

2.5

WELLSITE WIRELINE MULTI-FORMATION TEST

esso expro norway inc wellsite wireline multi-formation test form b
 16/1-3 well wellsite representative: g.p. chessel date: aug. 30/82
 page 1 of 1.

depth correlation log: company: present mud wt: measured from:
 g.r. dresser a. 9.8 ppg rkb.

test no.	depth	initial hyd.	draw down	form. press	equ mudwt	final hyd.	shut-in time	remarks
1	2440.0	4215	3420	3569	8.57	4213	0.35	ok
2	2703	4666	3790	3960	8.58	4664	0.42	ok
3	2660	4595	-	-	-	-	-	no seal
4	2659.4	4594	-	-	-	-	-	no seal
5	2635	4551	3550	3863	8.59	4551	0.41	ok
6	2619	4525	960	3978	8.90	4526	4.47	tight - ok
7	2376	4113	-	-	-	-	-	no seal
8	2375.5	4111	-	-	-	-	-	no seat (washout)
9	2280	3944	2650	3698	9.5	3944	0.36	ok
10	2262.5	3914	33	3418	8.85	3915	8.37	ok - tight
11	2435.0	4213	3460	3566	-	4210	0.30	ok
12	2239.5	3876	392	3350	8.76	3875	06.45	ok
13	2203	3811	-	-	-	-	-	no seal
14	2205	3817	-	-	-	-	-	no seal
15	-2202.5	3814	-	no-seal				
16	2145.5	3713	2985	3281	8.96	3716	0.40	ok
17	1350	3209	2460	2705	8.57	3209	0.55	ok

FLUID PROPERTIES

WELL 16/1-3

DATE	DEPTH	TIME		WT.	PV.	Y.P.	GELS O/10	WATER LOSS		CAKE THK	CAKE DESC	pH	ALK PF/MF	Rf	Cl mppm	Ca ppm	SOLIDS %	SAND %	OIL %	CEC	OPERATIONS	
		IN	OUT					A.P.I.	g of HT-MP													
28 JULY 82	PIT	2130		8.7	15	35	3 ⁹ / ₄₀					10.8										FV=80
29 JULY 82	192	2200		8.5	16	23	2 ¹ / ₂₄					10.5										FV=75
30 JULY 82	210	2200		8.5	12	16	1 ² / ₁₉			2	NC	10.0										FV=45
31 JULY 82	351	2130		8.9	9	18	1 ² / ₂₅			2	NC	10.5			11000	200	7	1/4	0			FV=38
1 AUG 82	195	2130		8.7	8	16	9/17	NC		2	NC	10.0	15/4		12000	200	5	TR	0			FV=37
2 AUG 82	495	2200		9.0	5	12	8/15	NC		2	NC	10.0	1/3		12000	180	7	1/4	0			FV=32
3 AUG 82	524	2130		10.0	7	11	7/16	NC	-	2	NC	10.0	1/35		11,500	200	9	TR	0	91		FV=24
4 AUG 82	524	2200		8.9	6	10	5/11	NC	-	2	NC	10.5	2/5		9000	40	4	-	96	-		FV=35
5 AUG 82	521	2200		8.8	7	12	6/4					10.5	15/4		10,000	60	4	0	0	16		FV=35
6 AUG 82	497	2130		9.0+	10	14	7/15	10.3		2	SOFT	10.5	4/6		9,500	180	5	TR	0			FV=39
7 AUG 82	682	2230		9.8	9	15	8/17	9.8		2	SOFT	10.5	3/5		11000	220	11	1/2				FV=41
8 AUG 82	1075	2130		9.8	8	12	9/16	10.2		2	FIRM	10.6	23/7		11500	300	9	3/4		24		FV=36
9 AUG 82	1153	1445		10.1	9	14	8/14	9.9		2	FIRM	10.4	2/6		11500	280	10	1/4		23		FV=36
10 AUG 82	1278	2300		10.0	11	16	5/10	4.0		1	FIRM	10.1	2/4		12000	240	8	TR		22		FV=41
11 AUG 82	1278	1600		10.0+	10	15	4/9	3.8			FIRM	10.1	2/4		12000	240	8			22		FV=39
12 AUG 82	1278	2245		9.8	7	9	6/7	14		2	FIRM	9.8	08/25		14000	760	7	1/2	0	25		FV=39
13 AUG 82	1426	1500		9.8	7	10	2/22	8.2		2	FIRM	10.2	11/52		15000	640	8	1/2	0	20		FV=38
14 AUG 82	1662	2200		9.9	11	16	2/18	5.9		1	FIRM	9.5	1/6		16000	560	8	3/4	0	25		FV=41

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FLUID PROPERTIES

WELL 16/1-3

DATE	DEPTH	TIME		WT.	RV.	Y.P.	GELS O/10	WATER LOSS		CAKE THK	CAKE DESC	pH	ALK PT/MF	Rf	Cl mppm	Ca ppm	SOLIDS %	SAND %	OIL %	CEC	OPERATIONS
		IN	OUT					A.P.I.	HT-HP												
15 AUG 82	1890		1510	9.9	18	15	2/12	4.6		1	FIRM	10.6	.24/1.01		17000	320	8	1 1/4	0	21	F. VIS. = 56
15 AUG 82	1951	2130		9.8	17	16	1/6	4.6		1	FIRM	9.9	.19/1.9		17000	320	8	1/2	0	22	F. VIS. = 49
16 AUG 82	2031	2130		10.2	19	16	1/9	3.2		1	FIRM	9.9	.2/1.95		17000	520	8	1/4	0	25.5	F. VIS. = 48
16 AUG 82	2091		2200	10.1	20	15	1/6	3-5		1	FIRM	9.5	.18/1.86		17000	520	8	1/4	0	24	F. VIS. = 49
17 AUG 82	2281		1530	10.5	21	17	4/24	4.6		1	FIRM	10.3	.22/1.95		17000	280	10	1/4	0	27	F. VIS. = 59
17 AUG 82	2282	2115		10.5	16	15	4/26	5.2	20.2	1	FIRM	10.2	.23/1.90		17000	240	10	1/4	0	28	F. VIS. = 54
18 AUG 82	2286		1510	10.5	14	16	1/6	4.8	20.6	2	FIRM	9.6	.30/1.55		17000	400	9.5	1/4	0	25	F. VIS. = 50
18 AUG 82	PIT	2130		10.4	13	10	1/4	4.5		2	FIRM	10.4	.50/1.40		17000	160	10	1/4	0	25	F. VIS. = 46
19 AUG 82	2360		1430	10.5	19	14	1/7	4.6	21.5	1-2	FIRM	10.9	.45/1.53		17500	140	10	1/4	0	28.5	F. VIS. = 57
19 AUG 82	2384	2030		10.5	22	16	2/22	3.3	19.1	1-2	FIRM	10.8	.48/1.30		17500	160	11	1/4	0	29.5	F. VIS. = 59
20 AUG 82	PIT	1830		10.5	18	12	1/8	3.7		1	FIRM	10.6	.32/1.28		17500	180	11	1/4	0	29	F. VIS. = 50
20 AUG 82	2395	2200		10.5	18	15	2/15	4.2	19.0	1-2	FIRM	10.7	.36/1.36		17500	180	10	1/4	0	27	F. VIS. = 58
21 AUG 82	2465	1400		10.5	17	15	1/9	4.0	18.4	1-2	FIRM	10.5	.36/1.21		17000	100	10	1/4	0	26	F. VIS. = 59
21 AUG 82	2497		2030	10.5	16	14	1/5	4.1	18.9	1-2	FIRM	10.8	.55/1.60		17000	80	11	1/4	0	24	F. VIS. = 54
22 AUG 82	2527	0730		10.5	17	15	1/8	3.6	18.6	1-2	FIRM	10.8	.6/1.78		17000	80	11	1/4	0	22.5	F. VIS. = 55
22 AUG 82	PIT	2100		10.5	15	16	1/6	3.5	18.5	1-2	FIRM	10.8	.62/2.0		17000	140	10	1/2	0	27	F. VIS. = 60
23 AUG 82	2549	0630		10.5	16	14	1/11	4.1	17.4	1-2	FIRM	10.3	.43/1.7		16000	160	11	1/2	0	26	F. VIS. = 53
23 AUG 82	PIT	2100		10.6	15	15	2/15	3.7	18.8	1-1	FIRM	9.8	.23/1.6		17000	60	11	1/2	0	29	F. VIS. = 55

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FLUID PROPERTIES

WELL 1613

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DATE	DEPTH	TIME		WT.	RV.	Y.P.	GELS O/10	WATER LOSS		CAKE THK	CAKE DESC	PH	ALK PF/MF	Rf	Cl mppm	Ca ppm	SOLIDS %	SAND %	OIL %	CEC	OPERATIONS
		IN	OUT					A.P.I. OF HT - NP												
24 AUG 82	2583	0500		10.5	16	17	2/8	3.9	18.1	1-2	FIRM	9.5	19/1.4		16000	100	11	1/2	0	29	F.VIS. = 55
24 AUG 82	2614		1430	10.5	18	16	2/21	4.2	18.9	1-2	FIRM	9.7	28/1.4		17000	80	11	1/4	0	27	F.VIS. = 58
25 AUG 82	2631	0845		10.5	16	17	2/16	4.3	17.8	1-2	FIRM	9.7	35/1.5		16500	160	11	1/2	0	26	F.VIS. = 55
25 AUG 82	2635	2130		10.5	15	20	3/19	4.2	18.0	1-2	FIRM	10.2	37/1.7		17000	120	12	1/2	0	58	F.VIS. = 59
26 AUG 82	2638	0800		10.2	14	13	3/17	4.6	18.4	1-2	FIRM	10.2	6/1.5		12500	110	10	TR	0	25	F.VIS. = 58
26 AUG 82	2639		1430	10.0	12	12	2/7	4.9	19.6	1-2	FIRM	10.0	45/1.4		13000	100	9	1/4	0	23	F.VIS. = 50
27 AUG 82	2660	0700		9.8	14	12	2/15	4.7	18.0	1-2	FIRM	10.5	6/1.4		12000	100	8	TR	0	25	F. VIS. = 52
27 AUG 82	2670		1420	9.8	15	12	2/11	4.5	17.6	1-2	FIRM	10.1	1.5/1.3		12000	80	9	1/4	0	25	F. VIS. = 53
28 AUG 82	2658	0830		9.8	14	11	2/8	4.5	18.2	1-2	FIRM	10.3	5/1.3		12000	120	8	TR	0	25	F. VIS. = 50
28 AUG 82	2693		1500	9.8	14	13	2/11	4.6	17.8	1-2	FIRM	10.3	45/1.3		12000	120	8	TR	0	28	F. VIS. = 51
29 AUG 82	2729	0700		9.8	16	13	2/10	4.5	17.6	1-2	FIRM	10.7	7/1.8		12000	80	9	TR	0	28	F. VIS. = 50
29 AUG 82	2738		1530	9.8	18	13	3/10	4.6	17.4	1-2	FIRM	10.5	55/1.55		12500	100	9	TR	0	26	F. VIS. = 53
30 AUG 82	PIT	1100		9.9	18	12	2/8	4.6	18.0	1-2	FIRM	10.0	5/1.5		12000	100	9	TR	0	26	F.VIS. = 60
30 AUG 82	2758		1715	9.8	24	14	3/13	4.5	17.2	1-2	FIRM	10.0	45/1.5		12000	110	10	1/2	0	27	F.VIS. = 85
31 AUG 82	PIT	0900		9.9	16	10	1/7	4.7	18.2	1-2	FIRM	10.2	5/1.4		12000	100	9	TR	0	27.5	F.VIS. = 51
31 AUG 82	2736		1300	9.8	17	10	2/8	4.5	17.8	1-2	FIRM	10.5	7/1.8		12000	100	9	1/4	0	27.5	F.VIS. = 56
1 SEPT	PIT	1400		9.9	14	8	1/6	4.5	18.0	1-2	FIRM	10.0	5/1.7		12000	100	9	TR	0	27	F.VIS. = 54
2 SEPT	PIT	1200		9.9	10	7	1/3	4.6	18.0	1-2	FIRM	9.7	4/1.6		12000	120	8	TR	0	26	F.VIS. = 33

FLUID PROPERTIES

WELL 16/1-3

DATE	DEPTH	TIME		WT.	PV.	Y.P.	GELS O/10	WATER LOSS		CAKE THK	CAKE DESC	PH	ALK PI/MT	RF	Cl mppm	Co ppm	SOLIDS %	SAND %	OIL %	CEC	OPERATIONS
		IN	OUT					A.P.I.	% HT-NP												
3 SEPT 82	PIT	1200		9.8	10	6	1/2	5	19.4	1-3	FIRM	9.5	3/1.5		11000	100	8	TR	0	26	F.VIS = 48
4 SEPT 82	PIT	1400		9.8	11	6	0/1	5.2	19.6	1-3	FIRM	9.5	3/1.5		11000	100	8	TR	0	26	F.VIS = 49
4 SEPT 82	2710	2200		10.5	14	8	1/3	5.2	19.6	1-3	FIRM	9.8	4.5/1.7		11500	140	11	TR	0	25	F.VIS = 49
5 SEPT 82	2741	0600		12.0	18	12	1/22	5.2	21.6	2-4	FIRM	11.5	8/1.8		11500	80	16	TR	0	25	F.VIS = 54
5 SEPT 82	2641	2030		12.0	17	10	1/8	5.1	20.4	2-4	FIRM	10.8	7/1.8		11000	80	15	TR	0	25	F.VIS = 51
6 SEPT 82	PIT	1000		12.0	15	8	1/2	6.1	24.6	2-4	FIRM	11.4	9/1.9		11000	140	15	TR	0	25	F.VIS = 61
6 SEPT 82	2745		1600	11.9	17	9	2/15	6.0	24.2	2-4	FIRM	11.3	8/1.9		11000	120	15	TR	0	25	F.VIS = 56
7 SEPT 82	2770	0600		12.0	20	12	2/11	4.9	20.2	2-4	FIRM	10.8	7.5/1.8		11000	160	16	TR	0	25	F.VIS = 57
7 SEPT 82	2789		1490	12.5	22	11	2/13	4.7	20.4	2-4	FIRM	10.6	6/1.7		11500	220	18	TR	0	26	F.VIS = 57
8 SEPT 82	2817	0800		12.5	22	11	2/8	4.1	17.2	1-3	FIRM	10.5	6.5/1.7		11500	200	18	TR	0	22.5	F.VIS = 68
8 SEPT 82	2835		1500	12.5	20	11	2/6	4.4	17.4	1-3	FIRM	10.6	6.5/1.7		11000	180	17	TR	0	22.5	F.VIS = 67
9 SEPT 82	2877	0900		13.0	21	10	1/7	4.2	16.2	4	FIRM	10.5	7.5/1.55		11000	180	19.5	TR	0	21.5	F.VIS = 57
9 SEPT 82	PIT		1700	13.0	21	10	1/5	4.2	16.4	4	FIRM	10.5	7.5/1.60		11000	180	19.5	TR	0	22	F.VIS = 65
10 SEPT 82	2878	1000		13.0	21	11	1/7	1.6	18.0	4	FIRM	10.3	5.8/1.45		11500	180	19.5	TR	0	21.5	F.VIS = 61
10 SEPT 82	2897		1700	12.95	22	12	2/11	4.8	19.0	4	FIRM	11.1	9.5/1.88		11000	180	19.5	TR	0	22	F.VIS = 59
11 SEPT 82	2954	0800		13.0	23	11	2/11	4.3	19.0	1	FIRM	10.6	7.8/1.92		11000	240	19.5	2/3	0	21.5	F.VIS = 64
11 SEPT 82	2982		1545	13.0	24	12	2/11	4.5	18.6	1	FIRM	11.0	12.5/2.6		11500	180	19.5	1/2	0	21	F.VIS = 65
12 SEPT 82	3024	1600		13.0	22	11	2/10	4.6	18.0	1	FIRM	10.9	9.5/1.95		11500	170	19.5	1/2	0	21	F.VIS = 60

