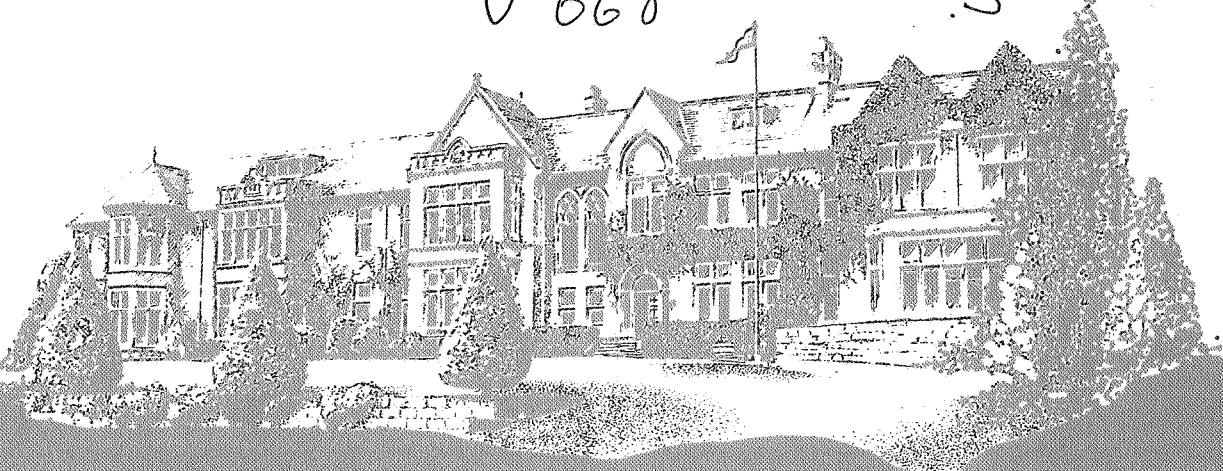


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LABORATORY SERVICES

MEMORANDUM NUMBER RL/564

GEOCHEMICAL DATA FOR WELL 34/7-17 AND 34/7-17A

BA91-2044-1
 7 OKT. 1991
REGISTRERT
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Prepared for:

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Sample Handling Information

74 samples in total were analysed from wells 34/7-17 & 17A. 53 samples were analysed from the original hole & 21 from the sidetrack.

The sample types and quantities were as follows:

1 Oil

5 Core chips

19 Sidewall cores

49 Wet cuttings received in sealed geochemical cans

A full listing of analyses carried out are summarised on the following 3 pages.

Lab ID	Depth m	Sample type	Lith description	Headspace gas	Occluded gas	TOC	Rock Eval Pyrolysis	Vitrinite Reflectance	Quantitative Extraction	Alkane GC	Aromatic GC	Whole oil GC	Alkane GC/MS	Aromatic GC/MS	CI Alk	CI Arom	CI NSO	CI Asph	CI Extract	CI Whole Oil	CI Methane	CI Ethane	CI Propane	CI i Butane	CI n Butane	CI Co2	Deuterium Isotope	Asphalt Precipitation	API Gravity	Sulphur Content	Nickel	Vanadium	API of fract w/ BP >210C	
2	1105	Swc						*																										
3	1305	Swc						*																										
4	1515	Swc						*																										
5	1685	Swc						*																										
6	1815	Swc						*																										
7	1905	Swc						*																										
9	2150	Ctgs		*	*																													
10	2160	Ctgs		*	*																													
11	2170	Ctgs		*	*																													
12	2180	Ctgs		*	*																													
13	2190	Ctgs		*	*																													
14	2200	Ctgs		*	*																													
15	2210	Ctgs		*	*																													
16	2220	Ctgs		*	*																													
17	2230	Ctgs		*	*																													
18	2240	Ctgs	*	*	*	*	*																											
19	2250	Ctgs	*	*	*	*	*																											
20	2260	Ctgs	*	*	*	*	*																											
21	2270	Ctgs	*	*	*	*	*																											
22	2280	Ctgs	*	*	*	*	*																											
23	2290	Ctgs	*	*	*	*	*																											
24	2300	Ctgs	*	*	*	*	*																											
25	2310	Ctgs	*	*	*	*	*																											
26	2320	Ctgs	*	*	*	*	*																											
27	2330	Ctgs	*	*	*	*	*																											
28	2340	Ctgs	*	*	*	*	*																											

Lab ID	Depth m	Sample type	Lith description	Headpace gas	Occluded gas	TOC	Rock Eval Pyrolysis	Vitrinite Reflectance	Quantitative Extraction	Alkane GC	Aromatic GC	Whole oil GC	Alkane GC/MS	Aromatic GC/MS	CI Alk	CI Arom	CI NSO	CI Asph	CI Extract	CI Whole Oil	CI Methane	CI Ethane	CI Propane	CI i Butane	CI n Butane	CI Co2	Deuterium isotope	Asphalt Precipitation	API Gravity	Sulphur Content	Nickel	Vanadium	API of fract w/ BP >210C
29	2350	Ctgs	*	*	*																												
30	2360	Ctgs	*	*	*																												
31	2370	Ctgs	*	*	*	*	*																										
32	2380	Ctgs	*	*	*																												
33	2390	Ctgs	*	*	*	*	*																										
34	2400	Ctgs	*	*	*	*	*																										
35	2410	Ctgs	*	*	*																												
36	2420	Ctgs	*	*	*	*	*																										
37	2430	Ctgs	*	*	*																												
38	2440	Ctgs	*	*	*	*	*																										
39	2450	Ctgs	*	*	*	*	*																										
44	2472	Core	*						*	*	*		*	*	*	*	*	*	*														
45	2570	Core	*						*	*	*		*	*	*	*	*	*	*														
46	2699	Swc	*			*	*																										
47	2704	Swc	*			*	*																										
48	2725	Swc	*			*	*																										
74	2050	Swc						*																									
75	2198	Swc						*																									
76	2275	Swc						*																									
77	2385	Swc						*																									
78	2456	Swc						*																									
79	2510	Swc						*																									
80	2539	Swc						*																									
81	2549	Swc						*																									
82	2583	Swc						*																									
83	2860	Swc						*																									

Lab ID	Depth m	Sample type	Lith description	Headspace gas	Occluded gas	TOC	Rock Eval Pyrolysis	Vitrinite Reflectance	Quantitative Extraction	Alkane GC	Aromatic GC	Whole oil GC	Alkane GC/MS	Aromatic GC/MS	CI Alk	CI Arom	CI NSO	CI Asph	CI Extract	CI Whole Oil	CI Methane	CI Ethane	CI Propane	CI i Butane	CI n Butane	CI Co2	Deuterium Isotope	Asphalt Precipitation	API Gravity	Sulphur Content	Nickel	Vanadium	API of fract w/ BP >210C	
1	2495-99	Oil								*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	
41	2497	Core	*						*	*	*		*	*	*	*	*	*	*								*	*	*	*	*	*	*	
42	2499	Core	*						*	*	*		*	*	*	*	*	*	*															
43	2503	Core	*						*	*	*		*	*	*	*	*	*	*															
49	2250	Ctgs	*	*	*																													
51	2270	Ctgs	*	*	*	*	*																											
52	2280	Ctgs	*	*	*																													
53	2290	Ctgs	*	*	*																													
55	2310	Ctgs	*	*	*	*	*																											
56	2320	Ctgs	*	*	*																*	*	*	*	*	*	*							
57	2330	Ctgs	*	*	*	*	*																											
59	2350	Ctgs	*	*	*																													
61	2370	Ctgs	*	*	*	*	*																											
62	2380	Ctgs	*	*	*																*	*	*	*	*	*	*	*						
63	2390	Ctgs	*	*	*																													
64	2400	Ctgs	*	*	*																													
65	2410	Ctgs	*	*	*	*	*																											
67	2430	Ctgs	*	*	*																													
69	2450	Ctgs	*	*	*																													
71	2470	Ctgs	*	*	*																													
72	2480	Ctgs	*	*	*																*	*	*	*	*	*	*	*						
73	2490	Ctgs	*	*	*	*	*														*	*	*	*	*	*	*	*						

Lithological descriptions Well 34/7-17

Depth m	Lab ID	Sample Type	Lithology
2240	18	Ctgs	Clyst, m dk gy + tr Clyst, lt gy
2250	19	Ctgs	Clyst, m dk gy + tr Clyst, lt gy + tr mic
2260	20	Ctgs	Clyst, m gy + tr Lst, v lt gy
2270	21	Ctgs	Clyst, m gy + tr Clyst, lt olv gy, calc
2280	22	Ctgs	Clyst, m gy + 10% Clyst, m dk gy
2290	23	Ctgs	Clyst, m gy + 10% Clyst, m dk gy + tr Lst, pk gy
2300	24	Ctgs	Clyst, m gy + 10% Clyst, m dk gy + mnr Clyst, v lt gy
2310	25	Ctgs	Clyst, m gy + 10% Clyst, m dk gy + mnr Clyst, v lt gy
2320	26	Ctgs	Clyst, m gy + 10% Clyst, m dk gy + mnr Clyst, lt olv gy
2330	27	Ctgs	Clyst, m gy + 10% Clyst, m dk gy + tr Clyst, v lt gy - occ lt gy
2340	28	Ctgs	Clyst, m gy + 10% Clyst, m dk gy + tr Clyst, v lt gy - occ lt gy
2350	29	Ctgs	Clyst, m gy + 10% Clyst, m dk gy + mnr Clyst, yel gy
2360	30	Ctgs	Clyst, m gy + 10% Clyst, m dk gy + 10% Clyst, lt gy + tr clyst pk gy
2370	31	Ctgs	Clyst, m gy + 10% Clyst, m dk gy + mnr Clyst, lt olv gy
2380	32	Ctgs	No Sample
2390	33	Ctgs	Clyst, m gy + 10% Clyst, m dk gy
2400	34	Ctgs	Clyst, m gy + 10% Clyst, m dk gy + mnr Clyst, yel gy
2410	35	Ctgs	Clyst, m gy + 10% Clyst, m dk gy + tr Clyst, lt olv gy
2420	36	Ctgs	Clyst, m gy + 10% Clyst, m dk gy + tr Clyst, lt olv gy + mnr Lst, lt v lt gy
2430	37	Ctgs	Clyst, m gy + 10% Clyst, m dk gy + tr Clyst, v lt gy
2440	38	Ctgs	Clyst, m gy + tr Clyst, lt olv gy + mnr Clyst, m dk gy
2450	39	Ctgs	Clyst, m gy + 20% Clyst, dk rd brn - occ m rd brn, calc + 20% Clyst, wht, calc
2472	44	Core	Sst, yel brn
2570	45	Core	Sh, olv gy, slty

Lithological descriptions Well 34/7-17a

Depth m	Lab ID	Sample Type	Lithology
2497	41	Core	Sst, yel brn
2499	42	Core	Sst, yel brn
2503	43	Core	Sst, yel brn
2250	49	Ctgs	Clyst, m lt gy + mr Clyst, m dk gy + tr Clyst, v lt gy, calc
2270	51	Ctgs	Clyst, m lt gy + mr Clyst, m dk gy + mr Clyst, v lt gy, calc
2280	52	Ctgs	Clyst, m gy
2290	53	Ctgs	Clyst, m gy + 10% Sd + mr Clyst, m dk gy + tr Clyst, v lt gy, calc
2310	55	Ctgs	Sd + 20% Clyst, m dk gy
2320	56	Ctgs	Clyst, m gy
2330	57	Ctgs	Clyst, m gy + 10% Clyst, m dk gy + tr Sd
2350	59	Ctgs	Clyst, m gy + 10% Clyst, m dk gy + mr Clyst yel gy
2370	61	Ctgs	Clyst, m gy + 10% Clyst, dk gy + 10% Sd + mnr Clyst, v lt gy, calc
2380	62	Ctgs	Clyst, m gy + 10% Sd + mnr Clyst, brn blk
2390	63	Ctgs	Clyst, m gy + 10% Clyst, dk gy + mnr Clyst, v lt gy, calc
2400	64	Ctgs	Clyst, m gy + 10% Sd + mnr Clyst, brn blk
2410	65	Ctgs	Clyst, m gy + 10% Clyst, dk gy + tr Clyst, lt - v lt gy, calc
2430	67	Ctgs	Clyst, m gy + 10% Clyst, dk gy + tr Clyst, v lt gy, calc
2450	69	Ctgs	Clyst, m gy + 10% Clyst, m lt gy + mr Clyst, v lt gy, calc
2470	71	Ctgs	Clyst, m gy + 20% Clyst, m dk gy + tr Clyst, v lt gy
2480	72	Ctgs	Clyst, m gy + 10% Clyst, m dk gy + mnr Lst, wht + tr Sd
2490	73	Ctgs	Clyst, m rd, calc + 20% Clyst, m gy, calc + 10% Clyst, wht, calc

Headspace gas analysis Well 34/7-17

DEPTH m	LAB ID	C1 ul/kg	C2 ul/kg	C3 ul/kg	iC4 ul/kg	nC4 ul/kg	C5+ ul/kg	SUM		Wetness %	iC4/nC4
								C1-C4 ul/kg	C2-C4 ul/kg		
2150	9	4211	1016	1471	302	544	143	7544	3333	44.18	0.56
2160	10	2632	741	1242	296	533	130	5445	2812	51.66	0.56
2170	11	94	40	144	70	176	108	524	430	82.05	0.39
2180	12	9761	1708	2752	642	1534	851	16397	6635	40.47	0.42
2190	13	10397	1636	2193	461	1068	617	15755	5358	34.01	0.43
2200	14	1815	250	316	61	142	89	2583	768	29.74	0.43
2210	15	1370	178	217	47	111	81	1922	553	28.75	0.42
2220	16	1647	210	267	56	134	104	2313	666	28.81	0.41
2230	17	1107	152	184	38	93	101	1574	467	29.70	0.40
2240	18	1388	301	602	168	433	600	2893	1505	52.01	0.39
2250	19	257	76	218	78	203	425	832	575	69.15	0.39
2260	20	1160	359	699	226	513	635	2957	1796	60.76	0.44
2270	21	1335	412	870	293	697	1017	3607	2272	62.98	0.42
2280	22	679	215	456	133	327	426	1811	1132	62.51	0.41
2290	23	342	159	384	122	295	477	1302	960	73.72	0.41
2300	24	835	227	411	106	254	352	1833	998	54.44	0.42
2310	25	169	50	106	28	68	131	422	252	59.82	0.41
2320	26	47	15	17	3	6	34	87	40	46.23	0.41
2330	27	39	13	15	2	4	16	73	34	46.23	0.50
2340	28	98	27	40	7	18	50	190	92	48.44	0.42
2350	29	32	9	10	1	2	10	55	23	42.63	0.58
2360	30	1	0	1	0	1	17	3	2	62.86	0.33
2370	31	235	55	49	5	13	11	357	122	34.20	0.42
2380	32	NO SAMPLE									
2390	33	6648	2526	3545	545	1410	876	14675	8027	54.70	0.39
2400	34	2542	798	853	119	259	156	4571	2029	44.38	0.46
2410	35	341	123	228	42	117	94	851	510	59.94	0.36
2420	36	2357	676	776	110	272	190	4191	1834	43.76	0.41
2430	37	1420	512	598	80	200	139	2810	1390	49.46	0.40
2440	38	1724	494	530	74	183	128	3006	1281	42.63	0.41
2450	39	185	150	249	50	130	127	764	580	75.81	0.38

Occluded gas analysis Well 34/7-17

DEPTH m	LAB ID	C1 ul/kg	C2 ul/kg	C3 ul/kg	iC4 ul/kg	nC4 ul/kg	C5+ ul/kg	SUM		Wetness %	iC4/nC4
								C1-C4 ul/kg	C2-C4 ul/kg		
2150	9	123	29	201	110	358	247	821	698	85.05	0.31
2160	10	104	18	112	86	269	329	589	485	82.26	0.32
2170	11	45	6	12	19	76	226	159	114	71.58	0.25
2180	12	57	15	67	44	206	524	388	331	85.31	0.21
2190	13	48	27	124	77	316	556	592	544	91.84	0.25
2200	14	85	35	118	92	363	1173	693	608	87.69	0.25
2210	15	107	38	79	50	180	798	455	348	76.53	0.28
2220	16	59	13	82	61	292	1600	507	448	88.30	0.21
2230	17	53	11	31	20	94	1144	210	157	74.91	0.21
2240	18	58	20	77	59	287	4598	501	443	88.43	0.20
2250	19	384	18	68	40	140	2805	650	266	40.97	0.29
2260	20	384	19	75	44	148	4418	670	286	42.72	0.30
2270	21	173	13	104	70	298	5334	660	487	73.76	0.24
2280	22	4	2	15	11	50	594	83	78	94.67	0.21
2290	23	12	4	23	22	96	1143	157	145	92.26	0.23
2300	24	24	9	45	33	140	1701	251	227	90.28	0.23
2310	25	182	141	559	164	517	3770	1563	1381	88.37	0.32
2320	26	64	75	495	134	475	976	1242	1179	94.89	0.28
2330	27	97	81	530	176	598	1663	1483	1385	93.44	0.29
2340	28	280	320	2127	656	2199	5498	5582	5302	94.98	0.30
2350	29	84	96	684	192	652	1440	1709	1625	95.09	0.29
2360	30	167	323	1639	371	1296	2597	3796	3629	95.60	0.29
2370	31	270	127	335	133	385	3234	1249	979	78.37	0.34
2380	32	NO SAMPLE									
2390	33	266	101	353	204	849	4279	1773	1507	85.02	0.24
2400	34	251	166	856	340	1355	3839	2968	2717	91.55	0.25
2410	35	76	14	65	37	176	629	369	292	79.31	0.21
2420	36	55	23	167	75	311	1442	629	575	91.31	0.24
2430	37	95	45	307	122	539	2077	1108	1014	91.47	0.23
2440	38	367	183	1052	546	2435	6124	4583	4216	91.98	0.22
2450	39	143	247	1854	561	2355	11030	5161	5017	97.22	0.24

Combined Headspace & Occluded gas analysis Well 34/7-17

DEPTH m	LAB ID	C1 ul/kg	C2 ul/kg	C3 ul/kg	iC4 ul/kg	nC4 ul/kg	C5+ ul/kg	SUM		Wetness %	iC4/nC4
								C1-C4 ul/kg	C2-C4 ul/kg		
2150	9	4334	1045	1672	412	902	390	8365	4031	48.19	0.46
2160	10	2737	759	1354	382	802	459	6034	3297	54.64	0.48
2170	11	139	46	156	89	252	333	683	543	79.61	0.35
2180	12	9818	1722	2819	685	1740	1375	16785	6966	41.50	0.39
2190	13	10446	1663	2317	538	1384	1173	16347	5902	36.10	0.39
2200	14	1900	285	433	153	504	1262	3276	1376	42.00	0.30
2210	15	1476	216	296	97	292	879	2377	901	37.89	0.33
2220	16	1706	223	349	117	426	1704	2821	1114	39.51	0.27
2230	17	1159	164	215	58	188	1244	1784	625	35.02	0.31
2240	18	1446	321	679	227	720	5198	3394	1948	57.39	0.31
2250	19	640	94	287	118	343	3229	1482	842	56.79	0.35
2260	20	1544	377	774	270	661	5053	3627	2083	57.42	0.41
2270	21	1508	426	974	364	995	6352	4267	2759	64.65	0.37
2280	22	683	217	472	144	378	1020	1893	1210	63.91	0.38
2290	23	354	163	407	144	391	1620	1459	1105	75.71	0.37
2300	24	859	236	456	139	394	2053	2084	1224	58.76	0.35
2310	25	351	192	665	191	585	3901	1984	1633	82.30	0.33
2320	26	110	90	512	137	481	1011	1330	1219	91.69	0.28
2330	27	136	93	545	178	602	1678	1555	1419	91.23	0.30
2340	28	378	348	2167	663	2217	5548	5773	5394	93.45	0.30
2350	29	116	106	695	193	655	1450	1764	1648	93.45	0.30
2360	30	168	323	1640	371	1297	2614	3799	3631	95.58	0.29
2370	31	505	182	384	138	398	3246	1606	1101	68.56	0.35
2380	32	NO SAMPLE									
2390	33	6913	2627	3899	749	2259	5155	16448	9534	57.97	0.33
2400	34	2793	964	1709	459	1614	3995	7538	4745	62.95	0.28
2410	35	417	137	293	80	293	723	1220	803	65.80	0.27
2420	36	2411	698	943	185	583	1632	4820	2409	49.97	0.32
2430	37	1515	557	905	202	740	2216	3919	2404	61.34	0.27
2440	38	2092	676	1583	620	2618	6252	7589	5497	72.44	0.24
2450	39	328	397	2104	611	2485	11157	5925	5597	94.46	0.25

Headspace gas analysis Well 34/7-17A

DEPTH m	LAB ID	C1 ul/kg	C2 ul/kg	C3 ul/kg	iC4 ul/kg	nC4 ul/kg	C5+ ul/kg	SUM	SUM	Wetness %	iC4/nC4
								C1-C4 ul/kg	C2-C4 ul/kg		
2250	49	8	2	4	4	21	512	38	31	80.00	0.18
2270	51	5205	3550	8731	3912	8344	10035	29742	24537	82.50	0.47
2280	52	10	4	5	5	28	764	51	41	81.00	0.17
2290	53	18	2	9	6	18	149	53	35	65.71	0.33
2310	55	927	210	371	95	253	466	1856	929	50.04	0.38
2320	56	10565	4845	8772	2544	6090	10133	32816	22251	67.81	0.42
2330	57	1011	447	744	218	507	518	2926	1915	65.45	0.43
2350	59	279	103	179	41	112	113	715	436	60.96	0.37
2370	61	77	45	82	17	45	146	267	190	71.07	0.37
2380	62	1873	1154	2343	517	1278	2633	7164	5291	73.86	0.40
2390	63	121	81	195	62	141	105	600	479	79.87	0.44
2400	64	330	215	483	121	309	797	1460	1130	77.39	0.39
2410	65	39	29	68	16	39	109	190	151	79.59	0.40
2430	67	1026	447	439	53	96	39	2060	1034	50.20	0.55
2450	69	7103	2628	3416	586	1469	1480	15202	8099	53.28	0.40
2470	71	1252	401	588	106	258	182	2605	1353	51.94	0.41
2480	72	7068	2320	5101	1182	3188	4910	18860	11792	62.52	0.37
2490	73	10260	3192	4483	921	2235	2189	21091	10831	51.35	0.41

Occluded gas analysis Well 34/7-17A

DEPTH m	LAB ID	C1 ul/kg	C2 ul/kg	C3 ul/kg	iC4 ul/kg	nC4 ul/kg	C5+ ul/kg	SUM		Wetness %	iC4/nC4
								C1-C4 ul/kg	C2-C4 ul/kg		
2250	49	142	47	38	18	71	3186	314	173	54.93	0.25
2270	51	66	28	45	27	132	2697	298	232	77.92	0.21
2280	52	12	5	2	2	10	813	30	18	60.51	0.16
2290	53	80	20	100	120	560	9420	880	800	90.91	0.21
2310	55	173	35	520	416	1593	22687	2736	2563	93.67	0.26
2320	56	200	223	1803	1046	4096	22641	7369	7169	97.28	0.26
2330	57	134	153	921	441	1937	13313	3587	3453	96.26	0.23
2350	59	116	69	23	23	46	1204	277	161	58.20	0.49
2370	61	204	250	1431	636	2407	14830	4928	4724	95.85	0.26
2380	62	248	270	1870	924	3289	17956	6601	6353	96.25	0.28
2390	63	103	124	743	351	1383	8607	2704	2601	96.18	0.25
2400	64	251	223	1615	891	3286	15595	6266	6015	96.00	0.27
2410	65	127	109	398	163	615	4561	1412	1285	91.03	0.26
2430	67	204	316	1449	316	1226	2359	3511	3307	94.18	0.26
2450	69	74	56	371	130	519	1983	1149	1075	93.55	0.25
2470	71	67	45	247	90	426	2198	875	807	92.31	0.21
2480	72	94	24	141	71	424	3180	754	660	87.50	0.17
2490	73	65	16	97	49	227	1992	453	389	85.71	0.21

Combined Headspace & Occluded gas analysis Well 34/7-17A

DEPTH m	LAB ID	C1 ul/kg	C2 ul/kg	C3 ul/kg	iC4 ul/kg	nC4 ul/kg	C5+ ul/kg	SUM	SUM	Wetness %	iC4/nC4
								C1-C4 ul/kg	C2-C4 ul/kg		
2250	49	149	48	41	22	92	3698	353	203	57.65	0.23
2270	51	5270	3578	8776	3940	8476	12732	30040	24770	82.46	0.46
2280	52	22	8	7	6	37	1576	81	59	73.37	0.17
2290	53	98	22	109	126	578	9569	933	835	89.47	0.22
2310	55	1101	245	891	510	1846	23153	4593	3492	76.04	0.28
2320	56	10765	5068	10575	3590	10187	32774	40185	29419	73.21	0.35
2330	57	1145	600	1665	659	2444	13831	6513	5368	82.42	0.27
2350	59	395	173	202	64	159	1318	992	597	60.19	0.40
2370	61	282	295	1513	653	2453	14976	5196	4914	94.58	0.27
2380	62	2121	1424	4213	1441	4567	20590	13765	11644	84.59	0.32
2390	63	224	204	938	413	1524	8712	3304	3080	93.22	0.27
2400	64	581	438	2099	1013	3595	16392	7725	7145	92.48	0.28
2410	65	165	138	466	178	654	4670	1602	1436	89.67	0.27
2430	67	1230	763	1888	369	1322	2398	5571	4341	77.91	0.28
2450	69	7177	2684	3786	716	1987	3463	16351	9174	56.11	0.36
2470	71	1319	446	834	195	684	2380	3480	2160	62.08	0.29
2480	72	7162	2344	5243	1253	3612	8090	19614	12451	63.48	0.35
2490	73	10325	3208	4580	970	2461	4181	21544	11219	52.08	0.39

Organic Carbon & Rock Eval Pyrolysis data Well : 34/7-17

Depth m	Lab ID	Sample type	S1 mg/g	S2 mg/g	S3 mg/g	TOC % wt	PP mg/g	PI	HI	OI	T Max Deg C
2240	18	Ctgs	0.20	0.44	1.04	0.73	0.64	0.31	60	142	418
2260	20	Ctgs	0.17	0.39	1.43	0.85	0.56	0.30	46	168	428
2270	21	Ctgs	0.23	0.59	1.01	0.87	0.82	0.28	68	116	425
2310	25	Ctgs	0.13	1.29	1.17	1.06	1.42	0.09	122	110	432
2340	28	Ctgs	0.12	0.76	1.56	0.90	0.88	0.14	84	173	429
2370	31	Ctgs	0.11	0.84	1.73	1.08	0.95	0.12	78	160	427
2390	33	Ctgs	0.08	0.33	2.06	0.85	0.41	0.20	39	242	423
2400	34	Ctgs	0.09	0.42	1.67	0.88	0.51	0.18	48	190	425
2420	36	Ctgs	0.10	0.40	2.10	0.81	0.50	0.20	49	259	428
2440	38	Ctgs	0.13	0.39	1.56	0.79	0.52	0.25	49	197	422
2450	39	Ctgs	0.43	1.28	2.46	1.72	1.71	0.25	74	143	430
2699	46	SWC	0.15	1.17	0.56	1.55	1.32	0.11	75	36	433
2704	47	SWC	0.12	1.13	0.49	1.33	1.25	0.10	85	37	431
2725	48	SWC	0.43	1.38	0.64	1.30	1.81	0.24	106	49	432

Organic Carbon & Rock Eval Pyrolysis data Well : 34/7-17a

Depth m	Lab ID	Sample type	S1 mg/g	S2 mg/g	S3 mg/g	TOC % wt	PP mg/g	PI	HI	OI	T Max Deg C
2270	51	Ctgs	0.40	0.94	1.65	1.00	1.34	0.30	94	165	424
2310	55	Ctgs	0.21	0.33	2.01	0.57	0.54	0.39	58	353	421
2330	57	Ctgs	0.45	1.09	2.51	1.10	1.54	0.29	99	228	423
2370	61	Ctgs	0.41	1.11	2.40	1.24	1.52	0.27	90	194	426
2410	65	Ctgs	0.44	1.14	2.25	1.04	1.58	0.28	110	216	425
2490	73	Ctgs	0.16	0.41	3.04	0.50	0.57	0.28	82	608	427

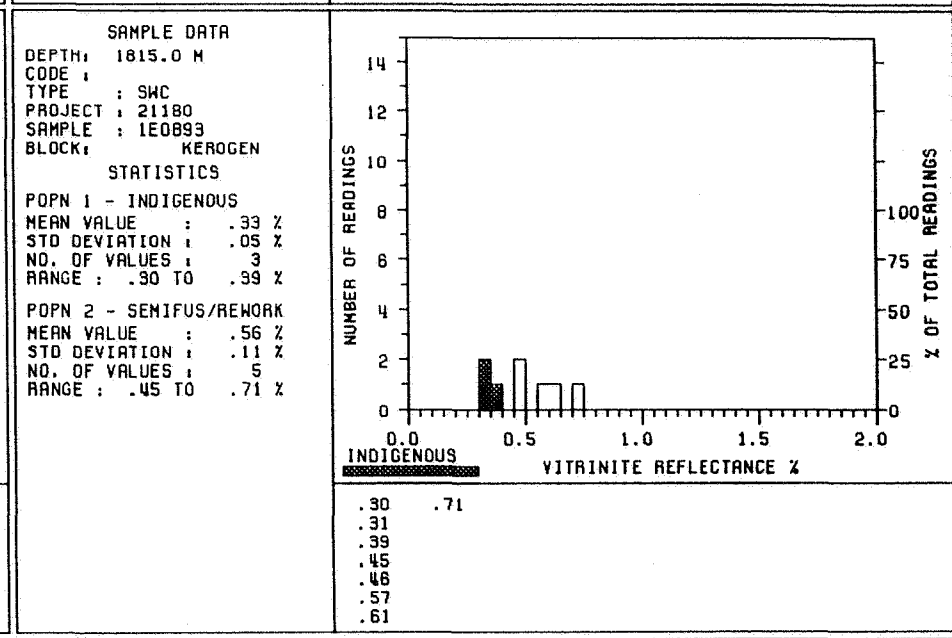
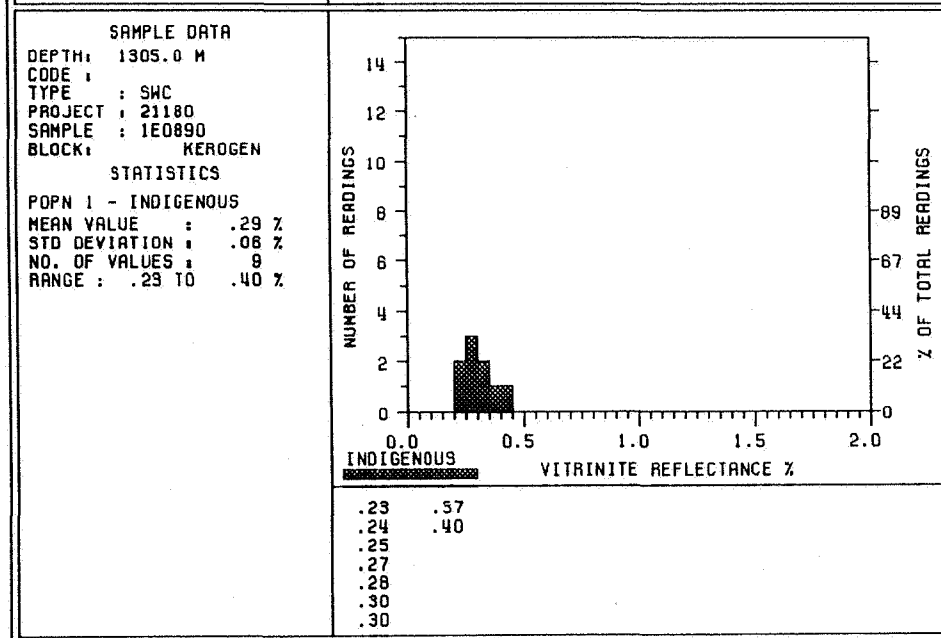
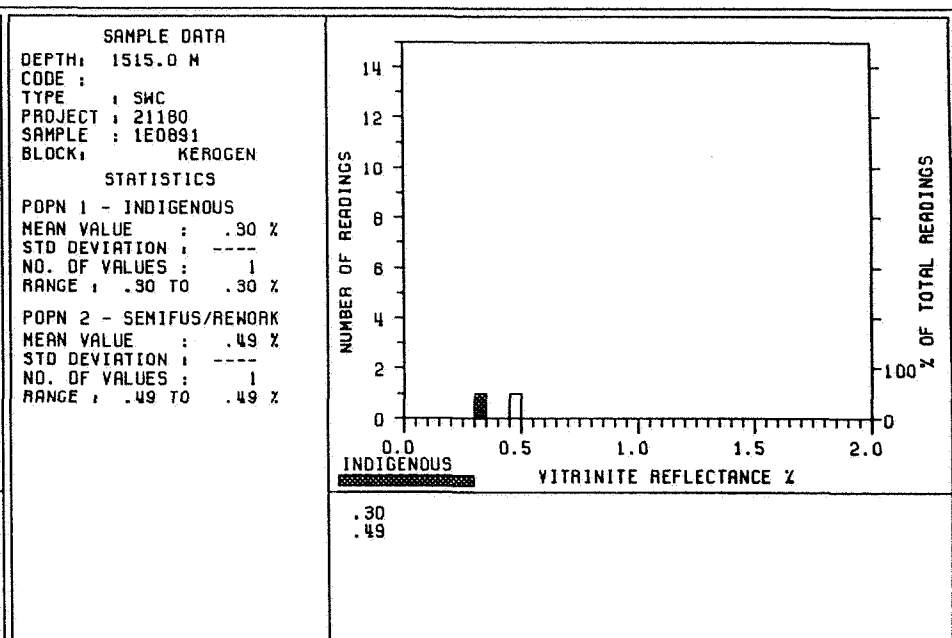
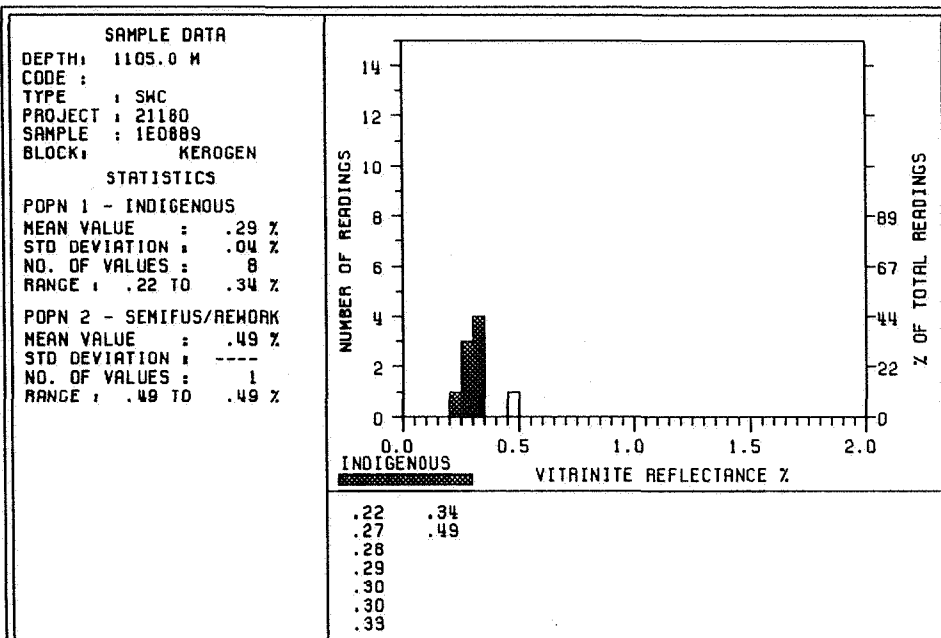
GENERAL DATA			MATURITY DATA		KEROGEN COMPOSITION DATA							
SAMPLE DEPTH (Metres)	SAMPLE TYPE	ANALYSED LITHOLOGY	SPORE COLOUR INDEX	VITR. REF. R oil av. %	% (Visual, from microscopy)			% (Calculated)				
					INERTINITE	VITRINITE	SAPROPEL	INERT	VIT	ALG SAP	WXY SAP	
1105.0	Swc	Bulk		.29(8) .49(1)R								
1305.0	Swc	Bulk		.29(9)								
1515.0	Swc	Bulk		.30(1) .49(1)R								
1685.0	Swc	Bulk		*								
1815.0	Swc	Bulk		.33(3) .56(5)R								
1905.0	Swc	Bulk		.33(7) .47(1)R								
2050.0	Swc	Bulk		.35(4) .53(51)R								
2198.0	Swc	Bulk		.52(26)R								
2275.0	Swc	Bulk		.40(1) .53(3)R .80(1)R								
2385.0	Swc	Bulk		.38(44) .57(11)R								
2456.0	Swc	Bulk		.39(1) .66(48)R .86(6)R								
2510.0	Swc	Bulk		.47(52) .63(3)R								
2539.0	Swc	Bulk		.44(55)								
2549.0	Swc	Bulk		.47(55)								
2583.0	Swc	Bulk		.46(55)								
2860.0	Swc	Bulk		.44(46) .58(9)R								

MATURITY AND KEROGEN COMPOSITION DATA

* - measured but not determinable
R - Reworked

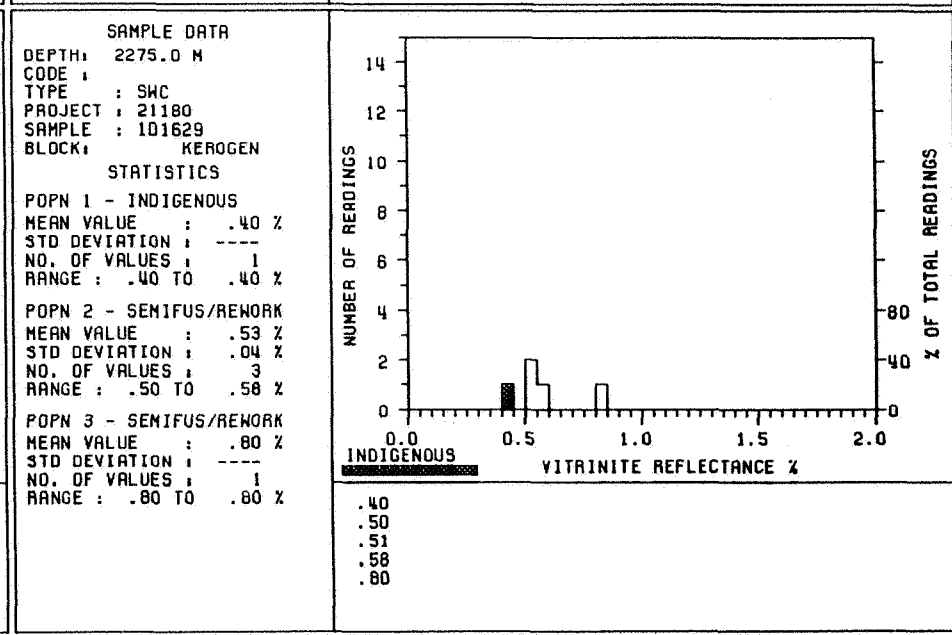
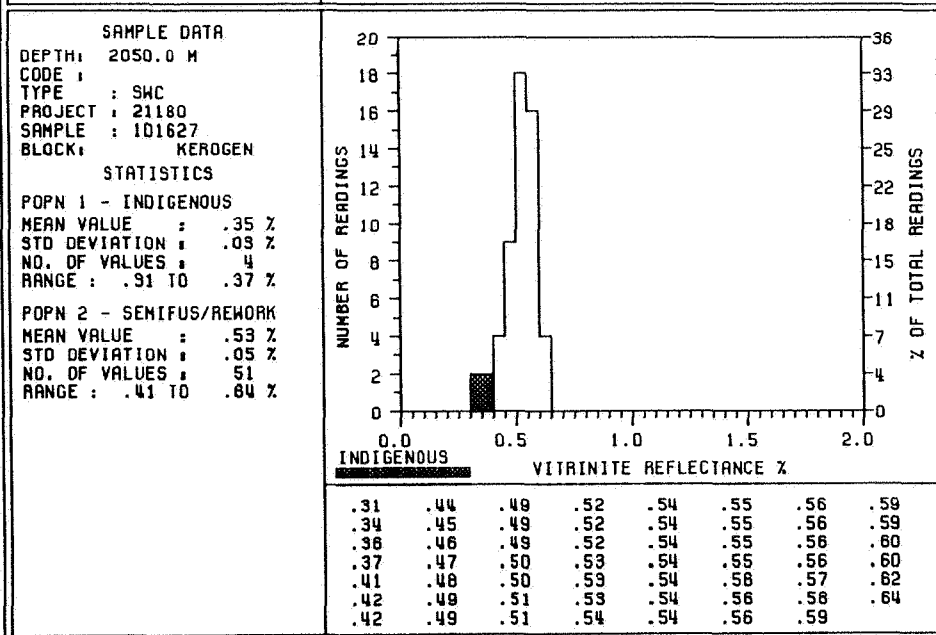
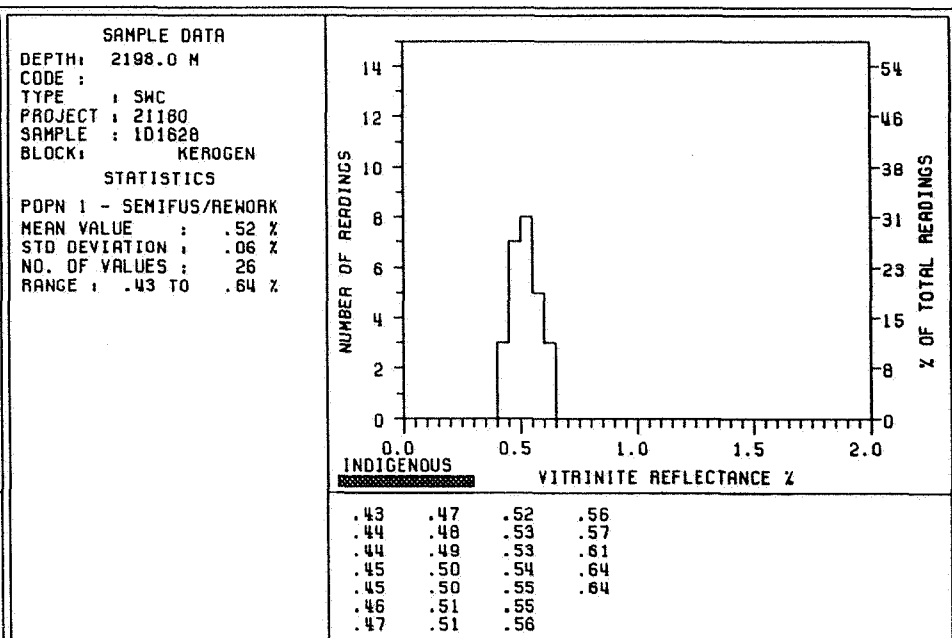
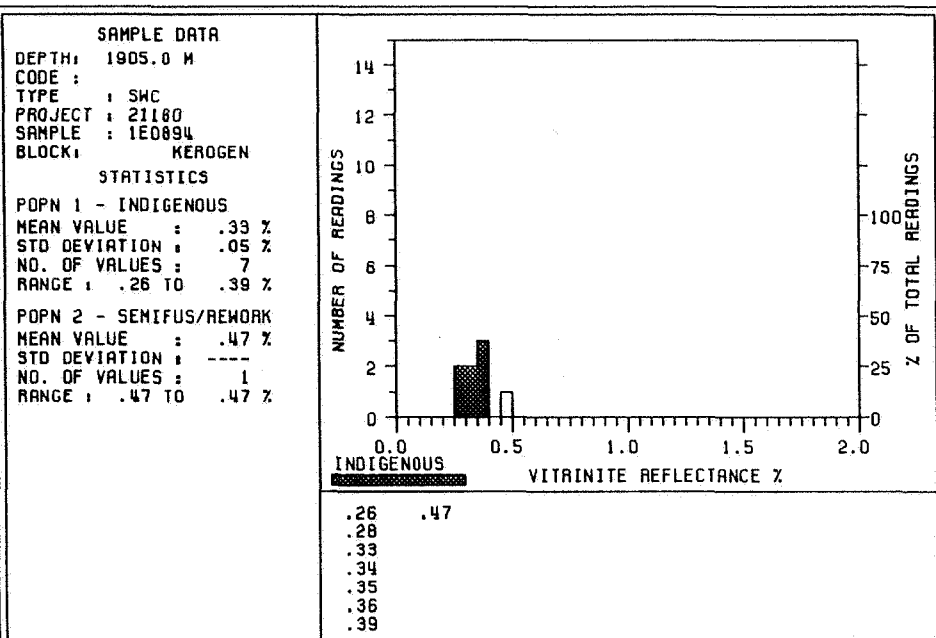
COMPANY : SNOB
 WELL : 3U/7-17
 LOCATION : NORWEGIAN N SEA

