

**SINTEF****SINTEF Petroleumsforskning AS**
SINTEF Petroleum Research

NO-7465 Trondheim

Telephone: (+47)73 59 11 00
Fax: (+47)73 59 11 02 (aut.)Enterprise No.:
NO 936 882 331

REPORT

TITLE

**Stratigraphic Drilling Barents Sea North 2005,
offshore Kong Karls Land****Appendix A.8: Organic geochemical data**

AUTHOR(S)

Hermann M. Weiss and Kristin Lind

CLASSIFICATION

Confidential

CLIENT(S)

Norwegian Petroleum Directorate

REPORT NO.

54.5880.00/01/2007

REG. NO.

2007.040

DATE

31 May 2007

PROJECT MANAGER

Atle Mørk

APPROVED

NO. OF PAGES

552

NO. OF APPENDICES

-

LINE MANAGER

Marie-Laure Olivier

SUMMARY

This Appendix A.8 contains the full documentation of the organic geochemical analyses carried out on the core material from five drilling locations offshore Kong Karls Land recovered in autumn 2005. This includes the gas and whole-oil analyses performed in 2005 and reported in January 2006.

KEYWORDS ENGLISH

Barents Sea North
Stratigraphic drilling
Mesozoic
Triassic
Organic geochemistry

KEYWORDS NORWEGIAN

Barentshavet nord
Stratigrafisk boring
Mesozoikum
Trias
Organisk geokjemi

Preface

This Appendix A.8 to the report “Stratigraphic Drilling Barents Sea North 2005, offshore Kong Karls Land” (Mørk et al. 2007) contains the full documentation of the organic geochemical analyses carried out on the core material from five drilling locations offshore Kong Karls Land recovered in autumn 2005 (Weiss & Mørk 2005). This includes the gas and whole-oil analyses performed in 2005 and reported in January 2006 (Weiss et al. 2006).

Tables and figures are organised according to geological age of the cores, going from oldest core (7831/2-U-2) to the youngest one (7830/5-U-1), but from top to bottom within each core.

The following institutions and persons have contributed to this report:

SINTEF Petroleum Research, Trondheim

Hermann M. Weiss (responsible): analytical programme, interpretation, reporting

Kristin Lind: laboratory work – GC and GC-MS analysis, report compilation

Torun Vinge: laboratory work – detailed headspace and occluded gas analysis.

Applied Petroleum Technology (APT), Kjeller

Per Erling Johansen (responsible), *laboratory staff and subcontractors*: TOC / Rock-Eval pyrolysis, pyrolysis-GC, vitrinite reflectance analysis, visual kerogen description, extraction/group separation, and isotope analysis of extract fractions and gas components.

Geolab Nor, Trondheim

Ian L. Ferriday (responsible) and *laboratory staff*: Routine headspace and occluded gas analysis.

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Tables

Table 1 Samples and analytical program.

Site	Sample ID (SINTEF)	Sample ID (APT)	Depth top (m)	Depth btm (m)	Sample type	Lithology	Sample comment	Analyses												Purpose
								HSOC std. (1)	HSOC det. (2)	d13C HSOC (3)	WO GC (4)	RE (5)	EX SEP IAT (6)	d13C EOM frac (7)	d13C ker (8)	PY-GC (S2) (9)	TE-GC + PY-GC (10)	VR (11)	Vis ker (12)	
7831/2-U-2	I0107	35098	6.07	6.14	COCH	CLYST (SL SLTY, MGY)	abundant <i>Tasmanites</i> contains <i>Tasmanites</i>					x								maturity (non-SR)
7831/2-U-2	I0104	35095	9.14	6.16	COCH	CLYST (SLTY, MGY)						x								
7831/2-U-2	I0106	35097 / 35050	6.78	6.83	COCH	CLYST (SLTY, DKGY)						x	x			x		x	x	
7831/2-U-2	I0105	35096	8.21	8.26	COCH	CLYST (DKGY)						x								SR char.
7831/2-U-2	I0018		9.38	9.41	COCHG	CLYST (SLTY)		x												
7831/2-U-2	I0103	35094	9.47	9.51	COCH	CLYST (SLTY, MGY)						x								
7831/2-U-2	I0102	35093 / 35049	10.23	10.28	COCH	CLYST (SLTY, MGY)						x	x	x	x	x		x	x	
7831/2-U-2	I0101	35092	11.82	11.87	COCH	CLYST (DKGY)						x								SR char.
7831/2-U-2	I0100	35091	13.84	13.88	COCH	CLYST (DKGY)						x								
7831/2-U-2	I0099	35090	14.48	14.53	COCH	CLYST (SLTY, DKGY)						x	x	x	x	x		x		
7831/2-U-2	I0098	35089	15.37	15.41	COCH	CLYST (DKGY)						x								SR char. SR char.
7831/2-U-2	I0097	35088	16.83	16.87	COCH	CLYST (SLTY, DKGY)						x								
7831/2-U-2	I0096	35087	17.83	17.87	COCH	CLYST (SLTY, DKGY)						x	x			x			x	
7831/2-U-2	I0095	35086 / 35048	18.72	18.85	COCH	CLYST (SLTY, DKGY)						x	x			x		x	x	
Total								1	0	0	0	13	5	2	2	5	1	3	5	
7831/2-U-1	I0093	35084 / 35047	10.38	10.41	COCH	SLST (MGY)						x						x	maturity (non-SR)	
7831/2-U-1	I0014		10.77	10.79	COCHG	SLST		x												
7831/2-U-1	I0094	35085	11.82	11.85	COCH	CLYST (SLTY, MGY)						x								
7831/2-U-1	I0092	35083	14.78	14.83	COCH	CLYST (MGY)						x								
7831/2-U-1	I0091	35082	16.30	16.36	COCH	CLYST (MGY)						x								
7831/2-U-1	I0015		17.22	17.27	COCHG	MDST (SLTY, DKGY)		x												
7831/2-U-1	I0090	35081 / 35046	19.61	19.66	COCH	CLYST (DKGY)						x								
7831/2-U-1	I0089	35080	21.72	21.76	COCH	CLYST (DKGY)						x	x	x	x	x		x		x
7831/2-U-1	I0088	35079	24.33	24.36	COCH	CLYST (DKGY)						x								
7831/2-U-1	I0016		25.36	25.38	COCHG	MDST (CLY, DKGY) / SLST		x												
7831/2-U-1	I0086	35077	26.56	26.61	COCH	CLYST (DKGY)						x								
7831/2-U-1	I0087	35078 / 35045	27.84	27.87	COCH	CLYST (DKGY)						x						x		
Total								3	0	0	0	9	1	1	1	1	0	3	1	
7830/6-U-1	I0132	35123 / 35055	3.90	3.93	COCH	CLYST (MGY)						x						x		
7830/6-U-1	I0002		4.21	4.26	COCHG	CLYST		x												
7830/6-U-1	I0131	35122	5.94	6.00	COCH	CLYST (MGY)						x								

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Site	Sample ID (SINTEF)	Sample ID (APT)	Depth top (m)	Depth btm (m)	Sample type	Lithology	Sample comment	HSOC std. (1)	HSOC det. (2)	d13C HSOC (3)	WO GC (4)	RE (5)	Analyses EX SEP IAT (6)	d13C EOM frac (7)	d13C ker (8)	PY-GC (S2) (9)	TE-GC + PY-GC (10)	VR (11)	Vis ker (12)	Purpose
7830/6-U-1	I0130	35121	8.85	8.88	COCH	CLYST (SLTY, LAM, MGY)						x								
7830/6-U-1	I0129	35120	11.89	11.93	COCH	CLYST (SLTY, LAM, MGY)						x								
7830/6-U-1	I0004		12.38	12.40	COCHG	CLYST		x												
7830/6-U-1	I0005	35074	12.85	12.88	COCH	SLST	oil-staining on fractures					x	x	x						Correlation
7830/6-U-1	I0128	35119	14.83	14.87	COCH	CLYST (SLTY, LAM, DKGY)						x								
7830/6-U-1	I0127	35118 / 35054	17.63	17.67	COCH	CLYST (SLTY, LAM, DKGY)						x						x		
7830/6-U-1	I0126	35117	20.03	20.10	COCH	CLYST (SLTY, LAM, DKGY)	slst and clyst layers					x	x			x			x	maturity (non-SR)
7830/6-U-1	I0007		21.30	21.32	COCHG	CLYST (SLTY)		x												
7830/6-U-1	I0125	35116	22.64	22.69	COCH	CLYST (SLTY, DKGY)						x								
7830/6-U-1	I0124	35115	24.75	24.79	COCH	CLYST (DKGY) / SLST (LAM)						x								
7830/6-U-1	I0008		25.56	25.57	COCHG	CLYST (SLTY)		x												
7830/6-U-1	I0123	35114	26.90	26.94	COCH	CLYST (SLTY, LAM, DKGY)						x								
7830/6-U-1	I0122	35113	28.00	28.06	COCH	CLYST (SLTY, LAM, DKGY)						x								
7830/6-U-1	I0121	35112 / 35053	31.01	31.06	COCH	CLYST (SLTY, LAM, DKGY)						x						x		
7830/6-U-1	I0009		32.81	32.82	COCHG	CLYST (SLTY)		x												
7830/6-U-1	I0120	35111	33.70	33.76	COCH	CLYST (DKGY) / SLST (LAM)						x								
7830/6-U-1	I0119	35110	36.25	36.28	COCH	CLYST (SLTY, LAM, DKGY)						x								
7830/6-U-1	I0118	35109	38.84	38.88	COCH	CLYST (DKGY, LAM)						x								
7830/6-U-1	I0117	35108	40.20	40.28	COCH	CLYST (DKGY) / SLST (LAM)	sample above lithological boundary					x								
7830/6-U-1	I0116	35107 / 35052	40.66	40.70	COCH	CLYST (SLTY, LAM)	plant remains; sample below lithological boundary					x						x		
7830/6-U-1	I0010		41.43	41.45	COCHG	CLYST (SLTY)		x												
7830/6-U-1	I0115	35106	41.85	41.89	COCH	CLYST (DKGY, LAM)						x	x	x	x	x			x	SR char.
7830/6-U-1	I0114	35105	43.66	43.69	COCH	CLYST (DKGY, LAM)						x								
7830/6-U-1	I0113	35104	46.38	46.42	COCH	CLYST (DKGY, LAM)						x								
7830/6-U-1	I0112	35103	46.86	46.91	COCH	CLYST (DKGY, LAM)						x								
7830/6-U-1	I0111	35102	48.93	49.00	COCH	CLYST (DKGY, LAM)						x								
7830/6-U-1	I0012		49.30	49.31	COCHG	MDST		x												
7830/6-U-1	I0110	35101	50.90	50.93	COCH	CLYST (DKGY, LAM)						x	x			x			x	SR char.
7830/6-U-1	I0109	35100	51.23	51.29	COCH	CLYST (DKGY, LAM)						x								
7830/6-U-1	I0108	35099 / 35051	52.75	52.79	COCH	CLYST (DKGY, LAM)						x						x		
Total								7	0	0	0	26	4	2	1	3	0	5	3	
7830/3-U-1	I0133	35124	3.89	3.96	COCH	CLYST (SLTY, LAM)						x								
7830/3-U-1	I0134	35125 / 35056	5.56	5.63	COCH	CLYST (DKGY)						x						x		
7830/3-U-1	I0034		6.82	6.84	COCHG	CLYST		x												

Site	Sample ID (SINTEF)	Sample ID (APT)	Depth top (m)	Depth btm (m)	Sample type	Lithology	Sample comment	Analyses												Purpose
								HSOC std. (1)	HSOC det. (2)	d13C HSOC (3)	WO GC (4)	RE (5)	EX SEP IAT (6)	d13C EOM frac (7)	d13C ker (8)	PY-GC (S2) (9)	TE-GC + PY-GC (10)	VR (11)	Vis ker (12)	
7830/3-U-1	I0135	35126	8.67	8.73	COCH	CLYST (SLTY, LAM)	slst laminae					x								
7830/3-U-1	I0136	35127	11.50	11.55	COCH	CLYST (DKGY, LAM)						x								
7830/3-U-1	I0035		13.88	13.90	COCHG	CLYST		x												
7830/3-U-1	I0137	35128 / 35057	14.59	14.64	COCH	CLYST (DKGY)						x						x		
7830/3-U-1	I0138	35129	17.75	17.80	COCH	SST (FGR, MGY)						x								
7830/3-U-1	I0139	35130	19.51	19.57	COCH	SST (FGR, MGY)						x								
7830/3-U-1	I0037		20.15	20.17	COCHG	SST		x												
7830/3-U-1	I0140	35131	22.83	22.90	COCH	SST (FGR, MGY)						x								
7830/3-U-1	I0141	35132	25.62	25.68	COCH	SST (FGR, MGY)						x								
7830/3-U-1	I0038		25.67	25.72	COCHG	SLST		x												
7830/3-U-1	I0142	35133	27.80	27.86	COCH	SLST (CLY, LAM, DKGY)						x								
7830/3-U-1	I0143	35134	30.76	30.81	COCH	SLST (CLY, DKGY)						x								
7830/3-U-1	I0144	35135	33.62	33.67	COCH	SLST (CLY, LAM, DKGY)						x								
7830/3-U-1	I0039		34.08	34.09	COCHG	CLYST		x												
7830/3-U-1	I0145	35136	36.48	36.53	COCH	SLST (CLY, LAM, DKGY)	slst lamina at one end					x								
7830/3-U-1	I0146	35137	39.94	39.99	COCH	SST (MGR, MGY)						x	x	x						Correlation
7830/3-U-1	I0040		40.74	40.76	COCHG	SLST / SST		x												
7830/3-U-1	I0147	35138 / 35058	41.87	41.89	COCH	SLST (MIC, COALY)						x						x		
7830/3-U-1	I0148	35139	44.81	44.86	COCH	SLST (DKGY)	slst lamina at one end					x								
7830/3-U-1	I0149	35140	47.56	47.59	COCH	SLST (DKGY)						x								
7830/3-U-1	I0183	35174	49.31	49.31	COPL	SST (FGR)	oil-stained					x								
7830/3-U-1	I0042		49.51	49.54	COCHG	SST	oil-stained		x	x										
7830/3-U-1	I0150	35141	50.34	50.61	COCH	SST (FGR, MGY)						x								
7830/3-U-1	I0151	35142	51.24	51.24	COPL	SST (FGR, MGY)	oil-stained					x	x	x						Correlation
7830/3-U-1	I0044	35075	52.38	52.40	COCH	SST	oil-stained					x								
7830/3-U-1	I0045		52.45	52.47	COCHG	SST	oil-stained		x	x										
7830/3-U-1	I0152	35143	52.83	52.86	COCH	SLST (CLY, DKGY)						x								
7830/3-U-1	I0153	35144	54.44	54.47	COCH	CLYST (SLTY, LAM, DKGY)						x								
7830/3-U-1	I0154	35145	55.66	55.69	COCH	CLYST (SLTY, LAM, DKGY)						x								
7830/3-U-1	I0155	35146	58.74	58.78	COCH	CLYST (SLTY, LAM, DKGY)						x								
7830/3-U-1	I0046		61.27	61.28	COCHG	CLYST		x												
7830/3-U-1	I0156	35147	61.85	61.91	COCH	SLST (CLY, DKGY)						x								
7830/3-U-1	I0157	35148	64.28	64.30	COCH	CLYST (SLTY, DKGY)						x								
7830/3-U-1	I0158	35149 / 35059	67.36	67.40	COCH	SLST (CLY)						x						x		
7830/3-U-1	I0159	35150	71.09	71.13	COCH	SST (FGR, MGY)						x								
7830/3-U-1	I0160	35151	72.38	72.42	COCH	SST (FGR, MGY)						x								
7830/3-U-1	I0161	35152	73.89	73.94	COCH	CLYST (SLTY, DKGY)	half slst, half clyst					x								
7830/3-U-1	I0162	35153	75.59	75.64	COCH	SLST (CLY, LAM)						x								
7830/3-U-1	I0047		77.95	77.96	COCHG	CLYST		x												
7830/3-U-1	I0163	35154	78.75	78.80	COCH	CLYST / SLST	slumped sediment					x								
7830/3-U-1	I0164	35155	80.68	80.73	COCH	SLST (CLY, DKGY)						x								

Site	Sample ID (SINTEF)	Sample ID (APT)	Depth top (m)	Depth btm (m)	Sample type	Lithology	Sample comment	Analyses												Purpose
								HSOC std. (1)	HSOC det. (2)	d13C HSOC (3)	WO GC (4)	RE (5)	EX SEP IAT (6)	d13C EOM frac (7)	d13C ker (8)	PY-GC (S2) (9)	TE-GC + PY-GC (10)	VR (11)	Vis ker (12)	
7830/3-U-1	I0165	35156 / 35060	82.46	82.51	COCH	SLST (CLY, DKGY)						x						x		
7830/3-U-1	I0048		83.49	83.51	COCHG	CLYST (SLTY)		x												
7830/3-U-1	I0166	35157	85.30	85.35	COCH	CLYST (SLTY, LAM, DKGY)						x								
7830/3-U-1	I0167	35158	87.82	87.85	COCH	CLYST (SLTY, LAM, DKGY)						x								
7830/3-U-1	I0168	35159	89.64	89.66	COCH	CLYST (DKGY)						x								
7830/3-U-1	I0049		92.13	92.15	COCHG	CLYST	from core catcher	x												
7830/3-U-1	I0169	35160	93.18	93.22	COCH	CLYST (SLTY, LAM, DKGY)						x								
7830/3-U-1	I0170	35161	96.91	96.96	COCH	CLYST (SLTY, LAM, DKGY)						x								
7830/3-U-1	I0171	35162	99.52	99.55	COCH	CLYST (SLTY, LAM, DKGY, PYR)						x								
7830/3-U-1	I0172	35163 / 35061	102.93	102.97	COCH	CLYST (SLTY, LAM, DKGY)						x						x		
7830/3-U-1	I0173	35164	105.64	105.69	COCH	CLYST (DKGY)						x								
7830/3-U-1	I0050		106.38	106.40	COCHG	CLYST		x												
7830/3-U-1	I0174	35165	107.46	107.49	COCH	CLYST (SLTY, DKGY)	top of fining-up sequence					x								
7830/3-U-1	I0175	35166	108.23	108.28	COCH	SST (FGR, MGY)	from fining-up sequence					x								
7830/3-U-1	I0176	35167	111.01	111.05	COCH	SST (FGR, MGY)						x								
7830/3-U-1	I0177	35168	111.69	111.75	COCH	SST (FGR, DKGY)	oil-stained?					x	x	x						Correlation
7830/3-U-1	I0178	35169	113.34	113.41	COCH	SST (FGR, MGY)						x								
7830/3-U-1	I0051		116.60	116.61	COCHG	CLYST		x												
7830/3-U-1	I0179	35170	117.44	117.50	COCH	CLYST / SLST						x								
7830/3-U-1	I0180	35171	119.90	119.94	COCH	CLYST (SLTY, LAM)						x								
7830/3-U-1	I0181	35172	121.61	121.66	COCH	CLYST (SLTY, LAM)						x								
7830/3-U-1	I0181	35172	121.61	121.66	COCH	CLYST (SLTY, LAM)						x								
7830/3-U-1	I0182	35173 / 35062	122.62	122.68	COCH	SLST (LAM, COALY)						x						x		
7830/3-U-1	I0052		123.89	123.91	COCHG	SST	oil-stained		x	x										
7830/3-U-1	I0184	35175	124.63	124.63	COPL	SST (FGR, LTGY)	COPL					x	x	x						Correlation
7830/3-U-1	I0053	35277	124.72	124.74	COCH	SST (COALY)	oil-stained. Coaly material removed before sample preparation.					x								
7830/3-U-1	I0185	35176	126.36	126.39	COCH	CLYST (SLTY, LAM, DKGY)						x								
7830/3-U-1	I0186	35177	129.80	129.83	COCH	CLYST (SLTY, LAM, DKGY)	thin silt band at one end: remove it					x								
7830/3-U-1	I0187	35178	132.72	132.76	COCH	CLYST (SLTY, LAM, DKGY, COALY)						x								
7830/3-U-1	I0054		135.57	135.58	COCHG	CLYST (SLTY)		x												
7830/3-U-1	I0188	35179	135.96	135.99	COCH	CLYST (SLTY, LAM, DKGY)						x								
7830/3-U-1	I0189	35180	138.47	138.50	COCH	CLYST (SL SLTY, LAM, DKGY)						x								
7830/3-U-1	I0190	35181 / 35063	141.97	142.00	COCH	SLST (CLY, DKGY) / SLST (LAM)	some coal debris?					x						x		

Site	Sample ID (SINTEF)	Sample ID (APT)	Depth top (m)	Depth btm (m)	Sample type	Lithology	Sample comment	Analyses												Purpose
								HSOC std. (1)	HSOC det. (2)	d13C HSOC (3)	WO GC (4)	RE (5)	EX SEP IAT (6)	d13C EOM frac (7)	d13C ker (8)	PY-GC (S2) (9)	TE-GC + PY-GC (10)	VR (11)	Vis ker (12)	
7830/3-U-1	I0191	35182	144.91	144.96	COCH	CLYST (SL SLTY, LAM, DKG)	few tiny silt lenses/laminae					x								maturity (non-SR)
7830/3-U-1	I0192	35183	147.73	147.79	COCH	CLYST (SL SLTY, LAM, DKG)						x								
7830/3-U-1	I0061		146.69	149.70	COCHG	CLYST		x												
7830/3-U-1	I0193	35184	150.75	150.79	COCH	CLYST (SL SLTY, LAM, DKG)	1 thin silt lamina					x								
7830/3-U-1	I0194	35185	152.76	152.79	COCH	CLYST (SL SLTY, LAM, DKG)	silt lamina removed before sample preparation					x								
7830/3-U-1	I0195	35186	154.81	154.88	COCH	CLYST (SL SLTY, DKG)						x	x			x			x	
7830/3-U-1	I0196	35187 / 35064	157.07	157.11	COCH	SLST (CLY, MGY)	clyst lamina removed before sample preparation					x						x		
7830/3-U-1	I0197	35188	159.35	159.40	COCH	CLYST (SLTY, DKG)						x								
7830/3-U-1	I0198	35189	160.88	160.90	COCH	CLYST (SLTY, LAM, DKG)						x								
7830/3-U-1	I0199	35190	163.10	163.13	COCH	CLYST (SLTY, DKG)	small sample					x								
7830/3-U-1	I0055		163.31	163.32	COCHG	CLYST		x												Correlation
7830/3-U-1	I0200	35191	166.03	166.08	COCH	CLYST (SLTY, LAM, DKG)						x								
7830/3-U-1	I0201	35192	168.20	168.24	COCH	CLYST (DKG)	pyrite removed					x								
7830/3-U-1	I0202	35193	170.34	170.39	COCH	CLYST (DKG)						x								
7830/3-U-1	I0288	35076	171.14	171.16	COCH	SST (COALY)						x								
7830/3-U-1	I0063		171.11	171.61	COCH	SST (oil-stained)	Oil collected from aluminium foil wrapped around the (frozen) core				x									
7830/3-U-1	I0203	35194 / 35065	173.32	173.36	COCH	CLYST (SL SLTY, DKG)						x						x		
7830/3-U-1	I0287	35276	174.13	174.15	COCH	SST (FGR, MGY)	taken from frozen core; oil-stained					x	x	x						
7830/3-U-1	I0064		173.94	174.32	COCH	SST (oil-stained)	Oil collected with a syringe directly from the core surface (when core warmed up to room temperature)				x									
7830/3-U-1	I0056		174.94	174.96	COCHG	CLYST	oil-stained		x	x										
7830/3-U-1	I0204	35195	177.03	177.07	COCH	CLYST (SL SLTY, DKG)						x								
7830/3-U-1	I0269	35259	179.26	179.29	COCH	CLYST (DKG, LAM) / SLST (LAM)	slickenside					x								
7830/3-U-1	I0270	35260	180.87	180.92	COCH	CLYST (SLTY, DKG)						x								
7830/3-U-1	I0271	35261	182.27	182.33	COCH	CLYST (DKG)						x								
7830/3-U-1	I0058		182.54	182.56	COCHG	CLYST (SLTY)		x												
7830/3-U-1	I0272	35262	183.85	183.88	COCH	CLYST (DKG)						x								
7830/3-U-1	I0273	35263	185.32	185.38	COCH	CLYST (DKG)						x								

Site	Sample ID (SINTEF)	Sample ID (APT)	Depth top (m)	Depth btm (m)	Sample type	Lithology	Sample comment	HSOC std. (1)	HSOC det. (2)	d13C HSOC (3)	WO GC (4)	RE (5)	Analyses		d13C ker (8)	PY-GC (S2) (9)	TE-GC + PY-GC (10)	VR (11)	Vis ker (12)	Purpose
													EX SEP IAT (6)	d13C EOM frac (7)						
7830/3-U-1	I0274	35264	185.92	186.00	COCH	CLYST (DKGY)						x								
7830/3-U-1	I0275	35265	187.80	187.83	COCH	CLYST (LAM, DKGY, PYR)						x								
7830/3-U-1	I0276	35266	188.13	188.19	COCH	CLYST (LAM, DKGY)						x								
7830/3-U-1	I0277	35267	189.55	189.59	COCH	CLYST (SL SLTY, LAM, DKGY)						x								
7830/3-U-1	I0278	35268	189.81	189.87	COCH	CLYST (VDKGY-BK, LAM)						x								
7830/3-U-1	I0059		191.28	191.30	COCHG	CLYST		x												
7830/3-U-1	I0279	35269	191.56	191.64	COCH	CLYST (VDKGY, LAM)						x								
7830/3-U-1	I0280	35270	193.40	193.46	COCH	CLYST (DKGY)						x								
7830/3-U-1	I0281	35271	195.17	195.20	COCH	CLYST (DKGY, LAM)						x								
7830/3-U-1	I0282	35272	196.65	196.71	COCH	SLST (LAM, DKGY)						x								
7830/3-U-1	I0283	35273	197.87	197.90	COCH	CLYST (SLTY, DKGY)	slickensides					x								
7830/3-U-1	I0284	35274 / 35073	198.31	198.34	COCH	CLYST (DKGY)	silty?					x						x		
7830/3-U-1	I0060		198.34	198.35	COCHG	SST (SLTY)		x												
7830/3-U-1	I0285	35275	198.46	198.46	COPL	SST (FGR, MGY)						x								
Total								18	4	4	2	94	6	5	0	1	0	11	1	
7830/5-U-1	I0205	35196 / 35066	20.27	20.32	COCH	SLST (DKGY)						x						x		
7830/5-U-1	I0206	35197	23.35	23.40	COCH	SLST (DKGY)						x								
7830/5-U-1	I0207	35198	25.81	25.81	COPL	SST (FGR, MGY)						x								
7830/5-U-1	I0019		27.02	27.03	COCHG	MDST		x												
7830/5-U-1	I0208	35199	28.00	28.06	COCH	SLST (CLY, MGY/LTGY)						x								
7830/5-U-1	I0209	35200	31.07	31.12	COCH	SLST (CLY, LAM, COALY)						x								
7830/5-U-1	I0210	35201	33.24	33.29	COCH	CLYST (SLTY, LAM, DKGY)						x								
7830/5-U-1	I0211	35202	36.47	36.53	COCH	SLST (CLY, LAM, DKGY) / SLST (LTGY)	light grey siltstone removed before crushing					x								
7830/5-U-1	I0212	35203	39.18	39.24	COCH	CLYST (DKGY) / SLST (LAM)						x								
7830/5-U-1	I0213	35204 / 35067	40.27	40.34	COCH	CLYST (DKGY, LAM) / SLST (LAM)						x						x		
7830/5-U-1	I0021		42.22	42.26	COCHG	CLYST		x												
7830/5-U-1	I0214	35205	43.10	43.18	COCH	CLYST (SL SLTY, LAM, DKGY)						x								
7830/5-U-1	I0215	35206	45.01	45.09	COCH	CLYST (DKGY)						x								
7830/5-U-1	I0216	35207	48.00	48.11	COCH	CLYST (SLTY, LAM)						x								
7830/5-U-1	I0022		49.01	49.09	COCHG	MDST		x												
7830/5-U-1	I0217	35208	50.94	50.95	COCH	CLYST (DKGY, LAM)	thin slst lam (1 mm)					x								
7830/5-U-1	I0218	35209	53.02	53.05	COCH	CLYST (DKGY, LAM)						x								
7830/5-U-1	I0220	35211 / 35068	56.66	56.72	COCH	CLYST (SLTY, LAM, DKGY) / SLST (LAM)						x						x		
7830/5-U-1	I0221	35212	58.90	58.97	COCH	CLYST (SL SLTY, LAM, DKGY)						x	x			x			x	maturity (non-SR)
7830/5-U-1	I0222	35213	61.15	61.23	COCH	CLYST (SLTY, LAM, DKGY)						x								

Site	Sample ID (SINTEF)	Sample ID (APT)	Depth top (m)	Depth btm (m)	Sample type	Lithology	Sample comment	HSOC std. (1)	HSOC det. (2)	d13C HSOC (3)	WO GC (4)	RE (5)	Analyses					PY- GC (S2) (9)	TE-GC + PY- GC (10)	VR (11)	Vis ker (12)	Purpose
													EX SEP IAT (6)	d13C EOM frac (7)	d13C ker (8)							
7830/5-U-1	I0223	35214	62.38	62.45	COCH	CLYST (SLTY, DKGY)	2 slst laminae					x										
7830/5-U-1	I0224	35215	64.28	64.33	COCH	CLYST (DKGY, LAM) / SLST (LAM)						x										
7830/5-U-1	I0024		65.32	65.37	COCHG	CLYST / SLST		x														
7830/5-U-1	I0225	35216	68.82	68.88	COCH	CLYST (DKGY, LAM) / SLST (LAM)						x										
7830/5-U-1	I0226	35217	71.52	71.57	COCH	CLYST (SL SLTY, LAM, DKGY)						x										
7830/5-U-1	I0228	35219	73.97	74.03	COCH	CLYST (DKGY, LAM)						x										
7830/5-U-1	I0026		75.26	75.28	COCHG	CLYST		x														
7830/5-U-1	I0227	35218	75.86	75.92	COCH	CLYST (DKGY, LAM) / SLST (LAM)						x										
7830/5-U-1	I0229	35220	77.83	77.89	COCH	CLYST (SLTY, LAM, DKGY) / SLST (LAM)						x										
7830/5-U-1	I0230	35221	80.53	80.58	COCH	CLYST (DKGY)						x										
7830/5-U-1	I0231	35222	82.62	82.67	COCH	CLYST (DKGY)						x										
7830/5-U-1	I0027		83.59	83.62	COCHG	MDST		x														
7830/5-U-1	I0232	35223	84.78	84.85	COCH	CLYST (DKGY)						x										
7830/5-U-1	I0233	35224 / 35069	86.33	86.42	COCH	CLYST (SLTY, LAM, DKGY)						x							x			
7830/5-U-1	I0234	35225	89.17	89.22	COCH	CLYST (DKGY, PY)						x										
7830/5-U-1	I0235	35226	91.57	91.61	COCH	CLYST (DKGY, LAM)						x										
7830/5-U-1	I0028		92.36	92.38	COCHG	CLYST		x														
7830/5-U-1	I0236	35227	93.13	93.17	COCH	CLYST (DKGY, LAM)						x										
7830/5-U-1	I0237	35228	95.40	95.44	COCH	CLYST (DKGY)						x										
7830/5-U-1	I0238	35229	98.22	98.27	COCH	CLYST (DKGY)						x										
7830/5-U-1	I0239	35230	99.64	99.72	COCH	CLYST (DKGY)						x										
7830/5-U-1	I0029		102.03	102.05	COCHG	CLYST		x														
7830/5-U-1	I0240	35231	102.49	102.55	COCH	CLYST (DKGY)						x										
7830/5-U-1	I0241	35232	103.22	103.27	COCH	CLYST (DKGY, LAM)						x										
7830/5-U-1	I0242	35233	105.44	105.49	COCH	CLYST (DKGY)						x										
7830/5-U-1	I0243	35234	108.08	108.12	COCH	CLYST (DKGY, LAM)						x										
7830/5-U-1	I0030		109.87	109.88	COCHG	CLYST		x														
7830/5-U-1	I0244	35235 / 35070	110.84	110.87	COCH	CLYST (DKGY, LAM) / COAL						x							x			
7830/5-U-1	I0245	35236	112.68	112.72	COCH	CLYST (DKGY, LAM)						x										
7830/5-U-1	I0246	35237	115.16	115.20	COCH	CLYST (DKGY)						x										
7830/5-U-1	I0031		117.12	117.13	COCHG	CLYST		x														
7830/5-U-1	I0247	35238	117.75	117.81	COCH	CLYST (DKGY)						x										
7830/5-U-1	I0248	35239 / 35071	120.39	120.44	COCH	CLYST (DKGY, LAM)						x							x			
7830/5-U-1	I0249	35240	122.70	122.78	COCH	CLYST (DKGY, LAM)						x										
7830/5-U-1	I0250	35241	124.14	124.20	COCH	CLYST (DKGY, LAM)						x										
7830/5-U-1	I0251	35242	125.36	125.39	COCH	CLYST (VDKGY, LAM)						x										
7830/5-U-1	I0252	35243	126.94	127.02	COCH	CLYST (VDKGY, LAM)						x										
7830/5-U-1	I0253	35244	127.77	127.81	COCH	CLYST (VDKGY, LAM)						x										

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Site	Sample ID (SINTEF)	Sample ID (APT)	Depth top (m)	Depth btm (m)	Sample type	Lithology	Sample comment						Analyses							Purpose	
								HSOC std. (1)	HSOC det. (2)	d13C HSOC (3)	WO GC (4)	RE (5)	EX SEP IAT (6)	d13C EOM frac (7)	d13C ker (8)	PY-GC (S2) (9)	TE-GC + PY-GC (10)	VR (11)	Vis ker (12)		
7830/5-U-1	I0032		128.03	128.05	COCHG	CLYST	very thin pyrite lenses	x													maturity (non-SR)
7830/5-U-1	I0254	35245	128.62	128.68	COCH	CLYST (VDKGY, LAM)						x	x				x			x	
7830/5-U-1	I0255	35246	129.89	129.93	COCH	CLYST (VDKGY, LAM, PY)							x								
7830/5-U-1	I0256	35247	130.74	130.78	COCH	CLYST (VDKGY, LAM)							x								
7830/5-U-1	I0257	35248	131.62	131.67	COCH	CLYST (VDKGY, LAM)							x								
7830/5-U-1	I0258	35249	132.41	132.46	COCH	CLYST (VDKGY, LAM)							x								
7830/5-U-1	I0259	35250	132.61	132.66	COCH	CLYST (VDKGY, LAM)							x								
7830/5-U-1	I0260	35251	133.81	133.84	COCH	CLYST (VDKGY, LAM)							x								
7830/5-U-1	I0261	35252	134.72	134.79	COCH	CLYST (VDKGY, LAM)							x								
7830/5-U-1	I0262	35253	135.80	135.84	COCH	CLYST (DKGY, LAM)							x								
7830/5-U-1	I0263	35254	138.06	138.13	COCH	CLYST (DKGY, LAM)							x								
7830/5-U-1	I0264	35255	139.66	139.69	COCH	CLYST (DKGY, LAM)							x								
7830/5-U-1	I0033		141.14	141.20	COCHG	CLYST			x												
7830/5-U-1	I0265	35256	142.47	142.52	COCH	CLYST (SLTY, LAM, DKGY) / SLST (LAM)							x								
7830/5-U-1	I0266	35257	144.33	144.38	COCH	CLYST (DKGY, LAM) / SLST (LAM)							x								
7830/5-U-1	I0267	35258	146.78	146.83	COCH	CLYST (SLTY, LAM, DKGY)							x								
7830/5-U-1	I0268	35072	146.83	146.84	COCH	SLST (CLY, LAM)													x		
Total								12	0	0	0	62	2	0	0	2	0	7	2		
Grand total								41	4	4	2	204	18	10	4	12	1	29	12		

Legend:

- Sample type: COCH = core chips (or whole core), COCHG = core chips stored in tin can (together with water) for gas analysis

- Lithology: CLYST = claystone, SLST = siltstone, SST = sandstone, MDST = mudstone, CLY = clayey, SLTY = silty

- Colour: DKGY = dark grey

- (1) Headspace and occluded gas, standard method (NIGOGA)
- (2) Headspace and occluded gas, detailed analysis of C1-C9 hydrocarbons
- (3) Stable carbon isotope analysis of headspace and occluded gas compounds
- (4) Whole-oil gas chromatography
- (5) Rock-Eval pyrolysis
- (6) Solvent extraction, asphaltene precipitation, TLC-FID (Iatroscan) of maltenes, MPLC separation into SAT HC, ARO HC, POL fractions
- (7) Stable carbon isotope analysis of SAT, ARO, POL, ASPH
- (8) Stable carbon isotope analysis of kerogen concentrate
- (9) Pyrolysis-GC-FID of solvent-extracted rock (S2 only)
- (10) Thermal extraction (S1) and pyrolysis-GC-FID (S2) of unextracted rock
- (11) Vitrinite reflectance
- (12) Visual kerogen description in transmitted and fluorescent light

All depths are below seabed.

