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Title

GEOCHEMICAL DATA REPORT FOR WELL 31/4-5

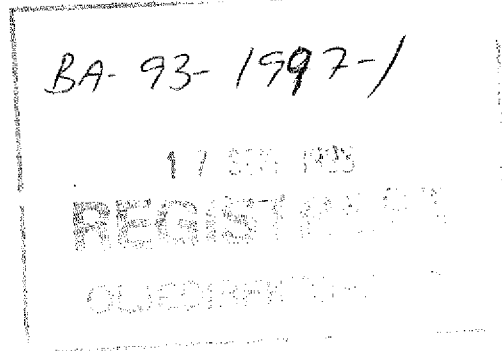
Authors(s)

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Abstract

Three samples from the cored interval in well 31/4-5 have been analysed by Iatroscan (TLC-FID) and the saturated hydrocarbon fractions from all three samples were analysed by GC-FID and GC/MS.

NOT INCLUDED IN WELL TRADE.



Key Words

31/4-5, geochemistry, GC-FID, GC/MS, Brage Field

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 three core samples from well 31/4-5 from the Brage Field, Norway.

2 General well information

The well was drilled by Norsk Hydro as operator of licence 055 from 27/5-81 to 29/7-81 and reached a total depth of 2930 mRKB. The KB of the rig was 25 metres and the water depth was 148 metres.

3 Samples and analytical scheme

Three samples were picked from the cored interval in the well on the 16th of September 1992 at NPD's store in Stavanger. The three samples (see table 1) were analysed by Iatroscan (TLC-FID), and the saturated hydrocarbon fraction from all three samples (2076.3, 2104.4 and 2125.0 mRKB) were analysed by GC-FID and GC/MS.

4 Vitrinite reflectance

No samples were analysed.

5 TOC and Rock Eval

No samples were analysed.

6 Iatroscan (TLC-FID)

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

7 GC-FID

The saturated hydrocarbon fractions from three samples 2076.3, 2104.4 and 2125.0 mRKB were analysed by GC-FID. All the samples have a uniform 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 chromatograms are shown in figure 1.

8 GC/MS

The saturated hydrocarbon fractions from the three samples were 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 31/4-5	NOR	SAGA	2076.30	2076.30	CCP	SST	0.51
2 31/4-5	NOR	SAGA	2104.40	2104.40	CCP	SST	5.90
3 31/4-5	NOR	SAGA	2125.00	2125.00	CCP	SST	5.92

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 31/4-5	0.14	0.04	0.33	27.450980	7.843137	64.705882	3.500000	GC, GC/MS
2 31/4-5	3.83	0.92	1.15	64.915254	15.593220	19.491525	4.163043	GC, GC/MS
3 31/4-5	3.02	0.98	1.92	51.013514	16.554054	32.432432	3.081633	GC, GC/MS

Tab. 2

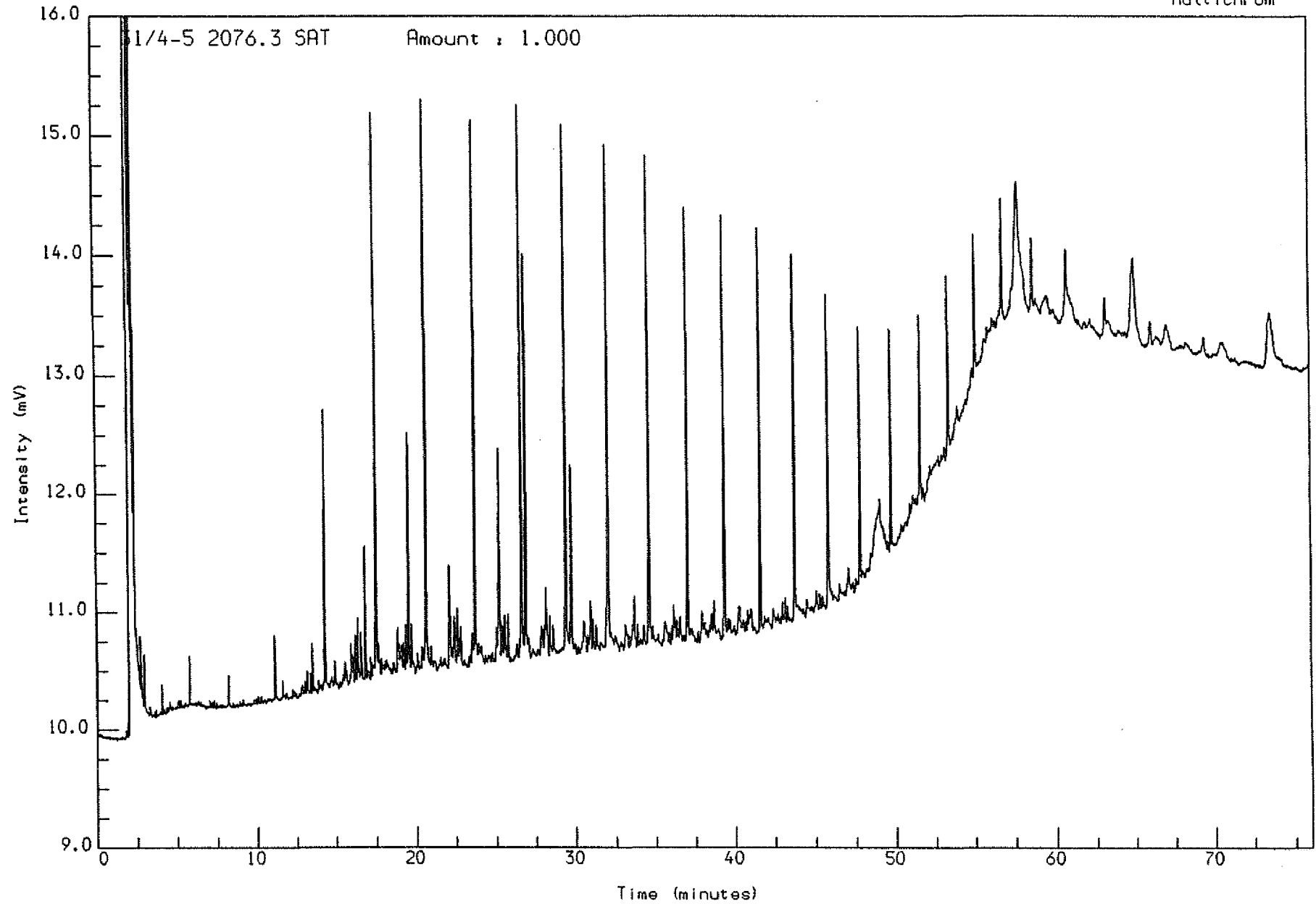
0 WELL NAME	1 CONS.	2 UPPER DEPTH	3 DEPTH	4 LITH	5 SAMPLE TYPE	6 Q/E	7 Ts/Tm	8 Z/C	9 ab/ab+ba
1 31/4-5	SAGA	2076.30	2076.30	SST	CCP	0.19	0.91	0.39	0.88
2 31/4-5	SAGA	2104.40	2104.40	SST	CCP	0.23	0.27	0.36	0.73
3 31/4-5	SAGA	2125.00	2125.00	SST	CCP	0.20	1.05	0.57	0.90

0 WELL NAME	10 %22S	11 %20S	12 %bb	13 a/a+j	14 C27st	15 C28st	16 C29st
1 31/4-5	0.56	0.46	0.51	0.62	35.95	29.98	34.07
2 31/4-5	0.52	0.43	0.45	0.64	31.88	29.97	38.15
3 31/4-5	0.57	0.56	0.55	0.82	32.65	32.99	34.35

Fig. 1

Analysis Name : [DEFPROJECT] 3 S103.7.1.