HISTOGRAMS, DATA AND STATISTICS
 FOR VITRINITE REFLECTIVITY



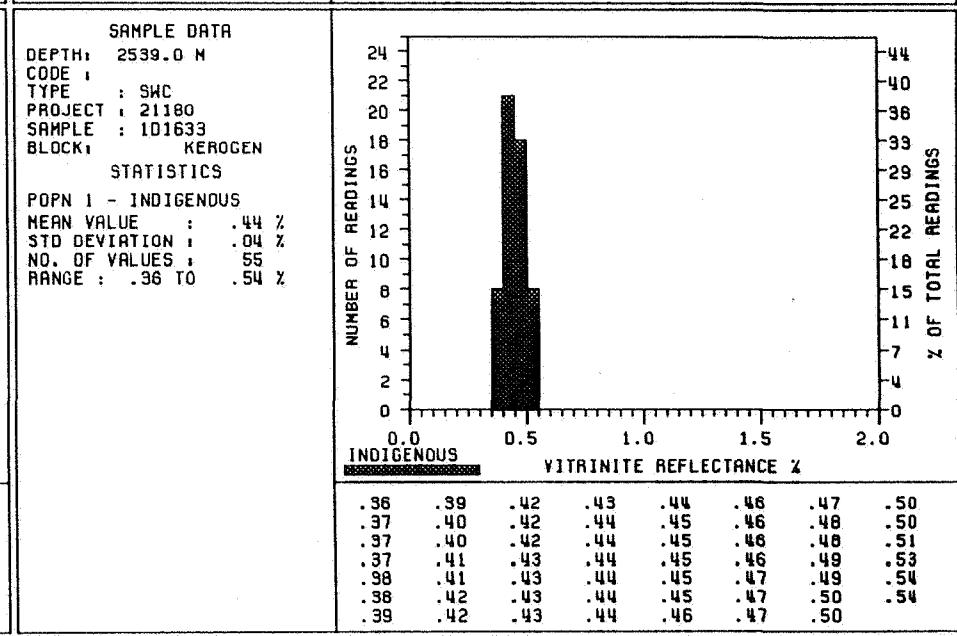
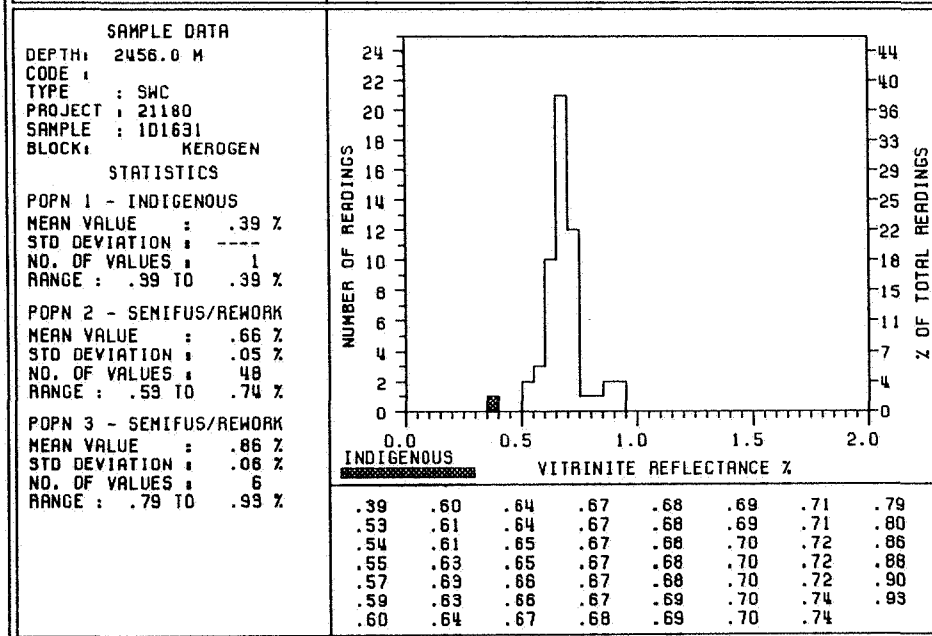
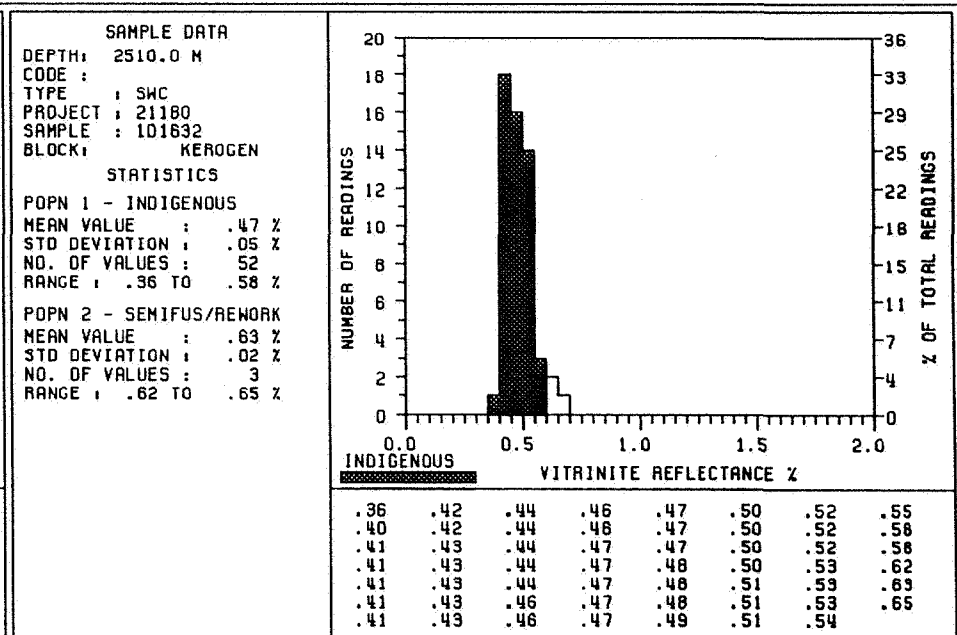
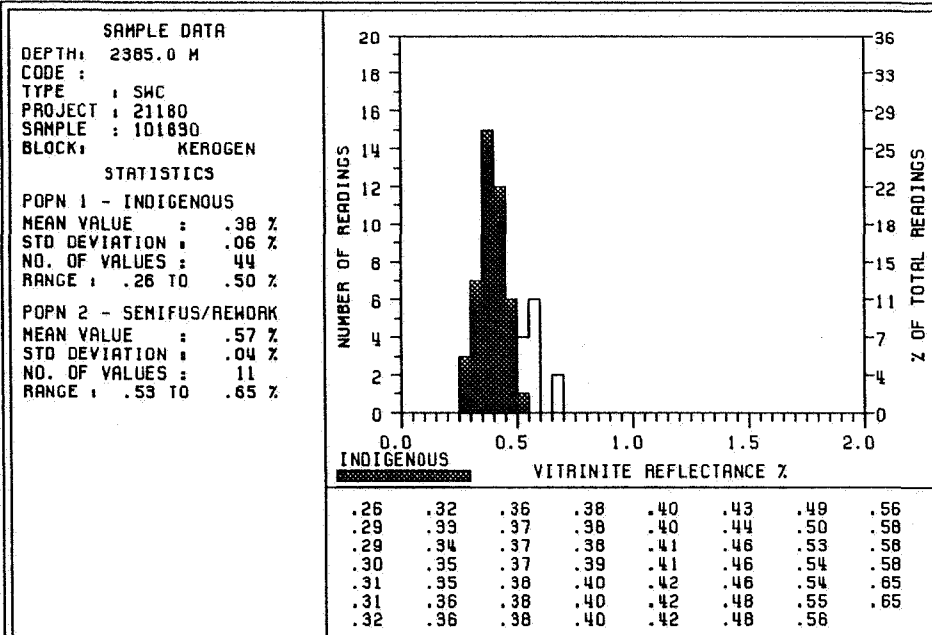
COMPANY : SAGA
 WELL : SU/7-17
 LOCATION : NORWEGIAN N SEA

HISTOGRAMS, DATA AND STATISTICS
 FOR VITRINITE REFLECTIVITY



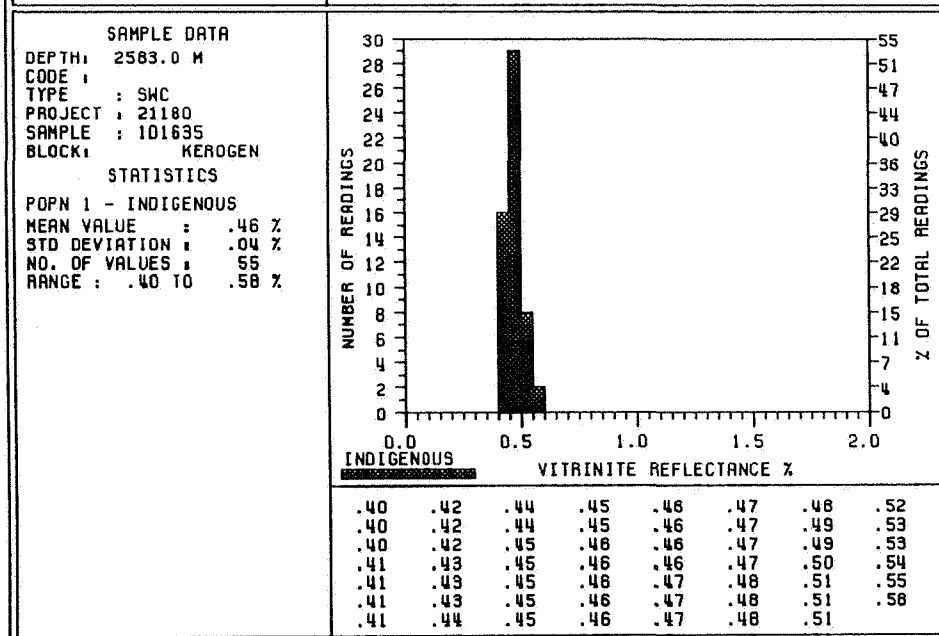
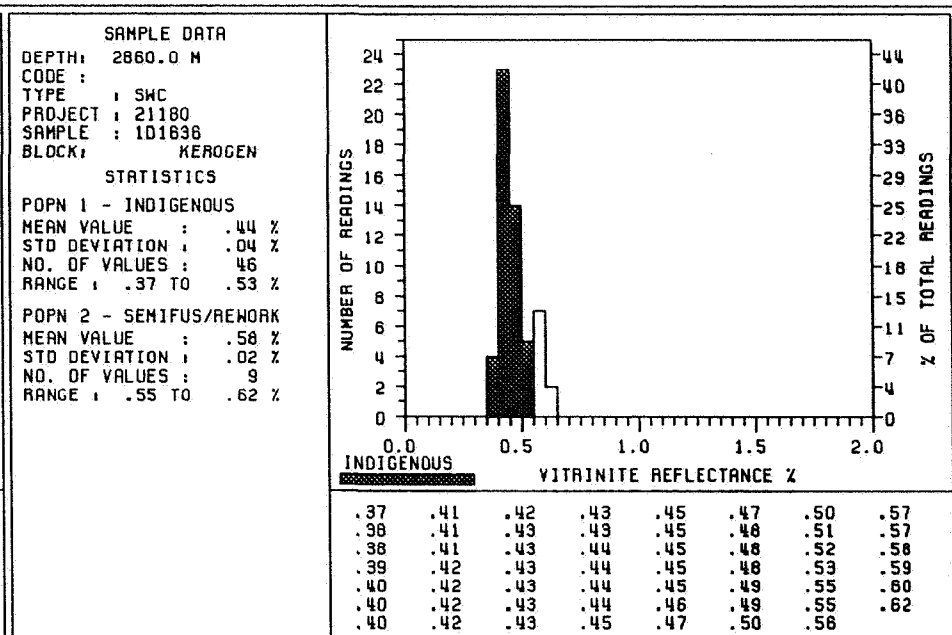
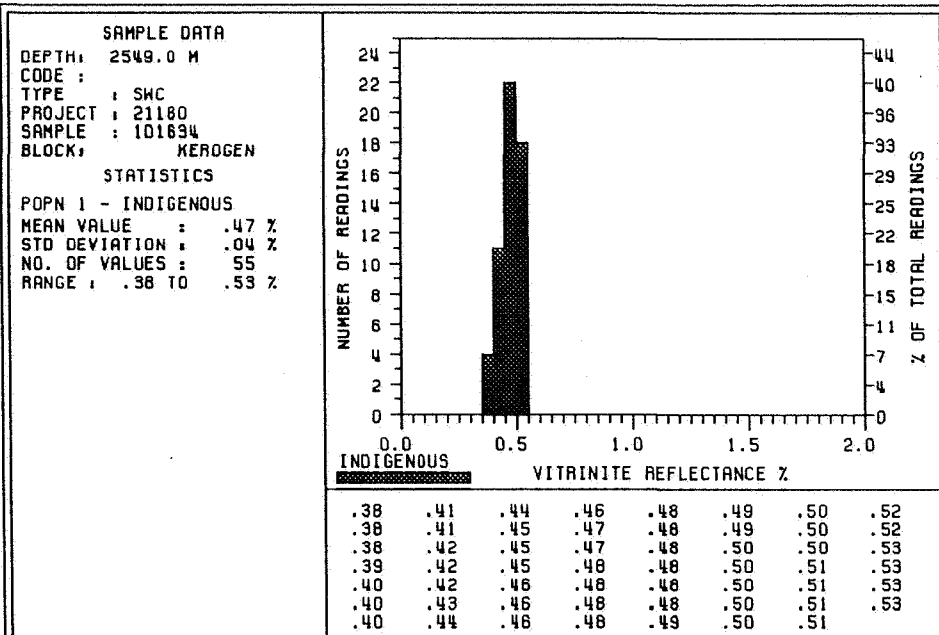
COMPANY : SAGB
 WELL : 34/7-17
 LOCATION : NORWEGIAN N SEA

HISTOGRAMS, DATA AND STATISTICS
 FOR VITRINITE REFLECTIVITY



COMPANY : SAGA
 WELL : 3477-17
 LOCATION : NORWEGIAN N SEA

HISTOGRAMS, DATA AND STATISTICS
 FOR VITRINITE REFLECTIVITY



Quantitative Solvent Extraction & Fractionation data (Saga Method)

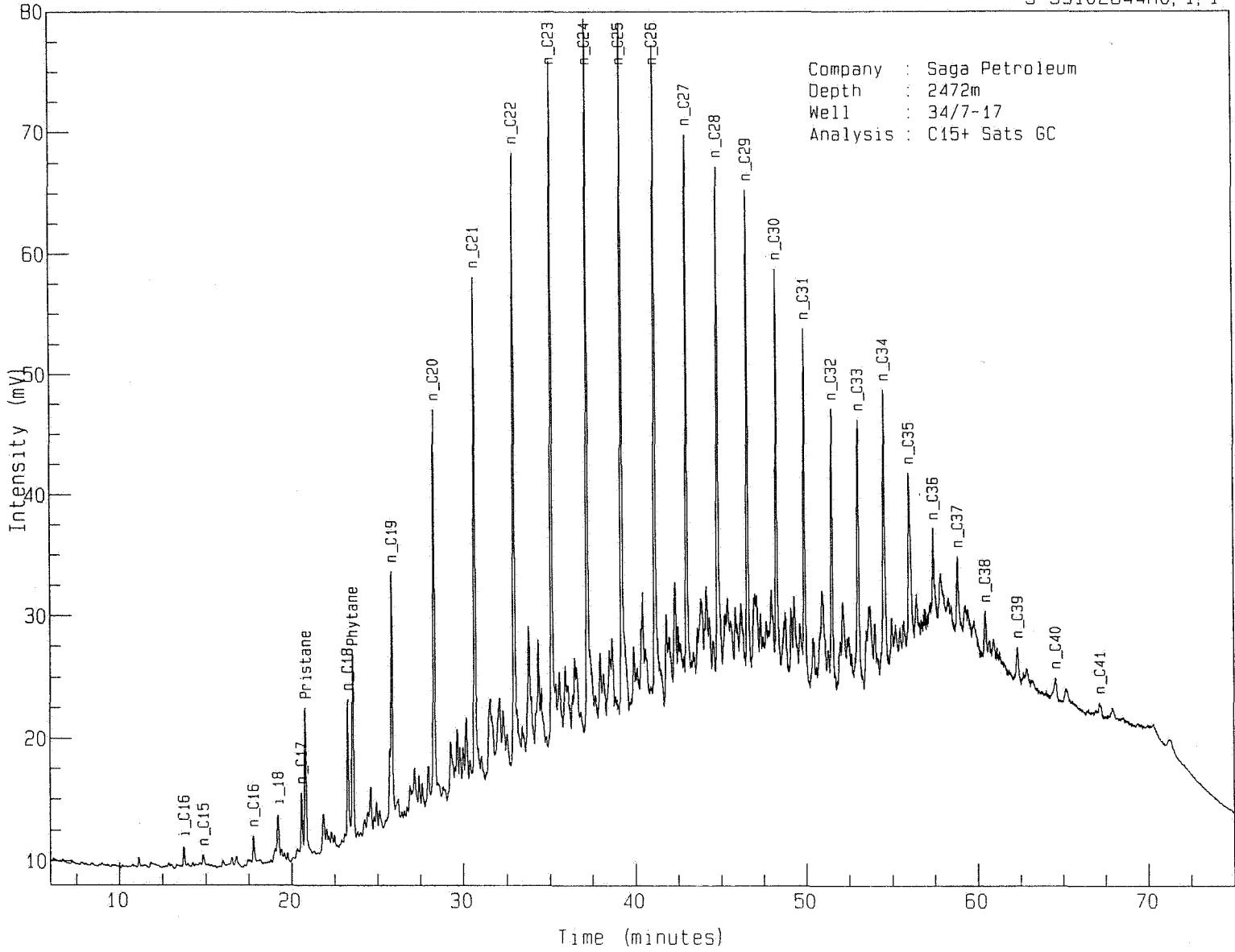
WELL : 34/7-17

GENERAL DATA			SOLVENT EXTRACTION & FRACTIONATION DATA					
Lab ID	Depth m	Sample Type	Rock gm	EOM mg	SAT % of EOM	ARO % of EOM	NSO % of EOM	HC % of EOM
91028-44	2472.0	Core	5.0	26.2	37.9	16.8	45.3	54.7
91028-45	2570.0	Core	10.0	9.3	24.3	13.3	62.4	37.6

WELL : 34/7-17A

GENERAL DATA			SOLVENT EXTRACTION & FRACTIONATION DATA					
Lab ID	Depth m	Sample Type	Rock gm	EOM mg	SAT % of EOM	ARO % of EOM	NSO % of EOM	HC % of EOM
91028-41	2497.0	Core	6.3	73.9	41.6	19.5	38.9	61.1
91028-42	2499.0	Core	6.0	66.3	36.2	20.3	43.5	56.5
91028-43	2503.0	Core	10.0	86.5	41.4	23.6	35.0	65.0

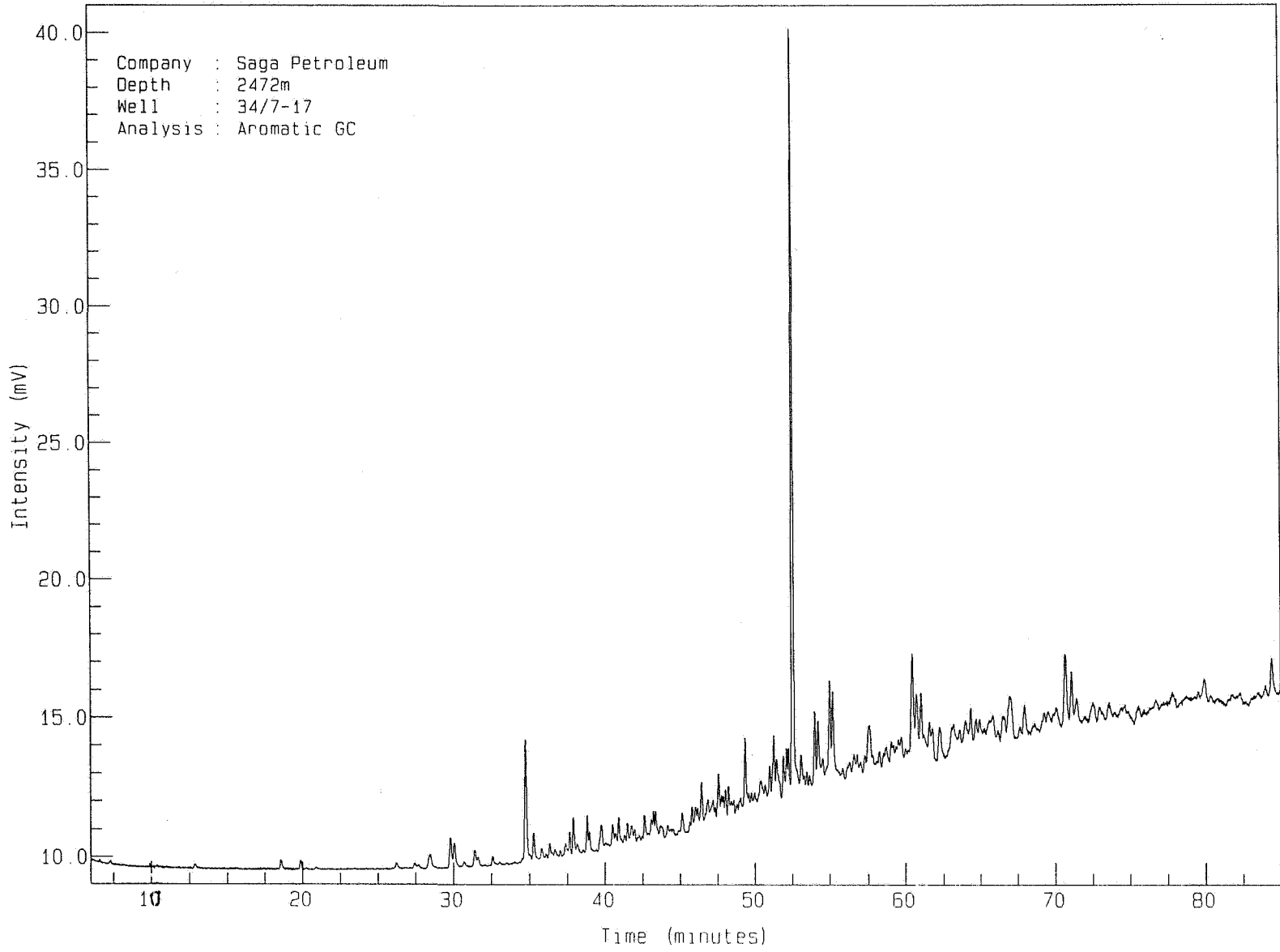
GENERAL DATA			FRACTIONATION DATA					
Lab ID	Depth m	Sample Type	SAT %	ARO %	NSO %	ASPH %	HC %	non HC %
91028-1	2495-99	Oil	66.4	23.3	10.3	0	89.7	11.3

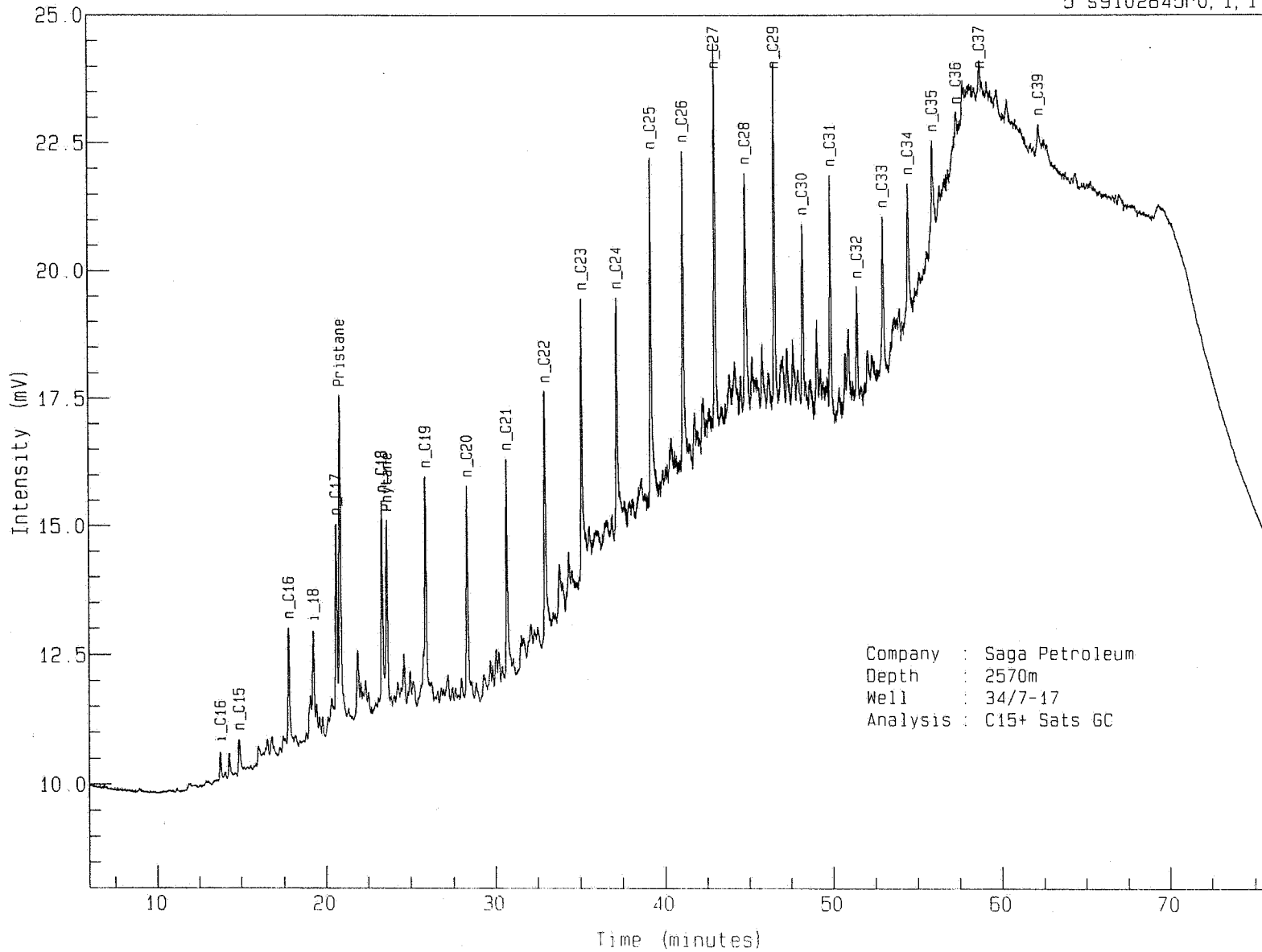


INJECTION REPORT - C15+ SATURATES GC (SAGA METHOD)

PEAK INFORMATION					
Peak No	R.Time mins	Height uV	Area uVs	Area %	Peak name
10	11.813	333	2021	0.02	n_C 14
17	13.739	1598	9472	0.11	i_C 16
22	14.848	1006	9386	0.11	n_C 15
31	17.776	2183	14592	0.18	n_C 16
36	19.221	3894	30753	0.37	i_C 18
41	20.592	4775	28535	0.34	n_C 17
42	20.827	11767	83842	1.01	Pristane
51	23.285	11678	76819	0.93	n_C 18
52	23.584	15098	103569	1.25	Phytane
63	25.861	20488	133438	1.61	n_C 19
73	28.331	32238	214437	2.58	n_C 20
84	30.693	41841	275227	3.31	n_C 21
92	32.96	48240	281678	3.39	n_C 22
99	35.131	56135	352058	4.24	n_C 23
107	37.221	58715	427987	5.15	n_C 24
116	39.243	56851	406024	4.89	n_C 25
125	41.179	53584	342302	4.12	n_C 26
134	43.04	44158	260517	3.14	n_C 27
143	44.859	41442	280373	3.38	n_C 28
149	46.603	39356	228621	2.75	n_C 29
157	48.293	32620	194527	2.34	n_C 30
163	49.936	29170	176117	2.12	n_C 31
168	51.525	22080	132353	1.59	n_C 32
175	53.056	21222	157273	1.89	n_C 33
182	54.56	22975	187650	2.26	n_C 34
188	56.016	14021	138874	1.67	n_C 35
196	57.445	7539	58935	0.71	n_C 36
200	58.859	6262	54126	0.65	n_C 37
207	60.464	3647	27104	0.33	n_C 38
217	62.336	2586	20947	0.25	n_C 39
225	64.571	1802	20904	0.25	n_C 40
236	67.163	907	9234	0.11	n_C 41
Totals					
Unknowns		446958	3564766	42.95	
Quantified		710211	4739695	57.05	
Grand Total		1157169	8304461	100.00	

Company : Saga Petroleum A.S. Well : 34/7-17 Depth : 2472m



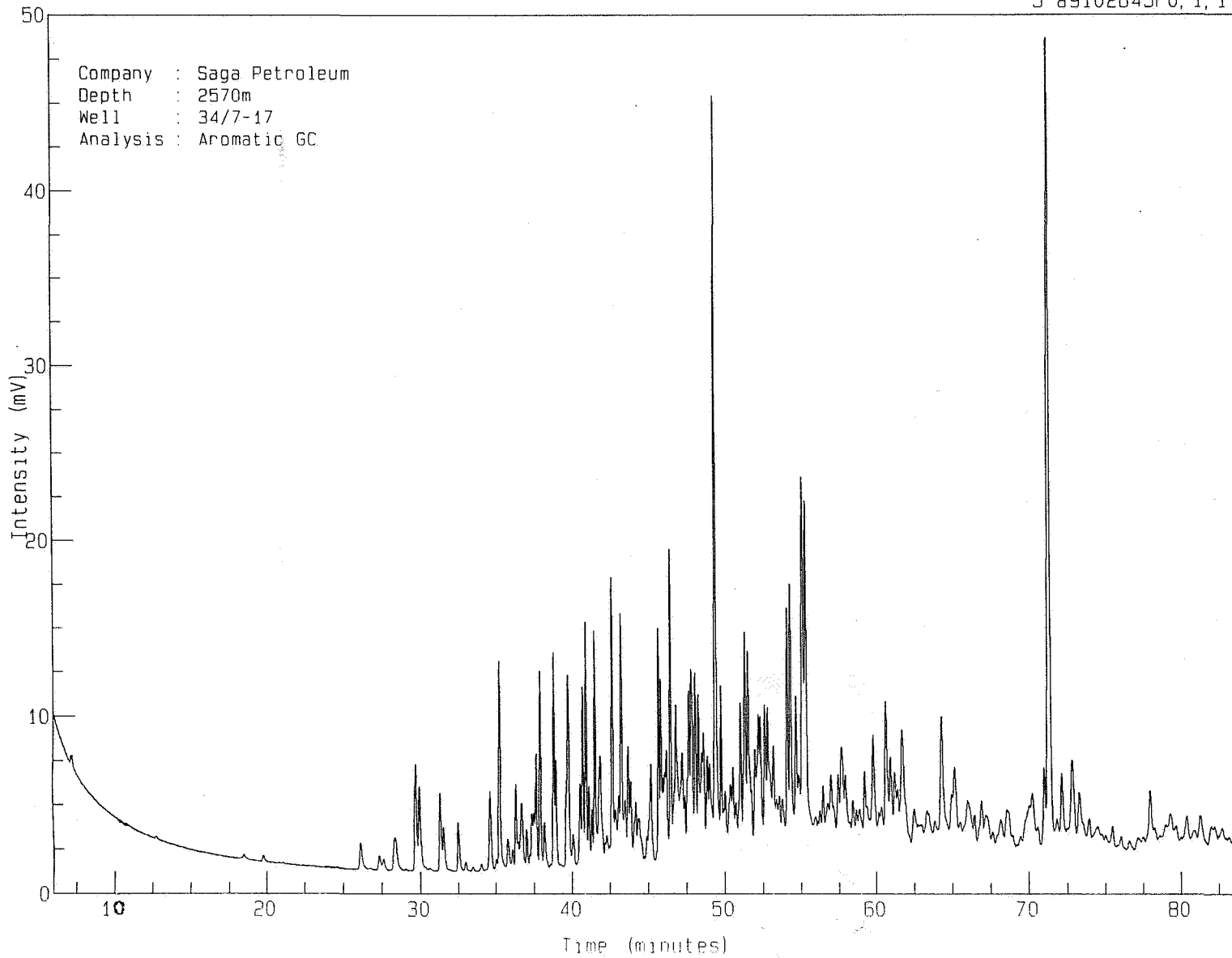


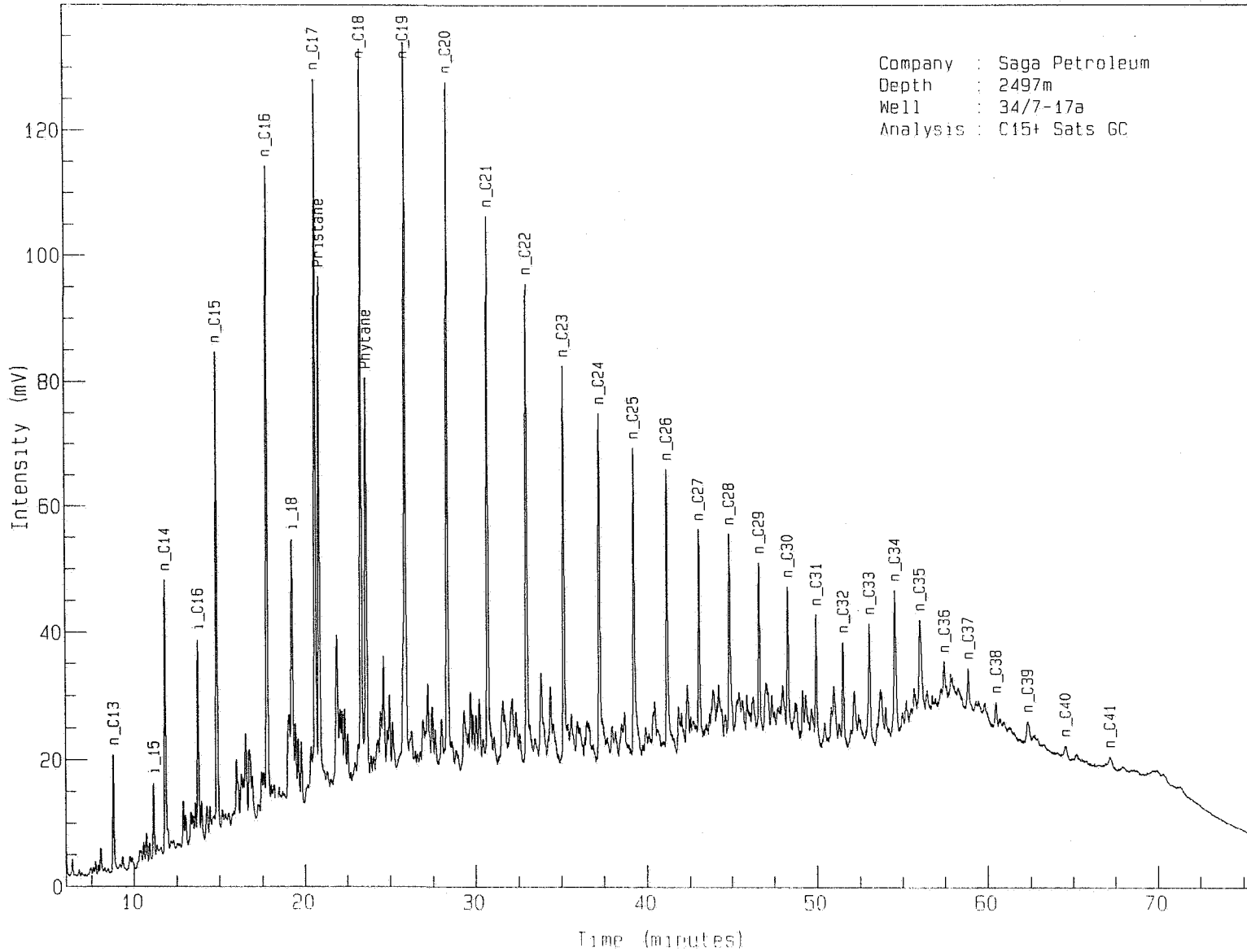
Company : Saga Petroleum
Depth : 2570m
Well : 34/7-17
Analysis : C15+ Sats GC

INJECTION REPORT - C15+ SATS GC (SAGA METHOD)

PEAK INFORMATION						
Peak No	R.Time mins	Height uV	Area uVs	Area %	Peak name	
1	13.760	550	3506	0.31	i_C	16
3	14.869	662	5187	0.45	n_C	15
8	17.792	2208	15450	1.35	n_C	16
11	19.243	2079	16050	1.40	i_C	18
17	20.608	3612	22949	2.00	n_C	17
18	20.837	6186	46973	4.10	Pristane	
28	23.301	3992	28453	2.49	n_C	18
29	23.600	3547	25008	2.18	Phytane	
35	25.877	3655	20211	1.77	n_C	19
43	28.341	4007	26402	2.31	n_C	20
49	30.699	4274	31287	2.73	n_C	21
55	32.965	4837	36043	3.15	n_C	22
62	35.136	5324	36666	3.20	n_C	23
67	37.216	4511	32270	2.82	n_C	24
74	39.232	6740	51663	4.51	n_C	25
83	41.163	6084	38511	3.36	n_C	26
91	43.024	7453	43677	3.82	n_C	27
98	44.843	4682	38623	3.37	n_C	28
104	46.592	6673	40136	3.51	n_C	29
109	48.267	3466	22507	1.97	n_C	30
118	49.909	4736	29981	2.62	n_C	31
124	51.509	2187	13864	1.21	n_C	32
128	53.040	3049	22404	1.96	n_C	33
135	54.549	2660	22441	1.96	n_C	34
140	56.016	1996	18953	1.66	n_C	35
144	57.429	602	6395	0.56	n_C	36
150	58.832	771	5837	0.51	n_C	37
158	60.459	457	3262	0.28	n_C	38
164	62.336	515	4444	0.39	n_C	39
Totals						
Unknowns		58888	435512	38.05		
Quantified		101515	709153	61.95		
Grand Total		160403	1144665	100.00		