Table 2 Yield and composition of hydrocarbons in headspace gas.

Corehole name	Sample ID	Depth below seabed, top of sample (m)	Depth below seabed, base of sample (m)	Lithology	C1 (µl / kg dry rock)	C2 (µl / kg dry rock)	C3 (µl / kg dry rock)	iC4 (µl / kg dry rock)	nC4 (µl / kg dry rock)	C5+ (µl / kg dry rock)	Sum C1-C4 (µl / kg dry rock) ¹⁾	Sum C2-C4 (µl / kg dry rock) ¹⁾	Wetness (volume %) ¹⁾	iC4/nC4 (volume ratio) ²⁾
7831/2-U-2	I0018	9.38	9.41	CLYST (SLTY)	7 972	28	0	0	0	0	8 000	28	0.4	
7831/2-U-1	I0014	10.77	10.79	SLST	711	15	10	2	5	1	743	32	4.3	0.4
7831/2-U-1	I0015	17.22	17.27	MDST (SLTY, DKGY)	1 110	49	3	0	0	0	1 162	52	4.5	
7831/2-U-1	I0016	25.36	25.38	MDST (CLY, DKGY) / SLST	20 610	126	6	11	2	0	20 755	145	0.7	7.1
7830/6-U-1	I0002	4.21	4.26	CLYST	8	0	0	0	0	0	8	0	0.0	
7830/6-U-1	I0004	12.38	12.40	CLYST	23 807	4	0	0	0	0	23 811	4	0.0	
7830/6-U-1	I0007	21.30	21.32	CLYST (SLTY)	65 934	0	0	1	1	2	65 935	2	0.0	0.6
7830/6-U-1	I0008	25.56	25.57	CLYST (SLTY)	14 620	0	2	1	1	0	14 623	3	0.0	0.8
7830/6-U-1	I0009	32.81	32.82	CLYST (SLTY)	43 349	5	0	0	0	1	43 354	5	0.0	
7830/6-U-1	I0010	41.43	41.45	CLYST (SLTY)	4 444	5	0	0	0	0	4 450	5	0.1	
7830/6-U-1	I0012	49.30	49.31	MDST	41 852	0	1	0	1	1	41 853	2	0.0	0.8
7830/3-U-1	I0034	6.82	6.84	CLYST	249	7	2	1	0	0	259	10	4.0	1.2
7830/3-U-1	I0035	13.88	13.90	CLYST	10 377	48	3	1	0	0	10 429	52	0.5	1.7
7830/3-U-1	I0037	20.15	20.17	SST	1 165	0	0	0	0	0	1 165	0	0.0	
7830/3-U-1	I0038	25.67	25.72	SLST	12 694	9	2	0	1	0	12 706	12	0.1	0.5
7830/3-U-1	I0039	34.08	34.09	CLYST	42 390	34	10	3	7	2	42 443	53	0.1	0.4
7830/3-U-1	I0040	40.74	40.76	SLST / SST	37 748	210	3	1	1	0	37 964	216	0.6	1.1
7830/3-U-1	I0042 ³⁾	49.51	49.54	SST (oil-stained)	549	3	2	3	1	30	558	10	1.7	2.8
7830/3-U-1	I0045 ³⁾	52.45	52.47	SST (oil-stained)	57 560	291	13	165	7	191	58 037	477	0.8	22.9
7830/3-U-1	I0046	61.27	61.28	CLYST	61 627	630	113	29	55	13	62 454	827	1.3	0.5
7830/3-U-1	I0047	77.95	77.96	CLYST	76 756	14	1	0	1	0	76 772	16	0.0	0.5
7830/3-U-1	I0048	83.49	83.51	CLYST (SLTY)	65 807	224	94	30	46	10	66 200	393	0.6	0.7
7830/3-U-1	I0049	92.13	92.15	CLYST	57 377	546	188	61	125	27	58 297	920	1.6	0.5
7830/3-U-1	I0050	106.38	106.40	CLYST	52 565	39	15	6	8	2	52 632	67	0.1	0.7
7830/3-U-1	I0051	116.60	116.61	CLYST	88 625	0	13	0	0	0	88 639	13	0.0	
7830/3-U-1	I0052 ³⁾	123.89	123.91	SST (oil-stained)	37 311	401	213	262	144	806	38 331	1 020	2.7	1.8
7830/3-U-1	I0054	135.57	135.58	CLYST (SLTY)	63 172	2 394	915	77	162	19	66 721	3 548	5.3	0.5
7830/3-U-1	I0061	146.69	149.70	CLYST	79 688	2 765	514	33	57	3	83 058	3 370	4.1	0.6
7830/3-U-1	I0055	163.31	163.32	CLYST	84 491	3 941	964	69	127	11	89 591	5 101	5.7	0.6
7830/3-U-1	I0056 ³⁾	174.94	174.96	CLYST (from oil-stained interval)	72 861	5 640	4 924	1 018	2 131	3 518	86 574	13 713	15.8	0.5
7830/3-U-1	I0058	182.54	182.56	CLYST (SLTY)	57 939	3 019	770	64	102	8	61 895	3 956	6.4	0.6
7830/3-U-1	I0059	191.28	191.30	CLYST	83 397	3 650	1 217	128	197	16	88 588	5 191	5.9	0.7
7830/3-U-1	I0060	198.34	198.35	SST (SLTY)	69 125	3 277	982	69	122	6	73 574	4 450	6.0	0.6

Table 2 (continued)

Corehole name	Sample ID	Depth below seabed, top of sample (m)	Depth below seabed, base of sample (m)	Lithology	C1 (µl / kg dry rock)	C2 (µl / kg dry rock)	C3 (µl / kg dry rock)	iC4 (µl / kg dry rock)	nC4 (µl / kg dry rock)	C5+ (µl / kg dry rock)	Sum C1-C4 (µl / kg dry rock) ¹⁾	Sum C2-C4 (µl / kg dry rock) ¹⁾	Wetness (volume %) ¹⁾	iC4/nC4 (volume ratio) ²⁾
7830/5-U-1	I0019	27.02	27.03	MDST	94	0	0	0	0	0	94	0	0.0	
7830/5-U-1	I0021	42.22	42.26	CLYST	7 874	0	4	4	1	0	7 884	9	0.1	3.0
7830/5-U-1	I0022	49.01	49.09	MDST	45 837	551	45	6	2	0	46 441	604	1.3	3.6
7830/5-U-1	I0024	65.32	65.37	CLYST / SLST	116 335	2 168	159	15	5	0	118 682	2 347	2.0	3.3
7830/5-U-1	I0026	75.26	75.28	CLYST	67 771	567	67	10	3	0	68 418	647	0.9	3.3
7830/5-U-1	I0027	83.59	83.62	MDST	124 242	2 148	206	28	10	0	126 634	2 392	1.9	2.8
7830/5-U-1	I0028	92.36	92.38	CLYST	71 064	1 465	140	17	7	0	72 694	1 629	2.2	2.6
7830/5-U-1	I0029	102.03	102.05	CLYST	63 057	656	114	17	7	1	63 851	794	1.2	2.5
7830/5-U-1	I0030	109.87	109.88	CLYST	73 114	722	104	13	5	0	73 958	844	1.1	2.8
7830/5-U-1	I0031	117.12	117.13	CLYST	72 581	985	88	10	4	0	73 668	1 087	1.5	2.5
7830/5-U-1	I0032	128.03	128.05	CLYST	36 166	1 025	194	32	15	2	37 432	1 266	3.4	2.1
7830/5-U-1	I0033	141.14	141.20	CLYST	13 100	291	70	10	5	1	13 477	377	2.8	2.0

1) Alkenes included (detailed analyses only). The sum may therefore be somewhat larger than the sum of the individual hydrocarbons listed to the left.

2) The ratio was calculated before the concentrations were rounded to whole numbers.

3) Detailed analysis. For further results see Table 23 to **Error! Reference source not found..**

Table 3 *Yield and composition of hydrocarbons in occluded gas.*

Corehole name	Sample ID	Depth below seabed, top of sample (m)	Depth below seabed, base of sample (m)	Lithology	C1 (µl / kg dry rock)	C2 (µl / kg dry rock)	C3 (µl / kg dry rock)	iC4 (µl / kg dry rock)	nC4 (µl / kg dry rock)	C5+ (µl / kg dry rock)	Sum C1-C4 (µl / kg dry rock) ¹⁾	Sum C2-C4 (µl / kg dry rock) ¹⁾	Wetness (volume %) ¹⁾	iC4/nC4 (volume ratio) ²⁾
7831/2-U-2	I0018	9.38	9.41	CLYST (SLTY)	1 515	84	42	8	21	15	1 671	156	9.3	0.4
7831/2-U-1	I0014	10.77	10.79	SLST	2 124	117	56	9	25	15	2 332	208	8.9	0.4
7831/2-U-1	I0015	17.22	17.27	MDST (SLTY, DKGY)	2 088	154	64	17	30	20	2 353	266	11.3	0.6
7831/2-U-1	I0016	25.36	25.38	MDST (CLY, DKGY) / SLST	11 369	678	357	105	204	135	12 713	1 344	10.6	0.5
7830/6-U-1	I0002	4.21	4.26	CLYST	117	1	4	1	4	10	126	9	6.9	0.3
7830/6-U-1	I0004	12.38	12.40	CLYST	2 617	8	1	2	2	2	2 630	13	0.5	0.9
7830/6-U-1	I0007	21.30	21.32	CLYST (SLTY)	9 194	30	7	8	21	84	9 261	67	0.7	0.4
7830/6-U-1	I0008	25.56	25.57	CLYST (SLTY)	7 111	29	7	12	12	26	7 171	60	0.8	1.1
7830/6-U-1	I0009	32.81	32.82	CLYST (SLTY)	4 753	13	3	2	5	24	4 776	23	0.5	0.5
7830/6-U-1	I0010	41.43	41.45	CLYST (SLTY)	3 391	23	7	2	4	79	3 427	37	1.1	0.6
7830/6-U-1	I0012	49.30	49.31	MDST	8 727	33	7	2	3	3	8 772	45	0.5	0.6
7830/3-U-1	I0034	6.82	6.84	CLYST	208	25	16	4	7	6	260	52	20.1	0.5
7830/3-U-1	I0035	13.88	13.90	CLYST	2 463	26	8	3	4	17	2 504	40	1.6	0.7
7830/3-U-1	I0037	20.15	20.17	SST	1 022	110	45	10	21	14	1 208	185	15.4	0.5
7830/3-U-1	I0038	25.67	25.72	SLST	6 218	58	23	4	12	7	6 317	98	1.6	0.4
7830/3-U-1	I0039	34.08	34.09	CLYST	8 458	63	13	3	8	4	8 544	86	1.0	0.3
7830/3-U-1	I0040	40.74	40.76	SLST / SST	7 169	94	44	9	22	15	7 337	168	2.3	0.4
7830/3-U-1	I0042 ³⁾	49.51	49.54	SST (oil-stained)	7 562	162	59	270	21	1 113	8 078	515	6.4	13.1
7830/3-U-1	I0045 ³⁾	52.45	52.47	SST (oil-stained)	10 851	412	198	435	92	2 967	12 008	1 156	9.6	4.7
7830/3-U-1	I0046	61.27	61.28	CLYST	4 215	68	217	96	271	218	4 868	652	13.4	0.4
7830/3-U-1	I0047	77.95	77.96	CLYST	7 760	37	9	4	10	15	7 820	60	0.8	0.4
7830/3-U-1	I0048	83.49	83.51	CLYST (SLTY)	9 976	429	435	170	540	275	11 549	1 573	13.6	0.3
7830/3-U-1	I0049	92.13	92.15	CLYST	2 279	170	272	143	412	169	3 276	996	30.4	0.4
7830/3-U-1	I0050	106.38	106.40	CLYST	2 744	46	40	31	55	41	2 916	171	5.9	0.6
7830/3-U-1	I0051	116.60	116.61	CLYST	2 818	19	6	2	4	5	2 848	30	1.1	0.5
7830/3-U-1	I0052 ³⁾	123.89	123.91	SST (oil-stained)	20 768	942	965	1 774	1 264	23 103	25 736	4 968	19.3	1.4
7830/3-U-1	I0054	135.57	135.58	CLYST (SLTY)	4 802	2 159	1 892	225	737	141	9 816	5 014	51.1	0.3
7830/3-U-1	I0061	146.69	149.70	CLYST	4 348	3 393	2 471	283	951	17	11 446	7 098	62.0	0.3
7830/3-U-1	I0055	163.31	163.32	CLYST	2 956	3 355	2 751	350	989	149	10 401	7 445	71.6	0.4
7830/3-U-1	I0056 ³⁾	174.94	174.96	CLYST (from oil-stained interval)	7 764	6 921	8 875	1 383	5 488	10 329	30 461	22 698	74.5	0.3
7830/3-U-1	I0058	182.54	182.56	CLYST (SLTY)	3 503	3 311	2 762	519	1 309	231	11 404	7 902	69.3	0.4
7830/3-U-1	I0059	191.28	191.30	CLYST	4 035	4 078	3 773	1 134	2 447	416	15 467	11 432	73.9	0.5
7830/3-U-1	I0060	198.34	198.35	SST (SLTY)	4 375	4 340	3 900	499	1 535	161	14 649	10 274	70.1	0.3

Table 3 continued

Corehole name	Sample ID	Depth below seabed, top of sample (m)	Depth below seabed, base of sample (m)	Lithology	C1 ($\mu\text{l} / \text{kg}$ dry rock)	C2 ($\mu\text{l} / \text{kg}$ dry rock)	C3 ($\mu\text{l} / \text{kg}$ dry rock)	iC4 ($\mu\text{l} / \text{kg}$ dry rock)	nC4 ($\mu\text{l} / \text{kg}$ dry rock)	C5+ ($\mu\text{l} / \text{kg}$ dry rock)	Sum C1-C4 ($\mu\text{l} / \text{kg}$ dry rock)1)	Sum C2-C4 ($\mu\text{l} / \text{kg}$ dry rock)1)	Wetness (volume %) ¹⁾	iC4/nC4 (volume ratio) ²⁾
7830/5-U-1	I0019	27.02	27.03	MDST	239	18	8	3	4	3	272	33	12.1	0.6
7830/5-U-1	I0021	42.22	42.26	CLYST	2 060	10	41	50	26	7	2 188	128	5.9	1.9
7830/5-U-1	I0022	49.01	49.09	MDST	1 496	361	224	61	36	10	2 178	682	31.3	1.7
7830/5-U-1	I0024	65.32	65.37	CLYST / SLST	3 771	717	317	83	53	16	4 940	1 169	23.7	1.6
7830/5-U-1	I0026	75.26	75.28	CLYST	4 911	905	399	100	57	3	6 372	1 461	22.9	1.8
7830/5-U-1	I0027	83.59	83.62	MDST	5 039	1 815	1 030	291	137	21	8 312	3 273	39.4	2.1
7830/5-U-1	I0028	92.36	92.38	CLYST	5 419	831	409	91	61	11	6 811	1 392	20.4	1.5
7830/5-U-1	I0029	102.03	102.05	CLYST	3 559	749	403	101	60	12	4 872	1 313	27.0	1.7
7830/5-U-1	I0030	109.87	109.88	CLYST	4 586	1 023	541	129	82	17	6 361	1 775	27.9	1.6
7830/5-U-1	I0031	117.12	117.13	CLYST	4 112	793	423	94	66	14	5 488	1 376	25.1	1.4
7830/5-U-1	I0032	128.03	128.05	CLYST	1 985	685	627	185	126	31	3 608	1 623	45.0	1.5
7830/5-U-1	I0033	141.14	141.20	CLYST	4 693	1 259	831	177	139	30	7 098	2 405	33.9	1.3

1) Alkenes included (detailed analyses only). The sum may therefore be somewhat larger than the sum of the individual hydrocarbons listed to the left.

2) The ratio was calculated before the concentrations were rounded to whole numbers.

3) Detailed analysis. For further results see Table 23 to **Error! Reference source not found..**

Table 4 Yield and composition of hydrocarbons in headspace + occluded gas.

Corehole name	Sample ID	Depth below seabed, top of sample (m)	Depth below seabed, base of sample (m)	Lithology	C1 (µl / kg dry rock)	C2 (µl / kg dry rock)	C3 (µl / kg dry rock)	iC4 (µl / kg dry rock)	nC4 (µl / kg dry rock)	C5+ (µl / kg dry rock)	Sum C1-C4 (µl / kg dry rock)	Sum C2-C4 (µl / kg dry rock)	Wetness (volume %)	iC4/nC4 (volume ratio) ²⁾
7831/2-U-2	I0018	9.38	9.41	CLYST (SLTY)	9 487	112	42	8	21	15	9 671	184	1.9	0.4
7831/2-U-1	I0014	10.77	10.79	SLST	2 835	132	66	11	30	16	3 075	240	7.8	0.4
7831/2-U-1	I0015	17.22	17.27	MDST (SLTY, DKGY)	3 198	203	67	17	30	20	3 515	318	9.0	0.6
7831/2-U-1	I0016	25.36	25.38	MDST (CLY, DKGY) / SLST	31 979	804	363	116	206	135	33 468	1489	4.4	0.6
7830/6-U-1	I0002	4.21	4.26	CLYST	125	1	4	1	4	10	134	9	6.7	0.3
7830/6-U-1	I0004	12.38	12.40	CLYST	26 424	12	1	2	2	2	26 441	17	0.1	1.0
7830/6-U-1	I0007	21.30	21.32	CLYST (SLTY)	75 128	30	7	9	22	86	75 196	69	0.1	0.4
7830/6-U-1	I0008	25.56	25.57	CLYST (SLTY)	21 731	29	9	13	13	26	21 794	63	0.3	1.0
7830/6-U-1	I0009	32.81	32.82	CLYST (SLTY)	48 102	18	3	2	5	25	48 130	28	0.1	0.4
7830/6-U-1	I0010	41.43	41.45	CLYST (SLTY)	7 835	28	7	2	4	79	7 877	42	0.5	0.5
7830/6-U-1	I0012	49.30	49.31	MDST	50 579	33	8	2	4	4	50 625	47	0.1	0.5
7830/3-U-1	I0034	6.82	6.84	CLYST	457	32	18	5	7	6	519	62	11.9	0.7
7830/3-U-1	I0035	13.88	13.90	CLYST	12 840	74	11	4	4	17	12 933	92	0.7	1.0
7830/3-U-1	I0037	20.15	20.17	SST	2 187	110	45	10	21	14	2 373	185	7.8	0.5
7830/3-U-1	I0038	25.67	25.72	SLST	18 912	67	25	4	13	7	19 023	110	0.6	0.3
7830/3-U-1	I0039	34.08	34.09	CLYST	50 848	97	23	6	15	6	50 987	139	0.3	0.4
7830/3-U-1	I0040	40.74	40.76	SLST / SST	44 917	304	47	10	23	15	45 301	384	0.8	0.4
7830/3-U-1	I0042 ³⁾	49.51	49.54	SST (oil-stained)	8 111	166	60	273	22	1 143	8 636	525	6.1	12.6
7830/3-U-1	I0045 ³⁾	52.45	52.47	SST (oil-stained)	68 411	704	211	600	99	3 158	70 045	1 633	2.3	6.1
7830/3-U-1	I0046	61.27	61.28	CLYST	65 842	698	330	125	326	231	67 322	1 479	2.2	0.4
7830/3-U-1	I0047	77.95	77.96	CLYST	84 516	51	10	4	11	15	84 592	76	0.1	0.4
7830/3-U-1	I0048	83.49	83.51	CLYST (SLTY)	75 783	653	529	200	586	285	77 749	1 966	2.5	0.3
7830/3-U-1	I0049	92.13	92.15	CLYST	59 656	716	460	204	537	196	61 573	1 916	3.1	0.4
7830/3-U-1	I0050	106.38	106.40	CLYST	55 309	85	55	37	63	43	55 548	238	0.4	0.6
7830/3-U-1	I0051	116.60	116.61	CLYST	91 443	19	19	2	4	5	91 487	43	0.0	0.5
7830/3-U-1	I0052 ³⁾	123.89	123.91	SST (oil-stained)	58 079	1 343	1 178	2 036	1 408	23 909	64 067	5 988	9.3	1.4
7830/3-U-1	I0054	135.57	135.58	CLYST (SLTY)	67 974	4 553	2 807	302	899	160	76 537	8 562	11.2	0.3
7830/3-U-1	I0061	146.69	149.70	CLYST	84 036	6 158	2 985	316	1 008	20	94 504	10 468	11.1	0.3
7830/3-U-1	I0055	163.31	163.32	CLYST	87 447	7 296	3 715	419	1 116	160	99 992	12 546	12.5	0.4
7830/3-U-1	I0056 ³⁾	174.94	174.96	CLYST (from oil-stained interval)	80 625	12 562	13 799	2 400	7 619	13 847	117 035	36 411	31.1	0.3
7830/3-U-1	I0058	182.54	182.56	CLYST (SLTY)	61 442	6 330	3 532	583	1 411	239	73 299	11 858	16.2	0.4
7830/3-U-1	I0059	191.28	191.30	CLYST	87 432	7 728	4 990	1 262	2 644	432	104 055	16 623	16.0	0.5
7830/3-U-1	I0060	198.34	198.35	SST (SLTY)	73 500	7 617	4 882	568	1 657	167	88 223	14 724	16.7	0.3

Table 4 continued

Corehole name	Sample ID	Depth below seabed, top of sample (m)	Depth below seabed, base of sample (m)	Lithology	C1 (μl / kg dry rock)	C2 (μl / kg dry rock)	C3 (μl / kg dry rock)	iC4 (μl / kg dry rock)	nC4 (μl / kg dry rock)	C5+ (μl / kg dry rock)	Sum C1-C4 (μl / kg dry rock)	Sum C2-C4 (μl / kg dry rock)	Wetness (volume %)	iC4/nC4 (volume ratio) ²⁾
7830/5-U-1	I0019	27.02	27.03	MDST	333	18	8	3	4	3	366	33	9.0	0.8
7830/5-U-1	I0021	42.22	42.26	CLYST	9 934	10	45	54	27	7	10 072	137	1.4	2.0
7830/5-U-1	I0022	49.01	49.09	MDST	47 333	912	269	67	38	10	48 619	1 286	2.6	1.8
7830/5-U-1	I0024	65.32	65.37	CLYST / SLST	120 106	2 885	476	98	58	16	123 622	3 516	2.8	1.7
7830/5-U-1	I0026	75.26	75.28	CLYST	72 682	1 472	466	110	60	3	74 790	2 108	2.8	1.8
7830/5-U-1	I0027	83.59	83.62	MDST	129 281	3 963	1 236	319	147	21	134 946	5 665	4.2	2.2
7830/5-U-1	I0028	92.36	92.38	CLYST	76 483	2 296	549	108	68	11	79 505	3 021	3.8	1.6
7830/5-U-1	I0029	102.03	102.05	CLYST	66 616	1 405	517	118	67	13	68 723	2 107	3.1	1.8
7830/5-U-1	I0030	109.87	109.88	CLYST	77 700	1 745	645	142	87	17	80 319	2 619	3.3	1.6
7830/5-U-1	I0031	117.12	117.13	CLYST	76 693	1 778	511	104	70	14	79 156	2 463	3.1	1.5
7830/5-U-1	I0032	128.03	128.05	CLYST	38 151	1 710	821	217	141	33	41 040	2 889	7.0	1.5
7830/5-U-1	I0033	141.14	141.20	CLYST	17 793	1 550	901	187	144	31	20 575	2 782	13.5	1.3

- 1) Alkenes included (detailed analyses only). The sum may therefore be somewhat larger than the sum of the individual hydrocarbons listed to the left.
- 2) The ratio was calculated before the concentrations were rounded to whole numbers.
- 3) Detailed analysis. For further results see Table 23 to Table 25.

Table 5 *Stable carbon and hydrogen isotope ratios of hydrocarbons in headspace (HS) and occluded (OC) gas from cores 7830/3-U-1 and 7830/5-U-1.*

Sample ID, Fraction	Site	Depth (m SB)	APT ID	IFE no.	C1 $\delta^{13}\text{C}$	C2 $\delta^{13}\text{C}$	C3 $\delta^{13}\text{C}$	iC4 $\delta^{13}\text{C}$	nC4 $\delta^{13}\text{C}$	CO2 $\delta^{13}\text{C}$	C1 δD
					(‰ PDB)					(‰ SMOW)	
I0052 HS	7830/3-U-1	123.91	29476	2005.3390	-52.7						-258
I0052 OC	7830/3-U-1	123.91	29477	2005.3391	-46.5		-26.8	-32.1	-24.4	-11.5	-248
I0056 HS	7830/3-U-1	174.94	29478	2005.3392	-49.8	-38.3	-34.7	-32.1	-32.3		-240
I0056 OC	7830/3-U-1	174.94	29479	2005.3393	-45.8	-38.1	-35.0	-32.7	-32.6	-10.6	
I0027 HS	7830/5-U-1	83.62	29480	2005.3394	-51.1						-228

Table 6 Total organic carbon content and data from Rock-Eval pyrolysis

Sample ID	Depth below seabed, top of sample (m)	Depth below seabed, base of sample (m)	Sample type	Lithology	Sample comment	S1 (mg/g rock)	S2 (mg/g rock)	S3 (mg/g rock)	Tmax (°C)	TOC (LECO) (wt %)	PP (mg/g rock)	PI (wt ratio)	HI (mg HC/g TOC)	OI (mg CO2/g TOC)
Site 7831/2-U-2														
Unit A														
I0107	6.07	6.14	COCH	CLYST (SL SLTY, MGY)		0.43	2.92	0.30	427	1.44	3.35	0.13	203	21
I0104	9.14	6.16	COCH	CLYST (SLTY, MGY)		0.87	13.47	0.21	439	3.16	14.34	0.06	426	7
I0106	6.78	6.83	COCH	CLYST (SLTY, DKGY)		1.61	22.76	0.26	439	4.80	24.37	0.07	474	5
I0105	8.21	8.26	COCH	CLYST (DKGY)		0.92	13.32	0.26	440	3.29	14.24	0.06	405	8
I0103	9.47	9.51	COCH	CLYST (SLTY, MGY)		1.01	18.06	0.25	440	3.92	19.07	0.05	461	6
I0102	10.23	10.28	COCH	CLYST (SLTY, MGY)		1.59	25.81	0.17	434	5.90	27.40	0.06	437	3
I0101	11.82	11.87	COCH	CLYST (DKGY)		1.54	29.36	0.17	440	6.15	30.90	0.05	477	3
I0100	13.84	13.88	COCH	CLYST (DKGY)		1.47	34.60	0.43	442	7.26	36.07	0.04	477	6
I0099	14.48	14.53	COCH	CLYST (SLTY, DKGY)	abundant <i>Tasmanites</i>	3.42	58.58	0.22	449	10.79	62.00	0.06	543	2
I0098	15.37	15.41	COCH	CLYST (DKGY)	contains <i>Tasmanites</i>	1.03	23.67	0.16	447	4.25	24.70	0.04	557	4
I0097	16.83	16.87	COCH	CLYST (SLTY, DKGY)		1.79	28.66	0.16	443	5.71	30.45	0.06	502	3
I0096	17.83	17.87	COCH	CLYST (SLTY, DKGY)		1.95	23.79	0.21	439	5.01	25.74	0.08	475	4
I0095	18.72	18.85	COCH	CLYST (SLTY, DKGY)		1.61	22.77	0.22	442	4.95	24.38	0.07	460	4
Site 7831/2-U-1														
Unit C														
I0093	10.38	10.41	COCH	SLST (MGY)		0.32	1.86	0.10	442	1.31	2.18	0.15	142	8
I0094	11.82	11.85	COCH	CLYST (SLTY, MGY)		0.89	3.51	0.29	438	1.48	4.40	0.20	237	20
Unit B														
I0092	14.78	14.83	COCH	CLYST (MGY)		0.25	2.00	0.15	439	1.25	2.25	0.11	160	12
I0091	16.3	16.36	COCH	CLYST (MGY)		0.28	2.27	0.18	439	1.26	2.55	0.11	180	14
I0090	19.61	19.66	COCH	CLYST (DKGY)		0.44	4.12	0.24	442	1.66	4.56	0.10	248	14
I0089	21.72	21.76	COCH	CLYST (DKGY)		0.67	8.79	0.24	443	2.37	9.46	0.07	371	10
I0088	24.33	24.36	COCH	CLYST (DKGY)		0.55	6.11	0.26	445	2.08	6.66	0.08	294	13
I0086	26.56	26.61	COCH	CLYST (DKGY)		0.65	3.31	0.23	442	1.69	3.96	0.16	196	14
I0087	27.84	27.87	COCH	CLYST (DKGY)		0.63	2.29	0.79	432	1.93	2.92	0.22	119	41
Site 7830/6-U-1														
Unit E														
I0132	3.9	3.93	COCH	CLYST (MGY)		0.06	1.04	0.81	441	1.43	1.10	0.05	73	57
I0131	5.94	6	COCH	CLYST (MGY)		0.07	1.15	0.90	442	1.35	1.22	0.06	85	67
I0130	8.85	8.88	COCH	CLYST (SLTY, LAM, MGY)		0.13	1.42	1.03	442	1.54	1.55	0.08	92	67
I0129	11.89	11.93	COCH	CLYST (SLTY, LAM, MGY)		0.08	0.93	0.40	438	1.27	1.01	0.08	73	31
I0005	12.85	12.88	COCH	SLST	oil-staining on fractures	0.13	0.53	2.58	435	0.72	0.66	0.20	74	358
I0128	14.83	14.87	COCH	CLYST (SLTY, LAM, DKGY)		0.11	1.14	0.36	440	1.28	1.25	0.09	89	28
I0127	17.63	17.67	COCH	CLYST (SLTY, LAM, DKGY)		0.20	1.58	0.95	441	1.57	1.78	0.11	101	61
I0126	20.03	20.1	COCH	CLYST (SLTY, LAM, DKGY)	slst and clyst layers	0.21	1.88	1.29	442	2.33	2.09	0.10	81	55
I0125	22.64	22.69	COCH	CLYST (SLTY, DKGY)		0.16	1.56	1.11	440	1.71	1.72	0.09	91	65