0-0

FLUID PROPERTIES

WELL 16/1-3

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DATE	DEPTH	TIME		WT.	PV.	Y.P.	GELS O/10	WATER LOSS		CAKE THK	CAKE DESC	PH	ALK PI/MT	RI	Cl mppm	Ca ppm	SOLIDS %	SAND %	OIL %	CEC	OPERATIONS
		IN	OUT					A.P.I.	% OF HT-HP												
12 SEPT 82	3028		1730	13.0	24	13	2/10	4.7	18.1	1	FIRM	10.9	98/1.93		11500	170	19.5	1/2	0	22	F.VIS = 66
13 SEPT 82	3077	0900		13.0	23	13	2/13	4.8	19.8	1	FIRM	10.8	90/1.72		11500	180	18.5	1/3	0	21	F.VIS = 65
13 SEPT 82	3089		1615	13.0	26	17	3/21	4.7	19.4	1	FIRM	10.6	68/1.65		11500	250	20	1/2	0	21	F.VIS = 69
14 SEPT 82	3100	2200		13.0	22	13	4/20	5.2	20.0	1	SOLID SOFT	10.5	52/1.20		12000	250	19.5	1/4	0	20.5	F.VIS = 67
15 SEPT 82	3100	0530		13.0	22	11	3/18	5.4	20.2	1	FIRM	11.1	85/1.8		12000	200	19.5	1/4	0	20	F.VIS = 50
15 SEPT 82	PIT	2100		13.0	21	10	2/13	5.1	19.8	1	FIRM	11.2	97/1.95		12000	200	19.5	1/4	0	20	F.VIS = 50
16 SEPT 82	3100	0715		12.7	20	10	2/12	5.6	19.2	1	FIRM	10.8	82/1.65		12300	150	19	1/4	0	19.5	F.VIS = 62
17 SEPT 82	3100	0500		10.7	16	16	3/17	7.3	16.8	1	FIRM	10.0	45/1.98		12000	350	9.5	1/4	0	18.5	F.VIS = 58
17 SEPT 82	3134		1600	10.5	18	11	4/23	7.6	16.2	1	FIRM	9.8	32/1.75		11000	400	9.5	1/4	0	19.5	F.VIS = 50
18 SEPT 82	3223		0816	10.6	13	12	3/8	8.2	21.6	1	FIRM	10.5	25/1.70		12300	320	9	1	0	17.5	F.VIS = 49
18 SEPT 82	3258	1500		10.0	12	11	2/12	7.9	19.6	1	FIRM	11.0	45/1.90		11800	320	9	1/3	0	20.5	F.VIS = 48
19 SEPT 82	PIT	2030		10.1	13	10	3/15	8.2	19.8	1	FIRM	10.6	33/1.68		12000	320	9.5	1/4	0	21	F.VIS = 49
20 SEPT 82	3288		2300	10.0	12	10	2/12	9.2	20.8	1	FIRM	9.9	28/1.55		12500	350	9	1/3	0	20	F.VIS = 47
21 SEPT 82	3355	1030		10.0	10	10	1/10	8.8	21.4	1	FIRM	11.5	75/1.8		12000	120	9	1/4	0	20.5	F.VIS = 47
21 SEPT 82	3380	1645		10.0	13	11	2/14	7.4	19.0	1	FIRM	10.4	75/1.53		12000	140	9	1/4	0	21.5	F.VIS = 51
22 SEPT 82	3458	0836		10.0	18	10	2/13	7.4	21.2	1	FIRM	10.7	40/1.80		13000	300	10	1/4	0	20.5	F.VIS = 49
22 SEPT 82	3484	1645		10.1	13	10	2/13	7.2	22.4	1	FIRM	10.7	40/1.78		13000	300	10	1/4	0	20.5	F.VIS = 52
23 SEPT 82	3450	1500		10.1	10	8	1/7	8.0		1	FIRM	10.1	3/1.8		13000	240	10	TR	0	20	F.VIS = 49

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FLUID PROPERTIES

WELL 16/1-3

DATE	DEPTH	TIME		WT.	PV.	Y.P.	GELS O/10	WATER LOSS		CAKE THK	CAKE DESC	pH	ALK PT/MT	Rf	Cl mppm	Ca ppm	SOLIDS %	SAND %	OIL %	CEC	OPERATIONS	
		IN	OUT					A.P.I.	% OF HT-NP													
23 SEPT 82	3235	2115		10.1	13	11	4/22	8.8	-	2	FIRM	11.0	.55/121		13000	400	10	TR	0	20	F.VIS = 51	
24 SEPT 82	PIT	1215		10.1	10	8	4/17	9.4	-	2	FIRM	12.1	1.2/17		13000	560	10	TR	0	19	F.VIS = 44	
25 SEPT 82	PIT	1145		10.1	9	7	3/16	10.3	-	2	FIRM	12.1	.85/15		13000	480	10	TR	0	20	F.VIS = 43	

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MATERIAL CONSUMPTION

WELL 16/1-3

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DEPTH	BARITE (SX)	BENTONITE(SD) / BULK	LIGNO- SULFONATE	CAUSTIC/ BK. ARG	LIGNITE	N. STERATE RESINEX	DRISPAK SODA ASH	X-C. POLY PIPE LAB	D.D.	CAC-LV/MV	CaCl ₂ (SD) / LO	HRGL / CIP-2L	ECONOLITE / LINE	COST OF MUD	CEMENT	HLXC 248 / HR 2L	DRL WATER	POT. WATER	RIG FUEL	WORKBOAT FUEL	HELICOPTER FUEL	REMARKS
UNIT																						
DATE																						
27-7-82																		17				
28-7-82		0/159	9/0				6/0							2353		1137		35		152		
29-7-82			3/0				2/0							1560	1108	1160		65				LAINO 30" CSG
30-7-82		0/116	2/0	0/1						0/1500				1577		480		65				
31-7-82		0/47	3/0											755	1449	640		70				LAINO DOWN BEUS DUE TO LOST CIRC. IN FORMATION.
1-8-82		0/35	5/0				12/0							824		700		85				
2-8-82	78	0/196	8/0											2736		620		65				
3-8-82	547	0/58												4090		470		70				
4-8-82	1041	0/250	6/0				12/0							9149	2124			45		2.07		LAINO 20" CSG
5-8-82														0		120		44				
6-8-82	234	46/0	3/0				1/0	12/0						1262	36	550		49				
SUB-TOTAL	1900	46/861	39/0	0/1			33/0	12/0	0/1500					24,306	4717	5877		600		3.59		
CUMULATIVE																						

MATERIAL CONSUMPTION

WELL 16/1-3

PAGE 2 OF 6

8-12

UNIT	DEPTH	BARITE (SX) /BULK	BENTONITE SX /BULK	LIGNO. SULFONATE	CAUSTIC/ LIGNINE	BICARB / AL STEARTE	RESINE X/ DRUPAC	SODA ASH/ KX BAY	PIPE LAY/O.D.	CNC-LV/HV	CaCl ₂ (SX)/LQ	HRGL/CAR-ZL	BENTONITE/ LIME	COST OF MUD	CEMENT	MLR 208/ HRZL	DRL WATER	POT. WATER	RIG FUEL	WORKBOAT FUEL	HELICOPTER FUEL	REMARKS
AUG 7	709	554	1/27	16	8/		1/		9					5779		683		97				
AUG 8	1127	1082	1/46	22	11/		4/							7535		600		120				
AUG 9	1278	900	1/93	9	2/		1/		10/					7169		430		90				
AUG 10	1278	161							50/					3356		150		80				
AUG 11	1278	245	28/23											386	1700	1077		90				
AUG 12	1278			5										1906		160		70				
AUG 13	1478	390		51	23	5			29/25					6056		520		100				
AUG 14	1691	186	23	25	31/				20/30					4696		900		90				
AUG 15	1975	832	104	37	34/		2/		46/55					12024		1110		120				
AUG 16	2127	440	11	2	12/				10/30					4732		335		100				
AUG 17	2282	676		3	18/		15	10/	0/15					5583		390		100				
SUB-TOTAL		5466	28/427	170	134/0	0	0/5	18/6	0	174/155	0	0	0	59,222	1700	0	6355	0	1057	0		
CUMULATIVE																						

MATERIAL CONSUMPTION

WELL 16/1-3

PAGE 3 OF 6

UNIT	DEPTH	BARITE (SX) BULK	BENTONITE (BX)	LIGNO-SULFONATE	CAUSTIC / LIGNITE	RESINEX	BRISPAK	SODA ASH	K-C POLY.	PIPE LAX	D.D.	CHEM. L.V.	H.V.	Q.C. (Gr.)	L.Q.	HR.L.	CFR-2L	ECONAITE	LINE	* COST OF MUD	CEMENT	HLXC 24P	HR2L	POT. WATER	RIG FUEL	WORKBOAT FUEL	HELICOPTER FUEL	REMARKS
AUG 18	2290.5	364	41	16/42	0/11															5272			100	65			383	
AUG 19	2384	363	12	32/72	20/14					0/36										9343			250	146				
AUG 20	2397	139	7	5/7	0/1															1206			111	75				
AUG 21	2506	883	100	44/100	0/26															12743			490	123				
AUG 22	2527	337	92	35 18/35	0/5															5273			416	82				
AUG 23	2560	236	92	6/15	0/1															4768			278	82				
AUG 24	2614	390		11/35	0/4															3472			575	128				
AUG 25	2636	104	50	42 25/30	0/4															3550			320	105				
AUG 26	2651	156	231	14 18/14	0/3					25/0										6505			800	100				
AUG 27	2670	105	184	25 6/25	/1					4/										4211			310	90				
AUG 28	2718		8	15/6	/1					9/-										1061			527	110				
SUB-TOTAL		3077	661	272	196/381	0/2	20/67	0	0	38/36	0	0	0	0	0	0	0	0	0	57,404	0	0	4177	0	1106	0	383	
CUMULATIVE																												

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MATERIAL CONSUMPTION

WELL 16/1-3

PAGE 4 OF 6

8-14

UNIT	DEPTH	BARITE (SK) / 22.2K	BENTONITE (6.2) / 22.2K	LIGNO-SULFONATE	CAUSTIC / LIGHT	AL. DEBRIST / RESINER	SOA 45W / DRUM	PIPE LAY / F.C. BLY	D.O.	CRK L.V. / H.V.	CaCl ₂ CSO / L.S.	H ₂ O ₂ / COP-2L	ECOMOLITE / LIME	COST OF MUD	CEMENT	ALAC 2V / H2O	DRL WATER	POT. WATER	RIG FUEL	WORKBOAT FUEL	HELICOPTER FUEL	REMARKS
AVG 29	2738		0/104	10	5/10				10/0					2298			674	160				
AVG 30	2738			8	4/8									341			190	30				LOGGING
AVG 31	2738			15	6/15									620			90	90				LOGGING AND RUNNING 9 5/8" CSG
SEPT 1	2738	7/106	44/0								20/135			1,169	770	180/0	790	65				RUNNING 9 5/8" CSG
SEPT 2	2738													-0-			70	55				
SEPT 3	2738													-0-			190	70				
SEPT 4	2738				5/-				1/-					2212			120	40				
SEPT 5	2741	7/1377		11	6/10				10/6		0/47			9,266	160		280	70				
SEPT 6	2760	7/185	47	18		5/0			10/0					2,884	226		174	89	115			
SEPT 7	2797	7/107		70	4/20									7,709			100	55				
SEPT 8	2856	7/362		50	15/40				12/-					4,310			300	70				
SUB-TOTAL		3017	44/151	182	40/103	10/0	0	0	0	43/0	0	20/182	0	29,859	1,156	0	2,978	89	820	0	0	
CUMULATIVE																						

MATERIAL CONSUMPTION

WELL 16/1-3

PAGE 5 OF 6

8-15

UNIT	DEPTH	BARITE (BX) BULK	BENTONITE (GAL) BULK	LIGNO. SULFONATE	CAUSTIC / LIME	AL. STROBANT	RESINER / DRISPAL	SODA ASH	PIPE LAMP / X-C BUL	CRC LAMP / D/D	Ca Chloride / L.A.	HARZ / LAMP 2L	ECONOMIZER / LAMP	COST OF MUD	CEMENT	ALYC 2 1/2" / #22L	DRL. WATER	POT. WATER	RIG FUEL	WORKBOAT FUEL	HELICOPTER FUEL	REMARKS
SEPT 9	2877	7/806	7/58	10	4/-					3/-				5,482.3		200	45					LEAKING BALL JOINT WELL NEED TO REPAIR.
SEPT 10	2915	7/700	7/12		9/10									4,177.3		270	85					
SEPT 11	3002	7/564												3,906.7		310	110					
SEPT 12	3040	7/189		8	4/15									1,478.7		220	64					
SEPT 13	3100	7/695		12	9/28			1/-						4,555.50		360	86					
SEPT 14	3100													- 0 -		340	40					LOGGING
SEPT 15	3100	7/31		8	8/8									628.60			60					LOGGING
SEPT 16	3100	7/46	7/197	14	8/56									4,348.70		276	50					
SEPT 17	3174	7/111	7/139		15/-			6/-		7/4				2,960.50		634	80					
SEPT 18	3276	7/51	7/104		22/76			6/-		7/8				4,085.20		550	120					
SEPT 19	3276	7/78												421.20		220	40					
SUB-TOTAL		7/3271	7/510	52	79/193	0	0	13/-	0	3/12	0	0	0	30,147.70	0	6,820	0	780	0	0		
CUMULATIVE																						

MATERIAL CONSUMPTION

WELL 16/1-3

8-16

UNIT	DEPTH	BARITE (BX) / BULK	BENTONITE / BULK	LIGNO-SULFONATE	CAUSTIC / BICARB	LIGNITE / AL. SEBAC	RESINEX / DRSOL	SODA ASH / L.C. POLY	PIPE LUB / D.D	CMC. LV / HV	CaCl ₂ (SP) / L.P	MRSL / CCR-2L	ECOLOGICE / LIME	COST OF MUD	CEMENT	AL-C 245 / #22L	DRL. WATER	POT. WATER	RIG FUEL	WORKBOAT FUEL	HELICOPTER FUEL	REMARKS
SEPT 20	3294		4	2/30			3/-							708		160	60					
SEPT 21	3418		4	8/20			3/-		9/1					1,091.40		370	110					
SEPT 22	3498	7/9	7/23	32	10/32	7/2	2/-		8/-					2,634.94		280	85					
SEPT 27	3498	7/51	7/24											594	573	18/172	380	45	60			P & A
SEPT 24		7/51												269	311	8/106	690	103	67			P & A
SEPT 25		7/27												140	1057		160	50	68			P & A
SEPT 26																80	50	90				P & A
SEPT 27																80		67				WOW TO PULL ANCHORS
SEPT 28'																		53				
SUB-TOTAL		208	47	40	26/82	7/2	0	8/-	0	17/1	0	0	0	5437	1961	26/278	2190	248	660	0	0	
CUMULATIVE		16,939	72/1,796	716	519/757	10/5	20/74	72/-	0	287/204	0/1500	20/182	0	205769	9,534	506/278	24857	337	5,023	0	7.42	



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GEOCHEMICAL DATA REPORT FOR WELL 16/1-3

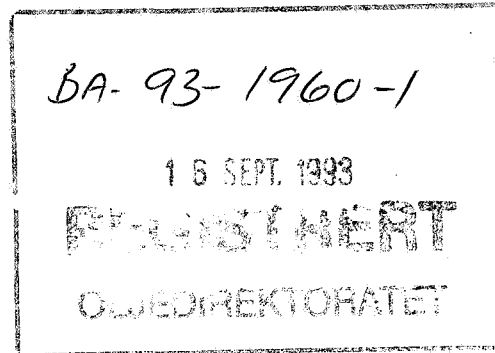
Authors(s)

NIGEL MILLS

Abstract

Nine samples from the cored interval in well 16/1-3 have been analysed by Iatroscan (TLC-FID) and the saturated hydrocarbon fraction from 1 sample was analysed by GC-FID and GC/MS. The aromatic hydrocarbon fraction was also analysed by GC-FID.

NOT INCLUDED IN WELL TRADE.



Key Words

16/1-3, geochemistry, GC-FID, GC/MS, Iatroscan

Classification: Free Saga and partners Internal Confidential Strictly confidential

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1 Objectives

The objective of this study was to characterise the extractable hydrocarbons in nine core samples from well 16/1-3.

3 Samples and analytical scheme

Nine samples were picked from the cored interval in the wells on the 7th of September 1992. All samples were analysed by Iatroscan (TLC-FID), and the saturated hydrocarbon fractions from one sample was analysed by GC-FID and GC/MS. The aromatic hydrocarbon fraction was also analysed by GC-FID.

4 Vitrinite reflectance

No samples were analysed.

5 TOC and Rock Eval

No samples were analysed.

6 Iatroscan (TLC-FID)

Nine samples were analysed, and the results are tabulated in table 1.

7 GC-FID

The saturated and aromatic hydrocarbon fractions from 1 sample were analysed by GC-FID. Since the evaporative loss has affected the relative concentration of individual compounds, no ratios were calculated. The GC-FID chromatograms are shown in figure 1.

