217.00	27dbR	36	123456785
22	51.75	218.00	27bbR	75	Sample name:
24	51.90	218.00	27bbS	60	STD. 1/3
27	52.29	217.00	27aaR	45	Operator:
30	53.48	218.00	28bbR	45	elin
31	53.62	218.00	28bbS	47	Method:
35	54.59	217.00	29aaS	39	MSD_S_B
37	54.90	218.00	29bbR	75	Date analyzed:
38	55.00	218.00	29bbS	65	07/09/93
41	55.58	217.00	29aaR	42	
44	56.05	218.00	30bbR	14	
45	56.12	218.00	30bbS	13	

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TERPANE ratios			SATURATE BIOMARKERS
100*23/3 (191)	%23/3	48	File name (sample): 2056_0.D
23/3+24/3+25/3 (191)			
100*24/4 (191)	%24/4	68	File path: C:\HPCHEM\1\DATA\SAT\W712221'
24/4+24/3+25/3 (191)			
100*20/3 (191)	%20/3	19	Misc information: 123456785
20/3+21/3+23/3+24/3+25/3+26/3(R+S) (191)			
100*27Ts (191)	%27Ts	23	Sample name: STD. 1/3
27Ts+27Tm (191)			
100*28ab (191)	%28ab	4	Operator: elin
28ab+30ab (191)			
100*29Ts (191)	%29Ts	12	Method: MSD_S_B
29Ts+29ab (191)			
100*25nor30ab (191)	%25nor30ab	1	Date analyzed: 07/09/93
25nor30ab+30ab (191)			
100*29ab (191)	%29ab	48	
29ab+30ab (191)			
100*30ba (191)	%30ba	14	
30ba+30ab (191)			
100*30D (191)	%30D	9	
30D+30ab (191)			
100*30G (191)	%30G	6	
30G+30ab (191)			
100*32abS (191)	%32abS	59	
32abS+32abR (191)			
100*35ab(S+R) (191)	%35ab	33	
SUM 34-35ab(S+R) (191)			
100*(27Ts+27Tm) (191)	%27HOP	10	
27(Ts+Tm)+28ab+SUM 29-30(ab+ba)+SUM 31-35ab(S+R) (191)			
100*28ab (191)	%28HOP	1	
27(Ts+Tm)+28ab+SUM 29-30(ab+ba)+SUM 31-35ab(S+R) (191)			
100*(29ab+29ba) (191)	%29HOP	19	
27(Ts+Tm)+28ab+SUM 29-30(ab+ba)+SUM 31-35ab(S+R) (191)			
100*(30ab+30ba) (191)	%30HOP	22	
27(Ts+Tm)+28ab+SUM 29-30(ab+ba)+SUM 31-35ab(S+R) (191)			
100*(31ab(S+R)) (191)	%31HOP	22	
27(Ts+Tm)+28ab+SUM 29-30(ab+ba)+SUM 31-35ab(S+R) (191)			
100*(32ab(S+R)) (191)	%32HOP	12	
27(Ts+Tm)+28ab+SUM 29-30(ab+ba)+SUM 31-35ab(S+R) (191)			
100*(33ab(S+R)) (191)	%33HOP	7	
27(Ts+Tm)+28ab+SUM 29-30(ab+ba)+SUM 31-35ab(S+R) (191)			
100*(34ab(S+R)) (191)	%34HOP	3	
27(Ts+Tm)+28ab+SUM 29-30(ab+ba)+SUM 31-35ab(S+R) (191)			
100*(35ab(S+R)) (191)	%35HOP	2	
27(Ts+Tm)+28ab+SUM 29-30(ab+ba)+SUM 31-35ab(S+R) (191)			

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STERANE ratios			SATURATE BIOMARKERS
100 * 29aaS (217) (29aa(S+R) (217))	%29aaS	48	File name (sample): 2056_0.D
100 * 29bb(S+R) (218) (29bb(S+R) (218) + 29aa(S+R) (217))	%29bb	63	File path: C:\HPCHEM\1\DATA\SAT\W712221\
100 * 27bb(S+R) (218) 27bb(S+R)+28bb(S+R)+29bb(S+R)+30bb(S+R) (218)	%27STER	34	Misc information: 123456785
100 * 28bb(S+R) (218) 27bb(S+R)+28bb(S+R)+29bb(S+R)+30bb(S+R) (218)	%28STER	23	Sample name: STD. 1/3
100 * 29bb(S+R) (218) 27bb(S+R)+28bb(S+R)+29bb(S+R)+30bb(S+R) (218)	%29STER	36	Operator: elin
100 * 30bb(S+R) (218) 27bb(S+R)+28bb(S+R)+29bb(S+R)+30bb(S+R) (218)	%30STER	7	Method: MSD_S_B
			Date analyzed: 07/09/93

TERPANE-STERANE GROUP ratios		
27(Ts+Tm)+28ab+SUM 29-30(ab+ba)+SUM 31-35ab(S+R) (191) 27bb(S+R)+28bb(S+R)+29bb(S+R)+30bb(S+R) (218)	Ho/St2	1135
100*(21+22)bb (21+22)bb+27bb(S+R)+28bb(S+R)+29bb(S+R)+30bb(S+R) (218)	%Preg	7
100*(20/3+21/3+23/3+24/3+25/3+26/3(R+S)) (191) (20/3+21/3+23/3+24/3+25/3+26/3(R+S)+27(Ts+Tm)+28ab+ SUM 29-30(ab+ba)+SUM 31-35ab(S+R)) (191)	%Tri	4

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COMP.#	RT(min)	ION(m/z)	COMPOUND	HEIGHT	SATURATE BIOMARKERS
INT. STANDARD (if added)					
1	40.09	221.00	4D21aa	7	File name (sample): 2118_0.D
2	56.44	193.00	2D29ba	5	File path: C:\HPCHEM\1\DATA\SAT\W712221\
3	52.22	221.00	4D27aaR	3	Misc information: 123456785
4	46.18	217.00	24baa	2	Sample name: STD. 1/3
DITERPANES					Operator: elin
5	34.14	191.00	19/3	57	Method: MSD_S_B
6	36.10	191.00	20/3	59	Date analyzed: 07/10/93
7	38.10	191.00	21/3	74	
11	42.03	191.00	23/3	154	
13	43.14	191.00	24/3	128	
14	45.38	191.00	25/3	66	
16	47.02	191.00	26/3R	42	
17	47.14	191.00	26/3S	44	
20	50.62	191.00	28/3R	57	
21	50.86	191.00	28/3S	48	
23	51.65	191.00	29/3R	62	
25	51.95	191.00	29/3S	70	
15	46.92	191.00	24/4	141	
TRITERPANES:					
26	52.80	191.00	27Ts	340	
28	53.02	177.00	25nor28ab	16	
29	53.47	191.00	27Tm	394	
33	53.93	191.00	27b	94	
32	53.82	177.00	25nor29ab	42	
34	55.00	191.00	28ab	58	
36	55.22	177.00	25nor30ab	18	
39	55.69	191.00	29ab	1081	
40	55.80	191.00	29Ts	460	
43	56.48	191.00	29ba	84	
42	56.05	191.00	30D	180	
46	57.06	191.00	30ab	2089	
47	57.40	191.00	30D13	158	
48	57.67	191.00	30ba	156	
51	59.15	191.00	30G	124	
49	58.62	191.00	31abS	1064	
50	58.81	191.00	31abR	784	
52	59.35	191.00	31ba	105	
53	59.85	191.00	32abS	661	
54	60.12	191.00	32abR	455	
55	61.26	191.00	33abS	458	
56	61.62	191.00	33abR	303	
57	62.76	191.00	34abS	319	
58	63.23	191.00	34abR	191	
59	64.46	191.00	35abS	213	
60	65.14	191.00	35abR	127	

NORSK HYDRO Research Centre, Bergen _____ Petroleum Geochemistry Group

COMP.#	RT	ION	COMPOUND	HEIGHT	SATURATE BIOMARKERS
STERANES					
8	38.60	217.00	21aa	72	File name (sample): 2118_0.D
9	40.25	217.00	21bb	96	File path: C:\HPCHEM\1\DATA\SAT\W712221\
10	40.37	217.00	22aa	69	Misc information: 123456785
12	42.58	217.00	22bb	66	Sample name: STD. 1/3
18	48.84	217.00	27dbS	204	Operator: elin
19	49.45	217.00	27dbR	134	Method: MSD_S_B
22	51.78	218.00	27bbR	230	Date analyzed: 07/10/93
24	51.93	218.00	27bbS	175	
27	52.33	217.00	27aaR	113	
30	53.52	218.00	28bbR	117	
31	53.64	218.00	28bbS	141	
35	54.62	217.00	29aaS	91	
37	54.91	218.00	29bbR	218	
38	55.01	218.00	29bbS	179	
41	55.61	217.00	29aaR	101	
44	56.10	218.00	30bbR	54	
45	56.12	218.00	30bbS	46	

NORSK HYDRO Research Centre, Bergen _____ Petroleum Geochemistry Group

TERPANE ratios			SATURATE BIOMARKERS
100*23/3 (191)	%23/3	44	File name (sample): 2118_0.D
23/3+24/3+25/3 (191)			
100*24/4 (191)	%24/4	42	File path: C:\HPCHEM\1\DATA\SAT\W712221\
24/4+24/3+25/3 (191)			
100*20/3 (191)	%20/3	10	Misc information: 123456785
20/3+21/3+23/3+24/3+25/3+26/3(R+S) (191)			
100*27Ts (191)	%27Ts	46	Sample name: STD. 1/3
27Ts+27Tm (191)			
100*28ab (191)	%28ab	3	Operator: elin
28ab+30ab (191)			
100*29Ts (191)	%29Ts	30	Method: MSD_S_B
29Ts+29ab (191)			
100*25nor30ab (191)	%25nor30ab	1	Date analyzed: 07/10/93
25nor30ab+30ab (191)			
100*29ab (191)	%29ab	34	
29ab+30ab (191)			
100*30ba (191)	%30ba	7	
30ba+30ab (191)			
100*30D (191)	%30D	8	
30D+30ab (191)			
100*30G (191)	%30G	6	
30G+30ab (191)			
100*32abS (191)	%32abS	59	
32abS+32abR (191)			
100*35ab(S+R) (191)	%35ab	40	
SUM 34-35ab(S+R) (191)			
100*(27Ts+27Tm) (191)	%27HOP	8	
27(Ts+Tm)+28ab+SUM 29-30(ab+ba)+SUM 31-35ab(S+R) (191)			
100*28ab (191)	%28HOP	1	
27(Ts+Tm)+28ab+SUM 29-30(ab+ba)+SUM 31-35ab(S+R) (191)			
100*(29ab+29ba) (191)	%29HOP	13	
27(Ts+Tm)+28ab+SUM 29-30(ab+ba)+SUM 31-35ab(S+R) (191)			
100*(30ab+30ba) (191)	%30HOP	25	
27(Ts+Tm)+28ab+SUM 29-30(ab+ba)+SUM 31-35ab(S+R) (191)			
100*(31ab(S+R)) (191)	%31HOP	21	
27(Ts+Tm)+28ab+SUM 29-30(ab+ba)+SUM 31-35ab(S+R) (191)			
100*(32ab(S+R)) (191)	%32HOP	13	
27(Ts+Tm)+28ab+SUM 29-30(ab+ba)+SUM 31-35ab(S+R) (191)			
100*(33ab(S+R)) (191)	%33HOP	9	
27(Ts+Tm)+28ab+SUM 29-30(ab+ba)+SUM 31-35ab(S+R) (191)			
100*(34ab(S+R)) (191)	%34HOP	6	
27(Ts+Tm)+28ab+SUM 29-30(ab+ba)+SUM 31-35ab(S+R) (191)			
100*(35ab(S+R)) (191)	%35HOP	4	
27(Ts+Tm)+28ab+SUM 29-30(ab+ba)+SUM 31-35ab(S+R) (191)			

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STERANE ratios			SATURATE BIOMARKERS
100 * 29aaS (217) (29aa(S+R) (217))	%29aaS	47	File name (sample): 2118_0.D
100 * 29bb(S+R) (218) (29bb(S+R) (218) + 29aa(S+R) (217))	%29bb	67	File path: C:\HPCHEM\1\DATA\SAT\W712221\
100 * 27bb(S+R) (218) 27bb(S+R)+28bb(S+R)+29bb(S+R)+30bb(S+R) (218)	%27STER	35	Misc information: 123456785
100 * 28bb(S+R) (218) 27bb(S+R)+28bb(S+R)+29bb(S+R)+30bb(S+R) (218)	%28STER	22	Sample name: STD. 1/3
100 * 29bb(S+R) (218) 27bb(S+R)+28bb(S+R)+29bb(S+R)+30bb(S+R) (218)	%29STER	34	Operator: elin
100 * 30bb(S+R) (218) 27bb(S+R)+28bb(S+R)+29bb(S+R)+30bb(S+R) (218)	%30STER	9	Method: MSD_S_B
			Date analyzed: 07/10/93

TERPANE-STERANE GROUP ratios		
27(Ts+Tm)+28ab+SUM 29-30(ab+ba)+SUM 31-35ab(S+R) (191) 27bb(S+R)+28bb(S+R)+29bb(S+R)+30bb(S+R) (218)	Ho/St2	766
100*(21+22)bb (21+22)bb+27bb(S+R)+28bb(S+R)+29bb(S+R)+30bb(S+R) (218)	%Preg	12
100*(20/3+21/3+23/3+24/3+25/3+26/3(R+S)) (191) (20/3+21/3+23/3+24/3+25/3+26/3(R+S)+27(Ts+Tm)+28ab+ SUM 29-30(ab+ba)+SUM 31-35ab(S+R)) (191)	%Tri	6

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COMP.#	RT(min)	ION(m/z)	COMPOUND	HEIGHT	SATURATE BIOMARKERS
INT. STANDARD (if added)					
1	40.20	221.00	4D21aa	2	File name (sample):
2	56.43	193.00	2D29ba	6	BIOM_A.D
3	52.17	221.00	4D27aaR	5	File path:
4	46.32	217.00	24baa	15	C:\HPCHEM\1\DATA\SAT\W712221\
DITERPANES					Misc information:
5	34.10	191.00	19/3	67	123456781
6	36.06	191.00	20/3	37	Sample name:
7	38.09	191.00	21/3	50	STD. 1/3
11	42.00	191.00	23/3	72	Operator:
13	43.12	191.00	24/3	64	elin
14	45.35	191.00	25/3	37	Method:
16	46.98	191.00	26/3R	28	MSD S B
17	47.10	191.00	26/3S	25	Date analyzed:
20	50.59	191.00	28/3R	41	07/08/93
21	50.85	191.00	28/3S	31	
23	51.61	191.00	29/3R	46	
25	51.75	191.00	29/3S	53	
15	46.88	191.00	24/4	70	
TRITERPANES:					
26	52.77	191.00	27Ts	251	
28	52.99	177.00	25nor28ab	199	
29	53.43	191.00	27Tm	232	
33	53.89	191.00	27b	49	
32	53.79	177.00	25nor29ab	108	
34	54.96	191.00	28ab	372	
36	55.18	177.00	25nor30ab	112	
39	55.66	191.00	29ab	705	
40	55.76	191.00	29Ts	282	
43	56.44	191.00	29ba	154	
42	56.02	191.00	30D	195	
46	57.02	191.00	30ab	1732	
47	57.36	191.00	30D13	114	
48	57.63	191.00	30ba	187	
51	59.11	191.00	30G	114	
49	58.59	191.00	31abS	657	
50	58.77	191.00	31abR	486	
52	59.32	191.00	31ba	79	
53	59.81	191.00	32abS	474	
54	60.08	191.00	32abR	383	
55	61.22	191.00	33abS	447	
56	61.58	191.00	33abR	287	
57	62.72	191.00	34abS	278	
58	63.21	191.00	34abR	173	
59	64.42	191.00	35abS	229	
60	65.10	191.00	35abR	161	