Sample ID	Depth below seabed, top of sample (m)	Depth below seabed, base of sample (m)	Sample type	Lithology	Sample comment	S1 (mg/g rock)	S2 (mg/g rock)	S3 (mg/g rock)	Tmax (°C)	TOC (LECO) (wt %)	PP (mg/g rock)	PI (wt ratio)	HI (mg HC/g TOC)	OI (mg CO2/g TOC)
(Site 7830/6-U-1)														
(Unit E)														
I0124	24.75	24.79	COCH	CLYST (DKGY) / SLST (LAM)		0.18	1.62	0.95	441	1.79	1.80	0.10	91	53
I0123	26.9	26.94	COCH	CLYST (SLTY, LAM, DKGY)		0.20	1.57	1.12	440	1.68	1.77	0.11	93	67
I0122	28	28.06	COCH	CLYST (SLTY, LAM, DKGY)		0.17	1.37	1.43	441	1.48	1.54	0.11	93	97
I0121	31.01	31.06	COCH	CLYST (SLTY, LAM, DKGY)		0.14	1.21	0.42	440	1.31	1.35	0.10	92	32
I0120	33.7	33.76	COCH	CLYST (DKGY) / SLST (LAM)		0.14	1.16	1.01	439	1.24	1.30	0.11	94	81
I0119	36.25	36.28	COCH	CLYST (SLTY, LAM, DKGY)		0.25	1.67	1.01	439	1.65	1.92	0.13	101	61
I0118	38.84	38.88	COCH	CLYST (DKGY, LAM)		0.22	1.71	0.37	440	1.46	1.93	0.11	117	25
Unit D														
I0117	40.2	40.28	COCH	CLYST (DKGY) / SLST (LAM)	sample above lithological boundary	0.27	3.71	0.15	438	1.65	3.98	0.07	225	9
I0116	40.66	40.7	COCH	CLYST (SLTY, LAM)	plant remains; sample below lithological boundary	0.25	4.14	0.16	437	1.77	4.39	0.06	234	9
I0115	41.85	41.89	COCH	CLYST (DKGY, LAM)		0.61	11.54	0.20	436	3.08	12.15	0.05	375	6
I0114	43.66	43.69	COCH	CLYST (DKGY, LAM)		0.23	3.76	0.17	438	1.50	3.99	0.06	251	11
I0113	46.38	46.42	COCH	CLYST (DKGY, LAM)		0.36	4.71	0.21	439	1.80	5.07	0.07	262	12
I0112	46.86	46.91	COCH	CLYST (DKGY, LAM)		0.35	3.99	0.26	438	1.73	4.34	0.08	231	15
I0111	48.93	49	COCH	CLYST (DKGY, LAM)		0.34	3.67	0.13	439	1.71	4.01	0.08	215	8
I0110	50.9	50.93	COCH	CLYST (DKGY, LAM)		0.74	8.46	0.16	438	2.72	9.20	0.08	311	6
I0109	51.23	51.29	COCH	CLYST (DKGY, LAM)		0.21	2.01	0.22	439	1.27	2.22	0.09	158	17
I0108	52.75	52.79	COCH	CLYST (DKGY, LAM)		0.19	2.14	0.19	438	1.27	2.33	0.08	169	15
Site 7830/3-U-1														
Unit K														
I0133	3.89	3.96	COCH	CLYST (SLTY, LAM)		0.30	2.49	0.17	441	1.49	2.79	0.11	167	11
I0134	5.56	5.63	COCH	CLYST (DKGY)		0.30	2.06	0.17	437	1.44	2.36	0.13	143	12
I0135	8.67	8.73	COCH	CLYST (SLTY, LAM)	slst laminae	0.28	1.97	0.18	439	1.22	2.25	0.12	161	15
I0136	11.5	11.55	COCH	CLYST (DKGY, LAM)		0.29	1.31	0.27	440	1.22	1.60	0.18	107	22
I0137	14.59	14.64	COCH	CLYST (DKGY)		0.32	1.52	0.18	439	1.20	1.84	0.17	127	15
Unit J														
I0138	17.75	17.8	COCH	SST (FGR, MGY)		0.69	0.95	0.14	411	0.48	1.64	0.42	198	29
I0139	19.51	19.57	COCH	SST (FGR, MGY)		0.58	0.48	0.17	301	0.39	1.06	0.55	123	44
I0140	22.83	22.9	COCH	SST (FGR, MGY)		0.27	0.36	0.16	410	0.30	0.63	0.43	120	53
I0141	25.62	25.68	COCH	SST (FGR, MGY)		0.39	0.54	0.20	420	0.34	0.93	0.42	159	59
I0142	27.8	27.86	COCH	SLST (CLY, LAM, DKGY)		0.38	1.67	0.18	437	1.30	2.05	0.19	128	14
I0143	30.76	30.81	COCH	SLST (CLY, DKGY)		0.37	1.73	0.29	438	1.46	2.10	0.18	118	20
I0144	33.62	33.67	COCH	SLST (CLY, LAM, DKGY)		0.35	1.52	0.24	437	1.36	1.87	0.19	112	18
I0145	36.48	36.53	COCH	SLST (CLY, LAM, DKGY)	slst lamina at one end	0.39	1.00	0.18	436	1.13	1.39	0.28	88	16
Unit I														
I0146	39.94	39.99	COCH	SST (MGR, MGY)		1.00	0.72	0.34	400	0.42	1.72	0.58	171	81
I0147	41.87	41.89	COCH	SLST (MIC, COALY)		3.33	6.40	0.17	433	4.33	9.73	0.34	148	4
I0148	44.81	44.86	COCH	SLST (DKGY)	slst lamina at one end	0.44	1.43	0.26	438	1.23	1.87	0.24	116	21

Sample ID	Depth below seabed, top of sample (m)	Depth below seabed, base of sample (m)	Sample type	Lithology	Sample comment	S1 (mg/g rock)	S2 (mg/g rock)	S3 (mg/g rock)	Tmax (°C)	TOC (LECO) (wt %)	PP (mg/g rock)	PI (wt ratio)	HI (mg HC/g TOC)	OI (mg CO2/g TOC)
(Site 7830/3-U-1)														
(Unit I)														
I0149	47.56	47.59	COCH	SLST (DKGY)		0.52	1.82	0.22	438	1.34	2.34	0.22	136	16
I0183	49.31	49.31	COPL	SST (FGR)	oil-stained	3.10	1.36	0.31	296	0.69	4.46	0.70	197	45
I0150	50.34	50.61	COCH	SST (FGR, MGY)		2.28	1.35	0.16	289	0.48	3.63	0.63	281	33
I0151	51.24	51.24	COPL	SST (FGR, MGY)	oil-stained	3.05	1.27	0.37	289	0.65	4.32	0.71	195	57
I0044	52.38	52.4	COCH	SST	oil-stained	1.67	1.19	0.24	305	0.49	2.86	0.58	243	49
I0152	52.83	52.86	COCH	SLST (CLY, DKGY)		0.46	1.59	0.21	440	1.39	2.05	0.22	114	15
I0153	54.44	54.47	COCH	CLYST (SLTY, LAM, DKGY)		0.39	1.76	0.27	440	1.42	2.15	0.18	124	19
I0154	55.66	55.69	COCH	CLYST (SLTY, LAM, DKGY)		0.36	1.65	0.31	438	1.41	2.01	0.18	117	22
I0155	58.74	58.78	COCH	CLYST (SLTY, LAM, DKGY)		0.24	1.34	0.34	437	1.23	1.58	0.15	109	28
I0156	61.85	61.91	COCH	SLST (CLY, DKGY)		0.31	1.24	0.32	438	1.26	1.55	0.20	98	25
I0157	64.28	64.3	COCH	CLYST (SLTY, DKGY)		0.55	3.39	0.19	439	2.12	3.94	0.14	160	9
I0158	67.36	67.4	COCH	SLST (CLY)		1.55	6.92	0.19	435	3.85	8.47	0.18	180	5
I0159	71.09	71.13	COCH	SST (FGR, MGY)		0.48	0.64	0.14	297	0.35	1.12	0.43	183	40
I0160	72.38	72.42	COCH	SST (FGR, MGY)		0.55	0.71	0.26	299	0.38	1.26	0.44	187	68
I0161	73.89	73.94	COCH	CLYST (SLTY, DKGY)	half slst, half clyst	0.38	2.34	0.17	441	1.52	2.72	0.14	154	11
I0162	75.59	75.64	COCH	SLST (CLY, LAM)		0.23	0.94	0.40	439	1.03	1.17	0.20	91	39
I0163	78.75	78.8	COCH	CLYST / SLST	slumped sediment	0.26	1.55	0.46	438	1.41	1.81	0.14	110	33
I0164	80.68	80.73	COCH	SLST (CLY, DKGY)		0.20	1.00	0.52	439	1.11	1.20	0.17	90	47
I0165	82.46	82.51	COCH	SLST (CLY, DKGY)		0.28	1.45	0.36	440	1.25	1.73	0.16	116	29
I0166	85.3	85.35	COCH	CLYST (SLTY, LAM, DKGY)		0.30	1.64	0.50	439	1.54	1.94	0.15	106	32
I0167	87.82	87.85	COCH	CLYST (SLTY, LAM, DKGY)		0.23	1.53	0.43	439	1.53	1.76	0.13	100	28
I0168	89.64	89.66	COCH	CLYST (DKGY)		0.29	1.68	0.47	441	1.80	1.97	0.15	93	26
I0169	93.18	93.22	COCH	CLYST (SLTY, LAM, DKGY)		0.14	1.25	1.03	438	1.25	1.39	0.10	100	82
I0170	96.91	96.96	COCH	CLYST (SLTY, LAM, DKGY)		0.21	1.71	0.47	441	1.47	1.92	0.11	116	32
I0171	99.52	99.55	COCH	CLYST (SLTY, LAM, DKGY, PYR)		0.16	1.14	1.05	437	1.27	1.30	0.12	90	83
I0172	102.93	102.97	COCH	CLYST (SLTY, LAM, DKGY)		0.39	2.08	0.72	440	2.02	2.47	0.16	103	36
I0173	105.64	105.69	COCH	CLYST (DKGY)		0.24	1.43	0.42	441	1.48	1.67	0.14	97	28
I0174	107.46	107.49	COCH	CLYST (SLTY, DKGY)	top of fining-up sequence	0.69	4.27	0.66	438	2.67	4.96	0.14	160	25
I0175	108.23	108.28	COCH	SST (FGR, MGY)	from fining-up sequence	2.06	4.26	0.51	426	1.38	6.32	0.33	308	37
I0176	111.01	111.05	COCH	SST (FGR, MGY)		3.21	3.99	0.33	424	0.82	7.20	0.45	488	40
I0177	111.69	111.75	COCH	SST (FGR, DKGY)	oil-stained?	3.91	6.15	0.56	422	1.19	10.06	0.39	516	47
I0178	113.34	113.41	COCH	SST (FGR, MGY)		2.46	3.50	0.39	424	0.68	5.96	0.41	516	58
I0179	117.44	117.5	COCH	CLYST / SLST		0.40	2.26	0.57	439	1.58	2.66	0.15	143	36
I0180	119.9	119.94	COCH	CLYST (SLTY, LAM)		0.37	1.79	0.75	438	1.61	2.16	0.17	111	47
I0181	121.61	121.66	COCH	CLYST (SLTY, LAM)		0.58	2.94	0.65	440	2.02	3.52	0.16	146	32
I0181	121.61	121.66	COCH	CLYST (SLTY, LAM)		0.57	2.58	0.97	441	2.49	3.15	0.18	104	39
I0182	122.62	122.68	COCH	SLST (LAM, COALY)		3.34	12.21	0.54	428	5.79	15.55	0.21	211	9
I0184	124.63	124.63	COPL	SST (FGR, LTGY)	COPL	0.60	0.62	0.39	414	0.35	1.22	0.49	177	111
I0053	124.72	124.74	COCH	SST (COALY)	oil-stained. Coaly material removed before sample preparation.	0.86	0.91	0.46	404	0.39	1.77	0.49	235	119
I0185	126.36	126.39	COCH	CLYST (SLTY, LAM, DKGY)		0.56	2.54	0.53	440	1.83	3.10	0.18	139	29

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(Site 7830/3-U-1)														
Unit H														
I0186	129.8	129.83	COCH	CLYST (SLTY, LAM, DKGY)	thin silt band at one end: remove it	0.31	1.72	0.66	441	1.46	2.03	0.15	118	45
I0187	132.72	132.76	COCH	CLYST (SLTY, LAM, DKGY, COALY)		0.26	1.31	0.97	443	1.52	1.57	0.17	86	64
I0188	135.96	135.99	COCH	CLYST (SLTY, LAM, DKGY)		0.25	1.48	1.19	442	1.80	1.73	0.14	82	66
I0189	138.47	138.5	COCH	CLYST (SL SLTY, LAM, DKGY)		0.16	0.97	1.30	444	1.37	1.13	0.14	71	95
I0190	141.97	142	COCH	SLST (CLY, DKGY) / SLST (LAM)	some coal debris?	0.18	1.12	0.92	444	1.45	1.30	0.14	77	63
I0191	144.91	144.96	COCH	CLYST (SL SLTY, LAM, DKGY)	few tiny slst lenses/laminae	0.15	1.02	1.26	444	1.49	1.17	0.13	68	85
I0192	147.73	147.79	COCH	CLYST (SL SLTY, LAM, DKGY)		0.14	1.07	1.34	443	1.45	1.21	0.12	74	92
I0193	150.75	150.79	COCH	CLYST (SL SLTY, LAM, DKGY)	1 thin slst lamina	0.15	1.11	1.01	444	1.40	1.26	0.12	79	72
I0194	152.76	152.79	COCH	CLYST (SL SLTY, LAM, DKGY)	silt lamina removed before sample preparation	0.15	1.16	1.28	443	1.52	1.31	0.11	76	84
I0195	154.81	154.88	COCH	CLYST (SL SLTY, DKGY)		0.14	1.45	1.81	442	1.75	1.59	0.09	83	103
I0196	157.07	157.11	COCH	SLST (CLY, MGY)	clyst lamina removed before sample preparation	0.15	1.33	1.09	442	1.45	1.48	0.10	92	75
I0197	159.35	159.4	COCH	CLYST (SLTY, DKGY)		0.11	1.00	1.00	444	1.28	1.11	0.10	78	78
I0198	160.88	160.9	COCH	CLYST (SLTY, LAM, DKGY)		0.13	1.16	1.31	443	1.43	1.29	0.10	81	92
I0199	163.1	163.13	COCH	CLYST (SLTY, DKGY)	small sample	0.15	1.33	1.29	442	1.55	1.48	0.10	86	83
I0200	166.03	166.08	COCH	CLYST (SLTY, LAM, DKGY)		0.08	0.96	0.78	443	1.20	1.04	0.08	80	65
I0201	168.2	168.24	COCH	CLYST (DKGY)	pyrite removed	0.10	1.34	0.45	441	1.30	1.44	0.07	103	35
I0202	170.34	170.39	COCH	CLYST (DKGY)		0.18	1.43	0.84	441	1.45	1.61	0.11	99	58
Unit G														
I0288	171.14	171.16	COCH	SST (COALY)		0.67	0.69	0.45	409	1.10	1.36	0.49	63	41
I0203	173.32	173.36	COCH	CLYST (SL SLTY, DKGY)		0.39	1.82	1.55	443	1.83	2.21	0.18	99	85
I0287	174.13	174.15	COCH	SST (FGR, MGY)	taken at 0.19 - 0.21 m from frozen piece (0.20 - 0.58 in Run 68) = 0.39-0.41 m. Top of core = 173.74 m -> 174.13-174.15 m. Oil-stained.	3.34	2.45	0.47	408	0.64	5.79	0.58	386	74
Unit F														
I0204	177.03	177.07	COCH	CLYST (SL SLTY, DKGY)		0.14	0.96	0.73	441	1.23	1.10	0.13	78	59
I0269	179.26	179.29	COCH	CLYST (DKGY, LAM) / SLST (LAM)	slickenside	0.21	1.49	1.48	444	1.77	1.70	0.12	84	84
I0270	180.87	180.92	COCH	CLYST (SLTY, DKGY)		0.15	1.35	1.76	441	1.35	1.50	0.10	100	131
I0271	182.27	182.33	COCH	CLYST (DKGY)		0.11	1.20	0.64	442	1.21	1.31	0.08	99	53
I0272	183.85	183.88	COCH	CLYST (DKGY)		0.20	3.69	0.43	440	1.77	3.89	0.05	208	24
I0273	185.32	185.38	COCH	CLYST (DKGY)		0.19	3.83	0.35	439	1.58	4.02	0.05	243	22

Sample ID	Depth below seabed, top of sample (m)	Depth below seabed, base of sample (m)	Sample type	Lithology	Sample comment	S1 (mg/g rock)	S2 (mg/g rock)	S3 (mg/g rock)	Tmax (°C)	TOC (LECO) (wt %)	PP (mg/g rock)	PI (wt ratio)	HI (mg HC/g TOC)	OI (mg CO2/g TOC)
(Site 7830/3-U-1)														
(Unit F)														
I0274	185.92	186	COCH	CLYST (DKGY)		0.41	6.98	0.36	434	2.50	7.39	0.06	279	14
I0275	187.8	187.83	COCH	CLYST (LAM, DKGY, PYR)		0.48	8.34	0.31	437	2.91	8.82	0.05	287	11
I0276	188.13	188.19	COCH	CLYST (LAM, DKGY)		0.25	3.95	0.24	440	1.86	4.20	0.06	212	13
I0277	189.55	189.59	COCH	CLYST (SL SLTY, LAM, DKGY)		0.30	5.57	0.36	439	2.09	5.87	0.05	266	17
I0278	189.81	189.87	COCH	CLYST (VDKGY-BK, LAM)		0.56	8.02	0.62	436	3.12	8.58	0.07	257	20
I0279	191.56	191.64	COCH	CLYST (VDKGY, LAM)		0.10	0.95	0.41	438	1.09	1.05	0.10	87	38
I0280	193.4	193.46	COCH	CLYST (DKGY)		0.10	1.64	0.32	441	1.19	1.74	0.06	138	27
I0281	195.17	195.2	COCH	CLYST (DKGY, LAM)		0.12	1.22	0.76	443	1.70	1.34	0.09	72	45
I0282	196.65	196.71	COCH	SLST (LAM, DKGY)		0.48	4.38	1.49	442	3.63	4.86	0.10	121	41
I0283	197.87	197.9	COCH	CLYST (SLTY, DKGY)	slickensides	0.13	1.15	1.21	443	1.30	1.28	0.10	88	93
I0284	198.31	198.34	COCH	CLYST (DKGY)	silty?	0.17	1.07	0.96	445	1.46	1.24	0.14	73	66
I0285	198.46	198.46	COPL	SST (FGR, MGY)		0.12	0.88	1.08	445	1.11	1.00	0.12	79	97
Site 7830/5-U-1														
Unit M														
I0205	20.27	20.32	COCH	SLST (DKGY)		0.03	1.54	2.21	438	1.54	1.57	0.02	100	144
I0206	23.35	23.4	COCH	SLST (DKGY)		0.03	1.40	1.21	439	1.61	1.43	0.02	87	75
I0207	25.81	25.81	COPL	SST (FGR, MGY)		0.01	0.08	0.38	419	0.16	0.09	0.11	50	238
I0208	28	28.06	COCH	SLST (CLY, MGY/LTGY)		0.04	1.52	1.41	439	2.05	1.56	0.03	74	69
I0209	31.07	31.12	COCH	SLST (CLY, LAM, COALY)		0.03	1.21	1.33	438	1.48	1.24	0.02	82	90
I0210	33.24	33.29	COCH	CLYST (SLTY, LAM, DKGY)		0.04	1.70	1.20	437	1.90	1.74	0.02	90	63
I0211	36.47	36.53	COCH	SLST (CLY, LAM, DKGY) / SLST (LTGY)	light grey slst removed	0.05	1.90	1.84	437	1.89	1.95	0.03	101	98
I0212	39.18	39.24	COCH	CLYST (DKGY) / SLST (LAM)		0.04	1.15	1.32	438	1.35	1.19	0.03	85	98
I0213	40.27	40.34	COCH	CLYST (DKGY, LAM) / SLST (LAM)		0.04	1.32	1.15	438	1.47	1.36	0.03	90	78
I0214	43.1	43.18	COCH	CLYST (SL SLTY, LAM, DKGY)		0.03	0.98	1.06	440	1.34	1.01	0.03	73	79
I0215	45.01	45.09	COCH	CLYST (DKGY)		0.03	1.05	1.21	438	1.37	1.08	0.03	77	89
I0216	48	48.11	COCH	CLYST (SLTY, LAM)		0.03	1.14	1.22	438	1.59	1.17	0.03	72	77
I0217	50.94	50.95	COCH	CLYST (DKGY, LAM)	thin slst lam (1 mm)	0.05	1.90	2.09	440	2.32	1.95	0.03	82	90
I0218	53.02	53.05	COCH	CLYST (DKGY, LAM)		0.04	1.29	1.28	439	1.70	1.33	0.03	76	75
I0220	56.66	56.72	COCH	CLYST (SLTY, LAM, DKGY) / SLST (LAM)		0.04	1.64	1.35	439	1.65	1.68	0.02	100	82
I0221	58.9	58.97	COCH	CLYST (SL SLTY, LAM, DKGY)		0.06	2.46	1.61	437	2.31	2.52	0.02	106	70
I0222	61.15	61.23	COCH	CLYST (SLTY, LAM, DKGY)		0.05	1.88	1.41	437	2.16	1.93	0.03	87	65
I0223	62.38	62.45	COCH	CLYST (SLTY, DKGY)		0.05	2.14	0.89	439	1.92	2.19	0.02	111	46
I0224	64.28	64.33	COCH	CLYST (DKGY, LAM) / SLST (LAM)	2 slst laminae	0.03	1.43	0.98	438	1.47	1.46	0.02	97	67

Sample ID	Depth below seabed, top of sample (m)	Depth below seabed, base of sample (m)	Sample type	Lithology	Sample comment	S1 (mg/g rock)	S2 (mg/g rock)	S3 (mg/g rock)	Tmax (°C)	TOC (LECO) (wt %)	PP (mg/g rock)	PI (wt ratio)	HI (mg HC/g TOC)	OI (mg CO2/g TOC)
(Site 7830/5-U-1)														
<i>Unit L</i>														
I0225	68.82	68.88	COCH	CLYST (DKGY, LAM) / SLST (LAM)		0.03	1.30	0.91	439	1.42	1.33	0.02	91	64
I0226	71.52	71.57	COCH	CLYST (SL SLTY, LAM, DKGY)		0.04	1.37	0.71	438	1.48	1.41	0.03	92	48
I0228	73.97	74.03	COCH	CLYST (DKGY, LAM)		0.03	1.23	1.02	439	1.41	1.26	0.02	87	72
I0227	75.86	75.92	COCH	CLYST (DKGY, LAM) / SLST (LAM)		0.03	1.22	1.26	439	1.39	1.25	0.02	88	90
I0229	77.83	77.89	COCH	CLYST (SLTY, LAM, DKGY) / SLST (LAM)		0.03	1.09	1.30	438	1.35	1.12	0.03	81	96
I0230	80.53	80.58	COCH	CLYST (DKGY)		0.03	1.00	0.79	439	1.30	1.03	0.03	77	61
I0231	82.62	82.67	COCH	CLYST (DKGY)		0.03	1.92	0.47	437	1.41	1.95	0.02	137	33
I0232	84.78	84.85	COCH	CLYST (DKGY)		0.03	1.09	0.56	438	1.29	1.12	0.03	84	43
I0233	86.33	86.42	COCH	CLYST (SLTY, LAM, DKGY)		0.04	1.00	0.37	437	1.30	1.04	0.04	77	28
I0234	89.17	89.22	COCH	CLYST (DKGY, PY)		0.03	0.80	0.28	436	1.10	0.83	0.04	73	25
I0235	91.57	91.61	COCH	CLYST (DKGY, LAM)		0.04	0.93	0.55	439	1.23	0.97	0.04	76	45
I0236	93.13	93.17	COCH	CLYST (DKGY, LAM)		0.03	1.03	0.57	439	1.33	1.06	0.03	77	43
I0237	95.4	95.44	COCH	CLYST (DKGY)		0.03	0.93	0.61	436	1.20	0.96	0.03	77	51
I0238	98.22	98.27	COCH	CLYST (DKGY)		0.03	0.80	0.76	437	1.12	0.83	0.04	72	68
I0239	99.64	99.72	COCH	CLYST (DKGY)		0.03	0.89	0.69	438	1.14	0.92	0.03	78	61
I0240	102.49	102.55	COCH	CLYST (DKGY)		0.03	0.93	0.95	437	1.28	0.96	0.03	73	74
I0241	103.22	103.27	COCH	CLYST (DKGY, LAM)		0.03	0.96	0.79	437	1.28	0.99	0.03	75	62
I0242	105.44	105.49	COCH	CLYST (DKGY)		0.03	0.92	0.70	440	1.26	0.95	0.03	73	56
I0243	108.08	108.12	COCH	CLYST (DKGY, LAM)		0.03	0.78	0.86	440	1.18	0.81	0.04	66	73
I0244	110.84	110.87	COCH	CLYST (DKGY, LAM) / COAL		0.03	0.85	1.24	439	1.36	0.88	0.03	63	91
I0245	112.68	112.72	COCH	CLYST (DKGY, LAM)		0.03	0.93	0.67	438	1.17	0.96	0.03	79	57
I0246	115.16	115.2	COCH	CLYST (DKGY)		0.03	0.80	0.20	436	1.11	0.83	0.04	72	18
I0247	117.75	117.81	COCH	CLYST (DKGY)		0.02	0.72	1.19	439	1.09	0.74	0.03	66	109
I0248	120.39	120.44	COCH	CLYST (DKGY, LAM)		0.03	1.23	0.44	439	1.41	1.26	0.02	87	31
I0249	122.7	122.78	COCH	CLYST (DKGY, LAM)		0.03	0.65	0.50	434	1.23	0.68	0.04	53	41
I0250	124.14	124.2	COCH	CLYST (DKGY, LAM)		0.03	0.64	0.27	437	1.01	0.67	0.04	63	27
I0251	125.36	125.39	COCH	CLYST (VDKGY, LAM)		0.03	0.65	0.37	436	1.00	0.68	0.04	65	37
I0252	126.94	127.02	COCH	CLYST (VDKGY, LAM)		0.03	0.77	0.67	437	0.96	0.80	0.04	80	70
I0253	127.77	127.81	COCH	CLYST (VDKGY, LAM)		0.03	0.80	0.78	439	1.09	0.83	0.04	74	72
I0254	128.62	128.68	COCH	CLYST (VDKGY, LAM)		0.06	3.54	0.33	432	1.80	3.60	0.02	197	18
I0255	129.89	129.93	COCH	CLYST (VDKGY, LAM, PY)	very thin pyrite lenses	0.05	1.04	0.20	438	1.23	1.09	0.05	85	16
I0256	130.74	130.78	COCH	CLYST (VDKGY, LAM)		0.05	1.24	0.30	438	1.24	1.29	0.04	100	24
I0257	131.62	131.67	COCH	CLYST (VDKGY, LAM)		0.05	1.21	0.47	439	1.29	1.26	0.04	93	36
I0258	132.41	132.46	COCH	CLYST (VDKGY, LAM)		0.04	1.19	0.37	440	1.36	1.23	0.03	87	27
I0259	132.61	132.66	COCH	CLYST (VDKGY, LAM)		0.04	1.16	0.52	440	1.30	1.20	0.03	89	40
I0260	133.81	133.84	COCH	CLYST (VDKGY, LAM)		0.04	1.08	0.78	441	1.23	1.12	0.04	88	63
I0261	134.72	134.79	COCH	CLYST (VDKGY, LAM)		0.04	0.86	0.81	439	1.25	0.90	0.04	69	65
I0262	135.8	135.84	COCH	CLYST (DKGY, LAM)		0.04	0.85	0.55	439	1.20	0.89	0.04	71	46

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Sample ID	Depth below seabed, top of sample (m)	Depth below seabed, base of sample (m)	Sample type	Lithology	Sample comment	S1 (mg/g rock)	S2 (mg/g rock)	S3 (mg/g rock)	Tmax (°C)	TOC (LECO) (wt %)	PP (mg/g rock)	PI (wt ratio)	HI (mg HC/g TOC)	OI (mg CO2/g TOC)
(Site 7830/5-U-1)														
(Unit L)														
I0263	138.06	138.13	COCH	CLYST (DKGY, LAM)		0.04	0.75	0.43	440	1.13	0.79	0.05	66	38
I0264	139.66	139.69	COCH	CLYST (DKGY, LAM)		0.04	0.82	0.78	441	1.18	0.86	0.05	70	66
I0265	142.47	142.52	COCH	CLYST (SLTY, LAM, DKGY) / SLST (LAM)		0.05	1.14	0.97	440	1.44	1.19	0.04	79	67
I0266	144.33	144.38	COCH	CLYST (DKGY, LAM) / SLST (LAM)		0.06	1.39	0.54	441	1.37	1.45	0.04	101	39
I0267	146.78	146.83	COCH	CLYST (SLTY, LAM, DKGY)		0.08	1.26	0.74	440	1.40	1.34	0.06	90	53

Table 7 Peak area percentages (including and excluding UCM) and ratios from pyrolysis-gas chromatograms

Sample ID	Upper Depth (m)	Lower Depth (m)	Sample type	%C1 (UCM)	%C2-C5 (UCM)	%C6-C14 (UCM)	%C15+ (UCM)	%C1 (X-UCM)	%C2-C5 (X-UCM)	%C6-C14 (X-UCM)	%C15+ (X-UCM)	Toluene / n-Heptene	(m+p)-Xylene / n-Octene
Site 7831/2-U-2													
I0106	6.78	6.83	COCH	5.63	17.19	37.70	39.48	9.43	28.78	49.65	12.15	1.02	1.55
I0102	10.23	10.28	COCH	5.51	17.08	36.77	40.64	9.41	29.21	49.69	11.68	0.91	1.20
I0099	14.48	14.53	COCH	5.13	16.13	37.66	41.07	8.66	27.20	51.15	12.99	0.69	0.77
I0096	17.83	17.87	COCH	5.73	17.32	37.06	39.89	9.80	29.60	48.84	11.76	0.80	0.99
I0095	18.72	18.85	COCH	5.52	18.08	36.97	39.43	9.20	30.14	48.77	11.90	0.70	0.86
Site 7831/2-U-1													
I0089	21.72	21.76	COCH	7.72	18.71	36.71	36.87	12.02	29.13	43.92	14.94	1.38	2.15
Site 7830/6-U-1													
I0126	20.03	20.10	COCH	21.25	23.18	38.50	17.07	25.67	28.00	37.61	8.73	8.68	8.23
I0115	41.85	41.89	COCH	6.44	17.38	36.70	39.48	11.09	29.91	46.34	12.66	1.06	1.52
I0110	50.90	50.93	COCH	8.26	25.25	39.50	26.98	11.82	36.12	43.24	8.82	1.50	1.65
Site 7830/3-U-1													
I0195	154.81	154.88	COCH	13.18	16.82	30.08	39.92	22.14	28.26	38.42	11.18	9.47	8.75
Site 7830/5-U-1													
I0221	58.90	58.97	COCH	18.86	23.59	39.97	17.58	22.67	28.35	39.02	9.96	6.65	6.13
I0254	128.62	128.68	COCH	8.83	22.85	45.12	23.21	11.89	30.77	47.97	9.36	3.06	3.90

Table 8 Peak areas from pyrolysis-gas chromatograms (including and excluding UCM)

Sample ID	Upper Depth (m)	Lower Depth (m)	Sample type	C1	C2-C5	C6-C14	C15+	C6-C14 (UCM)	C15+ (UCM)	n-Heptene	Toluene	n-Octene	(m+p)-Xylene
Site 7831/2-U-2													
I0106	6.78	6.83	COCH	5.77E+06	1.76E+07	3.04E+07	7.43E+06	3.86E+07	4.05E+07	6.32E+05	6.44E+05	4.25E+05	6.57E+05
I0102	10.23	10.28	COCH	9.08E+06	2.82E+07	4.79E+07	1.13E+07	6.06E+07	6.70E+07	1.14E+06	1.04E+06	8.09E+05	9.73E+05
I0099	14.48	14.53	COCH	2.23E+07	7.01E+07	1.32E+08	3.35E+07	1.64E+08	1.78E+08	3.81E+06	2.63E+06	2.92E+06	2.24E+06
I0096	17.83	17.87	COCH	8.35E+06	2.52E+07	4.16E+07	1.00E+07	5.40E+07	5.81E+07	1.03E+06	8.25E+05	7.81E+05	7.75E+05
I0095	18.72	18.85	COCH	9.44E+06	3.09E+07	5.00E+07	1.22E+07	6.32E+07	6.75E+07	1.44E+06	1.01E+06	1.02E+06	8.79E+05
Site 7831/2-U-1													
I0089	21.72	21.76	COCH	2.77E+06	6.72E+06	1.01E+07	3.44E+06	1.32E+07	1.32E+07	1.55E+05	2.14E+05	9.74E+04	2.09E+05
Site 7830/6-U-1													
I0126	20.03	20.10	COCH	2.96E+06	3.23E+06	4.34E+06	1.01E+06	5.37E+06	2.38E+06	3.42E+04	2.97E+05	1.92E+04	1.58E+05
I0115	41.85	41.89	COCH	3.17E+06	8.55E+06	1.32E+07	3.62E+06	1.80E+07	1.94E+07	2.57E+05	2.73E+05	1.82E+05	2.77E+05
I0110	50.90	50.93	COCH	2.75E+06	8.40E+06	1.01E+07	2.05E+06	1.31E+07	8.97E+06	2.45E+05	3.67E+05	1.59E+05	2.62E+05
Site 7830/3-U-1													
I0195	154.81	154.88	COCH	1.71E+06	2.19E+06	2.97E+06	8.65E+05	3.91E+06	5.19E+06	2.25E+04	2.13E+05	1.28E+04	1.12E+05
Site 7830/5-U-1													
I0221	58.90	58.97	COCH	2.57E+06	3.22E+06	4.43E+06	1.13E+06	5.45E+06	2.40E+06	3.70E+04	2.46E+05	2.12E+04	1.30E+05
I0254	128.62	128.68	COCH	2.33E+06	6.04E+06	9.42E+06	1.84E+06	1.19E+07	6.14E+06	9.53E+04	2.92E+05	6.08E+04	2.37E+05