8 GC/MS

The saturated hydrocarbon fraction from the samples were analysed by GC/MS and the mass chromatograms for m/z 191, 177, 217 and 218 are shown in figure 2.

9 Stable carbon isotopes

No samples were analysed.

Tab. 1

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

Data for Well 16/1-3

Page 1

Type	St.Depth	En.Depth	Weight (g)	EOM mg/g Rock	EOM mg/g TOC	Sat (mg/g)	Aro (mg/g)	NSO (mg/g)	Asph (mg/g)	Polars (mg/g)	TOC (%)	M/I
CCP	2283.30	2283.30	2.52	5.31		2.59	1.34			1.38		I
CCP	2284.50	2284.50	1.83	7.57		3.68	1.82			2.07		I
CCP	2290.05	2290.05	1.93	0.00		0.00	0.00			0.00		I
CCP	3106.00	3106.00	2.23	0.00		0.00	0.00			0.00		I
CCP	3109.00	3109.00	2.74	0.00		0.00	0.00			0.00		I
CCP	3112.00	3112.00	2.15	0.00		0.00	0.00			0.00		I
CCP	3115.00	3115.00	3.17	0.00		0.00	0.00			0.00		I
CCP	3118.00	3118.00	2.55	0.00		0.00	0.00			0.00		I
CCP	3235.00	3235.00	3.05	0.00		0.00	0.00			0.00		I
Averages this Well:				1.43	0.00	0.70	0.35	0.00	0.00	0.38	0.00	
Averages all Wells:				1.43	0.00	0.70	0.35	0.00	0.00	0.38	0.00	

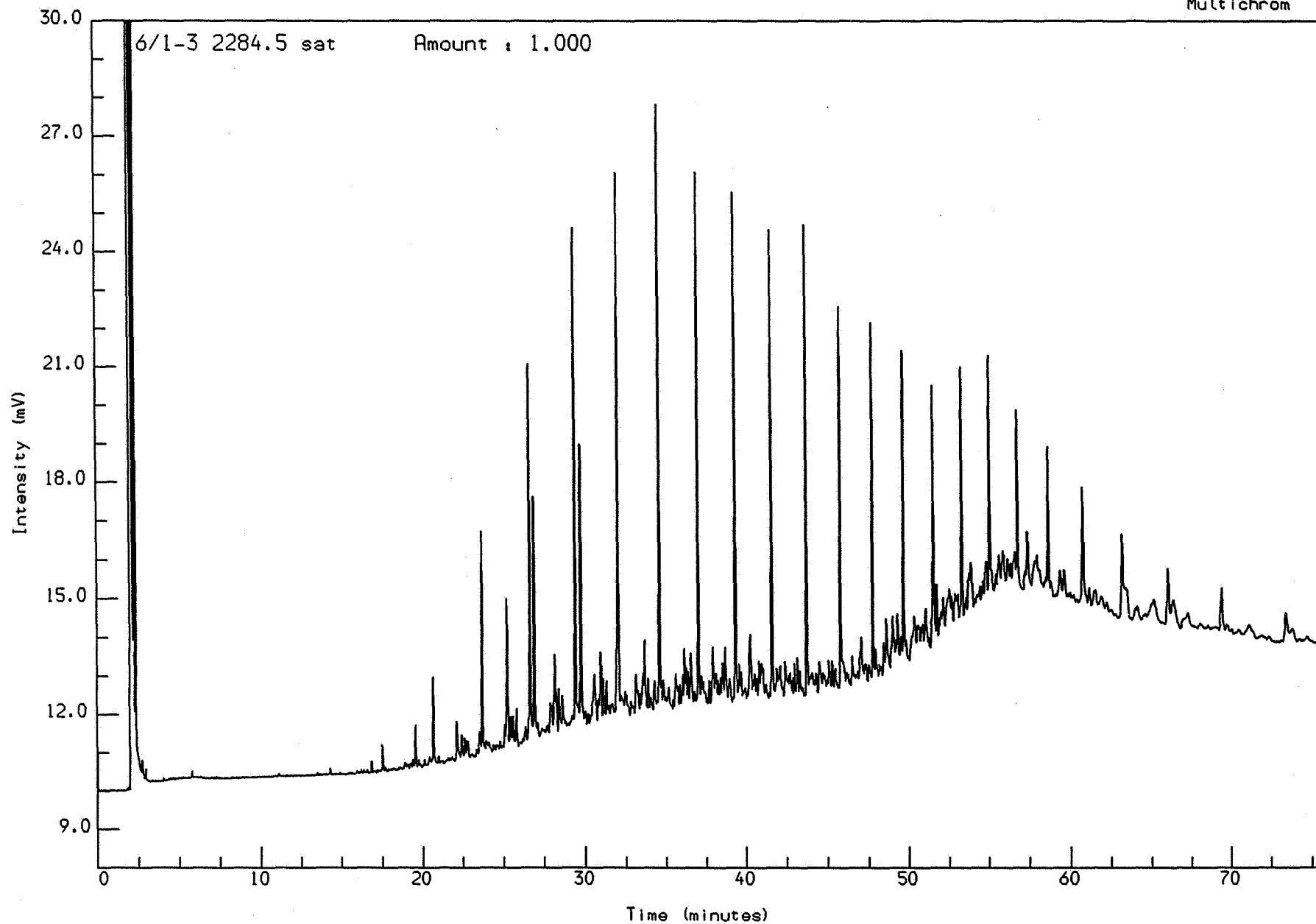
9 RESULT(s) selected ..., from the following search criteria:

Nat: NOR, Well: 16/1-3, Type:
CCP, Depth between: 0.000 and
99999.990 m

Fig. 1

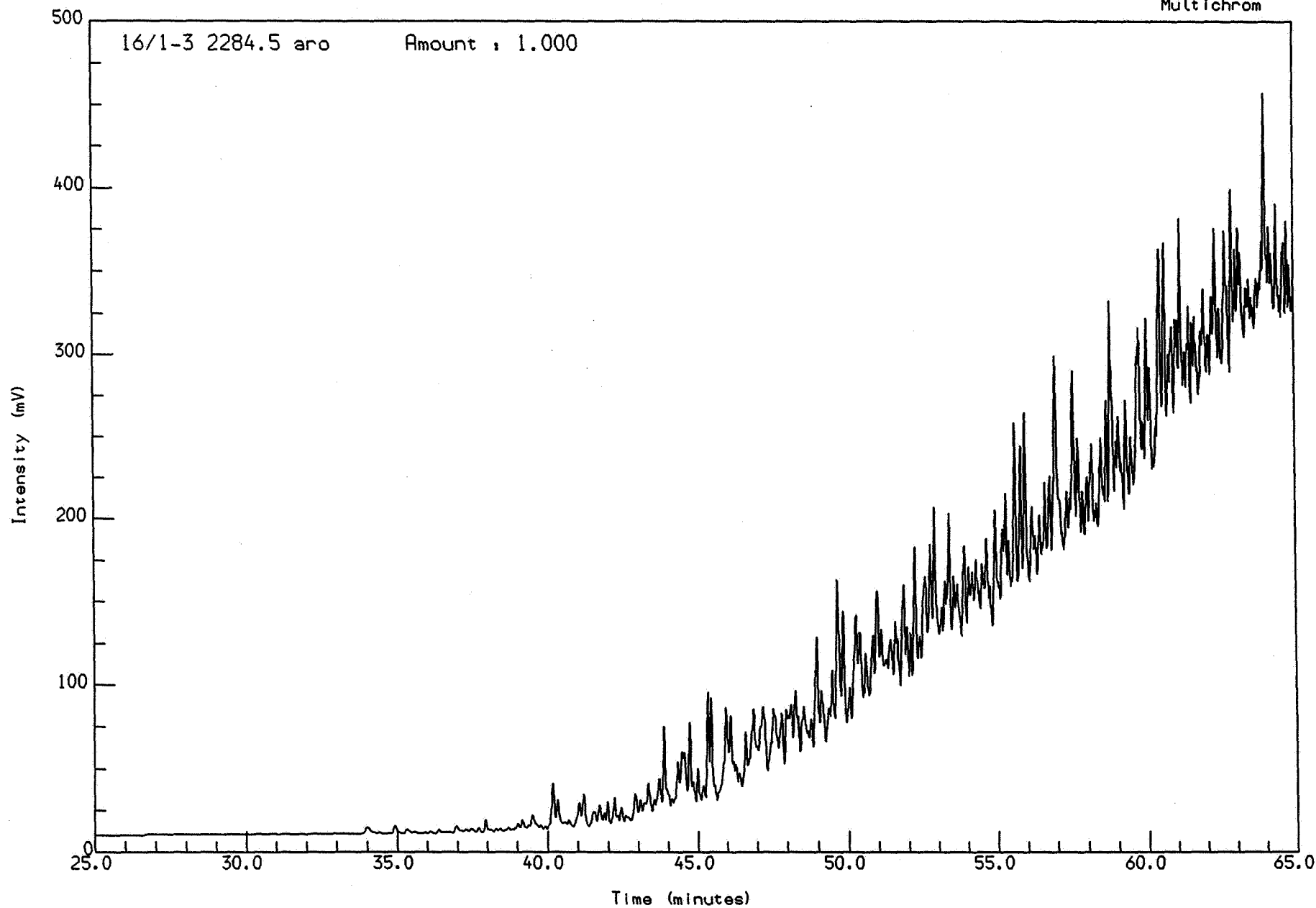
Analysis Name : [D...PROJECT] 3 S102,6,1.

Multichrom



Acquired on 30-SEP-1992 at 17:27

Reported on 2-OCT-1992 at 13:21



Acquired on 5-OCT-1992 at 16:49

Reported on 6-OCT-1992 at 09:03

Fig. 2

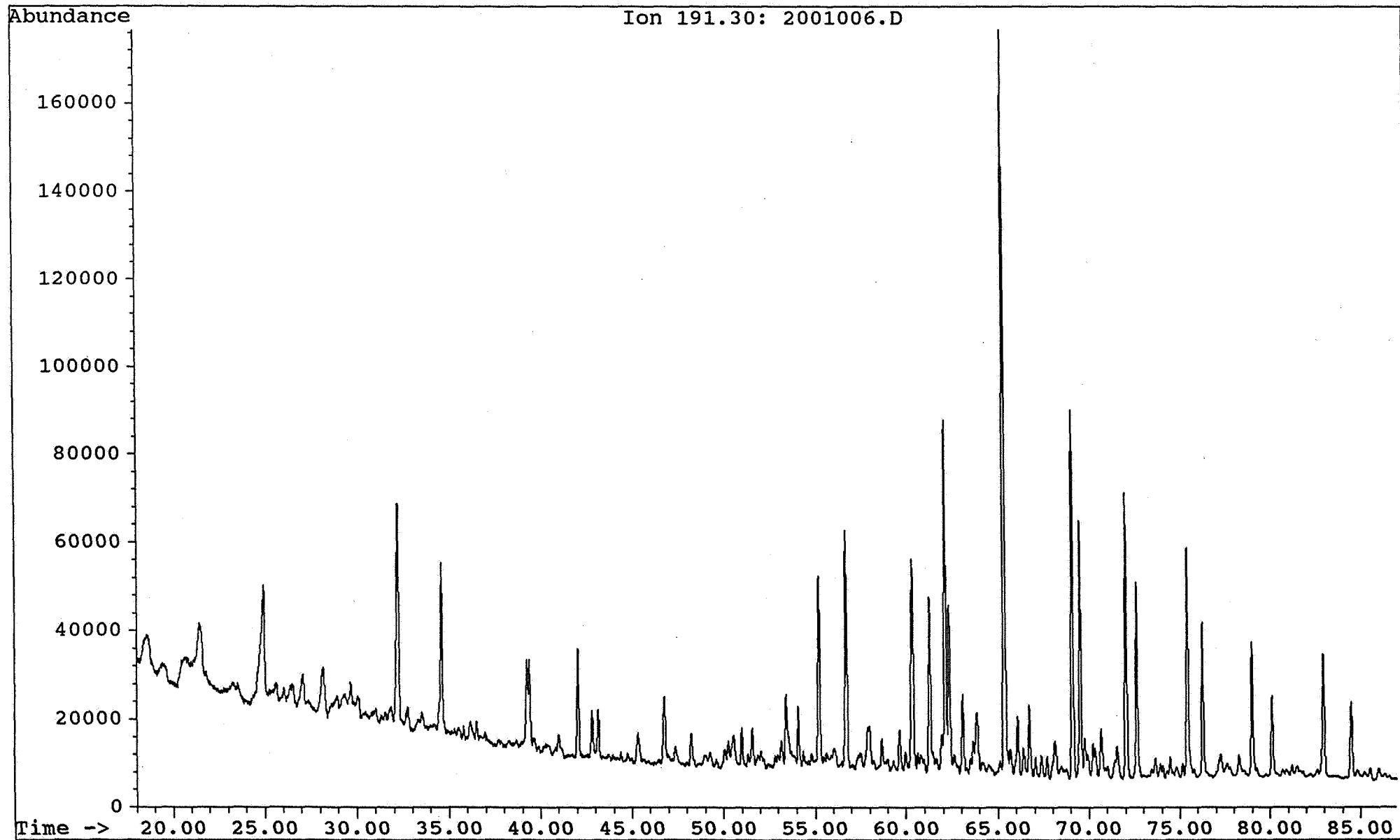
Saga Petroleum a.s.

Date acquired: 2 Oct 92 11:45 pm

File: C:\CHEMPC\DATA\KVAD7_15\2001006.D Inst: HP5971A Inj: Split Meth: BMS.M

Sample name:

WELL 16/1-3 2284,5 sat



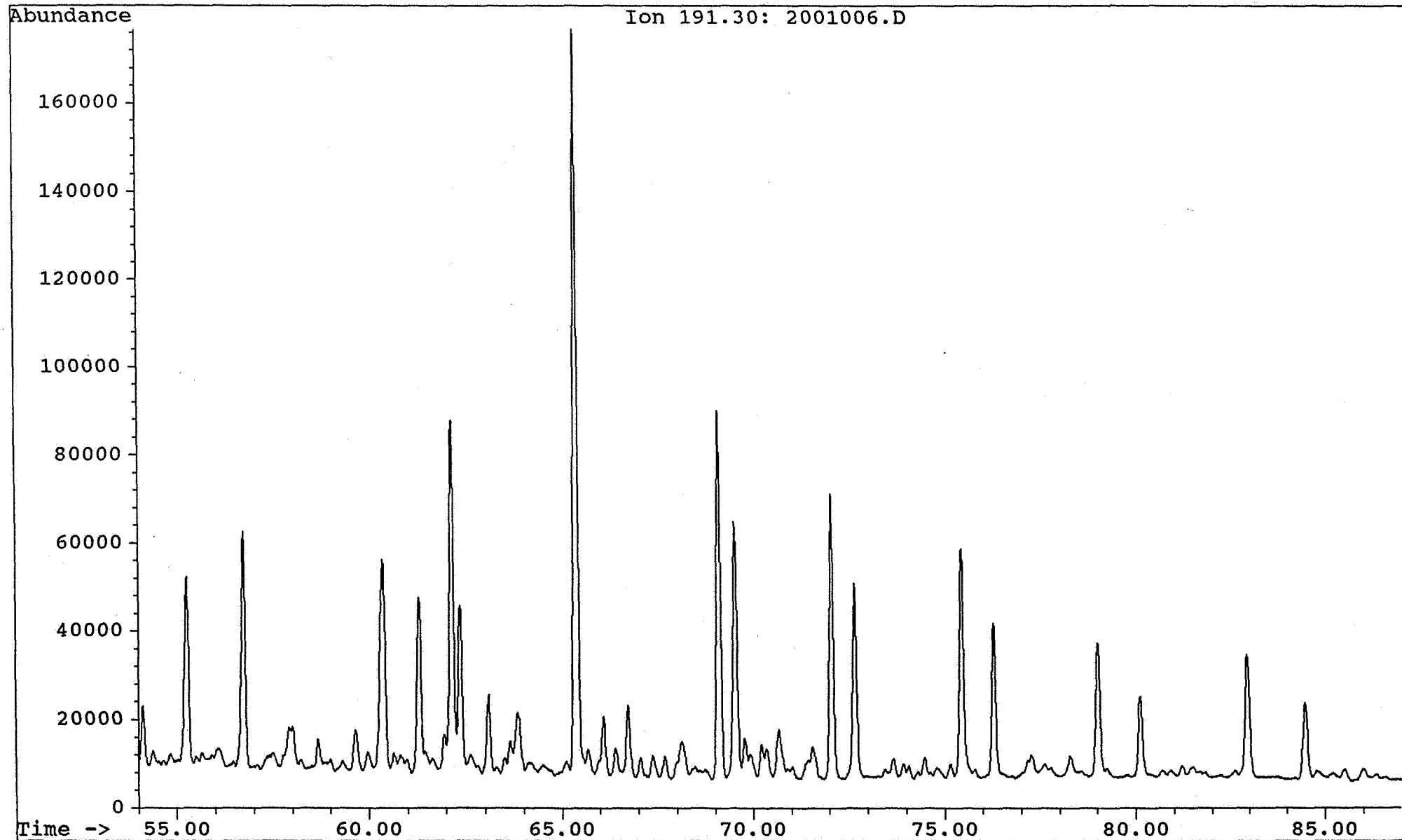
Saga Petroleum a.s.

