

GEOCHEMICAL INVESTIGATION OF THREE SOURCE ROCK EXTRACTS FROM
WELL 6407/9-7, NORWAY

1. INTRODUCTION

A geochemical investigation has been carried out on the following source rock samples from well 6407/9-7, Norway:

- 1700+1705+1706.25 m.
- 2421+2424+2433+2436 m.

A third sample from the interval 2001-2018.7 m contained too small amounts of organic matter (SRI=35) and no analysis was carried out. The samples have been selected on the basis of Rock Eval data supplied by Shell Risavika (Table 1) and microscopy. The results are shown in Tables 1-5 and in Figs. 1-16.

Table 1A: Rock-Eval table for well NOCS 6407/9-7

Depth unit of measure: m

Depth	Typ	Lithology	S1	S2	S3	S2/S3	TOC	HI	OI	PP	PI	Tmax	Sample
1680.00	cut	Sh/Clst: m gy to drk gy	0.03	0.72	1.21	0.60	1.43	50	85	0.8	0.04	418	0001-3L
1690.00	cut	Sh/Clst: m gy to drk gy	0.03	0.61	0.72	0.85	1.48	41	49	0.6	0.05	421	0002-3L
1700.00	cut	Sh/Clst: brn blk, drk gy	0.56	19.54	1.17	16.70	7.37	265	16	20.1	0.03	404	0003-3L
1705.00	swc	Sh/Clst: brn blk, drk gy	0.91	12.78	1.00	12.78	5.88	217	17	13.7	0.07	389	0004-3L
1706.25	swc	Sh/Clst: brn blk to blk	0.48	9.04	1.10	8.22	5.07	178	22	9.5	0.05	413	0005-3L
1708.50	swc	Sh/Clst: ol gy to blk	0.13	2.56	1.06	2.42	2.24	114	47	2.7	0.05	417	0006-3L
1710.00	swc	Sh/Clst: drk ol gy to blk	0.43	5.33	1.45	3.68	8.21	65	18	5.8	0.07	410	0007-3L
1711.50	swc	S/Sst : lt gy to m gy	0.06	0.96	0.62	1.55	0.79	122	78	1.0	0.06	462	0008-1L
1713.00	cut	Sh/Clst: drk gy to blk	0.34	10.93	2.44	4.48	5.64	194	43	11.3	0.03	411	0009-4L
1716.00	cut	Sh/Clst: drk gy to blk	0.24	11.20	2.56	4.38	5.32	211	48	11.4	0.02	416	0010-4L
1725.00	cut	Sh/Clst: drk gy to dsk y brn	0.33	11.81	1.78	6.63	6.03	196	30	12.1	0.03	406	0025-4L
1797.00	swc	S/Sst : lt gy	0.12	1.24	1.59	0.78	4.90	25	32	1.4	0.09	416	0011-3L
1833.00	cut	Sh/Clst: y gy to lt gy	0.02	0.35	1.22	0.29	0.70	50	174	0.4	0.05	422	0059-2L
1860.00	cut	Sh/Clst: drk gy to dsk y brn	0.54	43.33	2.34	18.52	14.55	298	16	43.9	0.01	437	0062-5L
1869.00	cut	Sh/Clst: drk gy to dsk y brn	0.58	39.68	3.40	11.67	21.59	184	16	40.3	0.01	430	0063-4L

Table 1B: Rock-Eval table for well NOCS 6407/9-7

Depth unit of measure: m

Depth	Typ	Lithology	S1	S2	S3	S2/S3	TOC	HI	OI	PP	PI	Tmax	Sample
1878.00	cut	Sh/Clst: drk gy	0.05	2.28	0.69	3.30	2.74	83	25	2.3	0.02	422	0064-4L
1899.00	cut	S/Sst : w to lt gy	-	0.03	1.84	0.02	0.21	14	876	-	-	427	0066-1L
1935.00	cut	S/Sst : w to lt gy	-	0.05	0.40	0.13	0.19	26	211	0.1	-	337	0070-1L
1976.00	swc	Sh/Clst: dsk y brn	0.03	2.47	3.46	0.71	1.26	196	275	2.5	0.01	428	0012-4L
1989.00	cut	Sh/Clst: m gy	0.08	2.59	0.66	3.92	1.58	164	42	2.7	0.03	428	0076-2L
2001.00	swc	Sh/Clst: drk y brn to dsk y brn	0.05	3.28	2.38	1.38	1.41	233	169	3.3	0.02	427	0013-4L
2018.70	swc	Sh/Clst: drk y brn to dsk y brn	0.07	4.66	5.57	0.84	1.54	303	362	4.7	0.01	425	0014-4L
2024.00	swc	Sh/Clst: m ol gy to drk ol gy	0.09	1.73	0.39	4.44	0.88	197	44	1.8	0.05	420	0015-4L
2036.90	swc	Sh/Clst: m ol gy to drk ol gy	0.10	2.45	0.93	2.63	1.13	217	82	2.5	0.04	427	0016-4L
2043.00	cut	Sh/Clst: m gy, lt brn gy to brn gy	0.07	3.50	0.47	7.45	1.31	267	36	3.6	0.02	425	0082-2L
2139.90	swc	Coal : blk	2.27	55.90	6.36	8.79	52.21	107	12	58.2	0.04	426	0017-4L
2142.00	cut	Coal : blk	2.30	104.61	9.23	11.33	61.04	171	15	106.9	0.02	424	0093-4L
2178.00	cut	S/Sst : w to lt gy	-	0.06	1.19	0.05	0.24	25	496	0.1	-	428	0097-1L
2178.00	cut	Sh/Clst: m gy to drk gy, lt brn gy to brn gy	0.04	2.07	0.41	5.05	1.23	168	33	2.1	0.02	426	0097-2L

Table 1C: Rock-Eval table for well NOCS 6407/9-7

Depth unit of measure: m

Depth	Typ	Lithology	S1	S2	S3	S2/S3	TOC	HI	OI	PP	PI	Tmax	Sample
2379.00	cut	Coal : blk	1.16	61.33	-	-	34.68	177	-	62.5	0.02	426	0038-2L
2379.00	cut	Sh/Clst: lt gy to m gy, lt brn gy	0.05	2.64	0.09	29.33	2.19	121	4	2.7	0.02	436	0038-5L
2384.10	swc	Coal : blk	1.69	56.00	1.23	45.53	28.40	197	4	57.7	0.03	430	0019-4L
2397.00	cut	Coal : dsk y brn to blk	2.25	140.84	2.81	50.12	54.33	259	5	143.1	0.02	425	0040-2L
2398.30	swc	Coal : blk	2.15	83.41	3.03	27.53	50.96	164	6	85.6	0.03	431	0020-4L
2407.20	swc	Coal : blk	2.23	98.81	3.68	26.85	60.03	165	6	101.0	0.02	428	0021-4L
2415.00	cut	Coal : dsk y brn to blk	0.92	44.22	1.23	35.95	33.46	132	4	45.1	0.02	430	0042-2L
2422.50	swc	Coal : blk	1.52	72.17	-	-	39.37	183	-	73.7	0.02	429	0022-4L
2424.00	cut	Sh/Clst: lt gy to lt brn gy to dsk y brn	0.45	27.93	0.85	32.86	8.40	333	10	28.4	0.02	425	0043-4L
2431.40	swc	Coal : blk	1.25	60.62	1.09	55.61	38.35	158	3	61.9	0.02	429	0023-4L
2433.00	cut	Sh/Clst: m gy to lt brn gy to dsk y brn	0.50	32.33	1.04	31.09	8.14	397	13	32.8	0.02	422	0044-4L
2439.30	swc	Coal : blk	2.18	95.45	3.63	26.29	63.81	150	6	97.6	0.02	430	0024-4L
2442.00	cut	Coal : dsk y brn to blk	1.96	94.11	-	-	52.14	180	-	96.1	0.02	430	0045-2L
2451.00	cut	Coal : dsk y brn to blk	1.84	81.97	0.26	315.27	43.09	190	1	83.8	0.02	428	0046-2L

TABLE 2 - GEOCHEMICAL DATA OF EXTRACTS

Sample	Norway 6407/9-7 1700+1705+1706.25 m	
	original	heated
% ethyl acetate extract	0.27	0.98
% organic carbon after ethyl acetate extraction	4.6	4.1
extract/original carbon (after extraction)	0.06	0.21
% sulphur	-	3.8
ppm V as metals	-	185
ppm Ni as metals	-	72
pristane/phytane	0.5	1.8
pristane/nC ₁₇	1.2	0.7
phytane/nC ₁₈	1.9	0.4
C ₁₅ distribution		
1-ring	ND	71
2-ring		20
3-ring		9
C ₃₀ distribution		
3-ring	4	26
4-ring	19	35
5-ring	77	39
C ₂₉ VR/E	0.63	-
% saturates *	3	14
% aromatics	16	37
% heterocompounds	60	48
% rest (high molecular)	20.3	1.6
δ ¹³ C ‰ (whole extract)	-28.8	-27.9
" (saturates)	-29.7	-28.8
" (aromatics)	-29.5	-28.3

*) Determined by thin-layer-chromatography

N.D. = not detectable

TABLE 3 - GEOCHEMICAL DATA OF EXTRACTS

Sample	Norway 6407/9-7 2421+2424+2433+2436 m	
	original	heated
% ethyl acetate extract	0.99	6.30
% organic carbon after ethyl acetate extraction	24.4	43.3
extract/original carbon (after extraction)	0.04	0.26
% sulphur	-	3.8
ppm V as metals	19	0
ppm Ni as metals	10	5
pristane/phytane	6.1	3.6
pristane/nC ₁₇	3.0	0.6
phytane/nC ₁₈	0.5	0.2
C ₁₅ distribution		
1-ring	36	55
2-ring	35	29
3-ring	28	16
C ₃₀ distribution		
3-ring	9	ND
4-ring	29	
5-ring	61	
C ₂₉ VR/E	0.68	-
% saturates *	2	8
% aromatics	26	41
% heterocompounds	58	49
% rest (high molecular)	13.9	2.2
δ ¹³ C ‰ (whole extract)	-26.5	-26.2
" (saturates)	NEM	-28.7
" (aromatics)	-27.1	-26.6

*) Determined by thin-layer-chromatography

N.D. = not detectable

NEM = not enough material

TABLE 4 - STERANE AND TRITERPANE DATA

Sample	Norway 6407/9-7 1700+1705+1706.25 m	
	original	heated
Sterane/triterpane diagram		
% iso-steranes*	47	ND
% rearranged-steranes*	33	
% triterpanes	20	
Sterane diagram		
% iso-steranes	30 (76 ppm)	ND
% rearranged-steranes	14 (36 ppm)	
% normal-steranes	56 (141 ppm)	
Sterane carbon number diagram		
% C-27	36 (90 ppm)	ND
% C-28	34 (86 ppm)	
% C-29	30 (77 ppm)	
C-29 Sterane ratios		
20S/20S + 20R	0.04	
iso/iso + normal	0.38	
Tricyclics/tricyclics + pentacyclics	0	

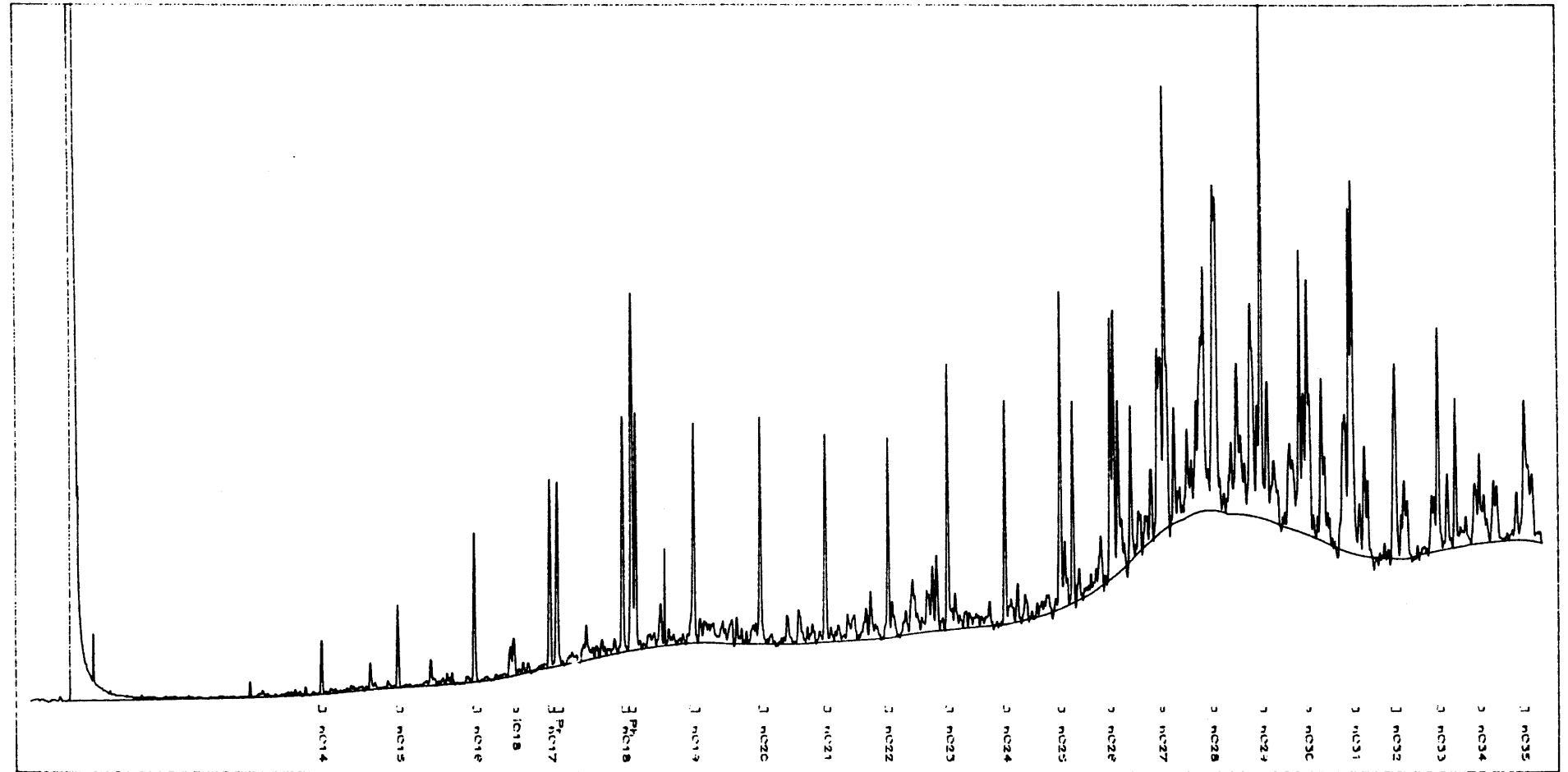
*) Recalculated

TABLE 5 - STERANE AND TRITERPANE DATA

Sample	Norway 6407/9-7 2421+2424+2433+2436 m	
	original	heated
Sterane/triterpane diagram		
% iso-steranes *	11	ND
% rearranged-steranes *	18	
% triterpanes	71	
Sterane diagram		
% iso-steranes	30 (16 ppm)	ND
% rearranged-steranes	33 (18 ppm)	
% normal-steranes	37 (20 ppm)	
Sterane carbon number diagram		
% C-27	10 (6 ppm)	ND
% C-28	30 (16 ppm)	
% C-29	60 (32 ppm)	
C-29 Sterane ratios		
20S/20S + 20R	0.14	
iso/iso + normal	0.36	
Tricyclics/tricyclics + pentacyclics	0	

*) Recalculated

GAS CHROMATOGRAM OF THE SATURATED HYDROCARBONS



NORWAY , 6407/9--7

1700+1705+1706.25 M. ; S 140064/7

EXTR. WITH WET ETAC.

FIG. 1.

GAS CHROMATOGRAM OF THE SATURATED HYDROCARBONS

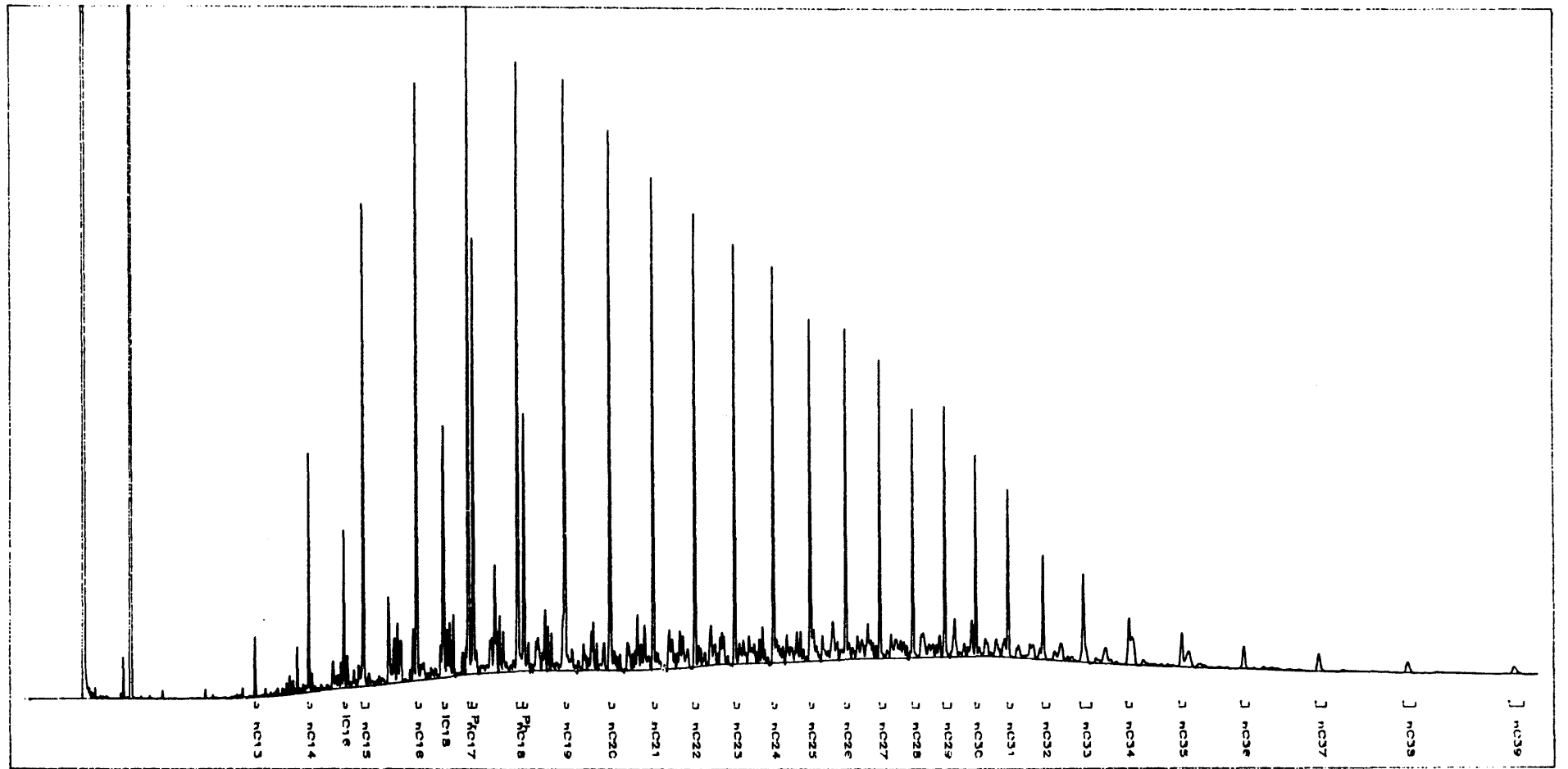
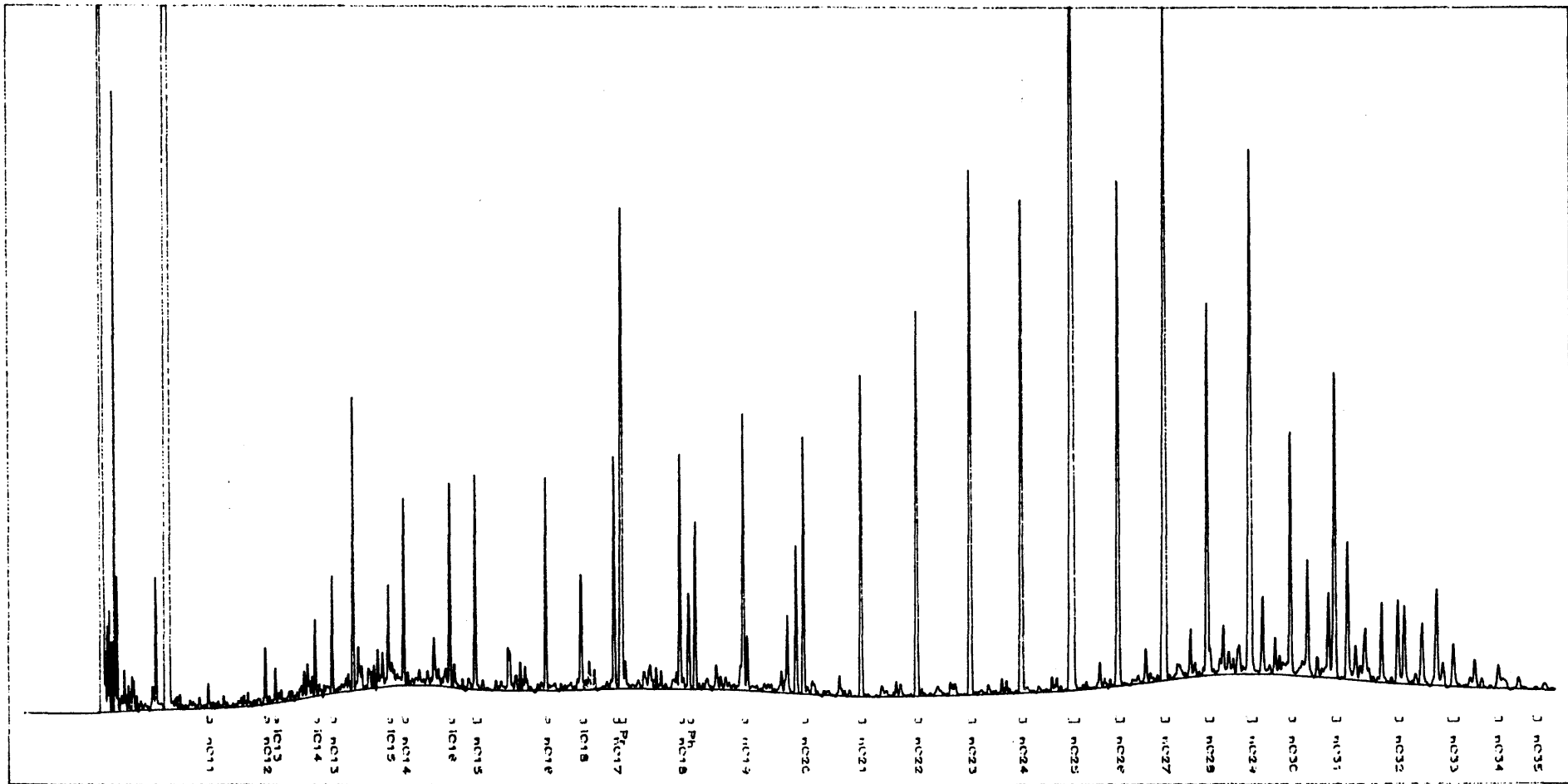


FIG. 2. NORWAY 6407/9-7
1700 - 1706.25M S140102/7
6 DGN 330 C VERHIT Heated.