Table 9 *Vitrinite reflectance and liptinite fluorescence data*

Sample ID	Upper Depth (m)	Lower Depth (m)	Sample type	Sample prep.	%Lithology	%Ro	Std. dev.	Number of measurements	Quality rating	Overall quality	Comment
Site 7831/2-U-2											
I0106	6.78	6.83	COCH	Bulk	sh	0.42	0.08	3	o++o++	G	See data sheet
I0102	10.23	10.28	COCH	Bulk	sh	0.55	0.04	19	ooooo-	G	See data sheet
I0095	18.72	18.85	COCH	Bulk	sh	0.38	0.01	3	-ooooo	G	See data sheet
Site 7831/2-U-1											
I0093	10.38	10.41	COCH	Bulk	sh	0.49	0.04	3	+ooooo	G	See data sheet
I0090	19.61	19.66	COCH	Bulk	sh	0.50	0.01	3	oooooo	G	See data sheet
I0087	27.84	27.87	COCH	Bulk	sh	0.36	0.07	13	oooooo	G	See data sheet
Site 7830/6-U-1											
I0127	17.63	17.67	COCH	Bulk	sh	0.37	0.02	3	++oo--	G	See data sheet
I0121	31.01	31.06	COCH	Bulk	sh	0.40	0.11	2	-o-o-o	M	See data sheet
I0116	40.66	40.70	COCH	Bulk	sh	0.31	0.08	7	oo-ooo	G	See data sheet
I0108	52.75	52.79	COCH	Bulk	sh						Barren sample
Site 7830/3-U-1											
I0132	3.90	3.93	COCH	Bulk	sh	0.53	0.02	6	+oooo-	G	See data sheet
I0134	5.56	5.63	COCH	Bulk	sh	0.50	0.06	2	++ooo+	G	See data sheet
I0137	14.59	14.64	COCH	Bulk	sh	0.56	0.03	18	+ooooo	G	See data sheet
I0147	41.87	41.89	COCH	Bulk	sh	0.49	0.01	3	+++++o	G	See data sheet
I0158	67.36	67.40	COCH	Bulk	sh	0.46	0.01	3	++oo-o	M	See data sheet
I0165	82.46	82.51	COCH	Bulk	sh	0.56	0.03	5	o-ooo-	M	See data sheet
I0172	102.93	102.97	COCH	Bulk	sh	0.60	0.03	17	+++++o	G	See data sheet
I0182	122.62	122.68	COCH	Bulk	sh	0.58	0.04	20	+o+++o	G	See data sheet
I0190	141.97	142.00	COCH	Bulk	sh	0.60	0.02	8	++ooo-	G	See data sheet
I0196	157.07	157.11	COCH	Bulk	sh	0.55	0.03	14	oooo--	M	See data sheet
I0203	173.32	173.36	COCH	Bulk	sh	0.34	0.01	2	o-ooo-	M	See data sheet
I0284	198.31	198.34	COCH	Bulk	sh	0.69	0.03	14	ooo+o-	G	See data sheet
Site 7830/5-U-1											
I0205	20.27	20.32	COCH	Bulk	sh	0.37	0.04	9	+o+o-	M	See data sheet
I0213	40.27	40.34	COCH	Bulk	sh	0.43	0.03	9	o-ooo-	M	See data sheet
I0220	56.66	56.72	COCH	Bulk	sh	0.49	0.01	9	oooooo-	M	See data sheet
I0233	86.33	86.42	COCH	Bulk	sh	0.54	0.03	6	-oo-o-	M	See data sheet
I0244	110.84	110.87	COCH	Bulk	sh	0.49	0.07	5	--o---	M	See data sheet
I0248	120.39	120.44	COCH	Bulk	sh	0.58	0.04	12	ooo---	M	See data sheet
I0268	146.83	146.84	COCH	Bulk	sh	0.58	0.01	3	+o-oo-	M	See data sheet

Table 10 Results from visual kerogen analysis

Sample ID	Upper Depth (m)	Lower Depth (m)	Sample type	FA (%)	HA (%)	AL (%)	HE (%)	WO (%)	CO (%)	SCI	Comments
Site 7831/2-U-2											
I0106	6.78	6.83	COCH	60	10	7	8	5	10	4	This sample is dominated by weakly fluorescing fluoramorphinite with a small portion of degraded woody amorphous masses. Coaly material is minor. Spores are scattered together with dinoflagellate cysts. There are some reworked spores present.
I0102	10.23	10.28	COCH	20	40	15	10	5	10	5	Mixed kerogen with significant yellow dinoflagellate cysts.
I0099	14.48	14.53	COCH	10	50	2	13	5	20	6	Terrestrial debris dominates. Significant cuticle and resin. Colonial algae is trace. Significant inert.
I0096	17.83	17.87	COCH	40	30	5	5	5	15	5	Mixed amorphous. Tentative spore fluorescence color. Minor dinoflagellate cysts.
I0095	18.72	18.85	COCH	54	10	20	2	2	12	5	Dominated by fluoramorphinite with abundant dinoflagellate cysts. Minor good quality trilete spores.
Site 7831/2-U-1											
I0089	21.72	21.76	COCH	20	40	3	5	7	25	4	Dominated by hebamorphinite and degrading woods fragments. Reworked spores at 3-. Dinoflagellate cysts are present but minor. Good quality trilete spores.
Site 7830/6-U-1											
I0126	20.03	20.10	COCH	0	20	3	7	50	20	5	Significant amorphous debris and degraded woody material. Minor good quality spores and trace colonial algae and cuticle.
I0115	41.85	41.89	COCH	70	0	15	6	5	4	4	This sample is dominated by weakly fluorescing fluoramorphinite organic debris with significant algal (mainly dinoflagellate). Minor trilete spores are scattered and there are traces of woody and coaly particles.
I0110	50.90	50.93	COCH	43	30	15	5	2	5	4	Mixed amorphous. Fluoramorphinite is weakly fluorescing. Abundant dinoflagellate cysts. Reworked mid orange fluorescing spores are present with immature spores.
Site 7830/3-U-1											
I0195	154.81	154.88	COCH	0	10	0	7	53	30	6	Dominated by terrestrial debris some low leveled reworked spores (3-).
Site 7830/5-U-1											
I0221	58.90	58.97	COCH	10	0	1	20	40	29	5-6	Terrestrial debris dominates. Significant cuticle and resin. Colonial algae is trace.
I0254	128.62	128.68	COCH	5	30	5	20	15	25	4 and 6-7	Terrestrial debris dominates. Significant amount of reworked spores at various levels of thermal maturity may be reworked are Y/O, M/O and D/O.

Table 11 Extraction, asphaltene precipitation and TOC data

Site Sample ID	Depth below seabed, top of sample (m)	Depth below seabed, base of type sample (m)	Sample type	Lithology	Rock extracted (g)	EOM (mg)	ASPH (mg)	TOC (wt%)	EOM (wt ppm of rock)	EOM (mg/g TOC)	ASPH (wt% of EOM)
7831/2-U-2											
I0106	6.78	6.83	COCH	CLYST (SLTY, DKGY)	13.07	81	50.0	4.8	6199	129	61.7
I0102	10.23	10.28	COCH	CLYST (SLTY, MGY)	9.48	60	18.9	5.9	6330	107	31.5
I0099	14.48	14.53	COCH	CLYST (SLTY, DKGY)	12.16	173	59.2	10.79	14230	132	34.2
I0096	17.83	17.87	COCH	CLYST (SLTY, DKGY)	15.50	107	14.8	5.01	6903	138	13.8
I0095	18.72	18.85	COCH	CLYST (SLTY, DKGY)	10.79	66	21.2	4.95	6115	124	32.1
7831/2-U-1											
I0089	21.72	21.76	COCH	CLYST (DKGY)	11.22	49	20.6	2.37	4366	184	42.0
7830/6-U-1											
I0005	12.85	12.88	COCH	SLST	10.03	8	1.1	0.72	798	111	13.8
I0126	20.03	20.1	COCH	CLYST (SLTY, LAM, DKGY)	10.98	4	2.3	2.33	364	16	57.5
I0115	41.85	41.89	COCH	CLYST (DKGY, LAM)	20.66	52	17.9	3.08	2516	82	34.4
I0110	50.9	50.93	COCH	CLYST (DKGY, LAM)	18.02	45	24.3	2.72	2497	92	54.0
7830/3-U-1											
I0146	39.94	39.99	COCH	SST (MGR, MGY)	12.93	33	2.6	0.42	2552	608	7.9
I0151	51.24	51.24	COPL	SST (FGR, MGY)	8.51	59	3.2	0.65	6933	1067	5.4
I0177	111.69	111.75	COCH	SST (FGR, DKGY)	7.75	121	23.8	1.19	15618	1310	19.7
I0184	124.63	124.63	COPL	SST (FGR, LTGY)	13.07	21	1.4	0.35	1607	459	6.7
I0195	154.81	154.88	COCH	CLYST (SL SLTY, DKGY)	8.98	3	1.3	1.75	334	19	43.3
I0287	174.13	174.15	COCH	SST (FGR, MGY)	11.24	61	1.7	0.64	5428	855	2.8
7830/5-U-1											
I0221	58.9	58.97	COCH	CLYST (SL SLTY, LAM, DKGY)	10.60	8	5.0	2.31	754	33	62.5
I0254	128.62	128.68	COCH	CLYST (VDKGY, LAM)	15.69	11	5.8	1.80	701	39	52.7
Reference sample											
JR-1					2.16	29	4.7	12.99	13417	103	16.2

Table 12 Asphaltene precipitation and TLC-FID analysis of maltenes: C15+ bulk composition

Site Sample ID	Depth below seabed, top of sample (m)	Depth below seabed, base of sample (m)	Sample type	Lithology	SAT/ EOM	ARO/ EOM	HC/ EOM	POL/ EOM	ASPH/ EOM	SAT/ ARO	HC/ Non-HC
					(wt% of EOM)				(wt/wt)		(wt/wt)
7831/2-U-2											
I0106	6.78	6.83	COCH	CLYST (SLTY, DKGY)	4.0	17.4	21.4	16.9	61.7	0.2	0.3
I0102	10.23	10.28	COCH	CLYST (SLTY, MGY)	4.1	33.3	37.4	31.1	31.5	0.1	0.6
I0099	14.48	14.53	COCH	CLYST (SLTY, DKGY)	7.4	38.2	45.5	20.3	34.2	0.2	0.8
I0096	17.83	17.87	COCH	CLYST (SLTY, DKGY)	12.1	48.2	60.3	25.9	13.8	0.3	1.5
I0095	18.72	18.85	COCH	CLYST (SLTY, DKGY)	15.6	29.5	45.1	22.8	32.1	0.5	0.8
7831/2-U-1											
I0089	21.72	21.76	COCH	CLYST (DKGY)	5.5	18.6	24.1	33.8	42.0	0.3	0.3
7830/6-U-1											
I0005	12.85	12.88	COCH	SLST	35.6	16.7	52.3	34.0	13.8	2.1	1.1
I0126	20.03	20.1	COCH	CLYST (SLTY, LAM, DKGY)	12.5	5.4	17.9	24.6	57.5	2.3	0.2
I0115	41.85	41.89	COCH	CLYST (DKGY, LAM)	16.7	23.0	39.7	25.9	34.4	0.7	0.7
I0110	50.9	50.93	COCH	CLYST (DKGY, LAM)	11.7	18.2	29.9	16.1	54.0	0.6	0.4
7830/3-U-1											
I0146	39.94	39.99	COCH	SST (MGR, MGY)	39.2	30.9	70.1	22.0	7.9	1.3	2.3
I0151	51.24	51.24	COPL	SST (FGR, MGY)	51.9	35.0	86.9	7.6	5.4	1.5	6.6
I0177	111.69	111.75	COCH	SST (FGR, DKGY)	27.3	1.1	28.4	51.9	19.7	24.8	0.4
I0184	124.63	124.63	COPL	SST (FGR, LTGY)	48.6	19.6	68.2	25.2	6.7	2.5	2.1
I0195	154.81	154.88	COCH	CLYST (SL SLTY, DKGY)	8.3	3.3	11.6	45.0	43.3	2.5	0.1
I0287	174.13	174.15	COCH	SST (FGR, MGY)	37.0	34.4	71.4	25.9	2.8	1.1	2.5
7830/5-U-1											
I0221	58.9	58.97	COCH	CLYST (SL SLTY, LAM, DKGY)	4.7	3.6	8.4	29.1	62.5	1.3	0.1
I0254	128.62	128.68	COCH	CLYST (VDKGY, LAM)	8.9	10.3	19.1	28.1	52.7	0.9	0.2
Reference sample											
JR-1					20.3	38.9	59.2	24.6	16.2	0.5	1.5

Concentrations calculated from gravimetric EOM data, gravimetric asphaltene precipitation data and TLC-FID weight% data.

Table 13 Concentrations of EOM and chromatographic fractions relative to rock weight

Site Sample ID	Depth below seabed, top of sample (m)	Depth below seabed, base of sample (m)	Sample type	Lithology	EOM	SAT	ARO	POL	ASPH	HC	Non-HC
(wt ppm of rock)											
7831/2-U-2											
I0106	6.78	6.83	COCH	CLYST (SLTY, DKGY)	6199	248	1079	1048	3825	1327	4872
I0102	10.23	10.28	COCH	CLYST (SLTY, MGY)	6330	260	2108	1969	1994	2367	3963
I0099	14.48	14.53	COCH	CLYST (SLTY, DKGY)	14230	1053	5436	2889	4867	6475	7755
I0096	17.83	17.87	COCH	CLYST (SLTY, DKGY)	6903	835	3327	1788	953	4163	2740
I0095	18.72	18.85	COCH	CLYST (SLTY, DKGY)	6115	954	1804	1394	1963	2758	3357
7831/2-U-1											
I0089	21.72	21.76	COCH	CLYST (DKGY)	4366	240	812	1476	1834	1052	3314
7830/6-U-1											
I0005	12.85	12.88	COCH	SLST	798	284	133	271	110	417	381
I0126	20.03	20.1	COCH	CLYST (SLTY, LAM, DKGY)	364	46	20	90	209	65	299
I0115	41.85	41.89	COCH	CLYST (DKGY, LAM)	2516	420	579	652	866	999	1517
I0110	50.9	50.93	COCH	CLYST (DKGY, LAM)	2497	292	454	402	1348	747	1750
7830/3-U-1											
I0146	39.94	39.99	COCH	SST (MGR, MGY)	2552	1000	789	561	202	1789	763
I0151	51.24	51.24	COPL	SST (FGR, MGY)	6933	3598	2427	527	374	6025	908
I0177	111.69	111.75	COCH	SST (FGR, DKGY)	15618	4264	172	8106	3077	4436	11182
I0184	124.63	124.63	COPL	SST (FGR, LTGY)	1607	781	315	405	108	1096	511
I0195	154.81	154.88	COCH	CLYST (SL SLTY, DKGY)	334	28	11	150	145	39	295
I0287	174.13	174.15	COCH	SST (FGR, MGY)	5428	2008	1867	1406	152	3876	1552
7830/5-U-1											
I0221	58.9	58.97	COCH	CLYST (SL SLTY, LAM, DKGY)	754	35	27	219	471	63	691
I0254	128.62	128.68	COCH	CLYST (VDKGY, LAM)	701	62	72	197	369	134	567
Reference sample											
JR-1					13417	2724	5219	3301	2174	7943	5474

Concentrations were calculated from gravimetric EOM data, gravimetric asphaltene precipitation data and TLC-FID weight% data.

Table 14 Concentrations of EOM and chromatographic fractions relative to TOC weight

Site Sample ID	Depth below seabed, top of sample (m)	Depth below seabed, base of sample (m)	Sample type	Lithology	EOM	SAT	ARO	POL	ASPH	HC	Non-HC
(mg/g TOC)											
7831/2-U-2											
I0106	6.78	6.83	COCH	CLYST (SLTY, DKGY)	129	5	22	22	80	28	101
I0102	10.23	10.28	COCH	CLYST (SLTY, MGY)	107	4	36	33	34	40	67
I0099	14.48	14.53	COCH	CLYST (SLTY, DKGY)	132	10	50	27	45	60	72
I0096	17.83	17.87	COCH	CLYST (SLTY, DKGY)	138	17	66	36	19	83	55
I0095	18.72	18.85	COCH	CLYST (SLTY, DKGY)	124	19	36	28	40	56	68
7831/2-U-1											
I0089	21.72	21.76	COCH	CLYST (DKGY)	184	10	34	62	77	44	140
7830/6-U-1											
I0005	12.85	12.88	COCH	SLST	111	39	19	38	15	58	53
I0126	20.03	20.1	COCH	CLYST (SLTY, LAM, DKGY)	16	2	1	4	9	3	13
I0115	41.85	41.89	COCH	CLYST (DKGY, LAM)	82	14	19	21	28	32	49
I0110	50.9	50.93	COCH	CLYST (DKGY, LAM)	92	11	17	15	50	27	64
7830/3-U-1											
I0146	39.94	39.99	COCH	SST (MGR, MGY)	608	238	188	134	48	426	182
I0151	51.24	51.24	COPL	SST (FGR, MGY)	1067	554	373	81	58	927	140
I0177	111.69	111.75	COCH	SST (FGR, DKGY)	1310	358	14	680	258	372	938
I0184	124.63	124.63	COPL	SST (FGR, LTGY)	459	223	90	116	31	313	146
I0195	154.81	154.88	COCH	CLYST (SL SLTY, DKGY)	19	2	1	9	8	2	17
I0287	174.13	174.15	COCH	SST (FGR, MGY)	855	316	294	221	24	610	244
7830/5-U-1											
I0221	58.9	58.97	COCH	CLYST (SL SLTY, LAM, DKGY)	33	2	1	9	20	3	30
I0254	128.62	128.68	COCH	CLYST (VDKGY, LAM)	39	3	4	11	21	7	32
Reference sample											
JR-1					103	21	40	25	17	61	42

Table 15 Stable carbon isotope data of kerogen, EOM and chromatographic fractions

Site Sample ID	Depth below seabed, top of sample (m)	Depth below seabed, base of type sample (m)	Sample type	Lithology	$\delta^{13}\text{C-EOM}$ (‰ PDB)	$\delta^{13}\text{C-SAT}$ (‰ PDB)	$\delta^{13}\text{C-ARO}$ (‰ PDB)	$\delta^{13}\text{C-POL}$ (‰ PDB)	$\delta^{13}\text{C-ASP}$ (‰ PDB)	$\delta^{13}\text{C-KER}$ (‰ PDB)
7831/2-U-2										
I0102	10.23	10.28	COCH	CLYST (SLTY, MGY)	-30.2	-30.6	-31.0	-30.0	-29.9	-30.6
I0099	14.48	14.53	COCH	CLYST (SLTY, DKGY)	-30.7	-30.8	-31.0	-30.5	-30.8	-30.6
7831/2-U-1										
I0089	21.72	21.76	COCH	CLYST (DKGY)	-29.8	see (1)	-30.2	-29.8	-29.4	-29.8
7830/6-U-1										
I0005	12.85	12.88	COCH	SLST	-29.7	-30.6	-29.4	-29.7	-27.6	
I0115	41.85	41.89	COCH	CLYST (DKGY, LAM)	-30.0	-31.0	-30.3	-29.6	-29.4	-29.9
7830/3-U-1										
I0146	39.94	39.99	COCH	SST (MGR, MGY)	-30.2	-30.5	-30.1	-29.9	-29.1	
I0151	51.24	51.24	COPL	SST (FGR, MGY)	-30.3	-30.6	-30.2	-30.0	-29.9	
I0177	111.69	111.75	COCH	SST (FGR, DKGY)	-30.8	-31.0	-30.0	-31.0	-31.2	
I0184	124.63	124.63	COPL	SST (FGR, LTGY)	-30.6	-30.7	see (1)	-30.2	-29.7	
I0287	174.13	174.15	COCH	SST (FGR, MGY)	-31.1	-31.1	-31.0	-30.8	-30.6	

(1) Not enough material to measure isotope ratio

Table 16 Peak area ratios derived from gas chromatograms of saturated hydrocarbons.

Site Sample ID	Depth below seabed, top of sample (m)	Depth below seabed, base type of sample (m)	Sample type	Lithology	Pristane/ n-C17 [=A]	Phytane/ n-C18 [=B]	[A] / [B]	Pristane/ Phytane	CPI 1	n-C17/ (n-C17+n-C27)	n-C15/ n-C20	n-C30/ n-C20
7831/2-U-2												
I0106	6.78	6.83	COCH	CLYST (SLTY, DKGY)	1.33	0.61	2.18	2.42	1.53	0.80	1.35	0.12
I0102	10.23	10.28	COCH	CLYST (SLTY, MGY)	0.56	0.50	1.11	1.19	1.19	0.87	1.70	0.35
I0099	14.48	14.53	COCH	CLYST (SLTY, DKGY)	0.70	0.51	1.38	1.48	1.03	0.76	1.20	0.20
I0096	17.83	17.87	COCH	CLYST (SLTY, DKGY)	1.08	0.74	1.46	1.49	1.13	0.70	0.83	0.27
I0095	18.72	18.85	COCH	CLYST (SLTY, DKGY)	1.27	0.24	5.22	2.72	1.65	0.51	1.09	0.20
7831/2-U-1												
I0089	21.72	21.76	COCH	CLYST (DKGY)	0.71	0.42	1.69	1.84	1.27	0.81	1.49	0.16
7830/6-U-1												
I0005	12.85	12.88	COCH	SLST	2.94	2.03	1.45	1.44	1.79	0.92	1.17	0.06
I0126	20.03	20.1	COCH	CLYST (SLTY, LAM, DKGY)	1.10	0.27	4.13	3.21	1.60	0.50	1.12	0.25
I0115	41.85	41.89	COCH	CLYST (DKGY, LAM)	2.51	1.13	2.23	2.66	1.78	0.74	1.22	0.26
I0110	50.9	50.93	COCH	CLYST (DKGY, LAM)	0.74	0.48	1.53	1.69	1.48	0.82	1.37	0.16
7830/3-U-1												
I0146	39.94	39.99	COCH	SST (MGR, MGY)	1.86	1.54	1.20	1.37	1.41	0.48	2.90	0.67
I0151	51.24	51.24	COPL	SST (FGR, MGY)	7.63	4.77	1.60	0.97	1.05	0.05	0.99	6.58
I0177	111.69	111.75	COCH	SST (FGR, DKGY)	5.73	1.34	4.27	0.89	2.86	0.22	0.34	1.18
I0184	124.63	124.63	COPL	SST (FGR, LTGY)	2.70	1.64	1.64	0.90	1.01	0.27	0.18	0.40
I0195	154.81	154.88	COCH	CLYST (SL SLTY, DKGY)	2.34	1.55	1.51	1.40	1.15	0.63	0.66	0.48
I0287	174.13	174.15	COCH	SST (FGR, MGY)	1.82	1.12	1.63	0.78	1.17	0.31	0.03	0.24
7830/5-U-1												
I0221	58.9	58.97	COCH	CLYST (SL SLTY, LAM, DKGY)	1.67	0.51	3.28	2.22	2.22	0.47	1.09	0.40
I0254	128.62	128.68	COCH	CLYST (VDKGY, LAM)	2.88	2.96	0.97	1.09	1.97	0.66	1.02	0.33
Reference samples												
JR-1					1.10	1.08	1.02	1.31	1.18	0.87	1.66	0.20
NSO-1, #0					0.61	0.47	1.30	1.52	1.08	0.80	1.68	0.25
NSO-1, #1					0.61	0.47	1.29	1.51	1.09	0.80	1.68	0.25
NSO-1, #2 (dry)					0.60	0.47	1.28	1.49	1.11	0.80	1.69	0.25

Legend: Pr = Pristane, Ph = Phytane, CPI 1 = $0.5 * [(\sum n-C_{25} \dots n-C_{31} \text{ odd}) / ((\sum n-C_{24} \dots n-C_{30} \text{ even}) + (\sum n-C_{25} \dots n-C_{31} \text{ odd}) / (\sum n-C_{26} \dots n-C_{32} \text{ even}))]$

Table 17 Peak height ratios derived from mass fragmentograms of aromatic hydrocarbons (naphthalenes, phenanthrenes and dibenzothiophenes).

Site Sample ID	Depth below seabed, top of sample (m)	Depth below seabed, base of sample (m)	Sample Lithology	MNR (2-MN/1-MN)	%2-MN	DNR (DNR 1)	MPI1	MPI2	F1	F2	%4-MDBT	4-MDBT/1-MDBT
7831/2-U-2												
I0106	6.78	6.83	COCH CLYST (SLTY, DKGY)	1.17	54	2.26	0.59	0.57	0.40	0.20	75	3.01
I0102	10.23	10.28	COCH CLYST (SLTY, MGY)	1.19	54	2.58	0.61	0.64	0.41	0.21	71	2.41
I0099	14.48	14.53	COCH CLYST (SLTY, DKGY)	1.20	55	2.04	0.70	0.72	0.42	0.22	63	1.67
I0096	17.83	17.87	COCH CLYST (SLTY, DKGY)	0.95	49	2.52	0.65	0.67	0.42	0.22	76	3.24
I0095	18.72	18.85	COCH CLYST (SLTY, DKGY)	1.93	66	1.94	0.54	0.56	0.48	0.25	77	3.42
7831/2-U-1												
I0089	21.72	21.76	COCH CLYST (DKGY)	1.05	51	3.06	0.70	0.71	0.43	0.22	80	4.09
7830/6-U-1												
I0005	12.85	12.88	COCH SLST	1.73	63	3.21	1.07	1.10	0.55	0.28	77	3.37
I0126	20.03	20.1	COCH CLYST (SLTY, LAM, DKGY)	1.71	63	2.85	0.51	0.53	0.46	0.24	81	4.31
I0115	41.85	41.89	COCH CLYST (DKGY, LAM)	1.25	56	3.00	0.60	0.62	0.44	0.23	80	3.89
I0110	50.9	50.93	COCH CLYST (DKGY, LAM)	1.28	56	3.13	0.67	0.69	0.41	0.21	78	3.48
7830/3-U-1												
I0146	39.94	39.99	COCH SST (MGR, MGY)	1.44	59	2.57	0.96	1.01	0.51	0.27	53	1.15
I0151	51.24	51.24	COPL SST (FGR, MGY)	1.38	58	2.41	1.12	1.13	0.51	0.26	68	2.09
I0177	111.69	111.75	COCH SST (FGR, DKGY)	1.36	58	2.53	0.71	0.70	0.43	0.21	76	3.18
I0184	124.63	124.63	COPL SST (FGR, LTGY)	1.94	66	4.10	1.14	1.15	0.51	0.26	78	3.65
I0195	154.81	154.88	COCH CLYST (SL SLTY, DKGY)	1.04	51	2.32	0.66	0.66	0.43	0.21	70	2.38
I0287	174.13	174.15	COCH SST (FGR, MGY)	1.76	64	2.26	0.87	0.83	0.46	0.22	80	4.08
7830/5-U-1												
I0221	58.9	58.97	COCH CLYST (SL SLTY, LAM, DKGY)	1.61	62	1.20	0.55	0.59	0.44	0.24	76	3.25
I0254	128.62	128.68	COCH CLYST (VDKGY, LAM)	1.68	63	2.02	0.58	0.56	0.49	0.24	73	2.69
Reference samples												
JR-1				1.07	52	2.05	0.51	0.51	0.40	0.20	63	1.67
NSO-1, #0				1.29	56	2.98	0.60	0.63	0.42	0.22	75	3.00
NSO-1, #1				1.27	56	2.87	0.63	0.66	0.42	0.22	75	3.08
NSO-1, #2				1.26	56	2.90	0.60	0.64	0.41	0.21	74	2.91

Legend:

MNR	$2\text{-MN} / 1\text{-MN}$
%2-MN	$100 * 2\text{-MN} / (2\text{-MN} + 1\text{-MN})$
DNR 1	$(2,6\text{-DMN} + 2,7\text{-DMN}) / (1,5\text{-DMN})$
MPI 1	$1.5 * (3\text{-MP} + 2\text{-MP}) / (P + 9\text{-MP} + 1\text{-MP})$
MPI 2	$3 * 2\text{-MP} / (P + 9\text{-MP} + 1\text{-MP})$
F1	$(3\text{-MP} + 2\text{-MP}) / (3\text{-MP} + 2\text{-MP} + 9\text{-MP} + 1\text{-MP})$
F2	$2\text{-MP} / (3\text{-MP} + 2\text{-MP} + 9\text{-MP} + 1\text{-MP})$
%4-MDBT	$100 * 4\text{-MDBT} / (4\text{-MDBT} + 1\text{-MDBT})$

For peak labels and identifications see Figure 9.

Table 18 Molecular ratios from terpane mass fragmentograms (1).

Site Sample ID	Depth below seabed, top of sample (m)	Depth below seabed, base of sample (m)	Sample type	Lithology	%24/3	%27Ts	%27b	%28ab	%28nor 30ab	%29Ts	%30d	%30ab	%31abS	%32abS	%33abS	%34abS	%35abS	%31- 35abS
7831/2-U-2																		
I0106	6.78	6.83	COCH	CLYST (SLTY, DKG)	2.8	32.2	9.7	0.5	2.0	20.0	2.2	84.3	55.6	58.1	59.3	59.0	57.0	57.8
I0102	10.23	10.28	COCH	CLYST (SLTY, MGY)	3.9	25.4	9.0	0.7	1.3	14.4	2.2	92.8	57.3	61.3	61.4	59.0	60.8	60.0
I0099	14.48	14.53	COCH	CLYST (SLTY, DKG)	10.5	34.7	11.5	0.4	1.5	16.6	3.4	93.2	59.8	60.7	59.9	60.5	59.2	60.0
I0096	17.83	17.87	COCH	CLYST (SLTY, DKG)	11.8	38.3	13.6	0.3	1.5	17.2	4.0	92.2	59.0	59.7	60.4	61.2	61.3	60.3
I0095	18.72	18.85	COCH	CLYST (SLTY, DKG)	3.9	8.6	8.1	0.0	0.0	6.4	3.3	70.6	58.0	60.6	60.7	58.6	-1	-1
7831/2-U-1																		
I0089	21.72	21.76	COCH	CLYST (DKG)	4.1	38.6	13.1	0.3	1.5	19.1	2.6	92.5	58.1	60.9	60.3	60.9	59.7	60.0
7830/6-U-1																		
I0005	12.85	12.88	COCH	SLST	14.9	24.2	10.7	0.0	0.0	14.2	3.5	82.2	57.3	60.0	59.7	60.9	59.5	59.5
I0126	20.03	20.10	COCH	CLYST (SLTY, LAM, DKG)	1.4	2.8	7.0	0.0	0.0	49.8	3.1	67.2	57.8	58.7	58.6	60.7	51.4	57.5
I0115	41.85	41.89	COCH	CLYST (DKG, LAM)	2.6	51.9	12.5	0.3	1.4	33.1	3.1	86.5	52.0	58.1	59.9	59.5	56.1	57.1
I0110	50.90	50.93	COCH	CLYST (DKG, LAM)	3.5	46.7	13.5	0.3	1.8	33.7	3.9	84.6	51.1	58.8	57.4	58.0	57.1	56.5
7830/3-U-1																		
I0146	39.94	39.99	COCH	SST (MGR, MGY)	11.8	58.0	21.5	2.3	1.9	23.1	5.7	92.0	54.8	59.0	58.1	59.4	60.2	58.3
I0151	51.24	51.24	COPL	SST (FGR, MGY)	13.6	57.3	21.9	2.3	2.0	22.4	5.3	92.0	55.5	60.0	56.8	57.9	58.8	57.8
I0177	111.69	111.75	COCH	SST (FGR, DKG)	12.3	64.8	19.8	3.4	2.1	26.3	7.8	89.9	56.0	59.2	56.0	60.4	59.1	58.1
I0184	124.63	124.63	COPL	SST (FGR, LTGY)	11.6	42.3	16.9	0.0	0.0	17.1	3.7	92.5	58.1	58.5	59.2	60.3	58.4	58.9
I0195	154.81	154.88	COCH	CLYST (SL SLTY, DKG)	12.5	38.8	12.6	1.7	1.7	18.4	4.3	92.0	58.8	59.1	58.9	59.7	60.0	59.3
I0287	174.13	174.15	COCH	SST (FGR, MGY)	8.9	30.7	14.2	0.7	1.3	16.5	4.1	88.9	57.0	59.4	57.8	59.9	60.5	58.9
7830/5-U-1																		
I0221	58.90	58.97	COCH	CLYST (SL SLTY, LAM, DKG)	1.2	5.6	24.1	7.3	4.3	7.8	4.0	72.4	51.8	43.3	43.2	40.6	-1	-1
I0254	128.62	128.68	COCH	CLYST (VDKG, LAM)	4.0	9.3	20.1	0.8	3.4	17.2	5.5	69.6	49.5	44.4	43.3	41.9	39.3	43.7
Reference samples																		
JR-1					7.5	39.1	14.4	2.1	1.2	29.0	5.6	84.8	56.8	59.4	59.2	59.9	60.4	59.1
NSO-1, #0					5.3	54.9	20.0	18.5	10.8	29.9	8.8	88.7	57.9	59.4	60.6	60.3	58.7	59.4
NSO-1, #1					5.3	54.6	24.9	19.2	10.9	29.8	9.2	88.3	56.6	60.5	59.4	60.9	58.5	59.2
NSO-1, #2					5.1	53.3	21.1	18.1	10.8	30.2	8.3	89.2	57.5	60.3	58.1	60.9	58.4	59.0

Legend:

%24/3	$(24/3)/30\alpha\beta$ in m/z 191
%27Ts	$100 * 27Ts / (27Ts + 27Tm)$ in m/z 191
%27b	$100 * 27\beta / (27\beta + 27Tm)$ in m/z 191
%28ab	$100 * 28\alpha\beta / (28\alpha\beta + 30\alpha\beta)$ in m/z 191
%25nor30ab	$100 * 25nor30\alpha\beta / (25nor30\alpha\beta + 30\alpha\beta)$ in m/z 191
%29Ts	$100 * 29Ts / (29Ts + 29\alpha\beta)$ in m/z 191
%30d	$100 * 30d / (30d + 30\alpha\beta)$ in m/z 191
%30ab	$100 * 30\alpha\beta / (30\alpha\beta + 30\beta\alpha)$ in m/z 191
%31abS	$100 * 31\alpha\beta S / (31\alpha\beta S + 31\alpha\beta R)$ in m/z 191
%32abS	$100 * 32\alpha\beta S / (32\alpha\beta S + 32\alpha\beta R)$ in m/z 191
%33abS	$100 * 33\alpha\beta S / (33\alpha\beta S + 33\alpha\beta R)$ in m/z 191
%34abS	$100 * 34\alpha\beta S / (34\alpha\beta S + 34\alpha\beta R)$ in m/z 191
%35abS	$100 * 35\alpha\beta S / (35\alpha\beta S + 35\alpha\beta R)$ in m/z 191
%32-35abS	$100 * \text{average of } 31\alpha\beta S / (31\alpha\beta S + 31\alpha\beta R), \dots, 35\alpha\beta S / (35\alpha\beta S + 35\alpha\beta R)$ in m/z 191
-1	Data are not available or cannot be calculated

Ratios are based on peak heights.