Multichrom

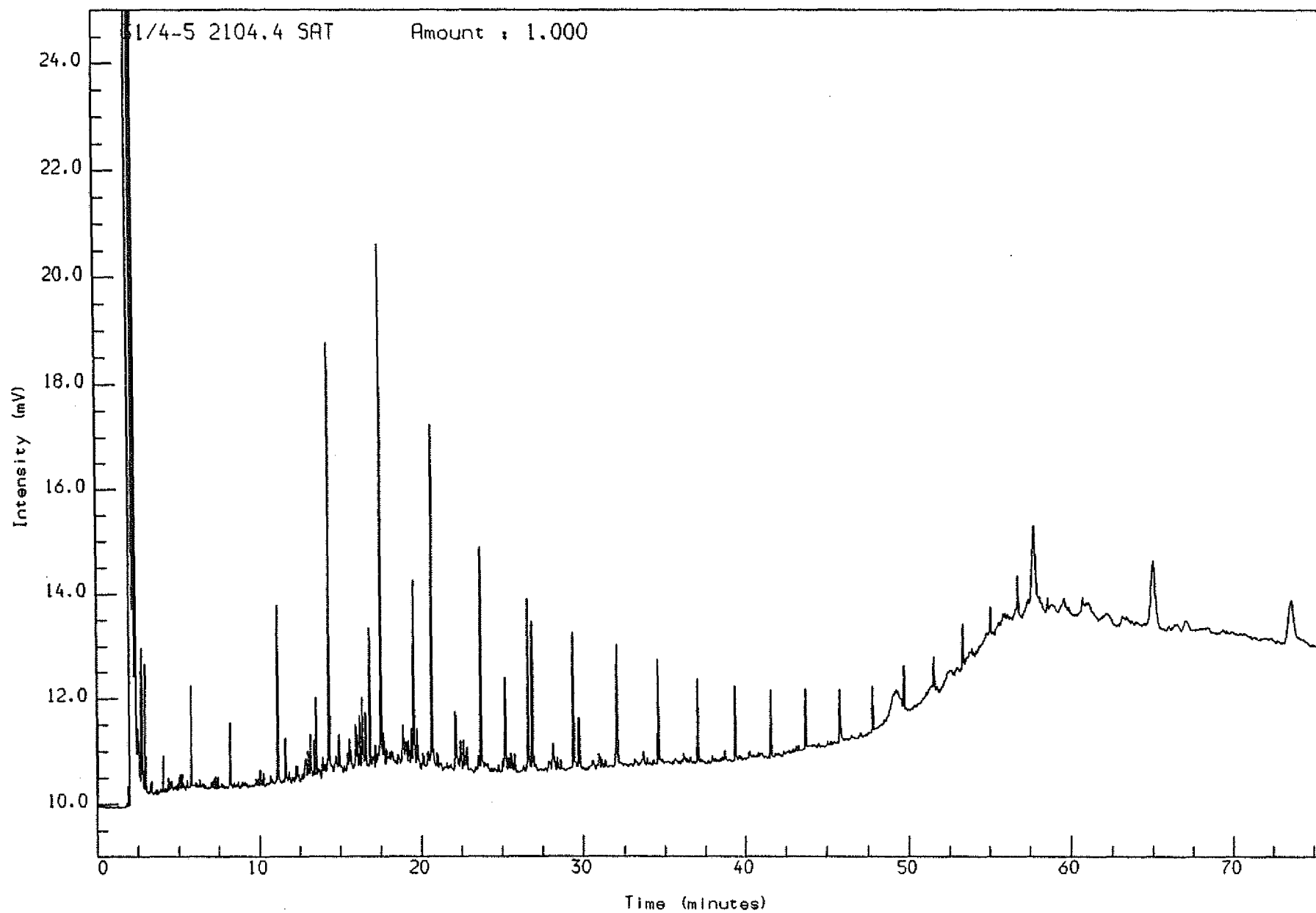


Acquired on 1-OCT-1992 at 23:32

Reported on 6-OCT-1992 at 10:00

Analysis Name : [DEFPROJECT] 3 S104,3,1.

Multichrom

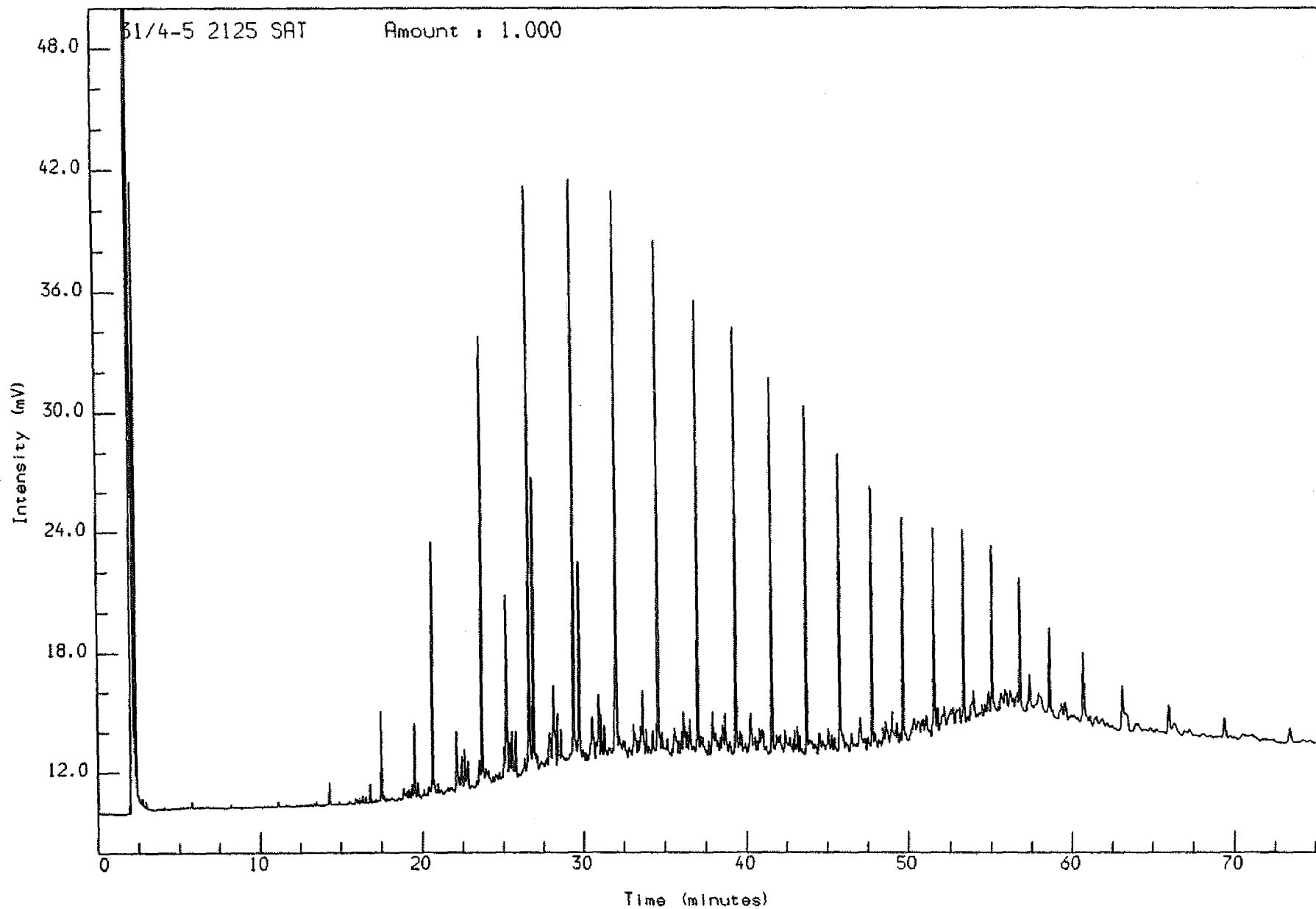


Acquired on 5-OCT-1992 at 12:42

Reported on 6-OCT-1992 at 10:04

Analysis Name : [DEFPROJECT] 3 S103,8,1.

