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Title

GEOCHEMICAL DATA REPORT FOR WELL 31/4-2

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Abstract

Five samples from the cored interval in well 31/4-2 have been analysed by Iatroscan (TLC-FID) and the saturated hydrocarbon fraction for one sample was analysed by GC-FID and GC/MS The aromatic hydrocarbon fraction was analysed by GC-FID.

NOT INCLUDED IN WELL TRADE.

Key Words

31/4-2, geochemistry, GC-FID, GC/MS

Classification: Free Saga and partners Internal Confidential Strictly confidential

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1 Objectives

The objective of this study was to characterise the extractable hydrocarbons in five core samples from well 31/4-2 to the north-west of the Brage Field, Norway.

2 General well information

The well was drilled by Norsk Hydro as operator of licence 055 from 25/9-79 to 15/11-79 and reached a total depth of 2900 mRKB. The KB of the rig was 25 metres and the water depth was 142 metres.

3 Samples and analytical scheme

Five samples were picked from the cored interval in the well on the 27th of April 1992 at GECO's store in Stavanger. The five samples (2206.55, 2217.3, 2491.2, 2493.9 and 2689.0 mRKB core depth) were analysed by Iatroscan (TLC-FID), and the saturated hydrocarbon fraction from the sample at 2206.55 mRKB was analysed by GC-FID and GC/MS. The aromatic hydrocarbon fraction was analysed by GC-FID.

4 Vitrinite reflectance

No samples were analysed.

5 TOC and Rock Eval

No samples were analysed.

6 Iatroscan (TLC-FID)

Five samples were analysed, and the results are tabulated in Table 1.

7 GC-FID

The saturated hydrocarbon fraction of the sample from 2206.55 mRKB was analysed by GC-FID. The sample has a bimodal *n*-alkane distribution without any signs of biological degradation.

Since the evaporative loss has affected the relative concentration of individual compounds, no ratios were calculated.

The GC-FID chromatogram is shown in figure 1.

8 GC/MS

The saturated hydrocarbon fraction of the sample was analysed by GC/MS and the mass chromatograms for *m/z* 191, 177, 217 and 218 are shown in figure 2.

Selected biological marker parameters are given in table 2.

9 Stable carbon isotopes

No samples were analysed.

Tab. 1

0 WELL NAME	1 NATIONALITY	2 LABORATORY	3 U.DEPTH	4 L.DEPTH	5 SAMPLE TYPE	6 LITHOLOGY	7 EOM mg/g
1 31/4-2	NOR	SAGA	2206.55	2206.55	CCP	SST	0.26
2 31/4-2	NOR	SAGA	2217.30	2217.30	CCP	SST	0.78
3 31/4-2	NOR	SAGA	2491.20	2491.20	CCP	SST	0.00
4 31/4-2	NOR	SAGA	2493.90	2493.90	CCP	SST	0.10
5 31/4-2	NOR	SAGA	2689.00	2689.00	CCP	SST	0.00