Company : Saga Petroleum A.S. Well : 34/7-17 Depth : 2570m

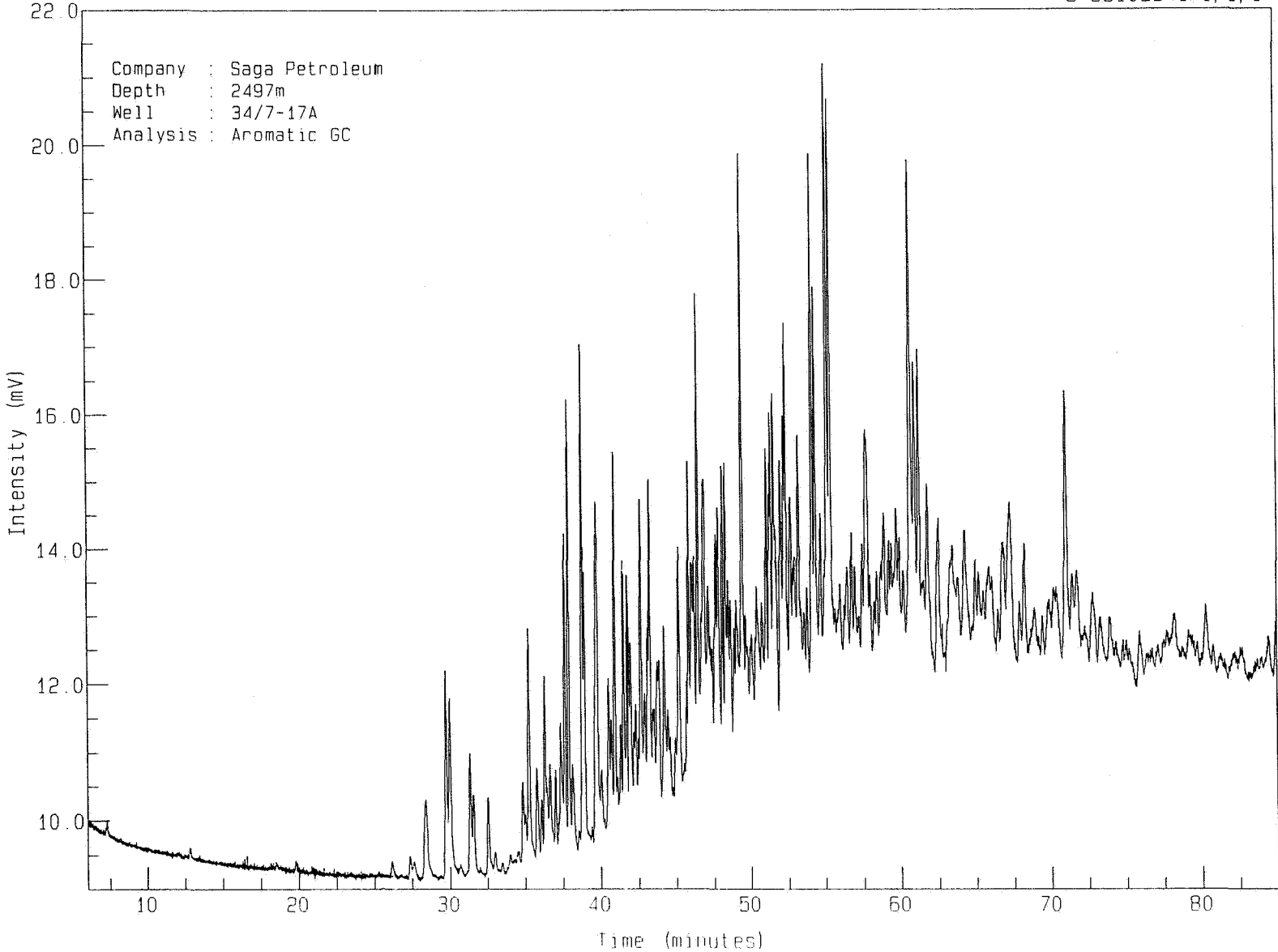




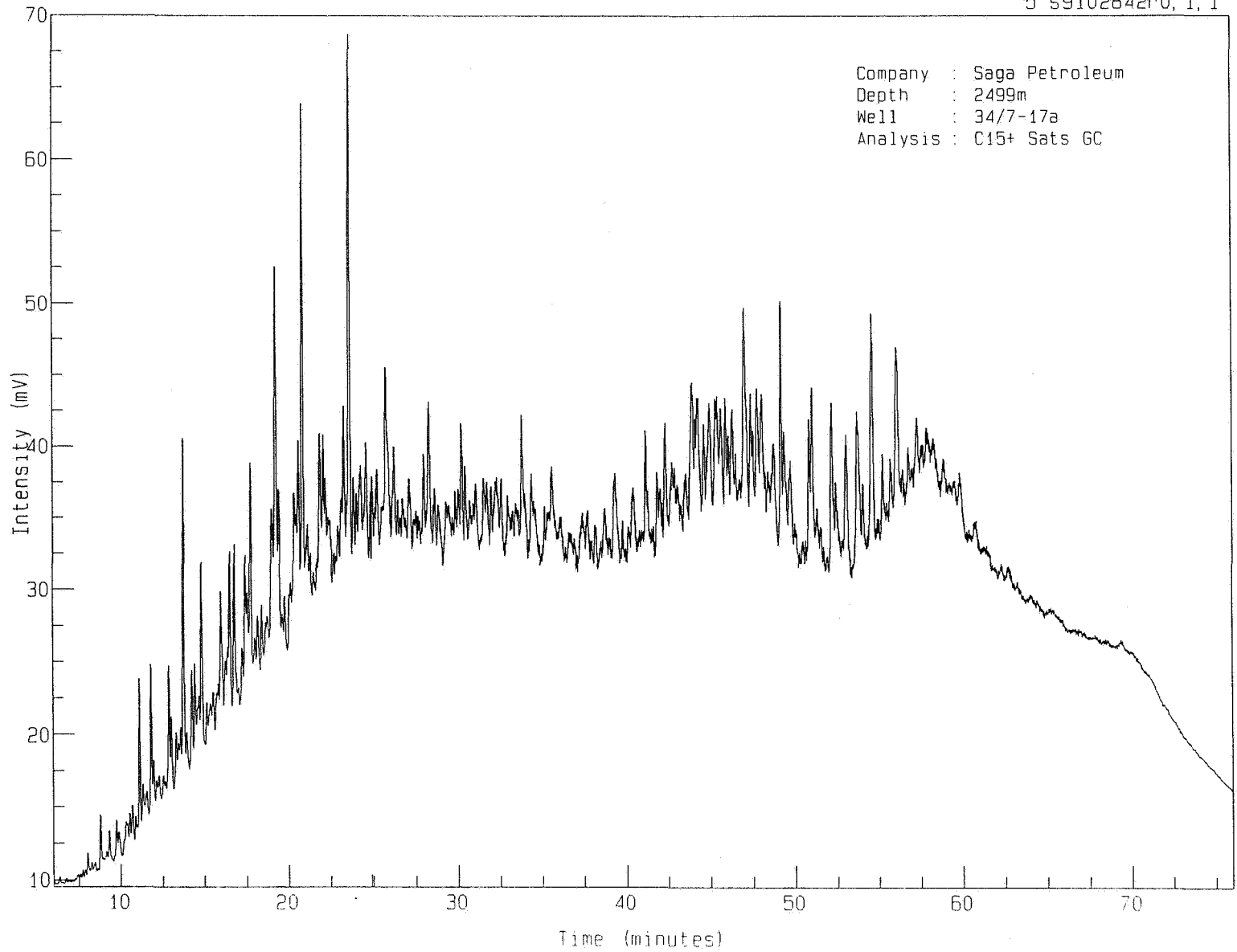
INJECTION REPORT - C15+ SATURATES GC (SAGA METHOD)

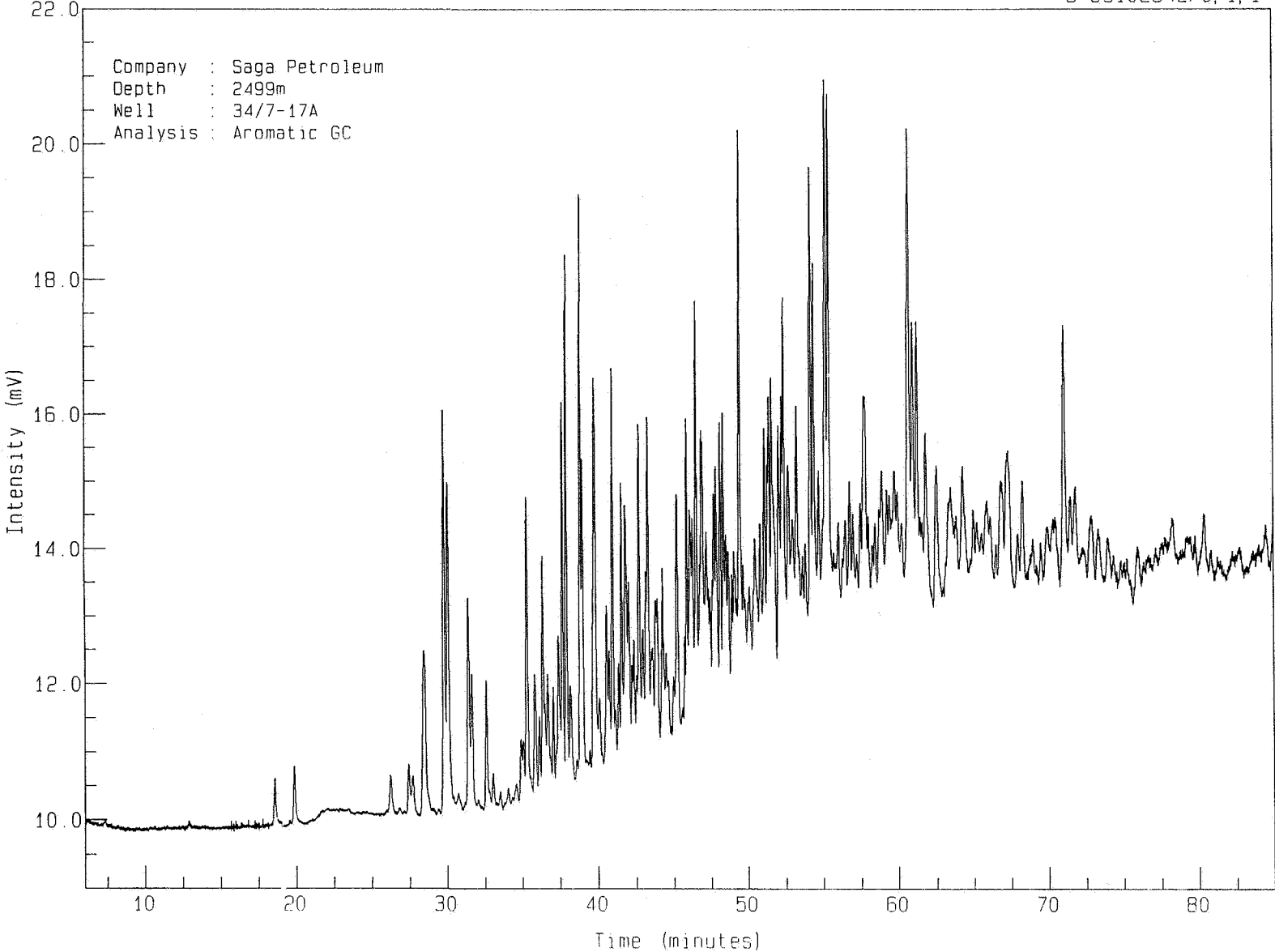
PEAK INFORMATION						
Peak No	R.Time mins	Height uV	Area uVs	Area %	Peak name	
15	8.789	18617	100509	0.71	n_C	13
25	11.131	11605	57404	0.41	i_C	15
28	11.813	42921	250721	1.78	n_C	14
37	13.755	31611	180942	1.28	i_C	16
43	14.848	76468	451806	3.21	n_C	15
57	17.797	99355	552757	3.92	n_C	16
64	19.253	32654	193195	1.37	i_C	18
70	20.629	107588	607225	4.31	n_C	17
71	20.869	76777	488686	3.47	Pristane	
81	23.328	110775	621384	4.41	n_C	18
82	23.627	60371	397566	2.82	Phytane	
91	25.899	113194	771342	5.48	n_C	19
101	28.368	106012	622212	4.42	n_C	20
112	30.725	84942	509677	3.62	n_C	21
120	32.981	75341	455577	3.23	n_C	22
127	35.147	60043	339555	2.41	n_C	23
136	37.237	54109	330295	2.35	n_C	24
145	39.248	47998	341118	2.42	n_C	25
154	41.184	43074	263918	1.87	n_C	26
162	43.045	31939	187130	1.33	n_C	27
169	44.859	30167	196254	1.39	n_C	28
177	46.608	25752	148298	1.05	n_C	29
184	48.293	21941	132310	0.94	n_C	30
190	49.947	18733	100045	0.71	n_C	31
197	51.525	15137	88964	0.63	n_C	32
204	53.056	18405	151444	1.08	n_C	33
210	54.576	22418	187339	1.33	n_C	34
216	56.021	14410	154294	1.10	n_C	35
221	57.461	5956	50946	0.36	n_C	36
227	58.859	6332	48735	0.35	n_C	37
234	60.485	3985	29378	0.21	n_C	38
244	62.331	3128	33107	0.24	n_C	39
256	64.565	2057	24189	0.17	n_C	40
272	67.173	1864	26814	0.19	n_C	41
Totals						
Unknowns		754891	4988486	35.43		
Quantified		1475679	9095136	64.57		
Grand total		2230570	14083622	100.00		

Company : Saga Petroleum A.S. Well : 34/7-17a Depth : 2497m



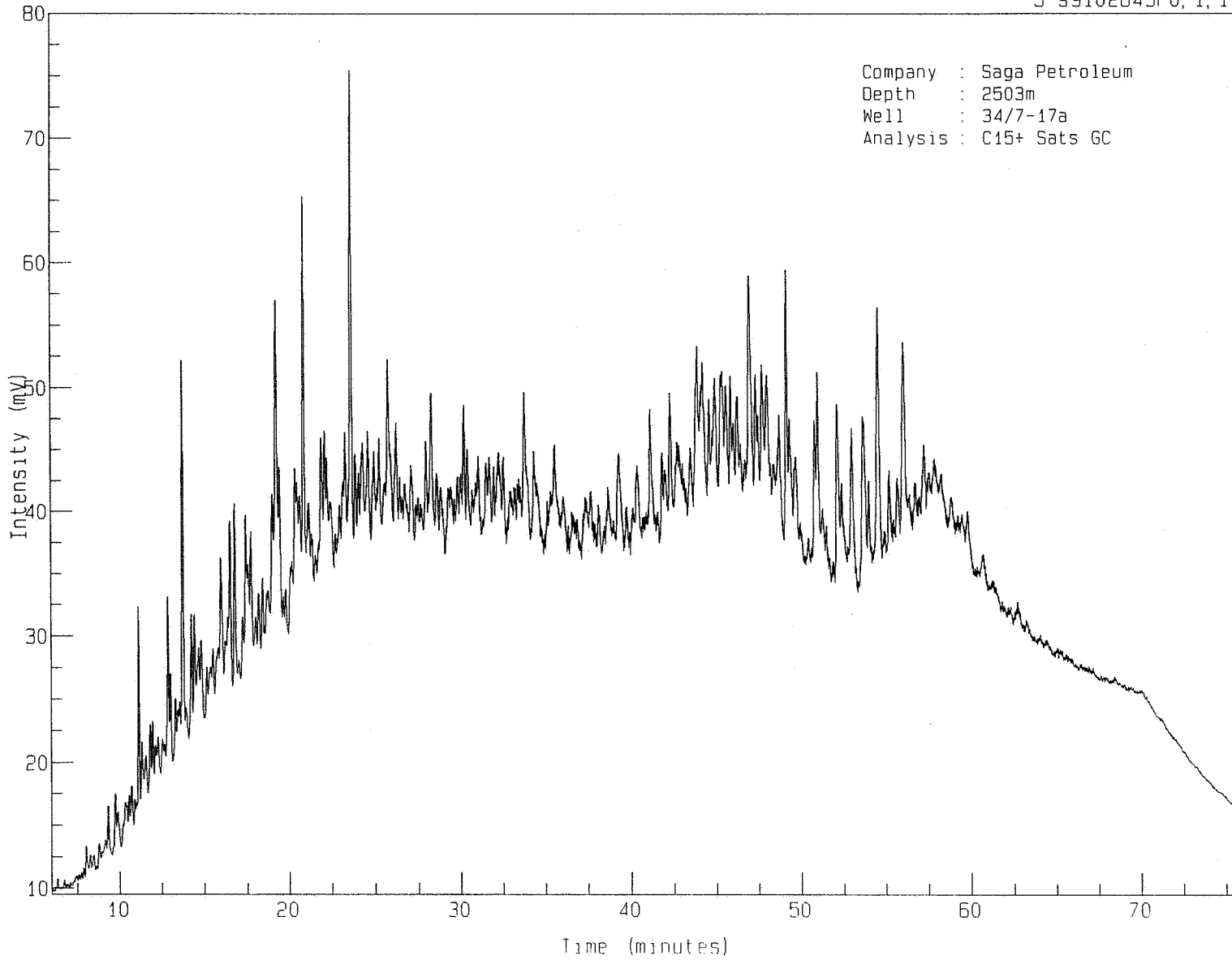
Company : Saga Petroleum
Depth : 2499m
Well : 34/7-17a
Analysis : C15+ Sats GC

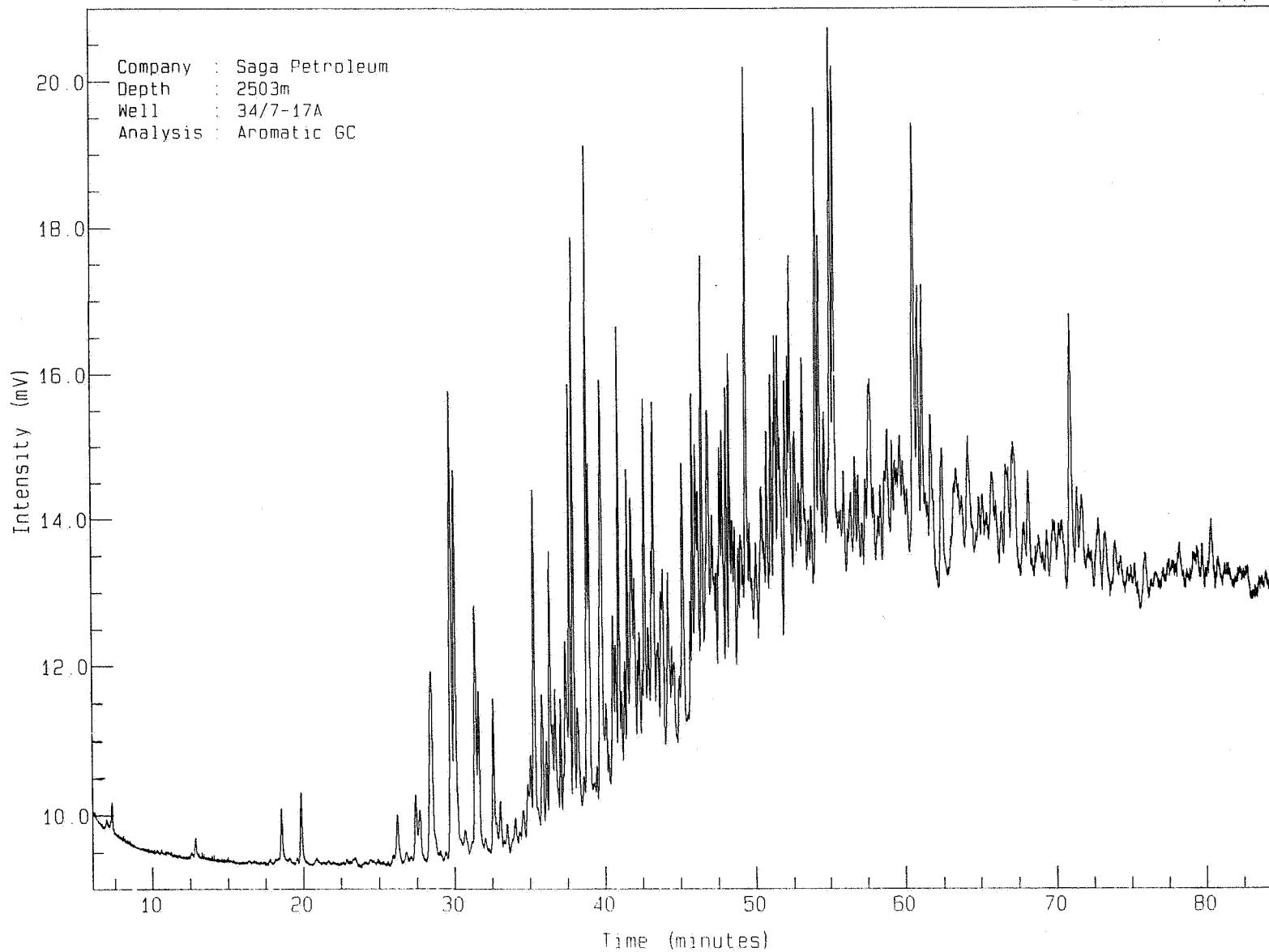


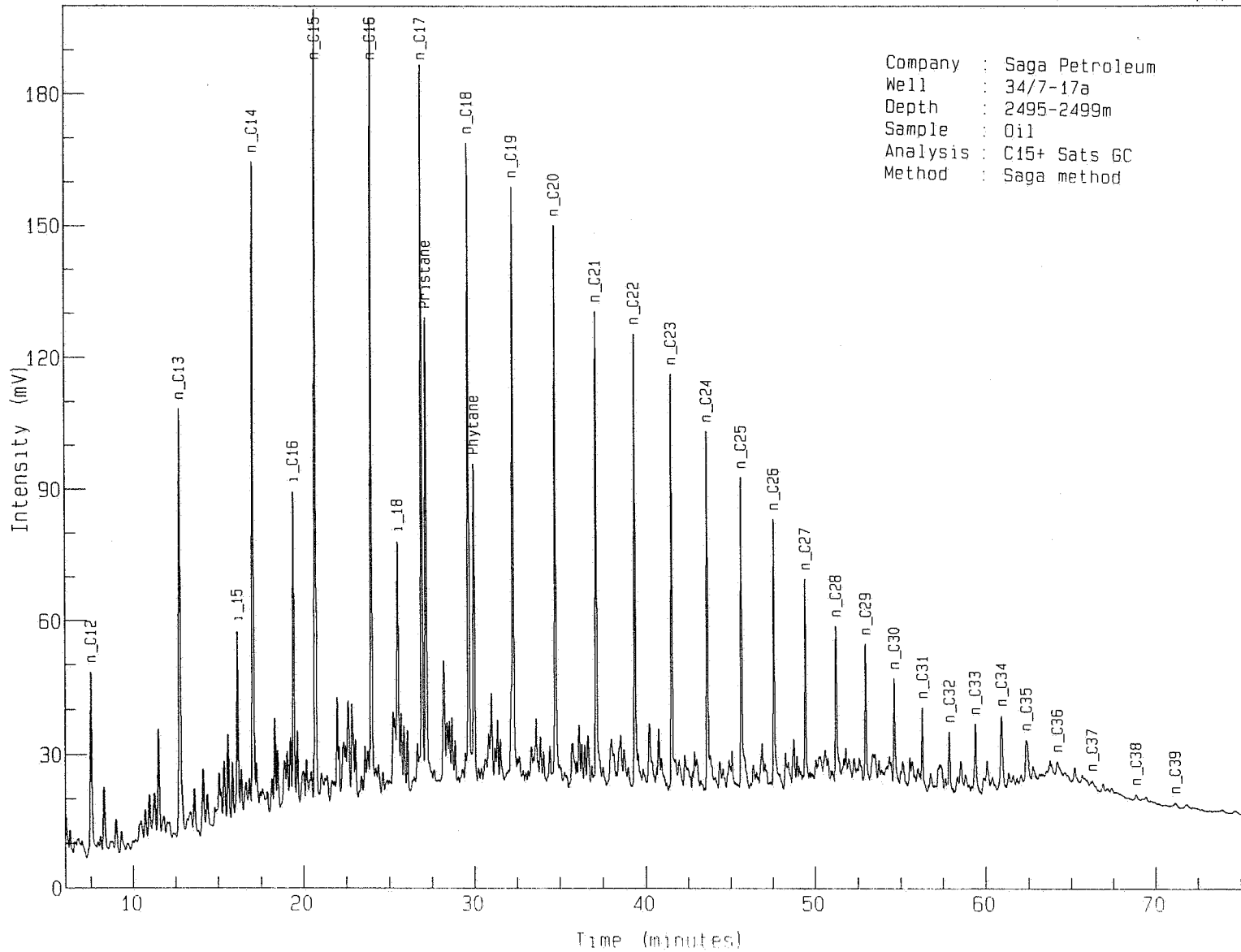


5 s9102843r0, 1, 1

Company : Saga Petroleum
Depth : 2503m
Well : 34/7-17a
Analysis : C15+ Sats GC



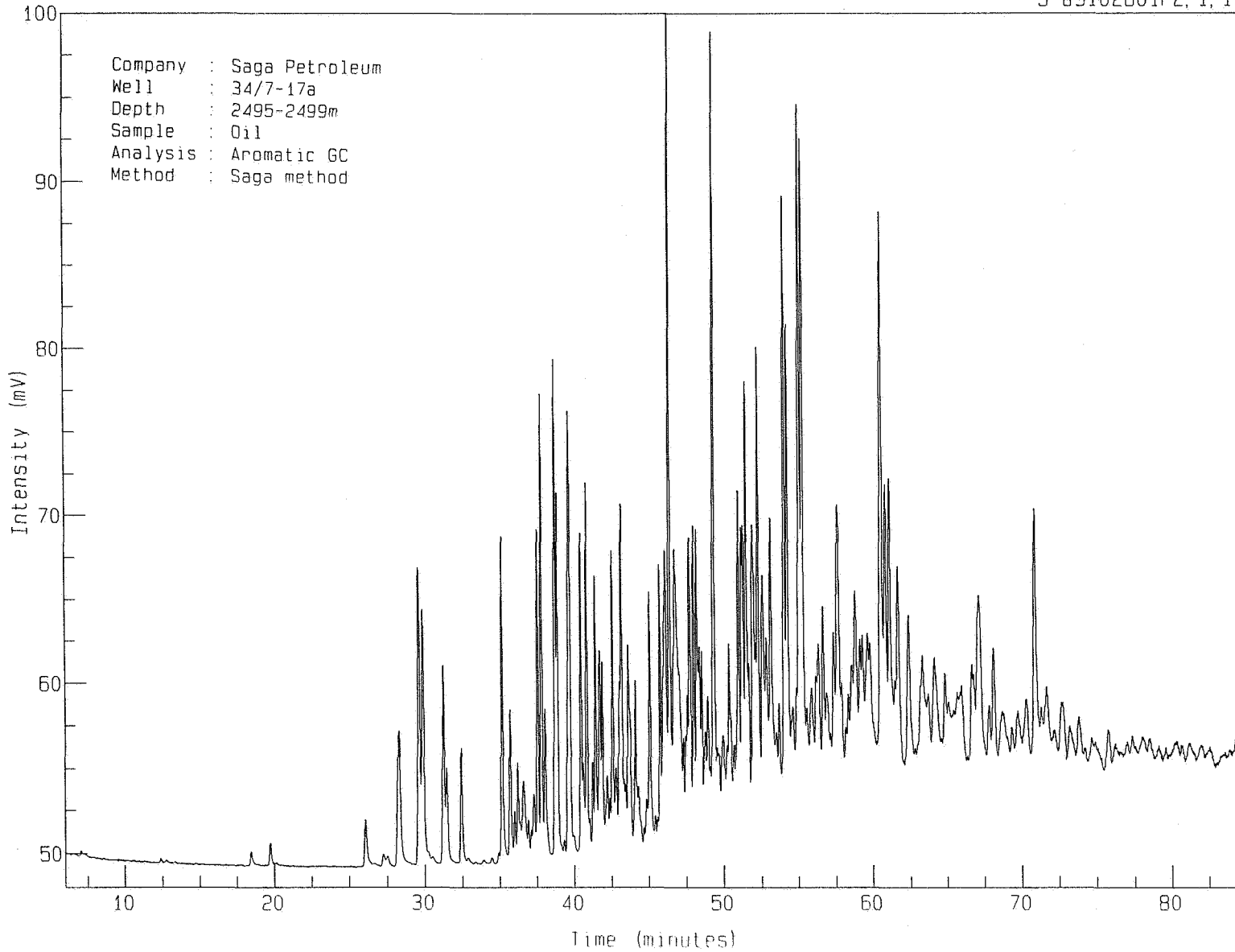


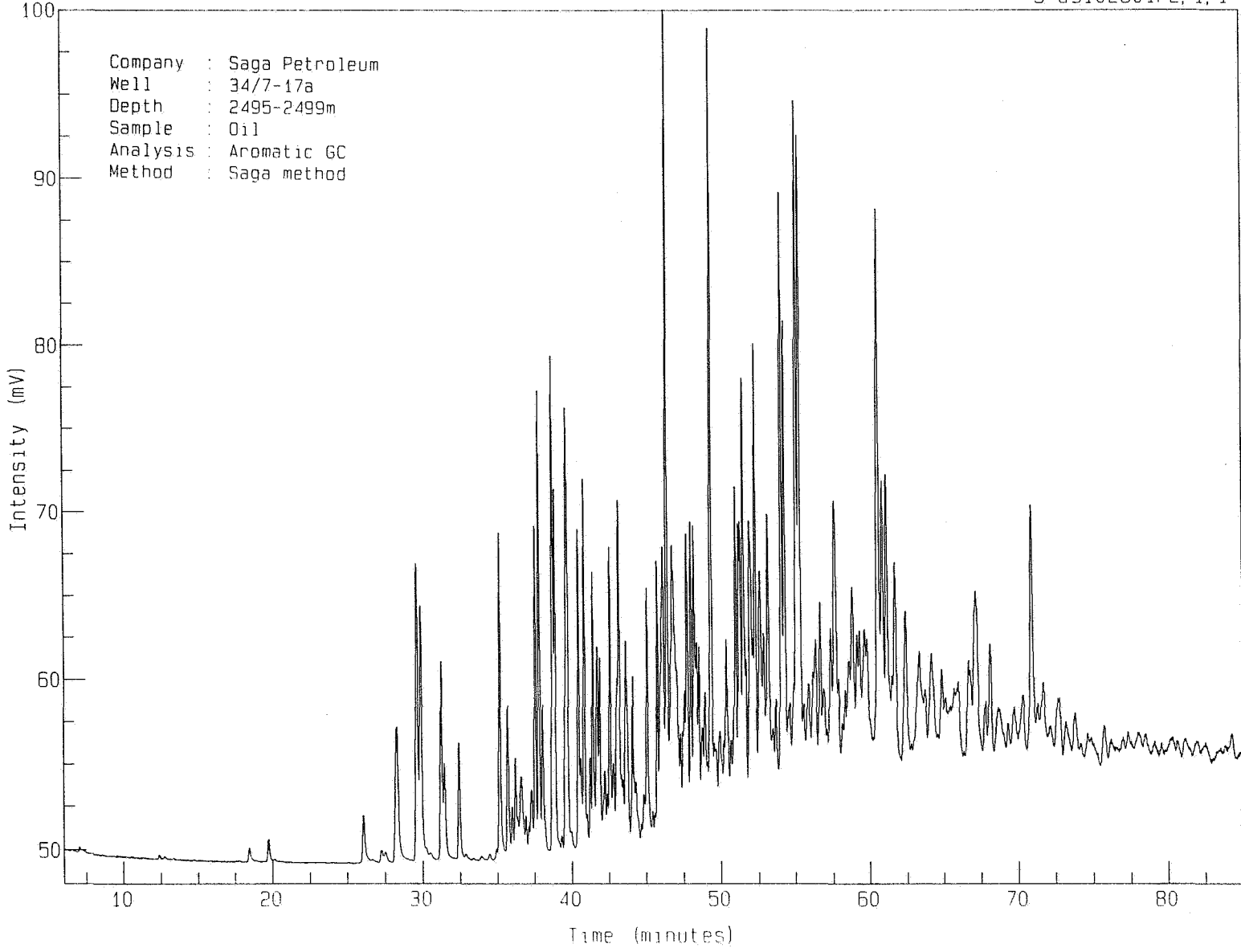


INJECTION REPORT - C15+ SATURATES GC (SAGA METHOD)

PEAK INFORMATION						
Peak No	R.Time mins	Height uV	Area uVs	Area %	Peak name	
6	7.515	41129	305316	1.27	n_C	12
27	12.747	96662	687697	2.86	n_C	13
40	16.144	40840	248280	1.03	i_C	15
43	17.056	145687	820690	3.41	n_C	14
54	19.429	70690	402883	1.67	i_C	16
60	20.709	178588	952706	3.96	n_C	15
76	23.952	176261	963431	4.00	n_C	16
84	25.493	56663	410477	1.71	i_C	18
91	26.923	164505	926823	3.85	n_C	17
92	27.173	106695	754503	3.14	Pristane	
104	29.680	144450	791112	3.29	n_C	18
105	29.984	71673	464531	1.93	Phytane	
116	32.288	134658	840867	3.50	n_C	19
129	34.763	126065	678217	2.82	n_C	20
140	37.125	107674	623042	2.59	n_C	21
147	39.381	102622	531801	2.21	n_C	22
157	41.547	94433	488908	2.03	n_C	23
167	43.632	81300	430052	1.79	n_C	24
176	45.632	70399	444192	1.85	n_C	25
185	47.563	60925	371957	1.55	n_C	26
194	49.424	46775	259779	1.08	n_C	27
204	51.227	35279	247438	1.03	n_C	28
211	52.960	30421	159996	0.67	n_C	29
219	54.651	23278	136434	0.57	n_C	30
226	56.283	18493	111246	0.46	n_C	31
233	57.861	13118	83608	0.35	n_C	32
240	59.392	15828	131664	0.55	n_C	33
246	60.917	16403	146168	0.61	n_C	34
251	62.363	9046	100168	0.42	n_C	35
259	64.192	2925	38090	0.16	n_C	36
266	66.261	738	3596	0.01	n_C	37
277	68.827	1042	7438	0.03	n_C	38
287	71.147	856	10012	0.04	n_C	39
298	73.936	346	3118	0.01	n_C	40
Totals						
Unknowns		1445742	10480196	43.55		
Quantified		2286467	13576240	56.45		
Grand total		3732209	24056436	100.00		

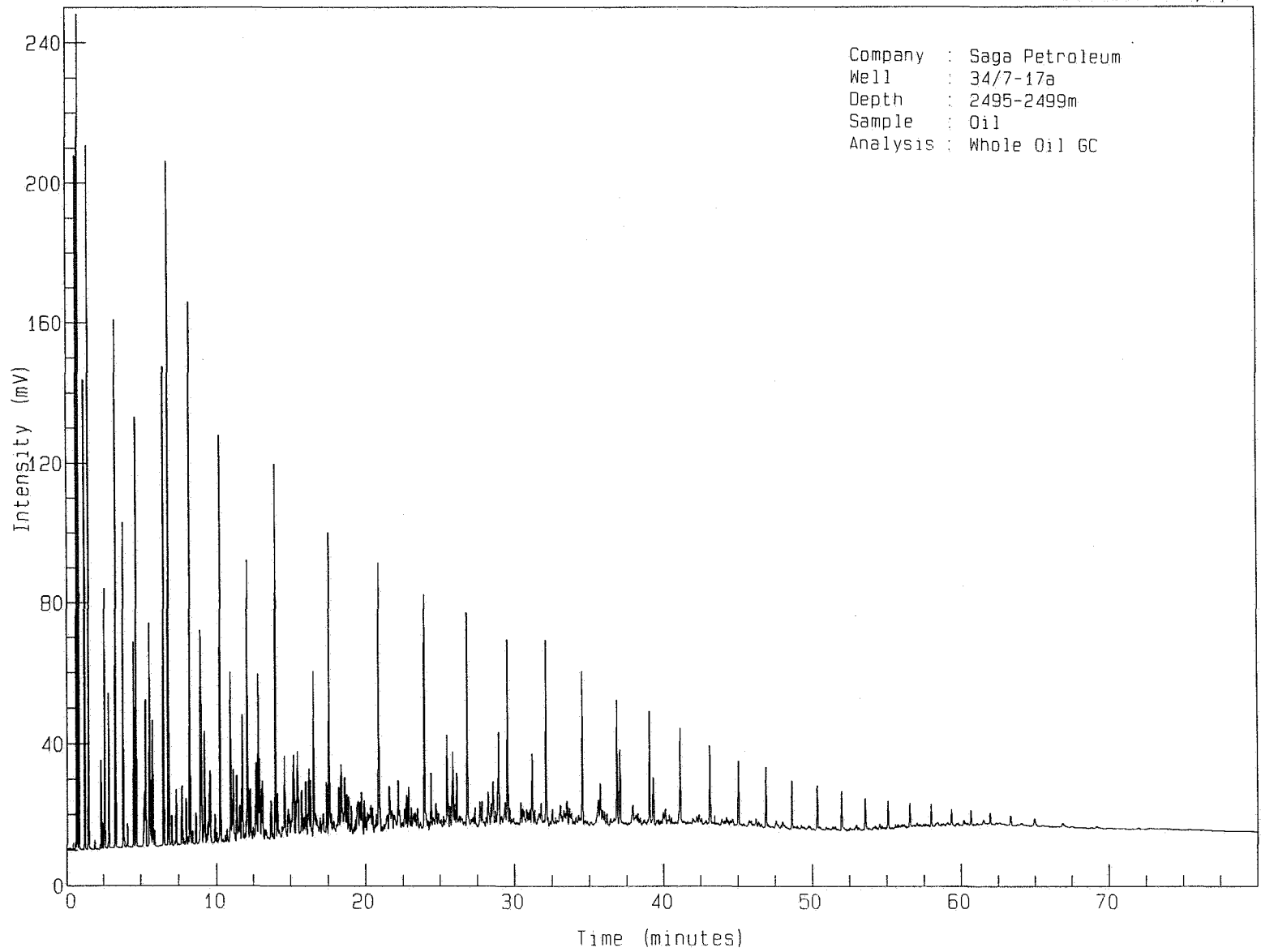
Company : Saga Petroleum A.S. Well : 34/7-17a Sample : Oil





Company : Saga Petroleum
Well : 34/7-17a
Depth : 2495-2499m
Sample : Oil
Analysis : Aromatic GC
Method : Saga method

Company : Saga Petroleum
Well : 34/7-17a
Depth : 2495-2499m
Sample : Oil
Analysis : Whole Oil GC



Oil Physical Properties Data

GENERAL DATA			PHYSICAL PROPERTIES DATA				
Lab ID	Depth m	Sample Type	API	API of Fraction with BP >210 C	S %	Ni ppm	V ppm
91028-1	2495-2499	Oil	36.8	26.4	.29	1	1

Isotopes run by I.F.E.

WELL 34/7-17

GENERAL DATA			ISOTOPE DATA											
Lab ID	Depth m	Sample Type	SAT	ARO	NSO	ASPH	EOM	OIL	C1	C2	C3	iC4	nC4	DEUT
44	2472	Core	-29.9	-29.3	-29.1	-28.8	-29.4							
45	2570	Core	-27.6	-29.6	-26.6	*	-26.6							

WELL 34/7-17a

GENERAL DATA			ISOTOPE DATA											
Lab ID	Depth m	Sample Type	SAT	ARO	NSO	ASPH	EOM	OIL	C1	C2	C3	iC4	nC4	DEUT
1	2495-99	Oil	-29.8	-28.8	-28.8	*		-29.8	-47.8	#	#	#	#	#
41	2497	Core	-29.9	-29.1	-29.0	-29.6	-29.7							
42	2499	Core	-30.3	-29.8	-29.2	-29.9	-30.1							
43	2503	Core	-30.1	-29.5	-29.7	-29.9	-30.0							
56	2310	Ctgs							-44.3	-30.4	-29.6	-27.7	-29.8	*
62	2380	Ctgs							-40.8	-26.7	-26.8	-18.9	-29.5	*
72	2480	Ctgs							-46.8	-30.8	-29.7	-23.0	-30.8	*

* - Sample too small for precise measurement.