Multichrom



Acquired on 2-OCT-1992 at 00:53

Reported on 6-OCT-1992 at 10:00

Fig. 2

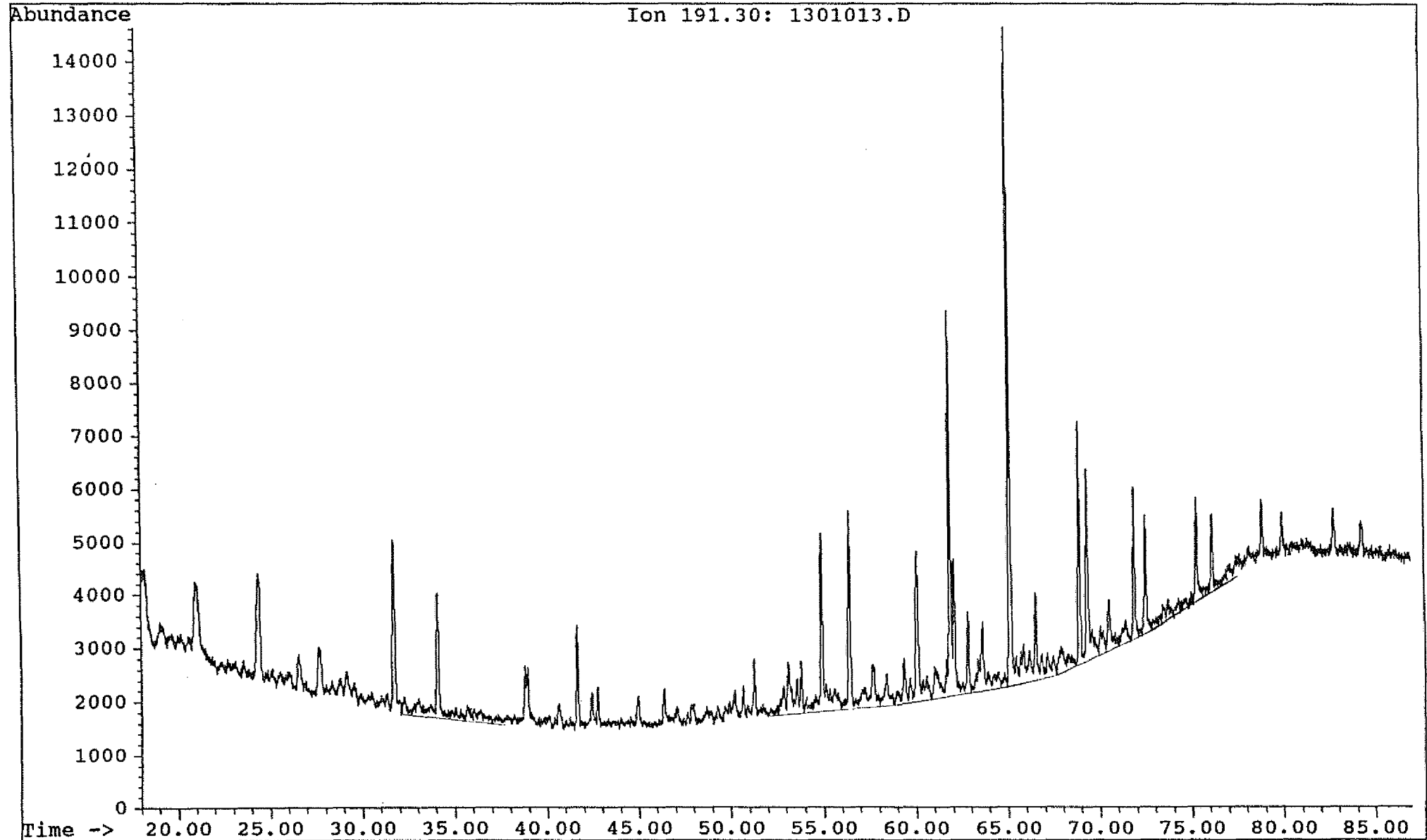
Saga Petroleum a.s.

Date acquired: 6 Oct 92 10:39 am

File: C:\CHEMPC\DATA\30_31\1301013.D Inst: HP5971A Inj: Split Meth: BMS.M

Sample name:

WELL 31/4-5 2076,3 sat



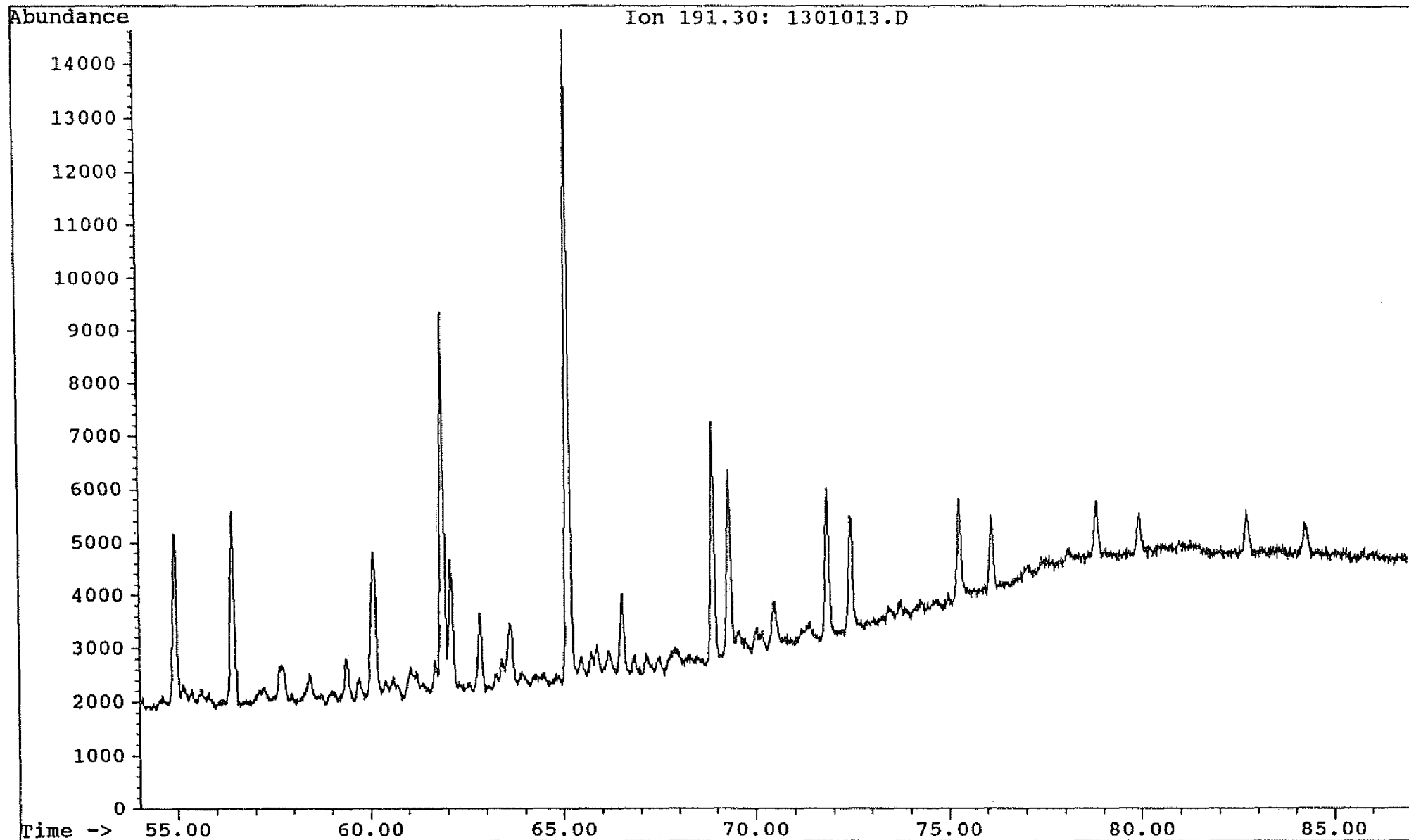
Saga Petroleum a.s.

