



FORMATION PRESSURE WORKSHEET

Well Name : 35/9-3 T2

Rig : West Vanguard

Date : 18-19.10.97

Pressure Units : bar

RKB-MSL : 22 m.

MSL-SBed: 348 m.

Witnessed by : Ole Wahl

Run No./ Test No.	Depth		Initial Hydrostatic Pressure		Formation Pressure		Final Hydrostatic Pressure		Time		Formation Pressure sg EMD	Test Temp degC	Good Data? Y/N	Sample Information			Remarks
	mMD RKB	mTVD RKB	Strain	CQG	Strain	CQG	Strain	CQG	hh:mm					Main Fluid Type	HC Gravity g/cc	Sample Vol, cc	
	1A								Set	Retract							
1	1869,5	1869,1	233,1	232,81	---	---	233,20	232,00	12:30	12:34	n/a	---	N	---	---	---	Wrong P-format
2	1869,5	1869,1	233,0	232,49	192,0	191,39	233,0	232,49	12:44	12:47	1,044	49,2	Y	---	---	---	Mob: 32.7 mD/cp
3	1870,0	1869,6	233,1	232,57	191,9	191,39	233,0	232,54	12:53	12:57	1,043	50,0	Y	---	---	---	Mob: 289.1 mD/cp
4	1870,5	1870,1	233,1	232,61	191,9	191,39	233,1	232,54	13:03	13:08	1,043	50,9	Y	---	---	---	Mob: 102.2 mD/cp
5	1870,5	1870,1	233,2	232,68	191,9	191,38	233,0	232,49	13:13	13:18	1,043	51,5	Y	---	---	---	Mob: 124.9 mD/cp
6	1882,0	1881,6	234,6	234,12	192,1	191,54	234,5	233,97	13:25	13:28	1,037	52,5	Y	---	---	---	Mob: 6 995 mD/cp
7	1884,0	1883,6	234,8	234,28	192,1	191,56	234,7	234,19	13:33	13:37	1,036	53,4	Y	---	---	---	Mob: 10 182 mD/cp
8	1885,5	1884,1	234,9	234,43	---	---	---	---	13:43	13:48	n/a	54,3	N	---	---	---	Dry
9	1885,2	1883,8	234,8	234,28	191,1	191,57	234,7	234,25	13:59	14:03	1,036	55,2	Y	---	---	---	Mob: 9 706 mD/cp
10	1886,5	1886,1	235,0	234,48	192,1	191,60	234,9	234,44	14:11	14:15	1,035	55,5	Y	---	---	---	Mob: 7 744 mD/cp
11	1887,5	1887,1	235,1	234,60	192,1	191,61	235,1	234,63	14:21	14:25	1,035	55,9	Y	---	---	---	Mob: 10 938 mD/cp
12	1888,0	1887,6	235,2	234,74	---	---	---	---	14:30	14:33	n/a	56,2	N	---	---	---	Tight
13	1888,5	1888,1	235,2	234,76	---	---	235,2	234,73	14:37	14:40	n/a	56,3	N	---	---	---	Tight
14	1899,5	1899,1	236,7	236,30	192,5	192,04	236,6	236,14	14:44	14:48	1,031	56,9	Y	---	---	---	Mob: 177.1 mD/cp
15	1900,0	1899,6	236,7	236,17	---	---	---	---	14:53	14:56	n/a	57,4	N	---	---	---	Tight
16	1901,5	1901,1	236,8	236,35	192,7	192,24	236,7	236,28	15:00	15:03	1,031	57,7	Y	---	---	---	Mob: 295.1 mD/cp
17	1902,0	1901,6	236,8	236,36	192,8	192,28	236,8	236,30	15:07	15:10	1,031	58	Y	---	---	---	Mob: 172.4 mD/cp
18	1902,5	1902,1	236,8	236,40	---	---	236,8	236,35	15:16	15:19	n/a	58,3	N	---	---	---	Tight
19	1870,6	1870,2	232,7	232,21	---	---	232,7	232,24	15:27	15:29	n/a	57,8	N	---	---	---	Dry

NB: Fmtn Press sg calculated from RKB

Page: 1 of 2



FORMATION PRESSURE WORKSHEET

Well Name : 35/9-3 T2 Rig : West Vanguard Date : 18-19.10.97

Pressure Units : bar RKB-MSL : 22 m. MSL-SBed: 348 m. Witnessed by : Ole Wahl

Run No./ Test No.	Depth mMD RKB	Depth mTVD RKB	Initial Hydrostatic		Formation Pressure		Final Hydrostatic		Time		Formation Pressure sg EMD	Test Temp degC	Good Data? Y/N	Sample Information			Remarks		
			Pressure		Strain	CQG	Strain	CQG	Strain	CQG				Set	Retract	Main Fluid Type		HC Gravity g/cc	Sample Vol, cc
			Strain	CQG															
20	1870,5	1870,1	232,7	232,26	191,9	191,38	232,6	232,18	15:46	15:52	1,043	56,5	Y	---	---	---	Mob: 99.4 mD/cp		
21	1873,2	1872,8	233,1	232,60	---	---	---	---	15:57	16:00	n/a	56,4	N	---	---	---	Tight		
22	1870,3	1869,9	232,7	232,20	191,9	191,39	232,6	232,19	16:07	16:11	1,043	56,3	Y	---	---	---	Mob: 101 mD/cp		
23	1884,0	1883,6	234,0	233,85	---	---	---	---	19:07	19:11	n/a	---	N	---	---	None	Bad seal		
24	1884,0	1883,6	234,0	233,76	---	---	---	---	19:13	19:15	n/a	---	N	---	---	None	Bad seal		
25	1883,5	1883,1	234,0	233,73	---	---	---	---	19:22	19:26	n/a	---	N	---	---	None	Bad seal		
26	1883,6	1883,2	234,1	233,66	192,1	191,59	234,1	233,62	19:32	22:11	1,037	55,7	Y	Gas	---	2 x 450	Mob: 9 472 mD/cp - Large diameter probe		
27	1870,0	1869,6	232,3	231,92	191,8	191,37	232,0	231,59	22:23	00:05	1,043	---	Y	Gas	---	2 x 450	Martineau probe		
28	1887,9	1887,5	234,4	234,12	---	---	---	---	00:27	00:31	n/a	---	N	---	---	None	Bad seal - Martineau probe		
29	1887,9	1887,5	234,6	234,14	192,2	191,70	234,4	233,95	00:37	02:06	1,035	59,7	Y	Gas	---	2 x 450	Mob: infinite - Large diameter probe		

MDT pressure points are covered from Test No. 1 - 22.
MDT sampling is covered from Test No. 23 - 29.
Note: Sampling was performed using both the large diameter probe and the Martineau probe (i.e. different CQG gauge!).



FORMATION PRESSURE WORKSHEET

Well Name :		35/9-3 T2		Rig :		West Vanguard		Date :		04-05.11.97							
Pressure Units :		Bars		RKB-MSL :		22 m.		MSL-SBed:		370 m.		Witnessed by :		Bremmeng/Nilsen			
Run No./	Depth	Depth	Initial Hydrostatic		Formation Pressure		Final Hydrostatic		Time		Formation	Test Temp	Good	Sample Information			Remarks
Test No.			Pressure		Pressure		Pressure		hh:mm		Pressure		Data?	Main	HC Gravity	Sample	
2B	mMD RKB	mTVD RKB	Qtz	Strain	Qtz	Strain	Qtz	Strain	Set	Retract	sg EMD	degC	Y/N	Fluid Type	g/cc	Vol, cc	Mobility
1	2659,0	2657,5	302,4	301,92	268,3	268,77	302,4	301,96	12:38	12:43	1,031	72,0	Y	---	---	---	K/u = 20.9 mD/cp
2	2660,5	2659,0	302,6	302,14	268,3	268,79	302,5	302,11	12:52	12:55	1,030	72,1	Y	---	---	---	K/u = 30.7 mD/cp
3	2662,5	2661,0	302,8	302,37	268,3	268,85	302,8	302,36	13:02	13:04	1,030	73,0	Y	---	---	---	K/u = 48.0 mD/cp
4	2665,0	2663,4	303,1	302,65	---	---	---	---	---	---	0,000	---	N	---	---	---	Tight
5	2664,5	2662,9	303,0	302,59	269,4	268,91	303,0	302,56	13:17	13:20	1,029	74,8	Y	---	---	---	K/u = 17.9 mD/cp
6	2668,0	2666,4	303,4	303,02	269,5	269,00	303,4	302,99	13:30	13:33	1,028	75,4	Y	---	---	---	K/u = 35.4 mD/cp
7	2669,5	2667,9	303,6	303,17	269,5	269,04	303,6	303,13	13:38	13:41	1,028	75,7	Y	---	---	---	K/u = 499.0 mD/cp
8	2670,9	2669,3	303,8	303,32	270,7	270,18	303,7	303,29	13:42	13:05	1,032	76,4	N	---	---	---	K/u = 4.8 (not stable pressure)
9	2675,6	2673,9	304,3	303,82	271,0	270,50	304,3	303,82	14:18	14:24	1,031	77,0	Y	---	---	---	K/u = 2.2 mD/cp
10	2676,5	2674,9	304,3	303,88	270,8	270,23	304,2	303,79	14:45	14:36	1,030	77,5	Y	---	---	---	K/u = 13.4 mD/cp
11	2678,0	2676,4	304,5	304,07	271,8	271,24	304,5	304,05	14:59	15:03	1,033	77,6	Y	---	---	---	K/u = 71.8 mD/cp
12	2680,5	2678,9	304,8	304,35	273,1	272,61	304,7	304,32	15:05	15:22	1,037	77,9	Y/N	suspect supercharge, 2 nd drawd w 2.4 and 0.4 cc, K/u = 0.9 mD/cp			
13	2681,3	2679,6	304,8	304,38	272,9	272,40	304,9	304,39	15:28	15:33	1,036	78,2	Y	---	---	---	K/u = 652.0 mD/cp
14	2683,7	2682,1	305,1	304,66	272,1	271,54	305,1	304,64	15:38	15:43	1,032	78,4	Y	---	---	---	K/u = 35.4 mD/cp
15	2689,0	2687,3	305,7	305,28	272,2	271,62	305,7	305,24	15:53	15:59	1,030	78,7	Y	---	---	---	K/u = 13.9 mD/cp
16	2691,3	2689,5	306,0	305,51	272,3	271,75	305,9	305,48	16:05	16:15	1,030	78,9	Y	---	---	---	K/u = 1.1mD/cp
17	2693,5	2691,8	305,2	305,72	272,3	271,77	306,2	305,70	16:21	16:25	1,029	79,1	Y	---	---	---	K/u = 86.0mD/cp
18	2695,5	2693,8	306,4	305,95	272,4	271,89	306,4	305,95	16:27	16:34	1,029	79,2	Y	---	---	---	K/u = 47.1mD/cp

NB: Fmtn Press sg calculated from RKB



FORMATION PRESSURE WORKSHEET

Well Name : 35/9-3 T2 Rig : West Vanguard Date : 04-05.11.97

Pressure Units : Bars RKB-MSL : 22 m. MSL-SBed: 370 m. Witnessed by : Bremmeng/Nilsen

Run No./ Test No.	Depth		Initial Hydrostatic Pressure		Formation Pressure		Final Hydrostatic Pressure		Time		Formation Pressure	Test Temp	Good Data?	Sample Information			Remarks
	mMD RKB	mTVD RKB	Qtz	Strain	Qtz	Strain	Qtz	Strain	Set	Retract				sg EMD	degC	Y/N	
19	2700,7	2698,9	307,0	306,52	274,6	274,13	307,0	306,54	16:44	16:58	1,035	79,5	Y/N	---	---	---	K/u = 0.1 Dry test
20	2705,5	2703,7	307,6	307,11	---	---	---	---	17:06	17:08	0,000	79,7	N	---	---	---	Tight
21	2702,8	2701,1	307,2	306,76	---	---	---	---	17:13	17:22	0,000	80,0	N	---	---	---	Tight
22	2702,7	2701,0	307,2	306,73	---	---	---	---	17:28	17:32	0,000	70,2	N	---	---	---	Tight
23	2702,7	2701,0	307,2	306,71	---	---	---	---	17:50	17:53	0,000	79,5	N	---	---	---	Tight
24	2681,5	2679,8	---	---	272,330	272,33	---	---	17:55	22:25	1,036	83,0	Y/N	oil	---	3x450cc	
25	2670,0	2668,4	---	---	269,04	269,04	---	---	22:55	04:10	1,028	83,4	Y	oil	---	1x450cc, 1x1Gal, 1x2 3/4 Gal, 269mD/cp	
26	2662,5	2660,9	---	---	268,862	268,86	---	---	04:35	06:40	1,030	83,1	Y	gas	---	2x450cc	58,0mD/cp
MDT pressure points are covered from Test No. 1 - 23 MDT sampling is covered from Test No. 24 - 26																	

NB: Fmtn Press sg calculated from RKB



FORMATION PRESSURE WORKSHEET

Well Name :		35/9-3 T2		Rig :		West Vanguard		Date :		04-05.11.97							
Pressure Units :		Bars		RKB-MSL :		22 m.		MSL-SBed:		370 m.		Witnessed by :		Bremmeng/Nilsen			
Run No./ Test No.	Depth	Depth	Initial Hydrostatic		Formation Pressure		Final Hydrostatic		Time		Formation	Test Temp	Good	Sample Information			Remarks
			Pressure	Pressure	Pressure	Pressure	hh:mm	hh:mm	Pressure	degC				Data?	Main	HC Gravity	
2C	mMD RKB	mTVD RKB	Qtz	Strain	Qtz	Strain	Qtz	Strain	Set	Retract	sg EMD	degC	Y/N	Fluid Type	g/cc	Vol, cc	Mobility
1	2700,5	2698,7	306,103	307	274,124	274,62	306,096	306,52	00:07	00:13	1,035	77,3	Y	---	---	---	91.3mD/cp
2	2695,5	2693,8	305,497	305,91	271,775	272,26	305,513	305,93	00:17	00:23	1,028	79	Y	---	---	---	68.3mD/cp
3	2695	2693,3	305,474	305,92	---	---	---	---	00:29	00:35	0,000	80,2	N	---	---	---	Supercharged
4	2695,1	2693,4	305,471	305,9	---	---	---	---	00:37	00:42	0,000	81,2	N	---	---	---	Supercharged
5	2695	2693,3	305,517	305,98	271,771	272,31	305,489	305,95	00:54	01:03	1,028	81,9	Y	---	---	---	55.7mD/cp
6	2694	2692,3	305,317	305,84	271,796	272,34	305,362	305,82	01:06	01:11	1,028	82,5	Y	---	---	---	69.1mD/cp
7	2693,5	2691,8	305,326	305,8	271,747	272,29	305,312	305,8	01:17	01:23	1,028	82,9	Y	---	---	---	94.6mD/cp
8	2691,2	2689,5	305,032	305,5	---	---	---	---	01:29	01:37	0,000	83,2	N	---	---	---	Supercharged
9	2691,1	2689,4	305,019	305,49	271,517	272,06	305,024	305,49	01:40	01:48	1,028	83,4	Y	---	---	---	53.6mD/cp
10	2690,2	2688,5	304,917	305,4	271,606	272,15	304,926	305,39	01:52	01:59	1,029	83,5	Y	---	---	---	18.7mD/cp
11	2689	2687,3	304,791	305,25	---	---	---	---	02:03	02:09	0,000	83,7	N	---	---	---	Supercharged
12	2689,2	2687,5	304,848	305,34	271,59	272,14	304,818	305,28	02:17	02:26	1,029	83,7	Y	---	---	---	25.7mD/cp
13	2688,5	2686,3	304,727	305,2	271,5	272,05	304,72	305,21	02:30	02:51	1,029	83,8	Y	---	---	---	21mD/cp
14	2691,2	2689,5	305,033	305,52	271,676	272,22	305,017	305,49	02:55	03:10	1,029	83,9	Y	---	---	---	20.1mD/Cp
15	2678,2	2676,5	303,465	303,96	---	---	---	---	03:15	03:22	0,000	84,1	N	---	---	---	Tight
16	2678,1	2676,4	303,488	303,96	---	---	---	---	03:27	03:40	0,000	84	N	---	---	---	Tight
17	2678	2676,3	303,479	303,95	270,868	271,43	303,485	303,97	03:45	03:55	1,031	83,9	Y	---	---	---	199mD/cp
18	2677,7	2676	303,451	303,95	---	---	---	---	04:00	04:05	0,000	83,8	N	---	---	---	Tight

NB: Fmtn Press sg calculated from RKB



FORMATION PRESSURE WORKSHEET

Well Name : 35/9-3 T2 Rig : West Vanguard Date : 04-05.11.97

Pressure Units : Bars RKB-MSL : 22 m. MSL-SBed: 370 m. Witnessed by : Bremmeng/Nilsen

Run No./ Test No.	Depth		Initial Hydrostatic Pressure		Formation Pressure		Final Hydrostatic Pressure		Time		Formation Pressure	Test Temp	Good Data?	Sample Information			Remarks
	mMD RKB	mTVD RKB	Qtz	Strain	Qtz	Strain	Qtz	Strain	Set	Retract				sg EMD	degC	Y/N	
19	2677,8	2676,1	303,456	304	270,881	271,42	303,455	303,94	04:08	04:24	1,031	83,8	Y	n/a	n/a	n/a	86.3mD/cp
20	2676,5	2674,8	303,299	303,79	270,108	270,108	303,311	303,79	04:30	04:37	1,029	83,9	Y	n/a	n/a	n/a	53.1mD/cp
21	2676	2674,4	303,243	303,75	n/a	n/a	n/a	n/a	04:42	04:48	0,000	83,9	N	n/a	n/a	n/a	Tight
22	2676,01	2674,4	303,234	303,71	269,985	270,54	303,222	303,73	05:00	05:08	1,028	83,5	Y	n/a	n/a	n/a	152mD/cp
23	2775,5	2673,9	303,167	303,65	n/a	n/a	n/a	n/a	05:11	05:14	0,000	83,5	N	n/a	n/a	n/a	Tight
24	2675,6	2674	303,164	303,64	n/a	n/a	n/a	n/a	05:17	05:22	0,000	83,6	N	n/a	n/a	n/a	Tight
25	2675,7	2674,1	303,17	303,66	269,999	270,54	303,173	303,65	05:27	05:34	1,029	83,6	Y	n/a	n/a	n/a	24.3mD/cp
26	2689,2	2687,5	n/a	n/a	271,617	n/a	n/a	n/a	05:45	08:50	1,030	85,7	Y	water	n/a	1x1Gal	22.8mD/cp
27	2683,7	2681,7	n/a	n/a	n/a	n/a	n/a	n/a	09:00	10:03	0,000	85,7	Y	oil	n/a	1x1Gal	34,7mD/cp
28	2693,5	2691,8	n/a	n/a	n/a	n/a	n/a	n/a	11:00	12:30	0,000	86	Y	water	n/a	1x1Gal	74,3mD/cp
29	2700,5	2698,7	n/a	n/a	n/a	n/a	n/a	n/a	12:40	13:00	0,000	n/a	N	n/a	n/a	n/a	Tight
30	2700,6	2698,8	n/a	n/a	n/a	n/a	n/a	n/a	13:00	15:27	0,000	86,3	Y	oil	n/a	1x1Gal	66,0mD/cp
31	2676,4	2674,7	n/a	n/a	n/a	n/a	n/a	n/a	15:32	15:45	0,000	n/a	N	n/a	n/a	n/a	Tight
32	2676,3	2674,3	n/a	n/a	n/a	n/a	n/a	n/a	15:50	15:55	0,000	n/a	N	n/a	n/a	n/a	Tight
33	2676,5	2674,8	n/a	n/a	n/a	n/a	n/a	n/a	16:00	19:30	0,000	85	Y	oil	n/a	1x1Gal	mob n/a software prob.
<div style="border: 1px solid black; padding: 5px; width: fit-content; margin: 0 auto;"> MDT pressure points are covered from Test No. 1- 26 MDT sampling is covered from Test No. 23 - 29 </div>																	

TOTAL CONSUMPTION OF MUD ADDITIVES ON WELL 35/9-3

Section	Product/ Additive	Unit	Total Amount Used
36"	ANCO BAR	kg	28000.00
	BENTONITE	kg	18000.00
	LIME	kg	580.00
	SODA ASH	kg	225.00
17 1/2"	ANCO BAR	kg	131000.00
	ANCO DEFOAMER	l	75.00
	BENTONITE	kg	58000.00
	SODA ASH	kg	725.00
12 1/4"	ANCO 208	l	14800.00
	ANCO BAR	kg	19000.00
	ANCO ZAN	kg	725.00
	ANTISOL FL10	kg	5225.00
	CITRIC ACID	kg	100.00
	FLOW ZAN	kg	50.00
	KCL BRINE	l	191000.00
	POT. CARBONATE	kg	325.00
	RHODOPOL 33P	kg	1000.00
8 1/2"	ANCO 208	l	55000.00
	ANCO BAR	kg	160000.00
	ANTISOL FL10	kg	17325.00
	CITRIC ACID	kg	11150.00
	FLOW ZAN	kg	5800.00
	KCL BRINE	l	726000.00
	MICA COARSE	kg	825.00
	MICA FINE	kg	3150.00
	NUTPLUG C	kg	1150.00
	NUTPLUG F	kg	2900.00
	POT. CARBONATE	kg	100.00
	SODA ASH	kg	9825.00

DAILY MUD PROPERTIES:RHEOLOGY PARAMETERS FOR WELL 35/9-3

Hole section : 0.0		WATER BASED SYSTEM																	
Date	Depth [m]		Mud Type	Funnel Visc [sec]	Dens [sg]	Mudtmp Out [DegC]	Fann Readings							Rheo Test [DegC]	PV [mPas]	YP [Pa]	Gel0 [Pa]	Gel10 [Pa]	
	MD	TVD					600	300	200	100	60	30	6						3
1997-09-23 23:00	0	0	SPUD MUD	100.0	1.05	0.0	0	0	0	0	0	0	0	0	0.0	0.0	0.0	0.0	0.0
Hole section : 36"		WATER BASED SYSTEM																	
Date	Depth [m]		Mud Type	Funnel Visc [sec]	Dens [sg]	Mudtmp Out [DegC]	Fann Readings							Rheo Test [DegC]	PV [mPas]	YP [Pa]	Gel0 [Pa]	Gel10 [Pa]	
	MD	TVD					600	300	200	100	60	30	6						3
1997-09-24 23:59	0	0	SPUD MUD	100.0	1.20	0.0	0	0	0	0	0	0	0	0	0.0	0.0	0.0	0.0	0.0
Hole section : 17 1/2"		WATER BASED SYSTEM																	
Date	Depth [m]		Mud Type	Funnel Visc [sec]	Dens [sg]	Mudtmp Out [DegC]	Fann Readings							Rheo Test [DegC]	PV [mPas]	YP [Pa]	Gel0 [Pa]	Gel10 [Pa]	
	MD	TVD					600	300	200	100	60	30	6						3
1997-09-25 23:59	435	435	SPUD MUD	100.0	1.05	0.0	0	0	0	0	0	0	0	0	0.0	0.0	0.0	0.0	0.0
1997-09-26 23:50	889	911	SPUD MUD	100.0	1.05	0.0	0	0	0	0	0	0	0	0	0.0	0.0	0.0	0.0	0.0
1997-09-27 23:59	1150	1150	SPUD MUD	100.0	1.20	0.0	0	0	0	0	0	0	0	0	0.0	0.0	0.0	0.0	0.0
1997-09-28 23:00	1150	1150	SPUD MUD	100.0	1.20	0.0	0	0	0	0	0	0	0	0	0.0	0.0	0.0	0.0	0.0
1997-09-29 23:00	1150	1150	SPUD MUD	100.0	1.20	0.0	0	0	0	0	0	0	0	0	0.0	0.0	0.0	0.0	0.0
1997-09-30 18:00	1150	1150	ANCO 2000	60.0	1.25	0.0	48	33	27	20	0	0	7	6	50.0	15.0	9.0	3.0	6.0
1997-10-01 18:00	1150	1150	ANCO 2000	60.0	1.25	0.0	49	34	27	20	0	0	7	6	50.0	15.0	9.5	3.0	6.0
1997-10-02 22:00	1150	1150	ANCO 2000	60.0	1.25	0.0	48	33	27	20	0	0	7	6	50.0	15.0	9.0	3.0	6.0
Hole section : 12 1/4"		WATER BASED SYSTEM																	
Date	Depth [m]		Mud Type	Funnel Visc [sec]	Dens [sg]	Mudtmp Out [DegC]	Fann Readings							Rheo Test [DegC]	PV [mPas]	YP [Pa]	Gel0 [Pa]	Gel10 [Pa]	
	MD	TVD					600	300	200	100	60	30	6						3
1997-10-03 18:00	1150	1150	ANCO 2000	60.0	1.25	0.0	49	33	27	20	0	0	7	6	50.0	16.0	8.5	3.0	6.0
1997-10-04 18:15	1748	1748	ANCO 2000	74.0	1.25	0.0	63	45	36	25	0	0	9	7	50.0	18.0	13.5	5.0	11.0
1997-10-05 22:00	1810	1810	ANCO 2000	76.0	1.25	0.0	64	46	36	25	0	0	9	7	50.0	18.0	14.0	5.0	10.0
1997-10-06 20:00	1810	1810	ANCO 2000	79.0	1.26	0.0	0	0	0	0	0	0	0	0	50.0	18.0	13.5	5.0	9.5

DAILY MUD PROPERTIES:RHEOLOGY PARAMETERS FOR WELL 35/9-3

Hole section : 8 1/2"		WATER BASED SYSTEM																	
Date	Depth [m]		Mud Type	Funnel Visc [sec]	Dens [sg]	Mudtmp Out [DegC]	Fann Readings							Rheo Test [DegC]	PV [mPas]	YP [Pa]	Gel0 [Pa]	Gel10 [Pa]	
	MD	TVD					600	300	200	100	60	30	6						3
1997-10-07 15:00	1810	1810	ANCO 2000	72.0	1.26	0.0	65	46	36	26	0	0	9	7	50.0	19.0	13.5	5.0	9.0
1997-10-08 23:30	1902	1924	ANCO 2000	69.0	1.25	0.0	63	44	36	26	0	0	9	7	50.0	19.0	12.5	5.0	9.0
1997-10-09 21:15	1990	1990	ANCO 2000	72.0	1.23	0.0	64	45	36	26	0	0	10	8	50.0	19.0	13.0	5.5	10.0
1997-10-10 21:00	1990	1990	ANCO 2000	74.0	1.23	0.0	0	0	0	0	0	0	0	0	50.0	19.0	13.0	5.5	9.0
1997-10-10 22:00	1990	1990	ANCO 2000	74.0	1.23	0.0	63	44	36	26	0	0	10	8	50.0	19.0	12.5	5.0	9.0
1997-10-11 23:00	1990	1990	ANCO 2000	76.0	1.23	0.0	64	45	36	26	0	0	10	7	50.0	19.0	13.0	5.0	9.0
1997-10-12 22:00	1800	1800	ANCO 2000	86.0	1.23	0.0	63	44	35	25	0	0	9	7	50.0	19.0	12.5	4.0	9.0
1997-10-13 23:59	1813	1813	ANCO 2000	98.0	1.25	0.0	56	38	31	22	0	0	7	6	50.0	18.0	10.0	3.0	7.0
1997-10-14 22:00	1870	1870	ANCO 2000	75.0	1.24	0.0	52	35	28	21	0	0	7	6	50.0	17.0	9.0	3.0	6.0
1997-10-15 23:59	1870	1870	ANCO 2000	85.0	1.24	0.0	65	45	37	26	0	0	8	6	50.0	20.0	12.5	4.0	8.0
1997-10-16 21:00	1870	1870	ANCO 2000	85.0	1.23	0.0	62	44	36	26	0	0	9	7	50.0	18.0	13.0	4.0	8.0
1997-10-17 19:30	1935	1935	ANCO 2000	78.0	1.24	0.0	62	43	35	25	0	0	8	6	50.0	19.0	12.0	3.5	8.0
1997-10-18 23:00	1935	1935	ANCO 2000	78.0	1.22	0.0	61	43	35	25	0	0	8	6	50.0	18.0	12.5	3.5	8.0
1997-10-19 23:30	2007	2006	ANCO 2000	85.0	1.22	0.0	60	42	34	25	0	0	8	6	50.0	18.0	12.0	3.5	8.0
1997-10-20 23:59	2050	2049	ANCO 2000	85.0	1.22	0.0	67	48	38	28	0	0	9	7	50.0	19.0	14.5	4.0	8.0
1997-10-21 23:59	2050	2049	ANCO 2000	91.0	1.23	0.0	64	45	37	28	0	0	9	7	50.0	19.0	13.0	4.0	8.0
1997-10-22 23:59	2050	2049	ANCO 2000	91.0	1.21	0.0	0	0	0	0	0	0	0	0	50.0	19.0	13.0	4.0	8.0
1997-10-23 23:00	2061	2060	ANCO 2000	95.0	1.15	0.0	0	0	0	0	0	0	0	0	50.0	18.0	10.5	3.5	7.0
1997-10-24 21:00	2142	2141	ANCO 2000	88.0	1.15		53	37	30	22	0	0	9	8	50.0	16.0	11.0	4.0	7.5
1997-10-25 22:00	2146	2145	ANCO 2000	80.0	1.15	0.0	0	0	0	0	0	0	0	0	50.0	18.0	9.0	3.5	5.5
1997-10-26 21:30	2262	2261	ANCO 2000	70.0	1.15	0.0	44	29	23	16	0	0	5	4	50.0	15.0	7.5	2.0	3.5
1997-10-27 21:00	2508	2507	ANCO 2000	72.0	1.15	0.0	47	32	26	18	0	0	6	5	50.0	15.0	8.5	2.0	4.0
1997-10-28 14:00	2663	2662	ANCO 2000	68.0	1.15	0.0	43	29	23	17	0	0	5	4	50.0	14.0	7.5	2.5	3.5
1997-10-29 20:00	2663	2662	ANCO 2000	83.0	1.15	0.0	48	32	26	18	0	0	6	5	50.0	16.0	8.0	2.5	4.5
1997-10-30 20:00	2703	2702	ANCO 2000	78.0	1.15	0.0	51	34	27	19	0	0	5	4	50.0	17.0	8.5	2.5	3.5
1997-10-31 20:00	2730	2729	ANCO 2000	65.0	1.15	0.0	40	27	20	14	0	0	4	3	50.0	13.0	7.0	2.0	3.0
1997-11-01 22:30	2776	2775	ANCO 2000	81.0	1.15	0.0	45	30	25	18	0	0	5	4	50.0	15.0	7.5	2.5	4.0
1997-11-02 19:45	2783	2782	ANCO 2000	85.0	1.15	0.0	46	31	25	18	0	0	6	4	50.0	15.0	8.0	2.5	4.0
1997-11-03 20:00	2783	2782	ANCO 2000	85.0	1.15	0.0	47	32	26	19	0	0	6	4	50.0	15.0	8.5	2.5	4.0
1997-11-04 22:00	2783	2782	ANCO 2000	87.0	1.15	0.0	0	0	0	0	0	0	0	0	50.0	15.0	8.5	2.5	4.0
1997-11-05 20:30	2783	2782	ANCO 2000	89.0	1.15	0.0	47	32	26	19	0	0	6	4	50.0	15.0	8.5	2.5	4.0
1997-11-06 20:30	2783	2782	ANCO 2000	87.0	1.15	0.0	47	32	26	19	0	0	6	4	50.0	15.0	8.5	2.5	4.0
1997-11-07 19:30	2783	2782	ANCO 2000	82.0	1.15	0.0	46	32	26	19	0	0	6	4	50.0	14.0	9.0	3.0	4.5
1997-11-08 20:00	1603	1603	ANCO 2000	84.0	1.16	0.0	47	32	26	19	0	0	6	4	50.0	15.0	8.5	3.0	4.5
1997-11-09 20:00	1663	1663	ANCO 2000	0.0	1.16	0.0	47	32	26	19	0	0	6	4	50.0	0.0	0.0	0.0	0.0

DAILY MUD PROPERTIES : OTHER PARAMETERS FOR WELL 35/9-3

Hole section :		WATER BASED SYSTEM																								
Date	Depth [m]		Mud Type	Dens [sg]	Filtrate		Filtcake		HPHT pH		Alcalinity			Inhib Chem	K+	CL-	Ca++	Mg++	Tot hard	Percentage			CEC	ASG	LGS	
	MD	TVD			API [ml]	HPHT [ml]	API [mm]	HPHT [mm]	Press/Temp [psi/DegC]	Pm [ml]	Pf [ml]	Mf [ml]	[%]							[%]	[%]	Oil				Sand
1997-09-23 23:00	0	0	SPUD MUD	1.05	0.0	0.0	0	0	0/0	0.0	0.0	0.0	0	0	0	0	0	0	0	0.0	0.0	0.0	0	0.0	0	
Hole section :		WATER BASED SYSTEM																								
36"																										
Date	Depth [m]		Mud Type	Dens [sg]	Filtrate		Filtcake		HPHT pH		Alcalinity			Inhib Chem	K+	CL-	Ca++	Mg++	Tot hard	Percentage			CEC	ASG	LGS	
	MD	TVD			API [ml]	HPHT [ml]	API [mm]	HPHT [mm]	Press/Temp [psi/DegC]	Pm [ml]	Pf [ml]	Mf [ml]	[%]							[%]	[%]	Oil				Sand
1997-09-24 23:59	0	0	SPUD MUD	1.20	0.0	0.0	0	0	0/0	0.0	0.0	0.0	0	0	0	0	0	0	0	0.0	0.0	0.0	0	0.0	0	
Hole section :		WATER BASED SYSTEM																								
17 1/2"																										
Date	Depth [m]		Mud Type	Dens [sg]	Filtrate		Filtcake		HPHT pH		Alcalinity			Inhib Chem	K+	CL-	Ca++	Mg++	Tot hard	Percentage			CEC	ASG	LGS	
	MD	TVD			API [ml]	HPHT [ml]	API [mm]	HPHT [mm]	Press/Temp [psi/DegC]	Pm [ml]	Pf [ml]	Mf [ml]	[%]							[%]	[%]	Oil				Sand
1997-09-25 23:59	435	435	SPUD MUD	1.05	0.0	0.0	0	0	0/0	0.0	0.0	0.0	0	0	0	0	0	0	0	0.0	0.0	0.0	0	0.0	0	
1997-09-26 23:50	889	911	SPUD MUD	1.05	0.0	0.0	0	0	0/0	0.0	0.0	0.0	0	0	0	0	0	0	0	0.0	0.0	0.0	0	0.0	0	
1997-09-27 23:59	1150	1150	SPUD MUD	1.20	0.0	0.0	0	0	0/0	0.0	0.0	0.0	0	0	0	0	0	0	0	0.0	0.0	0.0	0	0.0	0	
1997-09-28 23:00	1150	1150	SPUD MUD	1.20	0.0	0.0	0	0	0/0	0.0	0.0	0.0	0	0	0	0	0	0	0	0.0	0.0	0.0	0	0.0	0	
1997-09-29 23:00	1150	1150	SPUD MUD	1.20	0.0	0.0	0	0	0/0	0.0	0.0	0.0	0	0	0	0	0	0	0	0.0	0.0	0.0	0	0.0	0	
1997-09-30 18:00	1150	1150	ANCO 2000	1.25	2.9	0.0	1	0	0/0	8.0	0.0	0.2	148	77600	79000	240	0	360	12.0	0.0	0.0	0	0.0	32		
1997-10-01 18:00	1150	1150	ANCO 2000	1.25	2.9	0.0	1	0	0/0	8.0	0.0	0.2	148	77600	79000	260	0	360	12.0	0.0	0.0	0	0.0	32		
1997-10-02 22:00	1150	1150	ANCO 2000	1.25	2.8	0.0	1	0	0/0	8.0	0.0	0.2	148	77600	79000	260	0	360	12.0	0.0	0.0	0	0.0	32		
Hole section :		WATER BASED SYSTEM																								
12 1/4"																										
Date	Depth [m]		Mud Type	Dens [sg]	Filtrate		Filtcake		HPHT pH		Alcalinity			Inhib Chem	K+	CL-	Ca++	Mg++	Tot hard	Percentage			CEC	ASG	LGS	
	MD	TVD			API [ml]	HPHT [ml]	API [mm]	HPHT [mm]	Press/Temp [psi/DegC]	Pm [ml]	Pf [ml]	Mf [ml]	[%]							[%]	[%]	Oil				Sand
1997-10-03 18:00	1150	1150	ANCO 2000	1.25	2.8	0.0	1	0	0/0	8.1	0.0	0.2	148	77600	79000	260	0	360	12.0	0.0	0.0	0	0.0	32		
1997-10-04 18:15	1748	1748	ANCO 2000	1.25	2.3	0.0	1	0	0/0	8.2	0.0	0.2	146	76600	79500	380	0	440	12.5	0.0	0.0	14	0.0	58		
1997-10-05 22:00	1810	1810	ANCO 2000	1.25	2.4	0.0	1	0	0/0	8.4	0.0	0.3	142	74500	79500	380	0	460	13.0	0.0	0.0	14	0.0	85		
1997-10-06 20:00	1810	1810	ANCO 2000	1.26	2.2	0.0	1	0	0/0	8.4	0.0	0.3	140	73400	79500	420	0	500	13.0	0.0	0.0	21	0.0	69		
Hole section :		WATER BASED SYSTEM																								
8 1/2"																										
Date	Depth [m]		Mud Type	Dens [sg]	Filtrate		Filtcake		HPHT pH		Alcalinity			Inhib Chem	K+	CL-	Ca++	Mg++	Tot hard	Percentage			CEC	ASG	LGS	
	MD	TVD			API [ml]	HPHT [ml]	API [mm]	HPHT [mm]	Press/Temp [psi/DegC]	Pm [ml]	Pf [ml]	Mf [ml]	[%]							[%]	[%]	Oil				Sand
1997-10-07 15:00	1810	1810	ANCO 2000	1.26	2.4	0.0	1	0	0/0	9.5	0.0	0.8	142	74500	79500	780	0	900	13.5	0.0	0.1	21	0.0	96		
1997-10-08 23:30	1902	1924	ANCO 2000	1.25	2.1	0.0	1	0	0/0	8.2	0.0	0.1	0.8	140	73400	79000	400	0	460	12.5	0.0	0.2	20	0.0	59	

DAILY MUD PROPERTIES : OTHER PARAMETERS FOR WELL 35/9-3

Hole section : 8 1/2"

WATER BASED SYSTEM

Date	Depth [m]		Mud Type	Dens [sg]	Filtrate		Filtcake		HPHT Press/Temp [psi/DegC]	pH	Alcalinity			Inhib Chem [Kg/m3]	K+ [mg/l]	CL- [mg/l]	Ca++ [mg/l]	Mg++ [mg/l]	Tot hard [mg/l]	Percentage			CEC [Kg/m3]	ASG [sg]	LGS [Kg/m3]
	MD	TVD			API [ml]	HPHT [ml]	API [mm]	HPHT [mm]			Pm [ml]	Pf [ml]	Mf [ml]							Solid [%]	Oil [%]	Sand [%]			
1997-10-09 21:15	1990	1990	ANCO 2000	1.23	2.2	0.0	1	0	0/0	8.1	0.0	0.0	0.6	139	72900	81000	400	0	480	12.5	0.0	0.2	19	0.0	87
1997-10-10 21:00	1990	1990	ANCO 2000	1.23	21.0	0.0	1	0	0/0	8.6	0.0	0.0	0.6	139	72900	81000	420	0	480	12.5	0.0	0.2	19	0.0	87
1997-10-10 22:00	1990	1990	ANCO 2000	1.23	2.1	0.0	1	0	0/0	8.6	0.0	0.0	0.6	138	72400	81000	420	0	520	12.5	0.0	0.2	15	0.0	87
1997-10-11 23:00	1990	1990	ANCO 2000	1.23	2.2	0.0	1	0	0/0	8.4	0.0	0.0	0.7	144	75500	81000	460	0	540	12.0	0.0	0.2	15	0.0	60
1997-10-12 22:00	1800	1800	ANCO 2000	1.23	2.1	0.0	1	0	0/0	8.8	0.0	0.1	0.7	140	73400	80500	480	0	640	12.0	0.0	0.2	12	0.0	61
1997-10-13 23:59	1813	1813	ANCO 2000	1.25	2.8	0.0	1	0	0/0	10.2	0.0	0.3	1.5	140	73400	81000	620	0	700	12.0	0.0	0.1	20	0.0	11
1997-10-14 22:00	1870	1870	ANCO 2000	1.24	2.3	0.0	1	0	0/0	9.8	0.0	0.3	1.1	160	83900	81000	600	0	700	12.0	0.0	0.1	10	0.0	42
1997-10-15 23:59	1870	1870	ANCO 2000	1.24	2.5	0.0	1	0	0/0	9.8	0.0	0.3	1.1	160	83900	83000	700	0	680	12.1	0.0	0.1	15	0.0	42
1997-10-16 21:00	1870	1870	ANCO 2000	1.23	2.3	0.0	1	0	0/0	8.5	0.0	0.3	1.0	165	86500	84000	560	0	600	12.1	0.0	0.0	12	0.0	51
1997-10-17 19:30	1935	1935	ANCO 2000	1.24	2.4	0.0	1	0	0/0	8.5	0.0	0.4	1.0	162	86000	83000	480	0	540	12.1	0.0	0.0	18	0.0	26
1997-10-18 23:00	1935	1935	ANCO 2000	1.22	2.4	0.0	1	0	0/0	8.5	0.0	0.3	0.9	165	86500	84000	460	0	520	11.9	0.0	0.0	14	0.0	61
1997-10-19 23:30	2007	2006	ANCO 2000	1.22	2.3	0.0	1	0	0/0	8.5	0.0	0.3	0.8	169	86500	88000	460	0	520	11.8	0.0	0.1	14	0.0	29
1997-10-20 23:59	2050	2049	ANCO 2000	1.22	2.4	0.0	1	0	0/0	8.5	0.0	0.3	0.8	162	85000	90000	440	0	520	11.8	0.0	0.0	16	0.0	24
1997-10-21 23:59	2050	2049	ANCO 2000	1.23	2.4	0.0	1	0	0/0	8.5	0.0	0.3	0.8	162	85000	90000	440	0	520	11.8	0.0	0.1	16	0.0	57
1997-10-22 23:59	2050	2049	ANCO 2000	1.21	2.4	0.0	1	0	0/0	8.5	0.0	0.3	0.8	162	85000	90000	440	0	520	11.8	0.0	0.0	16	0.0	57
1997-10-23 23:00	2061	2060	ANCO 2000	1.15	1.6	0.0	1	0	0/0	9.2	0.0	0.2	0.9	115	60000	67000	600	0	420	8.0	0.0	0.0	8	0.0	8
1997-10-24 21:00	2142	2141	ANCO 2000	1.15	1.6				/	9.0		0.5	1.5	115		63000	700		700	0.0	0.0			34	
1997-10-25 22:00	2146	2145	ANCO 2000	1.15	2.2	0.0	1	0	0/0	9.0	0.0	0.3	1.0	112	58000	60000	640	0	460	8.5	0.0	0.0	10	0.0	52
1997-10-26 21:30	2262	2261	ANCO 2000	1.15	3.2	0.0	1	0	0/0	9.3	0.0	1.1	3.5	116	60800	63000	800	0	640	9.0	0.0	0.0	7	0.0	71
1997-10-27 21:00	2508	2507	ANCO 2000	1.15	2.4	0.0	1	0	0/0	9.9	0.0	0.8	3.0	98	51400	60000	440	0	860	8.5	0.0	0.0	14	0.0	52
1997-10-28 14:00	2663	2662	ANCO 2000	1.15	2.5	0.0	1	0	0/0	9.2	0.0	0.8	3.0	103	54000	63000	300	0	1000	8.0	0.0	0.3	12	0.0	18
1997-10-29 20:00	2663	2662	ANCO 2000	1.15	2.5	0.0	1	0	0/0	9.4	0.0	0.9	3.4	106	55600	62000	260	0	1120	8.5	0.0	0.3	12	0.0	47
1997-10-30 20:00	2703	2702	ANCO 2000	1.15	3.6	0.0	1	0	0/0	9.5	0.0	0.8	3.2	110	57700	61000	220	0	2760	8.5	0.0	0.3	10	0.0	34
1997-10-31 20:00	2730	2729	ANCO 2000	1.15	3.4	0.0	1	0	0/0	8.8	0.0	0.4	3.2	102	53500	62500	200	0	2560	8.0	0.0	0.3	10	0.0	19
1997-11-01 22:30	2776	2775	ANCO 2000	1.15	3.0	0.0	1	0	0/0	8.5	0.0	0.2	2.8	114	59800	64500	320	0	2420	8.0	0.0	0.3	12	0.0	14
1997-11-02 19:45	2783	2782	ANCO 2000	1.15	2.6	0.0	1	0	0/0	8.6	0.0	0.2	2.7	108	56600	63500	360	0	2360	8.5	0.0	0.3	12	0.0	44
1997-11-03 20:00	2783	2782	ANCO 2000	1.15	2.5	0.0	1	0	0/0	8.7	0.0	0.2	2.8	110	57700	64000	360	0	2380	8.5	0.0	0.3	12	0.0	44
1997-11-04 22:00	2783	2782	ANCO 2000	1.15	2.5	0.0	1	0	0/0	8.9	0.0	0.2	2.8	110	57700	64000	360	0	2380	8.5	0.0	0.3	12	0.0	43
1997-11-05 20:30	2783	2782	ANCO 2000	1.15	2.5	0.0	1	0	0/0	8.9	0.0	0.2	2.8	110	57700	64000	360	0	2380	8.5	0.0	0.3	12	0.0	43
1997-11-06 20:30	2783	2782	ANCO 2000	1.15	2.5	0.0	1	0	0/0	8.9	0.0	0.2	2.8	110	57700	64000	420	0	2380	8.5	0.0	0.3	12	0.0	43
1997-11-07 19:30	2783	2782	ANCO 2000	1.15	2.8	0.0	1	0	0/0	8.9	0.0	0.3	2.6	109	57200	65000	420	0	2200	8.5	0.0	0.3	12	0.0	40
1997-11-08 20:00	1603	1603	ANCO 2000	1.16	2.8	0.0	1	0	0/0	9.2	0.0	0.3	2.6	110	57200	64000	420	0	2200	8.5	0.0	0.3	12	0.0	26
1997-11-09 20:00	1663	1663	ANCO 2000	1.16	0.0	0.0	1	0	0/0	9.2	0.0	0.3	2.6	0	57200	64000	420	0	2200	8.5	0.0	0.3	120	0.0	260

Title: Petroleum geochemistry of wells 35/9-3 and 35/9-3 T2

No.:

Rev.: 0

Date: 98-05-14

Page: 8 of 34

2 INTRODUCTION

2.1 Well data and objectives for study

A sidetrack (35/9-3 T2) was drilled from 1826m and reached T.D. at 2784m in the basement. Figure 2.2 shows a geological cross-section across the C3 prospect.

Core and drillcuttings (DC) samples are related to driller's depth. Fluid samples are related to logger's depth.

Both wells were drilled using Anco 2000 mud.

2.2 Analytical methods

Lists of all analyzed samples are presented in Tables 2.3 and 2.4. The analytical and preparative methods employed in this study comprised scanning fluorescence measurements, geochemical screening, gas characterization and bitumen characterization. Screening consisted of Rock Eval pyrolysis. Gas characterization included gas volumetric and stable isotope analyses. Bitumen characterization included solvent extraction followed by asphaltene precipitation, preparative group type separation by MPLC¹ and analytical group type separation by TLC-FID² (Iatroscan). Rock extracts and the oil samples were further analyzed by gas chromatography (GC-FID) of saturated hydrocarbons, analysis of the saturated and aromatic hydrocarbon fractions by gas chromatography-mass spectrometry (GC-MSD³) and analysis of stable carbon isotopes (both fractions and gaseous compounds).

1 Medium Pressure/Performance Liquid Chromatography
2 Thin Layer Chromatography with Flame Ionisation Detection
3 Mass-Selective Detector

Title: Petroleum geochemistry of wells 35/9-3 and 35/9-3 T2

No.:

Rev.: 0

Date: 98-05-14

Page: 34 of 34

The chromatography data on the mud samples show that they contain hydrocarbon compounds. Biomarker mass chromatogram m/z 85 of the sample from 1850m show a compound distribution comparable to what would be expected from an oil based mud. This sample also contained aromatic hydrocarbons and sterane biomarkers. The sample from 2750m contains less hydrocarbon compounds compared to the one from 1850m, but also this sample contains sterane biomarkers and aromatic hydrocarbons.

An example of a mud contaminated sample is given in Figure 8.3. Detection of possible migrated hydrocarbons is greatly complicated when the drilling mud used contains hydrocarbon components of the same type as the oil.

Figure 8.3: Mass chromatograms of saturated hydrocarbons.