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COMP.#	RT	ION	COMPOUND	HEIGHT	SATURATE BIOMARKERS
STERANES					
8	38.58	217.00	21aa	100	File name (sample):
9	40.23	217.00	21bb	117	BIOM_A.D
10	40.35	217.00	22aa	81	File path:
12	42.56	217.00	22bb	76	C:\HPCHEM\1\DATA\SAT\W712221\
18	48.80	217.00	27dbS	259	Misc information:
19	49.43	217.00	27dbR	149	123456781
22	51.75	218.00	27bbR	213	Sample name:
24	51.88	218.00	27bbS	140	STD. 1/3
27	52.29	217.00	27aaR	99	Operator:
30	53.48	218.00	28bbR	120	elin
31	53.62	218.00	28bbS	158	Method:
35	54.59	217.00	29aaS	102	MSD_S_B
37	54.88	218.00	29bbR	206	Date analyzed:
38	54.98	218.00	29bbS	177	07/08/93
41	55.59	217.00	29aaR	134	
44	56.05	218.00	30bbR	88	
45	56.09	218.00	30bbS	78	

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TERPANE ratios			SATURATE BIOMARKERS
100*23/3 (191)	%23/3	42	File name (sample): BIOM_A.D File path: C:\HPCHEM\1\DATA\SAT\W712221\ Misc information: 123456781 Sample name: STD. 1/3 Operator: elin Method: MSD_S_B Date analyzed: 07/08/93
23/3+24/3+25/3 (191)			
100*24/4 (191)	%24/4	41	
24/4+24/3+25/3 (191)			
100*20/3 (191)	%20/3	12	
20/3+21/3+23/3+24/3+25/3+26/3(R+S) (191)			
100*27Ts (191)	%27Ts	52	
27Ts+27Tm (191)			
100*28ab (191)	%28ab	18	
28ab+30ab (191)			
100*29Ts (191)	%29Ts	29	
29Ts+29ab (191)			
100*25nor30ab (191)	%25nor30ab	6	
25nor30ab+30ab (191)			
100*29ab (191)	%29ab	29	
29ab+30ab (191)			
100*30ba (191)	%30ba	10	
30ba+30ab (191)			
100*30D (191)	%30D	10	
30D+30ab (191)			
100*30G (191)	%30G	6	
30G+30ab (191)			
100*32abS (191)	%32abS	55	
32abS+32abR (191)			
100*35ab(S+R) (191)	%35ab	46	
SUM 34-35ab(S+R) (191)			
100*(27Ts+27Tm) (191)	%27HOP	7	
27(Ts+Tm)+28ab+SUM 29-30(ab+ba)+SUM 31-35ab(S+R) (191)			
100*28ab (191)	%28HOP	5	
27(Ts+Tm)+28ab+SUM 29-30(ab+ba)+SUM 31-35ab(S+R) (191)			
100*(29ab+29ba) (191)	%29HOP	12	
27(Ts+Tm)+28ab+SUM 29-30(ab+ba)+SUM 31-35ab(S+R) (191)			
100*(30ab+30ba) (191)	%30HOP	26	
27(Ts+Tm)+28ab+SUM 29-30(ab+ba)+SUM 31-35ab(S+R) (191)			
100*(31ab(S+R)) (191)	%31HOP	16	
27(Ts+Tm)+28ab+SUM 29-30(ab+ba)+SUM 31-35ab(S+R) (191)			
100*(32ab(S+R)) (191)	%32HOP	12	
27(Ts+Tm)+28ab+SUM 29-30(ab+ba)+SUM 31-35ab(S+R) (191)			
100*(33ab(S+R)) (191)	%33HOP	10	
27(Ts+Tm)+28ab+SUM 29-30(ab+ba)+SUM 31-35ab(S+R) (191)			
100*(34ab(S+R)) (191)	%34HOP	6	
27(Ts+Tm)+28ab+SUM 29-30(ab+ba)+SUM 31-35ab(S+R) (191)			
100*(35ab(S+R)) (191)	%35HOP	5	
27(Ts+Tm)+28ab+SUM 29-30(ab+ba)+SUM 31-35ab(S+R) (191)			

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STERANE ratios			SATURATE BIOMARKERS
100 * 29aaS (217) (29aa(S+R) (217))	%29aaS	43	File name (sample): BIOM_A.D
100 * 29bb(S+R) (218) (29bb(S+R) (218) + 29aa(S+R) (217))	%29bb	62	File path: C:\HPCHEM\1\DATA\SAT\W712221\
100 * 27bb(S+R) (218) 27bb(S+R)+28bb(S+R)+29bb(S+R)+30bb(S+R) (218)	%27STER	30	Misc information: 123456781
100 * 28bb(S+R) (218) 27bb(S+R)+28bb(S+R)+29bb(S+R)+30bb(S+R) (218)	%28STER	24	Sample name: STD. 1/3
100 * 29bb(S+R) (218) 27bb(S+R)+28bb(S+R)+29bb(S+R)+30bb(S+R) (218)	%29STER	32	Operator: elin
100 * 30bb(S+R) (218) 27bb(S+R)+28bb(S+R)+29bb(S+R)+30bb(S+R) (218)	%30STER	14	Method: MSD_S_B
			Date analyzed: 07/08/93

TERPANE-STERANE GROUP ratios		
27(Ts+Tm)+28ab+SUM 29-30(ab+ba)+SUM 31-35ab(S+R) (191) 27bb(S+R)+28bb(S+R)+29bb(S+R)+30bb(S+R) (218)	Ho/St2	618
100*(21+22)bb (21+22)bb+27bb(S+R)+28bb(S+R)+29bb(S+R)+30bb(S+R) (218)	%Preg	14
100*(20/3+21/3+23/3+24/3+25/3+26/3(R+S)) (191) (20/3+21/3+23/3+24/3+25/3+26/3(R+S)+27(Ts+Tm)+28ab+ SUM 29-30(ab+ba)+SUM 31-35ab(S+R)) (191)	%Tri	4

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COMP.#	RT(min)	ION(m/z)	COMPOUND	HEIGHT	SATURATE BIOMARKERS
INT. STANDARD (if added)					
1	40.14	221.00	4D21aa	2	File name (sample):
2	56.39	193.00	2D29ba	6	BIOM_B.D
3	52.22	221.00	4D27aaR	7	File path:
4	46.18	217.00	24baa	4	C:\HPCHEM\1\DATA\SATW712221\
DITERPANES					Misc information:
5	34.14	191.00	19/3	73	123456785
6	36.11	191.00	20/3	43	Sample name:
7	38.12	191.00	21/3	56	STD. 1/3
11	42.03	191.00	23/3	81	Operator:
13	43.14	191.00	24/3	66	elin
14	45.38	191.00	25/3	42	Method:
16	47.02	191.00	26/3R	28	MSD_S_B
17	47.14	191.00	26/3S	29	Date analyzed:
20	50.62	191.00	28/3R	43	07/09/93
21	50.86	191.00	28/3S	31	
23	51.65	191.00	29/3R	55	
25	51.76	191.00	29/3S	54	
15	46.90	191.00	24/4	74	
TRITERPANES:					
26	52.79	191.00	27Ts	265	
28	53.02	177.00	25nor28ab	206	
29	53.47	191.00	27Tm	224	
33	53.91	191.00	27b	55	
32	53.82	177.00	25nor29ab	116	
34	55.00	191.00	28ab	395	
36	55.22	177.00	25nor30ab	114	
39	55.69	191.00	29ab	724	
40	55.80	191.00	29Ts	279	
43	56.48	191.00	29ba	148	
42	56.04	191.00	30D	183	
46	57.06	191.00	30ab	1879	
47	57.40	191.00	30D13	124	
48	57.67	191.00	30ba	198	
51	59.15	191.00	30G	95	
49	58.62	191.00	31abS	750	
50	58.81	191.00	31abR	518	
52	59.34	191.00	31ba	94	
53	59.85	191.00	32abS	497	
54	60.10	191.00	32abR	360	
55	61.26	191.00	33abS	483	
56	61.62	191.00	33abR	314	
57	62.76	191.00	34abS	294	
58	63.25	191.00	34abR	175	
59	64.44	191.00	35abS	227	
60	65.14	191.00	35abR	161	

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COMP.#	RT	ION	COMPOUND	HEIGHT	SATURATE BIOMARKERS
STERANES					
8	38.61	217.00	21aa	100	File name (sample):
9	40.26	217.00	21bb	124	BIOM_B.D
10	40.37	217.00	22aa	85	File path:
12	42.58	217.00	22bb	79	C:\HPCHEM\1\DATA\SAT\W712221\
18	48.82	217.00	27dbS	267	Misc information:
19	49.45	217.00	27dbR	163	123456785
22	51.78	218.00	27bbR	212	Sample name:
24	51.92	218.00	27bbS	159	STD. 1/3
27	52.33	217.00	27aaR	89	Operator:
30	53.50	218.00	28bbR	136	elin
31	53.65	218.00	28bbS	171	Method:
35	54.61	217.00	29aaS	118	MSD_S_B
37	54.91	218.00	29bbR	219	Date analyzed:
38	55.01	218.00	29bbS	201	07/09/93
41	55.61	217.00	29aaR	135	
44	56.09	218.00	30bbR	92	
45	56.10	218.00	30bbS	84	

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TERPANE ratios			SATURATE BIOMARKERS
100*23/3 (191)	%23/3	43	File name (sample): BIOM_B.D
23/3+24/3+25/3 (191)			File path: C:\HPCHEM\1\DATA\SAT\W712221\
100*24/4 (191)	%24/4	41	Misc information: 123456785
24/4+24/3+25/3 (191)			Sample name: STD. 1/3
100*20/3 (191)	%20/3	12	Operator: elin
20/3+21/3+23/3+24/3+25/3+26/3(R+S) (191)			Method: MSD_S_B
100*27Ts (191)	%27Ts	54	Date analyzed: 07/09/93
27Ts+27Tm (191)			
100*28ab (191)	%28ab	17	
28ab+30ab (191)			
100*29Ts (191)	%29Ts	28	
29Ts+29ab (191)			
100*25nor30ab (191)	%25nor30ab	6	
25nor30ab+30ab (191)			
100*29ab (191)	%29ab	28	
29ab+30ab (191)			
100*30ba (191)	%30ba	10	
30ba+30ab (191)			
100*30D (191)	%30D	9	
30D+30ab (191)			
100*30G (191)	%30G	5	
30G+30ab (191)			
100*32abS (191)	%32abS	58	
32abS+32abR (191)			
100*35ab(S+R) (191)	%35ab	45	
SUM 34-35ab(S+R) (191)			
100*(27Ts+27Tm) (191)	%27HOP	6	
27(Ts+Tm)+28ab+SUM 29-30(ab+ba)+SUM 31-35ab(S+R) (191)			
100*28ab (191)	%28HOP	5	
27(Ts+Tm)+28ab+SUM 29-30(ab+ba)+SUM 31-35ab(S+R) (191)			
100*(29ab+29ba) (191)	%29HOP	11	
27(Ts+Tm)+28ab+SUM 29-30(ab+ba)+SUM 31-35ab(S+R) (191)			
100*(30ab+30ba) (191)	%30HOP	27	
27(Ts+Tm)+28ab+SUM 29-30(ab+ba)+SUM 31-35ab(S+R) (191)			
100*(31ab(S+R)) (191)	%31HOP	16	
27(Ts+Tm)+28ab+SUM 29-30(ab+ba)+SUM 31-35ab(S+R) (191)			
100*(32ab(S+R)) (191)	%32HOP	11	
27(Ts+Tm)+28ab+SUM 29-30(ab+ba)+SUM 31-35ab(S+R) (191)			
100*(33ab(S+R)) (191)	%33HOP	10	
27(Ts+Tm)+28ab+SUM 29-30(ab+ba)+SUM 31-35ab(S+R) (191)			
100*(34ab(S+R)) (191)	%34HOP	6	
27(Ts+Tm)+28ab+SUM 29-30(ab+ba)+SUM 31-35ab(S+R) (191)			
100*(35ab(S+R)) (191)	%35HOP	5	
27(Ts+Tm)+28ab+SUM 29-30(ab+ba)+SUM 31-35ab(S+R) (191)			

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STERANE ratios			SATURATE BIOMARKERS
100 * 29aaS (217) (29aa(S+R) (217))	%29aaS	47	File name (sample): BIOM_B.D
100 * 29bb(S+R) (218) (29bb(S+R) (218) + 29aa(S+R) (217))	%29bb	62	File path: C:\HPCHEM\1\DATA\SAT\W712221\
100 * 27bb(S+R) (218) 27bb(S+R)+28bb(S+R)+29bb(S+R)+30bb(S+R) (218)	%27STER	29	Misc information: 123456785
100 * 28bb(S+R) (218) 27bb(S+R)+28bb(S+R)+29bb(S+R)+30bb(S+R) (218)	%28STER	24	Sample name: STD. 1/3
100 * 29bb(S+R) (218) 27bb(S+R)+28bb(S+R)+29bb(S+R)+30bb(S+R) (218)	%29STER	33	Operator: elin
100 * 30bb(S+R) (218) 27bb(S+R)+28bb(S+R)+29bb(S+R)+30bb(S+R) (218)	%30STER	14	Method: MSD_S_B
			Date analyzed: 07/09/93

TERPANE-STERANE GROUP ratios		
27(Ts+Tm)+28ab+SUM 29-30(ab+ba)+SUM 31-35ab(S+R) (191) 27bb(S+R)+28bb(S+R)+29bb(S+R)+30bb(S+R) (218)	Ho/St2	605
100*(21+22)bb (21+22)bb+27bb(S+R)+28bb(S+R)+29bb(S+R)+30bb(S+R) (218)	%Preg	14
100*(20/3+21/3+23/3+24/3+25/3+26/3(R+S)) (191) (20/3+21/3+23/3+24/3+25/3+26/3(R+S))+27(Ts+Tm)+28ab+ SUM 29-30(ab+ba)+SUM 31-35ab(S+R) (191)	%Tri	4

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COMP.#	RT(min)	ION(m/z)	COMPOUND	HEIGHT	SATURATE BIOMARKERS
INT. STANDARD (if added)					
1	40.20	221.00	4D21aa	2	File name (sample):
2	56.39	193.00	2D29ba	14	BIOM_C.D
3	52.21	221.00	4D27aaR	4	File path:
4	46.13	217.00	24baa	4	C:\HPCHEM\1\DATA\SATW712221\
DITERPANES					Misc information:
5	34.14	191.00	19/3	78	123456785
6	36.10	191.00	20/3	37	Sample name:
7	38.10	191.00	21/3	55	STD. 1/3
11	42.03	191.00	23/3	85	Operator:
13	43.14	191.00	24/3	71	elin
14	45.38	191.00	25/3	38	Method:
16	47.00	191.00	26/3R	27	MSD_S_B
17	47.14	191.00	26/3S	29	Date analyzed:
20	50.63	191.00	28/3R	38	07/09/93
21	50.86	191.00	28/3S	39	
23	51.65	191.00	29/3R	50	
25	51.78	191.00	29/3S	52	
15	46.90	191.00	24/4	61	
TRITERPANES:					
26	52.79	191.00	27Ts	253	
28	53.02	177.00	25nor28ab	204	
29	53.45	191.00	27Tm	249	
33	53.91	191.00	27b	55	
32	53.81	177.00	25nor29ab	112	
34	55.00	191.00	28ab	377	
36	55.20	177.00	25nor30ab	121	
39	55.69	191.00	29ab	704	
40	55.80	191.00	29Ts	292	
43	56.48	191.00	29ba	153	
42	56.04	191.00	30D	195	
46	57.06	191.00	30ab	1826	
47	57.40	191.00	30D13	112	
48	57.67	191.00	30ba	182	
51	59.13	191.00	30G	102	
49	58.60	191.00	31abS	709	
50	58.81	191.00	31abR	528	
52	59.32	191.00	31ba	88	
53	59.83	191.00	32abS	518	
54	60.10	191.00	32abR	385	
55	61.26	191.00	33abS	480	
56	61.62	191.00	33abR	300	
57	62.76	191.00	34abS	272	
58	63.25	191.00	34abR	169	
59	64.44	191.00	35abS	244	
60	65.14	191.00	35abR	149	