GAS CHROMATOGRAM OF THE SATURATED HYDROCARBONS



NORWAY 6407/9--7 2424-2436 M

FIG. 3.

RKER 89.027

Confidential

GAS CHROMATOGRAM OF THE SATURATED HYDROCARBONS

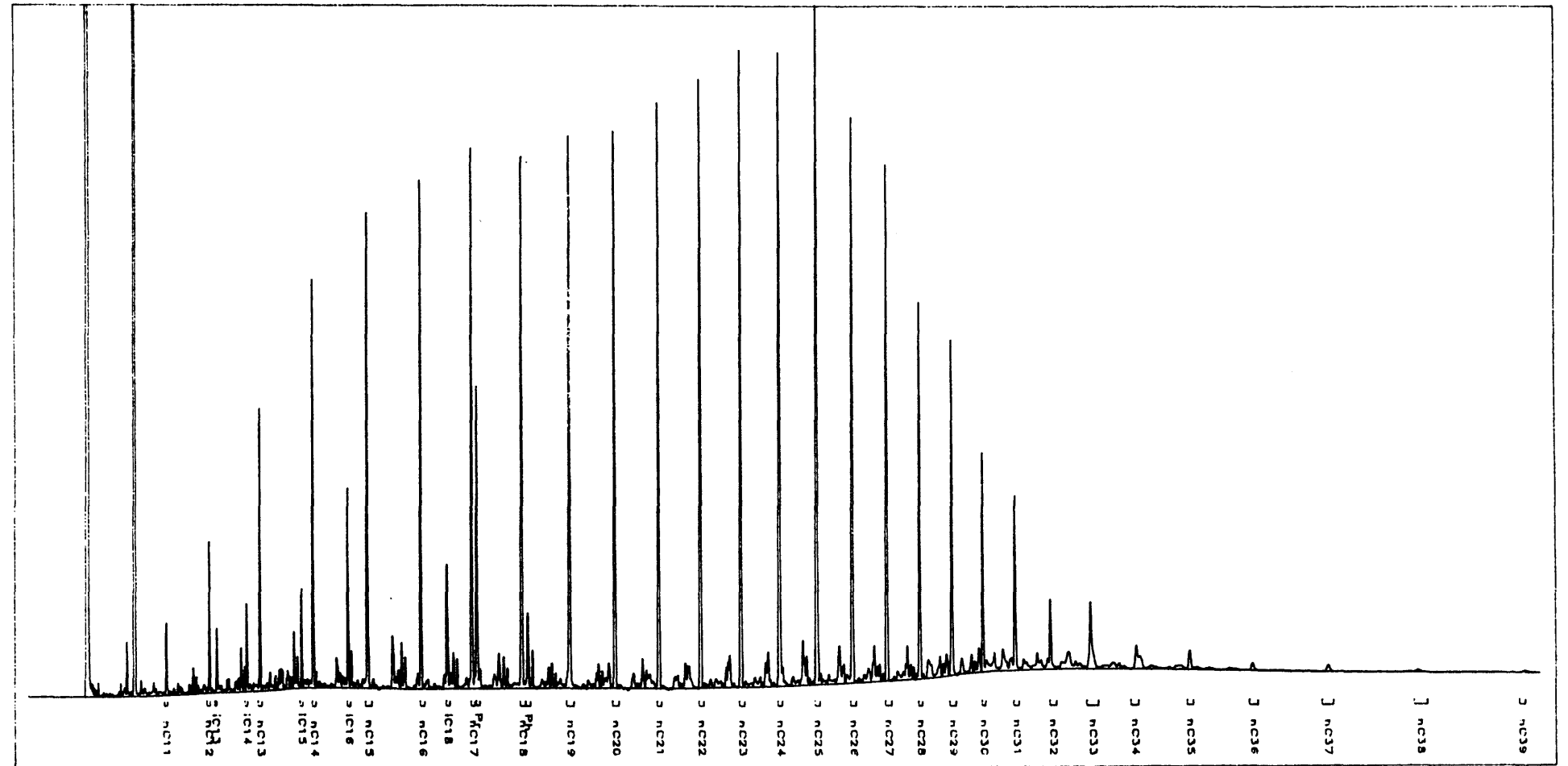


FIG. 4.
NORWAY 6407/9-7
2421 - 2436 M S140103/7
6 DGN 330 C VERHIT , heated

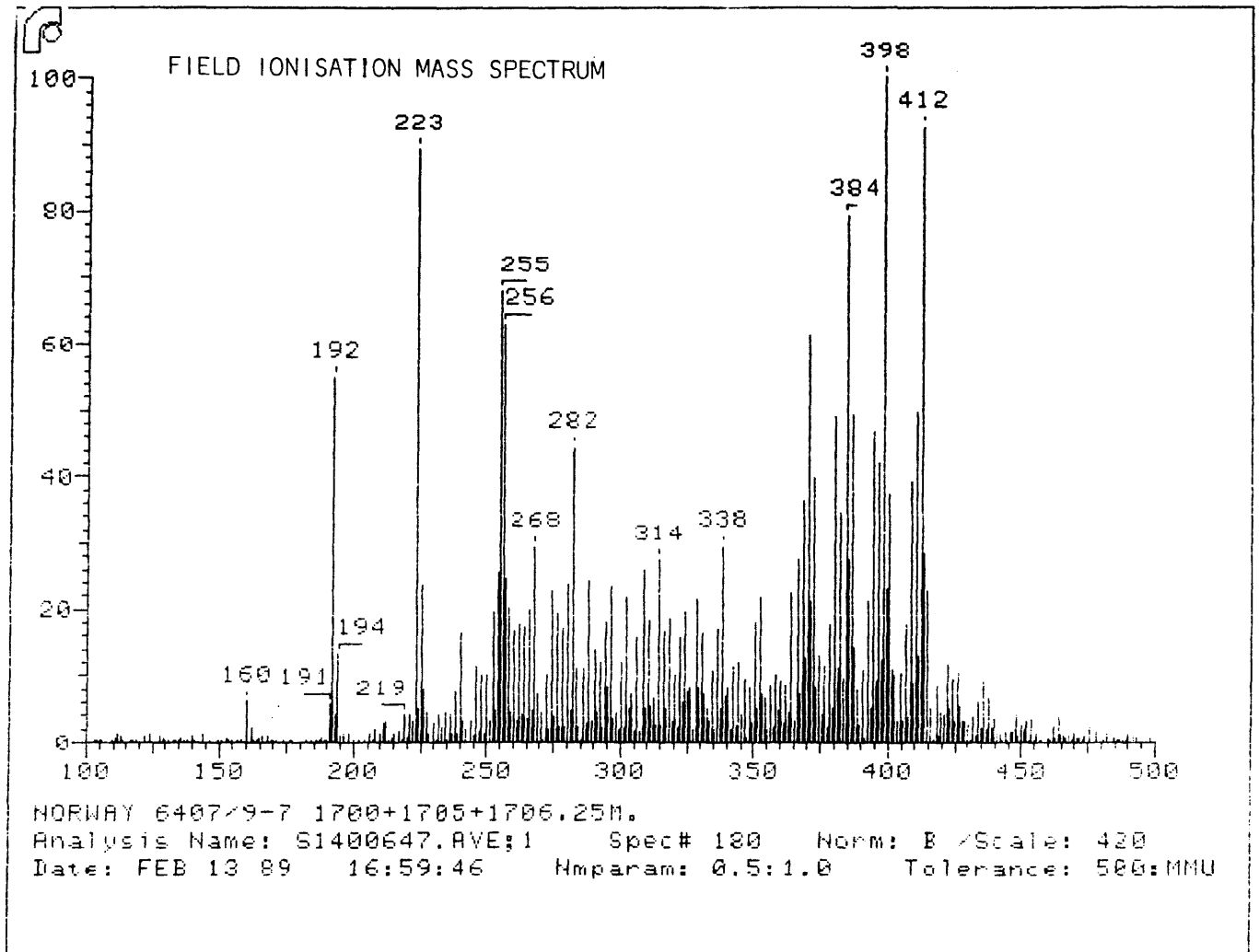


FIG. 5.

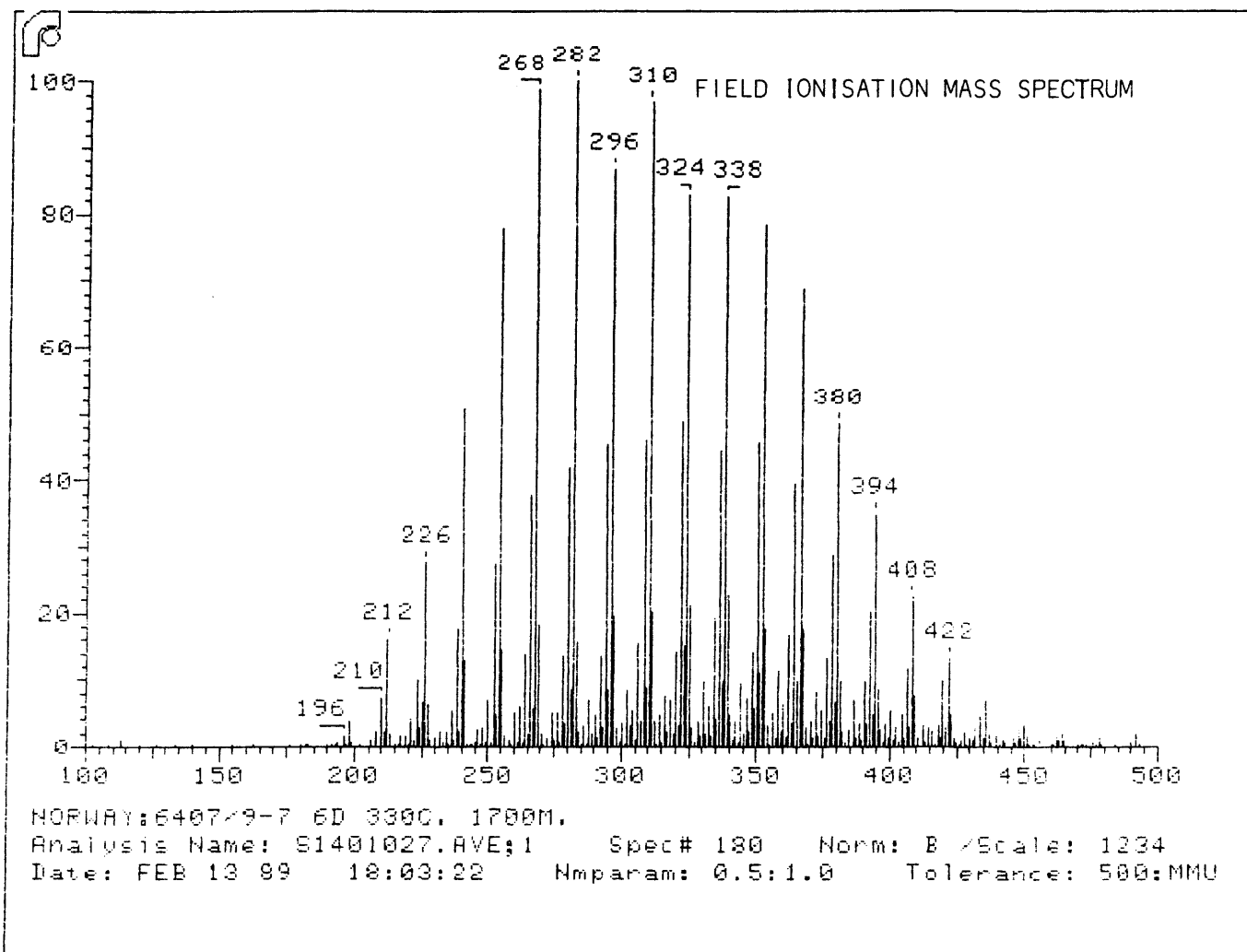


FIG. 6.

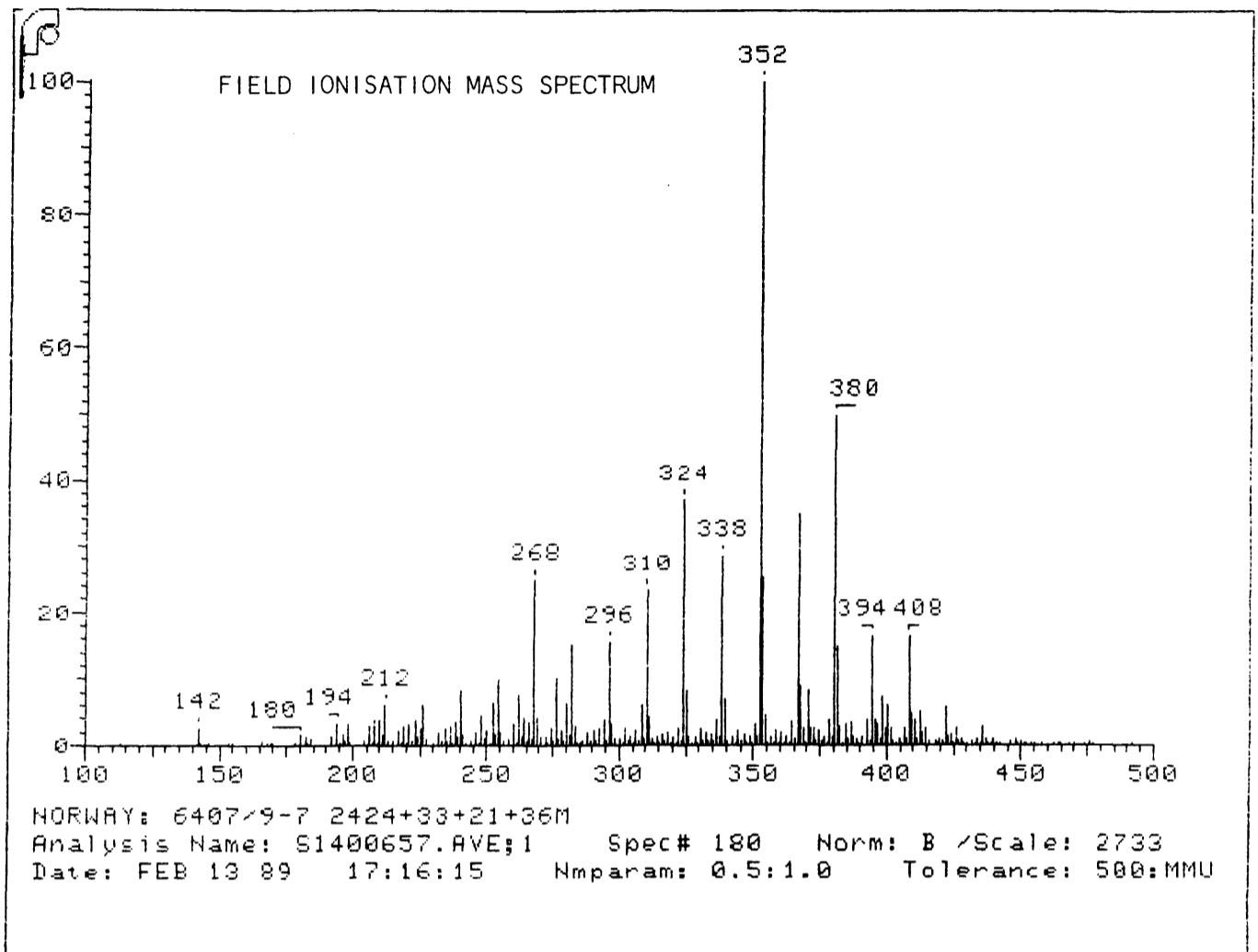


FIG. 7.

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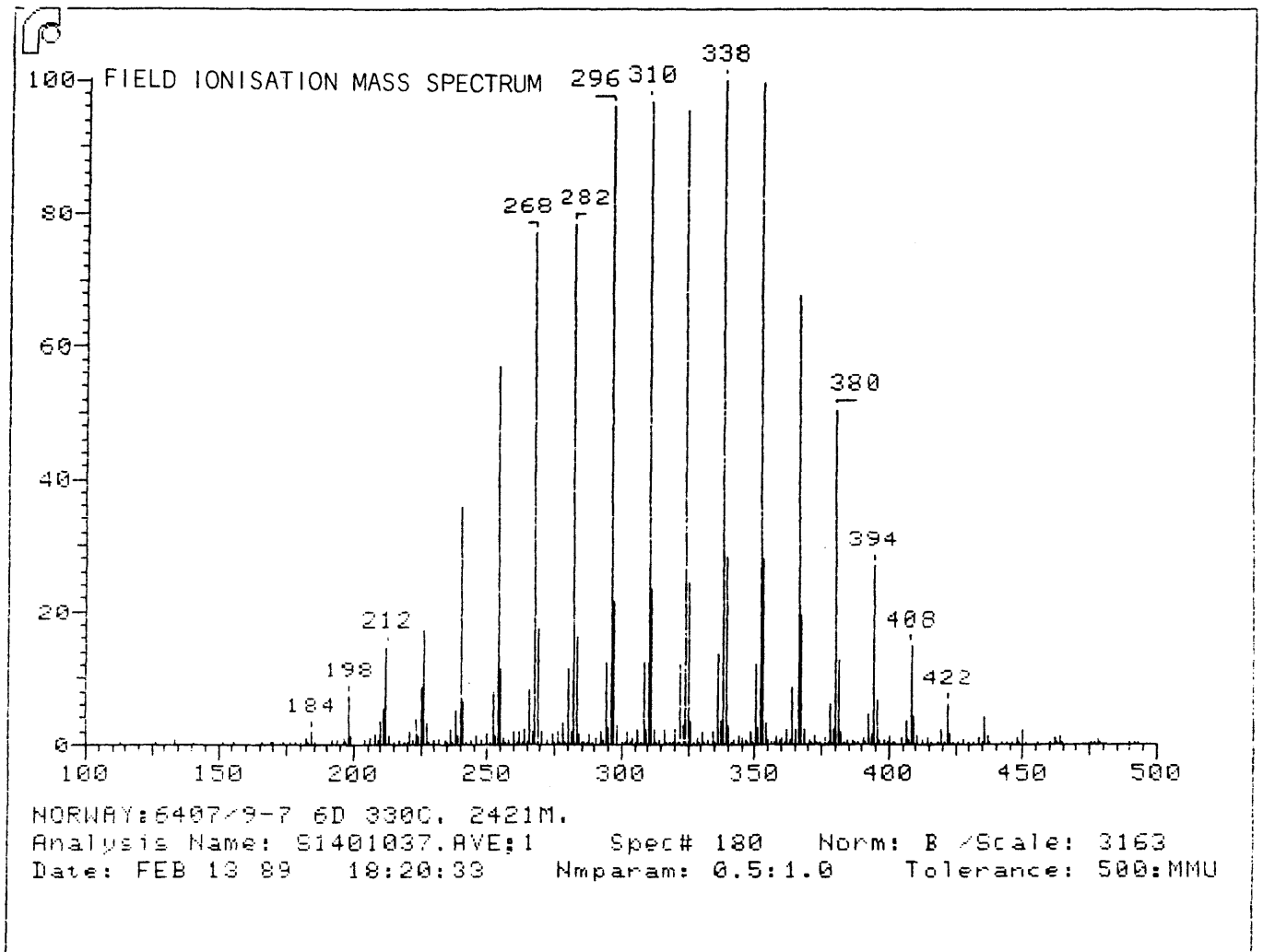
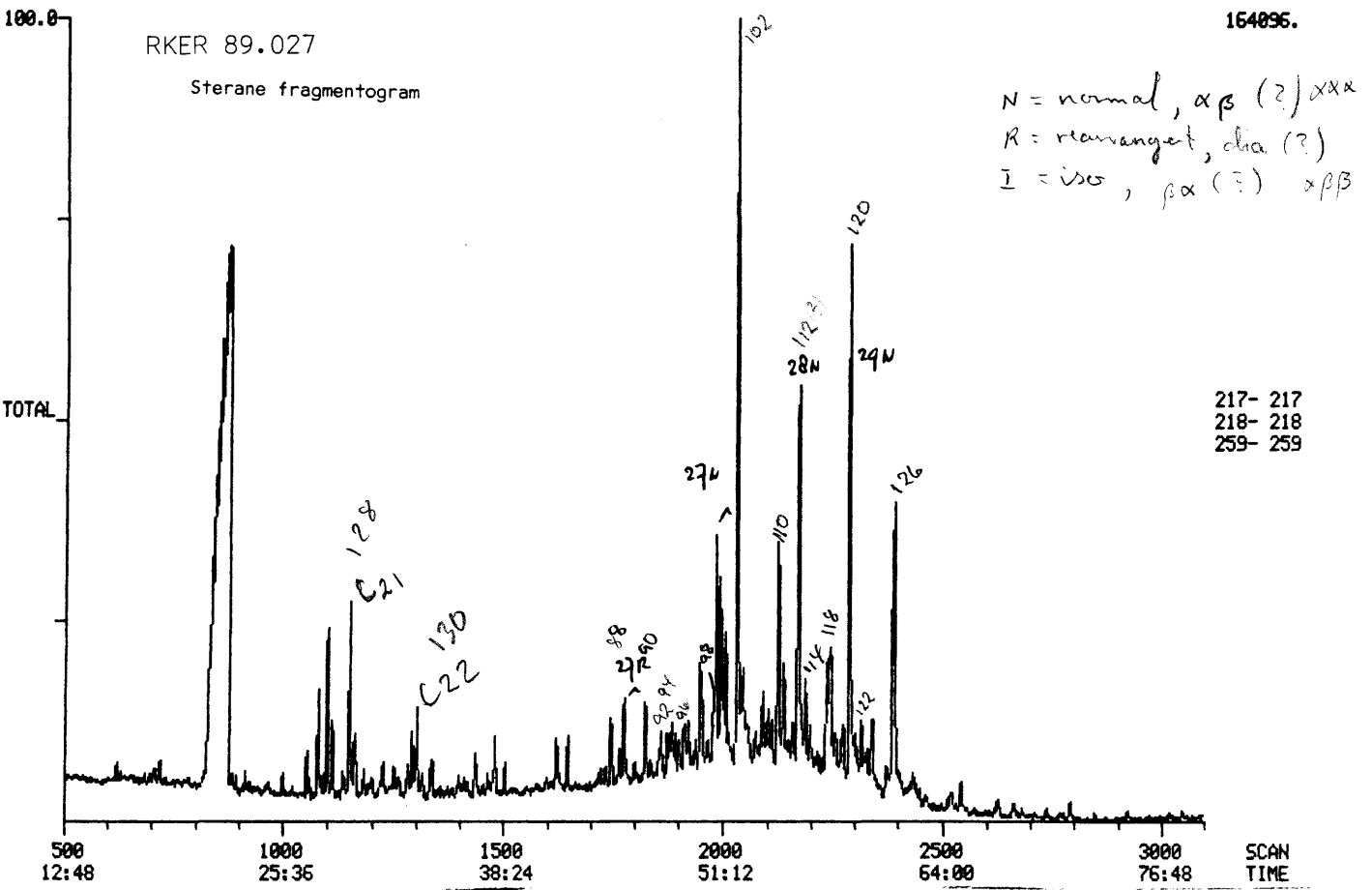


FIG. 8.