For peak labels and identifications see Figure 8.

Table 19 Molecular ratios from terpane mass fragmentograms (2).

Site Sample ID	Depth below seabed, top of sample (m)	Depth below seabed, base of sample (m)	Sample type	Lithology	Ho/St (RRI)	26tri / 24tetra	19tri / 20tri	26tri / 25tri	(28+29 tri) / (19 to 29 tri)	ETR	31abR / 30ab
7831/2-U-2											
I0106	6.78	6.83	COCH	CLYST (SLTY, DKGY)	3.11	0.72	0.38	1.09	0.26	0.37	0.35
I0102	10.23	10.28	COCH	CLYST (SLTY, MGY)	3.59	1.05	0.25	0.82	0.13	0.34	0.48
I0099	14.48	14.53	COCH	CLYST (SLTY, DKGY)	2.69	1.85	0.28	0.84	0.13	0.43	0.39
I0096	17.83	17.87	COCH	CLYST (SLTY, DKGY)	2.43	1.99	0.30	0.84	0.13	0.43	0.41
I0095	18.72	18.85	COCH	CLYST (SLTY, DKGY)	3.93	0.88	0.75	1.04	0.17	0.51	0.35
7831/2-U-1											
I0089	21.72	21.76	COCH	CLYST (DKGY)	3.69	1.13	0.43	0.89	0.16	0.27	0.47
7830/6-U-1											
I0005	12.85	12.88	COCH	SLST	3.77	2.00	0.31	0.68	0.06	0.46	0.34
I0126	20.03	20.10	COCH	CLYST (SLTY, LAM, DKGY)	3.89	0.22	0.88	0.45	0.00	0.00	0.40
I0115	41.85	41.89	COCH	CLYST (DKGY, LAM)	2.85	1.08	0.43	1.52	0.22	0.22	0.34
I0110	50.90	50.93	COCH	CLYST (DKGY, LAM)	2.78	1.36	0.32	1.19	0.19	0.26	0.41
7830/3-U-1											
I0146	39.94	39.99	COCH	SST (MGR, MGY)	2.72	3.21	0.29	1.19	0.24	0.53	0.32
I0151	51.24	51.24	COPL	SST (FGR, MGY)	2.71	3.12	0.31	1.03	0.20	0.53	0.30
I0177	111.69	111.75	COCH	SST (FGR, DKGY)	2.48	4.16	0.29	1.22	0.23	0.53	0.31
I0184	124.63	124.63	COPL	SST (FGR, LTGY)	2.39	3.40	0.26	1.04	0.19	0.57	0.38
I0195	154.81	154.88	COCH	CLYST (SL SLTY, DKGY)	2.37	2.11	0.30	0.90	0.14	0.47	0.41
I0287	174.13	174.15	COCH	SST (FGR, MGY)	1.76	3.49	0.16	0.97	0.22	0.63	0.47
7830/5-U-1											
I0221	58.90	58.97	COCH	CLYST (SL SLTY, LAM, DKGY)	2.64	0.00	1.22	0.00	0.00	0.00	0.35
I0254	128.62	128.68	COCH	CLYST (VDKGY, LAM)	0.73	1.79	0.44	1.01	0.16	0.56	0.60
Reference samples											
NSO-1, #0					1.83	0.73	0.99	0.72	0.20	0.31	0.32
NSO-1, #1					1.79	0.80	1.18	0.78	0.21	0.35	0.31
NSO-1, #2					1.66	0.81	1.17	0.77	0.21	0.34	0.34

Legend:

Ho/St (RRI) _____ in m/z 191
 26tri / 24tetra $\frac{([26/3R] + [26/3S])}{[24/4]}$ in m/z 191
 19tri / 20tri $\frac{[19/3]}{[20/3]}$ in m/z 191
 26tri / 25tri $\frac{[26/3]}{[25/3]}$ in m/z 191
 (28+29tri) / (19to29tri) $\frac{([28/3R] + [28/3S] + [29/3R] + [29/3S])}{([19/3] + [20/3] + [21/3] + [23/3] + [25/3R] + [25/3S] + [26/3R] + [26/3S] + [28/3R] + [28/3S] + [29/3R] + [29/3S])}$ in m/z 191
 ETR $\frac{([28/3R] + [28/3S] + [29/3R] + [29/3S])}{([28/3R] + [28/3S] + [29/3R] + [29/3S] + 27+Ts)}$ in m/z 191
 31abR / 30ab 31abR / 30ab in m/z 191
 -1 Data are not available or cannot be calculated

Ratios are based on peak heights.

For peak labels and identifications see Figure 8.

Table 20 Peak height ratios for quality control of terpane and sterane mass fragmentograms.

Site Sample ID	Depth below seabed, top of sample (m)	Depth below seabed, base of sample (m)	Sample type	Lithology	(23/3) / 30ab in m/z 191	35abR / 30ab in m/z 191	29aaR / 27dbS in m/z 217	29bbS / 27bbR in m/z 218	25nor30ab / 25nor28ab in m/z 177
Reference samples									
JR-1					0.14	0.07	1.15	0.93	
NSO-1, #0					0.06	0.10	0.31	1.08	0.56
NSO-1, #1					0.07	0.12	0.35	1.19	0.56
NSO-1, #2					0.07	0.12	0.35	1.20	0.58

Table 21 Molecular ratios from sterane mass fragmentograms.

Site Sample ID	Depth below seabed, top of sample (m)	Depth below seabed, basetype of sample (m)	Sample type	Lithology	%27dia	%29aaS	%29bb	%27aaR	%28aaR	%29aaR	%27bb (R+S)	%28bb (R+S)	%29bb (R+S)	28bbS / 29bbS
					from m/z 217			from m/z 217			from m/z 218			
7831/2-U-2														
I0106	6.78	6.83	COCH	CLYST (SLTY, DKGY)	25.0	41.7	25.3	39.1	17.0	43.9	29.0	26.1	44.9	0.49
I0102	10.23	10.28	COCH	CLYST (SLTY, MGY)	27.6	49.4	60.5	39.2	19.0	41.9	30.1	23.8	46.1	0.52
I0099	14.48	14.53	COCH	CLYST (SLTY, DKGY)	40.4	48.8	59.0	40.4	17.9	41.7	30.6	24.8	44.6	0.56
I0096	17.83	17.87	COCH	CLYST (SLTY, DKGY)	42.7	48.0	60.4	41.4	17.3	41.4	31.0	24.4	44.6	0.54
I0095	18.72	18.85	COCH	CLYST (SLTY, DKGY)	42.2	43.7	29.6	23.0	13.3	63.7	23.4	25.0	51.5	0.44
7831/2-U-1														
I0089	21.72	21.76	COCH	CLYST (DKGY)	38.5	48.4	58.0	39.4	15.7	44.9	28.1	23.7	48.2	0.47
7830/6-U-1														
I0005	12.85	12.88	COCH	SLST	47.8	45.4	45.2	33.3	16.3	50.4	28.8	26.3	44.9	0.53
I0126	20.03	20.10	COCH	CLYST (SLTY, LAM, DKGY)	35.4	44.7	21.6	17.7	11.6	70.7	19.5	22.3	58.2	0.32
I0115	41.85	41.89	COCH	CLYST (DKGY, LAM)	27.6	35.9	26.4	39.2	17.8	43.0	29.8	26.6	43.6	0.53
I0110	50.90	50.93	COCH	CLYST (DKGY, LAM)	30.6	38.0	28.8	36.5	19.6	43.9	28.7	28.4	42.9	0.60
7830/3-U-1														
I0146	39.94	39.99	COCH	SST (MGR, MGY)	59.5	52.5	61.7	41.3	16.9	41.7	28.0	25.9	46.1	0.55
I0151	51.24	51.24	COPL	SST (FGR, MGY)	59.9	52.1	61.0	41.5	16.9	41.6	28.2	26.1	45.8	0.56
I0177	111.69	111.75	COCH	SST (FGR, DKGY)	56.7	51.7	61.3	40.5	15.8	43.8	28.2	24.5	47.3	0.50
I0184	124.63	124.63	COPL	SST (FGR, LTGY)	47.4	51.6	62.4	41.1	17.4	41.5	28.4	24.8	46.8	0.52
I0195	154.81	154.88	COCH	CLYST (SL SLTY, DKGY)	45.7	50.6	59.5	41.8	17.3	40.8	31.0	24.8	44.2	0.56
I0287	174.13	174.15	COCH	SST (FGR, MGY)	30.6	48.1	55.2	38.6	17.4	44.0	30.0	25.2	44.8	0.59
7830/5-U-1														
I0221	58.90	58.97	COCH	CLYST (SL SLTY, LAM, DKGY)	36.9	15.9	32.8	12.0	11.8	76.2	13.9	20.7	65.4	0.23
I0254	128.62	128.68	COCH	CLYST (VDKGY, LAM)	28.0	14.5	30.8	34.7	16.5	48.7	32.9	31.8	35.4	0.48
Reference samples														
JR-1					47.6	43.9	36.2	40.5	17.1	42.4	37.2	24.9	37.9	not determined
NSO-1, #0					73.9	52.5	57.5	40.4	23.7	36.0	30.5	33.2	36.3	0.82
NSO-1, #1					74.0	50.9	57.2	39.4	21.4	39.2	30.5	31.9	37.6	0.82
NSO-1, #2					70.6	47.8	57.9	44.5	17.6	37.8	30.1	31.7	38.2	0.79

Legend:

%27dia	$100 * 27d\beta S / (27d\beta S + 27d\alpha R)$ in m/z 217
%29aaS	$100 * 29\alpha\alpha S / (29\alpha\alpha S + 29\alpha\alpha R)$ in m/z 217
%29bb	$100 * 29\beta\beta S / (29\alpha\alpha S + 29\beta\beta R + 29\beta\beta S + 29\alpha\alpha R)$ in m/z 217
%27aaR, %28aaR, %29aaR	distribution (in percent) of peak heights $27\alpha\alpha R$, $28\alpha\alpha R$, $29\alpha\alpha R$ in m/z 217
%27bb (R+S), %28bb (R+S), %29bb (R+S)	distribution (in percent) of peak heights $(27\beta\beta R + 27\beta\beta S)$, $(28\beta\beta R + 28\beta\beta S)$, $(29\beta\beta R + 29\beta\beta S)$ in m/z 218
28bbS / 29bbS	$28bbS / 29bbS$ in m/z 218

Ratios are based on peak heights.

For peak labels and identifications see Figure 8.

Table 22 Molecular ratios from mass fragmentograms of aromatic steroid hydrocarbons.

Site Sample ID	Depth below seabed, top of sample (m)	Depth below seabed, base of sample (m)	Sample type	Lithology	%20TA / (20TA + 27TA) (1)	%20TA / (20TA + 28TA) (2)	%28TA / (28TA + 29MA)
7831/2-U-2							
I0106	6.78	6.83	COCH	CLYST (SLTY, DKGY)	22	21	40
I0102	10.23	10.28	COCH	CLYST (SLTY, MGY)	35	34	50
I0099	14.48	14.53	COCH	CLYST (SLTY, DKGY)	44	39	55
I0096	17.83	17.87	COCH	CLYST (SLTY, DKGY)	46	38	57
I0095	18.72	18.85	COCH	CLYST (SLTY, DKGY)	22	13	58
7831/2-U-1							
I0089	21.72	21.76	COCH	CLYST (DKGY)	35	32	46
7830/6-U-1							
I0005	12.85	12.88	COCH	SLST	39	32	53
I0126	20.03	20.10	COCH	CLYST (SLTY, LAM, DKGY)	24	15	62
I0115	41.85	41.89	COCH	CLYST (DKGY, LAM)	15	14	54
I0110	50.90	50.93	COCH	CLYST (DKGY, LAM)	21	18	50
7830/3-U-1							
I0146	39.94	39.99	COCH	SST (MGR, MGY)	40	26	52
I0151	51.24	51.24	COPL	SST (FGR, MGY)	45	32	55
I0177	111.69	111.75	COCH	SST (FGR, DKGY)	24	12	66
I0184	124.63	124.63	COPL	SST (FGR, LTGY)	32	21	51
I0195	154.81	154.88	COCH	CLYST (SL SLTY, DKGY)	47	40	56
I0287	174.13	174.15	COCH	SST (FGR, MGY)	5	4	54
7830/5-U-1							
I0221	58.90	58.97	COCH	CLYST (SL SLTY, LAM, DKGY)	62	51	10
I0254	128.62	128.68	COCH	CLYST (VDKGY, LAM)	3	4	25
Reference sample							
JR-1					12	12	not determined
NSO-1, #0					18	24	not determined
NSO-1, #1					22	28	not determined
NSO-1, #2					20	25	not determined

Legend:

(1) $100 * C_{20TA} / (C_{20TA} + (RC_{26TA} + SC_{27TA}) + RC_{27TA})$ in m/z 231

(2) $100 * C_{20TA} / (C_{20TA} + SC_{28TA} + RC_{28TA})$ in m/z 231

(3) $100 * (SC_{28TA} + RC_{28TA})$ in m/z 231 / $((SC_{28TA} + RC_{28TA})$ in m/z 231 + (bSC_{29MA} + bSC_{29DMA} + aSC_{29MA} + bRC_{29MA} + bRC_{29DMA} + aRC_{29MA}) in m/z 253)

TA tri-aromatic steroid

MA mono-aromatic steroid

Ratios (1) and (2) are based on peak heights, ratio (3) on concentrations from peak heights.

For peak labels and identifications see Figure 9.

Table 23***Headspace and occluded hydrocarbon yield sheets***

Yields ($\mu\text{l/kg}$ dried rock) of hydrocarbons in headspace (H), occluded (O) and headspace + occluded (H+O) gas from core 7830/3-U-1. From detailed C1-C9 analysis.

Sample-ID Depth (m) Gas fraction Compound	I0042 49.54			I0045 52.47			I0052 123.91			I0056 174.96		
	H	O	H+O	H	O	H+O	H	O	H+O	H	O	H+O
C1	549	7562	8111	57560	10851	68411	37311	20768	58079	72861	7764	80625
C2	3	162	166	291	412	704	401	942	1343	5640	6921	12562
C3	2	59	60	13	198	211	213	965	1178	4924	8875	13799
iC4	3	270	273	165	435	600	262	1774	2036	1018	1383	2400
C4ene	0	4	4	0	19	19	0	23	23	0	31	31
nC4	1	21	22	7	92	99	144	1264	1408	2131	5488	7619
2,2-DMC3	0	37	37	18	78	96	4	53	58	10	20	29
iC5	1	13	14	8	77	85	282	4272	4554	731	1815	2546
nC5	1	9	10	2	49	52	23	458	481	582	2143	2725
RI=529	0	0	0	0	1	1	0	2	2	0	2	2
2,2-DMC4	1	130	130	28	270	298	7	169	176	7	17	25
CyC5 + 2,3-DMC4	1	175	176	36	401	437	28	670	698	75	222	296
2-MC5	1	4	5	1	20	21	12	368	380	206	698	903
3-MC5	1	12	13	4	48	52	74	2092	2166	131	440	571
nC6	20	5	25	1	28	29	11	393	405	218	862	1080
2,2-DMC5	0	29	29	3	53	56	2	80	82	3	10	13
MCyC5	1	2	3	0	8	8	59	1465	1524	129	432	560
2,4-DMC5	0	82	82	11	187	198	5	217	222	11	34	44
2,2,3-TMC4	0	12	12	2	29	31	1	20	21	1	4	5
Benzene	0	0	0	0	2	2	1	25	26	9	54	63
3,3-DMC5	0	31	31	4	69	73	1	53	54	2	6	8
CyC6	0	2	2	1	15	16	47	1211	1258	68	208	276
2-MC6	0	1	1	0	5	5	2	131	133	67	198	266
2,3-DMC5	0	112	112	12	225	237	13	575	588	29	89	118
1,1-DMCyC5	0	1	1	0	5	5	9	309	318	13	40	53
3-MC6	0	1	1	0	6	6	4	224	229	85	257	342
c-1,3-DMCyC5	0	0	0	0	5	5	18	664	681	50	157	207
t-1,3-DMCyC5	0	31	31	3	62	66	19	769	788	55	172	227
t-1,2-DMCyC5 + 3-EC5 + 2,2,4-TMC5	3	2	5	0	11	11	33	1266	1299	89	286	375
nC7	0	2	2	0	10	10	4	240	244	149	416	565
MCyC6 + c-1,2-DMCyC5	0	5	5	1	32	34	56	2034	2091	131	397	528
2,2-DMC6 + 1,1,3-TMCyC5	0	78	78	9	178	187	6	296	302	19	51	71
2,5-DMC6 + 2,2,3-TMC5	0	39	39	3	82	85	2	120	122	8	18	26
2,4-DMC6	0	49	49	6	128	134	6	324	330	24	66	90
3,3-DMC6 + t-1,c-2,4-TMCyC5	0	19	19	2	47	49	5	304	309	24	61	84
t-1,c-2,3-TMCyC5	0	1	1	1	26	28	9	525	533	46	118	163
2,3,4-TMC5	0	2	2	0	7	7	0	14	14	1	3	4
Toluene + 2,3,3-TMC5	0	2	2	0	8	8	0	21	22	8	38	46
2,3-DMC6	0	1	1	0	14	14	1	80	81	7	16	24
2-MC7	0	1	1	1	17	18	3	175	178	63	120	183
4-MC7 + 3-M,3-EC5	0	1	1	0	3	3	0	28	28	14	27	41
3,4-DMC6	0	16	16	2	43	44	1	74	75	5	12	17
3-MC7 + c-1,t-2,3-TMCyC5	0	3	3	0	13	13	2	152	154	37	75	112
RI=781 (DMCyC6)	0	10	10	2	58	60	10	525	535	40	96	136
RI=783 (DMCyC6)	0	11	11	1	14	15	3	166	170	13	29	41
RI=790	0	0	0	1	13	13	4	169	172	13	30	43
RI=794	0	1	1	0	7	7	5	271	276	24	59	84
RI=796	0	1	1	0	5	5	1	38	39	3	8	11
nC8	0	1	1	1	20	21	6	333	338	108	182	290
RI=805	0	16	16	2	52	54	1	88	89	10	20	30
RI=807	0	1	1	1	11	12	2	84	86	6	15	21
RI=815	0	6	6	1	19	20	1	37	37	4	8	12
2,3,5-TMC6 + c-1,2-EMCyC5	0	3	3	0	9	9	0	12	12	1	2	3
RI=821	0	7	7	1	20	21	0	27	27	3	5	7
RI=825	0	1	1	0	7	7	1	44	45	6	9	15
RI=831	1	56	57	6	160	166	2	191	193	19	23	42
RI=834	0	1	1	3	5	8	1	48	49	7	15	22
RI=838	0	40	40	2	59	61	5	291	296	26	50	77

Table 23 continued

Sample-ID Depth (m) Gas fraction Compound	I0042 49.54			I0045 52.47			I0052 123.91			I0056 174.96		
	H	O	H+O	H	O	H+O	H	O	H+O	H	O	H+O
RI=843	0	2	2	2	42	43	3	208	212	24	46	70
RI=847	0	12	12	2	45	47	1	62	63	7	12	19
RI=848	0	7	7	1	25	27	0	33	34	4	6	10
E-Benzene	0	3	3	1	29	30	1	112	114	14	25	39
RI=859	0	10	10	3	46	49	1	116	117	12	18	30
m+p-Xylene	0	6	6	0	30	30	1	82	83	7	13	19
RI=867	0	0	0	0	0	0	0	27	27	19	18	36
4-MC8 + 2-MC8	0	1	1	0	5	5	1	61	63	17	20	37
RI=883	0	3	3	1	18	18	1	38	38	4	7	11
o-Xylene	0	0	0	0	5	5	0	15	15	2	4	6
RI=890	0	4	4	1	0	1	1	74	75	10	15	25
RI=893	0	0	0	0	0	0	1	50	51	5	8	13
RI=896	0	2	2	0	4	4	1	28	28	3	5	8
n-C9	0	0	0	0	0	0	0	0	0	0	0	0
Sum FID	588	9191	9779	58227	14975	73202	39137	48839	87976	90092	40791	130882

The compound abbreviations are explained in Table 31.

Table 24***Headspace and occluded hydrocarbon composition sheets***

Composition (volume percent of analysed compounds) of hydrocarbons in headspace (H), occluded (O) and headspace + occluded (H+O) gas from core 7830/3-U-1. From detailed C1-C9 analysis.

Sample-ID Depth (m) Gas fraction Compound	I0042 49.54			I0045 52.47			I0052 123.91			I0056 174.96		
	H	O	H+O	H	O	H+O	H	O	H+O	H	O	H+O
C1	93.3	82.3	82.9	98.9	72.5	93.5	95.3	42.5	66.0	80.9	19.0	61.6
C2	0.6	1.8	1.7	0.5	2.8	1.0	1.0	1.9	1.5	6.3	17.0	9.6
C3	0.3	0.6	0.6	0.0	1.3	0.3	0.5	2.0	1.3	5.5	21.8	10.5
iC4	0.6	2.9	2.8	0.3	2.9	0.8	0.7	3.6	2.3	1.1	3.4	1.8
C4ene	0.0	0.0	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.1	0.0
nC4	0.2	0.2	0.2	0.0	0.6	0.1	0.4	2.6	1.6	2.4	13.5	5.8
2,2-DMC3	0.0	0.4	0.4	0.0	0.5	0.1	0.0	0.1	0.1	0.0	0.0	0.0
iC5	0.1	0.1	0.1	0.0	0.5	0.1	0.7	8.7	5.2	0.8	4.4	1.9
nC5	0.1	0.1	0.1	0.0	0.3	0.1	0.1	0.9	0.5	0.6	5.3	2.1
RI=529	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
2,2-DMC4	0.1	1.4	1.3	0.0	1.8	0.4	0.0	0.3	0.2	0.0	0.0	0.0
CyC5 + 2,3-DMC4	0.1	1.9	1.8	0.1	2.7	0.6	0.1	1.4	0.8	0.1	0.5	0.2
2-MC5	0.2	0.0	0.0	0.0	0.1	0.0	0.0	0.8	0.4	0.2	1.7	0.7
3-MC5	0.2	0.1	0.1	0.0	0.3	0.1	0.2	4.3	2.5	0.1	1.1	0.4
nC6	3.4	0.1	0.3	0.0	0.2	0.0	0.0	0.8	0.5	0.2	2.1	0.8
2,2-DMC5	0.0	0.3	0.3	0.0	0.4	0.1	0.0	0.2	0.1	0.0	0.0	0.0
MCyC5	0.2	0.0	0.0	0.0	0.1	0.0	0.2	3.0	1.7	0.1	1.1	0.4
2,4-DMC5	0.0	0.9	0.8	0.0	1.3	0.3	0.0	0.4	0.3	0.0	0.1	0.0
2,2,3-TMC4	0.0	0.1	0.1	0.0	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Benzene	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.0	0.1	0.0
3,3-DMC5	0.0	0.3	0.3	0.0	0.5	0.1	0.0	0.1	0.1	0.0	0.0	0.0
CyC6	0.0	0.0	0.0	0.0	0.1	0.0	0.1	2.5	1.4	0.1	0.5	0.2
2-MC6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.3	0.2	0.1	0.5	0.2
2,3-DMC5	0.0	1.2	1.1	0.0	1.5	0.3	0.0	1.2	0.7	0.0	0.2	0.1
1,1-DMCyC5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.6	0.4	0.0	0.1	0.0
3-MC6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.5	0.3	0.1	0.6	0.3
c-1,3-DMCyC5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.4	0.8	0.1	0.4	0.2
t-1,3-DMCyC5	0.0	0.3	0.3	0.0	0.4	0.1	0.0	1.6	0.9	0.1	0.4	0.2
t-1,2-DMCyC5 + 3-EC5 + 2,2,4-TMC5	0.5	0.0	0.0	0.0	0.1	0.0	0.1	2.6	1.5	0.1	0.7	0.3
nC7	0.0	0.0	0.0	0.0	0.1	0.0	0.0	0.5	0.3	0.2	1.0	0.4
MCyC6 + c-1,2-DMCyC5	0.0	0.1	0.1	0.0	0.2	0.0	0.1	4.2	2.4	0.1	1.0	0.4
2,2-DMC6 + 1,1,3-TMCyC5	0.0	0.8	0.8	0.0	1.2	0.3	0.0	0.6	0.3	0.0	0.1	0.1
2,5-DMC6 + 2,2,3-TMC5	0.0	0.4	0.4	0.0	0.5	0.1	0.0	0.2	0.1	0.0	0.0	0.0
2,4-DMC6	0.0	0.5	0.5	0.0	0.9	0.2	0.0	0.7	0.4	0.0	0.2	0.1
3,3-DMC6 + t-1,c-2,4-TMCyC5	0.0	0.2	0.2	0.0	0.3	0.1	0.0	0.6	0.4	0.0	0.1	0.1
t-1,c-2,3-TMCyC5	0.0	0.0	0.0	0.0	0.2	0.0	0.0	1.1	0.6	0.1	0.3	0.1
2,3,4-TMC5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Toluene + 2,3,3-TMC5	0.0	0.0	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.1	0.0
2,3-DMC6	0.0	0.0	0.0	0.0	0.1	0.0	0.0	0.2	0.1	0.0	0.0	0.0
2-MC7	0.0	0.0	0.0	0.0	0.1	0.0	0.0	0.4	0.2	0.1	0.3	0.1
4-MC7 + 3-M,3-EC5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.0	0.1	0.0
3,4-DMC6	0.0	0.2	0.2	0.0	0.3	0.1	0.0	0.2	0.1	0.0	0.0	0.0
3-MC7 + c-1,t-2,3-TMCyC5	0.0	0.0	0.0	0.0	0.1	0.0	0.0	0.3	0.2	0.0	0.2	0.1
RI=781 (DMCyC6)	0.0	0.1	0.1	0.0	0.4	0.1	0.0	1.1	0.6	0.0	0.2	0.1
RI=783 (DMCyC6)	0.0	0.1	0.1	0.0	0.1	0.0	0.0	0.3	0.2	0.0	0.1	0.0
RI=790	0.0	0.0	0.0	0.0	0.1	0.0	0.0	0.3	0.2	0.0	0.1	0.0
RI=794	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.6	0.3	0.0	0.1	0.1
RI=796	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.0	0.0	0.0
nC8	0.0	0.0	0.0	0.0	0.1	0.0	0.0	0.7	0.4	0.1	0.4	0.2
RI=805	0.0	0.2	0.2	0.0	0.3	0.1	0.0	0.2	0.1	0.0	0.0	0.0
RI=807	0.0	0.0	0.0	0.0	0.1	0.0	0.0	0.2	0.1	0.0	0.0	0.0
RI=815	0.0	0.1	0.1	0.0	0.1	0.0	0.0	0.1	0.0	0.0	0.0	0.0
2,3,5-TMC6 + c-1,2-EMCyC5	0.0	0.0	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0
RI=821	0.0	0.1	0.1	0.0	0.1	0.0	0.0	0.1	0.0	0.0	0.0	0.0
RI=825	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.1	0.0	0.0	0.0
RI=831	0.1	0.6	0.6	0.0	1.1	0.2	0.0	0.4	0.2	0.0	0.1	0.0
RI=834	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.1	0.0	0.0	0.0

Table 24 continued

Sample-ID Depth (m) Gas fraction Compound	I0042 49.54			I0045 52.47			I0052 123.91			I0056 174.96		
	H	O	H+O	H	O	H+O	H	O	H+O	H	O	H+O
RI=838	0.0	0.4	0.4	0.0	0.4	0.1	0.0	0.6	0.3	0.0	0.1	0.1
RI=843	0.0	0.0	0.0	0.0	0.3	0.1	0.0	0.4	0.2	0.0	0.1	0.1
RI=847	0.0	0.1	0.1	0.0	0.3	0.1	0.0	0.1	0.1	0.0	0.0	0.0
RI=848	0.0	0.1	0.1	0.0	0.2	0.0	0.0	0.1	0.0	0.0	0.0	0.0
E-Benzene	0.0	0.0	0.0	0.0	0.2	0.0	0.0	0.2	0.1	0.0	0.1	0.0
RI=859	0.0	0.1	0.1	0.0	0.3	0.1	0.0	0.2	0.1	0.0	0.0	0.0
m+p-Xylene	0.0	0.1	0.1	0.0	0.2	0.0	0.0	0.2	0.1	0.0	0.0	0.0
RI=867	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.0	0.0	0.0
4-MC8 + 2-MC8	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.1	0.0	0.0	0.0
RI=883	0.0	0.0	0.0	0.0	0.1	0.0	0.0	0.1	0.0	0.0	0.0	0.0
o-Xylene	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
RI=890	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.2	0.1	0.0	0.0	0.0
RI=893	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.1	0.0	0.0	0.0
RI=896	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.0	0.0	0.0
n-C9	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sum FID	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0

The compound abbreviations are explained in Table 31.

Table 25***Headspace and occluded hydrocarbon composition sheets***

Selected sums and volume ratios of hydrocarbons in headspace (H), occluded (O) and headspace + occluded (H+O) gas from Core 7830/3-U-1. From detailed C1-C9 analysis.

Sample-ID Depth (m) Gas fraction Variable	I0042 49.54			I0045 52.47			I0052 123.91			I0056 174.96		
	H	O	H+O	H	O	H+O	H	O	H+O	H	O	H+O
CncC1	549	7562	8111	57560	10851	68411	37311	20768	58079	72861	7764	80625
CncC2C4	10	515	525	477	1156	1633	1020	4968	5988	13713	22698	36411
CncC5C9	30	1113	1143	191	2967	3158	806	23103	23909	3518	10329	13847
CncC1C9	588	9191	9779	58227	14975	73202	39137	48839	87976	90092	40791	130882
PctC1	93.3	82.3	82.9	98.9	72.5	93.5	95.3	42.5	66.0	80.9	19.0	61.6
PctC2C4	1.7	5.6	5.4	0.8	7.7	2.2	2.6	10.2	6.8	15.2	55.6	27.8
PctC5C9	5.1	12.1	11.7	0.3	19.8	4.3	2.1	47.3	27.2	3.9	25.3	10.6
PctC1C9	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Wetness	1.7	6.4	6.1	0.8	9.6	2.3	2.7	19.3	9.3	15.8	74.5	31.1
RatiC4nC4	2.8	13.1	12.6	22.9	4.7	6.1	1.8	1.4	1.4	0.5	0.3	0.3
PctnC7	0.0	0.6	0.6	0.0	1.5	1.4	2.3	3.7	3.6	21.4	19.8	20.2
PctIsoC7	0.0	85.8	85.0	87.1	80.3	80.6	16.4	19.5	19.4	28.6	28.3	28.3
PctCycC7	100.0	13.0	13.8	12.9	17.1	16.9	81.0	76.6	76.7	48.8	50.1	49.8
PctAroC7	0.0	0.6	0.6	0.0	1.1	1.1	0.3	0.3	0.3	1.2	1.8	1.6
PctSumC7	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Thompson_A	0.0	0.0	0.0	0.0	0.1	0.1	0.1	0.1	0.1	0.0	0.1	0.1
Thompson_B	-1.0	1.1	1.1	-1.0	0.9	0.9	0.1	0.1	0.1	0.1	0.1	0.1
Thompson_X	-1.0	6.2	6.2	0.0	1.7	1.6	0.3	0.3	0.3	0.1	0.1	0.1
Thompson_C	-1.0	0.9	3.4	0.4	0.7	0.7	0.1	0.2	0.2	1.7	1.9	1.9
Thompson_I	0.0	0.1	0.0	0.0	0.1	0.1	0.1	0.1	0.1	0.8	0.7	0.8
Thompson_F	-1.0	0.3	0.3	0.0	0.3	0.3	0.1	0.1	0.1	1.0	0.9	0.9
Thompson_H	0.0	1.1	1.1	0.0	2.7	2.5	1.8	3.1	3.1	19.7	18.3	18.6
Thompson_R	-1.0	2.2	2.2	-1.0	2.2	2.2	1.6	1.8	1.8	2.2	2.1	2.1
Thompson_U	-1.0	2.9	2.9	-1.0	3.2	3.4	19.2	9.3	9.4	1.0	1.1	1.0
Mango_P1	0	0.59	0.58	0.00	1.49	1.42	2.30	3.65	3.62	21.44	19.83	20.23
Mango_P2	0	0.57	0.56	0.00	1.57	1.50	4.06	5.40	5.36	22.00	21.70	21.78
Mango_N2	0	10.62	10.52	8.90	10.66	10.58	27.49	26.45	26.48	17.00	17.56	17.42
Mango_K1	-1	1.36	1.36	1.13	1.19	1.18	1.60	1.60	1.60	1.00	0.99	0.99

-1 = no determination possible

The variables are explained in Table 33.