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COMP.#	RT	ION	COMPOUND	HEIGHT	SATURATE BIOMARKERS
STERANES					
8	38.60	217.00	21aa	95	File name (sample):
9	40.25	217.00	21bb	121	BIOM_C.D
10	40.37	217.00	22aa	79	File path:
12	42.58	217.00	22bb	71	C:\HPCHEM\1\DATA\SAT\W712221\
18	48.82	217.00	27dbS	272	Misc information:
19	49.45	217.00	27dbR	162	123456785
22	51.78	218.00	27bbR	208	Sample name:
24	51.92	218.00	27bbS	132	STD. 1/3
27	52.33	217.00	27aaR	91	Operator:
30	53.50	218.00	28bbR	135	elin
31	53.64	218.00	28bbS	168	Method:
35	54.61	217.00	29aaS	105	MSD_S_B
37	54.91	218.00	29bbR	214	Date analyzed:
38	55.01	218.00	29bbS	194	07/09/93
41	55.61	217.00	29aaR	135	
44	56.09	218.00	30bbR	81	
45	56.12	218.00	30bbS	76	

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TERPANE ratios			SATURATE BIOMARKERS
100*23/3 (191)	%23/3	44	File name (sample): BIOM_C.D
23/3+24/3+25/3 (191)			File path: C:\HPCHEM\1\DATA\SAT\W712221\
100*24/4 (191)	%24/4	36	Misc information: 123456785
24/4+24/3+25/3 (191)			Sample name: STD. 1/3
100*20/3 (191)	%20/3	11	Operator: elin
20/3+21/3+23/3+24/3+25/3+26/3(R+S) (191)			Method: MSD_S_B
100*27Ts (191)	%27Ts	50	Date analyzed: 07/09/93
27Ts+27Tm (191)			
100*28ab (191)	%28ab	17	
28ab+30ab (191)			
100*29Ts (191)	%29Ts	29	
29Ts+29ab (191)			
100*25nor30ab (191)	%25nor30ab	6	
25nor30ab+30ab (191)			
100*29ab (191)	%29ab	28	
29ab+30ab (191)			
100*30ba (191)	%30ba	9	
30ba+30ab (191)			
100*30D (191)	%30D	10	
30D+30ab (191)			
100*30G (191)	%30G	5	
30G+30ab (191)			
100*32abS (191)	%32abS	57	
32abS+32abR (191)			
100*35ab(S+R) (191)	%35ab	47	
SUM 34-35ab(S+R) (191)			
100*(27Ts+27Tm) (191)	%27HOP	7	
27(Ts+Tm)+28ab+SUM 29-30(ab+ba)+SUM 31-35ab(S+R) (191)			
100*28ab (191)	%28HOP	5	
27(Ts+Tm)+28ab+SUM 29-30(ab+ba)+SUM 31-35ab(S+R) (191)			
100*(29ab+29ba) (191)	%29HOP	11	
27(Ts+Tm)+28ab+SUM 29-30(ab+ba)+SUM 31-35ab(S+R) (191)			
100*(30ab+30ba) (191)	%30HOP	26	
27(Ts+Tm)+28ab+SUM 29-30(ab+ba)+SUM 31-35ab(S+R) (191)			
100*(31ab(S+R)) (191)	%31HOP	16	
27(Ts+Tm)+28ab+SUM 29-30(ab+ba)+SUM 31-35ab(S+R) (191)			
100*(32ab(S+R)) (191)	%32HOP	12	
27(Ts+Tm)+28ab+SUM 29-30(ab+ba)+SUM 31-35ab(S+R) (191)			
100*(33ab(S+R)) (191)	%33HOP	10	
27(Ts+Tm)+28ab+SUM 29-30(ab+ba)+SUM 31-35ab(S+R) (191)			
100*(34ab(S+R)) (191)	%34HOP	6	
27(Ts+Tm)+28ab+SUM 29-30(ab+ba)+SUM 31-35ab(S+R) (191)			
100*(35ab(S+R)) (191)	%35HOP	5	
27(Ts+Tm)+28ab+SUM 29-30(ab+ba)+SUM 31-35ab(S+R) (191)			

NORSK HYDRO Research Centre, Bergen _____ Petroleum Geochemistry Group

STERANE ratios			SATURATE BIOMARKERS
100 * 29aaS (217) (29aa(S+R) (217))	%29aaS	44	File name (sample): BIOM_C.D
100 * 29bb(S+R) (218) (29bb(S+R) (218) + 29aa(S+R) (217))	%29bb	63	File path: C:\HPCHEM\1\DATA\SAT\W712221\
100 * 27bb(S+R) (218) 27bb(S+R)+28bb(S+R)+29bb(S+R)+30bb(S+R) (218)	%27STER	28	Misc information: 123456785
100 * 28bb(S+R) (218) 27bb(S+R)+28bb(S+R)+29bb(S+R)+30bb(S+R) (218)	%28STER	25	Sample name: STD. 1/3
100 * 29bb(S+R) (218) 27bb(S+R)+28bb(S+R)+29bb(S+R)+30bb(S+R) (218)	%29STER	34	Operator: elin
100 * 30bb(S+R) (218) 27bb(S+R)+28bb(S+R)+29bb(S+R)+30bb(S+R) (218)	%30STER	13	Method: MSD_S_B
			Date analyzed: 07/09/93

TERPANE-STERANE GROUP ratios		
27(Ts+Tm)+28ab+SUM 29-30(ab+ba)+SUM 31-35ab(S+R) (191) 27bb(S+R)+28bb(S+R)+29bb(S+R)+30bb(S+R) (218)	Ho/St2	628
100*(21+22)bb (21+22)bb+27bb(S+R)+28bb(S+R)+29bb(S+R)+30bb(S+R) (218)	%Preg	14
100*(20/3+21/3+23/3+24/3+25/3+26/3(R+S)) (191) (20/3+21/3+23/3+24/3+25/3+26/3(R+S))+27(Ts+Tm)+28ab+ SUM 29-30(ab+ba)+SUM 31-35ab(S+R) (191)	%Tri	4

POSTADRESSE TELEFON TELEKS TELEFAKS	KJELLER Boks 40, 2007 Kjeller +47 6 806000 74 573 energ n +47 6 815553	HALDEN Boks 173, 1751 Halden, +47 9 183100 76 335 energ n	TILGJENGELIGHET Fortrolig
RAPPORT TYPE	RAPPORT NR. IFE/KR/F-92/200	DATO 1992-12-21	
	RAPPORTTITTEL ISOTOPANALYSER, BRØNN 7122/2-1 DATARAPPORT	DATO FOR SISTE REV.	
		REV. NR.	
	OPPDRAGSGIVER Norsk Hydro a.s.	ANTALL SIDER 13	
OPPDRAGSGIVERS REF. NHT-B44-00763-00	ANTALL EKS 17		
SAMMENDRAG 1 gassprøve; RFT 1874 mRKB og 15 headspacebokser (canned cuttings) fra brønn 7122/2-1 er mottatt og analysert i løpet av november og desember 1992. $C_1 - C_5$ og CO_2 er kvantifisert. $^{13}C/^{12}C$ isotopforholdet av $C_1 - C_4$ er bestemt i alle prøver hvor konsentrasjonen av enkeltkomponentene har vært tilstrekkelig. I tillegg er D/H isotopforholdet av metan bestemt i flertallet av prøvene.		DISTRIBUSJON Norsk Hydro (12) Andresen, B. Råheim, A. Throndsen, T. Arkiv (2)	
<div style="border: 1px solid black; padding: 5px; text-align: center;"> <p>BA-93-245-1</p> <p>03 FEB. 1993</p> <p>REGISTER</p> <p>OLJEDIREKTORATET</p> </div>			
STIKKORD			
	NAVN	DATO	SIGNATUR
UTARBEIDET AV	Bjørg Andresen	1992-12-21	Bjørg Andresen
KONTROLLERT AV	Torbjørn Throndsen	1992-12-21	Torbjørn Throndsen
GODKJENT AV	Arne Råheim	1992-12-21	Arne Råheim

1 INNLEDNING

1 gassprøve; RFT 1874 mRKB og 15 headspacebokser (canned cuttings) fra brønn 7122/2-1 er mottatt og analysert i løpet av november og desember 1992.

C₁ - C₅ og CO₂ er kvantifisert. ¹³C/¹²C isotopforholdet av C₁ - C₄ er bestemt i alle prøver hvor konsentrasjonen av enkeltkomponentene har vært tilstrekkelig. I tillegg er D/H isotopforholdet av metan bestemt i flertallet av prøvene.

2 ANALYSEPROSEDYRER

Gassprøvene er kvantifisert gass-kromatografisk på en Porapak QS kolonne med varmetråds- og flammeionisasjon-detektor. Headspaceboksene er ristet på ristemaskin i ca. 2 timer før 1 ml av headspacegassen er samlet med sprøyte for kvantifisering. Deteksjonsgrenser for bestemmelse av hydrokarboner er 0.01 µl/ml (10 ppm) og 0.01 µl/ml (100 ppm) av CO₂.

For isotopbestemmelser er ca. 20 ml av gassprøvene separert gass-kromatografisk, og de forskjellige hydrokarbon komponentene er forbrent i individuelle CuO ovner ved 850°C. Forbrenningsproduktene CO₂ og H₂O er samlet og separert ved hjelp av ulike kjølefeller. CO₂ opprinnelig tilstede i prøvene er samlet direkte etter separasjonen for massespektrometrisk analyse.

Vann dannet ved forbrenningen av metan er redusert med Zn i kvarts ampuller ved 900°C for å danne hydrogen for isotopbestemmelser.

Isotopbestemmelsene er foretatt på Finnigan MAT 251 and Finnigan Delta massepektrometere. IFEs verdi på NBS 22 er $29.77 \pm .06\text{‰}$ PDB.

3 RESULTATER

Tabell 1 viser volumsammensetning av headspace-og RFT-gassprøven. Resultatene er normaliserte. Tabell 2 viser konsentrasjonen av de ulike komponentene i headspacegassen. Tabell 3 viser isotopsammensetningen av headspace- og RFT- gassprøven.

Usikkerheten i $\delta^{13}\text{C}$ verdien (bestemt ved gjentatt analyse av standard gass) er $\pm 0.3\text{‰}$ PDB og inkluderer all analyse-trinn. Tilsvarende usikkerhet i δD verdien er $\pm 5\text{‰}$ SMOW.

nd i tabellene indikerer at disse resultatene ligger under deteksjonsgrensene eller at det har vært for lite for isotopbestemmelse.

På grunn av lave konsentrasjoner er $i\text{C}_4$ og $n\text{C}_4$ i flertallet av headspaceprøvene isotopbestemt i en fraksjon.

Resultatene er plottet mot dybde i figurene 1 - 5. Figur 6 og 7 viser isotopdata plottet i diagram etter Schoell (1983), og figur 8 viser karbonisotopsammensetning av RFT-gassprøven plottet i modenhetsdiagrammet til A. James (James, 1983).

4 LITTERATUR

James, A.T. (1983). Correlation of natural gas by use of carbon isotopic distribution between hydrocarbon components. *Bull. Am. Assoc. Pet. Geol.* **67**, 1176-1191.

Schoell, M. (1983). Genetic characterisation of natural gases. *The American Association of Petroleum Geologists Bulletin*, **67**, 2225-2238.

Tabell 1. Volumsammensetning av headspace- og RFT-gass, brønn 7122/2-1.

Depth (m)	IFE no	C ₁ %	C ₂ %	C ₃ %	iC ₄ %	nC ₄ %	iC ₅ %	nC ₅ %	CO ₂ %	ΣC ₁ -C ₅	Wet- ness	iC ₄ / nC ₄
750	11537	63.4	7.38	12.61	3.06	9.73	1.84	1.98	nd	100	0.366	0.31
850	11538	55.7	0.83	0.99	0.28	0.11	0.07	0.07	42.0	58	0.040	2.40
950	11539	49.6	0.91	0.57	0.25	0.08	0.07	0.03	48.4	52	0.037	3.17
1050	11540	52.5	1.00	0.74	0.37	0.12	0.09	0.05	45.1	55	0.043	3.20
1150	11541	13.2	0.27	0.25	0.13	0.07	0.03	0.03	86.1	14	0.056	2.00
1350	11542	24.0	0.69	0.33	0.04	0.04	nd	nd	74.9	25	0.044	1.00
1470	11543	14.1	0.31	0.07	nd	nd	nd	nd	85.5	14	0.026	
1610	11544	46.9	2.67	0.51	0.09	0.11	nd	nd	49.7	50	0.067	0.80
1710	11545	34.9	6.00	3.36	0.04	0.13	nd	nd	55.6	44	0.21	0.33
1760	11546	47.4	7.39	7.89	0.89	2.39	nd	nd	34.1	66	0.28	0.37
1800	11547	67.3	12.96	12.84	1.61	3.33	0.48	0.37	1.1	99	0.32	0.48
1950	11548	40.2	10.63	7.86	0.97	1.94	0.42	0.32	37.6	62	0.36	0.50
2010	11549	46.3	12.61	21.59	2.06	6.53	0.92	0.85	9.1	91	0.49	0.32
2060	11550	33.6	10.69	18.49	2.57	6.75	0.96	0.80	26.1	74	0.55	0.38
2090	11551	10.1	4.58	9.57	1.86	5.49	1.26	1.21	65.9	34	0.70	0.34
RFT, 1874	11552	94.8	2.92	1.13	0.09	0.17	nd	nd	0.9	99	0.04	0.54

Tabell 2. Konsentrasjon av gasskomponenter i headspacegass, brønn 7122/2-1.

Depth m	IFE no.	C ₁ ppm	C ₂ ppm	C ₃ ppm	iC ₄ ppm	nC ₄ ppm	iC ₅ ppm	nC ₅ ppm	CO ₂ ppm
750	11537	17600	2050	3500	850	2700	510	550	nd
850	11538	24300	360	430	120	50	30	30	18300
950	11539	37300	680	430	190	60	50	20	36400
1050	11540	22600	430	320	160	50	40	20	19400
1150	11541	7900	160	150	80	40	20	20	51700
1350	11542	5900	170	80	10	10	nd	nd	18400
1470	11543	16400	360	80	nd	nd	nd	nd	99400
1610	11544	22000	1250	240	40	50	nd	nd	23300
1710	11545	16400	2820	1580	20	60	nd	nd	26100
1760	11546	37800	5900	6300	710	1910	nd	nd	27200
1800	11547	58700	11300	11200	1400	2900	420	320	970
1950	11548	43500	11500	8500	1050	2100	450	350	40700
2010	11549	196400	53500	91600	8750	27700	3900	3600	38800
2060	11550	41800	13300	23000	3200	8400	1200	1000	32500
2090	11551	7300	3300	6900	1340	3960	910	870	47500

Tabell 3. Isotopsammensetning av headspace- og RFT-gass, brønn 7122/2-1.