- Concentration too low to determine values

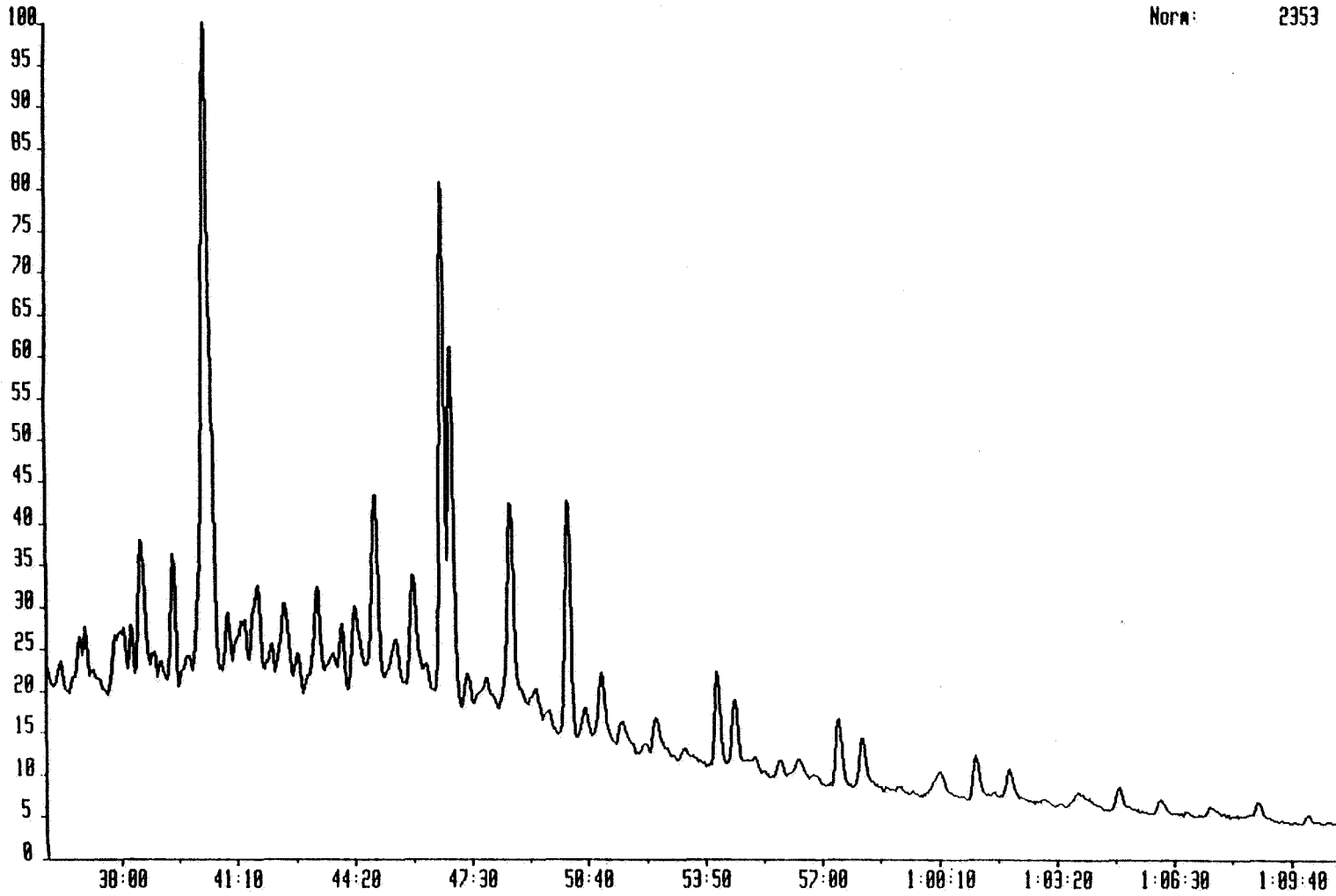
SCOPE OF METHODS FOR NAMAS ACCREDITATION

- OLS/000 Standard layout for in house methods
- OLS/001 Determination of the Carbon Content of geological samples
- OLS/002 Determination of Carbonate by the LECO method
- OLS/003 Geochemistry sample preparation techniques
- OLS/005 Rock Eval pyrolysis for screening geochemistry
- OLS/008 Quantitative DCM extraction by Soxhlet
- OLS/009 Quantitative DCM extraction by Soxhlet
- OLS/010 Column chromatography
- OLS/011 Headspace gas analysis C1 – C4
- OLS/012 Headspace gas analysis C1 – C6+
- OLS/013 Occluded gas analysis C1 – C4
- OLS/014 Occluded gas analysis C1 – C6+
- OLS/015 Gasoline (C4 – C7) analysis
- OLS/016 C15+ saturate fraction gas chromatography by flame ionisation detection
- OLS/017 Aromatic fraction gas chromatography by flame ionisation detection
- OLS/019 Column chromatography for the fractionation of hydrocarbon mixtures
- OLS/021 Whole oil gas chromatography
- OLS/022 Pyrolysis – Gas chromatography
- OLS/023 Fractionation by Iatroscan
- OLS/026 Topping of oils
- OLS/027 Gas chromatography – Mass spectrometry of organic biomarkers
- OLS/028 2D Ultra Violet fluorescence spectrometry
- OLS/029 3D Ultra Violet fluorescence spectrometry
- OLS/030 Determination of asphaltene content by precipitation

Appendix 1 - Alkane & Aromatic GC/MS data

215030A 0-JUL-91 Sir:Voltage 70H Sys: ARO
Sample 1 Injection 1 Group 1 Mass 177.1798
Text:1-22-16 Saturates

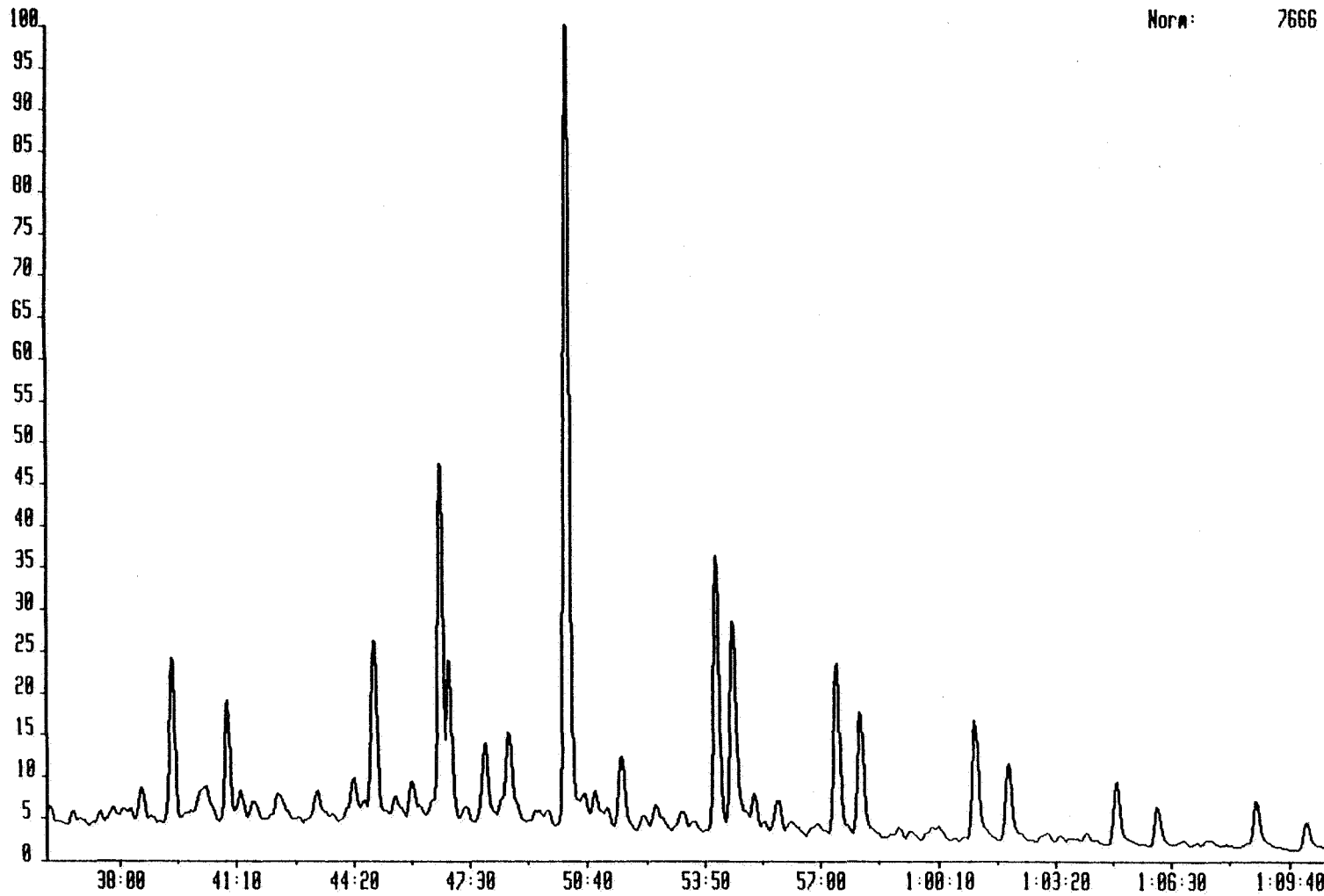
Norm: 2353



Well : 34/7-17a Sample : Oil Depth : 2495-2499m

215638A 8-JUL-91 Sir:Voltage 70H Sys: ARO
Sample 1 Injection 1 Group 1 Mass 191.1798
Text:1-22-16 Saturates

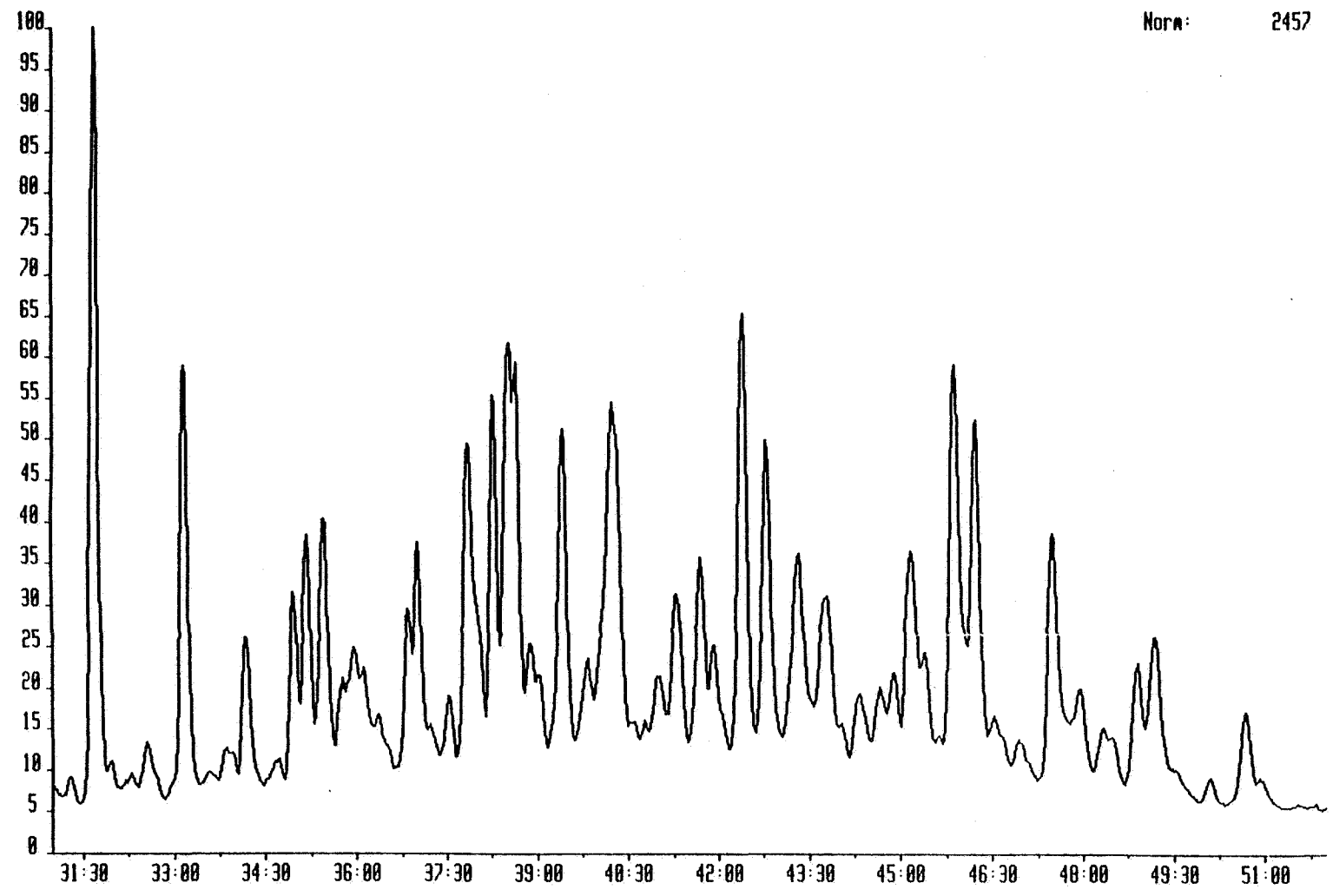
Norm: 7666



Well : 34/7-17a Sample : Oil Depth : 2495-2499m

215630A 8-JUL-91 Sir:Voltage 70H Sys: ARO
Sample 1 Injection 1 Group 1 Mass 217.1956
Text:1-22-16 Saturates

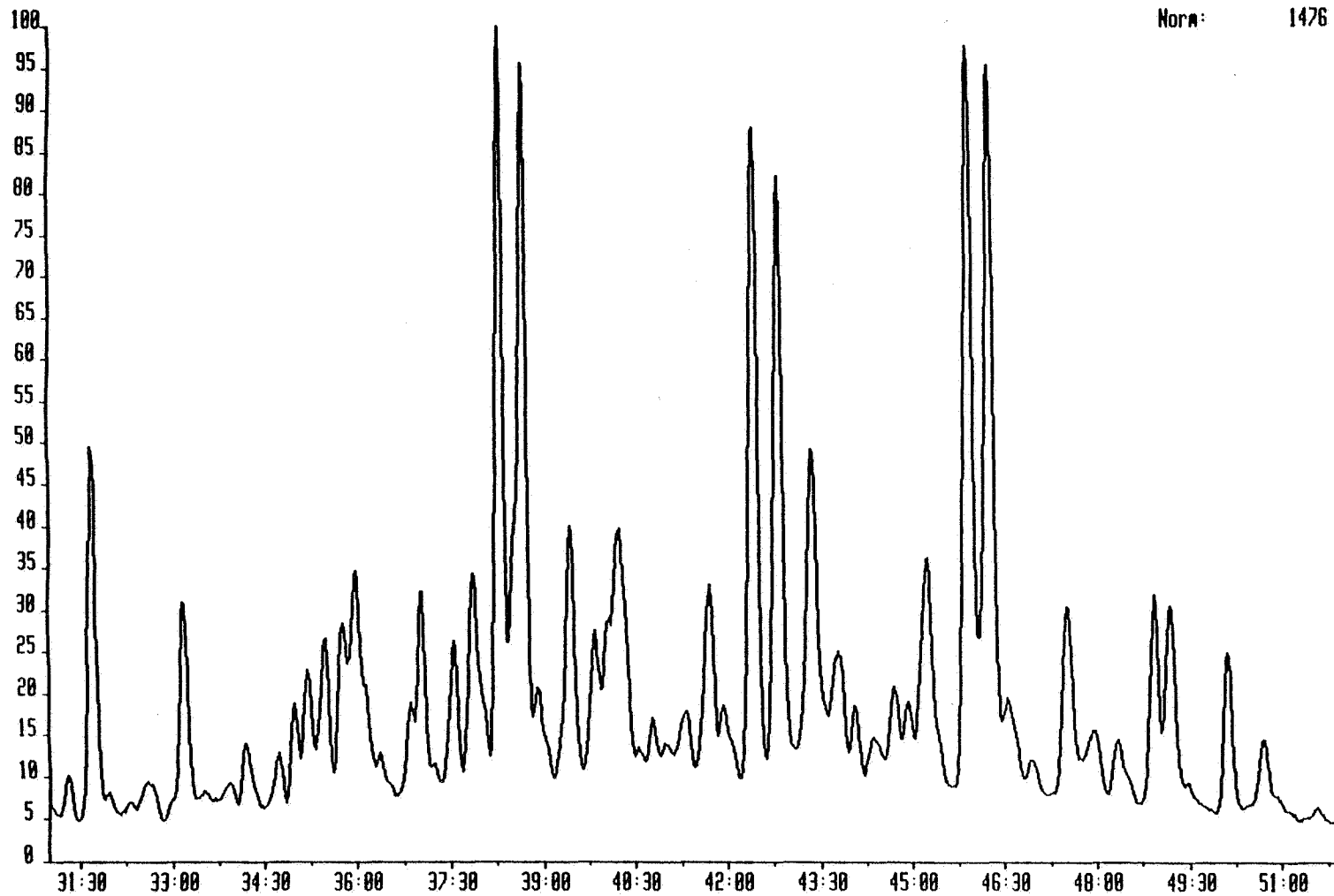
Norm: 2457



Well : 3417-17a Sample : Oil Depth : 2495-2499m

215630A 8-JUL-91 Sir:Voltage 70H Sys: ARO
Sample 1 Injection 1 Group 1 Mass 210.2034
Text:1-22-16 Saturates

Norm: 1476



Well : 3417-17a Sample : Oil Depth : 2495-2499m

Mass	Retention time			No	Peak	
	Hr	Min	Sec		Area	Height
177.1798						
	0	36	22	127	812.21	89.72
	0	36	51	129	851.59	125.27
	0	37	1	130	819.88	148.83
	0	38	3	131	3490.36	178.57
	0	38	16	132	1170.25	185.57
	0	38	31	133	4963.5	420.58
	0	38	53	134	811.08	101.73
	0	39	4	135	603.55	69.95
	0	39	24	136	2779.1	368.33
	0	39	39	137	196.79	46.82
	0	39	46	138	646.7	80.6
	0	40	18	139	26867.66	1850.47
	0	40	53	140	1098.21	157.42
	0	41	21	141	2268.28	142.15
	0	41	42	142	2952.32	241.7
	0	42	4	143	472.34	82.05
	0	42	27	144	2698.51	210.22
	0	42	48	145	769.1	100.72
	0	43	19	146	3081.9	264.26
	0	43	45	147	419.09	48.18
	0	43	58	148	990.85	150.94
	0	44	19	149	2506.83	216.86
	0	44	52	150	4958.15	500.54
	0	45	26	151	1642.07	128.82
	0	45	52	152	3135.5	302.92
	0	46	15	153	235.98	39.74
	0	46	41	154	11896.05	1454.3
	0	46	56	155	9386.32	1008.7
	0	47	22	156	878.51	97.94
	0	47	53	157	1518.35	87.49
	0	48	32	158	6704.15	571.16
	0	49	15	159	567.51	65.91
	0	50	6	160	5888.69	664.51
	0	50	34	161	879.7	84.99
	0	51	0	162	1990.06	184.36
	0	51	35	163	1165.79	73.93
	0	52	29	164	1004.28	94.88
	0	53	15	165	243.26	30.56
	0	54	8	166	2313.64	265.31
	0	54	37	167	1543.56	174.83
	0	55	50	168	409.39	45.02
	0	56	22	169	279.72	33.67
	0	57	25	170	1758.27	184.25
	0	58	2	171	1258.31	126.56
	1	0	12	173	341.94	37.35
	1	1	8	174	1086.66	118.58
	1	2	3	175	626.71	69.75
	1	3	53	176	251.34	21.25
	1	4	59	177	519.04	57.16
	1	6	7	178	258.08	30.14
	1	8	47	179	240.15	31.82

Well : 34/7-17a Sample : Oil Depth : 2495-2499m

Mass	Retention time			No	Peak	
	Hr	Min	Sec		Area	Height
191.1798						
	0	36	4	36	481.2	85.77
	0	36	39	37	576.61	94.79
	0	37	25	38	348.49	69.82
	0	38	34	39	2339.78	280.57
	0	39	24	40	12418.01	1480.56
	0	40	19	41	4403.86	249.61
	0	40	53	42	8070.21	1055.9
	0	41	15	43	1341.8	187.25
	0	41	36	44	1447.4	135.57
	0	42	15	45	1297.22	146.44
	0	43	19	46	1948.93	214.25
	0	44	18	47	2169.76	273.35
	0	44	52	48	15323.93	1549.53
	0	45	28	49	768.79	121.82
	0	45	53	50	2257.04	277.14
	0	46	41	51	28215.22	3226.2
	0	46	54	52	12932.19	1433.95
	0	47	53	53	5978.35	651.04
	0	48	32	54	9842.31	775.07
	0	49	15	55	566.82	57.51
	0	50	6	56	61161.63	7233.73
	0	50	50	57	1272.37	190.19
	0	51	33	58	5749.22	610.72
	0	52	9	59	621.78	84.93
	0	52	29	60	1009.65	136.46
	0	53	12	61	975.39	108.71
	0	54	8	62	22424.17	2481.36
	0	54	36	63	17093.93	1801.87
	0	55	11	64	1809.83	241.92
	0	55	49	65	2475.35	252.15
	0	57	25	66	13988.6	1530.97
	0	58	2	67	10111.85	1077.67
	1	1	7	68	9714.36	1034.03
	1	2	3	69	6106.31	651.9
	1	4	59	70	5119.87	537.12
	1	6	6	71	2993.56	325.21
	1	8	45	72	3332.77	361.83
	1	10	7	73	1913.04	212.94

Well : 34/7-17a Sample : Oil Depth : 2495-2499m

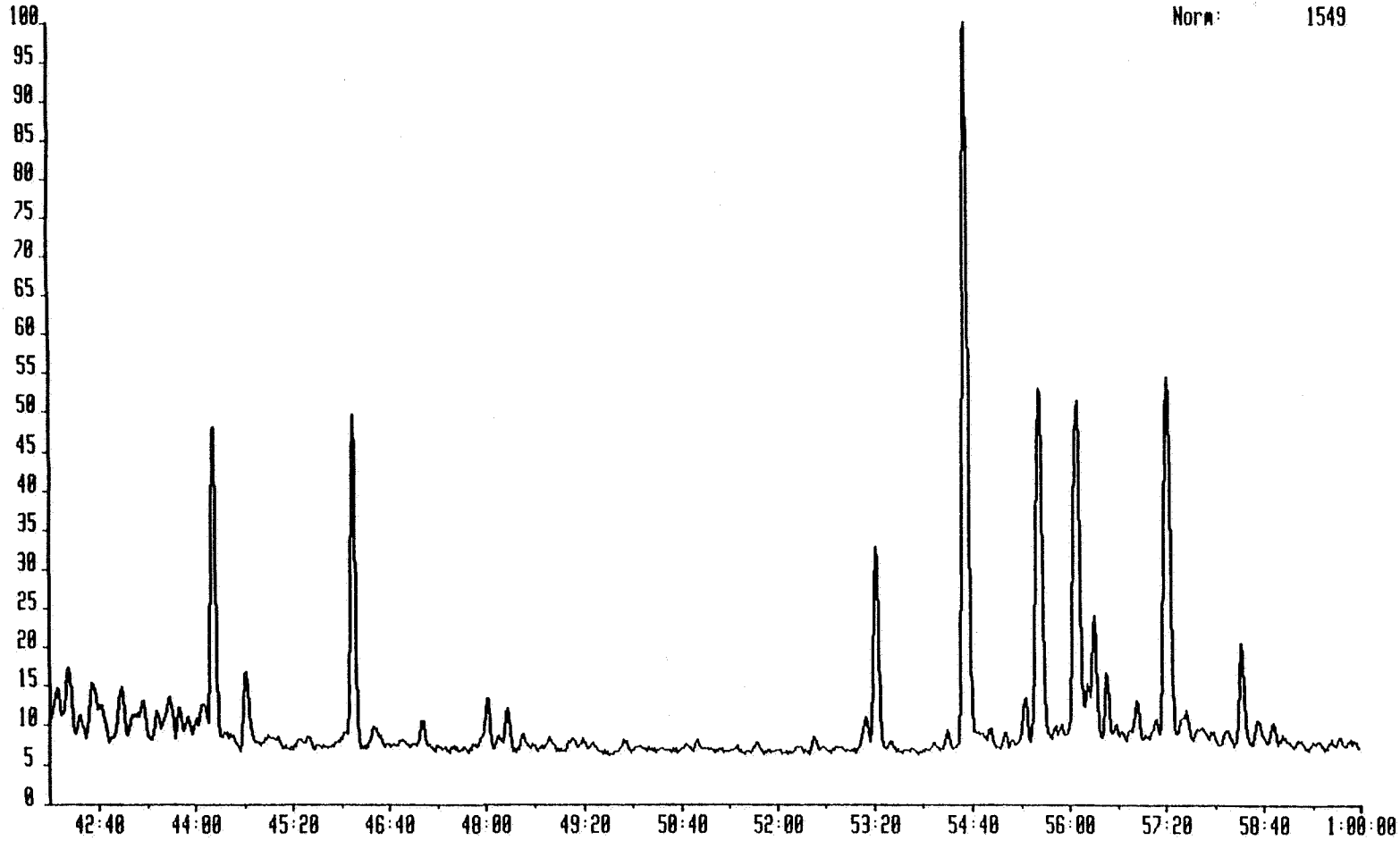
Mass	Retention time			No	Peak Area	Height
	Hr	Min	Sec			
217.1956						
	0	31	17	90	456.33	66.03
	0	31	42	91	18288.65	2299.02
	0	32	17	93	368.29	48.98
	0	32	33	94	1783.53	155.7
	0	33	10	95	10467.94	1264.04
	0	33	51	97	1196.13	99.14
	0	34	10	98	3994.15	438.1
	0	34	43	99	574.2	66.67
	0	34	58	100	4479.81	558.31
	0	35	11	101	6370.72	724.51
	0	35	27	102	7576.74	767.09
	0	35	46	103	2252.69	294.56
	0	35	58	104	4250.53	383.93
	0	36	7	105	3503.83	318.93
	0	36	22	106	1859.72	176.69
	0	36	51	107	3439.3	471.15
	0	37	1	108	5679.71	665.42
	0	37	14	109	853	120.47
	0	37	32	110	1594.54	198.98
	0	37	52	111	12513.54	936.72
	0	38	16	112	8271.99	1070.41
	0	38	33	113	19745.94	1221.33
	0	38	54	114	2603.35	320.19
	0	39	0	115	1568.69	223.2
	0	39	26	116	8431.81	937.53
	0	39	50	117	2393.9	239.69
	0	40	15	118	15605.89	979.76
	0	41	1	120	1992.17	189.61
	0	41	18	121	4622.19	436.23
	0	41	42	122	5226.76	555.98
	0	41	55	123	3277.04	309.85
	0	42	25	124	12703.11	1303.74
	0	42	48	125	9212.78	929.87
	0	43	20	126	9024.04	598.75
	0	43	49	127	7533.37	478.79
	0	44	20	128	2101.18	188.36
	0	44	40	129	1974.58	198.94
	0	44	54	130	2268.17	233.67
	0	45	11	131	7106.56	584.67
	0	45	24	132	2199.04	281.4
	0	45	53	133	13082.52	1149.08
	0	46	14	134	9955.54	1006.19
	0	46	33	135	1905.39	150.22
	0	46	57	136	1337	102.19
	0	47	31	137	7003.9	660.31
	0	47	58	138	1337.31	162.77
	0	48	22	139	2543.87	149.22
	0	48	56	140	3813.86	351.67
	0	49	12	141	5032.98	419.92
	0	50	6	142	552.62	70.03
	0	50	41	143	2123.58	234.81

Well : 34/7-17a Sample : Oil Depth : 2495-2499m

Mass	Retention time			No	Peak	
	Hr	Min	Sec		Area	Height
218.2034						
	0	31	17	71	513.61	73.13
	0	31	41	72	5042.4	641.54
	0	32	39	73	628.22	49.17
	0	33	10	74	3164.84	361.89
	0	33	55	75	251.15	29.84
	0	34	11	76	1073.64	110.76
	0	34	42	77	682.76	88.3
	0	34	58	78	1397.44	169.54
	0	35	11	79	1953.72	219.38
	0	35	28	80	2505.53	263.33
	0	35	46	81	2469.95	276.69
	0	35	58	82	4655.68	360.08
	0	36	51	83	1089.74	158.4
	0	37	1	84	3162.65	350.28
	0	37	32	85	2040.58	248.67
	0	37	50	86	4558.1	367.35
	0	38	16	87	10391.98	1336.65
	0	38	39	88	13469.52	1269.52
	0	38	54	89	1827.56	164.08
	0	39	26	90	4294.53	438.98
	0	39	50	91	2264.18	243.07
	0	40	13	92	7448.93	410.19
	0	40	46	93	429.13	72.66
	0	40	58	94	159.63	24.6
	0	41	18	95	751.98	85.86
	0	41	42	96	3504.92	333.01
	0	41	55	97	1355.82	124.8
	0	42	24	98	10422.64	1142.75
	0	42	48	99	9215.28	1034.15
	0	43	20	100	6222.85	536.7
	0	43	46	101	2682.72	200.32
	0	44	2	102	849.92	116.12
	0	44	21	103	552.36	54.6
	0	44	40	104	1142.97	133.56
	0	44	54	105	1051.66	117.61
	0	45	14	106	5238.04	389.26
	0	45	53	107	12876.25	1308.94
	0	46	14	108	12824.27	1271.4
	0	46	33	109	1872.64	148.68
	0	46	57	110	360.4	42.88
	0	47	31	111	3093.55	303.96
	0	47	58	112	812.11	80.06
	0	48	20	113	1314.46	102.09
	0	48	56	114	3118.66	356.9
	0	49	11	115	3355.97	329.1
	0	50	7	116	2377.21	279.01
	0	50	41	117	916.83	105.5

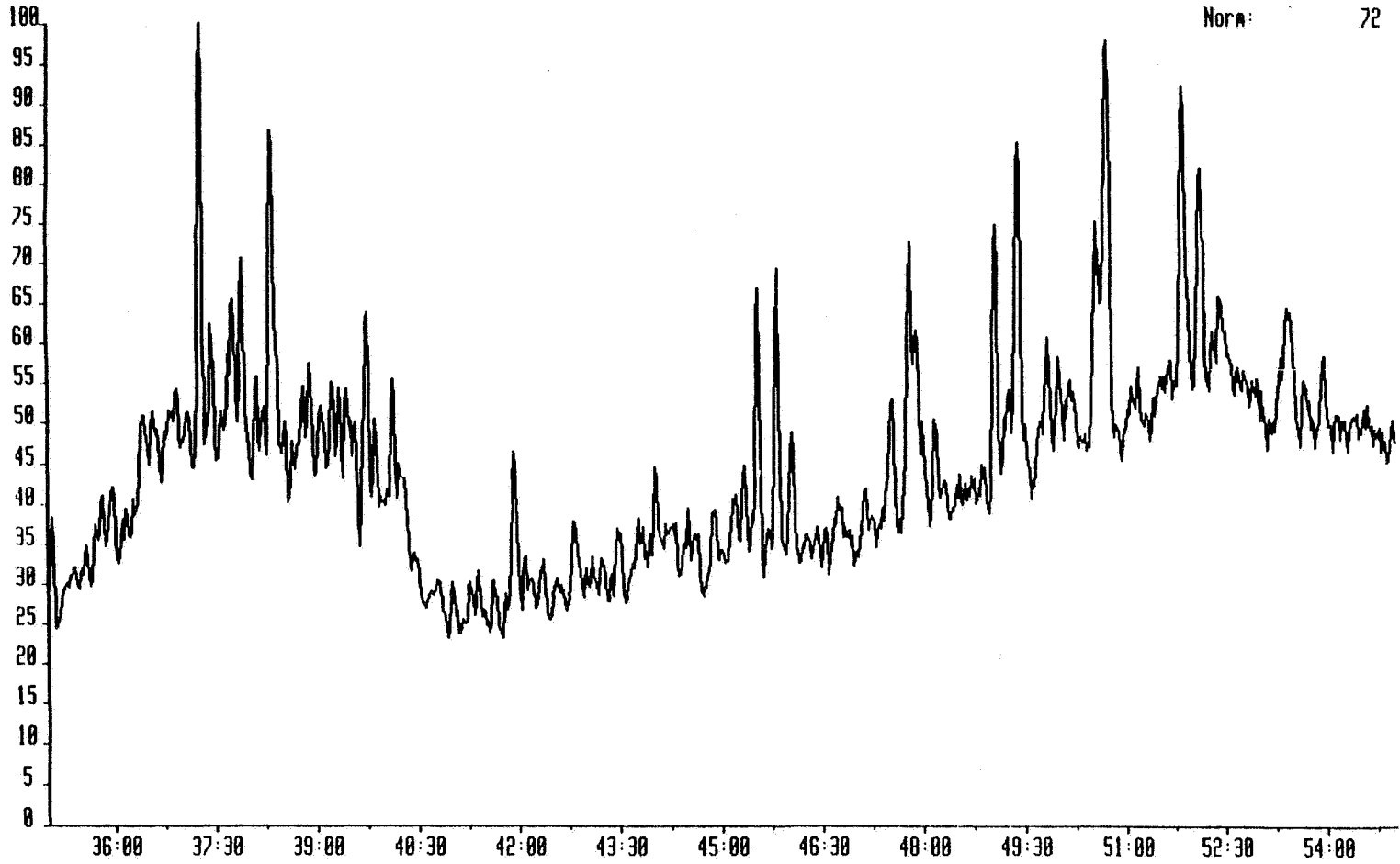
Well : 34/7-17a Sample : Oil Depth : 2495-2499m

215631 24-JUN-91 Sir:Voltage 70H Sys: 1906A
Sample 1 Injection 1 Group 1 Mass 231.1174
Text:1-22-16 AROMATICS



Well : 34/7-17a Sample : Oil Depth : 2495-2499m

215631 24-JUN-91 Str:Voltage 70H Sys: 1906A
Sample 1 Injection 1 Group 1 Mass 253.1956
Text:1-22-16 AROMATICS



Well : 34/7-17a Sample : Oil Depth : 2495-2499m

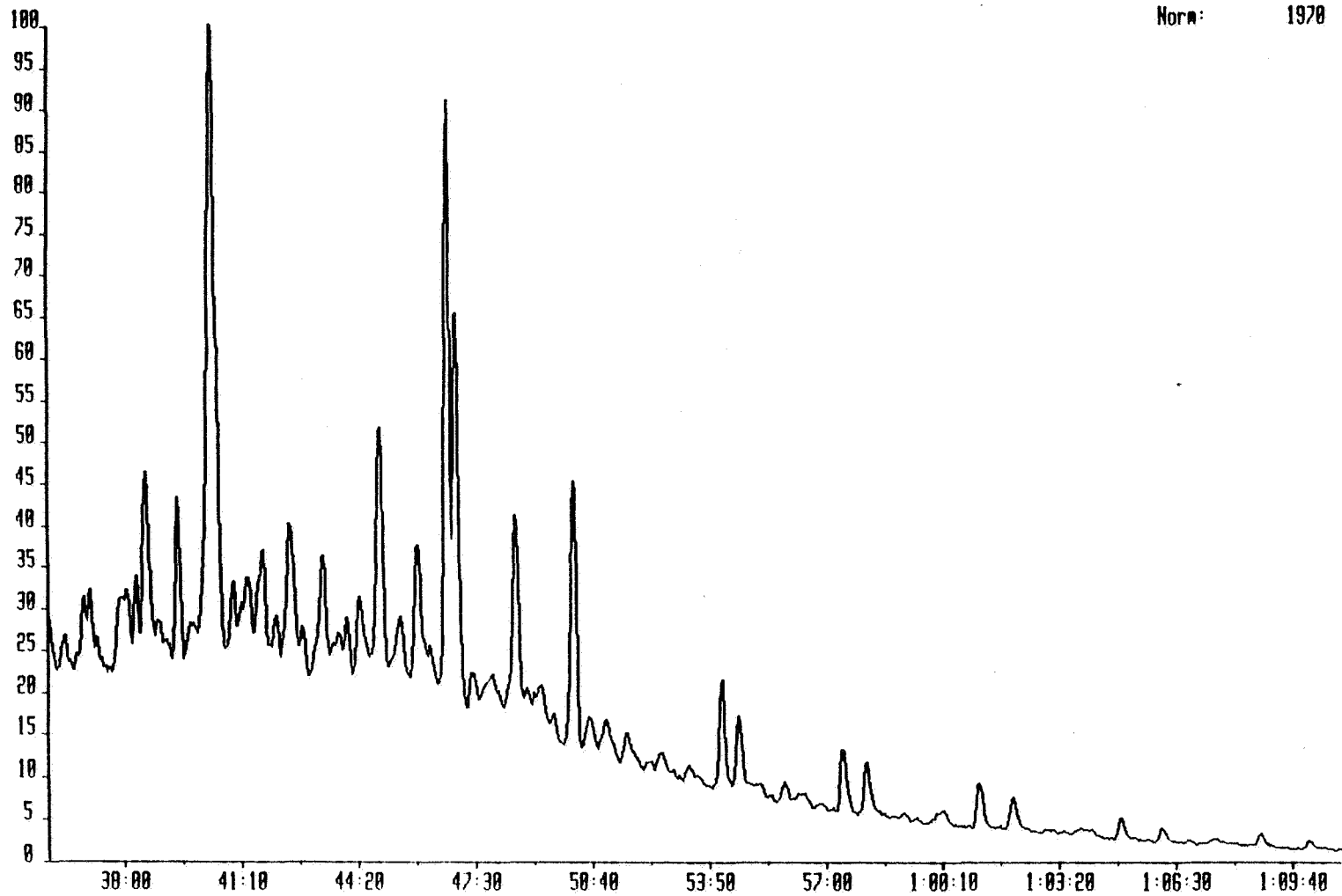
Mass	Retention time			No	Peak	
	Hr	Min	Sec		Area	Height
253.1956						
	0	35	33	37	17.49	4.25
	0	35	41	38	9.22	3.96
	0	35	48	39	13.69	4.56
	0	35	57	40	38.2	6.97
	0	36	24	43	24.91	5.28
	0	36	33	44	16.13	5.41
	0	36	54	49	14.43	4.25
	0	37	5	51	14.3	4.24
	0	37	16	52	142.15	39.88
	0	37	25	53	41.43	11.83
	0	37	44	55	54.55	11.47
	0	37	53	56	52.38	15.29
	0	38	5	58	34.09	10.24
	0	38	12	59	24.54	6.39
	0	38	18	60	143.04	30.43
	0	38	37	62	18.17	6.13
	0	38	47	63	53.2	9.91
	0	38	53	64	51.8	11.43
	0	39	3	65	27.8	6.1
	0	39	12	66	26.86	8.11
	0	39	26	68	53.52	10.24
	0	39	33	69	40.43	10.32
	0	39	43	70	98.05	20.25
	0	39	50	71	35.09	9.47
	0	40	6	74	34.63	12.09
	0	40	28	76	12.32	2.97
	0	40	39	77	5.38	1.47
	0	40	48	78	11.66	2.8
	0	40	59	79	23.87	5.32
	0	41	15	81	12.77	3.54
	0	41	23	82	11.26	4.35
	0	41	37	83	17.33	4.51
	0	41	55	85	78.26	15.43
	0	42	5	86	13.52	4.14
	0	42	11	87	4.87	1.62
	0	42	21	88	25.03	5.52
	0	42	48	92	49.6	7.94
	0	43	0	93	11.17	3.69
	0	43	5	94	14.88	4.56
	0	43	13	95	15.91	3.99
	0	43	27	97	35.03	6.61
	0	43	37	98	6.87	2.07
	0	44	1	103	21.54	7.59
	0	44	18	105	26.49	5.23
	0	44	39	108	24.75	5.05
	0	44	51	110	27.97	5.94
	0	45	9	113	48.46	7.16
	0	45	19	114	33.02	8.66
	0	45	32	116	77.27	23.81
	0	45	41	117	15.26	4.05

Mass	Retention time			No	Peak	
	Hr	Min	Sec		Area	Height
253.1956	0	45	49	118	91.8	25.46
	0	46	2	119	52.59	11.69
	0	46	26	122	12.22	3.85
	0	46	32	123	12.18	4.08
	0	46	43	124	28.16	5.15
	0	47	8	126	24.37	5.1
	0	47	17	127	4.5	2.19
	0	47	33	129	82.93	12.53
	0	47	48	130	142.33	26.92
	0	47	53	131	93.34	19.18
	0	48	0	132	46.15	11.05
	0	48	10	133	47.74	10.3
	0	48	54	140	20.43	5.01
	0	49	3	141	100.41	25.03
	0	49	16	142	28.85	5.52
	0	49	24	143	142.95	27.57
	0	49	43	144	6.99	2.77
	0	49	51	145	43.18	10.31
	0	49	59	146	36.25	9.24
	0	50	6	147	5.98	3.17
	0	50	32	149	145.13	21.43
	0	50	43	150	227.82	37.86
	0	50	51	151	13.87	3.61
	0	51	4	152	36.98	6.39
	0	51	11	153	25.07	7.47
	0	51	40	158	17.74	4.7
	0	51	51	159	167.62	29.22
	0	52	7	160	126.1	21.88
	0	52	23	162	25.14	6.76
	0	52	45	165	8.36	3.25
	0	53	8	169	4.27	2.91
	0	53	19	171	16.71	4.43
	0	53	38	173	19.62	5.28
	0	53	56	175	35.73	7.98
	0	54	34	180	22.49	4.78

Mass	Retention time			No	Peak Area	Height
	Hr	Min	Sec			
231.1174	0	42	15	26	454.65	111.51
	0	42	24	27	127.76	39.91
	0	42	34	28	598.84	103.35
	0	42	42	29	382.31	69.05
	0	42	58	30	476.39	97.32
	0	43	16	32	119.08	40.92
	0	43	27	33	143	45.37
	0	43	38	34	269.68	59.87
	0	43	45	35	168.46	53.15
	0	44	7	38	210.14	46.19
	0	44	15	39	2189.45	606.34
	0	44	41	40	673.04	149.9
	0	46	9	41	2425.63	643.44
	0	47	7	43	162.36	44.2
	0	48	1	45	288.95	82.5
	0	48	16	47	257.86	70.92
	0	53	12	51	237.94	58.5
	0	53	21	52	1569.63	401.03
	0	54	19	53	104.37	33.81
	0	54	34	54	6099.62	1427.8
	0	55	23	58	303.48	83.28
	0	55	35	59	3894.6	693.82
	0	56	6	61	3711.04	665.63
	0	56	15	62	387.74	105.42
	0	56	21	63	1075.38	245.12
	0	56	31	64	419.91	124.52
	0	56	56	66	249.66	69.7
	0	57	21	68	3693.23	717.07
	0	58	22	71	848.78	202.66
	0	58	35	72	267.7	48.46
	0	58	48	73	146	39.98

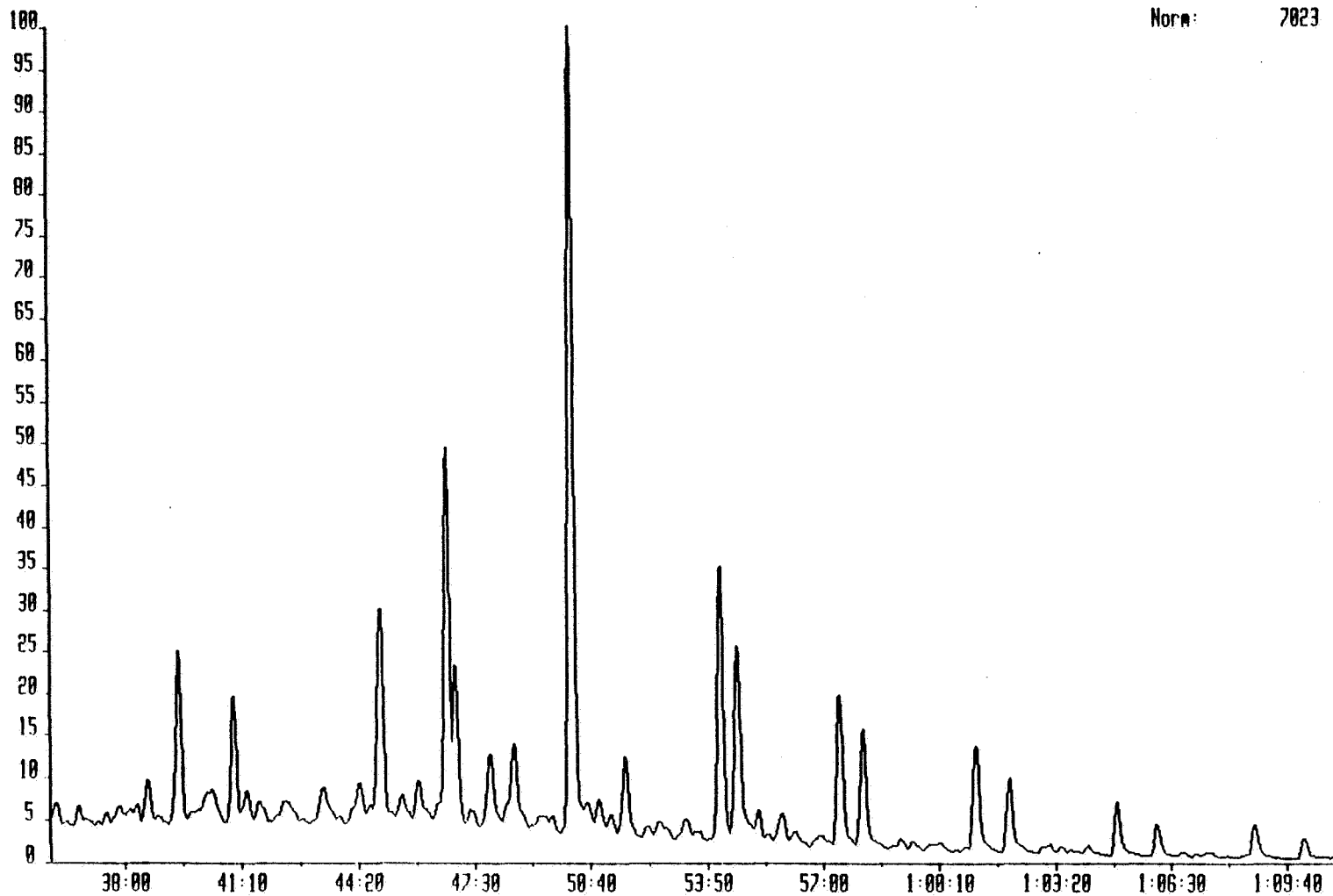
234601 8-JUL-91 Str:Voltage 70H Sys: ARO
Sample 1 Injection 1 Group 1 Mass 177.1790
Text:1-26-20 Saturates

Norm: 1970



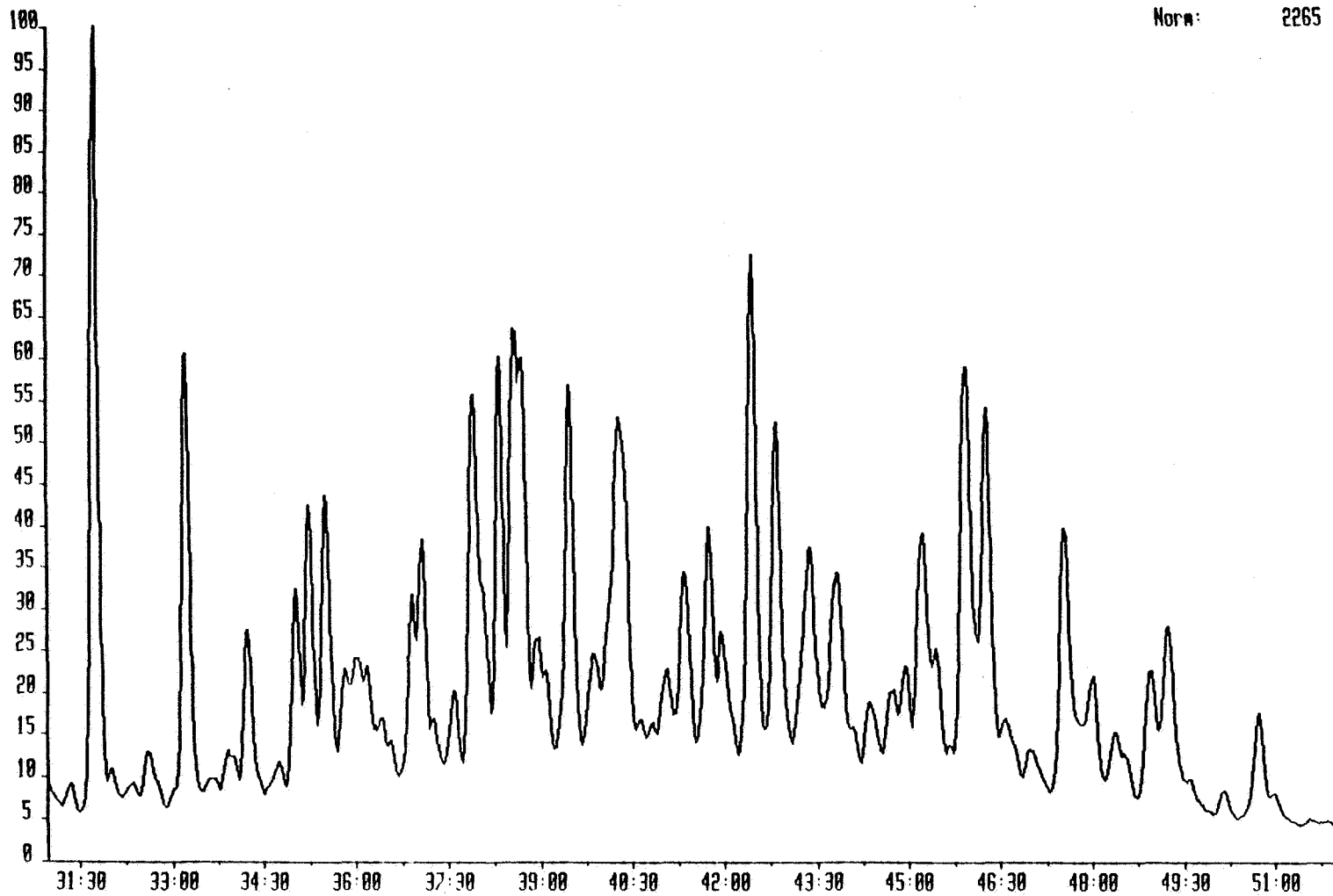
234601 8-JUL-91 Sir:Voltage 78H Sys: ARO
Sample 1 Injection 1 Group 1 Mass 191.1798
Text:1-26-20 Saturates