MIDTOTAL DATA: 5140064_75 #1 SCANS 1600 TO 2500
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 SAMPLE: 270 140067/7 34.50PPMIST 7.0MGR_SATURATES_FRACFIE
 CONDS.: CP SIL-5 CB 50M 21 PSI #517800 VANAF 890117
 RANGE: G 20, 30 LABEL: N 0, 4.0 QUAN: A 0, 1.0 J 0 BASE: U 20, 3

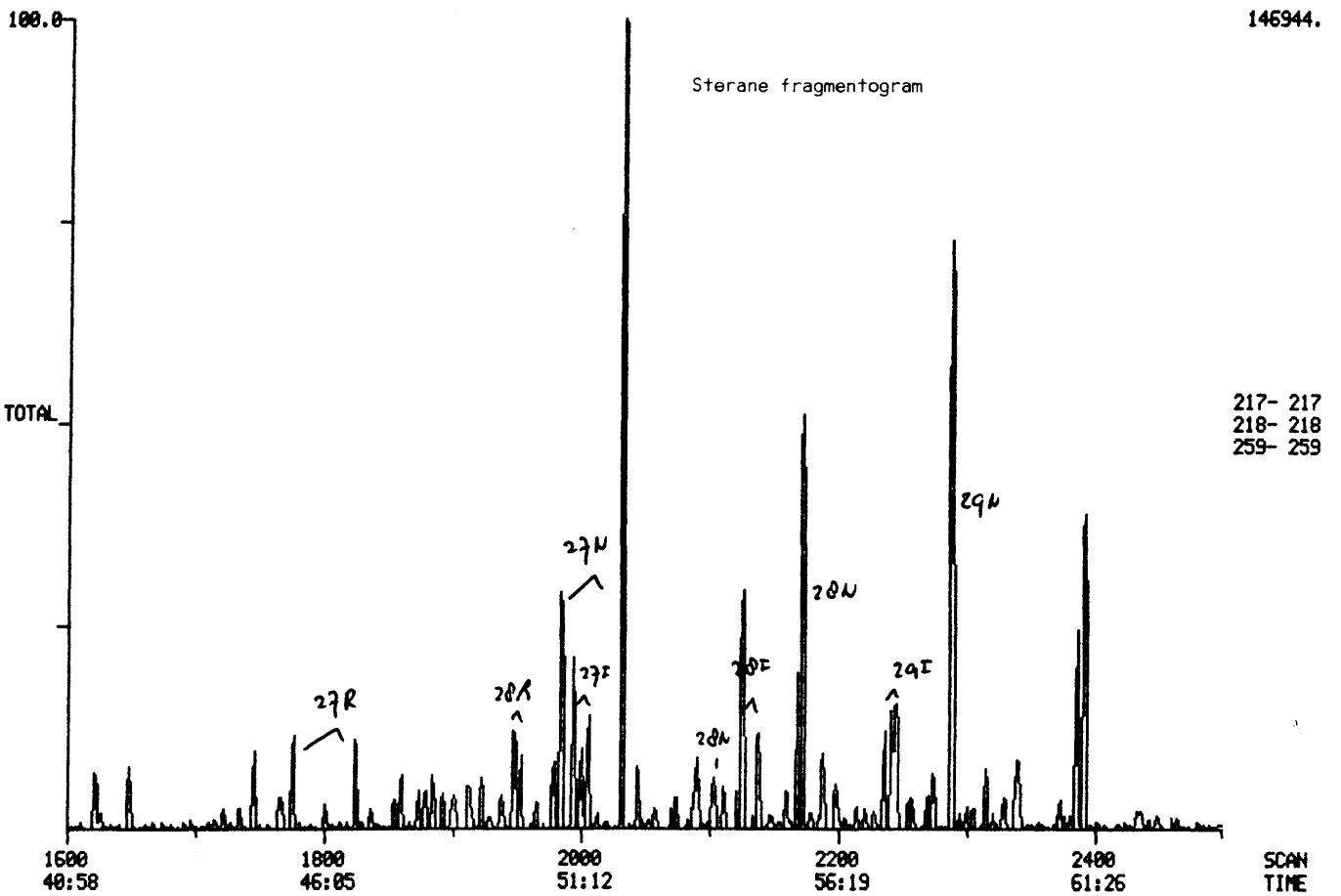
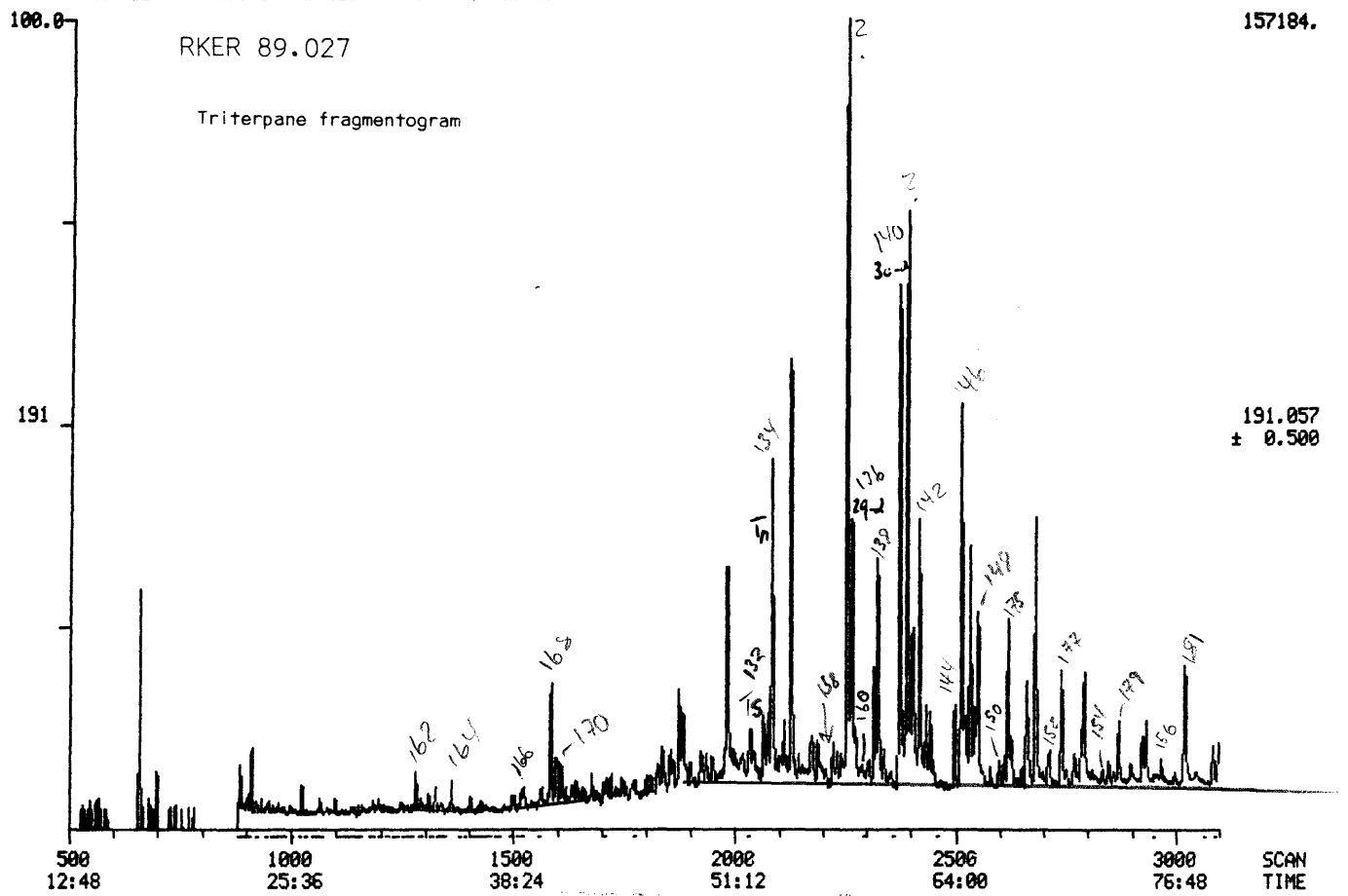


FIG. 10A. GC-MS analysis 6407/9-7, 1700-1706.25 m, source rock.

MIDMASS CHROMATOGRAM DATA: S140064_7 #1 SCANS 500 TO 3100
 01/27/89 11:49:00 CALI: UKT0130 #2
 SAMPLE: 270 140067/7 34.50PPHIST 7.0MGR_SATURATES_FRACTIE
 CONDS.: CP SIL-5 CB 50M 21 PSI #517800 VANAF 890117
 RANGE: G 1.3100 LABEL: N 0, 4.0 QUAN: A 0, 1.0 J 0 BASE: U 20, 3

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MIDMASS CHROMATOGRAM DATA: S140064_75 #1 SCANS 1800 TO 3088
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 SAMPLE: 270 140067/7 34.50PPHIST 7.0MGR_SATURATES_FRACTIE
 CONDS.: CP SIL-5 CB 50M 21 PSI #517800 VANAF 890117
 RANGE: G 20, 30 LABEL: N 0, 4.0 QUAN: A 0, 1.0 J 0 BASE: U 20, 3

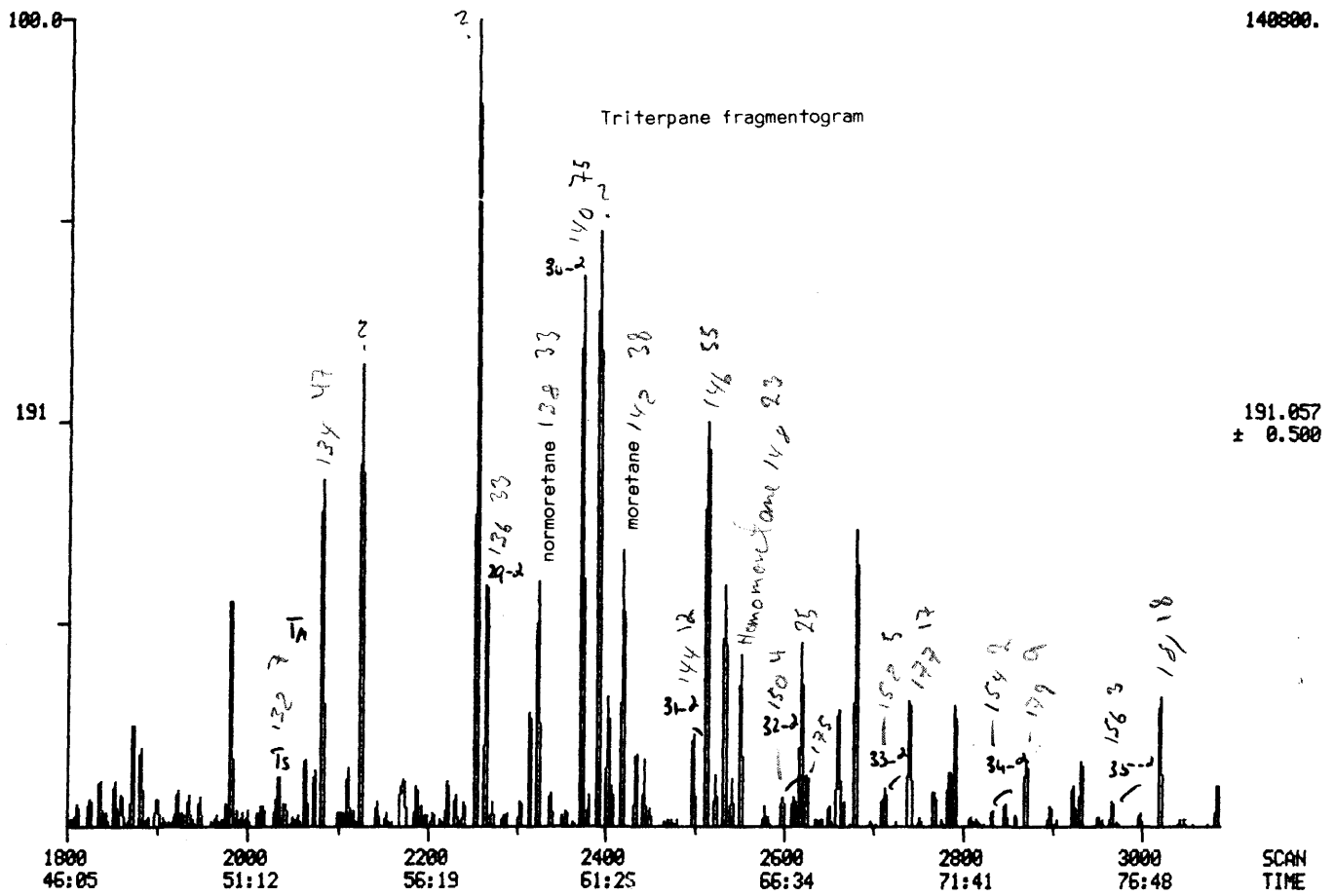
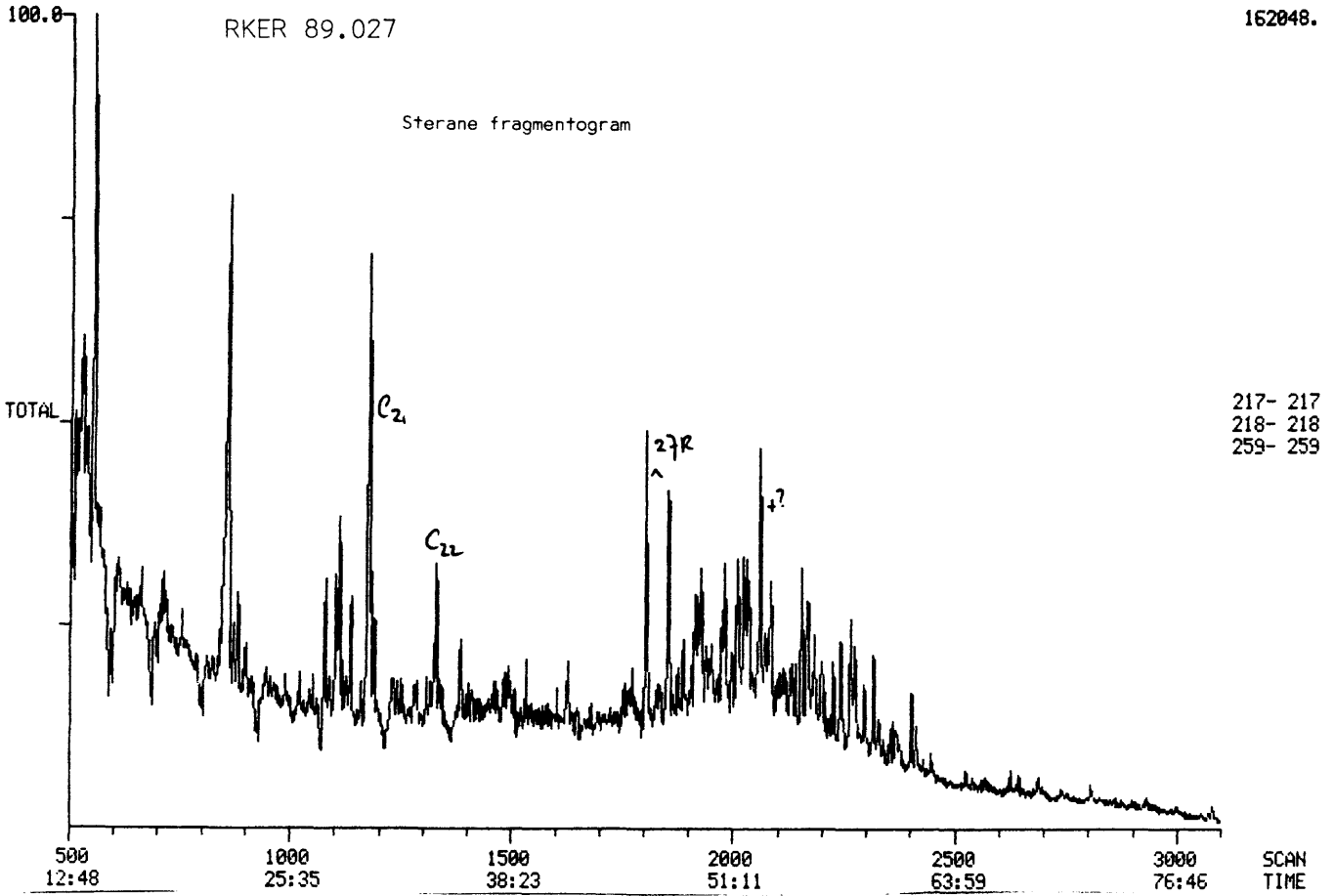


FIG. 10B. GC-MS analysis 6407/9-7, 1700-1706.25 m, source rock.

MIDTOTAL DATA: S140102.7 #1 SCANS 500 TO 3100
 02/18/89 10:18:00 CALI: S140103.7 #2
 SAMPLE: 276 140102/7 25.06PPMIST 10.3MGR_SATURATES_FRACTIE
 CONDS.: CP SIL-5 CB 50M 21 PSI #517800 VANAF 890117
 RANGE: G 1.3100 LABEL: N 0, 4.0 QUAN: A 0, 1.0 J 0 BASE: U 20, 3

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MIDTOTAL DATA: S140102.7 #1 SCANS 1600 TO 2500
 02/18/89 10:18:00 ENHANCED (268 1N 0T)
 SAMPLE: 276 140102/7 25.06PPMIST 10.3MGR_SATURATES_FRACTIE
 CONDS.: CP SIL-5 CB 50M 21 PSI #517800 VANAF 890117
 RANGE: G 20, 30 LABEL: N 0, 4.0 QUAN: A 0, 1.0 J 0 BASE: U 20, 3

59008.

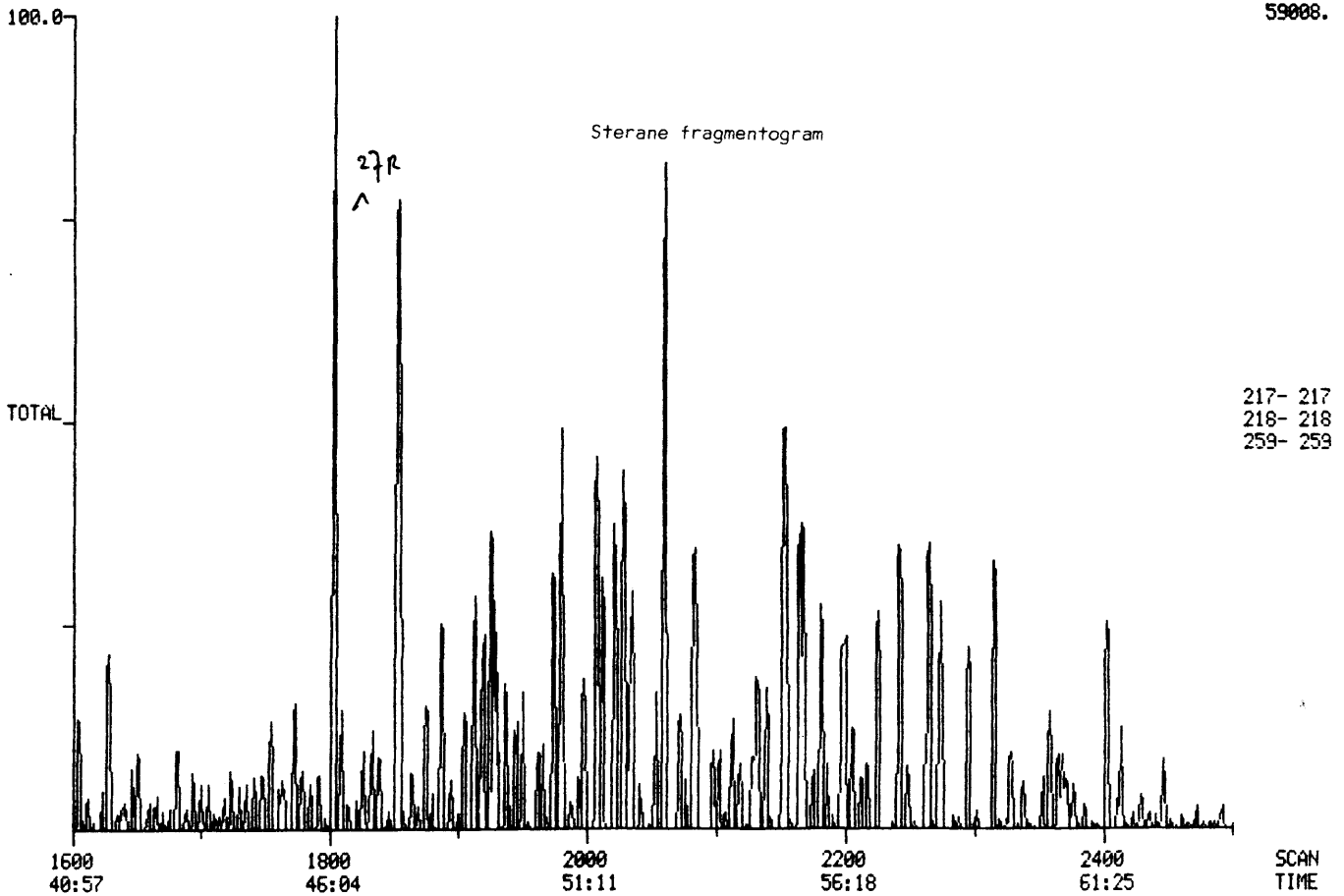
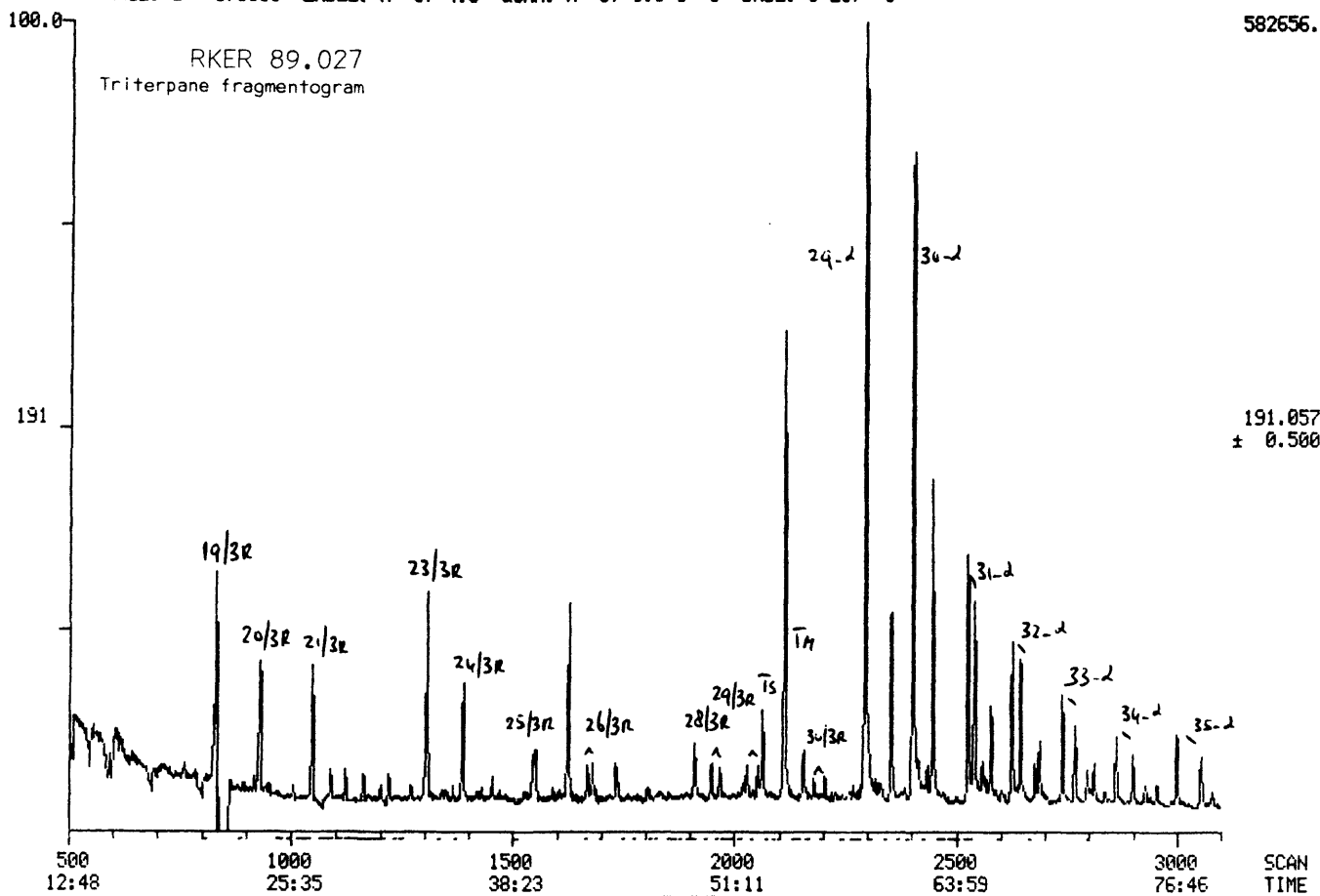


FIG. 10C. GC-MS analysis 6407/9-7, 1700-1706.25 m, heated source rock sample.