Depth (m)	IFE no	C ₁	C ₁	C ₂	C ₃	iC ₄	nC ₄	CO ₂	CO ₂
		δ ¹³ C ‰ PDB	δ D ‰ SMOW	δ ¹³ C ‰ PDB	δ ¹³ C ‰ PDB	δ ¹³ C ‰ PDB	δ ¹³ C ‰ PDB	δ ¹³ C ‰ PDB	δ ¹⁸ O ‰ PDB
750	11537	-54.3	-185	-34.0	-31.5		-31.6*	nd	nd
850	11538	-62.6	-182	-36.0	nd		nd	-17.1	-8.5
950	11539	-64.6	-184	-37.8	-32.0		nd	-18.8	-8.4
1050	11540	-63.6	-176	-34.4	-33.1		nd	-24.0	-8.3
1150	11541	-61.4	nd	nd	nd		nd	-17.2	-7.9
1350	11542	-49.9	-180	nd	nd		nd	-13.1	-6.8
1470	11543	-55.7	-155	-34.2	nd		nd	-13.0	-8.4
1610	11544	-54.3	-250	-34.6	nd		nd	-14.7	-8.4
1710	11545	-45.0	-191	-34.7	-32.3		nd	-11.9	-9.8
1760	11546	-38.3	-161	-28.8	-29.8		-26.5*	-18.2	-8.3
1800	11547	-50.0	-217	-32.3	-32.2		-27.8*	nd	nd
1950	11548	-48.6	-216	-37.1	-34.5		-34.3*	-15.2	-9.2
2010	11549	-47.8	-220	-36.6	-32.6	-33.1	-34.2	-15.8	-8.9
2060	11550	-40.2	-207	-36.1	-34.4		-32.7*	-17.3	-8.6
2090	11551	-44.0	-228	-37.1	-35.2		-33.1*	-14.2	-9.2
RFT, 1874	11552	-50.4	-235	-37.6	-34.9	-33.1	-34.3	-16.1	-6.9

* iC₄ og nC₄ isotopbestemt i en fraksjon

nd ikke isotopbestemt pga for lav konsentrasjon av komponenten i headspacegassen

BA-93-1326-1
10 - 1993
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Prepared for

HYDRO

**RESERVOIR GEOCHEMICAL DATA,
WELL 7122/2-1**

Report number 7559

March 1993

TABLE 1
ORGANIC CARBON RESULTS AND GROSS LITHOLOGIC DESCRIPTIONS

JOB 7559				
GEOCHEM SAMPLE NUMBER	DEPTH/ IDENTITY	GROSS LITHOLOGIC DESCRIPTION	G S A COLOUR CODE	TOTAL ORGANIC CARBON (Wt. %)

WELL: 7122/2-1

7559-001	CORE 1814.00m	A 80% SANDSTONE - fine to coarse grained, well rounded, v glauconitic, blocky, mod soft, arg matrix, no F, no C, medium grey.	N5	
		B 20% CLAYSTONE - blocky, mod soft, non-calc, medium dark grey.	N4	
7559-002	CORE 1816.25m	A100% SANDSTONE - med grained, blocky, mod hard, quartz cement, glauconitic, no F, no C, light grey	N7	
7559-003	CORE 1819.00m	A100% SANDSTONE - fine to coarse grained, mod well rounded, blocky, hard, arg matrix, trace glauconite, no F, no C, medium dark grey.	N4	
7559-004	SWC 1833.0m	A 80% SANDSTONE - med grained, blocky, soft, partly shattered to rock flour, no F, no C, white.	N9	
		B 20% CLAYSTONE - blocky, soft, non-calc, very dark yellowish brown.	10YR3/2	
7559-005	CORE 1833.50m	A100% SANDSTONE - fine to med grained, hard, quartz/calcite cement, common arg bands, no F, no C, very light grey.	N8	
7559-006	CORE 1833.75m	A100% SANDSTONE - fine to med grained, hard, sl calc cement, trace glauconite, no F, no C, medium grey	N5	
7559-007	CORE 1834.00m	A100% SANDSTONE - as 7559-006A, no F, no C, very light grey.	N8	
7559-008	CORE 1836.50m	A100% SANDY LIMESTONE - blocky, hard, foss, trace glauconite, no F, no C, very light grey.	N8	
7559-009	CORE 1836.75m	A100% SANDY LIMESTONE - as 7559-008A, no F, no C, very light grey.	N8	
7559-010	CORE 1838.50m	A100% SANDSTONE - med to coarse grained, blocky, mod hard, quartz cement, trace shell debris, gold F, no C, very light grey.	N8	
7559-011	CORE 1839.50m	A100% SANDSTONE - med grained, sub-angular, blocky, mod hard, quartz cement, no F, slow blooming cut, very light grey.	N8	

Abbreviations = arenaceous, argillaceous, calcareous, Cut. dolomite, Fluorescence, foraminifera fossiliferous, Lost Circulation Material, moderate, occasionally, slightly, very.

TABLE 1
ORGANIC CARBON RESULTS AND GROSS LITHOLOGIC DESCRIPTIONS

JOB 7559				
GEOCHEM SAMPLE NUMBER	DEPTH/ IDENTITY	GROSS LITHOLOGIC DESCRIPTION	G S A COLOUR CODE	TOTAL ORGANIC CARBON (Wt. %)
7559-012	CORE 1842.50m	A100% SANDSTONE - coarse grained, sub-angular, blocky, mod hard, quartz cement, gold F, slow blooming cut, very light grey.	N8	
7559-013	CORE 1845.50m	A100% SANDSTONE - as 7559-012A, no F, no C, very light grey.	N8	
7559-014	CORE 1849.25m	A100% SANDSTONE - med grained, sub-angular, blocky, mod hard, quartz cement, glauconitic, trace mica, no F, no C, very light grey.	N8	
7559-015	CORE 1852.25m	A100% SANDSTONE - as 7559-014A, no F, no C, very light grey.	N8	
7559-016	CORE 1855.75m	A100% SANDSTONE - as 7559-014A, no F, faint blooming cut, very light grey	N8	
7559-017	CORE 1858.50m	A100% SANDSTONE - as 7559-014A, no F, no C, very light grey.	N8	
7559-018	CORE 1863.50m	A100% SANDSTONE - fine to med grained, sub-angular, well sorted, quartz cement, trace glauconite, no F, faint blooming cut, very light grey	N8	
7559-019	CORE 1867.00m	A100% SANDSTONE - med grained, sub-angular, calcite cement, fossil shell debris, sig glauconite, no F, faint blooming cut, very light grey.	N8	
7559-020	CORE 1867.50m	A100% SANDSTONE - fine grained, sub-angular, quartz cement, trace glauconite, trace mica, no F, no C, very light grey.	N8	
7559-021	CORE 1869.50m	A100% SANDSTONE - as 7559-020A, no F, faint blooming cut, very light grey	N8	
7559-022	CORE 1872.50m	A100% SANDSTONE - med grained, sub-angular, quartz/calcite cement, no F, no C, very light grey.	N8	
7559-023	CORE 1873.00m	A100% SANDSTONE - as 7559-022A, no F, no C, very light grey.	N8	
7559-024	CORE 1874.00m	A100% SANDSTONE - as 7559-022A, no F, faint blooming cut, very light grey	N8	

Abbreviations = arenaceous, argillaceous, calcareous, Cut, dolomite, Fluorescence, foraminifera fossiliferous, Lost Circulation Material, moderately, occasionally, slightly, very.

TABLE 1
ORGANIC CARBON RESULTS AND GROSS LITHOLOGIC DESCRIPTIONS

JOB 7559				
GEOCHEM SAMPLE NUMBER	DEPTH/ IDENTITY		GROSS LITHOLOGIC DESCRIPTION	G S A COLOUR CODE
				TOTAL ORGANIC CARBON (Wt. %)
7559-025	CORE 1874.50m	A100%	SANDSTONE - fine grained, sub-angular, quartz cement, no F, no C, very light grey.	N8
7559-026	CORE 1876.50m	A100%	SANDSTONE - fine grained, sub-angular, quartz cement, micaceous, no F, faint blooming cut, very light grey.	N8
7559-027	CORE 1878.50m	A100%	SANDSTONE - fine grained, sub-angular, quartz cement, no F, no C, very light grey.	N8
7559-028	CORE 1882.00m	A100%	SANDSTONE - med grained, sub-angular, quartz/calcite cement, foss, no F, no C, pale yellowish brown.	10YR6/2
7559-029	CORE 1884.50m	A100%	SANDSTONE - fine grained, sub-angular, quartz cement, trace glauconite, trace mica, no F, no C, very light grey.	N8
7559-030	CORE 1887.50m	A100%	SANDSTONE - med to coarse grained, sub-angular, quartz cement, trace glauconite, trace mica, no F, no C, very light grey.	N8
7559-031	CORE 1891.50m	A100%	SANDSTONE - as 7559-030A, no F, v faint blooming cut, very light grey.	N8
7559-032	CORE 1894.50m	A100%	SANDSTONE - med to coarse grained, sub-angular, quartz cement, foss, trace glauconite, gold F, faint blooming cut, very light grey.	N8
7559-033	CORE 1897.00m	A100%	SANDSTONE - med to coarse grained, sub-angular, quartz cement, trace glauconite, trace mica, no F, faint blooming cut, very light grey	N8
7559-034	CORE 1900.50m	A100%	SANDSTONE - as 7559-033A, no F, no C, very light grey.	N8
7559-035	CORE 1903.50m	A100%	SANDSTONE - as 7559-033A, no F, no C, very light grey.	N8
7559-036	CORE 1906.50m	A100%	SANDSTONE - coarse grained, sub-angular, quartz cement, trace glauconite, trace mica, no F, no C, very light grey.	N8

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TABLE 1
ORGANIC CARBON RESULTS AND GROSS LITHOLOGIC DESCRIPTIONS

JOB 7559				
GEOCHEM SAMPLE NUMBER	DEPTH/ IDENTITY	GROSS LITHOLOGIC DESCRIPTION	G S A COLOUR CODE	TOTAL ORGANIC CARBON (Wt. %)
7559-037	CORE 1909.50m	A100% SANDSTONE - med grained, sub-angular, v hard, quartz cement, gold F, no C, greyish orange.	10YR7/4	
7559-038	CORE 1912.50m	A100% SANDSTONE - med grained, sub-angular, quartz cement, trace glauconite, no F, no C, very light grey.	N8	
7559-039	CORE 1915.75m	A100% SANDSTONE - as 7559-038A, no F, no C, very light grey.	N8	
7559-040	CORE 1918.50m	A100% SANDSTONE - fine to coarse grained, sub-angular, poorly sorted, quartz cement, shell fragments, trace mica, no F, slow blooming cut, very light grey.	N8	
7559-041	CORE 1919.75m	A100% SANDSTONE - fine grained to gravelly, poorly sorted, sub-angular, lithic, foss, calcite cement, no F, slow blooming cut, very light grey.	N8	
7559-042	CORE 1920.75m	A100% CONGLOMERATE - mixed lithology clasts in fine to coarse grained sandstone matrix, quartz cement, matrix supported, no F, no C, pale yellowish brown to very light grey.	10YR6/2- N8	
7559-043	CORE 1921.50m	A100% CONGLOMERATE - as 7559-042A, no F, no C, pale yellowish brown to very light grey.	10YR6/2- N8	
7559-044	CORE 1924.50m	A100% SANDSTONE - fine to med grained, sub-angular, quartz cement, trace glauconite, no F, rapid blooming cut, very light grey.	N8	
7559-045	CORE 1927.50m	A100% SANDSTONE - as 7559-044A, no F, no C, very light grey.	N8	
7559-046	CORE 1930.50m	A100% SANDSTONE - as 7559-044A, no F, no C, very light grey.	N8	
7559-047	SWC 1937.0m	A100% SANDSTONE - fine to med grained, sub-angular, blocky, soft, partly shattered to rock flour, no F, slow blooming cut, white.	N9	
7559-048	SWC 1941.5m	A100% SANDSTONE - as 7559-047A, no F, slow blooming cut, white.	N9	

Abbreviations = arenaceous, argillaceous, calcareous, Cut, dolomite, Fluorescence, foraminifera fossiliferous, Lost Circulation Material, moderately, occasionally, slightly, very.

TABLE 1
ORGANIC CARBON RESULTS AND GROSS LITHOLOGIC DESCRIPTIONS

JOB 7559					G S A COLOUR CODE	TOTAL ORGANIC CARBON (Wt. %)
GEOCHEM SAMPLE NUMBER	DEPTH/ IDENTITY	GROSS LITHOLOGIC DESCRIPTION				
7559-049	SWC 1947.5m	A100%	SANDSTONE - as 7559-047A, no F, slow blooming cut.			
7559-050	SWC 1954.0m	A 80%	SAND - fine grained, sub-angular, no F, slow blooming cut, white.		N9	
		B 20%	CLAYSTONE - blocky, mod hard, non-calc, olive grey.		5Y4/1	
7559-051	SWC 1960.0m	A100%	SANDSTONE - fine to med grained, sub-angular, blocky, firm, partly shattered to rock flour, no F, slow blooming cut, very light grey to white.		N8 N9	-
7559-052	SWC 1963.0m	A100%	SANDSTONE - as 7559-051A, no F, no C, very light grey to white.		N8 N9	-
7559-053	SWC 1965.5m	A100%	SANDSTONE - fine to v coarse grained, partly pebbly, sub-angular, blocky, soft, partly shattered to rock flour, no F, no , white.		N9	
7559-054	SWC 1970.0m	A 80%	SANDSTONE - fine grained, sub-angular, blocky, soft, partly shattered to rock flour, no F, no C, white.		N9	
		B 20%	CLAYSTONE - blocky, soft, calc, olive black.		5Y2/1	
7559-055	SWC 1974.0m	A100%	SANDSTONE - fine grained, blocky, soft, glauconitic, arg, iron oxide rich cement, no F, no C, greyish orange.		10YR7/4	
7559-056	SWC 2070.0m	A100%	SANDSTONE - v fine grained, blocky, mod soft, sl calc, arg cement, no F, rapid blooming cut, pale yellowish brown.		10YR6/2	
7559-057	SWC 2072.0m	A100%	SANDSTONE - v fine grained, blocky, mod soft, arg cement, no F, instant blooming cut, pale yellowish brown.		10YR6/2	
7559-058	SWC 2074.0m	A100%	SANDSTONE - as 7559-057A, no F, instant blooming cut, pale yellowish brown.		10YR6/2	
7559-059	SWC 2078.0m	A100%	SANDSTONE - as 7559-057A, no F, instant blooming cut, pale yellowish brown.		10YR6/2	

Abbreviations = arenaceous, argillaceous, calcareous, cut, dolomite, fluorescence, foraminifera fossiliferous, Lost Circulation Material, moderately, occasionally, slightly, very

TABLE 1
ORGANIC CARBON RESULTS AND GROSS LITHOLOGIC DESCRIPTIONS

JOB 7559				
GEOCHEM SAMPLE NUMBER	DEPTH/ IDENTITY	GROSS LITHOLOGIC DESCRIPTION	G S A COLOUR CODE	TOTAL ORGANIC CARBON (Wt. %)
7559-060	SWC 2082.0m	A100% SANDSTONE - as 7559-057A, no F, instant blooming cut, pale yellowish brown.	10YR6/2	
7559-061	SWC 2090.0m	A100% SANDSTONE - fine grained, blocky, mod soft, arg cement, no F, no C, pale yellowish brown to white.	10YR6/2- N9	
7559-062	SWC 2100.0m	A100% SANDSTONE - as 7559-061A, no F, no C, pale yellowish brown to white	10YR6/2- N9	
7559-063	SWC 2118.0m	A 80% SANDSTONE - as 7559-061A, no F, no C, pale yellowish brown to white B 20% CLAYSTONE - platy, mod hard, non-calc, olive black.	10YR6/2- N9 5Y2/1	

Abbreviations = arenaceous, argillaceous, calcareous, Cut, dolomite, Fluorescence, foraminifera
fossiliferous, Lost Circulation Material, moderately, occasionally, slightly, very.

TABLE 2
CONCENTRATION (PPM) OF EXTRACTED C₁₅₊ MATERIAL IN ROCK

JOB 7559 GEOCHEM SAMPLE NUMBER	L I T H O	DEPTH/ IDENTITY	TOTAL EXTRACT	HYDROCARBONS			NON HYDROCARBONS			
				Saturates	Aromatics	TOTAL	Preciptd. Asphaltenes	Eluted NSO's	Non-Eluted NSO's	TOTAL

WELL: 7122/2-1

7559-001	CORE	1814.00m	286	62	18	80	82	123	1	206
7559-002A	CORE	1816.25m	156	31	5	36	42	78	0	120
7559-003A	CORE	1819.00m	507	93	44	137	218	151	1	370
7559-004	SWC	1833.0m	1088	420	42	463	466	153	7	625
7559-005A	CORE	1833.50m	264	42	12	54	85	124	1	210
7559-006A	CORE	1833.75m	186	39	4	43	50	92	1	143
7559-007A	CORE	1834.00m	279	36	6	42	102	134	1	237
7559-008A	CORE	1836.50m	139	22	3	25	37	76	1	114
7559-009A	CORE	1836.75m	229	19	2	21	160	47	1	208
7559-010A	CORE	1838.50m	131	42	3	45	44	40	1	85
7559-011A	CORE	1839.50m	194	69	6	75	63	56	1	120
7559-012A	CORE	1842.50m	142	56	5	61	39	41	1	81
7559-013A	CORE	1845.50m	150	49	6	55	41	53	1	95
7559-014A	CORE	1849.25m	132	32	12	44	40	47	1	88
7559-015A	CORE	1852.25m	161	35	15	50	58	52	1	111
7559-016A	CORE	1855.75m	143	27	16	43	43	56	1	100
7559-017A	CORE	1858.50m	248	24	27	51	160	35	1	196
7559-018A	CORE	1863.50m	297	21	18	40	196	61	1	258
7559-019A	CORE	1867.00m	84	14	16	30	25	27	1	53
7559-020A	CORE	1867.50m	89	14	11	25	37	27	1	65
7559-021A	CORE	1869.50m	162	15	12	27	106	27	1	134
7559-022A	CORE	1872.50m	269	17	10	27	214	27	1	242
7559-023A	CORE	1873.00m	621	9	8	16	588	15	1	604
7559-024A	CORE	1874.00m	1359	9	1	10	1337	11	1	1348
7559-025A	CORE	1874.50m	965	3	1	4	958	3	0	961
7559-026A	CORE	1876.50m	1265	211	66	277	884	99	4	988
7559-027A	CORE	1878.50m	37	12	4	16	7	12	1	20
7559-028A	CORE	1882.00m	53	16	3	19	5	28	1	34
7559-029A	CORE	1884.50m	63	22	10	32	11	20	0	31
7559-030A	CORE	1887.50m	454	42	10	52	353	47	2	402
7559-031A	CORE	1891.50m	76	26	5	31	5	39	1	45
7559-032A	CORE	1894.50m	201	55	21	77	36	86	1	124

S shale, SS sandstone, L Limestone, D dolomite, M mixed, see Table 1.