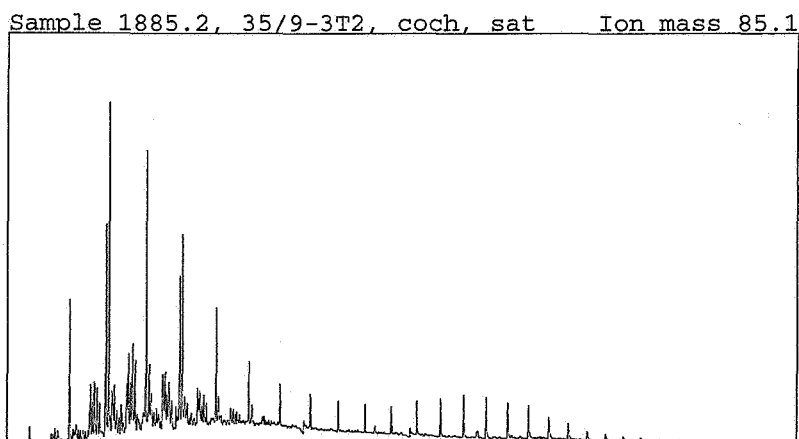
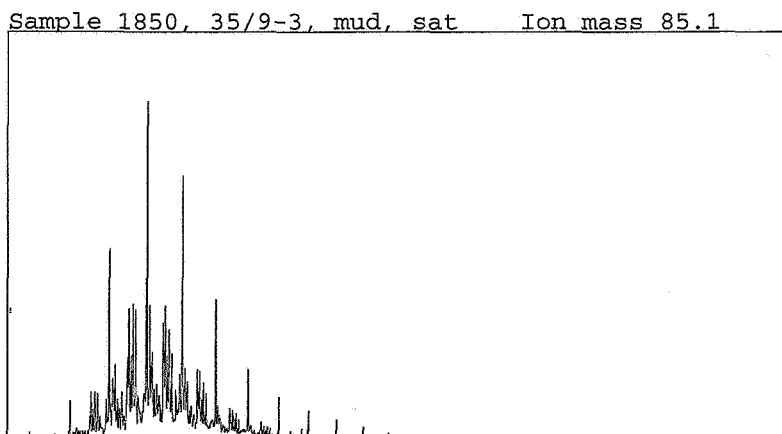


Table 2.3: List of samples, well 35/9-3

ANALYSIS PROGRAMME, WELL NOR : 35/9-3

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05-May-1998 10:22



Depth (m)	Lithology	Type	RockEval	RE/EXT	Extr	MPLC	Iatr	SatHC	Pyrolyse	Isot	Sat-biom	c5-20hc	Aro-hc	Vitr
1150.00		DC												1
1250.00		DC												1
1360.00		DC												1
1450.00		DC												1
1550.00		DC												1
1650.00		DC												1
1750.00		DC												1
1850.00		MUD			1		1	1			1		1	
1850.00		DC												1
1887.90		GAS								1				
1889.00	SST	COCH	1											
1899.00	SST	COCH	1											
1950.00		DC												1

MPLC = Separation

Extr = Extraction

SatGC = Saturated HC

Iatr = Iatroscan

Isot = Isotope data

Sat-biom = Biomarker data

Vitr = VR0 (ave) %

RE/EXT = Rock Eval on extracted Sediment

Table 2.4: List of samples, well 35/9-3 T2

ANALYSIS PROGRAMME, WELL NOR : 35/9-3 T2

Petroleum Geochemistry Group

Research Centre Bergen

05-May-1998 10:21



Depth (m)	Lithology	Type	RockEval	RE/EXT	Extr	MPLC	Iatr	SatHC	Pyrolyse	Isot	Sat-biom	c5-20hc	Aro-hc	Vitr
1837.00		DC												1
1870.20	SST	COCH	1		1		1	1		1	1		1	
1881.25	SST	COCH	1											
1885.25	SST	COCH	1		1		1	1		1	1		1	
1945.00		DC												1
2045.00		DC												1
2240.00		DC												1
2340.00		DC												1
2365.00	CLYST	DC	1		1		1	1		1	1		1	
2367.00	CLYST	DC	1											
2370.00	CLYST	DC	1											
2372.00	CLYST	DC	1											
2375.00	CLYST	DC	1		1		1	1		1	1		1	
2377.00	CLYST	DC	1											
2377.50	CLYST	SWC	1											
2380.00	CLYST	DC	1											
2382.00	CLYST	DC	1											
2385.00	CLYST	DC	1											
2386.00	CLYST	SWC	1											
2387.00	CLYST	DC	1											
2390.00	CLYST	DC	1											
2392.00	CLYST	DC	1											
2394.00	CLYST	SWC	1											
2395.00	CLYST	DC	1											
2537.00		DC												1

Table 2.4: List of samples, well 35/9-3 T2

ANALYSIS PROGRAMME, WELL NOR : 35/9-3 T2

Petroleum Geochemistry Group
 Research Centre Bergen
 05-May-1998 10:21



Depth (m)	Lithology	Type	RockEval	RE/EXT	Extr	MPLC	Iatr	SatHC	Pyrolyse	Isot	Sat-biom	c5-20hc	Aro-hc	Vitr
2637.00		DC												1
2662.50		GAS								1				
2670.00		OIL			1		1	1		1	1	1	1	
2670.00		GAS								1				
2671.00	CLYST	COCH	1		1		1	1		1	1		1	
2676.50		GAS								1				
2676.50		OIL			1		1	1		1	1	1	1	
2681.30		OIL			1		1	1		1	1	1	1	
2681.30		GAS								1				
2683.70		OIL			1		1	1		1	1	1	1	
2700.60		OIL			1		1					1		
2703.50	CLYST	COCH	1											
2710.00	CLYST	COCH	1											
2719.00	CLYST	COCH	1											
2728.00	CLYST	COCH	1											
2750.00		MUD			1		1	1		1	1		1	
2780.00		DC												1

MPLC = Separation

SatGC = Saturated HC

Isot = Isotope data

Vitr = VR0 (ave) %

Extr = Extraction

Iatr = Iatroscan

Sat-biom = Biomarker data

RE/EXT = Rock Eval on extracted Sciment

Table 3.1: Vitrinite reflectance measurements



VITRINITE REFLECTANCE Ro (average values), WELL NOR : 35/9-3

05-May-1998

11:25

Depth (m)	Lithology	Type	Population I		Population II		Analysing Company
			%Ro	n	%Ro	n	
1150.00		DC	0.34	(20)	0.54	(6)	IFE
1250.00		DC	0.30	(21)	0.66	(2)	IFE
1360.00		DC	0.35	(15)	0.51	(7)	IFE
1450.00		DC	0.37	(12)	0.54	(4)	IFE
1550.00		DC	0.43	(18)	0.71	(6)	IFE
1650.00		DC	0.43	(22)	0.58	(7)	IFE
1750.00		DC	0.45	(21)	0.64	(12)	IFE
1837.00		DC	0.47	(20)	0.68	(2)	IFE
1850.00		DC	0.46	(22)	0.69	(10)	IFE
1945.00		DC	0.38	(19)	0.63	(7)	IFE
1950.00		DC	0.45	(26)	0.61	(9)	IFE
2045.00		DC	0.52	(16)	0.77	(4)	IFE
2240.00		DC	0.51	(19)	0.68	(6)	IFE
2340.00		DC	0.49	(17)	0.79	(3)	IFE
2537.00		DC	0.53	(7)	0.79	(3)	IFE
2637.00		DC	0.51	(17)		()	IFE
2780.00		DC	0.50	(22)	0.83	(2)	IFE

Table 4.1: Rock Eval screening data



ROCK EVAL SCREENING DATA

Well	Depth (m)	Lithology	Type	Tmax (C)	S1(kg/t)	S2 (kg/t)	TOC (%)	HI	PI	Analysing Company
NOR : 35/9-3	1889.00	SST	COCH		0.0	0.4	0.5	94	0.04	NORSK HYDRO
NOR : 35/9-3	1899.00	SST	COCH		0.1	0.4			0.21	NORSK HYDRO
NOR : 35/9-3 T2	1870.20	SST	COCH		1.6	0.7	0.2	292	0.69	NORSK HYDRO
NOR : 35/9-3 T2	1881.25	SST	COCH		0.3	0.5			0.36	NORSK HYDRO
NOR : 35/9-3 T2	1885.25	SST	COCH		0.5	0.8			0.36	NORSK HYDRO
NOR : 35/9-3 T2	2365.00	CLYST	DC		2.8	3.6	1.7	216	0.44	NORSK HYDRO
NOR : 35/9-3 T2	2367.00	CLYST	DC		2.5	3.2	1.6	198	0.44	NORSK HYDRO
NOR : 35/9-3 T2	2370.00	CLYST	DC		2.1	3.7	1.7	214	0.36	NORSK HYDRO
NOR : 35/9-3 T2	2372.00	CLYST	DC		2.4	3.7	1.8	208	0.39	NORSK HYDRO
NOR : 35/9-3 T2	2375.00	CLYST	DC		2.6	4.8	2.2	215	0.35	NORSK HYDRO
NOR : 35/9-3 T2	2377.00	CLYST	DC		2.7	4.8	2.4	202	0.36	NORSK HYDRO
NOR : 35/9-3 T2	2377.50	CLYST	SWC		0.9	2.7	1.8	147	0.24	NORSK HYDRO
NOR : 35/9-3 T2	2380.00	CLYST	DC		2.3	4.0	2.2	181	0.36	NORSK HYDRO
NOR : 35/9-3 T2	2382.00	CLYST	DC		2.9	5.2	2.4	213	0.36	NORSK HYDRO
NOR : 35/9-3 T2	2385.00	CLYST	DC		2.7	3.9	2.1	189	0.41	NORSK HYDRO
NOR : 35/9-3 T2	2386.00	CLYST	SWC		1.0	1.0	0.8	128	0.50	NORSK HYDRO
NOR : 35/9-3 T2	2387.00	CLYST	DC		1.8	2.9	1.7	174	0.39	NORSK HYDRO
NOR : 35/9-3 T2	2390.00	CLYST	DC		1.4	2.6	1.7	154	0.36	NORSK HYDRO
NOR : 35/9-3 T2	2392.00	CLYST	DC		2.1	2.4	1.6	145	0.47	NORSK HYDRO
NOR : 35/9-3 T2	2394.00	CLYST	SWC		0.9	1.9	1.1	162	0.33	NORSK HYDRO
NOR : 35/9-3 T2	2395.00	CLYST	DC		1.6	2.7	1.6	171	0.37	NORSK HYDRO
NOR : 35/9-3 T2	2671.00	CLYST	COCH		1.0	3.9	1.9	203	0.20	NORSK HYDRO
NOR : 35/9-3 T2	2703.50	CLYST	COCH		0.3	0.8	1.0	76	0.28	NORSK HYDRO
NOR : 35/9-3 T2	2710.00	CLYST	COCH		0.2	0.7	1.6	44	0.18	NORSK HYDRO
NOR : 35/9-3 T2	2719.00	CLYST	COCH		0.2	0.7	1.3	57	0.22	NORSK HYDRO
NOR : 35/9-3 T2	2728.00	CLYST	COCH		0.0	0.2	1.7	12	0.05	NORSK HYDRO

Table 4.2: Extraction and deasphalting data on extracts



EXTRACTION/DESPHALTING DATA (SEDIMENTS)

Well	Depth (m)	Lithology	Type	Rock (g)	EOM (mg)	ASP (mg)	EOM (%)	ASP (%)	EOM (ppm)	TOC (%)	EOM/TOC (%)	Analysing comp
NOR : 35/9-3	1850.00		MUD	6.0	94.0	1.5	1.58	1.5	15 800			Norsk Hydro
NOR : 35/9-3 T2	1870.20		COCH	18.7	72.0	2.8	0.39	4.3	3 900	0.2	1.6	Norsk Hydro
NOR : 35/9-3 T2	1885.25		COCH	26.4	63.0	1.0	0.24	1.8	2 400			Norsk Hydro
NOR : 35/9-3 T2	2365.00		DC	6.1	77.0	2.1	1.27	3.0	12 700	1.7	0.8	Norsk Hydro
NOR : 35/9-3 T2	2375.00		DC	5.9	76.0	2.2	1.28	3.2	12 800	2.2	0.6	Norsk Hydro
NOR : 35/9-3 T2	2671.00		COCH	16.1	25.0	1.8	0.16	8.0	1 600	1.9	0.1	Norsk Hydro
NOR : 35/9-3 T2	2750.00		MUD	6.0	131.0	2.8	2.20	2.8	22 000			Norsk Hydro

Table 6.1: Asphaltene content of oil samples



DEASPHALTING DATA (OILS)

Well	St.Depth (m)	En.Depth (m)	Name	OIL (mg)	ASP (mg)	ASP (%)	Analysing Company
NOR / 35/9-3 T2	2670.00	2670.00	MDT	108.40	0.4	0.4	NORSK HYDRO
NOR / 35/9-3 T2	2676.50	2676.50	MDT	107.70	0.3	0.3	NORSK HYDRO
NOR / 35/9-3 T2	2681.30	2681.30	MDT	100.50	0.4	0.4	NORSK HYDRO
NOR / 35/9-3 T2	2683.70	2683.70	MDT	99.20	0.5	0.5	NORSK HYDRO
NOR / 35/9-3 T2	2700.60	2700.60	MDT	94.70	0.9	1.0	NORSK HYDRO

IATROSCAN - Calculated Weight% / SARA

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14-May-1998



Table 6.2: Bulk separation data, oil samples

COMPOSITION OF EXTRACTS/OILS WELL

Well	St.Depth (m)	En.Depth (m)	Type	Lithology	Name	Calculated Weight %			HC TOTA	ASPH%	Non-HC TOTAL	TOT HC /Non-HC	Analysing Company
						SAT	ARO	NSO					
NOR 35/9-3 T2	2670.00	2670.00	OIL		MDT	75.9	20.8	2.9	96.7	0.4	3.3	29.3	NORSK HYDRO
NOR 35/9-3 T2	2676.50	2676.50	OIL		MDT	72.8	23.9	3.0	96.7	0.3	3.3	29.4	NORSK HYDRO
NOR 35/9-3 T2	2681.30	2681.30	OIL		MDT	73.6	23.8	2.2	97.4	0.4	2.6	36.9	NORSK HYDRO
NOR 35/9-3 T2	2683.70	2683.70	OIL		MDT	75.9	21.4	2.2	97.3	0.5	2.7	36.0	NORSK HYDRO
NOR 35/9-3 T2	2700.60	2700.60	OIL		MDT	71.4	23.2	4.5	94.6	1.0	5.4	17.4	NORSK HYDRO

Table 6.3: Ratios from whole oil analysis



C5-20 hc ord. samples - Amount

S-Depth (m)	E-Depth (m)	Well	Type	Lithology	Name	Orgid	Project	Seq.#	File name	File path	Instrument	Setup	Method
2670.00	2670.00	35/9-3 T2	OIL		MDT	636048	98003	6	2670.D	30_8_3	AC/HP6890	C5_20	C520D_A.M
2676.50	2676.50	35/9-3 T2	OIL		MDT	636569	98003	7	2676_5.D	30_8_3	AC/HP6890	C5_20	C520D_A.M
2681.30	2681.30	35/9-3 T2	OIL		MDT	636962	98003	8	2681_3.D	30_8_3	AC/HP6890	C5_20	C520D_A.M
2683.70	2683.70	35/9-3 T2	OIL		MDT	635894	98003	9	2683_7.D	30_8_3	AC/HP6890	C5_20	C520D_A.M
2700.60	2700.60	35/9-3 T2	OIL		MDT	636963	98003	2	2700_6.D	30_8_3_B	AC/HP6890	C5_20	C520D_A.M



Ratios - amounts:

E-Depth (m)	Operator	Company	Aquired date	Misc.info.	Country	Status	Data Type	Heptane V	Isoheptane V	Paraffinicit	Aroma Nh	Pr Nc7
2670.00	Reidun	NORSK HYDRO	1997-12-12		NOR	OK	AM	14.6	1.4	0.4	1.7	0.4
2676.50	Reidun	NORSK HYDRO	1997-12-11		NOR	OK	AM	15.2	1.5	0.4	1.5	0.4
2681.30	Reidun	NORSK HYDRO	1997-12-10		NOR	OK	AM	14.8	1.4	0.4	1.6	0.4
2683.70	Reidun	NORSK HYDRO	1997-12-09		NOR	OK	AM	14.6	1.4	0.4	1.6	0.4
2700.60	Reidun	NORSK HYDRO	1997-12-07		NOR	OK	AM	17.5	1.6	0.5	0.8	0.5



Ratios - amounts:

E-Depth (m)	Phy Nc18	Nc6 Benzene	Nc7 Toluene	M P1%wt	M P23%wt	M P33%wt	M N16%wt	M N15%wt	M N25%wt	M 6rp%norm	M 5rp%norm
2670.00	0.3	1.1	0.4	0.4	0.3	0.1	2.2	0.1	0.1	78	9
2676.50	0.3	1.2	0.4	0.4	0.3	0.1	1.9	0.1	0.1	77	10
2681.30	0.3	1.1	0.4	0.4	0.3	0.1	2.0	0.1	0.1	77	10
2683.70	0.3	1.0	0.4	0.4	0.3	0.1	2.2	0.1	0.1	78	10
2700.60	0.3	1.3	0.6	0.5	0.3	0.1	1.9	0.1	0.1	74	10



Ratios - amounts:

E-Depth (m)	M 3rp%norm	M P2n2%wt	M N2 P3	M P3n2 P2	Sum C7 Nc7	Aromaticity	Pr Phy	Sum Nc6 19	M P1%nc619	M P23%nc619	M P33%nc619
2670.00	13	0.4	1.6	0.8	5.3	2.77	1.73	82.0	4.9	3.3	1.1
2676.50	14	0.4	1.6	0.8	5.1	2.37	1.61	73.6	5.3	3.5	1.1
2681.30	13	0.4	1.6	0.8	5.3	2.55	1.60	78.8	4.9	3.3	1.1
2683.70	13	0.4	1.6	0.9	5.3	2.65	1.61	86.3	4.8	3.2	1.0
2700.60	16	0.4	1.4	0.8	4.6	1.66	1.84	95.4	5.1	3.2	1.0



Ratios - amounts:

E-Depth (m)	M N16%nc619	M N15%nc619	M N25%nc619	M P2n2%nc619
2670.00	27.2	1.6	1.7	5.0
2676.50	26.2	1.5	1.8	5.3
2681.30	25.9	1.5	1.7	5.0
2683.70	25.8	1.5	1.7	4.8
2700.60	19.8	1.4	1.4	4.6

Table 6.4: Stable carbon isotope data



ISOTOPE ANALYSIS RESULTS (SEDIMENT SAMPLES)

14-May-1998 12:18

Well	St.Depth (m)	En.Depth (m)	Name	Lithology	Type	d13C EXTR	d13C SAT	d13C ARO	d13C POL	d13C ASP	d13C KERO	Analysing Compa
NOR 35/9-3 T2	1870.20	1870.20		SST	COCH	-27.70	-26.70					IFE
NOR 35/9-3 T2	1885.25	1885.25		SST	COCH	-28.70	-26.70					IFE
NOR 35/9-3 T2	2362.00	2365.00		CLYST	DC	-29.70	-27.20					IFE
NOR 35/9-3 T2	2372.00	2375.00		CLYST	DC	-28.70	-26.00					IFE
NOR 35/9-3 T2	2671.00	2671.00		CLYST	COCH	-29.60	-25.20					IFE
NOR 35/9-3 T2	2750.00	2750.00			MUD	-29.80	-26.90					IFE
NOR 35/9-3 T2	2670.00	2670.00	MDT		OIL	-28.50	-26.80					IFE
NOR 35/9-3 T2	2676.50	2676.50	MDT		OIL	-28.30	-26.70					IFE
NOR 35/9-3 T2	2681.30	2681.30	MDT		OIL	-28.80	-26.90					IFE
NOR 35/9-3 T2	2683.70	2683.70	MDT		OIL	-29.00	-26.70					IFE

Table 7.1: Volumetric composition og reservoir gases

GAS VOLUME COMPOSITION DATA NOR : 35/9-3



Well	Name	Type	TOP (m)	BOTTOM (m)	C1(%)	C2(%)	C3(%)	iC4(%)	nC4(%)	iC5(%)	nC5(%)	CO2(%)	C1-C5(%)	Total(%)	Wetness(%)	iC4/nC4(%)
35/9-3	MDT	GAS	1887.90	1887.90	95.50	2.80	1.00	0.14	0.30	0.08	0.08	0.10	99.90	100.00	4.25	0.47
35/9-3 T2	MDT	GAS	2662.50	2662.50	92.30	4.00	1.80	0.24	0.49	0.22	0.24	0.68	99.29	99.97	6.61	0.49
35/9-3 T2	MDT	GAS	2670.00	2670.00	85.00	6.50	4.20	0.71	1.70	0.49	0.49	1.00	99.09	100.09	13.36	0.42
35/9-3 T2	MDT	GAS	2676.50	2676.50	90.20	5.10	2.40	0.40	1.00	0.27	0.28	0.30	99.65	99.95	8.98	0.40
35/9-3 T2	MDT	GAS	2681.30	2681.30	82.10	8.00	4.60	0.74	1.90	0.89	0.87	0.90	99.10	100.00	15.66	0.39
35/9-3 T2	MDT	GAS	2683.70	2683.70	85.00	7.00	3.90	0.63	1.50	0.48	0.48	1.00	98.99	99.99	13.29	0.42

Table 7.2: Stable carbon and deuterium data, reservoir gases

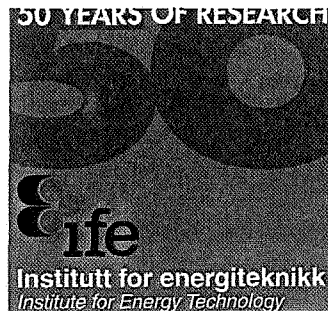
ISOTOPE ANALYSIS NOR : 35/9-3



Well	Name	Type	TOP (m)	BOTTOM (m)	Meth	dDC1	Etha	Prop	Buta	IBut	13CO2	18CO2
35/9-3	MDT	GAS	1887.90	1887.90	-39.2	-168.0	-28.5	-26.2	-26.6	-23.0	-18.8	-7.2
35/9-3 T2	MDT	GAS	2662.50	2662.50	-37.6	-148.0	-28.7	-26.7	-25.9	-24.9	-13.9	-7.5
35/9-3 T2	MDT	GAS	2670.00	2670.00	-38.9		-29.3	-27.1	-26.2	-26.4	-13.4	-6.3
35/9-3 T2	MDT	GAS	2676.50	2676.50	-39.7	-166.0	-28.7	-26.7	-25.7	-24.4	-11.8	-5.6
35/9-3 T2	MDT	GAS	2681.30	2681.30	-40.2	-182.0	-28.9	-26.7	-26.1	-25.7	-14.6	-10.5

Appendix I

Vitrinite reflectance report (IFE)



ADDRESS KJELLER Box 40, N-2007 Kjeller, Norway TELEPHONE +47 63 806000 TELEX 76 361 isotp n TELEFAX +47 63 815553		HALDEN N-1751 Halden, Norway +47 69 183100 76 335 energ n		AVAILABILITY In Confidence
REPORT TYPE	REPORT NO. IFE/KR/F-98/038		DATE 1998-02-26	
	REPORT TITLE VITRINITE REFLECTANCE ANALYSIS WELL 35/9-3 AND 35/9-3T2 OFFSHORE NORWAY (ref. IFE no. 2.5.017.98)		DATE OF LAST REV.	
	CLIENT Norsk Hydro Bergen		NUMBER OF PAGES	
	CLIENT REF. Elin Rein		NUMBER OF ISSUES 8	
SUMMARY			DISTRIBUTION Norsk Hydro (3) Johansen, H. Aasgaard, K. File (3)	
KEYWORDS				
	NAME	DATE	SIGNATURE	
PREPARED BY	Kristine Aasgaard	1998-02-26		
REVIEWED BY	Harald Johansen	1998-02-26		
APPROVED BY	Tor Bjørnstad	1998-02-26		

1 Introduction

This report gives the result of routine vitrinite reflectance analyses of 20 samples from well 35/9-3 and 35/9-3T2 offshore Norway.

2 Material

The material was provided from the client as 19 cuttings samples and 1 core chip. Information on stratigraphy in well 35/9-3 and 35/9-3T2 was not provided from the client.

3 Analytical techniques

3.1 Preparation

The cuttings samples were treated with hydrochloric and hydrofluoric acid prior to further preparation. The aim was to avoid soft and expanding mineral phases in order to ensure good polishing quality. The sample material resulting from the acid treatment and the bulk core chip were embedded in an epoxy resin to make briquettes, ground flat and polished using 0.25 micron diamond paste and magnesium oxide as the two final steps.

3.2 Analysis

The analytical equipment being used was a Zeiss MPM 03 photometer microscope equipped with an Epiplan-Neofluar 40/0.90 oil objective. The sensitive measuring spot was kept constant for all measurements at about 2.5 micron in diameter. The measurements were made through a green band pass filter (546 nm) and in oil immersion (refractive index 1.515 at 18°C). The readings were made without a polarizer and using a stationary stage. This procedure is called measurement of random reflectance (%Rm). The photometer is calibrated daily against a standard of known reflectance (%Rm=0.588) and routinely (daily) checked against two other standards of significant different reflectances (%Rm=0.879 and 1.696). A deviation from these values of less than ± 0.01

and ± 0.02 respectively is considered as acceptable. The calibration is routinely checked during the course of measurements at least every hour, and a deviation of less than ± 0.005 is considered as acceptable.

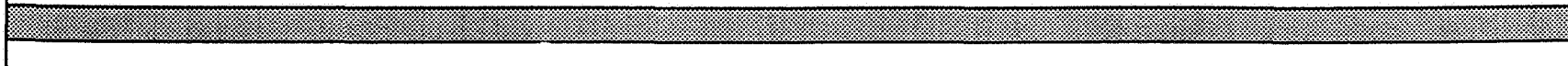
For each sample at least 20 points were measured if possible, and quality ratings are given to various important aspects which may affect the measurements. These aspects are abundance of vitrinite, uncertainties in the identification of indigenous vitrinite, type of vitrinite, particle size, particle surface quality and abundance of pyrite.

3.3 Presentation of results

The raw data from the measurements are presented in appendix for each sample both as tabulated data and histograms. A true vitrinite population is selected among the readings based on observations made during the measurements, and arithmetic mean values and standard deviation are calculated for this population and other populations. A quality rating is given to the true population. The results are listed in table 1. Figure 1 shows a vitrinite reflectance versus depth plot.

Table 1. Vitrinite reflectance data well 35/9-3 and 35/9-3T2

Analysis type: Vitrinite reflectance
Well: 35/9-3 and 35/9-3T2
Number of samples: 20
Time period for analysis: feb-98
Analysis performed by: Kristine Aasgaard, Institutt for energiteknikk
Analysis ordered by: Norsk Hydro, Bergen



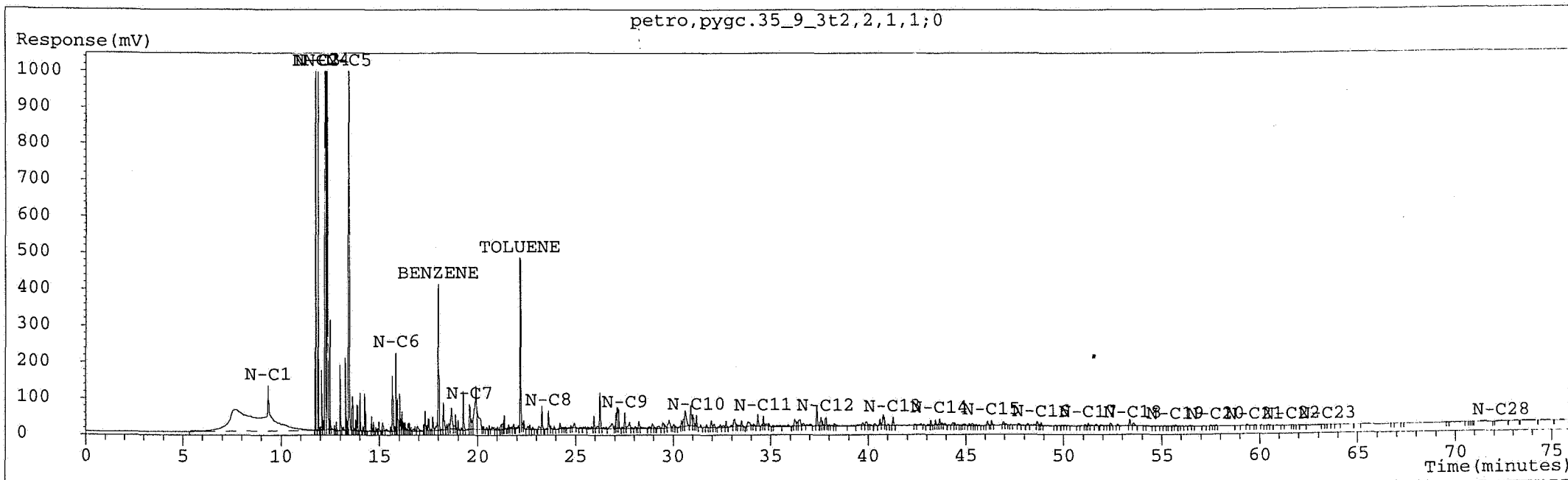
IFE sample code	Depth (m)	Sample type	Lithology	Vitr. refl. (%Rm)	Stand. dev.	Number of readings	Sample description	Sample quality	Sample prep.
980117	1150	DC	clyst	0.34	0.05	20	000--+	M	HF
980118	1250	DC	clyst	0.3	0.05	21	000--+	M	HF
980119	1360	DC	clyst	0.35	0.05	15	-00--+	M	HF
980120	1450	DC	clyst	0.38	0.05	12	-00--+	M	HF
980121	1550	DC	clyst	0.43	0.06	18	-00-0+	M	HF
980122	1650	DC	clyst	0.43	0.05	22	000-0+	M	HF
980123	1750	DC	clyst	0.46	0.04	21	000-0+	M	HF
980124	1837	DC	clyst	0.47	0.06	20	000--+	M	HF
980125	1850	DC	clyst	0.46	0.06	22	000--+	M	HF
980126	1945	DC	clyst	0.39	0.05	19	00--0+	M	HF
980127	1950	DC	clyst	0.46	0.05	26	000-0+	M	HF
980128	2045	DC	clyst	0.53	0.05	16	-00--+	M	HF
980129	2137	DC	clyst	barren					HF
980130	2240	DC	clyst	0.52	0.06	19	000--+	M	HF
980131	2340	DC	clyst	0.5	0.07	17	-00-0+	M	HF
980132	2437	DC	clyst	barren					HF
980133	2537	DC	clyst	0.54	0.04	7	-00-0+	P	HF
980134	2637	DC	clyst	0.52	0.07	17	-00--+	M	HF
980135	2728	COCH	clyst	barren					bulk
980136	2780	DC	clyst	0.50	0.06	22	00000+	M	HF

Legend to vitrinite reflectance data table

SST	sandstone		
SLST	siltstone		
CLYST	claystone		
SH	shale		
LST	limestone		
COAL	coal		
HF	sample treated with hydroflouric acid prior to epoxy resin embedding		
DCM	sample treated with dichloromethane prior to epoxy resin embedding		
bulk	untreated sample prior to epoxy resin embedding		
G	Good quality sample		
M	Moderate quality sample		
P	Poor quality sample		
st	Sample is stained		
00000	Sample description:	1	Abundance of vitrinite
123456		2	Identification of vitrinite
		3	Type of vitrinite
		4	Vitrinite fragment size
		5	Vitrinite surface quality
		6	Abundance of pyrite
-	may give too low vitrinite reflectance sample value		
0	reliable vitrinite reflectance sample value		
+	may give too high vitrinite reflectance sample value		

Appendix II

Pyrolysis gas chromatograms and pyrolysis GC-MSD data

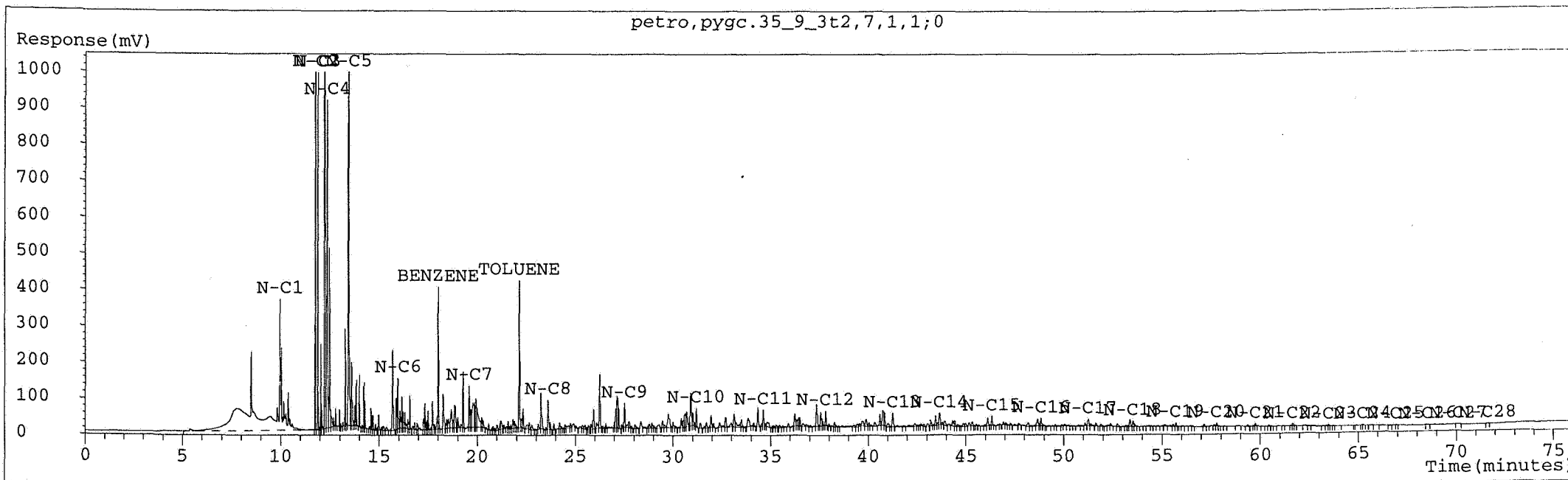


Peak Group information

Group Name	Area	Amount	Abs/Area	Amount	Norm/Area	Amount	%/Area	Quant.	War	Reject
N-C1	7889.882		7889.882		19.530	788988.250	0x00000000	No	statisti	
C2-C5	16471.414		16471.414		40.772	1647141.375	0x00000000	No	statisti	
C6-C14	14702.755		14702.755		36.394	1470275.500	0x00000000	No	statisti	
C15+	1335.039		1335.039		3.305	133503.891	0x00000000	No	statisti	
TOT AREA	40399.082		40399.082		100.000	4039908.250	0x00000000	No	statisti	

Missing Peak information

Peak Name	Expected R
N-C29	4600.00
N-C30	4600.00

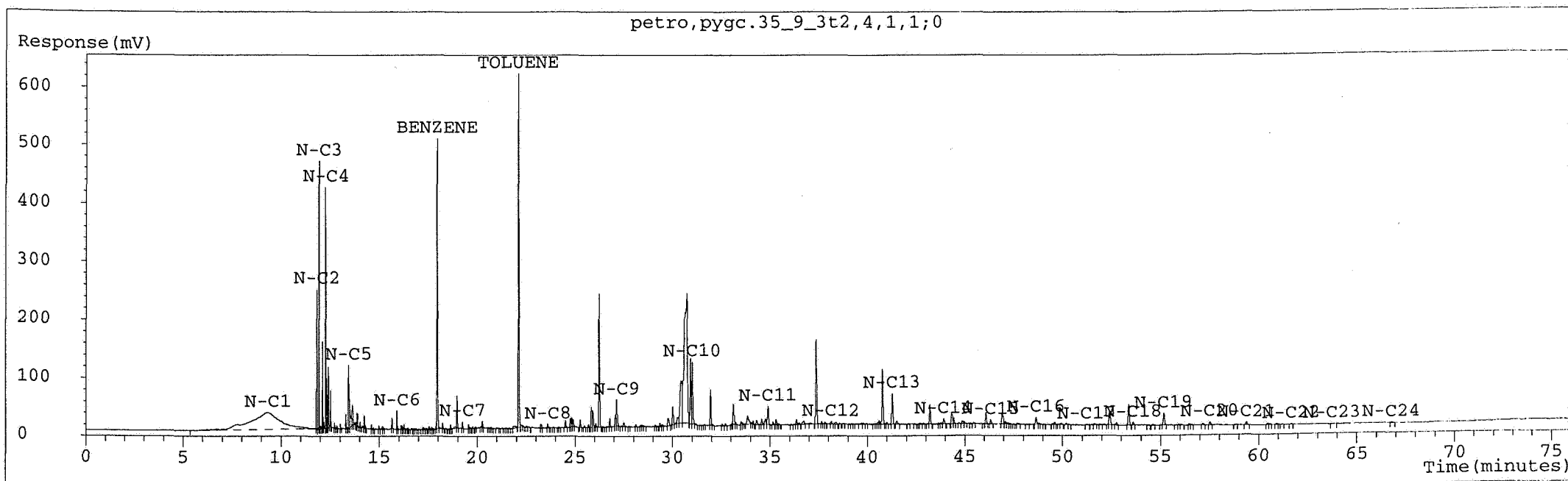


Peak Group information

Group Name	Area	Amount	Abs/Area	Amount	Norm/Area	Amount	%/Area	Quant.	War	Reject
N-C1	9779.000		9779.000		19.672	977900.000	0x00000000	No	statisti	
C2-C5	16855.180		16855.180		33.906	1685518.000	0x00000000	No	statisti	
C6-C14	20879.652		20879.652		42.002	2087965.250	0x00000000	No	statisti	
C15+	2197.649		2197.649		4.421	219764.891	0x00000000	No	statisti	
TOT AREA	49711.453		49711.453		100.000	4971145.500	0x00000000	No	statisti	

Missing Peak information

Peak Name	Expected R
N-C29	4600.00
N-C30	4600.00



Peak Group information

Group Name	Area	Amount	Abs/Area	Amount	Norm/Area	Amount	%/Area	Quant.	War	Reject
N-C1	3149.829	3149.829	3149.829	15.981	314982.875	0x00000000	No	statisti		
C2-C5	2885.628	2885.628	2885.628	14.640	288562.844	0x00000000	No	statisti		
C6-C14	12548.891	12548.891	12548.891	63.666	1254889.125	0x00000000	No	statisti		
C15+	1126.085	1126.085	1126.085	5.713	112608.531	0x00000000	No	statisti		
TOT AREA	19710.436	19710.436	19710.436	100.000	1971043.500	0x00000000	No	statisti		

Missing Peak information

Peak Name	Expected R
N-C26	4115.00
N-C27	4200.00
N-C29	4600.00

P#	Rt (m)	Ion m/z	Compound	Height	Amount
n-Alkanes					
27	13.06	43.0	n-C6	557750	53
28	15.68	43.0	n-C7	158080	15
29	19.17	43.0	n-C8	185792	18
30	22.77	43.0	n-C9	145573	14
31	26.23	43.0	n-C10	146581	14
32	29.50	43.0	n-C11	144320	14
33	32.54	43.0	n-C12	132663	13
34	35.40	43.0	n-C13	124496	12
35	38.09	43.0	n-C14	95632	9
36	40.65	43.0	n-C15	82120	8
37	43.06	43.0	n-C16	59328	6
38	45.38	43.0	n-C17	54296	5
39	47.56	43.0	n-C18	38728	4
40	49.66	43.0	n-C19	31489	3
41	51.65	43.0	n-C20	22062	2
42	53.56	43.0	n-C21	13772	1
43	55.39	43.0	n-C22	8368	1
44	57.15	43.0	n-C23	4704	0
45	58.84	43.0	n-C24	2711	0
46	60.46	43.0	n-C25	1127	0
47	62.03	43.0	n-C26	494	0
48	64.81	43.0	n-C27	58	0
49	66.31	43.0	n-C28	236	0
50	67.60	43.0	n-C29	23	0
51	68.88	43.0	n-C30	200	0
Alkenes: 1 / Prist-1-ene					
1	12.77	41.0	n-C6:1	275584	26
2	15.41	41.0	n-C7:1	183104	17
3	18.86	41.0	n-C8:1	123912	12
4	22.48	41.0	n-C9:1	110288	10
5	25.95	41.0	n-C10:1	118472	11
6	29.22	41.0	n-C11:1	100160	9
7	32.29	41.0	n-C12:1	88270	8
8	35.16	41.0	n-C13:1	67109	6
9	37.89	41.0	n-C14:1	54544	5
10	40.46	41.0	n-C15:1	40832	4
11	42.89	41.0	n-C16:1	29744	3
12	45.21	41.0	n-C17:1	18736	2
13	46.29	41.0	Prist-1-ene	10755	1
14	47.41	41.0	n-C18:1	13328	1
15	49.52	41.0	n-C19:1	9249	1
16	51.52	41.0	n-C20:1	5160	0
17	53.44	41.0	n-C21:1	3452	0
18	55.29	41.0	n-C22:1	1638	0
19	57.06	41.0	n-C23:1	836	0
20	58.75	41.0	n-C24:1	328	0
21	60.44	41.0	n-C25:1	288	0
22	62.03	41.0	n-C26:1	264	0
23	64.91	41.0	n-C27:1	86	0
24	66.14	41.0	n-C28:1	42	0
25	67.43	41.0	n-C29:1	52	0
26	69.35	41.0	n-C30:1	141	0
Benzenes					
52	14.38	78.0	Benzene	1368576	130
53	17.78	91.0	Toluene	1192960	113
54	21.16	91.0	Ethylbenzene	195904	19
55	21.46	91.0	m+p-Xylene	434688	41
56	22.26	91.0	o-Xylene	310400	29
57	24.46	91.0	Propylbenzene	103688	10
58	24.74	105.0	1e,3m+1e,4-mB	106304	10
59	24.98	105.0	1,3,5-tmB	43968	4
60	25.34	105.0	1e,2-mB	93280	9
61	25.79	105.0	1,2,4-tmB	153358	15
62	26.72	105.0	1,2,3-tmB	93960	9
Biphenyls					
118	38.57	154.0	BP	13985	1
119	40.07	168.0	3-mBP	168	2
120	40.29	168.0	4-mBP	8049	1
121	40.71	168.0	DBF	89908	9

Pyrolysis GC-MSD Quantification method

File (sample):	2365.D		
File path:	C:\HPCHEM2\DATA\35_9_3T2\		
Misc information:	55.0		
Sample name:	2365m, 35/9-3T2		
Method:	PY_SIM_C	Operator:	Reidun
Date analyzed:	03-mar-98		

External std.:		Phenanthrene	Cal.response	Amount	
			192247	1002	
P#	Rt (m)	Ion m/z	Compound	Height	Amount
Phenols					
70	25.95	94.0	Phenol	183419	17
71	28.16	107.0	2-mPhenol	50560	5
72	28.82	107.0	3+4-mPhenol	43629	4
73	29.60	107.0	2,6-dmPhenol	11314	1
74	30.75	107.0	2-ePhenol	10149	1
75	31.02	107.0	2,4+2,5-dmPhenol	17168	2
76	31.73	107.0	4e+3e+3,5-dmPhenol	11493	1
77	31.93	107.0	2,3-dmPhenol	5920	1
78	34.33	107.0	3,4-dmPhenol	1810	0
Naphthalenes					
99	31.71	128.0	N	497984	47
100	36.98	142.0	2-mN	1018	0
101	37.18	142.0	1-mN	142	0
102	37.65	156.0	2-eN	5902	1
103	37.75	156.0	1-eN	6897	1
104	37.94	156.0	2,6+2,7-dmN	22912	2
105	38.31	156.0	1,3+1,7-dmN	42264	4
106	38.40	156.0	1,6-dmN	35776	3
107	38.80	156.0	2,3+1,4-dmN	17722	2
108	38.89	156.0	1,5-dmN	12944	1
109	39.19	156.0	1,2-dmN	13064	1
110	41.03	170.0	1,3,7-tmN	8883	1
111	41.14	170.0	1,3,6-tmN	14585	1
112	41.53	170.0	1,3,5+1,4,6-tmN	15483	1
113	41.59	170.0	2,3,6-tmN	7935	1
114	41.95	170.0	1,6,7+1,2,7-tmN	8972	1
115	41.96	170.0	1,2,6-tmN	8605	1
116	42.32	170.0	1,2,4-tmN	2874	0
117	42.49	170.0	1,2,5-tmN	13329	1
Phenanthrenes / Anthracene					
63	46.75	178.0	Phenanthrene	144128	14
64	46.95	178.0	Anthracene	50496	5
65	49.20	192.0	3-mP	9344	1
66	49.30	192.0	2-mP	9609	1
67	49.47	192.0	2-mA	5476	1
68	49.69	192.0	9-mP	14618	1
69	49.79	192.0	1-mP	10186	1
Thiophenes					
79	14.57	84.0	Thiophene	230272	22
80	17.95	98.0	2-mT	62504	6
81	18.20	98.0	3-mT	28056	3
82	21.31	111.0	2-eT	1408	0
83	21.50	111.0	2,5-dmT	20976	2
84	21.75	111.0	2,4-dmT	21472	2
85	22.14	111.0	2,3-dmT	12621	1
86	22.67	111.0	3,4-dmT	3052	0
87	25.45	98.0	pT	414	0
88	24.73	111.0	2e,5-mT	16750	2
89	25.05	111.0	2e,4-mT	10089	1
90	25.20	111.0	emT	4064	0
91	25.45	111.0	2,3,5-tmT	14005	1
92	28.80	111.0	2,3,4-tmT	4196	0
Benzothiophenes / Dibenzothiophenes					
93	31.98	134.0	Benzothiophene	138240	13
94	36.49	148.0	7-mBT	351	0
95	36.55	148.0	2-mBT	94	0
96	36.76	148.0	5+6-mBT	231	0
97	36.84	148.0	3+4-mBT	171	0
98	46.16	184.0	DBT	58768	6

P#	Rt (m)	Ion m/z	Compound	Height	Amount
n-Alkanes					
27	14.26	43.0	n-C6	502226	52
28	16.37	43.0	n-C7	196864	20
29	19.45	43.0	n-C8	266496	28
30	22.87	43.0	n-C9	219749	23
31	26.26	43.0	n-C10	204435	21
32	29.51	43.0	n-C11	213611	22
33	32.55	43.0	n-C12	195952	20
34	35.41	43.0	n-C13	196096	20
35	38.11	43.0	n-C14	156264	16
36	40.66	43.0	n-C15	141531	15
37	43.08	43.0	n-C16	114208	12
38	45.40	43.0	n-C17	95333	10
39	47.58	43.0	n-C18	80428	8
40	49.67	43.0	n-C19	70864	7
41	51.67	43.0	n-C20	60349	6
42	53.58	43.0	n-C21	46688	5
43	55.41	43.0	n-C22	32040	3
44	57.16	43.0	n-C23	24400	3
45	58.85	43.0	n-C24	16260	2
46	60.48	43.0	n-C25	8803	1
47	62.05	43.0	n-C26	6105	1
48	63.57	43.0	n-C27	3404	0
49	65.03	43.0	n-C28	1733	0
50	66.83	43.0	n-C29	422	0
51	68.88	43.0	n-C30	285	0
n-alkenes:1 / Prist-1-ene					
1	14.04	41.0	n-C6:1	392704	41
2	16.15	41.0	n-C7:1	243648	25
3	19.16	41.0	n-C8:1	164901	17
4	22.58	41.0	n-C9:1	177920	18
5	25.98	41.0	n-C10:1	160960	17
6	29.24	41.0	n-C11:1	149248	15
7	32.30	41.0	n-C12:1	130138	13
8	35.17	41.0	n-C13:1	114259	12
9	37.89	41.0	n-C14:1	87480	9
10	40.46	41.0	n-C15:1	66536	7
11	42.89	41.0	n-C16:1	50576	5
12	45.23	41.0	n-C17:1	36432	4
13	46.31	41.0	Prist-1-ene	22477	2
14	47.43	41.0	n-C18:1	29464	3
15	49.54	41.0	n-C19:1	20872	2
16	51.53	41.0	n-C20:1	14944	2
17	53.46	41.0	n-C21:1	10435	1
18	55.30	41.0	n-C22:1	7252	1
19	57.08	41.0	n-C23:1	4248	0
20	58.77	41.0	n-C24:1	2475	0
21	60.41	41.0	n-C25:1	1241	0
22	62.02	41.0	n-C26:1	508	0
23	63.54	41.0	n-C27:1	631	0
24	64.99	41.0	n-C28:1	296	0
25	66.83	41.0	n-C29:1	878	0
26	68.22	41.0	n-C30:1	1165	0
Benzenes					
52	15.31	78.0	Benzene	1277336	132
53	18.22	91.0	Toluene	1322251	137
54	21.34	91.0	Ethylbenzene	279168	29
55	21.62	91.0	m+p-Xylene	556224	58
56	22.39	91.0	o-Xylene	410816	43
57	24.52	91.0	Propylbenzene	141555	15
58	24.81	105.0	1e,3m+1e,4-mB	158464	16
59	25.03	105.0	1,3,5-tmB	73376	8
60	25.39	105.0	1e,2-mB	135488	14
61	25.84	105.0	1,2,4-tmB	239168	25
62	26.76	105.0	1,2,3-tmB	151744	16
Biphenyls					
118	37.33	154.0	BP	95416	10
119	40.09	168.0	3-mBP	168	3
120	40.29	168.0	4-mBP	10343	1
121	40.73	168.0	DBF	92120	10

Pyrolysis GC-MSD Quantification method

File (sample):	2375.D
File path:	C:\HPCHEM2\DATA\35_9_3T2\
Misc information:	50.3
Sample name:	2375m, 35/9-3T2
Method:	PY_SIM_C
Operator:	Reidun
Date analyzed:	03-mar-98

External std.: Phenanthrene				Cal.response	Amount
				192247	1002
P#	Rt (m)	Ion m/z	Compound	Height	Amount
Phenols					
70	26.05	94.0	Phenol	225536	23
71	28.21	107.0	2-mPhenol	55280	6
72	28.89	107.0	3+4-mPhenol	45824	5
73	29.63	107.0	2,6-dmPhenol	15288	2
74	30.78	107.0	2-ePhenol	11503	1
75	31.05	107.0	2,4+2,5-dmPhenol	19509	2
76	31.73	107.0	4e+3e+3,5-dmPhenol	14353	1
77	32.40	107.0	2,3-dmPhenol	6064	1
78	34.35	107.0	3,4-dmPhenol	2754	0
Naphthalenes					
99	31.73	128.0	N	521600	54
100	36.99	142.0	2-mN	1825	0
101	37.20	142.0	1-mN	142	0
102	37.67	156.0	2-eN	10270	1
103	37.75	156.0	1-eN	10419	1
104	37.96	156.0	2,6+2,7-dmN	34648	4
105	38.33	156.0	1,3+1,7-dmN	62392	6
106	38.41	156.0	1,6-dmN	54186	6
107	38.82	156.0	2,3+1,4-dmN	26704	3
108	38.90	156.0	1,5-dmN	18992	2
109	39.21	156.0	1,2-dmN	21438	2
110	41.05	170.0	1,3,7-tmN	14552	2
111	41.15	170.0	1,3,6-tmN	25161	3
112	41.54	170.0	1,3,5+1,4,6-tmN	24206	3
113	41.61	170.0	2,3,6-tmN	13301	1
114	41.95	170.0	1,6,7+1,2,7-tmN	14005	1
115	41.98	170.0	1,2,6-tmN	15712	2
116	42.34	170.0	1,2,4-tmN	4752	0
117	42.51	170.0	1,2,5-tmN	19528	2
Phenanthrenes / Anthracene					
63	46.77	178.0	Phenanthrene	133056	14
64	46.97	178.0	Anthracene	55080	6
65	49.22	192.0	3-mP	14371	1
66	49.32	192.0	2-mP	16416	2
67	49.49	192.0	2-mA	10323	1
68	49.71	192.0	9-mP	20912	2
69	49.79	192.0	1-mP	16104	2
Thiophenes					
79	15.46	84.0	Thiophene	244777	25
80	18.35	98.0	2-mT	125064	13
81	18.59	98.0	3-mT	49351	5
82	21.48	111.0	2-eT	3469	0
83	21.65	111.0	2,5-dmT	59496	6
84	21.90	111.0	2,4-dmT	50320	5
85	22.27	111.0	2,3-dmT	29200	3
86	22.77	111.0	3,4-dmT	5232	1
87	25.50	98.0	pT	593	0
88	24.79	111.0	2e,5-mT	61527	6
89	25.10	111.0	2e,4-mT	28328	3
90	25.25	111.0	emT	9424	1
91	25.50	111.0	2,3,5-tmT	43310	4
92	27.77	111.0	2,3,4-tmT	21272	2
Benzothiophenes / Dibenzothiophenes					
93	32.00	134.0	Benzothiophene	174720	18
94	36.50	148.0	7-mBT	461	0
95	36.55	148.0	2-mBT	254	0
96	36.77	148.0	5+6-mBT	500	0
97	36.84	148.0	3+4-mBT	391	0
98	46.17	184.0	DBT	62088	6

P#	Rt (m)	Ion m/z	Compound	Height	Amount
n-Alkanes					
					ng/mg
27	13.11	43.0	n-C6	19536	2
28	16.02	43.0	n-C7	16280	2
29	19.18	43.0	n-C8	15368	2
30	22.78	43.0	n-C9	15354	2
31	26.25	43.0	n-C10	15168	1
32	29.51	43.0	n-C11	15624	2
33	32.56	43.0	n-C12	17605	2
34	35.41	43.0	n-C13	29498	3
35	38.11	43.0	n-C14	8212	1
36	40.66	43.0	n-C15	10251	1
37	43.01	43.0	n-C16	3814	0
38	45.40	43.0	n-C17	1211	0
39	47.58	43.0	n-C18	712	0
40	49.67	43.0	n-C19	402	0
41	51.67	43.0	n-C20	229	0
42	54.73	43.0	n-C21	135	0
43	56.72	43.0	n-C22	41	0
44	58.35	43.0	n-C23	45	0
45	59.99	43.0	n-C24	31	0
46	61.58	43.0	n-C25	16	0
47	63.11	43.0	n-C26	18	0
48	64.69	43.0	n-C27	39	0
49	66.33	43.0	n-C28	35	0
50	67.54	43.0	n-C29	28	0
51	68.98	43.0	n-C30	19	0
n-alkenes:1 / Prist-1-ene					
1	12.94	41.0	n-C6:1	33072	3
2	15.46	41.0	n-C7:1	13952	1
3	18.88	41.0	n-C8:1	9044	1
4	22.53	41.0	n-C9:1	9365	1
5	25.81	41.0	n-C10:1	26036	3
6	29.23	41.0	n-C11:1	4331	0
7	32.30	41.0	n-C12:1	3783	0
8	35.33	41.0	n-C13:1	18269	2
9	37.91	41.0	n-C14:1	1027	0
10	40.58	41.0	n-C15:1	1398	0
11	42.91	41.0	n-C16:1	458	0
12	45.34	41.0	n-C17:1	85	0
13	46.77	41.0	Prist-1-ene	106	0
14	47.42	41.0	n-C18:1	88	0
15	49.61	41.0	n-C19:1	40	0
16	52.63	41.0	n-C20:1	19	0
17	54.68	41.0	n-C21:1	16	0
18	56.66	41.0	n-C22:1	44	0
19	58.24	41.0	n-C23:1	31	0
20	59.90	41.0	n-C24:1	28	0
21	61.52	41.0	n-C25:1	19	0
22	63.10	41.0	n-C26:1	20	0
23	64.62	41.0	n-C27:1	42	0
24	66.21	41.0	n-C28:1	31	0
25	67.43	41.0	n-C29:1	23	0
26	69.25	41.0	n-C30:1	24	0
Benzenes					
52	14.42	78.0	Benzene	944768	93
53	17.78	91.0	Toluene	1291264	127
54	21.18	91.0	Ethylbenzene	86896	9
55	21.47	91.0	m+p-Xylene	858560	84
56	22.26	91.0	o-Xylene	214656	21
57	24.46	91.0	Propylbenzene	21584	2
58	24.76	105.0	1e,3m+1e,4-mB	63456	6
59	24.98	105.0	1,3,5-tmB	131584	13
60	25.34	105.0	1e,2-mB	19736	2
61	25.81	105.0	1,2,4-tmB	496128	49
62	26.74	105.0	1,2,3-tmB	296896	29
Biphenyls					
118	37.33	154.0	BP	209920	21
119	40.10	168.0	3-mBP	168	8
120	40.31	168.0	4-mBP	23600	2
121	40.73	168.0	DBF	187712	18

Pyrolysis GC-MSD Quantification method

File (sample):	2671.D		
File path:	C:\HPCHEM2\DATA\35_9_3T2\		
Misc information:	53.2		
Sample name:	2671m, 35/9-3T2		
Method:	PY_SIM_C	Operator:	Reidun
Date analyzed:	03-mar-98		

External std.:		Phenanthrene		Cal.response	Amount
				192247	1002
P#	Rt (m)	Ion m/z	Compound	Height	Amount
Phenols					
					ng/mg
70	26.33	94.0	Phenol	761346	75
71	28.25	107.0	2-mPhenol	47968	5
72	28.94	107.0	3+4-mPhenol	69512	7
73	29.63	107.0	2,6-dmPhenol	4056	0
74	30.78	107.0	2-ePhenol	2189	0
75	31.05	107.0	2,4+2,5-dmPhenol	2923	0
76	31.76	107.0	4e+3e+3,5-dmPhenol	3144	0
77	31.98	107.0	2,3-dmPhenol	626	0
78	33.72	107.0	3,4-dmPhenol	448	0
Naphthalenes					
99	31.75	128.0	N	1108992	109
100	37.67	142.0	2-mN	312	0
101	37.75	142.0	1-mN	142	0
102	37.69	156.0	2-eN	946	0
103	37.77	156.0	1-eN	1592	0
104	37.96	156.0	2,6+2,7-dmN	34040	3
105	38.33	156.0	1,3+1,7-dmN	80056	8
106	38.41	156.0	1,6-dmN	45985	5
107	38.82	156.0	2,3+1,4-dmN	17617	2
108	38.90	156.0	1,5-dmN	11407	1
109	39.21	156.0	1,2-dmN	4741	0
110	41.05	170.0	1,3,7-tmN	6258	1
111	41.15	170.0	1,3,6-tmN	8519	1
112	41.54	170.0	1,3,5+1,4,6-tmN	7346	1
113	41.57	170.0	2,3,6-tmN	3006	0
114	41.95	170.0	1,6,7+1,2,7-tmN	3558	0
115	41.96	170.0	1,2,6-tmN	3047	0
116	42.34	170.0	1,2,4-tmN	528	0
117	42.50	170.0	1,2,5-tmN	1860	0
Phenanthrenes / Anthracene					
63	46.77	178.0	Phenanthrene	269696	26
64	46.97	178.0	Anthracene	32760	3
65	49.22	192.0	3-mP	7903	1
66	49.32	192.0	2-mP	7700	1
67	49.50	192.0	2-mA	444	0
68	49.71	192.0	9-mP	15608	2
69	49.81	192.0	1-mP	7339	1
Thiophenes					
79	14.62	84.0	Thiophene	17648	2
80	17.95	98.0	2-mT	1547	0
81	18.22	98.0	3-mT	1544	0
82	20.05	111.0	2-eT	135	0
83	20.21	111.0	2,5-dmT	11285	1
84	20.55	111.0	2,4-dmT	264	0
85	20.74	111.0	2,3-dmT	556	0
86	21.77	111.0	3,4-dmT	541	0
87	24.17	98.0	pT	230	0
88	25.12	111.0	2e,5-mT	99	0
89	25.27	111.0	2e,4-mT	53	0
90	25.37	111.0	emT	58	0
91	25.86	111.0	2,3,5-tmT	157	0
92	27.06	111.0	2,3,4-tmT	694	0
Benzothiophenes / Dibenzothiophenes					
93	32.00	134.0	Benzothiophene	47456	5
94	36.43	148.0	7-mBT	119	0
95	36.74	148.0	2-mBT	256	0
96	37.03	148.0	5+6-mBT	58	0
97	37.13	148.0	3+4-mBT	38	0
98	46.17	184.0	DBT	40920	4

Appendix III

Whole oil chromatograms and tabulated results of the light hydrocarbons

Sample Name: 35/9-3t2, 2670

Sample info:

orted By : Signal
 Lib. Data Modified : Mon, 2. Mar. 1998, 03:07:06 pm
 Multiplier : 1.000000
 Dilution(1/mg sample) : 0.002181
 Uncalibrated Peaks : not reported



#	Compound	Amount ug/mg	Area	Resp. ratio	Rt. min.
1	iC5	1.85	181	1.00	7.49
2	nC5	2.60	255	1.00	8.03
3	22dm-C4	0.15	15	1.00	9.08
4	cyC5	0.47	47	1.00	10.19
5	23dm-C4	0.31	31	1.00	10.26
6	2m-C5	1.63	160	1.00	10.44
7	3m-C5	1.07	105	1.00	11.28
8	nC6	3.30	324	1.00	12.61
9	3m-cyC5-ene	0.00	0	1.00	13.39
10	22dm-C5	0.12	12	1.00	14.63
11	m-cyC5	2.87	281	1.00	14.83
12	24dm-C5	0.20	20	1.00	15.16
13	223tm-C4	0.04	4	1.00	15.64
14	Benzene	3.06	327	1.00	16.98
15	33dm-C5	0.09	9	1.00	17.57
16	cyC6	6.54	642	1.00	17.96
17	2m-C6	1.32	129	1.00	18.94
18	23dm-C5	0.36	36	1.00	19.13
19	11dm-cyC5	0.35	35	1.00	19.46
20	3m-C6	1.40	137	1.00	19.96
21	1c.3dm-cyC5	0.54	53	1.00	20.74
22	1t.3dm-cyC5	0.51	50	1.00	21.09
23	3e-C5	0.10	10	1.00	21.24
24	1t.2dm-cyC5	0.82	80	1.00	21.44
25	iC8 (ISTD) /224tm-C5	8.33	818	1.00	21.67
26	nC7	4.02	395	1.00	23.20
27	1c.2-dm-cyC5	0.09	8	1.00	26.09
28	m-cyC6	11.15	1095	1.00	26.25
29	113tm-cyC5	0.35	34	1.00	26.75
30	e-cyC5	0.38	38	1.00	28.25
31	25dm-C6	0.21	21	1.00	28.52
32	223tm-C5/24dm-C6	0.26	26	1.00	28.87
33	1c.2t.4tm-cyC5	0.25	25	1.00	29.89
34	33dm-C6	0.09	9	1.00	30.16
35	1t.2c.3tm-cyC5	0.21	21	1.00	31.26
36	234tm-C5	0.02	2	1.00	31.81
37	Toluen/233tm-C5	11.15	1192	1.00	32.49
38	23dm-C6	0.30	29	1.00	33.98
39	2m-C7	1.35	133	1.00	35.20
40	4m-C7	0.48	47	1.00	35.49
41	3m-C7	1.08	106	1.00	36.68
42	1c.3dm-cyC6	2.08	204	1.00	36.85
43	1t.4dm-cyC6	0.82	80	1.00	37.21
44	11dm-cyC6	0.15	15	1.00	39.69
45	1t.2dm-cyC6	0.96	94	1.00	40.62
46	nC8	5.02	493	1.00	42.02
47	e-cyC6	2.76	271	1.00	47.90
48	iC9	0.36	38	1.00	49.11
49	e-benzene	1.65	176	1.00	52.05
50	m-xylene	6.95	743	1.00	54.33
51	p-xylene	1.74	186	1.00	54.59
52	4m-C8	0.60	64	1.00	57.24
53	2m-C8	0.80	85	1.00	57.56
54	3m-C8	0.85	91	1.00	59.47
55	o-xylene	3.11	333	1.00	60.44
56	nC9	4.55	486	1.00	66.52
57	iC10	0.69	73	1.00	73.29
58	nC10	5.03	538	1.00	83.14
59	iC11	0.75	80	1.00	86.19
60	nC11	5.30	566	1.00	94.57
61	nC12	6.26	669	1.00	103.78
62	i-C13	0.92	99	1.00	105.10
63	phC6 (ISTD)	8.33	891	1.00	107.83
64	iC14	4.58	489	1.00	110.13