Date acquired: 2 Oct 92 11:45 pm

File: C:\CHEMPC\DATA\KVAD7_15\2001006.D Inst: HP5971A Inj: Split Meth: BMS.M

Sample name:

WELL 16/1-3 2284,5 sat



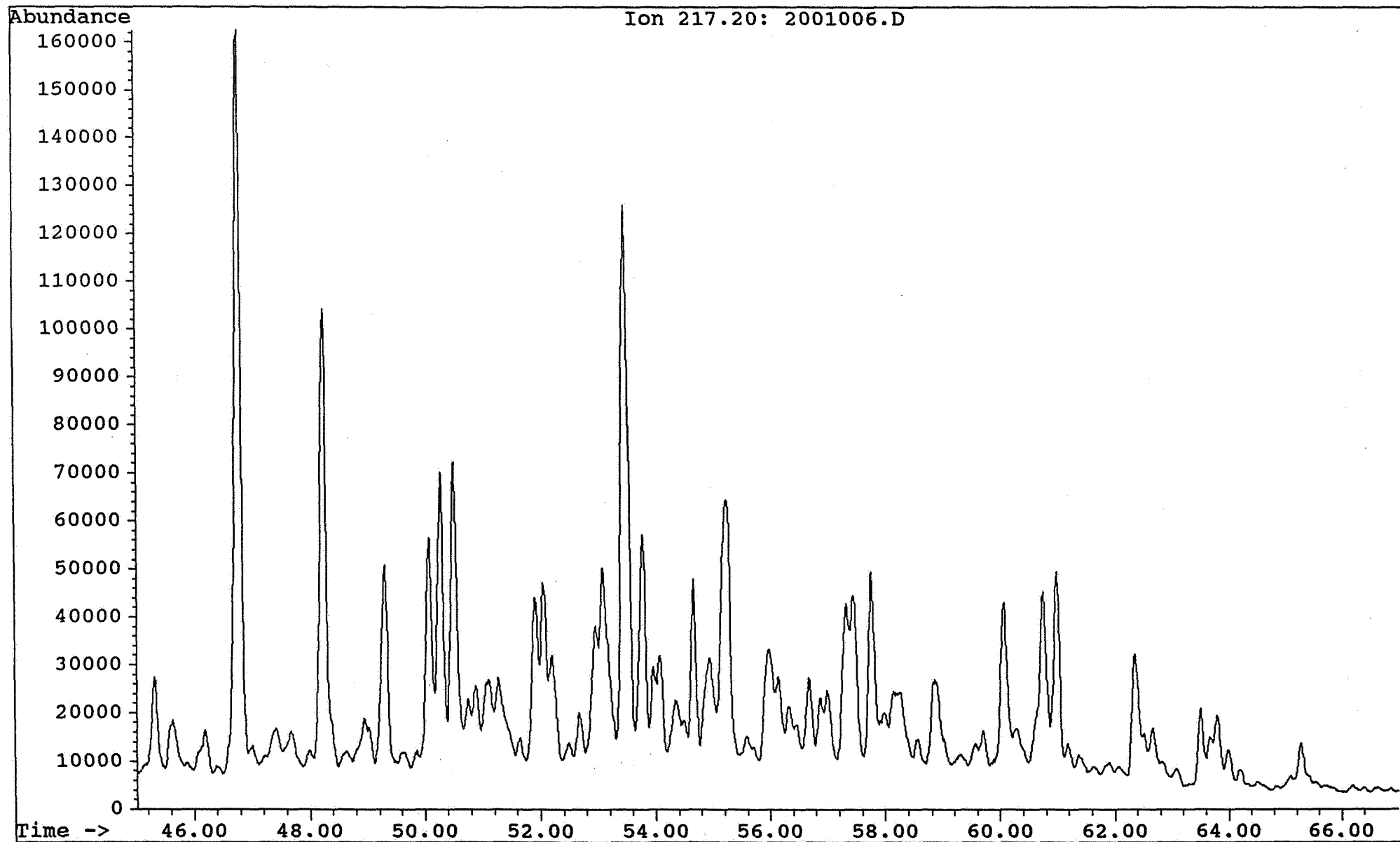
Saga Petroleum a.s.

File: C:\CHEMPC\DATA\KVAD7_15\2001006.D Inst: HP5971A Inj: Split Meth: BMS.M

Date acquired: 2 Oct 92 11:45 pm

Sample name:

WELL 16/1-3 2284,5 sat



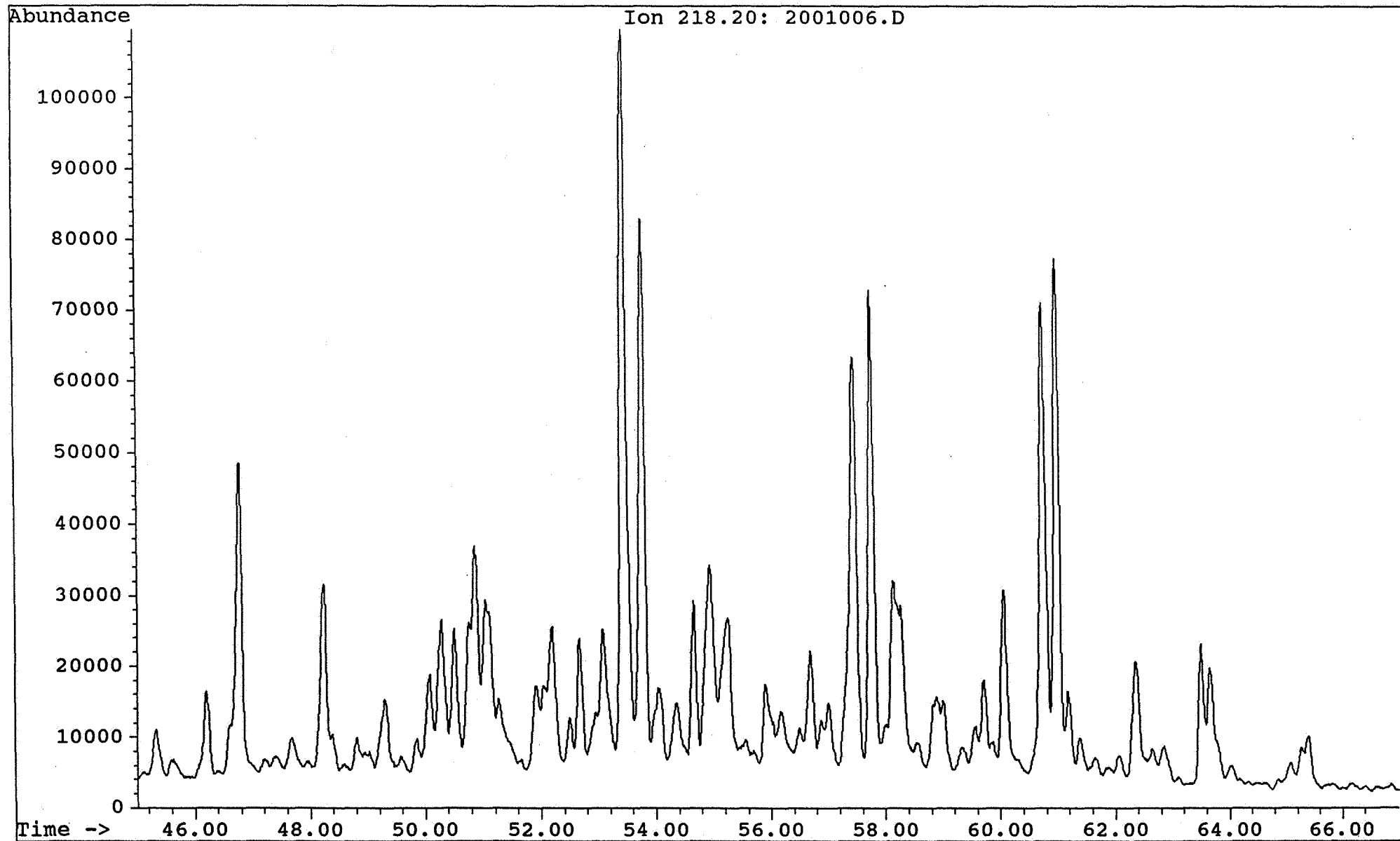
Saga Petroleum a.s.

File: C:\CHEMPC\DATA\KVAD7_15\2001006.D Inst: HP5971A Inj: Split Meth: BMS.M

Date acquired: 2 Oct 92 11:45 pm

Sample name:

WELL 16/1-3 2284,5 sat



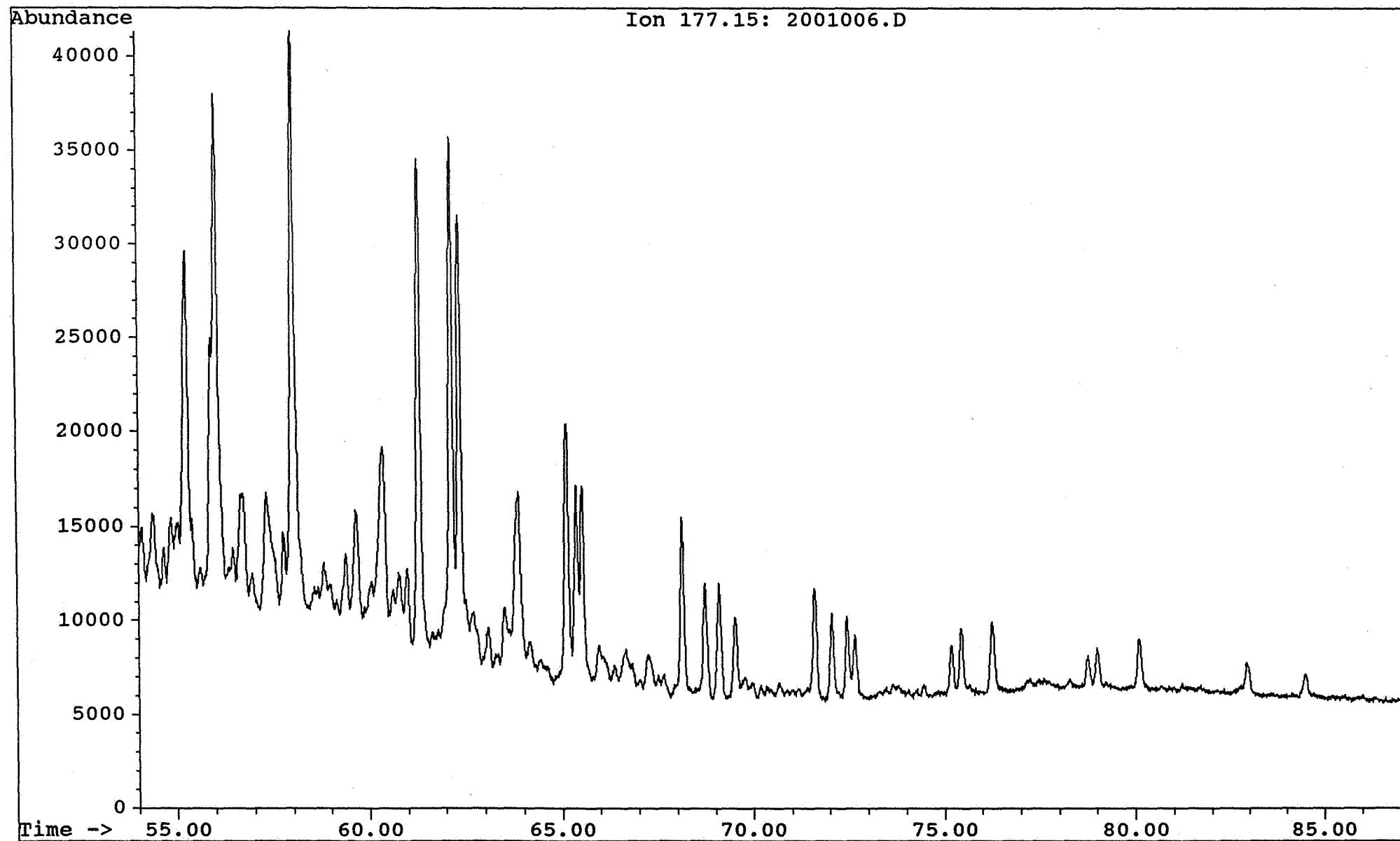
Saga Petroleum a.s.

Date acquired: 2 Oct 92 11:45 pm

File: C:\CHEMPC\DATA\KVAD7_15\2001006.D Inst: HP5971A Inj: Split Meth: BMS.M

Sample name:

WELL 16/1-3 2284,5 sat



REGIONAL PETROLEUM GEOCHEMISTRY
BLOCK 24/12 AND
SURROUNDING AREAS

Well NOCS 16/1-3

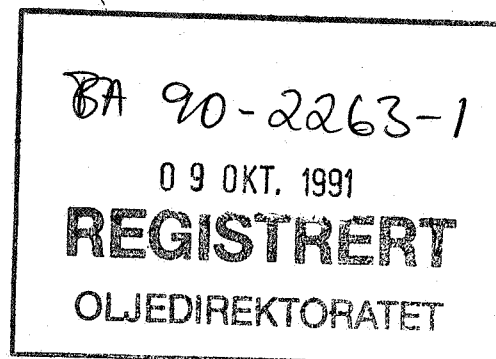
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11.04.90



INTRODUCTION

A total of 117 samples was collected at the Norwegian Petroleum Directorate in Stavanger. The samples between 1610 m and 3498 m RKB were washed and lithologically described. The analysed interval is from 1610 m to 3226 m RKB,

From the 117 samples examined, 46 lithologies from 48 samples were selected for screening analysis (TOC and Rock-Eval pyrolysis). Based on the results of these, the following number of samples were selected for further analyses:

Thermal extraction - pyrolysis gas chromatography	9 samples
Extraction, MPLC fractionation, saturated and aromatic hydrocarbon - gas chromatography	7 samples
Vitrinite reflectance microscopy	11 samples
Visual kerogen composition	7 samples
Gas chromatography - mass spectrometry of saturated and aromatic hydrocarbons	4 samples

Stable carbon isotope
analysis of C₁₅+ fractions

3 samples

Table 1 : Lithology description for well NOCS 16/1-3

Depth unit of measure: m

Depth	Type	Grp	Frm	Age	Trb	Sample
Int	Cvd	TOC%	%	Lithology description		
1610.00						0099
	1.49			55 Sh/Clst: lt ol gy		0099-4L
				40 Sltst : brn gy, mic		0099-1L
				5 Ca : lt or		0099-2L
				tr S/Sst : lt gy, pyr, cem		0099-3L
1620.00						0100
				55 Sltst : brn gy, mic		0100-1L
				45 Sh/Clst: lt ol gy		0100-4L
				tr Ca : lt or		0100-2L
				tr S/Sst : lt gy, pyr, cem		0100-3L
				tr Cont : Mica-ad		0100-5L
1630.00						0101
				65 Sltst : brn gy, mic		0101-1L
				35 Sh/Clst: lt ol gy		0101-4L
				tr Ca : or gy		0101-2L
				tr S/Sst : lt gy, pyr, cem		0101-3L
				tr Cont : Mica-ad		0101-5L
1640.00						0102
				35 S/Sst : w to lt gy, pyr, l		0102-3L
				35 Sh/Clst: lt ol gy		0102-4L
				30 Sltst : brn gy, mic		0102-1L
				tr Ca : or gy		0102-2L
				tr Cont : Mica-ad		0102-5L