TABLE 2
CONCENTRATION (PPM) OF EXTRACTED C₁₅₊ MATERIAL IN ROCK

JOB 7559 GEOCHEM SAMPLE NUMBER	L I T H O	DEPTH/ IDENTITY	TOTAL EXTRACT	HYDROCARBONS			NON HYDROCARBONS			
				Saturates	Aromatics	TOTAL	Precipitd. Asphaltenes	Eluted NSO's	Non-Eluted NSO's	TOTAL
7559-033A	CORE	1897.00m	499	22	8	30	427	41	1	469
7559-034A	CORE	1900.50m	87	25	7	32	14	40	1	55
7559-035A	CORE	1903.50m	420	16	4	20	374	24	1	399
7559-036A	CORE	1906.50m	64	5	1	6	51	7	0	58
7559-037A	CORE	1909.50m	368	40	4	44	191	131	3	324
7559-038A	CORE	1912.50m	129	28	9	37	34	56	1	91
7559-039A	CORE	1915.75m	107	27	8	35	32	39	1	72
7559-040A	CORE	1918.50m	241	26	7	33	167	40	1	208
7559-041A	CORE	1919.75m	126	24	5	29	49	47	1	97
7559-042A	CORE	1920.75m	142	31	15	46	41	54	1	96
7559-043A	CORE	1921.50m	291	61	49	110	100	80	1	181
7559-044A	CORE	1924.50m	415	8	3	10	375	29	1	405
7559-045A	CORE	1927.50m	233	14	3	16	175	41	1	217
7559-046A	CORE	1930.50m	100	15	3	18	43	38	1	82
7559-047A	SWC	1937.0m	196	99	9	109	51	35	2	88
7559-048A	SWC	1941.5m	283	135	14	149	84	48	2	133
7559-049A	SWC	1947.5m	230	93	17	110	55	63	1	120
7559-050	SWC	1954.0m	1194	457	59	515	400	274	5	679
7559-051A	SWC	1960.0m	389	125	45	170	104	114	2	220
7559-052A	SWC	1963.0m	538	243	85	328	64	144	2	210
7559-053A	SWC	1965.5m	1034	453	167	619	202	210	3	415
7559-054	SWC	1970.0m	503	210	50	260	139	102	2	243
7559-055A	SWC	1974.0m	473	103	34	137	164	170	2	336
7559-056A	SWC	2070.0m	852	249	86	335	362	153	2	517
7559-057A	SWC	2072.0m	633	201	144	345	198	88	2	288
7559-058A	SWC	2074.0m	538	160	102	262	180	94	2	276
7559-059A	SWC	2078.0m	387	143	29	173	126	86	2	214
7559-060A	SWC	2082.0m	539	143	23	166	209	161	3	373
7559-061A	SWC	2090.0m	962	345	57	402	364	193	3	560
7559-062A	SWC	2100.0m	1396	643	288	932	204	257	3	464
7559-063	SWC	2118.0m	1985	773	373	1146	504	330	5	839

S shale, SS sandstone, L limestone, D dolomite, M-mixed, see Table 1.

TABLE 3
COMPOSITION (NORMALISED %) OF C₁₅+ MATERIAL

JOB 7559 GEOCHEM SAMPLE NUMBER	L I T H O	DEPTH/ IDENTITY	HYDROCARBONS		NON HYDROCARBONS		
			Saturates	Aromatics	Preciptd. Asphaltenes	Eluted NSO's	Non-Eluted NSO's

WELL: 7122/2-1

7559-001	CORE	1814.00m	21.80	6.23	28.55	42.91	0.52
7559-002A	CORE	1816.25m	19.62	3.48	26.90	49.68	0.32
7559-003A	CORE	1819.00m	18.27	8.76	42.99	29.80	0.18
7559-004	SWC	1833.0m	38.62	3.89	42.81	14.07	0.60
7559-005A	CORE	1833.50m	15.82	4.52	32.20	46.89	0.57
7559-006A	CORE	1833.75m	21.05	2.11	26.84	49.47	0.53
7559-007A	CORE	1834.00m	12.79	2.13	36.41	48.14	0.53
7559-008A	CORE	1836.50m	16.01	2.14	26.33	54.80	0.71
7559-009A	CORE	1836.75m	8.41	0.78	69.86	20.55	0.39
7559-010A	CORE	1838.50m	32.47	2.21	33.95	30.63	0.74
7559-011A	CORE	1839.50m	35.43	3.02	32.41	28.64	0.50
7559-012A	CORE	1842.50m	39.32	3.86	27.27	29.09	0.45
7559-013A	CORE	1845.50m	32.74	3.79	27.39	35.63	0.45
7559-014A	CORE	1849.25m	24.18	9.32	30.23	35.52	0.76
7559-015A	CORE	1852.25m	21.90	9.09	36.16	32.02	0.83
7559-016A	CORE	1855.75m	18.96	11.26	30.22	39.01	0.55
7559-017A	CORE	1858.50m	9.82	10.85	64.73	14.21	0.39
7559-018A	CORE	1863.50m	7.18	6.14	65.93	20.39	0.35
7559-019A	CORE	1867.00m	16.85	19.48	29.59	32.58	1.50
7559-020A	CORE	1867.50m	15.63	11.88	41.88	29.69	0.94
7559-021A	CORE	1869.50m	9.22	7.65	65.88	16.86	0.39
7559-022A	CORE	1872.50m	6.39	3.79	79.52	9.97	0.33
7559-023A	CORE	1873.00m	1.41	1.24	94.79	2.47	0.09
7559-024A	CORE	1874.00m	0.69	0.08	98.39	0.80	0.04
7559-025A	CORE	1874.50m	0.34	0.08	99.27	0.28	0.03
7559-026A	CORE	1876.50m	16.69	5.24	69.89	7.86	0.33
7559-027A	CORE	1878.50m	34.21	10.53	20.18	33.33	1.75
7559-028A	CORE	1882.00m	29.68	5.81	9.68	53.55	1.29
7559-029A	CORE	1884.50m	34.68	15.61	17.92	31.21	0.58
7559-030A	CORE	1887.50m	9.34	2.15	77.74	10.41	0.36
7559-031A	CORE	1891.50m	34.93	6.11	6.11	51.97	0.87
7559-032A	CORE	1894.50m	27.54	10.67	18.11	42.93	0.74
7559-033A	CORE	1897.00m	4.34	1.70	85.61	8.15	0.20
7559-034A	CORE	1900.50m	28.66	8.23	16.16	45.73	1.22
7559-035A	CORE	1903.50m	3.83	1.05	89.20	5.78	0.14
7559-036A	CORE	1906.50m	7.55	1.89	79.25	10.85	0.47
7559-037A	CORE	1909.50m	10.99	1.06	51.77	35.46	0.71
7559-038A	CORE	1912.50m	22.09	6.98	26.74	43.31	0.87
7559-039A	CORE	1915.75m	25.15	7.27	30.30	36.36	0.91
7559-040A	CORE	1918.50m	10.71	2.88	69.51	16.48	0.41
7559-041A	CORE	1919.75m	19.21	3.95	38.95	37.11	0.79
7559-042A	CORE	1920.75m	21.50	10.75	29.21	38.08	0.47
7559-043A	CORE	1921.50m	21.02	16.86	34.37	27.43	0.32
7559-044A	CORE	1924.50m	1.86	0.62	90.45	6.94	0.14
7559-045A	CORE	1927.50m	5.84	1.19	75.07	17.64	0.27
7559-046A	CORE	1930.50m	15.43	2.89	42.77	37.62	1.29
7559-047A	SWC	1937.0m	50.64	4.72	25.75	18.03	0.86
7559-048A	SWC	1941.5m	47.79	5.01	29.79	16.81	0.59
7559-049A	SWC	1947.5m	40.59	7.35	24.12	27.35	0.59
7559-050	SWC	1954.0m	38.25	4.92	33.47	22.95	0.41
7559-051A	SWC	1960.0m	32.12	11.46	26.74	29.17	0.52
7559-052A	SWC	1963.0m	45.18	15.79	11.81	26.85	0.37
7559-053A	SWC	1965.5m	43.79	16.10	19.56	20.27	0.28

S-s shale, SS-sandstone, L-limestone, D-dolomite, M-mixed, see Table 1.

TABLE 3
COMPOSITION (NORMALISED %) OF C₁₅₊ MATERIAL

JOB 7559 GEOCHEM SAMPLE NUMBER	L I T H O	DEPTH/ IDENTITY	HYDROCARBONS		NON HYDROCARBONS		
			Saturates	Aromatics	Preciptd. Asphaltenes	Eluted NSO's	Non-Eluted NSO's
7559-054	SWC	1970.0m	41.70	10.02	27.69	20.26	0.32
7559-055A	SWC	1974.0m	21.88	7.16	34.64	35.94	0.39
7559-056A	SWC	2070.0m	29.26	10.09	42.48	17.92	0.25
7559-057A	SWC	2072.0m	31.70	22.73	31.25	13.98	0.34
7559-058A	SWC	2074.0m	29.69	18.99	33.46	17.48	0.38
7559-059A	SWC	2078.0m	36.99	7.61	32.57	22.30	0.53
7559-060A	SWC	2082.0m	26.53	4.34	38.75	29.90	0.48
7559-061A	SWC	2090.0m	35.90	5.90	37.86	20.06	0.28
7559-062A	SWC	2100.0m	46.10	20.65	14.60	18.40	0.25
7559-063	SWC	2118.0m	38.93	18.78	25.41	16.62	0.26

S-shale, SS-sandstone, L-limestone, D-dolomite, M-mixed, see Table 1.

TABLE 4
SIGNIFICANT C₁₅₊ RATIOS

JOB 7559	L I T H O	DEPTH/ IDENTITY	TOC (%)	mg/g TOC						HYDROCARBONS % TOTAL EXTRACT	SATURATES AROMATICS
				TOTAL EXTRACT	SATURATES	AROMATICS	TOTAL HYDROCARBONS	ELUTED NSO's	ASPHALTENES		

WELL: 7122/2-1

7559-001	CORE	1814.00m	0.31	92.12	20.08	5.74	25.82	39.53	26.30	28.03	3.50
7559-002A	CORE	1816.25m	0.08	195.55	38.37	6.81	45.17	97.15	52.60	23.10	5.64
7559-003A	CORE	1819.00m	0.49	103.42	18.89	9.06	27.96	30.82	44.46	27.03	2.08
7559-004	SWC	1833.0m	0.18	604.42	233.44	23.53	256.97	85.05	258.78	42.52	9.92
7559-005A	CORE	1833.50m	0.16	164.87	26.08	7.45	33.53	77.31	53.09	20.34	3.50
7559-006A	CORE	1833.75m	0.08	232.16	48.88	4.89	53.76	114.86	62.32	23.16	10.00
7559-007A	CORE	1834.00m	0.10	279.13	35.70	5.95	41.65	134.36	101.64	14.92	6.00
7559-008A	CORE	1836.50m	0.12	116.10	18.59	2.48	21.07	63.63	30.57	18.15	7.50
7559-009A	CORE	1836.75m	0.12	191.21	16.09	1.50	17.59	39.29	133.59	9.20	10.75
7559-010A	CORE	1838.50m	0.38	34.39	11.17	0.76	11.93	10.53	11.67	34.69	14.67
7559-011A	CORE	1839.50m	0.23	84.41	29.90	2.55	32.45	24.18	27.36	38.44	11.75
7559-012A	CORE	1842.50m	0.08	177.65	69.85	6.86	76.71	51.68	48.45	43.18	10.18
7559-013A	CORE	1845.50m	0.07	213.95	70.05	8.10	78.15	76.24	58.61	36.53	8.65
7559-014A	CORE	1849.25m	0.06	220.63	53.35	20.56	73.91	78.36	66.69	33.50	2.59
7559-015A	CORE	1852.25m	0.05	322.45	70.62	29.31	99.93	103.26	116.59	30.99	2.41
7559-016A	CORE	1855.75m	0.07	204.72	38.81	23.06	61.87	79.87	61.87	30.22	1.68
7559-017A	CORE	1858.50m	0.06	412.80	40.53	44.80	85.33	58.67	267.20	20.67	0.90
7559-018A	CORE	1863.50m	0.04	743.71	53.43	45.68	99.11	151.67	490.35	13.33	1.17
7559-019A	CORE	1867.00m	0.03	278.73	46.98	54.29	101.26	90.82	82.47	36.33	0.87
7559-020A	CORE	1867.50m	0.04	223.34	34.90	26.52	61.42	66.30	93.52	27.50	1.32
7559-021A	CORE	1869.50m	0.03	538.83	49.66	41.20	90.86	90.86	354.99	16.86	1.21
7559-022A	CORE	1872.50m	0.04	673.53	43.05	25.54	68.59	67.13	535.61	10.18	1.69
7559-023A	CORE	1873.00m	0.07	886.83	12.53	10.97	23.50	21.94	840.61	2.65	1.14
7559-024A	CORE	1874.00m	0.04	3396.62	23.32	2.67	25.98	27.31	3341.99	0.76	8.75
7559-025A	CORE	1874.50m	0.05	1930.98	6.52	1.63	8.15	5.43	1916.85	0.42	4.00
7559-026A	CORE	1876.50m	0.09	1405.57	234.64	73.61	308.26	110.42	982.29	21.93	3.19
7559-027A	CORE	1878.50m	0.08	45.66	15.62	4.81	20.43	15.22	9.21	44.74	3.25
7559-028A	CORE	1882.00m	0.10	53.12	15.76	3.08	18.85	28.44	5.14	35.48	5.11
7559-029A	CORE	1884.50m	0.07	90.10	31.25	14.06	45.31	28.12	16.14	50.29	2.22
7559-030A	CORE	1887.50m	0.08	567.90	53.02	12.24	65.25	59.14	441.48	11.49	4.33
7559-031A	CORE	1891.50m	0.05	151.16	52.81	9.24	62.05	78.55	9.24	41.05	5.71
7559-032A	CORE	1894.50m	0.12	167.25	46.07	17.85	63.91	71.80	30.30	38.21	2.58

S shale, SS sandstone, L limestone, D dolomite, M-mixed, see Table 1.