Data file : C:\HPCHEM\1\DATA\30_8_3\2670.D
Sample Name: 35/9-3t2, 2670
Sample info:

#	Compound	Amount ug/mg	Area	Resp. ratio	Rt. min.
65	nC13	6.13	656	1.00	111.79
66	iC15	1.58	169	1.00	117.60
67	nC14	6.59	704	1.00	119.04
68	iC16	2.07	221	1.00	123.44
69	nC15	7.22	772	1.00	125.75
70	nC16	6.90	738	1.00	132.03
71	iC18	1.55	166	1.00	135.17
72	nC17	7.02	751	1.00	137.96
73	pristane	3.05	326	1.00	138.56
74	nC18	6.97	745	1.00	143.57
75	phytane	1.76	188	1.00	144.34
76	nC19	7.69	822	1.00	148.90
77	nC20	6.83	730	1.00	153.98

Internal standards for quantification:

ISTD #	Name	Amount ug
1	iC8 (ISTD) /224tm-	3820.00
2	phC6 (ISTD)	3820.00

*** End of Report ***

Sample Name: 35/9-3t2, 2676.5

Sample info:

rted By : Signal
 lib. Data Modified : Mon, 2. Mar. 1998, 03:55:37 pm
 Multiplier : 1.000000
 Dilution(1/mg sample) : 0.002362
 Uncalibrated Peaks : not reported



#	Compound	Amount ug/mg	Area	Resp. ratio	Rt. min.
1	iC5	1.94	200	1.00	7.48
2	nC5	2.78	286	1.00	8.03
3	22dm-C4	0.14	14	1.00	9.08
4	cyC5	0.47	49	1.00	10.19
5	23dm-C4	0.31	31	1.00	10.25
6	2m-C5	1.64	168	1.00	10.44
7	3m-C5	1.06	109	1.00	11.28
8	nC6	3.31	341	1.00	12.60
9	3m-cyC5-ene	0.00	0	1.00	13.40
10	22dm-C5	0.11	12	1.00	14.63
11	m-cyC5	2.68	276	1.00	14.83
12	24dm-C5	0.19	20	1.00	15.15
13	223tm-C4	0.03	4	1.00	15.64
14	Benzene	2.86	328	1.00	16.98
15	33dm-C5	0.08	8	1.00	17.56
16	cyC6	6.05	622	1.00	17.95
17	2m-C6	1.25	129	1.00	18.93
18	23dm-C5	0.35	36	1.00	19.13
19	11dm-cyC5	0.34	35	1.00	19.45
20	3m-C6	1.33	137	1.00	19.95
21	1c.3dm-cyC5	0.51	53	1.00	20.73
22	1t.3dm-cyC5	0.47	49	1.00	21.09
23	3e-C5	0.10	10	1.00	21.23
24	1t.2dm-cyC5	0.78	80	1.00	21.44
25	iC8 (ISTD) /224tm-C5	8.73	899	1.00	21.66
26	nC7	3.88	400	1.00	23.19
27	1c.2-dm-cyC5	0.01	1	1.00	26.01
28	m-cyC6	10.09	1039	1.00	26.24
29	113tm-cyC5	0.34	35	1.00	26.75
30	e-cyC5	0.35	37	1.00	28.24
31	25dm-C6	0.20	20	1.00	28.51
32	223tm-C5/24dm-C6	0.24	25	1.00	28.87
33	1c.2t.4tm-cyC5	0.25	26	1.00	29.88
34	33dm-C6	0.08	9	1.00	30.16
35	1t.2c.3tm-cyC5	0.21	22	1.00	31.26
36	234tm-C5	0.02	3	1.00	31.80
37	Toluen/233tm-C5	9.20	1057	1.00	32.48
38	23dm-C6	0.28	29	1.00	33.97
39	2m-C7	1.29	132	1.00	35.20
40	4m-C7	0.45	46	1.00	35.48
41	3m-C7	1.01	104	1.00	36.67
42	1c.3dm-cyC6	1.88	194	1.00	36.84
43	1t.4dm-cyC6	0.75	77	1.00	37.21
44	11dm-cyC6	0.15	16	1.00	39.68
45	1t.2dm-cyC6	0.88	91	1.00	40.61
46	nC8	4.73	487	1.00	42.01
47	e-cyC6	2.55	263	1.00	47.89
48	iC9	0.34	39	1.00	49.10
49	e-benzene	1.33	152	1.00	52.04
50	m-xylene	5.54	636	1.00	54.31
51	p-xylene	1.39	159	1.00	54.58
52	4m-C8	0.53	61	1.00	57.24
53	2m-C8	0.71	81	1.00	57.55
54	3m-C8	0.75	87	1.00	59.47
55	o-xylene	2.56	294	1.00	60.42
56	nC9	4.12	474	1.00	66.51
57	iC10	0.63	73	1.00	73.29
58	nC10	4.47	514	1.00	83.14
59	iC11	0.73	84	1.00	86.19
60	nC11	4.65	533	1.00	94.56
61	nC12	5.39	619	1.00	103.78
62	i-C13	0.80	92	1.00	105.10
63	phC6 (ISTD)	8.73	1002	1.00	107.83
64	iC14	3.65	419	1.00	110.12

Data file : C:\HPCHEM\1\DATA\30_8_3\2676_5.D
Sample Name: 35/9-3t2, 2676.5
Sample info:

#	Compound	Amount ug/mg	Area	Resp. ratio	Rt. min.
65	nC13	5.31	610	1.00	111.79
66	iC15	1.33	153	1.00	117.60
67	nC14	5.69	654	1.00	119.04
68	iC16	1.83	210	1.00	123.44
69	nC15	6.27	720	1.00	125.75
70	nC16	6.12	703	1.00	132.03
71	iC18	1.37	158	1.00	135.17
72	nC17	6.30	723	1.00	137.96
73	pristane	2.80	321	1.00	138.55
74	nC18	6.35	729	1.00	143.57
75	phytane	1.74	199	1.00	144.33
76	nC19	6.97	800	1.00	148.90
77	nC20	6.47	743	1.00	153.97

Internal standards for quantification:

ISTD #	Name	Amount ug
1	iC8 (ISTD)/224tm-	3695.00
2	phC6 (ISTD)	3695.00

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*** End of Report ***

Data file : C:\HPCHEM\1\DATA\30_8_3\2681_3.D
 Sample Name: 35/9-3t2, 2681.3
 Sample info:

Printed By : Signal
 Lib. Data Modified : Mon, 2. Mar. 1998, 04:13:11 pm
 Multiplier : 1.000000
 Dilution(1/mg sample) : 0.002222
 Uncalibrated Peaks : not reported



#	Compound	Amount ug/mg	Area	Resp. ratio	Rt. min.
1	iC5	1.81	179	1.00	7.49
2	nC5	2.57	255	1.00	8.03
3	22dm-C4	0.14	14	1.00	9.08
4	cyC5	0.47	46	1.00	10.19
5	23dm-C4	0.30	30	1.00	10.25
6	2m-C5	1.57	155	1.00	10.44
7	3m-C5	1.03	101	1.00	11.28
8	nC6	3.20	316	1.00	12.61
9	3m-cyC5-ene	0.00	0	1.00	13.42
10	22dm-C5	0.11	11	1.00	14.63
11	m-cyC5	2.72	269	1.00	14.83
12	24dm-C5	0.19	19	1.00	15.15
13	223tm-C4	0.04	4	1.00	15.64
14	Benzene	2.96	327	1.00	16.97
15	33dm-C5	0.08	8	1.00	17.56
16	cyC6	6.24	617	1.00	17.95
17	2m-C6	1.24	123	1.00	18.93
18	23dm-C5	0.35	35	1.00	19.13
19	11dm-cyC5	0.34	34	1.00	19.45
20	3m-C6	1.33	131	1.00	19.96
21	1c.3dm-cyC5	0.52	51	1.00	20.73
22	1t.3dm-cyC5	0.48	48	1.00	21.09
23	3e-C5	0.10	10	1.00	21.24
24	1t.2dm-cyC5	0.79	78	1.00	21.44
25	iC8 (ISTD)/224tm-C5	8.41	832	1.00	21.66
26	nC7	3.88	383	1.00	23.20
27	1c.2-dm-cyC5	0.04	4	1.00	26.06
28	m-cyC6	10.55	1044	1.00	26.24
29	113tm-cyC5	0.35	34	1.00	26.75
30	e-cyC5	0.37	36	1.00	28.24
31	25dm-C6	0.20	20	1.00	28.52
32	223tm-C5/24dm-C6	0.25	24	1.00	28.87
33	1c.2t.4tm-cyC5	0.25	25	1.00	29.88
34	33dm-C6	0.09	9	1.00	30.16
35	1t.2c.3tm-cyC5	0.21	21	1.00	31.26
36	234tm-C5	0.02	2	1.00	31.81
37	Toluen/233tm-C5	9.88	1093	1.00	32.48
38	23dm-C6	0.29	28	1.00	33.97
39	2m-C7	1.30	128	1.00	35.20
40	4m-C7	0.46	45	1.00	35.49
41	3m-C7	1.03	102	1.00	36.67
42	1c.3dm-cyC6	1.97	195	1.00	36.84
43	1t.4dm-cyC6	0.79	78	1.00	37.21
44	11dm-cyC6	0.15	15	1.00	39.69
45	1t.2dm-cyC6	0.93	92	1.00	40.61
46	nC8	4.83	478	1.00	42.02
47	e-cyC6	2.68	265	1.00	47.89
48	iC9	0.35	38	1.00	49.11
49	e-benzene	1.45	161	1.00	52.05
50	m-xylene	6.10	675	1.00	54.32
51	p-xylene	1.53	169	1.00	54.58
52	4m-C8	0.55	61	1.00	57.24
53	2m-C8	0.73	81	1.00	57.55
54	3m-C8	0.79	87	1.00	59.47
55	o-xylene	2.78	308	1.00	60.43
56	nC9	4.28	474	1.00	66.51
57	iC10	0.66	72	1.00	73.29
58	nC10	4.74	524	1.00	83.14
59	iC11	0.76	84	1.00	86.19
60	nC11	4.99	552	1.00	94.57
61	nC12	5.90	652	1.00	103.78
62	i-C13	0.86	96	1.00	105.10
63	phC6 (ISTD)	8.41	930	1.00	107.83
64	iC14	4.13	457	1.00	110.12

Data file : C:\HPCHEM\1\DATA\30_8_3\2681_3.D
Sample Name: 35/9-3t2, 2681.3
Sample info:

#	Compound	Amount ug/mg	Area	Resp. ratio	Rt. min.
65	nC13	5.84	646	1.00	111.79
66	iC15	1.48	164	1.00	117.60
67	nC14	6.28	694	1.00	119.04
68	iC16	1.98	219	1.00	123.44
69	nC15	6.91	764	1.00	125.75
70	nC16	6.70	741	1.00	132.03
71	iC18	1.49	164	1.00	135.17
72	nC17	6.84	756	1.00	137.96
73	pristane	2.98	330	1.00	138.56
74	nC18	6.89	762	1.00	143.57
75	phytane	1.86	206	1.00	144.34
76	nC19	7.52	831	1.00	148.90
77	nC20	6.87	760	1.00	153.98

Internal standards for quantification:

ISTD #	Name	Amount ug
1	iC8(ISTD)/224tm-	3785.00
2	phC6(ISTD)	3785.00

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*** End of Report ***

Sample Name: 35/9-3t2, 2683.7

Sample info:

orted By : Signal
 lib. Data Modified : Mon, 2. Mar. 1998, 04:33:55 pm
 Multiplier : 1.000000
 Dilution(1/mg sample) : 0.002146
 Uncalibrated Peaks : not reported



#	Compound	Amount ug/mg	Area	Resp. ratio	Rt. min.
1	iC5	1.89	176	1.00	7.49
2	nC5	2.69	251	1.00	8.03
3	22dm-C4	0.15	14	1.00	9.08
4	cyC5	0.81	76	1.00	10.19
5	23dm-C4	0.00	0	0.00	0.00
6	2m-C5	1.66	155	1.00	10.44
7	3m-C5	1.09	102	1.00	11.29
8	nC6	3.39	316	1.00	12.61
9	3m-cyC5-ene	0.00	0	1.00	13.32
10	22dm-C5	0.12	11	1.00	14.63
11	m-cyC5	2.93	273	1.00	14.83
12	24dm-C5	0.20	19	1.00	15.16
13	223tm-C4	0.04	4	1.00	15.64
14	Benzene	3.23	329	1.00	16.98
15	33dm-C5	0.09	8	1.00	17.57
16	cyC6	6.73	628	1.00	17.96
17	2m-C6	1.32	123	1.00	18.94
18	23dm-C5	0.37	35	1.00	19.14
19	11dm-cyC5	0.37	35	1.00	19.46
20	3m-C6	1.41	132	1.00	19.96
21	1c.3dm-cyC5	0.56	52	1.00	20.74
22	1t.3dm-cyC5	0.52	49	1.00	21.09
23	3e-C5	0.10	10	1.00	21.24
24	1t.2dm-cyC5	0.85	79	1.00	21.44
25	iC8 (ISTD) /224tm-C5	8.19	763	1.00	21.66
26	nC7	4.11	383	1.00	23.20
27	1c.2-dm-cyC5	0.06	6	1.00	26.08
28	m-cyC6	11.41	1064	1.00	26.24
29	113tm-cyC5	0.37	35	1.00	26.75
30	e-cyC5	0.40	37	1.00	28.24
31	25dm-C6	0.21	20	1.00	28.52
32	223tm-C5/24dm-C6	0.26	24	1.00	28.87
33	1c.2t.4tm-cyC5	0.26	25	1.00	29.88
34	33dm-C6	0.09	9	1.00	30.16
35	1t.2c.3tm-cyC5	0.22	21	1.00	31.26
36	234tm-C5	0.02	2	1.00	31.81
37	Toluen/233tm-C5	10.90	1110	1.00	32.48
38	23dm-C6	0.30	28	1.00	33.98
39	2m-C7	1.37	128	1.00	35.20
40	4m-C7	0.52	49	1.00	35.49
41	3m-C7	1.10	102	1.00	36.68
42	1c.3dm-cyC6	2.13	199	1.00	36.84
43	1t.4dm-cyC6	0.85	79	1.00	37.21
44	11dm-cyC6	0.16	15	1.00	39.69
45	1t.2dm-cyC6	1.00	93	1.00	40.61
46	nC8	5.15	480	1.00	42.02
47	e-cyC6	2.87	268	1.00	47.89
48	iC9	0.38	38	1.00	49.10
49	e-benzene	1.61	164	1.00	52.05
50	m-xylene	6.79	692	1.00	54.32
51	p-xylene	1.70	173	1.00	54.59
52	4m-C8	0.61	62	1.00	57.24
53	2m-C8	0.80	82	1.00	57.55
54	3m-C8	0.86	88	1.00	59.46
55	o-xylene	3.09	315	1.00	60.43
56	nC9	4.67	476	1.00	66.51
57	iC10	0.71	73	1.00	73.29
58	nC10	5.20	529	1.00	83.14
59	iC11	0.83	85	1.00	86.19
60	nC11	5.49	560	1.00	94.57
61	nC12	6.51	663	1.00	103.78
62	i-C13	0.96	98	1.00	105.10
63	phC6 (ISTD)	8.19	834	1.00	107.83
64	iC14	4.70	479	1.00	110.12

Data file : C:\HPCHEM\1\DATA\30_8_3\2683_7.D
Sample Name: 35/9-3t2, 2683.7
Sample info:

#	Compound	Amount ug/mg	Area	Resp. ratio	Rt. min.
65	nC13	6.44	656	1.00	111.79
66	iC15	1.65	168	1.00	117.60
67	nC14	6.93	706	1.00	119.04
68	iC16	2.18	222	1.00	123.44
69	nC15	7.63	777	1.00	125.75
70	nC16	7.41	755	1.00	132.03
71	iC18	1.63	166	1.00	135.16
72	nC17	7.56	770	1.00	137.96
73	pristane	3.26	332	1.00	138.55
74	nC18	7.58	772	1.00	143.57
75	phytane	2.02	205	1.00	144.33
76	nC19	8.27	843	1.00	148.90
77	nC20	7.61	775	1.00	153.98

Internal standards for quantification:

ISTD #	Name	Amount ug
1	iC8(ISTD)/224tm-	3815.00
2	phC6(ISTD)	3815.00

*** End of Report ***

Data file : C:\HPCHEM\1\DATA\30_8_3_B\2700_6.D
 Sample Name: 35/9-3t2, 2700.6
 Sample info:

Reported By : Signal
 Calib. Data Modified : Tue, 10. Mar. 1998, 04:26:45 pm
 Multiplier : 1.000000
 Dilution(1/mg sample) : 0.002367
 Uncalibrated Peaks : not reported



#	Compound	Amount ug/mg	Area	Resp. ratio	Rt. min.
1	iC5	1.77	141	1.00	7.49
2	nC5	2.69	214	1.00	8.04
3	22dm-C4	0.14	11	1.00	9.09
4	cyC5	0.43	34	1.00	10.21
5	23dm-C4	0.31	24	1.00	10.27
6	2m-C5	1.76	140	1.00	10.45
7	3m-C5	1.14	90	1.00	11.30
8	nC6	3.74	297	1.00	12.62
9	3m-cyC5-ene	0.00	0	1.00	13.36
10	22dm-C5	0.13	10	1.00	14.64
11	m-cyC5	2.18	173	1.00	14.85
12	24dm-C5	0.22	18	1.00	15.17
13	223tm-C4	0.04	3	1.00	15.66
14	Benzene	2.84	272	1.00	16.99
15	33dm-C5	0.09	7	1.00	17.58
16	cyC6	6.02	477	1.00	17.97
17	2m-C6	1.47	117	1.00	18.95
18	23dm-C5	0.43	34	1.00	19.15
19	11dm-cyC5	0.40	32	1.00	19.47
20	3m-C6	1.60	127	1.00	19.97
21	1c.3dm-cyC5	0.50	40	1.00	20.76
22	1t.3dm-cyC5	0.46	37	1.00	21.11
23	3e-C5	0.12	10	1.00	21.25
24	1t.2dm-cyC5	0.81	64	1.00	21.46
25	iC8 (ISTD)/224tm-C5	9.02	715	1.00	21.67
26	nC7	4.91	389	1.00	23.22
27	1c.2-dm-cyC5	0.15	12	1.00	26.14
28	m-cyC6	10.76	853	1.00	26.26
29	113tm-cyC5	0.45	36	1.00	26.78
30	e-cyC5	0.36	29	1.00	28.27
31	25dm-C6	0.24	19	1.00	28.54
32	223tm-C5/24dm-C6	0.30	24	1.00	28.89
33	1c.2t.4tm-cyC5	0.32	25	1.00	29.91
34	33dm-C6	0.10	8	1.00	30.19
35	1t.2c.3tm-cyC5	0.29	23	1.00	31.28
36	234tm-C5	0.04	3	1.00	31.83
37	Toluen/233tm-C5	8.15	781	1.00	32.50
38	23dm-C6	0.37	29	1.00	34.00
39	2m-C7	1.71	135	1.00	35.23
40	4m-C7	0.58	46	1.00	35.51
41	3m-C7	1.26	100	1.00	36.70
42	1c.3dm-cyC6	2.31	183	1.00	36.87
43	1t.4dm-cyC6	0.93	74	1.00	37.24
44	11dm-cyC6	0.21	17	1.00	39.71
45	1t.2dm-cyC6	1.15	91	1.00	40.64
46	nC8	6.26	496	1.00	42.04
47	e-cyC6	3.33	264	1.00	47.92
48	iC9	0.46	44	1.00	49.14
49	e-benzene	1.08	103	1.00	52.07
50	m-xylene	4.21	403	1.00	54.34
51	p-xylene	1.06	101	1.00	54.61
52	4m-C8	0.64	62	1.00	57.28
53	2m-C8	0.86	82	1.00	57.59
54	3m-C8	0.93	89	1.00	59.51
55	o-xylene	2.18	209	1.00	60.47
56	nC9	5.37	515	1.00	66.55
57	iC10	0.74	71	1.00	73.32
58	nC10	5.97	572	1.00	83.17
59	iC11	1.02	98	1.00	86.22
60	nC11	6.30	604	1.00	94.60
61	nC12	7.25	696	1.00	103.81
62	i-C13	1.11	107	1.00	105.13
63	phC6 (ISTD)	9.02	865	1.00	107.86
64	iC14	2.25	216	1.00	110.15

Data file : C:\HPCHEM\1\DATA\30_8_3_B\2700_6.D
Sample Name: 35/9-3t2, 2700.6
Sample info:

#	Compound	Amount ug/mg	Area	Resp. ratio	Rt. min.
65	nC13	7.27	697	1.00	111.83
66	iC15	1.52	146	1.00	117.64
67	nC14	7.72	740	1.00	119.08
68	iC16	2.51	241	1.00	123.48
69	nC15	8.33	798	1.00	125.79
70	nC16	8.01	768	1.00	132.08
71	iC18	1.90	182	1.00	135.21
72	nC17	8.06	773	1.00	138.00
73	pristane	3.91	375	1.00	138.60
74	nC18	7.84	752	1.00	143.61
75	phytane	2.12	203	1.00	144.38
76	nC19	8.36	801	1.00	148.95
77	nC20	7.32	702	1.00	154.02

Internal standards for quantification:

ISTD #	Name	Amount ug
1	iC8(ISTD)/224tm-	3810.00
2	phC6(ISTD)	3810.00

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*** End of Report ***

Data file : C:\HPCHEM\1\DATA\30_8_3\NS01_11.D
 Sample Name: ns01_11
 Sample info:

Reported By : Signal
 File Modified : Fri, 27. Feb. 1998, 04:18:42 pm
 Multiplier : 1.000000
 Dilution(1/mg sample) : 0.002435
 Uncalibrated Peaks : not reported



#	Compound	Amount ug/mg	Area	Resp. ratio	Rt. min.
1	iC5	3.06	319	1.00	7.48
2	nC5	5.19	540	1.00	8.03
3	22dm-C4	0.17	18	1.00	9.08
4	cyC5	0.81	84	1.00	10.19
5	23dm-C4	0.48	50	1.00	10.25
6	2m-C5	3.47	362	1.00	10.44
7	3m-C5	2.16	225	1.00	11.28
8	nC6	7.39	769	1.00	12.61
9	3m-cyC5-ene	0.00	0	1.00	13.38
10	22dm-C5	0.18	19	1.00	14.63
11	m-cyC5	3.88	404	1.00	14.83
12	24dm-C5	0.40	42	1.00	15.15
13	223tm-C4	0.04	5	1.00	15.64
14	Benzene	2.55	314	1.00	16.98
15	33dm-C5	0.13	14	1.00	17.56
16	cyC6	6.90	718	1.00	17.95
17	2m-C6	2.66	277	1.00	18.94
18	23dm-C5	0.89	93	1.00	19.13
19	11dm-cyC5	0.67	70	1.00	19.45
20	3m-C6	3.02	315	1.00	19.96
21	1c.3dm-cyC5	1.01	105	1.00	20.74
22	1t.3dm-cyC5	0.93	97	1.00	21.09
23	3e-C5	0.26	27	1.00	21.24
24	1t.2dm-cyC5	1.71	178	1.00	21.44
25	iC8 (ISTD)/224tm-C5	8.89	925	1.00	21.66
26	nC7	9.04	941	1.00	23.21
27	1c.2-dm-cyC5	0.11	11	1.00	26.07
28	m-cyC6	12.48	1299	1.00	26.25
29	113tm-cyC5	0.76	79	1.00	26.76
30	e-cyC5	0.76	79	1.00	28.24
31	25dm-C6	0.42	43	1.00	28.52
32	223tm-C5/24dm-C6	0.56	58	1.00	28.87
33	1c.2t.4tm-cyC5	0.64	67	1.00	29.88
34	33dm-C6	0.16	17	1.00	30.16
35	1t.2c.3tm-cyC5	0.67	70	1.00	31.26
36	234tm-C5	0.15	15	1.00	31.81
37	Toluen/233tm-C5	6.65	818	1.00	32.47
38	23dm-C6	0.70	73	1.00	33.98
39	2m-C7	3.42	356	1.00	35.21
40	4m-C7	1.22	127	1.00	35.49
41	3m-C7	2.19	227	1.00	36.68
42	1c.3dm-cyC6	3.03	315	1.00	36.85
43	1t.4dm-cyC6	1.11	115	1.00	37.21
44	11dm-cyC6	0.77	80	1.00	39.68
45	1t.2dm-cyC6	1.48	154	1.00	40.61
46	nC8	10.23	1064	1.00	42.04
47	e-cyC6	4.21	438	1.00	47.89
48	iC9	1.21	149	1.00	49.11
49	e-benzene	1.32	162	1.00	52.04
50	m-xylene	4.24	521	1.00	54.31
51	p-xylene	1.16	142	1.00	54.58
52	4m-C8	1.15	142	1.00	57.24
53	2m-C8	1.46	179	1.00	57.56
54	3m-C8	1.63	201	1.00	59.47
55	o-xylene	2.49	306	1.00	60.43
56	nC9	8.26	1016	1.00	66.54
57	iC10	1.61	198	1.00	73.29
58	nC10	7.91	973	1.00	83.16
59	iC11	1.89	233	1.00	86.19
60	nC11	7.27	894	1.00	94.58
61	nC12	7.39	909	1.00	103.78
62	i-C13	1.75	215	1.00	105.10
63	phC6 (ISTD)	8.89	1093	1.00	107.83
64	iC14	1.65	203	1.00	110.11

Data file : C:\HPCHEM\1\DATA\30_8_3\NS01_11.D

Sample Name: ns01_11

Sample info:

#	Compound	Amount ug/mg	Area	Resp. ratio	Rt. min.
65	nC13	6.42	790	1.00	111.79
66	iC15	1.74	214	1.00	117.60
67	nC14	5.97	734	1.00	119.04
68	iC16	2.86	352	1.00	123.44
69	nC15	5.67	697	1.00	125.74
70	nC16	4.90	603	1.00	132.02
71	iC18	1.47	181	1.00	135.16
72	nC17	4.44	546	1.00	137.94
73	pristane	2.62	322	1.00	138.54
74	nC18	3.83	472	1.00	143.55
75	phytane	1.81	222	1.00	144.33
76	nC19	3.65	448	1.00	148.88
77	nC20	3.08	379	1.00	153.95

Internal standards for quantification:

ISTD #	Name	Amount ug
1	iC8 (ISTD)/224tm-	3650.00
2	phC6 (ISTD)	3650.00

=====
*** End of Report ***

Sample Name: nso1_02

Sample info:

orted By : Signal
 lib. Data Modified : Wed, 11. Mar. 1998, 09:48:01 am
 Multiplier : 1.000000
 Dilution(1/mg sample) : 0.002497
 Uncalibrated Peaks : not reported



#	Compound	Amount ug/mg	Area	Resp. ratio	Rt. min.
1	iC5	2.93	297	1.00	7.49
2	nC5	5.19	527	1.00	8.04
3	22dm-C4	0.17	17	1.00	9.09
4	cyC5	0.83	84	1.00	10.21
5	23dm-C4	0.49	50	1.00	10.27
6	2m-C5	3.57	362	1.00	10.45
7	3m-C5	2.22	225	1.00	11.30
8	nC6	7.76	788	1.00	12.63
9	3m-cyC5-ene	0.00	0	0.00	0.00
10	22dm-C5	0.19	19	1.00	14.64
11	m-cyC5	4.04	410	1.00	14.85
12	24dm-C5	0.42	42	1.00	15.17
13	223tm-C4	0.04	4	1.00	15.66
14	Benzene	2.70	326	1.00	16.99
15	33dm-C5	0.14	14	1.00	17.58
16	cyC6	7.20	731	1.00	17.97
17	2m-C6	2.79	284	1.00	18.96
18	23dm-C5	0.93	94	1.00	19.15
19	11dm-cyC5	0.69	71	1.00	19.47
20	3m-C6	3.16	321	1.00	19.98
21	1c.3dm-cyC5	1.05	107	1.00	20.76
22	1t.3dm-cyC5	0.97	98	1.00	21.11
23	3e-C5	0.27	27	1.00	21.26
24	1t.2dm-cyC5	1.78	181	1.00	21.46
25	iC8 (ISTD)/224tm-C5	9.46	961	1.00	21.68
26	nC7	9.54	969	1.00	23.23
27	1c.2-dm-cyC5	0.27	28	1.00	26.14
28	m-cyC6	12.90	1310	1.00	26.27
29	113tm-cyC5	0.78	79	1.00	26.78
30	e-cyC5	0.80	81	1.00	28.27
31	25dm-C6	0.44	44	1.00	28.55
32	223tm-C5/24dm-C6	0.58	59	1.00	28.89
33	1c.2t.4tm-cyC5	0.67	68	1.00	29.91
34	33dm-C6	0.17	17	1.00	30.18
35	1t.2c.3tm-cyC5	0.70	71	1.00	31.28
36	234tm-C5	0.15	15	1.00	31.83
37	Toluen/233tm-C5	7.03	849	1.00	32.49
38	23dm-C6	0.73	75	1.00	34.00
39	2m-C7	3.60	365	1.00	35.24
40	4m-C7	1.17	119	1.00	35.51
41	3m-C7	2.30	234	1.00	36.71
42	1c.3dm-cyC6	3.16	320	1.00	36.88
43	1t.4dm-cyC6	1.16	118	1.00	37.24
44	11dm-cyC6	0.80	82	1.00	39.72
45	1t.2dm-cyC6	1.55	157	1.00	40.64
46	nC8	10.74	1091	1.00	42.07
47	e-cyC6	4.40	447	1.00	47.92
48	iC9	1.25	151	1.00	49.14
49	e-benzene	1.38	166	1.00	52.08
50	m-xylene	4.43	535	1.00	54.35
51	p-xylene	1.22	147	1.00	54.63
52	4m-C8	1.19	144	1.00	57.28
53	2m-C8	1.52	183	1.00	57.61
54	3m-C8	1.70	205	1.00	59.53
55	o-xylene	2.59	313	1.00	60.47
56	nC9	8.59	1038	1.00	66.58
57	iC10	1.65	199	1.00	73.33
58	nC10	8.17	988	1.00	83.19
59	iC11	1.96	237	1.00	86.23
60	nC11	7.48	904	1.00	94.61
61	nC12	7.60	918	1.00	103.83
62	i-C13	1.81	219	1.00	105.14
63	phC6 (ISTD)	9.46	1143	1.00	107.88
64	iC14	1.71	206	1.00	110.16

Data file : C:\HPCHEM\1\DATA\30_8_3_B\NS01_02.D

Sample Name: ns01_02

Sample info:

#	Compound	Amount ug/mg	Area	Resp. ratio	Rt. min.
65	nC13	6.62	799	1.00	111.83
66	iC15	1.83	221	1.00	117.65
67	nC14	6.20	749	1.00	119.09
68	iC16	2.48	299	1.00	123.49
69	nC15	5.89	712	1.00	125.79
70	nC16	5.03	607	1.00	132.07
71	iC18	1.53	185	1.00	135.22
72	nC17	4.54	549	1.00	138.00
73	pristane	2.71	327	1.00	138.60
74	nC18	3.81	461	1.00	143.60
75	phytane	1.76	213	1.00	144.39
76	nC19	3.79	457	1.00	148.93
77	nC20	3.31	400	1.00	154.01

Internal standards for quantification:

ISTD #	Name	Amount ug
1	iC8(ISTD)/224tm-	3790.00
2	phC6(ISTD)	3790.00

=====
*** End of Report ***

Appendix IV

Gas chromatograms and tabulated results of saturated hydrocarbons

#	Rt.min.	Signal FID	Compound	Area	Amount ug/mg
Internal standards (if added):					
1)	13.45	GC1	C12D26	35403440	2.1
6)	25.80	GC1	C16D34	38373683	2.1
11)	36.06	GC1	C20D42	46896053	2.1
19)	44.68	GC1	C24D50	49147836	2.1
28)	55.32	GC1	C30D62	21470006	0.9
2)	10.66	GC1	nC11	69729	
3)	13.93	GC1	nC12	674447	
4)	17.20	GC1	nC13	1465936	
5)	20.43	GC1	nC14	6781959	
7)	22.39	GC1	iC16	5832323	0.3
8)	23.52	GC1	nC15	10722592	0.6
9)	26.42	GC1	nC16	8184871	0.5
10)	27.64	GC1	iC18	1773050	0.1
12)	29.13	GC1	nC17	3126443	0.1
13)	29.29	GC1	pristane	1045177	0.0
14)	31.75	GC1	nC18	1539262	0.1
15)	31.87	GC1	phytane	85155	0.0
16)	34.25	GC1	nC19	951049	0.0
17)	36.66	GC1	nC20	672687	0.0
18)	38.94	GC1	nC21	484310	0.0
20)	41.14	GC1	nC22	333737	0.0
21)	43.26	GC1	nC23	215767	0.0
22)	45.31	GC1	nC24	110509	0.0
23)	47.25	GC1	nC25	57026	0.0
24)	49.13	GC1	nC26	51825	0.0
25)	50.94	GC1	nC27	41486	0.0
26)	52.70	GC1	nC28	33566	0.0
27)	54.41	GC1	nC29	47553	0.0
29)	56.06	GC1	nC30	28760	0.0
30)	57.64	GC1	nC31	19944	0.0
31)	59.18	GC1	nC32	15779	0.0
32)	60.68	GC1	nC33	14733	0.0
33)	62.10	GC1	nC34	21445	0.0
34)	63.70	GC1	nC35	15080	0.0

Saturated hydrocarbons

GC/FID detection HP-6890

Compound data and ratios



Norsk Hydro E&P Research Centre, Bergen, Norway
Petroleum Geochemistry Laboratories

Data file name: 1850S.D
Sample name: 1850, 35/9-3, mud, sat
Data File Path: C:\HPCHEM\1\DATA\35 9 3\
Misc. info.:

Vial no.: 14
Method: MSD_S_D
Operator: Reidun
Date: Tue Mar 10 08:27:50 1998

Response curve $y = ax$
Response factor equally 1.0

Ratios:	Area	Amount
Pr/nC17	0.33	0.33
Ph/nC18	0.06	0.06
(Pr/nC17)/(Ph/nC18)	6.04	6.04
Pr/Ph	12.27	12.27
nC17/(nC17+nC27)	0.99	0.99
CPI-1	1.01	1.01
CPI-2 (2*nC27/(nC26+nC27))	0.89	0.89

#	Rt.min.	Signal	Compound	Area	Amount
		FID		ug/mg	
Internal standards (if added):					
1)	13.37	GC1	C12D26	7576279	2.8
6)	25.74	GC1	C16D34	16682149	2.8
11)	36.03	GC1	C20D42	18016518	2.8
19)	44.63	GC1	C24D50	18627190	2.8
28)	55.29	GC1	C30D62	8245481	1.2
2)	10.66	GC1	nC11	30437	
3)	13.93	GC1	nC12	83371	
4)	17.20	GC1	nC13	389879	
5)	20.40	GC1	nC14	489887	
7)	22.44	GC1	iC16	1057697	0.2
8)	23.47	GC1	nC15	1061108	0.2
9)	26.30	GC1	nC16	265877	0.0
10)	27.67	GC1	iC18	380903	0.1
12)	29.16	GC1	nC17	266031	0.0
13)	29.24	GC1	pristane	201102	0.0
14)	31.92	GC1	nC18	228163	0.0
15)	32.03	GC1	phytane	734632	0.1
16)	34.28	GC1	nC19	359472	0.1
17)	36.75	GC1	nC20	129513	0.0
18)	38.99	GC1	nC21	167411	0.0
20)	41.19	GC1	nC22	48112	0.0
21)	43.25	GC1	nC23	221594	0.0
22)	45.35	GC1	nC24	120941	0.0
23)	47.27	GC1	nC25	95792	0.0
24)	49.11	GC1	nC26	126152	0.0
25)	50.89	GC1	nC27	371310	0.1
26)	52.67	GC1	nC28	156405	0.0
27)	54.31	GC1	nC29	635064	0.1
29)	56.08	GC1	nC30	417638	0.1
30)	57.56	GC1	nC31	513498	0.1
31)	59.07	GC1	nC32	222110	0.0
32)	60.61	GC1	nC33	68449	0.0
33)	62.19	GC1	nC34	97172	0.0
34)	63.78	GC1	nC35	42508	0.0

Saturated hydrocarbons

GC/FID detection HP-6890

Compound data and ratios



Norsk Hydro E&P Research Centre, Bergen, Norway
Petroleum Geochemistry Laboratories

Data file name: 1870_2S.D
Sample name: 1870.2, 35/9-3T2, coch, sat
Data File Path: C:\HPCHEM\1\DATA\35 9 3\
Misc. info.:

Vial no.: 4
Method: MSD_S_D
Operator: Reidun
Date: Mon Mar 09 17:42:06 1998

Response curve $y = ax$
Response factor equally 1.0

Ratios:	Area	Amount
Pr/nC17	0.76	0.76
Ph/nC18	3.22	3.22
(Pr/nC17)/(Ph/nC18)	0.23	0.23
Pr/Ph	0.27	0.27
nC17/(nC17+nC27)	0.42	0.42
CPI-1	1.86	1.86
CPI-2 (2*nC27/(nC26+nC27))	1.49	1.49

#	Rt.min.	Signal	Compound	Area	Amount
		FID		ug/mg	
Internal standards (if added):					
1)	13.46	GC1	C12D26	40337649	3.2
6)	25.80	GC1	C16D34	48586461	3.2
11)	36.11	GC1	C20D42	62342601	3.1
19)	44.74	GC1	C24D50	67871033	3.2
28)	55.35	GC1	C30D62	29286640	1.4
2)	10.66	GC1	nC11	28518	
3)	13.93	GC1	nC12	117758	
4)	17.20	GC1	nC13	998167	
5)	20.39	GC1	nC14	1929473	
7)	22.33	GC1	iC16	670937	0.0
8)	23.43	GC1	nC15	1626904	0.1
9)	26.36	GC1	nC16	1077961	0.1
10)	27.62	GC1	iC18	235253	0.0
12)	29.11	GC1	nC17	630911	0.0
13)	29.28	GC1	pristane	309538	0.0
14)	31.74	GC1	nC18	360002	0.0
15)	31.88	GC1	phytane	56612	0.0
16)	34.25	GC1	nC19	265752	0.0
17)	36.68	GC1	nC20	274698	0.0
18)	38.95	GC1	nC21	202246	0.0
20)	41.16	GC1	nC22	192767	0.0
21)	43.27	GC1	nC23	231088	0.0
22)	45.32	GC1	nC24	201028	0.0
23)	47.26	GC1	nC25	216192	0.0
24)	49.14	GC1	nC26	274736	0.0
25)	50.96	GC1	nC27	280649	0.0
26)	52.71	GC1	nC28	284779	0.0
27)	54.42	GC1	nC29	333012	0.0
29)	56.06	GC1	nC30	318766	0.0
30)	57.64	GC1	nC31	239461	0.0
31)	59.18	GC1	nC32	179299	0.0
32)	60.68	GC1	nC33	154181	0.0
33)	62.13	GC1	nC34	124660	0.0
34)	63.70	GC1	nC35	80073	0.0

Saturated hydrocarbons

GC/FID detection HP-6890

Compound data and ratios



Norsk Hydro E&P Research Centre, Bergen, Norway
Petroleum Geochemistry Laboratories

Data file name: 1885_2S.D
Sample name: 1885.2, 35/9-3T2, coch, sat
Data File Path: C:\HPCHEM\1\DATA\35 9 3\
Misc. info.:

Vial no.: 5
Method: MSD_S_D
Operator: Reidun
Date: Mon Mar 09 19:10:43 1998

Response curve $y = ax$
Response factor equally 1.0

Ratios:	Area	Amount
Pr/nC17	0.49	0.49
Ph/nC18	0.16	0.16
(Pr/nC17)/(Ph/nC18)	3.12	3.12
Pr/Ph	5.47	5.47
nC17/(nC17+nC27)	0.69	0.71
CPI-1	1.00	1.00
CPI-2 (2*nC27/(nC26+nC27))	1.01	1.01

#	Rt.min.	Signal	Compound	Area	Amount
FID					ug/mg
Internal standards (if added):					
1)	13.39	GC1	C12D26	10859418	2.6
6)	25.71	GC1	C16D34	17042356	2.6
11)	35.99	GC1	C20D42	22385680	2.6
19)	44.61	GC1	C24D50	23885721	2.6
28)	55.26	GC1	C30D62	10208210	1.1
2)	10.66	GC1	nC11	139270	
3)	13.92	GC1	nC12	270877	
4)	17.19	GC1	nC13	275199	
5)	20.38	GC1	nC14	816315	
7)	22.28	GC1	iC16	230596	0.0
8)	23.42	GC1	nC15	562145	0.1
9)	26.33	GC1	nC16	710352	0.1
10)	27.67	GC1	iC18	154388	0.0
12)	29.08	GC1	nC17	631454	0.1
13)	29.25	GC1	pristane	404187	0.0
14)	31.72	GC1	nC18	513125	0.1
15)	31.84	GC1	phytane	67357	0.0
16)	34.23	GC1	nC19	326744	0.0
17)	36.64	GC1	nC20	244235	0.0
18)	38.93	GC1	nC21	145251	0.0
20)	41.14	GC1	nC22	124377	0.0
21)	43.25	GC1	nC23	123646	0.0
22)	45.29	GC1	nC24	91936	0.0
23)	47.24	GC1	nC25	99901	0.0
24)	49.12	GC1	nC26	83501	0.0
25)	50.94	GC1	nC27	95814	0.0
26)	52.69	GC1	nC28	102284	0.0
27)	54.40	GC1	nC29	111994	0.0
29)	56.04	GC1	nC30	71048	0.0
30)	57.63	GC1	nC31	78862	0.0
31)	59.17	GC1	nC32	59577	0.0
32)	60.67	GC1	nC33	46569	0.0
33)	62.13	GC1	nC34	32691	0.0
34)	63.70	GC1	nC35	27203	0.0

Saturated hydrocarbons

GC/FID detection HP-6890

Compound data and ratios



Norsk Hydro E&P Research Centre, Bergen, Norway
Petroleum Geochemistry Laboratories

Data file name: 2365S.D
Sample name: 2365, 35/9-3T2, dc, sat
Data File Path: C:\HPCHEM\1\DATA\35 9 3\
Misc. info.:

Vial no.: 7
Method: MSD_S_D
Operator: Reidun
Date: Mon Mar 09 22:07:55 1998

Response curve $y = ax$
Response factor equally 1.0

Ratios:	Area	Amount
Pr/nC17	0.64	0.64
Ph/nC18	0.13	0.13
(Pr/nC17)/(Ph/nC18)	4.88	4.88
Pr/Ph	6.00	6.00
nC17/(nC17+nC27)	0.87	0.87
CPI-1	1.17	1.17
CPI-2 (2*nC27/(nC26+nC27))	1.07	1.07

#	Rt.min.	Signal	Compound	Area	Amount
FID				ug/mg	
Internal standards (if added):					
1)	13.44	GC1	C12D26	29668064	2.6
6)	25.78	GC1	C16D34	44517329	2.6
11)	36.09	GC1	C20D42	57166519	2.6
19)	44.70	GC1	C24D50	63081239	2.7
28)	55.34	GC1	C30D62	26698190	1.1
2)	10.66	GC1	nC11	363344	
3)	13.93	GC1	nC12	744930	
4)	17.20	GC1	nC13	1079684	
5)	20.38	GC1	nC14	1299819	
7)	22.28	GC1	iC16	680254	0.0
8)	23.42	GC1	nC15	1129914	0.1
9)	26.34	GC1	nC16	1485885	0.1
10)	27.69	GC1	iC18	558249	0.0
12)	29.10	GC1	nC17	1327278	0.1
13)	29.27	GC1	pristane	2396622	0.1
14)	31.73	GC1	nC18	1230252	0.1
15)	31.85	GC1	phytane	193026	0.0
16)	34.24	GC1	nC19	839286	0.0
17)	36.66	GC1	nC20	706084	0.0
18)	38.94	GC1	nC21	522503	0.0
20)	41.14	GC1	nC22	466600	0.0
21)	43.26	GC1	nC23	488917	0.0
22)	45.31	GC1	nC24	415666	0.0
23)	47.25	GC1	nC25	461729	0.0
24)	49.13	GC1	nC26	465824	0.0
25)	50.95	GC1	nC27	527518	0.0
26)	52.70	GC1	nC28	492833	0.0
27)	54.40	GC1	nC29	595242	0.0
29)	56.06	GC1	nC30	388441	0.0
30)	57.64	GC1	nC31	401908	0.0
31)	59.17	GC1	nC32	298560	0.0
32)	60.68	GC1	nC33	230682	0.0
33)	62.14	GC1	nC34	168126	0.0
34)	63.69	GC1	nC35	122964	0.0

Saturated hydrocarbons

GC/FID detection HP-6890

Compound data and ratios



Norsk Hydro E&P Research Centre, Bergen, Norway
Petroleum Geochemistry Laboratories

Data file name: 2375S.D
Sample name: 2375, 35/9-3T2, dc, sat
Data File Path: C:\HPCHEM\1\DATA\35 9 3\
Misc. info.:

Vial no.: 8
Method: MSD_S_D
Operator: Reidun
Date: Mon Mar 09 23:36:27 1998

Response curve $y = ax$
Response factor equally 1.0

Ratios:	Area	Amount
Pr/nC17	1.81	1.81
Ph/nC18	0.16	0.16
(Pr/nC17)/(Ph/nC18)	11.51	11.51
Pr/Ph	12.42	12.42
nC17/(nC17+nC27)	0.72	0.73
CPI-1	1.17	1.17
CPI-2 (2*nC27/(nC26+nC27))	1.06	1.06

#	Rt.min.	Signal	Compound	Area	Amount
		FID			ug/mg
Internal standards (if added):					
1)	13.36	GC1	C12D26	3541721	3.7
6)	25.65	GC1	C16D34	3905721	3.7
11)	35.92	GC1	C20D42	4015822	3.6
19)	44.53	GC1	C24D50	4550992	3.7
28)	55.22	GC1	C30D62	1742874	1.4
2)	10.67	GC1	nC11	3763906	
3)	13.94	GC1	nC12	5063309	
4)	17.22	GC1	nC13	5724148	
5)	20.41	GC1	nC14	6247494	
7)	22.29	GC1	iC16	1928186	1.8
8)	23.46	GC1	nC15	7148040	6.7
9)	26.37	GC1	nC16	7579214	7.1
10)	27.71	GC1	iC18	1523517	1.4
12)	29.14	GC1	nC17	7919946	7.2
13)	29.29	GC1	pristane	3213725	2.9
14)	31.78	GC1	nC18	7587583	6.9
15)	31.99	GC1	phytane	1895659	1.7
16)	34.30	GC1	nC19	7986575	7.2
17)	36.71	GC1	nC20	7971422	7.2
18)	39.01	GC1	nC21	8209306	7.4
20)	41.21	GC1	nC22	8258371	6.7
21)	43.33	GC1	nC23	8554951	7.0
22)	45.36	GC1	nC24	8876467	7.2
23)	47.32	GC1	nC25	8513258	7.0
24)	49.21	GC1	nC26	7696568	6.3
25)	51.02	GC1	nC27	7738785	6.3
26)	52.77	GC1	nC28	6663141	5.4
27)	54.47	GC1	nC29	6374469	5.2
29)	56.10	GC1	nC30	4673508	3.8
30)	57.69	GC1	nC31	3918408	3.2
31)	59.22	GC1	nC32	2761999	2.3
32)	60.72	GC1	nC33	2236188	1.8
33)	62.16	GC1	nC34	1857691	1.5
34)	63.73	GC1	nC35	1132728	0.9

Saturated hydrocarbons

GC/FID detection HP-6890

Compound data and ratios



Norsk Hydro E&P Research Centre, Bergen, Norway
Petroleum Geochemistry Laboratories

Data file name: 2670S.D
Sample name: 2670, 35/9-3T2, oil, sat
Data File Path: C:\HPCHEM\1\DATA\35 9 3\
Misc. info.:

Vial no.: 9
Method: MSD_S_D
Operator: Reidun
Date: Tue Mar 10 01:05:02 1998

Response curve $y = ax$
Response factor equally 1.0

Ratios:	Area	Amount
Pr/nC17	0.41	0.41
Ph/nC18	0.25	0.25
(Pr/nC17)/(Ph/nC18)	1.62	1.62
Pr/Ph	1.70	1.70
nC17/(nC17+nC27)	0.51	0.53
CPI-1	1.08	1.08
CPI-2 (2*nC27/(nC26+nC27))	1.00	1.00

#	Rt.min.	Signal	Compound	Area	Amount
FID				ug/mg	
Internal standards (if added):					
1)	13.40	GC1	C12D26	16736748	8.0
6)	25.72	GC1	C16D34	21706384	8.0
11)	36.02	GC1	C20D42	27674816	7.9
19)	44.64	GC1	C24D50	29773320	8.1
28)	55.28	GC1	C30D62	12835064	3.5
2)	10.66	GC1	nC11	646411	
3)	13.92	GC1	nC12	558977	
4)	17.19	GC1	nC13	448659	
5)	20.37	GC1	nC14	445217	
7)	22.29	GC1	iC16	87827	0.0
8)	23.42	GC1	nC15	312501	0.1
9)	26.32	GC1	nC16	311671	0.1
10)	27.68	GC1	iC18	89675	0.0
12)	29.08	GC1	nC17	380396	0.1
13)	29.25	GC1	pristane	156916	0.0
14)	31.72	GC1	nC18	441430	0.1
15)	31.97	GC1	phytane	170213	0.0
16)	34.24	GC1	nC19	559432	0.2
17)	36.65	GC1	nC20	620268	0.2
18)	38.95	GC1	nC21	590182	0.2
20)	41.16	GC1	nC22	447256	0.1
21)	43.27	GC1	nC23	371226	0.1
22)	45.31	GC1	nC24	391532	0.1
23)	47.26	GC1	nC25	459067	0.1
24)	49.14	GC1	nC26	259547	0.1
25)	50.94	GC1	nC27	271928	0.1
26)	52.70	GC1	nC28	226504	0.1
27)	54.41	GC1	nC29	209321	0.1
29)	56.05	GC1	nC30	146984	0.0
30)	57.64	GC1	nC31	136437	0.0
31)	59.18	GC1	nC32	99429	0.0
32)	60.67	GC1	nC33	75461	0.0
33)	62.12	GC1	nC34	73575	0.0
34)	63.70	GC1	nC35	45995	0.0

Saturated hydrocarbons

GC/FID detection HP-6890

Compound data and ratios



Norsk Hydro E&P Research Centre, Bergen, Norway
Petroleum Geochemistry Laboratories

Data file name: 2671S.D
Sample name: 2671.0, 35/9-3T2, coch, sat
Data File Path: C:\HPCHEM\1\DATA\35 9 3\
Misc. info:

Vial no.: 6
Method: MSD_S_D
Operator: Reidun
Date: Mon Mar 09 20:39:19 1998

Response curve y = ax
Response factor equally 1.0

Ratios:	Area	Amount
Pr/nC17	0.41	0.41
Ph/nC18	0.39	0.39
(Pr/nC17)/(Ph/nC18)	1.07	1.07
Pr/Ph	0.92	0.92
nC17/(nC17+nC27)	0.58	0.60
CPI-1	1.26	1.26
CPI-2 (2*nC27/(nC26+nC27))	1.02	1.02

#	Rt.min.	Signal	Compound	Area	Amount
		FID			ug/mg
Internal standards (if added):					
1)	13.36	GC1	C12D26	3502444	3.7
6)	25.65	GC1	C16D34	4196589	3.7
11)	35.92	GC1	C20D42	4757578	3.7
19)	44.54	GC1	C24D50	4796273	3.8
28)	55.22	GC1	C30D62	1737802	1.4
2)	10.67	GC1	nC11	3509242	
3)	13.94	GC1	nC12	4585224	
4)	17.22	GC1	nC13	5190222	
5)	20.41	GC1	nC14	5748177	
7)	22.30	GC1	iC16	1804688	1.6
8)	23.46	GC1	nC15	6756544	6.0
9)	26.37	GC1	nC16	7090084	6.3
10)	27.71	GC1	iC18	1547010	1.4
12)	29.14	GC1	nC17	7790704	6.0
13)	29.29	GC1	pristane	3252529	2.5
14)	31.78	GC1	nC18	7501728	5.8
15)	32.00	GC1	phytane	1961130	1.5
16)	34.30	GC1	nC19	7965243	6.2
17)	36.71	GC1	nC20	7899077	6.1
18)	39.01	GC1	nC21	8269366	6.4
20)	41.21	GC1	nC22	8343200	6.5
21)	43.33	GC1	nC23	8619220	6.8
22)	45.37	GC1	nC24	8886203	7.0
23)	47.33	GC1	nC25	8485819	6.6
24)	49.21	GC1	nC26	7651887	6.0
25)	51.03	GC1	nC27	7647456	6.0
26)	52.78	GC1	nC28	6345830	5.0
27)	54.47	GC1	nC29	6075783	4.8
29)	56.10	GC1	nC30	4224069	3.3
30)	57.68	GC1	nC31	3411100	2.7
31)	59.22	GC1	nC32	2260273	1.8
32)	60.71	GC1	nC33	1764522	1.4
33)	62.16	GC1	nC34	1732335	1.4
34)	63.73	GC1	nC35	920878	0.7

Saturated hydrocarbons

GC/FID detection HP-6890

Compound data and ratios



Norsk Hydro E&P Research Centre, Bergen, Norway
Petroleum Geochemistry Laboratories

Data file name: 2676S.D
Sample name: 2676, 35/9-3T2, oil, sat
Data File Path: C:\HPCHEM\1\DATA\35 9 3\
Misc. info.:

Vial no.: 11
Method: MSD_S_D
Operator: Reidun
Date: Tue Mar 10 04:02:09 1998

Response curve $y = ax$
Response factor equally 1.0

Ratios:	Area	Amount
Pr/nC17	0.42	0.42
Ph/nC18	0.26	0.26
(Pr/nC17)/(Ph/nC18)	1.60	1.60
Pr/Ph	1.66	1.66
nC17/(nC17+nC27)	0.50	0.50
CPI-1	1.10	1.10
CPI-2 (2*nC27/(nC26+nC27))	1.00	1.00