Norm: 7023

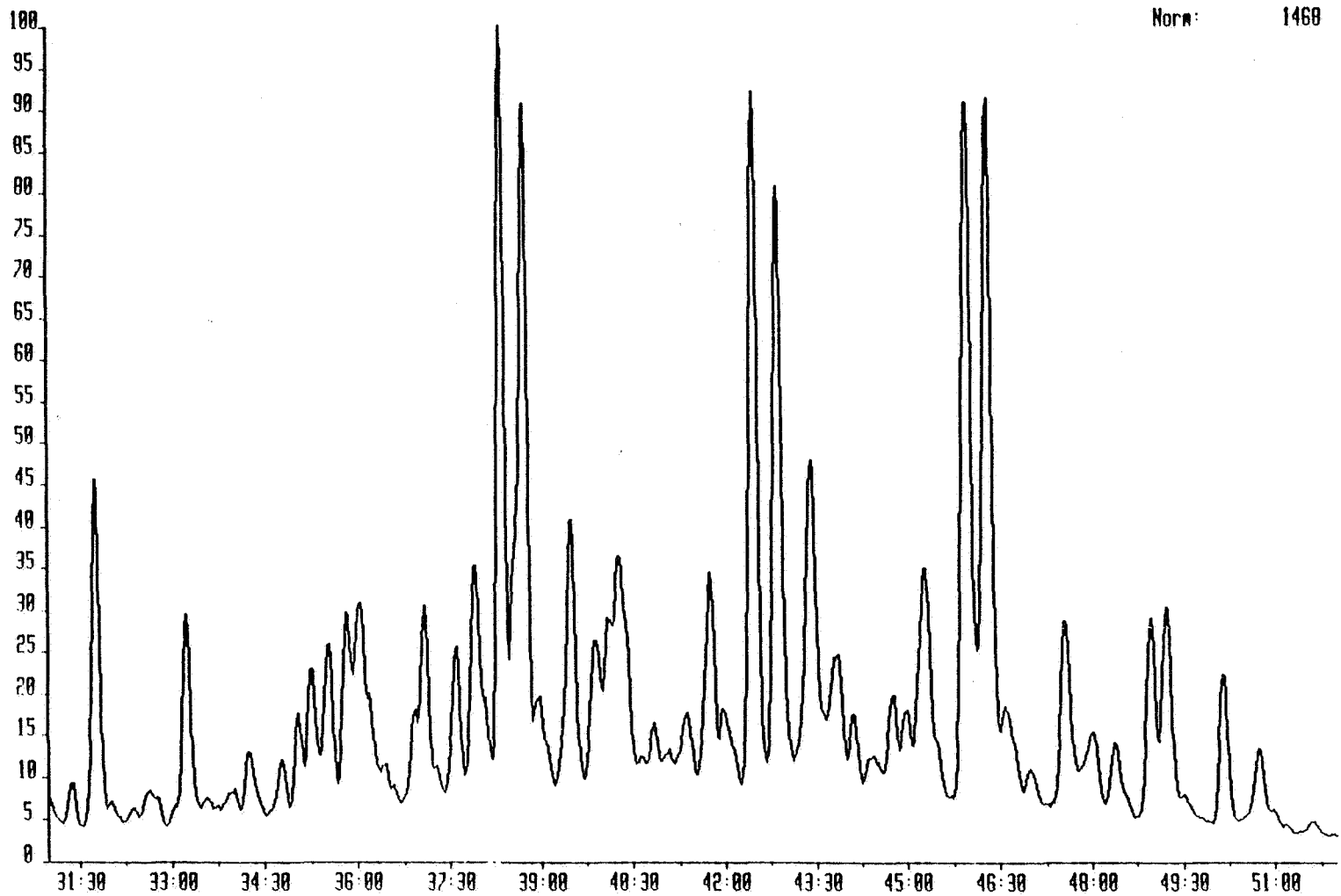


234681 8-JUL-91 Str:Voltage 70H Sys: ARO
Sample 1 Injection 1 Group 1 Mass 217.1956
Text:1-26-20 Saturates

Norm: 2265



234001 8-JUL-91 Sir:Voltage 70H Sys: ARO
Sample 1 Injection 1 Group 1 Mass 210.2034
Text: 1-26-20 Saturates



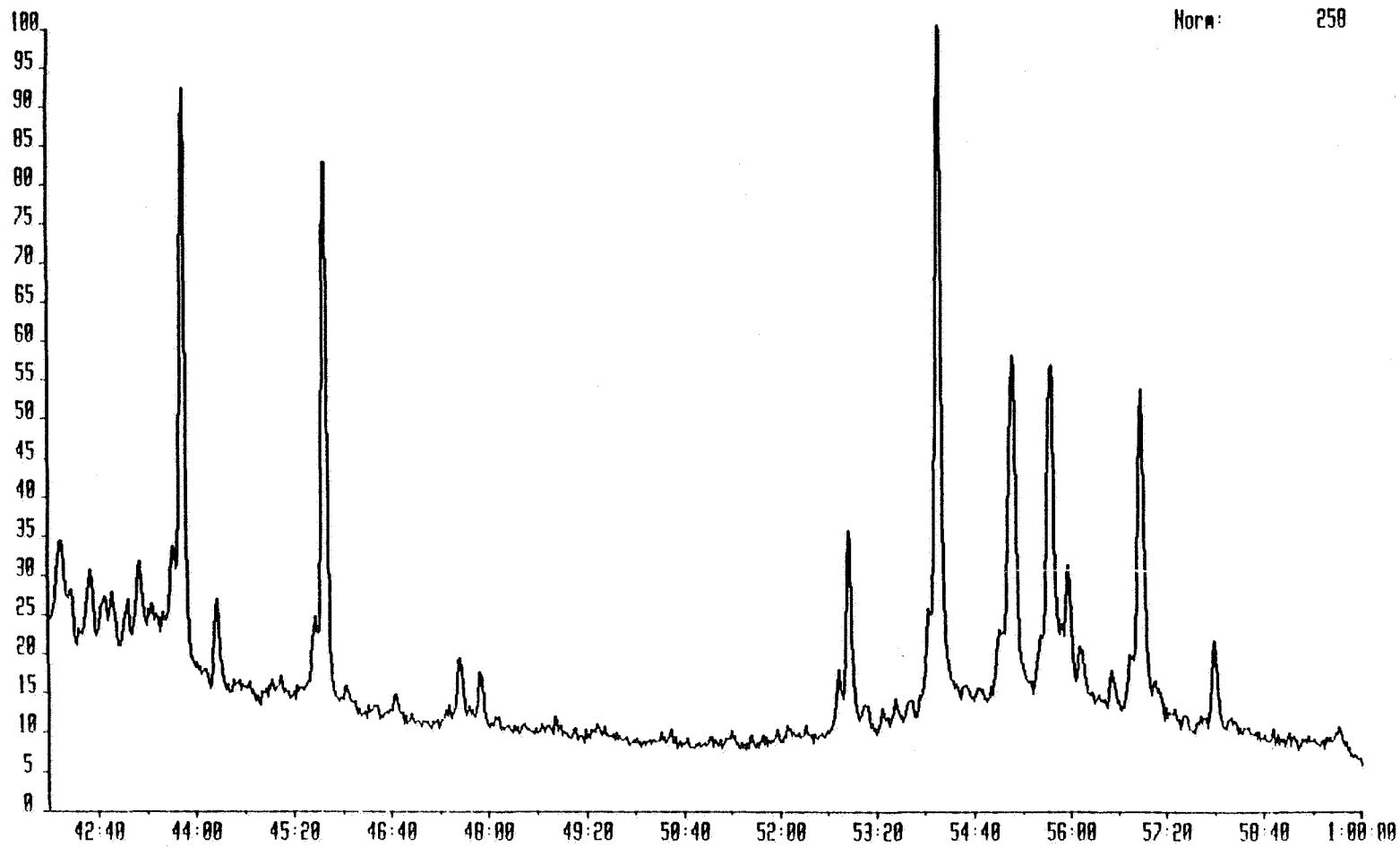
Mass	Retention time			No	Peak	
	Hr	Min	Sec		Area	Height
177.1798						
	0	36	27	131	947.38	93.62
	0	36	56	133	1165.99	169.47
	0	37	5	134	1306.6	183.36
	0	37	15	135	357.2	71.84
	0	37	58	137	1874.44	170.15
	0	38	4	139	1400.01	176.97
	0	38	19	140	1247.38	191.82
	0	38	36	141	4319.93	416.74
	0	38	59	142	313.9	52.99
	0	39	9	143	149.37	30.89
	0	39	28	145	2883.28	390.27
	0	39	47	146	639.95	62.86
	0	40	21	147	21148.42	1459.78
	0	40	58	148	1197.75	165.63
	0	41	22	149	2848.44	176.05
	0	41	45	150	2818.23	241.72
	0	42	8	151	613.9	89.29
	0	42	28	152	4294.42	332.19
	0	42	50	153	961.62	110.47
	0	43	23	154	2698.85	252
	0	43	47	156	242.21	41.01
	0	44	2	157	705.04	112.06
	0	44	21	158	1950.33	178.09
	0	44	55	159	5616.86	561.57
	0	45	29	161	1195.63	122.5
	0	45	56	162	3982.94	319.6
	0	46	15	163	752.88	97.37
	0	46	44	164	11560.16	1400.71
	0	46	58	165	8301.26	915.74
	0	47	23	166	799.27	83.88
	0	47	57	167	1267.3	72.57
	0	48	34	168	4290.72	442.88
	0	48	56	170	126.46	26.64
	0	49	16	171	1048.17	77.44
	0	49	37	172	196.87	40.33
	0	50	9	173	5784.97	628.15
	0	50	36	174	786.74	71.96
	0	51	3	175	1132.97	80.37
	0	51	36	176	513.1	58.78
	0	52	16	177	153.12	20.36
	0	52	33	178	405.66	42.08
	0	53	17	179	242.36	29.23
	0	54	12	180	2027.73	244.02
	0	54	38	181	1268.22	156.18
	0	55	53	182	257.33	37.93
	0	57	28	183	1421.98	141.69
	0	58	6	184	1047.46	111.3
	1	1	10	185	880.58	96.98
	1	2	4	186	586.35	64.84
	1	5	1	187	348.79	43.69

Mass	Retention time			No	Peak	
	Hr	Min	Sec		Area	Height
177.1798	1	6	7	188	153.36	21.56
	1	8	48	189	111.78	17.42
191.1798						
	0	36	8	38	896.87	132.46
	0	36	45	39	893.91	137.91
	0	37	30	40	486.41	86.23
	0	37	50	41	476.84	74.64
	0	38	19	42	338.39	79.1
	0	38	37	43	2701.59	323.79
	0	39	28	44	11659.19	1401.41
	0	40	21	45	3132.16	189.17
	0	40	58	46	7572.24	994.66
	0	41	19	47	1259	177.45
	0	41	39	48	1469.87	139.77
	0	42	25	49	1626.38	106.2
	0	43	22	50	1765.25	197.49
	0	44	9	51	201.77	43.62
	0	44	21	52	1582.89	215.53
	0	44	55	53	16451.53	1697.99
	0	45	30	54	927.4	137.02
	0	45	57	55	2302.11	273.3
	0	46	44	57	25099.98	3039.96
	0	46	58	58	10824.09	1251.42
	0	47	23	59	945.89	103.45
	0	47	56	60	5235.19	534.59
	0	48	34	61	6039.47	583.79
	0	50	9	62	57180.25	6667.8
	0	50	54	63	1453.07	197.83
	0	51	13	64	627.67	100.73
	0	51	36	65	5199.42	600.67
	0	52	31	66	457.8	67.05
	0	53	13	67	1013.38	117.88
	0	54	12	68	19410.97	2242.92
	0	54	39	69	13588.7	1513.93
	0	55	13	70	1193.57	178.06
	0	55	52	71	2123.89	211.07
	0	57	27	72	11406.06	1215.18
	0	58	6	73	8050.29	913.47
	1	1	10	74	7888.4	821.17
	1	2	4	75	4886.63	562.34
	1	5	1	76	3457.81	405.04
	1	6	8	77	1961.3	231.74
	1	8	48	78	1951.06	230.64
	1	10	9	79	1042.93	135.59

Mass	Retention time			No	Peak	
	Hr	Min	Sec		Area	Height
217.1956						
	0	31	22	84	398.98	63.49
	0	31	45	85	16423	2120.83
	0	32	1	86	644.25	88.51
	0	32	22	87	270.52	38.64
	0	32	37	88	1430.34	127.62
	0	33	14	89	9820.46	1205.14
	0	33	39	90	358.43	35.95
	0	33	55	91	1323.47	109.3
	0	34	14	92	3940.25	438.48
	0	34	45	93	579.53	69.39
	0	35	2	94	4206.76	519.85
	0	35	15	95	5886.51	726.24
	0	35	31	96	6364.21	728.66
	0	35	49	97	1213.44	225.82
	0	36	0	98	2916.72	239.17
	0	36	11	99	1639.62	198.38
	0	36	55	100	3732.6	481.22
	0	37	5	101	5262.3	632.3
	0	37	16	102	970.29	139.65
	0	37	36	103	1663.32	206.02
	0	37	55	104	13102.17	1003.87
	0	38	20	105	8585.64	1098.32
	0	38	35	106	19087.63	1167.37
	0	38	59	107	4551.79	317.53
	0	39	28	108	8867.05	991.98
	0	39	52	109	2692.56	254.15
	0	40	17	110	15535.21	889.91
	0	40	38	111	345.22	59.18
	0	40	50	112	260.31	48.69
	0	41	4	113	1862.84	199.42
	0	41	21	114	4886.5	462.92
	0	41	45	115	5551.71	601.57
	0	41	57	116	3497.62	323.99
	0	42	28	117	12572.53	1351.05
	0	42	51	118	8355.23	882.03
	0	43	23	119	5890.9	480.24
	0	43	50	120	3970.08	378.67
	0	44	21	122	1762.74	164.27
	0	44	45	123	2025.45	189.41
	0	44	56	124	2225.38	247.13
	0	45	14	125	7361.12	600.45
	0	45	27	126	2182.17	286.73
	0	45	56	127	12614.71	1057.78
	0	46	17	128	10150.84	971.23
	0	46	35	129	2127.46	149.78
	0	46	59	130	1352.52	98.32
	0	47	32	131	6462.49	637.21
	0	48	1	132	1470.88	197.19
	0	48	24	133	2261.24	146.79
	0	48	57	134	3775.05	331.59

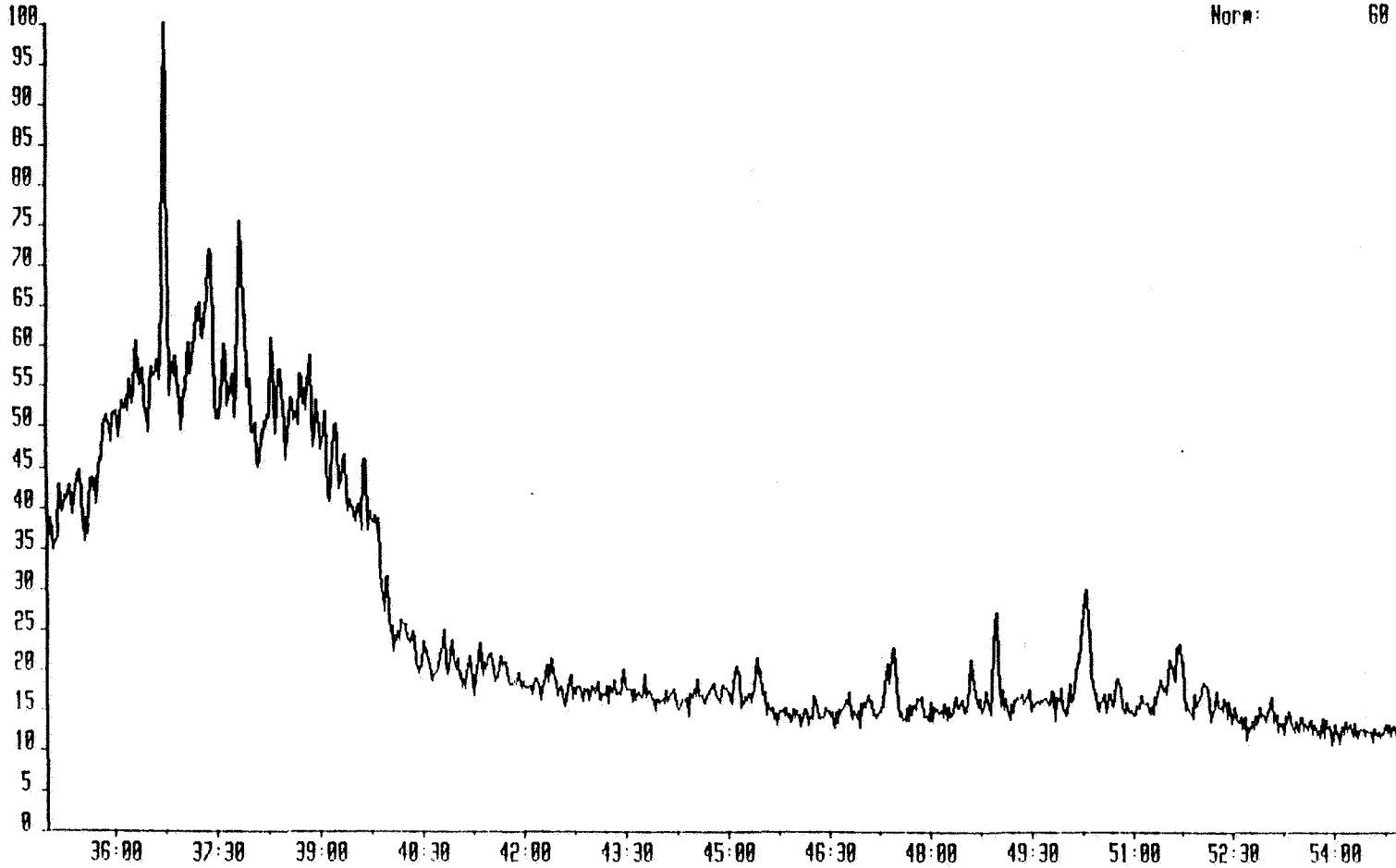
Mass	Retention time			No	Peak	
	Hr	Min	Sec		Area	Height
217.1956	0	49	15	135	5117.67	433.17
	0	50	9	136	535.78	63.59
	0	50	44	137	2254.65	246.39
218.2034	0	31	22	70	557.61	74.31
	0	31	45	71	4506.92	591.26
	0	32	37	72	714.62	50.25
	0	33	14	73	2976.12	348.75
	0	33	33	74	59.63	13.3
	0	33	59	75	237.55	31.39
	0	34	14	76	1076	106.93
	0	34	45	77	613.49	84.95
	0	35	2	78	1228.68	159.37
	0	35	15	79	2050.55	230.69
	0	35	31	80	2374.56	262.28
	0	35	49	81	2776.9	304.22
	0	36	3	82	4034.02	310.73
	0	37	5	83	4243.63	335.88
	0	37	36	84	2267.54	260.41
	0	37	54	85	5012.11	398.42
	0	38	20	86	10717.45	1347.29
	0	38	43	87	13481.46	1207.32
	0	38	59	88	1955.15	162.21
	0	39	29	89	4453.06	463.43
	0	39	51	90	2316.63	239.1
	0	40	5	91	2043.67	272.29
	0	40	15	92	5244.98	376.03
	0	40	50	93	450.15	71.79
	0	41	4	94	162.21	26.02
	0	41	21	95	904.69	99.31
	0	41	45	96	3552.46	362.5
	0	41	57	97	1548.73	127.6
	0	42	28	98	10881.08	1217.14
	0	42	51	99	10158.12	1051.41
	0	43	25	100	7757.41	569.57
	0	43	50	101	2989.21	229.54
	0	44	6	102	1016.04	124.53
	0	44	21	103	453.59	41.24
0	44	46	104	1221.62	143.16	
0	44	58	105	1168.72	124.43	
0	45	16	106	5376.57	385.83	
0	45	57	107	12597.53	1221.59	
0	46	17	108	12907.52	1231.59	
0	46	35	109	2401.25	167.8	
0	46	58	110	611.68	59.19	
0	47	32	111	2877.58	296.61	
0	48	1	112	962.74	97.25	
0	48	22	113	1291.15	115.04	
0	48	58	114	3203.41	335.22	
0	49	14	115	3366.64	343.26	
0	50	9	116	2281.62	258.57	
0	50	44	117	967.77	112.24	

234682 9-JUL-91 Sir:Voltage 70H Sys: 190GA
Sample 1 Injection 1 Group 1 Mass 231.1174
Text:1-26-20 Aromatics



234682 9-JUL-91 Sir:Voltage 70H Sys: 1906R
Sample 1 Injection 1 Group 1 Mass 253.1956
Text:1-26-20 Aromatics

Norm: 68



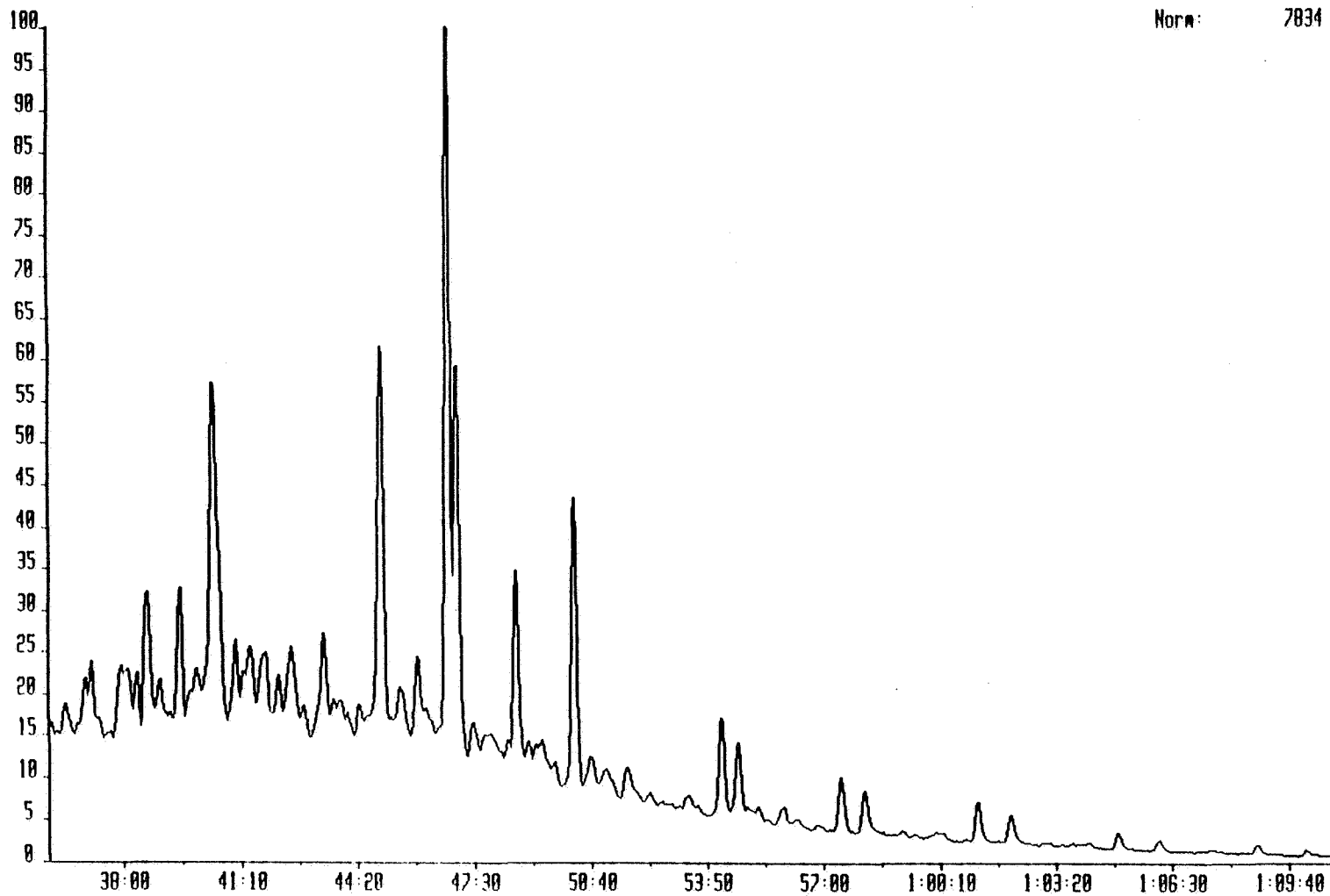
Mass	Retention time			No	Peak	
	Hr	Min	Sec		Area	Height
253.1956						
	0	35	10	47	10.7	4.33
	0	35	19	49	13	3.19
	0	35	28	50	30.63	5.76
	0	35	38	51	8.78	3.48
	0	35	50	52	15.25	3.07
	0	35	57	53	9.47	3.27
	0	36	19	57	16.9	5.06
	0	36	32	60	8.28	3.16
	0	36	44	61	121.48	29.94
	0	36	51	62	13.7	4.66
	0	36	53	63	15.33	5.29
	0	37	5	64	10.61	3.31
	0	37	11	65	7.79	4.34
	0	37	24	67	40.91	9.52
	0	37	35	68	20.31	6.53
	0	37	50	70	103.84	15.87
	0	38	17	72	54.51	8.86
	0	38	24	73	28.21	5.63
	0	38	43	76	36.83	6.74
	0	38	50	77	42.19	9.54
	0	38	56	78	30.86	7.07
	0	39	4	79	27.59	7.47
	0	39	13	80	23.37	6.2
	0	39	21	81	21.15	4.74
	0	39	39	85	16.59	5.86
	0	40	31	88	8.94	2.58
	0	40	48	89	14.43	3.8
	0	40	55	90	7.16	2.61
	0	41	11	91	5.98	2.69
	0	41	20	92	15.09	3.95
	0	41	30	93	14.93	3.03
	0	41	40	94	5.65	2.32
	0	42	24	99	21.09	3.11
	0	42	41	100	6.01	2.41
	0	42	46	101	2.96	1.35
	0	43	28	108	5.52	2.33
	0	43	58	113	2.05	0.81
	0	44	33	121	4.28	2.39
	0	44	44	122	8.87	2.12
	0	44	57	124	4.85	1.6
	0	45	7	125	17.4	3.91
	0	45	26	127	20.9	4.35
	0	45	50	131	3.89	1.51
	0	46	58	141	4.16	1.72
	0	47	19	143	4.53	2.02

Mass	Retention time			No	Peak	
	Hr	Min	Sec		Area	Height
253.1956	0	47	27	144	19.63	4.38
	0	47	52	147	5.81	1.48
	0	48	1	148	2.29	1.73
	0	48	23	150	5.09	1.47
	0	48	36	151	17.08	4.33
	0	48	49	152	11.83	2.55
	0	49	7	153	2.47	1.71
	0	49	14	155	4.17	1.56
	0	49	33	157	2.24	1.15
	0	50	19	160	84.93	9.2
	0	50	34	161	4.44	1.88
	0	50	46	163	15.51	3.3
	0	50	54	164	8.16	2.35
	0	51	7	167	4.68	1.84
	0	51	21	169	4	1.78
	0	51	33	171	6.84	2.52
	0	51	42	172	21.8	4.12
	0	52	3	173	24.18	3
	0	52	15	174	8.4	2.69
	0	53	15	183	7.97	1.69
0	53	28	185	2.18	1.89	
0	53	49	187	4.45	1.6	
0	54	9	189	8.15	1.62	
231.1174	0	42	9	115	147.13	23.87
	0	42	24	116	22.3	6.8
	0	42	34	117	119.74	23.81
	0	42	45	118	91.84	15.82
	0	42	51	119	79.47	18.15
	0	43	4	120	74.44	16.62
	0	43	14	121	147.58	26.78
	0	43	23	122	81.4	12.08
	0	43	41	124	56.1	14.87
	0	43	49	125	695.93	173.43
	0	44	17	126	145.47	30.38
	0	44	53	129	31.03	5.9
	0	45	8	130	9.59	5.83
	0	45	35	135	28.19	8.24
	0	45	45	136	677.87	164.82
	0	46	3	137	25.72	6.49
	0	46	27	139	26.14	5.36
	0	46	42	141	30.2	7.77
	0	47	36	146	154.95	21.93
	0	47	52	148	76.67	16.53
0	48	8	149	26.08	5.88	
0	48	54	153	13.77	6.26	

Mass	Retention time			No	Peak	
	Hr	Min	Sec		Area	Height
231.1174	0	49	28	157	15.98	4.53
	0	50	29	163	12.54	4.83
	0	51	19	168	23.65	5.34
	0	52	6	174	13.95	4.57
	0	52	49	178	130.17	21.32
	0	52	57	179	319.53	65.11
	0	53	13	180	45.75	8.62
	0	53	25	181	21.09	6.97
	0	53	36	182	39.72	9.87
	0	53	49	183	42.3	7.08
	0	54	11	184	1518.19	225.55
	0	54	33	185	33.2	6.07
	0	54	47	186	17.21	4.8
	0	55	1	189	23.37	8.24
	0	55	12	190	612.6	99.23
	0	55	43	191	618.41	95.94
	0	55	59	192	118.59	30.99
	0	56	8	193	73.14	16.23
	0	56	34	195	62.83	12.94
	0	56	58	196	738.58	103.55
	0	57	11	197	21.37	5.44
0	57	35	199	10.53	4.74	
0	58	0	203	153.02	30.37	
0	58	14	204	37.18	6.33	
0	59	41	213	34.24	6.85	

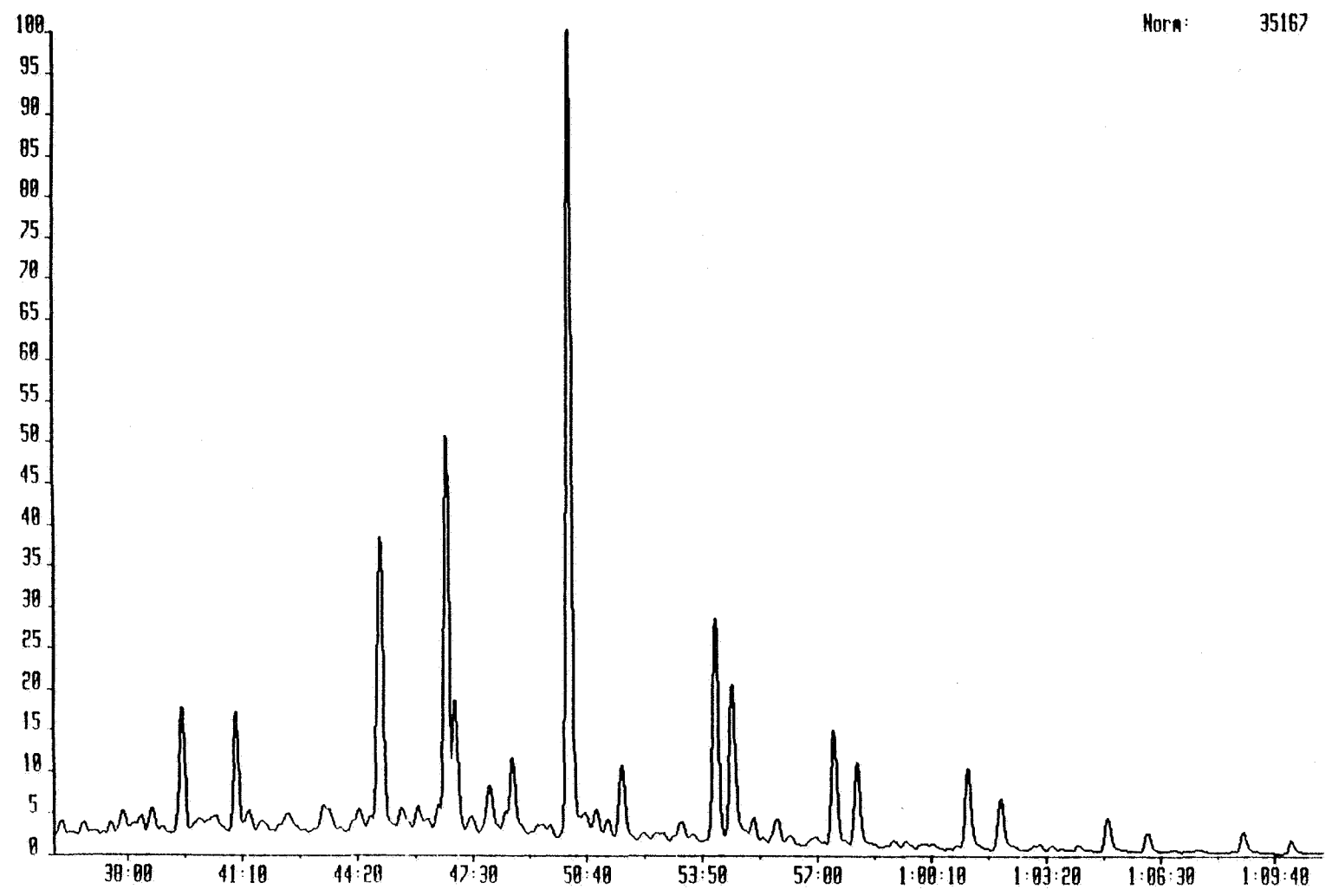
234603 8-JUL-91 Str:Voltage 70H Sys: PRO
Sample 1 Injection 1 Group 1 Mass 177.1798
Text: 1-26-21 Saturates

Norm: 7834



234683 8-JUL-91 Sin:Voltage 78H Sys: ARO
Sample 1 Injection 1 Group 1 Mass 191.1798
Text:1-26-21 Saturates

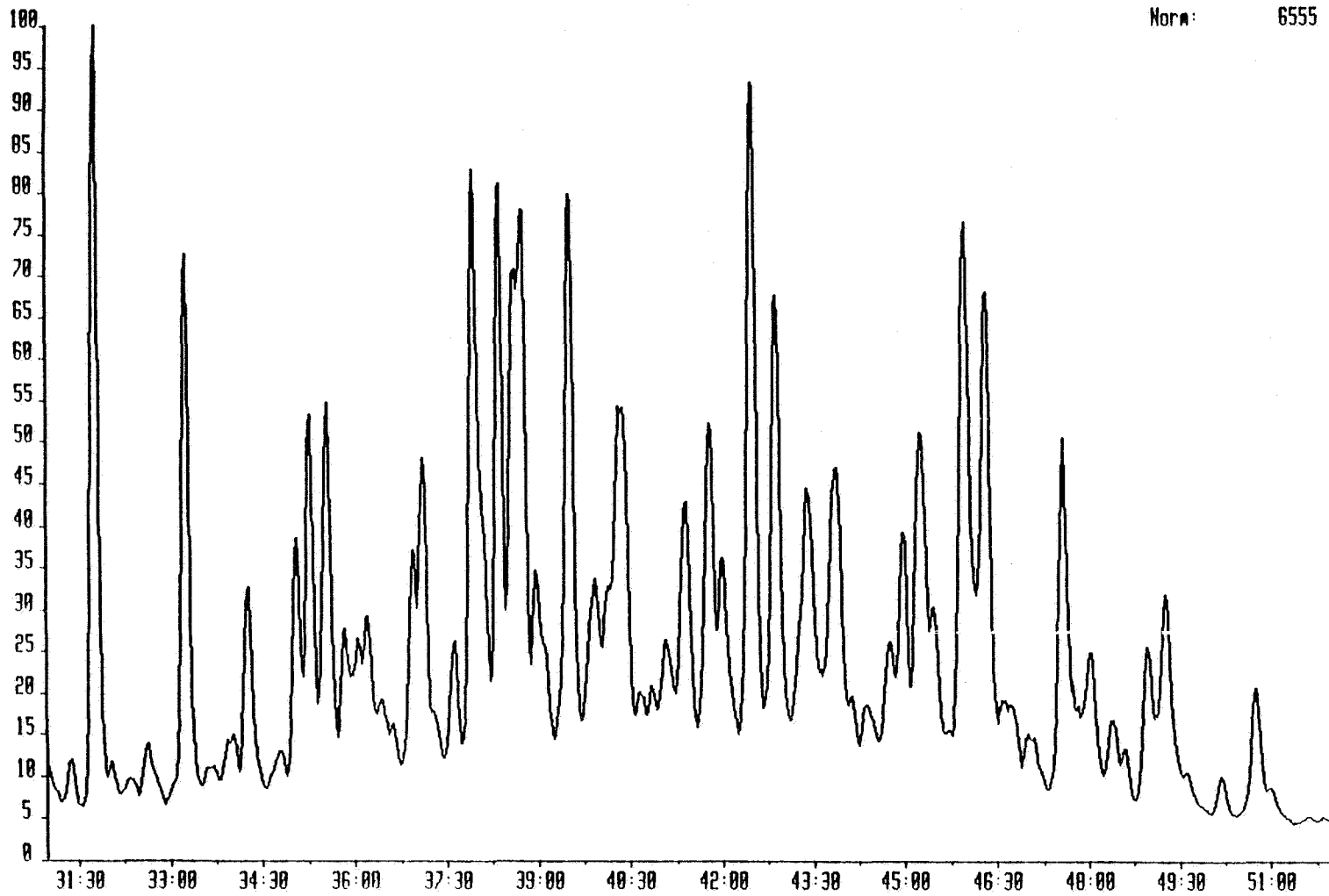
Norm: 35167



Company : Saga Petroleum A.S. Well : 34/7-17a Depth : 2499m
RL/MEMO/564 GC/MS APPENDIX PAGE 28 OF 75

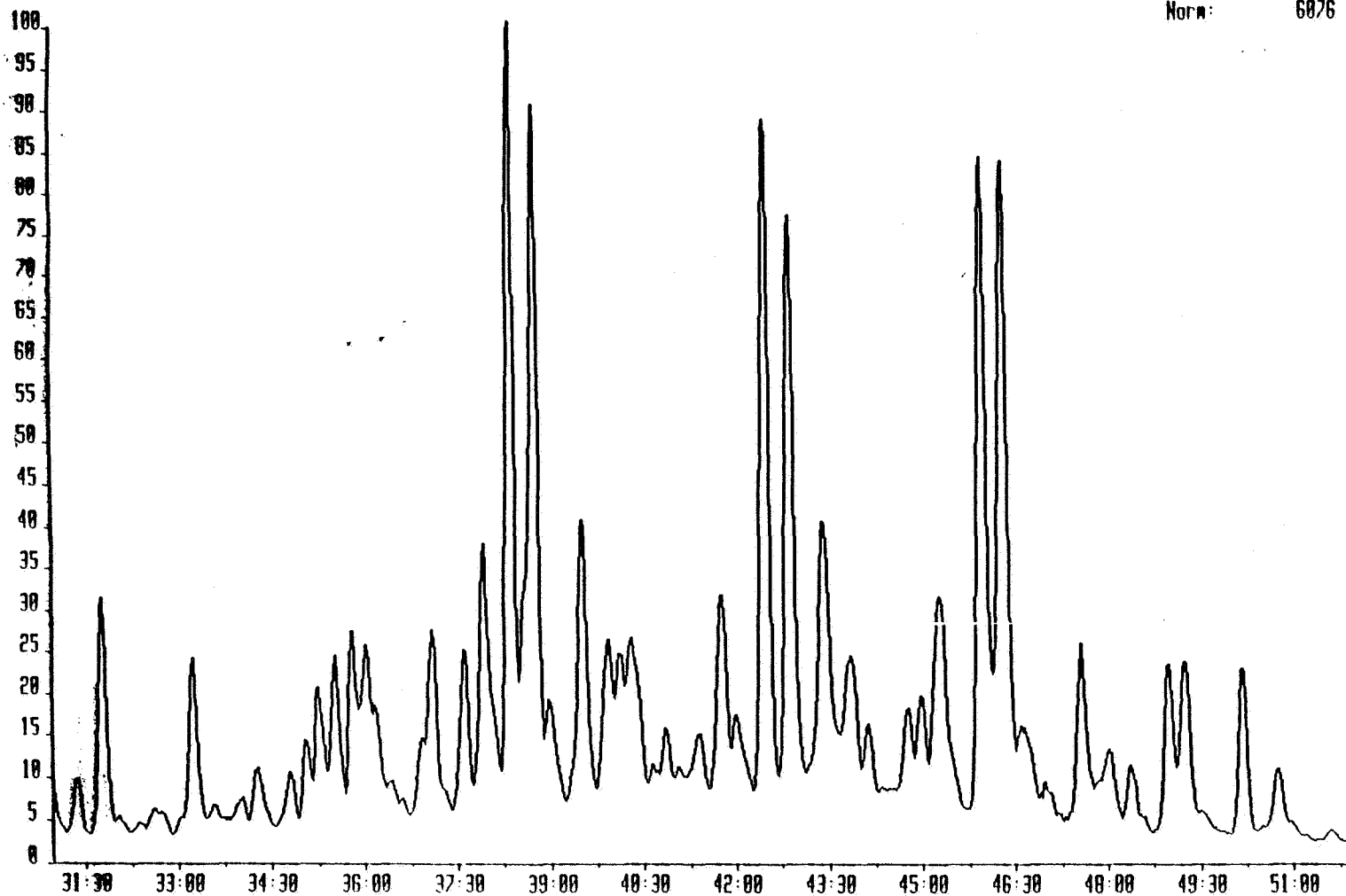
234683 0-JUL-91 Sir:Voltage 78H Sys: ARO
Sample 1 Injection 1 Group 1 Mass 217.1956
Text:1-26-21 Saturates

Norm: 6555



234683 8-JUL-91 Sir:Voltage 70H Sys: ARO
Sample 1 Injection 1 Group 1 Mass 210.2034
Text:1-26-21 Saturates