Date acquired: 6 Oct 92 10:39 am

File: C:\CHEMPC\DATA\30_31\1301013.D Inst: HP5971A Inj: Split Meth: BMS.M

Sample name:

WELL 31/4-5 2076,3 sat



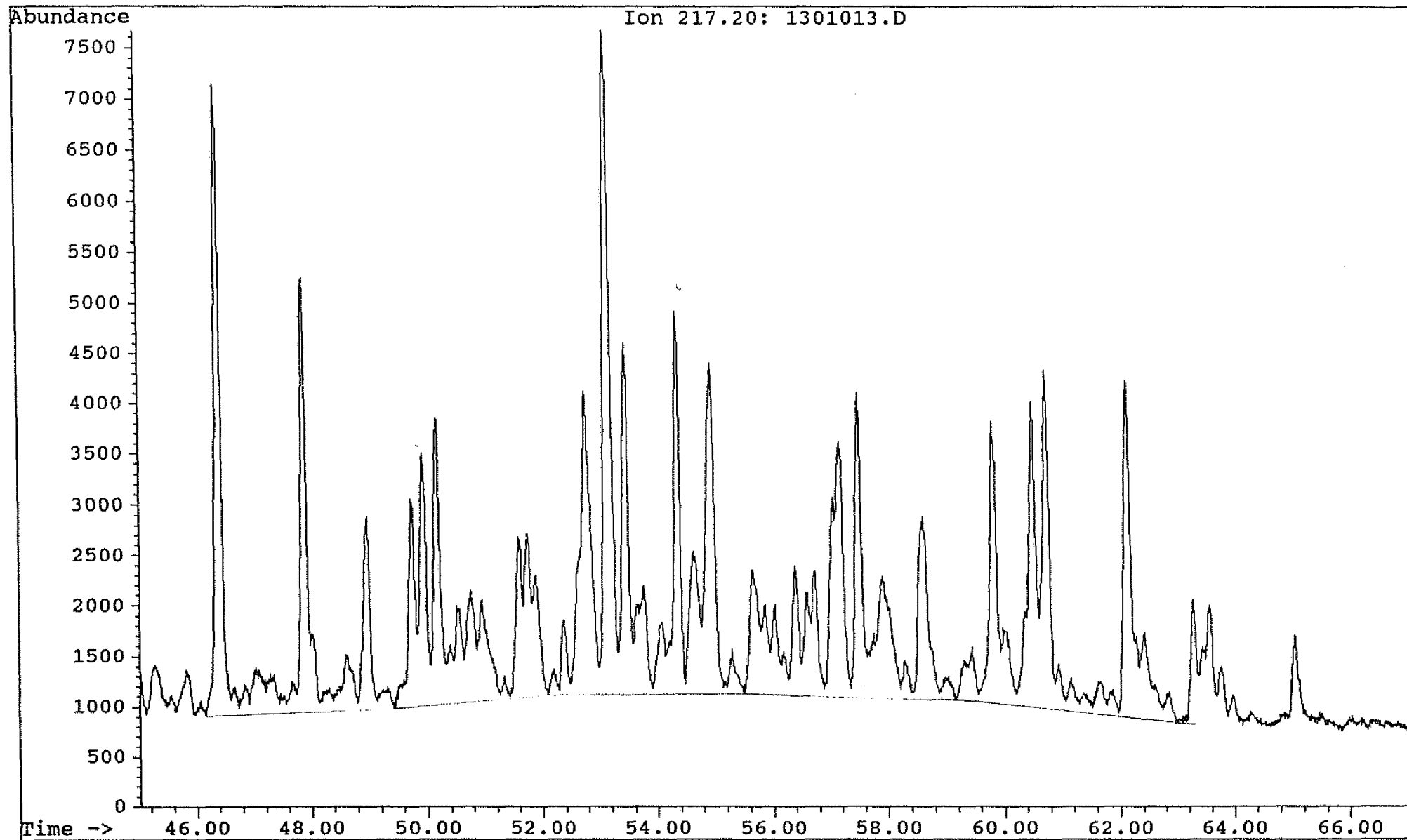
Saga Petroleum a.s.

Date acquired: 6 Oct 92 10:39 am

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Sample name:

WELL 31/4-5 2076,3 sat

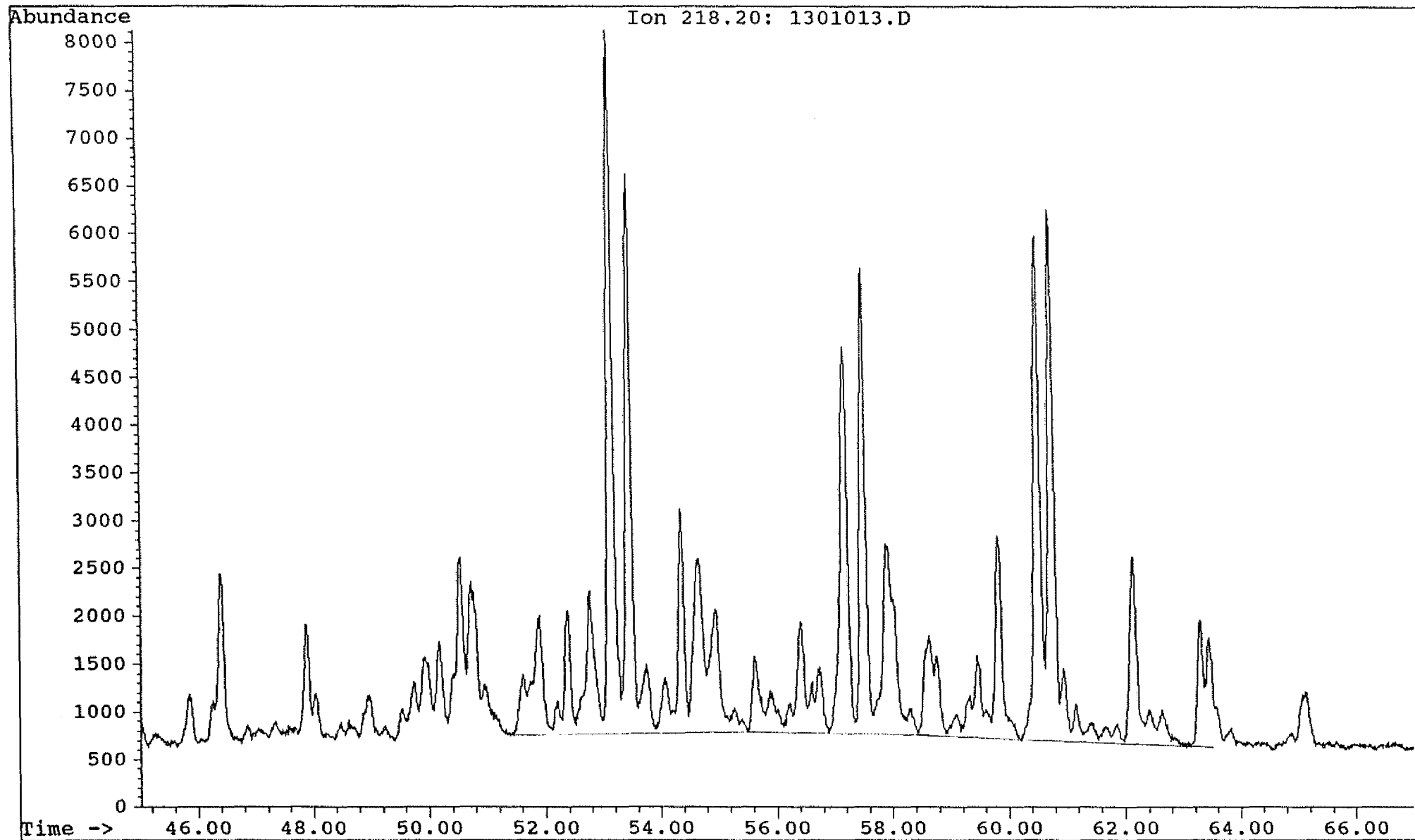


Saga Petroleum a.s.