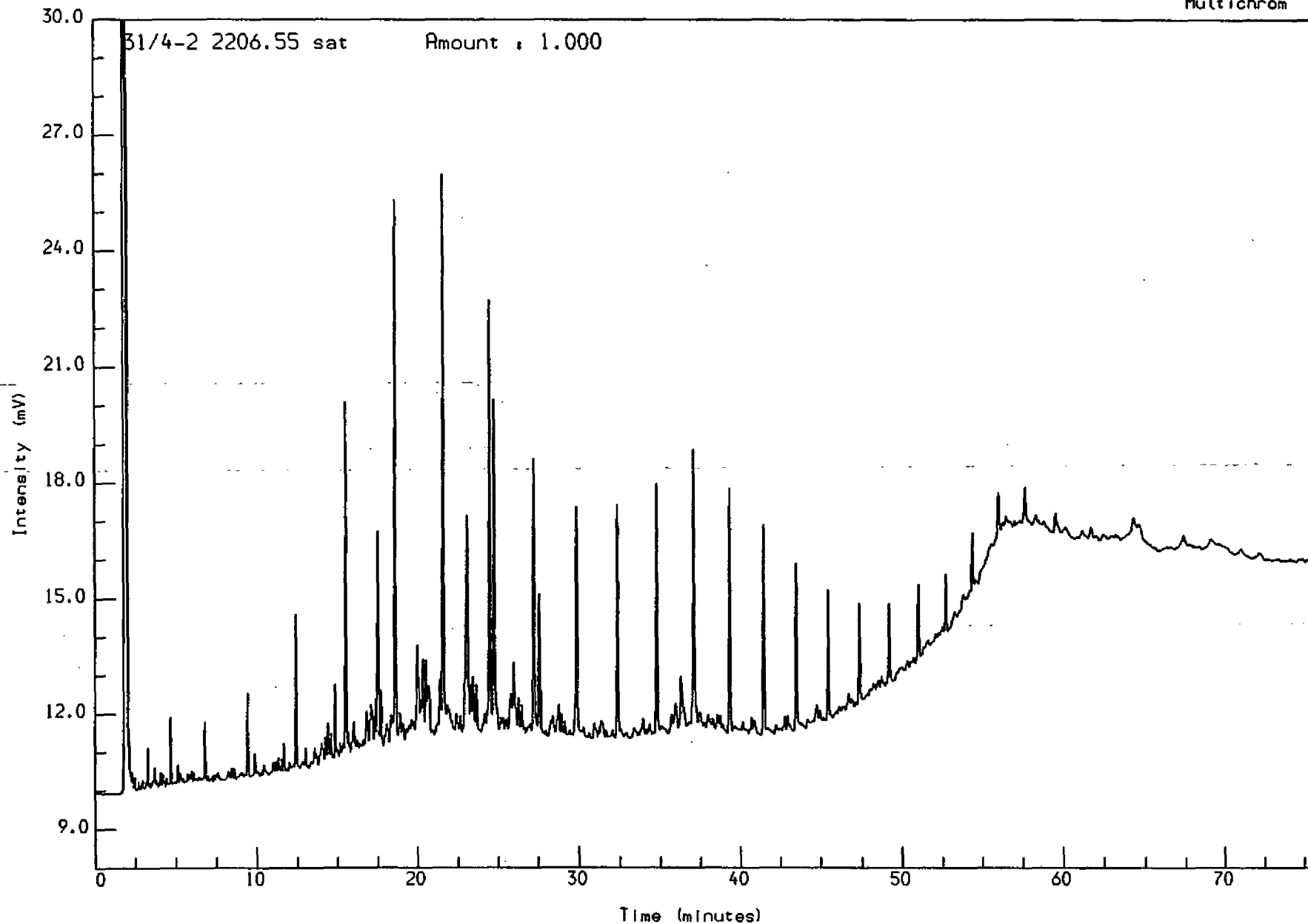
0 WELL NAME	8 SAT (mg/g)	9 ARO (mg/g)	10 POL (mg/g)	11 SAT %	12 ARO %	13 POLARS %	14 SAT ARO	15 METHODS
1 31/4-2	0.09	0.00	0.17	33.311929	0	66.688071		GC, GC/MS
2 31/4-2	0.06	0.00	0.72	7.733062	0	92.266938		Iatroscan
3 31/4-2	0.00	0.00	0.00					Iatroscan
4 31/4-2	0.00	0.00	0.10	0.000000	0	100.000000		Iatroscan
5 31/4-2	0.00	0.00	0.00					Iatroscan

Tab. 2

0 WELL NAME	1 CONS.	2 UPPER DEPTH	3 DEPTH	4 LITH	5 SAMPLE TYPE	6 Q/E	7 Ts/Tm	8 Z/C	9 ab/ab+ba
1 31/4-2	SAGA	2206.50	2206.50	SST	CCP	0.25	0.64	0.29	0.83