Saturated hydrocarbons

GC/FID detection HP-6890

Compound data and ratios



Norsk Hydro E&P Research Centre, Bergen, Norway
Petroleum Geochemistry Laboratories

#	Rt.min.	Signal	Compound	Area	Amount
		FID			ug/mg
Internal standards (if added):					
1)	13.36	GC1	C12D26	4238274	4.0
6)	25.66	GC1	C16D34	4679909	4.0
11)	35.93	GC1	C20D42	5230430	4.0
19)	44.54	GC1	C24D50	5211269	4.0
28)	55.23	GC1	C30D62	1858052	1.4
2)	10.67	GC1	nC11	4374310	
3)	13.94	GC1	nC12	5620119	
4)	17.23	GC1	nC13	6197106	
5)	20.41	GC1	nC14	6864751	
7)	22.30	GC1	iC16	2094103	1.8
8)	23.47	GC1	nC15	7839249	6.7
9)	26.38	GC1	nC16	8371022	7.2
10)	27.71	GC1	iC18	1740991	1.5
12)	29.15	GC1	nC17	8861169	6.7
13)	29.29	GC1	pristane	3643016	2.8
14)	31.79	GC1	nC18	8469130	6.4
15)	32.00	GC1	phytane	2165453	1.6
16)	34.31	GC1	nC19	8911126	6.7
17)	36.72	GC1	nC20	8866309	6.7
18)	39.02	GC1	nC21	9163282	6.9
20)	41.22	GC1	nC22	9215975	7.1
21)	43.34	GC1	nC23	9403449	7.3
22)	45.38	GC1	nC24	9702064	7.5
23)	47.33	GC1	nC25	9246547	7.2
24)	49.21	GC1	nC26	8357743	6.5
25)	51.03	GC1	nC27	8045819	6.2
26)	52.78	GC1	nC28	6922983	5.4
27)	54.47	GC1	nC29	4014720	3.1
29)	56.11	GC1	nC30	4433262	3.4
30)	57.69	GC1	nC31	3542545	2.7
31)	59.22	GC1	nC32	2359935	1.8
32)	60.72	GC1	nC33	1823465	1.4
33)	62.16	GC1	nC34	1797391	1.4
34)	63.73	GC1	nC35	808901	0.6

Data file name: 2681_3S.D
Sample name: 2681.3, 35/9-3T2, oil, sat
Data File Path: C:\HPCHEM\1\DATA\35 9 3\
Misc. info.:

Vial no.: 12
Method: MSD_S_D
Operator: Reidun
Date: Tue Mar 10 05:30:41 1998

Response curve $y = ax$
Response factor equally 1.0

Ratios:	Area	Amount
Pr/nC17	0.41	0.41
Ph/nC18	0.26	0.26
(Pr/nC17)/(Ph/nC18)	1.61	1.61
Pr/Ph	1.68	1.68
nC17/(nC17+nC27)	0.52	0.52
CPI-1	0.99	0.99
CPI-2 (2*nC27/(nC26+nC27))	0.98	0.98

#	Rt.min.	Signal	Compound	Area	Amount
			FID	ug/mg	
Internal standards (if added):					
1)	13.35	GC1	C12D26	2484577	4.0
6)	25.65	GC1	C16D34	3614982	4.0
11)	35.92	GC1	C20D42	4326973	4.0
19)	44.54	GC1	C24D50	4159873	4.1
28)	55.23	GC1	C30D62	1566835	1.5
2)	10.67	GC1	nC11	2374639	
3)	13.93	GC1	nC12	3305441	
4)	17.22	GC1	nC13	4064256	
5)	20.40	GC1	nC14	4814369	
7)	22.30	GC1	iC16	1516286	1.7
8)	23.46	GC1	nC15	5845514	6.5
9)	26.37	GC1	nC16	6168615	6.9
10)	27.70	GC1	iC18	1521700	1.7
12)	29.14	GC1	nC17	6745453	6.2
13)	29.28	GC1	pristane	2761473	2.6
14)	31.78	GC1	nC18	6509626	6.0
15)	31.99	GC1	phytane	1633784	1.5
16)	34.29	GC1	nC19	6862039	6.3
17)	36.70	GC1	nC20	6843906	6.3
18)	39.00	GC1	nC21	7080146	6.5
20)	41.21	GC1	nC22	7145575	7.0
21)	43.33	GC1	nC23	7301766	7.2
22)	45.36	GC1	nC24	7549558	7.4
23)	47.32	GC1	nC25	7200993	7.1
24)	49.20	GC1	nC26	6476324	6.4
25)	51.02	GC1	nC27	6399220	6.3
26)	52.77	GC1	nC28	5507371	5.4
27)	54.47	GC1	nC29	5194579	5.1
29)	56.10	GC1	nC30	3488806	3.4
30)	57.69	GC1	nC31	2921702	2.9
31)	59.21	GC1	nC32	2050545	2.0
32)	60.71	GC1	nC33	1630510	1.6
33)	62.17	GC1	nC34	1683463	1.7
34)	63.74	GC1	nC35	965787	0.9

Saturated hydrocarbons

GC/FID detection HP-6890

Compound data and ratios



Norsk Hydro E&P Research Centre, Bergen, Norway
Petroleum Geochemistry Laboratories

Data file name: 2683_7S.D
Sample name: 2683.7, 35/9-3T2, oil, sat
Data File Path: C:\HPCHEM\1\DATA\35 9 3\
Misc. info.:

Vial no.: 13
Method: MSD_S_D
Operator: Reidun
Date: Tue Mar 10 06:59:15 1998

Response curve $y = ax$
Response factor equally 1.0

Ratios:	Area	Amount
Pr/nC17	0.41	0.41
Ph/nC18	0.25	0.25
(Pr/nC17)/(Ph/nC18)	1.63	1.63
Pr/Ph	1.69	1.69
nC17/(nC17+nC27)	0.51	0.50
CPI-1	1.09	1.09
CPI-2 (2*nC27/(nC26+nC27))	0.99	0.99

#	Rt.min.	Signal	Compound	Area	Amount
		FID			ug/mg
Internal standards (if added):					
1)	13.35	GC1	C12D26	4667595	4.2
6)	25.66	GC1	C16D34	5662090	4.2
11)	35.94	GC1	C20D42	6415334	4.2
19)	44.56	GC1	C24D50	6295585	4.3
28)	55.23	GC1	C30D62	2607621	1.8
2)	10.67	GC1	nC11	5902910	
3)	13.94	GC1	nC12	7150900	
4)	17.23	GC1	nC13	8293481	
5)	20.42	GC1	nC14	9585363	
7)	22.30	GC1	iC16	2953133	2.2
8)	23.48	GC1	nC15	10938838	8.2
9)	26.39	GC1	nC16	11538447	8.6
10)	27.72	GC1	iC18	2869410	2.1
12)	29.16	GC1	nC17	12219420	8.0
13)	29.31	GC1	pristane	5466408	3.6
14)	31.80	GC1	nC18	11375353	7.4
15)	32.01	GC1	phytane	3218305	2.1
16)	34.32	GC1	nC19	11743886	7.7
17)	36.73	GC1	nC20	11175567	7.3
18)	39.03	GC1	nC21	11343328	7.4
20)	41.23	GC1	nC22	11037118	7.5
21)	43.35	GC1	nC23	11068213	7.5
22)	45.38	GC1	nC24	11099775	7.6
23)	47.33	GC1	nC25	10349333	7.0
24)	49.22	GC1	nC26	9120891	6.2
25)	51.04	GC1	nC27	9063387	6.2
26)	52.79	GC1	nC28	7529207	5.1
27)	54.48	GC1	nC29	7341019	5.0
29)	56.12	GC1	nC30	5326851	3.6
30)	57.70	GC1	nC31	4523860	3.1
31)	59.24	GC1	nC32	3279980	2.2
32)	60.73	GC1	nC33	2809928	1.9
33)	62.18	GC1	nC34	2766252	1.9
34)	63.75	GC1	nC35	1586632	1.1

Saturated hydrocarbons

GC/FID detection HP-6890

Compound data and ratios



Norsk Hydro E&P Research Centre, Bergen, Norway
Petroleum Geochemistry Laboratories

Data file name: S2700_6.D
Sample name: 35/9-3T2 2700.6m sat
Data File Path: C:\HPCHEM\1\DATA\VISUND\1\
Misc. info.:

Vial no.: 28
Method: MSD_S_D
Operator:
Date: Sun Apr 26 03:38:33 1998

Response curve $y = ax$
Response factor equally 1.0

Ratios:	Area	Amount
Pr/nC17	0.45	0.45
Ph/nC18	0.28	0.28
(Pr/nC17)/(Ph/nC18)	1.58	1.58
Pr/Ph	1.70	1.70
nC17/(nC17+nC27)	0.57	0.56
CPI-1	1.09	1.09
CPI-2 (2*nC27/(nC26+nC27))	1.00	1.00

#	Rt.min.	Signal	Compound	Area	Amount
			FID	ug/mg	
Internal standards (if added):					
1)	13.40	GC1	C12D26	16678300	3.0
6)	25.73	GC1	C16D34	25524900	3.0
11)	36.02	GC1	C20D42	30924769	3.0
19)	44.65	GC1	C24D50	33575536	3.1
28)	55.29	GC1	C30D62	14266731	1.3
2)	10.67	GC1	nC11	8697	
3)	13.93	GC1	nC12	29845	
4)	17.19	GC1	nC13	66470	
5)	20.37	GC1	nC14	40511	
7)	22.31	GC1	iC16	14172	0.0
8)	23.42	GC1	nC15	39712	0.0
9)	26.32	GC1	nC16	43389	0.0
10)	27.93	GC1	iC18	17110	0.0
12)	29.08	GC1	nC17	30879	0.0
13)	29.25	GC1	pristane	9667	0.0
14)	31.72	GC1	nC18	23598	0.0
15)	31.98	GC1	phytane	6763	0.0
16)	34.24	GC1	nC19	23697	0.0
17)	36.65	GC1	nC20	37215	0.0
18)	38.94	GC1	nC21	23019	0.0
20)	41.14	GC1	nC22	22683	0.0
21)	43.26	GC1	nC23	30239	0.0
22)	45.31	GC1	nC24	18778	0.0
23)	47.25	GC1	nC25	21192	0.0
24)	49.13	GC1	nC26	19582	0.0
25)	50.95	GC1	nC27	21359	0.0
26)	52.71	GC1	nC28	18842	0.0
27)	54.42	GC1	nC29	32444	0.0
29)	56.06	GC1	nC30	19649	0.0
30)	57.64	GC1	nC31	13630	0.0
31)	59.18	GC1	nC32	13918	0.0
32)	60.69	GC1	nC33	11801	0.0
33)	62.14	GC1	nC34	10056	0.0
34)	63.70	GC1	nC35	8420	0.0

Saturated hydrocarbons

GC/FID detection HP-6890

Compound data and ratios



Norsk Hydro E&P Research Centre, Bergen, Norway
Petroleum Geochemistry Laboratories

Data file name: 2750S.D
Sample name: 2750, 35/9-3T2, mud, sat
Data File Path: C:\HPCHEM\1\DATA\35 9 3\
Misc. info.:

Vial no.: 15
Method: MSD_S_D
Operator: Reidun
Date: Tue Mar 10 09:56:25 1998

Response curve y = ax
Response factor equally 1.0

Ratios:	Area	Amount
Pr/nC17	0.31	0.31
Ph/nC18	0.29	0.29
(Pr/nC17)/(Ph/nC18)	1.09	1.09
Pr/Ph	1.43	1.43
nC17/(nC17+nC27)	0.59	0.61
CPI-1	1.19	1.19
CPI-2 (2*nC27/(nC26+nC27))	1.04	1.04

#	Rt.min.	Signal	Compound	Area	Amount
			FID	ug/mg	
Internal standards (if added):					
1)	13.36	GC1	C12D26	4860826	4.0
6)	25.67	GC1	C16D34	5735196	4.0
11)	35.93	GC1	C20D42	6214115	4.0
19)	44.54	GC1	C24D50	6216098	4.0
28)	55.23	GC1	C30D62	2538091	1.6
2)	10.68	GC1	nC11	7995765	
3)	13.96	GC1	nC12	8701984	
4)	17.24	GC1	nC13	8690565	
5)	20.42	GC1	nC14	8629045	
7)	22.31	GC1	iC16	3074064	2.1
8)	23.47	GC1	nC15	8717869	6.1
9)	26.38	GC1	nC16	7878425	5.5
10)	27.72	GC1	iC18	2634339	1.8
12)	29.14	GC1	nC17	7344800	4.7
13)	29.30	GC1	pristane	4196781	2.7
14)	31.78	GC1	nC18	6119522	3.9
15)	32.00	GC1	phytane	2779297	1.8
16)	34.29	GC1	nC19	5495626	3.5
17)	36.69	GC1	nC20	4896836	3.1
18)	38.98	GC1	nC21	4329783	2.8
20)	41.18	GC1	nC22	3936942	2.6
21)	43.30	GC1	nC23	3688568	2.4
22)	45.33	GC1	nC24	3482773	2.3
23)	47.28	GC1	nC25	2816582	1.8
24)	49.16	GC1	nC26	2431411	1.6
25)	50.98	GC1	nC27	2052128	1.3
26)	52.73	GC1	nC28	1748895	1.1
27)	54.43	GC1	nC29	1624660	1.1
29)	56.08	GC1	nC30	1306514	0.8
30)	57.66	GC1	nC31	1122987	0.7
31)	59.20	GC1	nC32	999941	0.6
32)	60.70	GC1	nC33	760534	0.5
33)	62.14	GC1	nC34	1038723	0.7
34)	63.72	GC1	nC35	463443	0.3

Saturated hydrocarbons

GC/FID detection HP-6890

Compound data and ratios



Norsk Hydro E&P Research Centre, Bergen, Norway
Petroleum Geochemistry Laboratories

Data file name: NSO1S_03.D
Sample name: nso1 ref. sat
Data File Path: C:\HPCHEM\1\DATA\35 9 3\
Misc. info.:

Vial no.: 3
Method: MSD_S_D
Operator: Reidun
Date: Mon Mar 09 16:13:33 1998

Response curve $y = ax$
Response factor equally 1.0

Ratios:	Area	Amount
Pr/nC17	0.57	0.57
Ph/nC18	0.45	0.45
(Pr/nC17)/(Ph/nC18)	1.26	1.26
Pr/Ph	1.51	1.51
nC17/(nC17+nC27)	0.78	0.78
CPI-1	1.01	1.01
CPI-2 (2*nC27/(nC26+nC27))	0.92	0.92

#	Rt.min.	Signal	Compound	Area	Amount
FID					ug/mg
Internal standards (if added):					
1)	13.37	GC1	C12D26	5115159	4.0
6)	25.67	GC1	C16D34	6018336	4.0
11)	35.93	GC1	C20D42	6506796	4.0
19)	44.54	GC1	C24D50	6255033	4.0
28)	55.23	GC1	C30D62	2749527	1.8
2)	10.69	GC1	nC11	8507108	
3)	13.96	GC1	nC12	9085376	
4)	17.24	GC1	nC13	9101040	
5)	20.43	GC1	nC14	8803025	
7)	22.31	GC1	iC16	3217162	2.1
8)	23.48	GC1	nC15	9213517	6.1
9)	26.38	GC1	nC16	8343868	5.5
10)	27.72	GC1	iC18	2772719	1.8
12)	29.15	GC1	nC17	7684631	4.7
13)	29.30	GC1	pristane	4361692	2.7
14)	31.78	GC1	nC18	6403428	3.9
15)	32.31	GC1	phytane	3131135	1.9
16)	34.29	GC1	nC19	5754891	3.5
17)	36.69	GC1	nC20	5117173	3.1
18)	38.98	GC1	nC21	4566859	2.8
20)	41.18	GC1	nC22	4173995	2.7
21)	43.30	GC1	nC23	3798955	2.5
22)	45.33	GC1	nC24	3611345	2.3
23)	47.28	GC1	nC25	3089557	2.0
24)	49.16	GC1	nC26	2656221	1.7
25)	50.98	GC1	nC27	2211282	1.4
26)	52.73	GC1	nC28	1832485	1.2
27)	54.43	GC1	nC29	1742153	1.1
29)	56.07	GC1	nC30	1400285	0.9
30)	57.66	GC1	nC31	1275849	0.8
31)	59.20	GC1	nC32	1051479	0.7
32)	60.70	GC1	nC33	818799	0.5
33)	62.15	GC1	nC34	899003	0.6
34)	63.72	GC1	nC35	523126	0.3

Saturated hydrocarbons

GC/FID detection HP-6890

Compound data and ratios



Norsk Hydro E&P Research Centre, Bergen, Norway
Petroleum Geochemistry Laboratories

Data file name: NSO1S_11.D
Sample name: nso1 ref. sat
Data File Path: C:\HPCHEM\1\DATA\35 9 3\
Misc. info.:

Vial no.: 3
Method: MSD_S_D
Operator: Reidun
Date: Tue Mar 10 02:33:35 1998

Response curve y = ax
Response factor equally 1.0

Ratios:	Area	Amount
Pr/nC17	0.57	0.57
Ph/nC18	0.49	0.49
(Pr/nC17)/(Ph/nC18)	1.16	1.16
Pr/Ph	1.39	1.39
nC17/(nC17+nC27)	0.78	0.77
CPI-1	1.04	1.04
CPI-2 (2*nC27/(nC26+nC27))	0.91	0.91

#	Rt.min.	Signal	Compound	Area	Amount
FID				ug/mg	
Internal standards (if added):					
1)	13.37	GC1	C12D26	5585037	4.0
6)	25.67	GC1	C16D34	6457330	4.0
11)	35.94	GC1	C20D42	6247213	4.0
19)	44.55	GC1	C24D50	6826015	4.0
28)	55.24	GC1	C30D62	2971642	1.8
2)	10.69	GC1	nC11	9393512	
3)	13.97	GC1	nC12	9883255	
4)	17.25	GC1	nC13	9819995	
5)	20.43	GC1	nC14	9685754	
7)	22.31	GC1	iC16	3511751	2.2
8)	23.48	GC1	nC15	9836800	6.1
9)	26.39	GC1	nC16	8880692	5.5
10)	27.72	GC1	iC18	2974221	1.8
12)	29.15	GC1	nC17	8254181	5.2
13)	29.31	GC1	pristane	4712682	3.0
14)	31.79	GC1	nC18	6897846	4.4
15)	32.01	GC1	phytane	3375254	2.1
16)	34.30	GC1	nC19	6213304	3.9
17)	36.70	GC1	nC20	5551081	3.5
18)	38.99	GC1	nC21	4933274	3.1
20)	41.20	GC1	nC22	4501378	2.7
21)	43.31	GC1	nC23	3970553	2.3
22)	45.34	GC1	nC24	3914527	2.3
23)	47.29	GC1	nC25	3434445	2.0
24)	49.17	GC1	nC26	2798089	1.7
25)	50.99	GC1	nC27	2308132	1.4
26)	52.74	GC1	nC28	1991065	1.2
27)	54.44	GC1	nC29	1966059	1.2
29)	56.08	GC1	nC30	1506791	0.9
30)	57.67	GC1	nC31	1342569	0.8
31)	59.21	GC1	nC32	1148975	0.7
32)	60.70	GC1	nC33	922607	0.5
33)	62.16	GC1	nC34	1160394	0.7
34)	63.72	GC1	nC35	596628	0.4

Saturated hydrocarbons

GC/FID detection HP-6890

Compound data and ratios



Norsk Hydro E&P Research Centre, Bergen, Norway
Petroleum Geochemistry Laboratories

Data file name: **NSO1S_21.D**
Sample name: **nso1 ref. sat**
Data File Path: C:\HPCHEM\1\DATA\35 9 3\
Misc. info.:

Vial no.: 3
Method: MSD_S_D
Operator: Reidun
Date: Tue Mar 10 18:10:05 1998

Response curve $y = ax$
Response factor equally 1.0

Ratios:	Area	Amount
Pr/nC17	0.57	0.57
Ph/nC18	0.49	0.49
(Pr/nC17)/(Ph/nC18)	1.17	1.17
Pr/Ph	1.40	1.40
nC17/(nC17+nC27)	0.78	0.79
CPI-1	1.05	1.05
CPI-2 (2*nC27/(nC26+nC27))	0.90	0.90

#	Rt.min.	Signal	Compound	Area	Amount
		FID			ug/mg
Internal standards (if added):					
1)	13.35	GC1	C12D26	3016905	4.0
6)	25.64	GC1	C16D34	3415338	4.0
11)	35.91	GC1	C20D42	3831127	4.0
19)	44.52	GC1	C24D50	3638406	4.0
28)	55.22	GC1	C30D62	1559363	1.7
2)	10.67	GC1	nC11	4958511	
3)	13.94	GC1	nC12	5334182	
4)	17.22	GC1	nC13	5375831	
5)	20.40	GC1	nC14	5336410	
7)	22.29	GC1	iC16	1889041	2.2
8)	23.45	GC1	nC15	5342369	6.3
9)	26.36	GC1	nC16	4726834	5.5
10)	27.71	GC1	iC18	1640066	1.9
12)	29.12	GC1	nC17	4497501	4.6
13)	29.27	GC1	pristane	2582573	2.7
14)	31.75	GC1	nC18	3751620	3.9
15)	31.99	GC1	phytane	1825401	1.9
16)	34.27	GC1	nC19	3375190	3.5
17)	36.67	GC1	nC20	3030948	3.1
18)	38.96	GC1	nC21	2647627	2.7
20)	41.17	GC1	nC22	2430581	2.7
21)	43.28	GC1	nC23	2231569	2.5
22)	45.31	GC1	nC24	2153739	2.4
23)	47.26	GC1	nC25	1813744	2.0
24)	49.15	GC1	nC26	1509203	1.7
25)	50.97	GC1	nC27	1254558	1.4
26)	52.72	GC1	nC28	1065188	1.2
27)	54.42	GC1	nC29	1071506	1.2
29)	56.06	GC1	nC30	804557	0.9
30)	57.65	GC1	nC31	736866	0.8
31)	59.19	GC1	nC32	601412	0.7
32)	60.69	GC1	nC33	483455	0.5
33)	62.15	GC1	nC34	571897	0.6
34)	63.72	GC1	nC35	343567	0.4

Saturated hydrocarbons

GC/FID detection HP-6890

Compound data and ratios



Norsk Hydro E&P Research Centre, Bergen, Norway
Petroleum Geochemistry Laboratories

Data file name: NSO1_S02.D
Sample name: nso1 ref. sample SAT #2
Data File Path: C:\HPCHEM\1\DATA\VISUND\1
Misc. info.:

Vial no.: 1
Method: MSD_S_D
Operator:
Date: Fri Apr 24 13:12:18 1998

Response curve $y = ax$
Response factor equally 1.0

Ratios:	Area	Amount
Pr/nC17	0.57	0.57
Ph/nC18	0.49	0.49
(Pr/nC17)/(Ph/nC18)	1.18	1.18
Pr/Ph	1.41	1.41
nC17/(nC17+nC27)	0.78	0.77
CPI-1	1.05	1.05
CPI-2 (2*nC27/(nC26+nC27))	0.91	0.91

Appendix V

**Mass chromatograms and tabulated results from the GC-MSD analysis
of the saturated hydrocarbons**

Saturated biomarkers

GC/MS detection HP-6890/5973

Compound data



Norsk Hydro E&P Research Centre, Bergen, Norway
Petroleum Geochemistry Laboratories

Data file name: 1850S.D
Sample name: 1850, 35/9-3, mud, sat
Data File Path: C:\HPCHEM\1\DATA\35 9 3\
Misc. info.:

Vial no.: 14
Method: MSD_S_D
Operator: Reidun
Date: Tue Mar 10 08:27:50 1998

Response curve y = ax
Response factor groups: s1...s3, responses as defined in method

#	Rt.min.	m/z	Rf.	Name	Height	Amount
					ng/mg	
Internal standard (if added):						
1)	46.09	217.2		24baa	26754	15
Diterpanes:						
2)	33.72	191.2	s1	19/3	19	0
3)	35.70	191.2	s1	20/3	31	0
4)	37.75	191.2	s1	21/3	61	0
5)	41.71	191.2	s1	23/3	140	0
6)	42.84	191.2	s1	24/3	49	0
7)	45.14	191.2	s1	25/3	37	0
8)	46.67	191.2	s1	24/4	45	0
9)	46.78	191.2	s1	26/3R	27	0
10)	46.89	191.2	s1	26/3S	30	0
11)	50.41	191.2	s1	28/3R	37	0
12)	50.66	191.2	s1	28/3S	23	0
13)	51.44	191.2	s1	29/3R	39	0
14)	51.73	191.2	s1	29/3S	31	0
Triterpanes:						
15)	52.60	191.2	s1	27Ts	62	0
16)	52.88	177.2	s1	25nor28ab	17	0
17)	53.27	191.2	s1	27Tm	69	0
18)	53.65	177.2	s1	25nor29ab	74	0
19)	53.76	191.2	s1	27b	200	0
20)	54.88	191.2	s1	28ab	21	0
21)	55.05	177.2	s1	25nor30ab	45	0
22)	55.54	191.2	s1	29ab	187	0
23)	55.66	191.2	s1	29Ts	48	0
24)	55.89	191.2	s1	30D	27	0
25)	56.35	191.2	s1	29ba	31	0
26)	56.92	191.2	s2	30ab	266	0
27)	57.25	191.2	s1	30D13	28	0
28)	57.55	191.2	s2	30ba	35	0
29)	58.51	191.2	s1	31abS	136	0
30)	58.70	191.2	s1	31abR	111	0
31)	59.05	191.2	s1	30G	19	0
32)	59.27	191.2	s1	31ba	14	0
33)	59.74	191.2	s1	32abS	80	0
34)	60.01	191.2	s1	32abR	73	0
35)	61.16	191.2	s1	33abS	65	0
36)	61.55	191.2	s1	33abR	53	0
37)	62.70	191.2	s1	34abS	54	0
38)	63.18	191.2	s1	34abR	34	0
39)	64.40	191.2	s1	35abS	36	0
40)	65.15	191.2	s1	35abR	24	0

#	Rt.min.	m/z	Rf.	Name	Height	Amount
					ng/mg	
Steranes:						
41)	38.25	217.2	s3	21aa	28	0
42)	39.91	217.2	s3	21bb	28	0
43)	40.03	217.2	s3	22aa	14	0
44)	42.26	217.2	s3	22bb	23	0
45)	48.59	217.2	s3	27dbS	64	0
46)	49.22	217.2	s3	27dbR	32	0
47)	51.57	218.2	s3	27bbR	65	0
48)	51.72	218.2	s3	27bbS	51	0
49)	52.12	217.2	s3	27aaR	84	0
50)	53.32	218.2	s3	28bbR	37	0
51)	53.45	218.2	s3	28bbS	46	0
52)	54.45	217.2	s3	29aaS	22	0
53)	54.75	218.2	s3	29bbR	57	0
54)	54.87	218.2	s3	29bbS	50	0
55)	55.48	217.2	s3	29aaR	37	0
56)	55.95	218.2	s3	30bbR	13	0
57)	55.99	218.2	s3	30bbS	14	0

Saturated biomarkers

GC/MS detection HP-6890/5973

Ratios, from heights and amounts



Norsk Hydro E&P Research Centre, Bergen, Norway
Petroleum Geochemistry Laboratories

Data file name: 1850S.D
Sample name: 1850, 35/9-3, mud, sat
Data File Path: C:\HPCHEM\1\DATA\35 9 3\
Misc. info.:

Vial no.: 14
Method: MSD_S_D
Operator: Reidun
Date: Tue Mar 10 08:27:50 1998

Terpane ratios, heights and amounts	Height	Amount
$100 * ((\text{sum}20-25)/3 + 26/3(R+S)) / ((\text{sum}20-25)/3 + 26/3(R+S) + 27(Ts+Tm) + 28ab + \text{sum}29-30(ab+ba) + \text{sum}31-35ab(R+S))$	%Tri	22 23
$100 * 20/3 / ((\text{sum}20-25)/3 + 26/3(R+S))$	%20/3	8 8
$100 * 23/3 / (23/3 + 24/3 + 25/3)$	%23/3	62 62
$100 * 24/4 / (24/4 + 24/3 + 25/3)$	%24/4	34 34
$100 * Ts / (Ts + Tm)$	%27Ts	47 47
$100 * 28ab / (28ab + 30ab)$	%28ab	7 11
$100 * 29Ts / (29Ts + 29ab)$	%29Ts	20 20
$100 * 25nor30ab / (25nor30ab + 30ab)$	%25nor30ab	14 21
$100 * 29ab / (29ab + 30ab)$	%29ab	41 52
$100 * 30ba / (30ba + 30ab)$	%30ba	12 12
$100 * 30D / (30D + 30ab)$	%30D	9 14
$100 * 30G / (30G + 30ab)$	%30G	7 10
$100 * 32abS / (32ab(S+R))$	%32abS	52 52
$100 * 35ab(S+R) / (34-35ab(S+R))$	%35ab	41 41
$100 * (27Ts + 27Tm) / (27Ts + 27Tn + 28ab + \text{sum}29-30(ab+ba) + \text{sum}31-35ab(R+S))$	%27HOP	10 11
$100 * (28ab) / (27Ts + 27Tn + 28ab + \text{sum}29-30(ab+ba) + \text{sum}31-35ab(R+S))$	%28HOP	2 2
$100 * (29ab+ba) / (27Ts + 27Tn + 28ab + \text{sum}29-30(ab+ba) + \text{sum}31-35ab(R+S))$	%29HOP	16 18
$100 * (30ab+ba) / (27Ts + 27Tn + 28ab + \text{sum}29-30(ab+ba) + \text{sum}31-35ab(R+S))$	%30HOP	23 16
$100 * 31ab(S+R) / (27Ts + 27Tn + 28ab + \text{sum}29-30(ab+ba) + \text{sum}31-35ab(R+S))$	%31HOP	18 20
$100 * 32ab(S+R) / (27Ts + 27Tn + 28ab + \text{sum}29-30(ab+ba) + \text{sum}31-35ab(R+S))$	%32HOP	11 12
$100 * 33ab(S+R) / (27Ts + 27Tn + 28ab + \text{sum}29-30(ab+ba) + \text{sum}31-35ab(R+S))$	%33HOP	9 10
$100 * 34ab(S+R) / (27Ts + 27Tn + 28ab + \text{sum}29-30(ab+ba) + \text{sum}31-35ab(R+S))$	%34HOP	7 7
$100 * 35ab(S+R) / (27Ts + 27Tn + 28ab + \text{sum}29-30(ab+ba) + \text{sum}31-35ab(R+S))$	%35HOP	4 5
Sterane ratios		
$100 * (21+22)bb / ((21+22)bb + (27+28+29+30)bb(R+S))$	%Preg	13 13
$100 * 29aaS / 29aa(R+S)$	%29aaS	37 37
$100 * 29bb(R+S) / (29bb(R+S) + 29aa(S+R))$	%29bb	64 64
$100 * 27db(S+R) / ((27db(S+R) + 27bb(R+S))$	%27dia	45 45
$100 * 27bb(R+S) / (27+28+29+30)bb(R+S)$	%27STER	35 35
$100 * 28bb(R+S) / (27+28+29+30)bb(R+S)$	%28STER	25 25
$100 * 29bb(R+S) / (27+28+29+30)bb(R+S)$	%29STER	32 32
$100 * 30bb(R+S) / (27+28+29+30)bb(R+S)$	%30STER	8 8

Saturated biomarkers

GC/MS detection HP-6890/5973

Compound data



Norsk Hydro E&P Research Centre, Bergen, Norway
Petroleum Geochemistry Laboratories

Data file name: 1870_2S.D
Sample name: 1870.2, 35/9-3T2, coch, sat
Data File Path: C:\HPCHEM\1\DATA\35 9 3\
Misc. info.:

Vial no.: 4
Method: MSD_S_D
Operator: Reidun
Date: Mon Mar 09 17:42:06 1998

Response curve $y = ax$
Response factor groups: s1...s3, responses as defined in method

#	Rt.min.	m/z	Rf.	Name	Height	Amount
					ng/mg	
Internal standard (if added):						
1)	46.12	217.2		24baa	15302	20
Diterpanes:						
2)	33.80	191.2	s1	19/3	29059	29
3)	35.79	191.2	s1	20/3	10089	10
4)	37.82	191.2	s1	21/3	8832	9
5)	41.78	191.2	s1	23/3	10894	11
6)	42.90	191.2	s1	24/3	7864	8
7)	45.17	191.2	s1	25/3	2827	3
8)	46.70	191.2	s1	24/4	11598	12
9)	46.81	191.2	s1	26/3R	2677	3
10)	46.95	191.2	s1	26/3S	2893	3
11)	50.53	191.2	s1	28/3R	2823	3
12)	50.73	191.2	s1	28/3S	2543	3
13)	51.57	191.2	s1	29/3R	4535	4
14)	51.81	191.2	s1	29/3S	2483	2
Triterpanes:						
15)	52.66	191.2	s1	27Ts	25184	25
16)	52.91	177.2	s1	25nor28ab	30203	30
17)	53.33	191.2	s1	27Tm	20949	21
18)	53.71	177.2	s1	25nor29ab	52007	52
19)	53.88	191.2	s1	27b	4605	5
20)	54.90	191.2	s1	28ab	11526	11
21)	55.12	177.2	s1	25nor30ab	47917	48
22)	55.59	191.2	s1	29ab	12912	13
23)	55.72	191.2	s1	29Ts	14492	14
24)	55.95	191.2	s1	30D	25236	25
25)	56.49	191.2	s1	29ba	2434	2
26)	56.97	191.2	s2	30ab	23238	15
27)	57.31	191.2	s1	30D13	10024	10
28)	57.59	191.2	s2	30ba	4496	3
29)	58.55	191.2	s1	31abS	7076	7
30)	58.74	191.2	s1	31abR	5567	6
31)	59.06	191.2	s1	30G	7329	7
32)	59.26	191.2	s1	31ba	1281	1
33)	59.77	191.2	s1	32abS	6809	7
34)	60.04	191.2	s1	32abR	5497	5
35)	61.21	191.2	s1	33abS	9171	9
36)	61.57	191.2	s1	33abR	4178	4
37)	62.71	191.2	s1	34abS	8858	9
38)	63.21	191.2	s1	34abR	4024	4
39)	64.43	191.2	s1	35abS	5319	5
40)	65.12	191.2	s1	35abR	2964	3

#	Rt.min.	m/z	Rf.	Name	Height	Amount
					ng/mg	
Steranes:						
41)	38.32	217.2	s3	21aa	15363	22
42)	39.98	217.2	s3	21bb	18737	27
43)	40.10	217.2	s3	22aa	14204	20
44)	42.33	217.2	s3	22bb	10659	15
45)	48.66	217.2	s3	27dbS	27064	39
46)	49.28	217.2	s3	27dbR	16030	23
47)	51.63	218.2	s3	27bbR	18656	27
48)	51.78	218.2	s3	27bbS	9974	14
49)	52.19	217.2	s3	27aaR	5767	8
50)	53.39	218.2	s3	28bbR	7744	11
51)	53.52	218.2	s3	28bbS	15194	22
52)	54.53	217.2	s3	29aaS	10061	14
53)	54.81	218.2	s3	29bbR	16359	23
54)	54.91	218.2	s3	29bbS	15550	22
55)	55.52	217.2	s3	29aaR	8016	11
56)	55.98	218.2	s3	30bbR	4562	7
57)	56.03	218.2	s3	30bbS	3985	6

Saturated biomarkers

GC/MS detection HP-6890/5973

Ratios, from heights and amounts

Norsk Hydro E&P Research Centre, Bergen, Norway
Petroleum Geochemistry LaboratoriesData file name: 1870_2S.D
Sample name: 1870.2, 35/9-3T2, coch, sat
Data File Path: C:\HPCHEM\1\DATA\35 9 3\
Misc. info.:Vial no.: 4
Method: MSD_S_D
Operator: Reidun
Date: Mon Mar 09 17:42:06 1998**Terpane ratios, heights and amounts**

	Height	Amount
$100 \cdot ((\text{sum}20-25)/3+26/3(R+S)) / ((\text{sum}20-25)/3+26/3(R+S)+27(Ts+Tm)+28ab+\text{sum}29-30(ab+ba)+\text{sum}31-35ab(R+S))$	%Tri	22 23
$100 \cdot 20/3 / ((\text{sum}20-25)/3+26/3(R+S))$	%20/3	22 22
$100 \cdot 23/3 / (23/3+24/3+25/3)$	%23/3	50 50
$100 \cdot 24/4 / (24/4+24/3+25/3)$	%24/4	52 52
$100 \cdot Ts / (Ts+Tm)$	%27Ts	55 55
$100 \cdot 28ab / (28ab+30ab)$	%28ab	33 44
$100 \cdot 29Ts / (29Ts+29ab)$	%29Ts	53 53
$100 \cdot 25nor30ab / (25nor30ab+30ab)$	%25nor30ab	67 76
$100 \cdot 29ab / (29ab+30ab)$	%29ab	36 46
$100 \cdot 30ba / (30ba+30ab)$	%30ba	16 16
$100 \cdot 30D / (30D+30ab)$	%30D	52 63
$100 \cdot 30G / (30G+30ab)$	%30G	24 33
$100 \cdot 32abS / (32ab(S+R))$	%32abS	55 55
$100 \cdot 35ab(S+R) / (34-35ab(S+R))$	%35ab	39 39
$100 \cdot (27Ts+27Tm) / (27Ts+27Tm+28ab+\text{sum}29-30(ab+ba)+\text{sum}31-35ab(R+S))$	%27HOP	29 31
$100 \cdot (28ab) / (27Ts+27Tm+28ab+\text{sum}29-30(ab+ba)+\text{sum}31-35ab(R+S))$	%28HOP	7 8
$100 \cdot (29ab+ba) / (27Ts+27Tm+28ab+\text{sum}29-30(ab+ba)+\text{sum}31-35ab(R+S))$	%29HOP	10 10
$100 \cdot (30ab+ba) / (27Ts+27Tm+28ab+\text{sum}29-30(ab+ba)+\text{sum}31-35ab(R+S))$	%30HOP	17 12
$100 \cdot 31ab(S+R) / (27Ts+27Tm+28ab+\text{sum}29-30(ab+ba)+\text{sum}31-35ab(R+S))$	%31HOP	8 8
$100 \cdot 32ab(S+R) / (27Ts+27Tm+28ab+\text{sum}29-30(ab+ba)+\text{sum}31-35ab(R+S))$	%32HOP	8 8
$100 \cdot 33ab(S+R) / (27Ts+27Tm+28ab+\text{sum}29-30(ab+ba)+\text{sum}31-35ab(R+S))$	%33HOP	8 9
$100 \cdot 34ab(S+R) / (27Ts+27Tm+28ab+\text{sum}29-30(ab+ba)+\text{sum}31-35ab(R+S))$	%34HOP	8 9
$100 \cdot 35ab(S+R) / (27Ts+27Tm+28ab+\text{sum}29-30(ab+ba)+\text{sum}31-35ab(R+S))$	%35HOP	5 6

Sterane ratios

$100 \cdot (21+22)bb / ((21+22)bb+(27+28+29+30)bb(R+S))$	%Preq	24 24
$100 \cdot 29aaS / 29aa(R+S)$	%29aaS	56 56
$100 \cdot 29bb(R+S) / (29bb(R+S)+29aa(S+R))$	%29bb	64 64
$100 \cdot 27db(S+R) / ((27db(S+R)+27bb(R+S))$	%27dia	60 60
$100 \cdot 27bb(R+S) / (27+28+29+30)bb(R+S)$	%27STER	31 31
$100 \cdot 28bb(R+S) / (27+28+29+30)bb(R+S)$	%28STER	25 25
$100 \cdot 29bb(R+S) / (27+28+29+30)bb(R+S)$	%29STER	35 35
$100 \cdot 30bb(R+S) / (27+28+29+30)bb(R+S)$	%30STER	9 9

Saturated biomarkers

GC/MS detection HP-6890/5973

Compound data



Norsk Hydro E&P Research Centre, Bergen, Norway
Petroleum Geochemistry Laboratories

Data file name: 1885_2S.D
Sample name: 1885.2, 35/9-3T2, coch, sat
Data File Path: C:\HPCHEM\1\DATA\35 9 3\
Misc. info.:

Vial no.: 5
Method: MSD_S_D
Operator: Reidun
Date: Mon Mar 09 19:10:43 1998

Response curve $y = ax$
Response factor groups: s1...s3, responses as defined in method

#	Rt.min.	m/z	Rf.	Name	Height	Amount
					ng/mg	
Internal standard (if added):						
1)	46.11	217.2	24baa	50925	23	
Diterpanes:						
2)	33.74	191.2	s1	19/3	7409	3
3)	35.74	191.2	s1	20/3	2807	1
4)	37.77	191.2	s1	21/3	2598	1
5)	41.73	191.2	s1	23/3	3135	1
6)	42.85	191.2	s1	24/3	2268	1
7)	45.18	191.2	s1	25/3	854	0
8)	46.69	191.2	s1	24/4	3150	1
9)	46.78	191.2	s1	26/3R	675	0
10)	46.91	191.2	s1	26/3S	748	0
11)	50.48	191.2	s1	28/3R	655	0
12)	50.67	191.2	s1	28/3S	530	0
13)	51.46	191.2	s1	29/3R	743	0
14)	51.76	191.2	s1	29/3S	635	0
Triterpanes:						
15)	52.61	191.2	s1	27Ts	5903	2
16)	52.85	177.2	s1	25nor28ab	6981	2
17)	53.28	191.2	s1	27Tm	4967	2
18)	53.66	177.2	s1	25nor29ab	12476	4
19)	53.77	191.2	s1	27b	954	0
20)	54.85	191.2	s1	28ab	2679	1
21)	55.07	177.2	s1	25nor30ab	10436	4
22)	55.55	191.2	s1	29ab	3040	1
23)	55.69	191.2	s1	29Ts	3378	1
24)	55.91	191.2	s1	30D	5360	2
25)	56.48	191.2	s1	29ba	649	0
26)	56.93	191.2	s2	30ab	5347	1
27)	57.28	191.2	s1	30D13	2208	1
28)	57.57	191.2	s2	30ba	998	0
29)	58.52	191.2	s1	31abS	1645	1
30)	58.71	191.2	s1	31abR	1250	0
31)	59.05	191.2	s1	30G	1540	1
32)	59.23	191.2	s1	31ba	314	0
33)	59.74	191.2	s1	32abS	1563	1
34)	60.02	191.2	s1	32abR	1231	0
35)	61.19	191.2	s1	33abS	1934	1
36)	61.55	191.2	s1	33abR	932	0
37)	62.69	191.2	s1	34abS	1824	1
38)	63.19	191.2	s1	34abR	863	0
39)	64.40	191.2	s1	35abS	1133	0
40)	65.10	191.2	s1	35abR	671	0

#	Rt.min.	m/z	Rf.	Name	Height	Amount
					ng/mg	
Steranes:						
41)	38.28	217.2	s3	21aa	4177	2
42)	39.92	217.2	s3	21bb	5093	3
43)	40.05	217.2	s3	22aa	3993	2
44)	42.28	217.2	s3	22bb	2917	1
45)	48.61	217.2	s3	27dbS	6576	3
46)	49.24	217.2	s3	27dbR	3733	2
47)	51.59	218.2	s3	27bbR	4250	2
48)	51.74	218.2	s3	27bbS	2225	1
49)	52.14	217.2	s3	27aaR	1357	1
50)	53.34	218.2	s3	28bbR	1867	1
51)	53.47	218.2	s3	28bbS	3397	2
52)	54.46	217.2	s3	29aaS	2295	1
53)	54.78	218.2	s3	29bbR	3770	2
54)	54.88	218.2	s3	29bbS	3386	2
55)	55.48	217.2	s3	29aaR	1927	1
56)	55.96	218.2	s3	30bbR	946	0
57)	56.01	218.2	s3	30bbS	811	0

Saturated biomarkers

GC/MS detection HP-6890/5973

Ratios, from heights and amounts



Norsk Hydro E&P Research Centre, Bergen, Norway
 Petroleum Geochemistry Laboratories

Data file name: 1885_2S.D
 Sample name: 1885.2, 35/9-3T2, coch, sat
 Data File Path: C:\HPCHEM\1\DATA\35 9 3\
 Misc. info.:

Vial no.: 5
 Method: MSD_S_D
 Operator: Reidun
 Date: Mon Mar 09 19:10:43 1998

Terpane ratios, heights and amounts

	Height	Amount
$100 * ((\text{sum}20-25)/3 + 26/3(R+S)) / ((\text{sum}20-25)/3 + 26/3(R+S) + 27(Ts+Tm) + 28ab + \text{sum}29-30(ab+ba) + \text{sum}31-35ab(R+S))$	%Tri	26 28
$100 * 20/3 / ((\text{sum}20-25)/3 + 26/3(R+S))$	%20/3	21 21
$100 * 23/3 / (23/3 + 24/3 + 25/3)$	%23/3	50 50
$100 * 24/4 / (24/4 + 24/3 + 25/3)$	%24/4	50 50
$100 * Ts / (Ts + Tm)$	%27Ts	54 54
$100 * 28ab / (28ab + 30ab)$	%28ab	33 44
$100 * 29Ts / (29Ts + 29ab)$	%29Ts	53 53
$100 * 25nor30ab / (25nor30ab + 30ab)$	%25nor30ab	66 75
$100 * 29ab / (29ab + 30ab)$	%29ab	36 47
$100 * 30ba / (30ba + 30ab)$	%30ba	16 16
$100 * 30D / (30D + 30ab)$	%30D	50 61
$100 * 30G / (30G + 30ab)$	%30G	22 31
$100 * 32abS / (32ab(S+R))$	%32abS	56 56
$100 * 35ab(S+R) / (34-35ab(S+R))$	%35ab	40 40
$100 * (27Ts + 27Tm) / (27Ts + 27Tm + 28ab + \text{sum}29-30(ab+ba) + \text{sum}31-35ab(R+S))$	%27HOP	30 32
$100 * (28ab) / (27Ts + 27Tm + 28ab + \text{sum}29-30(ab+ba) + \text{sum}31-35ab(R+S))$	%28HOP	7 8
$100 * (29ab+ba) / (27Ts + 27Tm + 28ab + \text{sum}29-30(ab+ba) + \text{sum}31-35ab(R+S))$	%29HOP	10 11
$100 * (30ab+ba) / (27Ts + 27Tm + 28ab + \text{sum}29-30(ab+ba) + \text{sum}31-35ab(R+S))$	%30HOP	17 12
$100 * 31ab(S+R) / (27Ts + 27Tm + 28ab + \text{sum}29-30(ab+ba) + \text{sum}31-35ab(R+S))$	%31HOP	8 8
$100 * 32ab(S+R) / (27Ts + 27Tm + 28ab + \text{sum}29-30(ab+ba) + \text{sum}31-35ab(R+S))$	%32HOP	8 8
$100 * 33ab(S+R) / (27Ts + 27Tm + 28ab + \text{sum}29-30(ab+ba) + \text{sum}31-35ab(R+S))$	%33HOP	8 8
$100 * 34ab(S+R) / (27Ts + 27Tm + 28ab + \text{sum}29-30(ab+ba) + \text{sum}31-35ab(R+S))$	%34HOP	7 8
$100 * 35ab(S+R) / (27Ts + 27Tm + 28ab + \text{sum}29-30(ab+ba) + \text{sum}31-35ab(R+S))$	%35HOP	5 5

Sterane ratios

$100 * (21+22)bb / ((21+22)bb + (27+28+29+30)bb(R+S))$	%Preq	28 28
$100 * 29aaS / 29aa(R+S)$	%29aaS	54 54
$100 * 29bb(R+S) / (29bb(R+S) + 29aa(S+R))$	%29bb	63 63
$100 * 27db(S+R) / ((27db(S+R) + 27bb(R+S))$	%27dia	61 61
$100 * 27bb(R+S) / (27+28+29+30)bb(R+S)$	%27STER	31 31
$100 * 28bb(R+S) / (27+28+29+30)bb(R+S)$	%28STER	25 25
$100 * 29bb(R+S) / (27+28+29+30)bb(R+S)$	%29STER	35 35
$100 * 30bb(R+S) / (27+28+29+30)bb(R+S)$	%30STER	9 9

Saturated biomarkers

GC/MS detection HP-6890/5973

Compound data



Norsk Hydro E&P Research Centre, Bergen, Norway
Petroleum Geochemistry Laboratories

Data file name: **2365S.D**
Sample name: **2365, 35/9-3T2, dc, sat**
Data File Path: C:\HPCHEM\1\DATA\35 9 3\
Misc. info.:

Vial no.: 7
Method: MSD_S_D
Operator: Reidun
Date: Mon Mar 09 22:07:55 1998

Response curve y = ax
Response factor groups: s1...s3, responses as defined in method

#	Rt.min.	m/z	Rf.	Name	Height	Amount
					ng/mg	
Internal standard (if added):						
1)	46.07	217.2		24baa	16704	19
Diterpanes:						
2)	33.70	191.2	s1	19/3	89	0
3)	35.69	191.2	s1	20/3	87	0
4)	37.73	191.2	s1	21/3	124	0
5)	41.70	191.2	s1	23/3	171	0
6)	42.82	191.2	s1	24/3	120	0
7)	45.11	191.2	s1	25/3	42	0
8)	46.64	191.2	s1	24/4	156	0
9)	46.72	191.2	s1	26/3R	21	0
10)	46.88	191.2	s1	26/3S	28	0
11)	50.46	191.2	s1	28/3R	129	0
12)	50.66	191.2	s1	28/3S	31	0
13)	51.42	191.2	s1	29/3R	39	0
14)	51.78	191.2	s1	29/3S	86	0
Triterpanes:						
15)	52.59	191.2	s1	27Ts	91	0
16)	52.84	177.2	s1	25nor28ab	34	0
17)	53.26	191.2	s1	27Tm	1528	1
18)	53.52	177.2	s1	25nor29ab	56	0
19)	53.76	191.2	s1	27b	307	0
20)	54.86	191.2	s1	28ab	28	0
21)	55.06	177.2	s1	25nor30ab	44	0
22)	55.52	191.2	s1	29ab	1453	1
23)	55.63	191.2	s1	29Ts	132	0
24)	55.88	191.2	s1	30D	89	0
25)	56.32	191.2	s1	29ba	735	1
26)	56.90	191.2	s2	30ab	2728	1
27)	57.27	191.2	s1	30D13	168	0
28)	57.53	191.2	s2	30ba	1277	1
29)	58.50	191.2	s1	31abS	1471	1
30)	58.69	191.2	s1	31abR	1311	1
31)	59.04	191.2	s1	30G	110	0
32)	59.21	191.2	s1	31ba	754	1
33)	59.73	191.2	s1	32abS	360	0
34)	59.99	191.2	s1	32abR	484	0
35)	61.16	191.2	s1	33abS	114	0
36)	61.54	191.2	s1	33abR	196	0
37)	62.69	191.2	s1	34abS	56	0
38)	63.19	191.2	s1	34abR	76	0
39)	64.44	191.2	s1	35abS	28	0
40)	65.11	191.2	s1	35abR	33	0

#	Rt.min.	m/z	Rf.	Name	Height	Amount
					ng/mg	
Steranes:						
41)	38.23	217.2	s3	21aa	134	0
42)	39.89	217.2	s3	21bb	211	0
43)	40.01	217.2	s3	22aa	88	0
44)	42.24	217.2	s3	22bb	93	0
45)	48.58	217.2	s3	27dbS	318	0
46)	49.21	217.2	s3	27dbR	213	0
47)	51.56	218.2	s3	27bbR	159	0
48)	51.73	218.2	s3	27bbS	91	0
49)	52.11	217.2	s3	27aaR	448	1
50)	53.30	218.2	s3	28bbR	93	0
51)	53.45	218.2	s3	28bbS	96	0
52)	54.44	217.2	s3	29aaS	63	0
53)	54.75	218.2	s3	29bbR	123	0
54)	54.84	218.2	s3	29bbS	93	0
55)	55.45	217.2	s3	29aaR	283	0
56)	55.91	218.2	s3	30bbR	13	0
57)	55.99	218.2	s3	30bbS	14	0

Saturated biomarkers

GC/MS detection HP-6890/5973

Ratios, from heights and amounts



Norsk Hydro E&P Research Centre, Bergen, Norway
Petroleum Geochemistry Laboratories

Data file name: 2365S.D
Sample name: 2365, 35/9-3T2, dc, sat
Data File Path: C:\HPCHEM\1\DATA\35 9 3\
Misc. info.:

Vial no.: 7
Method: MSD_S_D
Operator: Reidun
Date: Mon Mar 09 22:07:55 1998

Terpane ratios, heights and amounts

	Height	Amount
$100 \cdot ((\text{sum}20-25)/3+26/3(R+S)) / ((\text{sum}20-25)/3+26/3(R+S)+27(Ts+Tm)+28ab+\text{sum}29-30(ab+ba)+\text{sum}31-35ab(P+S))$	%Tri	5 5
$100 \cdot 20/3 / ((\text{sum}20-25)/3+26/3(R+S))$	%20/3	15 15
$100 \cdot 23/3 / (23/3+24/3+25/3)$	%23/3	51 51
$100 \cdot 24/4 / (24/4+24/3+25/3)$	%24/4	49 49
$100 \cdot Ts / (Ts+Tm)$	%27Ts	6 6
$100 \cdot 28ab / (28ab+30ab)$	%28ab	1 2
$100 \cdot 29Ts / (29Ts+29ab)$	%29Ts	8 8
$100 \cdot 25nor30ab / (25nor30ab+30ab)$	%25nor30ab	2 2
$100 \cdot 29ab / (29ab+30ab)$	%29ab	35 45
$100 \cdot 30ba / (30ba+30ab)$	%30ba	32 32
$100 \cdot 30D / (30D+30ab)$	%30D	3 5
$100 \cdot 30G / (30G+30ab)$	%30G	4 6
$100 \cdot 32abS / (32ab(S+R))$	%32abS	43 43
$100 \cdot 35ab(S+R) / (34-35ab(S+R))$	%35ab	32 32
$100 \cdot (27Ts+27Tm) / (27Ts+27Tn+28ab+\text{sum}29-30(ab+ba)+\text{sum}31-35ab(R+S))$	%27HOP	14 15
$100 \cdot (28ab) / (27Ts+27Tn+28ab+\text{sum}29-30(ab+ba)+\text{sum}31-35ab(R+S))$	%28HOP	0 0
$100 \cdot (29ab+ba) / (27Ts+27Tn+28ab+\text{sum}29-30(ab+ba)+\text{sum}31-35ab(R+S))$	%29HOP	18 21
$100 \cdot (30ab+ba) / (27Ts+27Tn+28ab+\text{sum}29-30(ab+ba)+\text{sum}31-35ab(R+S))$	%30HOP	33 24
$100 \cdot 31ab(S+R) / (27Ts+27Tn+28ab+\text{sum}29-30(ab+ba)+\text{sum}31-35ab(R+S))$	%31HOP	23 26
$100 \cdot 32ab(S+R) / (27Ts+27Tn+28ab+\text{sum}29-30(ab+ba)+\text{sum}31-35ab(R+S))$	%32HOP	7 8
$100 \cdot 33ab(S+R) / (27Ts+27Tn+28ab+\text{sum}29-30(ab+ba)+\text{sum}31-35ab(R+S))$	%33HOP	3 3
$100 \cdot 34ab(S+R) / (27Ts+27Tn+28ab+\text{sum}29-30(ab+ba)+\text{sum}31-35ab(R+S))$	%34HOP	1 1
$100 \cdot 35ab(S+R) / (27Ts+27Tn+28ab+\text{sum}29-30(ab+ba)+\text{sum}31-35ab(R+S))$	%35HOP	1 1