Table 26***Whole oil GC-FID analysis data sheets***

Peak areas and peak area ratios from whole oil gas chromatograms. Quantification of compounds was prevented by extremely small sample amounts. Only peak areas and ratios are therefore tabulated.

Sample ID	I0063				
Sample	Core 7830/3-U-1, ~171.1 – 171.6 m, oil-stained sandstone				
Name	Ret.Time (min.)	Area	Area %	Peak area ratios	
1,2,3-DMCyC5	19.52	2	0.04	Pristane/Phytane	1.6
2-MC7	21.06	2	0.04	Pristane/n-C17 (A)	1.0
1,3-DMCyC6	21.63	5	0.11	Phytane/n-C18 (B)	0.7
1,1-DMCyC6	22.60	2	0.04	A/B	1.4
1,2-DMCyC6	22.90	2	0.05		
n-C8	23.32	10	0.20		
ECyC6	25.04	6	0.12		
2,6-DMC7	25.09	6	0.14		
1,1,3-TMCyC6	25.34	11	0.25		
Ethylbenzene	26.06	6	0.13		
p-Xylene	26.54	5	0.11		
4-MC8	26.93	7	0.15		
2-MC8	26.98	10	0.22		
3-MC8	27.31	16	0.34		
n-C9	28.63	80	1.70		
n-C10	32.79	239	5.09		
i-C11	33.70	95	2.02		
n-C11	36.33	332	7.09		
n-C12	39.50	340	7.25		
i-C13	39.98	140	2.98		
i-C14	41.73	83	1.77		
n-C13	42.42	369	7.88		
i-C15	44.60	103	2.20		
n-C14	45.13	337	7.18		
i-C16	46.81	149	3.18		
n-C15	47.68	293	6.25		
n-C16	50.08	242	5.17		
i-C18	51.29	121	2.58		
n-C17	52.35	217	4.63		
Pristane	52.59	211	4.51		
n-C18	54.51	195	4.16		
Phytane	54.82	133	2.83		
n-C19	56.56	204	4.36		
n-C20	58.51	172	3.67		
n-C21	60.38	140	2.98		
n-C22	62.16	118	2.51		
n-C23	63.87	83	1.77		
n-C24	65.52	58	1.24		
n-C25	67.09	40	0.86		
n-C26	68.61	31	0.65		
n-C27	70.07	22	0.47		
n-C28	71.48	15	0.32		
n-C29	72.88	12	0.25		
n-C30	74.40	7	0.16		
n-C31	76.09	5	0.11		
n-C32	78.28	5	0.11		
n-C33	80.49	4	0.09		
n-C34	82.86	2	0.03		
Total		4687	100.00		

Table 26 continued

Sample ID	I0064			
Sample	Core 7830/3-U-1, ~173.9 – 174.3 m, oil-stained sandstone			
Name	Ret.Time (min.)	Area	Area %	Peak area ratios
n-C9	28.61	3	0.15	Pristane/Phytane 1.7
n-C10	32.77	52	2.69	Pristane/n-C17 (A) 0.7
i-C11	33.68	25	1.29	Phytane/n-C18 (B) 0.5
n-C11	36.31	140	7.30	A/B 1.6
n-C12	39.49	157	8.19	
i-C13	39.97	65	3.39	
i-C14	41.72	37	1.92	
n-C13	42.40	164	8.55	
i-C15	44.59	42	2.21	
n-C14	45.11	141	7.35	
i-C16	46.79	61	3.15	
n-C15	47.66	112	5.83	
n-C16	50.06	98	5.09	
i-C18	51.27	46	2.37	
n-C17	52.34	92	4.76	
Pristane	52.58	68	3.53	
n-C18	54.49	91	4.71	
Phytane	54.81	41	2.12	
n-C19	56.55	100	5.22	
n-C20	58.50	92	4.78	
n-C21	60.37	78	4.07	
n-C22	62.16	71	3.67	
n-C23	63.87	50	2.62	
n-C24	65.51	35	1.84	
n-C25	67.09	22	1.15	
n-C26	68.60	15	0.79	
n-C27	70.07	10	0.54	
n-C28	71.48	5	0.26	
n-C29	72.88	3	0.16	
n-C30	74.39	2	0.09	
n-C31	76.09	1	0.06	
n-C32	78.27	2	0.09	
n-C33	80.49	1	0.07	
Total		1924	100.00	

Table 27
SAT GC-FID analysis data sheets

SAT GC-FID Analysis Data Sheet
Sample information

Well 7831/2-U-2
Sample ID I0106
Depth (m SB) 6.83
Sample type COCH
Lithology CLYST (SLTY, DKGY)

Analysis information

Analysis date 04/11/2006
Instrument HP 6890
Column DB-1, 30 m
EOM weight (g) 0.0729
Int. std. volume (µl) 145.8
Int. std. conc. (ng/µl) 2000

Analysis results

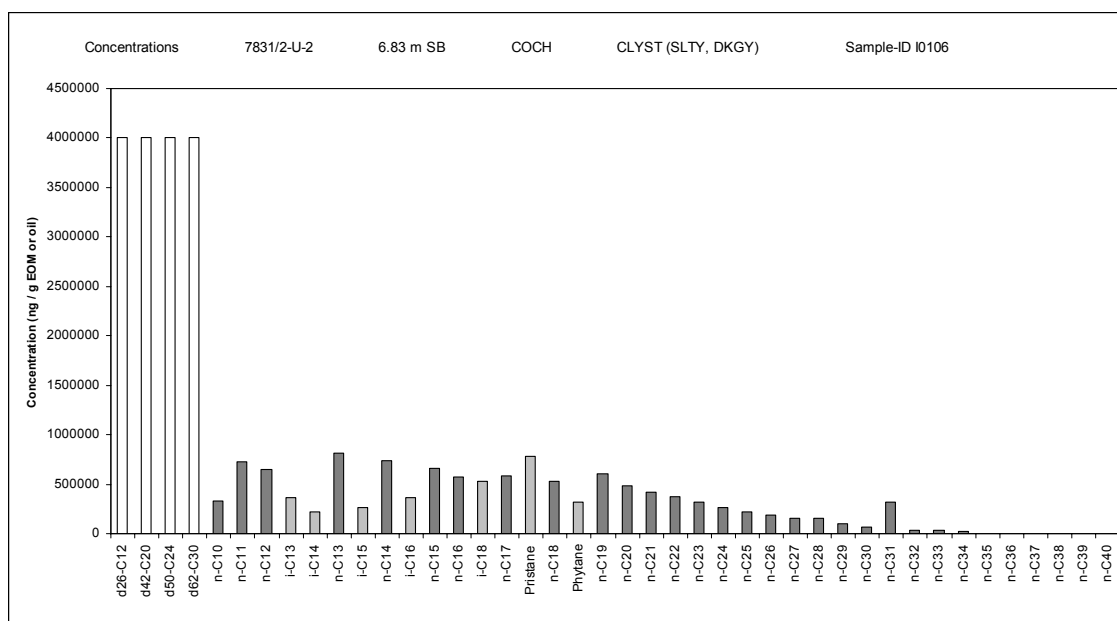
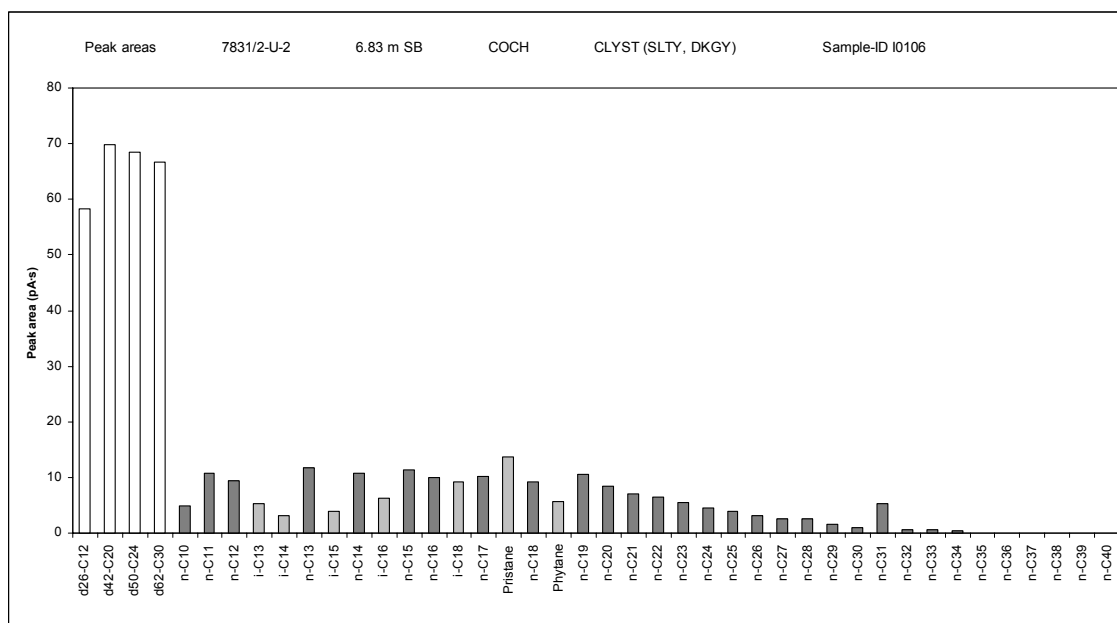
Retention time (min)	Compound name	Internal standard compound used for quantification	Peak area (pA·s)	Concentration based on peak area (ng/g EOM)
10.997	n-C10	d26-C12	5	329402
14.503	n-C11	d26-C12	11	731116
17.415	d26-C12	d26-C12	58	4000000
17.974	n-C12	d26-C12	9	644402
18.512	i-C13	d26-C12	5	357897
20.508	i-C14	d26-C12	3	217139
21.310	n-C13	d26-C12	12	810770
23.829	i-C15	d26-C12	4	264218
24.486	n-C14	d26-C12	11	734644
26.448	i-C16	d42-C20	6	363724
27.493	n-C15	d42-C20	11	655265
30.347	n-C16	d42-C20	10	568714
31.784	i-C18	d42-C20	9	524871
33.064	n-C17	d42-C20	10	587592
33.328	Pristane	d42-C20	14	779613
35.645	n-C18	d42-C20	9	530142
35.980	Phytane	d42-C20	6	321917
38.105	n-C19	d42-C20	11	606872
39.758	d42-C20	d42-C20	70	4000000
40.457	n-C20	d42-C20	8	484693
42.706	n-C21	d50-C24	7	413823
44.861	n-C22	d50-C24	6	372106
46.931	n-C23	d50-C24	5	317332
48.181	d50-C24	d50-C24	68	4000000
48.913	n-C24	d50-C24	4	260106
50.827	n-C25	d50-C24	4	224964
52.666	n-C26	d50-C24	3	182530
54.443	n-C27	d50-C24	3	153303
56.158	n-C28	d62-C30	3	150347
57.811	n-C29	d62-C30	2	98261
58.631	d62-C30	d62-C30	67	4000000
59.416	n-C30	d62-C30	1	63165
61.023	n-C31	d62-C30	5	316536
62.472	n-C32	d62-C30	1	31261
63.947	n-C33	d62-C30	1	37401
65.546	n-C34	d62-C30	0	24545
0.000	n-C35	d62-C30	0	0
0.000	n-C36	d62-C30	0	0
0.000	n-C37	d62-C30	0	0
0.000	n-C38	d62-C30	0	0
0.000	n-C39	d62-C30	0	0
0.000	n-C40	d62-C30	0	0

Peak ratios

Pristane / n-C17 [=A]	1.33	1.33
Phytane / n-C18 [=B]	0.61	0.61
[A] / [B]	2.18	2.18
Pristane / Phytane	2.42	2.42
CPI 1	1.53	1.53
n-C17/(n-C17+n-C27)	0.80	0.79
n-C15/n-C20	1.35	1.35
n-C30/n-C20	0.12	0.13

Key

CPI 1 = 0.5 x [(Sum n-C25 to n-C31 odd)/(Sum n-C24 to n-C30 even)+(Sum n-C25 to n-C31 odd)/(Sum n-C26 to n-C32 even)]



SAT GC-FID Analysis Data Sheet
Sample information

Well 7831/2-U-2
Sample ID I0102
Depth (m SB) 10.28
Sample type COCH
Lithology CLYST (SLTY, MGY)

Analysis information

Analysis date 05/11/2006
Instrument HP 6890
Column DB-1, 30 m
EOM weight (g) 0.0540
Int. std. volume (µl) 108
Int. std. conc. (ng/µl) 2000

Analysis results

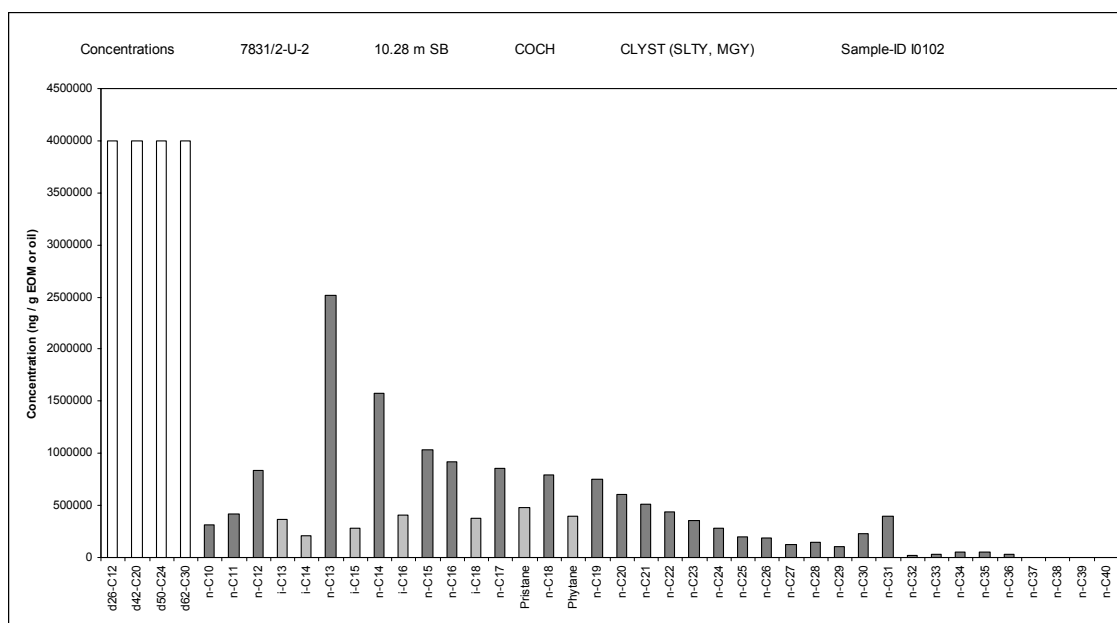
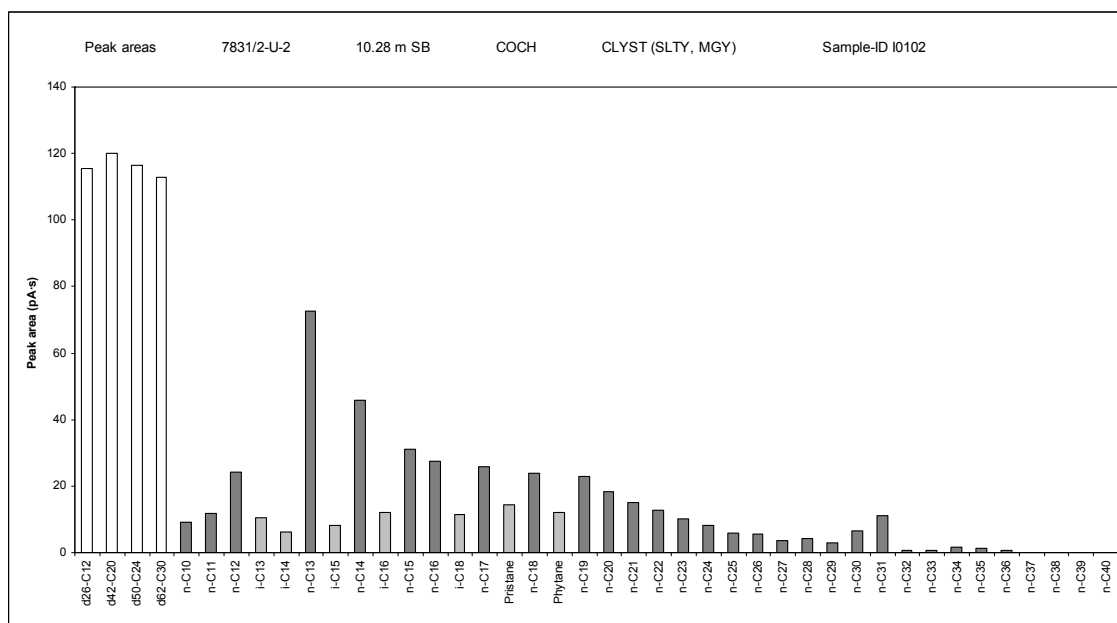
Retention time (min)	Compound name	Internal standard compound used for quantification	Peak area (pA·s)	Concentration based on peak area (ng/g EOM)
10.994	n-C10	d26-C12	9	311410
14.500	n-C11	d26-C12	12	412895
17.415	d26-C12	d26-C12	116	4000000
17.974	n-C12	d26-C12	24	838225
18.510	i-C13	d26-C12	10	360744
20.509	i-C14	d26-C12	6	211319
21.313	n-C13	d26-C12	73	2515234
23.829	i-C15	d26-C12	8	283108
24.484	n-C14	d26-C12	46	1581043
26.447	i-C16	d42-C20	12	402342
27.494	n-C15	d42-C20	31	1034380
30.351	n-C16	d42-C20	28	919345
31.783	i-C18	d42-C20	11	378548
33.063	n-C17	d42-C20	26	854857
33.327	Pristane	d42-C20	14	477379
35.644	n-C18	d42-C20	24	795606
35.985	Phytane	d42-C20	12	399579
38.106	n-C19	d42-C20	23	756925
39.756	d42-C20	d42-C20	120	4000000
40.456	n-C20	d42-C20	18	606798
42.706	n-C21	d50-C24	15	511566
44.862	n-C22	d50-C24	13	434733
46.928	n-C23	d50-C24	10	350493
48.177	d50-C24	d50-C24	116	4000000
48.915	n-C24	d50-C24	8	285194
50.823	n-C25	d50-C24	6	202513
52.668	n-C26	d50-C24	5	185735
54.443	n-C27	d50-C24	4	126551
56.159	n-C28	d62-C30	4	146536
57.810	n-C29	d62-C30	3	101385
58.633	d62-C30	d62-C30	113	4000000
59.669	n-C30	d62-C30	6	227129
61.019	n-C31	d62-C30	11	393294
62.471	n-C32	d62-C30	1	25158
63.931	n-C33	d62-C30	1	26972
65.204	n-C34	d62-C30	2	54401
66.656	n-C35	d62-C30	1	50395
68.071	n-C36	d62-C30	1	27394
0.000	n-C37	d62-C30	0	0
0.000	n-C38	d62-C30	0	0
0.000	n-C39	d62-C30	0	0
0.000	n-C40	d62-C30	0	0

Peak ratios

Pristane / nC17 [=A]	0.56	0.56
Phytane / n-C18 [=B]	0.50	0.50
[A] / [B]	1.11	1.11
Pristane / Phytane	1.19	1.19
CPI 1	1.19	1.19
n-C17/(n-C17+n-C27)	0.87	0.87
n-C15/n-C20	1.70	1.70
n-C30/n-C20	0.35	0.37

Key

CPI 1 = 0.5 x [(Sum n-C25 to n-C31 odd)/(Sum n-C24 to n-C30 even)+(Sum n-C25 to n-C31 odd)/(Sum n-C26 to n-C32 even)]



SAT GC-FID Analysis Data Sheet
Sample information

Well 7831/2-U-2
Sample ID I0099
Depth (m SB) 14.53
Sample type COCH
Lithology CLYST (SLTY, DKGY)

Analysis information

Analysis date 05/11/2006
Instrument HP 6890
Column DB-1, 30 m
EOM weight (g) 0.1557
Int. std. volume (µl) 173
Int. std. conc. (ng/µl) 2000

Analysis results

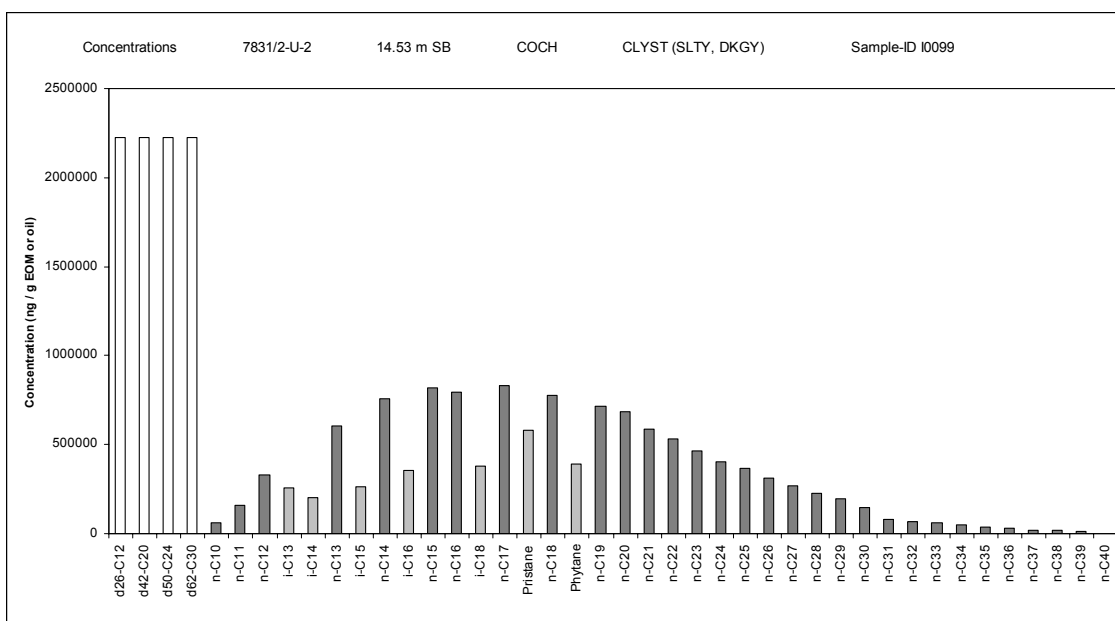
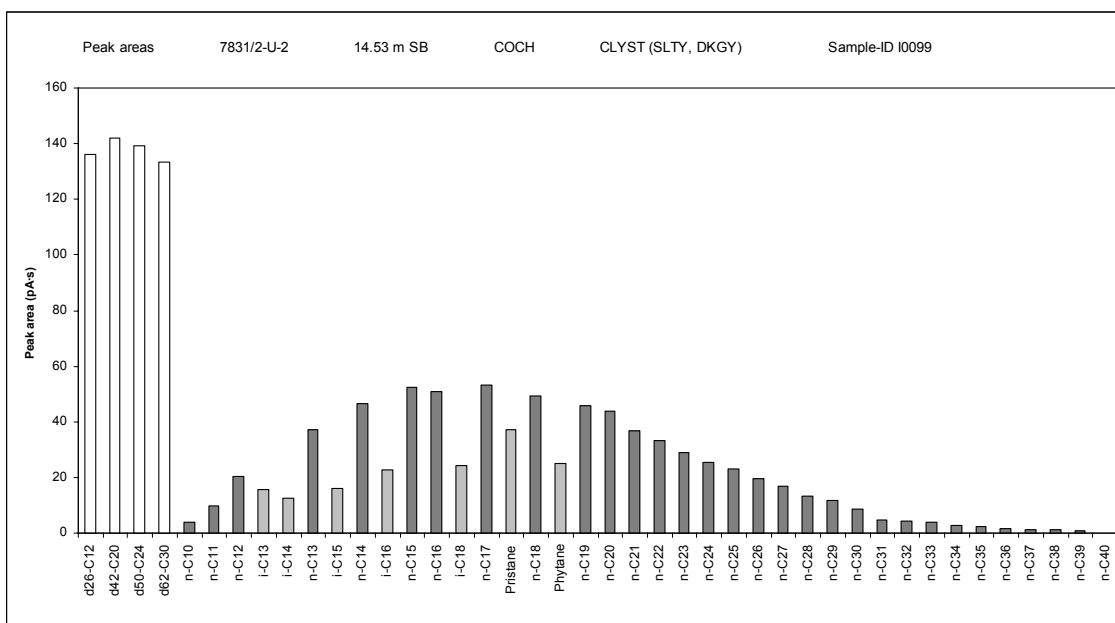
Retention time (min)	Compound name	Internal standard compound used for quantification	Peak area (pA·s)	Concentration based on peak area (ng/g EOM)
10.996	n-C10	d26-C12	4	60742
14.502	n-C11	d26-C12	10	158874
17.416	d26-C12	d26-C12	136	2222222
17.974	n-C12	d26-C12	20	332912
18.510	i-C13	d26-C12	16	256624
20.508	i-C14	d26-C12	12	204198
21.312	n-C13	d26-C12	37	607151
23.830	i-C15	d26-C12	16	261239
24.486	n-C14	d26-C12	47	759849
26.449	i-C16	d42-C20	23	353443
27.494	n-C15	d42-C20	53	821648
30.352	n-C16	d42-C20	51	796870
31.788	i-C18	d42-C20	24	381449
33.065	n-C17	d42-C20	53	829602
33.331	Pristane	d42-C20	37	583145
35.647	n-C18	d42-C20	49	773362
35.977	Phytane	d42-C20	25	393670
38.109	n-C19	d42-C20	46	716615
39.762	d42-C20	d42-C20	142	2222222
40.461	n-C20	d42-C20	44	686155
42.709	n-C21	d50-C24	37	588531
44.862	n-C22	d50-C24	33	529257
46.932	n-C23	d50-C24	29	463070
48.180	d50-C24	d50-C24	139	2222222
48.920	n-C24	d50-C24	25	403921
50.824	n-C25	d50-C24	23	367327
52.669	n-C26	d50-C24	20	312936
54.444	n-C27	d50-C24	17	268822
56.159	n-C28	d62-C30	13	224501
57.813	n-C29	d62-C30	12	195757
58.631	d62-C30	d62-C30	134	2222222
59.417	n-C30	d62-C30	9	145437
61.017	n-C31	d62-C30	5	81270
62.469	n-C32	d62-C30	4	70045
63.935	n-C33	d62-C30	4	62927
65.350	n-C34	d62-C30	3	47307
66.724	n-C35	d62-C30	2	38318
68.074	n-C36	d62-C30	2	27745
69.375	n-C37	d62-C30	1	20650
70.717	n-C38	d62-C30	1	16366
72.246	n-C39	d62-C30	1	13784
0.000	n-C40	d62-C30	0	0

Peak ratios

Pristane / nC17 [=A]	0.70	0.70
Phytane / n-C18 [=B]	0.51	0.51
[A] / [B]	1.38	1.38
Pristane / Phytane	1.48	1.48
CPI 1	1.03	1.03
n-C17/(n-C17+n-C27)	0.76	0.76
n-C15/n-C20	1.20	1.20
n-C30/n-C20	0.20	0.21

Key

CPI 1 = 0.5 x [(Sum n-C25 to n-C31 odd)/(Sum n-C24 to n-C30 even)+(Sum n-C25 to n-C31 odd)/(Sum n-C26 to n-C32 even)]



SAT GC-FID Analysis Data Sheet
Sample information

Well 7831/2-U-2
Sample ID I0096
Depth (m SB) 17.87
Sample type COCH
Lithology CLYST (SLTY, DKGY)

Analysis information

Analysis date 05/11/2006
Instrument HP 6890
Column DB-1, 30 m
EOM weight (g) 0.0963
Int. std. volume (µl) 192.6
Int. std. conc. (ng/µl) 2000

Analysis results

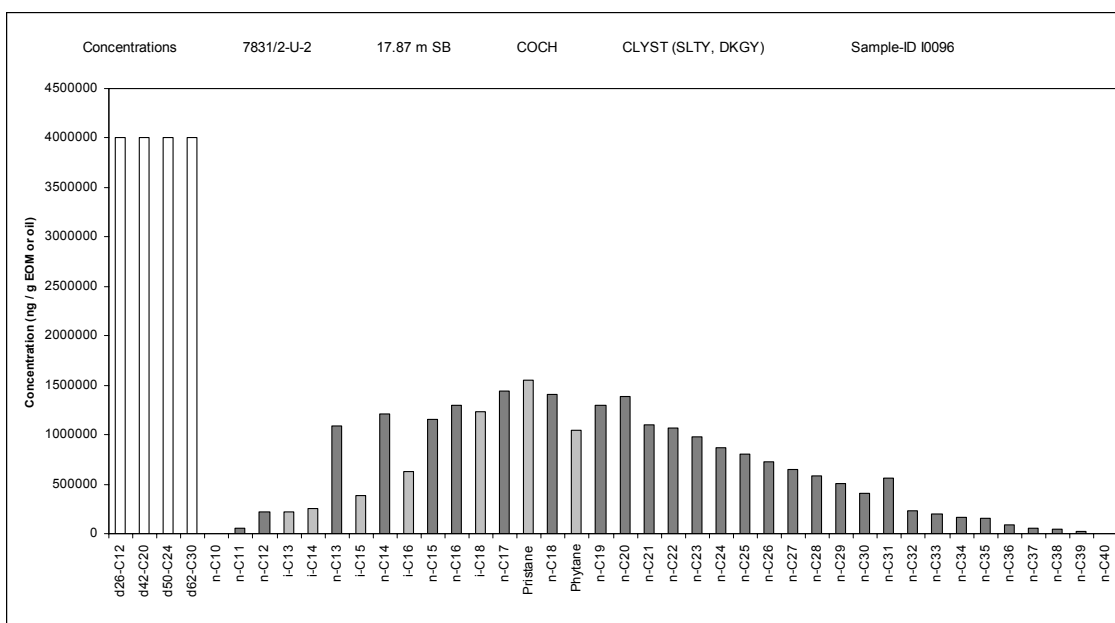
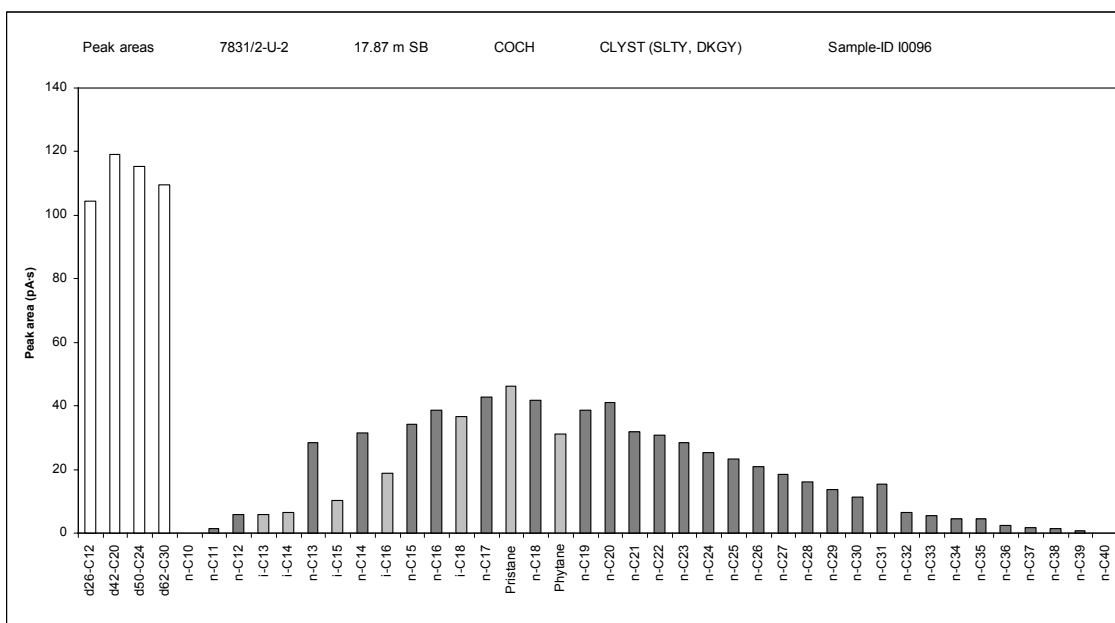
Retention time (min)	Compound name	Internal standard compound used for quantification	Peak area (pA·s)	Concentration based on peak area (ng/g EOM)
0.000	n-C10	d26-C12	0	0
14.501	n-C11	d26-C12	1	50307
17.415	d26-C12	d26-C12	105	4000000
17.973	n-C12	d26-C12	6	216304
18.510	i-C13	d26-C12	6	222959
20.508	i-C14	d26-C12	7	254003
21.310	n-C13	d26-C12	28	1084733
23.829	i-C15	d26-C12	10	390231
24.485	n-C14	d26-C12	32	1206336
26.447	i-C16	d42-C20	19	632159
27.494	n-C15	d42-C20	34	1151093
30.351	n-C16	d42-C20	39	1301498
31.782	i-C18	d42-C20	37	1227796
33.063	n-C17	d42-C20	43	1437147
33.327	Pristane	d42-C20	46	1553723
35.644	n-C18	d42-C20	42	1408182
35.978	Phytane	d42-C20	31	1043262
38.107	n-C19	d42-C20	39	1296027
39.758	d42-C20	d42-C20	119	4000000
40.459	n-C20	d42-C20	41	1383197
42.707	n-C21	d50-C24	32	1104592
44.862	n-C22	d50-C24	31	1064980
46.929	n-C23	d50-C24	28	981403
48.179	d50-C24	d50-C24	115	4000000
48.915	n-C24	d50-C24	25	873659
50.827	n-C25	d50-C24	23	803101
52.669	n-C26	d50-C24	21	729741
54.442	n-C27	d50-C24	19	646588
56.157	n-C28	d62-C30	16	584319
57.814	n-C29	d62-C30	14	503560
58.632	d62-C30	d62-C30	110	4000000
59.416	n-C30	d62-C30	11	407546
60.970	n-C31	d62-C30	15	556074
62.477	n-C32	d62-C30	6	236037
63.935	n-C33	d62-C30	6	203018
65.353	n-C34	d62-C30	5	166455
66.734	n-C35	d62-C30	4	159245
68.072	n-C36	d62-C30	2	85435
69.372	n-C37	d62-C30	2	57201
70.730	n-C38	d62-C30	1	45221
72.260	n-C39	d62-C30	1	22244
0.000	n-C40	d62-C30	0	0