0 WELL NAME	10 %22S	11 %20S	12 %bb	13 a/a+j	14 C27st	15 C28st	16 C29st
1 31/4-2	0.57	0.46	0.54	0.60	31.72	29.39	38.89

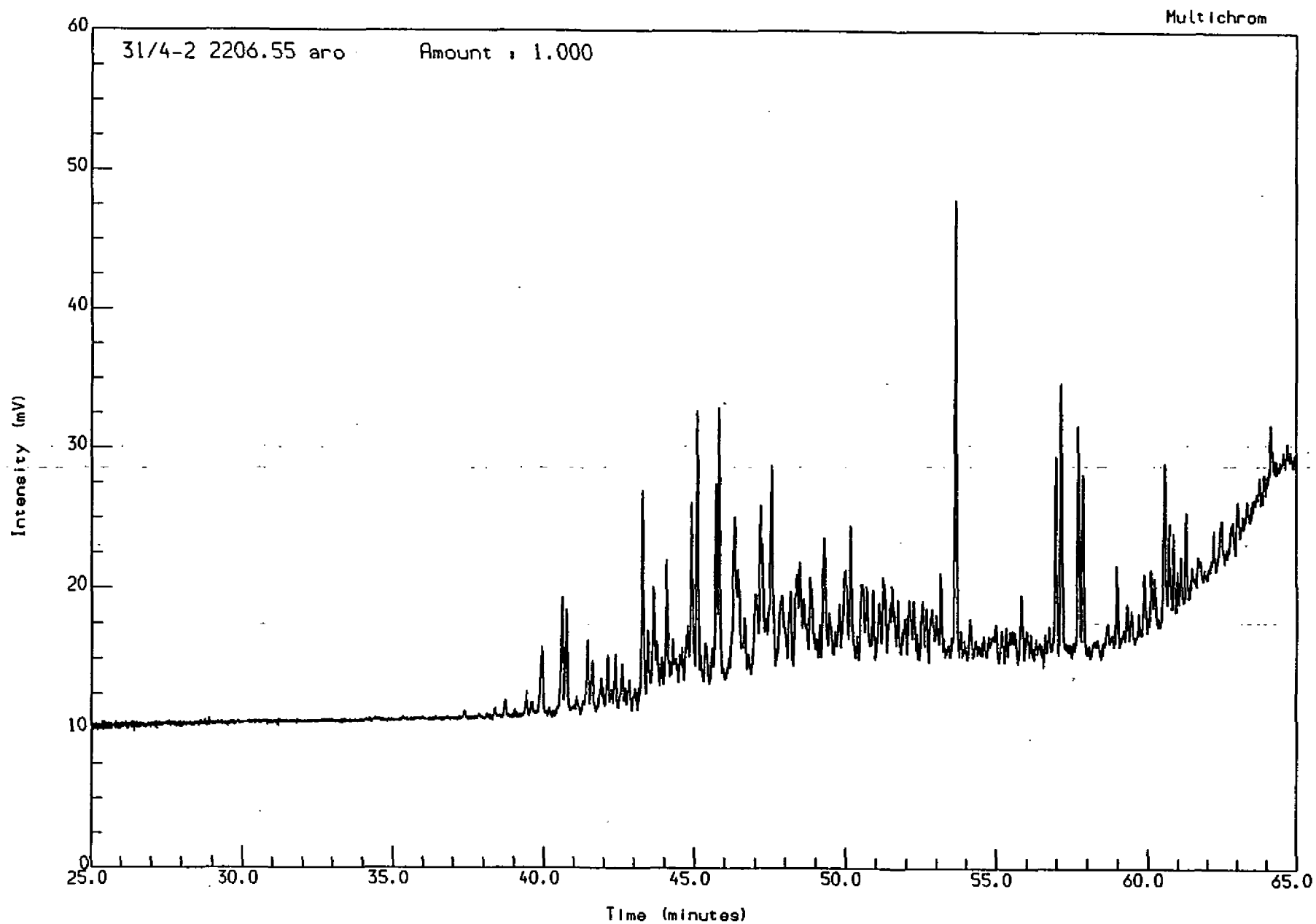
Fig. 1



Acquired on 13-AUG-1992 at 22.52

Reported on 18-AUG-1992 at 10.52

Analysis Name : [DEFECT] 1 A136,11,1.