MIDMASS CHROMATOGRAM DATA: 5140102_7 #1 SCANS 500 TO 3100
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 SAMPLE: 276 140102/7 25.06PPMIST 10.3MGR_SATURATES_FRACIE
 CONDS.: CP SIL-5 CB 50M 21 PSI #517800 VANAF 890117
 RANGE: G 1.3100 LABEL: N 0, 4.0 QUAN: A 0, 1.0 J 0 BASE: U 20, 3

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MIDMASS CHROMATOGRAM DATA: 5140102_75 #1 SCANS 1800 TO 3000
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 SAMPLE: 276 140102/7 25.06PPMIST 10.3MGR_SATURATES_FRACIE
 CONDS.: CP SIL-5 CB 50M 21 PSI #517800 VANAF 890117
 RANGE: G 20, 30 LABEL: N 0, 4.0 QUAN: A 0, 1.0 J 0 BASE: U 20, 3

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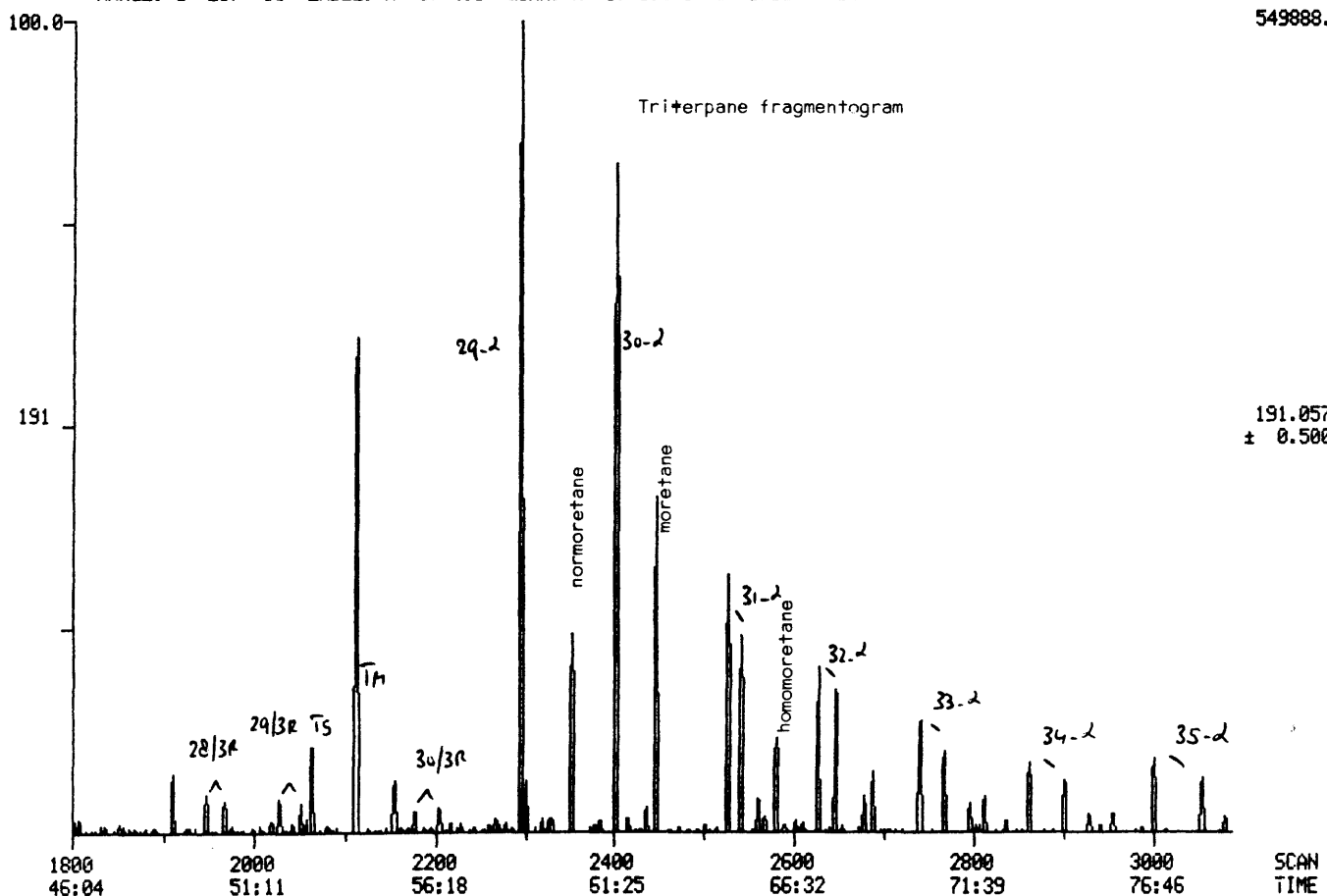
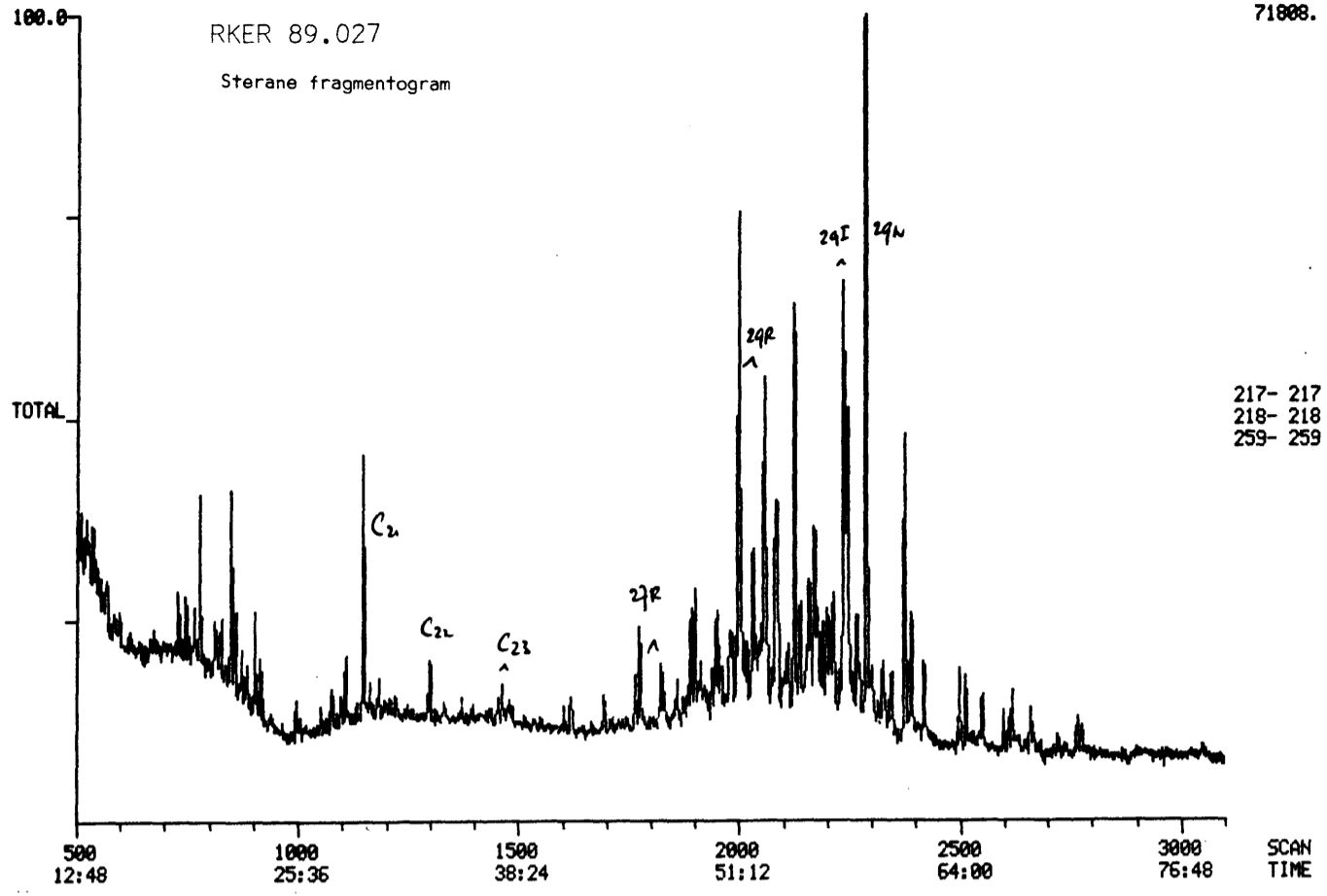


FIG. 10D. GC-MS analysis 6407/9-7, 1700-1706.25 m, heated source rock sample.

01/27/89 7:54:00 CALI: UKT0130 #2
 SAMPLE: 270 140065/7 26.73PPMIST 7.0MGR_SATURATES_FRACIE
 CONDS.: CP SIL-5 CB 50M 21 PSI #517800 UANAF 890117
 RANGE: G 1.3100 LABEL: N 0, 4.0 QUAN: A 0, 1.0 J 0 BASE: U 20, 3

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71808.



MIDTOTAL DATA: S140065_75 #1 SCANS 1600 TO 2500
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 SAMPLE: 270 140065/7 26.73PPMIST 7.0MGR_SATURATES_FRACIE
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 RANGE: G 20, 30 LABEL: N 0, 4.0 QUAN: A 0, 1.0 J 0 BASE: U 20, 3

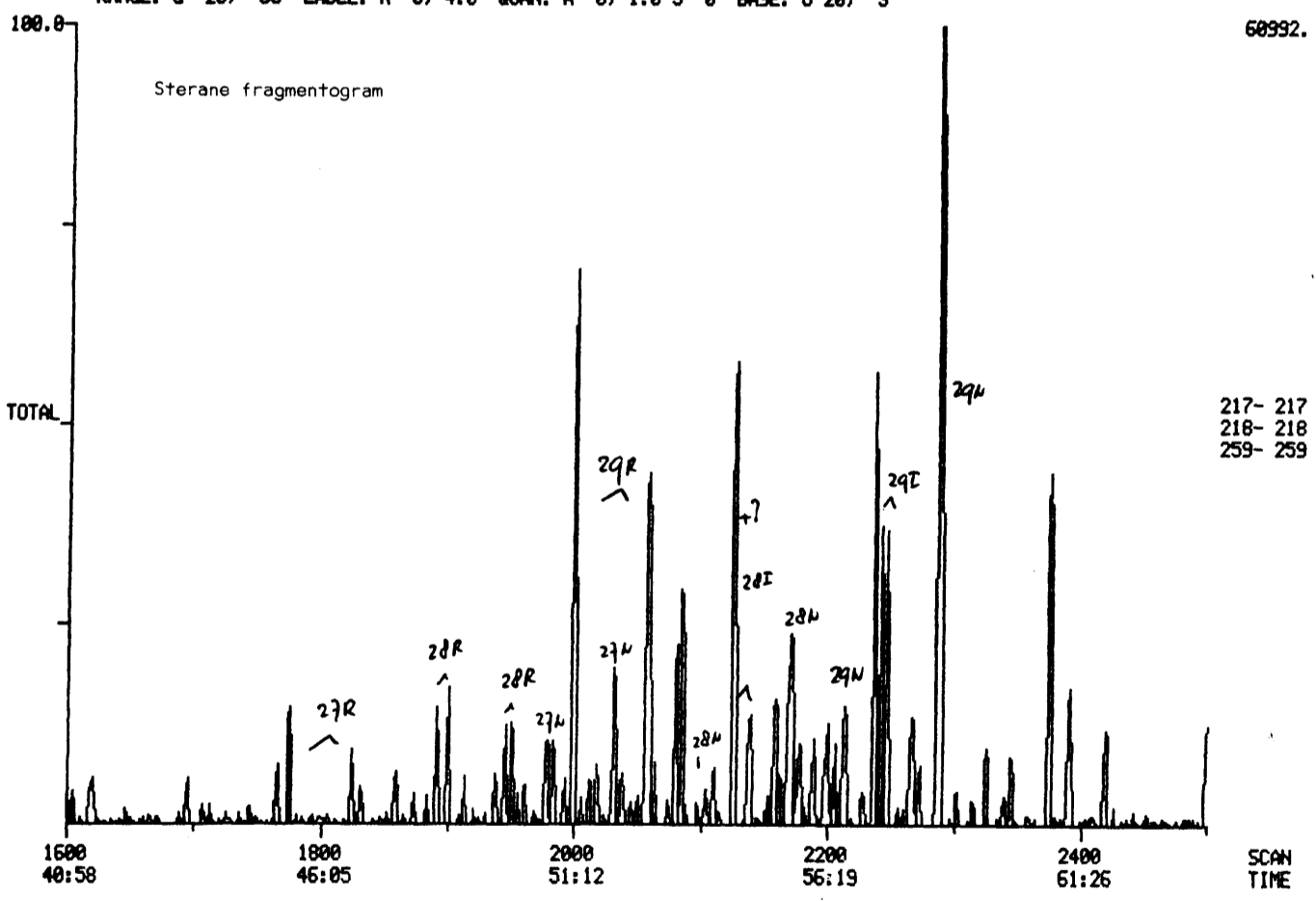
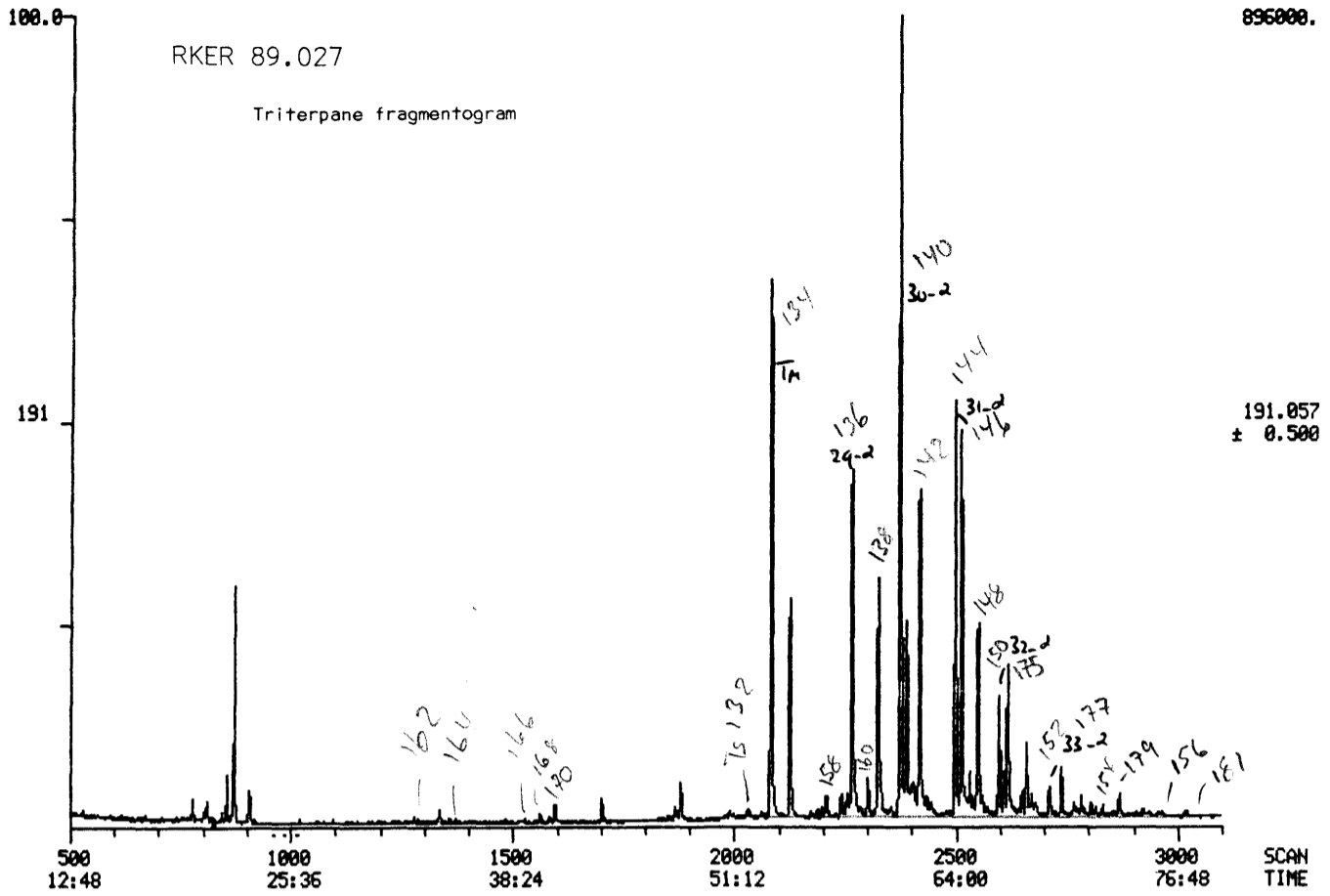


FIG. 11A. GC-MS analysis 6407/9-7, 2421-2436 m, source rock.