Norm: 6076



Mass	Retention time			No	Peak	
	Hr	Min	Sec		Area	Height
177.1798						
	0	36	26	127	2866.52	320.86
	0	36	58	128	4696.12	543.94
	0	37	7	129	5298.23	708.03
	0	37	19	130	1370.43	201.39
	0	37	56	131	13745.49	692.55
	0	38	21	132	4187.18	577.75
	0	38	38	133	12940.87	1273.01
	0	38	58	134	2789.22	374.42
	0	39	31	135	8737.81	1249.65
	0	39	56	136	7283.28	503.73
	0	40	23	137	48792.64	3195.43
	0	40	59	138	7096.67	789.21
	0	41	13	139	4383.09	497.33
	0	41	24	140	7145	728.69
	0	41	48	141	9707.99	668.42
	0	42	9	142	3245.24	441.03
	0	42	30	143	11282.58	777.5
	0	42	50	144	2059.71	293.42
	0	43	24	145	9799.93	924.48
	0	43	40	146	1855.95	287.35
	0	43	49	147	2584.66	258.11
	0	44	21	148	1913.59	265.33
	0	44	57	150	34246.57	3520.63
	0	45	30	151	4213.21	385.1
	0	45	56	152	5635.49	671.74
	0	46	46	153	55649.77	6693.1
	0	47	0	154	32682.84	3593.43
	0	47	27	155	3566.14	343.58
	0	47	46	156	1413.24	209.93
	0	47	54	157	2471.5	197.29
	0	48	23	158	1146.51	176.02
	0	48	36	159	14140.75	1774.46
	0	48	56	160	1120.38	197.65
	0	50	11	162	23053.73	2698.52
	0	50	38	163	2641.46	264.41
	0	51	3	164	863.32	119.04
	0	51	36	165	2560.63	252.88
	0	53	18	166	912.18	105.12
	0	54	13	167	7393.14	873.88
	0	54	40	168	4807.54	618.27
	0	55	54	169	1164.63	135.09
	0	57	28	170	4014.71	475.29
	0	58	7	171	3062.6	348.09
	1	1	10	172	2980.77	343.81
	1	2	5	173	1778.83	216.3
	1	5	0	174	851.85	117.46

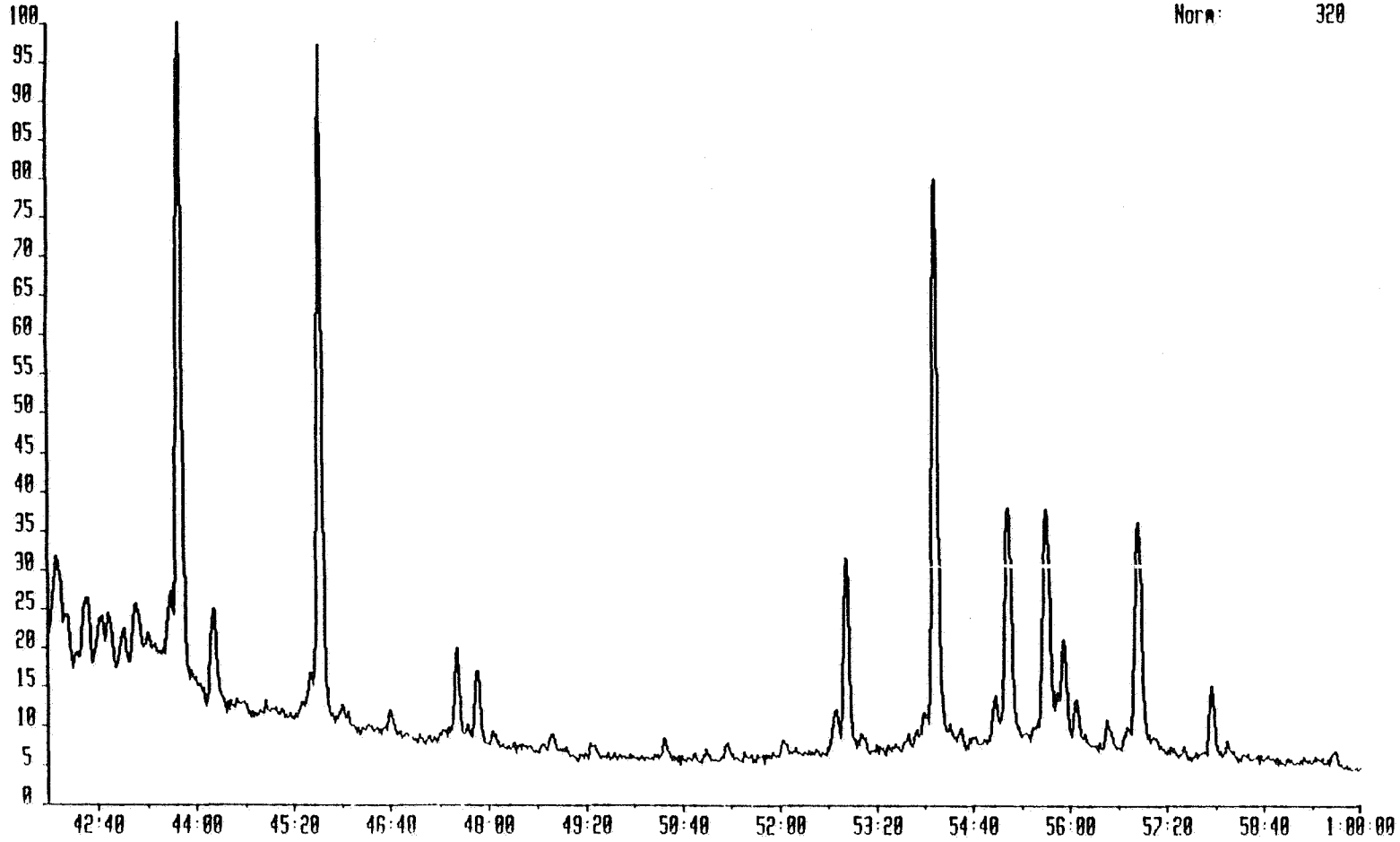
Mass	Retention time			No	Peak	
	Hr	Min	Sec		Area	Height
191.1798						
	0	36	10	16	3311.56	514.4
	0	36	47	17	2312.79	372.56
	0	37	31	18	2141.53	392.03
	0	37	50	19	4951.49	663.06
	0	38	40	20	7454.03	904.96
	0	39	30	21	41293.79	5131.59
	0	40	59	22	36147.82	4867.64
	0	43	24	23	12500.09	885.75
	0	44	22	24	3430.32	514.29
	0	44	57	26	112826.5	12082.38
	0	45	31	27	4604.28	624.25
	0	45	59	28	5418.64	719.45
	0	46	32	29	6291.06	928.27
	0	46	46	30	142729.7	16674.77
	0	47	0	31	48014.37	5449.75
	0	47	27	32	4215.62	513.16
	0	47	57	33	16127.22	1709.34
	0	48	24	34	2393.34	451.38
	0	48	36	35	18665.93	2550.4
	0	50	11	36	276437.0	33945.97
	0	50	54	37	5766.33	788.65
	0	51	14	38	4454.57	625.78
	0	51	38	39	25569.12	2878.9
	0	53	16	40	4905.52	553.55
	0	54	13	41	80565.46	9309.98
	0	54	39	42	54106.69	6226.76
	0	55	14	43	4871.22	721.26
	0	55	53	44	7431.63	801.88
	0	57	27	45	40481.95	4735.68
	0	58	6	46	29157.19	3297.64
	1	1	10	47	28282.77	3184.27
	1	2	5	48	17532.42	1974.52
	1	5	1	49	10805.25	1266.36
	1	6	8	50	5760.65	673.26
	1	8	48	51	5361.98	677.77
	1	10	8	52	1857.41	316.97

Mass	Retention time			No	Peak Area	Height
	Hr	Min	Sec			
217.1956						
	0	31	23	82	2261.56	338.38
	0	31	46	83	47892.57	6107.29
	0	32	2	84	1708.48	277.22
	0	32	22	85	913.48	116.64
	0	32	37	86	4854.1	434.5
	0	33	15	87	34465.55	4278.83
	0	33	42	88	3305.84	235.9
	0	34	1	89	6148.23	477.89
	0	34	16	90	15083.75	1625.72
	0	34	47	91	3791.67	318.9
	0	35	2	92	16342.97	1982.96
	0	35	16	93	25075.45	2940.84
	0	35	33	94	28400.02	3030.66
	0	35	50	95	10695.17	1245.4
	0	36	2	96	11310.06	1166.25
	0	36	12	97	13692.44	1330.39
	0	36	25	98	9992.46	662.6
	0	36	57	99	14485.7	1812.27
	0	37	7	100	26595.72	2528.31
	0	37	38	101	10140.13	1078.17
	0	37	56	102	59626.42	4767.24
	0	38	22	103	38222.38	4641.85
	0	38	45	104	73979.29	4428.15
	0	38	58	105	21154.67	1574.67
	0	39	31	106	44860.88	4513.66
	0	39	56	107	18646.45	1475.37
	0	40	19	108	53205.62	2818.52
	0	40	39	109	5257.55	568.86
	0	40	51	110	4757.18	601.99
	0	41	4	111	12399.51	960.9
	0	41	24	112	23145	2019.62
	0	41	47	113	27595.43	2614.28
	0	42	0	114	17498.01	1560.33
	0	42	29	115	52095.14	5274.11
	0	42	52	116	37504.13	3587.22
	0	43	24	117	32504.24	2057.46
	0	43	53	118	31921.71	2201
	0	44	8	119	2012.58	405.45
	0	44	22	120	3424.37	327.87
	0	44	45	121	7430.16	805.35
	0	44	58	122	14995.42	1641.96
	0	45	15	123	28632.9	2394.53
	0	45	28	124	8153.54	1027.68
	0	45	59	125	46419.66	4100.78
	0	46	19	126	37555	3638.72
	0	46	38	127	8833.69	531.08
	0	47	1	128	4711.79	352.19
	0	47	36	129	22204.32	2469.4
	0	48	2	130	6132.22	725.51
	0	48	23	131	4455.73	492.59
	0	48	35	132	2492.78	342.82

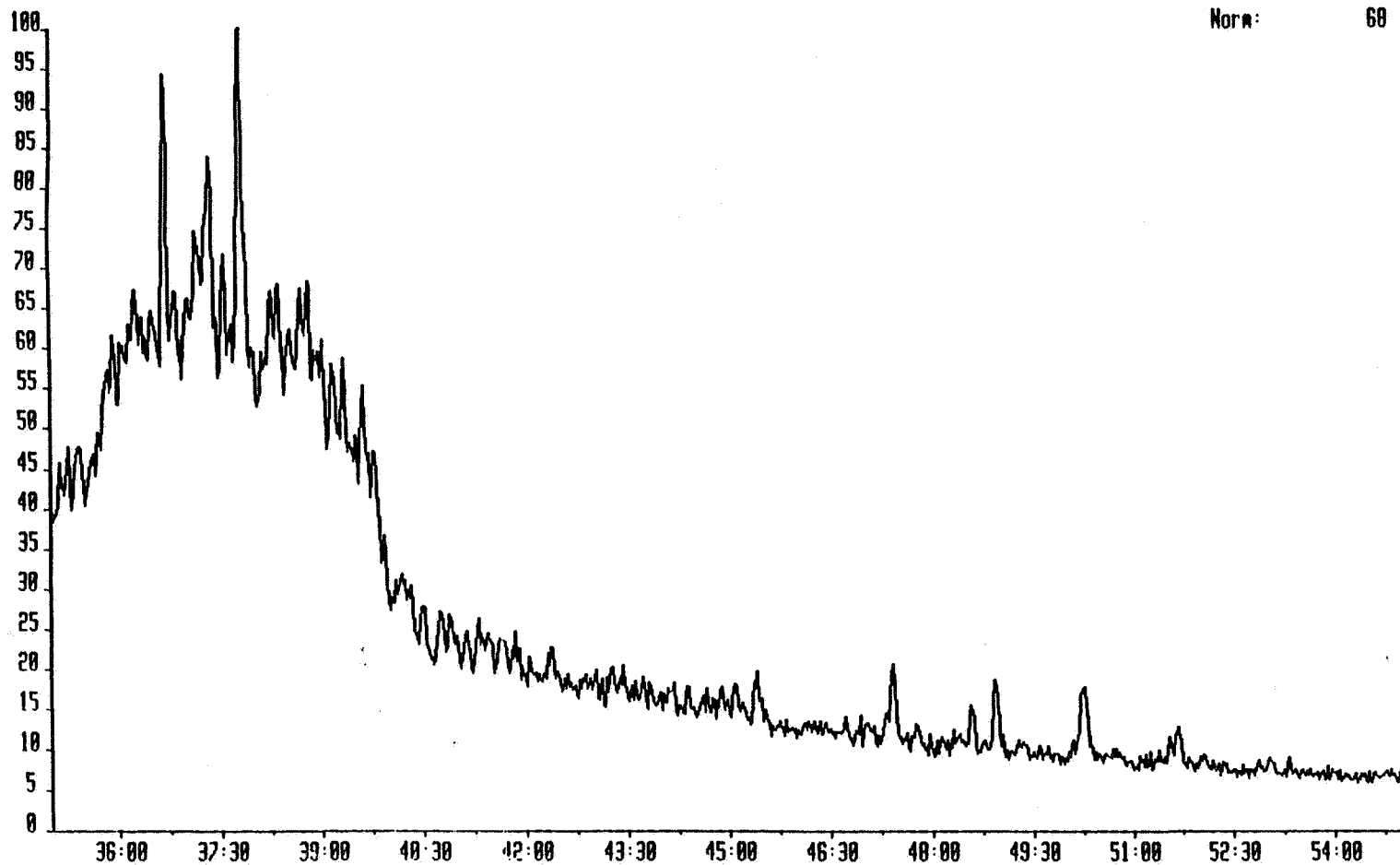
Mass	Retention time			No	Peak	
	Hr	Min	Sec		Area	Height
217.1956	0	48	58	133	12911.62	1161.56
	0	49	17	134	16619.9	1505.06
	0	50	10	135	2239.89	279.69
	0	50	46	136	7997.37	870.04
218.2034	0	31	23	57	2644.28	371.06
	0	31	46	58	12873.92	1652.61
	0	32	44	59	1795.27	127.34
	0	33	15	60	9792.31	1191.37
	0	33	35	61	348.43	78.42
	0	34	1	62	1081.56	150.41
	0	34	16	63	3714.45	392.16
	0	34	47	64	2537.7	329.55
	0	35	2	65	4103.46	534.8
	0	35	16	66	8009.29	885.32
	0	35	33	67	8999.25	1072.87
	0	35	49	68	9702.73	1212.49
	0	36	2	69	14479.76	1081.18
	0	37	7	70	16198.24	1306.35
	0	37	38	71	9770.6	1150.34
	0	37	56	72	22236.92	1909.55
	0	38	22	73	45460.67	5675.42
	0	38	45	74	52960.8	5064.91
	0	38	58	75	7304.25	743.69
	0	39	31	76	19291.44	2003.24
	0	39	56	77	11469.05	1105.44
	0	40	8	78	8444.85	987.33
	0	40	19	79	13557.42	1075.45
	0	40	38	80	505.11	112.8
	0	40	51	81	2021.14	344.61
	0	41	3	82	417.01	87.33
	0	41	24	83	2595.18	336.51
	0	41	46	84	14628.27	1406.83
	0	42	0	85	5902.08	548.39
	0	42	29	86	42436.33	4826.65
	0	42	52	87	36659.95	4066.27
	0	43	25	88	17047.29	1674.93
	0	43	53	89	7063.58	700.6
	0	44	8	90	2578.23	401.28
	0	44	47	91	5162.99	589.46
	0	44	59	92	6139.63	712.55
0	45	18	93	21065.84	1477.99	
0	45	59	94	45037.65	4715.91	
0	46	19	95	49887.68	4699.68	
0	46	36	96	9311.66	629.35	
0	46	59	97	2413.75	244.38	
0	47	36	98	10255.66	1154.85	
0	48	1	99	3934.47	386.28	
0	48	23	100	2756.28	360.08	
0	49	0	101	10708.73	1149.27	
0	49	15	102	11172.54	1128.95	
0	50	10	103	9660.73	1176.25	
0	50	46	104	3355.43	384.73	

234604 9-JUL-91 Sir:Voltage 70H Sys: 1906A
Sample 1 Injection 1 Group 1 Mass 231.1174
Text:1-26-21-AROMATICS

Norm: 320



234684 9-JUL-91 Sir:Voltage 70H Sys: 1906A
Sample 1 Injection 1 Group 1 Mass 253.1956
Text:1-26-21-AROMATICS



Norm: 68

Company : Saga Petroleum A.S. Well : 34/7-17a Depth : 2499m

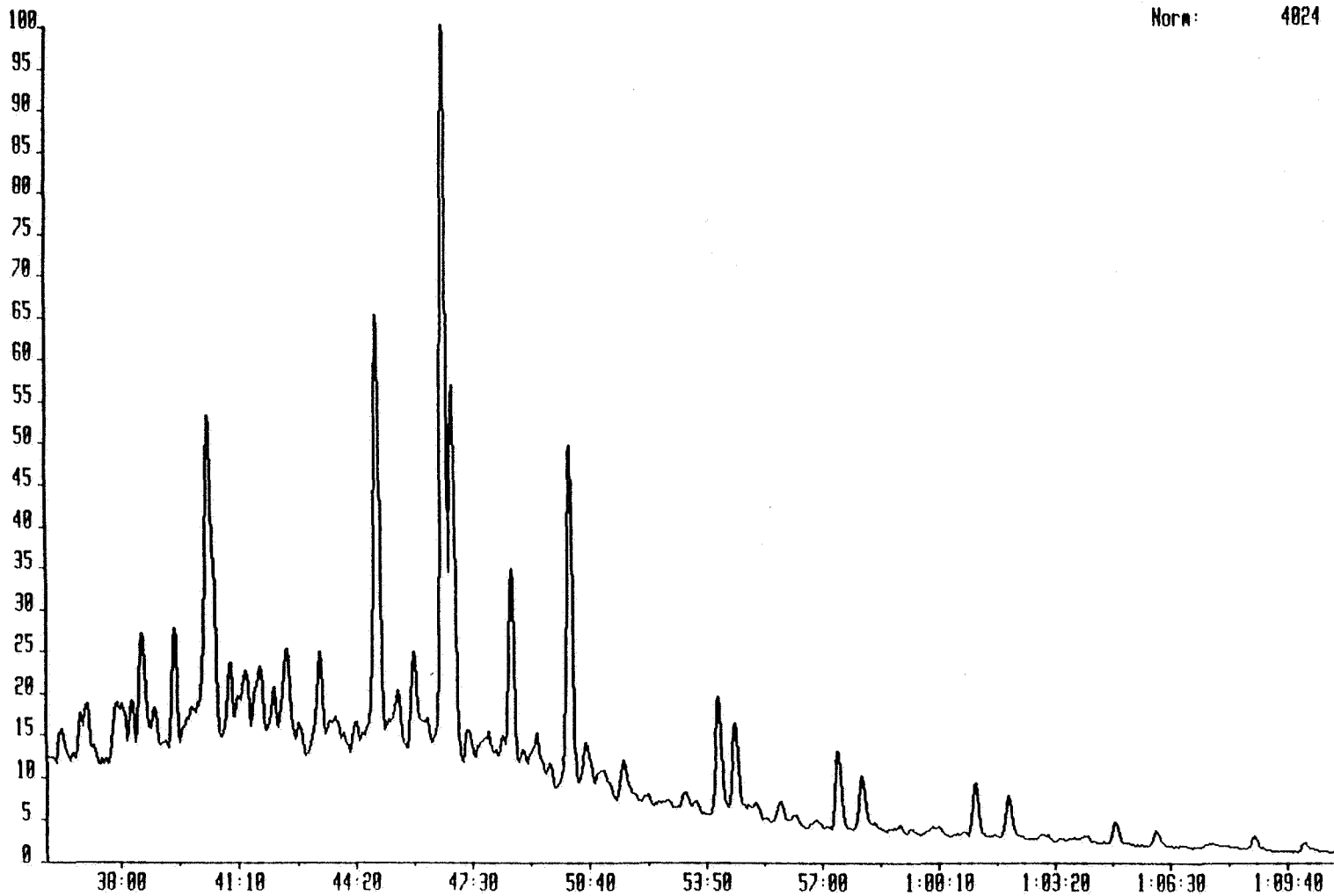
RL/MEMO/564 GC/MS APPENDIX PAGE 36 OF 75

Mass	Retention time			No	Peak	
	Hr	Min	Sec		Area	Height
253.1956						
	0	35	7	52	15.83	4.95
	0	35	14	53	19.53	5.98
	0	35	23	54	40.49	5.61
	0	35	35	55	8.9	2.96
	0	35	42	56	4.5	2.57
	0	35	46	57	10.95	3.86
	0	35	55	59	14.8	5.75
	0	36	1	60	12.91	5.38
	0	36	14	61	39.28	6.08
	0	36	29	62	28.65	6.37
	0	36	40	63	93.59	24.9
	0	36	51	64	38.45	7.46
	0	37	8	67	44.09	8.36
	0	37	19	68	115.29	17.24
	0	37	33	69	33.52	9.94
	0	37	47	71	164.21	29.55
	0	38	13	72	62.57	10.06
	0	38	20	73	48.39	10.36
	0	38	30	74	16.47	4.41
	0	38	40	76	27.76	8.67
	0	38	47	77	49.61	11
	0	38	59	78	77.68	9.36
	0	39	8	79	46.64	8.35
	0	39	18	80	24.31	8.65
	0	39	29	81	13.64	5.11
	0	39	47	82	34.42	7.45
	0	39	54	83	9.15	3.45
	0	40	18	86	15.81	3.71
	0	40	30	87	26.85	4.8
	0	40	44	88	22.22	4.41
	0	40	51	89	10.75	3.49
	0	40	58	91	5.61	2.52
	0	41	6	92	22.96	4.16
	0	41	17	93	7.78	3.45
	0	41	26	94	13.78	2.93
	0	41	39	95	29.88	3.83
	0	41	50	96	26.74	4.89
	0	42	21	101	25.78	4.06
	0	42	52	105	10.8	2.51
	0	43	7	106	13.8	2.9
	0	43	25	107	16.83	3.82
	0	43	48	109	17.65	2.7
	0	44	10	111	14.86	2.96
	0	44	23	113	14.03	3
	0	44	35	114	2.39	1.13
	0	44	39	115	5.28	2.59
	0	44	52	117	8.95	2.91
	0	45	4	118	12.59	3.34
	0	45	37	123	4.37	1.46
	0	47	0	133	4.26	1.29
	0	47	24	134	45.68	7.03

Mass	Retention time			No	Peak	
	Hr	Min	Sec		Area	Height
253.1956	0	48	3	139	3.66	1.69
	0	48	18	141	6.63	2.32
	0	48	34	142	17.53	4.14
	0	48	55	144	37.95	6.77
	0	50	3	150	4.1	1.2
	0	50	15	151	39.51	5.89
	0	50	38	152	3.55	1.12
	0	50	41	153	5.42	1.79
	0	51	5	154	3.51	1.37
	0	51	21	156	6.37	1.74
	0	51	30	157	6.01	2.35
	0	51	39	158	17.47	3.49
	0	52	1	160	4.99	1.36
	0	52	9	161	2.63	1.3
	0	52	59	165	4.73	1.4
0	54	8	173	1.37	0.72	
231.1174	0	42	30	90	217.47	30.65
	0	42	41	91	79.06	15.95
	0	42	50	92	61.36	15.01
	0	43	1	93	85.8	18.91
	0	43	10	94	130	23.85
	0	43	20	95	14.37	6.68
	0	43	47	97	1067.96	255.6
	0	44	14	100	225.56	41.08
	0	45	42	110	1258.55	276.31
	0	46	0	111	35.9	7.81
	0	46	40	114	53.2	10.01
	0	47	34	119	162.56	37.62
	0	47	50	121	124.42	28.5
	0	48	3	122	27.24	6.87
	0	48	52	126	26.98	7.07
	0	49	24	128	30.43	6.34
	0	50	25	132	33.88	9.03
	0	50	59	133	21.74	6.58
	0	51	17	134	33.81	7.57
	0	52	2	138	38.79	7.69
	0	52	46	143	93	17.23
	0	52	54	144	335.46	76.94
	0	53	7	145	27.25	6.45
	0	53	59	153	41.22	10.5
	0	54	8	154	1103.67	226.9
	0	54	30	155	29.56	8.06
	0	54	58	157	48.92	14.47
0	55	10	158	546.2	92.07	
0	55	40	159	508.18	87.26	
0	55	55	160	177.01	36.53	
0	56	6	161	71.89	17.07	
0	56	31	162	52.58	12.15	
0	56	56	164	510.94	88.97	
0	57	57	168	109.22	28.1	
0	58	10	169	35.61	7.73	

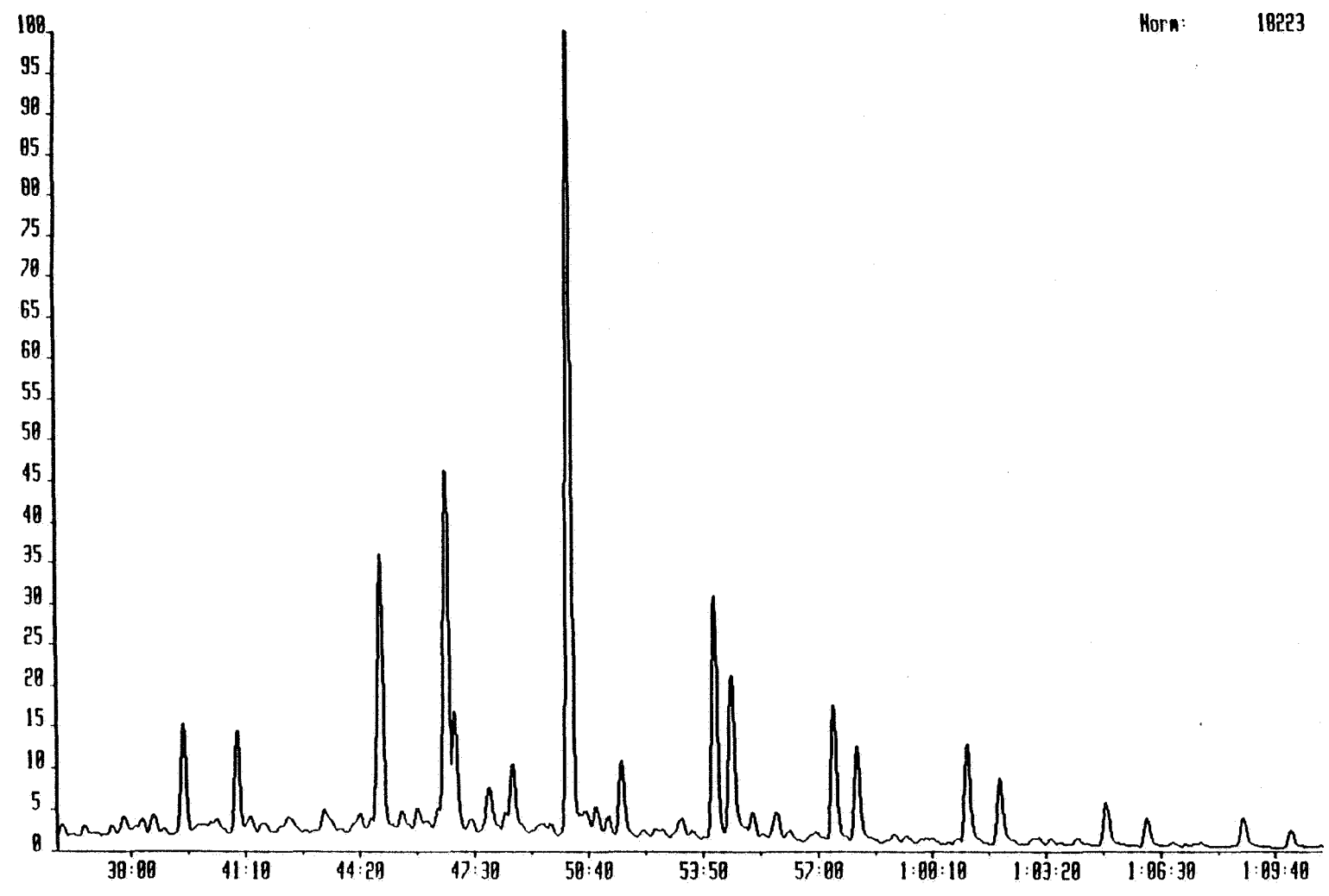
234685 8-JUL-91 Sir:Voltage 70H Sys: ARO
Sample 1 Injection 1 Group 1 Mass 177.1798
Text:1-26-22 Saturates

Norm: 4824



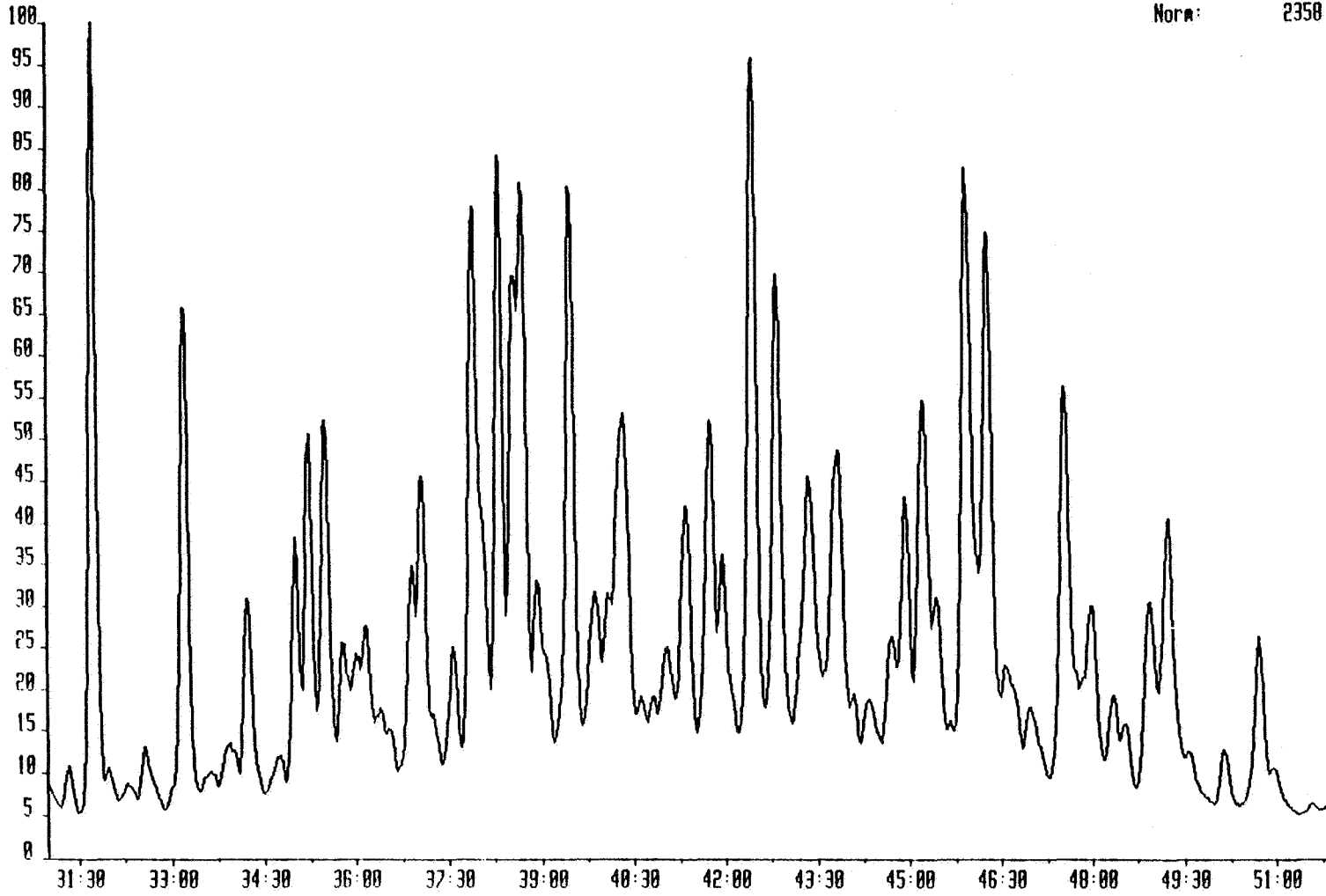
234605 8-JUL-91 Str:Voltage 70H Sys: ARO
Sample 1 Injection 1 Group 1 Mass 191.1798
Text:1-26-22 Saturates

Norm: 10223



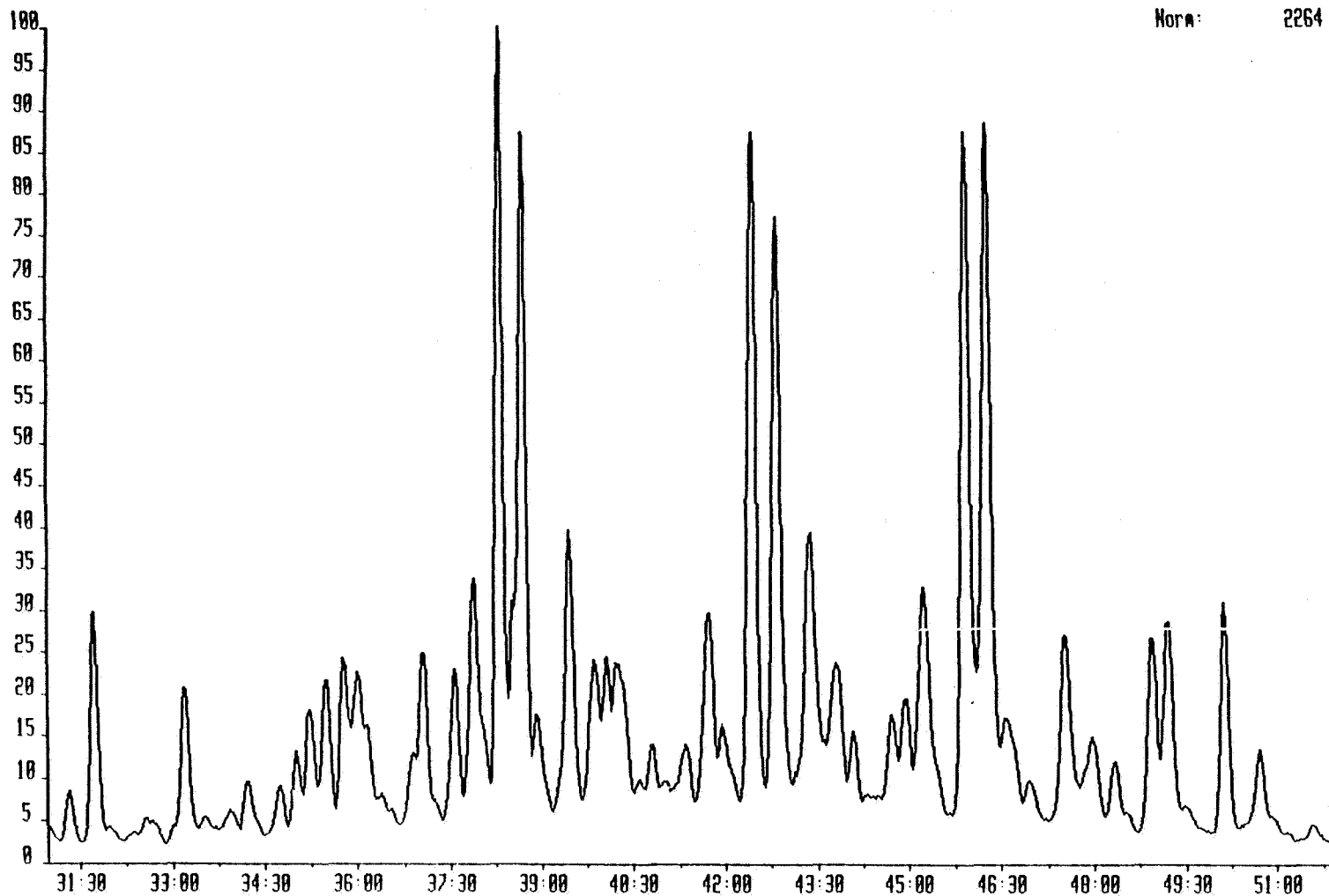
234085 8-JUL-91 Str:Voltage 70H Sys: ARO
Sample 1 Injection 1 Group 1 Mass 217.1956
Text:1-26-22 Saturates

Norm: 2358



234605 0-JUL-91 Str:Voltage 70H Sys: ARO
Sample 1 Injection 1 Group 1 Mass 210.2034
Text:1-26-22 Saturates

Norm: 2264



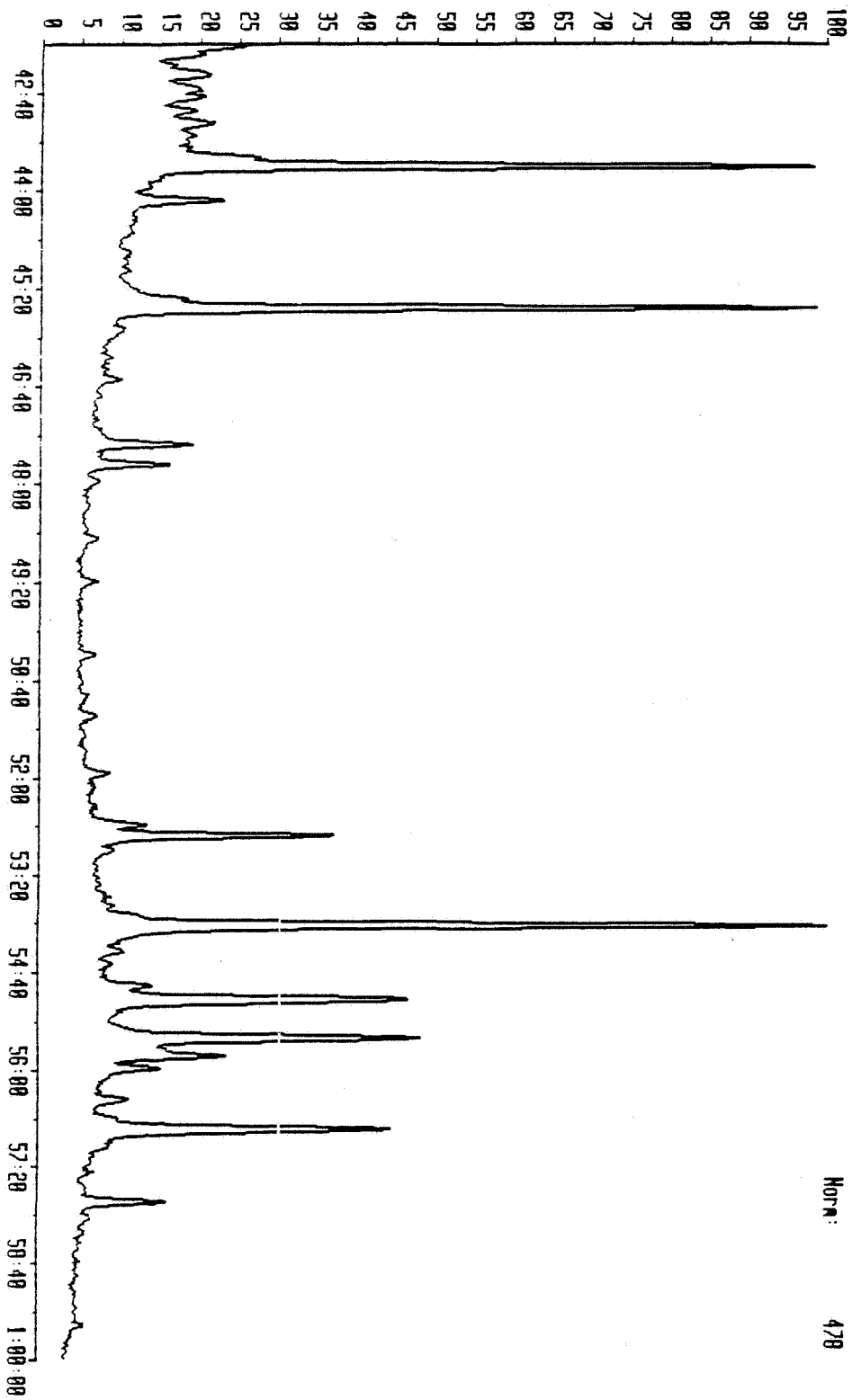
Mass	Retention time			No	Peak	
	Hr	Min	Sec		Area	Height
177.1798						
	0	36	23	97	1706.83	164.46
	0	36	54	98	1347.48	214.35
	0	37	5	99	1760.32	240.41
	0	37	35	100	276.21	47.4
	0	37	52	101	816.06	127.78
	0	38	7	102	455.6	79.91
	0	38	18	103	1504.91	226.04
	0	38	34	104	5312.37	527.91
	0	38	55	105	885.18	143.6
	0	39	28	106	4148.53	578.91
	0	39	55	107	1213.54	92.34
	0	40	21	108	20442.54	1511.23
	0	40	57	109	2664.01	343.65
	0	41	9	110	1618.23	186.98
	0	41	22	111	3087.42	306.74
	0	41	44	112	3916.19	324.57
	0	42	7	113	1536.23	227.43
	0	42	28	114	5251.3	441.41
	0	42	47	115	786.58	107.16
	0	43	21	116	3822.41	437.8
	0	43	38	117	298.91	55.73
	0	43	47	118	407.42	64.49
	0	44	19	119	1108.73	142.51
	0	44	55	121	18853.98	2011.94
	0	45	28	123	1633.39	202.41
	0	45	55	124	3977.13	430.96
	0	46	43	125	29494.81	3484.17
	0	46	58	126	16670.35	1789.95
	0	47	22	127	1610.08	163.04
	0	47	56	128	1385.62	108.13
	0	48	20	129	735.31	102.85
	0	48	34	130	7768.41	925.51
	0	48	53	131	261.57	54.43
	0	49	15	132	1645.97	170.41
	0	49	35	133	473.36	77.23
	0	50	8	134	14212.5	1621.84
	0	50	35	135	1708.16	178.88
	0	51	1	136	1240.99	81.28
	0	51	35	137	1396.14	158.34
	0	53	17	138	597.33	65.96
	0	54	9	139	4616.71	535.12
	0	54	38	140	3447.96	390.42
	0	55	51	141	632.27	79.15
	0	57	26	142	3301.91	369.14
	0	58	4	143	2052	233.89
	1	1	9	144	2175.26	246.94
	1	2	3	145	1561.3	180.86
	1	4	59	146	771.59	91.02
	1	6	7	147	392.19	54.59
	1	8	47	148	241.58	40.33