Table 1 : Lithology description for well NOCS 16/1-3

Depth unit of measure: m

Depth	Type	Grp	Frm	Age	Trb	Sample
Int	Cvd	TOC%	%	Lithology description		
1650.00						0103
	0.14			55 S/Sst : w to lt gy, pyr, cem, 1		0103-3L
				25 Sltst : brn gy, mic		0103-1L
				20 Sh/Clst: lt ol gy		0103-4L
				tr Ca : or gy		0103-2L
				tr Cont : Mica-ad		0103-5L
1660.00						0104
				70 Sltst : brn gy, mic		0104-1L
				25 S/Sst : w to lt gy, pyr, 1		0104-3L
				5 Sh/Clst: lt ol gy		0104-4L
				tr Ca : or gy		0104-2L
				tr Cont : Mica-ad		0104-5L
1700.00						0105
				80 Sltst : brn gy, mic		0105-1L
				20 S/Sst : w to lt gy, pyr, 1		0105-3L
				tr Ca : or gy		0105-2L
				tr Sh/Clst: lt ol gy		0105-4L
				tr Cont : Mica-ad		0105-5L
1710.00						0106
				90 Sltst : brn gy, mic		0106-1L
				10 S/Sst : w to lt gy, pyr, 1		0106-3L
				tr Ca : or gy		0106-2L
				tr Sh/Clst: lt ol gy		0106-4L
				tr Cont : Mica-ad		0106-5L
1720.00						0107
	0.10			65 Sltst : brn gy, mic		0107-1L
				35 S/Sst : w to lt gy, pyr, cem, 1		0107-3L
				tr Ca : or gy		0107-2L
				tr Sh/Clst: lt ol gy		0107-4L
				tr Cont : prp		0107-5L

Table 1 : Lithology description for well NOCS 16/1-3

Depth unit of measure: m

Depth	Type	Grp	Frm	Age	Trb	Sample
Int	Cvd	TOC%	%	Lithology description		
1730.00						0108
				75 Sltst : brn gy, mic		0108-1L
				20 S/Sst : w to lt gy, pyr, l		0108-3L
				5 Sh/Clst: lt ol gy		0108-4L
				tr Ca : or gy		0108-2L
				tr Cont : prp		0108-5L
1740.00						0109
				80 S/Sst : w to lt gy, pyr, l		0109-3L
				10 Sltst : brn gy, mic		0109-1L
				10 Sh/Clst: lt ol gy		0109-4L
				tr Ca : or gy		0109-2L
				tr Cont : Mica-ad, prp		0109-5L
1750.00						0110
				50 S/Sst : w to lt gy, pyr, l		0110-3L
				30 Sh/Clst: lt ol gy		0110-4L
	1.59			20 Sltst : brn gy, mic		0110-1L
				tr Ca : or gy		0110-2L
				tr Cont : Mica-ad, prp		0110-5L
1830.00						0111
				80 Sh/Clst: lt ol gy to brn gy		0111-4L
				20 S/Sst : w to lt gy, pyr, l		0111-3L
				tr Sltst : brn gy, mic		0111-1L
				tr Ca : or gy		0111-2L
				tr Cont : Mica-ad, prp		0111-5L
1840.00						0112
				65 S/Sst : w to lt gy, pyr, l		0112-3L
				35 Sh/Clst: lt ol gy to brn gy		0112-4L
				tr Sltst : brn gy, mic		0112-1L
				tr Ca : or gy		0112-2L

Table 1 : Lithology description for well NOCS 16/1-3

Depth unit of measure: m

Depth	Type	Grp	Frm	Age	Trb	Sample	
Int Cvd	TOC%	%	Lithology description				
1850.00						0113	
	0.06	60	S/Sst	: w, calc, cem, l		0113-3L	
		30	Sh/Clst:	lt ol gy to brn gy		0113-4L	
		10	Sltst	: brn gy, mic		0113-1L	
		tr	Ca	: or gy		0113-2L	
		tr	Cont	: prp		0113-5L	
1860.00						0114	
		65	S/Sst	: w, calc, cem, l		0114-3L	
		20	Sltst	: brn gy, mic		0114-1L	
		15	Sh/Clst:	lt ol gy to brn gy		0114-4L	
		tr	Ca	: or gy		0114-2L	
		tr	Cont	: prp		0114-5L	
1870.00						0115	
	0.04	60	S/Sst	: w, calc, crs, l		0115-3L	
		40	Sh/Clst:	lt ol gy to brn gy		0115-4L	
		tr	Sltst	: brn gy, mic		0115-1L	
		tr	Ca	: or gy		0115-2L	
		tr	Cont	: prp		0115-5L	
1880.00						0116	
		90	S/Sst	: w, calc, crs, l		0116-2L	
		5	Sltst	: brn gy, mic		0116-1L	
		5	Sh/Clst:	lt ol gy to brn gy		0116-3L	
1890.00						0117	
		90	S/Sst	: w, calc, crs, l		0117-2L	
		5	Sltst	: brn gy, mic		0117-1L	
		5	Sh/Clst:	lt ol gy to brn gy		0117-3L	

Table 1 : Lithology description for well NOCS 16/1-3

Depth unit of measure: m

Depth	Type	Grp	Frm	Age	Trb	Sample
Int	Cvd	TOC%	%	Lithology description		
2450.00						0001
	0.79	80	Marl	: lt brn gy to pl ol		0001-2L
		15	Sh/Clst:	m gy		0001-3L
		5	Cont	: Coal-ad, ns, fib		0001-1L
		tr	Ca	: w		0001-4L
2480.00						0002
	0.30	80	Ca	: w to gy pi, chk		0002-4L
		20	Sh/Clst:	m gy to gy gn		0002-3L
		tr	Cont	: Coal-ad		0002-1L
		tr	Marl	: lt brn gy		0002-2L
2510.00						0003
		60	Ca	: w to gy pi, chk		0003-3L
		30	Sh/Clst:	m gy to gy gn		0003-2L
		10	Cont	: Coal-ad		0003-1L
2540.00						0004
	0.96	85	Sh/Clst:	m gy to gy gn, pl y brn, gy red, slt, mic		0004-2L
		10	Cont	: Coal-ad		0004-1L
		5	Ca	: w to gy pi, chk		0004-3L
2570.00						0005
		80	Sh/Clst:	m gy to gy gn, pl y brn, gy red, slt, mic		0005-2L
		10	Cont	: Coal-ad, prp		0005-1L
		10	Ca	: w to gy pi, chk		0005-3L
		tr	Other	: pyr		0005-4L

Table 1 : Lithology description for well NOCS 16/1-3

Depth unit of measure: m

Depth	Type	Grp	Frm	Age	Trb	Sample
Int	Cvd	TOC%	%	Lithology description		
2600.00						0006
			65	Other : gy pi, m gy, trbofgs		0006-4L
			20	Ca : w to gy pi, chk		0006-3L
			10	Cont : Coal-ad, prp		0006-1L
			5	Sh/Clst: m gy to gy gn, pl y brn, gy red, slt, mic		0006-2L
2630.00						0007
	4.49		65	Sltst : brn gy to dsk y brn, calc		0007-7L
			20	Chert : w		0007-5L
			10	S/Sst : w to gy pi, chk		0007-6L
			5	Sh/Clst: m gy to gy gn, pl y brn, gy red, slt, mic		0007-2L
			tr	Cont : Coal-ad, prp		0007-1L
			tr	Ca : w to gy pi, chk		0007-3L
			tr	Other : gy pi, m gy, trbofgs		0007-4L
2660.00						0008
	0.08		100	S/Sst : w to gy pi, calc, crs, cem, sil		0008-4L
			tr	Cont : Coal-ad, prp		0008-1L
			tr	Sh/Clst: m gy to gy gn, pl y brn, gy red, slt, mic		0008-2L
			tr	Chert : w		0008-3L
			tr	Sltst : brn gy to dsk y brn, calc		0008-5L
2690.00						0009
	0.08		100	S/Sst : w to gy pi, calc, crs, cem, sil		0009-3L
			tr	Cont : Coal-ad, prp		0009-1L
			tr	Sh/Clst: m gy to gy gn, pl y brn, gy red, slt, mic		0009-2L

Table 1 : Lithology description for well NOCS 16/1-3

Depth unit of measure: m

Depth	Type	Grp	Frm	Age	Trb	Sample	
Int Cvd	TOC%	%	Lithology description				
2705.00						0010	
	0.11	100	S/Sst	: w to gy pi, calc, crs, cem, sil		0010-2L	
			tr Sh/Clst:	m gy to gy gn, pl y brn, gy red, slt, mic		0010-1L	
2710.00						0011	
	0.17	95	S/Sst	: w to m gy, calc, crs, cem		0011-2L	
		5	Sltst	: drk gy, mic		0011-4L	
			tr Sh/Clst:	m gy to gy gn, pl y brn, gy red, slt, mic		0011-1L	
			tr Cont	: prp		0011-3L	
2715.00						0012	
	3.91	80	S/Sst	: w to m gy, calc, crs, cem		0012-2L	
		20	Sltst	: dsk y brn to drk gy, mic		0012-4L	
			tr Sh/Clst:	m gy to gy gn		0012-1L	
			tr Cont	: prp		0012-3L	
2720.00						0013	
	4.54	50	S/Sst	: w to lt gy, calc, cem		0013-2L	
		50	Sltst	: dsk y brn, mic		0013-4L	
			tr Sh/Clst:	m gy to gy gn		0013-1L	
			tr Cont	: prp		0013-3L	
2725.00						0014	
	4.36	60	Sltst	: dsk y brn, mic		0014-3L	
		25	S/Sst	: w to lt gy, calc, cem		0014-1L	
		10	Ca	: lt brn gy		0014-5L	
		5	Cont	: Coal-ad, prp		0014-2L	
			tr Other	: pyr		0014-4L	

Table 1 : Lithology description for well NOCS 16/1-3

Depth unit of measure: m

Depth	Type	Grp	Frm	Age	Trb	Sample
Int	Cvd	TOC%	%	Lithology description		
2730.00						0015
	3.48	80	Sltst	: dsk y brn, mic		0015-3L
		20	S/Sst	: w to lt gy, calc, cem		0015-1L
		tr	Cont	: Coal-ad, prp		0015-2L
		tr	Other	: pyr		0015-4L
		tr	Ca	: lt brn gy		0015-5L
2735.00						0016
	60.69	85	Coal	: blk to brn blk		0016-5L
		10	Sh/Clst	: dsk y brn to brn blk, carb		0016-3L
		5	S/Sst	: w to lt gy, calc, cem		0016-1L
		tr	Cont	: Coal-ad, prp		0016-2L
		tr	Ca	: lt brn gy		0016-4L
		tr	Sltst	: dsk y brn, mic		0016-6L
2740.00						0017
	68.59	90	Coal	: blk to brn blk		0017-5L
		10	Cont	: cem, fib		0017-2L
		tr	S/Sst	: w to lt gy, calc, cem		0017-1L
		tr	Sh/Clst	: dsk y brn to brn blk, carb		0017-3L
		tr	Ca	: lt brn gy		0017-4L
		tr	Sltst	: dsk y brn, mic		0017-6L
2746.00						0018
		60	Cont	: cem, fib		0018-2L
		30	S/Sst	: w to lt gy, crs, l		0018-1L
		10	Coal	: blk to brn blk		0018-5L
		tr	Sh/Clst	: dsk y brn to brn blk, carb		0018-3L
		tr	Ca	: lt brn gy		0018-4L
		tr	Sltst	: dsk y brn, mic		0018-6L

Table 1 : Lithology description for well NOCS 16/1-3

Depth unit of measure: m

Depth	Type	Grp	Frm	Age	Trb	Sample
Int	Cvd	TOC%	%	Lithology description		
2752.00						0019
	20.83		55	Cont : cem, fib		0019-2L
			20	Sh/Clst: dsk y brn to brn blk, carb		0019-3L
			15	S/Sst : w to lt gy, crs, l		0019-1L
			10	Coal : blk to brn blk		0019-5L
			tr Ca	: lt brn gy		0019-4L
			tr Sltst	: dsk y brn, mic		0019-6L
2758.00						0020
			40	Cont : cem, fib		0020-2L
			25	S/Sst : w to lt gy, crs, l		0020-1L
	10.37		25	Sh/Clst: brn gy to dsk y brn, carb		0020-3L
			10	Coal : blk to brn blk		0020-5L
			tr Ca	: lt brn gy		0020-4L
2764.00						0021
	0.31		100	Marl : lt brn gy, gy red, dsk y		0021-4L
			tr S/Sst	: w to lt gy, crs, l		0021-1L
			tr Cont	: prp, fib		0021-2L
			tr Sh/Clst:	dsk y brn, carb		0021-3L
2770.00						0022
			95	Marl : lt brn gy, gy red, dsk y		0022-4L
			5	Ca : w to lt gy		0022-5L
			tr S/Sst	: w to lt gy, crs, l		0022-1L
			tr Cont	: prp, fib		0022-2L
			tr Sh/Clst:	dsk y brn, carb		0022-3L
2776.00						0023
	0.18		90	Marl : pl ol, gy red, s		0023-3L
			5	Ca : w to lt gy		0023-4L
			5	S/Sst : w to y gy, calc, cem		0023-5L
			tr Cont	: ns		0023-1L
			tr Sh/Clst:	dsk y brn, carb		0023-2L

Table 1 : Lithology description for well NOCS 16/1-3

Depth unit of measure: m

Depth	Type	Grp	Frm	Age	Trb	Sample
Int	Cvd	TOC%	%	Lithology description		
2779.00						0024
			90	Marl : pl ol, gy red, s		0024-3L
			5	Ca : w to lt gy		0024-4L
			5	S/Sst : w to y gy, calc, cem		0024-5L
			tr	Cont : prp		0024-1L
			tr	Sh/Clst: dsk y brn, carb		0024-2L
2785.00						0025
	0.16		50	Sh/Clst: pl ol, gy red, calc		0025-3L
			50	S/Sst : w to y gy, calc, cem, 1		0025-5L
			tr	Cont : prp		0025-1L
			tr	Sh/Clst: dsk y brn, carb		0025-2L
			tr	Ca : w to lt gy		0025-4L
2791.00						0026
	0.15		100	S/Sst : lt or to or gy, calc, crs, cem, 1		0026-3L
			tr	Cont : Coal-ad, prp		0026-1L
			tr	Sh/Clst: pl ol, gy red, calc		0026-2L
2797.00						0027
			55	Cont : Coal-ad, prp, fib		0027-1L
			45	S/Sst : lt or to or gy, st, 1		0027-3L
			tr	Sh/Clst: pl ol, gy red, calc		0027-2L
2803.00						0028
	0.15		50	S/Sst : lt or to or gy, st, cem, 1		0028-3L
			35	Sh/Clst: pl ol, gy red, calc		0028-2L
			15	Cont : Coal-ad, prp, ns, fib		0028-1L

Table 1 : Lithology description for well NOCS 16/1-3

Depth unit of measure: m

Depth	Type	Grp	Frm	Age	Trb	Sample	
Int Cvd	TOC%	%	Lithology description				
2809.00						0029	
		85	Ca	:	pl brn to drk y brn, s, dol	0029-4L	
		15	S/Sst	:	w to or gy, calc, cem, l	0029-3L	
		tr	Cont	:	Coal-ad, prp, ns, fib	0029-1L	
		tr	Sh/Clst:	:	pl ol, calc	0029-2L	
2815.00						0030	
	0.08	85	Ca	:	pl brn to drk y brn, s, dol	0030-4L	
		10	S/Sst	:	w to or gy, calc, cem, l	0030-3L	
		5	Sh/Clst:	:	pl ol, calc	0030-2L	
		tr	Cont	:	Coal-ad, prp, ns, fib	0030-1L	
2821.00						0031	
		80	S/Sst	:	w to gy pi, calc, crs, cem, l	0031-3L	
		10	Cont	:	Coal-ad, prp, fib	0031-1L	
		5	Sh/Clst:	:	pl ol, gy red, calc	0031-2L	
		5	Ca	:	pl brn to drk y brn, s, dol	0031-4L	
2827.00						0032	
	0.07	90	S/Sst	:	w to gy pi, calc, crs, cem, l	0032-3L	
		5	Cont	:	st, Coal-ad, prp, fib	0032-1L	
		5	Sh/Clst:	:	pl ol, gy red, calc	0032-2L	
		tr	Ca	:	pl brn to drk y brn, s, dol	0032-4L	
2833.00						0033	
		100	S/Sst	:	w to gy pi, gn gy, calc, crs, cem, l	0033-3L	
		tr	Cont	:	Coal-ad, prp, fib	0033-1L	
		tr	Sh/Clst:	:	pl ol, gy red, calc	0033-2L	