MIDMASS CHROMATOGRAM DATA: S140065_7 #1 SCANS 500 TO 3100
 01/27/89 7:54:00 CALI: UKT0130 #2
 SAMPLE: 270 140065/7 26.73PPMIST 7.0MGR_SATURATES_FRACITIE
 CONDS.: CP SIL-5 CB 50M 21 PSI #517800 VANAF 890117
 RANGE: G 1.3100 LABEL: N 0, 4.0 QUAN: A 0, 1.0 J 0 BASE: U 20, 3

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MIDMASS CHROMATOGRAM DATA: S140065_7S #1 SCANS 1800 TO 3088
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 RANGE: G 20, 30 LABEL: N 0, 4.0 QUAN: A 0, 1.0 J 0 BASE: U 20, 3

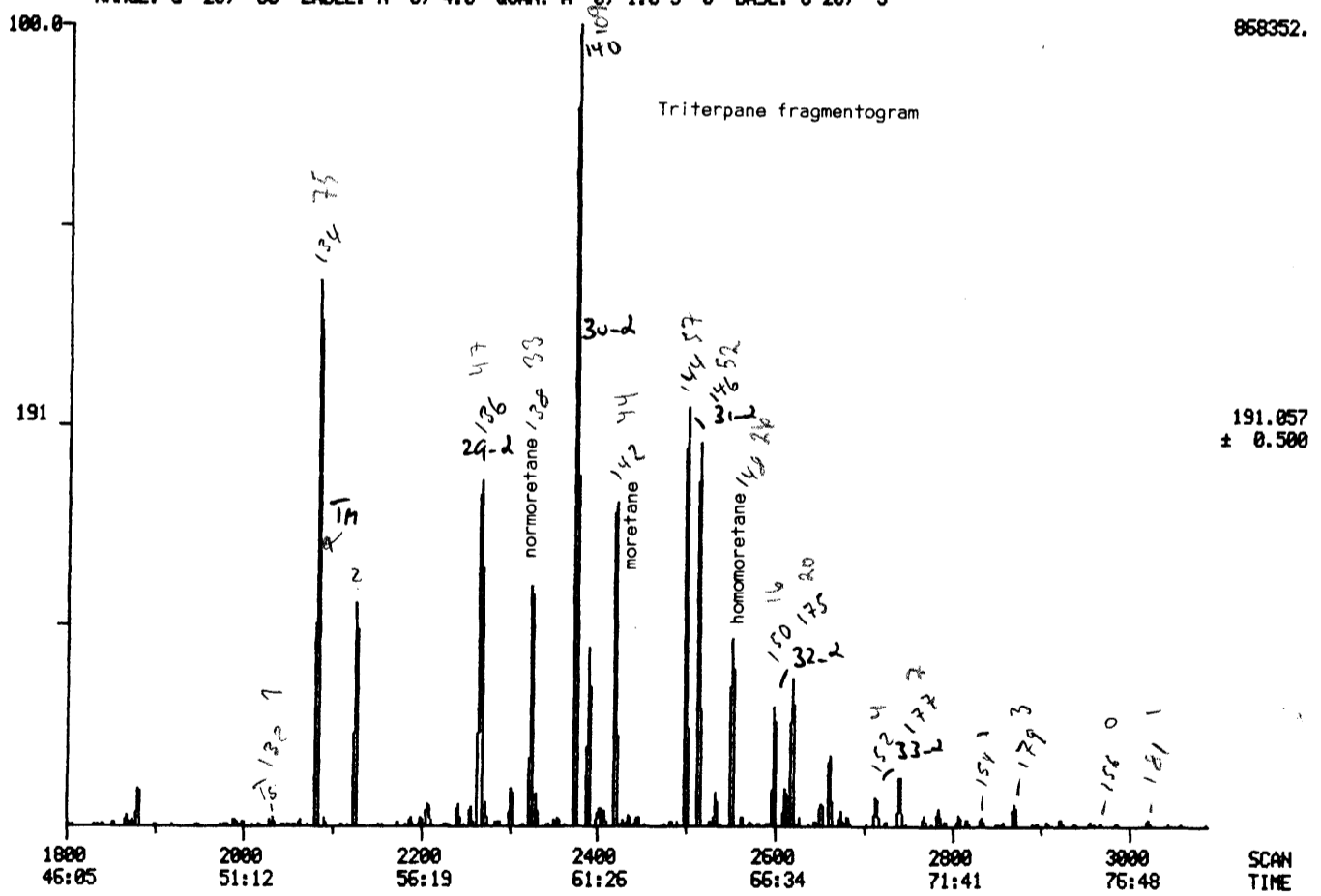
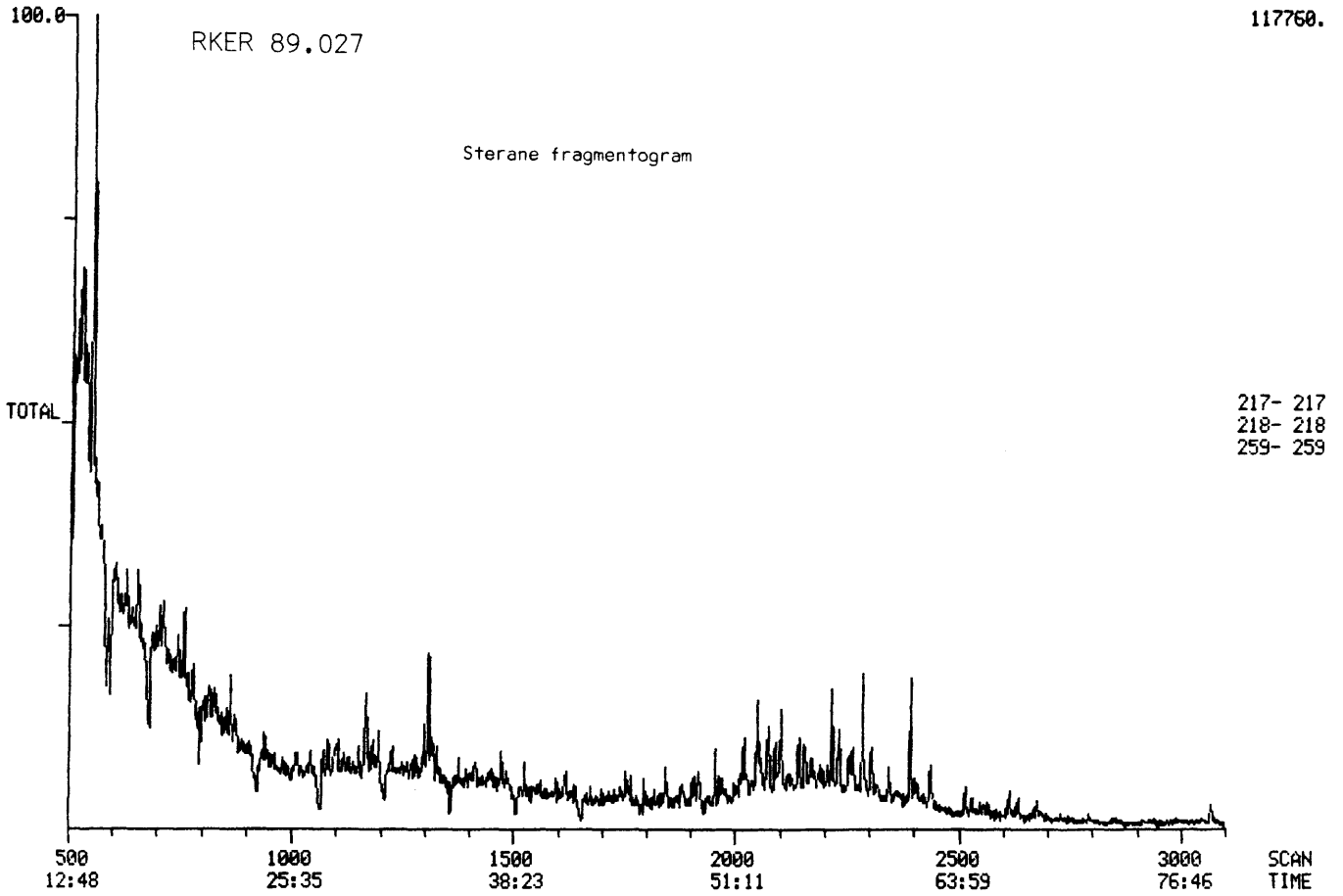


FIG. 11B. GC-MS analysis 6407/9-7, 2421-2436 m, source rock.

MIDTOTAL DATA: S140103_7 #1 SCANS 500 TO 3100
02/18/89 11:33:00 CALI: S140103_7 #2
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CONDS.: CP SIL-5 CB 50M 21 PSI #517800 UANAF 890117
RANGE: G 1.3100 LABEL: N 0, 4.0 QUAN: A 0, 1.0 J 0 BASE: U 20, 3

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117760.



MIDTOTAL DATA: S140103_7# #1 SCANS 1600 TO 2500
02/18/89 11:33:00 ENHANCED (268 IN 0T)
SAMPLE: 276 140103/7 24.51PPMIST 8.6MGR_SATURATES_FRACITIE
CONDS.: CP SIL-5 CB 50M 21 PSI #517800 UANAF 890117
RANGE: G 20, 30 LABEL: N 0, 4.0 QUAN: A 0, 1.0 J 0 BASE: U 20, 3

17952.

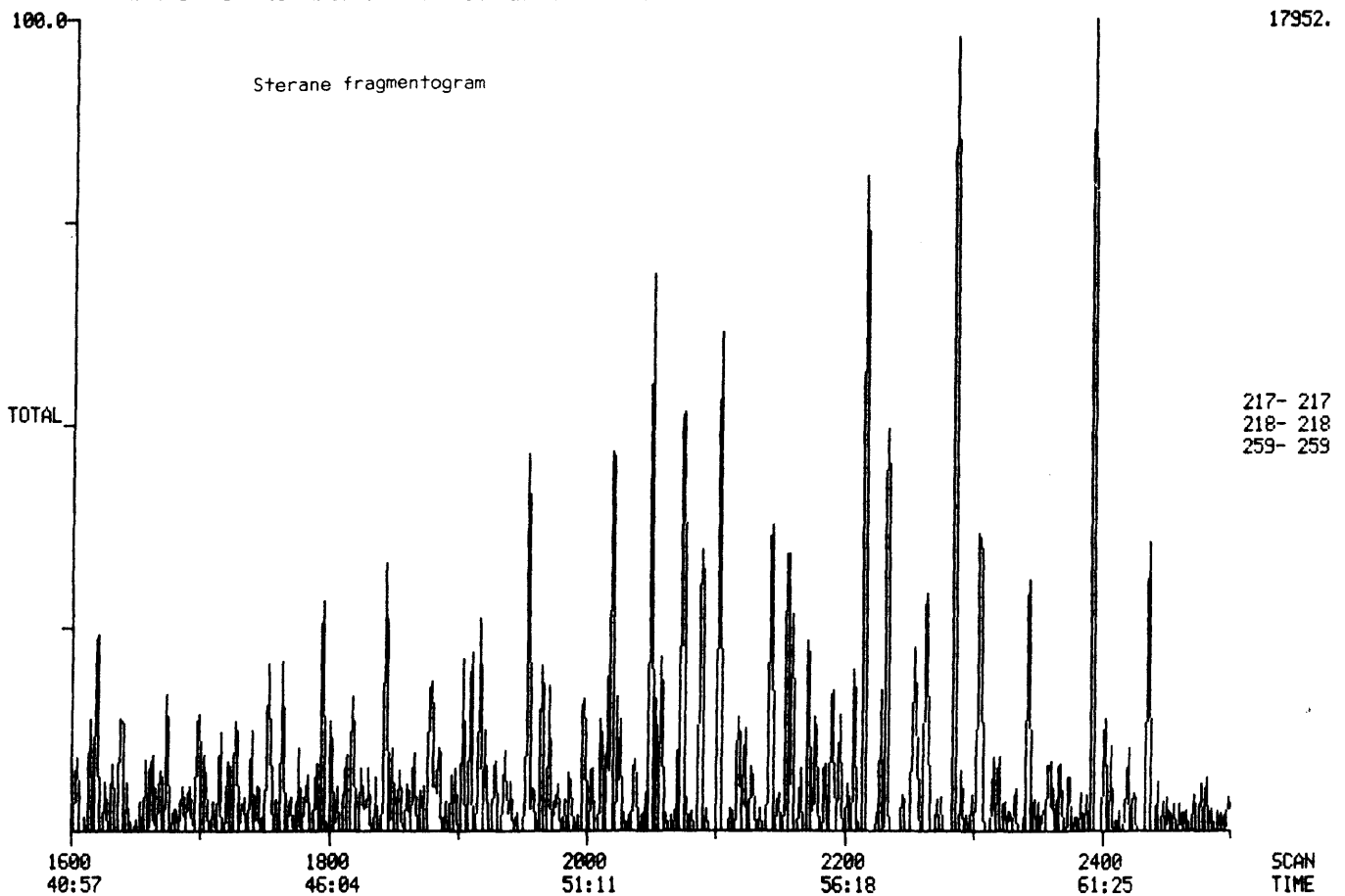
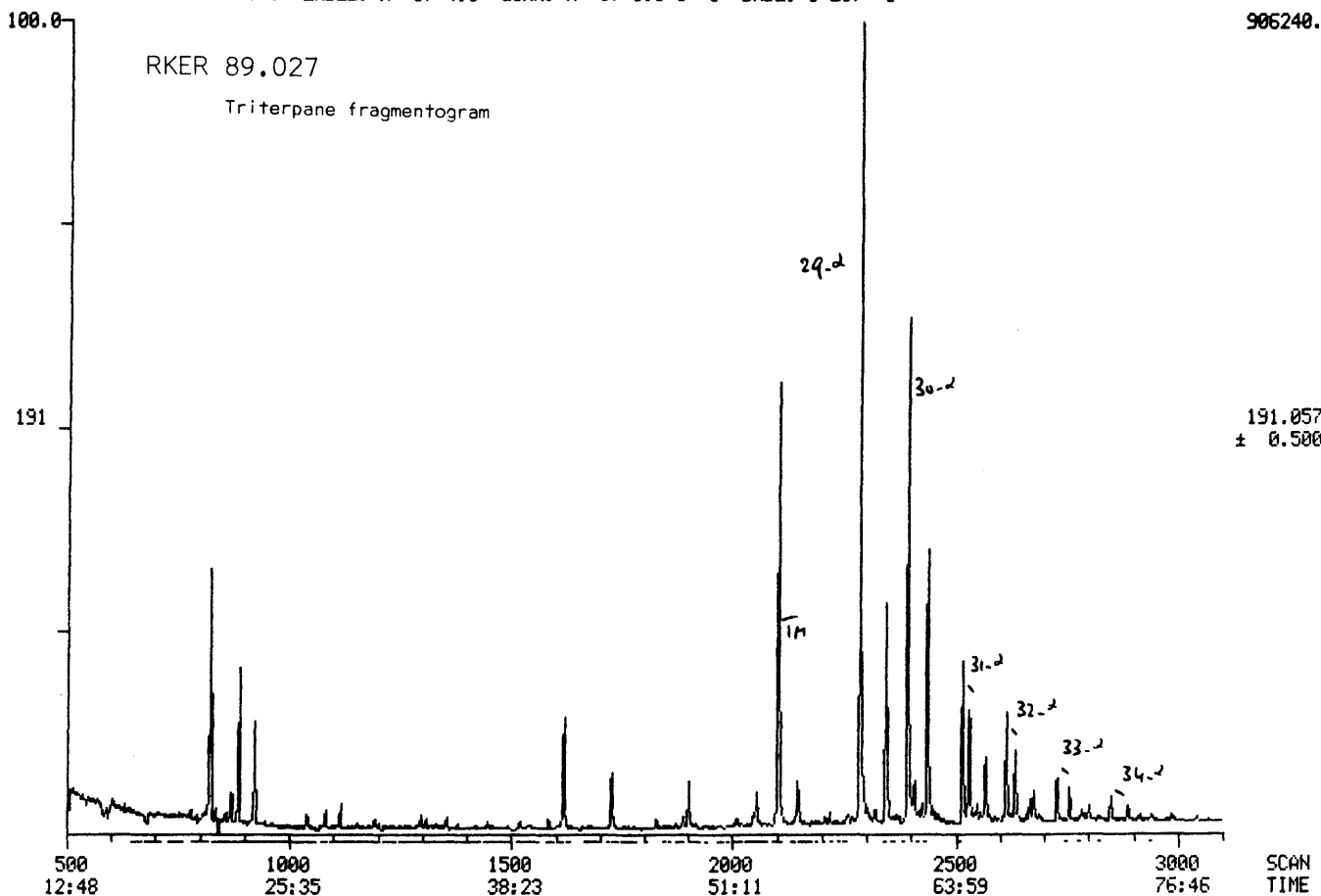


FIG. 11C. GC-MS analysis 6407/9-7, 2421-2436 m, heated source rock sample.



MIDMASS CHROMATOGRAM DATA: 5140103_7 #1 SCANS 1800 TO 3088
 02/18/89 11:33:00 ENHANCED (268 IN 0T)
 SAMPLE: 276 140103/7 24.51PPMIST 8.6MGR_SATURATES_FRACTIE
 CONDS.: CP SIL-5 CB 50M 21 PSI #517800 VANAF 890117
 RANGE: G 20, 30 LABEL: N 0, 4.0 QUAN: A 0, 1.0 J 0 BASE: U 20, 3

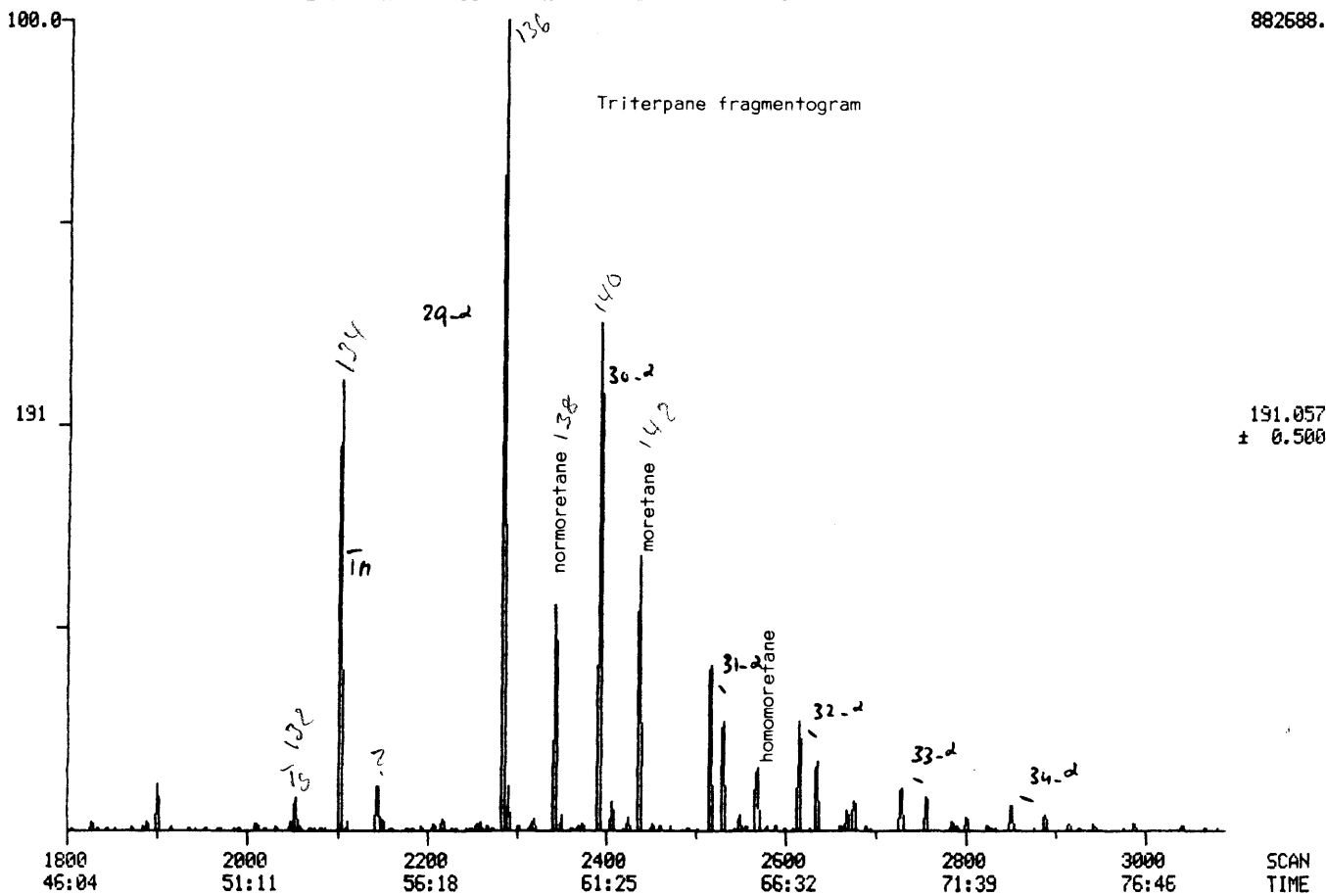


FIG. 11D. GC-MS analysis 6407/9-7, 2421-2436 m, heated source rock sample.

MACERAL DESCRIPTION OF WELL/OUTCROP

Norway, 6407/09-07

Date : 23-NOV-88

Sample(s)

1700.00 m/C
 1705.00 m/S
 2001.00 m/S
 2396.00 m/S
 2421.00 m/C
 2422.50 m/S
 2424.00 m/C

		ORGANIC MATTER															MINERAL MATTER								
SOM		VITRINITE				LIPTINITE								INERTINITE			MINERAL MATTER								
DENSE LAYERS LENSES	LOAD BEARING	DIFFUSE / INTERGRANULAR	NON-L. B. LENSES / LENSES	VT.-1		VT.-2		SPORINITE (MICRO-)	SPORINITE (MEGA-)	CUTINITE	SUBERINITE	RESINITE (+ FLUORINITE)	LIPTODETRINITE	ALGAE			EXSUDATINITE (NON-FLUORESCING) S.HYDR.	SCLERONITE	(SEMI-) FUSINITE (+ INERTODETRINITE)	MICRINITE (+ OXY-MICRINITE)	UNDEFINED MINERALS	FRAMBOIDAL PYRITE	AGGREGATES / CRYSTALS PYRITE		
				TELOCOLLINITE	LENSES	TELOCOLLINITE	LENSES							TELOCOLLINITE	LENSES	TELOCOLLINITE								LENSES	TELOCOLLINITE

L E G E N D	
*	ABUNDANT
+	COMMON
/	FEW
-	RARE

Depth (m)	Sample Type	Comment
1700.00	C	Initial micrinisation SOM Sample slightly oxidised
1705.00	S	Initial micrinisation SOM DEPTH; 1705 + 1706.25 M
2001.00	S	Sample partly oxidised DEPTH; 2001 + 2018.7 M
2396.00	S	No comment present
2421.00	C	SOM partly micrinised Desmocollinite grades into SOM DEPTH; 2421+2436 M
2422.50	S	SOM partly micrinised Desmocollinite grades into SOM Resin shows migration features DEPTH; 2422.5 + 2439.4 M
2424.00	C	SOM partly micrinised Sample partly oxidised Desmocollinite grades into SOM DEPTH; 2424 - 2433 M

Fig. 18 a

Page : 1

REFLECTANCE HISTOGRAM

COUNTRY	: NORWAY	MEAN	: 0.46
WELL/OUTCROP	: 6407/9-7	DEVIATION	: 0.03
DEPTH/SAMPLE NR.	: 2396 M	MODE	: 0.46
SAMPLE TYPE	: SIDEWALL SAMPLE	MEASUREMENTS	: 100

ANALYST: KMR D.D. : 13-JUN-88

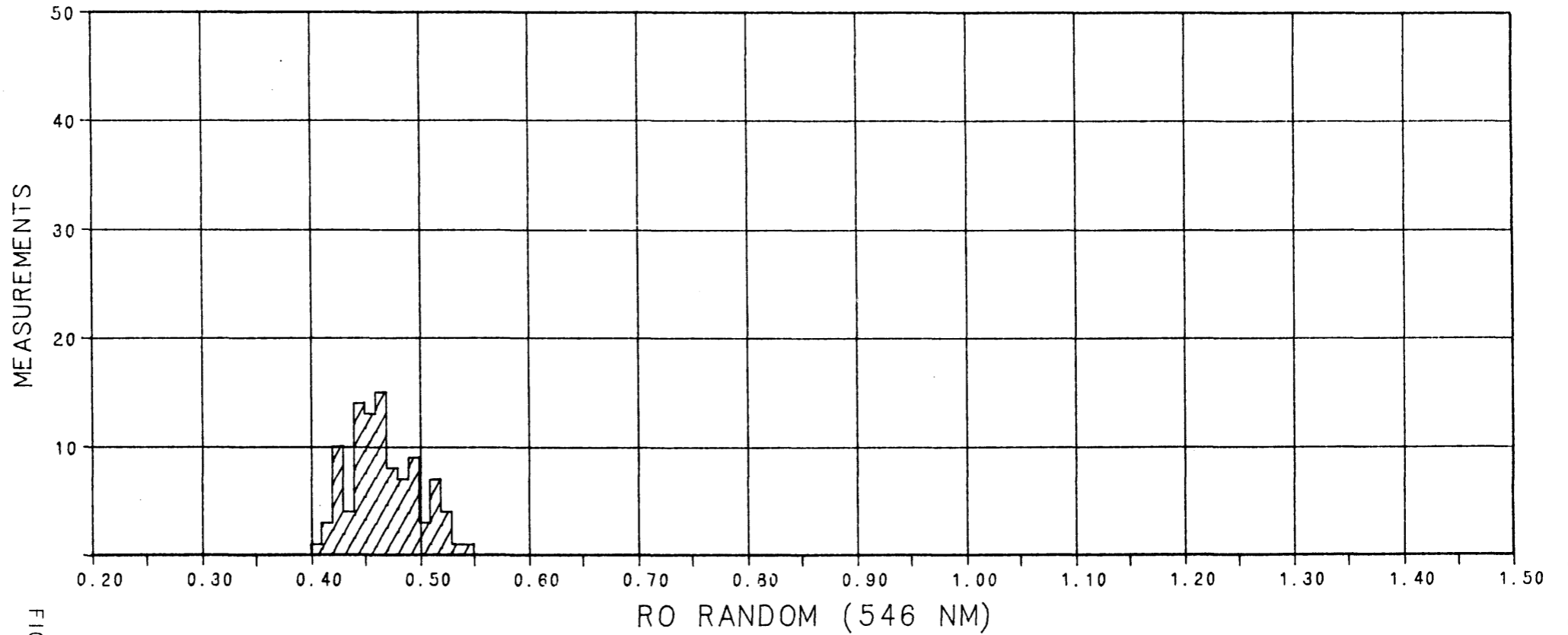


FIG. 19A.