TABLE 4
SIGNIFICANT C₁₅₊ RATIOS

JOB 7559	L I T H O	DEPTH/ IDENTITY	TOC (%)	mg/g TOC						HYDROCARBONS % TOTAL EXTRACT	SATURATES AROMATICS
				TOTAL EXTRACT	SATURATES	AROMATICS	TOTAL HYDROCARBONS	ELUTED NSO's	ASPHALTENES		
7559-033A	CORE	1897.00m	0.07	712.59	30.96	12.09	43.06	58.05	610.03	6.04	2.56
7559-034A	CORE	1900.50m	0.06	144.97	41.55	11.93	53.48	66.30	23.43	36.89	3.48
7559-035A	CORE	1903.50m	0.06	699.52	26.81	7.31	34.12	40.46	623.96	4.88	3.67
7559-036A	CORE	1906.50m	0.05	128.52	9.70	2.42	12.12	13.94	101.85	9.43	4.00
7559-037A	CORE	1909.50m	0.43	85.62	9.41	0.91	10.32	30.36	44.33	12.06	10.33
7559-038A	CORE	1912.50m	0.06	214.57	47.41	14.97	62.38	92.94	57.39	29.07	3.17
7559-039A	CORE	1915.75m	0.09	118.74	29.86	8.64	38.50	43.18	35.98	32.42	3.46
7559-040A	CORE	1918.50m	0.06	400.97	42.96	11.57	54.53	66.09	278.70	13.60	3.71
7559-041A	CORE	1919.75m	0.06	210.55	40.45	8.31	48.76	78.13	82.00	23.16	4.87
7559-042A	CORE	1920.75m	0.16	88.78	19.08	9.54	28.63	33.81	25.93	32.24	2.00
7559-043A	CORE	1921.50m	0.19	153.15	32.20	25.83	58.03	42.01	52.63	37.89	1.25
7559-044A	CORE	1924.50m	0.05	830.01	15.40	5.13	20.54	57.62	750.71	2.47	3.00
7559-045A	CORE	1927.50m	0.07	332.76	19.42	3.97	23.39	58.70	249.79	7.03	4.89
7559-046A	CORE	1930.50m	0.07	142.95	22.06	4.14	26.20	53.78	61.13	18.33	5.33
7559-047A	SWC	1937.0m	0.11	178.30	90.30	8.42	98.71	32.14	45.91	55.36	10.73
7559-048A	SWC	1941.5m	0.12	235.42	112.50	11.81	124.31	39.58	70.14	52.80	9.53
7559-049A	SWC	1947.5m	0.10	229.58	93.18	16.88	110.06	62.80	55.37	47.94	5.52
7559-050	SWC	1954.0m	0.27	442.27	169.17	21.75	190.93	101.50	148.03	43.17	7.78
7559-051A	SWC	1960.0m	0.08	486.82	156.36	55.78	212.14	141.99	130.16	43.58	2.80
7559-052A	SWC	1963.0m	0.22	244.60	110.52	38.61	149.13	65.67	28.88	60.97	2.86
7559-053A	SWC	1965.5m	0.86	120.27	52.66	19.37	72.03	24.38	23.53	59.89	2.72
7559-054	SWC	1970.0m	0.26	193.56	80.72	19.40	100.12	39.21	53.60	51.72	4.16
7559-055A	SWC	1974.0m	0.10	472.91	103.45	33.87	137.32	169.95	163.79	29.04	3.05
7559-056A	SWC	2070.0m	0.29	293.83	85.98	29.64	115.62	52.65	124.82	39.35	2.90
7559-057A	SWC	2072.0m	0.22	287.77	91.24	65.40	156.64	40.22	89.93	54.43	1.40
7559-058A	SWC	2074.0m	0.20	268.76	79.78	51.05	130.83	46.99	89.93	48.68	1.56
7559-059A	SWC	2078.0m	0.11	351.81	130.14	26.77	156.91	78.46	114.57	44.60	4.86
7559-060A	SWC	2082.0m	0.11	490.00	129.98	21.27	151.25	146.53	189.85	30.87	6.11
7559-061A	SWC	2090.0m	0.11	874.66	313.96	51.64	365.60	175.42	331.17	41.80	6.08
7559-062A	SWC	2100.0m	0.10	1395.67	643.41	288.21	931.61	256.80	203.77	66.75	2.23
7559-063	SWC	2118.0m	0.79	251.27	97.83	47.18	145.01	41.76	63.85	57.71	2.07

S shale, SS sandstone, L limestone, D dolomite, M-mixed, see Table 1.

TABLE 5
C₁₅₊ CHROMATOGRAPHY WEIGHTS (grams)

JOB 7559	L I T H O	DEPTH/ IDENTITY	ROCK EXTRACTED	TOTAL EXTRACT	PRECIPTD. ASPHALTENES	NC5	SATURATES	AROMATICS	ELUTED NSO's	NON ELUTED NSO's
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WELL: 7122/2-1

7559-001	CORE	1814.00m	20.2400	0.00578	0.00165	0.00413	0.00126	0.00036	0.00248	0.00003
7559-002A	CORE	1816.25m	20.2000	0.00316	0.00085	0.00231	0.00062	0.00011	0.00157	0.00001
7559-003A	CORE	1819.00m	21.3900	0.01084	0.00466	0.00618	0.00198	0.00095	0.00323	0.00002
7559-004	SWC	1833.0m	3.0700	0.00334	0.00143	0.00191	0.00129	0.00013	0.00047	0.00002
7559-005A	CORE	1833.50m	20.1300	0.00531	0.00171	0.00360	0.00084	0.00024	0.00249	0.00003
7559-006A	CORE	1833.75m	20.4600	0.00380	0.00102	0.00278	0.00080	0.00008	0.00188	0.00002
7559-007A	CORE	1834.00m	20.1700	0.00563	0.00205	0.00358	0.00072	0.00012	0.00271	0.00003
7559-008A	CORE	1836.50m	20.1700	0.00281	0.00074	0.00207	0.00045	0.00006	0.00154	0.00002
7559-009A	CORE	1836.75m	22.2700	0.00511	0.00357	0.00154	0.00043	0.00004	0.00105	0.00002
7559-010A	CORE	1838.50m	20.7400	0.00271	0.00092	0.00179	0.00088	0.00006	0.00083	0.00002
7559-011A	CORE	1839.50m	20.5000	0.00398	0.00129	0.00269	0.00141	0.00012	0.00114	0.00002
7559-012A	CORE	1842.50m	30.9600	0.00440	0.00120	0.00320	0.00173	0.00017	0.00128	0.00002
7559-013A	CORE	1845.50m	29.9800	0.00449	0.00123	0.00326	0.00147	0.00017	0.00160	0.00002
7559-014A	CORE	1849.25m	29.9900	0.00397	0.00120	0.00277	0.00096	0.00037	0.00141	0.00003
7559-015A	CORE	1852.25m	30.0200	0.00484	0.00175	0.00309	0.00106	0.00044	0.00155	0.00004
7559-016A	CORE	1855.75m	25.4000	0.00364	0.00110	0.00254	0.00069	0.00041	0.00142	0.00002
7559-017A	CORE	1858.50m	31.2500	0.00774	0.00501	0.00273	0.00076	0.00084	0.00110	0.00003
7559-018A	CORE	1863.50m	29.0100	0.00863	0.00569	0.00294	0.00062	0.00053	0.00176	0.00003
7559-019A	CORE	1867.00m	31.9300	0.00267	0.00079	0.00188	0.00045	0.00052	0.00087	0.00004
7559-020A	CORE	1867.50m	35.8200	0.00320	0.00134	0.00186	0.00050	0.00038	0.00095	0.00003
7559-021A	CORE	1869.50m	31.5500	0.00510	0.00336	0.00174	0.00047	0.00039	0.00086	0.00002
7559-022A	CORE	1872.50m	34.2600	0.00923	0.00734	0.00189	0.00059	0.00035	0.00092	0.00003
7559-023A	CORE	1873.00m	36.4700	0.02264	0.02146	0.00118	0.00032	0.00028	0.00056	0.00002
7559-024A	CORE	1874.00m	37.5300	0.05099	0.05017	0.00082	0.00035	0.00004	0.00041	0.00002
7559-025A	CORE	1874.50m	36.8000	0.03553	0.03527	0.00026	0.00012	0.00003	0.00010	0.00001
7559-026A	CORE	1876.50m	4.8300	0.00611	0.00427	0.00184	0.00102	0.00032	0.00048	0.00002
7559-027A	CORE	1878.50m	31.2100	0.00114	0.00023	0.00091	0.00039	0.00012	0.00038	0.00002
7559-028A	CORE	1882.00m	29.1800	0.00155	0.00015	0.00140	0.00046	0.00009	0.00083	0.00002
7559-029A	CORE	1884.50m	27.4300	0.00173	0.00031	0.00142	0.00060	0.00027	0.00054	0.00001
7559-030A	CORE	1887.50m	12.2600	0.00557	0.00433	0.00124	0.00052	0.00012	0.00058	0.00002
7559-031A	CORE	1891.50m	30.3000	0.00229	0.00014	0.00215	0.00080	0.00014	0.00119	0.00002
7559-032A	CORE	1894.50m	20.0800	0.00403	0.00073	0.00330	0.00111	0.00043	0.00173	0.00003

S shale, SS sandstone, L Limestone, D dolomite, M mixed, see Table 1.

TABLE 5
C₁₅₊ CHROMATOGRAPHY WEIGHTS (gms)

JOB 7559	L I T H O	DEPTH/ IDENTITY	ROCK EXTRACTED	TOTAL EXTRACT	PRECIPTD. ASPHALTENES	NC5	SATURATES	AROMATICS	ELUTED NSO's	NON-ELUTED NSO's
7559-033A		CORE 1897.00m	29.5300	0.01473	0.01261	0.00212	0.00064	0.00025	0.00120	0.00003
7559-034A		CORE 1900.50m	37.7100	0.00328	0.00053	0.00275	0.00094	0.00027	0.00150	0.00004
7559-035A		CORE 1903.50m	34.1900	0.01435	0.01280	0.00155	0.00055	0.00015	0.00083	0.00002
7559-036A		CORE 1906.50m	32.9900	0.00212	0.00168	0.00044	0.00016	0.00004	0.00023	0.00001
7559-037A		CORE 1909.50m	7.6600	0.00282	0.00146	0.00136	0.00031	0.00003	0.00100	0.00002
7559-038A		CORE 1912.50m	26.7200	0.00344	0.00092	0.00252	0.00076	0.00024	0.00149	0.00003
7559-039A		CORE 1915.75m	30.8800	0.00330	0.00100	0.00230	0.00083	0.00024	0.00120	0.00003
7559-040A		CORE 1918.50m	30.2600	0.00728	0.00506	0.00222	0.00078	0.00021	0.00120	0.00003
7559-041A		CORE 1919.75m	30.0800	0.00380	0.00148	0.00232	0.00073	0.00015	0.00141	0.00003
7559-042A		CORE 1920.75m	30.1300	0.00428	0.00125	0.00303	0.00092	0.00046	0.00163	0.00002
7559-043A		CORE 1921.50m	32.2000	0.00937	0.00322	0.00615	0.00197	0.00158	0.00257	0.00003
7559-044A		CORE 1924.50m	35.0600	0.01455	0.01316	0.00139	0.00027	0.00009	0.00101	0.00002
7559-045A		CORE 1927.50m	32.3700	0.00754	0.00566	0.00188	0.00044	0.00009	0.00133	0.00002
7559-046A		CORE 1930.50m	31.0800	0.00311	0.00133	0.00178	0.00048	0.00009	0.00117	0.00004
7559-047A		SWC 1937.0m	11.8800	0.00233	0.00060	0.00173	0.00118	0.00011	0.00042	0.00002
7559-048A		SWC 1941.5m	12.0000	0.00339	0.00101	0.00238	0.00162	0.00017	0.00057	0.00002
7559-049A		SWC 1947.5m	14.8100	0.00340	0.00082	0.00258	0.00138	0.00025	0.00093	0.00002
7559-050		SWC 1954.0m	6.1300	0.00732	0.00245	0.00487	0.00280	0.00036	0.00168	0.00003
7559-051A		SWC 1960.0m	14.7900	0.00576	0.00154	0.00422	0.00185	0.00066	0.00168	0.00003
7559-052A		SWC 1963.0m	29.9000	0.01609	0.00190	0.01419	0.00727	0.00254	0.00432	0.00006
7559-053A		SWC 1965.5m	13.6900	0.01416	0.00277	0.01139	0.00620	0.00228	0.00287	0.00004
7559-054		SWC 1970.0m	18.4400	0.00928	0.00257	0.00671	0.00387	0.00093	0.00188	0.00003
7559-055A		SWC 1974.0m	16.2400	0.00768	0.00266	0.00502	0.00168	0.00055	0.00276	0.00003
7559-056A		SWC 2070.0m	18.7300	0.01596	0.00678	0.00918	0.00467	0.00161	0.00286	0.00004
7559-057A		SWC 2072.0m	13.9000	0.00880	0.00275	0.00605	0.00279	0.00200	0.00123	0.00003
7559-058A		SWC 2074.0m	14.7900	0.00795	0.00266	0.00529	0.00236	0.00151	0.00139	0.00003
7559-059A		SWC 2078.0m	14.6000	0.00565	0.00184	0.00381	0.00209	0.00043	0.00126	0.00003
7559-060A		SWC 2082.0m	11.5400	0.00622	0.00241	0.00381	0.00165	0.00027	0.00186	0.00003
7559-061A		SWC 2090.0m	11.0900	0.01067	0.00404	0.00663	0.00383	0.00063	0.00214	0.00003
7559-062A		SWC 2100.0m	14.3300	0.02000	0.00292	0.01708	0.00922	0.00413	0.00368	0.00005
7559-063		SWC 2118.0m	19.3700	0.03845	0.00977	0.02868	0.01497	0.00722	0.00639	0.00010

S shale, SS sandstone, L limestone, D dolomite, M mixed, see Table 1.

TABLE 6
COMPOSITION (NORMALISED %) OF C₁₅₊ SATURATE (PARAFFIN - NAPHTHENE) HYDROCARBONS

EOCHEM SAMPLE NUMBER	001	002A	003A	004	005A	006A
DEPTH	1814m	1816.25m	1819m	1833m	1833.5m	1833.75m
SAMPLE TYPE						
nC15	37.95	40.67	29.12	12.03	37.28	36.68
nC16	24.13	20.50	20.64	10.29	23.48	21.16
nC17	7.31	4.46	7.26	6.57	5.13	4.80
nC18	8.21	6.12	10.09	7.69	7.69	7.05
nC19	1.90	1.82	3.82	7.44	1.97	1.79
nC20	3.10	3.31	4.97	7.81	4.05	4.23
nC21	1.30	1.32	2.90	7.32	1.76	1.68
nC22	1.50	1.98	2.75	7.07	2.14	2.10
nC23	0.90	1.16	2.14	6.20	1.51	1.46
24	1.40	1.45	2.29	5.46	1.36	1.74
25	1.10	1.64	2.06	2.98	1.23	1.50
26	1.10	1.64	1.83	2.73	1.54	1.81
nC27	1.40	1.89	2.37	3.84	1.92	2.02
nC28	3.90	4.67	2.29	4.84	1.53	1.72
nC29	1.40	1.73	1.76	2.23	1.95	2.21
nC30	0.70	1.11	0.92	3.72	1.06	1.37
nC31	0.90	1.48	0.84	0.56	1.41	1.89
nC32	0.60	0.83	0.69	1.22	0.83	1.14
nC33	0.50	0.90	0.69	0.00	0.87	1.05
nC34	0.51	0.92	0.46	0.00	1.09	1.52
nC35	0.16	0.40	0.10	0.00	0.20	1.07
Paraffin	10.40	9.74	9.32	4.87	8.17	4.66
Isoprenoid	2.20	1.84	1.74	0.77	1.49	0.64
Naphthene	87.40	88.42	88.94	94.36	90.34	94.70
PI 1 Index	0.63	0.67	0.92	0.95	0.84	0.79
PI 2 Index	0.72	0.79	1.09	0.67	1.25	1.20
PI 3 Index	0.56	0.60	1.15	1.01	1.25	1.14
Prist/Phytane	2.87	2.11	3.95	1.26	1.97	1.83
Prist/nC17	0.59	0.70	0.79	0.92	0.65	0.63
Phytane/nC18	0.18	0.24	0.14	0.63	0.22	0.23