Table 1 : Lithology description for well NOCS 16/1-3

Depth unit of measure: m

Depth	Type	Grp	Frm	Age	Trb	Sample
Int	Cvd	TOC%	%	Lithology description		
2839.00						0034
				90 S/Sst : gy pi to gy red, calc, crs, l		0034-3L
				10 Sltst : gy red, mic		0034-2L
				tr Cont : Coal-ad, prp, fib		0034-1L
2845.00						0035
	0.15			45 Sltst : gy red, mic		0035-2L
				40 S/Sst : gy pi to gy red, crs, l		0035-3L
				15 Cont : st, Coal-ad, prp, fib		0035-1L
2851.00						0036
				70 S/Sst : w to gy pi to gy red, crs, l		0036-3L
				15 Cont : Coal-ad, fib		0036-1L
				10 Sltst : gy red, mic		0036-2L
				5 Sh/Clst: pl ol		0036-4L
2857.00						0037
	0.10			65 S/Sst : w to gy pi to gy red, crs, l		0037-3L
				30 Sltst : gy red, mic		0037-2L
				5 Sh/Clst: pl ol, s		0037-4L
				tr Cont : Coal-ad, fib		0037-1L
2863.00						0038
				95 S/Sst : w to gy pi to gy red, l		0038-3L
				5 Cont : Coal-ad, fib		0038-1L
				tr Sltst : gy red, mic		0038-2L
				tr Sh/Clst: pl ol, s		0038-4L

Table 1 : Lithology description for well NOCS 16/1-3

Depth unit of measure: m

Depth	Type	Grp	Frm	Age	Trb	Sample
Int	Cvd	TOC%	%	Lithology description		
2869.00						0039
				95 S/Sst : w to gy pi to gy red, l		0039-3L
				5 Cont : Coal-ad, fib		0039-1L
				tr Sltst : gy red, mic		0039-2L
				tr Sh/Clst: pl ol, s		0039-4L
2875.00						0040
	0.16	100		S/Sst : w to gy pi to gy red, l		0040-3L
				tr Cont : Coal-ad, fib		0040-1L
				tr Sltst : gy red, mic		0040-2L
				tr Sh/Clst: pl ol, s		0040-4L
2881.00						0041
				80 S/Sst : w to gy pi to gy red, l		0041-3L
				20 Sltst : gy red, mic		0041-2L
				tr Cont : Coal-ad, fib		0041-1L
				tr Sh/Clst: pl ol, s		0041-4L
2887.00						0042
				75 S/Sst : w to gy pi to gy red, l		0042-3L
				15 Sltst : gy red, mic		0042-2L
				10 Cont : Coal-ad, prp, dd, fib		0042-1L
				tr Sh/Clst: pl ol, s		0042-4L
2893.00						0043
	0.29	100		S/Sst : w to gy pi to gy red, l		0043-3L
				tr Cont : Coal-ad, prp, dd, fib		0043-1L
				tr Sltst : gy red, mic		0043-2L
				tr Sh/Clst: pl ol, s		0043-4L

Table 1 : Lithology description for well NOCS 16/1-3

Depth unit of measure: m

Depth	Type	Grp	Frm	Age	Trb	Sample
Int	Cvd	TOC%	%	Lithology description		
2899.00						0044
				100 S/Sst : w to gy pi to gy red, l		0044-3L
				tr Cont : Coal-ad, prp, dd, fib		0044-1L
				tr Sltst : gy red, mic		0044-2L
				tr Sh/Clst: pl ol, s		0044-4L
2905.00						0045
				95 S/Sst : w to gy pi to gy red, l		0045-3L
				5 Cont : Coal-ad, prp, fib		0045-1L
				tr Sltst : gy red, mic		0045-2L
				tr Sh/Clst: pl ol, s		0045-4L
2911.00						0046
	0.10			90 S/Sst : w to gy pi to gy red, l		0046-3L
				10 Cont : Coal-ad, prp, fib		0046-1L
				tr Sltst : gy red, mic		0046-2L
				tr Sh/Clst: pl ol, s		0046-4L
2917.00						0047
				85 S/Sst : w to gy pi to gy red, l		0047-3L
				10 Cont : Coal-ad, prp, fib		0047-1L
				5 Sltst : gy red, mic		0047-2L
				tr Sh/Clst: pl ol, s		0047-4L
2923.00						0048
				85 S/Sst : w to gy pi to gy red, l		0048-3L
				15 Cont : Coal-ad, prp, fib		0048-1L
				tr Sltst : gy red, mic		0048-2L
				tr Sh/Clst: pl ol, s		0048-4L

Table 1 : Lithology description for well NOCS 16/1-3

Depth unit of measure: m

Depth	Type	Grp	Frm	Age	Trb	Sample
Int	Cvd	TOC%	%	Lithology description		
2929.00						0049
				95 S/Sst : w to gy pi to gy red, l		0049-3L
				5 Cont : Coal-ad, prp, fib		0049-1L
				tr Sltst : gy red, mic		0049-2L
				tr Sh/Clst: pl ol, s		0049-4L
2935.00						0050
				100 S/Sst : w to gy pi to gy red, l		0050-3L
				tr Cont : Coal-ad, prp, fib		0050-1L
				tr Sltst : gy red, mic		0050-2L
				tr Sh/Clst: pl ol, s		0050-4L
2941.00						0051
				90 S/Sst : w to gy pi to gy red, crs, l		0051-3L
				10 Sltst : gy red, mic		0051-2L
				tr Cont : Coal-ad, prp, fib		0051-1L
				tr Sh/Clst: pl ol, s		0051-4L
2947.00						0052
				90 S/Sst : w to gy pi to gy red, crs, l		0052-3L
				10 Sltst : gy red, mic		0052-2L
				tr Cont : Coal-ad, prp, fib		0052-1L
				tr Sh/Clst: pl ol, s		0052-4L
2953.00						0053
				90 S/Sst : w to gy pi to gy red, crs, l		0053-3L
				5 Cont : Coal-ad, prp, fib		0053-1L
				5 Sltst : gy red, mic		0053-2L
				tr Sh/Clst: pl ol, s		0053-4L

Table 1 : Lithology description for well NOCS 16/1-3

Depth unit of measure: m

Depth	Type	Grp	Frm	Age	Trb	Sample
Int	Cvd	TOC%	%	Lithology description		
2959.00						0054
				95 S/Sst : w to gy pi to gy red, crs, l		0054-3L
				5 Sltst : gy red, mic		0054-2L
				tr Cont : Coal-ad, prp, fib		0054-1L
				tr Sh/Clst: pl ol, s		0054-4L
2965.00						0055
				55 Sh/Clst: gy red, gn gy, slt, mic		0055-2L
				45 S/Sst : w to gy pi to gy red, crs, l		0055-3L
				tr Cont : Coal-ad, fib		0055-1L
2971.00						0056
				85 S/Sst : w to gy pi to gy red, l		0056-3L
				15 Sh/Clst: gy red, gn gy, slt, s, mic		0056-2L
				tr Cont : Coal-ad, fib		0056-1L
2977.00						0057
				75 S/Sst : w to gy pi to gy red, l		0057-3L
				20 Sh/Clst: gy red, gn gy, slt, s, mic		0057-2L
				5 Sh/Clst: m gy		0057-4L
				tr Cont : Coal-ad, fib		0057-1L
2983.00						0058
				85 S/Sst : w to gy pi to gy red, l		0058-3L
				15 Sh/Clst: gy red, gn gy, slt, s, mic		0058-2L
				tr Cont : Coal-ad, fib		0058-1L
				tr Sh/Clst: m gy		0058-4L
				tr Sh/Clst: brn blk, carb		0058-5L

Table 1 : Lithology description for well NOCS 16/1-3

Depth unit of measure: m

Depth	Type	Grp	Frm	Age	Trb	Sample
Int	Cvd	TOC%	%	Lithology description		
2989.00						0059
	0.03			70 S/Sst : w to gy pi to gy red, l 30 Sltst : gy red, gn gy, s, mic tr Cont : Coal-ad, fib tr Sh/Clst: brn blk, carb tr Coal : blk		0059-3L 0059-2L 0059-1L 0059-4L 0059-5L
2995.00						0060
				80 S/Sst : w to gy pi to gy red, l 20 Sltst : gy red, gn gy, s, mic tr Cont : Coal-ad, fib		0060-3L 0060-2L 0060-1L
3001.00						0061
				90 S/Sst : w to gy pi to gy red, l 5 Sltst : gy red, gn gy, s, mic 5 Coal : brn blk, cly tr Cont : Coal-ad, fib		0061-3L 0061-2L 0061-4L 0061-1L
3007.00						0062
				50 S/Sst : w to gy pi to gy red, l 30 Sltst : gy red, gn gy, s, mic 20 Cont : Coal-ad, fib		0062-3L 0062-2L 0062-1L
3013.00						0063
	0.02			75 Sltst : gy red, gn gy, s, mic 20 S/Sst : w to gy pi to gy red, l 5 Cont : Coal-ad, fib		0063-2L 0063-3L 0063-1L

Table 1 : Lithology description for well NOCS 16/1-3

Depth unit of measure: m

Depth	Type	Grp	Frm	Age	Trb	Sample
Int	Cvd	TOC%	%	Lithology description		
3019.00						0064
				60 S/Sst : w to gy pi to gy red, l		0064-3L
				40 Sltst : gy red, gn gy, s, mic		0064-2L
				tr Cont : Coal-ad, fib		0064-1L
3025.00						0065
				60 S/Sst : w to gy pi to gy red, l		0065-3L
				40 Sltst : gy red, gn gy, s, mic		0065-2L
				tr Cont : Coal-ad, fib		0065-1L
3031.00						0066
	0.02			60 S/Sst : w to gy pi to gy red, l		0066-3L
				40 Sltst : gy red, gn gy, s, mic		0066-2L
				tr Cont : Coal-ad, fib		0066-1L
3037.00						0067
				70 S/Sst : w to gy pi to gy red, l		0067-3L
				30 Sltst : gy red, gn gy, s, mic		0067-2L
				tr Cont : Coal-ad, fib		0067-1L
3043.00						0068
				75 S/Sst : w to gy red, l		0068-3L
				25 Sltst : gy red, gn gy, s, mic		0068-2L
				tr Cont : Coal-ad, fib		0068-1L
3049.00						0069
				75 S/Sst : w to gy red, l		0069-3L
				25 Sltst : gy red, gn gy, s, mic		0069-2L
				tr Cont : Coal-ad, fib		0069-1L

Table 1 : Lithology description for well NOCS 16/1-3

Depth unit of measure: m

Depth	Type	Grp	Frm	Age	Trb	Sample
Int	Cvd	TOC%	%	Lithology description		
3055.00						0070
			95	S/Sst : w to gy red, l		0070-3L
			5	Slstst : gy red, gn gy, s, mic		0070-2L
			tr	Cont : Coal-ad, fib		0070-1L
3061.00						0071
			100	S/Sst : w to gy red, l		0071-3L
			tr	Cont : Coal-ad, fib		0071-1L
			tr	Slstst : gy red, gn gy, s, mic		0071-2L
3067.00						0072
	0.06		60	S/Sst : w to gy red, l		0072-3L
			40	Slstst : gy red, gn gy, s, mic		0072-2L
			tr	Cont : Coal-ad, fib		0072-1L
3073.00						0073
			90	S/Sst : w to gy red, l		0073-3L
			10	Slstst : gy red, gn gy, s, mic		0073-2L
			tr	Cont : Coal-ad, fib		0073-1L
3079.00						0074
			75	S/Sst : w to gy red, l		0074-3L
			25	Cont : Coal-ad, dd		0074-1L
			tr	Slstst : gy red, gn gy, s, mic		0074-2L
3085.00						0075
	0.04		35	Cont : Coal-ad, dd		0075-1L
			35	S/Sst : w to gy red, cem, l		0075-3L
			20	Other : gy pi, evap		0075-4L
			10	Slstst : gy red, gn gy, s, mic		0075-2L

Table 1 : Lithology description for well NOCS 16/1-3

Depth unit of measure: m

Depth	Type	Grp	Frm	Age	Trb	Sample
Int	Cvd	TOC%	%	Lithology description		
3091.00						0076
			80	Other : gy pi, evap		0076-4L
			10	Sltst : gy red, gn gy, s, mic		0076-2L
			5	Cont : Coal-ad, dd		0076-1L
			5	S/Sst : w to gy red, l		0076-3L
3097.00						0077
			40	S/Sst : w to gy red, l		0077-3L
			35	Sltst : gy red, gn gy, s, mic		0077-2L
			25	Other : gy pi, evap		0077-4L
			tr	Cont : Coal-ad, dd		0077-1L
3103.00						0078
	0.04		75	S/Sst : w to gy red, calc, cem, l		0078-3L
			15	Sh/Clst: gy red, gn gy, slt, mic		0078-2L
			10	Cont : Coal-ad, dd		0078-1L
			tr	Other : gy pi, evap		0078-4L
3109.00						0079
			70	S/Sst : w to gy red, calc, cem, l		0079-3L
			20	Sh/Clst: gy red, gn gy, slt, mic		0079-2L
			10	Other : w to gy pi, evap		0079-4L
			tr	Cont : Coal-ad, dd		0079-1L
3115.00						0080
			70	S/Sst : w to gy red, calc, cem, l		0080-3L
			25	Sh/Clst: gy red, gn gy, slt, mic		0080-2L
			5	Other : w to gy pi, evap		0080-4L
			tr	Cont : Coal-ad, dd		0080-1L

Table 1 : Lithology description for well NOCS 16/1-3

Depth unit of measure: m

Depth	Type	Grp	Frm	Age	Trb	Sample
Int	Cvd	TOC%	%	Lithology description		
3121.00						0081
				75 S/Sst : w to gy red, calc, l		0081-3L
				15 Other : w to gy pi, evap		0081-4L
				10 Sh/Clst: gy red, gn gy, slt, mic		0081-2L
				tr Cont : Coal-ad, dd		0081-1L
3127.00						0082
				75 Other : w to gy pi, evap		0082-4L
				15 Sltst : gy red, gn gy, s, mic		0082-2L
				10 S/Sst : w to gy red, calc, l		0082-3L
				tr Cont : Coal-ad, dd		0082-1L
3133.00						0083
				70 Other : w to gy pi, evap		0083-4L
				20 S/Sst : w to gy red, calc, l		0083-3L
				10 Sltst : gy red, gn gy, s, mic		0083-2L
				tr Cont : Coal-ad, dd		0083-1L
3136.00						0084
				55 Other : w to gy pi, evap		0084-4L
				25 S/Sst : w to gy red, calc, l		0084-3L
				20 Sltst : gy red, gn gy, s, mic		0084-2L
				tr Cont : Coal-ad, dd		0084-1L
3145.00						0085
				65 Other : w to gy pi, calc, evap		0085-4L
				20 Sltst : gy red, gn gy, s, mic		0085-2L
				15 S/Sst : w to gy red, calc, l		0085-3L
				tr Cont : prp, fib		0085-1L

Table 1 : Lithology description for well NOCS 16/1-3

Depth unit of measure: m

Depth	Type	Grp	Frm	Age	Trb	Sample
Int	Cvd	TOC%	%	Lithology description		
3151.00						0086
			85	Ca : w to gy pi, evap		0086-4L
			10	Sltst : gy red, gn gy, s, mic		0086-2L
			5	S/Sst : w to gy red, calc, l		0086-3L
			tr	Cont : Coal-ad, prp, fib		0086-1L
3157.00						0087
			95	Other : w to gy pi, calc, evap		0087-4L
			5	Sltst : gy red, gn gy, s, mic		0087-2L
			tr	Cont : Coal-ad, prp, fib		0087-1L
			tr	S/Sst : w to gy red, calc, l		0087-3L
3163.00						0088
			95	Other : w to gy pi, calc, evap		0088-3L
			5	Sltst : gy red, gn gy, s, mic		0088-1L
			tr	S/Sst : w to gy red, calc, l		0088-2L
3169.00						0089
	0.05		95	Ca : w to gy pi, evap		0089-3L
			5	Sltst : gy red, gn gy, s, mic		0089-1L
			tr	S/Sst : w to gy red, calc, l		0089-2L
3175.00						0090
			90	Ca : w to gy pi, evap		0090-3L
			5	Sltst : gy red, gn gy, s, mic		0090-1L
			5	S/Sst : w to gy red, calc, cem		0090-2L