TELINITE

REFLECTANCE HISTOGRAM

COUNTRY	: NORWAY	MEAN	: 0.60
WELL/OUTCROP	: 6407/9-7	DEVIATION	: 0.03
DEPTH/SAMPLE NR.	: 2421 M	MODE	: 0.62
SAMPLE TYPE	: CUTTING SAMPLE	MEASUREMENTS:	50

ANALYST: KMR D.D.: 23-NOV-88

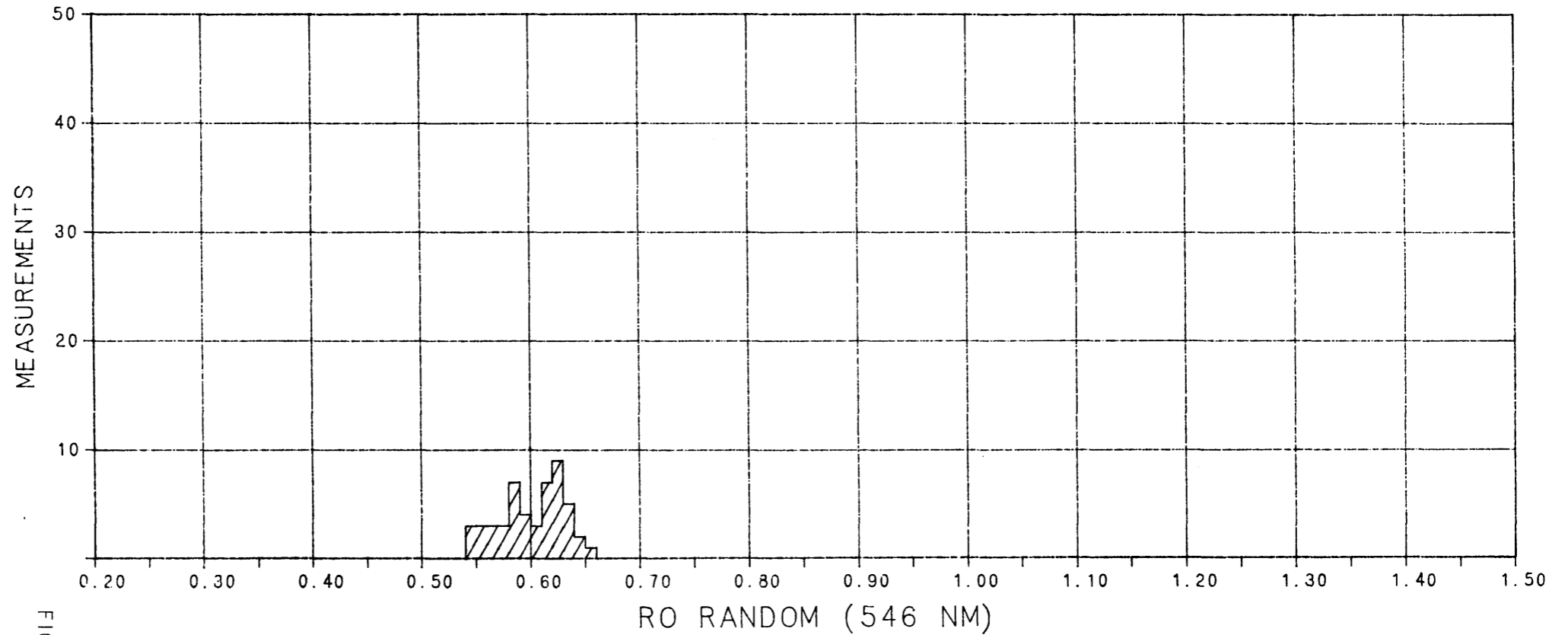


FIG. 19B.

DEPTH: 2421+2436 M; DESMO / TELOCOLLINITE (+ MINERAL MATTER)

REFLECTANCE HISTOGRAM

COUNTRY : NORWAY
WELL/OUTCROP : 6407/9-7
DEPTH/SAMPLE NR. : 2422 M
SAMPLE TYPE : SIDEWALL SAMPLE

MEAN : 0.65
DEVIATION : 0.02
MODE : 0.64
MEASUREMENTS: 50

ANALYST: KMR D.D.: 23-NOV-88

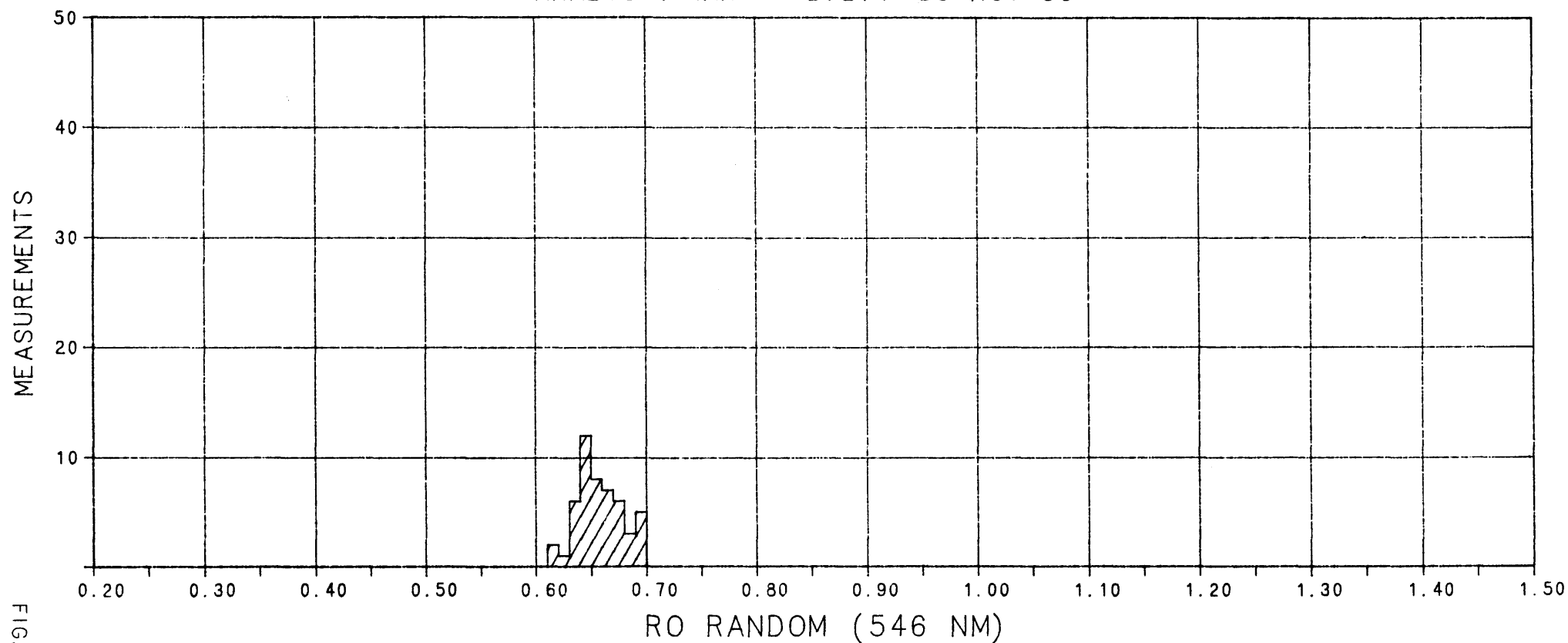


FIG. 19C.

DEPTH: 2422.5+2439.4 M; TELOCOLLINITE (+ MINERAL MATTER)

REFLECTANCE HISTOGRAM

COUNTRY : NORWAY
WELL/OUTCROP : 6407/9-7
DEPTH/SAMPLE NR. : 2424 M
SAMPLE TYPE : CUTTING SAMPLE

MEAN : 0.60
DEVIATION : 0.03
MODE : MULTI
MEASUREMENTS: 60

ANALYST: KMR D.D.: 23-NOV-88

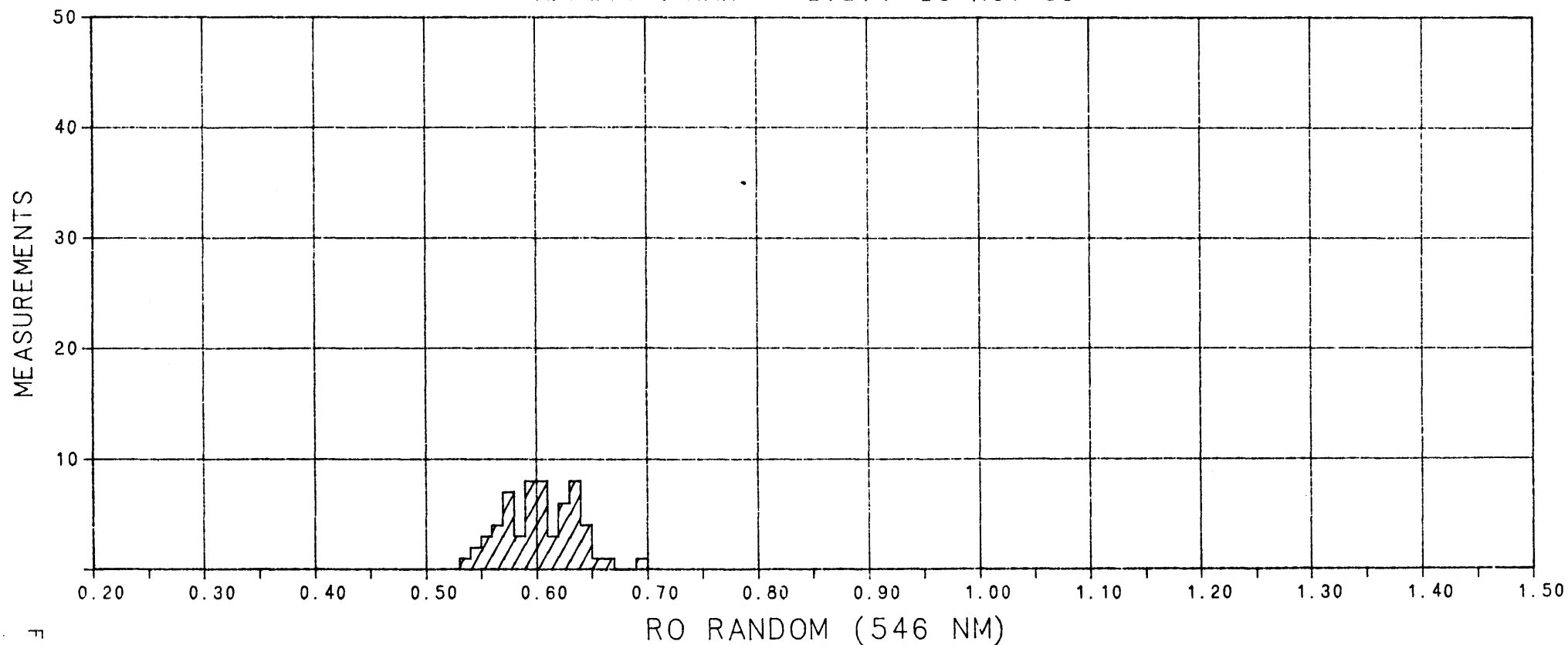


FIG. 19D.

DEPTH: 2424-2433 M; DESMO / TELOCOLLINITE (+ MINERAL MATTER)

GEOCHEMICAL ANALYSIS
WELL NOCS 6407/9-7

Client : A/S NORSKE SHELL

Authors : Ian Ferriday
Lorraine Buxton

Geolab Nor A/S
Hornebergveien 5
7038 TRONDHEIM
Norway

Date : 07.09.1988

INTRODUCTION

This report concerns the interpretation of geochemical analyses performed for Norske Shell on samples from the interval 1680 - 2557 m, NOCS well 6407/9-7, located in Figure 1.

The analytical program requested by the client was as follows:

1. Washing of samples
2. Lithology description
3. Picking of lithologies
4. Rock-Eval on samples with TOC > 1.0
5. 20 vitrinite reflectance, preferably on coals, and 20 spore colouration estimates, all preferably on sidewall cores
6. Interpretation/reporting

The following intervals were requested:

1690 - 1715 m : every 3 m
1715 - 2557 m, TD : every 9 m

The final total of analyses was:

Washing of cuttings samples	76
Lithology description	116
Picking of separate lithologies	65
Rock-Eval/TOC	65
Vitrinite reflectance	20
SCI estimates	20

No geological information was provided by the client, consequently the data is discussed by analytical technique without stratigraphic control.

Table 1 : Lithology description for well NOCS 6407/9-7

Depth unit of measure: m

Depth	Type		Trb	Sample
Int Cvd	TOC%	% Lithology description		
1680.00				0001
	1.43	55 Sh/Clst: y gy, slt, mic 40 Sh/Clst: m gy to drk gy 5 Sh/Clst: gy red to gn gy, calc tr Cont : prp		0001-2L 0001-3L 0001-1L 0001-4L
1690.00				0002
	1.48	45 Sh/Clst: y gy, slt, mic 35 Marl : gy red to gn gy 20 Sh/Clst: m gy to drk gy tr Cont : dd tr Ca : w		0002-2L 0002-1L 0002-3L 0002-4L 0002-5L
1700.00				0003
	7.37	90 Sh/Clst: brn blk, drk gy, carb, mic 10 Marl : gy red to gn gy tr Sh/Clst: y gy, slt, mic tr Cont : dd tr Ca : w tr Other : pyr		0003-3L 0003-1L 0003-2L 0003-4L 0003-5L 0003-6L
1705.00 swc				0004
	5.88	100 Sh/Clst: brn blk, drk gy, carb, mic		0004-3L
1706.25 swc				0005
	5.07	100 Sh/Clst: brn blk to blk, carb, mic		0005-3L

Table 1 : Lithology description for well NOCS 6407/9-7

Depth unit of measure: m

Depth	Type	Trb	Sample
Int Cvd	TOC% %		Lithology description
1708.50	swc		0006
	2.24	100	Sh/Clst: ol gy to blk, carb, mic 0006-3L
1710.00	swc		0007
	8.21	100	Sh/Clst: drk ol gy to blk, carb, mic tr S/Sst : w to lt gy tr Other : pyr 0007-3L 0007-2L 0007-6L
1711.50	swc		0008
	0.79	100	S/Sst : lt gy to m gy, pyr, f, l 0008-1L
1713.00			0009
	5.64	60	Sh/Clst: drk gy to blk, carb, slt, mic 35 Cont : cem, prp, tar-ad 5 S/Sst : lt gy to m gy, pyr, l tr Marl : gy red tr Ca : m gy 0009-4L 0009-2L 0009-3L 0009-1L 0009-5L
1716.00			0010
	5.32	45	Sh/Clst: y gy, mic 35 Cont : cem, prp, tar-ad 15 Sh/Clst: drk gy to blk, carb, slt, mic 5 S/Sst : lt gy to m gy, pyr, l tr Marl : gy red tr Ca : m gy to pl brn to brn blk 0010-6L 0010-2L 0010-4L 0010-3L 0010-1L 0010-5L
1725.00			0025
	6.03	35	S/Sst : w to lt gy, calc, pyr, l 30 Cont : cem, prp, dd, fib 25 Sh/Clst: y gy to lt gy, mic 10 Sh/Clst: drk gy to dsk y brn tr Marl : gy red tr Ca : m gy to pl brn to brn blk 0025-3L 0025-2L 0025-6L 0025-4L 0025-1L 0025-5L

Table 1 : Lithology description for well NOCS 6407/9-7

Depth unit of measure: m

Depth	Type	Trb	Sample
Int Cvd	TOC%	%	Lithology description
1734.00			0026
	100 S/Sst	: w to lt gy, calc, pyr, l, kln	0026-3L
	tr Marl	: gy red	0026-1L
	tr Cont	: cem, prp	0026-2L
	tr Sh/Clst:	drk gy to dsk y brn	0026-4L
	tr Sh/Clst:	y gy to lt gy, mic	0026-5L
	tr Coal	: blk	0026-6L
1743.00			0027
	100 S/Sst	: w to lt gy, calc, pyr, cem, l, kln	0027-3L
	tr Marl	: gy red	0027-1L
	tr Cont	: prp, dd	0027-2L
	tr Sh/Clst:	drk gy to dsk y brn	0027-4L
	tr Sh/Clst:	y gy to lt gy, mic	0027-5L
	tr Coal	: blk	0027-6L
1752.00			0028
	100 S/Sst	: w to lt gy, calc, pyr, crs, cem, l, kln	0028-2L
	tr Cont	: cem, prp, dd	0028-1L
	tr Sh/Clst:	drk gy to dsk y brn	0028-3L
	tr Sh/Clst:	y gy to lt gy, mic	0028-4L
1761.00			0029
	100 S/Sst	: w to lt gy, calc, crs, cem, l, kln	0029-2L
	tr Cont	: cem	0029-1L
	tr Sh/Clst:	drk gy to dsk y brn	0029-3L
	tr Sh/Clst:	y gy to lt gy, mic	0029-4L

Table 1 : Lithology description for well NOCS 6407/9-7

Depth unit of measure: m

Depth	Type	Trb	Sample
Int Cvd	TOC%	%	Lithology description
1770.00			0030
		100 S/Sst	: w to lt gy, calc, crs, cem, l, kln 0030-2L
		tr Cont	: Mica-ad, prp 0030-1L
		tr Sh/Clst:	drk gy to dsk y brn 0030-3L
		tr Sh/Clst:	y gy to lt gy, mic 0030-4L
1779.00			0054
		95 S/Sst	: w to lt gy, calc, pyr, crs, l 0054-1L
		5 Sh/Clst:	y gy to lt gy, mic 0054-2L
		tr Cont	: prp 0054-3L
1788.00			0055
		55 S/Sst	: w to lt gy, calc, cem, l, kln 0055-1L
		45 Sh/Clst:	y gy to lt gy, mic 0055-2L
		tr Cont	: prp 0055-3L
		tr Sh/Clst:	drk gy to dsk y brn 0055-4L
1797.00	swc		0011
	4.90	100 S/Sst	: lt gy, calc, l 0011-3L
1806.00			0056
		100 S/Sst	: w to lt gy, calc, pyr, l, kln 0056-1L
		tr Sh/Clst:	y gy to lt gy, mic 0056-2L
		tr Cont	: prp 0056-3L
		tr Sh/Clst:	drk gy to dsk y brn 0056-4L
		tr Other	: carb 0056-5L

Table 1 : Lithology description for well NOCS 6407/9-7

Depth unit of measure: m

Depth	Type	Trb	Sample
Int Cvd	TOC%	%	Lithology description
1815.00			0057
		100	S/Sst : w to lt gy, calc, l, kln
		tr	Sh/Clst: y gy to lt gy, mic
		tr	Cont : prp
		tr	Sh/Clst: drk gy to dsk y brn
		tr	Other : carb
			0057-1L
			0057-2L
			0057-3L
			0057-4L
			0057-5L
1824.00			0058
		100	S/Sst : w to lt gy, calc, mic, l
		tr	Sh/Clst: y gy to lt gy, mic
		tr	Cont : prp
		tr	Sh/Clst: drk gy to dsk y brn
		tr	Other : carb
		tr	Marl : gy red
			0058-1L
			0058-2L
			0058-3L
			0058-4L
			0058-5L
			0058-6L
1833.00			0059
		50	S/Sst : w to lt gy, calc, mic, l
0.70		50	Sh/Clst: y gy to lt gy, mic
		tr	Cont : prp
		tr	Sh/Clst: drk gy to dsk y brn
			0059-1L
			0059-2L
			0059-3L
			0059-4L
1842.00			0060
		100	S/Sst : w to lt gy, calc, pyr, cem, l
		tr	Sh/Clst: y gy to lt gy, mic
		tr	Cont : prp
		tr	Other : carb
		tr	Ca : pl y brn
			0060-1L
			0060-2L
			0060-3L
			0060-4L
			0060-5L
1851.00			0061
		55	S/Sst : w to lt gy, calc, pyr, cem, l
		40	Cont : cem, prp, dd
		5	Sh/Clst: drk gy to dsk y brn, mic
		tr	Sh/Clst: y gy to lt gy, mic
		tr	Ca : pl y brn
			0061-1L
			0061-3L
			0061-5L
			0061-2L
			0061-4L

Table 1 : Lithology description for well NOCS 6407/9-7

Depth unit of measure: m

Depth	Type		Trb	Sample
Int Cvd	TOC%	% Lithology description		
1860.00				0062
	14.55	55 Sh/Clst: drk gy to dsk y brn, carb, slt, mic		0062-5L
		25 S/Sst : w to lt gy, calc, pyr, cem, l		0062-1L
		15 Cont : cem, prp, dd		0062-3L
		5 Sh/Clst: y gy to lt gy, mic		0062-2L
		tr Ca : pl y brn		0062-4L
		tr Marl : gy red		0062-6L
		tr Coal : blk		0062-7L
1869.00				0063
	21.59	85 S/Sst : w to lt gy, calc, pyr, cem, l		0063-1L
		10 Sh/Clst: drk gy to dsk y brn, carb, mic		0063-4L
		5 Coal : blk		0063-6L
		tr Sh/Clst: y gy to lt gy, mic		0063-2L
		tr Cont : cem, prp, dd		0063-3L
		tr Marl : gy red		0063-5L
		tr Ca : pl y brn		0063-7L
1878.00				0064
	2.74	55 S/Sst : w to lt gy, calc, pyr, crs, l		0064-1L
		40 Sh/Clst: drk gy, mic		0064-4L
		5 Sh/Clst: gy red, calc		0064-5L
		tr Sh/Clst: y gy to lt gy, mic		0064-2L
		tr Cont : prp		0064-3L
		tr Coal : blk		0064-6L
1890.00				0065
		100 S/Sst : w to lt gy, calc, pyr, mic, crs, l		0065-1L
		tr Cont : prp		0065-2L
		tr Sh/Clst: drk gy, mic		0065-3L
		tr Other : carb		0065-4L