Sterane ratios

$100 \cdot (21+22)bb / ((21+22)bb+(27+28+29+30)bb(R+S))$	%Preq	31 31
$100 \cdot 29aaS / 29aa(R+S)$	%29aaS	18 18
$100 \cdot 29bb(R+S) / (29bb(R+S)+29aa(S+R))$	%29bb	38 38
$100 \cdot 27db(S+R) / ((27db(S+R)+27bb(R+S))$	%27dia	68 68
$100 \cdot 27bb(R+S) / (27+28+29+30)bb(R+S)$	%27STER	37 37
$100 \cdot 28bb(R+S) / (27+28+29+30)bb(R+S)$	%28STER	28 28
$100 \cdot 29bb(R+S) / (27+28+29+30)bb(R+S)$	%29STER	32 32
$100 \cdot 30bb(R+S) / (27+28+29+30)bb(R+S)$	%30STER	4 4

Saturated biomarkers

GC/MS detection HP-6890/5973

Compound data



Norsk Hydro E&P Research Centre, Bergen, Norway
Petroleum Geochemistry Laboratories

Data file name: 2375S.D
Sample name: 2375, 35/9-3T2, dc, sat
Data File Path: C:\HPCHEM\1\DATA\35 9 3\
Misc. info.:

Vial no.: 8
Method: MSD_S_D
Operator: Reidun
Date: Mon Mar 09 23:36:27 1998

Response curve $y = ax$
Response factor groups: s1...s3, responses as defined in method

#	Rt.min.	m/z	Rf.	Name	Height	Amount
					ng/mg	
Internal standard (if added):						
1)	46.09	217.2		24baa	43331	19
Diterpanes:						
2)	33.71	191.2	s1	19/3	364	0
3)	35.71	191.2	s1	20/3	398	0
4)	37.75	191.2	s1	21/3	597	0
5)	41.71	191.2	s1	23/3	700	0
6)	42.83	191.2	s1	24/3	490	0
7)	45.15	191.2	s1	25/3	191	0
8)	46.67	191.2	s1	24/4	642	0
9)	46.75	191.2	s1	26/3R	93	0
10)	46.89	191.2	s1	26/3S	140	0
11)	50.47	191.2	s1	28/3R	537	0
12)	50.70	191.2	s1	28/3S	108	0
13)	51.44	191.2	s1	29/3R	212	0
14)	51.79	191.2	s1	29/3S	413	0
Triterpanes:						
15)	52.59	191.2	s1	27Ts	582	0
16)	52.91	177.2	s1	25nor28ab	26	0
17)	53.26	191.2	s1	27Tm	8077	3
18)	53.65	177.2	s1	25nor29ab	331	0
19)	53.80	191.2	s1	27b	1278	0
20)	54.75	191.2	s1	28ab	339	0
21)	55.11	177.2	s1	25nor30ab	131	0
22)	55.54	191.2	s1	29ab	9924	3
23)	55.65	191.2	s1	29Ts	1076	0
24)	55.89	191.2	s1	30D	947	0
25)	56.34	191.2	s1	29ba	5353	2
26)	56.92	191.2	s2	30ab	17736	4
27)	57.27	191.2	s1	30D13	1299	0
28)	57.42	191.2	s2	30ba	935	0
29)	58.50	191.2	s1	31abS	9827	3
30)	58.70	191.2	s1	31abR	8177	3
31)	59.05	191.2	s1	30G	451	0
32)	59.37	191.2	s1	31ba	306	0
33)	59.74	191.2	s1	32abS	2140	1
34)	60.01	191.2	s1	32abR	2864	1
35)	61.17	191.2	s1	33abS	839	0
36)	61.54	191.2	s1	33abR	1491	0
37)	62.69	191.2	s1	34abS	474	0
38)	63.17	191.2	s1	34abR	697	0
39)	64.40	191.2	s1	35abS	290	0
40)	65.10	191.2	s1	35abR	477	0

#	Rt.min.	m/z	Rf.	Name	Height	Amount
					ng/mg	
Steranes:						
41)	38.25	217.2	s3	21aa	1204	1
42)	39.90	217.2	s3	21bb	1428	1
43)	40.03	217.2	s3	22aa	643	0
44)	42.25	217.2	s3	22bb	575	0
45)	48.59	217.2	s3	27dbS	5304	3
46)	49.22	217.2	s3	27dbR	3775	2
47)	51.57	218.2	s3	27bbR	2307	1
48)	51.72	218.2	s3	27bbS	1118	1
49)	52.12	217.2	s3	27aaR	5999	3
50)	53.31	218.2	s3	28bbR	1814	1
51)	53.46	218.2	s3	28bbS	1810	1
52)	54.44	217.2	s3	29aaS	798	0
53)	54.76	218.2	s3	29bbR	2302	1
54)	54.86	218.2	s3	29bbS	1540	1
55)	55.47	217.2	s3	29aaR	4979	2
56)	55.98	218.2	s3	30bbR	291	0
57)	56.01	218.2	s3	30bbS	247	0

Saturated biomarkers

GC/MS detection HP-6890/5973

Ratios, from heights and amounts



Norsk Hydro E&P Research Centre, Bergen, Norway
Petroleum Geochemistry Laboratories

Data file name: 2375S.D
Sample name: 2375, 35/9-3T2, dc, sat
Data File Path: C:\HPCHEM\1\DATA\35 9 3\
Misc. info.:

Vial no.: 8
Method: MSD_S_D
Operator: Reidun
Date: Mon Mar 09 23:36:27 1998

Terpane ratios, heights and amounts

		Height	Amount
$100 \cdot ((\text{sum}20-25)/3 + 26/3(R+S)) /$			
$((\text{sum}20-25)/3 + 26/3(R+S) + 27(Ts+Tm) + 28ab + \text{sum}29-30(ab+ba) + \text{sum}31-35ab(R+S))$	%Tri	4	4
$100 \cdot 20/3 / ((\text{sum}20-25)/3 + 26/3(R+S))$	%20/3	15	15
$100 \cdot 23/3 / (23/3 + 24/3 + 25/3)$	%23/3	51	51
$100 \cdot 24/4 / (24/4 + 24/3 + 25/3)$	%24/4	49	49
$100 \cdot Ts / (Ts + Tm)$	%27Ts	7	7
$100 \cdot 28ab / (28ab + 30ab)$	%28ab	2	3
$100 \cdot 29Ts / (29Ts + 29ab)$	%29Ts	10	10
$100 \cdot 25nor30ab / (25nor30ab + 30ab)$	%25nor30ab	1	1
$100 \cdot 29ab / (29ab + 30ab)$	%29ab	36	47
$100 \cdot 30ba / (30ba + 30ab)$	%30ba	5	5
$100 \cdot 30D / (30D + 30ab)$	%30D	5	8
$100 \cdot 30G / (30G + 30ab)$	%30G	2	4
$100 \cdot 32abS / (32ab(S+R))$	%32abS	43	43
$100 \cdot 35ab(S+R) / (34-35ab(S+R))$	%35ab	40	40
$100 \cdot (27Ts + 27Tm) / (27Ts + 27Tn + 28ab + \text{sum}29-30(ab+ba) + \text{sum}31-35ab(R+S))$	%27HOP	12	14
$100 \cdot (28ab) / (27Ts + 27Tn + 28ab + \text{sum}29-30(ab+ba) + \text{sum}31-35ab(R+S))$	%28HOP	0	1
$100 \cdot (29ab+ba) / (27Ts + 27Tn + 28ab + \text{sum}29-30(ab+ba) + \text{sum}31-35ab(R+S))$	%29HOP	22	24
$100 \cdot (30ab+ba) / (27Ts + 27Tn + 28ab + \text{sum}29-30(ab+ba) + \text{sum}31-35ab(R+S))$	%30HOP	27	19
$100 \cdot 31ab(S+R) / (27Ts + 27Tn + 28ab + \text{sum}29-30(ab+ba) + \text{sum}31-35ab(R+S))$	%31HOP	26	28
$100 \cdot 32ab(S+R) / (27Ts + 27Tn + 28ab + \text{sum}29-30(ab+ba) + \text{sum}31-35ab(R+S))$	%32HOP	7	8
$100 \cdot 33ab(S+R) / (27Ts + 27Tn + 28ab + \text{sum}29-30(ab+ba) + \text{sum}31-35ab(R+S))$	%33HOP	3	4
$100 \cdot 34ab(S+R) / (27Ts + 27Tn + 28ab + \text{sum}29-30(ab+ba) + \text{sum}31-35ab(R+S))$	%34HOP	2	2
$100 \cdot 35ab(S+R) / (27Ts + 27Tn + 28ab + \text{sum}29-30(ab+ba) + \text{sum}31-35ab(R+S))$	%35HOP	1	1

Sterane ratios

$100 \cdot (21+22)bb / ((21+22)bb + (27+28+29+30)bb(R+S))$	%Preg	15	15
$100 \cdot 29aaS / 29aa(R+S)$	%29aaS	14	14
$100 \cdot 29bb(R+S) / (29bb(R+S) + 29aa(S+R))$	%29bb	40	40
$100 \cdot 27db(S+R) / ((27db(S+R) + 27bb(R+S)))$	%27dia	73	73
$100 \cdot 27bb(R+S) / (27+28+29+30)bb(R+S)$	%27STER	30	30
$100 \cdot 28bb(R+S) / (27+28+29+30)bb(R+S)$	%28STER	32	32
$100 \cdot 29bb(R+S) / (27+28+29+30)bb(R+S)$	%29STER	34	34
$100 \cdot 30bb(R+S) / (27+28+29+30)bb(R+S)$	%30STER	5	5

Saturated biomarkers

GC/MS detection HP-6890/5973

Compound data



Norsk Hydro E&P Research Centre, Bergen, Norway
Petroleum Geochemistry Laboratories

Data file name: 2670S.D
Sample name: 2670, 35/9-3T2, oil, sat
Data File Path: C:\HPCHEM\1\DATA\35 9 3\
Misc. info.:

Vial no.: 9
Method: MSD_S_D
Operator: Reidun
Date: Tue Mar 10 01:05:02 1998

Response curve $y = ax$
Response factor groups: s1...s3, responses as defined in method

#	Rt.min.	m/z	Rf.	Name	Height	Amount
					ng/mg	
Internal standard (if added):						
1)	46.09	217.2		24baa	3248	27
Diterpanes:						
2)	33.73	191.2	s1	19/3	1328	8
3)	35.71	191.2	s1	20/3	637	4
4)	37.74	191.2	s1	21/3	729	5
5)	41.73	191.2	s1	23/3	1115	7
6)	42.86	191.2	s1	24/3	728	5
7)	45.15	191.2	s1	25/3	346	2
8)	46.67	191.2	s1	24/4	962	6
9)	46.77	191.2	s1	26/3R	337	2
10)	46.91	191.2	s1	26/3S	342	2
11)	50.44	191.2	s1	28/3R	401	2
12)	50.69	191.2	s1	28/3S	352	2
13)	51.48	191.2	s1	29/3R	652	4
14)	51.77	191.2	s1	29/3S	534	3
Triterpanes:						
15)	52.63	191.2	s1	27Ts	5031	31
16)	52.86	177.2	s1	25nor28ab	940	6
17)	53.30	191.2	s1	27Tm	1589	10
18)	53.68	177.2	s1	25nor29ab	509	3
19)	53.80	191.2	s1	27b	877	5
20)	54.87	191.2	s1	28ab	993	6
21)	55.02	177.2	s1	25nor30ab	81	1
22)	55.57	191.2	s1	29ab	4443	28
23)	55.68	191.2	s1	29Ts	3987	25
24)	55.94	191.2	s1	30D	5442	34
25)	56.46	191.2	s1	29ba	398	2
26)	56.95	191.2	s2	30ab	14076	56
27)	57.29	191.2	s1	30D13	969	6
28)	57.57	191.2	s2	30ba	1326	5
29)	58.54	191.2	s1	31abS	5024	31
30)	58.73	191.2	s1	31abR	3565	22
31)	59.05	191.2	s1	30G	958	6
32)	59.28	191.2	s1	31ba	542	3
33)	59.77	191.2	s1	32abS	3760	23
34)	60.04	191.2	s1	32abR	2511	16
35)	61.21	191.2	s1	33abS	2688	17
36)	61.57	191.2	s1	33abR	1739	11
37)	62.72	191.2	s1	34abS	1620	10
38)	63.20	191.2	s1	34abR	934	6
39)	64.43	191.2	s1	35abS	807	5
40)	65.12	191.2	s1	35abR	510	3

#	Rt.min.	m/z	Rf.	Name	Height	Amount
					ng/mg	
Steranes:						
41)	38.25	217.2	s3	21aa	1220	11
42)	39.93	217.2	s3	21bb	1514	14
43)	40.04	217.2	s3	22aa	1320	12
44)	42.28	217.2	s3	22bb	839	8
45)	48.62	217.2	s3	27dbS	4328	39
46)	49.25	217.2	s3	27dbR	2612	23
47)	51.60	218.2	s3	27bbR	3299	30
48)	51.76	218.2	s3	27bbS	2008	18
49)	52.17	217.2	s3	27aaR	999	9
50)	53.36	218.2	s3	28bbR	1777	16
51)	53.50	218.2	s3	28bbS	2351	21
52)	54.47	217.2	s3	29aaS	1293	12
53)	54.78	218.2	s3	29bbR	3440	31
54)	54.89	218.2	s3	29bbS	2957	27
55)	55.49	217.2	s3	29aaR	1171	11
56)	55.95	218.2	s3	30bbR	998	9
57)	56.01	218.2	s3	30bbS	833	7

Saturated biomarkers

GC/MS detection HP-6890/5973

Ratios, from heights and amounts



Norsk Hydro E&P Research Centre, Bergen, Norway
 Petroleum Geochemistry Laboratories

Data file name: 2670S.D
 Sample name: 2670, 35/9-3T2, oil, sat
 Data File Path: C:\HPCHEM\1\DATA\35 9 3\
 Misc. info.:

Vial no.: 9
 Method: MSD_S_D
 Operator: Reidun
 Date: Tue Mar 10 01:05:02 1998

Terpane ratios, heights and amounts

	Height	Amount
$100 * ((\text{sum}20-25)/3+26/3(R+S)) / ((\text{sum}20-25)/3+26/3(R+S)+27(Ts+Tm)+28ab+\text{sum}29-30(ab+ba)+\text{sum}31-35ab(R+S))$	%Tri	8 9
$100 * 20/3 / ((\text{sum}20-25)/3+26/3(R+S))$	%20/3	15 15
$100 * 23/3 / (23/3+24/3+25/3)$	%23/3	51 51
$100 * 24/4 / (24/4+24/3+25/3)$	%24/4	47 47
$100 * Ts / (Ts+Tm)$	%27Ts	76 76
$100 * 28ab / (28ab+30ab)$	%28ab	7 10
$100 * 29Ts / (29Ts+29ab)$	%29Ts	47 47
$100 * 25nor30ab / (25nor30ab+30ab)$	%25nor30ab	1 1
$100 * 29ab / (29ab+30ab)$	%29ab	24 33
$100 * 30ba / (30ba+30ab)$	%30ba	9 9
$100 * 30D / (30D+30ab)$	%30D	28 38
$100 * 30G / (30G+30ab)$	%30G	6 10
$100 * 32abS / (32ab(S+R))$	%32abS	60 60
$100 * 35ab(S+R) / (34-35ab(S+R))$	%35ab	34 34
$100 * (27Ts+27Tm) / (27Ts+27Tn+28ab+\text{sum}29-30(ab+ba)+\text{sum}31-35ab(R+S))$	%27HOP	13 15
$100 * (28ab) / (27Ts+27Tn+28ab+\text{sum}29-30(ab+ba)+\text{sum}31-35ab(R+S))$	%28HOP	2 2
$100 * (29ab+ba) / (27Ts+27Tn+28ab+\text{sum}29-30(ab+ba)+\text{sum}31-35ab(R+S))$	%29HOP	9 11
$100 * (30ab+ba) / (27Ts+27Tn+28ab+\text{sum}29-30(ab+ba)+\text{sum}31-35ab(R+S))$	%30HOP	30 22
$100 * 31ab(S+R) / (27Ts+27Tn+28ab+\text{sum}29-30(ab+ba)+\text{sum}31-35ab(R+S))$	%31HOP	17 19
$100 * 32ab(S+R) / (27Ts+27Tn+28ab+\text{sum}29-30(ab+ba)+\text{sum}31-35ab(R+S))$	%32HOP	12 14
$100 * 33ab(S+R) / (27Ts+27Tn+28ab+\text{sum}29-30(ab+ba)+\text{sum}31-35ab(R+S))$	%33HOP	9 10
$100 * 34ab(S+R) / (27Ts+27Tn+28ab+\text{sum}29-30(ab+ba)+\text{sum}31-35ab(R+S))$	%34HOP	5 6
$100 * 35ab(S+R) / (27Ts+27Tn+28ab+\text{sum}29-30(ab+ba)+\text{sum}31-35ab(R+S))$	%35HOP	3 3

Sterane ratios

$100 * (21+22)bb / ((21+22)bb+(27+28+29+30)bb(R+S))$	%Preg	12 12
$100 * 29aaS / 29aa(R+S)$	%29aaS	52 52
$100 * 29bb(R+S) / (29bb(R+S)+29aa(S+R))$	%29bb	72 72
$100 * 27db(S+R) / ((27db(S+R)+27bb(R+S))$	%27dia	57 57
$100 * 27bb(R+S) / (27+28+29+30)bb(R+S)$	%27STER	30 30
$100 * 28bb(R+S) / (27+28+29+30)bb(R+S)$	%28STER	23 23
$100 * 29bb(R+S) / (27+28+29+30)bb(R+S)$	%29STER	36 36
$100 * 30bb(R+S) / (27+28+29+30)bb(R+S)$	%30STER	10 10

Saturated biomarkers

GC/MS detection HP-6890/5973

Compound data



Norsk Hydro E&P Research Centre, Bergen, Norway
Petroleum Geochemistry Laboratories

Data file name: 2671S.D
Sample name: 2671.0, 35/9-3T2, coch, sat
Data File Path: C:\HPCHEM\1\DATA\35 9 3\
Misc. info.:

Vial no.: 6
Method: MSD_S_D
Operator: Reidun
Date: Mon Mar 09 20:39:19 1998

Response curve $y = ax$
Response factor groups: s1...s3, responses as defined in method

#	Rt.min.	m/z	Rf.	Name	Height	Amount
					ng/mg	
Internal standard (if added):						
1)	46.09	217.2		24baa	21983	56
Diterpanes:						
2)	33.71	191.2	s1	19/3	169	0
3)	35.70	191.2	s1	20/3	241	0
4)	37.74	191.2	s1	21/3	568	1
5)	41.73	191.2	s1	23/3	1629	3
6)	42.85	191.2	s1	24/3	1055	2
7)	45.15	191.2	s1	25/3	446	1
8)	46.67	191.2	s1	24/4	667	1
9)	46.78	191.2	s1	26/3R	203	0
10)	46.90	191.2	s1	26/3S	255	1
11)	50.47	191.2	s1	28/3R	147	0
12)	50.66	191.2	s1	28/3S	118	0
13)	51.45	191.2	s1	29/3R	122	0
14)	51.76	191.2	s1	29/3S	142	0
Triterpanes:						
15)	52.59	191.2	s1	27Ts	540	1
16)	52.89	177.2	s1	25nor28ab	32	0
17)	53.27	191.2	s1	27Tm	1112	2
18)	53.64	177.2	s1	25nor29ab	42	0
19)	53.77	191.2	s1	27b	529	1
20)	54.89	191.2	s1	28ab	55	0
21)	55.08	177.2	s1	25nor30ab	27	0
22)	55.54	191.2	s1	29ab	1612	3
23)	55.65	191.2	s1	29Ts	316	1
24)	55.89	191.2	s1	30D	218	0
25)	56.33	191.2	s1	29ba	681	1
26)	56.91	191.2	s2	30ab	1673	2
27)	57.26	191.2	s1	30D13	81	0
28)	57.54	191.2	s2	30ba	638	1
29)	58.50	191.2	s1	31abS	753	1
30)	58.69	191.2	s1	31abR	537	1
31)	59.04	191.2	s1	30G	66	0
32)	59.22	191.2	s1	31ba	267	1
33)	59.74	191.2	s1	32abS	325	1
34)	60.00	191.2	s1	32abR	252	1
35)	61.17	191.2	s1	33abS	199	0
36)	61.54	191.2	s1	33abR	145	0
37)	62.67	191.2	s1	34abS	104	0
38)	63.17	191.2	s1	34abR	84	0
39)	64.41	191.2	s1	35abS	62	0
40)	65.08	191.2	s1	35abR	59	0

#	Rt.min.	m/z	Rf.	Name	Height	Amount
					ng/mg	
Steranes:						
41)	38.24	217.2	s3	21aa	717	2
42)	39.91	217.2	s3	21bb	931	3
43)	40.03	217.2	s3	22aa	805	2
44)	42.26	217.2	s3	22bb	581	2
45)	48.60	217.2	s3	27dbS	1469	4
46)	49.23	217.2	s3	27dbR	869	2
47)	51.58	218.2	s3	27bbR	594	2
48)	51.72	218.2	s3	27bbS	375	1
49)	52.13	217.2	s3	27aaR	220	1
50)	53.33	218.2	s3	28bbR	198	1
51)	53.46	218.2	s3	28bbS	261	1
52)	54.45	217.2	s3	29aaS	133	0
53)	54.76	218.2	s3	29bbR	291	1
54)	54.85	218.2	s3	29bbS	260	1
55)	55.46	217.2	s3	29aaR	125	0
56)	55.94	218.2	s3	30bbR	63	0
57)	55.97	218.2	s3	30bbS	68	0

Saturated biomarkers

GC/MS detection HP-6890/5973

Ratios, from heights and amounts



Norsk Hydro E&P Research Centre, Bergen, Norway
 Petroleum Geochemistry Laboratories

Data file name: 2671S.D
 Sample name: 2671.0, 35/9-3T2, coch, sat
 Data File Path: C:\HPCHEM\1\DATA\35 9 3\
 Misc. info.:

Vial no.: 6
 Method: MSD_S_D
 Operator: Reidun
 Date: Mon Mar 09 20:39:19 1998

Terpane ratios, heights and amounts

	Height	Amount
$100 * ((\text{sum}20-25)/3 + 26/3(R+S)) /$ $((\text{sum}20-25)/3 + 26/3(R+S) + 27(Ts+Tm) + 28ab + \text{sum}29-30(ab+ba) + \text{sum}31-35ab(R+S))$	%Tri	33 35
$100 * 20/3 / ((\text{sum}20-25)/3 + 26/3(R+S))$	%20/3	5 5
$100 * 23/3 / (23/3 + 24/3 + 25/3)$	%23/3	52 52
$100 * 24/4 / (24/4 + 24/3 + 25/3)$	%24/4	31 31
$100 * Ts / (Ts + Tm)$	%27Ts	33 33
$100 * 28ab / (28ab + 30ab)$	%28ab	3 5
$100 * 29Ts / (29Ts + 29ab)$	%29Ts	16 16
$100 * 25nor30ab / (25nor30ab + 30ab)$	%25nor30ab	2 2
$100 * 29ab / (29ab + 30ab)$	%29ab	49 60
$100 * 30ba / (30ba + 30ab)$	%30ba	28 28
$100 * 30D / (30D + 30ab)$	%30D	12 17
$100 * 30G / (30G + 30ab)$	%30G	4 6
$100 * 32abS / (32ab(S+R))$	%32abS	56 56
$100 * 35ab(S+R) / (34-35ab(S+R))$	%35ab	39 39
$100 * (27Ts + 27Tm) / (27Ts + 27Tn + 28ab + \text{sum}29-30(ab+ba) + \text{sum}31-35ab(R+S))$	%27HOP	19 21
$100 * (28ab) / (27Ts + 27Tn + 28ab + \text{sum}29-30(ab+ba) + \text{sum}31-35ab(R+S))$	%28HOP	1 1
$100 * (29ab + ba) / (27Ts + 27Tn + 28ab + \text{sum}29-30(ab+ba) + \text{sum}31-35ab(R+S))$	%29HOP	26 29
$100 * (30ab + ba) / (27Ts + 27Tn + 28ab + \text{sum}29-30(ab+ba) + \text{sum}31-35ab(R+S))$	%30HOP	26 19
$100 * 31ab(S+R) / (27Ts + 27Tn + 28ab + \text{sum}29-30(ab+ba) + \text{sum}31-35ab(R+S))$	%31HOP	15 16
$100 * 32ab(S+R) / (27Ts + 27Tn + 28ab + \text{sum}29-30(ab+ba) + \text{sum}31-35ab(R+S))$	%32HOP	7 7
$100 * 33ab(S+R) / (27Ts + 27Tn + 28ab + \text{sum}29-30(ab+ba) + \text{sum}31-35ab(R+S))$	%33HOP	4 4
$100 * 34ab(S+R) / (27Ts + 27Tn + 28ab + \text{sum}29-30(ab+ba) + \text{sum}31-35ab(R+S))$	%34HOP	2 2
$100 * 35ab(S+R) / (27Ts + 27Tn + 28ab + \text{sum}29-30(ab+ba) + \text{sum}31-35ab(R+S))$	%35HOP	1 2

Sterane ratios

$100 * (21+22)bb / ((21+22)bb + (27+28+29+30)bb(R+S))$	%Preg	42 42
$100 * 29aaS / 29aa(R+S)$	%29aaS	52 52
$100 * 29bb(R+S) / (29bb(R+S) + 29aa(S+R))$	%29bb	68 68
$100 * 27db(S+R) / ((27db(S+R) + 27bb(R+S)))$	%27dia	71 71
$100 * 27bb(R+S) / (27+28+29+30)bb(R+S)$	%27STER	46 46
$100 * 28bb(R+S) / (27+28+29+30)bb(R+S)$	%28STER	22 22
$100 * 29bb(R+S) / (27+28+29+30)bb(R+S)$	%29STER	26 26
$100 * 30bb(R+S) / (27+28+29+30)bb(R+S)$	%30STER	6 6

Saturated biomarkers

GC/MS detection HP-6890/5973

Compound data



Norsk Hydro E&P Research Centre, Bergen, Norway
Petroleum Geochemistry Laboratories

Data file name: **2676S.D**
 Sample name: **2676, 35/9-3T2, oil, sat**
 Data File Path: C:\HPCHEM\1\DATA\35 9 3\
 Misc. info.:
 Vial no.: 11
 Method: MSD_S_D
 Operator: Reidun
 Date: Tue Mar 10 04:02:09 1998

Response curve $y = ax$
 Response factor groups: s1...s3, responses as defined in method

#	Rt.min.	m/z	Rf.	Name	Height	Amount
					ng/mg	
Internal standard (if added):						
1)	46.09	217.2	24baa	2725	27	
Diterpanes:						
2)	33.73	191.2	s1	19/3	1103	8
3)	35.71	191.2	s1	20/3	538	4
4)	37.75	191.2	s1	21/3	545	4
5)	41.74	191.2	s1	23/3	918	7
6)	42.86	191.2	s1	24/3	614	5
7)	45.14	191.2	s1	25/3	273	2
8)	46.67	191.2	s1	24/4	842	6
9)	46.78	191.2	s1	26/3R	254	2
10)	46.92	191.2	s1	26/3S	271	2
11)	50.45	191.2	s1	28/3R	344	3
12)	50.69	191.2	s1	28/3S	319	2
13)	51.49	191.2	s1	29/3R	498	4
14)	51.78	191.2	s1	29/3S	419	3
Triterpanes:						
15)	52.63	191.2	s1	27Ts	4071	30
16)	52.87	177.2	s1	25nor28ab	782	6
17)	53.30	191.2	s1	27Tm	1274	9
18)	53.67	177.2	s1	25nor29ab	411	3
19)	53.80	191.2	s1	27b	679	5
20)	54.87	191.2	s1	28ab	777	6
21)	55.04	177.2	s1	25nor30ab	85	1
22)	55.57	191.2	s1	29ab	3614	27
23)	55.68	191.2	s1	29Ts	3408	25
24)	55.93	191.2	s1	30D	4476	33
25)	56.47	191.2	s1	29ba	316	2
26)	56.94	191.2	s2	30ab	11919	57
27)	57.29	191.2	s1	30D13	833	6
28)	57.57	191.2	s2	30ba	1073	5
29)	58.54	191.2	s1	31abS	4470	33
30)	58.73	191.2	s1	31abR	3173	24
31)	59.05	191.2	s1	30G	729	5
32)	59.26	191.2	s1	31ba	432	3
33)	59.77	191.2	s1	32abS	3165	24
34)	60.04	191.2	s1	32abR	2233	17
35)	61.20	191.2	s1	33abS	2511	19
36)	61.58	191.2	s1	33abR	1607	12
37)	62.71	191.2	s1	34abS	1516	11
38)	63.22	191.2	s1	34abR	857	6
39)	64.43	191.2	s1	35abS	786	6
40)	65.13	191.2	s1	35abR	476	4

#	Rt.min.	m/z	Rf.	Name	Height	Amount
					ng/mg	
Steranes:						
41)	38.26	217.2	s3	21aa	1003	11
42)	39.92	217.2	s3	21bb	1207	13
43)	40.05	217.2	s3	22aa	1055	11
44)	42.29	217.2	s3	22bb	636	7
45)	48.62	217.2	s3	27dbS	3489	37
46)	49.26	217.2	s3	27dbR	1941	21
47)	51.61	218.2	s3	27bbR	2683	29
48)	51.77	218.2	s3	27bbS	1675	18
49)	52.17	217.2	s3	27aaR	739	8
50)	53.36	218.2	s3	28bbR	1423	15
51)	53.50	218.2	s3	28bbS	2005	22
52)	54.50	217.2	s3	29aaS	1114	12
53)	54.78	218.2	s3	29bbR	2897	31
54)	54.88	218.2	s3	29bbS	2528	27
55)	55.49	217.2	s3	29aaR	1057	11
56)	55.96	218.2	s3	30bbR	874	9
57)	56.01	218.2	s3	30bbS	729	8

Saturated biomarkers

GC/MS detection HP-6890/5973

Ratios, from heights and amounts



Norsk Hydro E&P Research Centre, Bergen, Norway
 Petroleum Geochemistry Laboratories

Data file name: 2676S.D
 Sample name: 2676, 35/9-3T2, oil, sat
 Data File Path: C:\HPCHEM\1\DATA\35 9 3\
 Misc. info.:

Vial no.: 11
 Method: MSD_S_D
 Operator: Reidun
 Date: Tue Mar 10 04:02:09 1998

Terpane ratios, heights and amounts

	Height	Amount
$100 \cdot ((\text{sum}20-25)/3 + 26/3(R+S)) / ((\text{sum}20-25)/3 + 26/3(R+S) + 27(Ts+Tm) + 28ab + \text{sum}29-30(ab+ba) + \text{sum}31-35ab(R+S))$	%Tri	7 8
$100 \cdot 20/3 / ((\text{sum}20-25)/3 + 26/3(R+S))$	%20/3	16 16
$100 \cdot 23/3 / (23/3 + 24/3 + 25/3)$	%23/3	51 51
$100 \cdot 24/4 / (24/4 + 24/3 + 25/3)$	%24/4	49 49
$100 \cdot Ts / (Ts + Tm)$	%27Ts	76 76
$100 \cdot 28ab / (28ab + 30ab)$	%28ab	6 9
$100 \cdot 29Ts / (29Ts + 29ab)$	%29Ts	49 49
$100 \cdot 25nor30ab / (25nor30ab + 30ab)$	%25nor30ab	1 1
$100 \cdot 29ab / (29ab + 30ab)$	%29ab	23 32
$100 \cdot 30ba / (30ba + 30ab)$	%30ba	8 8
$100 \cdot 30D / (30D + 30ab)$	%30D	27 37
$100 \cdot 30G / (30G + 30ab)$	%30G	6 9
$100 \cdot 32abS / (32ab(S+R))$	%32abS	59 59
$100 \cdot 35ab(S+R) / (34-35ab(S+R))$	%35ab	35 35
$100 \cdot (27Ts + 27Tm) / (27Ts + 27Tm + 28ab + \text{sum}29-30(ab+ba) + \text{sum}31-35ab(R+S))$	%27HOP	12 14
$100 \cdot (28ab) / (27Ts + 27Tm + 28ab + \text{sum}29-30(ab+ba) + \text{sum}31-35ab(R+S))$	%28HOP	2 2
$100 \cdot (29ab+ba) / (27Ts + 27Tm + 28ab + \text{sum}29-30(ab+ba) + \text{sum}31-35ab(R+S))$	%29HOP	9 10
$100 \cdot (30ab+ba) / (27Ts + 27Tm + 28ab + \text{sum}29-30(ab+ba) + \text{sum}31-35ab(R+S))$	%30HOP	30 21
$100 \cdot 31ab(S+R) / (27Ts + 27Tm + 28ab + \text{sum}29-30(ab+ba) + \text{sum}31-35ab(R+S))$	%31HOP	17 19
$100 \cdot 32ab(S+R) / (27Ts + 27Tm + 28ab + \text{sum}29-30(ab+ba) + \text{sum}31-35ab(R+S))$	%32HOP	12 14
$100 \cdot 33ab(S+R) / (27Ts + 27Tm + 28ab + \text{sum}29-30(ab+ba) + \text{sum}31-35ab(R+S))$	%33HOP	9 11
$100 \cdot 34ab(S+R) / (27Ts + 27Tm + 28ab + \text{sum}29-30(ab+ba) + \text{sum}31-35ab(R+S))$	%34HOP	5 6
$100 \cdot 35ab(S+R) / (27Ts + 27Tm + 28ab + \text{sum}29-30(ab+ba) + \text{sum}31-35ab(R+S))$	%35HOP	3 3

Sterane ratios

$100 \cdot (21+22)bb / ((21+22)bb + (27+28+29+30)bb(R+S))$	%Preg	11 11
$100 \cdot 29aaS / 29aa(R+S)$	%29aaS	51 51
$100 \cdot 29bb(R+S) / (29bb(R+S) + 29aa(S+R))$	%29bb	71 71
$100 \cdot 27db(S+R) / ((27db(S+R) + 27bb(R+S)))$	%27dia	55 55
$100 \cdot 27bb(R+S) / (27+28+29+30)bb(R+S)$	%27STER	29 29
$100 \cdot 28bb(R+S) / (27+28+29+30)bb(R+S)$	%28STER	23 23
$100 \cdot 29bb(R+S) / (27+28+29+30)bb(R+S)$	%29STER	37 37
$100 \cdot 30bb(R+S) / (27+28+29+30)bb(R+S)$	%30STER	11 11

Saturated biomarkers

GC/MS detection HP-6890/5973

Compound data



Norsk Hydro E&P Research Centre, Bergen, Norway
Petroleum Geochemistry Laboratories

Data file name: 2681_3S.D
Sample name: 2681.3, 35/9-3T2, oil, sat
Data File Path: C:\HPCHEM\1\DATA\35 9 3\
Misc. info.:

Vial no.: 12
Method: MSD_S_D
Operator: Reidun
Date: Tue Mar 10 05:30:41 1998

Response curve $y = ax$
Response factor groups: s1...s3, responses as defined in method

#	Rt.min.	m/z	Rf.	Name	Height	Amount
					ng/mg	
Internal standard (if added):						
1)	46.10	217.2		24baa	2972	29
Diterpanes:						
2)	33.73	191.2	s1	19/3	1184	9
3)	35.72	191.2	s1	20/3	573	4
4)	37.76	191.2	s1	21/3	547	4
5)	41.74	191.2	s1	23/3	976	7
6)	42.87	191.2	s1	24/3	632	5
7)	45.13	191.2	s1	25/3	300	2
8)	46.68	191.2	s1	24/4	879	6
9)	46.78	191.2	s1	26/3R	263	2
10)	46.92	191.2	s1	26/3S	300	2
11)	50.46	191.2	s1	28/3R	318	2
12)	50.69	191.2	s1	28/3S	310	2
13)	51.55	191.2	s1	29/3R	553	4
14)	51.79	191.2	s1	29/3S	420	3
Triterpanes:						
15)	52.63	191.2	s1	27Ts	4405	32
16)	52.88	177.2	s1	25nor28ab	778	6
17)	53.31	191.2	s1	27Tm	1436	11
18)	53.68	177.2	s1	25nor29ab	421	3
19)	53.82	191.2	s1	27b	753	6
20)	54.87	191.2	s1	28ab	853	6
21)	55.08	177.2	s1	25nor30ab	235	2
22)	55.58	191.2	s1	29ab	3822	28
23)	55.68	191.2	s1	29Ts	3545	26
24)	55.94	191.2	s1	30D	4660	34
25)	56.48	191.2	s1	29ba	391	3
26)	56.95	191.2	s2	30ab	12968	61
27)	57.30	191.2	s1	30D13	826	6
28)	57.58	191.2	s2	30ba	1222	6
29)	58.54	191.2	s1	31abS	4562	33
30)	58.73	191.2	s1	31abR	3388	25
31)	59.06	191.2	s1	30G	723	5
32)	59.27	191.2	s1	31ba	549	4
33)	59.77	191.2	s1	32abS	3688	27
34)	60.04	191.2	s1	32abR	2384	17
35)	61.21	191.2	s1	33abS	2685	20
36)	61.57	191.2	s1	33abR	1673	12
37)	62.73	191.2	s1	34abS	1619	12
38)	63.22	191.2	s1	34abR	984	7
39)	64.43	191.2	s1	35abS	896	7
40)	65.12	191.2	s1	35abR	524	4

#	Rt.min.	m/z	Rf.	Name	Height	Amount
					ng/mg	
Steranes:						
41)	38.27	217.2	s3	21aa	1081	11
42)	39.93	217.2	s3	21bb	1330	14
43)	40.06	217.2	s3	22aa	1150	12
44)	42.29	217.2	s3	22bb	718	8
45)	48.63	217.2	s3	27dbS	3673	39
46)	49.27	217.2	s3	27dbR	2114	22
47)	51.61	218.2	s3	27bbR	2945	31
48)	51.77	218.2	s3	27bbS	1753	19
49)	52.17	217.2	s3	27aaR	939	10
50)	53.37	218.2	s3	28bbR	1571	17
51)	53.50	218.2	s3	28bbS	2089	22
52)	54.47	217.2	s3	29aaS	1074	11
53)	54.78	218.2	s3	29bbR	3103	33
54)	54.89	218.2	s3	29bbS	2743	29
55)	55.50	217.2	s3	29aaR	1118	12
56)	55.97	218.2	s3	30bbR	922	10
57)	56.02	218.2	s3	30bbS	772	8

Saturated biomarkers

GC/MS detection HP-6890/5973

Ratios, from heights and amounts



Norsk Hydro E&P Research Centre, Bergen, Norway
Petroleum Geochemistry Laboratories

Data file name: 2681_3S.D
Sample name: 2681.3, 35/9-3T2, oil, sat
Data File Path: C:\HPCHEM\1\DATA\35 9 3\
Misc. info:

Vial no.: 12
Method: MSD_S_D
Operator: Reidun
Date: Tue Mar 10 05:30:41 1998

Terpane ratios, heights and amounts

	Height	Amount
$100 * ((\text{sum}20-25)/3 + 26/3(R+S)) / ((\text{sum}20-25)/3 + 26/3(R+S) + 27(Ts+Tm) + 28ab + \text{sum}29-30(ab+ba) + \text{sum}31-35ab(R+S))$	%Tri	7 8
$100 * 20/3 / ((\text{sum}20-25)/3 + 26/3(R+S))$	%20/3	16 16
$100 * 23/3 / (23/3 + 24/3 + 25/3)$	%23/3	51 51
$100 * 24/4 / (24/4 + 24/3 + 25/3)$	%24/4	49 49
$100 * Ts / (Ts + Tm)$	%27Ts	75 75
$100 * 28ab / (28ab + 30ab)$	%28ab	6 9
$100 * 29Ts / (29Ts + 29ab)$	%29Ts	48 48
$100 * 25nor30ab / (25nor30ab + 30ab)$	%25nor30ab	2 3
$100 * 29ab / (29ab + 30ab)$	%29ab	23 31
$100 * 30ba / (30ba + 30ab)$	%30ba	9 9
$100 * 30D / (30D + 30ab)$	%30D	26 36
$100 * 30G / (30G + 30ab)$	%30G	5 8
$100 * 32abS / (32ab(S+R))$	%32abS	61 61
$100 * 35ab(S+R) / (34-35ab(S+R))$	%35ab	35 35
$100 * (27Ts + 27Tm) / (27Ts + 27Tn + 28ab + \text{sum}29-30(ab+ba) + \text{sum}31-35ab(R+S))$	%27HOP	12 14
$100 * (28ab) / (27Ts + 27Tn + 28ab + \text{sum}29-30(ab+ba) + \text{sum}31-35ab(R+S))$	%28HOP	2 2
$100 * (29ab + ba) / (27Ts + 27Tn + 28ab + \text{sum}29-30(ab+ba) + \text{sum}31-35ab(R+S))$	%29HOP	9 10
$100 * (30ab + ba) / (27Ts + 27Tn + 28ab + \text{sum}29-30(ab+ba) + \text{sum}31-35ab(R+S))$	%30HOP	30 22
$100 * 31ab(S+R) / (27Ts + 27Tn + 28ab + \text{sum}29-30(ab+ba) + \text{sum}31-35ab(R+S))$	%31HOP	17 19
$100 * 32ab(S+R) / (27Ts + 27Tn + 28ab + \text{sum}29-30(ab+ba) + \text{sum}31-35ab(R+S))$	%32HOP	13 14
$100 * 33ab(S+R) / (27Ts + 27Tn + 28ab + \text{sum}29-30(ab+ba) + \text{sum}31-35ab(R+S))$	%33HOP	9 10
$100 * 34ab(S+R) / (27Ts + 27Tn + 28ab + \text{sum}29-30(ab+ba) + \text{sum}31-35ab(R+S))$	%34HOP	5 6
$100 * 35ab(S+R) / (27Ts + 27Tn + 28ab + \text{sum}29-30(ab+ba) + \text{sum}31-35ab(R+S))$	%35HOP	3 3

Sterane ratios

$100 * (21+22)bb / ((21+22)bb + (27+28+29+30)bb(R+S))$	%Preq	11 11
$100 * 29aaS / 29aa(R+S)$	%29aaS	49 49
$100 * 29bb(R+S) / (29bb(R+S) + 29aa(S+R))$	%29bb	73 73
$100 * 27db(S+R) / ((27db(S+R) + 27bb(R+S))$	%27dia	55 55
$100 * 27bb(R+S) / (27+28+29+30)bb(R+S)$	%27STER	30 30
$100 * 28bb(R+S) / (27+28+29+30)bb(R+S)$	%28STER	23 23
$100 * 29bb(R+S) / (27+28+29+30)bb(R+S)$	%29STER	37 37
$100 * 30bb(R+S) / (27+28+29+30)bb(R+S)$	%30STER	11 11

Saturated biomarkers

GC/MS detection HP-6890/5973

Compound data



Norsk Hydro E&P Research Centre, Bergen, Norway
Petroleum Geochemistry Laboratories

Data file name: 2683_7S.D
Sample name: 2683.7, 35/9-3T2, oil, sat
Data File Path: C:\HPCHEM\1\DATA\35 9 3\
Misc. info.:

Vial no.: 13
Method: MSD_S_D
Operator: Reidun
Date: Tue Mar 10 06:59:15 1998

Response curve $y = ax$
Response factor groups: s1...s3, responses as defined in method

#	Rt.min.	m/z	Rf.	Name	Height	Amount
					ng/mg	
Internal standard (if added):						
1)	46.09	217.2		24baa	2259	29
Diterpanes:						
2)	33.73	191.2	s1	19/3	958	9
3)	35.72	191.2	s1	20/3	432	4
4)	37.76	191.2	s1	21/3	465	5
5)	41.73	191.2	s1	23/3	709	7
6)	42.87	191.2	s1	24/3	462	5
7)	45.13	191.2	s1	25/3	227	2
8)	46.67	191.2	s1	24/4	714	7
9)	46.79	191.2	s1	26/3R	236	2
10)	46.92	191.2	s1	26/3S	196	2
11)	50.44	191.2	s1	28/3R	251	2
12)	50.71	191.2	s1	28/3S	254	2
13)	51.48	191.2	s1	29/3R	381	4
14)	51.77	191.2	s1	29/3S	355	3
Triterpanes:						
15)	52.63	191.2	s1	27Ts	3296	32
16)	52.87	177.2	s1	25nor28ab	668	7
17)	53.31	191.2	s1	27Tm	1043	10
18)	53.66	177.2	s1	25nor29ab	343	3
19)	53.80	191.2	s1	27b	563	5
20)	54.87	191.2	s1	28ab	629	6
21)	55.08	177.2	s1	25nor30ab	293	3
22)	55.57	191.2	s1	29ab	2811	27
23)	55.68	191.2	s1	29Ts	2655	26
24)	55.93	191.2	s1	30D	3729	36
25)	56.28	191.2	s1	29ba	375	4
26)	56.94	191.2	s2	30ab	9218	58
27)	57.29	191.2	s1	30D13	646	6
28)	57.57	191.2	s2	30ba	946	6
29)	58.53	191.2	s1	31abS	3309	32
30)	58.73	191.2	s1	31abR	2557	25
31)	59.05	191.2	s1	30G	691	7
32)	59.27	191.2	s1	31ba	400	4
33)	59.77	191.2	s1	32abS	2797	27
34)	60.04	191.2	s1	32abR	1784	17
35)	61.20	191.2	s1	33abS	1975	19
36)	61.57	191.2	s1	33abR	1269	12
37)	62.71	191.2	s1	34abS	1236	12
38)	63.21	191.2	s1	34abR	745	7
39)	64.42	191.2	s1	35abS	608	6
40)	65.12	191.2	s1	35abR	380	4

#	Rt.min.	m/z	Rf.	Name	Height	Amount
					ng/mg	
Steranes:						
41)	38.26	217.2	s3	21aa	831	12
42)	39.92	217.2	s3	21bb	970	14
43)	40.05	217.2	s3	22aa	869	12
44)	42.28	217.2	s3	22bb	531	7
45)	48.62	217.2	s3	27dbS	2868	40
46)	49.26	217.2	s3	27dbR	1575	22
47)	51.61	218.2	s3	27bbR	2263	32
48)	51.77	218.2	s3	27bbS	1373	19
49)	52.17	217.2	s3	27aaR	609	9
50)	53.36	218.2	s3	28bbR	1166	16
51)	53.50	218.2	s3	28bbS	1654	23
52)	54.48	217.2	s3	29aaS	874	12
53)	54.78	218.2	s3	29bbR	2338	33
54)	54.89	218.2	s3	29bbS	1992	28
55)	55.49	217.2	s3	29aaR	834	12
56)	55.95	218.2	s3	30bbR	705	10
57)	56.01	218.2	s3	30bbS	576	8

Saturated biomarkers

GC/MS detection HP-6890/5973

Ratios, from heights and amounts



Norsk Hydro E&P Research Centre, Bergen, Norway
 Petroleum Geochemistry Laboratories

Data file name: 2683_7S.D
 Sample name: 2683.7, 35/9-3T2, oil, sat
 Data File Path: C:\HPCHEM\1\DATA\35 9 3\
 Misc. info.:

Vial no.: 13
 Method: MSD_S_D
 Operator: Reidun
 Date: Tue Mar 10 06:59:15 1998

Terpane ratios, heights and amounts

	Height	Amount
$100 \cdot ((\text{sum}20-25)/3+26/3(R+S)) / ((\text{sum}20-25)/3+26/3(R+S)+27(Ts+Tm)+28ab+\text{sum}29-30(ab+ba)+\text{sum}31-35ab(R+S))$	%Tri	7 8
$100 \cdot 20/3 / ((\text{sum}20-25)/3+26/3(R+S))$	%20/3	16 16
$100 \cdot 23/3 / (23/3+24/3+25/3)$	%23/3	51 51
$100 \cdot 24/4 / (24/4+24/3+25/3)$	%24/4	51 51
$100 \cdot Ts / (Ts+Tm)$	%27Ts	76 76
$100 \cdot 28ab / (28ab+30ab)$	%28ab	6 10
$100 \cdot 29Ts / (29Ts+29ab)$	%29Ts	49 49
$100 \cdot 25nor30ab / (25nor30ab+30ab)$	%25nor30ab	3 5
$100 \cdot 29ab / (29ab+30ab)$	%29ab	23 32
$100 \cdot 30ba / (30ba+30ab)$	%30ba	9 9
$100 \cdot 30D / (30D+30ab)$	%30D	29 39
$100 \cdot 30G / (30G+30ab)$	%30G	7 10
$100 \cdot 32abS / (32ab(S+R))$	%32abS	61 61
$100 \cdot 35ab(S+R) / (34-35ab(S+R))$	%35ab	33 33
$100 \cdot (27Ts+27Tm) / (27Ts+27Tn+28ab+\text{sum}29-30(ab+ba)+\text{sum}31-35ab(R+S))$	%27HOP	12 14
$100 \cdot (28ab) / (27Ts+27Tn+28ab+\text{sum}29-30(ab+ba)+\text{sum}31-35ab(R+S))$	%28HOP	2 2
$100 \cdot (29ab+ba) / (27Ts+27Tn+28ab+\text{sum}29-30(ab+ba)+\text{sum}31-35ab(R+S))$	%29HOP	9 10
$100 \cdot (30ab+ba) / (27Ts+27Tn+28ab+\text{sum}29-30(ab+ba)+\text{sum}31-35ab(R+S))$	%30HOP	29 21
$100 \cdot 31ab(S+R) / (27Ts+27Tn+28ab+\text{sum}29-30(ab+ba)+\text{sum}31-35ab(R+S))$	%31HOP	17 19
$100 \cdot 32ab(S+R) / (27Ts+27Tn+28ab+\text{sum}29-30(ab+ba)+\text{sum}31-35ab(R+S))$	%32HOP	13 15
$100 \cdot 33ab(S+R) / (27Ts+27Tn+28ab+\text{sum}29-30(ab+ba)+\text{sum}31-35ab(R+S))$	%33HOP	9 10
$100 \cdot 34ab(S+R) / (27Ts+27Tn+28ab+\text{sum}29-30(ab+ba)+\text{sum}31-35ab(R+S))$	%34HOP	6 6
$100 \cdot 35ab(S+R) / (27Ts+27Tn+28ab+\text{sum}29-30(ab+ba)+\text{sum}31-35ab(R+S))$	%35HOP	3 3

Sterane ratios

$100 \cdot (21+22)bb / ((21+22)bb+(27+28+29+30)bb(R+S))$	%Preg	11 11
$100 \cdot 29aaS / 29aa(R+S)$	%29aaS	51 51
$100 \cdot 29bb(R+S) / (29bb(R+S)+29aa(S+R))$	%29bb	72 72
$100 \cdot 27db(S+R) / ((27db(S+R)+27bb(R+S))$	%27dia	55 55
$100 \cdot 27bb(R+S) / (27+28+29+30)bb(R+S)$	%27STER	30 30
$100 \cdot 28bb(R+S) / (27+28+29+30)bb(R+S)$	%28STER	23 23
$100 \cdot 29bb(R+S) / (27+28+29+30)bb(R+S)$	%29STER	36 36
$100 \cdot 30bb(R+S) / (27+28+29+30)bb(R+S)$	%30STER	11 11

Saturated biomarkers

GC/MS detection HP-6890/5973

Compound data



Norsk Hydro E&P Research Centre, Bergen, Norway
Petroleum Geochemistry Laboratories

Data file name: S2700_6.D

Sample name: 35/9-3T2 2700.6m sat

Data File Path: C:\HPCHEM\1\DATA\VISUND\1\

Misc. info.:

Vial no.: 28

Method: MSD_S_D

Operator:

Date: Sun Apr 26 03:38:33 1998

Response curve $v = ax$

Response factor groups: s1...s3, responses as defined in method

#	Rt.min.	m/z	Rf.	Name	Height	Amount
					ng/mg	
Internal standard (if added):						
1)	46.13	217.2		24baa	2662	30
Diterpanes:						
2)	33.77	191.2	s1	19/3	1326	11
3)	35.70	191.2	s1	20/3	415	4
4)	37.79	191.2	s1	21/3	592	5
5)	41.78	191.2	s1	23/3	939	8
6)	42.90	191.2	s1	24/3	628	5
7)	45.17	191.2	s1	25/3	301	3
8)	46.72	191.2	s1	24/4	836	7
9)	46.82	191.2	s1	26/3R	255	2
10)	46.96	191.2	s1	26/3S	272	2
11)	50.48	191.2	s1	28/3R	307	3
12)	50.73	191.2	s1	28/3S	334	3
13)	51.52	191.2	s1	29/3R	509	4
14)	51.82	191.2	s1	29/3S	358	3
Triterpanes:						
15)	52.67	191.2	s1	27Ts	4141	36
16)	52.91	177.2	s1	25nor28ab	818	7
17)	53.35	191.2	s1	27Tm	1202	10
18)	53.71	177.2	s1	25nor29ab	465	4
19)	53.84	191.2	s1	27b	746	6
20)	54.91	191.2	s1	28ab	764	7
21)	55.13	177.2	s1	25nor30ab	298	3
22)	55.61	191.2	s1	29ab	4003	35
23)	55.71	191.2	s1	29Ts	3402	29
24)	55.97	191.2	s1	30D	4075	35
25)	56.52	191.2	s1	29ba	307	3
26)	56.98	191.2	s2	30ab	12060	67
27)	57.33	191.2	s1	30D13	836	7
28)	57.61	191.2	s2	30ba	1184	7
29)	58.57	191.2	s1	31abS	4521	39
30)	58.77	191.2	s1	31abR	3238	28
31)	59.08	191.2	s1	30G	854	7
32)	59.31	191.2	s1	31ba	563	5
33)	59.81	191.2	s1	32abS	3563	31
34)	60.08	191.2	s1	32abR	2364	20
35)	61.24	191.2	s1	33abS	2511	22
36)	61.61	191.2	s1	33abR	1632	14
37)	62.76	191.2	s1	34abS	1555	13
38)	63.25	191.2	s1	34abR	878	8
39)	64.49	191.2	s1	35abS	822	7
40)	65.18	191.2	s1	35abR	500	4

#	Rt.min.	m/z	Rf.	Name	Height	Amount
					ng/mg	
Steranes:						
41)	38.30	217.2	s3	21aa	1125	14
42)	39.96	217.2	s3	21bb	1307	16
43)	40.09	217.2	s3	22aa	1089	14
44)	42.33	217.2	s3	22bb	716	9
45)	48.66	217.2	s3	27dbS	3323	42
46)	49.29	217.2	s3	27dbR	2013	25
47)	51.65	218.2	s3	27bbR	2883	36
48)	51.79	218.2	s3	27bbS	1750	22
49)	52.20	217.2	s3	27aaR	806	10
50)	53.39	218.2	s3	28bbR	1575	20
51)	53.53	218.2	s3	28bbS	2018	25
52)	54.53	217.2	s3	29aaS	1037	13
53)	54.82	218.2	s3	29bbR	2815	35
54)	54.92	218.2	s3	29bbS	2440	31
55)	55.53	217.2	s3	29aaR	1018	13
56)	55.99	218.2	s3	30bbR	883	11
57)	56.05	218.2	s3	30bbS	757	9

Saturated biomarkers

GC/MS detection HP-6890/5973

Ratios, from heights and amounts



Norsk Hydro E&P Research Centre, Bergen, Norway
Petroleum Geochemistry Laboratories

Data file name: S2700_6.D
Sample name: 35/9-3T2 2700.6m sat
Data File Path: C:\HPCHEM\1\DATA\VISUND\1
Misc. info.:

Vial no.: 28
Method: MSD_S_D
Operator:
Date: Sun Apr 26 03:38:33 1998

Terpane ratios, heights and amounts

	Height	Amount
$100 * ((\text{sum}20-25)/3 + 26/3(R+S)) / ((\text{sum}20-25)/3 + 26/3(R+S) + 27(Ts+Tm) + 28ab + \text{sum}29-30(ab+ba) + \text{sum}31-35ab(R+S))$	%Tri	7 8
$100 * 20/3 / ((\text{sum}20-25)/3 + 26/3(R+S))$	%20/3	12 12
$100 * 23/3 / (23/3 + 24/3 + 25/3)$	%23/3	50 50
$100 * 24/4 / (24/4 + 24/3 + 25/3)$	%24/4	47 47
$100 * Ts / (Ts + Tm)$	%27Ts	78 78
$100 * 28ab / (28ab + 30ab)$	%28ab	6 9
$100 * 29Ts / (29Ts + 29ab)$	%29Ts	46 46
$100 * 25nor30ab / (25nor30ab + 30ab)$	%25nor30ab	2 4
$100 * 29ab / (29ab + 30ab)$	%29ab	25 34
$100 * 30ba / (30ba + 30ab)$	%30ba	9 9
$100 * 30D / (30D + 30ab)$	%30D	25 34
$100 * 30G / (30G + 30ab)$	%30G	7 10
$100 * 32abS / (32ab(S+R))$	%32abS	60 60
$100 * 35ab(S+R) / (34-35ab(S+R))$	%35ab	35 35
$100 * (27Ts + 27Tm) / (27Ts + 27Tm + 28ab + \text{sum}29-30(ab+ba) + \text{sum}31-35ab(R+S))$	%27HOP	12 13
$100 * (28ab) / (27Ts + 27Tm + 28ab + \text{sum}29-30(ab+ba) + \text{sum}31-35ab(R+S))$	%28HOP	2 2
$100 * (29ab+ba) / (27Ts + 27Tm + 28ab + \text{sum}29-30(ab+ba) + \text{sum}31-35ab(R+S))$	%29HOP	10 11
$100 * (30ab+ba) / (27Ts + 27Tm + 28ab + \text{sum}29-30(ab+ba) + \text{sum}31-35ab(R+S))$	%30HOP	29 21
$100 * 31ab(S+R) / (27Ts + 27Tm + 28ab + \text{sum}29-30(ab+ba) + \text{sum}31-35ab(R+S))$	%31HOP	17 19
$100 * 32ab(S+R) / (27Ts + 27Tm + 28ab + \text{sum}29-30(ab+ba) + \text{sum}31-35ab(R+S))$	%32HOP	13 15
$100 * 33ab(S+R) / (27Ts + 27Tm + 28ab + \text{sum}29-30(ab+ba) + \text{sum}31-35ab(R+S))$	%33HOP	9 10
$100 * 34ab(S+R) / (27Ts + 27Tm + 28ab + \text{sum}29-30(ab+ba) + \text{sum}31-35ab(R+S))$	%34HOP	5 6
$100 * 35ab(S+R) / (27Ts + 27Tm + 28ab + \text{sum}29-30(ab+ba) + \text{sum}31-35ab(R+S))$	%35HOP	3 3

Sterane ratios

$100 * (21+22)bb / ((21+22)bb + (27+28+29+30)bb(R+S))$	%Preg	12 12
$100 * 29aaS / 29aa(R+S)$	%29aaS	50 50
$100 * 29bb(R+S) / (29bb(R+S) + 29aa(S+R))$	%29bb	72 72
$100 * 27db(S+R) / ((27db(S+R) + 27bb(R+S))$	%27dia	54 54
$100 * 27bb(R+S) / (27+28+29+30)bb(R+S)$	%27STER	31 31
$100 * 28bb(R+S) / (27+28+29+30)bb(R+S)$	%28STER	24 24
$100 * 29bb(R+S) / (27+28+29+30)bb(R+S)$	%29STER	35 35
$100 * 30bb(R+S) / (27+28+29+30)bb(R+S)$	%30STER	11 11

Hopanes/Steranes ratio-2 (only bb steranes)

Ho/St2 3 2

Saturated biomarkers

GC/MS detection HP-6890/5973

Compound data



Norsk Hydro E&P Research Centre, Bergen, Norway
Petroleum Geochemistry Laboratories

Data file name: 2750S.D
Sample name: 2750, 35/9-3T2, mud, sat
Data File Path: C:\HPCHEM\1\DATA\35 9 3\
Misc. info.:

Vial no.: 15
Method: MSD_S_D
Operator: Reidun
Date: Tue Mar 10 09:56:25 1998

Response curve y = ax
Response factor groups: s1...s3, responses as defined in method

#	Rt.min.	m/z	Rf.	Name	Height	Amount
						ng/mg

Internal standard (if added):

1)	46.08	217.2		24baa	19346	22
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Diterpanes:

2)	33.71	191.2	s1	19/3	4	0
3)	35.74	191.2	s1	20/3	11	0
4)	37.74	191.2	s1	21/3	16	0
5)	41.70	191.2	s1	23/3	49	0
6)	42.84	191.2	s1	24/3	24	0
7)	45.15	191.2	s1	25/3	20	0
8)	46.67	191.2	s1	24/4	14	0
9)	46.76	191.2	s1	26/3R	11	0
10)	46.91	191.2	s1	26/3S	9	0
11)	50.41	191.2	s1	28/3R	23	0
12)	50.67	191.2	s1	28/3S	15	0
13)	51.45	191.2	s1	29/3R	26	0
14)	51.74	191.2	s1	29/3S	24	0

Triterpanes:

15)	52.61	191.2	s1	27Ts	25	0
16)	52.85	177.2	s1	25nor28ab	16	0
17)	53.27	191.2	s1	27Tm	31	0
18)	53.64	177.2	s1	25nor29ab	52	0
19)	53.77	191.2	s1	27b	238	0
20)	54.86	191.2	s1	28ab	19	0
21)	55.07	177.2	s1	25nor30ab	27	0
22)	55.54	191.2	s1	29ab	78	0
23)	55.67	191.2	s1	29Ts	12	0
24)	55.94	191.2	s1	30D	7	0
25)	56.37	191.2	s1	29ba	10	0
26)	56.91	191.2	s2	30ab	96	0
27)	57.27	191.2	s1	30D13	13	0
28)	57.56	191.2	s2	30ba	12	0
29)	58.51	191.2	s1	31abS	57	0
30)	58.72	191.2	s1	31abR	39	0
31)	59.07	191.2	s1	30G	8	0
32)	59.26	191.2	s1	31ba	14	0
33)	59.77	191.2	s1	32abS	41	0
34)	60.01	191.2	s1	32abR	26	0
35)	61.24	191.2	s1	33abS	17	0
36)	61.56	191.2	s1	33abR	26	0
37)	62.71	191.2	s1	34abS	18	0
38)	63.22	191.2	s1	34abR	20	0
39)	64.44	191.2	s1	35abS	25	0
40)	65.16	191.2	s1	35abR	18	0

#	Rt.min.	m/z	Rf.	Name	Height	Amount
						ng/mg

Steranes:

41)	38.24	217.2	s3	21aa	6	0
42)	39.90	217.2	s3	21bb	14	0
43)	40.03	217.2	s3	22aa	4	0
44)	42.28	217.2	s3	22bb	5	0
45)	48.60	217.2	s3	27dbS	21	0
46)	49.24	217.2	s3	27dbR	9	0
47)	51.57	218.2	s3	27bbR	27	0
48)	51.71	218.2	s3	27bbS	20	0
49)	52.12	217.2	s3	27aaR	26	0
50)	53.32	218.2	s3	28bbR	21	0
51)	53.46	218.2	s3	28bbS	24	0
52)	54.46	217.2	s3	29aaS	15	0
53)	54.75	218.2	s3	29bbR	26	0
54)	54.86	218.2	s3	29bbS	24	0
55)	55.46	217.2	s3	29aaR	22	0
56)	55.97	218.2	s3	30bbR	6	0
57)	56.02	218.2	s3	30bbS	4	0

Saturated biomarkers

GC/MS detection HP-6890/5973

Ratios, from heights and amounts



Norsk Hydro E&P Research Centre, Bergen, Norway
Petroleum Geochemistry Laboratories

Data file name: 2750S.D
Sample name: 2750, 35/9-3T2, mud, sat
Data File Path: C:\HPCHEM\1\DATA\35 9 3\
Misc. info.:

Vial no.: 15
Method: MSD_S_D
Operator: Reidun
Date: Tue Mar 10 09:56:25 1998

Terpane ratios, heights and amounts

	Height	Amount
$100 * ((\text{sum}20-25)/3 + 26/3(R+S)) /$ $((\text{sum}20-25)/3 + 26/3(R+S) + 27(Ts+Tm) + 28ab + \text{sum}29-30(ab+ba) + \text{sum}31-35ab(R+S))$	%Tri	20 21
$100 * 20/3 / ((\text{sum}20-25)/3 + 26/3(R+S))$	%20/3	8 8
$100 * 23/3 / (23/3 + 24/3 + 25/3)$	%23/3	53 53
$100 * 24/4 / (24/4 + 24/3 + 25/3)$	%24/4	24 24
$100 * Ts / (Ts + Tm)$	%27Ts	45 45
$100 * 28ab / (28ab + 30ab)$	%28ab	17 24
$100 * 29Ts / (29Ts + 29ab)$	%29Ts	13 13
$100 * 25nor30ab / (25nor30ab + 30ab)$	%25nor30ab	22 30
$100 * 29ab / (29ab + 30ab)$	%29ab	45 56
$100 * 30ba / (30ba + 30ab)$	%30ba	11 11
$100 * 30D / (30D + 30ab)$	%30D	7 10
$100 * 30G / (30G + 30ab)$	%30G	8 11
$100 * 32abS / (32ab(S+R))$	%32abS	61 61
$100 * 35ab(S+R) / (34-35ab(S+R))$	%35ab	53 53
$100 * (27Ts + 27Tm) / (27Ts + 27Tn + 28ab + \text{sum}29-30(ab+ba) + \text{sum}31-35ab(R+S))$	%27HOP	10 11
$100 * (28ab) / (27Ts + 27Tn + 28ab + \text{sum}29-30(ab+ba) + \text{sum}31-35ab(R+S))$	%28HOP	3 4
$100 * (29ab+ba) / (27Ts + 27Tn + 28ab + \text{sum}29-30(ab+ba) + \text{sum}31-35ab(R+S))$	%29HOP	16 17
$100 * (30ab+ba) / (27Ts + 27Tn + 28ab + \text{sum}29-30(ab+ba) + \text{sum}31-35ab(R+S))$	%30HOP	19 13
$100 * 31ab(S+R) / (27Ts + 27Tn + 28ab + \text{sum}29-30(ab+ba) + \text{sum}31-35ab(R+S))$	%31HOP	17 18
$100 * 32ab(S+R) / (27Ts + 27Tn + 28ab + \text{sum}29-30(ab+ba) + \text{sum}31-35ab(R+S))$	%32HOP	12 13
$100 * 33ab(S+R) / (27Ts + 27Tn + 28ab + \text{sum}29-30(ab+ba) + \text{sum}31-35ab(R+S))$	%33HOP	8 8
$100 * 34ab(S+R) / (27Ts + 27Tn + 28ab + \text{sum}29-30(ab+ba) + \text{sum}31-35ab(R+S))$	%34HOP	7 7
$100 * 35ab(S+R) / (27Ts + 27Tn + 28ab + \text{sum}29-30(ab+ba) + \text{sum}31-35ab(R+S))$	%35HOP	8 8

Sterane ratios

$100 * (21+22)bb / ((21+22)bb + (27+28+29+30)bb(R+S))$	%Preg	11 11
$100 * 29aaS / 29aa(R+S)$	%29aaS	41 41
$100 * 29bb(R+S) / (29bb(R+S) + 29aa(S+R))$	%29bb	57 57
$100 * 27db(S+R) / ((27db(S+R) + 27bb(R+S)))$	%27dia	39 39
$100 * 27bb(R+S) / (27+28+29+30)bb(R+S)$	%27STER	31 31
$100 * 28bb(R+S) / (27+28+29+30)bb(R+S)$	%28STER	30 30
$100 * 29bb(R+S) / (27+28+29+30)bb(R+S)$	%29STER	33 33
$100 * 30bb(R+S) / (27+28+29+30)bb(R+S)$	%30STER	7 7

Saturated biomarkers

GC/MS detection HP-6890/5973

Compound data



Norsk Hydro E&P Research Centre, Bergen, Norway
Petroleum Geochemistry Laboratories

Data file name: NSO1S_03.D
Sample name: nso1 ref. sat
Data File Path: C:\HPCHEM\1\DATA\35 9 3\
Misc. info.:

Vial no.: 3
Method: MSD_S_D
Operator: Reidun
Date: Mon Mar 09 16:13:33 1998

Response curve $y = ax$
Response factor groups: s1...s3, responses as defined in method

#	Rt.min.	m/z	Rf.	Name	Height	Amount
					ng/mg	
Internal standard (if added):						
1)	46.08	217.2		24baa	4889	29
Diterpanes:						
2)	33.73	191.2	s1	19/3	1993	9
3)	35.72	191.2	s1	20/3	1329	6
4)	37.76	191.2	s1	21/3	2115	9
5)	41.73	191.2	s1	23/3	3608	16
6)	42.86	191.2	s1	24/3	2541	11
7)	45.13	191.2	s1	25/3	1381	6
8)	46.67	191.2	s1	24/4	2607	12
9)	46.77	191.2	s1	26/3R	939	4
10)	46.91	191.2	s1	26/3S	985	4
11)	50.45	191.2	s1	28/3R	1082	5
12)	50.68	191.2	s1	28/3S	1117	5
13)	51.47	191.2	s1	29/3R	1697	8
14)	51.77	191.2	s1	29/3S	1415	6
Triterpanes:						
15)	52.62	191.2	s1	27Ts	7840	35
16)	52.87	177.2	s1	25nor28ab	6044	27
17)	53.29	191.2	s1	27Tm	6876	31
18)	53.67	177.2	s1	25nor29ab	3664	16
19)	53.78	191.2	s1	27b	1952	9
20)	54.85	191.2	s1	28ab	10679	48
21)	55.08	177.2	s1	25nor30ab	3307	15
22)	55.56	191.2	s1	29ab	19316	86
23)	55.67	191.2	s1	29Ts	8211	37
24)	55.92	191.2	s1	30D	4641	21
25)	56.36	191.2	s1	29ba	4108	18
26)	56.94	191.2	s2	30ab	49340	142
27)	57.28	191.2	s1	30D13	3015	13
28)	57.56	191.2	s2	30ba	4733	14
29)	58.53	191.2	s1	31abS	18321	82
30)	58.72	191.2	s1	31abR	12296	55
31)	59.06	191.2	s1	30G	2251	10
32)	59.25	191.2	s1	31ba	1946	9
33)	59.76	191.2	s1	32abS	12766	57
34)	60.03	191.2	s1	32abR	8947	40
35)	61.20	191.2	s1	33abS	10588	47
36)	61.57	191.2	s1	33abR	6788	30
37)	62.71	191.2	s1	34abS	5862	26
38)	63.20	191.2	s1	34abR	3628	16
39)	64.42	191.2	s1	35abS	4370	20
40)	65.12	191.2	s1	35abR	2855	13

#	Rt.min.	m/z	Rf.	Name	Height	Amount
					ng/mg	
Steranes:						
41)	38.26	217.2	s3	21aa	4501	29
42)	39.93	217.2	s3	21bb	5799	37
43)	40.05	217.2	s3	22aa	3507	23
44)	42.28	217.2	s3	22bb	3501	23
45)	48.61	217.2	s3	27dbS	10771	70
46)	49.25	217.2	s3	27dbR	6030	39
47)	51.60	218.2	s3	27bbR	8386	54
48)	51.75	218.2	s3	27bbS	5804	37
49)	52.15	217.2	s3	27aaR	2948	19
50)	53.36	218.2	s3	28bbR	4456	29
51)	53.49	218.2	s3	28bbS	6046	39
52)	54.49	217.2	s3	29aaS	3120	20
53)	54.78	218.2	s3	29bbR	7258	47
54)	54.88	218.2	s3	29bbS	6502	42
55)	55.49	217.2	s3	29aaR	3247	21
56)	55.96	218.2	s3	30bbR	2652	17
57)	56.00	218.2	s3	30bbS	2391	15

Saturated biomarkers

GC/MS detection HP-6890/5973

Ratios, from heights and amounts



Norsk Hydro E&P Research Centre, Bergen, Norway
 Petroleum Geochemistry Laboratories

Data file name: NSO1S_03.D
 Sample name: nso1 ref. sat
 Data File Path: C:\HPCHEM\1\DATA\35 9 3\
 Misc. info.:

Vial no.: 3
 Method: MSD_S_D
 Operator: Reidun
 Date: Mon Mar 09 16:13:33 1998

Terpane ratios, heights and amounts

	Height	Amount
$100 \cdot ((\text{sum}20-25)/3 + 26/3(R+S)) / ((\text{sum}20-25)/3 + 26/3(R+S) + 27(Ts+Tm) + 28ab + \text{sum}29-30(ab+ba) + \text{sum}31-35ab(R+S))$	%Tri	6 7
$100 \cdot 20/3 / ((\text{sum}20-25)/3 + 26/3(R+S))$	%20/3	10 10
$100 \cdot 23/3 / (23/3 + 24/3 + 25/3)$	%23/3	48 48
$100 \cdot 24/4 / (24/4 + 24/3 + 25/3)$	%24/4	40 40
$100 \cdot Ts / (Ts + Tm)$	%27Ts	53 53
$100 \cdot 28ab / (28ab + 30ab)$	%28ab	18 25
$100 \cdot 29Ts / (29Ts + 29ab)$	%29Ts	30 30
$100 \cdot 25nor30ab / (25nor30ab + 30ab)$	%25nor30ab	6 9
$100 \cdot 29ab / (29ab + 30ab)$	%29ab	28 38
$100 \cdot 30ba / (30ba + 30ab)$	%30ba	9 9
$100 \cdot 30D / (30D + 30ab)$	%30D	9 13
$100 \cdot 30G / (30G + 30ab)$	%30G	4 7
$100 \cdot 32abS / (32ab(S+R))$	%32abS	59 59
$100 \cdot 35ab(S+R) / (34-35ab(S+R))$	%35ab	43 43
$100 \cdot (27Ts + 27Tm) / (27Ts + 27Tn + 28ab + \text{sum}29-30(ab+ba) + \text{sum}31-35ab(R+S))$	%27HOP	8 9
$100 \cdot (28ab) / (27Ts + 27Tn + 28ab + \text{sum}29-30(ab+ba) + \text{sum}31-35ab(R+S))$	%28HOP	6 6
$100 \cdot (29ab + ba) / (27Ts + 27Tn + 28ab + \text{sum}29-30(ab+ba) + \text{sum}31-35ab(R+S))$	%29HOP	12 14
$100 \cdot (30ab + ba) / (27Ts + 27Tn + 28ab + \text{sum}29-30(ab+ba) + \text{sum}31-35ab(R+S))$	%30HOP	29 20
$100 \cdot 31ab(S+R) / (27Ts + 27Tn + 28ab + \text{sum}29-30(ab+ba) + \text{sum}31-35ab(R+S))$	%31HOP	16 18
$100 \cdot 32ab(S+R) / (27Ts + 27Tn + 28ab + \text{sum}29-30(ab+ba) + \text{sum}31-35ab(R+S))$	%32HOP	11 13
$100 \cdot 33ab(S+R) / (27Ts + 27Tn + 28ab + \text{sum}29-30(ab+ba) + \text{sum}31-35ab(R+S))$	%33HOP	9 10
$100 \cdot 34ab(S+R) / (27Ts + 27Tn + 28ab + \text{sum}29-30(ab+ba) + \text{sum}31-35ab(R+S))$	%34HOP	5 6
$100 \cdot 35ab(S+R) / (27Ts + 27Tn + 28ab + \text{sum}29-30(ab+ba) + \text{sum}31-35ab(R+S))$	%35HOP	4 4

Sterane ratios

$100 \cdot (21+22)bb / ((21+22)bb + (27+28+29+30)bb(R+S))$	%Preq	18 18
$100 \cdot 29aaS / 29aa(R+S)$	%29aaS	49 49
$100 \cdot 29bb(R+S) / (29bb(R+S) + 29aa(S+R))$	%29bb	68 68
$100 \cdot 27db(S+R) / ((27db(S+R) + 27bb(R+S))$	%27dia	54 54
$100 \cdot 27bb(R+S) / (27+28+29+30)bb(R+S)$	%27STER	33 33
$100 \cdot 28bb(R+S) / (27+28+29+30)bb(R+S)$	%28STER	24 24
$100 \cdot 29bb(R+S) / (27+28+29+30)bb(R+S)$	%29STER	32 32
$100 \cdot 30bb(R+S) / (27+28+29+30)bb(R+S)$	%30STER	12 12

Saturated biomarkers

GC/MS detection HP-6890/5973

Compound data



Norsk Hydro E&P Research Centre, Bergen, Norway
Petroleum Geochemistry Laboratories

Data file name: NSO1S_11.D
Sample name: nso1 ref. sat
Data File Path: C:\HPCHEM\1\DATA\35 9 3\
Misc. info.:

Vial no.: 3
Method: MSD_S_D
Operator: Reidun
Date: Tue Mar 10 02:33:35 1998

Response curve $y = ax$
Response factor groups: s1...s3, responses as defined in method

#	Rt.min.	m/z	Rf.	Name	Height	Amount
					ng/mg	
Internal standard (if added):						
1)	46.08	217.2	24baa		3775	29
Diterpanes:						
2)	33.74	191.2	s1	19/3	1601	9
3)	35.71	191.2	s1	20/3	1129	7
4)	37.76	191.2	s1	21/3	1643	10
5)	41.74	191.2	s1	23/3	2922	17
6)	42.86	191.2	s1	24/3	2121	12
7)	45.13	191.2	s1	25/3	1097	6
8)	46.66	191.2	s1	24/4	2008	12
9)	46.78	191.2	s1	26/3R	799	5
10)	46.90	191.2	s1	26/3S	802	5
11)	50.43	191.2	s1	28/3R	972	6
12)	50.68	191.2	s1	28/3S	905	5
13)	51.47	191.2	s1	29/3R	1380	8
14)	51.76	191.2	s1	29/3S	1199	7
Triterpanes:						
15)	52.62	191.2	s1	27Ts	6252	36
16)	52.86	177.2	s1	25nor28ab	5005	29
17)	53.30	191.2	s1	27Tm	5695	33
18)	53.67	177.2	s1	25nor29ab	3046	18
19)	54.00	191.2	s1	27b	1588	9
20)	54.86	191.2	s1	28ab	8818	51
21)	55.07	177.2	s1	25nor30ab	2735	16
22)	55.56	191.2	s1	29ab	16265	94
23)	55.67	191.2	s1	29Ts	6733	39
24)	55.92	191.2	s1	30D	3703	21
25)	56.35	191.2	s1	29ba	3377	20
26)	56.93	191.2	s2	30ab	40009	149
27)	57.28	191.2	s1	30D13	2338	14
28)	57.56	191.2	s2	30ba	4002	15
29)	58.52	191.2	s1	31abS	15073	87
30)	58.72	191.2	s1	31abR	10402	60
31)	59.06	191.2	s1	30G	1772	10
32)	59.25	191.2	s1	31ba	1627	9
33)	59.75	191.2	s1	32abS	10070	58
34)	60.03	191.2	s1	32abR	7289	42
35)	61.19	191.2	s1	33abS	8621	50
36)	61.56	191.2	s1	33abR	5600	32
37)	62.71	191.2	s1	34abS	5187	30
38)	63.20	191.2	s1	34abR	3153	18
39)	64.42	191.2	s1	35abS	3866	22
40)	65.11	191.2	s1	35abR	2429	14

#	Rt.min.	m/z	Rf.	Name	Height	Amount
					ng/mg	
Steranes:						
41)	38.26	217.2	s3	21aa	3619	30
42)	39.92	217.2	s3	21bb	4631	39
43)	40.04	217.2	s3	22aa	2885	24
44)	42.28	217.2	s3	22bb	2779	23
45)	48.61	217.2	s3	27dbS	8698	73
46)	49.25	217.2	s3	27dbR	4912	41
47)	51.60	218.2	s3	27bbR	7040	59
48)	51.74	218.2	s3	27bbS	4674	39
49)	52.14	217.2	s3	27aaR	2411	20
50)	53.35	218.2	s3	28bbR	3768	32
51)	53.48	218.2	s3	28bbS	5094	43
52)	54.46	217.2	s3	29aaS	2702	23
53)	54.78	218.2	s3	29bbR	5957	50
54)	54.87	218.2	s3	29bbS	5331	45
55)	55.48	217.2	s3	29aaR	2799	23
56)	55.95	218.2	s3	30bbR	2240	19
57)	56.01	218.2	s3	30bbS	1784	15

Saturated biomarkers

GC/MS detection HP-6890/5973

Ratios, from heights and amounts



Norsk Hydro E&P Research Centre, Bergen, Norway
 Petroleum Geochemistry Laboratories

Data file name: NSO1S_11.D
 Sample name: nso1 ref. sat
 Data File Path: C:\HPCHEM\1\DATA\35 9 3\
 Misc. info.:

Vial no.: 3
 Method: MSD_S_D
 Operator: Reidun
 Date: Tue Mar 10 02:33:35 1998

Terpane ratios, heights and amounts

	Height	Amount
100*((sum20-25)/3+26/3(R+S)) / ((sum20-25)/3+26/3(R+S)+27(Ts+Tm)+28ab+sum29-30(ab+ba)+sum31-35ab(R+S))	%Tri	6 7
100*20/3/((sum20-25)/3+26/3(R+S))	%20/3	11 11
100*23/3/(23/3+24/3+25/3)	%23/3	48 48
100*24/4/(24/4+24/3+25/3)	%24/4	38 38
100*Ts/(Ts+Tm)	%27Ts	52 52
100*28ab/(28ab+30ab)	%28ab	18 26
100*29Ts/(29Ts+29ab)	%29Ts	29 29
100*25nor30ab/(25nor30ab+30ab)	%25nor30ab	6 10
100*29ab/(29ab+30ab)	%29ab	29 39
100*30ba/(30ba+30ab)	%30ba	9 9
100*30D/(30D+30ab)	%30D	8 13
100*30G/(30G+30ab)	%30G	4 6
100*32abS/(32ab(S+R))	%32abS	58 58
100*35ab(S+R)/(34-35ab(S+R))	%35ab	43 43
100*(27Ts+27Tm)/(27Ts+27Tn+28ab+sum29-30(ab+ba)+sum31-35ab(R+S))	%27HOP	8 9
100*(28ab)/(27Ts+27Tn+28ab+sum29-30(ab+ba)+sum31-35ab(R+S))	%28HOP	6 6
100*(29ab+ba)/(27Ts+27Tn+28ab+sum29-30(ab+ba)+sum31-35ab(R+S))	%29HOP	13 14
100*(30ab+ba)/(27Ts+27Tn+28ab+sum29-30(ab+ba)+sum31-35ab(R+S))	%30HOP	28 20
100*31ab(S+R)/(27Ts+27Tn+28ab+sum29-30(ab+ba)+sum31-35ab(R+S))	%31HOP	16 18
100*32ab(S+R)/(27Ts+27Tn+28ab+sum29-30(ab+ba)+sum31-35ab(R+S))	%32HOP	11 12
100*33ab(S+R)/(27Ts+27Tn+28ab+sum29-30(ab+ba)+sum31-35ab(R+S))	%33HOP	9 10
100*34ab(S+R)/(27Ts+27Tn+28ab+sum29-30(ab+ba)+sum31-35ab(R+S))	%34HOP	5 6
100*35ab(S+R)/(27Ts+27Tn+28ab+sum29-30(ab+ba)+sum31-35ab(R+S))	%35HOP	4 4

Sterane ratios

100*(21+22)bb/((21+22)bb+(27+28+29+30)bb(R+S))	%Preg	17 17
100*29aaS/29aa(R+S)	%29aaS	49 49
100*29bb(R+S)/(29bb(R+S)+29aa(S+R))	%29bb	67 67
100*27db(S+R)/((27db(S+R)+27bb(R+S))	%27dia	54 54
100*27bb(R+S)/(27+28+29+30)bb(R+S)	%27STER	33 33
100*28bb(R+S)/(27+28+29+30)bb(R+S)	%28STER	25 25
100*29bb(R+S)/(27+28+29+30)bb(R+S)	%29STER	31 31
100*30bb(R+S)/(27+28+29+30)bb(R+S)	%30STER	11 11

Saturated biomarkers

GC/MS detection HP-6890/5973

Compound data



Norsk Hydro E&P Research Centre, Bergen, Norway
Petroleum Geochemistry Laboratories

Data file name: **NSO1S_21.D**
 Sample name: **nso1 ref. sat**
 Data File Path: **C:\HPCHEM\1\DATA\35 9 3**
 Misc. info.:
 Vial no.: **3**
 Method: **MSD_S_D**
 Operator: **Reidun**
 Date: **Tue Mar 10 18:10:05 1998**

Response curve $y = ax$
 Response factor groups: s1...s3, responses as defined in method

#	Rt.min.	m/z	Rf.	Name	Height	Amount
					ng/mg	
Internal standard (if added):						
1)	46.11	217.2		24baa	4122	29
Diterpanes:						
2)	33.76	191.2	s1	19/3	1684	9
3)	35.73	191.2	s1	20/3	1183	6
4)	37.78	191.2	s1	21/3	1687	9
5)	41.76	191.2	s1	23/3	3156	17
6)	42.88	191.2	s1	24/3	2235	12
7)	45.16	191.2	s1	25/3	1141	6
8)	46.69	191.2	s1	24/4	2105	11
9)	46.79	191.2	s1	26/3R	778	4
10)	46.93	191.2	s1	26/3S	848	4
11)	50.46	191.2	s1	28/3R	1041	6
12)	50.70	191.2	s1	28/3S	885	5
13)	51.50	191.2	s1	29/3R	1324	7
14)	51.79	191.2	s1	29/3S	1217	6
Triterpanes:						
15)	52.64	191.2	s1	27Ts	6663	35
16)	52.89	177.2	s1	25nor28ab	5384	29
17)	53.31	191.2	s1	27Tm	5919	31
18)	53.70	177.2	s1	25nor29ab	3112	17
19)	53.81	191.2	s1	27b	1694	9
20)	54.88	191.2	s1	28ab	8782	47
21)	55.10	177.2	s1	25nor30ab	2669	14
22)	55.59	191.2	s1	29ab	16394	87
23)	55.69	191.2	s1	29Ts	7125	38
24)	55.94	191.2	s1	30D	3811	20
25)	56.37	191.2	s1	29ba	3345	18
26)	56.96	191.2	s2	30ab	42226	144
27)	57.30	191.2	s1	30D13	2520	13
28)	57.59	191.2	s2	30ba	4236	14
29)	58.55	191.2	s1	31abS	16082	85
30)	58.75	191.2	s1	31abR	10966	58
31)	59.08	191.2	s1	30G	1931	10
32)	59.27	191.2	s1	31ba	1737	9
33)	59.78	191.2	s1	32abS	10893	58
34)	60.05	191.2	s1	32abR	7713	41
35)	61.22	191.2	s1	33abS	8745	46
36)	61.59	191.2	s1	33abR	6014	32
37)	62.74	191.2	s1	34abS	5094	27
38)	63.23	191.2	s1	34abR	3063	16
39)	64.46	191.2	s1	35abS	3704	20
40)	65.16	191.2	s1	35abR	2487	13

#	Rt.min.	m/z	Rf.	Name	Height	Amount
					ng/mg	
Steranes:						
41)	38.28	217.2	s3	21aa	3919	30
42)	39.94	217.2	s3	21bb	4862	37
43)	40.07	217.2	s3	22aa	3163	24
44)	42.30	217.2	s3	22bb	2974	23
45)	48.63	217.2	s3	27dbS	9029	69
46)	49.27	217.2	s3	27dbR	5324	41
47)	51.62	218.2	s3	27bbR	7398	57
48)	51.77	218.2	s3	27bbS	4878	37
49)	52.17	217.2	s3	27aaR	2583	20
50)	53.37	218.2	s3	28bbR	4172	32
51)	53.51	218.2	s3	28bbS	5160	40
52)	54.51	217.2	s3	29aaS	2779	21
53)	54.80	218.2	s3	29bbR	5890	45
54)	54.89	218.2	s3	29bbS	5368	41
55)	55.51	217.2	s3	29aaR	2871	22
56)	55.99	218.2	s3	30bbR	2251	17
57)	56.03	218.2	s3	30bbS	1932	15

Saturated biomarkers

GC/MS detection HP-6890/5973

Ratios, from heights and amounts



Norsk Hydro E&P Research Centre, Bergen, Norway
 Petroleum Geochemistry Laboratories

Data file name: NSO1S_21.D
 Sample name: nso1 ref. sat
 Data File Path: C:\HPCHEM1\DATA\35 9 3\
 Misc. info.:

Vial no.: 3
 Method: MSD_S_D
 Operator: Reidun
 Date: Tue Mar 10 18:10:05 1998

Terpane ratios, heights and amounts

	Height	Amount
$100 * ((\text{sum}20-25)/3 + 26/3(R+S)) / ((\text{sum}20-25)/3 + 26/3(R+S) + 27(Ts+Tm) + 28ab + \text{sum}29-30(ab+ba) + \text{sum}31-35ab(R+S))$	%Tri	6 7
$100 * 20/3 / ((\text{sum}20-25)/3 + 26/3(R+S))$	%20/3	11 11
$100 * 23/3 / (23/3 + 24/3 + 25/3)$	%23/3	48 48
$100 * 24/4 / (24/4 + 24/3 + 25/3)$	%24/4	38 38
$100 * Ts / (Ts + Tm)$	%27Ts	53 53
$100 * 28ab / (28ab + 30ab)$	%28ab	17 24
$100 * 29Ts / (29Ts + 29ab)$	%29Ts	30 30
$100 * 25nor30ab / (25nor30ab + 30ab)$	%25nor30ab	6 9
$100 * 29ab / (29ab + 30ab)$	%29ab	28 38
$100 * 30ba / (30ba + 30ab)$	%30ba	9 9
$100 * 30D / (30D + 30ab)$	%30D	8 12
$100 * 30G / (30G + 30ab)$	%30G	4 7
$100 * 32abS / (32ab(S+R))$	%32abS	59 59
$100 * 35ab(S+R) / (34-35ab(S+R))$	%35ab	43 43
$100 * (27Ts + 27Tm) / (27Ts + 27Tn + 28ab + \text{sum}29-30(ab+ba) + \text{sum}31-35ab(R+S))$	%27HOP	8 9
$100 * (28ab) / (27Ts + 27Tn + 28ab + \text{sum}29-30(ab+ba) + \text{sum}31-35ab(R+S))$	%28HOP	5 6
$100 * (29ab+ba) / (27Ts + 27Tn + 28ab + \text{sum}29-30(ab+ba) + \text{sum}31-35ab(R+S))$	%29HOP	12 14
$100 * (30ab+ba) / (27Ts + 27Tn + 28ab + \text{sum}29-30(ab+ba) + \text{sum}31-35ab(R+S))$	%30HOP	29 21
$100 * 31ab(S+R) / (27Ts + 27Tn + 28ab + \text{sum}29-30(ab+ba) + \text{sum}31-35ab(R+S))$	%31HOP	17 19
$100 * 32ab(S+R) / (27Ts + 27Tn + 28ab + \text{sum}29-30(ab+ba) + \text{sum}31-35ab(R+S))$	%32HOP	11 13
$100 * 33ab(S+R) / (27Ts + 27Tn + 28ab + \text{sum}29-30(ab+ba) + \text{sum}31-35ab(R+S))$	%33HOP	9 10
$100 * 34ab(S+R) / (27Ts + 27Tn + 28ab + \text{sum}29-30(ab+ba) + \text{sum}31-35ab(R+S))$	%34HOP	5 6
$100 * 35ab(S+R) / (27Ts + 27Tn + 28ab + \text{sum}29-30(ab+ba) + \text{sum}31-35ab(R+S))$	%35HOP	4 4

Sterane ratios

$100 * (21+22)bb / ((21+22)bb + (27+28+29+30)bb(R+S))$	%Preg	17 17
$100 * 29aaS / 29aa(R+S)$	%29aaS	49 49
$100 * 29bb(R+S) / (29bb(R+S) + 29aa(S+R))$	%29bb	67 67
$100 * 27db(S+R) / ((27db(S+R) + 27bb(R+S)))$	%27dia	54 54
$100 * 27bb(R+S) / (27+28+29+30)bb(R+S)$	%27STER	33 33
$100 * 28bb(R+S) / (27+28+29+30)bb(R+S)$	%28STER	25 25
$100 * 29bb(R+S) / (27+28+29+30)bb(R+S)$	%29STER	30 30
$100 * 30bb(R+S) / (27+28+29+30)bb(R+S)$	%30STER	11 11

Saturated biomarkers

GC/MS detection HP-6890/5973

Compound data



Norsk Hydro E&P Research Centre, Bergen, Norway
Petroleum Geochemistry Laboratories

Data file name: NSO1_29S.D
Sample name: nso1 ref.sample sat #29
Data File Path: C:\HPCHEM1\DATA\VISUND1\
Misc. info.:

Vial no.: 1
Method: MSD_S_D
Operator:
Date: Sun Apr 26 05:07:19 1998

Response curve $y = ax$
Response factor groups: s1...s3, responses as defined in method

#	Rt.min.	m/z	Rf.	Name	Height	Amount
					ng/mg	
Internal standard (if added):						
1)	46.12	217.2		24baa	3276	29
Diterpanes:						
2)	33.77	191.2	s1	19/3	1291	9
3)	35.75	191.2	s1	20/3	860	6
4)	37.79	191.2	s1	21/3	1329	9
5)	41.77	191.2	s1	23/3	2414	16
6)	42.89	191.2	s1	24/3	1649	11
7)	45.16	191.2	s1	25/3	882	6
8)	46.70	191.2	s1	24/4	1598	11
9)	46.81	191.2	s1	26/3R	632	4
10)	46.95	191.2	s1	26/3S	656	4
11)	50.47	191.2	s1	28/3R	750	5
12)	50.72	191.2	s1	28/3S	739	5
13)	51.51	191.2	s1	29/3R	1141	8
14)	51.80	191.2	s1	29/3S	968	6
Triterpanes:						
15)	52.66	191.2	s1	27Ts	5411	36
16)	52.90	177.2	s1	25nor28ab	4254	28
17)	53.33	191.2	s1	27Tm	4604	31
18)	53.71	177.2	s1	25nor29ab	2336	16
19)	53.82	191.2	s1	27b	1357	9
20)	54.90	191.2	s1	28ab	6687	45
21)	55.11	177.2	s1	25nor30ab	2204	15
22)	55.60	191.2	s1	29ab	13484	90
23)	55.71	191.2	s1	29Ts	5230	35
24)	55.95	191.2	s1	30D	3170	21
25)	56.39	191.2	s1	29ba	2630	18
26)	56.97	191.2	s2	30ab	31999	137
27)	57.32	191.2	s1	30D13	1946	13
28)	57.60	191.2	s2	30ba	3173	14
29)	58.56	191.2	s1	31abS	11777	79
30)	58.76	191.2	s1	31abR	8243	55
31)	59.09	191.2	s1	30G	1491	10
32)	59.29	191.2	s1	31ba	1352	9
33)	59.80	191.2	s1	32abS	8609	57
34)	60.06	191.2	s1	32abR	5804	39
35)	61.23	191.2	s1	33abS	7141	48
36)	61.60	191.2	s1	33abR	4583	31
37)	62.74	191.2	s1	34abS	4341	29
38)	63.24	191.2	s1	34abR	2500	17
39)	64.47	191.2	s1	35abS	3155	21
40)	65.17	191.2	s1	35abR	2081	14

#	Rt.min.	m/z	Rf.	Name	Height	Amount
					ng/mg	
Steranes:						
41)	38.30	217.2	s3	21aa	2911	28
42)	39.96	217.2	s3	21bb	3761	36
43)	40.08	217.2	s3	22aa	2476	24
44)	42.32	217.2	s3	22bb	2396	23
45)	48.65	217.2	s3	27dbS	6928	67
46)	49.28	217.2	s3	27dbR	4156	40
47)	51.63	218.2	s3	27bbR	5831	56
48)	51.78	218.2	s3	27bbS	3791	37
49)	52.18	217.2	s3	27aaR	2031	20
50)	53.39	218.2	s3	28bbR	3295	32
51)	53.52	218.2	s3	28bbS	4285	41
52)	54.52	217.2	s3	29aaS	2322	22
53)	54.81	218.2	s3	29bbR	4783	46
54)	54.91	218.2	s3	29bbS	4568	44
55)	55.52	217.2	s3	29aaR	2249	22
56)	55.98	218.2	s3	30bbR	1808	17
57)	56.04	218.2	s3	30bbS	1633	16

Saturated biomarkers

GC/MS detection HP-6890/5973

Ratios, from heights and amounts



Norsk Hydro E&P Research Centre, Bergen, Norway
Petroleum Geochemistry Laboratories

Data file name: NSO1_29S.D
Sample name: nso1 ref.sample sat #29
Data File Path: C:\HPCHEM\1\DATA\VISUND\1
Misc. info.:

Vial no.: 1
Method: MSD_S_D
Operator:
Date: Sun Apr 26 05:07:19 1998

Terpane ratios, heights and amounts

	Height	Amount
$100 * ((\text{sum}20-25)/3 + 26/3(R+S)) / ((\text{sum}20-25)/3 + 26/3(R+S) + 27(Ts+Tm) + 28ab + \text{sum}29-30(ab+ba) + \text{sum}31-35ab(R+S))$	%Tri	6 7
$100 * 20/3 / ((\text{sum}20-25)/3 + 26/3(R+S))$	%20/3	10 10
$100 * 23/3 / (23/3 + 24/3 + 25/3)$	%23/3	49 49
$100 * 24/4 / (24/4 + 24/3 + 25/3)$	%24/4	39 39
$100 * Ts / (Ts + Tm)$	%27Ts	54 54
$100 * 28ab / (28ab + 30ab)$	%28ab	17 25
$100 * 29Ts / (29Ts + 29ab)$	%29Ts	28 28
$100 * 25nor30ab / (25nor30ab + 30ab)$	%25nor30ab	6 10
$100 * 29ab / (29ab + 30ab)$	%29ab	30 40
$100 * 30ba / (30ba + 30ab)$	%30ba	9 9
$100 * 30D / (30D + 30ab)$	%30D	9 13
$100 * 30G / (30G + 30ab)$	%30G	4 7
$100 * 32abS / (32ab(S+R))$	%32abS	60 60
$100 * 35ab(S+R) / (34-35ab(S+R))$	%35ab	43 43
$100 * (27Ts + 27Tm) / (27Ts + 27Tm + 28ab + \text{sum}29-30(ab+ba) + \text{sum}31-35ab(R+S))$	%27HOP	8 9
$100 * (28ab) / (27Ts + 27Tm + 28ab + \text{sum}29-30(ab+ba) + \text{sum}31-35ab(R+S))$	%28HOP	5 6
$100 * (29ab + ba) / (27Ts + 27Tm + 28ab + \text{sum}29-30(ab+ba) + \text{sum}31-35ab(R+S))$	%29HOP	13 14
$100 * (30ab + ba) / (27Ts + 27Tm + 28ab + \text{sum}29-30(ab+ba) + \text{sum}31-35ab(R+S))$	%30HOP	28 20
$100 * 31ab(S+R) / (27Ts + 27Tm + 28ab + \text{sum}29-30(ab+ba) + \text{sum}31-35ab(R+S))$	%31HOP	16 18
$100 * 32ab(S+R) / (27Ts + 27Tm + 28ab + \text{sum}29-30(ab+ba) + \text{sum}31-35ab(R+S))$	%32HOP	11 13
$100 * 33ab(S+R) / (27Ts + 27Tm + 28ab + \text{sum}29-30(ab+ba) + \text{sum}31-35ab(R+S))$	%33HOP	9 10
$100 * 34ab(S+R) / (27Ts + 27Tm + 28ab + \text{sum}29-30(ab+ba) + \text{sum}31-35ab(R+S))$	%34HOP	5 6
$100 * 35ab(S+R) / (27Ts + 27Tm + 28ab + \text{sum}29-30(ab+ba) + \text{sum}31-35ab(R+S))$	%35HOP	4 5

Sterane ratios

$100 * (21+22)bb / ((21+22)bb + (27+28+29+30)bb(R+S))$	%Preg	17 17
$100 * 29aaS / 29aa(R+S)$	%29aaS	51 51
$100 * 29bb(R+S) / (29bb(R+S) + 29aa(S+R))$	%29bb	67 67
$100 * 27db(S+R) / ((27db(S+R) + 27bb(R+S))$	%27dia	54 54
$100 * 27bb(R+S) / (27+28+29+30)bb(R+S)$	%27STER	32 32
$100 * 28bb(R+S) / (27+28+29+30)bb(R+S)$	%28STER	25 25
$100 * 29bb(R+S) / (27+28+29+30)bb(R+S)$	%29STER	31 31
$100 * 30bb(R+S) / (27+28+29+30)bb(R+S)$	%30STER	11 11

Hopanes/Steranes ratio-2 (only bb steranes)

Ho/St2	4	3
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Appendix VI

**Mass chromatograms and tabulated results from the GC-MSD analysis
of the aromatic hydrocarbons**

#	Rt.min.	m/z	Rf.	Name	Height	Amount
					ng/mg	
Internal standard (if added):						
14)	11.57	136		d8N	61465	28
16)	21.01	164		d10BP	72720	27
59)	29.37	188		d10P	135934	28
79)	44.82	240		d12C	117732	28
Aryl isoprenoids:						
1)	20.55	133	0	C13AI	50	
2)	22.37	133	0	C14AI	90	
3)	26.71	133	0	C15AI	95	
4)	28.97	133	0	C16AI	28	
5)	30.96	133	0	C17AI	17	
6)	33.97	133	0	C18AI	18	
7)	34.99	133	0	C19AI	4	
8)	38.01	133	0	C20AI	2	
9)	40.01	133	0	C21AI	3	
10)	43.01	133	0	C22AI	12	
11)	44.98	133	0	C23AI	8	
12)	55.99	133	0	C30AI	8	
13)	57.00	133	0	C31AI	10	
Naphthalenes:						
15)	11.66	128	a1	N	1073	0
17)	15.22	142	a2	2-MN	1625	1
18)	15.77	142	a2	1-MN	1134	0
19)	18.40	156	a3	2-EN	256	0
20)	18.52	156	a3	1-EN	89	0
21)	18.73	156	a3	2.6+2.7-DMN	829	0
22)	19.19	156	a3	1.3+1.7-DMN	1310	0
23)	19.29	156	a3	1.6-DMN	831	0
24)	19.79	156	a3	2.3+1.4-DMN	490	0
25)	19.90	156	a3	1.5-DMN	238	0
26)	20.27	156	a3	1.2-DMN	246	0
27)	21.96	170	a4	C3-N-1	81	0
28)	22.32	170	a4	C3-N-2	108	0
29)	22.43	170	a4	1.3.7-TMN	344	0
30)	22.57	170	a4	1.3.6-TMN	499	0
31)	23.04	170	a4	1.3.5+1.4.6-TMN	346	0
32)	23.13	170	a4	2.3.6-TMN	312	0
33)	23.54	170	a4	1.6.7+1.2.7-TMN	231	0
34)	23.60	170	a4	1.2.6-TMN	159	0
35)	24.04	170	a4	1.2.4-TMN	50	0
36)	24.24	170	a4	1.2.5-TMN	178	0
Biphenyls:						
37)	17.94	154	a5	BP	531	0
38)	21.23	168	a5	3-MBP	671	0
39)	21.49	168	a5	4-MBP	255	0
40)	21.54	182	a4	2.3'-DMBP	60	0
41)	21.75	182	a4	2.5'-DMBP	51	0
42)	21.93	182	a4	2.4+2.4'-DMBP	58	0
43)	22.55	182	a4	2.3'-DMBP	33	0
44)	23.92	182	a4	3-EBP	82	0
45)	24.25	182	a4	3.5'-DMBP	150	0
46)	24.35	182	a4	3.3'-DMBP	283	0
47)	24.46	182	a4	4-EBP	25	0
48)	24.63	182	a4	3.4'-DMBP	258	0
49)	24.85	182	a4	4.4'-DMBP	60	0
50)	25.41	182	a4	3.4'-DMBP	112	0

Aromatic hydrocarbons

GC/MS detection HP-6890/5973

Compound data



Norsk Hydro E&P Research Centre, Bergen, Norway
Petroleum Geochemistry Laboratories

Data file name: 1850A.D
Sample name: 1850, 35/9-3, mud, aro
Data File Path: C:\HPCHEM\1\DATA\35_9_3\
Misc. info.:

Vial no.: 31
Method: MSD_A_D
Operator: Reidun
Date: Wed Mar 11 11:54:35 1998

Response curve: y = ax+b
Response factor groups: a1...a11, responses as defined in method

#	Rt.min.	m/z	Rf.	Name	Height	Amount
					ng/mg	
Dibenzofuranes:						
51)	22.12	168	a5	DBF	301	0
52)	25.19	182	a4	MDBF-1	158	0
53)	25.60	182	a4	MDBF-2	339	0
54)	25.86	182	a4	MDBF-3	89	0
Fluorenes:						
55)	24.06	166	a6	F	238	0
56)	27.28	180	a6	C1-F-1	55	0
57)	27.52	180	a6	C1-F-2	176	0
58)	27.83	180	a6	1-MF	38	0
Dibenzothiophenes:						
60)	28.76	184	a7	DBT	80	0
61)	31.37	198	a7	4-MDBT	87	0
62)	31.89	198	a7	3+2-MDBT	27	0
63)	32.47	198	a7	1-MDBT	24	0
Phenanthrenes:						
64)	29.48	178	a8	P	1480	0
65)	32.42	192	a9	3-MP	301	0
66)	32.55	192	a9	2-MP	382	0
67)	33.03	192	a9	9-MP	346	0
68)	33.16	192	a9	1-MP	315	0
69)	35.14	206	a10	2EP+9EP+3.6-DMP	56	0
70)	35.36	206	a10	1EP	87	0
71)	35.45	206	a10	2.6+2.7+3.5-DMP	57	0
72)	35.79	206	a10	1.3+2.10+3.9+3.10-DMP	230	0
73)	35.94	206	a10	1.6+2.5+2.9-DMP	132	0
74)	36.08	206	a10	1.7-DMP	236	0
75)	36.24	206	a10	2.3-DMP	47	0
76)	36.35	206	a10	1.9+4.9+4.10-DMP	57	0
77)	36.65	206	a10	1.8-DMP	37	0
Retene:						
78)	39.95	219	a8	Retene	119	0
Triaromatic steroids:						
80)	44.41	231	a11	20TA	21	0
81)	46.28	231	a11	21TA	13	0
82)	53.24	231	a11	S26TA	15	0
83)	54.46	231	a11	R26TA/S27TA	33	0
84)	55.44	231	a11	S28TA	20	0
85)	55.96	231	a11	R27TA	19	0
86)	57.16	231	a11	R28TA	24	0

Aromatic hydrocarbons

GC/MS detection HP-6890/5973

Ratios, from heights and amounts



Norsk Hydro E&P Research Centre, Bergen, Norway
 Petroleum Geochemistry Laboratories

Data file name: 1850A.D
 Sample name: 1850, 35/9-3, mud, aro
 Data File Path: C:\HPCHEM\1\DATA\35_9_3\
 Misc. info.:

Vial no.: 31
 Method: MSD_A_D
 Operator: Reidun
 Date: Wed Mar 11 11:54:35 1998

Aromatic HC ratios, heights and amounts

		Height	Amount
Naphthalene	Naphthalene	1073	0
C1 Naphthanes	Sum C1 Naphthanes	2759	1
C2 Naphthanes	Sum C2 Naphthanes	4289	1
C3 Naphthanes	Sum C3 Naphthanes	2308	1
Phenanthrene	Phenanthrene	1480	0
C1 Phenanthrenes	Sum C1 Phenanthrenes	1344	0
C2 Phenanthrenes	Sum C2 Phenanthrenes	939	0
$3/2 \cdot (3MP+2MP)/(P+9MP+1MP)$	MPI1	0.5	0.5
$(3MP+2MP)/(3MP+2MP+9MP+1MP)$	F1	0.5	0.5
$2MP/(3MP+2MP+9MP+1MP)$	F2	0.3	0.3
$(2.6+2.7)DMN/1.5DMN$	DNR	3.5	3.5
$100 \cdot 20TA/(20TA+S28TA+R28TA)$	%-TAS'n	32.3	32.3
DBT/P	DBT/P	0.1	0.0
F/P	F/P	0.2	0.3
BP/1.6DMN	BP/1.6DMN	0.6	0.4
2MN/1MN	2MN/1MN	1.4	1.4
2EN/1EN	2EN/1EN	2.9	2.9
4MDBT/1MDBT	4MDBT/1MDBT	3.6	3.6

Aromatic hydrocarbons

GC/MS detection HP-6890/5973

Compound data



Norsk Hydro E&P Research Centre, Bergen, Norway
Petroleum Geochemistry Laboratories

Data file name: 1870_2A.D
Sample name: 1870.2, 35/9-3T2. coch, aro
Data File Path: C:\HPCHEM\1\DATA\35_9_3\
Misc. info.:

Vial no.: 21
Method: MSD_A_D
Operator: Reidun
Date: Tue Mar 10 21:07:25 1998

Response curve: y = ax+b
Response factor groups: a1...a11, responses as defined in method

#	Rt.min.	m/z	Rf.	Name	Height	Amount
					ng/mg	
Internal standard (if added):						
14)	11.55	136		d8N	38259	36
16)	21.00	164		d10BP	48925	35
59)	29.41	188		d10P	106767	36
79)	44.91	240		d12C	74450	36
Aryl isoprenoids:						
1)	20.53	133	0	C13AI	3959	
2)	22.40	133	0	C14AI	8041	
3)	26.63	133	0	C15AI	9784	
4)	29.03	133	0	C16AI	3085	
5)	30.98	133	0	C17AI	1634	
6)	34.00	133	0	C18AI	3442	
7)	34.97	133	0	C19AI	2631	
8)	38.03	133	0	C20AI	1752	
9)	39.94	133	0	C21AI	1671	
10)	42.99	133	0	C22AI	866	
11)	45.04	133	0	C23AI	373	
12)	56.02	133	0	C30AI	3514	
13)	56.94	133	0	C31AI	189	
Naphthalenes:						
15)	11.63	128	a1	N	3717	3
17)	15.20	142	a2	2-MN	14396	10
18)	15.74	142	a2	1-MN	12522	8
19)	18.38	156	a3	2-EN	2906	2
20)	18.49	156	a3	1-EN	1693	1
21)	18.71	156	a3	2.6+2.7-DMN	10522	7
22)	19.18	156	a3	1.3+1.7-DMN	20619	13
23)	19.27	156	a3	1.6-DMN	13107	8
24)	19.78	156	a3	2.3+1.4-DMN	11082	7
25)	19.89	156	a3	1.5-DMN	5352	3
26)	20.26	156	a3	1.2-DMN	4534	3
27)	21.95	170	a4	C3-N-1	2679	2
28)	22.32	170	a4	C3-N-2	2461	2
29)	22.44	170	a4	1.3.7-TMN	10213	7
30)	22.58	170	a4	1.3.6-TMN	13556	9
31)	23.06	170	a4	1.3.5+1.4.6-TMN	12526	8
32)	23.14	170	a4	2.3.6-TMN	9349	6
33)	23.54	170	a4	1.6.7+1.2.7-TMN	8973	6
34)	23.61	170	a4	1.2.6-TMN	7006	5
35)	24.05	170	a4	1.2.4-TMN	8143	5
36)	24.25	170	a4	1.2.5-TMN	12885	8
Biphenyls:						
37)	17.92	154	a5	BP	3252	1
38)	21.21	168	a5	3-MBP	4615	2
39)	21.48	168	a5	4-MBP	1719	1
40)	21.54	182	a4	2.3'-DMBP	200	0
41)	21.75	182	a4	2.5-DMBP	298	0
42)	21.89	182	a4	2.4+2.4'-DMBP	997	1
43)	22.54	182	a4	2.3-DMBP	400	0
44)	23.94	182	a4	3-EBP	516	0
45)	24.25	182	a4	3.5-DMBP	1018	1
46)	24.36	182	a4	3.3'-DMBP	3792	2
47)	24.50	182	a4	4-EBP	503	0
48)	24.66	182	a4	3.4'-DMBP	2237	1
49)	24.88	182	a4	4.4'-DMBP	4615	3
50)	25.46	182	a4	3.4-DMBP	5061	3