Date acquired: 6 Oct 92 10:39 am

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Sample name: WELL 31/4-5 2076,3 sat



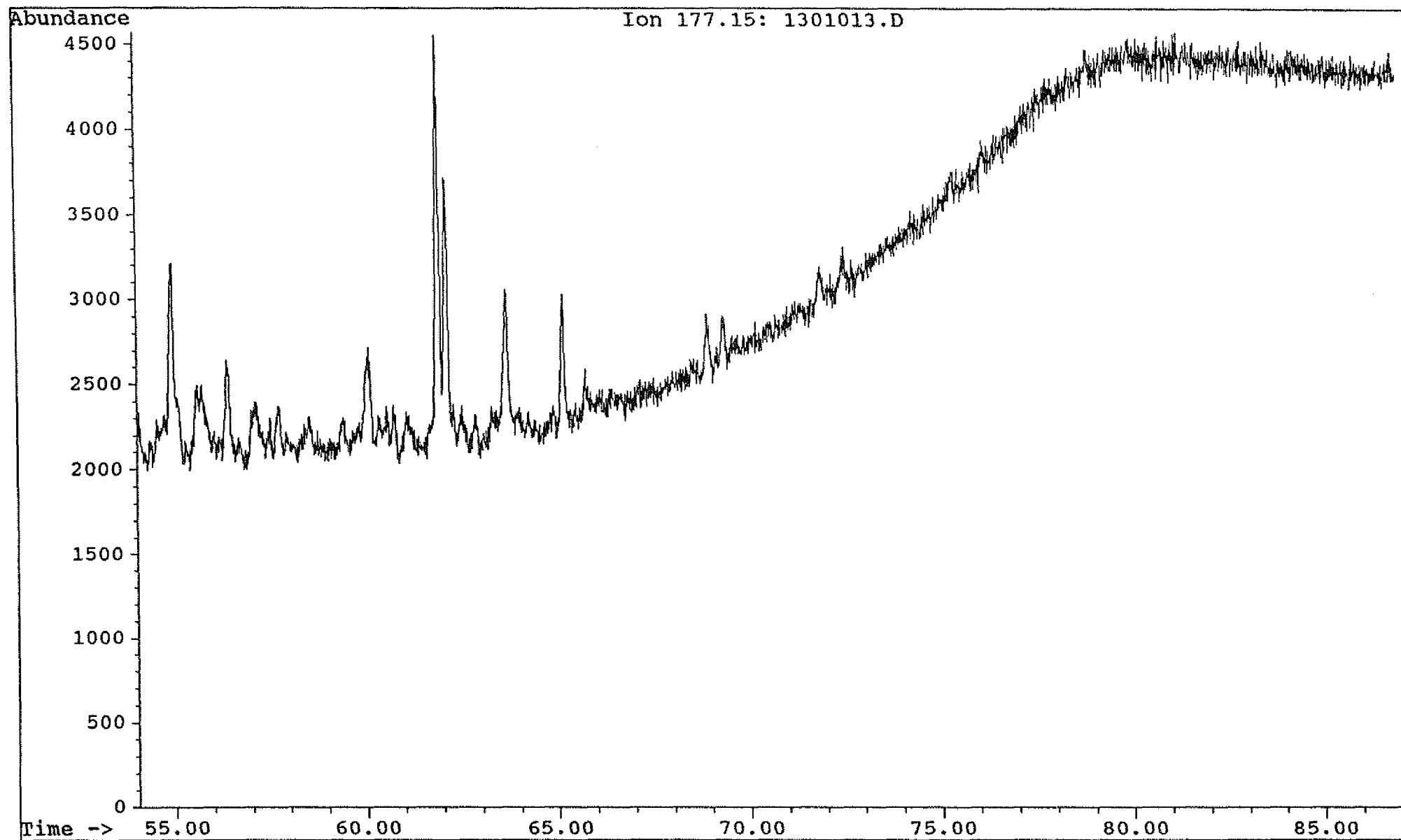
Saga Petroleum a.s.

Date acquired: 6 Oct 92 10:39 am

File: C:\CHEMPC\DATA\30_31\1301013.D Inst: HP5971A Inj: Split Meth: BMS.M

Sample name:

WELL 31/4-5 2076,3 sat

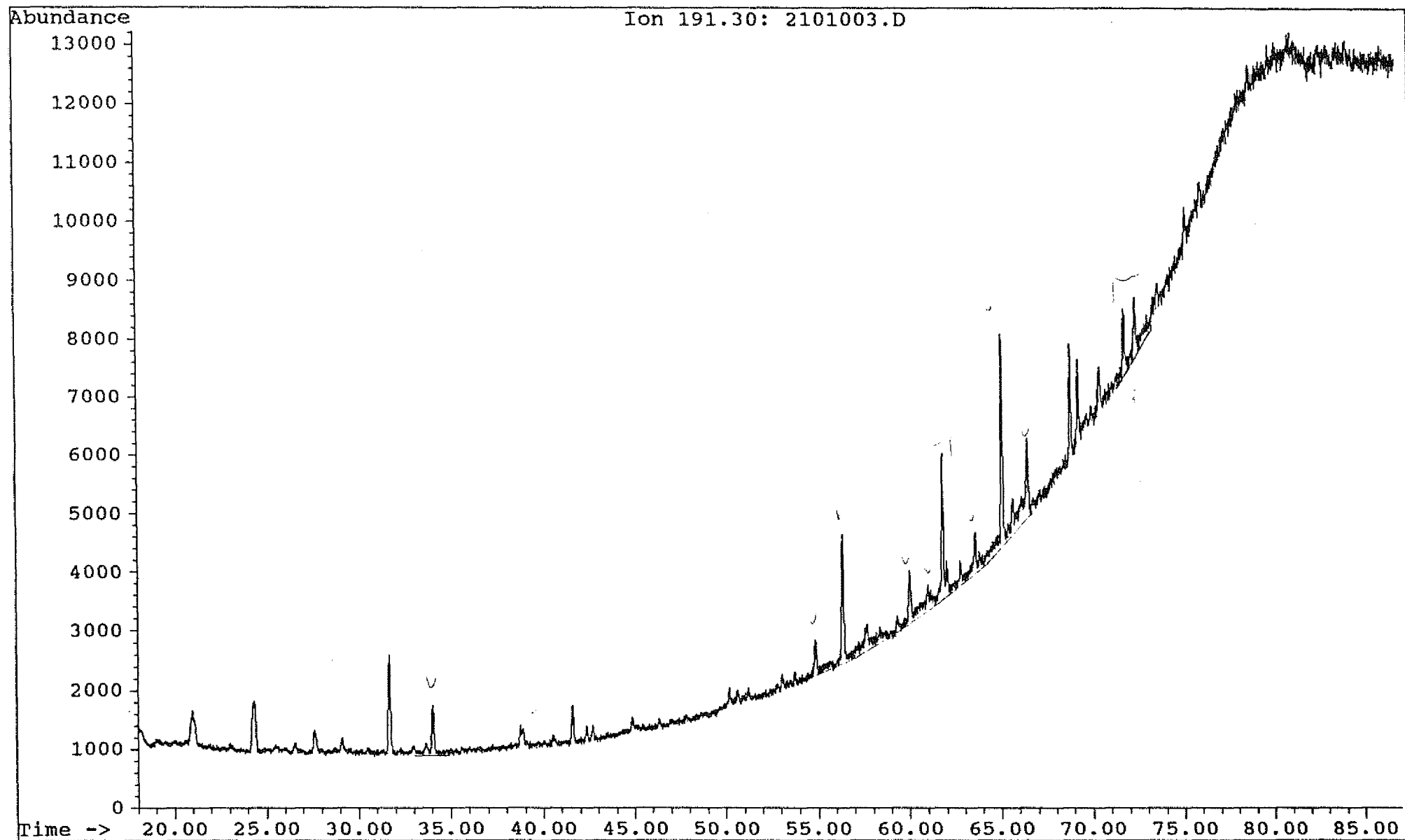


Saga Petroleum a.s.