Table 1 : Lithology description for well NOCS 6407/9-7

Depth unit of measure: m

Depth	Type	Trb	Sample
Int Cvd	TOC%	%	Lithology description
1899.00			0066
	0.21	100	S/Sst : w to lt gy, calc, pyr, crs, cem, 1 tr Cont : prp tr Sh/Clst: drk gy, mic tr Other : carb tr Ca : pl y brn
			0066-1L
			0066-2L
			0066-3L
			0066-4L
			0066-5L
1908.00			0067
			0067-1L
			0067-2L
			0067-3L
			0067-4L
1917.00			0068
			0068-1L
			0068-2L
			0068-3L
			0068-4L
			0068-5L
1926.00			0069
			0069-1L
			0069-2L
			0069-3L
			0069-4L
1935.00			0070
	0.19	100	S/Sst : w to lt gy, calc, pyr, crs, cem, 1 tr Cont : dd tr Sh/Clst: drk gy, mic
			0070-1L
			0070-2L
			0070-3L

Table 1 : Lithology description for well NOCS 6407/9-7

Depth unit of measure: m

Depth	Type		Trb	Sample
Int Cvd	TOC%	% Lithology description		
1944.00				0071
		80 S/Sst : w to lt gy, calc, pyr, crs, l		0071-1L
		20 Cont : dd		0071-2L
		tr Sh/Clst: drk gy, mic		0071-3L
		tr Other : carb		0071-4L
1953.00				0072
		100 S/Sst : w to lt gy, calc, pyr, mic, crs, l		0072-1L
		tr Sh/Clst: drk gy, mic		0072-2L
		tr Cont : prp, dd		0072-3L
1962.00				0073
		90 S/Sst : w to lt gy, calc, pyr, mic, crs, l		0073-1L
		10 Cont : prp, dd		0073-3L
		tr Sh/Clst: drk gy, mic		0073-2L
		tr Other : carb		0073-4L
1971.00				0074
		75 S/Sst : w to lt gy, calc, pyr, mic, crs, l		0074-1L
		25 Cont : prp, dd		0074-3L
		tr Sh/Clst: drk gy, mic		0074-2L
		tr Other : carb		0074-4L
1976.00 swc				0012
	1.26	100 Sh/Clst: dsk y brn, mic		0012-4L

Table 1 : Lithology description for well NOCS 6407/9-7

Depth unit of measure: m

Depth	Type	Trb	Sample
Int Cvd	TOC%		
Lithology description			
1980.00			0075
		90 S/Sst : w to lt gy, calc, pyr, mic, crs, l	0075-1L
		10 Sh/Clst: m gy, mic	0075-2L
		tr Cont : prp, dd	0075-3L
		tr Other : carb	0075-4L
1989.00			0076
		80 S/Sst : w to lt gy, calc, pyr, mic, crs, l	0076-1L
	1.58	20 Sh/Clst: m gy, mic	0076-2L
		tr Cont : prp, dd	0076-3L
		tr Other : carb	0076-4L
1998.00			0077
		50 Cont : dd	0077-3L
		40 S/Sst : w to lt gy, calc, pyr, mic, crs, l	0077-1L
		10 Sh/Clst: m gy, mic	0077-2L
		tr Other : carb	0077-4L
		tr Sh/Clst: gy red, calc	0077-5L
		tr Ca : pl y brn	0077-6L
2001.00 swc			0013
	1.41	100 Sh/Clst: drk y brn to dsk y brn, mic	0013-4L
2007.00			0078
		50 Cont : dd	0078-3L
		45 S/Sst : w to lt gy, calc, pyr, mic, crs, l	0078-1L
		5 Sh/Clst: m gy, mic	0078-2L

Table 1 : Lithology description for well NOCS 6407/9-7

Depth unit of measure: m

Depth	Type		Trb	Sample
Int Cvd	TOC%	%		
Lithology description				
2016.00				0079
		55 Sh/Clst: m gy, mic		0079-2L
		35 Cont : dd		0079-3L
		10 S/Sst : w to lt gy, calc, pyr, mic, crs, 1		0079-1L
2018.70	swc			0014
	1.54	100 Sh/Clst: drk y brn to dsk y brn, mic		0014-4L
2024.00	swc			0015
	0.88	100 Sh/Clst: m ol gy to drk ol gy		0015-4L
2025.00				0080
		60 Sh/Clst: m gy, lt brn gy to brn gy, slt, mic		0080-2L
		40 Cont : prp, dd		0080-3L
		tr S/Sst : w to lt gy, l		0080-1L
2034.00				0081
		50 Cont : prp, dd		0081-3L
		40 S/Sst : w to lt gy, l		0081-1L
		10 Sh/Clst: m gy, lt brn gy to brn gy, slt, mic		0081-2L
		tr Other : carb		0081-4L
		tr Ca : lt or		0081-5L
2036.90	swc			0016
	1.13	100 Sh/Clst: m ol gy to drk ol gy		0016-4L

Table 1 : Lithology description for well NOCS 6407/9-7

Depth unit of measure: m

Depth	Type		Trb	Sample
Int Cvd	TOC%	% Lithology description		
2043.00				0082
	1.31	60 S/Sst : w to lt gy, crs, l 25 Cont : prp, dd 15 Sh/Clst: m gy, lt brn gy to brn gy, mic		0082-1L 0082-3L 0082-2L
2052.00				0083
		80 S/Sst : w to lt gy, crs, l 15 Cont : prp, dd 5 Sh/Clst: m gy, lt brn gy to brn gy, mic tr Other : carb tr Ca : lt or, glauc		0083-1L 0083-3L 0083-2L 0083-4L 0083-5L
2061.00				0084
		70 S/Sst : w to lt gy, pyr, crs, l 25 Cont : prp, dd 5 Sh/Clst: m gy, lt brn gy to brn gy, mic tr Other : carb		0084-1L 0084-3L 0084-2L 0084-4L
2070.00				0085
		95 S/Sst : w to lt gy, pyr, crs, l 5 Cont : prp, dd tr Sh/Clst: m gy, lt brn gy to brn gy, mic tr Other : carb		0085-1L 0085-3L 0085-2L 0085-4L
2079.00				0086
		90 S/Sst : w to lt gy, pyr, mic, crs, l 10 Cont : prp, dd tr Sh/Clst: m gy, lt brn gy to brn gy, mic tr Other : carb		0086-1L 0086-3L 0086-2L 0086-4L

Table 1 : Lithology description for well NOCS 6407/9-7

Depth unit of measure: m

Depth	Type	Trb	Sample
Int Cvd	TOC%	%	Lithology description
2088.00			0087
	85	S/Sst	: w to lt gy, pyr, mic, crs, cem, l 0087-1L
	10	Cont	: prp, dd 0087-3L
	5	Sh/Clst:	m gy, lt brn gy to brn gy, mic 0087-2L
	tr	Other	: carb 0087-4L
2097.00			0088
	95	S/Sst	: w to lt gy, pyr, crs, l 0088-1L
	5	Sh/Clst:	m gy, lt brn gy to brn gy, mic 0088-2L
	tr	Cont	: prp, dd 0088-3L
	tr	Other	: carb 0088-4L
	tr	Ca	: lt or 0088-5L
2106.00			0089
	70	S/Sst	: w to lt gy, pyr, crs, l 0089-1L
	25	Cont	: prp, dd 0089-3L
	5	Sh/Clst:	m gy to drk gy, mic 0089-2L
	tr	Other	: carb 0089-4L
	tr	Ca	: lt or 0089-5L
2115.00			0090
	75	S/Sst	: w to lt gy, pyr, crs, l 0090-1L
	15	Cont	: prp, dd 0090-3L
	10	Ca	: lt or 0090-5L
	tr	Sh/Clst:	m gy to drk gy, mic 0090-2L
	tr	Other	: carb 0090-4L
2124.00			0091
	50	S/Sst	: w to lt gy, pyr, crs, l 0091-1L
	30	Cont	: prp, dd 0091-3L
	15	Ca	: lt or 0091-5L
	5	Sh/Clst:	m gy to drk gy, mic 0091-2L
	tr	Other	: carb 0091-4L

Table 1 : Lithology description for well NOCS 6407/9-7

Depth unit of measure: m

Depth	Type		Trb	Sample
Int Cvd	TOC%	% Lithology description		
2133.00				0092
		70 S/Sst : w to lt gy, pyr, crs, l		0092-1L
		20 Cont : prp, dd		0092-3L
		5 Sh/Clst: m gy to drk gy, mic		0092-2L
		5 Ca : lt or		0092-5L
		tr Other : carb		0092-4L
2139.90	swc			0017
	52.21	100 Coal : blk		0017-4L
2142.00				0093
	61.04	65 S/Sst : w to lt gy, pyr, crs, l		0093-1L
		25 Coal : blk		0093-4L
		10 Sh/Clst: m gy to drk gy, mic		0093-2L
		tr Cont : prp, dd, fib		0093-3L
		tr Ca : lt or		0093-5L
2151.00				0094
		50 S/Sst : w to lt gy, pyr, crs, l		0094-1L
		50 Cont : prp, dd, fib		0094-3L
		tr Sh/Clst: m gy to drk gy, mic		0094-2L
		tr Coal : blk		0094-4L
		tr Ca : lt or		0094-5L
2160.00				0095
		50 Cont : prp, dd, fib		0095-3L
		45 S/Sst : w to lt gy, pyr, crs, l		0095-1L
		5 Sh/Clst: m gy to drk gy, mic		0095-2L
		tr Coal : blk		0095-4L
		tr Ca : lt or		0095-5L

Table 1 : Lithology description for well NOCS 6407/9-7

Depth unit of measure: m

Depth	Type		Trb	Sample
Int Cvd	TOC%	%		
Lithology description				
2169.00				0096
		45 S/Sst : w to lt gy, calc, pyr, crs, l		0096-1L
		45 Cont : dd		0096-3L
		10 Sh/Clst: m gy to drk gy, lt brn gy to brn gy, mic		0096-2L
		tr Coal : blk		0096-4L
		tr Ca : lt or		0096-5L
2178.00				0097
	0.24	90 S/Sst : w to lt gy, calc, pyr, crs, l		0097-1L
	1.23	10 Sh/Clst: m gy to drk gy, lt brn gy to brn gy, mic		0097-2L
		tr Cont : dd		0097-3L
		tr Coal : blk		0097-4L
		tr Ca : lt or		0097-5L
2187.00				0098
	1.44	85 Sh/Clst: lt gy to drk gy, mic		0098-2L
		10 Cont : prp		0098-3L
		5 S/Sst : w to lt gy, calc, glauc, cem, l		0098-1L
		tr Coal : blk		0098-4L
		tr Ca : lt gy, dsk y brn		0098-5L
2196.00				0099
	54.85	50 Coal : blk		0099-4L
		40 S/Sst : w to lt gy, pyr, crs, l		0099-1L
		10 Sh/Clst: dsk y brn, carb		0099-5L
		tr Sh/Clst: lt gy to drk gy, mic		0099-2L
		tr Cont : prp		0099-3L

Table 1 : Lithology description for well NOCS 6407/9-7

Depth unit of measure: m

Depth	Type		Trb	Sample
Int Cvd	TOC%	% Lithology description		
2205.00				0100
	40.62	35 Coal : blk		0100-4L
		35 Sh/Clst: dsk y brn, carb		0100-5L
		30 S/Sst : w to lt gy, l		0100-1L
		tr Sh/Clst: lt gy to drk gy, mic		0100-2L
		tr Cont : prp		0100-3L
2214.00				0101
		85 S/Sst : w to lt gy, calc, cem, l, kln		0101-1L
	45.68	10 Coal : blk		0101-4L
		5 Sh/Clst: lt gy to drk gy, lt brn gy to brn gy, mic		0101-2L
		tr Cont : prp		0101-3L
		tr Sh/Clst: dsk y brn, carb		0101-5L
		tr Ca : lt or		0101-6L
2223.00				0102
	35.76	70 Coal : blk		0102-4L
		25 S/Sst : w to lt gy, crs, l		0102-1L
		5 Sh/Clst: lt gy to drk gy, mic		0102-2L
		tr Cont : prp		0102-3L
		tr Sh/Clst: brn gy to dsk y brn, carb, wx		0102-5L
2232.00				0103
	58.93	75 Coal : blk		0103-4L
		20 S/Sst : w to lt gy, calc, cem, l		0103-1L
		5 Sh/Clst: brn gy to dsk y brn, carb, wx		0103-5L
		tr Sh/Clst: lt gy to drk gy, mic		0103-2L
		tr Cont : prp		0103-3L

Table 1 : Lithology description for well NOCS 6407/9-7

Depth unit of measure: m

Depth	Type	Trb	Sample
Int Cvd	TOC%		

	%	Lithology description	

2232.70	swc		0018
	66.51	100 Coal : blk	0018-4L
2241.00			0104
	62.60	85 S/Sst : w to lt gy, calc, l 15 Coal : blk tr Sh/Clst: lt gy to drk gy, mic tr Cont : prp tr Sh/Clst: brn gy to dsk y brn, carb, wx	0104-1L 0104-4L 0104-2L 0104-3L 0104-5L
2250.00			0105
	31.83	100 Coal : blk to dsk y brn tr S/Sst : w to lt gy, calc, cem tr Sh/Clst: lt gy to drk gy, mic tr Cont : prp tr Sh/Clst: brn gy to dsk y brn, carb, wx	0105-4L 0105-1L 0105-2L 0105-3L 0105-5L
2259.00			0106
		90 S/Sst : w, crs, l 5 Coal : blk to dsk y brn 5 Sh/Clst: brn gy to dsk y brn, carb, wx tr Sh/Clst: lt gy to drk gy, mic tr Cont : prp, dd	0106-1L 0106-4L 0106-5L 0106-2L 0106-3L
2268.00			0031
		85 S/Sst : w to lt gy, crs, l, kln 15 Coal : blk tr Sh/Clst: dsk y brn to blk, carb	0031-2L 0031-1L 0031-3L

Table 1 : Lithology description for well NOCS 6407/9-7

Depth unit of measure: m

Depth	Type		Trb	Sample
Int Cvd	TOC%	% Lithology description		
2277.00				0032
		90 S/Sst : w to lt gy, crs, l, kln		0032-2L
		10 Coal : blk		0032-1L
		tr Sh/Clst: dsk y brn to blk, carb		0032-3L
		tr Other : pyr		0032-4L
		tr Cont : fib		0032-5L
2286.00				0107
		60 S/Sst : w, crs, l		0107-1L
	34.97	25 Coal : blk to dsk y brn		0107-4L
		15 Sh/Clst: brn gy to dsk y brn, carb, wx		0107-5L
		tr Sh/Clst: lt gy to drk gy, mic		0107-2L
		tr Cont : prp, fib		0107-3L
2295.00				0033
		90 S/Sst : w to lt gy, crs, l, kln		0033-2L
		5 Coal : blk		0033-1L
		5 Sh/Clst: lt brn gy		0033-6L
		tr Sh/Clst: dsk y brn to blk, carb		0033-3L
		tr Other : pyr		0033-4L
		tr Cont : prp		0033-5L
2304.00				0034
		80 S/Sst : w to lt gy, crs, l, kln		0034-2L
		20 Coal : blk		0034-1L
		tr Sh/Clst: dsk y brn to blk, carb		0034-3L
		tr Other : pyr		0034-4L
		tr Cont : prp		0034-5L
		tr Sh/Clst: lt brn gy		0034-6L

Table 1 : Lithology description for well NOCS 6407/9-7

Depth unit of measure: m

Depth	Type		Trb	Sample
Int Cvd	TOC%	% Lithology description		
2313.00				0035
		90 S/Sst : w to lt gy, calc, pyr, crs, l		0035-4L
		5 Coal : blk		0035-2L
		5 Sh/Clst: dsk y brn to blk, carb		0035-3L
		tr Cont : prp		0035-1L
2322.00				0108
		95 S/Sst : w, calc, l		0108-1L
		5 Sh/Clst: brn gy to dsk y brn, carb, wx		0108-5L
		tr Sh/Clst: lt gy to drk gy, mic		0108-2L
		tr Cont : prp, fib		0108-3L
		tr Coal : blk to dsk y brn		0108-4L
2334.00				0036
		90 S/Sst : w to lt gy, calc, pyr, crs, l		0036-4L
		5 Coal : blk		0036-2L
		5 Sh/Clst: dsk y brn to blk, carb		0036-3L
		tr Cont : prp		0036-1L
		tr Sh/Clst: lt gy to lt brn gy		0036-5L
2343.00				0109
	38.00	50 Coal : blk to dsk y brn		0109-4L
	2.17	40 Sh/Clst: brn gy to dsk y brn, carb, wx		0109-5L
		10 S/Sst : w, calc, l		0109-1L
		tr Sh/Clst: lt gy to drk gy, mic		0109-2L
		tr Cont : prp, fib		0109-3L
2352.00				0110
		80 S/Sst : w, calc, l, kln		0110-1L
	1.00	15 Sh/Clst: lt brn gy to brn gy to dsk y brn, lt gy, wx		0110-4L
		5 Coal : blk to dsk y brn		0110-3L
		tr Cont : prp, fib		0110-2L

Table 1 : Lithology description for well NOCS 6407/9-7

Depth unit of measure: m

Depth	Type		Trb	Sample
Int Cvd	TOC%	% Lithology description		
2361.00				0111
	0.85	75 S/Sst : w, calc, crs, l, kln		0111-1L
		20 Sh/Clst: lt brn gy to brn gy to dsk y brn, lt gy, wx		0111-4L
		5 Coal : blk to dsk y brn		0111-3L
		tr Cont : dd		0111-2L
2370.00				0037
		35 Cont : dd		0037-1L
		30 S/Sst : w to lt gy, calc, pyr, crs, l		0037-4L
		20 Coal : blk		0037-2L
		10 Sh/Clst: dsk y brn to blk, carb		0037-3L
		5 Sh/Clst: lt gy to lt brn gy		0037-5L
2379.00				0038
	2.19	75 Sh/Clst: lt gy to m gy, lt brn gy, wx		0038-5L
	34.68	15 Coal : blk		0038-2L
		5 Sh/Clst: dsk y brn to blk, carb		0038-3L
		5 S/Sst : w to lt gy, calc, pyr, crs, l		0038-4L
		tr Cont : prp, dd		0038-1L
2384.10 swc				0019
	28.40	100 Coal : blk		0019-4L
		tr Cont : dd		0019-2L
2388.00				0039
		95 S/Sst : w to lt gy, calc, pyr, crs, l		0039-4L
		5 Sh/Clst: lt gy to m gy, lt brn gy, wx		0039-5L
		tr Cont : prp, dd		0039-1L
		tr Coal : blk		0039-2L
		tr Sh/Clst: dsk y brn to blk, carb		0039-3L

Table 1 : Lithology description for well NOCS 6407/9-7

Depth unit of measure: m

Depth	Type			Trb	Sample
Int	Cvd	TOC%	%	Lithology description	
2397.00					0040
		54.33		50 S/Sst : w to lt gy, calc, pyr, crs, l 35 Coal : dsk y brn to blk 15 Sh/Clst: dsk y brn, carb tr Cont : prp, dd tr Sh/Clst: lt gy to m gy, lt brn gy, wx	0040-4L 0040-2L 0040-3L 0040-1L 0040-5L
2398.30	swc				0020
		50.96	100	Coal : blk	0020-4L
2406.00					0041
				90 S/Sst : w to lt gy, calc, cem 10 Sh/Clst: lt gy to m gy, lt brn gy, wx tr Cont : prp tr Coal : dsk y brn to blk tr Sh/Clst: dsk y brn, carb	0041-4L 0041-5L 0041-1L 0041-2L 0041-3L
2407.20	swc				0021
		60.03	100	Coal : blk	0021-4L
2415.00					0042
		33.46		50 Coal : dsk y brn to blk 50 Sh/Clst: lt gy to m gy, lt brn gy, gn gy, slt, mic tr Cont : prp tr Sh/Clst: dsk y brn, carb tr S/Sst : w to lt gy, calc, cem	0042-2L 0042-5L 0042-1L 0042-3L 0042-4L

Table 1 : Lithology description for well NOCS 6407/9-7

Depth unit of measure: m

Depth	Type			Trb	Sample
Int	Cvd	TOC%	%	Lithology description	
2422.50	swc				0022
		39.37	100	Coal : blk	0022-4L
2424.00					0043
		8.40	50	Sh/Clst: lt gy to lt brn gy to dsk y brn, carb, wx	0043-4L
			30	S/Sst : w to lt gy, calc, crs, l	0043-3L
			20	Coal : dsk y brn to blk	0043-2L
			tr	Cont : prp	0043-1L
2431.40	swc				0023
		38.35	100	Coal : blk	0023-4L
2433.00					0044
		8.14	55	Sh/Clst: m gy to lt brn gy to dsk y brn, carb, slt, mic	0044-4L
			45	Coal : dsk y brn to blk	0044-2L
			tr	Cont : prp	0044-1L
			tr	S/Sst : w to lt gy, calc, crs, l	0044-3L
2439.30	swc				0024
		63.81	100	Coal : blk	0024-4L
2442.00					0045
		52.14	70	Coal : dsk y brn to blk	0045-2L
			25	Sh/Clst: m gy to lt brn gy to dsk y brn, carb, slt, mic	0045-4L
			5	S/Sst : w to lt gy, calc, f	0045-3L
			tr	Cont : prp, dd	0045-1L

Table 1 : Lithology description for well NOCS 6407/9-7

Depth unit of measure: m

Depth	Type		Trb	Sample
Int Cvd	TOC%	% Lithology description		
2451.00				0046
	43.09	70 S/Sst : w to lt gy, calc, crs, l		0046-3L
		15 Coal : dsk y brn to blk		0046-2L
		15 Sh/Clst: m gy to lt brn gy to dsk y brn, slt, mic		0046-4L
		tr Cont : prp, dd		0046-1L
2460.00				0047
	4.45	60 S/Sst : w to lt gy, calc, cem		0047-3L
		25 Sh/Clst: m gy to lt brn gy to dsk y brn, slt, mic		0047-4L
		15 Coal : dsk y brn to blk		0047-2L
		tr Cont : prp, fib		0047-1L
2469.00				0048
	2.51	85 S/Sst : w to lt gy, calc, crs, l		0048-3L
		10 Sh/Clst: m gy to lt brn gy to dsk y brn, wx		0048-4L
		5 Coal : dsk y brn to blk		0048-2L
		tr Cont : prp, fib		0048-1L
2478.00				0049
	2.02	60 Sh/Clst: lt gy to lt brn gy, wx		0049-4L
		25 Coal : dsk y brn to blk		0049-2L
		15 S/Sst : w to lt gy, calc, crs, l		0049-3L
		tr Cont : prp, fib		0049-1L
		tr Sh/Clst: lt gy to m gy, mic		0049-5L
		tr Ca : dsk y brn, dol		0049-6L