#	Rt.min.	m/z	Rf.	Name	Height	Amount
					ng/mg	
Dibenzofuranes:						
51)	22.10	168	a5	DBF	2713	1
52)	25.23	182	a4	MDBF-1	9923	6
53)	25.56	182	a4	MDBF-2	4414	3
54)	25.86	182	a4	MDBF-3	5976	4
Fluorenes:						
55)	24.08	166	a6	F	17501	9
56)	27.33	180	a6	C1-F-1	15343	8
57)	27.56	180	a6	C1-F-2	18204	10
58)	27.87	180	a6	1-MF	12191	7
Dibenzothiophenes:						
60)	28.80	184	a7	DBT	4339	0
61)	31.68	198	a7	4-MDBT	15477	2
62)	32.19	198	a7	3+2-MDBT	37534	4
63)	32.71	198	a7	1-MDBT	1808	0
Phenanthrenes:						
64)	29.53	178	a8	P	27077	8
65)	32.49	192	a9	3-MP	82108	27
66)	32.62	192	a9	2-MP	34531	11
67)	33.11	192	a9	9-MP	55356	18
68)	33.24	192	a9	1-MP	42017	14
69)	35.26	206	a10	2EP+9EP+3.6-DMP	78683	25
70)	35.46	206	a10	1EP	119420	38
71)	35.56	206	a10	2.6+2.7+3.5-DMP	67480	21
72)	35.92	206	a10	1.3+2.10+3.9+3.10-DMP	424830	135
73)	36.07	206	a10	1.6+2.5+2.9-DMP	187244	59
74)	36.19	206	a10	1.7-DMP	164518	52
75)	36.34	206	a10	2.3-DMP	78052	25
76)	36.45	206	a10	1.9+4.9+4.10-DMP	120234	38
77)	36.74	206	a10	1.8-DMP	38166	12
Retene:						
78)	40.08	219	a8	Retene	279046	79
Triaromatic steroids:						
80)	44.50	231	a11	20TA	20506	2
81)	46.37	231	a11	21TA	20479	2
82)	53.32	231	a11	S26TA	15764	2
83)	54.51	231	a11	R26TA/S27TA	44804	5
84)	55.51	231	a11	S28TA	28205	3
85)	56.01	231	a11	R27TA	20802	2
86)	57.22	231	a11	R28TA	25651	3

Aromatic hydrocarbons

GC/MS detection HP-6890/5973

Ratios, from heights and amountsNorsk Hydro E&P Research Centre, Bergen, Norway
Petroleum Geochemistry LaboratoriesData file name 1870_2A.D
Sample name: 1870.2, 35/9-3T2, coch, aro
Data File Path C:\HPCHEM\1\DATA\35_9_3\
Misc. info.:Vial no.: 21
Method: MSD_A_D
Operator: Reidun
Date: Tue Mar 10 21:07:25 1998**Aromatic HC ratios, heights and amounts**

		Height	Amount
Naphthalene	Naphthalene	3717	3
C1 Naphthanes	Sum C1 Naphthanes	26918	18
C2 Naphthanes	Sum C2 Naphthanes	69815	44
C3 Naphthanes	Sum C3 Naphthanes	87791	56
Phenanthrene	Phenanthrene	27077	8
C1 Phenanthrenes	Sum C1 Phenanthrenes	214012	71
C2 Phenanthrenes	Sum C2 Phenanthrenes	1278627	406
$3/2 \cdot (3MP+2MP)/(P+9MP+1MP)$	MPI1	1.4	1.5
$(3MP+2MP)/(3MP+2MP+9MP+1MP)$	F1	0.5	0.5
$2MP/(3MP+2MP+9MP+1MP)$	F2	0.2	0.2
$(2.6+2.7)DMN/1.5DMN$	DNR	2.0	2.0
$100 \cdot 20TA/(20TA+S28TA+R28TA)$	%-TAS'n	27.6	27.6
DBT/P	DBT/P	0.2	0.1
F/P	F/P	0.6	1.2
BP/1.6DMN	BP/1.6DMN	0.2	0.2
2MN/1MN	2MN/1MN	1.1	1.1
2EN/1EN	2EN/1EN	1.7	1.7
4MDBT/1MDBT	4MDBT/1MDBT	8.6	8.6

Aromatic hydrocarbons

GC/MS detection HP-6890/5973

Compound data



Norsk Hydro E&P Research Centre, Bergen, Norway
Petroleum Geochemistry Laboratories

Data file name: 1885_2A.D
 Sample name: 1885.2, 35/9-3T2, coch, aro
 Data File Path: C:\HPCHEM\1\DATA\35_9_3\
 Misc. info.:

 Vial no.: 22
 Method: MSD_A_D
 Operator: Reidun
 Date: Tue Mar 10 22:36:06 1998

 Response curve: y = ax+b
 Response factor groups: a1...a11, responses as defined in method

#	Rt.min.	m/z	Rf.	Name	Height	Amount
					ng/mg	
Internal standard (if added):						
14)	11.56	136		d8N	143903	41
16)	21.00	164		d10BP	164914	40
59)	29.37	188		d10P	318096	41
79)	44.83	240		d12C	262995	41
Aryl isoprenoids:						
1)	20.51	133	0	C13AI	765	
2)	22.37	133	0	C14AI	1599	
3)	26.73	133	0	C15AI	498	
4)	28.96	133	0	C16AI	779	
5)	31.00	133	0	C17AI	1036	
6)	34.03	133	0	C18AI	930	
7)	34.99	133	0	C19AI	1021	
8)	38.01	133	0	C20AI	194	
9)	39.97	133	0	C21AI	300	
10)	43.00	133	0	C22AI	262	
11)	44.98	133	0	C23AI	79	
12)	55.96	133	0	C30AI	684	
13)	57.02	133	0	C31AI	68	
Naphthalenes:						
15)	11.63	128	a1	N	10678	3
17)	15.19	142	a2	2-MN	20256	5
18)	15.74	142	a2	1-MN	13074	3
19)	18.38	156	a3	2-EN	2607	1
20)	18.49	156	a3	1-EN	1155	0
21)	18.71	156	a3	2.6+2.7-DMN	12386	3
22)	19.16	156	a3	1.3+1.7-DMN	21627	5
23)	19.27	156	a3	1.6-DMN	12736	3
24)	19.77	156	a3	2.3+1.4-DMN	8060	2
25)	19.88	156	a3	1.5-DMN	4107	1
26)	20.25	156	a3	1.2-DMN	2721	1
27)	21.94	170	a4	C3-N-1	1522	0
28)	22.31	170	a4	C3-N-2	1553	0
29)	22.42	170	a4	1.3.7-TMN	7505	2
30)	22.55	170	a4	1.3.6-TMN	9206	2
31)	23.03	170	a4	1.3.5+1.4.6-TMN	9141	2
32)	23.11	170	a4	2.3.6-TMN	6598	1
33)	23.53	170	a4	1.6.7+1.2.7-TMN	5753	1
34)	23.58	170	a4	1.2.6-TMN	3045	1
35)	24.02	170	a4	1.2.4-TMN	2497	1
36)	24.23	170	a4	1.2.5-TMN	4592	1
Biphenyls:						
37)	17.92	154	a5	BP	11662	2
38)	21.21	168	a5	3-MBP	12391	2
39)	21.47	168	a5	4-MBP	4556	1
40)	21.53	182	a4	2.3'-DMBP	311	0
41)	21.73	182	a4	2.5'-DMBP	199	0
42)	21.90	182	a4	2.4+2.4'-DMBP	342	0
43)	22.52	182	a4	2.3'-DMBP	532	0
44)	23.90	182	a4	3-EBP	832	0
45)	24.23	182	a4	3.5'-DMBP	1541	0
46)	24.33	182	a4	3.3'-DMBP	4045	1
47)	24.44	182	a4	4-EBP	350	0
48)	24.62	182	a4	3.4'-DMBP	2997	1
49)	24.85	182	a4	4.4'-DMBP	1588	0
50)	25.41	182	a4	3.4'-DMBP	1361	0

#	Rt.min.	m/z	Rf.	Name	Height	Amount
					ng/mg	
Dibenzofuranes:						
51)	22.09	168	a5	DBF	4377	1
52)	25.18	182	a4	MDBF-1	4207	1
53)	25.54	182	a4	MDBF-2	2468	1
54)	25.83	182	a4	MDBF-3	2477	1
Fluorenes:						
55)	24.05	166	a6	F	6770	1
56)	27.28	180	a6	C1-F-1	3475	1
57)	27.51	180	a6	C1-F-2	5762	1
58)	27.81	180	a6	1-MF	2463	0
Dibenzothiophenes:						
60)	28.74	184	a7	DBT	1876	0
61)	30.99	198	a7	4-MDBT	4663	0
62)	31.61	198	a7	3+2-MDBT	4776	0
63)	32.13	198	a7	1-MDBT	10909	0
Phenanthrenes:						
64)	29.47	178	a8	P	19499	2
65)	32.42	192	a9	3-MP	31964	4
66)	32.55	192	a9	2-MP	14846	2
67)	33.04	192	a9	9-MP	22040	3
68)	33.16	192	a9	1-MP	16834	2
69)	35.17	206	a10	2EP+9EP+3.6-DMP	31651	4
70)	35.37	206	a10	1EP	47885	6
71)	35.47	206	a10	2.6+2.7+3.5-DMP	26668	3
72)	35.82	206	a10	1.3+2.10+3.9+3.10-DMP	171759	21
73)	35.97	206	a10	1.6+2.5+2.9-DMP	78339	10
74)	36.10	206	a10	1.7-DMP	65173	8
75)	36.25	206	a10	2.3-DMP	29946	4
76)	36.35	206	a10	1.9+4.9+4.10-DMP	48371	6
77)	36.66	206	a10	1.8-DMP	14742	2
Retene:						
78)	39.98	219	a8	Retene	115208	13
Triaromatic steroids:						
80)	44.44	231	a11	20TA	7300	0
81)	46.29	231	a11	21TA	6779	0
82)	53.25	231	a11	S26TA	3587	0
83)	54.45	231	a11	R26TA/S27TA	10982	0
84)	55.44	231	a11	S28TA	6532	0
85)	55.96	231	a11	R27TA	4450	0
86)	57.16	231	a11	R28TA	5721	0

Aromatic hydrocarbons

GC/MS detection HP-6890/5973

Ratios, from heights and amounts

Norsk Hydro E&P Research Centre, Bergen, Norway
 Petroleum Geochemistry Laboratories

Data file name: 1885_2A.D
 Sample name: 1885.2, 35/9-3T2, coch, aro
 Data File Path: C:\HPCHEM\1\DATA\35_9_3\
 Misc. info.:

Vial no.: 22
 Method: MSD_A_D
 Operator: Reidun
 Date: Tue Mar 10 22:36:06 1998

Aromatic HC ratios, heights and amounts

		Height	Amount
Naphthalene	Naphthalene	10678	3
C1 Naphthanes	Sum C1 Naphthanes	10030	8
C2 Naphthanes	Sum C2 Naphthanes	65399	14
C3 Naphthanes	Sum C3 Naphthanes	51412	11
Phenanthrene	Phenanthrene	19499	2
C1 Phenanthrenes	Sum C1 Phenanthrenes	85684	11
C2 Phenanthrenes	Sum C2 Phenanthrenes	514534	63
$3/2 \cdot (3MP+2MP)/(P+9MP+1MP)$	MPI1	1.2	1.3
$(3MP+2MP)/(3MP+2MP+9MP+1MP)$	F1	0.5	0.5
$2MP/(3MP+2MP+9MP+1MP)$	F2	0.2	0.2
$(2.6+2.7)DMN/1.5DMN$	DNR	3.0	3.0
$100 \cdot 20TA/(20TA+S28TA+R28TA)$	%-TAS'n	37.3	37.3
DBT/P	DBT/P	0.1	0.0
F/P	F/P	0.3	0.6
BP/1.6DMN	BP/1.6DMN	0.9	0.6
2MN/1MN	2MN/1MN	1.5	1.5
2EN/1EN	2EN/1EN	2.3	2.3
4MDBT/1MDBT	4MDBT/1MDBT	0.4	0.4

Aromatic hydrocarbons

GC/MS detection HP-6890/5973

Compound data



Norsk Hydro E&P Research Centre, Bergen, Norway
Petroleum Geochemistry Laboratories

Data file name: 2365A.D
 Sample name: 2365, 35/9-3T2, dc, aro
 Data File Path: C:\HPCHEM\1\DATA\35_9_3\
 Misc. info.:
 Vial no.: 24
 Method: MSD_A_D
 Operator: Reidun
 Date: Wed Mar 11 01:33:26 1998
 Response curve: $y = ax + b$
 Response factor groups: a1...a11, responses as defined in method

#	Rt.min.	m/z	Rf.	Name	Height	Amount
					ng/mg	
Internal standard (if added):						
14)	11.56	136		d8N	46721	34
16)	20.99	164		d10BP	64270	33
59)	29.34	188		d10P	129856	34
79)	44.80	240		d12C	111216	34

Aryl isoprenoids:

1)	20.51	133	0	C13AI	1606	
2)	22.33	133	0	C14AI	331	
3)	26.70	133	0	C15AI	219	
4)	29.05	133	0	C16AI	131	
5)	30.98	133	0	C17AI	39	
6)	33.99	133	0	C18AI	64	
7)	34.98	133	0	C19AI	89	
8)	38.00	133	0	C20AI	35	
9)	40.03	133	0	C21AI	198	
10)	42.98	133	0	C22AI	44	
11)	45.00	133	0	C23AI	32	
12)	55.99	133	0	C30AI	58	
13)	56.99	133	0	C31AI	22	

Naphthalenes:

15)	11.65	128	a1	N	46002	30
17)	15.21	142	a2	2-MN	58192	28
18)	15.76	142	a2	1-MN	47187	23
19)	18.38	156	a3	2-EN	7057	3
20)	18.49	156	a3	1-EN	3957	2
21)	18.72	156	a3	2.6+2.7-DMN	15450	7
22)	19.18	156	a3	1.3+1.7-DMN	27297	12
23)	19.27	156	a3	1.6-DMN	22117	10
24)	19.78	156	a3	2.3+1.4-DMN	12678	6
25)	19.88	156	a3	1.5-DMN	5709	3
26)	20.25	156	a3	1.2-DMN	9432	4
27)	21.94	170	a4	C3-N-1	1550	1
28)	22.30	170	a4	C3-N-2	1898	1
29)	22.41	170	a4	1.3.7-TMN	5211	2
30)	22.55	170	a4	1.3.6-TMN	13414	6
31)	23.03	170	a4	1.3.5+1.4.6-TMN	8705	4
32)	23.11	170	a4	2.3.6-TMN	6814	3
33)	23.53	170	a4	1.6.7+1.2.7-TMN	5868	3
34)	23.58	170	a4	1.2.6-TMN	9093	4
35)	24.01	170	a4	1.2.4-TMN	2155	1
36)	24.22	170	a4	1.2.5-TMN	13396	6

Biphenyls:

37)	17.92	154	a5	BP	3557	1
38)	21.20	168	a5	3-MBP	4975	2
39)	21.47	168	a5	4-MBP	2133	1
40)	21.52	182	a4	2.3'-DMBP	269	0
41)	21.74	182	a4	2.5'-DMBP	143	0
42)	21.90	182	a4	2.4+2.4'-DMBP	273	0
43)	22.52	182	a4	2.3'-DMBP	949	0
44)	23.90	182	a4	3-EBP	653	0
45)	24.23	182	a4	3.5'-DMBP	879	0
46)	24.33	182	a4	3.3'-DMBP	1557	1
47)	24.45	182	a4	4-EBP	229	0
48)	24.62	182	a4	3.4'-DMBP	1725	1
49)	24.84	182	a4	4.4'-DMBP	306	0
50)	25.40	182	a4	3.4'-DMBP	568	0

#	Rt.min.	m/z	Rf.	Name	Height	Amount
					ng/mg	

Dibenzofuranes:

51)	22.09	168	a5	DBF	12533	4
52)	25.17	182	a4	MDBF-1	10557	5
53)	25.54	182	a4	MDBF-2	8174	4
54)	25.83	182	a4	MDBF-3	6547	3

Fluorenes:

55)	24.05	166	a6	F	17187	7
56)	27.26	180	a6	C1-F-1	4235	2
57)	27.50	180	a6	C1-F-2	9708	4
58)	27.80	180	a6	1-MF	2781	1

Dibenzothiophenes:

60)	28.75	184	a7	DBT	3231	0
61)	31.35	198	a7	4-MDBT	1632	0
62)	31.88	198	a7	3+2-MDBT	801	0
63)	32.45	198	a7	1-MDBT	1781	0

Phenanthrenes:

64)	29.46	178	a8	P	54922	12
65)	32.40	192	a9	3-MP	14478	4
66)	32.53	192	a9	2-MP	14394	4
67)	33.02	192	a9	9-MP	15747	4
68)	33.13	192	a9	1-MP	13847	4
69)	35.10	206	a10	2EP+9EP+3.6-DMP	2751	1
70)	35.35	206	a10	1EP	3406	1
71)	35.44	206	a10	2.6+2.7+3.5-DMP	992	0
72)	35.78	206	a10	1.3+2.10+3.9+3.10-DMP	5982	1
73)	35.92	206	a10	1.6+2.5+2.9-DMP	6305	2
74)	36.06	206	a10	1.7-DMP	4373	1
75)	36.22	206	a10	2.3-DMP	1630	0
76)	36.32	206	a10	1.9+4.9+4.10-DMP	1708	0
77)	36.63	206	a10	1.8-DMP	1594	0

Retene:

78)	39.93	219	a8	Retene	2317	1
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Triaromatic steroids:

80)	44.40	231	a11	20TA	2126	0
81)	46.27	231	a11	21TA	1603	0
82)	53.23	231	a11	S26TA	1852	0
83)	54.44	231	a11	R26TA/S27TA	7874	1
84)	55.44	231	a11	S28TA	1722	0
85)	55.94	231	a11	R27TA	4014	0
86)	57.16	231	a11	R28TA	1808	0

Aromatic hydrocarbons

GC/MS detection HP-6890/5973

Ratios, from heights and amounts


 Norsk Hydro E&P Research Centre, Bergen, Norway
 Petroleum Geochemistry Laboratories

 Data file name: 2365A.D
 Sample name: 2365, 35/9-3T2, dc, aro
 Data File Path: C:\HPCHEM\1\DATA\35_9_3\
 Misc. info.:

 Vial no.: 24
 Method: MSD_A_D
 Operator: Reidun
 Date: Wed Mar 11 01:33:26 1996
Aromatic HC ratios, heights and amounts

		Height	Amount
Naphthalene	Naphthalene	46002	30
C1 Naphthanes	Sum C1 Naphthanes	105379	51
C2 Naphthanes	Sum C2 Naphthanes	103697	47
C3 Naphthanes	Sum C3 Naphthanes	68104	31
Phenanthrene	Phenanthrene	54922	12
C1 Phenanthrenes	Sum C1 Phenanthrenes	58466	15
C2 Phenanthrenes	Sum C2 Phenanthrenes	28741	7
$3/2 \cdot (3MP+2MP)/(P+9MP+1MP)$	MPI1	0.5	0.6
$(3MP+2MP)/(3MP+2MP+9MP+1MP)$	F1	0.5	0.5
$2MP/(3MP+2MP+9MP+1MP)$	F2	0.2	0.2
$(2.6+2.7)DMN/1.5DMN$	DNR	2.7	2.7
$100 \cdot 20TA/(20TA+S28TA+R28TA)$	%-TAS'n	37.6	37.6
DBT/P	DBT/P	0.1	0.0
F/P	F/P	0.3	0.5
BP/1.6DMN	BP/1.6DMN	0.2	0.1
2MN/1MN	2MN/1MN	1.2	1.2
2EN/1EN	2EN/1EN	1.8	1.8
4MDBT/1MDBT	4MDBT/1MDBT	0.9	0.9

Aromatic hydrocarbons

GC/MS detection HP-5890/5973

Compound data



Norsk Hydro E&P Research Centre, Bergen, Norway
Petroleum Geochemistry Laboratories

Data file name: 2375A.D
Sample name: 2375, 35/9-3T2, dc, aro
Data File Path: C:\HPCHEM\1\DATA\35_9_3\
Misc. info.:

Vial no.: 25
Method: MSD_A_D
Operator: Reidun
Date: Wed Mar 11 03:02:06 199E

Response curve: $y = ax + b$
Response factor groups: a1...a11, responses as defined in method

#	Rt.min.	m/z	Rf.	Name	Height	Amount
						ng/mg
Internal standard (if added):						
14)	11.56	136		d8N	58759	34
16)	21.00	164		d10BP	84873	33
59)	29.35	188		d10P	177820	34
79)	44.81	240		d12C	167085	34
Aryl isoprenoids:						
1)	20.53	133	0	C13AI	4605	
2)	22.34	133	0	C14AI	708	
3)	26.71	133	0	C15AI	363	
4)	28.96	133	0	C16AI	252	
5)	30.99	133	0	C17AI	72	
6)	33.99	133	0	C18AI	172	
7)	34.98	133	0	C19AI	244	
8)	38.00	133	0	C20AI	95	
9)	40.04	133	0	C21AI	610	
10)	43.00	133	0	C22AI	153	
11)	44.93	133	0	C23AI	174	
12)	55.97	133	0	C30AI	112	
13)	56.98	133	0	C31AI	39	
Naphthalenes:						
15)	11.65	128	a1	N	72068	38
17)	15.21	142	a2	2-MN	98469	36
18)	15.75	142	a2	1-MN	94590	35
19)	18.38	156	a3	2-EN	11046	4
20)	18.49	156	a3	1-EN	7887	3
21)	18.72	156	a3	2.6+2.7-DMN	26235	9
22)	19.18	156	a3	1.3+1.7-DMN	54350	19
23)	19.28	156	a3	1.6-DMN	47401	16
24)	19.77	156	a3	2.3+1.4-DMN	25009	9
25)	19.89	156	a3	1.5-DMN	13186	5
26)	20.26	156	a3	1.2-DMN	21702	7
27)	21.94	170	a4	C3-N-1	2776	1
28)	22.31	170	a4	C3-N-2	3930	1
29)	22.42	170	a4	1.3.7-TMN	10954	4
30)	22.56	170	a4	1.3.6-TMN	29276	10
31)	23.03	170	a4	1.3.5+1.4.6-TMN	17937	6
32)	23.11	170	a4	2.3.6-TMN	11417	4
33)	23.53	170	a4	1.6.7+1.2.7-TMN	12116	4
34)	23.59	170	a4	1.2.6-TMN	22134	8
35)	24.02	170	a4	1.2.4-TMN	4710	2
36)	24.23	170	a4	1.2.5-TMN	36510	13
Biphenyls:						
37)	17.93	154	a5	BP	7775	2
38)	21.21	168	a5	3-MBP	10498	3
39)	21.48	168	a5	4-MBP	3580	1
40)	21.53	182	a4	2.3'-DMBP	555	0
41)	21.73	182	a4	2.5'-DMBP	277	0
42)	21.91	182	a4	2.4+2.4'-DMBP	502	0
43)	22.52	182	a4	2.3'-DMBP	1921	1
44)	23.91	182	a4	3-EBP	1022	0
45)	24.23	182	a4	3.5'-DMBP	2388	1
46)	24.33	182	a4	3.3'-DMBP	3371	1
47)	24.44	182	a4	4-EBP	313	0
48)	24.62	182	a4	3.4'-DMBP	3139	1
49)	24.84	182	a4	4.4'-DMBP	503	0
50)	25.40	182	a4	3.4'-DMBP	1168	0

#	Rt.min.	m/z	Rf.	Name	Height	Amount
						ng/mg
Dibenzofuranes:						
51)	22.09	168	a5	DBF	19512	5
52)	25.17	182	a4	MDBF-1	17555	6
53)	25.54	182	a4	MDBF-2	11378	4
54)	25.83	182	a4	MDBF-3	11973	4
Fluorenes:						
55)	24.05	166	a6	F	24327	7
56)	27.27	180	a6	C1-F-1	5502	2
57)	27.50	180	a6	C1-F-2	14276	4
58)	27.81	180	a6	1-MF	3960	1
Dibenzothiophenes:						
60)	28.74	184	a7	DBT	6485	0
61)	31.35	198	a7	4-MDBT	3699	0
62)	31.87	198	a7	3+2-MDBT	1746	0
63)	32.45	198	a7	1-MDBT	5580	0
Phenanthrenes:						
64)	29.47	178	a8	P	77188	12
65)	32.41	192	a9	3-MP	20985	4
66)	32.53	192	a9	2-MP	19664	4
67)	33.02	192	a9	9-MP	27403	5
68)	33.15	192	a9	1-MP	22731	4
69)	35.11	206	a10	2EP+9EP+3.6-DMP	4010	1
70)	35.35	206	a10	1EP	5116	1
71)	35.44	206	a10	2.6+2.7+3.5-DMP	1647	0
72)	35.78	206	a10	1.3+2.10+3.9+3.10-DMP	11608	2
73)	35.93	206	a10	1.6+2.5+2.9-DMP	10893	2
74)	36.07	206	a10	1.7-DMP	7617	1
75)	36.22	206	a10	2.3-DMP	2819	1
76)	36.33	206	a10	1.9+4.9+4.10-DMP	3592	1
77)	36.63	206	a10	1.8-DMP	3047	1
Retene:						
78)	39.94	219	a8	Retene	4298	1
Triaromatic steroids:						
80)	44.41	231	a11	20TA	4999	0
81)	46.28	231	a11	21TA	3803	0
82)	53.24	231	a11	S26TA	7247	0
83)	54.45	231	a11	R26TA/S27TA	41053	2
84)	55.44	231	a11	S28TA	10185	0
85)	55.96	231	a11	R27TA	23228	1
86)	57.16	231	a11	R28TA	9768	0

Aromatic hydrocarbons

GC/MS detection HP-6890/5973

Ratios, from heights and amounts


 Norsk Hydro E&P Research Centre, Bergen, Norway
 Petroleum Geochemistry Laboratories

 Data file name: 2375A.D
 Sample name: 2375, 35/9-3T2, dc, aro
 Data File Path: C:\HPCHEM\1\DATA\35_9_3\
 Misc. info.:

 Vial no.: 25
 Method: MSD_A_D
 Operator: Reidun
 Date: Wed Mar 11 03:02:06 1998
Aromatic HC ratios, heights and amounts

		Height	Amount
Naphthalene	Naphthalene	72068	38
C1 Naphthanes	Sum C1 Naphthanes	193059	71
C2 Naphthanes	Sum C2 Naphthanes	206816	71
C3 Naphthanes	Sum C3 Naphthanes	151760	53
Phenanthrene	Phenanthrene	77188	12
C1 Phenanthrenes	Sum C1 Phenanthrenes	90783	17
C2 Phenanthrenes	Sum C2 Phenanthrenes	50349	9
3/2*(3MP+2MP)/(P+9MP+1MP)	MPI1	0.5	0.5
(3MP+2MP)/(3MP+2MP+9MP+1MP)	F1	0.4	0.4
2MP/(3MP+2MP+9MP+1MP)	F2	0.2	0.2
(2.6+2.7)DMN/1.5DMN	DNR	2.0	2.0
100*20TA/(20TA+S28TA+R28TA)	%-TAS'n	20.0	20.0
DBT/P	DBT/P	0.1	0.0
F/P	F/P	0.3	0.6
BP/1.6DMN	BP/1.6DMN	0.2	0.1
2MN/1MN	2MN/1MN	1.0	1.0
2EN/1EN	2EN/1EN	1.4	1.4
4MDBT/1MDBT	4MDBT/1MDBT	0.7	0.7

Aromatic hydrocarbons

GC/MS detection HP-6890/5973

Compound data



Norsk Hydro E&P Research Centre, Bergen, Norway
Petroleum Geochemistry Laboratories

Data file name: 2670A.D
Sample name: 2670, 35/9-3T2, oil, aro
Data File Path: C:\HPCHEM\1\DATA\35_9_3\
Misc. info.:

Vial no.: 26
Method: MSD_A_D
Operator: Reidun
Date: Wed Mar 11 04:30:47 199E

Response curve: y = ax+b
Response factor groups: a1...a11, responses as defined in method

#	Rt.min.	m/z	Rf.	Name	Height	Amount
					ng/mg	

Internal standard (if added):

14)	11.57	136		d8N	38472	48
16)	21.02	164		d10BP	50829	46
59)	29.43	188		d10P	88871	48
79)	44.93	240		d12C	79687	48

Aryl isoprenoids:

1)	20.55	133	0	C13AI	5391	
2)	22.35	133	0	C14AI	6073	
3)	26.65	133	0	C15AI	4592	
4)	29.01	133	0	C16AI	4360	
5)	31.06	133	0	C17AI	2720	
6)	34.02	133	0	C18AI	5271	
7)	34.94	133	0	C19AI	2604	
8)	38.02	133	0	C20AI	3746	
9)	40.02	133	0	C21AI	118	
10)	42.95	133	0	C22AI	3500	
11)	45.02	133	0	C23AI	2856	
12)	56.05	133	0	C30AI	1917	
13)	56.99	133	0	C31AI	761	

Naphthalenes:

15)	11.68	128	a1	N	2E+006	2036
17)	15.34	142	a2	2-MN	3E+006	2487
18)	15.86	142	a2	1-MN	2E+006	1853
19)	18.44	156	a3	2-EN	224932	182
20)	18.54	156	a3	1-EN	85989	69
21)	18.83	156	a3	2.6+2.7-DMN	1E+006	1182
22)	19.32	156	a3	1.3+1.7-DMN	1E+006	1070
23)	19.42	156	a3	1.6-DMN	2E+006	1276
24)	19.86	156	a3	2.3+1.4-DMN	678380	548
25)	19.97	156	a3	1.5-DMN	451788	365
26)	20.32	156	a3	1.2-DMN	289715	234
27)	22.00	170	a4	C3-N-1	115400	95
28)	22.36	170	a4	C3-N-2	121891	100
29)	22.51	170	a4	1.3.7-TMN	617087	507
30)	22.66	170	a4	1.3.6-TMN	914948	752
31)	23.12	170	a4	1.3.5+1.4.6-TMN	554636	456
32)	23.21	170	a4	2.3.6-TMN	711805	585
33)	23.62	170	a4	1.6.7+1.2.7-TMN	454782	374
34)	23.67	170	a4	1.2.6-TMN	305728	251
35)	24.11	170	a4	1.2.4-TMN	59014	48
36)	24.30	170	a4	1.2.5-TMN	243279	200

Biphenyls:

37)	18.01	154	a5	BP	2E+006	945
38)	21.33	168	a5	3-MBP	2E+006	928
39)	21.56	168	a5	4-MBP	762437	431
40)	21.58	182	a4	2.3'-DMBP	32996	27
41)	21.80	182	a4	2.5'-DMBP	17239	14
42)	21.95	182	a4	2.4+2.4'-DMBP	30869	25
43)	22.60	182	a4	2.3'-DMBP	103694	85
44)	23.99	182	a4	3-EBP	125669	103
45)	24.30	182	a4	3.5'-DMBP	257225	211
46)	24.42	182	a4	3.3'-DMBP	646115	531
47)	24.52	182	a4	4-EBP	54208	45
48)	24.71	182	a4	3.4'-DMBP	572194	470
49)	24.90	182	a4	4.4'-DMBP	122816	101
50)	25.48	182	a4	3.4'-DMBP	261402	215

#	Rt.min.	m/z	Rf.	Name	Height	Amount
					ng/mg	

Dibenzofuranes:

51)	22.15	168	a5	DBF	262534	149
52)	25.25	182	a4	MDBF-1	275737	226
53)	25.61	182	a4	MDBF-2	202615	166
54)	25.91	182	a4	MDBF-3	190956	157

Fluorenes:

55)	24.15	166	a6	F	848116	582
56)	27.37	180	a6	C1-F-1	218860	150
57)	27.65	180	a6	C1-F-2	669076	459
58)	27.92	180	a6	1-MF	144373	99

Dibenzothiophenes:

60)	28.83	184	a7	DBT	149974	24
61)	31.45	198	a7	4-MDBT	211378	33
62)	31.97	198	a7	3+2-MDBT	64927	10
63)	32.58	198	a7	1-MDBT	18027	3

Phenanthrenes:

64)	29.62	178	a8	P	1750695	791
65)	32.54	192	a9	3-MP	730345	387
66)	32.70	192	a9	2-MP	955845	507
67)	33.18	192	a9	9-MP	836567	444
68)	33.32	192	a9	1-MP	766799	407
69)	35.25	206	a10	2EP+9EP+3.6-DMP	167637	85
70)	35.47	206	a10	1EP	264976	134
71)	35.56	206	a10	2.6+2.7+3.5-DMP	154873	79
72)	35.95	206	a10	1.3+2.10+3.9+3.10-DMP	739963	375
73)	36.09	206	a10	1.6+2.5+2.9-DMP	455512	231
74)	36.23	206	a10	1.7-DMP	449644	228
75)	36.35	206	a10	2.3-DMP	167561	85
76)	36.47	206	a10	1.9+4.9+4.10-DMP	256118	130
77)	36.75	206	a10	1.8-DMP	84790	43

Retene:

78)	40.07	219	a8	Retene	74270	34
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Triaromatic steroids:

80)	44.52	231	a11	20TA	20106	3
81)	46.39	231	a11	21TA	15557	2
82)	53.35	231	a11	S26TA	3167	0
83)	54.55	231	a11	R26TA/S27TA	9598	1
84)	55.54	231	a11	S28TA	7687	1
85)	56.04	231	a11	R27TA	4069	1
86)	57.25	231	a11	R28TA	6639	1

Aromatic hydrocarbons

GC/MS detection HP-6890/5973

Ratios, from heights and amounts



Norsk Hydro E&P Research Centre, Bergen, Norway
 Petroleum Geochemistry Laboratories

Data file name: 2670A.D
 Sample name: 2670, 35/9-3T2, oil, aro
 Data File Path: C:\HPCHEM\1\DATA\35_9_3\
 Misc. info.:

Vial no.: 26
 Method: MSD_A_D
 Operator: Reidun
 Date: Wed Mar 11 04:30:47 199E

Aromatic HC ratios, heights and amounts

		Height	Amount
Naphthalene	Naphthalene	1785819	2036
C1 Naphthanes	Sum C1 Naphthanes	5038712	4340
C2 Naphthanes	Sum C2 Naphthanes	6097994	4925
C3 Naphthanes	Sum C3 Naphthanes	4098570	3366
Phenanthrene	Phenanthrene	1750695	791
C1 Phenanthrenes	Sum C1 Phenanthrenes	3289556	1745
C2 Phenanthrenes	Sum C2 Phenanthrenes	2741074	1391
$3/2 \cdot (3MP+2MP)/(P+9MP+1MP)$	MPI1	0.8	0.8
$(3MP+2MP)/(3MP+2MP+9MP+1MP)$	F1	0.5	0.5
$2MP/(3MP+2MP+9MP+1MP)$	F2	0.3	0.3
$(2.6+2.7)DMN/1.5DMN$	DNR	3.2	3.2
$100 \cdot 20TA/(20TA+S28TA+R28TA)$	%-TAS'n	58.4	58.4
DBT/P	DBT/P	0.1	0.0
F/P	F/P	0.5	0.7
BP/1.6DMN	BP/1.6DMN	1.1	0.7
2MN/1MN	2MN/1MN	1.3	1.3
2EN/1EN	2EN/1EN	2.6	2.6
4MDBT/1MDBT	4MDBT/1MDBT	11.7	11.7

Aromatic hydrocarbons



GC/MS detection HP-6890/5973

Compound data

Norsk Hydro E&P Research Centre, Bergen, Norway
Petroleum Geochemistry Laboratories

Data file name: 2671A.D
 Sample name: 2671.0, 35/9-3T2, coch, aro
 Data File Path: C:\HPCHEM\1\DATA\35_9_3\
 Misc. info.:

 Vial no.: 23
 Method: MSD_A_D
 Operator: Reidun
 Date: Wed Mar 11 00:04:46 1998

 Response curve: y = ax+b
 Response factor groups: a1...a11, responses as defined in method

#	Rt.min.	m/z	Rf.	Name	Height	Amount
						ng/mg

Internal standard (if added):

14)	11.57	136		d8N	28501	104
16)	20.99	164		d10BP	39809	100
59)	29.38	188		d10P	46600	104
79)	44.80	240		d12C	69908	104

Aryl isoprenoids:

1)	20.54	133	0	C13AI	388	
2)	22.36	133	0	C14AI	481	
3)	26.72	133	0	C15AI	53	
4)	28.98	133	0	C16AI	37	
5)	30.98	133	0	C17AI	346	
6)	34.00	133	0	C18AI	7	
7)	34.97	133	0	C19AI	38	
8)	37.93	133	0	C20AI	50	
9)	40.00	133	0	C21AI	27	
10)	42.98	133	0	C22AI	11	
11)	44.93	133	0	C23AI	121	
12)	55.97	133	0	C30AI	118	
13)	57.02	133	0	C31AI	33	

Naphthalenes:

15)	11.68	128	a1	N	2E+006	7292
17)	15.32	142	a2	2-MN	3E+006	7231
18)	15.84	142	a2	1-MN	2E+006	5238
19)	18.41	156	a3	2-EN	183167	410
20)	18.51	156	a3	1-EN	67689	151
21)	18.79	156	a3	2.6+2.7-DMN	1E+006	2801
22)	19.26	156	a3	1.3+1.7-DMN	1E+006	2647
23)	19.38	156	a3	1.6-DMN	1E+006	3039
24)	19.84	156	a3	2.3+1.4-DMN	652857	1460
25)	19.93	156	a3	1.5-DMN	347816	778
26)	20.28	156	a3	1.2-DMN	259757	581
27)	21.96	170	a4	C3-N-1	42384	96
28)	22.32	170	a4	C3-N-2	59083	134
29)	22.44	170	a4	1.3.7-TMN	262874	598
30)	22.60	170	a4	1.3.6-TMN	453924	1033
31)	23.07	170	a4	1.3.5+1.4.6-TMN	267047	608
32)	23.16	170	a4	2.3.6-TMN	410831	935
33)	23.56	170	a4	1.6.7+1.2.7-TMN	255682	582
34)	23.62	170	a4	1.2.6-TMN	164356	374
35)	24.07	170	a4	1.2.4-TMN	30726	70
36)	24.25	170	a4	1.2.5-TMN	155973	355

Biphenyls:

37)	17.99	154	a5	BP	2E+006	3350
38)	21.29	168	a5	3-MBP	1E+006	2256
39)	21.53	168	a5	4-MBP	757895	1188
40)	21.55	182	a4	2.3'-DMBP	10818	25
41)	21.76	182	a4	2.5'-DMBP	5543	13
42)	21.92	182	a4	2.4+2.4'-DMBP	10923	25
43)	22.55	182	a4	2.3'-DMBP	50599	115
44)	23.93	182	a4	3-EBP	59766	136
45)	24.25	182	a4	3.5'-DMBP	106801	243
46)	24.37	182	a4	3.3'-DMBP	289512	659
47)	24.47	182	a4	4-EBP	30328	69
48)	24.65	182	a4	3.4'-DMBP	264652	602
49)	24.86	182	a4	4.4'-DMBP	71495	163
50)	25.42	182	a4	3.4'-DMBP	151726	345

#	Rt.min.	m/z	Rf.	Name	Height	Amount
						ng/mg

Dibenzofuranes:

51)	22.13	168	a5	DBF	506534	794
52)	25.21	182	a4	MDBF-1	300390	683
53)	25.57	182	a4	MDBF-2	264086	601
54)	25.87	182	a4	MDBF-3	256601	584

Fluorenes:

55)	24.11	166	a6	F	962433	1830
56)	27.30	180	a6	C1-F-1	159680	304
57)	27.58	180	a6	C1-F-2	702988	1336
58)	27.85	180	a6	1-MF	95173	181

Dibenzothiophenes:

60)	28.78	184	a7	DBT	299260	194
61)	31.39	198	a7	4-MDBT	252367	164
62)	31.90	198	a7	3+2-MDBT	71078	46
63)	32.52	198	a7	1-MDBT	23198	15

Phenanthrenes:

64)	29.62	178	a8	P	3020725	5643
65)	32.47	192	a9	3-MP	787036	1725
66)	32.64	192	a9	2-MP	1227533	2691
67)	33.13	192	a9	9-MP	1076458	2360
68)	33.26	192	a9	1-MP	1137152	2493
69)	35.16	206	a10	2EP+9EP+3.6-DMP	98442	206
70)	35.38	206	a10	1EP	163495	343
71)	35.47	206	a10	2.6+2.7+3.5-DMP	128274	269
72)	35.85	206	a10	1.3+2.10+3.9+3.10-DMP	506271	1061
73)	35.99	206	a10	1.6+2.5+2.9-DMP	335426	703
74)	36.13	206	a10	1.7-DMP	406222	852
75)	36.27	206	a10	2.3-DMP	127807	268
76)	36.37	206	a10	1.9+4.9+4.10-DMP	203055	426
77)	36.66	206	a10	1.8-DMP	81620	171

Retene:

78)	39.97	219	a8	Retene	15545	29
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Triaromatic steroids:

80)	44.41	231	a11	20TA	1599	1
81)	46.28	231	a11	21TA	584	0
82)	53.23	231	a11	S26TA	127	0
83)	54.44	231	a11	R26TA/S27TA	187	0
84)	55.46	231	a11	S28TA	82	0
85)	55.92	231	a11	R27TA	110	0
86)	57.15	231	a11	R28TA	81	0

Aromatic hydrocarbons

GC/MS detection HP-6890/5973

Compound data



Norsk Hydro E&P Research Centre, Bergen, Norway
Petroleum Geochemistry Laboratories

Data file name: 2676A.D
Sample name: 2676, 35/9-3T2, oil, aro
Data File Path: C:\HPCHEM\1\DATA\35_9_3\
Misc. info.:

Vial no.: 27
Method: MSD_A_D
Operator: Reidun
Date: Wed Mar 11 05:59:30 199E

Response curve: $y = ax + b$
Response factor groups: a1...a11, responses as defined in method

#	Rt.min.	m/z	Rf.	Name	Height	Amount
					ng/mg	
Internal standard (if added):						
14)	11.57	136	d8N		16047	48
16)	21.01	164	d10BP		20544	46
59)	29.39	188	d10P		44574	48
79)	44.85	240	d12C		42273	48
Aryl isoprenoids:						
1)	20.54	133	0	C13AI	2699	
2)	22.37	133	0	C14AI	2578	
3)	26.62	133	0	C15AI	1798	
4)	28.98	133	0	C16AI	1767	
5)	31.01	133	0	C17AI	778	
6)	33.98	133	0	C18AI	1927	
7)	35.01	133	0	C19AI	190	
8)	37.99	133	0	C20AI	1585	
9)	39.99	133	0	C21AI	161	
10)	43.02	133	0	C22AI	1265	
11)	44.99	133	0	C23AI	1117	
12)	56.00	133	0	C30AI	802	
13)	56.97	133	0	C31AI	246	
Naphthalenes:						
15)	11.67	128	a1	N	590171	1623
17)	15.27	142	a2	2-MN	1E+006	2607
18)	15.80	142	a2	1-MN	783095	1680
19)	18.41	156	a3	2-EN	82938	167
20)	18.51	156	a3	1-EN	32558	65
21)	18.77	156	a3	2.6+2.7-DMN	523798	1054
22)	19.24	156	a3	1.3+1.7-DMN	658483	1324
23)	19.34	156	a3	1.6-DMN	633659	1275
24)	19.81	156	a3	2.3+1.4-DMN	249511	502
25)	19.93	156	a3	1.5-DMN	128573	259
26)	20.28	156	a3	1.2-DMN	96673	194
27)	21.97	170	a4	C3-N-1	38328	78
28)	22.33	170	a4	C3-N-2	47136	96
29)	22.46	170	a4	1.3.7-TMN	228605	468
30)	22.61	170	a4	1.3.6-TMN	327115	669
31)	23.08	170	a4	1.3.5+1.4.6-TMN	227119	465
32)	23.16	170	a4	2.3.6-TMN	246668	505
33)	23.56	170	a4	1.6.7+1.2.7-TMN	171004	350
34)	23.63	170	a4	1.2.6-TMN	98748	202
35)	24.06	170	a4	1.2.4-TMN	23365	48
36)	24.26	170	a4	1.2.5-TMN	89461	183
Biphenyls:						
37)	17.97	154	a5	BP	579943	817
38)	21.26	168	a5	3-MBP	691906	975
39)	21.50	168	a5	4-MBP	253425	357
40)	21.55	182	a4	2.3'-DMBP	9438	19
41)	21.76	182	a4	2.5'-DMBP	5134	11
42)	21.92	182	a4	2.4+2.4'-DMBP	9968	20
43)	22.56	182	a4	2.3'-DMBP	31971	65
44)	23.93	182	a4	3-EBP	44545	91
45)	24.26	182	a4	3.5'-DMBP	96560	198
46)	24.38	182	a4	3.3'-DMBP	249771	511
47)	24.48	182	a4	4-EBP	18088	37
48)	24.66	182	a4	3.4'-DMBP	195032	399
49)	24.88	182	a4	4.4'-DMBP	42385	87
50)	25.43	182	a4	3.4'-DMBP	88047	180

#	Rt.min.	m/z	Rf.	Name	Height	Amount
					ng/mg	
Dibenzofuranes:						
51)	22.13	168	a5	DBF	96312	136
52)	25.21	182	a4	MDBF-1	100595	206
53)	25.57	182	a4	MDBF-2	72229	148
54)	25.87	182	a4	MDBF-3	68117	139
Fluorenes:						
55)	24.10	166	a6	F	312039	533
56)	27.32	180	a6	C1-F-1	91608	157
57)	27.57	180	a6	C1-F-2	296157	506
58)	27.85	180	a6	1-MF	54152	93
Dibenzothiophenes:						
60)	28.78	184	a7	DBT	56356	18
61)	31.40	198	a7	4-MDBT	80332	25
62)	31.90	198	a7	3+2-MDBT	23722	7
63)	32.51	198	a7	1-MDBT	8116	3
Phenanthrenes:						
64)	29.53	178	a8	P	821663	745
65)	32.46	192	a9	3-MP	330574	352
66)	32.62	192	a9	2-MP	428715	456
67)	33.09	192	a9	9-MP	429472	457
68)	33.22	192	a9	1-MP	325729	347
69)	35.18	206	a10	2EP+9EP+3.6-DMP	65180	66
70)	35.40	206	a10	1EP	103061	105
71)	35.50	206	a10	2.6+2.7+3.5-DMP	67336	69
72)	35.87	206	a10	1.3+2.10+3.9+3.10-DMP	341065	347
73)	36.00	206	a10	1.6+2.5+2.9-DMP	208575	212
74)	36.14	206	a10	1.7-DMP	191280	195
75)	36.27	206	a10	2.3-DMP	59571	61
76)	36.39	206	a10	1.9+4.9+4.10-DMP	103751	106
77)	36.68	206	a10	1.8-DMP	33351	34
Retene:						
78)	40.01	219	a8	Retene	37328	34
Triaromatic steroids:						
80)	44.47	231	a11	20TA	9378	2
81)	46.33	231	a11	21TA	7425	2
82)	53.30	231	a11	S26TA	1509	0
83)	54.50	231	a11	R26TA/S27TA	4851	1
84)	55.48	231	a11	S28TA	3584	1
85)	55.98	231	a11	R27TA	1955	0
86)	57.21	231	a11	R28TA	3185	1

Aromatic hydrocarbons

GC/MS detection HP-6890/5973

Ratios, from heights and amounts

Norsk Hydro E&P Research Centre, Bergen, Norway
Petroleum Geochemistry LaboratoriesData file name: 2676A.D
Sample name: 2676, 35/9-3T2, oil, aro
Data File Path: C:\HPCHEM\1\DATA\35_9_3\
Misc. info.:Vial no.: 27
Method: MSD_A_D
Operator: Reidun
Date: Wed Mar 11 05:59:30 199E**Aromatic HC ratios, heights and amounts**

		Height	Amount
Naphthalene	Naphthalene	590171	1623
C1 Naphthanes	Sum C1 Naphthanes	1998412	4286
C2 Naphthanes	Sum C2 Naphthanes	2406193	4840
C3 Naphthanes	Sum C3 Naphthanes	1497549	3063
Phenanthrene	Phenanthrene	821663	745
C1 Phenanthrenes	Sum C1 Phenanthrenes	1514490	1612
C2 Phenanthrenes	Sum C2 Phenanthrenes	1173170	1194
3/2*(3MP+2MP)/(P+9MP+1MP)	MPI1	0.7	0.8
(3MP+2MP)/(3MP+2MP+9MP+1MP)	F1	0.5	0.5
2MP/(3MP+2MP+9MP+1MP)	F2	0.3	0.3
(2.6+2.7)DMN/1.5DMN	DNR	4.1	4.1
100*20TA/(20TA+S28TA+R28TA)	%-TAS'n	58.1	58.1
DBT/P	DBT/P	0.1	0.0
F/P	F/P	0.4	0.7
BP/1.6DMN	BP/1.6DMN	0.9	0.6
2MN/1MN	2MN/1MN	1.6	1.6
2EN/1EN	2EN/1EN	2.5	2.5
4MDBT/1MDBT	4MDBT/1MDBT	9.9	9.9

Aromatic hydrocarbons

GC/MS detection HP-6890/5973

Compound data



Norsk Hydro E&P Research Centre, Bergen, Norway
Petroleum Geochemistry Laboratories

Data file name: 2681_3A.D
Sample name: 2681.3, 35/9-3T2, oil, aro
Data File Path: C:\HPCHEM\1\DATA\35_9_3\
Misc. info.:

Vial no.: 29
Method: MSD_A_D
Operator: Reidun
Date: Wed Mar 11 08:56:51 1998

Response curve: y = ax+b
Response factor groups: a1...a11, responses as defined in method

#	Rt.min.	m/z	Rf.	Name	Height	Amount
ng/mg						
Internal standard (if added):						
14)	11.57	136		d8N	18161	52
16)	21.01	164		d10BP	24794	50
59)	29.39	188		d10P	52703	52
79)	44.86	240		d12C	45258	52
Aryl isoprenoids:						
1)	20.54	133	0	C13AI	2482	
2)	22.39	133	0	C14AI	3269	
3)	26.62	133	0	C15AI	2104	
4)	28.99	133	0	C16AI	2153	
5)	31.02	133	0	C17AI	990	
6)	33.99	133	0	C18AI	2280	
7)	35.01	133	0	C19AI	392	
8)	37.99	133	0	C20AI	1844	
9)	39.97	133	0	C21AI	180	
10)	43.02	133	0	C22AI	1336	
11)	44.99	133	0	C23AI	1425	
12)	56.01	133	0	C30AI	854	
13)	57.00	133	0	C31AI	265	
Naphthalenes:						
15)	11.67	128	a1	N	692695	1802
17)	15.27	142	a2	2-MN	1E+006	2757
18)	15.81	142	a2	1-MN	953861	1819
19)	18.42	156	a3	2-EN	104758	187
20)	18.53	156	a3	1-EN	38603	69
21)	18.79	156	a3	2,6+2,7-DMN	659159	1179
22)	19.24	156	a3	1,3+1,7-DMN	759027	1358
23)	19.36	156	a3	1,6-DMN	814537	1457
24)	19.83	156	a3	2,3+1,4-DMN	328631	588
25)	19.93	156	a3	1,5-DMN	170032	304
26)	20.29	156	a3	1,2-DMN	118215	211
27)	21.98	170	a4	C3-N-1	50072	91
28)	22.35	170	a4	C3-N-2	56333	102
29)	22.47	170	a4	1,3,7-TMN	287780	523
30)	22.61	170	a4	1,3,6-TMN	418165	761
31)	23.09	170	a4	1,3,5+1,4,6-TMN	282683	514
32)	23.17	170	a4	2,3,6-TMN	311256	566
33)	23.58	170	a4	1,6,7+1,2,7-TMN	215200	391
34)	23.63	170	a4	1,2,6-TMN	125472	228
35)	24.08	170	a4	1,2,4-TMN	28141	51
36)	24.27	170	a4	1,2,5-TMN	111032	202
Biphenyls:						
37)	17.97	154	a5	BP	733861	920
38)	21.28	168	a5	3-MBP	858965	1076
39)	21.52	168	a5	4-MBP	334637	419
40)	21.57	182	a4	2,3'-DMBP	12217	22
41)	21.77	182	a4	2,5-DMBP	7392	13
42)	21.94	182	a4	2,4+2,4'-DMBP	13073	24
43)	22.56	182	a4	2,3-DMBP	40534	74
44)	23.95	182	a4	3-EBP	56555	103
45)	24.28	182	a4	3,5-DMBP	119629	218
46)	24.38	182	a4	3,3'-DMBP	307783	560
47)	24.48	182	a4	4-EBP	21944	40
48)	24.68	182	a4	3,4'-DMBP	254980	464
49)	24.88	182	a4	4,4'-DMBP	54490	99
50)	25.44	182	a4	3,4-DMBP	110415	201

#	Rt.min.	m/z	Rf.	Name	Height	Amount
ng/mg						
Dibenzofuranes:						
51)	22.13	168	a5	DBF	113961	143
52)	25.22	182	a4	MDBF-1	121841	222
53)	25.59	182	a4	MDBF-2	86025	156
54)	25.88	182	a4	MDBF-3	80849	147
Fluorenes:						
55)	24.10	166	a6	F	391920	596
56)	27.32	180	a6	C1-F-1	105808	161
57)	27.59	180	a6	C1-F-2	353423	537
58)	27.87	180	a6	1-MF	67993	103
Dibenzothiophenes:						
60)	28.80	184	a7	DBT	66895	19
61)	31.41	198	a7	4-MDBT	93339	27
62)	31.93	198	a7	3+2-MDBT	28099	8
63)	32.52	198	a7	1-MDBT	9134	3
Phenanthrenes:						
64)	29.55	178	a8	P	1019838	837
65)	32.48	192	a9	3-MP	379787	366
66)	32.62	192	a9	2-MP	485973	468
67)	33.11	192	a9	9-MP	466134	449
68)	33.24	192	a9	1-MP	395907	381
69)	35.20	206	a10	2EP+9EP+3,6-DMP	77558	71
70)	35.42	206	a10	1EP	124996	115
71)	35.51	206	a10	2,6+2,7+3,5-DMP	74709	69
72)	35.88	206	a10	1,3+2,10+3,9+3,10-DMP	397590	366
73)	36.02	206	a10	1,6+2,5+2,9-DMP	233596	215
74)	36.16	206	a10	1,7-DMP	224759	207
75)	36.29	206	a10	2,3-DMP	75411	69
76)	36.41	206	a10	1,9+4,9+4,10-DMP	114548	106
77)	36.70	206	a10	1,8-DMP	38548	36
Retene:						
78)	40.01	219	a8	Retene	39232	32
Triaromatic steroids:						
80)	44.47	231	a11	20TA	10056	2
81)	46.34	231	a11	21TA	8268	2
82)	53.30	231	a11	S26TA	1668	0
83)	54.50	231	a11	R26TA/S27TA	5228	1
84)	55.50	231	a11	S28TA	3853	1
85)	55.98	231	a11	R27TA	2230	1
86)	57.22	231	a11	R28TA	3596	1

Aromatic hydrocarbons

GC/MS detection HP-6890/5973

Ratios, from heights and amounts

Norsk Hydro E&P Research Centre, Bergen, Norway
 Petroleum Geochemistry Laboratories

Data file name: 2681_3A.D
 Sample name: 2681.3, 35/9-3T2, oil, aro
 Data File Path: C:\HPCHEM\1\DATA\35_9_3\
 Misc. info.:

Vial no.: 29
 Method: MSD_A_D
 Operator: Reidun
 Date: Wed Mar 11 08:56:51 1998

Aromatic HC ratios, heights and amounts

		Height	Amount
Naphthalene	Naphthalene	692695	1802
C1 Naphthanes	Sum C1 Naphthanes	2399581	4577
C2 Naphthanes	Sum C2 Naphthanes	2992962	5354
C3 Naphthanes	Sum C3 Naphthanes	1886134	3431
Phenanthrene	Phenanthrene	1019838	837
C1 Phenanthrenes	Sum C1 Phenanthrenes	1727801	1665
C2 Phenanthrenes	Sum C2 Phenanthrenes	1361715	1255
$3/2 \cdot (3MP+2MP)/(P+9MP+1MP)$	MPI1	0.7	0.8
$(3MP+2MP)/(3MP+2MP+9MP+1MP)$	F1	0.5	0.5
$2MP/(3MP+2MP+9MP+1MP)$	F2	0.3	0.3
$(2.6+2.7)DMN/1.5DMN$	DNR	3.9	3.9
$100 \cdot 20TA/(20TA+S28TA+R28TA)$	%-TAS'n	57.4	57.4
DBT/P	DBT/P	0.1	0.0
F/P	F/P	0.4	0.7
BP/1.6DMN	BP/1.6DMN	0.9	0.6
2MN/1MN	2MN/1MN	1.5	1.5
2EN/1EN	2EN/1EN	2.7	2.7
4MDBT/1MDBT	4MDBT/1MDBT	10.2	10.2

#	Rt.min.	m/z	Rf.	Name	Height	Amount
					ng/mg	
Internal standard (if added):						
14)	11.57	136		d8N	17696	52
16)	21.02	164		d10BP	22794	50
59)	29.39	188		d10P	47063	52
79)	44.86	240		d12C	47152	52
Aryl isoprenoids:						
1)	20.55	133	0	C13AI	2332	
2)	22.33	133	0	C14AI	2465	
3)	26.62	133	0	C15AI	1765	
4)	28.99	133	0	C16AI	1808	
5)	31.03	133	0	C17AI	935	
6)	33.99	133	0	C18AI	1981	
7)	35.02	133	0	C19AI	358	
8)	38.00	133	0	C20AI	1669	
9)	39.97	133	0	C21AI	167	
10)	43.03	133	0	C22AI	1124	
11)	44.99	133	0	C23AI	1224	
12)	56.00	133	0	C30AI	781	
13)	57.01	133	0	C31AI	382	
Naphthalenes:						
15)	11.67	128	a1	N	667477	1806
17)	15.29	142	a2	2-MN	1E+006	3118
18)	15.81	142	a2	1-MN	917773	1927
19)	18.42	156	a3	2-EN	101388	200
20)	18.53	156	a3	1-EN	39276	77
21)	18.78	156	a3	2.6+2.7-DMN	662071	1304
22)	19.25	156	a3	1.3+1.7-DMN	740572	1458
23)	19.36	156	a3	1.6-DMN	772438	1521
24)	19.83	156	a3	2.3+1.4-DMN	301338	593
25)	19.93	156	a3	1.5-DMN	164424	324
26)	20.30	156	a3	1.2-DMN	110347	217
27)	21.98	170	a4	C3-N-1	47248	95
28)	22.35	170	a4	C3-N-2	54461	109
29)	22.47	170	a4	1.3.7-TMN	269370	539
30)	22.61	170	a4	1.3.6-TMN	395457	792
31)	23.10	170	a4	1.3.5+1.4.6-TMN	254666	510
32)	23.17	170	a4	2.3.6-TMN	295092	591
33)	23.58	170	a4	1.6.7+1.2.7-TMN	196672	394
34)	23.61	170	a4	1.2.6-TMN	117264	235
35)	24.08	170	a4	1.2.4-TMN	25940	52
36)	24.27	170	a4	1.2.5-TMN	100192	201
Biphenyls:						
37)	17.97	154	a5	BP	706980	975
38)	21.28	168	a5	3-MBP	843134	1163
39)	21.52	168	a5	4-MBP	322141	444
40)	21.57	182	a4	2.3'-DMBP	11258	23
41)	21.77	182	a4	2.5-DMBP	6699	13
42)	21.94	182	a4	2.4+2.4'-DMBP	12604	25
43)	22.56	182	a4	2.3-DMBP	38244	77
44)	23.95	182	a4	3-EBP	51854	104
45)	24.28	182	a4	3.5-DMBP	113914	228
46)	24.38	182	a4	3.3'-DMBP	291599	584
47)	24.50	182	a4	4-EBP	20856	42
48)	24.67	182	a4	3.4'-DMBP	234049	469
49)	24.88	182	a4	4.4'-DMBP	49010	98
50)	25.44	182	a4	3.4-DMBP	101935	204

Aromatic hydrocarbons

GC/MS detection HP-6890/5973

Compound data



Norsk Hydro E&P Research Centre, Bergen, Norway
Petroleum Geochemistry Laboratories

Data file name: 2683_7A.D
Sample name: 2683.7, 35/9-3T2, oil, aro
Data File Path: C:\HPCHEM\1\DATA\35_9_3\
Misc. info.:

Vial no.: 30
Method: MSD_A_D
Operator: Reidun
Date: Wed Mar 11 10:25:43 199E

Response curve: y = ax+b
Response factor groups: a1...a11, responses as defined in method

#	Rt.min.	m/z	Rf.	Name	Height	Amount
					ng/mg	
Dibenzofuranes:						
51)	22.13	168	a5	DBF	102313	141
52)	25.22	182	a4	MDBF-1	111685	224
53)	25.59	182	a4	MDBF-2	80789	162
54)	25.88	182	a4	MDBF-3	77840	156
Fluorenes:						
55)	24.11	166	a6	F	383700	642
56)	27.32	180	a6	C1-F-1	106832	179
57)	27.59	180	a6	C1-F-2	335899	562
58)	27.87	180	a6	1-MF	64817	108
Dibenzothiophenes:						
60)	28.80	184	a7	DBT	63728	21
61)	31.42	198	a7	4-MDBT	86599	28
62)	31.92	198	a7	3+2-MDBT	27193	9
63)	32.53	198	a7	1-MDBT	8584	3
Phenanthrenes:						
64)	29.55	178	a8	P	916901	855
65)	32.48	192	a9	3-MP	386554	423
66)	32.62	192	a9	2-MP	471273	515
67)	33.11	192	a9	9-MP	471880	516
68)	33.24	192	a9	1-MP	372872	408
69)	35.19	206	a10	2EP+9EP+3.6-DMP	70854	74
70)	35.42	206	a10	1EP	115741	121
71)	35.51	206	a10	2.6+2.7+3.5-DMP	74144	78
72)	35.88	206	a10	1.3+2.10+3.9+3.10-DMP	368150	385
73)	36.02	206	a10	1.6+2.5+2.9-DMP	222032	232
74)	36.16	206	a10	1.7-DMP	209272	219
75)	36.29	206	a10	2.3-DMP	68084	71
76)	36.40	206	a10	1.9+4.9+4.10-DMP	108146	113
77)	36.70	206	a10	1.8-DMP	36210	38
Retene:						
78)	40.01	219	a8	Retene	35847	33
Triaromatic steroids:						
80)	44.47	231	a11	20TA	8847	2
81)	46.34	231	a11	21TA	7109	2
82)	53.30	231	a11	S26TA	1370	0
83)	54.51	231	a11	R26TA/S27TA	4534	1
84)	55.50	231	a11	S28TA	3478	1
85)	55.99	231	a11	R27TA	2094	1
86)	57.21	231	a11	R28TA	3127	1

Aromatic hydrocarbons

GC/MS detection HP-6590/5973

Ratios, from heights and amounts

Norsk Hydro E&P Research Centre, Bergen, Norway
Petroleum Geochemistry LaboratoriesData file name: 2683_7A.D
Sample name: 2683.7, 35/9-3T2, oil, aro
Data File Path: C:\HPCHEM\1\DATA\35_9_3\
Misc. info.:Vial no.: 30
Method: MSD_A_D
Operator: Reidun
Date: Wed Mar 11 10:25:43 199E**Aromatic HC ratios, heights and amounts**

		Height	Amount
Naphthalene	Naphthalene	667477	1806
C1 Naphthanes	Sum C1 Naphthanes	2402645	5045
C2 Naphthanes	Sum C2 Naphthanes	2891854	5694
C3 Naphthanes	Sum C3 Naphthanes	1756362	3517
Phenanthrene	Phenanthrene	916901	855
C1 Phenanthrenes	Sum C1 Phenanthrenes	1702579	1862
C2 Phenanthrenes	Sum C2 Phenanthrenes	1272633	1331
$3/2 \cdot (3MP+2MP)/(P+9MP+1MP)$	MPI1	0.7	0.8
$(3MP+2MP)/(3MP+2MP+9MP+1MP)$	F1	0.5	0.5
$2MP/(3MP+2MP+9MP+1MP)$	F2	0.3	0.3
(2.6+2.7)DMN/1.5DMN	DNR	4.0	4.0
100*20TA/(20TA+S28TA+R28TA)	%-TAS'n	57.3	57.3
DBT/P	DBT/P	0.1	0.0
F/P	F/P	0.4	0.8
BP/1.6DMN	BP/1.6DMN	0.9	0.6
2MN/1MN	2MN/1MN	1.6	1.6
2EN/1EN	2EN/1EN	2.6	2.6
4MDBT/1MDBT	4MDBT/1MDBT	10.1	10.1

#	Rt.min.	m/z	Rf.	Name	Height	Amount
					ng/mg	
Internal standard (if added):						
14)	11.56	136		d8N	34278	55
16)	20.99	164		d10BP	35963	53
59)	29.37	188		d10P	72143	55
79)	44.84	240		d12C	64996	55
Aryl isoprenoids:						
1)	20.51	133	0	C13AI	4878	
2)	22.36	133	0	C14AI	5784	
3)	26.72	133	0	C15AI	3735	
4)	28.96	133	0	C16AI	3774	
5)	30.99	133	0	C17AI	1084	
6)	34.01	133	0	C18AI	3301	
7)	35.00	133	0	C19AI	437	
8)	37.97	133	0	C20AI	2734	
9)	39.96	133	0	C21AI	163	
10)	43.00	133	0	C22AI	1948	
11)	44.97	133	0	C23AI	1978	
12)	55.97	133	0	C30AI	1352	
13)	57.04	133	0	C31AI	632	
Naphthalenes:						
15)	11.66	128	a1	N	1E+006	1733
17)	15.26	142	a2	2-MN	1E+006	1909
18)	15.79	142	a2	1-MN	1E+006	1489
19)	18.39	156	a3	2-EN	83085	109
20)	18.50	156	a3	1-EN	39820	52
21)	18.75	156	a3	2.6+2.7-DMN	475418	622
22)	19.22	156	a3	1.3+1.7-DMN	617006	807
23)	19.33	156	a3	1.6-DMN	628054	821
24)	19.80	156	a3	2.3+1.4-DMN	260723	341
25)	19.90	156	a3	1.5-DMN	145348	190
26)	20.27	156	a3	1.2-DMN	98396	129
27)	21.95	170	a4	C3-N-1	44184	59
28)	22.32	170	a4	C3-N-2	51404	68
29)	22.45	170	a4	1.3.7-TMN	266213	354
30)	22.59	170	a4	1.3.6-TMN	357365	475
31)	23.06	170	a4	1.3.5+1.4.6-TMN	266213	354
32)	23.14	170	a4	2.3.6-TMN	242667	323
33)	23.55	170	a4	1.6.7+1.2.7-TMN	185790	247
34)	23.61	170	a4	1.2.6-TMN	111518	148
35)	24.04	170	a4	1.2.4-TMN	26314	35
36)	24.24	170	a4	1.2.5-TMN	114855	153
Biphenyls:						
37)	17.96	154	a5	BP	779343	714
38)	21.25	168	a5	3-MBP	646707	592
39)	21.49	168	a5	4-MBP	228394	209
40)	21.54	182	a4	2.3'-DMBP	11687	16
41)	21.75	182	a4	2.5-DMBP	7131	9
42)	21.91	182	a4	2.4+2.4'-DMBP	12554	17
43)	22.54	182	a4	2.3-DMBP	36013	48
44)	23.92	182	a4	3-EBP	52051	69
45)	24.25	182	a4	3.5-DMBP	100993	134
46)	24.36	182	a4	3.3'-DMBP	281707	375
47)	24.46	182	a4	4-EBP	16720	22
48)	24.65	182	a4	3.4'-DMBP	212580	283
49)	24.85	182	a4	4.4'-DMBP	40304	54
50)	25.41	182	a4	3.4-DMBP	98393	131

Aromatic hydrocarbons

GC/MS detection HP-6890/5973

Compound data



Norsk Hydro E&P Research Centre, Bergen, Norway
Petroleum Geochemistry Laboratories

Data file name: A2700_6.D
Sample name: 35/9-3T2 2700.6m ARO
Data File Path: C:\HPCHEM\1\DATA\VISUND\1
Misc. info.:

Vial no.: 28
Method: MSD_A_D
Operator:
Date: Wed Apr 29 07:55:15 1998

Response curve: y = ax+b
Response factor groups: a1...a11, responses as defined in method

#	Rt.min.	m/z	Rf.	Name	Height	Amount
					ng	
Dibenzofuranes:						
51)	22.10	168	a5	DBF	123524	113
52)	25.20	182	a4	MDBF-1	96546	128
53)	25.55	182	a4	MDBF-2	61327	82
54)	25.86	182	a4	MDBF-3	59879	80
Fluorenes:						
55)	24.08	166	a6	F	152670	170
56)	27.30	180	a6	C1-F-1	54032	60
57)	27.55	180	a6	C1-F-2	212874	237
58)	27.84	180	a6	1-MF	31872	35
Dibenzothiophenes:						
60)	28.77	184	a7	DBT	43985	10
61)	31.38	198	a7	4-MDBT	55320	12
62)	31.89	198	a7	3+2-MDBT	16831	4
63)	32.49	198	a7	1-MDBT	7150	2
Phenanthrenes:						
64)	29.51	178	a8	P	594468	379
65)	32.44	192	a9	3-MP	230202	172
66)	32.58	192	a9	2-MP	263916	197
67)	33.08	192	a9	9-MP	338599	253
68)	33.19	192	a9	1-MP	241971	181
69)	35.18	206	a10	2EP+9EP+3.6-DMP	57822	41
70)	35.39	206	a10	1EP	84814	61
71)	35.48	206	a10	2.6+2.7+3.5-DMP	49308	35
72)	35.85	206	a10	1.3+2.10+3.9+3.10-DMP	314892	225
73)	36.00	206	a10	1.6+2.5+2.9-DMP	176393	126
74)	36.13	206	a10	1.7-DMP	165923	119
75)	36.27	206	a10	2.3-DMP	51595	37
76)	36.37	206	a10	1.9+4.9+4.10-DMP	98037	70
77)	36.67	206	a10	1.8-DMP	28789	21
Retene:						
78)	39.99	219	a8	Retene	48746	31
Triaromatic steroids:						
80)	44.45	231	a11	20TA	12612	2
81)	46.31	231	a11	21TA	10548	2
82)	53.27	231	a11	S26TA	2963	1
83)	54.48	231	a11	R26TA/S27TA	9616	2
84)	55.47	231	a11	S28TA	6830	1
85)	55.97	231	a11	R27TA	3789	1
86)	57.19	231	a11	R28TA	5806	1

Aromatic hydrocarbons

GC/MS detection HP-6890/5973

Ratios, from heights and amounts



Norsk Hydro E&P Research Centre, Bergen, Norway
 Petroleum Geochemistry Laboratories

Data file name: A2700_6.D
 Sample name: 35/9-3T2 2700.6m ARO
 Data File Path: C:\HPCHEM\1\DATA\VISUND2\
 Misc. info.:

Vial no.: 28
 Method: MSD_A_D
 Operator:
 Date: Wed Apr 29 07:55:15 1998

Aromatic HC ratios, heights and amounts

		Height	Amount
Naphthalene	Naphthalene	1184482	1733
C1 Naphthanes	Sum C1 Naphthanes	2436944	3398
C2 Naphthanes	Sum C2 Naphthanes	2347850	3070
C3 Naphthanes	Sum C3 Naphthanes	1666523	2216
Phenanthrene	Phenanthrene	594468	379
C1 Phenanthrenes	Sum C1 Phenanthrenes	1074688	803
C2 Phenanthrenes	Sum C2 Phenanthrenes	1027573	735
3/2*(3MP+2MP)/(P+9MP+1MP)	MPI1	0.6	0.7
(3MP+2MP)/(3MP+2MP+9MP+1MP)	F1	0.5	0.5
2MP/(3MP+2MP+9MP+1MP)	F2	0.2	0.2
(2.6+2.7)DMN/1.5DMN	DNR	3.3	3.3
100*20TA/(20TA+S28TA+R28TA)	%-TAS'n	50.0	50.0
DBT/P	DBT/P	0.1	0.0
F/P	F/P	0.3	0.4
BP/1.6DMN	BP/1.6DMN	1.2	0.9
2MN/1MN	2MN/1MN	1.3	1.3
2EN/1EN	2EN/1EN	2.1	2.1
4MDBT/1MDBT	4MDBT/1MDBT	7.7	7.7

#	Rt.min.	m/z	Rf.	Name	Height	Amount
						ng/mg
Internal standard (if added):						
14)	11.57	136		d8N	107111	40
16)	21.01	164		d10BP	138867	38
59)	29.37	188		d10P	267121	40
79)	44.82	240		d12C	252247	40
Aryl isoprenoids:						
1)	20.54	133	0	C13AI		10
2)	22.36	133	0	C14AI		0
3)	26.67	133	0	C15AI		9
4)	28.97	133	0	C16AI		9
5)	30.98	133	0	C17AI		12
6)	33.99	133	0	C18AI		7
7)	34.98	133	0	C19AI		8
8)	38.00	133	0	C20AI		6
9)	40.00	133	0	C21AI		4
10)	43.02	133	0	C22AI		8
11)	44.99	133	0	C23AI		8
12)	56.02	133	0	C30AI		3
13)	56.97	133	0	C31AI		10
Naphthalenes:						
15)	11.66	128	a1	N	1212	0
17)	15.21	142	a2	2-MN	1234	0
18)	15.77	142	a2	1-MN	373	0
19)	18.39	156	a3	2-EN	79	0
20)	18.50	156	a3	1-EN	34	0
21)	18.73	156	a3	2.6+2.7-DMN	398	0
22)	19.19	156	a3	1.3+1.7-DMN	568	0
23)	19.29	156	a3	1.6-DMN	447	0
24)	19.79	156	a3	2.3+1.4-DMN	220	0
25)	19.89	156	a3	1.5-DMN	112	0
26)	20.26	156	a3	1.2-DMN	94	0
27)	21.95	170	a4	C3-N-1	36	0
28)	22.32	170	a4	C3-N-2	41	0
29)	22.43	170	a4	1.3.7-TMN	187	0
30)	22.57	170	a4	1.3.6-TMN	263	0
31)	23.04	170	a4	1.3.5+1.4.6-TMN	208	0
32)	23.12	170	a4	2.3.6-TMN	180	0
33)	23.54	170	a4	1.6.7+1.2.7-TMN	148	0
34)	23.59	170	a4	1.2.6-TMN	95	0
35)	24.02	170	a4	1.2.4-TMN	30	0
36)	24.24	170	a4	1.2.5-TMN	99	0
Biphenyls:						
37)	17.94	154	a5	BP	576	0
38)	21.22	168	a5	3-MBP	536	0
39)	21.48	168	a5	4-MBP	219	0
40)	21.52	182	a4	2.3'-DMBP	12	0
41)	21.73	182	a4	2.5-DMBP	10	0
42)	21.91	182	a4	2.4+2.4'-DMBP	15	0
43)	22.53	182	a4	2.3-DMBP	31	0
44)	23.92	182	a4	3-EBP	42	0
45)	24.24	182	a4	3.5-DMBP	80	0
46)	24.34	182	a4	3.3'-DMBP	186	0
47)	24.44	182	a4	4-EBP	17	0
48)	24.63	182	a4	3.4'-DMBP	168	0
49)	24.85	182	a4	4.4'-DMBP	37	0
50)	25.40	182	a4	3.4-DMBP	70	0

Aromatic hydrocarbons

GC/MS detection HP-6890/5973

Compound data



Norsk Hydro E&P Research Centre, Bergen, Norway
Petroleum Geochemistry Laboratories

Data file name: 2750A.D
Sample name: 2750, 35/9-3T2, mud, aro
Data File Path: C:\HPCHEM\1\DATA\35_9_3\
Misc. info.:
Vial no.: 32
Method: MSD_A_D
Operator: Reidun
Date: Wed Mar 11 13:23:21 1998
Response curve: y = ax+b
Response factor groups: a1...a11, responses as defined in method

#	Rt.min.	m/z	Rf.	Name	Height	Amount
						ng/mg
Dibenzofuranes:						
51)	22.10	168	a5	DBF	249	0
52)	25.18	182	a4	MDBF-1	130	0
53)	25.55	182	a4	MDBF-2	102	0
54)	25.84	182	a4	MDBF-3	86	0
Fluorenes:						
55)	24.06	166	a6	F	308	0
56)	27.28	180	a6	C1-F-1	77	0
57)	27.51	180	a6	C1-F-2	245	0
58)	27.81	180	a6	1-MF	48	0
Dibenzothiophenes:						
60)	28.75	184	a7	DBT	115	0
61)	31.36	198	a7	4-MDBT	78	0
62)	31.89	198	a7	3+2-MDBT	26	0
63)	32.45	198	a7	1-MDBT	16	0
Phenanthrenes:						
64)	29.47	178	a8	P	1741	0
65)	32.41	192	a9	3-MP	375	0
66)	32.54	192	a9	2-MP	487	0
67)	33.02	192	a9	9-MP	522	0
68)	33.15	192	a9	1-MP	386	0
69)	35.13	206	a10	2EP+9EP+3.6-DMP	69	0
70)	35.35	206	a10	1EP	104	0
71)	35.45	206	a10	2.6+2.7+3.5-DMP	66	0
72)	35.78	206	a10	1.3+2.10+3.9+3.10-DMP	332	0
73)	35.93	206	a10	1.6+2.5+2.9-DMP	201	0
74)	36.09	206	a10	1.7-DMP	434	0
75)	36.23	206	a10	2.3-DMP	65	0
76)	36.33	206	a10	1.9+4.9+4.10-DMP	92	0
77)	36.63	206	a10	1.8-DMP	43	0
Retene:						
78)	39.94	219	a8	Retene	57	0
Triaromatic steroids:						
80)	44.41	231	a11	20TA	13	0
81)	46.27	231	a11	21TA	9	0
82)	53.20	231	a11	S26TA	20	0
83)	54.44	231	a11	R26TA/S27TA	17	0
84)	55.41	231	a11	S28TA	10	0
85)	55.95	231	a11	R27TA	11	0
86)	57.16	231	a11	R28TA	11	0

Aromatic hydrocarbons

GC/MS detection HP-6890/5973

Ratios, from heights and amounts



Norsk Hydro E&P Research Centre, Bergen, Norway
Petroleum Geochemistry Laboratories

Data file name: 2750A.D
Sample name: 2750, 35/9-3T2, mud, aro
Data File Path: C:\HPCHEM\1\DATA\35_9_3\
Misc. info.:

Vial no.: 32
Method: MSD_A_D
Operator: Reidun
Date: Wed Mar 11 13:23:21 199E

Aromatic HC ratios, heights and amounts

		Height	Amount
Naphthalene	Naphthalene	1212	0
C1 Naphthanes	Sum C1 Naphthanes	2107	1
C2 Naphthanes	Sum C2 Naphthanes	1952	0
C3 Naphthanes	Sum C3 Naphthanes	1287	0
Phenanthrene	Phenanthrene	1741	0
C1 Phenanthrenes	Sum C1 Phenanthrenes	1770	0
C2 Phenanthrenes	Sum C2 Phenanthrenes	1406	0
$3/2 \cdot (3MP+2MP)/(P+9MP+1MP)$	MPI1	0.5	0.5
$(3MP+2MP)/(3MP+2MP+9MP+1MP)$	F1	0.5	0.5
$2MP/(3MP+2MP+9MP+1MP)$	F2	0.3	0.3
$(2.6+2.7)DMN/1.5DMN$	DNR	3.6	3.6
$100 \cdot 20TA/(20TA+S28TA+R28TA)$	%-TAS'n	38.2	38.2
DBT/P	DBT/P	0.1	0.0
F/P	F/P	0.2	0.3
BP/1.6DMN	BP/1.6DMN	1.3	0.9
2MN/1MN	2MN/1MN	1.4	1.4
2EN/1EN	2EN/1EN	2.3	2.3
4MDBT/1MDBT	4MDBT/1MDBT	4.9	4.9

Aromatic hydrocarbons

GC/MS detection HP-6890/5973

Compound data



Norsk Hydro E&P Research Centre, Bergen, Norway
Petroleum Geochemistry Laboratories

Data file name: NSO1A_22.D
Sample name: nso1 ref. aro
Data File Path: C:\HPCHEM\1\DATA\35_9_3\
Misc. info.:

Vial no.: 20
Method: MSD_A_D
Operator: Reidun
Date: Tue Mar 10 19:38:46 1998

Response curve: $y = ax + b$
Response factor groups: a1...a11, responses as defined in method

#	Rt.min.	m/z	Rf.	Name	Height	Amount
					ng/mg	
Internal standard (if added):						
14)	11.54	136		d8N	12747	52
16)	20.98	164		d10BP	13748	50
59)	29.34	188		d10P	28486	52
79)	44.79	240		d12C	21140	52
Aryl isoprenoids:						
1)	20.51	133	0	C13AI	8216	
2)	22.34	133	0	C14AI	4168	
3)	26.71	133	0	C15AI	2145	
4)	28.96	133	0	C16AI	2674	
5)	31.11	133	0	C17AI	2318	
6)	33.99	133	0	C18AI	1772	
7)	34.98	133	0	C19AI	519	
8)	37.95	133	0	C20AI	852	
9)	39.95	133	0	C21AI	180	
10)	42.98	133	0	C22AI	726	
11)	45.01	133	0	C23AI	705	
12)	55.97	133	0	C30AI	514	
13)	56.96	133	0	C31AI	176	
Naphthalenes:						
15)	11.63	128	a1	N	244206	910
17)	15.21	142	a2	2-MN	392192	1354
18)	15.75	142	a2	1-MN	305369	1055
19)	18.37	156	a3	2-EN	38128	123
20)	18.49	156	a3	1-EN	19378	63
21)	18.72	156	a3	2.6+2.7-DMN	179614	582
22)	19.18	156	a3	1.3+1.7-DMN	279119	904
23)	19.28	156	a3	1.6-DMN	218556	708
24)	19.77	156	a3	2.3+1.4-DMN	101673	329
25)	19.88	156	a3	1.5-DMN	57133	185
26)	20.24	156	a3	1.2-DMN	38781	126
27)	21.94	170	a4	C3-N-1	20675	68
28)	22.31	170	a4	C3-N-2	21231	70
29)	22.42	170	a4	1.3.7-TMN	93752	309
30)	22.56	170	a4	1.3.6-TMN	138263	455
31)	23.04	170	a4	1.3.5+1.4.6-TMN	118006	389
32)	23.11	170	a4	2.3.6-TMN	83294	274
33)	23.53	170	a4	1.6.7+1.2.7-TMN	69583	229
34)	23.59	170	a4	1.2.6-TMN	45484	150
35)	24.01	170	a4	1.2.4-TMN	13683	45
36)	24.23	170	a4	1.2.5-TMN	48520	160
Biphenyls:						
37)	17.92	154	a5	BP	111360	253
38)	21.21	168	a5	3-MBP	109466	248
39)	21.47	168	a5	4-MBP	38936	88
40)	21.53	182	a4	2.3'-DMBP	4622	15
41)	21.73	182	a4	2.5'-DMBP	2238	7
42)	21.90	182	a4	2.4+2.4'-DMBP	4205	14
43)	22.52	182	a4	2.3'-DMBP	8403	28
44)	23.90	182	a4	3-EBP	10778	35
45)	24.23	182	a4	3.5'-DMBP	16455	54
46)	24.33	182	a4	3.3'-DMBP	41472	137
47)	24.44	182	a4	4-EBP	3923	13
48)	24.62	182	a4	3.4'-DMBP	32361	107
49)	24.84	182	a4	4.4'-DMBP	6586	22
50)	25.40	182	a4	3.4'-DMBP	15721	52

#	Rt.min.	m/z	Rf.	Name	Height	Amount
					ng/mg	
Dibenzofuranes:						
51)	22.09	168	a5	DBF	26067	59
52)	25.17	182	a4	MDBF-1	33615	111
53)	25.54	182	a4	MDBF-2	22679	75
54)	25.83	182	a4	MDBF-3	18538	61
Fluorenes:						
55)	24.05	166	a6	F	40689	112
56)	27.27	180	a6	C1-F-1	17544	48
57)	27.51	180	a6	C1-F-2	61195	168
58)	27.81	180	a6	1-MF	11041	30
Dibenzothiophenes:						
60)	28.74	184	a7	DBT	24635	13
61)	31.35	198	a7	4-MDBT	29198	15
62)	31.88	198	a7	3+2-MDBT	8917	5
63)	32.46	198	a7	1-MDBT	9172	5
Phenanthrenes:						
64)	29.47	178	a8	P	156625	239
65)	32.41	192	a9	3-MP	62454	112
66)	32.54	192	a9	2-MP	73506	132
67)	33.02	192	a9	9-MP	108204	194
68)	33.15	192	a9	1-MP	87211	156
69)	35.12	206	a10	2EP+9EP+3.6-DMP	16254	28
70)	35.36	206	a10	1EP	19871	34
71)	35.45	206	a10	2.6+2.7+3.5-DMP	11275	19
72)	35.79	206	a10	1.3+2.10+3.9+3.10-DMP	91214	156
73)	35.93	206	a10	1.6+2.5+2.9-DMP	47726	82
74)	36.08	206	a10	1.7-DMP	46149	79
75)	36.23	206	a10	2.3-DMP	13402	23
76)	36.33	206	a10	1.9+4.9+4.10-DMP	27404	47
77)	36.63	206	a10	1.8-DMP	11811	20
Retene:						
78)	39.95	219	a8	Retene	48685	74
Triaromatic steroids:						
80)	44.41	231	a11	20TA	8394	4
81)	46.28	231	a11	21TA	8847	5
82)	53.24	231	a11	S26TA	8684	5
83)	54.44	231	a11	R26TA/S27TA	25411	13
84)	55.45	231	a11	S28TA	12711	7
85)	55.95	231	a11	R27TA	11266	6
86)	57.17	231	a11	R28TA	13385	7

Aromatic hydrocarbons

GC/MS detection HP-6890/5973

Ratios, from heights and amounts

Norsk Hydro E&P Research Centre, Bergen, Norway
Petroleum Geochemistry LaboratoriesData file name: NSO1A_22.D
Sample name: nso1 ref. aro
Data File Path: C:\HPCHEM\1\DATA\35_9_3\
Misc. info.:Vial no.: 20
Method: MSD_A_D
Operator: Reidun
Date: Tue Mar 10 19:38:46 1998**Aromatic HC ratios, heights and amounts**

		Height	Amount
Naphthalene	Naphthalene	244206	910
C1 Naphthanes	Sum C1 Naphthanes	697561	2409
C2 Naphthanes	Sum C2 Naphthanes	932382	3020
C3 Naphthanes	Sum C3 Naphthanes	652491	2149
Phenanthrene	Phenanthrene	156625	239
C1 Phenanthrenes	Sum C1 Phenanthrenes	331375	594
C2 Phenanthrenes	Sum C2 Phenanthrenes	285106	489
$3/2 \cdot (3MP+2MP)/(P+9MP+1MP)$	MPI1	0.6	0.6
$(3MP+2MP)/(3MP+2MP+9MP+1MP)$	F1	0.4	0.4
$2MP/(3MP+2MP+9MP+1MP)$	F2	0.2	0.2
$(2.6+2.7)DMN/1.5DMN$	DNR	3.1	3.1
$100 \cdot 20TA/(20TA+S28TA+R28TA)$	%-TAS'n	24.3	24.3
DBT/P	DBT/P	0.2	0.1
F/P	F/P	0.3	0.5
BP/1.6DMN	BP/1.6DMN	0.5	0.4
2MN/1MN	2MN/1MN	1.3	1.3
2EN/1EN	2EN/1EN	2.0	2.0
4MDBT/1MDBT	4MDBT/1MDBT	3.2	3.2

Aromatic hydrocarbons

GC/MS detection HP-6890/5973

Compound data



Norsk Hydro E&P Research Centre, Bergen, Norway
Petroleum Geochemistry Laboratories

Data file name: NSO1A_31.D
 Sample name: nso1 ref. aro
 Data File Path: C:\HPCHEM\1\DATA\35_9_3\
 Misc. info.:
 Vial no.: 20
 Method: MSD_A_D
 Operator: Reidun
 Date: Wed Mar 11 07:28:12 199E
 Response curve: $y = ax + b$
 Response factor groups: a1...a11, responses as defined in method

#	Rt.min.	m/z	Rf.	Name	Height	Amount
					ng/mg	

Internal standard (if added):

14)	11.57	136		d8N	14121	52
16)	21.01	164		d10BP	15689	50
59)	29.37	188		d10P	30880	52
79)	44.83	240		d12C	24717	52

Aryl isoprenoids:

1)	20.54	133	0	C13AI	8995	
2)	22.38	133	0	C14AI	4446	
3)	26.73	133	0	C15AI	2160	
4)	28.99	133	0	C16AI	2690	
5)	31.03	133	0	C17AI	783	
6)	34.03	133	0	C18AI	1852	
7)	35.01	133	0	C19AI	533	
8)	37.97	133	0	C20AI	768	
9)	39.98	133	0	C21AI	134	
10)	43.00	133	0	C22AI	796	
11)	44.97	133	0	C23AI	684	
12)	55.99	133	0	C30AI	482	
13)	57.01	133	0	C31AI	116	

Naphthalenes:

15)	11.66	128	a1	N	271195	912
17)	15.23	142	a2	2-MN	423406	1281
18)	15.78	142	a2	1-MN	333604	1010
19)	18.40	156	a3	2-EN	41846	119
20)	18.52	156	a3	1-EN	20761	59
21)	18.74	156	a3	2.6+2.7-DMN	196547	558
22)	19.22	156	a3	1.3+1.7-DMN	301930	857
23)	19.32	156	a3	1.6-DMN	235714	669
24)	19.80	156	a3	2.3+1.4-DMN	106751	303
25)	19.92	156	a3	1.5-DMN	64620	183
26)	20.27	156	a3	1.2-DMN	42499	121
27)	21.96	170	a4	C3-N-1	23024	66
28)	22.33	170	a4	C3-N-2	23268	67
29)	22.45	170	a4	1.3.7-TMN	100972	291
30)	22.59	170	a4	1.3.6-TMN	148921	430
31)	23.07	170	a4	1.3.5+1.4.6-TMN	129002	372
32)	23.15	170	a4	2.3.6-TMN	89508	258
33)	23.55	170	a4	1.6.7+1.2.7-TMN	74569	215
34)	23.62	170	a4	1.2.6-TMN	48143	139
35)	24.05	170	a4	1.2.4-TMN	15229	44
36)	24.25	170	a4	1.2.5-TMN	51377	148

Biphenyls:

37)	17.94	154	a5	BP	121973	243
38)	21.24	168	a5	3-MBP	122029	243
39)	21.49	168	a5	4-MBP	41620	83
40)	21.56	182	a4	2.3'-DMBP	4737	14
41)	21.76	182	a4	2.5-DMBP	2337	7
42)	21.93	182	a4	2.4+2.4'-DMBP	4572	13
43)	22.55	182	a4	2.3-DMBP	8920	26
44)	23.94	182	a4	3-EBP	11501	33
45)	24.25	182	a4	3.5-DMBP	17590	51
46)	24.36	182	a4	3.3'-DMBP	44731	129
47)	24.47	182	a4	4-EBP	4062	12
48)	24.65	182	a4	3.4'-DMBP	33829	98
49)	24.86	182	a4	4.4'-DMBP	6906	20
50)	25.42	182	a4	3.4-DMBP	16997	49

#	Rt.min.	m/z	Rf.	Name	Height	Amount
					ng/mg	

Dibenzofuranes:

51)	22.12	168	a5	DBF	28103	56
52)	25.19	182	a4	MDBF-1	34539	100
53)	25.56	182	a4	MDBF-2	23845	69
54)	25.86	182	a4	MDBF-3	20988	61

Fluorenes:

55)	24.08	166	a6	F	44173	107
56)	27.29	180	a6	C1-F-1	18192	44
57)	27.54	180	a6	C1-F-2	67536	163
58)	27.84	180	a6	1-MF	12098	29

Dibenzothiophenes:

60)	28.77	184	a7	DBT	26033	13
61)	31.39	198	a7	4-MDBT	32536	16
62)	31.90	198	a7	3+2-MDBT	9290	5
63)	32.49	198	a7	1-MDBT	9694	5

Phenanthrenes:

64)	29.49	178	a8	P	166604	235
65)	32.44	192	a9	3-MP	70639	117
66)	32.57	192	a9	2-MP	76251	126
67)	33.06	192	a9	9-MP	112946	187
68)	33.18	192	a9	1-MP	89740	148
69)	35.15	206	a10	2EP+9EP+3.6-DMP	17104	27
70)	35.38	206	a10	1EP	21976	35
71)	35.48	206	a10	2.6+2.7+3.5-DMP	12844	20
72)	35.82	206	a10	1.3+2.10+3.9+3.10-DMP	94756	150
73)	35.97	206	a10	1.6+2.5+2.9-DMP	54565	86
74)	36.10	206	a10	1.7-DMP	48573	77
75)	36.26	206	a10	2.3-DMP	14248	23
76)	36.37	206	a10	1.9+4.9+4.10-DMP	29060	46
77)	36.66	206	a10	1.8-DMP	12572	20

Retene:

78)	39.98	219	a8	Retene	51686	73
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Triaromatic steroids:

80)	44.44	231	a11	20TA	9250	4
81)	46.31	231	a11	21TA	9875	4
82)	53.27	231	a11	S26TA	9610	4
83)	54.48	231	a11	R26TA/S27TA	27819	13
84)	55.48	231	a11	S28TA	14417	7
85)	55.97	231	a11	R27TA	12374	6
86)	57.20	231	a11	R28TA	15376	7

Aromatic hydrocarbons

GC/MS detection HP-6890/5973

Ratios, from heights and amounts



Norsk Hydro E&P Research Centre, Bergen, Norway
Petroleum Geochemistry Laboratories

Data file name: NSO1A_31.D
Sample name: nso1 ref. aro
Data File Path: C:\HPCHEM\1\DATA\35_9_3\
Misc. info.:

Vial no.: 20
Method: MSD_A_D
Operator: Reidun
Date: Wed Mar 11 07:28:12 1998

Aromatic HC ratios, heights and amounts

		Height	Amount
Naphthalene	Naphthalene	271195	912
C1 Naphthanes	Sum C1 Naphthanes	757010	2291
C2 Naphthanes	Sum C2 Naphthanes	1010668	2868
C3 Naphthanes	Sum C3 Naphthanes	704013	2032
Phenanthrene	Phenanthrene	166604	235
C1 Phenanthrenes	Sum C1 Phenanthrenes	349576	578
C2 Phenanthrenes	Sum C2 Phenanthrenes	305698	484
$3/2 \cdot (3MP+2MP)/(P+9MP+1MP)$	MPI1	0.6	0.6
$(3MP+2MP)/(3MP+2MP+9MP+1MP)$	F1	0.4	0.4
$2MP/(3MP+2MP+9MP+1MP)$	F2	0.2	0.2
(2.6+2.7)DMN/1.5DMN	DNR	3.0	3.0
100*20TA/(20TA+S28TA+R28TA)	%-TAS'n	23.7	23.7
DBT/P	DBT/P	0.2	0.1
F/P	F/P	0.3	0.5
BP/1.6DMN	BP/1.6DMN	0.5	0.4
2MN/1MN	2MN/1MN	1.3	1.3
2EN/1EN	2EN/1EN	2.0	2.0
4MDBT/1MDBT	4MDBT/1MDBT	3.4	3.4

Aromatic hydrocarbons

GC/MS detection HP-690/5973

Compound data



Norsk Hydro E&P Research Centre, Bergen, Norway
Petroleum Geochemistry Laboratories

Data file name: NSO1A_39.D
Sample name: nso1 ref. aro
Data File Path: C:\HPCHEM\1\DATA\35_9_3\
Misc. info.:

Vial no.: 20
Method: MSD_A_D
Operator: Reidun
Date: Thu Mar 12 11:58:00 1998

Response curve: $y = ax + b$
Response factor groups: a1...a11, responses as defined in method

#	Rt.min.	m/z	Rf.	Name	Height	Amount
					ng/mg	
Internal standard (if added):						
14)	11.54	136		d8N	28735	52
16)	20.97	164		d10BP	30338	50
59)	29.34	188		d10P	58673	52
79)	44.79	240		d12C	44065	52
Aryl isoprenoids:						
1)	20.51	133	0	C13AI	16319	
2)	22.34	133	0	C14AI	8470	
3)	26.71	133	0	C15AI	4134	
4)	28.95	133	0	C16AI	5657	
5)	31.00	133	0	C17AI	1486	
6)	33.98	133	0	C18AI	3381	
7)	34.97	133	0	C19AI	1389	
8)	37.95	133	0	C20AI	1646	
9)	40.04	133	0	C21AI	1121	
10)	42.98	133	0	C22AI	1584	
11)	44.99	133	0	C23AI	1267	
12)	55.95	133	0	C30AI	1029	
13)	56.98	133	0	C31AI	317	
Naphthalenes:						
15)	11.63	128	a1	N	589724	975
17)	15.21	142	a2	2-MN	888611	1391
18)	15.75	142	a2	1-MN	702469	1099
19)	18.36	156	a3	2-EN	82363	121
20)	18.48	156	a3	1-EN	41624	61
21)	18.72	156	a3	2.6+2.7-DMN	405459	595
22)	19.18	156	a3	1.3+1.7-DMN	596085	875
23)	19.28	156	a3	1.6-DMN	505170	741
24)	19.77	156	a3	2.3+1.4-DMN	221746	325
25)	19.88	156	a3	1.5-DMN	137160	201
26)	20.24	156	a3	1.2-DMN	87266	128
27)	21.92	170	a4	C3-N-1	42064	63
28)	22.29	170	a4	C3-N-2	44950	67
29)	22.41	170	a4	1.3.7-TMN	186415	278
30)	22.56	170	a4	1.3.6-TMN	290526	434
31)	23.03	170	a4	1.3.5+1.4.6-TMN	249146	372
32)	23.11	170	a4	2.3.6-TMN	184646	276
33)	23.53	170	a4	1.6.7+1.2.7-TMN	142698	213
34)	23.58	170	a4	1.2.6-TMN	96161	144
35)	24.01	170	a4	1.2.4-TMN	29375	44
36)	24.21	170	a4	1.2.5-TMN	98487	147
Biphenyls:						
37)	17.92	154	a5	BP	251343	258
38)	21.20	168	a5	3-MBP	237706	244
39)	21.47	168	a5	4-MBP	81429	84
40)	21.52	182	a4	2.3'-DMBP	9588	14
41)	21.72	182	a4	2.5'-DMBP	4398	7
42)	21.90	182	a4	2.4+2.4'-DMBP	8509	13
43)	22.51	182	a4	2.3'-DMBP	17194	26
44)	23.90	182	a4	3-EBP	23635	35
45)	24.23	182	a4	3.5'-DMBP	34314	51
46)	24.33	182	a4	3.3'-DMBP	85294	127
47)	24.43	182	a4	4-EBP	8224	12
48)	24.62	182	a4	3.4'-DMBP	64472	96
49)	24.82	182	a4	4.4'-DMBP	12755	19
50)	25.38	182	a4	3.4'-DMBP	33427	50

#	Rt.min.	m/z	Rf.	Name	Height	Amount
					ng/mg	
Dibenzofuranes:						
51)	22.08	168	a5	DBF	54892	56
52)	25.17	182	a4	MDBF-1	72227	108
53)	25.54	182	a4	MDBF-2	48023	72
54)	25.83	182	a4	MDBF-3	37213	56
Fluorenes:						
55)	24.05	166	a6	F	83101	104
56)	27.27	180	a6	C1-F-1	34936	44
57)	27.50	180	a6	C1-F-2	132006	165
58)	27.80	180	a6	1-MF	23502	29
Dibenzothiophenes:						
60)	28.74	184	a7	DBT	49386	13
61)	31.35	198	a7	4-MDBT	62544	16
62)	31.88	198	a7	3+2-MDBT	18153	5
63)	32.45	198	a7	1-MDBT	17962	5
Phenanthrenes:						
64)	29.47	178	a8	P	314433	233
65)	32.40	192	a9	3-MP	132026	115
66)	32.54	192	a9	2-MP	149352	130
67)	33.02	192	a9	9-MP	208617	182
68)	33.15	192	a9	1-MP	168650	147
69)	35.12	206	a10	2EP+9EP+3.6-DMP	33704	28
70)	35.35	206	a10	1EP	41354	34
71)	35.44	206	a10	2.6+2.7+3.5-DMP	23041	19
72)	35.79	206	a10	1.3+2.10+3.9+3.10-DMP	177907	148
73)	35.93	206	a10	1.6+2.5+2.9-DMP	98594	82
74)	36.08	206	a10	1.7-DMP	92551	77
75)	36.22	206	a10	2.3-DMP	27245	23
76)	36.33	206	a10	1.9+4.9+4.10-DMP	55179	46
77)	36.63	206	a10	1.8-DMP	23403	19
Retene:						
78)	39.95	219	a8	Retene	93824	70
Triaromatic steroids:						
80)	44.41	231	a11	20TA	16457	4
81)	46.28	231	a11	21TA	19535	5
82)	53.24	231	a11	S26TA	17258	4
83)	54.45	231	a11	R26TA/S27TA	49197	13
84)	55.45	231	a11	S28TA	24542	6
85)	55.95	231	a11	R27TA	22278	6
86)	57.16	231	a11	R28TA	25599	7

Aromatic hydrocarbons

GC/MS detection HP-6890/5973

Ratios, from heights and amounts

Norsk Hydro E&P Research Centre, Bergen, Norway
 Petroleum Geochemistry Laboratories

Data file name NSO1A_39.D
 Sample name: nso1 ref. aro
 Data File Path C:\HPCHEM\1\DATA\35_9_3\
 Misc. info.:

Vial no.: 20
 Method: MSD_A_D
 Operator: Reidun
 Date: Thu Mar 12 11:58:00 1998

Aromatic HC ratios, heights and amounts

		Height	Amount
Naphthalene	Naphthalene	589724	975
C1 Naphthanes	Sum C1 Naphthanes	1591080	2490
C2 Naphthanes	Sum C2 Naphthanes	2076873	3048
C3 Naphthanes	Sum C3 Naphthanes	1364468	2037
Phenanthrene	Phenanthrene	314433	233
C1 Phenanthrenes	Sum C1 Phenanthrenes	658645	573
C2 Phenanthrenes	Sum C2 Phenanthrenes	572978	477
$3/2 \cdot (3MP+2MP)/(P+9MP+1MP)$	MPI1	0.6	0.7
$(3MP+2MP)/(3MP+2MP+9MP+1MP)$	F1	0.4	0.4
$2MP/(3MP+2MP+9MP+1MP)$	F2	0.2	0.2
(2.6+2.7)DMN/1.5DMN	DNR	3.0	3.0
$100 \cdot 20TA/(20TA+S28TA+R28TA)$	%-TAS'n	24.7	24.7
DBT/P	DBT/P	0.2	0.1
F/P	F/P	0.3	0.4
BP/1.6DMN	BP/1.6DMN	0.5	0.3
2MN/1MN	2MN/1MN	1.3	1.3
2EN/1EN	2EN/1EN	2.0	2.0
4MDBT/1MDBT	4MDBT/1MDBT	3.5	3.5

Aromatic hydrocarbons

GC/MS detection HP-6890/5973

Compound data



Norsk Hydro E&P Research Centre, Bergen, Norway
Petroleum Geochemistry Laboratories

Data file name: NSO1_29A.D
Sample name: nso1 ref.sample ARO #29
Data File Path: C:\HPCHEM\1\DATA\VISUND\1
Misc. info.:
Vial no.: 1
Method: MSD_A_D
Operator:
Date: Wed Apr 29 09:23:49 1998
Response curve: y = ax+b
Response factor groups: a1...a11, responses as defined in method

#	Rt.min.	m/z	Rf.	Name	Height	Amount
					ng/mg	
Internal standard (if added):						
14)	11.54	136		d8N	19798	52
16)	20.98	164		d10BP	21676	50
59)	29.35	188		d10P	38623	52
79)	44.81	240		d12C	33430	52
Aryl isoprenoids:						
1)	20.51	133	0	C13AI	11283	
2)	22.36	153	0	C14AI	5930	
3)	26.72	133	0	C15AI	2680	
4)	28.95	133	0	C16AI	3491	
5)	31.00	133	0	C17AI	946	
6)	33.94	133	0	C18AI	2854	
7)	34.98	133	0	C19AI	967	
8)	37.95	133	0	C20AI	1173	
9)	40.05	133	0	C21AI	805	
10)	42.99	133	0	C22AI	1126	
11)	45.02	133	0	C23AI	838	
12)	55.97	133	0	C30AI	727	
13)	56.96	133	0	C31AI	308	
Naphthalenes:						
15)	11.65	128	a1	N	395352	949
17)	15.22	142	a2	2-MN	636305	1394
18)	15.77	142	a2	1-MN	509598	1116
19)	18.38	156	a3	2-EN	60360	124
20)	18.49	156	a3	1-EN	29258	60
21)	18.73	156	a3	2.6+2.7-DMN	288632	593
22)	19.20	156	a3	1.3+1.7-DMN	404502	831
23)	19.30	156	a3	1.6-DMN	347728	714
24)	19.79	156	a3	2.3+1.4-DMN	158616	326
25)	19.89	156	a3	1.5-DMN	96732	199
26)	20.26	156	a3	1.2-DMN	61827	127
27)	21.94	170	a4	C3-N-1	30272	63
28)	22.31	170	a4	C3-N-2	30150	63
29)	22.43	170	a4	1.3.7-TMN	131643	275
30)	22.57	170	a4	1.3.6-TMN	194773	407
31)	23.04	170	a4	1.3.5+1.4.6-TMN	164369	343
32)	23.12	170	a4	2.3.6-TMN	126360	264
33)	23.53	170	a4	1.6.7+1.2.7-TMN	95766	200
34)	23.59	170	a4	1.2.6-TMN	63174	132
35)	24.02	170	a4	1.2.4-TMN	19598	41
36)	24.23	170	a4	1.2.5-TMN	69550	145
Biphenyls:						
37)	17.93	154	a5	BP	177868	256
38)	21.21	168	a5	3-MBP	163743	236
39)	21.47	168	a5	4-MBP	55200	79
40)	21.53	182	a4	2.3'-DMBP	6677	14
41)	21.73	182	a4	2.5-DMBP	3202	7
42)	21.90	182	a4	2.4+2.4'-DMBP	6055	13
43)	22.52	182	a4	2.3-DMBP	11946	25
44)	23.91	182	a4	3-EBP	15482	32
45)	24.24	182	a4	3.5-DMBP	22189	46
46)	24.34	182	a4	3.3'-DMBP	57991	121
47)	24.44	182	a4	4-EBP	5747	12
48)	24.63	182	a4	3.4'-DMBP	44192	92
49)	24.84	182	a4	4.4'-DMBP	9063	19
50)	25.40	182	a4	3.4-DMBP	22885	48

#	Rt.min.	m/z	Rf.	Name	Height	Amount
					ng/mg	
Dibenzofuranes:						
51)	22.09	168	a5	DBF	39722	57
52)	25.18	182	a4	MDBF-1	48680	102
53)	25.54	182	a4	MDBF-2	33415	70
54)	25.83	182	a4	MDBF-3	25202	53
Fluorenes:						
55)	24.05	166	a6	F	57572	100
56)	27.27	180	a6	C1-F-1	23041	40
57)	27.51	180	a6	C1-F-2	84057	147
58)	27.81	180	a6	1-MF	15676	27
Dibenzothiophenes:						
60)	28.76	184	a7	DBT	32120	13
61)	31.36	198	a7	4-MDBT	42670	17
62)	31.89	198	a7	3+2-MDBT	12186	5
63)	32.46	198	a7	1-MDBT	12382	5
Phenanthrenes:						
64)	29.48	178	a8	P	220444	248
65)	32.42	192	a9	3-MP	92361	122
66)	32.55	192	a9	2-MP	101512	134
67)	33.04	192	a9	9-MP	141776	187
68)	33.17	192	a9	1-MP	119294	158
69)	35.13	206	a10	2EP+9EP+3.6-DMP	22396	28
70)	35.36	206	a10	1EP	27798	35
71)	35.45	206	a10	2.6+2.7+3.5-DMP	16564	21
72)	35.80	206	a10	1.3+2.10+3.9+3.10-DMP	121808	154
73)	35.95	206	a10	1.6+2.5+2.9-DMP	67281	85
74)	36.09	206	a10	1.7-DMP	63219	80
75)	36.24	206	a10	2.3-DMP	17786	22
76)	36.35	206	a10	1.9+4.9+4.10-DMP	39081	49
77)	36.64	206	a10	1.8-DMP	16457	21
Retene:						
78)	39.96	219	a8	Retene	65919	74
Triaromatic steroids:						
80)	44.42	231	a11	20TA	11591	4
81)	46.29	231	a11	21TA	12881	4
82)	53.25	231	a11	S26TA	12560	4
83)	54.45	231	a11	R26TA/S27TA	37119	12
84)	55.44	231	a11	S28TA	17974	6
85)	55.95	231	a11	R27TA	16691	6
86)	57.17	231	a11	R28TA	21519	7

Aromatic hydrocarbons

GC/MS detection HP-6890/5973

Ratios, from heights and amounts

Norsk Hydro E&P Research Centre, Bergen, Norway
 Petroleum Geochemistry Laboratories

Data file name: NSO1_29A.D
 Sample name: nso1 ref.sample ARO #29
 Data File Path: C:\HPCHEM\1\DATA\VISUND2\
 Misc. info.:

Vial no.: 1
 Method: MSD_A_D
 Operator:
 Date: Wed Apr 29 09:23:49 1998

Aromatic HC ratios, heights and amounts

		Height	Amount
Naphthalene	Naphthalene	395352	949
C1 Naphthanes	Sum C1 Naphthanes	1145903	2510
C2 Naphthanes	Sum C2 Naphthanes	1447655	2974
C3 Naphthanes	Sum C3 Naphthanes	925655	1934
Phenanthrene	Phenanthrene	220444	248
C1 Phenanthrenes	Sum C1 Phenanthrenes	454943	602
C2 Phenanthrenes	Sum C2 Phenanthrenes	392390	496
$3/2 \cdot (3MP+2MP)/(P+9MP+1MP)$	MPI1	0.6	0.6
$(3MP+2MP)/(3MP+2MP+9MP+1MP)$	F1	0.4	0.4
$2MP/(3MP+2MP+9MP+1MP)$	F2	0.2	0.2
(2.6+2.7)DMN/1.5DMN	DNR	3.0	3.0
100*20TA/(20TA+S28TA+R28TA)	%-TAS'n	22.7	22.7
DBT/P	DBT/P	0.1	0.1
F/P	F/P	0.3	0.4
BP/1.6DMN	BP/1.6DMN	0.5	0.4
2MN/1MN	2MN/1MN	1.2	1.2
2EN/1EN	2EN/1EN	2.1	2.1
4MDBT/1MDBT	4MDBT/1MDBT	3.4	3.4