Acquired on 14-AUG-1992 at 00:21

Reported on 18-AUG-1992 at 10:10

Fig. 2

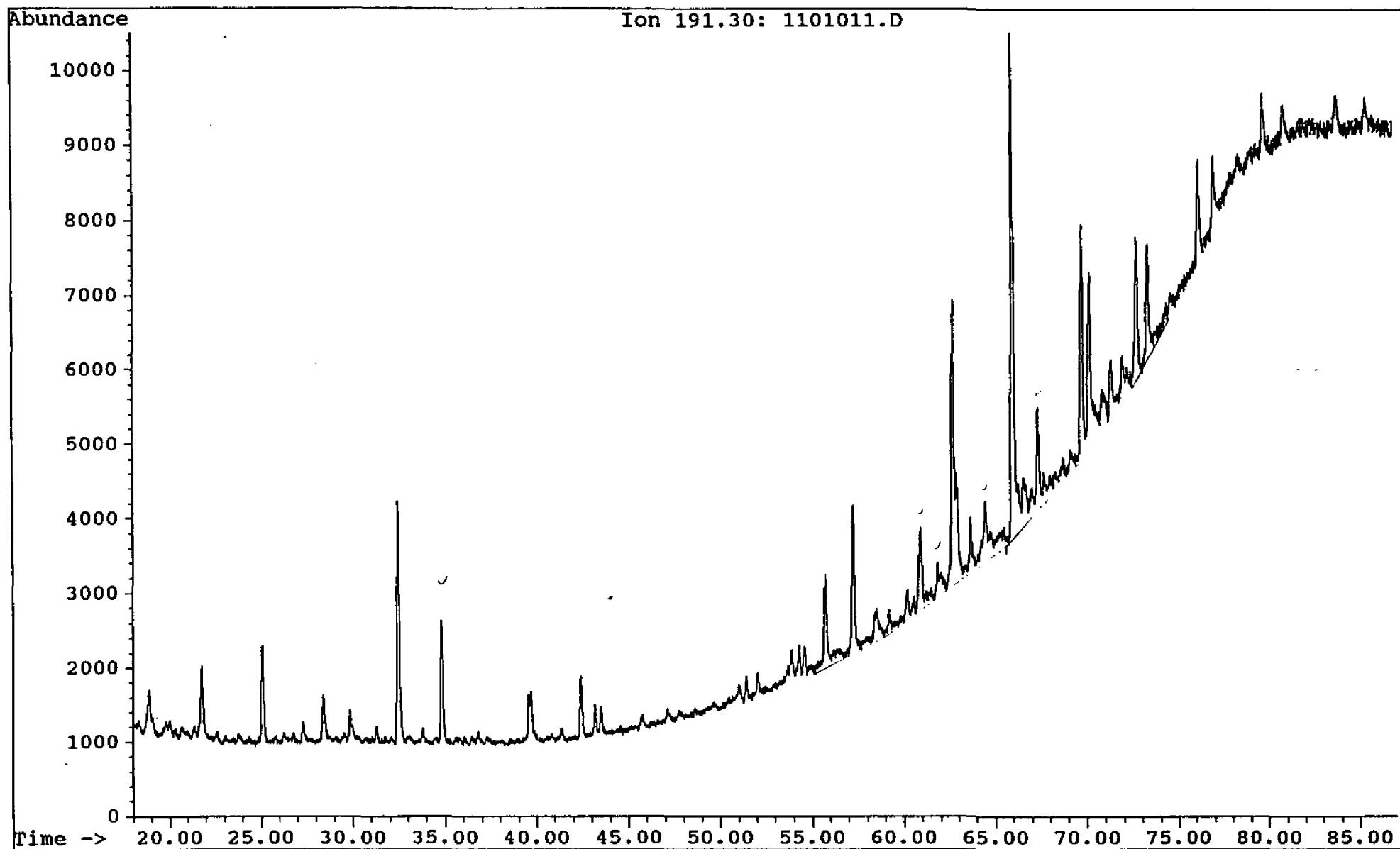
Saga Petroleum a.s.