Table 1 : Lithology description for well NOCS 16/1-3

Depth unit of measure: m

Depth	Type	Grp	Frm	Age	Trb	Sample
Int	Cvd	TOC%	%	Lithology description		
3181.00						0091
			75	Other	: w to gy pi, calc, evap	0091-3L
			15	Cont	: st, Coal-ad	0091-4L
			10	Sltst	: gy red, gn gy, s, mic	0091-1L
			tr	S/Sst	: w to gy red, calc, cem	0091-2L
3187.00						0092
			85	Other	: w to gy pi, calc, evap	0092-3L
			15	Sltst	: gy red, gn gy, s, mic	0092-1L
			tr	S/Sst	: w to gy red, calc, cem	0092-2L
			tr	Cont	: st, Coal-ad	0092-4L
3193.00						0093
			75	S/Sst	: w to gy red, crs, l	0093-2L
			20	Other	: w to gy pi, calc, evap	0093-3L
			5	Sltst	: gy red, gn gy, s, mic	0093-1L
			tr	Cont	: Coal-ad	0093-4L
3202.00						0094
	0.04		85	S/Sst	: w to gy red, crs, cem, l	0094-2L
			10	Other	: w to gy pi, calc, evap	0094-3L
			5	Sltst	: gy red, gn gy, s, mic	0094-1L
			tr	Cont	: Coal-ad	0094-4L
3208.00						0095
			95	S/Sst	: w to gy red, crs, cem, l	0095-2L
			5	Sltst	: gy red, gn gy, s, mic	0095-1L
			tr	Other	: w to gy pi, calc, evap	0095-3L
			tr	Cont	: Coal-ad	0095-4L

Table 1 : Lithology description for well NOCS 16/1-3

Depth unit of measure: m

Depth	Type	Grp	Frm	Age	Trb	Sample
Int	Cvd	TOC%	%	Lithology description		
3214.00						0096
				90 S/Sst : w to gy red, crs, cem, l		0096-2L
				10 Sltst : gy red, gn gy, s, mic		0096-1L
				tr Other : w to gy pi, calc, evap		0096-3L
				tr Cont : Coal-ad		0096-4L
3220.00						0097
				90 S/Sst : w to gy red, crs, cem, l		0097-2L
				10 Sltst : gy red, gn gy, s, mic		0097-1L
				tr Other : w to gy pi, calc, evap		0097-3L
				tr Cont : Coal-ad		0097-4L
3226.00						0098
	0.01			95 S/Sst : w to gy red, crs, cem, l		0098-2L
				5 Sltst : gy red, gn gy, s, mic		0098-1L
				tr Other : w to gy pi, calc, evap		0098-3L
				tr Cont : Coal-ad		0098-4L

Table 2 : Rock-Eval table for well NOCS 16/1-3

Depth unit of measure: m

Depth	Typ	Lithology	S1	S2	S3	S2/S3	TOC	HI	OI	PP	PI	Tmax	Sample
1610.00	cut	Sltst : brn gy	0.09	1.47	0.97	1.52	1.49	99	65	1.6	0.06	431	0099-1L
1650.00	cut	S/Sst : w to lt gy	-	0.06	0.10	0.60	0.14	43	71	0.1	-	425	0103-3L
1720.00	cut	S/Sst : w to lt gy	-	0.03	0.23	0.13	0.10	30	230	-	-	-	0107-3L
1750.00	cut	Sltst : brn gy	0.13	1.78	1.12	1.59	1.59	112	70	1.9	0.07	431	0110-1L
1850.00	cut	S/Sst : w	-	0.02	0.16	0.13	0.06	33	267	-	-	413	0113-3L
1870.00	cut	S/Sst : w	-	0.01	0.21	0.05	0.04	25	525	-	-	437	0115-3L
2450.00	cut	Marl : lt brn gy to pl ol	0.02	0.28	2.04	0.14	0.79	35	258	0.3	0.07	424	0001-2L
2480.00	cut	Ca : w to gy pi	0.03	0.10	1.77	0.06	0.30	33	590	0.1	0.23	358	0002-4L
2540.00	cut	Sh/Clst: m gy to gy gn, pl y brn, gy red	0.02	0.50	1.14	0.44	0.96	52	119	0.5	0.04	428	0004-2L
2630.00	cut	Sltst : brn gy to dsk y brn	1.22	21.23	0.89	23.85	4.49	473	20	22.4	0.05	427	0007-7L
2660.00	cut	S/Sst : w to gy pi	-	0.06	0.21	0.29	0.08	75	263	0.1	-	427	0008-4L
2690.00	cut	S/Sst : w to gy pi	0.01	0.04	0.31	0.13	0.08	50	388	0.1	0.20	378	0009-3L
2705.00	cut	S/Sst : w to gy pi	-	0.03	0.35	0.09	0.11	27	318	-	-	436	0010-2L
2710.00	cut	S/Sst : w to m gy	0.01	0.13	0.17	0.76	0.17	76	100	0.1	0.07	428	0011-2L

Table 2 : Rock-Eval table for well NOCS 16/1-3

Depth unit of measure: m

Depth	Typ	Lithology	S1	S2	S3	S2/S3	TOC	HI	OI	PP	PI	Tmax	Sample
2715.00	cut	Sltst : dsk y brn to drk gy	0.61	10.76	0.50	21.52	3.91	275	13	11.4	0.05	427	0012-4L
2720.00	cut	Sltst : dsk y brn	0.71	13.46	0.50	26.92	4.54	296	11	14.2	0.05	426	0013-4L
2725.00	cut	Sltst : dsk y brn	0.82	14.11	0.76	18.57	4.36	324	17	14.9	0.05	427	0014-3L
2730.00	cut	Sltst : dsk y brn	0.56	8.12	0.81	10.02	3.48	233	23	8.7	0.06	431	0015-3L
2735.00	cut	Coal : blk to brn blk	13.97	113.52	11.02	10.30	60.69	187	18	127.5	0.11	428	0016-5L
2740.00	cut	Coal : blk to brn blk	13.50	132.25	18.75	7.05	68.59	193	27	145.8	0.09	429	0017-5L
2752.00	cut	Sh/Clst: dsk y brn to brn blk	6.14	53.62	4.00	13.40	20.83	257	19	59.8	0.10	429	0019-3L
2758.00	cut	Sh/Clst: brn gy to dsk y brn	2.41	24.60	1.94	12.68	10.37	237	19	27.0	0.09	430	0020-3L
2764.00	cut	Marl : lt brn gy, gy red, dsk y	0.01	0.07	0.60	0.12	0.31	23	194	0.1	0.13	429	0021-4L
2776.00	cut	Marl : pl ol, gy red	0.01	0.03	0.58	0.05	0.18	17	322	-	0.25	432	0023-3L
2785.00	cut	S/Sst : w to y gy	0.01	0.05	0.48	0.10	0.16	31	300	0.1	0.17	433	0025-5L
2791.00	cut	S/Sst : lt or to or gy	0.01	0.05	0.33	0.15	0.15	33	220	0.1	0.17	363	0026-3L
2803.00	cut	S/Sst : lt or to or gy	0.01	0.07	0.31	0.23	0.15	47	207	0.1	0.13	-	0028-3L
2815.00	cut	Ca : pl brn to drk y brn	-	0.03	0.25	0.12	0.08	38	313	-	-	-	0030-4L
2827.00	cut	S/Sst : w to gy pi	-	0.02	0.19	0.11	0.07	29	271	-	-	-	0032-3L

Table 2 : Rock-Eval table for well NOCS 16/1-3

Depth unit of measure: m

Depth	Typ	Lithology	S1	S2	S3	S2/S3	TOC	HI	OI	PP	PI	Tmax	Sample
2845.00	cut	Sltst : gy red	-	0.05	0.59	0.08	0.15	33	393	0.1	-	436	0035-2L
2857.00	cut	S/Sst : w to gy pi to gy red	-	0.04	0.47	0.09	0.10	40	470	-	-	361	0037-3L
2875.00	cut	S/Sst : w to gy pi to gy red	-	0.08	0.54	0.15	0.16	50	338	0.1	-	333	0040-3L
2893.00	cut	S/Sst : w to gy pi to gy red	0.02	0.33	0.80	0.41	0.29	114	276	0.4	0.06	406	0043-3L
2911.00	cut	S/Sst : w to gy pi to gy red	-	0.07	0.25	0.28	0.10	70	250	0.1	-	400	0046-3L
2947.00	com	bulk	0.01	0.07	0.57	0.12	0.14	50	407	0.1	0.13	361	0118-0B
2971.00	com	bulk	0.01	0.03	0.33	0.09	0.05	60	660	-	0.25	-	0119-0B
2989.00	cut	Sltst : gy red, gn gy	-	0.03	0.24	0.13	0.03	100	800	-	-	436	0059-2L
3013.00	cut	Sltst : gy red, gn gy	-	0.01	0.17	0.06	0.02	50	850	-	-	378	0063-2L
3031.00	cut	Sltst : gy red, gn gy	-	0.01	0.12	0.08	0.02	50	600	-	-	-	0066-2L
3067.00	cut	Sltst : gy red, gn gy	0.01	0.03	0.23	0.13	0.06	50	383	-	0.25	326	0072-2L
3085.00	cut	S/Sst : w to gy red	-	0.03	0.11	0.27	0.04	75	275	-	-	-	0075-3L
3103.00	cut	S/Sst : w to gy red	-	0.05	0.05	1.00	0.04	125	125	0.1	-	-	0078-3L
3145.00	com	bulk	-	0.01	0.07	0.14	0.04	25	175	-	-	-	0120-0B
3169.00	cut	Ca : w to gy pi	-	0.01	0.11	0.09	0.05	20	220	-	-	-	0089-3L

Table 2 : Rock-Eval table for well NOCS 16/1-3

Depth unit of measure: m

Depth	Typ	Lithology	S1	S2	S3	S2/S3	TOC	HI	OI	PP	PI	Tmax	Sample
3202.00	cut	S/Sst : w to gy red	-	0.04	0.03	1.33	0.04	100	75	-	-	-	0094-2L
3226.00	cut	S/Sst : w to gy red	-	0.01	0.01	1.00	0.01	100	100	-	-	-	0098-2L

Table 3 : Pyrolysis GC Data (S2 peak) as Percentage of Total Area for Well NOCS 16/1-3

Depth unit of measure: m

Depth	Typ	Lithology	C1	C2-C5	C6-C14	C15+	S2 from Rock-Eval	Sample
1750.00	cut	Sltst : brn gy	6.24	26.43	53.05	14.29	1.78	0110-1L
2630.00	cut	Sltst : brn gy to dsk y brn	2.52	12.40	31.81	53.27	21.23	0007-7L
2715.00	cut	Sltst : dsk y brn to drk gy	5.90	12.31	34.35	47.44	10.76	0012-4L
2725.00	cut	Sltst : dsk y brn	4.05	12.26	32.96	50.73	14.11	0014-3L
2735.00	cut	Coal : blk to brn blk	9.55	12.05	24.33	54.06	113.52	0016-5L
2752.00	cut	Sh/Clst: dsk y brn to brn blk	9.35	12.04	26.98	51.64	53.62	0019-3L
2758.00	cut	Sh/Clst: brn gy to dsk y brn	8.50	12.96	41.72	36.82	24.60	0020-3L
2764.00	cut	Marl : lt brn gy, gy red, dsk y	-	-	-	-	0.07	0021-4L
2893.00	cut	S/Sst : w to gy pi to gy red	9.84	30.34	44.79	15.04	0.33	0043-3L

Table 4 a: Weight of EOM and Chromatographic Fraction for well NOCS 16/1-3

Depth unit of measure: m

Depth	Typ	Lithology	Rock Extracted (g)	EOM (mg)	Sat (mg)	Aro (mg)	Asph (mg)	NSO (mg)	HC (mg)	Non-HC (mg)	TOC(e) (%)	Sample
1750.00	com	Composite sample - see table 4 e	1.2	0.6	0.2	0.2	0.1	0.2	0.3	0.3	1.63	0121-0B
2630.00	cut	Sltst : brn gy to dsk y brn	5.0	13.9	2.4	4.3	3.2	4.1	6.7	7.2	3.93	0007-7L
2720.00	com	Composite sample - see table 4 e	7.3	7.9	1.7	2.5	1.6	2.1	4.2	3.7	4.56	0122-0B
2730.00	com	Composite sample - see table 4 e	9.1	18.4	5.4	5.6	3.1	4.3	11.0	7.4	5.00	0123-0B
2740.00	com	Composite sample - see table 4 e	5.5	163.2	11.6	63.2	67.2	21.3	74.7	88.5	61.00	0125-0B
2752.00	cut	Sh/Clst: dsk y brn to brn blk	1.4	18.5	0.5	0.8	13.6	3.6	1.3	17.2	28.20	0019-3L
2758.00	cut	Sh/Clst: brn gy to dsk y brn	1.1	2.4	0.2	0.2	1.3	0.8	0.3	2.1	8.83	0020-3L

Table 4 b: Concentration of EOM and Chromatographic Fraction (wt ppm rock) for well NOCS 16/1-3

Depth unit of measure: m

Depth	Typ	Lithology	EOM	Sat	Aro	Asph	NSO	HC	Non-HC	Sample
1750.00	com	Composite sample - see table 4 e	504	126	126	84	168	252	252	0121-0B
2630.00	cut	Sltst : brn gy to dsk y brn	2796	474	865	643	812	1340	1456	0007-7L
2720.00	com	Composite sample - see table 4 e	1077	234	335	218	289	570	507	0122-0B
2730.00	com	Composite sample - see table 4 e	2015	587	615	339	473	1202	812	0123-0B
2740.00	com	Composite sample - see table 4 e	29781	2107	11525	12262	3885	13633	16147	0125-0B
2752.00	cut	Sh/Clst: dsk y brn to brn blk	13405	376	557	9855	2615	934	12471	0019-3L
2758.00	cut	Sh/Clst: brn gy to dsk y brn	2086	130	130	1130	695	260	1826	0020-3L

Table 4 c: Concentration of EOM and Chromatographic Fraction (mg/g TOC(e)) for well NOCS 16/1-3

Depth unit of measure: m

Depth	Typ	Lithology	EOM	Sat	Aro	Asph	NSO	HC	Non-HC	Sample
1750.00	com	Composite sample - see table 4 e	30.93	7.73	7.73	5.16	10.31	15.47	15.47	0121-0B
2630.00	cut	Sltst : brn gy to dsk y brn	71.16	12.08	22.02	16.38	20.68	34.10	37.07	0007-7L
2720.00	com	Composite sample - see table 4 e	23.64	5.15	7.36	4.79	6.34	12.51	11.13	0122-0B
2730.00	com	Composite sample - see table 4 e	40.31	11.74	12.31	6.79	9.46	24.05	16.25	0123-0B
2740.00	com	Composite sample - see table 4 e	48.82	3.46	18.89	20.10	6.37	22.35	26.47	0125-0B
2752.00	cut	Sh/Clst: dsk y brn to brn blk	47.54	1.34	1.98	34.95	9.28	3.31	44.22	0019-3L
2758.00	cut	Sh/Clst: brn gy to dsk y brn	23.63	1.48	1.48	12.80	7.88	2.95	20.68	0020-3L

Table 4 d: Composition of material extracted from the rock (%) for well NOCS 16/1-3

Depth unit of measure: m

Depth	Typ	Lithology	Sat	Aro	Asph	NSO	HC	Non-HC	Sat	HC	Sample
			EOM	EOM	EOM	EOM	EOM	EOM	EOM	Aro	
1750.00	com	Composite sample - see table 4 e	25.00	25.00	16.67	33.33	50.00	50.00	100.00	100.00	0121-0B
2630.00	cut	Sltst : brn gy to dsk y brn	16.98	30.94	23.02	29.06	47.91	52.09	54.88	91.99	0007-7L
2720.00	com	Composite sample - see table 4 e	21.77	31.14	20.25	26.84	52.91	47.09	69.92	112.37	0122-0B
2730.00	com	Composite sample - see table 4 e	29.13	30.54	16.85	23.48	59.67	40.33	95.37	147.98	0123-0B
2740.00	com	Composite sample - see table 4 e	7.08	38.70	41.18	13.05	45.78	54.22	18.29	84.43	0125-0B
2752.00	cut	Sh/Clst: dsk y brn to brn blk	2.81	4.16	73.51	19.51	6.97	93.03	67.53	7.50	0019-3L
2758.00	cut	Sh/Clst: brn gy to dsk y brn	6.25	6.25	54.17	33.33	12.50	87.50	100.00	14.29	0020-3L