Peak ratios

Pristane / nC17 [=A]	1.08	1.08
Phytane / n-C18 [=B]	0.74	0.74
[A] / [B]	1.46	1.46
Pristane / Phytane	1.49	1.49
CPI 1	1.13	1.12
n-C17/(n-C17+n-C27)	0.70	0.69
n-C15/n-C20	0.83	0.83
n-C30/n-C20	0.27	0.29

Key

CPI 1 = 0.5 x [(Sum n-C25 to n-C31 odd)/(Sum n-C24 to n-C30 even)+(Sum n-C25 to n-C31 odd)/(Sum n-C26 to n-C32 even)]



SAT GC-FID Analysis Data Sheet
Sample information

Well 7831/2-U-2
Sample ID I0095
Depth (m SB) 18.85
Sample type COCH
Lithology CLYST (SLTY, DKGY)

Analysis information

Analysis date 05/11/2006
Instrument HP 6890
Column DB-1, 30 m
EOM weight (g) 0.0594
Int. std. volume (µl) 118.8
Int. std. conc. (ng/µl) 2000

Analysis results

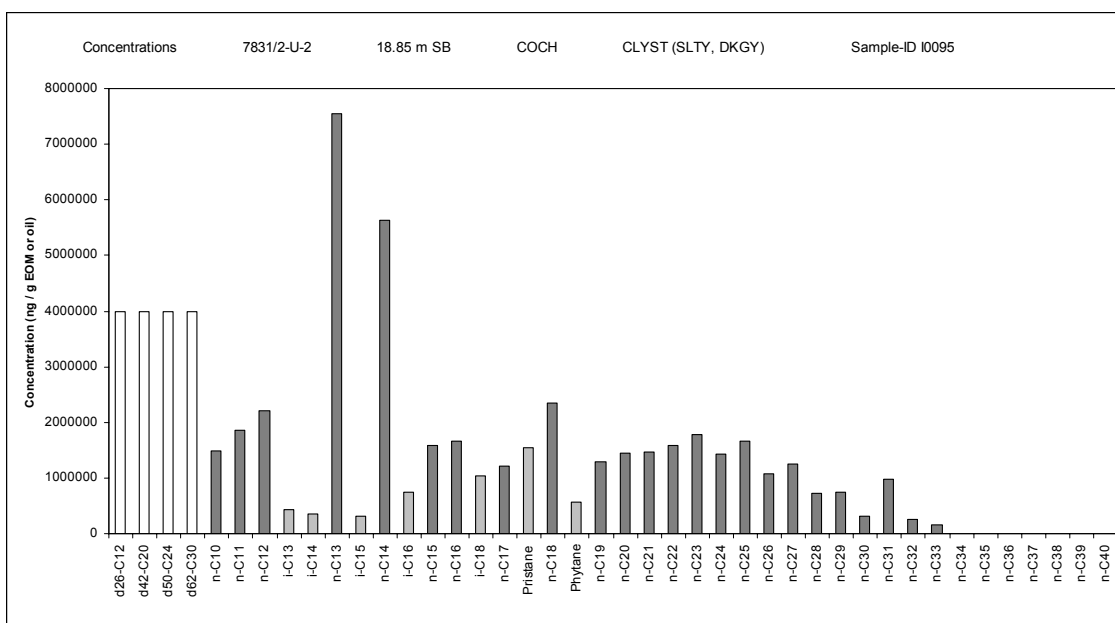
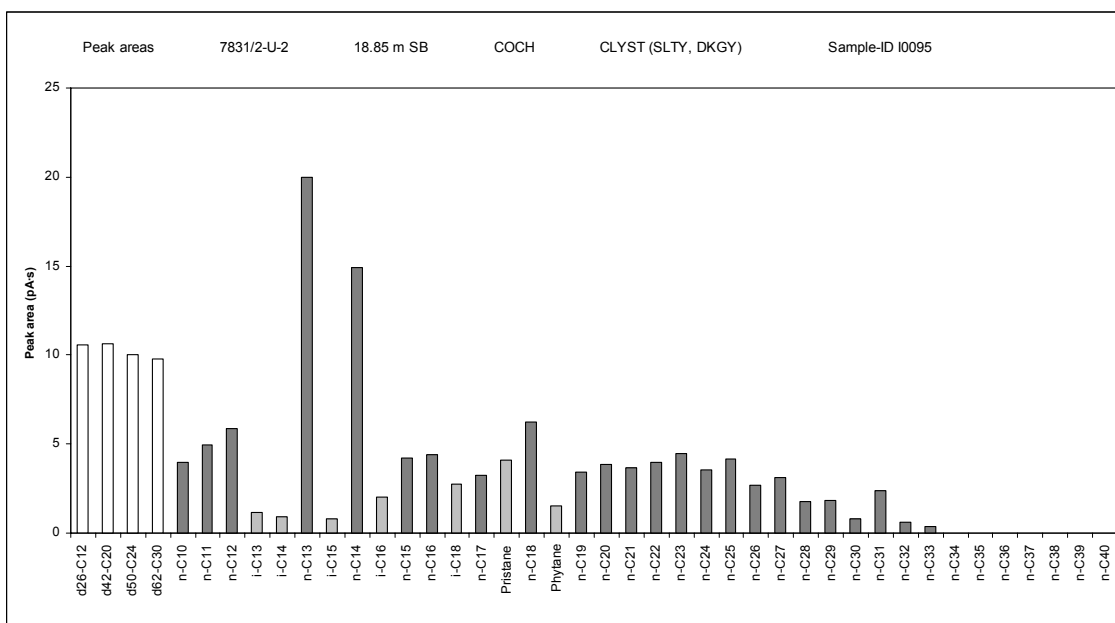
Retention time (min)	Compound name	Internal standard compound used for quantification	Peak area (pA·s)	Concentration based on peak area (ng/g EOM)
10.996	n-C10	d26-C12	4	1490738
14.499	n-C11	d26-C12	5	1862705
17.410	d26-C12	d26-C12	11	4000000
17.972	n-C12	d26-C12	6	2217939
18.508	i-C13	d26-C12	1	427379
20.509	i-C14	d26-C12	1	343688
21.308	n-C13	d26-C12	20	7550383
23.828	i-C15	d26-C12	1	310869
24.482	n-C14	d26-C12	15	5627527
26.447	i-C16	d42-C20	2	752573
27.493	n-C15	d42-C20	4	1581073
30.347	n-C16	d42-C20	4	1657376
31.719	i-C18	d42-C20	3	1040384
33.061	n-C17	d42-C20	3	1219762
33.320	Pristane	d42-C20	4	1543788
35.641	n-C18	d42-C20	6	2341166
35.985	Phytane	d42-C20	2	568108
38.102	n-C19	d42-C20	3	1295456
39.750	d42-C20	d42-C20	11	4000000
40.455	n-C20	d42-C20	4	1447070
42.705	n-C21	d50-C24	4	1459659
44.861	n-C22	d50-C24	4	1587350
46.929	n-C23	d50-C24	4	1785095
48.169	d50-C24	d50-C24	10	4000000
48.911	n-C24	d50-C24	4	1422382
50.828	n-C25	d50-C24	4	1664554
52.661	n-C26	d50-C24	3	1067357
54.439	n-C27	d50-C24	3	1257640
56.157	n-C28	d62-C30	2	718339
57.812	n-C29	d62-C30	2	749250
58.624	d62-C30	d62-C30	10	4000000
59.416	n-C30	d62-C30	1	320838
61.014	n-C31	d62-C30	2	969779
62.572	n-C32	d62-C30	1	249595
63.932	n-C33	d62-C30	0	150947
0.000	n-C34	d62-C30	0	0
0.000	n-C35	d62-C30	0	0
0.000	n-C36	d62-C30	0	0
0.000	n-C37	d62-C30	0	0
0.000	n-C38	d62-C30	0	0
0.000	n-C39	d62-C30	0	0
0.000	n-C40	d62-C30	0	0

Peak ratios

Pristane / nC17 [=A]	1.27	1.27
Phytane / n-C18 [=B]	0.24	0.24
[A] / [B]	5.22	5.22
Pristane / Phytane	2.72	2.72
CPI 1	1.65	1.64
n-C17/(n-C17+n-C27)	0.51	0.49
n-C15/n-C20	1.09	1.09
n-C30/n-C20	0.20	0.22

Key

CPI 1 = 0.5 x [(Sum n-C25 to n-C31 odd)/(Sum n-C24 to n-C30 even)+(Sum n-C25 to n-C31 odd)/(Sum n-C26 to n-C32 even)]



SAT GC-FID Analysis Data Sheet
Sample information

Well 7831/2-U-1
Sample ID I0089
Depth (m SB) 21.76
Sample type COCH
Lithology CLYST (DKGY)

Analysis information

Analysis date 04/11/2006
Instrument HP 6890
Column DB-1, 30 m
EOM weight (g) 0.0441
Int. std. volume (µl) 88.2
Int. std. conc. (ng/µl) 2000

Analysis results

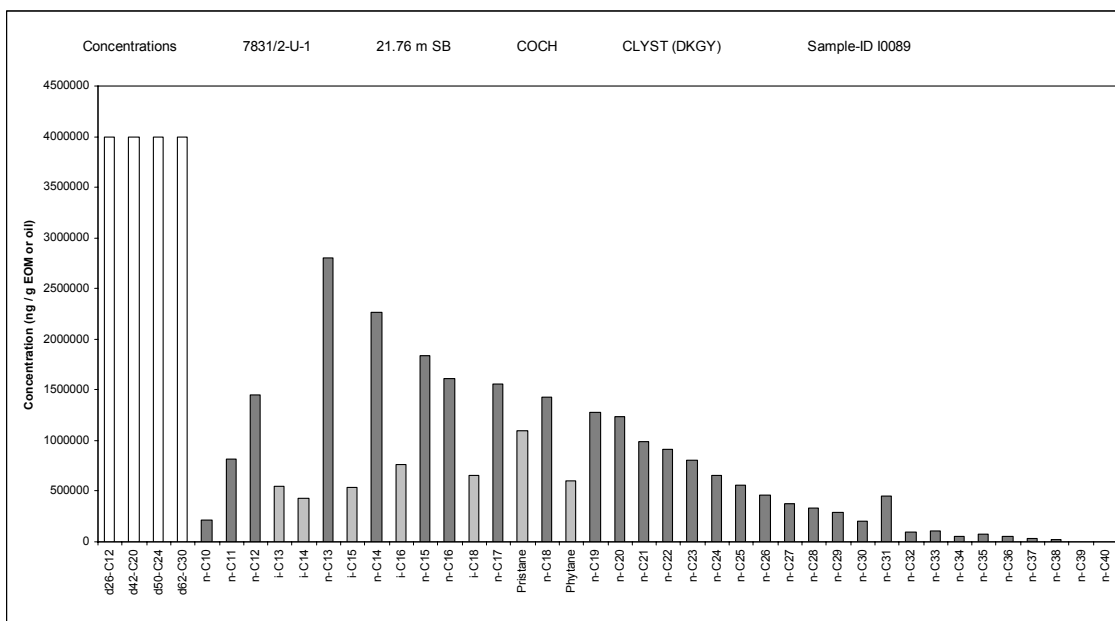
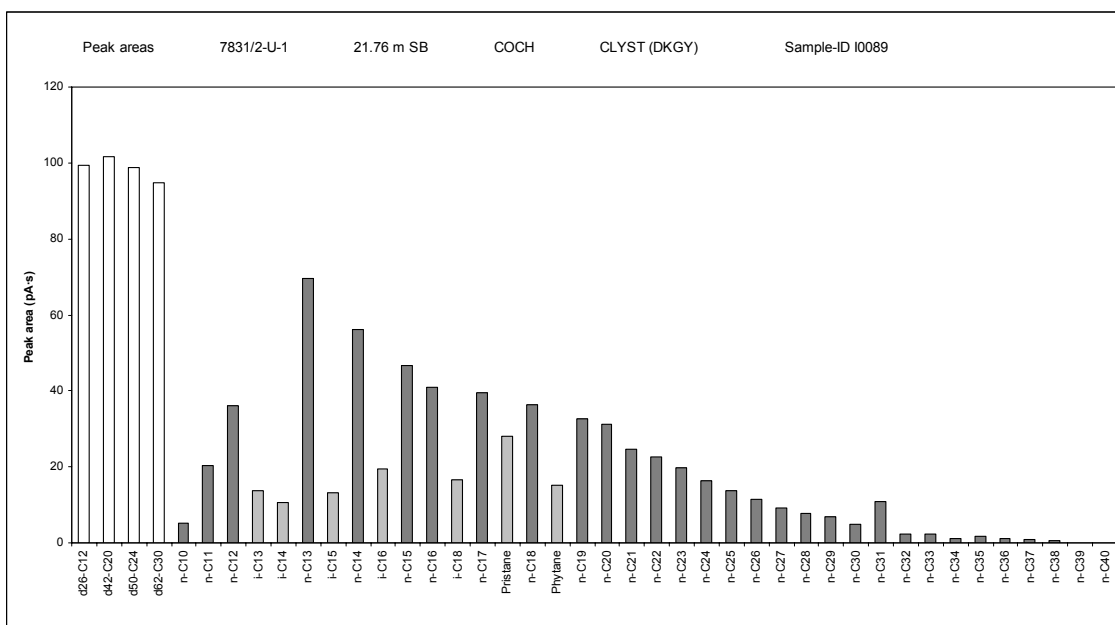
Retention time (min)	Compound name	Internal standard compound used for quantification	Peak area (pA·s)	Concentration based on peak area (ng/g EOM)
10.999	n-C10	d26-C12	5	211462
14.504	n-C11	d26-C12	20	815769
17.418	d26-C12	d26-C12	100	4000000
17.978	n-C12	d26-C12	36	1446051
18.513	i-C13	d26-C12	14	550351
20.512	i-C14	d26-C12	11	427088
21.316	n-C13	d26-C12	70	2799207
23.833	i-C15	d26-C12	13	532010
24.491	n-C14	d26-C12	56	2261012
26.451	i-C16	d42-C20	19	762058
27.500	n-C15	d42-C20	47	1836055
30.354	n-C16	d42-C20	41	1611403
31.783	i-C18	d42-C20	17	657321
33.068	n-C17	d42-C20	40	1555264
33.333	Pristane	d42-C20	28	1099335
35.646	n-C18	d42-C20	36	1433360
35.981	Phytane	d42-C20	15	597863
38.111	n-C19	d42-C20	33	1281341
39.766	d42-C20	d42-C20	102	4000000
40.461	n-C20	d42-C20	31	1231486
42.713	n-C21	d50-C24	25	991891
44.866	n-C22	d50-C24	23	914123
46.931	n-C23	d50-C24	20	800274
48.181	d50-C24	d50-C24	99	4000000
48.919	n-C24	d50-C24	16	654979
50.831	n-C25	d50-C24	14	554510
52.673	n-C26	d50-C24	11	460416
54.443	n-C27	d50-C24	9	376365
56.160	n-C28	d62-C30	8	329197
57.818	n-C29	d62-C30	7	284673
58.635	d62-C30	d62-C30	95	4000000
59.418	n-C30	d62-C30	5	204760
61.028	n-C31	d62-C30	11	456344
62.478	n-C32	d62-C30	2	101190
63.941	n-C33	d62-C30	2	102464
65.356	n-C34	d62-C30	1	49067
66.732	n-C35	d62-C30	2	76286
68.072	n-C36	d62-C30	1	51520
69.378	n-C37	d62-C30	1	32730
70.726	n-C38	d62-C30	1	24546
0.000	n-C39	d62-C30	0	0
0.000	n-C40	d62-C30	0	0

Peak ratios

Pristane / n-C17 [=A]	0.71	0.71
Phytane / n-C18 [=B]	0.42	0.42
[A] / [B]	1.69	1.69
Pristane / Phytane	1.84	1.84
CPI 1	1.27	1.27
n-C17/(n-C17+n-C27)	0.81	0.81
n-C15/n-C20	1.49	1.49
n-C30/n-C20	0.16	0.17

Key

CPI 1 = 0.5 x [(Sum n-C25 to n-C31 odd)/(Sum n-C24 to n-C30 even) + (Sum n-C25 to n-C31 odd)/(Sum n-C26 to n-C32 even)]



SAT GC-FID Analysis Data Sheet
Sample information

Well 7830/6-U-1
Sample ID I0005
Depth (m SB) 12.88
Sample type COCH
Lithology SLST

Analysis information

Analysis date 04/11/2006
Instrument HP 6890
Column DB-1, 30 m
EOM weight (g) 0.0072
Int. std. volume (µl) 14.4
Int. std. conc. (ng/µl) 2000

Analysis results

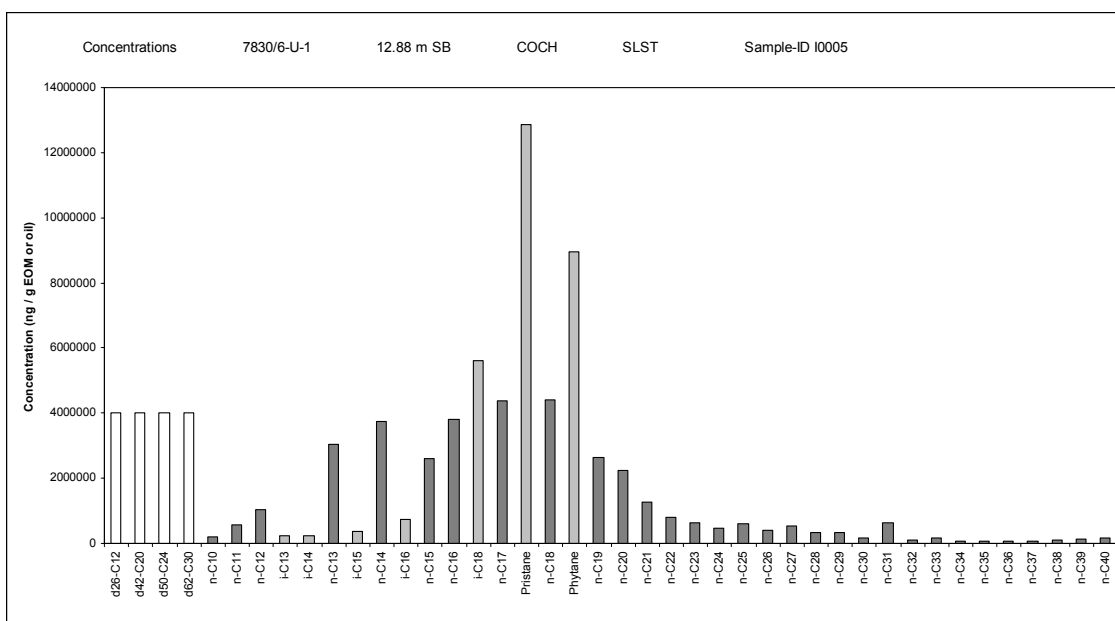
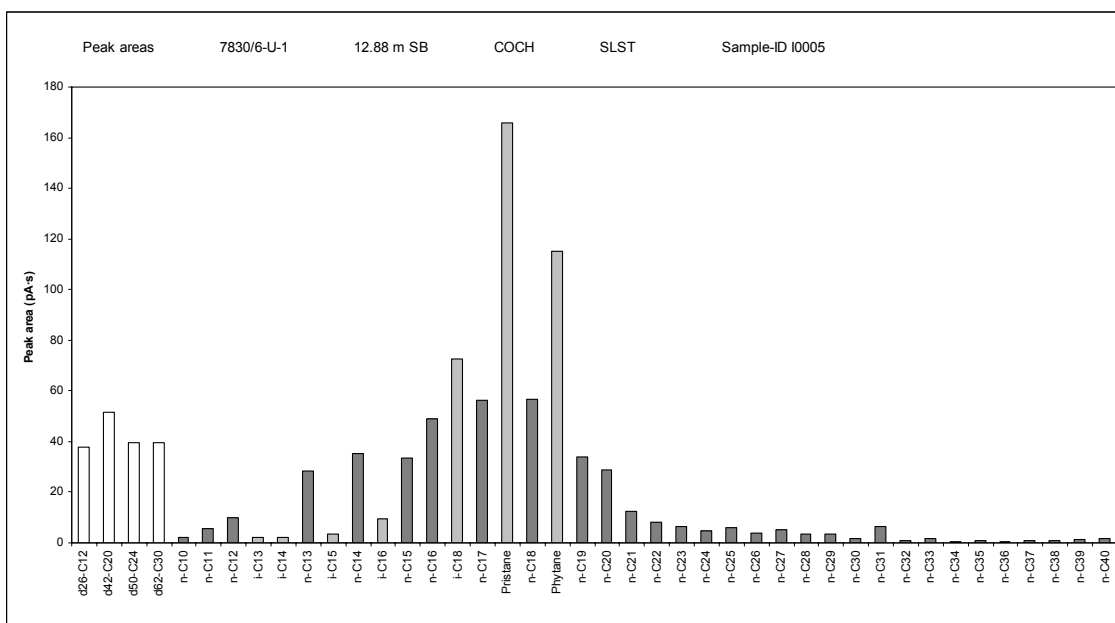
Retention time (min)	Compound name	Internal standard compound used for quantification	Peak area (pA·s)	Concentration based on peak area (ng/g EOM)
10.999	n-C10	d26-C12	2	206407
14.503	n-C11	d26-C12	6	583962
17.416	d26-C12	d26-C12	38	4000000
17.977	n-C12	d26-C12	10	1050958
18.511	i-C13	d26-C12	2	220674
20.511	i-C14	d26-C12	2	218751
21.315	n-C13	d26-C12	29	3025753
23.832	i-C15	d26-C12	3	363251
24.487	n-C14	d26-C12	35	3758285
26.450	i-C16	d42-C20	10	750276
27.499	n-C15	d42-C20	34	2614982
30.353	n-C16	d42-C20	49	3814054
31.785	i-C18	d42-C20	72	5629598
33.069	n-C17	d42-C20	56	4374070
33.337	Pristane	d42-C20	166	12872645
35.650	n-C18	d42-C20	57	4402703
35.983	Phytane	d42-C20	115	8958226
38.115	n-C19	d42-C20	34	2641712
39.757	d42-C20	d42-C20	51	4000000
40.460	n-C20	d42-C20	29	2232608
42.710	n-C21	d50-C24	13	1282622
44.864	n-C22	d50-C24	8	817300
46.928	n-C23	d50-C24	6	640307
48.173	d50-C24	d50-C24	39	4000000
48.917	n-C24	d50-C24	5	469803
50.827	n-C25	d50-C24	6	589752
52.664	n-C26	d50-C24	4	393370
54.442	n-C27	d50-C24	5	528766
56.157	n-C28	d62-C30	3	348698
57.812	n-C29	d62-C30	3	334441
58.629	d62-C30	d62-C30	40	4000000
59.418	n-C30	d62-C30	2	176709
61.019	n-C31	d62-C30	6	636415
62.480	n-C32	d62-C30	1	88915
63.930	n-C33	d62-C30	2	164032
65.346	n-C34	d62-C30	1	53259
66.723	n-C35	d62-C30	1	70755
68.072	n-C36	d62-C30	1	60939
69.372	n-C37	d62-C30	1	65892
70.717	n-C38	d62-C30	1	99632
72.255	n-C39	d62-C30	1	143473
73.991	n-C40	d62-C30	2	169827

Peak ratios

Pristane / nC17 [=A]	2.94	2.94
Phytane / n-C18 [=B]	2.03	2.03
[A] / [B]	1.45	1.45
Pristane / Phytane	1.44	1.44
CPI 1	1.79	1.79
n-C17/(n-C17+n-C27)	0.92	0.89
n-C15/n-C20	1.17	1.17
n-C30/n-C20	0.06	0.08

Key

CPI 1 = 0.5 x [(Sum n-C25 to n-C31 odd)/(Sum n-C24 to n-C30 even)+(Sum n-C25 to n-C31 odd)/(Sum n-C26 to n-C32 even)]



SAT GC-FID Analysis Data Sheet
Sample information

Well 7830/6-U-1
Sample ID I0126
Depth (m SB) 20.1
Sample type COCH
Lithology CLYST (SLTY, LAM, DKGY)

Analysis information

Analysis date 04/11/2006
Instrument HP 6890
Column DB-1, 30 m
EOM weight (g) 0.0036
Int. std. volume (µl) 7.2
Int. std. conc. (ng/µl) 2000

Analysis results

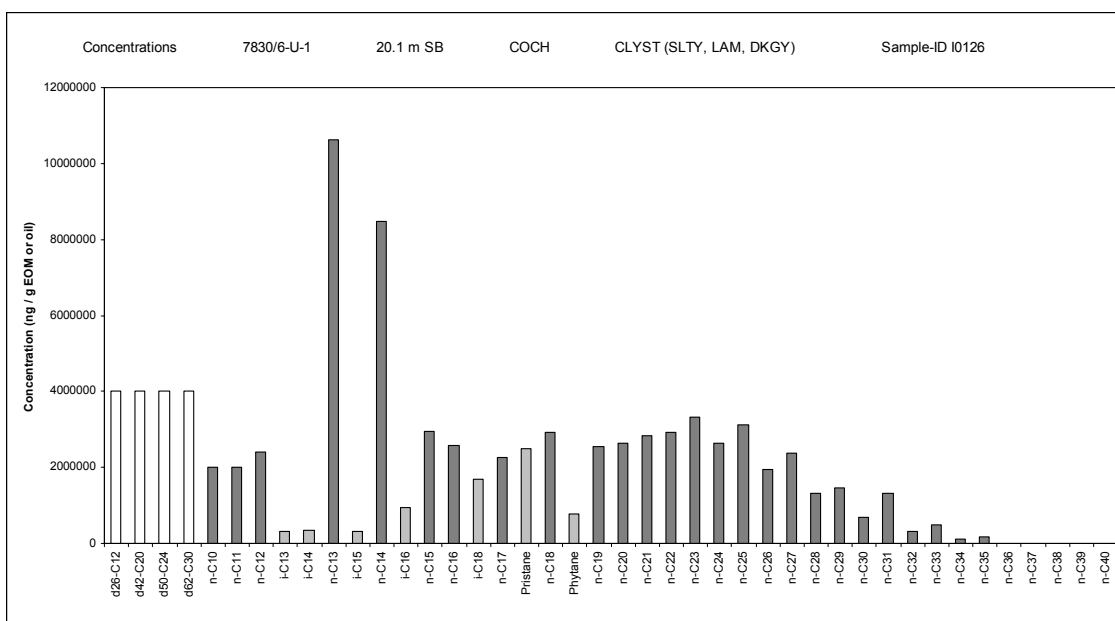
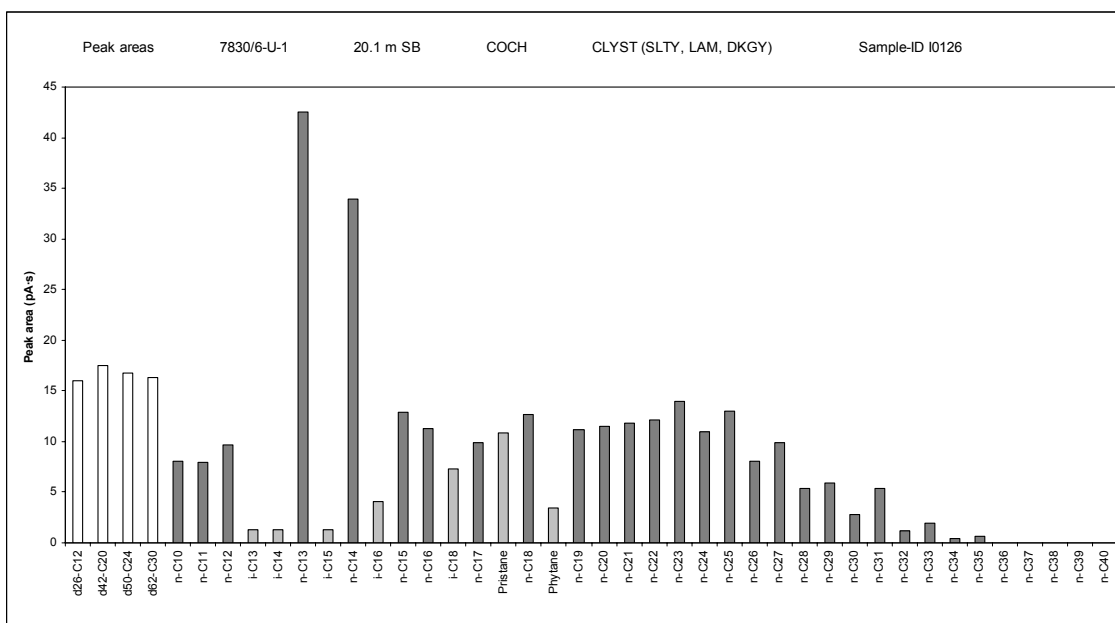
Retention time (min)	Compound name	Internal standard compound used for quantification	Peak area (pA·s)	Concentration based on peak area (ng/g EOM)
10.996	n-C10	d26-C12	8	2003040
14.500	n-C11	d26-C12	8	1991708
17.411	d26-C12	d26-C12	16	4000000
17.975	n-C12	d26-C12	10	2413680
18.507	i-C13	d26-C12	1	325509
20.506	i-C14	d26-C12	1	329762
21.312	n-C13	d26-C12	43	10626093
23.830	i-C15	d26-C12	1	313250
24.485	n-C14	d26-C12	34	8467242
26.447	i-C16	d42-C20	4	931266
27.495	n-C15	d42-C20	13	2950214
30.351	n-C16	d42-C20	11	2578693
31.724	i-C18	d42-C20	7	1681035
33.062	n-C17	d42-C20	10	2259213
33.336	Pristane	d42-C20	11	2480156
35.646	n-C18	d42-C20	13	2908562
35.976	Phytane	d42-C20	3	773834
38.103	n-C19	d42-C20	11	2552365
39.754	d42-C20	d42-C20	17	4000000
40.457	n-C20	d42-C20	12	2635842
42.706	n-C21	d50-C24	12	2832444
44.863	n-C22	d50-C24	12	2909048
46.931	n-C23	d50-C24	14	3335098
48.175	d50-C24	d50-C24	17	4000000
48.914	n-C24	d50-C24	11	2629805
50.826	n-C25	d50-C24	13	3118503
52.666	n-C26	d50-C24	8	1936191
54.444	n-C27	d50-C24	10	2363967
56.155	n-C28	d62-C30	5	1314870
57.812	n-C29	d62-C30	6	1457021
58.627	d62-C30	d62-C30	16	4000000
59.417	n-C30	d62-C30	3	694090
60.974	n-C31	d62-C30	5	1315283
62.473	n-C32	d62-C30	1	301984
63.935	n-C33	d62-C30	2	473010
65.343	n-C34	d62-C30	0	112829
66.722	n-C35	d62-C30	1	159609
0.000	n-C36	d62-C30	0	0
0.000	n-C37	d62-C30	0	0
0.000	n-C38	d62-C30	0	0
0.000	n-C39	d62-C30	0	0
0.000	n-C40	d62-C30	0	0

Peak ratios

Pristane / nC17 [=A]	1.10	1.10
Phytane / n-C18 [=B]	0.27	0.27
[A] / [B]	4.13	4.13
Pristane / Phytane	3.21	3.21
CPI 1	1.60	1.60
n-C17/(n-C17+n-C27)	0.50	0.49
n-C15/n-C20	1.12	1.12
n-C30/n-C20	0.25	0.26