ate acquired: 10 Sep 92 5:41 pm

File: C:\CHEMPC\DATA\PL174\RUN1\1101011.D Inst: HP5971A Inj: Split Meth: BMS.M

Sample name:

WEL1 31/4-2 2206.55 sat

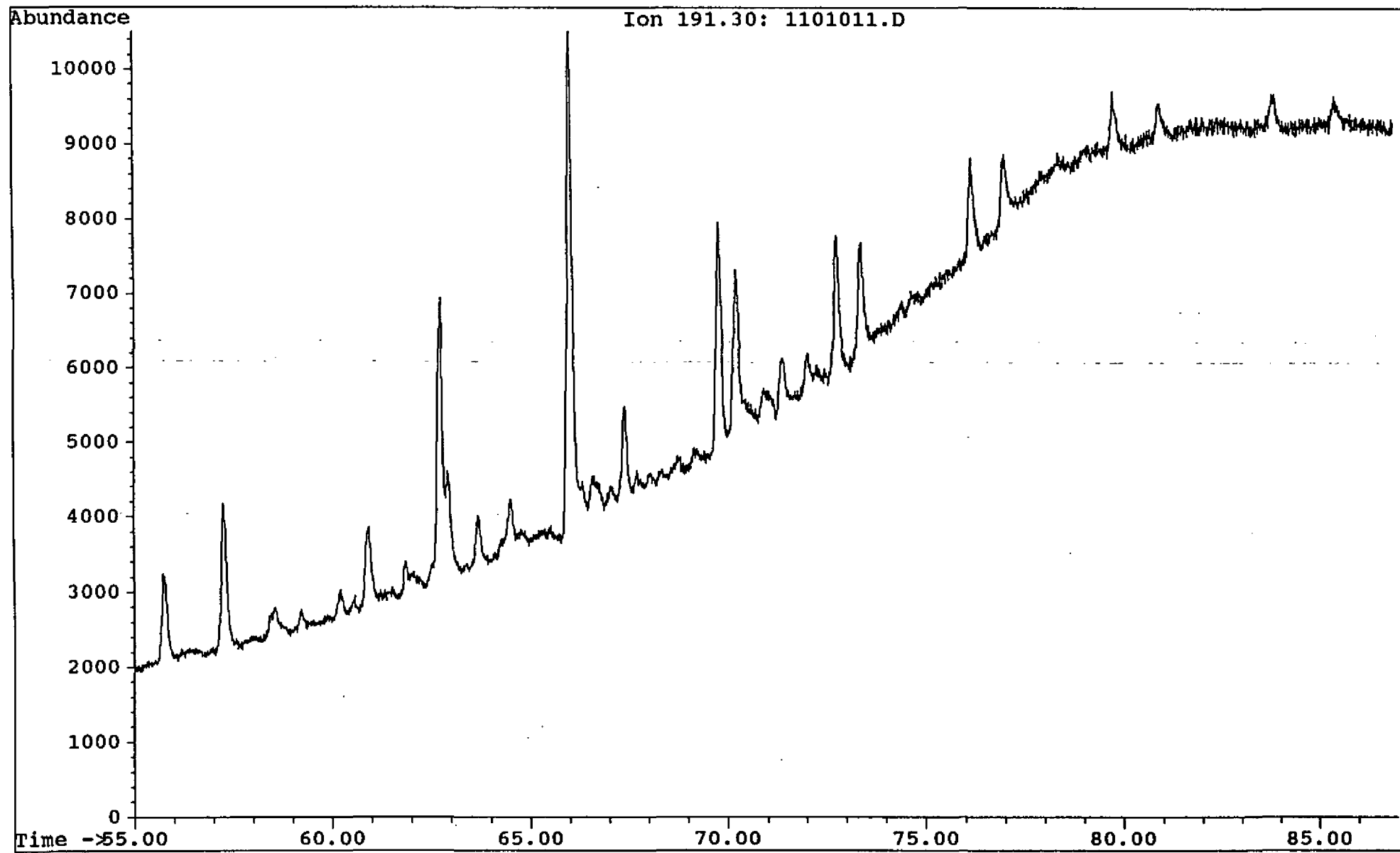


Saga Petroleum a.s.