Job Number : 7559

$$PI_1 = \frac{1}{2} \left[\frac{C_{21} + C_{23} + C_{25} + C_{27}}{C_{20} + C_{22} + C_{24} + C_{26}} + \frac{C_{21} + C_{23} + C_{25} + C_{27}}{C_{22} + C_{24} + C_{26} + C_{28}} \right]$$

$$PI_2 = \frac{1}{2} \left[\frac{C_{25} + C_{27} + C_{29} + C_{31}}{C_{24} + C_{26} + C_{28} + C_{30}} + \frac{C_{25} + C_{27} + C_{29} + C_{31}}{C_{26} + C_{28} + C_{30} + C_{32}} \right]$$

$$PI_3 = \frac{2 \times (C_{27})}{C_{26} + C_{28}}$$

CT - ditch cuttings CO - core SWC - sidewall core

TABLE 6
COMPOSITION (NORMALISED %) OF C₁₅₊ SATURATE (PARAFFIN - NAPHTHENE) HYDROCARBONS

TEOCHEM SAMPLE NUMBER	007A	008A	009A	010A	011A	012A
DEPTH	1834m	1836.5m	1836.75m	1838.5m	1839.5m	1842.5m
SAMPLE TYPE						
nC15	32.11	25.43	32.01	13.36	19.23	19.83
nC16	22.94	20.27	24.09	10.85	17.25	18.29
nC17	6.51	7.62	5.39	5.82	8.51	6.61
nC18	9.32	11.67	7.08	8.96	8.62	7.49
nC19	2.37	3.19	1.85	5.03	4.31	2.75
nC20	3.40	3.81	3.54	5.66	4.78	4.08
nC21	1.78	1.97	2.19	4.56	3.96	3.09
nC22	3.26	2.95	2.86	4.40	3.61	3.20
nC23	1.48	1.84	2.02	4.09	3.85	3.86
nC24	1.58	1.72	2.02	3.62	3.03	3.53
25	1.48	1.47	1.68	3.62	3.15	3.86
26	1.60	1.97	2.02	3.77	3.50	3.97
27	2.09	2.33	2.36	4.56	3.73	4.96
nC28	2.11	2.09	2.36	3.93	4.31	4.96
nC29	2.11	2.58	2.19	5.66	3.38	4.74
nC30	1.43	1.72	1.68	2.83	1.75	2.42
nC31	1.66	2.70	2.02	5.03	1.28	1.21
nC32	0.70	1.47	1.01	1.42	0.47	0.33
nC33	0.94	1.60	0.84	1.73	0.70	0.55
nC34	0.88	1.11	0.67	0.79	0.47	0.22
nC35	0.26	0.49	0.08	0.31	0.12	0.06
Paraffin	6.65	6.64	5.37	3.98	3.84	5.84
Isoprenoid	0.87	1.05	0.63	0.41	0.57	0.92
Naphthene	92.48	92.31	94.00	95.61	95.59	93.24
CPI 1 Index	0.75	0.80	0.84	1.02	1.00	1.04
CPI 2 Index	1.17	1.23	1.09	1.46	1.03	1.13
CPI 3 Index	1.13	1.15	1.08	1.18	0.96	1.11
Prist/Phytane	1.53	1.29	1.64	0.74	1.38	1.88
Prist/nC17	0.52	0.50	0.56	0.46	0.55	0.78
Phytane/nC18	0.24	0.25	0.26	0.40	0.39	0.37

Job Number : 7559

$$CPI 1 = \frac{1}{2} \left[\frac{C_{21} + C_{23} + C_{25} + C_{27}}{C_{20} + C_{22} + C_{24} + C_{26}} + \frac{C_{21} + C_{23} + C_{25} + C_{27}}{C_{22} + C_{24} + C_{26} + C_{28}} \right]$$

$$CPI 2 = \frac{1}{2} \left[\frac{C_{25} + C_{27} + C_{29} + C_{31}}{C_{24} + C_{26} + C_{28} + C_{30}} + \frac{C_{25} + C_{27} + C_{29} + C_{31}}{C_{26} + C_{28} + C_{30} + C_{32}} \right]$$

$$CPI 3 = \frac{2 \times (C_{27})}{C_{26} + C_{28}}$$

CT - ditch cuttings CO - core SWC - sidewall core

TABLE 6
COMPOSITION (NORMALISED %) OF C₁₅₊ SATURATE (PARAFFIN - NAPHTHENE) HYDROCARBONS

EOCHEM SAMPLE NUMBER	013A	014A	015A	016A	017A	018A
DEPTH	1845.5m	1849.25m	1852.25m	1855.75m	1858.5m	1863.5m
SAMPLE TYPE						
nC15	10.63	7.65	12.25	9.18	8.53	7.40
nC16	22.70	14.90	21.74	18.73	18.13	14.39
nC17	5.68	4.31	6.13	6.24	5.47	7.32
nC18	13.15	8.63	13.14	12.68	11.73	14.39
nC19	3.60	2.55	3.95	3.60	3.33	5.23
nC20	5.14	4.12	4.45	5.01	4.13	4.66
nC21	3.60	2.35	3.06	2.65	2.53	3.94
nC22	4.50	3.33	3.85	3.31	3.20	4.42
nC23	3.78	3.33	3.75	2.37	3.33	3.38
24	3.42	2.75	3.46	3.03	4.13	3.30
25	3.87	4.12	3.26	2.84	4.00	3.05
26	4.05	5.49	3.95	3.60	4.80	3.38
nC27	4.59	6.67	4.45	4.54	5.73	4.18
nC28	4.77	7.25	3.26	7.57	5.87	5.31
nC29	3.78	6.27	3.85	4.92	4.67	4.90
nC30	2.25	3.92	2.17	2.65	3.07	2.57
nC31	0.45	5.29	1.58	3.97	3.33	4.34
nC32	0.00	2.55	0.59	1.14	1.60	1.69
nC33	0.00	2.35	0.79	1.23	1.33	1.37
nC34	0.00	1.57	0.20	0.57	0.93	0.64
nC35	0.00	0.59	0.10	0.19	0.13	0.16
Paraffin	5.09	5.83	5.01	6.71	5.48	6.99
Isoprenoid	0.82	0.56	1.04	1.17	0.91	1.07
Naphthene	94.09	93.61	93.95	92.12	93.61	91.94
I 1 Index	0.94	0.96	0.96	0.77	0.91	0.91
PI 2 Index	1.01	1.16	1.17	1.03	1.07	1.20
PI 3 Index	1.04	1.05	1.23	0.81	1.07	0.96
Prist/Phytane	1.76	1.30	1.39	1.30	1.19	1.01
Prist/nC17	0.70	0.59	0.74	0.53	0.61	0.59
Phytane/nC18	0.17	0.23	0.25	0.20	0.24	0.29

Job Number : 7559

$$I_1 = \frac{1}{2} \left[\frac{C_{21} + C_{23} + C_{25} + C_{27}}{C_{20} + C_{22} + C_{24} + C_{26}} + \frac{C_{21} + C_{23} + C_{25} + C_{27}}{C_{22} + C_{24} + C_{26} + C_{28}} \right]$$

$$I_2 = \frac{1}{2} \left[\frac{C_{25} + C_{27} + C_{29} + C_{31}}{C_{24} + C_{26} + C_{28} + C_{30}} + \frac{C_{25} + C_{27} + C_{29} + C_{31}}{C_{26} + C_{28} + C_{30} + C_{32}} \right]$$

$$I_3 = \frac{2 \times (C_{27})}{C_{26} + C_{28}}$$

CT - ditch cuttings CO - core SWC - sidewall core

TABLE 6
COMPOSITION (NORMALISED %) OF C₁₅₊ SATURATE (PARAFFIN - NAPHTHENE) HYDROCARBONS

EOCHEM SAMPLE NUMBER	019A	020A	021A	022A	023A	024A
DEPTH	1867m	1867.5m	1869.5m	1872.85m	1873m	1874m
SAMPLE TYPE						
nC15	15.14	13.72	8.47	10.94	9.60	5.27
nC16	22.03	20.85	19.69	18.84	19.39	14.01
nC17	9.85	6.39	7.33	9.81	6.76	7.21
nC18	15.26	12.98	13.58	16.06	11.43	9.71
nC19	3.69	3.34	4.57	5.63	4.48	5.96
nC20	4.80	3.71	4.64	5.16	5.30	6.10
nC21	2.65	2.50	3.29	4.23	4.17	4.99
nC22	2.52	2.78	4.10	3.46	3.85	4.44
nC23	1.78	2.32	3.23	3.67	3.54	4.58
nC24	2.09	2.50	3.36	3.46	3.09	4.16
nC25	2.03	2.60	4.37	3.05	3.41	4.16
nC26	2.52	3.24	3.56	3.36	3.73	4.85
nC27	3.02	3.71	4.77	4.08	3.73	4.85
nC28	2.28	4.73	3.90	4.29	7.96	5.55
nC29	3.38	3.99	4.77	3.25	4.04	3.61
nC30	1.72	2.32	2.49	0.52	2.34	2.36
nC31	2.89	3.99	2.82	0.21	1.96	3.05
nC32	0.98	1.58	0.27	0.00	0.57	1.66
nC33	0.80	1.58	0.54	0.00	0.32	1.66
nC34	0.37	0.83	0.20	0.00	0.21	1.25
nC35	0.18	0.37	0.07	0.00	0.14	0.55
Paraffin	8.36	8.92	7.80	6.59	6.64	8.25
Isoprenoid	1.67	1.48	1.19	1.33	0.83	0.91
Naphthene	89.97	89.60	91.01	92.08	92.53	90.84
CPI 1 Index	0.90	0.88	1.02	1.00	0.86	0.96
CPI 2 Index	1.41	1.16	1.45	1.10	0.83	1.01
CPI 3 Index	1.26	0.93	1.28	1.07	0.64	0.93
Prist/Phytane	1.39	1.28	1.28	1.25	1.52	1.43
Prist/nC17	0.47	0.54	0.55	0.58	0.63	0.58
Phytane/nC18	0.22	0.21	0.23	0.29	0.24	0.30

Job Number : 7559

$$CPI_1 = \frac{1}{2} \left[\frac{C_{21} + C_{23} + C_{25} + C_{27}}{C_{20} + C_{22} + C_{24} + C_{26}} + \frac{C_{21} + C_{23} + C_{25} + C_{27}}{C_{22} + C_{24} + C_{26} + C_{28}} \right]$$

$$CPI_2 = \frac{1}{2} \left[\frac{C_{25} + C_{27} + C_{29} + C_{31}}{C_{24} + C_{26} + C_{28} + C_{30}} + \frac{C_{25} + C_{27} + C_{29} + C_{31}}{C_{26} + C_{28} + C_{30} + C_{32}} \right]$$

$$CPI_3 = \frac{2 \times (C_{27})}{C_{26} + C_{28}}$$

CT - ditch cuttings CO - core SWC - sidewall core

TABLE 6
COMPOSITION (NORMALISED %) OF C₁₅₊ SATURATE (PARAFFIN - NAPHTHENE) HYDROCARBONS

EOCHEM SAMPLE NUMBER	025A	026A	027A	028A	029A	030A
DEPTH	1874.5m	1876.5m	1878.5m	1882m	1884.5m	1887.5m
SAMPLE TYPE						
nC15	7.81	10.20	9.46	13.67	10.55	8.36
nC16	17.34	11.06	15.25	20.87	18.68	19.59
nC17	8.13	6.77	6.42	7.49	9.00	6.88
nC18	11.25	9.33	10.79	14.30	16.20	13.69
nC19	5.78	6.64	5.17	5.08	6.71	5.55
nC20	6.41	6.98	6.33	6.09	7.44	6.04
nC21	5.00	6.33	4.19	3.92	5.20	4.56
nC22	4.06	5.55	3.75	3.96	4.62	4.49
nC23	3.75	5.47	3.57	2.90	3.94	3.79
nC24	3.59	5.03	3.66	3.28	3.70	3.58
25	3.59	4.64	3.57	2.90	3.16	3.09
26	3.44	4.16	3.57	2.90	3.16	3.65
nC27	3.28	4.12	3.57	3.52	3.99	4.14
nC28	3.44	3.25	5.89	2.56	2.87	3.51
nC29	2.81	3.64	3.03	3.62	0.44	4.07
nC30	2.19	2.43	2.77	1.59	0.15	2.11
nC31	2.50	2.08	2.94	1.11	0.19	1.62
nC32	1.72	0.82	1.96	0.14	0.00	0.56
nC33	1.72	0.95	1.87	0.10	0.00	0.49
nC34	1.41	0.43	1.43	0.00	0.00	0.14
nC35	0.78	0.09	0.80	0.00	0.00	0.07
Paraffin	10.23	8.99	8.83	6.96	6.30	8.62
Isoprenoid	1.24	1.88	1.09	1.63	0.84	1.11
Naphthene	88.53	89.13	90.08	91.41	92.86	90.27
API 1 Index	0.98	1.04	0.87	0.93	1.00	0.95
API 2 Index	1.05	1.17	0.87	1.32	1.02	1.16
API 3 Index	0.95	1.11	0.75	1.29	1.32	1.16
Prist/Phytane	1.64	4.32	2.89	2.03	1.48	1.52
Prist/nC17	0.44	1.55	0.72	0.76	0.65	0.78
Phytane/nC18	0.19	0.26	0.15	0.20	0.25	0.26

Job Number : 7559

$$I_1 = \frac{1}{2} \left[\frac{C_{21} + C_{23} + C_{25} + C_{27}}{C_{20} + C_{22} + C_{24} + C_{26}} - \frac{C_{21} + C_{23} + C_{25} + C_{27}}{C_{22} + C_{24} + C_{26} + C_{28}} \right]$$

$$I_2 = \frac{1}{2} \left[\frac{C_{25} + C_{27} + C_{29} + C_{31}}{C_{24} + C_{26} + C_{28} + C_{30}} - \frac{C_{25} + C_{27} + C_{29} + C_{31}}{C_{26} + C_{28} + C_{30} + C_{32}} \right]$$

$$I_3 = \frac{2 \times (C_{27})}{C_{25} + C_{23}}$$

CT - ditch cuttings CO - core SWC - sidewall core

TABLE 6
COMPOSITION (NORMALISED %) OF C₁₅₊ SATURATE (PARAFFIN - NAPHTHENE) HYDROCARBONS

EOCHEM SAMPLE NUMBER	031A	032A	033A	034A	035A	036A
DEPTH	1891.5m	1894.5m	1897m	1900.5m	1903.5m	1906.5m
SAMPLE TYPE						
nC15	7.05	10.89	11.89	8.31	9.40	10.70
nC16	14.27	20.07	31.03	12.80	14.24	15.93
nC17	7.65	5.84	6.98	11.89	12.33	11.04
nC18	10.83	13.06	11.89	15.77	14.60	15.40
nC19	6.02	4.67	4.91	7.28	7.00	7.42
nC20	6.45	6.11	6.46	5.10	4.91	6.10
nC21	5.76	3.95	4.14	4.61	4.37	4.71
nC22	5.59	3.61	3.10	4.49	4.31	3.99
nC23	5.07	3.28	2.84	3.76	3.65	3.95
nC24	4.39	3.45	2.59	3.52	3.35	3.20
nC25	4.04	3.56	2.07	2.91	2.81	3.20
nC26	3.44	3.34	1.55	2.91	2.99	2.82
nC27	3.53	3.89	1.92	3.40	3.11	3.28
nC28	3.35	3.34	1.57	2.49	2.57	2.82
nC29	3.18	3.67	1.83	3.40	3.59	3.39
nC30	2.06	2.17	1.12	1.76	1.86	1.09
nC31	3.01	2.50	1.56	3.09	2.69	0.94
nC32	1.38	1.11	0.68	0.91	0.54	0.00
nC33	1.55	0.95	0.73	1.03	0.90	0.00
nC34	1.12	0.39	0.80	0.42	0.42	0.00
nC35	0.26	0.17	0.32	0.15	0.36	0.00
Paraffin	7.43	8.59	13.21	8.27	7.74	7.06
Isoprenoid	0.90	1.57	1.77	1.80	1.50	1.10
Naphthene	91.67	89.84	85.02	89.93	90.76	91.84
PI 1 Index	1.01	0.98	1.02	1.01	0.98	1.06
PI 2 Index	1.19	1.24	1.29	1.39	1.33	1.35
PI 3 Index	1.04	1.16	1.23	1.26	1.12	1.16
Prist/Phytane	1.66	2.74	2.10	1.18	1.20	1.21
Prist/nC17	0.60	0.99	0.78	0.70	0.67	0.75
Phytane/nC18	0.25	0.16	0.22	0.45	0.47	0.45