Depth unit of measure: m

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

<u>Upper depth</u>	<u>Lower depth</u>	<u>Typ</u>	<u>Sample</u>	<u>Depth</u>	<u>Typ</u>	<u>Lithology</u>	<u>Sample</u>
1610.00	1750.00	com	0121-0B is composed of:	1610.00	cut	Sltst : brn gy, mic	0099-1L
				1750.00	cut	Sltst : brn gy, mic	0110-1L
2715.00	2720.00	com	0122-0B is composed of:	2715.00	cut	Sltst : dsk y brn to drk gy, mic	0012-4L
				2720.00	cut	Sltst : dsk y brn, mic	0013-4L
2725.00	2730.00	com	0123-0B is composed of:	2725.00	cut	Sltst : dsk y brn, mic	0014-3L
				2730.00	cut	Sltst : dsk y brn, mic	0015-3L
2735.00	2740.00	com	0125-0B is composed of:	2735.00	cut	Coal : blk to brn blk	0016-5L
				2740.00	cut	Coal : blk to brn blk	0017-5L

Table 5 : Saturated Hydrocarbon Ratios for well NOCS 16/1-3

Depth unit of measure: m

Depth	Typ	Lithology	Pristane	Pristane	Pristane + Phytane	Phytane	CPI	Sample
			nC17	Phytane	nC17 + nC18	nC18		
1750.00	com	bulk	0.55	1.41	0.52	0.48	1.53	0121-0B
2630.00	cut	Sltst : brn gy to dsk y brn	0.82	1.26	0.77	0.72	0.81	0007-7L
2720.00	com	bulk	1.17	1.71	0.97	0.75	1.16	0122-0B
2730.00	com	bulk	1.01	1.78	0.87	0.70	1.28	0123-0B
2740.00	com	bulk	0.50	2.82	0.38	0.22	1.30	0125-0B
2752.00	cut	Sh/Clst: dsk y brn to brn blk	0.57	2.44	0.44	0.28	1.49	0019-3L
2758.00	cut	Sh/Clst: brn gy to dsk y brn	0.88	2.72	0.67	0.40	1.62	0020-3L

Table 6 : Aromatic Hydrocarbon Ratios for well NOCS 16/1-3

Depth unit of measure: m

Depth	Typ	Lithology	MNR	DMNR	BPhR	2/1MP	MPI1	MPI2	Rc	DBT/P	4/1MDBT (3+2) /1MDBT	Sample	
1750.00	com	bulk	-	0.83	-	0.64	0.48	0.50	0.69	0.63	5.87	0.99	0121-0B
2630.00	cut	Sltst : brn gy to dsk y brn	0.86	1.36	0.20	0.80	0.67	0.68	0.80	0.53	2.19	0.59	0007-7L
2720.00	com	bulk	0.84	1.43	0.13	0.64	0.45	0.43	0.67	0.36	0.85	0.31	0122-0B
2730.00	com	bulk	0.98	1.62	0.20	0.69	0.46	0.46	0.68	0.32	1.52	0.35	0123-0B
2740.00	com	bulk	1.14	1.86	0.38	0.86	0.66	0.78	0.80	0.22	13.09	1.58	0125-0B
2752.00	cut	Sh/Clst: dsk y brn to brn blk	1.07	2.02	0.24	0.76	0.56	0.65	0.74	0.13	10.28	1.14	0019-3L
2758.00	cut	Sh/Clst: brn gy to dsk y brn	0.57	1.86	0.14	0.75	0.49	0.56	0.69	0.12	5.78	0.86	0020-3L

Table 7 : Thermal Maturity Data for well NOCS 16/1-3

Depth unit of measure: m

Depth	Typ Lithology	Vitrinite Reflectance (%)	Number of Readings	Standard Deviation	Spore Fluorescence Colour	SCI	T _{max} (°C)	Sample
1620.00	cut bulk	0.28	6	0.02	4	-	-	0100-0B
1720.00	cut Sltst : brn gy	-	-	-	-	4.0	-	0107-1L
1730.00	cut bulk	0.46	3	0.01	4	-	-	0108-0B
1830.00	cut bulk	NDP	-	-	4 (?)	-	-	0111-0B
2450.00	cut Marl : lt brn gy to pl ol	-	-	-	-	3.0??	424	0001-2L
2540.00	cut Sh/Clst: m gy to gy gn, pl y brn, gy red	-	-	-	-	4.0-4.5	428	0004-2L
2570.00	cut bulk	0.37	8	0.04	4-5	-	-	0005-0B
2630.00	cut bulk	0.39	10	0.10	4	-	-	0007-0B
2630.00	cut Sltst : brn gy to dsk y brn	-	-	-	-	4.0??	427	0007-7L
2715.00	cut Sltst : dsk y brn to drk gy	-	-	-	-	4.5??	427	0012-4L
2735.00	cut bulk	0.50	40	0.06	5	-	-	0016-0B
2735.00	cut Coal : blk to brn blk	-	-	-	-	4.5?	428	0016-5L
2758.00	cut Sh/Clst: brn gy to dsk y brn	-	-	-	-	4.5-5.0	430	0020-3L

Table 7 : Thermal Maturity Data for well NOCS 16/1-3

Depth unit of measure: m

Depth	Typ Lithology	Vitrinite Reflectance (%)	Number of Readings	Standard Deviation	Spore Fluorescence Colour	SCI	T _{max} (°C)	Sample
2809.00	cut bulk	NDP	-	-	NDP	-	-	0029-0B
2845.00	cut bulk	NDP	-	-	NDP	-	-	0035-0B
3001.00	cut bulk	0.45	18	0.06	5 (??)	-	-	0061-0B
3097.00	cut bulk	NDP	-	-	NDP	-	-	0077-0B
3187.00	cut bulk	NDP	-	-	7-8 (??)	-	-	0092-0B

Table 8 : Visual Kerogen Composition Data for well NOCS 16/1-3

Depth unit of measure: m

Depth	Typ	Lithology	L I P T %	A M o r L t	L i D P e l	S u p / P o l	C u t c l	R e s i n e	A l g i n e	D i n c o r t	A B i t L	I N E R T %	S F i n s	I m F D r e t	M i c r o I	S c l e t I	V I T R %	T e l l i n	C o l l i n	V i t e r V	A m b i t V	Sample
1720.00	cut	Sltst : brn gy	90	**	*			*	*			TR		*			10	*	**			0107-1L
2450.00	cut	Marl : lt brn gy to pl ol	NDP	**	*			*	*			NDP	*	*			NDP	*				0001-2L
2540.00	cut	Sh/Clst: m gy to gy gn, pl y brn, gy red	70	*	**	**		**	*			15	*	*			15	*	*			0004-2L
2630.00	cut	Sltst : brn gy to dsk y brn	90	**	*	*		**	*			10	*	**			TR		*			0007-7L
2715.00	cut	Sltst : dsk y brn to drk gy	95	**	*	*		**	*	?		5	*	*			TR	*	*			0012-4L
2735.00	cut	Coal : blk to brn blk	10			*	*	*				10		*			80	*	*		*	0016-5L
2758.00	cut	Sh/Clst: brn gy to dsk y brn	50	*		*		*				5		*	*		45	*	*	*		0020-3L

Table 9a : Tabulation of carbon isotope data for EOM/Oil - fractions or Oils for well NOCS 16/1-3

Depth unit of measure: m

<u>Depth</u>	<u>Typ</u>	<u>Lithology</u>	<u>EOM/Oil</u>	<u>Saturated</u>	<u>Aromatic</u>	<u>NSO</u>	<u>Asphaltenes</u>	<u>Kerogen</u>	<u>Sample</u>
2630.00	cut		-29.71	-29.81	-28.33	-29.83	-29.93	-	0007-7L
2720.00	com	Composite sample	-27.80	-27.29	-27.02	-27.53	-26.64	-	0122-0B
2740.00	com	Composite sample	-27.08	-27.39	-25.77	-27.07	-25.45	-	0125-0B

Table 9b : Tabulation of cv values from carbon isotope data for well NOCS 16/1-3

Depth unit of measure: m

Depth	Typ	Lithology	Saturated	Aromatic	cv value	Sample
2630.00	cut		-29.81	-28.33	0.88	0007-7L
2720.00	com	Composite sample	-27.29	-27.02	-2.59	0122-0B
2740.00	com	Composite sample	-27.39	-25.77	0.44	0125-0B

Table 10A: Variation in Triterpane Distribution (peak height) for Well NOCS 16/1-3

Depth unit of measure: m

Depth	Lithology	B/A	B/B+A	B		C/E	C/C+E	X/E	Z/E	Z/C	Z/Z+E	Q/E	C+D		J1		Sample
				B+E+F									E/E+F	C+D+E+F	D+F/C+E	J1+J2%	
1750.00	sltst	1.94	0.66	0.35		1.23	0.55	-	1.11	0.91	0.53	0.23	0.83	0.57	0.27	54.10	0121-0
2630.00	sltst	2.12	0.68	0.25		0.77	0.44	0.03	0.40	0.51	0.28	0.09	0.89	0.45	0.15	54.30	0007-7
2720.00	sltst	5.27	0.84	0.24		0.62	0.38	0.08	1.12	1.81	0.53	0.03	0.81	0.38	0.23	54.03	0122-0
2740.00	Coal	-	-	-		0.73	0.42	0.07	0.63	0.86	0.39	0.02	0.70	0.42	0.43	55.37	0125-0

Table 10B: Variation in Sterane Distribution (peak height) for Well NOCS 16/1-3

Depth unit of measure: m

<u>Depth</u>	<u>Lithology</u>	<u>Ratio1</u>	<u>Ratio2</u>	<u>Ratio3</u>	<u>Ratio4</u>	<u>Ratio5</u>	<u>Ratio6</u>	<u>Ratio7</u>	<u>Ratio8</u>	<u>Ratio9</u>	<u>Ratio10</u>	<u>Sample</u>
1750.00	Sltst	0.62	47.53	69.71	1.07	0.71	0.33	0.28	0.54	0.91	2.19	0121-0
2630.00	Sltst	0.19	19.20	57.01	0.49	0.78	0.10	0.08	0.40	0.24	0.82	0007-7
2720.00	Sltst	0.42	20.50	60.03	0.90	0.79	0.07	0.06	0.43	0.26	0.94	0122-0
2740.00	Coal	0.43	24.85	70.20	0.22	0.83	0.08	0.06	0.54	0.33	1.57	0125-0

Ratio1: $a / a + j$

Ratio2: $q / q + t * 100\%$

Ratio3: $2(r + s) / (q + t + 2(r + s)) * 100\%$

Ratio4: $a + b + c + d / h + k + l + n$

Ratio5: $r + s / r + s + q$

Ratio6: $u + v / u + v + q + r + s + t$

Ratio7: $u + v / u + v + i + m + n + q + r + s + t$

Ratio8: $r + s / q + r + s + t$

Ratio9: q / t

Ratio10: $r + s / t$

Table 10C: Raw GCMS triterpane data (peak height) for Well NOCS 16/1-3

Depth unit of measure: m

Depth	Lithology	p	q	r	s	t	a	b	z	c	Sample
		x	d	e	f	g	h	i	j1		
		j2	k1	k2	l1	l2	m1	m2			
1750.00	Sltst	45.10	20.41	16.39	14.23	7.84	30.91	59.93	100.50	110.86	0121-0
		0.00	35.39	90.36	18.53	28.23	93.77	0.00	12.47		
		10.58	5.77	0.00	0.00	0.00	0.00	0.00			
2630.00	Sltst	803.48	485.00	386.42	562.01	200.10	950.22	2015.74	2171.21	4239.13	0007-7
		145.70	772.67	5488.98	683.73	2067.60	1793.78	280.97	1448.50		
		1218.88	1805.94	1702.72	645.03	595.68	1161.74	1226.62			
2720.00	Sltst	150.74	58.96	65.02	75.81	29.39	131.97	695.59	1982.55	1092.53	0122-0
		139.13	238.08	1772.24	411.31	693.85	511.87	151.67	261.74		
		222.69	161.75	159.03	101.68	98.57	116.95	105.11			
2740.00	Coal	306.34	314.22	127.21	1255.95	0.00	0.00	0.00	11870.61	13794.93	0125-0
		1256.37	5883.02	18895.82	8109.62	9656.45	7602.33	3856.61	4394.25		
		3542.58	1354.30	1060.39	497.03	426.88	119.18	77.17			

Table 10D: Raw GCMS sterane data (peak height) for Well NOCS 16/1-3

Depth unit of measure: m

Depth	Lithology	u	v	a	b	c	d	e	f	g	Sample
		h	i	j	k	l	m	n	o		
		p	q	r	s	t					
1750.00	Sltst	16.79	21.07	20.12	11.31	6.54	7.56	8.59	4.23	6.18	0121-0
		27.21	13.22	12.53	9.60	0.00	0.00	5.85	15.95		
		11.58	17.29	20.93	20.93	19.09					
2630.00	Sltst	1122.33	809.53	1976.20	1358.34	688.25	1191.73	1036.70	1157.29	327.66	0007-7
		4738.37	2867.49	8627.50	2530.83	995.32	1243.13	2366.58	2173.17		
		6735.84	1960.21	3384.72	3384.72	8249.31					
2720.00	Sltst	215.92	134.03	1578.08	1204.05	469.10	690.03	654.81	577.99	1279.60	0122-0
		1727.29	353.30	2144.74	1332.82	599.67	213.16	709.52	488.58		
		1280.87	530.15	970.99	970.99	2055.60					
2740.00	Coal	947.15	512.09	922.11	541.87	251.69	1188.01	1188.01	1473.83	650.52	0125-0
		6560.21	881.62	1209.53	1991.86	1991.86	2749.34	2749.34	1352.45		
		1553.69	1972.09	4673.47	4673.47	5962.40					

Depth unit of measure: m

<u>Depth</u>	<u>Lithology</u>	<u>Ratio1</u>	<u>Ratio2</u>	<u>Sample</u>
1750.00	Sltst	0.47*	0.38	0121-0
2630.00	Sltst	0.59	0.58	0007-7
2720.00	Sltst	0.74	0.56	0122-0
2740.00	Coal	0.53	0.77	0125-0

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

$$\text{Ratio2: } \text{g1} / \text{g1} + \text{I1}$$

* = uncertain measurement, due to coelution problem

Table 10F: Variation in Triaromatic Sterane Distribution for Well NOCS 16/1-3

Depth unit of measure: m

<u>Depth</u>	<u>Lithology</u>	<u>Ratio1</u>	<u>Ratio2</u>	<u>Ratio3</u>	<u>Ratio4</u>	<u>Ratio5</u>	<u>Sample</u>
1750.00	sltst	0.63	0.65	0.37	0.33	0.45	0121-0
2630.00	sltst	0.59	0.54	0.25	0.28	0.32	0007-7
2720.00	sltst	0.22	0.14	0.07	0.08	0.12	0122-0
2740.00	Coal	0.49	0.37	0.29	0.25	0.55	0125-0

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

Table 10G: Variation in Monoaromatic Sterane Distribution for Well NOCS 16/1-3

Depth unit of measure: m

<u>Depth</u>	<u>Lithology</u>	<u>Ratio1</u>	<u>Ratio2</u>	<u>Ratio3</u>	<u>Ratio4</u>	<u>Sample</u>
1750.00	Sltst	0.49	0.39	0.26	0.17 *	0121-0
2630.00	Sltst	0.14	0.15	0.07	0.08	0007-7
2720.00	Sltst	0.16	0.09	0.08	0.06	0122-0
2740.00	Coal	0.31	0.09	0.07	0.05	0125-0

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

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

* = uncertain measurement, due to coelution problem

Table 10H: Raw GCMS monoaromatic sterane data (peak height) for Well NOCS 16/1-3

Depth unit of measure: m

Depth	Lithology	a1	b1	c1	d1	e1	f1	g1	h1	i1	Sample
1750.00	Sltst	26.64	17.55	16.92	21.80	28.01	6.64	48.34	31.09	67.61*	0121-0
2630.00	Sltst	196.27	223.97	608.83	598.67	1250.80	63.18	1254.90	863.56	323.01	0007-7
2720.00	Sltst	495.44	259.08	1747.35	1513.56	2597.28	636.07	2749.84	2226.62	532.86	0122-0
2740.00	Coal	62.78	13.08	29.30	15.15	140.30	117.27	634.35	516.34	111.49	0125-0

* = uncertain measurement, coelutes with strong unidentified peak

Table 10I: Raw GCMS trioaromatic sterane data (peak height) for Well NOCS 16/1-3

Depth unit of measure: m

Depth	Lithology	a1	b1	c1	d1	e1	f1	g1	Sample
1750.00	Sltst	69.29	77.44	21.26	84.59	52.79	44.95	41.01	0121-0
2630.00	Sltst	645.93	514.58	361.59	1351.36	529.93	716.11	442.53	0007-7
2720.00	Sltst	196.15	113.59	632.01	1483.13	776.57	700.42	681.69	0122-0
2740.00	Coal	361.92	222.23	50.41	298.46	504.08	182.40	378.68	0125-0