Mass	Retention time			No	Peak	
	Hr	Min	Sec		Area	Height
191.1798						
	0	36	8	15	1246.23	206.06
	0	36	43	16	826.57	153.11
	0	37	48	17	1986.65	274.63
	0	38	36	18	3101.22	350.55
	0	39	27	19	18173.68	2326.26
	0	40	56	20	16445.34	2142.71
	0	43	21	21	2052.26	287.83
	0	44	55	23	53577.85	5924
	0	45	28	24	2079.46	287.4
	0	45	56	25	2737.61	365.62
	0	46	28	26	1310.05	236.88
	0	46	44	27	64345.85	7679.23
	0	46	58	28	20220.48	2422.48
	0	47	24	29	1360.63	186.28
	0	47	55	30	7618.87	817.15
	0	48	20	31	1055.07	195.24
	0	48	33	32	9117.44	1178.68
	0	50	7	33	145196.0	17646.17
	0	50	52	34	3018.39	424.93
	0	51	12	35	2305.79	323.12
	0	51	35	36	13285.59	1540.02
	0	53	14	37	2610.68	303.8
	0	54	9	38	44376.41	5268.14
	0	54	38	39	30218.27	3350.98
	0	55	13	40	2785.93	413.85
	0	55	50	41	4614.95	492.99
	0	57	26	42	24020.24	2896
	0	58	4	43	17420.05	1991.74
	1	1	9	44	18404.53	2064.73
	1	2	3	45	11824.9	1355.61
	1	4	59	46	7969.67	863.05
	1	6	7	47	4635.83	554.25
	1	8	47	48	4664.99	561.32
	1	10	8	49	2562.07	315.64
217.1956						
	0	31	20	79	865.67	120.59
	0	31	44	80	16838.42	2220.9
	0	31	59	81	681.43	97.5
	0	32	17	82	314.38	39.98
	0	32	34	83	1650.85	156.68
	0	33	12	84	12060.4	1402.23
	0	33	38	85	1116.09	86.04
	0	33	55	86	2215.29	159.95
	0	34	12	87	5183.24	563.8
	0	34	44	88	1016.54	100.35
	0	35	0	89	5423.07	707.33
	0	35	13	90	8592.28	995.37
	0	35	29	91	9423.97	1026.91
	0	35	46	92	3904.52	391.83
	0	36	0	93	3125.18	354.53
	0	36	9	94	4246	429.13

Mass	Retention time			No	Peak	
	Hr	Min	Sec		Area	Height
	0	36	23	95	1604.52	190.72
	0	36	32	96	907.1	126.05
	0	36	54	97	4426.69	568.59
	0	37	4	98	7953.72	823.88
	0	37	35	99	2847.67	341.78
	0	37	54	100	20082.89	1583.29
	0	38	19	101	13586.39	1725.68
	0	38	33	102	11764.09	1381.26
	0	38	41	103	13698.33	1646.84
	0	38	55	104	6818.49	515.49
	0	39	27	105	15091.42	1626.39
	0	39	52	106	5819.56	478.92
	0	40	4	107	3809.56	472.35
	0	40	20	108	14379.99	979.73
	0	40	37	109	1519.28	179.29
	0	40	49	110	1493.21	177.2
	0	41	3	111	3699.19	312.59
	0	41	21	112	8035.62	709.06
	0	41	45	113	9618.46	946.5
	0	41	57	114	5994.11	565.22
	0	42	28	115	19258.04	1961.03
	0	42	49	116	13643.86	1347.99
	0	43	21	117	11978.14	777.25
	0	43	49	118	11593.58	848.3
	0	44	6	119	1030.96	158.2
	0	44	20	120	1445.63	138.53
	0	44	43	121	2962.07	302.45
	0	44	55	122	6015.8	688.51
	0	45	13	123	10729.83	947.82
	0	45	26	124	3201.59	386
	0	45	55	125	17373.22	1599.64
	0	46	16	126	15180.21	1430.54
	0	46	33	127	3191.31	227.39
	0	46	59	128	1775.87	148.79
	0	47	32	129	13341.93	1110.83
	0	47	58	130	7325.53	500.89
	0	48	21	131	2663.92	253.96
	0	48	32	132	1531.15	177.08
	0	48	57	133	5490.03	499.27
	0	49	15	134	7742.26	703.8
	0	50	7	135	1288.6	148.89
	0	50	43	136	4628.03	463.67
	0	50	57	137	916.84	97.37
218.2034						
	0	31	20	60	963.96	133.28
	0	31	44	61	4551.39	603.59
	0	32	35	62	733.13	51.46
	0	33	12	63	3448.21	390.51
	0	33	32	64	137.95	26.74
	0	33	56	65	397.35	49.31
	0	34	12	66	1358.2	138.13
	0	34	44	67	865.36	112.6

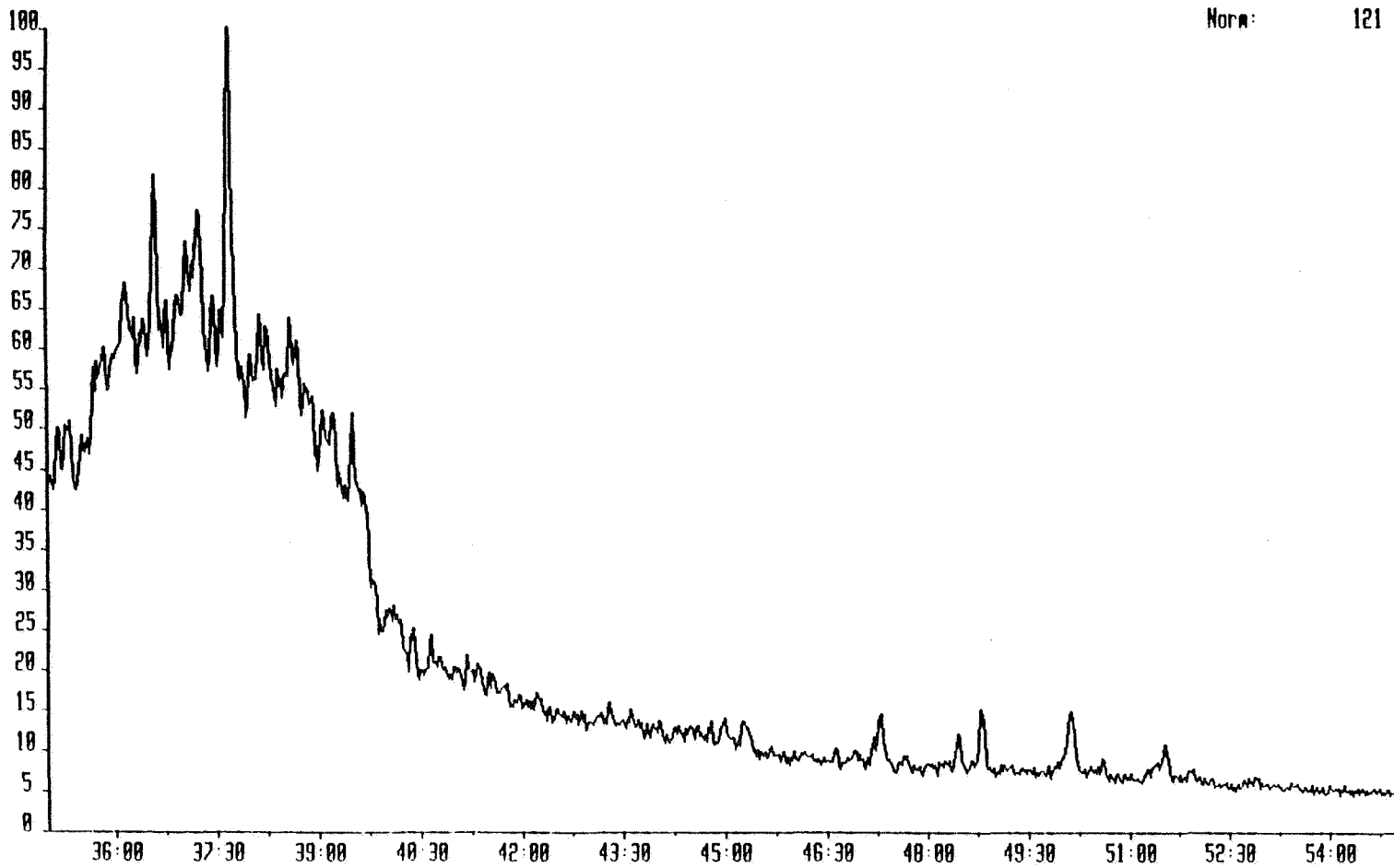
Mass	Retention time			No	Peak	
	Hr	Min	Sec		Area	Height
218.2034	0	35	0	68	1422.71	197.47
	0	35	13	69	2786.61	297.42
	0	35	29	70	3150.37	365.19
	0	35	46	71	3726.28	410.73
	0	36	0	72	4821.39	363.81
	0	37	4	73	5695.5	454.35
	0	37	35	74	3441.61	405.11
	0	37	54	75	7900.97	645.45
	0	38	19	76	16484.29	2141.2
	0	38	41	77	19132.12	1846.12
	0	38	55	78	2659.56	265.37
	0	39	27	79	6852.08	753.43
	0	39	52	80	3932.73	383.69
	0	40	4	81	2858.68	384.88
	0	40	13	82	5042.85	366.1
	0	40	49	84	699.15	116.53
	0	41	21	85	1183.45	134.79
	0	41	44	86	5314.7	507.45
	0	41	57	87	2197.23	201.21
	0	42	27	88	15899.15	1801.76
	0	42	49	89	13859.6	1554.79
	0	43	23	90	6395.72	621.6
	0	43	49	91	2757.43	273.72
	0	44	6	92	1020.17	163.03
	0	44	43	93	1964.52	226.16
	0	44	57	94	2667.55	282.65
	0	45	14	95	7953.84	596.66
	0	45	55	96	18000.99	1845.38
	0	46	16	97	19133.35	1872.27
	0	46	34	98	3855.98	265.54
	0	46	58	99	1083.9	101.72
	0	47	32	100	4362.63	452.2
	0	47	59	101	1690.02	167.31
	0	48	21	102	1715.51	161.09
	0	48	56	103	4728.11	500.85
	0	49	13	104	5143.62	520.5
	0	50	7	105	4993.79	612.73
	0	50	43	106	1523.21	185.67
	0	51	35	107	208.61	29.96

234086 9-JUL-91 Str:Voltage 701 Sys: 1986R
Sample 1 Injection 1 Group 1 Mass 231.1174
Text:1-26-22-R



234686 9-JUL-91 Sir:Voltage 70H Sys: 1906A
Sample 1 Injection 1 Group 1 Mass 253.1956
Text:1-26-22-A

Norm: 121

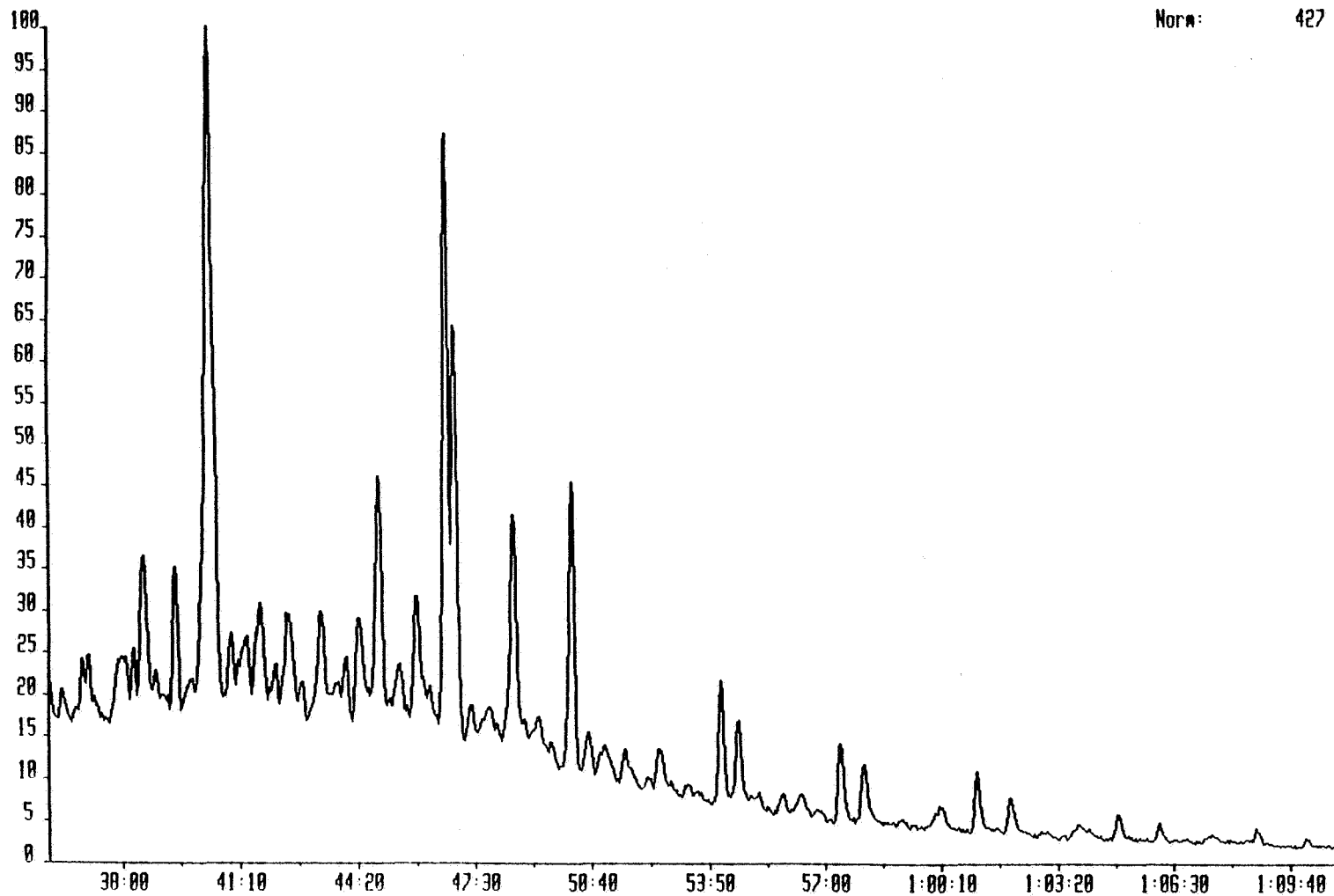


Mass	Retention time			No	Peak Area	Height
	Hr	Min	Sec			
253.1956						
	0	35	9	49	45.86	12.09
	0	35	19	50	108.93	14.2
	0	35	29	51	55.61	10.73
	0	35	42	53	214.88	17.17
	0	36	7	54	265.76	19.92
	0	36	34	56	157.64	26.57
	0	36	44	57	23.12	10.55
	0	36	54	58	31.71	8.28
	0	37	2	59	61.39	14.06
	0	37	12	60	185.54	23.26
	0	37	26	61	45.3	12.54
	0	37	40	63	295.34	50.82
	0	37	59	64	31.47	9.55
	0	38	7	65	78.92	16.23
	0	38	13	66	73.14	14.93
	0	38	23	67	21.99	6.65
	0	38	34	68	34.01	10.51
	0	38	40	69	30.82	9.01
	0	38	54	70	85.36	11.19
	0	39	3	71	17.07	7.23
	0	39	12	72	35.95	9.23
	0	39	29	73	41.44	14.09
	0	39	42	74	32.83	7.66
	0	39	58	75	9.89	3.62
	0	40	5	76	33.59	4.88
	0	40	22	78	33.74	7.95
	0	40	38	79	48.52	7.87
	0	40	44	80	27.69	4.36
	0	40	59	81	18.59	2.99
	0	41	10	82	12.28	4.74
	0	41	19	83	17.02	3.94
	0	41	41	85	9.6	2.86
	0	42	13	88	27.04	4
	0	42	24	89	6.9	2.68
	0	42	30	90	5.52	2.33
	0	42	46	93	8.66	3.02
	0	42	54	94	7.37	2.77
	0	43	9	97	4.85	1.89
	0	43	18	98	9.25	3.52
	0	43	35	100	11.63	3.67
	0	44	15	104	8.53	2.9
	0	44	35	108	7.37	3.07
	0	44	58	111	24.45	4.35
	0	45	16	112	50.61	5.56
	0	46	9	119	10.34	2.35
	0	46	26	122	3.8	1.34
	0	46	37	123	5.65	2.54
	0	46	44	124	2.46	1.07
	0	47	18	127	77.26	9.05
	0	47	40	130	9.37	2.3
	0	48	27	137	27.61	6.04

Mass	Retention time			No	Peak	
	Hr	Min	Sec		Area	Height
253.1956	0	48	47	139	52.64	9.86
	0	49	8	141	3.96	1.76
	0	50	8	148	86.22	9.95
	0	50	35	150	12.45	3.17
	0	51	15	155	6.52	2.02
	0	51	20	156	6.53	1.95
	0	51	31	157	16.03	3.99
	0	51	56	158	12.32	2.39
	0	52	52	165	6.33	1.82
231.1174	0	42	24	72	201.47	28.58
	0	42	35	73	65.73	12.91
	0	42	42	74	73.26	18.95
	0	42	53	75	86.45	20.13
	0	43	3	76	150.47	26.31
	0	43	14	77	25.11	9.02
	0	43	40	79	2169.03	397.35
	0	44	7	80	282.25	55.45
	0	45	35	86	2243.1	427.71
	0	46	34	90	57.49	12.99
	0	47	27	95	309.63	59.23
	0	47	43	96	195.77	45.42
	0	48	44	99	40.72	9.05
	0	49	19	101	41.82	10.69
	0	50	18	103	57	11.37
	0	51	9	105	53.61	10.69
	0	51	56	108	69.53	15.02
	0	52	38	110	91.02	22.37
	0	52	46	111	578.35	133.35
	0	54	1	117	2388.29	437.57
	0	54	23	118	46.83	12.19
0	54	50	120	133.48	29.5	
0	55	1	121	1185.28	180.58	
0	55	33	122	957.8	173.82	
0	55	48	123	197.7	51.21	
0	55	58	124	112.24	29.44	
0	56	23	125	107.53	20.53	
0	56	48	126	1096.27	175.6	
0	57	49	129	222.75	51.02	

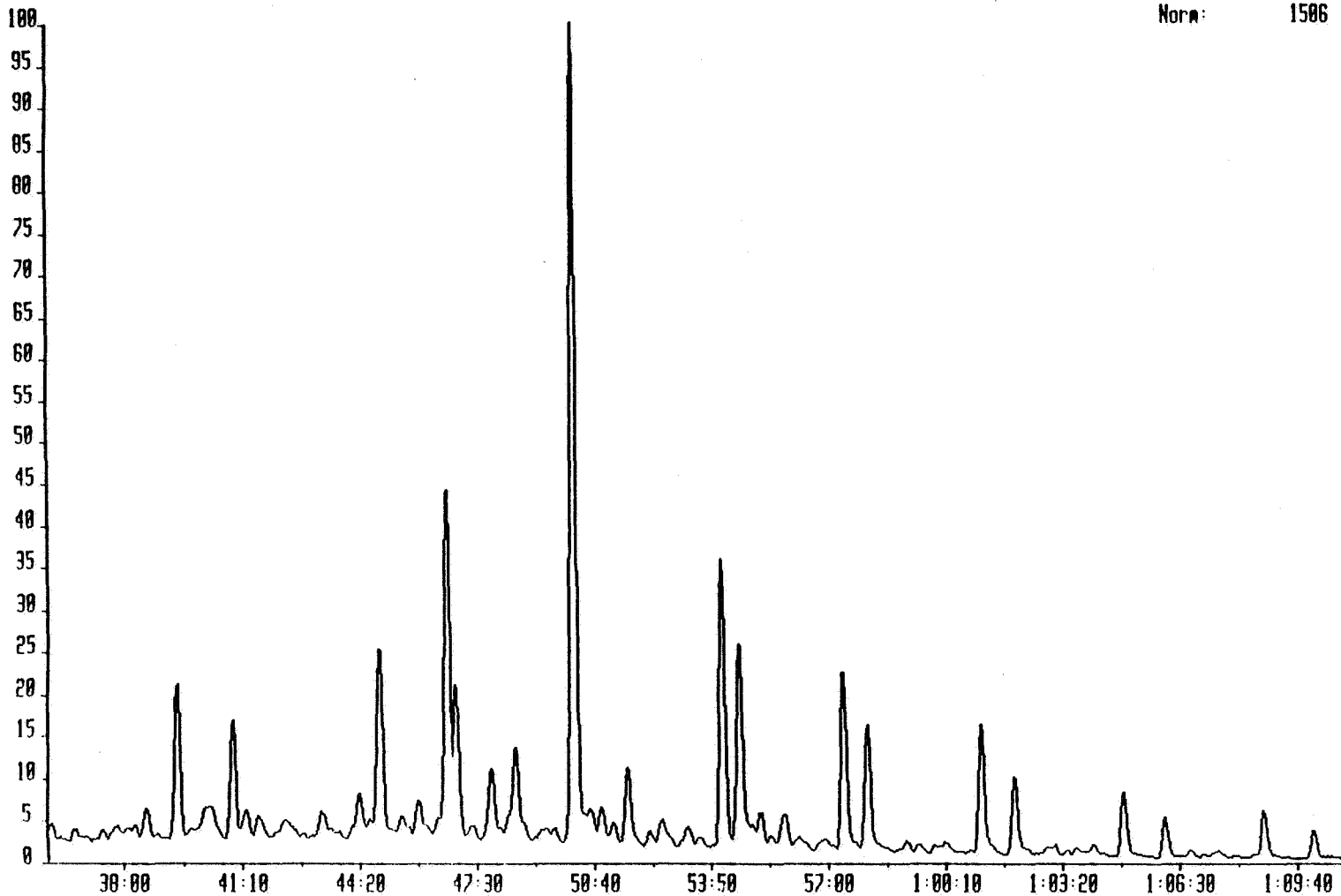
234607 8-JUL-91 Sir:Voltage 70H Sys: ARO
Sample 1 Injection 1 Group 1 Mass 177.1798
Text: 1-26-23 Saturates

Norm: 427



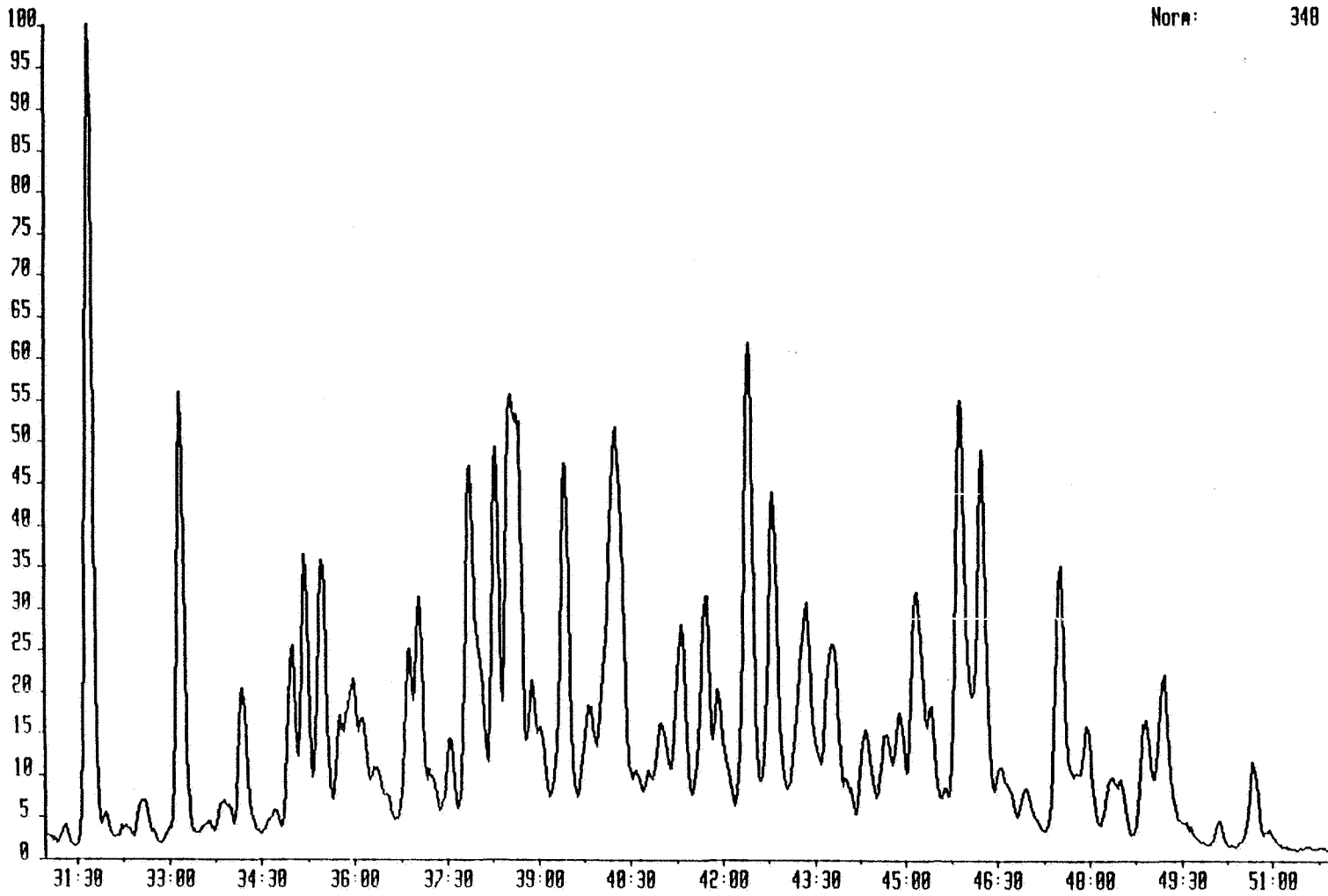
234687 8-JUL-91 Sir:Voltage 70H Sys: ARO
Sample 1 Injection 1 Group 1 Mass 191.1798
Text: 1-26-23 Saturates

Norm: 1586



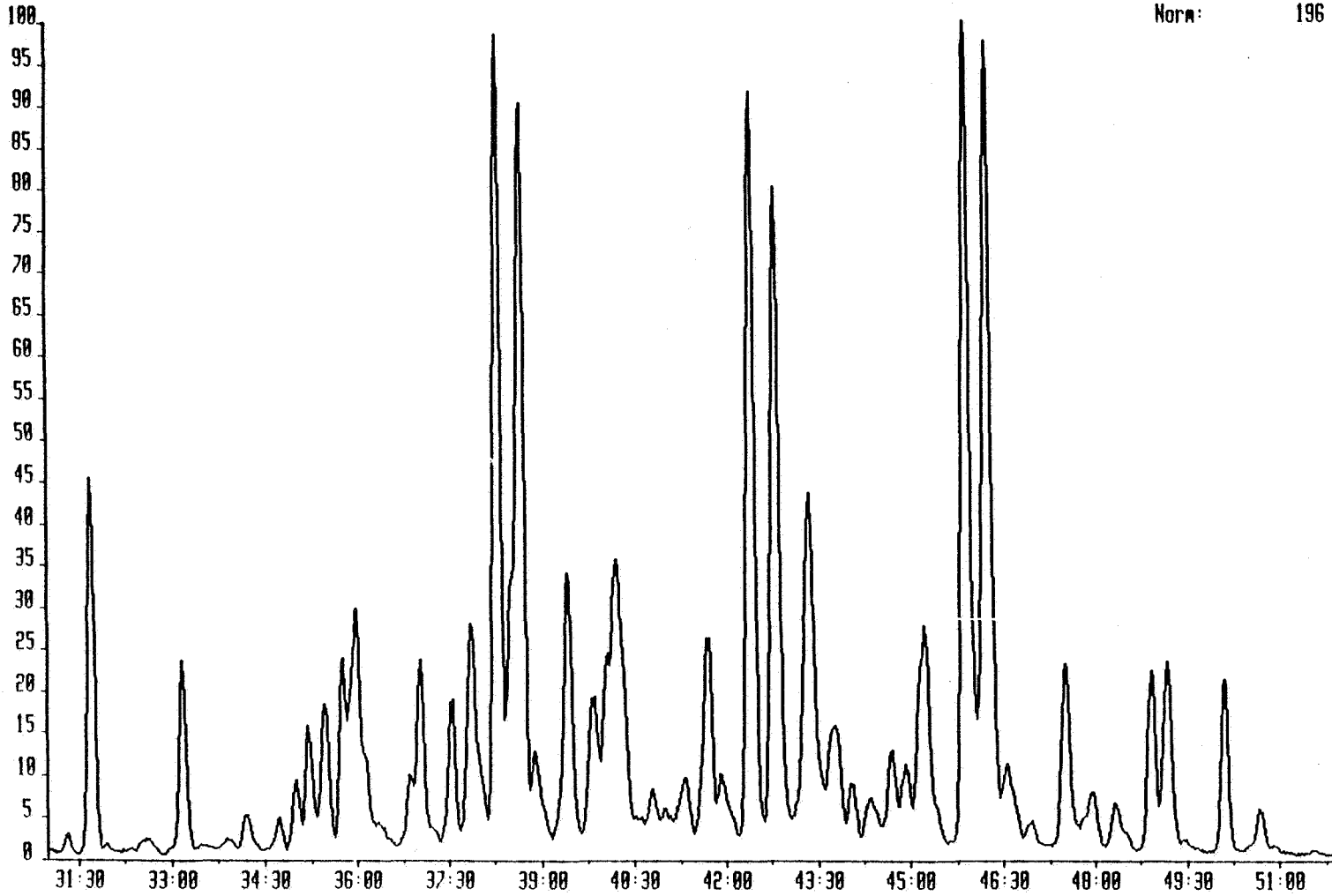
234687 0-JUL-91 Sir:Voltage 70H Sys: ARO
Sample 1 Injection 1 Group 1 Mass 217.1956
Text:1-26-23 Saturates

Norm: 348



234607 0-JUL-91 Sir:Voltage 70H Sys: ARO
Sample 1 Injection 1 Group 1 Mass 210.2034
Text:1-26-23 Saturates

Norm: 196



Mass	Retention time			No	Peak Area	Height
	Hr	Min	Sec			
177.1798						
	0	36	20	130	193.3	20.28
	0	36	43	132	55.42	10.12
	0	36	52	133	245.22	34
	0	37	2	134	244.41	35.41
	0	37	12	135	106.01	14.41
	0	37	57	136	716.54	35.89
	0	38	17	137	303.12	38.59
	0	38	33	138	1023.79	83.95
	0	38	53	139	198.12	24.62
	0	39	3	140	127.51	11.55
	0	39	25	141	591.99	76.03
	0	39	52	142	228.91	17.97
	0	40	18	143	5203.66	349.47
	0	40	54	144	289.86	35.62
	0	41	20	145	540.02	35.07
	0	41	41	146	655.15	52.89
	0	42	6	147	130.12	21.69
	0	42	24	148	750.04	52.64
	0	42	48	149	189.27	21.75
	0	43	19	150	627.17	52.95
	0	43	47	152	98.68	11.07
	0	43	59	153	206.14	28.1
	0	44	19	154	591.39	50.81
	0	44	53	155	1157.79	117.68
	0	45	25	156	252.48	24.34
	0	45	54	157	769.15	63.87
	0	46	15	158	223.56	22.15
	0	46	42	159	2570.72	305.42
	0	46	55	160	1951.01	210.53
	0	47	21	161	155.33	17.4
	0	47	53	164	162.06	13.75
	0	48	31	165	1172.65	112.12
	0	49	13	167	102.33	12.44
	0	49	34	168	67.32	8.77
	0	50	7	169	1301.68	147.96
	0	50	35	170	187.67	19.93
	0	50	59	171	303.76	17.68
	0	51	33	173	98.14	14.35
	0	52	9	174	34.83	5.82
	0	52	28	175	214.19	20.1
	0	53	15	176	56.63	6.71
	0	54	9	177	508.27	61.9
	0	54	37	178	343.84	40.09
	0	55	51	179	87.52	10.22
	0	56	23	180	99.19	9.11
	0	56	47	182	32.45	3.85
	0	57	24	183	353.23	39.26
	0	58	3	184	269.18	27.83
	1	0	8	186	99.04	9.23
	1	1	8	187	238.34	29.55
	1	2	2	188	137.38	16.53

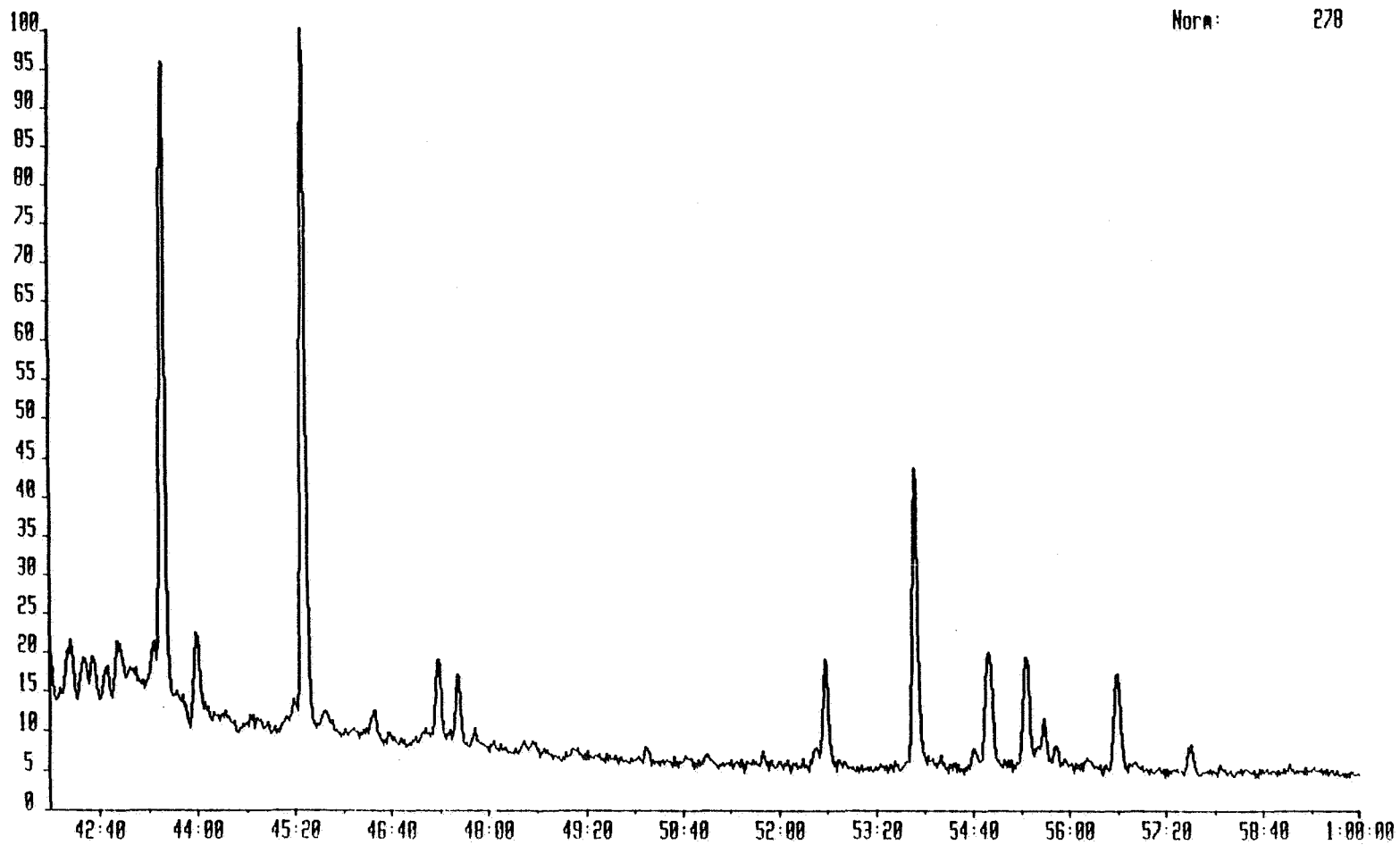
Mass	Retention time			No	Peak	
	Hr	Min	Sec		Area	Height
177.1798	1	4	59	189	94.95	11.64
	1	6	6	190	51.74	8.18
	1	8	44	191	42.49	6.11
	1	10	6	192	21.8	3.82
191.1798	0	36	43	29	102.81	16.58
	0	37	28	30	74.37	13.7
	0	38	35	31	425.76	50.28
	0	39	26	32	2252.84	272.87
	0	40	18	33	542.8	36.3
	0	40	54	34	1539.12	202.4
	0	41	17	35	278.88	35.13
	0	41	36	36	336.91	34.89
	0	42	18	37	243.63	17.11
	0	43	17	38	333.07	36.91
	0	44	19	40	493.45	60.07
	0	44	53	42	3070.86	320.21
	0	45	29	43	154.81	22.42
	0	45	53	44	424.02	51.92
	0	46	42	46	5029.17	598.91
	0	46	55	47	2269.56	260.25
	0	47	23	48	126.97	17.52
	0	47	51	49	1071.14	113.44
	0	48	31	50	1407.35	141.19
	0	50	7	51	11866.55	1442.68
	0	50	52	52	329.66	45.98
	0	51	10	53	180.48	27.27
	0	51	33	54	1139.27	127.66
	0	52	9	55	103.99	18.23
	0	52	30	56	246.91	31.1
	0	53	12	57	208.44	24.26
	0	54	8	58	4305.32	506.1
	0	54	37	59	3046.51	337.22
	0	55	12	60	325.68	43.91
	0	55	50	61	519.43	51.22
	0	57	24	62	2684.65	311.79
0	58	3	63	1872.75	215.43	
1	1	1	8	64	1884.86	222.98
1	2	1	65	1148.85	132.23	
1	4	59	66	988.47	111.59	
1	6	5	67	548.07	68.02	
1	8	44	68	601.89	77.88	
1	10	6	69	352.1	44.85	

Mass	Retention time			No	Peak Area	Height
	Hr	Min	Sec			
217.1956						
	0	31	18	60	40.05	7.16
	0	31	41	61	2659.58	341.49
	0	31	58	62	77.87	11.37
	0	32	17	63	37.14	4.85
	0	32	35	64	189.19	16.49
	0	33	10	65	1402.49	185.14
	0	33	38	66	26.49	4.41
	0	33	52	67	164.11	13.79
	0	34	11	68	542.35	61.2
	0	34	42	69	71.01	8.44
	0	34	59	70	607.73	76.61
	0	35	11	71	901.62	114.02
	0	35	28	72	1056.53	111.68
	0	35	58	73	1034.42	61.2
	0	36	8	74	399.98	44.3
	0	36	20	75	251.64	23.71
	0	36	30	76	71.92	12.47
	0	36	53	77	489.37	70.17
	0	37	2	78	768.56	91.79
	0	37	12	79	126.7	19.27
	0	37	33	80	221.46	30.26
	0	37	52	81	1800.16	143.34
	0	38	17	82	1194.98	150.16
	0	38	33	83	2822.84	171.35
	0	38	54	84	630.54	51.25
	0	39	26	85	1259.77	140.98
	0	39	49	86	385.85	37.67
	0	40	15	87	2452.84	150.3
	0	40	47	88	39.81	7.74
	0	41	0	89	290.59	29
	0	41	20	90	696.46	71.65
	0	41	43	91	822.94	85.83
	0	41	55	92	488.06	48.3
	0	42	24	93	1863.7	193.95
	0	42	48	94	1351.46	132.52
	0	43	21	95	1349.62	86.99
	0	43	47	96	1097.29	70.23
	0	44	21	97	365.19	34.07
	0	44	41	98	327.24	31.25
	0	44	54	99	345.92	39.36
	0	45	10	100	1038.23	88.19
	0	45	25	101	334.39	40
	0	45	53	103	1760.95	166.87
	0	46	14	104	1481.82	149.14
	0	46	33	105	262.74	20.25
	0	46	57	106	163.15	15.09
	0	47	32	107	913.27	98.67
	0	47	57	108	206.38	28.77
	0	48	22	109	384.16	22.04
	0	48	55	110	450.38	45.96
	0	49	13	111	731.74	63.16

Mass	Retention time			No	Peak	
	Hr	Min	Sec		Area	Height
217.1956	0	50	7	112	58.26	9.32
	0	50	40	113	287.71	33.42
	0	50	56	114	41.57	5.69
218.2034	0	31	18	21	18.4	3.98
	0	31	41	22	604.49	86.82
	0	33	10	23	282.94	43.29
	0	34	11	24	50.18	7.33
	0	34	43	25	38.74	6.69
	0	34	59	26	98.58	14.57
	0	35	11	27	196.02	26.51
	0	35	28	28	255.52	31.13
	0	35	45	29	282	41.42
	0	35	59	30	636.01	52.08
	0	36	51	31	90	14.28
	0	37	2	32	287.73	40.62
	0	37	34	33	223.2	32.44
	0	37	51	34	541.69	49.98
	0	38	17	35	1413.04	187.88
	0	38	40	36	1853.2	171.93
	0	38	54	37	193.25	20.15
	0	39	25	38	506.31	60.14
	0	39	51	39	301.6	31.21
	0	40	12	40	1055.44	62.11
	0	40	47	41	51.57	8.31
	0	40	59	42	18.78	3.54
	0	41	20	43	94.55	11.55
	0	41	43	44	440.4	45.76
	0	41	55	45	151.19	14.4
	0	42	24	46	1442.28	173.39
	0	42	48	47	1295.56	149.05
	0	43	21	48	741.19	72.7
	0	43	47	49	196.22	18.59
	0	44	5	50	75.61	10.83
	0	44	21	51	74.16	8.1
	0	44	42	52	137.69	17.66
	0	44	55	53	126.03	15.4
	0	45	13	54	617.43	49.06
0	45	53	55	1716.45	190.9	
0	46	14	56	1729.62	185.89	
0	46	33	57	188.61	16.96	
0	47	31	58	341.65	40.17	
0	47	58	59	62.11	8.82	
0	48	19	60	59.46	8.05	
0	48	55	61	348.1	41.09	
0	49	11	62	362.59	42.56	
0	50	7	63	274.17	39.43	
0	50	40	64	55.18	8.05	

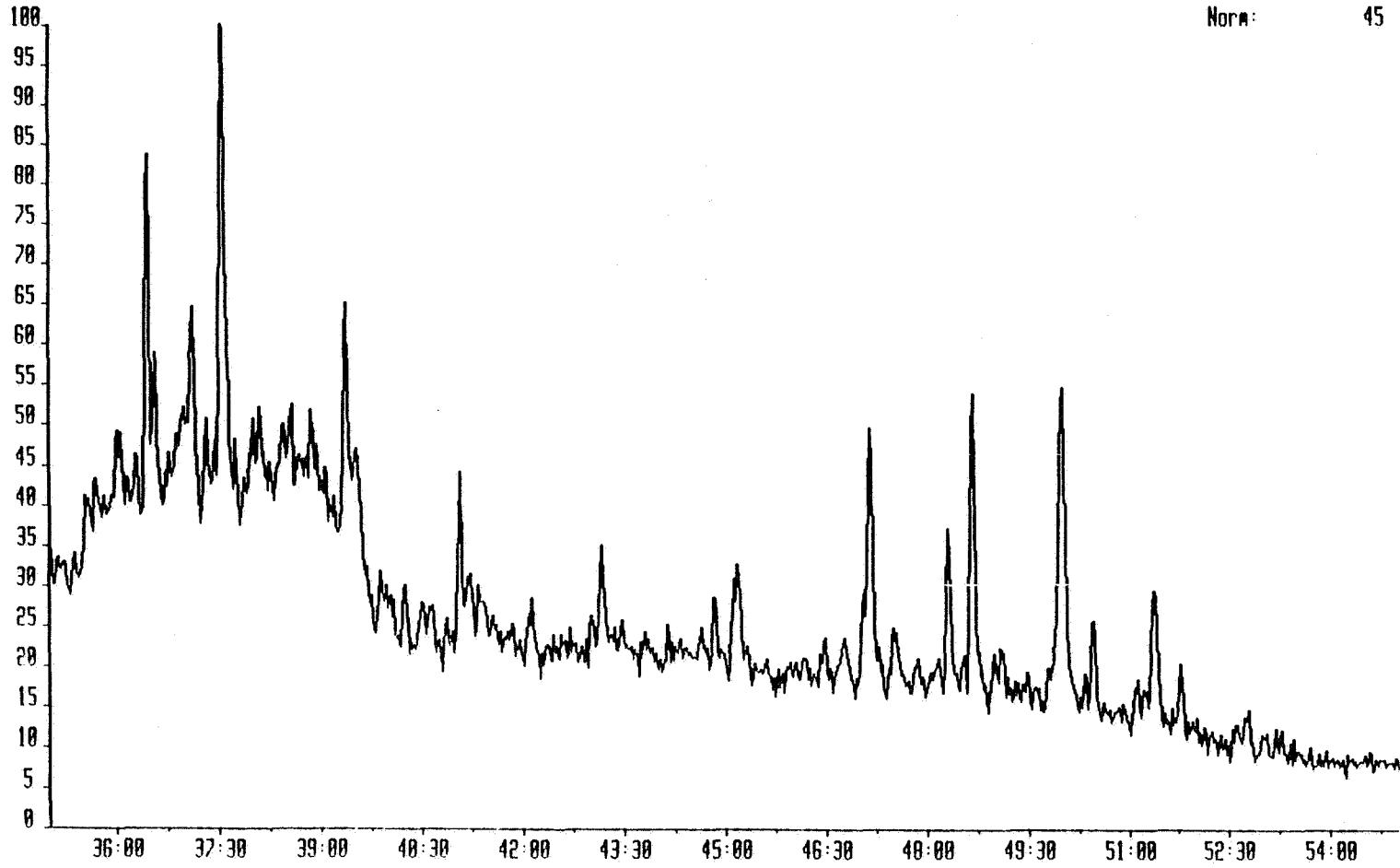
234608 9-JUL-91 Sir:Voltage 70H Sys: 1906A
Sample 1 Injection 1 Group 1 Mass 231.1174
Text:1-26-23-A