Job Number : 7559

$$I.P.I. 1 = \frac{1}{2} \left[\frac{C_{21} + C_{23} + C_{25} + C_{27}}{C_{20} + C_{22} + C_{24} + C_{26}} + \frac{C_{21} + C_{23} + C_{25} + C_{27}}{C_{22} + C_{24} + C_{26} + C_{28}} \right]$$

$$I.P.I. 2 = \frac{1}{2} \left[\frac{C_{25} + C_{27} + C_{29} + C_{31}}{C_{24} + C_{26} + C_{28} + C_{30}} + \frac{C_{25} + C_{27} + C_{29} + C_{31}}{C_{26} + C_{28} + C_{30} + C_{32}} \right]$$

$$I.P.I. 3 = \frac{2 \times (C_{27})}{C_{26} + C_{28}}$$

CT - ditch cuttings CO - core SWC - sidewall core

TABLE 6
COMPOSITION (NORMALISED %) OF C₁₅₊ SATURATE (PARAFFIN - NAPHTHENE) HYDROCARBONS

EOCHEM SAMPLE NUMBER	037A	038A	039A	040A	041A	042A
DEPTH	1909.5m	1912.5m	1915.75m	1918.5m	1919.75m	1920.75m
SAMPLE TYPE						
nC15	11.90	9.00	10.79	13.51	12.23	5.89
nC16	12.63	16.75	12.73	18.21	15.23	8.03
nC17	11.05	11.53	11.20	9.00	6.80	4.17
nC18	14.66	14.22	14.80	14.39	12.14	6.84
nC19	7.33	6.16	7.02	6.19	5.17	5.08
nC20	6.20	4.74	4.95	7.24	5.35	5.12
nC21	4.91	4.11	4.48	4.82	4.26	5.01
nC22	4.46	4.27	4.36	4.50	4.89	4.66
nC23	3.84	3.79	3.89	3.74	4.44	5.81
nC24	3.16	3.00	3.07	3.38	4.62	5.43
nC25	3.10	2.69	2.95	3.26	3.90	6.35
nC26	3.10	2.69	2.48	2.77	3.72	5.58
nC27	3.38	3.00	3.48	3.58	4.17	7.19
nC28	2.31	2.37	2.65	2.49	2.90	5.39
nC29	3.27	3.32	3.77	2.21	3.17	6.50
nC30	1.52	1.58	1.77	0.52	2.08	3.86
nC31	1.97	3.00	3.54	0.16	2.45	4.17
nC32	0.39	1.11	0.71	0.03	0.93	2.14
nC33	0.62	1.42	1.00	0.00	0.94	1.80
nC34	0.11	0.95	0.29	0.00	0.50	0.65
nC35	0.06	0.32	0.08	0.00	0.12	0.34
Paraffin	6.21	8.03	7.41	6.26	6.26	16.20
Isoprenoid	1.20	1.72	1.54	1.24	1.28	1.69
Naphthene	92.59	90.25	91.05	92.50	92.46	82.11
API 1 Index	1.03	1.01	1.09	1.02	0.97	1.16
API 2 Index	1.38	1.40	1.59	1.30	1.22	1.31
API 3 Index	1.25	1.19	1.36	1.36	1.26	1.31
Prist/Phytane	1.10	1.12	1.25	1.74	1.88	2.80
Prist/nC17	0.64	0.52	0.70	0.75	0.80	1.06
Phytane/nC18	0.44	0.38	0.42	0.27	0.24	0.23

Job Number : 7559

$$API\ 1 = \frac{1}{2} \left[\frac{C_{21} + C_{23} + C_{25} + C_{27}}{C_{20} + C_{22} + C_{24} + C_{26}} + \frac{C_{21} + C_{23} + C_{25} + C_{27}}{C_{22} + C_{24} + C_{26} + C_{28}} \right]$$

$$API\ 2 = \frac{1}{2} \left[\frac{C_{25} + C_{27} + C_{29} + C_{31}}{C_{24} + C_{26} + C_{28} + C_{30}} + \frac{C_{25} + C_{27} + C_{29} + C_{31}}{C_{26} + C_{28} + C_{30} + C_{32}} \right]$$

$$API\ 3 = \frac{2 \times (C_{27})}{C_{26} + C_{28}}$$

CT - ditch cuttings CO - core SWC - sidewall core

TABLE 6
COMPOSITION (NORMALISED %) OF C₁₅₊ SATURATE (PARAFFIN - NAPHTHENE) HYDROCARBONS

GEOCHEM SAMPLE NUMBER	043A	044A	045A	046A	047A	048A
DEPTH	1921.5m	1924.5m	1927.5m	1930.5m	1937m	1941.5m
SAMPLE TYPE						
nC15	13.50	16.32	15.86	8.15	8.89	7.34
nC16	13.45	27.83	12.63	8.37	8.89	8.51
nC17	7.52	5.33	5.58	4.72	5.49	6.45
nC18	9.71	11.68	7.93	5.79	7.32	8.66
nC19	5.88	3.26	3.82	3.22	3.66	6.31
nC20	5.47	4.64	5.29	4.51	5.49	6.75
nC21	5.21	2.58	3.23	3.43	3.92	6.16
nC22	4.65	2.75	4.41	3.65	4.97	6.60
nC23	4.50	2.58	3.53	3.86	5.23	7.04
nC24	3.78	2.64	3.51	4.08	5.49	6.31
25	4.09	2.67	3.58	4.29	4.71	6.01
C26	3.37	2.87	4.23	5.15	6.27	5.43
C27	3.94	3.20	4.61	6.22	7.06	6.75
nC28	3.07	2.35	4.16	6.44	6.27	8.51
nC29	3.58	2.62	4.43	6.22	6.27	2.35
nC30	2.40	1.37	2.94	4.51	3.92	0.83
nC31	2.56	1.89	3.36	5.79	2.61	0.00
nC32	1.43	1.03	1.91	3.22	1.83	0.00
nC33	1.02	1.10	2.18	3.43	0.78	0.00
nC34	0.61	0.91	1.93	3.00	0.52	0.00
nC35	0.26	0.37	0.90	1.93	0.41	0.00
Paraffin	11.63	9.73	5.51	4.86	2.43	2.70
Isoprenoid	2.19	1.41	0.95	0.57	0.32	0.36
Naphthene	86.18	88.86	93.54	94.57	97.25	96.94
CPI 1 Index	1.11	0.95	0.89	0.97	0.93	1.00
CPI 2 Index	1.25	1.24	1.14	1.14	1.03	0.87
CPI 3 Index	1.22	1.23	1.10	1.07	1.13	0.97
Prist/Phytane	3.49	2.09	1.94	1.56	1.33	1.41
Prist/nC17	1.02	0.74	0.80	0.64	0.76	0.86
Phytane/nC18	0.23	0.16	0.29	0.33	0.43	0.46

Job Number : 7559

$$CPI 1 = \frac{1}{2} \left[\frac{C_{21} + C_{23} + C_{25} + C_{27}}{C_{20} + C_{22} + C_{24} + C_{26}} + \frac{C_{21} + C_{23} + C_{25} + C_{27}}{C_{22} + C_{24} + C_{26} + C_{28}} \right]$$

$$CPI 2 = \frac{1}{2} \left[\frac{C_{25} + C_{27} + C_{29} + C_{31}}{C_{24} + C_{26} + C_{28} + C_{30}} + \frac{C_{25} + C_{27} + C_{29} + C_{31}}{C_{26} + C_{28} + C_{30} + C_{32}} \right]$$

$$CPI 3 = \frac{2 \times (C_{27})}{C_{25} + C_{28}}$$

CT - ditch cuttings CO - core SWC - sidewall core

TABLE 6
COMPOSITION (NORMALISED %) OF C₁₅₊ SATURATE (PARAFFIN - NAPHTHENE) HYDROCARBONS

EOCHEM SAMPLE NUMBER	049A	050	051A	052A	053A	054
DEPTH	1947.5m	1954m	1960m	1963m	1965.5m	1970m
SAMPLE TYPE						
nC15	8.71	8.40	11.86	16.66	15.80	14.10
nC16	7.20	8.15	11.34	12.51	13.27	12.89
nC17	4.92	4.84	7.99	7.86	9.23	8.52
nC18	6.82	6.62	9.47	9.87	10.75	10.64
nC19	4.55	4.58	7.86	7.04	8.98	7.65
nC20	5.11	6.21	7.82	6.73	9.13	9.15
nC21	5.30	5.41	8.04	5.85	7.49	7.36
nC22	5.30	5.40	7.17	6.03	5.78	7.36
nC23	7.01	6.54	5.52	4.65	5.03	6.44
nC24	6.63	5.67	4.87	4.27	3.29	2.42
25	5.87	5.20	4.43	2.89	4.24	4.20
26	7.16	5.44	3.61	2.89	3.16	2.93
nC27	6.75	6.61	5.04	3.58	3.22	4.83
nC28	6.96	5.35	3.39	2.89	0.63	1.50
nC29	6.61	4.18	1.26	2.83	0.00	0.00
nC30	3.28	4.89	0.35	1.26	0.00	0.00
nC31	0.88	1.94	0.00	1.01	0.00	0.00
nC32	0.93	1.65	0.00	0.44	0.00	0.00
nC33	0.00	1.75	0.00	0.31	0.00	0.00
nC34	0.00	0.93	0.00	0.25	0.00	0.00
nC35	0.00	0.22	0.00	0.19	0.00	0.00
Paraffin	2.52	2.65	6.94	8.35	7.31	4.23
Isoprenoid	0.25	0.33	1.78	1.79	1.56	0.88
Naphthene	97.23	97.02	91.28	89.86	91.13	94.89
CPI 1 Index	0.99	1.07	1.10	0.95	1.24	1.33
CPI 2 Index	0.97	0.94	1.17	1.15	1.51	1.68
CPI 3 Index	0.96	1.23	1.44	1.24	1.70	2.18
Prist/Phytane	1.33	1.75	1.55	1.56	1.78	1.89
Prist/nC17	0.74	1.11	1.40	1.16	1.30	1.14
Phytane/nC18	0.40	0.46	0.76	0.59	0.63	0.48

Job Number : 7559

$$CPI 1 = \frac{1}{2} \left[\frac{C_{21} + C_{23} + C_{25} + C_{27}}{C_{20} + C_{22} + C_{24} + C_{26}} + \frac{C_{21} + C_{23} + C_{25} + C_{27}}{C_{22} + C_{24} + C_{26} + C_{28}} \right]$$

$$CPI 2 = \frac{1}{2} \left[\frac{C_{25} + C_{27} + C_{29} + C_{31}}{C_{24} + C_{26} + C_{28} + C_{30}} + \frac{C_{25} + C_{27} + C_{29} + C_{31}}{C_{26} + C_{28} + C_{30} + C_{32}} \right]$$

$$CPI 3 = \frac{2 \times (C_{27})}{C_{26} + C_{28}}$$

CT - ditch cuttings CO - core SWC - sidewall core

TABLE 6
COMPOSITION (NORMALISED %) OF C₁₅₊ SATURATE (PARAFFIN - NAPHTHENE) HYDROCARBONS

EOCHEM SAMPLE NUMBER	055A	056A	057A	058A	059A	060A
DEPTH	1974m	2070m	2072m	2074m	2078m	2082m
SAMPLE TYPE						
nC15	22.48	18.19	17.51	20.90	11.77	7.47
nC16	12.86	13.68	9.37	17.55	9.23	6.60
nC17	8.05	8.61	7.96	7.04	5.54	6.25
nC18	8.30	11.29	7.96	10.52	6.92	7.99
nC19	5.65	10.38	6.72	4.85	4.85	5.21
nC20	5.77	9.86	6.99	5.81	6.00	5.73
nC21	4.81	8.10	6.28	4.17	5.54	5.90
nC22	5.29	6.61	5.48	3.55	5.54	6.42
nC23	4.69	5.07	4.69	4.03	5.77	6.77
nC24	3.61	2.62	4.24	3.48	5.54	5.38
nC25	3.01	1.88	3.27	3.07	5.10	4.69
nC26	3.49	1.71	4.16	2.87	5.27	6.08
nC27	3.49	1.37	4.24	4.03	6.35	6.08
nC28	3.49	0.63	3.80	2.94	5.60	6.08
nC29	3.03	0.00	2.92	2.46	5.13	6.77
nC30	1.52	0.00	2.30	1.71	3.55	4.34
nC31	0.48	0.00	1.50	1.02	1.71	1.74
nC32	0.00	0.00	0.62	0.00	0.58	0.52
nC33	0.00	0.00	0.00	0.00	0.00	0.00
nC34	0.00	0.00	0.00	0.00	0.00	0.00
nC35	0.00	0.00	0.00	0.00	0.00	0.00
Paraffin	3.89	2.56	4.32	4.04	2.92	2.82
Isoprenoid	0.61	0.53	0.71	0.82	0.34	0.39
Naphthene	95.50	96.91	94.97	95.14	96.74	96.79
API 1 Index	0.94	1.10	0.97	1.08	1.03	0.99
API 2 Index	1.00	1.02	0.96	1.18	1.07	1.01
API 3 Index	1.00	1.17	1.07	1.39	1.17	1.00
Prist/Phytane	1.35	2.05	2.29	2.23	1.62	1.36
Prist/nC17	0.63	1.19	0.79	1.04	0.88	0.94
Phytane/nC18	0.45	0.44	0.34	0.31	0.43	0.54

Job Number : 7559

$$I.P.I. 1 = \frac{1}{2} \left[\frac{C_{21} + C_{23} + C_{25} + C_{27}}{C_{20} + C_{22} + C_{24} + C_{26}} + \frac{C_{21} + C_{23} + C_{25} + C_{27}}{C_{22} + C_{24} + C_{26} + C_{28}} \right]$$

$$I.P.I. 2 = \frac{1}{2} \left[\frac{C_{25} + C_{27} + C_{29} + C_{31}}{C_{24} + C_{26} + C_{28} + C_{30}} + \frac{C_{25} + C_{27} + C_{29} + C_{31}}{C_{26} + C_{28} + C_{30} + C_{32}} \right]$$

$$I.P.I. 3 = \frac{2 \times (C_{27})}{C_{26} + C_{28}}$$

CT - ditch cuttings CO - core SWC - sidewall core

TABLE 6
COMPOSITION (NORMALISED %) OF C₁₅+ SATURATE (PARAFFIN - NAPHTHENE) HYDROCARBONS

EOCHEM SAMPLE NUMBER	061A	062A	063
DEPTH	2090m	2100m	2118m
SAMPLE TYPE			
nC15	8.47	14.48	12.44
nC16	7.19	11.57	11.78
nC17	7.06	7.80	8.04
nC18	7.83	8.40	8.73
nC19	6.68	6.00	8.09
nC20	6.93	7.20	8.12
nC21	6.42	7.28	7.30
nC22	6.03	6.86	6.27
nC23	6.42	6.26	5.53
nC24	5.26	4.54	5.09
nC25	5.39	4.03	4.61
nC26	4.88	7.63	3.76
nC27	6.55	5.74	3.51
nC28	5.65	2.23	3.05
nC29	5.26	0.00	2.43
nC30	3.08	0.00	0.67
nC31	0.39	0.00	0.33
nC32	0.51	0.00	0.26
nC33	0.00	0.00	0.00
nC34	0.00	0.00	0.00
nC35	0.00	0.00	0.00
Paraffin	3.71	3.34	8.79
Isoprenoid	0.46	0.52	2.84
Naphthene	95.83	96.14	88.37
PI 1 Index	1.10	0.99	1.03
PI 2 Index	1.09	0.83	1.14
PI 3 Index	1.24	1.16	1.03
Prist/Phytane	1.52	1.91	1.45
Prist/nC17	0.69	1.15	1.44
Phytane/nC18	0.41	0.56	0.92

Job Number : 7559

$$I.P.I. 1 = \frac{1}{2} \left[\frac{C_{21} + C_{23} + C_{25} + C_{27}}{C_{20} + C_{22} + C_{24} + C_{26}} + \frac{C_{21} + C_{23} + C_{25} + C_{27}}{C_{22} + C_{24} + C_{26} + C_{28}} \right]$$

$$I.P.I. 2 = \frac{1}{2} \left[\frac{C_{25} + C_{27} + C_{29} + C_{31}}{C_{24} + C_{26} + C_{28} + C_{30}} + \frac{C_{25} + C_{27} + C_{29} + C_{31}}{C_{26} + C_{28} + C_{30} + C_{32}} \right]$$

$$I.P.I. 3 = \frac{2 \times (C_{27})}{C_{26} + C_{28}}$$

CT - ditch cuttings CO - core SWC - sidewall core

TABLE 7
 CARBON ISOTOPE COMPOSITIONS (δ , PDB)

JOB 7559								
GEOCHEM SAMPLE NUMBER	DEPTH/ IDENTITY	TOTAL EXTRACT WHOLE OIL	SATURATES	AROMATICS	NSO	ASPHALTENES	KEROGEN	PYROLYSATE (S2)

WELL: 7122/2-1

7559-004	SWC 1833.0m	-28.34	-28.39	-28.16	-28.54	-27.70		
7559-052A	SWC 1963.0m	-27.90	-28.36	-27.75	-27.61	-27.15		
7559-062A	SWC 2100.0m	-28.33	-28.23	-27.82	-29.08	-27.76		
7559-062A	SWC 2100.0m				-29.10			