Date acquired: 7 Oct 92 4:45 pm

File: C:\CHEMPC\DATA\30_31\2101003.D Inst: HP5971A Inj: Split Meth: BMS.M

Sample name: WELL 31/4-5 2104,4 sat



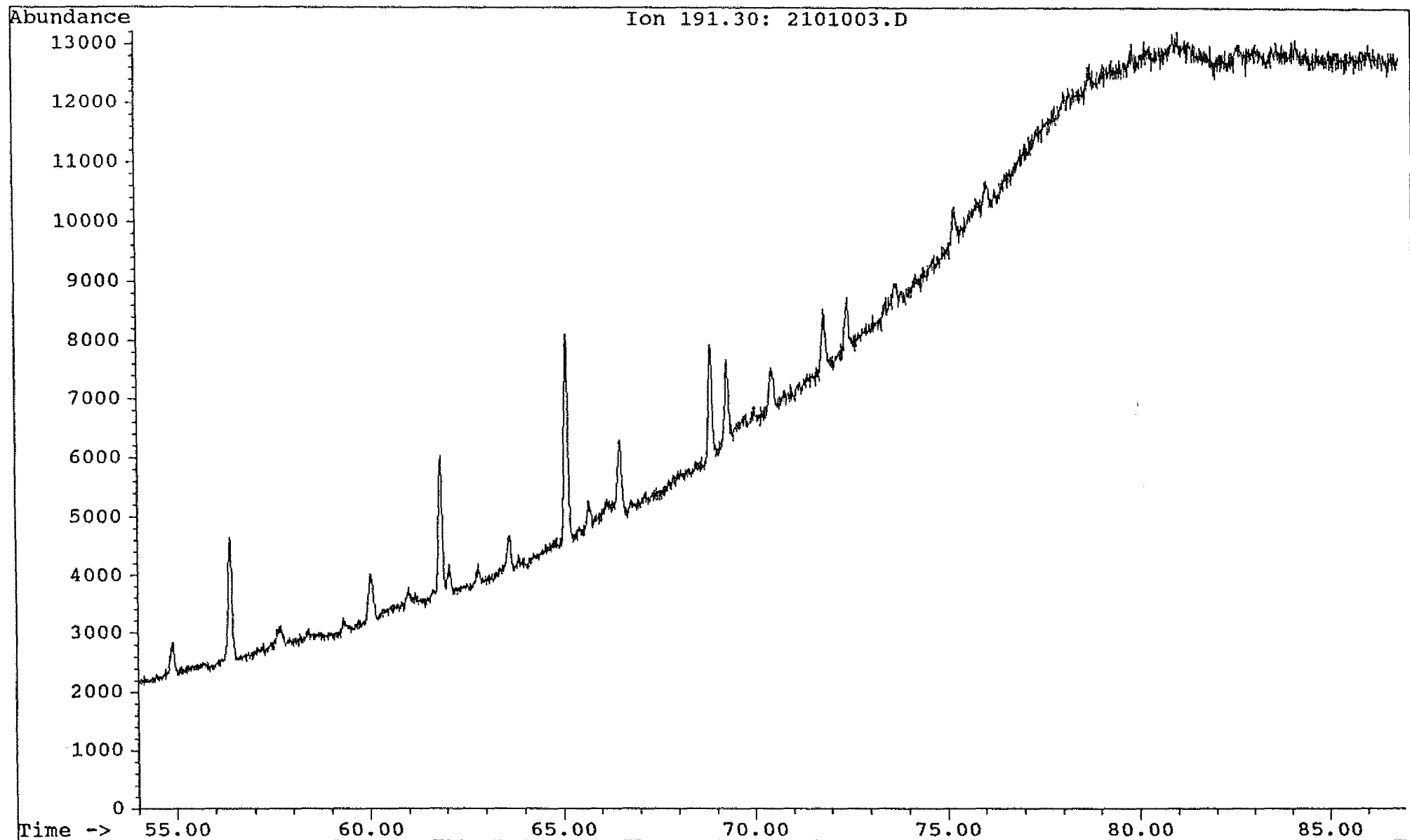
Saga Petroleum a.s.

Date acquired: 7 Oct 92 4:45 pm

File: C:\CHEMPC\DATA\30_31\2101003.D Inst: HP5971A Inj: Split Meth: BMS.M

Sample name:

WELL 31/4-5 2104,4 sat



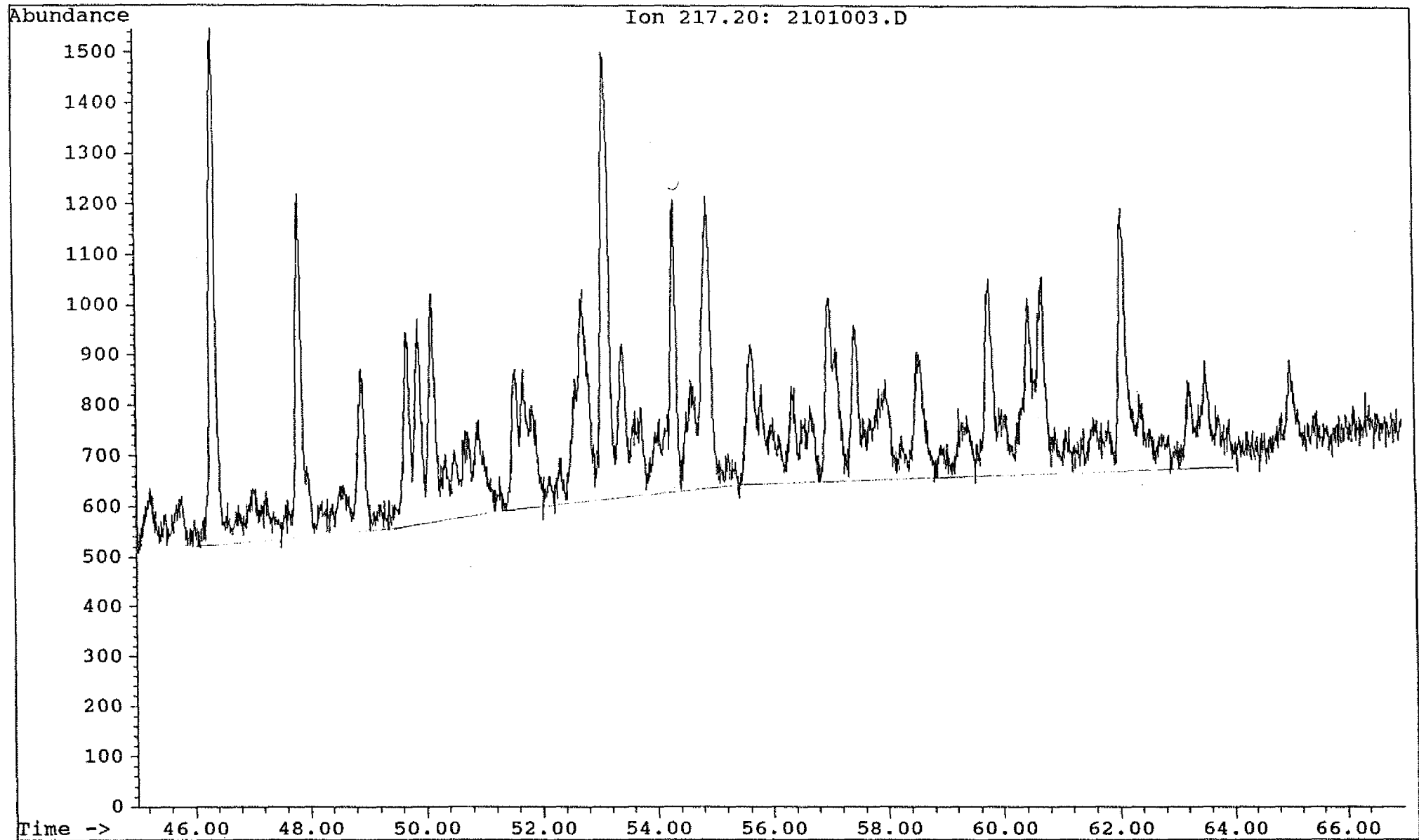
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Date acquired: 7 Oct 92 4:45 pm

File: C:\CHEMPC\DATA\30_31\2101003.D Inst: HP5971A Inj: Split Meth: BMS.M

Sample name:

WELL 31/4-5 2104,4 sat



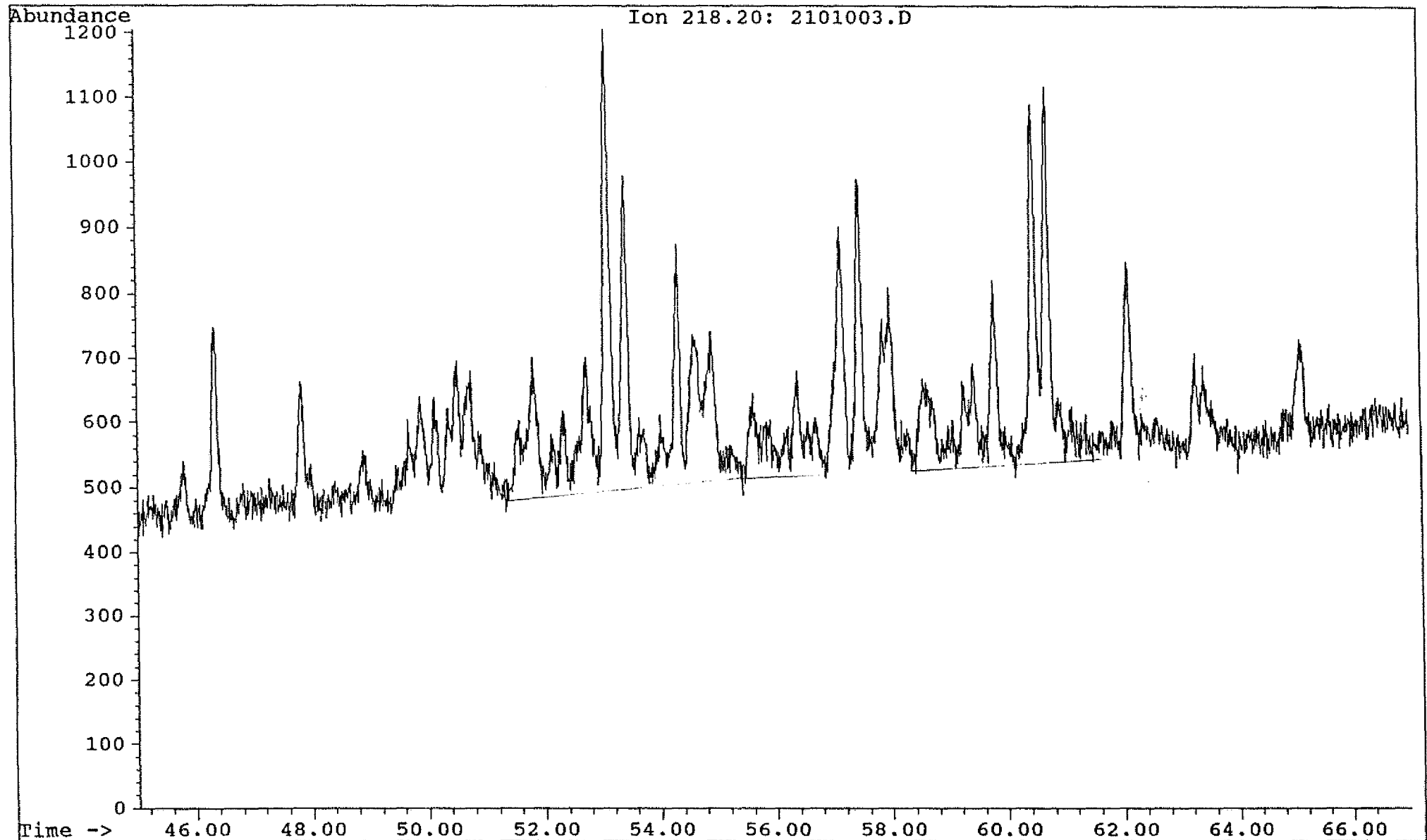
Saga Petroleum a.s.

Date acquired: 7 Oct 92 4:45 pm

File: C:\CHEMPC\DATA\30_31\2101003.D Inst: HP5971A Inj: Split Meth: BMS.M

Sample name:

WELL 31/4-5 2104,4 sat

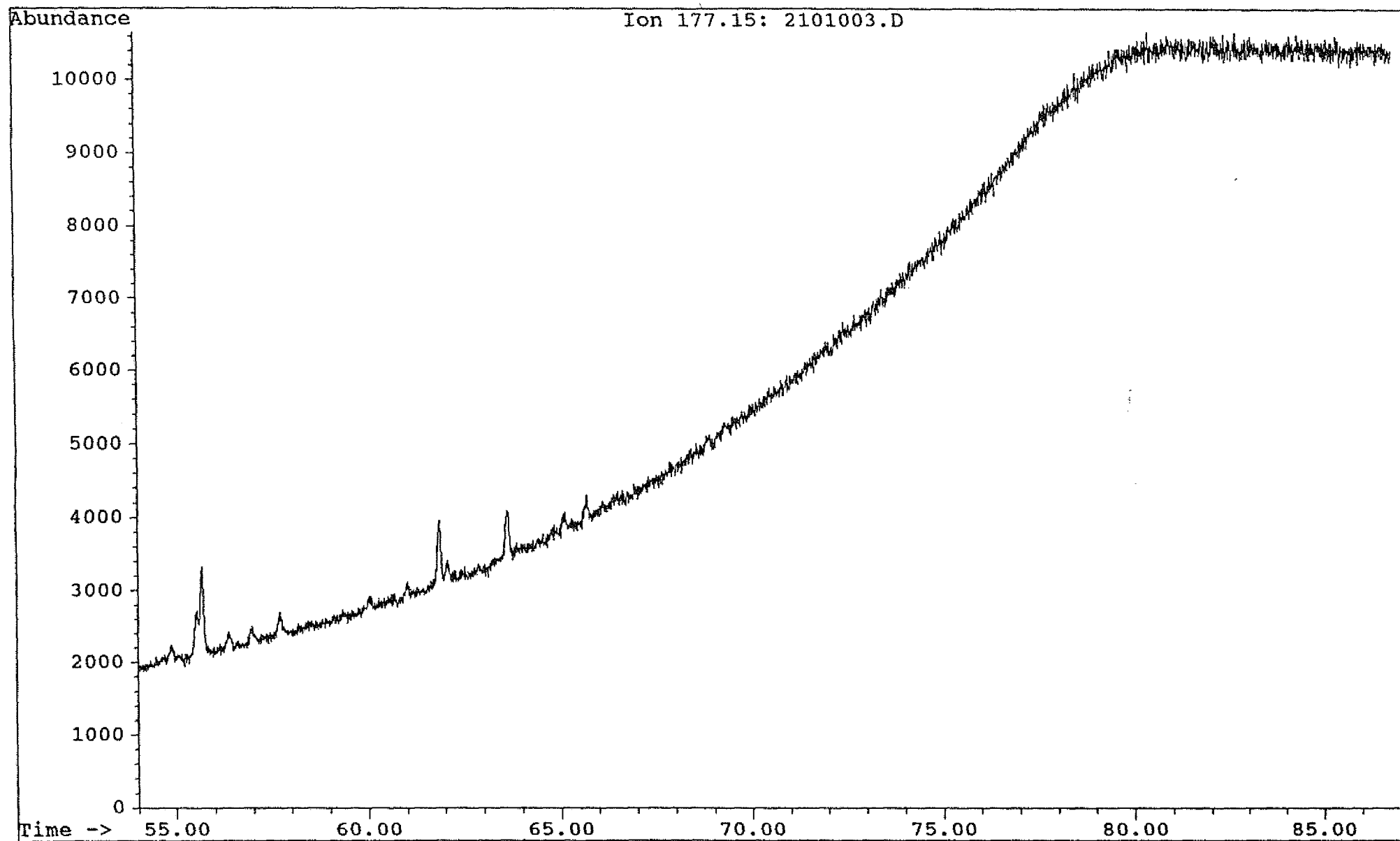


Saga Petroleum a.s.