Table 1 : Lithology description for well NOCS 6407/9-7

Depth unit of measure: m

Depth	Type		Trb	Sample
Int Cvd	TOC%	% Lithology description		
2487.00				0112
	1.08	55 S/Sst : w to lt gy, calc, l 35 Sh/Clst: lt gy to lt brn gy to brn gy, wx 10 Coal : dsk y brn to blk tr Cont : prp		0112-2L 0112-3L 0112-1L 0112-4L
2496.00				0050
		90 S/Sst : w to lt gy, calc, pyr, crs, l 5 Coal : dsk y brn to blk 5 Sh/Clst: lt gy to lt brn gy, wx tr Cont : prp		0050-3L 0050-2L 0050-4L 0050-1L
2505.00				0051
	0.72	75 S/Sst : w to lt gy, calc, pyr, crs, l 25 Sh/Clst: lt gy to lt brn gy, slt tr Cont : prp, dd, tar-ad tr Coal : dsk y brn to blk		0051-3L 0051-4L 0051-1L 0051-2L
2514.00				0052
		90 S/Sst : w to lt gy, calc, pyr, crs, l 10 Sh/Clst: lt gy to lt brn gy, slt tr Cont : prp tr Coal : dsk y brn to blk		0052-3L 0052-4L 0052-1L 0052-2L
2523.00				0053
		100 S/Sst : w to lt gy, calc, pyr, crs, l tr Cont : prp tr Coal : dsk y brn to blk tr Sh/Clst: lt gy to lt brn gy		0053-3L 0053-1L 0053-2L 0053-4L

Table 1 : Lithology description for well NOCS 6407/9-7

Depth unit of measure: m

Depth	Type		Trb	Sample
Int Cvd	TOC%	% Lithology description		
2532.00				0113
		90 S/Sst : w to lt gy, calc, l		0113-2L
		10 Sh/Clst: lt gy to lt brn gy to brn gy, wx		0113-3L
		tr Coal : dsk y brn to blk		0113-1L
		tr Cont : prp, dd		0113-4L
		tr Sh/Clst: lt gy, mic		0113-5L
2541.00				0114
		50 S/Sst : w to lt gy, calc, l		0114-2L
	0.55	45 Sh/Clst: lt brn gy to brn gy, wx		0114-3L
		5 Sh/Clst: gn gy		0114-5L
		tr Coal : dsk y brn to blk		0114-1L
		tr Cont : prp, dd		0114-4L
2550.00				0115
	0.23	50 Sh/Clst: gn gy, gy red, lt y brn, lt pu		0115-5L
		25 S/Sst : w to lt gy, calc, l		0115-2L
		25 Sh/Clst: lt brn gy to brn gy, wx		0115-3L
		tr Coal : dsk y brn to blk		0115-1L
		tr Cont : prp, dd		0115-4L
2559.00				0116
	0.41	75 Sh/Clst: gn gy, gy red, lt y brn, lt pu		0116-5L
		25 Sh/Clst: lt brn gy to brn gy, wx		0116-3L
		tr Coal : dsk y brn to blk		0116-1L
		tr S/Sst : w to lt gy, calc, l		0116-2L
		tr Cont : prp, dd		0116-4L

Table 2 : Rock-Eval table for well NOCS 6407/9-7

Depth unit of measure: m

Depth	Typ	Lithology	S1	S2	S3	S2/S3	TOC	HI	OI	PP	PI	Tmax	Sample
1680.00	cut	Sh/Clst: m gy to drk gy	0.03	0.72	1.21	0.60	1.43	50	85	0.8	0.04	418	0001-3L
1690.00	cut	Sh/Clst: m gy to drk gy	0.03	0.61	0.72	0.85	1.48	41	49	0.6	0.05	421	0002-3L
1700.00	cut	Sh/Clst: brn blk, drk gy	0.56	19.54	1.17	16.70	7.37	265	16	20.1	0.03	404	0003-3L
1705.00	swc	Sh/Clst: brn blk, drk gy	0.91	12.78	1.00	12.78	5.88	217	17	13.7	0.07	389	0004-3L
1706.25	swc	Sh/Clst: brn blk to blk	0.48	9.04	1.10	8.22	5.07	178	22	9.5	0.05	413	0005-3L
1708.50	swc	Sh/Clst: ol gy to blk	0.13	2.56	1.06	2.42	2.24	114	47	2.7	0.05	417	0006-3L
1710.00	swc	Sh/Clst: drk ol gy to blk	0.43	5.33	1.45	3.68	8.21	65	18	5.8	0.07	410	0007-3L
1711.50	swc	S/Sst : lt gy to m gy	0.06	0.96	0.62	1.55	0.79	122	78	1.0	0.06	462	0008-1L
1713.00	cut	Sh/Clst: drk gy to blk	0.34	10.93	2.44	4.48	5.64	194	43	11.3	0.03	411	0009-4L
1716.00	cut	Sh/Clst: drk gy to blk	0.24	11.20	2.56	4.38	5.32	211	48	11.4	0.02	416	0010-4L
1725.00	cut	Sh/Clst: drk gy to dsk y brn	0.33	11.81	1.78	6.63	6.03	196	30	12.1	0.03	406	0025-4L
1797.00	swc	S/Sst : lt gy	0.12	1.24	1.59	0.78	4.90	25	32	1.4	0.09	416	0011-3L
1833.00	cut	Sh/Clst: y gy to lt gy	0.02	0.35	1.22	0.29	0.70	50	174	0.4	0.05	422	0059-2L
1860.00	cut	Sh/Clst: drk gy to dsk y brn	0.54	43.33	2.34	18.52	14.55	298	16	43.9	0.01	437	0062-5L
1869.00	cut	Sh/Clst: drk gy to dsk y brn	0.58	39.68	3.40	11.67	21.59	184	16	40.3	0.01	430	0063-4L

Table 2 : Rock-Eval table for well NOCS 6407/9-7

Depth unit of measure: m

Depth	Typ	Lithology	S1	S2	S3	S2/S3	TOC	HI	OI	PP	PI	Tmax	Sample
1878.00	cut	Sh/Clst: drk gy	0.05	2.28	0.69	3.30	2.74	83	25	2.3	0.02	422	0064-4L
1899.00	cut	S/Sst : w to lt gy	-	0.03	1.84	0.02	0.21	14	876	-	-	427	0066-1L
1935.00	cut	S/Sst : w to lt gy	-	0.05	0.40	0.13	0.19	26	211	0.1	-	337	0070-1L
1976.00	swc	Sh/Clst: dsk y brn	0.03	2.47	3.46	0.71	1.26	196	275	2.5	0.01	428	0012-4L
1989.00	cut	Sh/Clst: m gy	0.08	2.59	0.66	3.92	1.58	164	42	2.7	0.03	428	0076-2L
2001.00	swc	Sh/Clst: drk y brn to dsk y brn	0.05	3.28	2.38	1.38	1.41	233	169	3.3	0.02	427	0013-4L
2018.70	swc	Sh/Clst: drk y brn to dsk y brn	0.07	4.66	5.57	0.84	1.54	303	362	4.7	0.01	425	0014-4L
2024.00	swc	Sh/Clst: m ol gy to drk ol gy	0.09	1.73	0.39	4.44	0.88	197	44	1.8	0.05	420	0015-4L
2036.90	swc	Sh/Clst: m ol gy to drk ol gy	0.10	2.45	0.93	2.63	1.13	217	82	2.5	0.04	427	0016-4L
2043.00	cut	Sh/Clst: m gy, lt brn gy to brn gy	0.07	3.50	0.47	7.45	1.31	267	36	3.6	0.02	425	0082-2L
2139.90	swc	Coal : blk	2.27	55.90	6.36	8.79	52.21	107	12	58.2	0.04	426	0017-4L
2142.00	cut	Coal : blk	2.30	104.61	9.23	11.33	61.04	171	15	106.9	0.02	424	0093-4L
2178.00	cut	S/Sst : w to lt gy	-	0.06	1.19	0.05	0.24	25	496	0.1	-	428	0097-1L
2178.00	cut	Sh/Clst: m gy to drk gy, lt brn gy to brn gy	0.04	2.07	0.41	5.05	1.23	168	33	2.1	0.02	426	0097-2L

Table 2 : Rock-Eval table for well NOCS 6407/9-7

Depth unit of measure: m

Depth	Typ	Lithology	S1	S2	S3	S2/S3	TOC	HI	OI	PP	PI	Tmax	Sample
2187.00	cut	Sh/Clst: lt gy to drk gy	0.11	1.38	0.63	2.19	1.44	96	44	1.5	0.07	426	0098-2L
2196.00	cut	Coal : blk	2.53	113.37	6.26	18.11	54.85	207	11	115.9	0.02	423	0099-4L
2205.00	cut	Coal : blk	1.29	73.14	7.40	9.88	40.62	180	18	74.4	0.02	425	0100-4L
2214.00	cut	Coal : blk	2.12	102.76	8.72	11.78	45.68	225	19	104.9	0.02	423	0101-4L
2223.00	cut	Coal : blk	1.22	77.36	6.31	12.26	35.76	216	18	78.6	0.02	424	0102-4L
2232.00	cut	Coal : blk	2.35	105.09	8.23	12.77	58.93	178	14	107.4	0.02	423	0103-4L
2232.70	swc	Coal : blk	2.71	66.77	6.10	10.95	66.51	100	9	69.5	0.04	425	0018-4L
2241.00	cut	Coal : blk	3.26	118.26	2.39	49.48	62.60	189	4	121.5	0.03	425	0104-4L
2250.00	cut	Coal : blk to dsk y brn	1.28	88.41	3.36	26.31	31.83	278	11	89.7	0.01	434	0105-4L
2286.00	cut	Coal : blk to dsk y brn	0.83	59.37	1.04	57.09	34.97	170	3	60.2	0.01	428	0107-4L
2343.00	cut	Coal : blk to dsk y brn	1.35	86.10	1.86	46.29	38.00	227	5	87.4	0.02	426	0109-4L
2343.00	cut	Sh/Clst: brn gy to dsk y brn	0.06	3.69	0.23	16.04	2.17	170	11	3.8	0.02	424	0109-5L
2352.00	cut	Sh/Clst: lt brn gy to brn gy to dsk y brn, lt gy	0.02	1.66	0.33	5.03	1.00	166	33	1.7	0.01	431	0110-4L
2361.00	cut	Sh/Clst: lt brn gy to brn gy to dsk y brn, lt gy	0.01	0.64	0.19	3.37	0.85	75	22	0.6	0.02	434	0111-4L

Table 2 : Rock-Eval table for well NOCS 6407/9-7

Depth unit of measure: m

Depth	Typ	Lithology	S1	S2	S3	S2/S3	TOC	HI	OI	PP	PI	Tmax	Sample
2379.00	cut	Coal : blk	1.16	61.33	-	-	34.68	177	-	62.5	0.02	426	0038-2L
2379.00	cut	Sh/Clst: lt gy to m gy, lt brn gy	0.05	2.64	0.09	29.33	2.19	121	4	2.7	0.02	436	0038-5L
2384.10	swc	Coal : blk	1.69	56.00	1.23	45.53	28.40	197	4	57.7	0.03	430	0019-4L
2397.00	cut	Coal : dsk y brn to blk	2.25	140.84	2.81	50.12	54.33	259	5	143.1	0.02	425	0040-2L
2398.30	swc	Coal : blk	2.15	83.41	3.03	27.53	50.96	164	6	85.6	0.03	431	0020-4L
2407.20	swc	Coal : blk	2.23	98.81	3.68	26.85	60.03	165	6	101.0	0.02	428	0021-4L
2415.00	cut	Coal : dsk y brn to blk	0.92	44.22	1.23	35.95	33.46	132	4	45.1	0.02	430	0042-2L
2422.50	swc	Coal : blk	1.52	72.17	-	-	39.37	183	-	73.7	0.02	429	0022-4L
2424.00	cut	Sh/Clst: lt gy to lt brn gy to dsk y brn	0.45	27.93	0.85	32.86	8.40	333	10	28.4	0.02	425	0043-4L
2431.40	swc	Coal : blk	1.25	60.62	1.09	55.61	38.35	158	3	61.9	0.02	429	0023-4L
2433.00	cut	Sh/Clst: m gy to lt brn gy to dsk y brn	0.50	32.33	1.04	31.09	8.14	397	13	32.8	0.02	422	0044-4L
2439.30	swc	Coal : blk	2.18	95.45	3.63	26.29	63.81	150	6	97.6	0.02	430	0024-4L
2442.00	cut	Coal : dsk y brn to blk	1.96	94.11	-	-	52.14	180	-	96.1	0.02	430	0045-2L
2451.00	cut	Coal : dsk y brn to blk	1.84	81.97	0.26	315.27	43.09	190	1	83.8	0.02	428	0046-2L

Table 2 : Rock-Eval table for well NOCS 6407/9-7

Depth unit of measure: m

Depth	Typ	Lithology	S1	S2	S3	S2/S3	TOC	HI	OI	PP	PI	Tmax	Sample
2460.00	cut	Sh/Clst: m gy to lt brn gy to dsk y brn	0.10	6.49	0.27	24.04	4.45	146	6	6.6	0.02	432	0047-4L
2469.00	cut	Sh/Clst: m gy to lt brn gy to dsk y brn	0.03	2.04	0.02	102.00	2.51	81	1	2.1	0.01	436	0048-4L
2478.00	cut	Sh/Clst: lt gy to lt brn gy	0.10	2.62	0.10	26.20	2.02	130	5	2.7	0.04	431	0049-4L
2487.00	cut	Sh/Clst: lt gy to lt brn gy to brn gy	0.01	0.56	-	-	1.08	52	-	0.6	0.02	427	0112-3L
2505.00	cut	Sh/Clst: lt gy to lt brn gy	0.04	0.55	0.06	9.17	0.72	76	8	0.6	0.07	438	0051-4L
2541.00	cut	Sh/Clst: lt brn gy to brn gy	-	0.07	-	-	0.55	13	-	0.1	-	452	0114-3L
2550.00	cut	Sh/Clst: gn gy, gy red, lt y brn, lt pu	-	0.06	0.07	0.86	0.23	26	30	0.1	-	433	0115-5L
2559.00	cut	Sh/Clst: gn gy, gy red, lt y brn, lt pu	0.01	0.32	-	-	0.41	78	-	0.3	0.03	434	0116-5L

Table 3 : Thermal Maturity Data for well NOCS 6407/9-7

Depth unit of measure: m

Depth	Typ Lithology	Vitrinite Reflectance (%)	Number of Readings	Standard Deviation	Spore Fluorescence Colour	SCI	Tmax (°C)	Sample
1680.00	cut Sh/Clst: m gy to drk gy	-	-	-	-	2.0-3.0	418	0001-3L
1700.00	cut bulk	0.26	17	0.05	3	-	-	0003-0B
1705.00	swc Sh/Clst: brn blk, drk gy	-	-	-	-	2.0-3.0	389	0004-3L
1708.50	swc bulk	0.28	11	0.04	3.8	-	-	0006-0B
1710.00	swc Sh/Clst: drk ol gy to blk	-	-	-	-	2.0-2.5	410	0007-3L
1725.00	cut Sh/Clst: drk gy to dsk y brn	-	-	-	-	3.5	406	0025-4L
1788.00	cut bulk	0.29	5	0.02	4	-	-	0055-0B
1797.00	swc S/Sst : lt gy	-	-	-	-	NDP	416	0011-3L
1833.00	cut Sh/Clst: y gy to lt gy	-	-	-	-	3.5	422	0059-2L
1860.00	cut bulk	0.37	19	0.05	4	-	-	0062-0B
1878.00	cut Sh/Clst: drk gy	-	-	-	-	4.0	422	0064-4L
1976.00	swc bulk	0.32	8	0.05	3.8	-	-	0012-0B
1976.00	swc Sh/Clst: dsk y brn	-	-	-	-	4.0	428	0012-4L
2001.00	swc bulk	0.31	18	0.05	3.8	-	-	0013-0B

Table 3 : Thermal Maturity Data for well NOCS 6407/9-7

Depth unit of measure: m

Depth	Typ	Lithology	Vitrinite Reflectance (%)	Number of Readings	Standard Deviation	Spore Fluorescence Colour	SCI	T _{max} (°C)	Sample
2018.70	swc	Sh/Clst: drk y brn to dsk y brn	-	-	-	-	3.5-4.0	425	0014-4L
2024.00	swc	bulk	0.32	3	0.04	-	-	-	0015-0B
2036.90	swc	bulk	0.36	1	0.00	3.8	-	-	0016-0B
2036.90	swc	Sh/Clst: m ol gy to drk ol gy	-	-	-	-	4.0	427	0016-4L
2043.00	cut	Sh/Clst: m gy, lt brn gy to brn gy	-	-	-	-	3.5-4.0	425	0082-2L
2139.90	swc	bulk	0.43	59	0.04	3.8	-	-	0017-0B
2139.90	swc	Coal : blk	-	-	-	-	3.5	426	0017-4L
2187.00	cut	Sh/Clst: lt gy to drk gy	-	-	-	-	4.0	426	0098-2L
2196.00	cut	bulk	0.39	60	0.04	4	-	-	0099-0B
2196.00	cut	Coal : blk	-	-	-	-	4.5-5.0	423	0099-4L
2223.00	cut	bulk	0.42	60	0.04	4	-	-	0102-0B
2232.70	swc	bulk	0.41	9	0.07	4	-	-	0018-0B
2232.70	swc	Coal : blk	-	-	-	-	4.5-5.0	425	0018-4L
2286.00	cut	Coal : blk to dsk y brn	-	-	-	-	?4.0	428	0107-4L

Table 3 : Thermal Maturity Data for well NOCS 6407/9-7

Depth unit of measure: m

Depth	Typ Lithology	Vitrinite Reflectance (%)	Number of Readings	Standard Deviation	Spore Fluorescence Colour	SCI	T _{max} (°C)	Sample
2304.00	cut bulk	0.40	37	0.04	4	-	-	0034-0B
2379.00	cut bulk	0.46	19	0.07	4	-	-	0038-0B
2384.10	swc bulk	0.51	34	0.03	4	-	-	0019-0B
2384.10	swc Coal : blk	-	-	-	-	5.0	430	0019-4L
2398.30	swc bulk	0.54	30	0.06	4	-	-	0020-0B
2407.20	swc bulk	0.55	25	0.04	4	-	-	0021-0B
2407.20	swc Coal : blk	-	-	-	-	4.5-5.0	428	0021-4L
2439.30	swc bulk	0.54	26	0.04	4.4	-	-	0024-0B
2469.00	cut Sh/Clst: m gy to lt brn gy to dsk y brn	-	-	-	-	5.5	436	0048-4L
2487.00	cut bulk	0.48	23	0.06	5	-	-	0112-0B
2541.00	cut Sh/Clst: lt brn gy to brn gy	-	-	-	-	5.5	452	0114-3L
2559.00	cut bulk	0.52	35	0.05	4.7	-	-	0116-0B

Table 4 : Visual Kerogen Composition Data for well NOCS 6407/9-7

Depth unit of measure: m

Depth	Typ	Lithology	L	A	L	S	C	R		D	A	B	I	S	I	M	S	V	C	V	A	Sample
			P	m	i	p	u	R	A	D	I	F	S	I	M	S	V	C	V	A		
			T	r	D	P	i	s	g	o	r	t	R	s	F	D	r	e	t	R	l	D
			%	L	t	l	l	n	e	l	t	L	%	n	s	t	n	o	I	%	n	n
2187.00	cut	Sh/Clst: lt gy to drk gy	30	**	*	*	*	*	*			10	*	*				60	*		**	0098-2L
2196.00	cut	Coal : blk	20	*		*	**	*				?15	*	*				65	*	*	*	0099-4L
2232.70	swc	Coal : blk	5	*		**	**	*				?20	*	*				75	*	*	**	0018-4L
2286.00	cut	Coal : blk to dsk y brn	10	*	*	**	*	*				TR	*	*				90	*	*	*	0107-4L
2384.10	swc	Coal : blk	?20	**	*	**	*	*				35	*	*				45	*	*	**	0019-4L
2407.20	swc	Coal : blk	10			**	*	*				10	*	*				80	*		*	0021-4L
2469.00	cut	Sh/Clst: m gy to lt brn gy to dsk y brn	?10	*	*	**	*	*				10	*	*				80	*		**	0048-4L
2541.00	cut	Sh/Clst: lt brn gy to brn gy	?10	**	*	*		*	*			10	*	*				80	*		**	0114-3L

Table 4 : Visual Kerogen Composition Data for well NOCS 6407/9-7

Depth unit of measure: m

Depth	Typ	Lithology	L	A	L	S	C	R	A	D	I	S	I	M	S	V	C	V	A	Sample		
			%	L	t	l	l	n	e	l	t	L	%	n	s	t	n	o	I		%	n
1680.00	cut	Sh/Clst: m gy to drk gy	5	**	*			*	*		10	*	*			85	*	*	**	0001-3L		
1705.00	swc	Sh/Clst: brn blk, drk gy	?55	**	*	*		*	*		TR	*	*			?45	*		**	0004-3L		
1710.00	swc	Sh/Clst: drk ol gy to blk	?40	**	*	*	*	*	*		40	**	*			20	*	*	**	0007-3L		
1725.00	cut	Sh/Clst: drk gy to dsk y brn	?35	**	*	**	*	*	*		?10	*	*	**		55	*		**	0025-4L		
1797.00	swc	S/Sst : lt gy	?5	**	*		*				5	*	*			90	*	*	**	0011-3L		
1833.00	cut	Sh/Clst: y gy to lt gy	10	*	*	**		*	*		TR	*	*			90			*	0059-2L		
1878.00	cut	Sh/Clst: drk gy	?30	**	*	**		*			10	*	*			60			*	0064-4L		
1976.00	swc	Sh/Clst: dsk y brn	40	*	*	*	*	**	**		?10	*	*	*		50	*	*	**	0012-4L		
2018.70	swc	Sh/Clst: drk y brn to dsk y brn	85	**	*	**		*	*		TR		*			15	*		*	0014-4L		
2036.90	swc	Sh/Clst: m ol gy to drk ol gy	75	**		**		*	*		TR		*			?25	*		**	0016-4L		
2043.00	cut	Sh/Clst: m gy, lt brn gy to brn gy	?70	**	*	**		*	*		TR		*			30	*		*	0082-2L		
2139.90	swc	Coal : blk	5		**	**		*			?15	*	*			80	**	*	*	0017-4L		