Norm: 278



234688 9-JUL-91 Sir:Voltage 70H Sys: 1906A
Sample 1 Injection 1 Group 1 Mass 253.1956
Text:1-26-23-R

Norm: 45



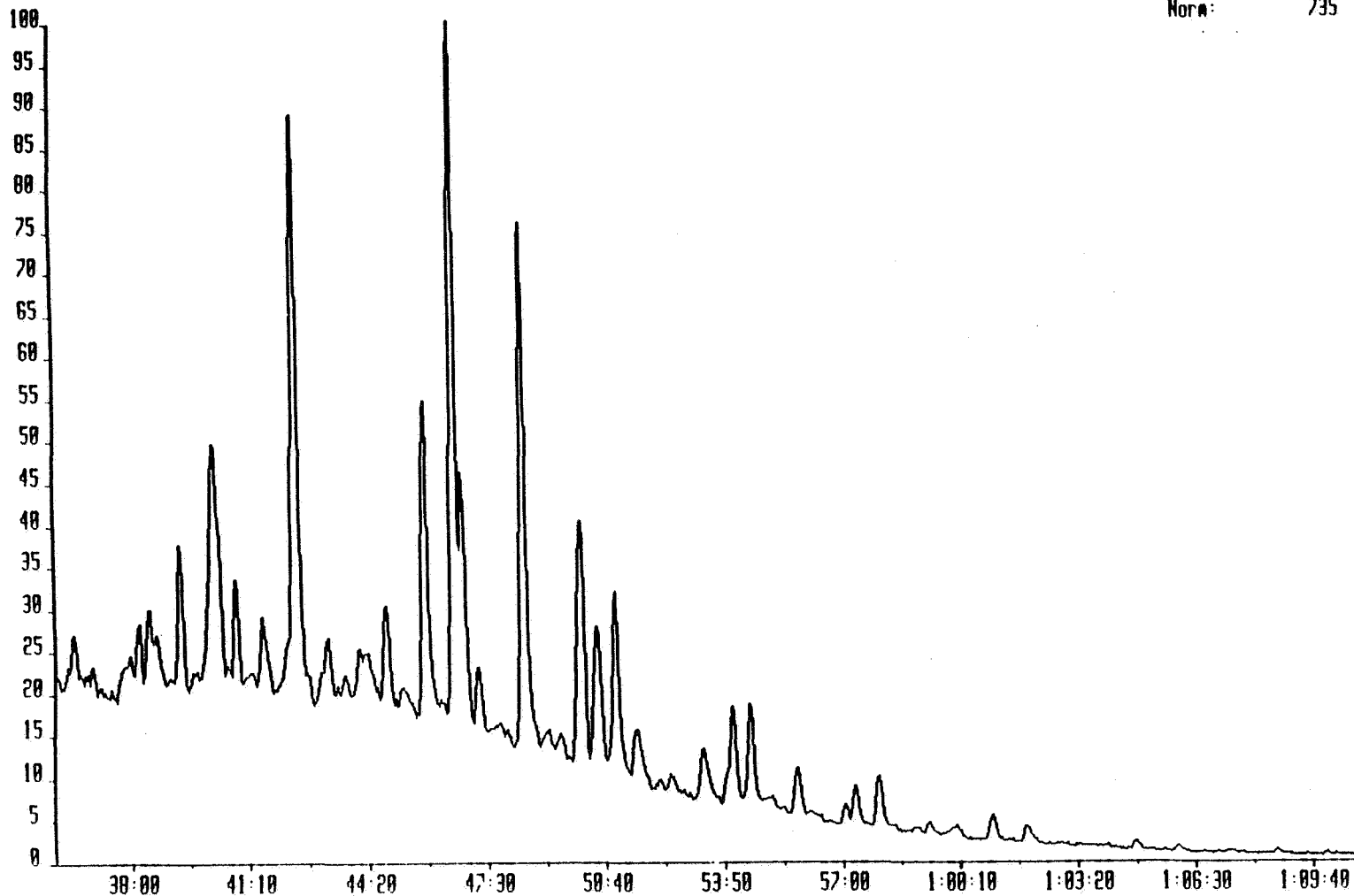
Mass	Retention time			No	Peak Area	Height
	Hr	Min	Sec			
253.1956						
	0	35	6	47	3.31	1.57
	0	35	21	48	9.61	2.63
	0	35	31	49	23.35	4.77
	0	35	39	50	17.42	4.14
	0	36	0	54	33.2	4.84
	0	36	16	55	14.5	4.3
	0	36	26	56	81.25	21.5
	0	36	33	57	45.63	10.4
	0	36	52	59	11.78	2.45
	0	37	6	61	34.64	9.17
	0	37	19	62	15.86	5.04
	0	37	31	63	144.02	26.58
	0	38	4	65	47.22	5.14
	0	38	25	67	9.51	3.04
	0	38	33	68	20.06	6.3
	0	38	40	70	5.87	2.29
	0	38	50	71	34.84	6.57
	0	39	21	74	43.28	11.85
	0	39	32	75	14.42	3.7
	0	40	4	78	9.05	2.49
	0	40	14	79	14.6	3.74
	0	40	29	81	8.56	2.69
	0	40	38	82	13.32	3.16
	0	40	51	84	6	2.11
	0	41	3	85	30.21	9.76
	0	41	13	86	13.73	3.3
	0	41	19	87	15.21	2.81
	0	41	32	88	7.57	2.07
	0	41	49	91	3.65	1.74
	0	42	6	93	18.77	3.79
	0	42	21	94	3.03	1.22
	0	42	37	96	7.15	2.39
	0	42	41	97	8.7	2.71
	0	43	0	100	9.82	2.86
	0	43	9	101	22.47	5.86
	0	43	28	103	9.13	2.53
	0	43	44	105	3.23	1.85
	0	44	7	106	11.69	3.09
	0	44	38	111	12.85	2.59
	0	44	49	112	21.24	4.73
	0	44	56	113	10.23	2.1
	0	45	10	114	45.66	6.54
	0	45	18	115	1.97	0.98
	0	45	36	117	5.34	1.47
	0	46	3	123	2.77	1.33
	0	46	10	124	9.1	1.97
	0	46	30	126	16.99	3.18
	0	46	46	129	26	3.3

Mass	Retention time			No	Peak	
	Hr	Min	Sec		Area	Height
253.1956	0	47	9	130	91.68	14.33
	0	47	30	131	24.28	4.08
	0	47	40	132	7.14	1.51
	0	47	51	133	10.25	2.31
	0	48	2	135	5.14	1.42
	0	48	9	136	3.7	1.54
	0	48	18	138	38.72	9.45
	0	48	32	139	4.54	1.94
	0	48	40	140	70.24	16.67
	0	48	59	141	8.3	2.87
	0	49	6	142	7.82	2.65
	0	49	8	143	2.46	1.87
	0	49	28	147	5.69	2.12
	0	49	35	148	5.58	1.37
	0	49	59	151	103.64	16.7
	0	50	20	152	5.41	1.98
	0	50	27	153	24.55	5.59
	0	50	51	156	2.84	0.93
	0	51	7	157	10.38	2.4
	0	51	22	159	37.59	7.07
	0	51	46	161	17.93	4.29
	0	52	13	163	1.69	0.65
	0	52	31	166	7.13	1.8
	0	52	46	167	8.04	2.63
	0	53	2	168	9.35	1.93
	0	53	40	173	2.36	1.21
	0	54	14	175	5.41	1.31

Mass	Retention time			No	Peak	
	Hr	Min	Sec		Area	Height
231.1174	0	42	16	86	124.09	22.67
	0	42	27	87	56.78	12.62
	0	42	34	88	50.04	11.97
	0	42	46	89	51.8	12.22
	0	42	54	90	90.87	18.76
	0	43	5	91	21.55	5.53
	0	43	32	93	1078	227.15
	0	43	58	95	157.54	31.82
	0	44	43	97	33.49	5.27
	0	45	27	100	1055.39	249.28
	0	45	45	101	38.87	7.14
	0	46	25	104	49.73	10.27
	0	47	8	107	15.49	5.91
	0	47	19	108	128.75	28.75
	0	47	35	110	117.06	25.64
	0	47	48	111	21.27	6.99
	0	48	29	116	19.27	5.08
	0	48	36	117	22.27	5.07
	0	50	9	125	22.39	6.41
	0	51	47	134	22.33	6.85
	0	52	38	142	159.08	36.09
	0	53	52	148	487.76	106.72
	0	54	13	149	15.74	5.21
	0	54	41	151	22.8	6.57
	0	54	53	152	245.86	40.29
	0	55	24	153	211.65	37.74
	0	55	39	154	60.23	14.96
	0	55	50	155	33.57	8.12
	0	56	40	159	200.08	34.21
	0	57	40	163	52.5	11.39

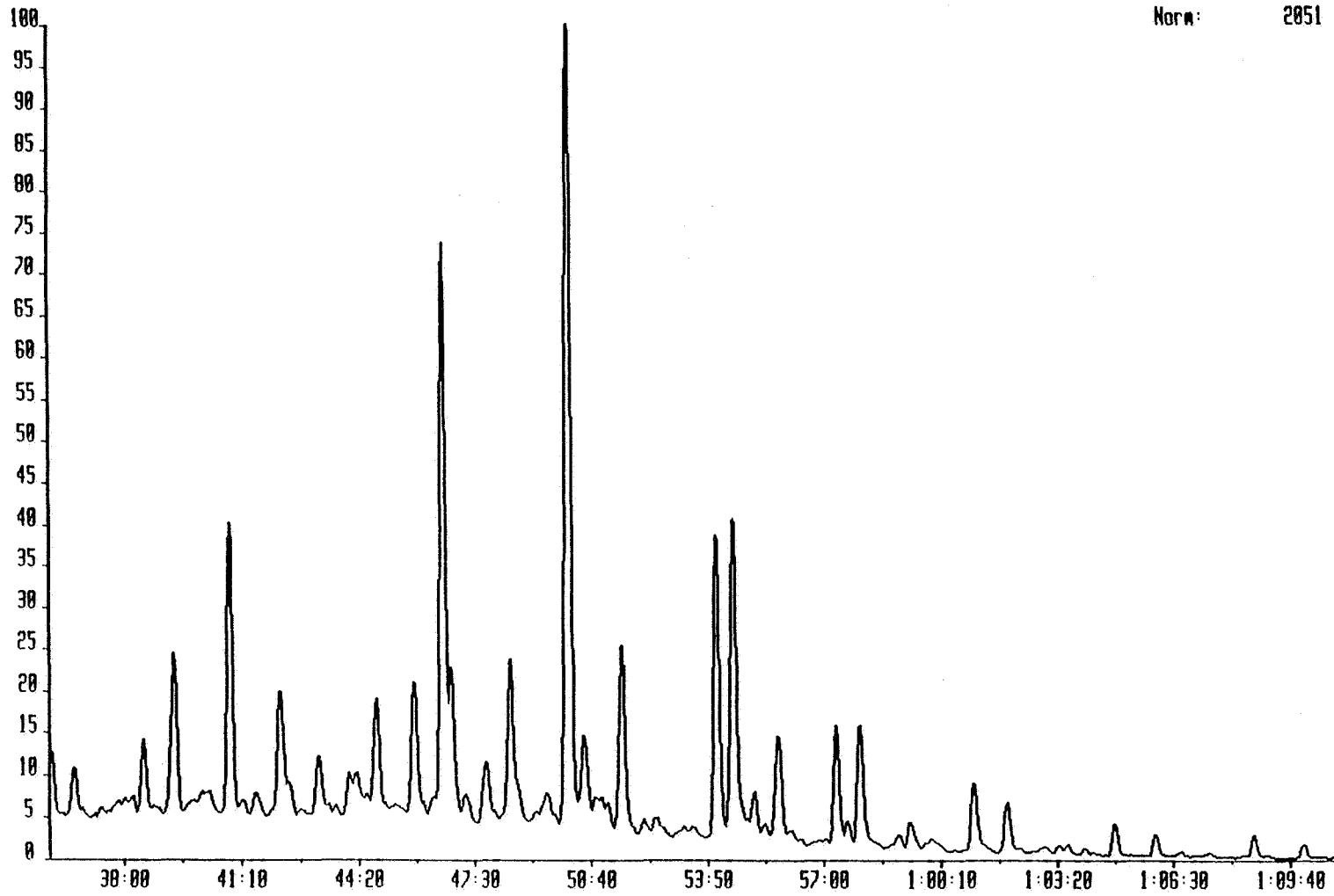
23469A 9-JUL-91 Sir:Voltage 70H Sys: ARO
Sample 1 Injection 1 Group 1 Mass 177.1798
Text:1-26-24 Saturates

Norm: 735



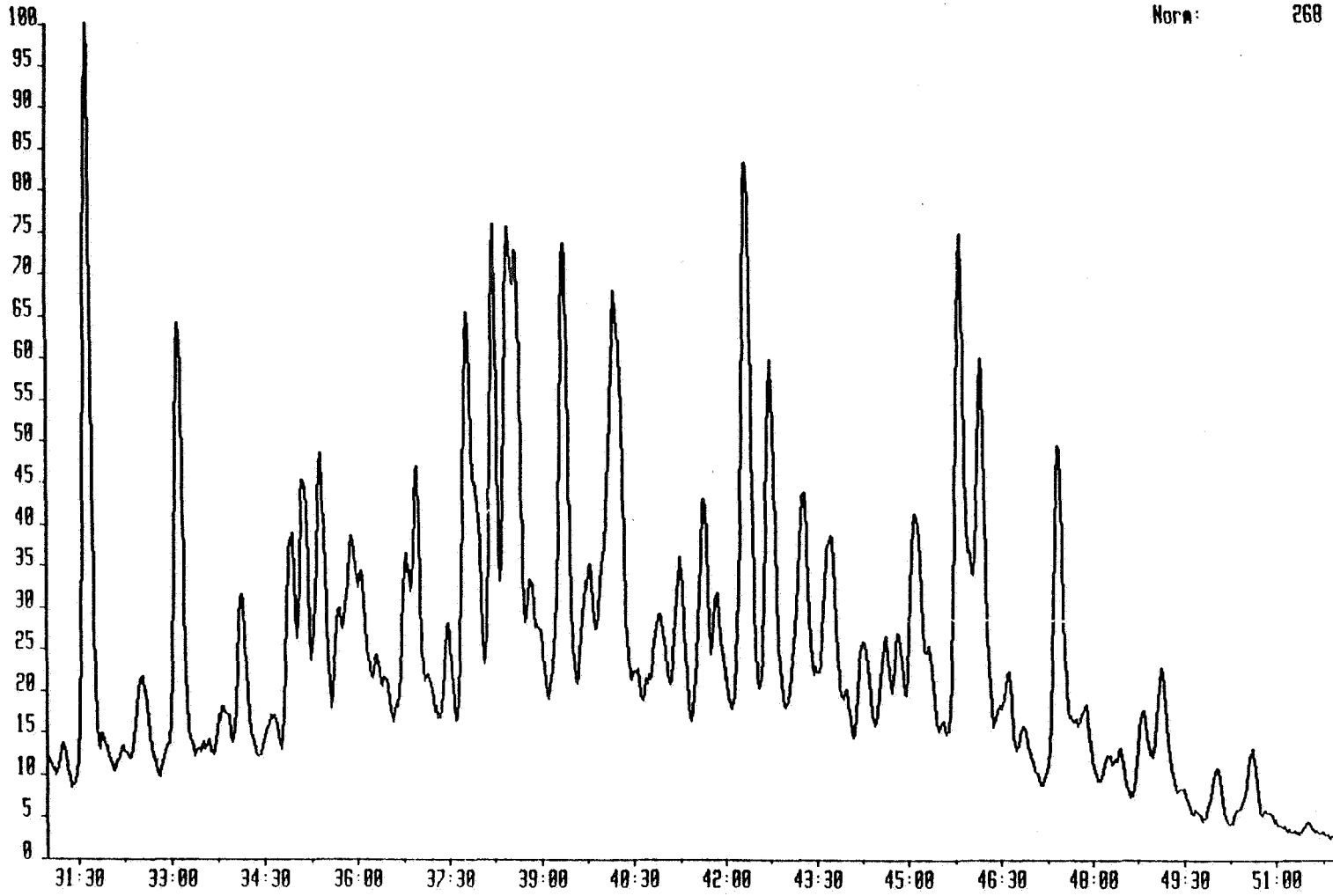
23469A 9-JUL-91 Sir:Voltage 70H Sys: ARO
Sample 1 Injection 1 Group 1 Mass 191.1798
Text:1-26-24 Saturates

Norm: 2051



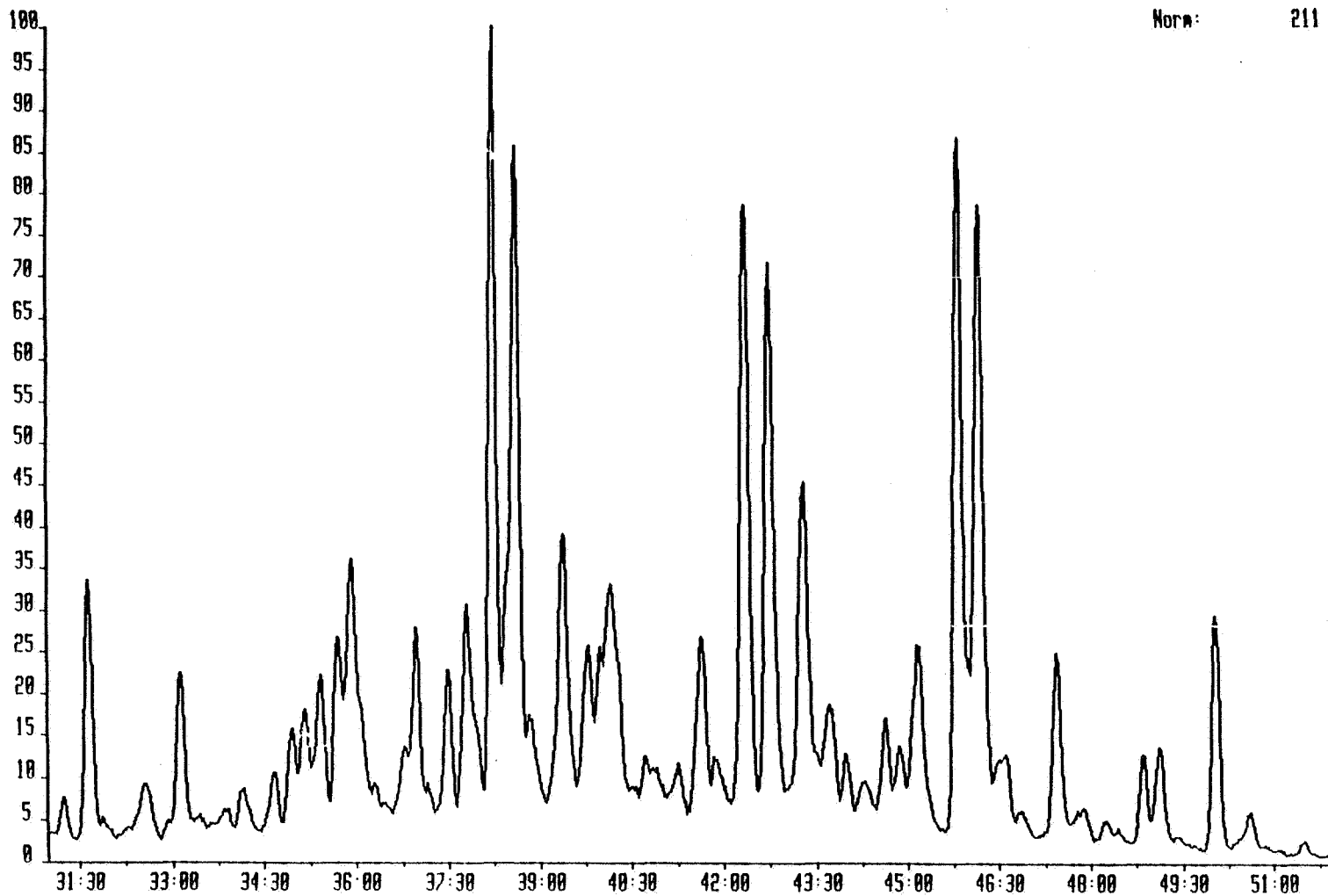
23469A 9-JUL-91 Sir:Voltage 70H Sys: ARO
Sample 1 Injection 1 Group 1 Mass 217.1956
Text:1-26-24 Saturates

Norm: 268



23469A 9-JUL-91 Sir:Voltage 70H Sys: ARO
Sample 1 Injection 1 Group 1 Mass 218.2034
Text:1-26-24 Saturates

Norm: 211



Mass	Retention time			No	Peak	
	Hr	Min	Sec		Area	Height
177.1798						
	0	36	28	133	369.14	44.03
	0	36	59	134	109.25	22.81
	0	37	29	137	114.48	16.92
	0	37	49	139	308.18	37.49
	0	37	59	140	498.71	46.48
	0	38	15	141	633.69	72.33
	0	38	29	142	943.36	83.19
	0	38	40	143	632.51	60.91
	0	39	3	144	281.62	22.2
	0	39	21	145	1161.31	135.2
	0	39	47	146	215.97	22.28
	0	40	14	147	3856.27	218.97
	0	40	36	148	159.39	24.34
	0	40	50	149	726.82	97.99
	0	41	8	150	55.8	12.17
	0	41	15	151	138.7	18.2
	0	41	32	152	638.63	66.88
	0	42	25	153	5051.97	499.62
	0	43	5	154	226.68	29.23
	0	43	16	155	518.3	59.52
	0	43	41	157	111.42	20.34
	0	44	6	159	395.04	45.58
	0	44	18	160	572.63	42.46
	0	44	49	161	836.67	86.56
	0	45	16	162	319.35	22.85
	0	45	51	163	2594.76	275.26
	0	46	38	164	5042.07	611.15
	0	46	51	165	2189.82	220.04
	0	47	14	166	514.1	56.77
	0	48	29	167	4455.79	460.05
	0	49	9	168	189.46	19.5
	0	49	28	169	144.39	17.55
	0	50	2	170	2525.34	213.79
	0	50	28	171	1558.62	122.35
	0	50	57	172	1486.26	152.99
	0	51	30	173	636.65	44.81
	0	52	8	174	80.61	10.32
	0	52	23	175	109.67	14.28
	0	53	16	176	482.54	42.11
	0	54	4	177	898.86	82.4
	0	54	32	178	675.54	80.72
	0	55	47	179	398.76	40.63
	0	57	3	180	98.55	15.73
	0	57	20	181	250.52	30.97
	0	58	0	182	364.65	40.79
	0	59	20	183	66.88	9.37
	1	1	2	184	161.11	19.19
	1	1	56	185	71.93	9.74

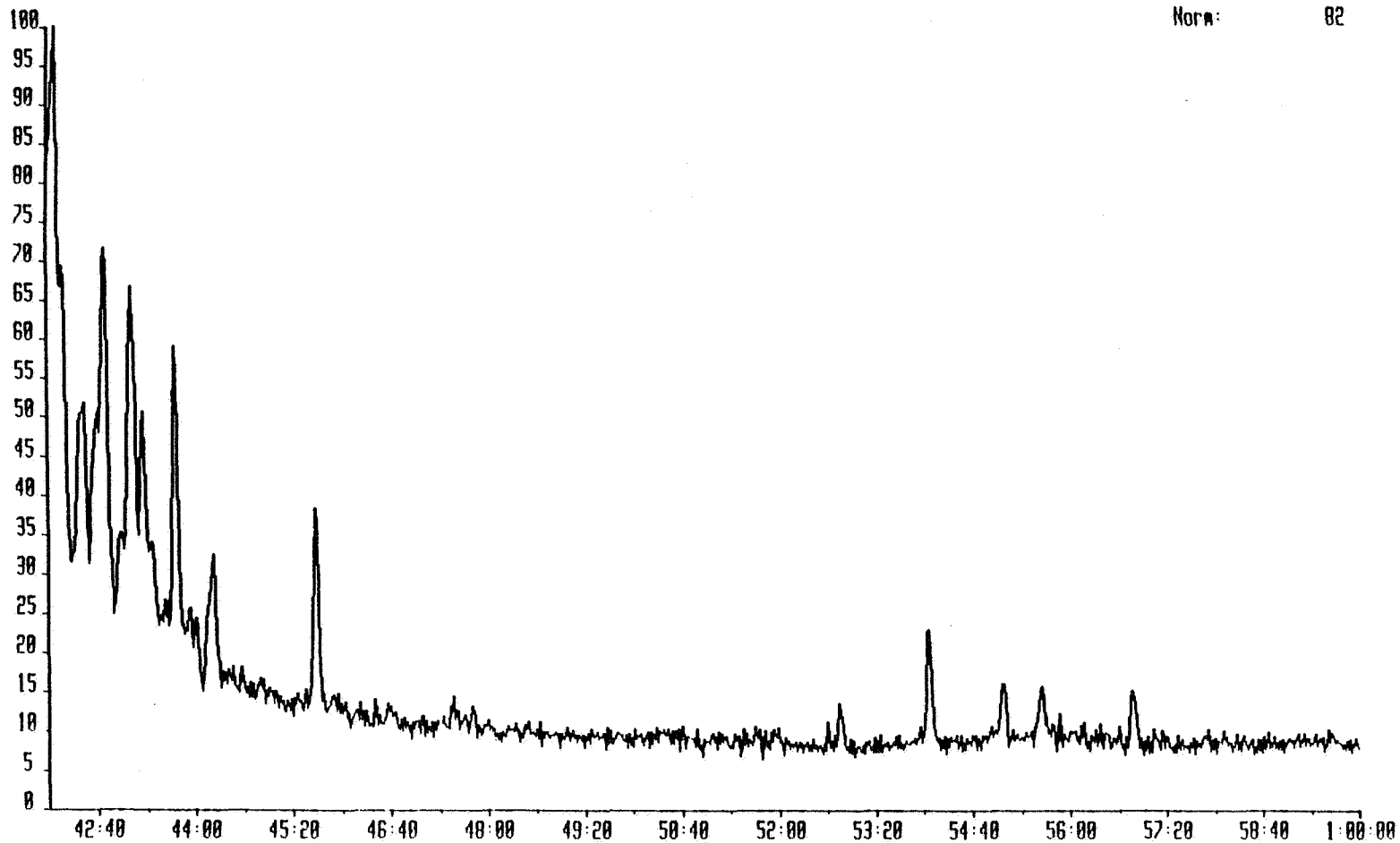
Mass	Retention time			No	Peak Area	Height
	Hr	Min	Sec			
191.1798						
	0	36	38	33	800.57	103.85
	0	37	23	34	88.43	16.08
	0	38	30	35	1349.24	171.92
	0	39	21	36	3752.84	387.6
	0	40	7	37	205.95	26.38
	0	40	18	38	284.92	36.23
	0	40	50	39	5386.71	702.9
	0	41	32	40	519.06	51.1
	0	42	11	41	2940.64	290.47
	0	42	24	42	635.25	78.4
	0	43	14	43	1185.91	130.26
	0	44	3	44	675.62	89.93
	0	44	14	45	733.65	76.43
	0	44	49	46	2278.72	251.27
	0	45	50	47	3092.58	319.2
	0	46	20	48	106.49	17.06
	0	46	38	49	11434.37	1375.14
	0	46	50	50	2981.4	342.1
	0	47	14	51	494.25	51.65
	0	47	47	52	1305.11	132.7
	0	48	29	53	4020.98	378.18
	0	49	11	54	45.98	9.94
	0	49	28	55	293.68	39.36
	0	50	3	56	17240.07	1939.63
	0	50	29	57	1426.25	167.07
	0	50	46	58	136.65	26.76
	0	51	30	59	4189.85	444.53
	0	52	6	60	159.27	22.89
	0	52	25	61	178.36	25.12
	0	54	4	62	6570.73	725.04
	0	54	32	63	7134.55	745.39
	0	55	7	64	555.34	81.88
	0	55	46	65	2315.7	235.9
	0	57	21	66	2308.45	275.51
	0	57	39	67	229.75	36.81
	0	57	59	68	2535.96	278.98
	0	59	20	69	484.39	56.56
	1	1	4	70	1405.27	155.74
	1	1	58	71	987.52	112.61
	1	4	55	72	580.28	72.06
	1	6	1	73	374.77	48.17
	1	8	42	74	355.44	48.08
	1	10	2	75	171.47	27.2

Mass	Retention time			No	Peak	
	Hr	Min	Sec		Area	Height
217.1956	0	31	15	87	76.11	11.4
	0	31	39	88	1992.27	245
	0	31	52	89	94.38	13.93
	0	32	13	90	38.87	5.92
	0	32	32	91	370.66	29.89
	0	33	7	92	1349.92	143.64
	0	33	49	95	177.68	15.86
	0	34	9	96	499.89	52.88
	0	34	36	97	170.01	14.49
	0	34	56	98	617.71	71.44
	0	35	7	99	875.01	87.65
	0	35	25	100	975.82	94.85
	0	35	43	101	326.74	43.69
	0	35	54	102	769.55	66.05
	0	36	4	103	485.6	53.74
	0	36	19	104	235.18	26.08
	0	36	26	105	137.13	18.27
	0	36	49	106	500.02	56.08
	0	36	59	107	751.02	83.48
	0	37	30	108	239.93	33
	0	37	48	109	1759.89	133.7
	0	38	15	110	1236.08	160.74
	0	38	28	111	2678.04	159.26
	0	38	49	112	598.41	45.39
	0	39	23	113	1540.98	152.02
	0	39	47	114	595.72	47.93
	0	40	12	115	2257.01	134.48
	0	40	33	116	90.3	12.62
	0	40	55	117	433.15	31.65
	0	41	15	118	528.24	51.91
	0	41	39	119	691.66	71.13
	0	41	52	120	406.69	40.06
	0	42	20	121	1851.19	176.45
	0	42	44	122	1100.22	113.14
	0	43	19	123	771.11	64.85
	0	43	45	124	540.55	48.99
	0	44	16	125	332.94	30.62
	0	44	38	126	295.31	32.23
	0	44	50	127	294.29	33
	0	45	6	128	1104.18	70.8
	0	45	50	129	1832.41	162.18
	0	46	10	130	1292.89	126.7
	0	46	38	131	420.42	31.33
	0	46	52	132	199.8	16.78
	0	47	27	133	881.35	97.53
	0	47	54	134	72.53	12.21
	0	48	15	135	31.15	5.61
	0	48	28	136	37.21	7.54
	0	48	52	137	301.79	27.46
	0	49	9	138	472.24	41.21
	0	50	2	139	179.87	17.47
	0	50	36	140	250.91	22.82

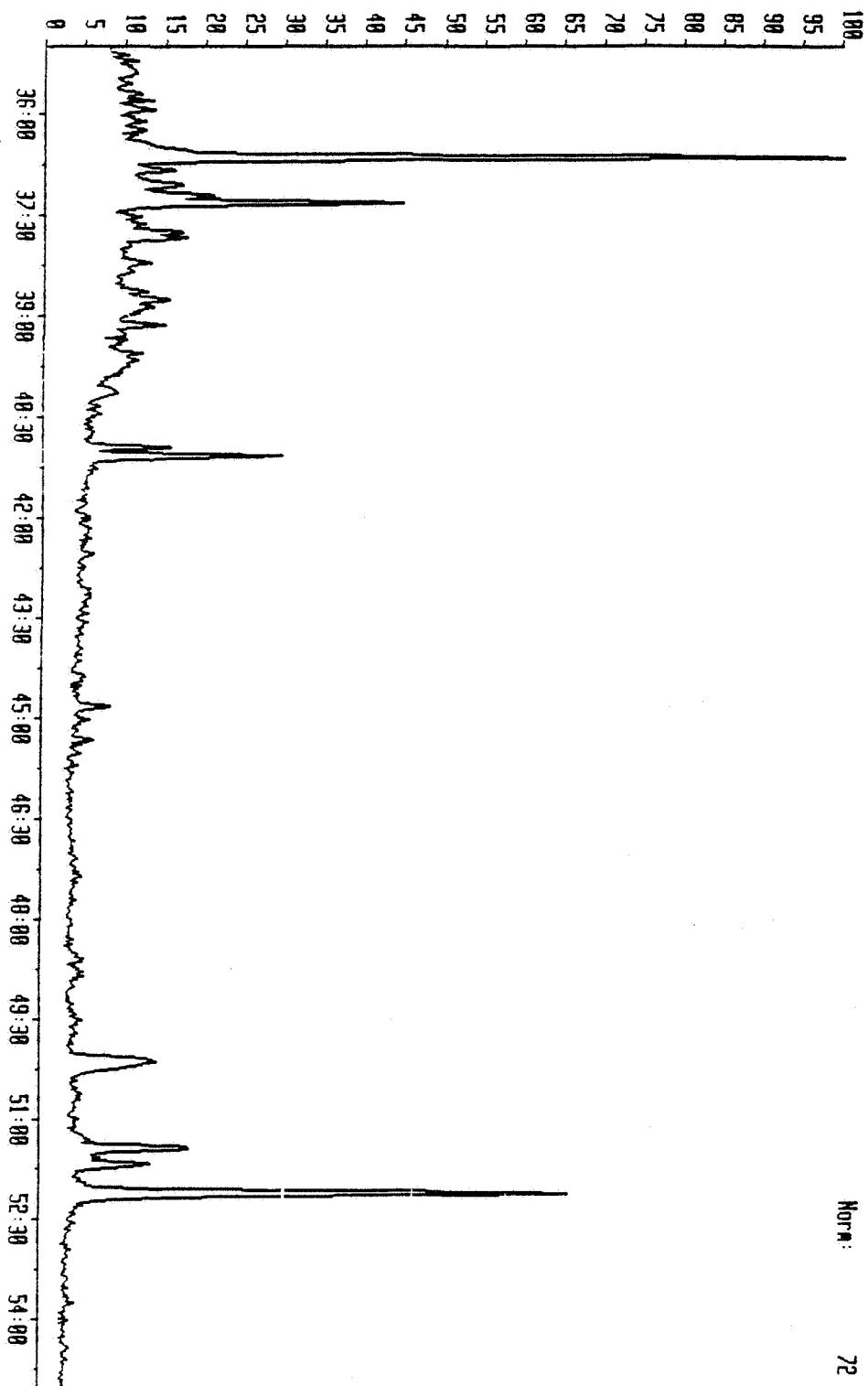
Mass	Retention time			No	Peak	
	Hr	Min	Sec		Area	Height
218.2034						
	0	31	15	29	62.06	9.74
	0	31	39	30	473.49	63.31
	0	32	34	31	130.27	11.71
	0	33	7	33	310.34	38.51
	0	33	55	34	24.6	4.18
	0	34	9	35	87.75	9.85
	0	34	40	36	105.47	13.38
	0	34	56	37	205.7	23.74
	0	35	9	38	255.3	27.37
	0	35	25	39	316.5	34.68
	0	35	41	40	346.84	42.96
	0	35	55	41	772.44	61.23
	0	36	47	42	126.32	15.68
	0	36	58	43	402.65	46.53
	0	37	29	44	255.92	34.88
	0	37	48	45	581.92	51.64
	0	38	15	46	1465.34	197.78
	0	38	37	47	1860.51	167.19
	0	38	49	48	227.54	22.85
	0	39	22	49	724.01	67.53
	0	39	47	50	401.69	38.66
	0	40	10	52	766.77	52.94
	0	40	42	53	36.43	7.54
	0	41	15	54	68.61	9.76
	0	41	38	55	433.65	43.21
	0	41	50	56	133.65	13.13
	0	42	20	57	1397.38	150.07
	0	42	44	58	1212.73	134.89
	0	43	19	59	822.45	77.77
	0	43	43	60	274.31	23.81
	0	43	58	61	87.03	12.98
	0	44	17	62	79.32	7.58
	0	44	38	63	181.08	23.73
	0	44	51	64	164.93	17.99
	0	45	9	65	597.79	45.43
	0	45	50	66	1654.34	173.98
	0	46	10	67	1580.64	156.42
	0	46	36	68	247.28	17.01
	0	47	27	69	366.37	44.14
	0	48	16	70	29.45	4.18
	0	48	52	71	164.89	21.11
	0	49	7	72	205.2	23.01
	0	50	2	73	472.51	58.26
	0	50	36	74	47.66	7.35

234610A 10-JUL-91 Sir:Voltage 70H Sys: 190GA
Sample 1 Injection 1 Group 1 Mass 231.1174
Text:1-26-24-AROMATICS

Norm: 82



2346106 10-JUL-91 Sic: Voltage 70H Sys: 1906A
Sample 1 Injection 1 Group 1 Mass 253.1956
Text: 1-26-24-RDMMTICS



Mass	Retention time			No	Peak	
	Hr	Min	Sec		Area	Height
253.1956						
	0	35	16	23	2.87	1.46
	0	35	32	24	3.86	1.71
	0	35	42	25	7.17	2.15
	0	35	46	26	3.67	2.55
	0	35	55	27	13.22	3.31
	0	36	6	28	10.62	2.53
	0	36	13	29	7.17	2.16
	0	36	38	30	283	64.81
	0	36	49	31	15.48	4.1
	0	37	2	32	17.2	4.17
	0	37	11	33	3.43	1.99
	0	37	18	34	71.39	22.53
	0	37	48	38	48.07	6.48
	0	38	11	41	9.11	2.9
	0	38	37	44	5.27	2.08
	0	38	44	45	11.44	3.35
	0	38	51	46	3.06	1.52
	0	39	7	47	17.16	4.68
	0	39	32	49	9.28	3.12
	0	39	38	50	14.82	2.42
	0	40	8	51	15.51	2.42
	0	40	56	56	27.29	7.79
	0	41	4	57	66.37	17.5
	0	41	57	59	3.91	1.32
	0	42	30	63	3.28	1.34
	0	44	49	72	13.47	3.34
	0	45	18	75	7.02	2.07
	0	48	35	85	6.55	1.37
	0	50	7	92	79.01	7.75
	0	51	25	102	52.52	9.62
	0	51	39	103	29.71	6.14
	0	52	5	105	196.76	44.06

Mass	Retention time			No	Peak	
	Hr	Min	Sec		Area	Height
231.1174	0	42	29	234	156.06	19.84
	0	42	46	235	358.04	38.14
	0	42	57	236	9.87	4.59
	0	43	7	237	177.41	29.78
	0	43	16	238	109.07	19.78
	0	43	24	239	39.48	9.03
	0	43	43	241	134.26	30.93
	0	44	0	242	36.4	5.93
	0	44	15	243	92.43	14.08
	0	44	38	244	9.02	3.15
	0	44	53	245	8.92	2.7
	0	45	1	247	6.44	2.27
	0	45	18	251	5.64	2.41
	0	45	39	254	109.76	22.19
	0	45	53	255	7.73	2.32
	0	46	26	261	6.07	3.69
	0	46	37	263	20.34	3.49
	0	47	31	267	12.82	3.9
	0	47	46	270	11.98	3.38
	0	49	25	283	10.74	2.58
	0	49	47	286	5	1.88
	0	52	5	304	3.78	1.84
	0	52	40	307	6.04	3.3
	0	52	49	309	25.38	5.64
	0	52	58	310	9.39	2.47
	0	53	12	312	3.82	1.73
	0	53	19	313	3.81	1.83
	0	54	4	320	56.42	12.28
	0	54	40	323	9.15	1.93
	0	54	55	325	4.71	1.82
	0	55	5	326	38.73	6.96
	0	55	37	331	42.81	6.33
	0	55	51	334	6.71	3.84
	0	56	0	336	6.34	2.04
	0	56	11	337	11.19	3.18
	0	56	41	341	4.7	1.98
	0	56	51	342	41.72	6.87
	0	57	9	344	3.55	2.29
	0	57	16	345	7.61	2.35
	0	59	34	365	9.14	2.62

Appendix 2 – Analytical Methods

Analytical Methods

ANALYSIS	INSTRUMENT	METHOD	TEMPERATURE PROGRAM	COLUMNS
Lith description		Ols 3		
Headspace gas	Perkin Elmer Sigma-3	Ols 12	Isothermal 110 deg C	1/8" Stainless steel with
Occluded gas	Perkin Elmer Sigma-3	Ols 14	Isothermal 110 deg C	3% squalane on alumina
TOC	Leco CS 125	Ols 1		
Rock Eval Pyrolysis	Rock Eval II	Ols 5	Cycle 1	
Vitrinite Reflectance	Carl Zeiss with P03 photometer			
Quantitative Extraction	Soxhtec Tecator 1043	Saga method	Boil 1 hr, rinse 2hr (DCM:MeOH, 7:1, Vol:Vol)	
Alkane GC	HP5890a (on column)	Saga method	80C 3 min, 4C/min to 300C, 300C 12 min.	CP SIL-5
Aromatic GC	HP5890a (on column)	Saga method	80C - 103C (1C/min), 103C - 140C (3C/min), 140C - 180C (1C/min), 300C 20+ mins.	DB-5
Whole oil GC	HP5890a (split/splitless)	Ols 21	-30C - 300C (5C/min)	CP SIL-5
Alkane GC/MS	VG 7070 H	Saga method	180C 1min, 1.7C/min to 310C, 310C 10 min.	DB-1
Aromatic GC/MS	VG 7070 H	Saga method	180C 1min, 1.7C/min to 310C, 310C 10 min.	DB-5
Isotope analysis	Run at IFE			
Asphalt Precipitation		Ols 30		
API Gravity		by I P method		
Sulphur Content	Baird PS4 ICP	WC 10		
Nickel	Baird PS4 ICP	WC 10		
Vanadium	Baird PS4 ICP	WC 10		
API of fract w/ BP >210C		by I P method		