ate acquired: 7 Oct 92 4:45 pm

File: C:\CHEMPC\DATA\30_31\2101003.D Inst: HP5971A Inj: Split Meth: BMS.M

Sample name: WELL 31/4-5 2104,4 sat



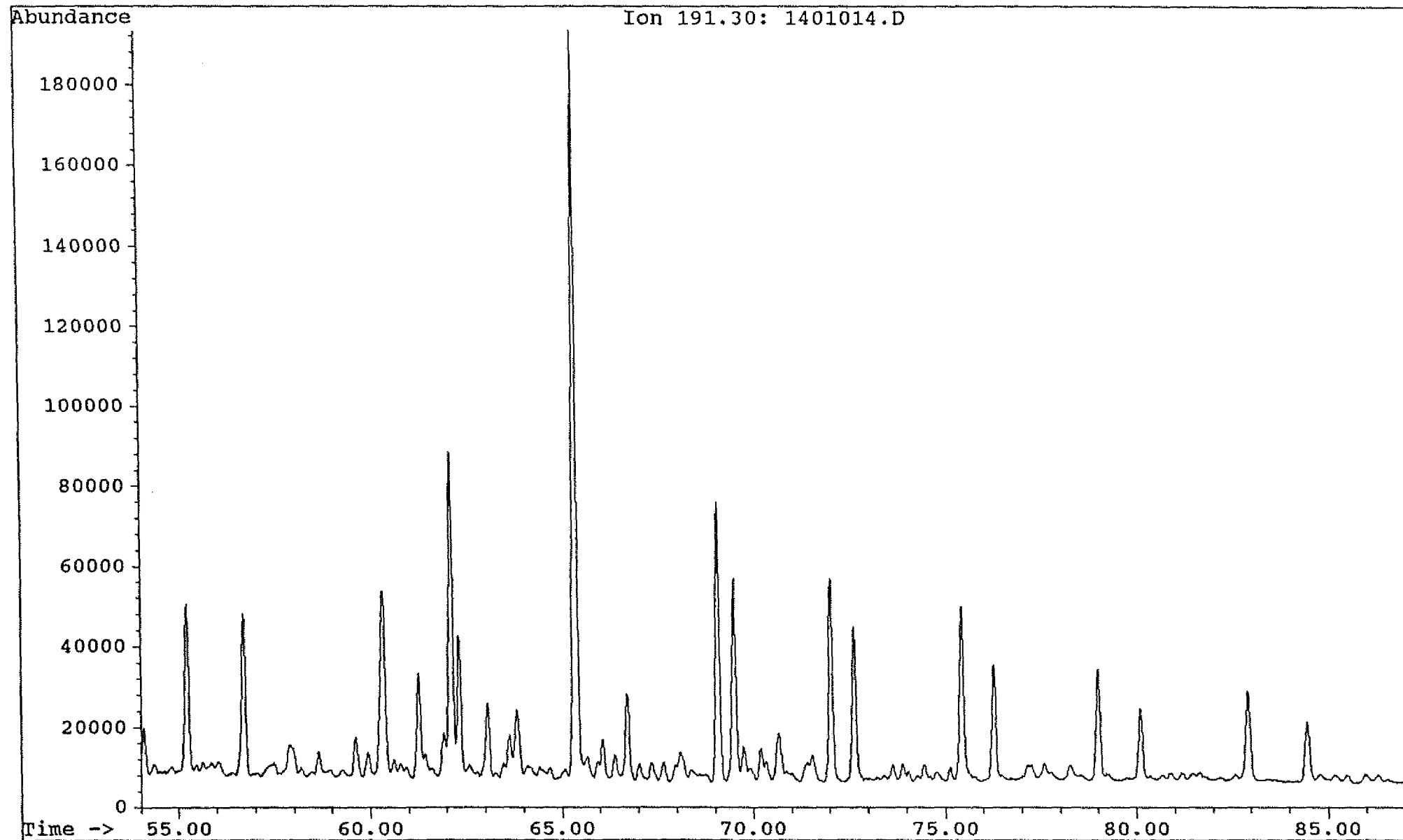
Saga Petroleum a.s.

Date acquired: 6 Oct 92 12:22 pm

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Sample name:

WELL 31/4-5 2125 sat

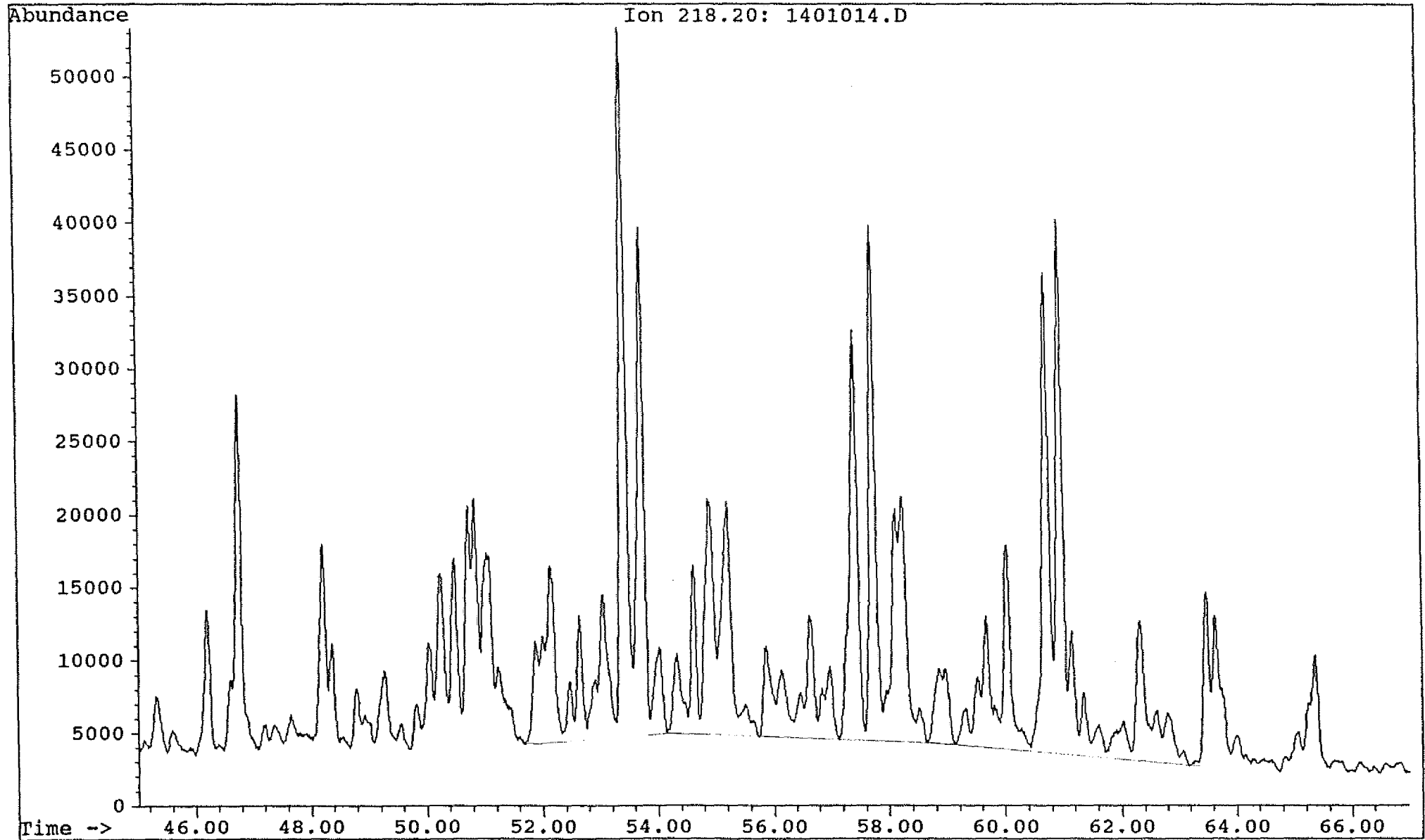


Saga Petroleum a.s.

Date acquired: 6 Oct 92 12:22 pm

File: C:\CHEMPC\DATA\30_31\1401014.D Inst: HP5971A Inj: Split Meth: BMS.M

Sample name: WELL 31/4-5 2125 sat



Saga Petroleum a.s.

Date acquired: 6 Oct 92 12:22 pm

File: C:\CHEMPC\DATA\30_31\1401014.D Inst: HP5971A Inj: Split Meth: BMS.M

Sample name:

WELL 31/4-5 2125 sat