Date acquired: 10 Sep 92 5:41 pm

File: C:\CHEMPC\DATA\PL174\RUN1\1101011.D Inst: HP5971A Inj: Split Meth: BMS.M

Sample name: WEL1 31/4-2 2206.55 sat



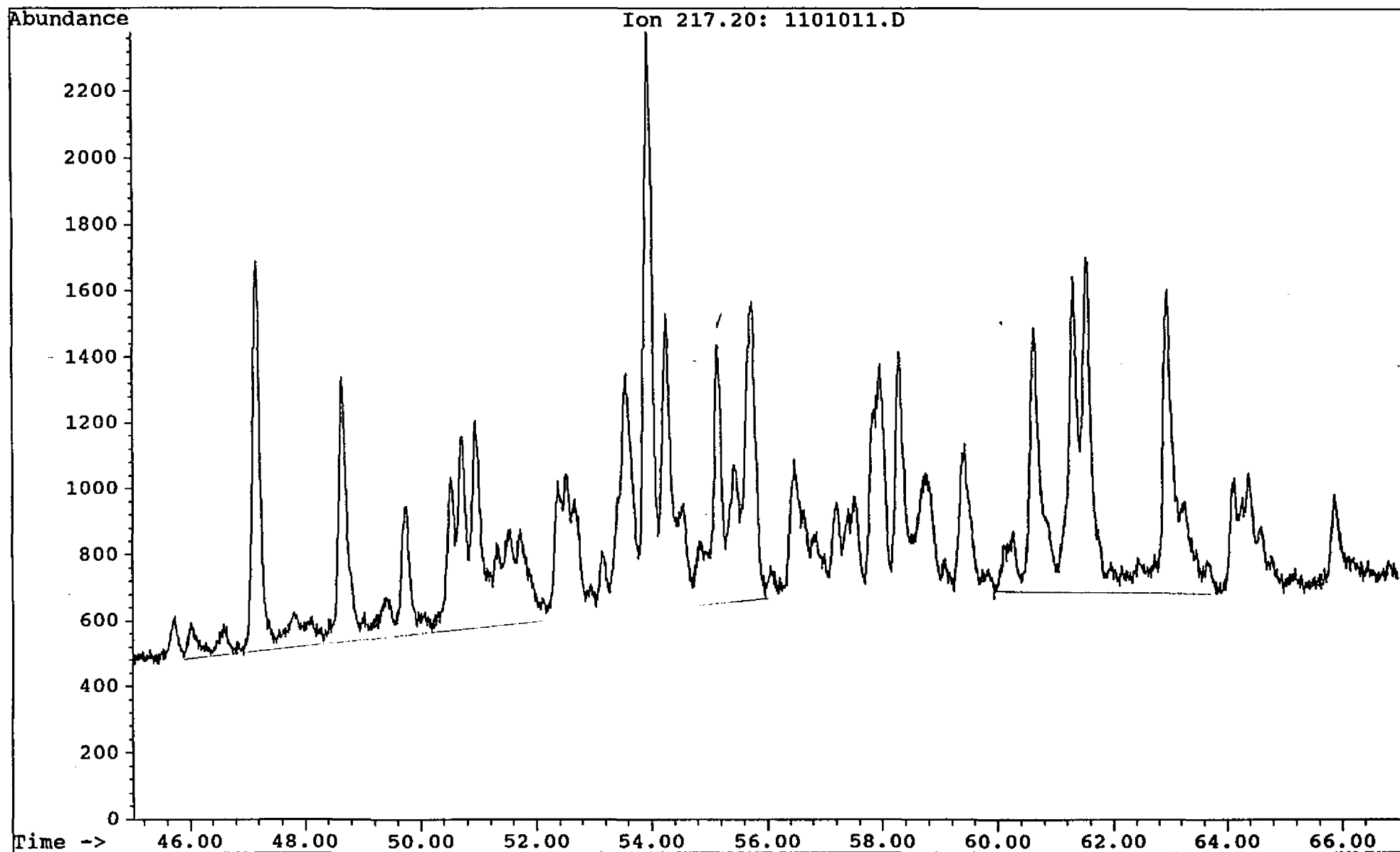
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Sample name:

WEL1 31/4-2 2206.55 sat



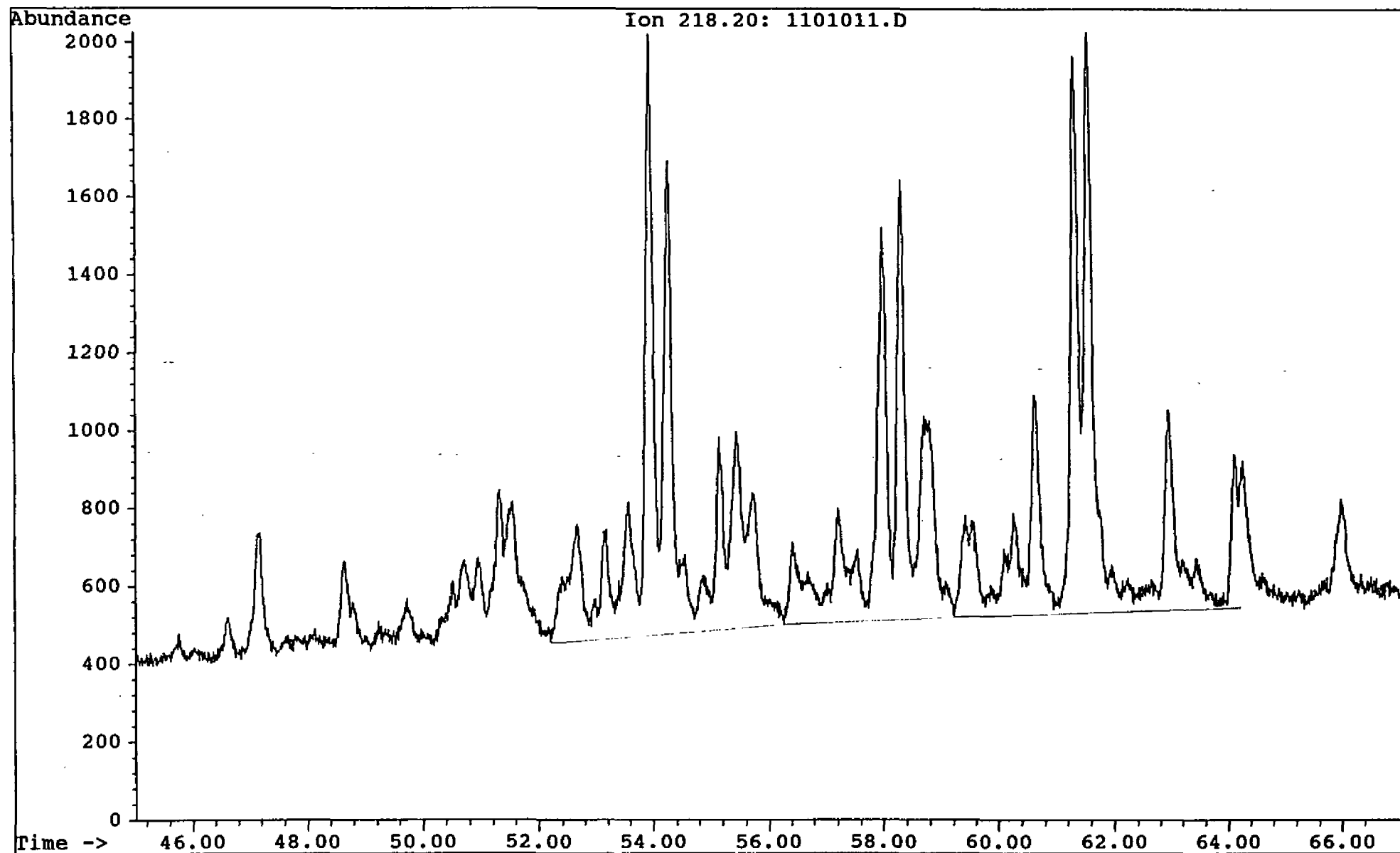
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