Key

CPI 1 = 0.5 x [(Sum n-C25 to n-C31 odd)/(Sum n-C24 to n-C30 even)+(Sum n-C25 to n-C31 odd)/(Sum n-C26 to n-C32 even)]



SAT GC-FID Analysis Data Sheet
Sample information

Well 7830/6-U-1
Sample ID I0115
Depth (m SB) 41.89
Sample type COCH
Lithology CLYST (DKGY, LAM)

Analysis information

Analysis date 04/11/2006
Instrument HP 6890
Column DB-1, 30 m
EOM weight (g) 0.0468
Int. std. volume (µl) 93.6
Int. std. conc. (ng/µl) 2000

Analysis results

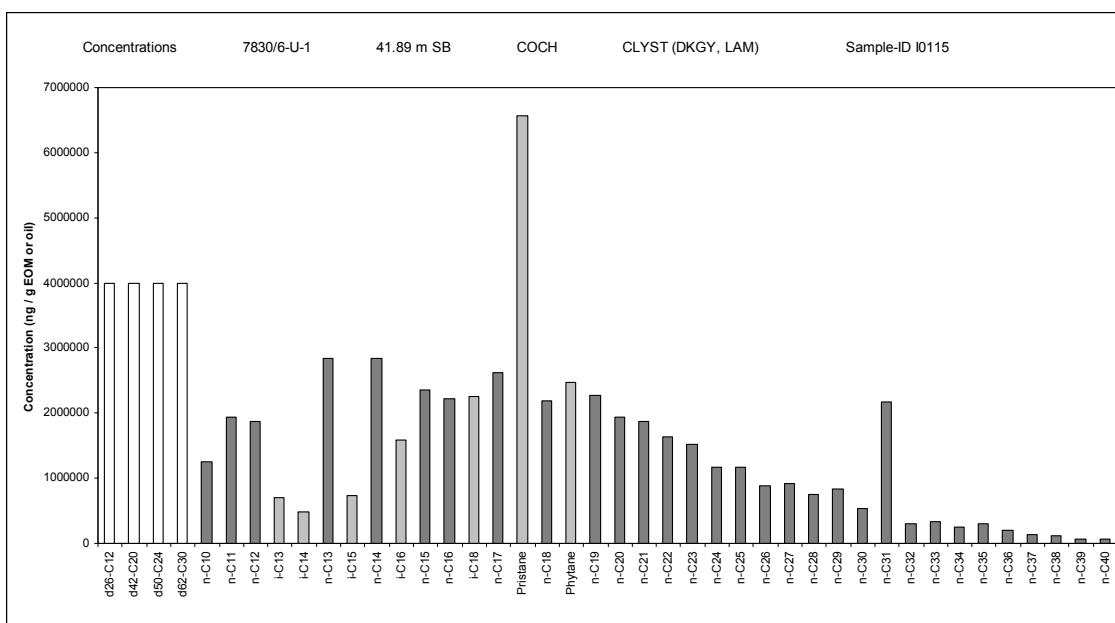
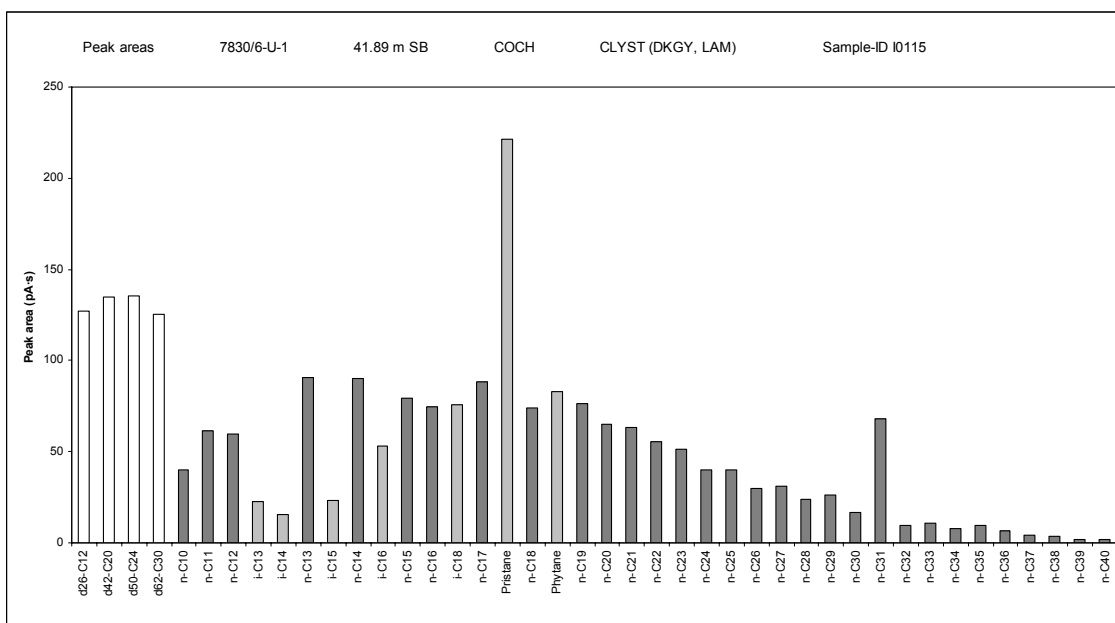
Retention time (min)	Compound name	Internal standard compound used for quantification	Peak area (pA·s)	Concentration based on peak area (ng/g EOM)
10.999	n-C10	d26-C12	40	1250712
14.504	n-C11	d26-C12	61	1932888
17.418	d26-C12	d26-C12	127	4000000
17.978	n-C12	d26-C12	60	1871891
18.511	i-C13	d26-C12	22	703666
20.511	i-C14	d26-C12	16	491898
21.316	n-C13	d26-C12	91	2845548
23.833	i-C15	d26-C12	23	727017
24.491	n-C14	d26-C12	90	2833615
26.452	i-C16	d42-C20	53	1586710
27.502	n-C15	d42-C20	79	2359247
30.356	n-C16	d42-C20	75	2222163
31.788	i-C18	d42-C20	76	2254287
33.070	n-C17	d42-C20	88	2616855
33.339	Pristane	d42-C20	221	6573808
35.649	n-C18	d42-C20	74	2193720
35.975	Phytane	d42-C20	83	2471451
38.113	n-C19	d42-C20	76	2272576
39.764	d42-C20	d42-C20	135	4000000
40.464	n-C20	d42-C20	65	1936239
42.713	n-C21	d50-C24	63	1864714
44.867	n-C22	d50-C24	56	1640997
46.934	n-C23	d50-C24	51	1516507
48.183	d50-C24	d50-C24	136	4000000
48.918	n-C24	d50-C24	40	1177404
50.831	n-C25	d50-C24	40	1171904
52.670	n-C26	d50-C24	30	881732
54.446	n-C27	d50-C24	31	914692
56.163	n-C28	d62-C30	24	757835
57.817	n-C29	d62-C30	26	831031
58.640	d62-C30	d62-C30	125	4000000
59.426	n-C30	d62-C30	17	532701
61.029	n-C31	d62-C30	68	2169535
62.479	n-C32	d62-C30	10	308567
63.940	n-C33	d62-C30	10	334134
65.355	n-C34	d62-C30	8	250866
66.732	n-C35	d62-C30	10	304375
68.078	n-C36	d62-C30	6	204419
69.378	n-C37	d62-C30	4	141585
70.720	n-C38	d62-C30	4	114477
72.252	n-C39	d62-C30	2	60261
74.005	n-C40	d62-C30	2	63368

Peak ratios

Pristane / n-C17 [=A]	2.51	2.51
Phytane / n-C18 [=B]	1.13	1.13
[A] / [B]	2.23	2.23
Pristane / Phytane	2.66	2.66
CPI 1	1.78	1.78
n-C17/(n-C17+n-C27)	0.74	0.74
n-C15/n-C20	1.22	1.22
n-C30/n-C20	0.26	0.28

Key

CPI 1 = 0.5 x [(Sum n-C25 to n-C31 odd)/(Sum n-C24 to n-C30 even)+(Sum n-C25 to n-C31 odd)/(Sum n-C26 to n-C32 even)]



SAT GC-FID Analysis Data Sheet
Sample information

Well 7830/6-U-1
Sample ID I0110
Depth (m SB) 50.93
Sample type COCH
Lithology CLYST (DKGY, LAM)

Analysis information

Analysis date 04/11/2006
Instrument HP 6890
Column DB-1, 30 m
EOM weight (g) 0.0405
Int. std. volume (µl) 81
Int. std. conc. (ng/µl) 2000

Analysis results

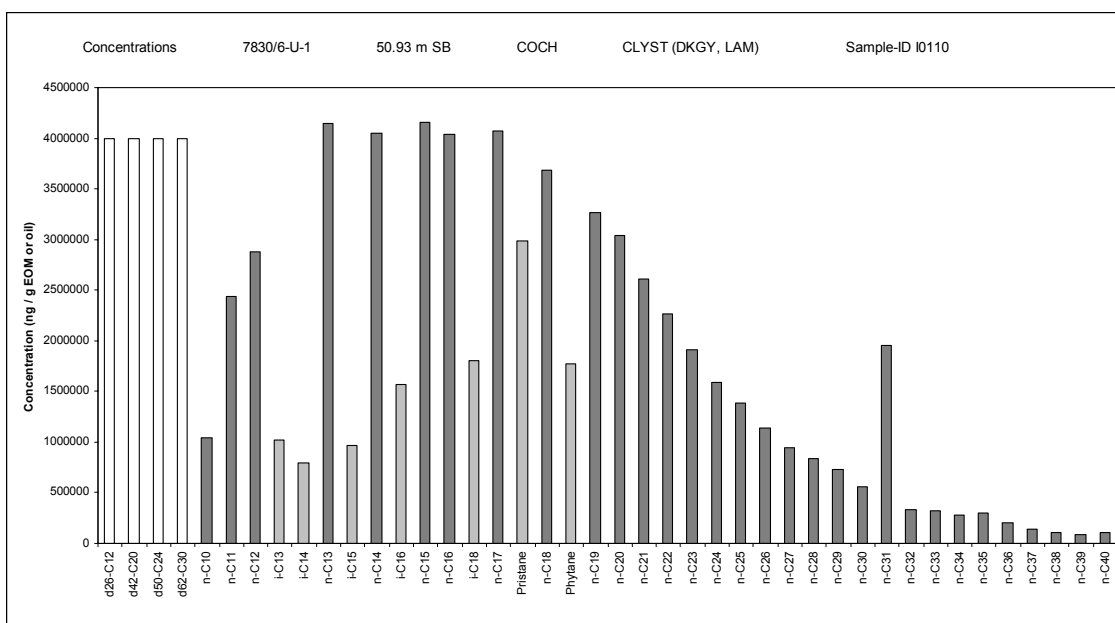
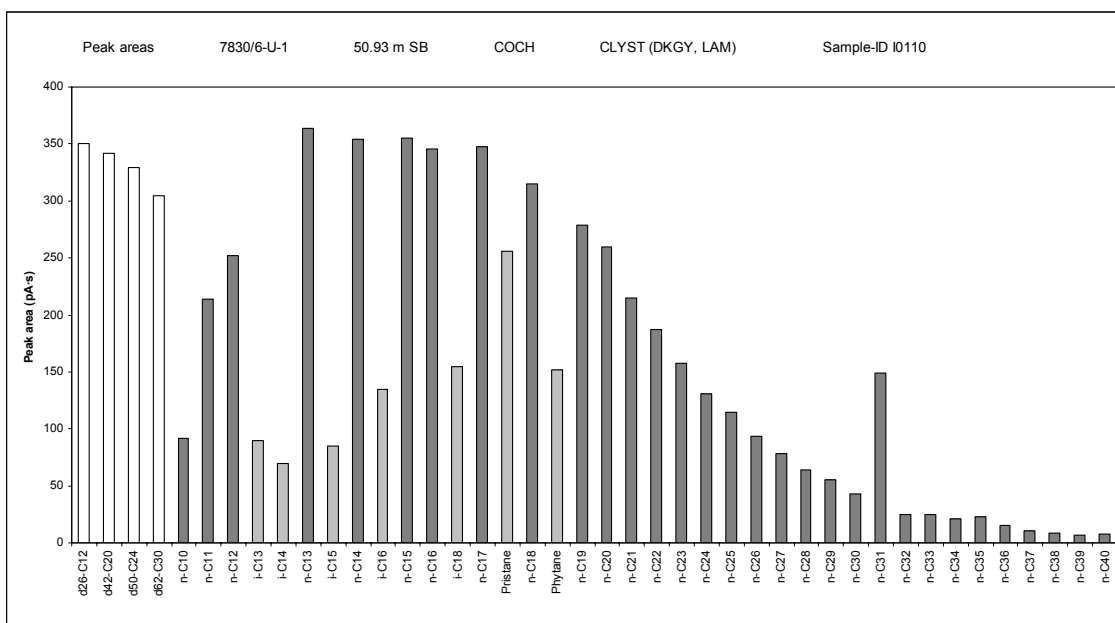
Retention time (min)	Compound name	Internal standard compound used for quantification	Peak area (pA·s)	Concentration based on peak area (ng/g EOM)
11.001	n-C10	d26-C12	91	1042535
14.512	n-C11	d26-C12	214	2442938
17.430	d26-C12	d26-C12	350	4000000
17.991	n-C12	d26-C12	252	2882182
18.519	i-C13	d26-C12	89	1021444
20.517	i-C14	d26-C12	70	799362
21.334	n-C13	d26-C12	363	4150759
23.841	i-C15	d26-C12	85	966141
24.510	n-C14	d26-C12	354	4046267
26.461	i-C16	d42-C20	134	1571129
27.521	n-C15	d42-C20	355	4155070
30.380	n-C16	d42-C20	345	4040790
31.799	i-C18	d42-C20	155	1808917
33.092	n-C17	d42-C20	348	4066023
33.351	Pristane	d42-C20	255	2988618
35.673	n-C18	d42-C20	315	3684553
35.989	Phytane	d42-C20	151	1772002
38.135	n-C19	d42-C20	279	3259578
39.785	d42-C20	d42-C20	342	4000000
40.483	n-C20	d42-C20	260	3040493
42.731	n-C21	d50-C24	215	2605482
44.882	n-C22	d50-C24	187	2268221
46.950	n-C23	d50-C24	157	1907501
48.202	d50-C24	d50-C24	330	4000000
48.937	n-C24	d50-C24	131	1585517
50.843	n-C25	d50-C24	114	1383552
52.689	n-C26	d50-C24	94	1138161
54.457	n-C27	d50-C24	78	947691
56.176	n-C28	d62-C30	64	837422
57.829	n-C29	d62-C30	55	728546
58.660	d62-C30	d62-C30	304	4000000
59.431	n-C30	d62-C30	43	562213
61.044	n-C31	d62-C30	149	1957985
62.489	n-C32	d62-C30	25	327793
63.947	n-C33	d62-C30	24	320060
65.368	n-C34	d62-C30	21	273982
66.745	n-C35	d62-C30	23	299851
68.085	n-C36	d62-C30	15	203281
69.383	n-C37	d62-C30	10	137550
70.732	n-C38	d62-C30	9	112556
72.262	n-C39	d62-C30	7	90642
74.018	n-C40	d62-C30	8	105465

Peak ratios

Pristane / nC17 [=A]	0.74	0.74
Phytane / n-C18 [=B]	0.48	0.48
[A] / [B]	1.53	1.53
Pristane / Phytane	1.69	1.69
CPI 1	1.48	1.48
n-C17/(n-C17+n-C27)	0.82	0.81
n-C15/n-C20	1.37	1.37
n-C30/n-C20	0.16	0.18

Key

CPI 1 = 0.5 x [(Sum n-C25 to n-C31 odd)/(Sum n-C24 to n-C30 even)+(Sum n-C25 to n-C31 odd)/(Sum n-C26 to n-C32 even)]



SAT GC-FID Analysis Data Sheet
Sample information

Well 7830/3-U-1
Sample ID I0146
Depth (m SB) 39.99
Sample type COCH
Lithology SST (MGR, MGY)

Analysis information

Analysis date 03/11/2006
Instrument HP 6890
Column DB-1, 30 m
EOM weight (g) 0.0297
Int. std. volume (µl) 59.4
Int. std. conc. (ng/µl) 2000

Analysis results

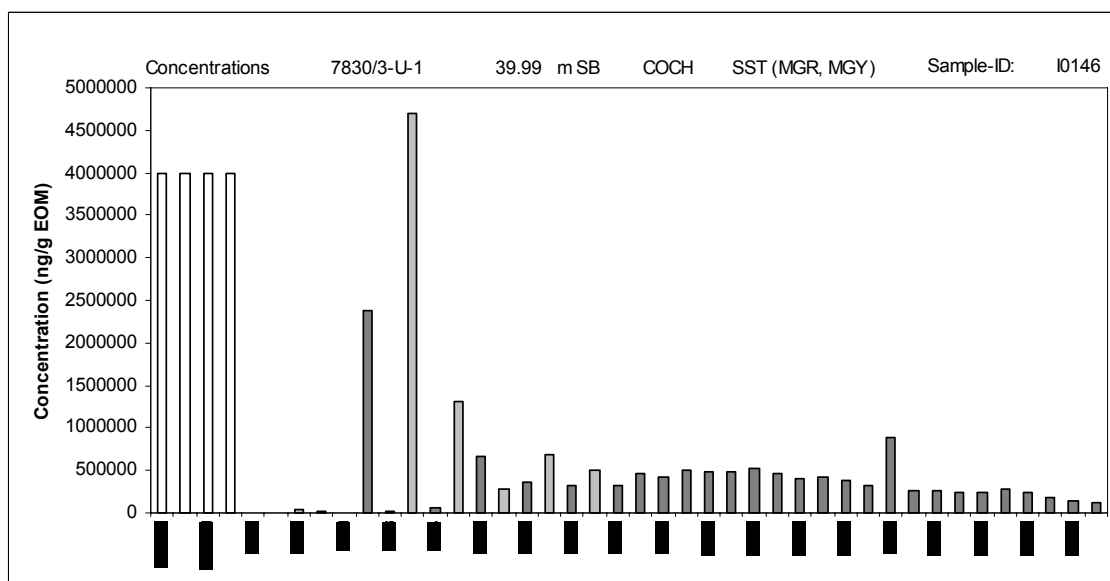
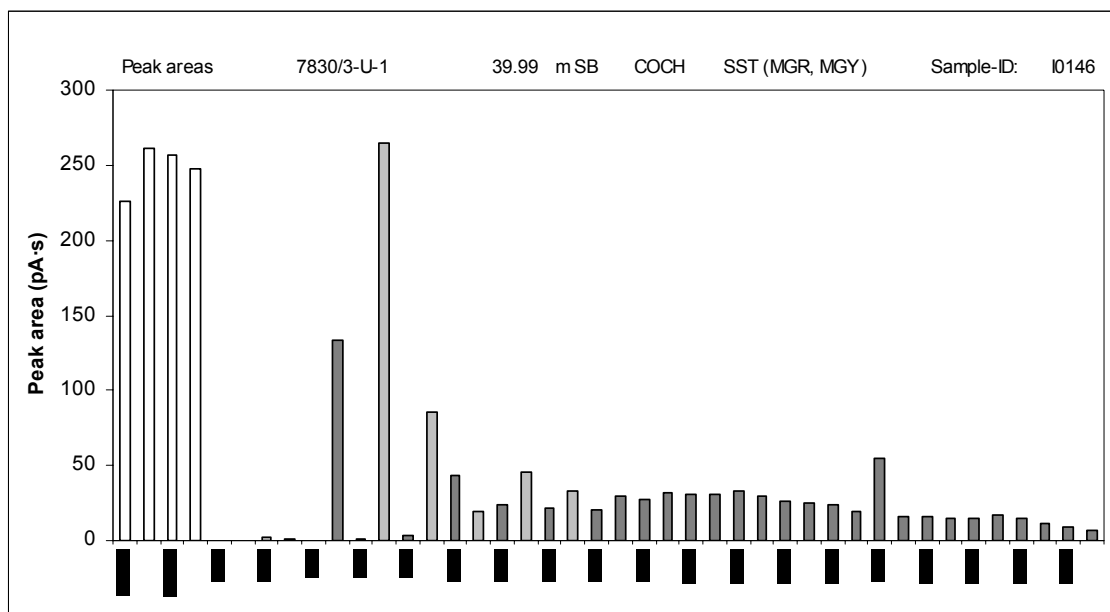
Retention time (min)	Compound name	Internal standard compound used for quantification	Peak area (pA·s)	Concentration based on peak area (ng/g EOM)
10.996	n-C10	d26-C12	0	8718
14.504	n-C11	d26-C12	1	9664
17.420	d26-C12	d26-C12	225	4000000
17.974	n-C12	d26-C12	3	50361
18.727	i-C13	d26-C12	1	11366
20.518	i-C14	d26-C12	0	6052
21.319	n-C13	d26-C12	134	2371843
23.830	i-C15	d26-C12	2	29521
24.499	n-C14	d26-C12	265	4698479
26.447	i-C16	d42-C20	4	59624
27.500	n-C15	d42-C20	86	1317556
30.350	n-C16	d42-C20	43	662245
31.781	i-C18	d42-C20	19	291113
33.065	n-C17	d42-C20	24	370909
33.327	Pristane	d42-C20	45	690105
35.642	n-C18	d42-C20	21	326090
35.975	Phytane	d42-C20	33	503526
38.108	n-C19	d42-C20	21	319830
39.769	d42-C20	d42-C20	261	4000000
40.460	n-C20	d42-C20	30	454290
42.712	n-C21	d50-C24	27	425831
44.867	n-C22	d50-C24	32	502143
46.933	n-C23	d50-C24	31	477147
48.193	d50-C24	d50-C24	256	4000000
48.921	n-C24	d50-C24	31	488527
50.828	n-C25	d50-C24	33	520266
52.671	n-C26	d50-C24	30	461575
54.454	n-C27	d50-C24	26	407815
56.164	n-C28	d62-C30	26	414246
57.816	n-C29	d62-C30	24	386179
58.654	d62-C30	d62-C30	247	4000000
59.424	n-C30	d62-C30	20	320245
61.032	n-C31	d62-C30	55	883423
62.482	n-C32	d62-C30	16	253246
63.935	n-C33	d62-C30	16	254860
65.357	n-C34	d62-C30	15	248453
66.729	n-C35	d62-C30	15	245613
68.081	n-C36	d62-C30	17	275467
69.381	n-C37	d62-C30	14	232437
70.728	n-C38	d62-C30	11	177949
72.263	n-C39	d62-C30	9	140508
73.996	n-C40	d62-C30	7	119176

Peak ratios

Pristane / n-C17 [=A]	1.86	1.86
Phytane / n-C18 [=B]	1.54	1.54
[A] / [B]	1.20	1.20
Pristane / Phytane	1.37	1.37
CPI 1	1.41	1.41
n-C17/(n-C17+n-C27)	0.48	0.48
n-C15/n-C20	2.90	2.90
n-C30/n-C20	0.67	0.70

Key

CPI 1 = 0.5 x [(Sum n-C25 to n-C31 odd)/(Sum n-C24 to n-C30 even) + (Sum n-C25 to n-C31 odd)/(Sum n-C26 to n-C32 even)]



SAT GC-FID Analysis Data Sheet
Sample information

Well 7830/3-U-1
Sample ID I0151
Depth (m SB) 51.24
Sample type COPL
Lithology SST (FGR, MGY)

Analysis information

Analysis date 03/11/2006
Instrument HP 6890
Column DB-1, 30 m
EOM weight (g) 0.0531
Int. std. volume (µl) 106.2
Int. std. conc. (ng/µl) 2000

Analysis results

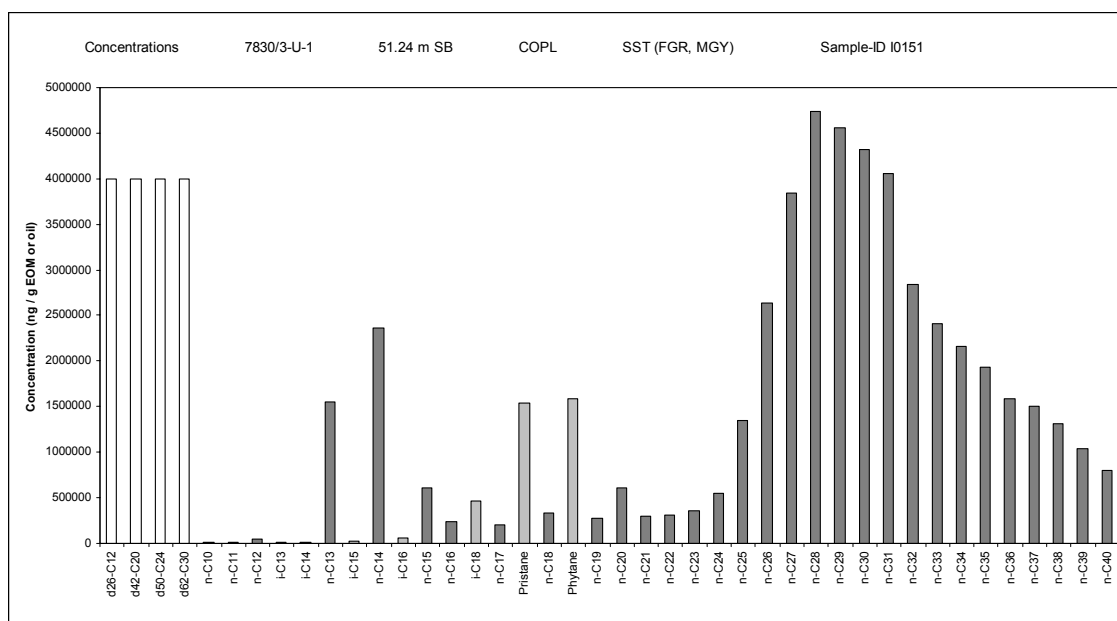
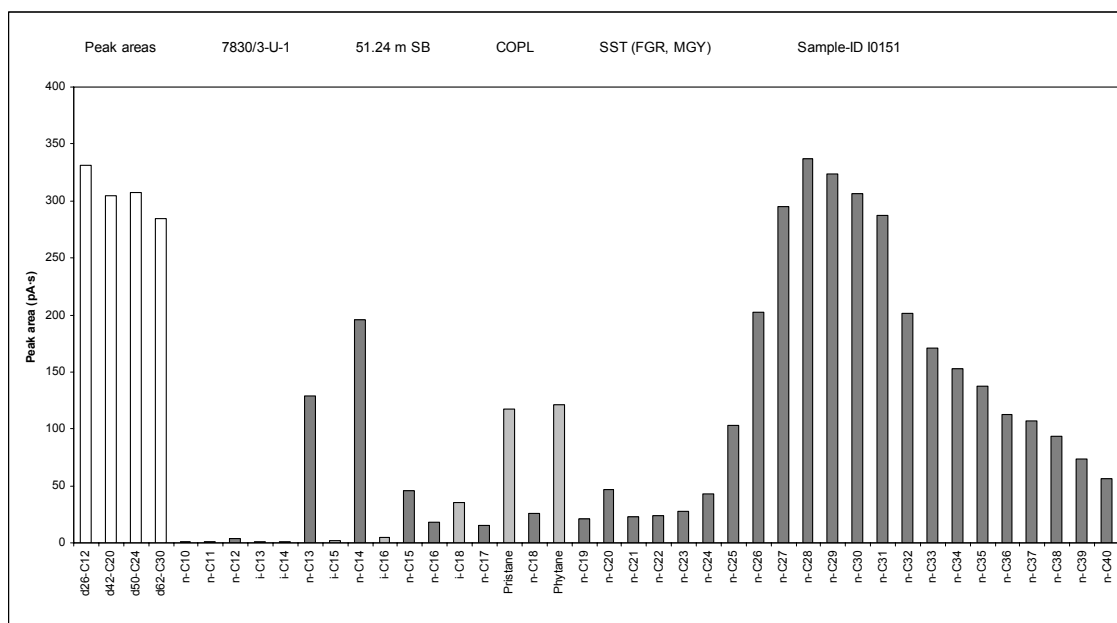
Retention time (min)	Compound name	Internal standard compound used for quantification	Peak area (pA·s)	Concentration based on peak area (ng/g EOM)
11.004	n-C10	d26-C12	1	6742
14.505	n-C11	d26-C12	1	9700
17.427	d26-C12	d26-C12	331	4000000
17.977	n-C12	d26-C12	3	42178
18.732	i-C13	d26-C12	1	10600
20.509	i-C14	d26-C12	1	6353
21.318	n-C13	d26-C12	129	1556991
23.829	i-C15	d26-C12	2	21098
24.497	n-C14	d26-C12	196	2364814
26.449	i-C16	d42-C20	4	56923
27.496	n-C15	d42-C20	46	602816
30.349	n-C16	d42-C20	18	242119
31.784	i-C18	d42-C20	35	463408
33.067	n-C17	d42-C20	15	202225
33.339	Pristane	d42-C20	118	1543172
35.611	n-C18	d42-C20	25	332399
35.987	Phytane	d42-C20	121	1585436
38.132	n-C19	d42-C20	21	273360
39.776	d42-C20	d42-C20	305	4000000
40.461	n-C20	d42-C20	47	611419
42.707	n-C21	d50-C24	23	295687
44.869	n-C22	d50-C24	24	314984
46.935	n-C23	d50-C24	28	358345
48.200	d50-C24	d50-C24	307	4000000
48.924	n-C24	d50-C24	43	554436
50.840	n-C25	d50-C24	103	1343547
52.691	n-C26	d50-C24	202	2634511
54.474	n-C27	d50-C24	295	3840247
56.189	n-C28	d62-C30	337	4742490
57.850	n-C29	d62-C30	324	4561285
58.656	d62-C30	d62-C30	284	4000000
59.449	n-C30	d62-C30	307	4319046
60.998	n-C31	d62-C30	288	4051354
62.500	n-C32	d62-C30	202	2838360
63.949	n-C33	d62-C30	171	2412308
65.367	n-C34	d62-C30	153	2154005
66.746	n-C35	d62-C30	137	1934464
68.084	n-C36	d62-C30	113	1590533
69.386	n-C37	d62-C30	107	1504277
70.741	n-C38	d62-C30	93	1312581
72.264	n-C39	d62-C30	74	1035660
74.001	n-C40	d62-C30	57	798816

Peak ratios

Pristane / nC17 [=A]	7.63	7.63
Phytane / n-C18 [=B]	4.77	4.77
[A] / [B]	1.60	1.60
Pristane / Phytane	0.97	0.97
CPI 1	1.05	1.04
n-C17/(n-C17+n-C27)	0.05	0.05
n-C15/n-C20	0.99	0.99
n-C30/n-C20	6.58	7.06

Key

CPI 1 = 0.5 x [(Sum n-C25 to n-C31 odd)/(Sum n-C24 to n-C30 even) + (Sum n-C25 to n-C31 odd)/(Sum n-C26 to n-C32 even)]



SAT GC-FID Analysis Data Sheet
Sample information

Well 7830/3-U-1
Sample ID I0177
Depth (m SB) 111.75
Sample type COCH
Lithology SST (FGR, DKG)

Analysis information

Analysis date 03/11/2006
Instrument HP 6890
Column DB-1, 30 m
EOM weight (g) 0.1089
Int. std. volume (µl) 193.6
Int. std. conc. (ng/µl) 2000

Analysis results

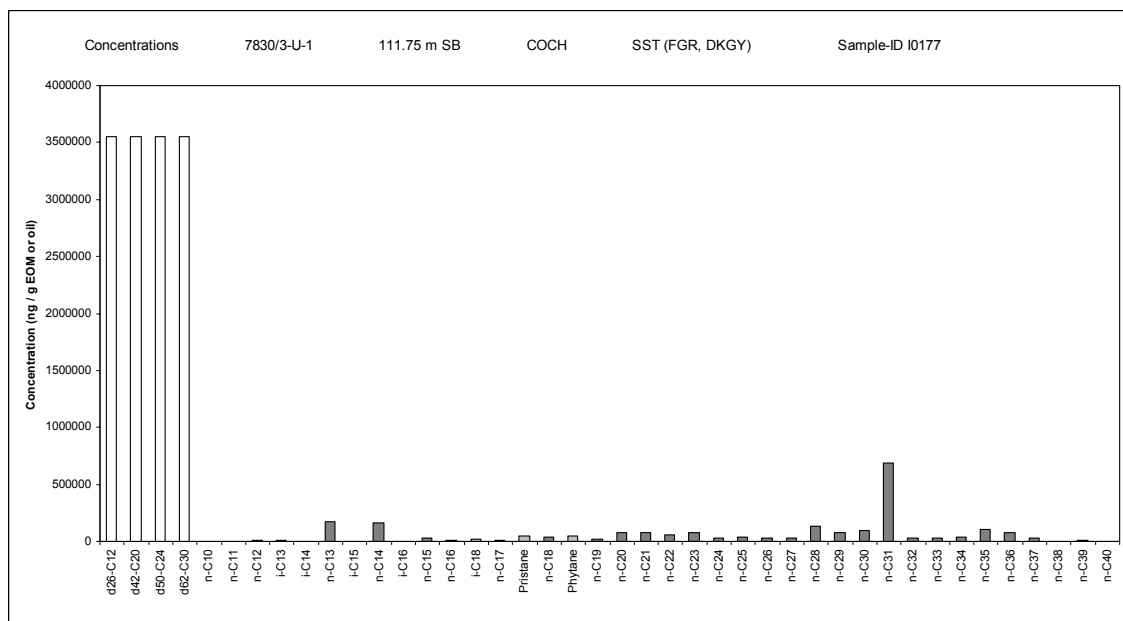
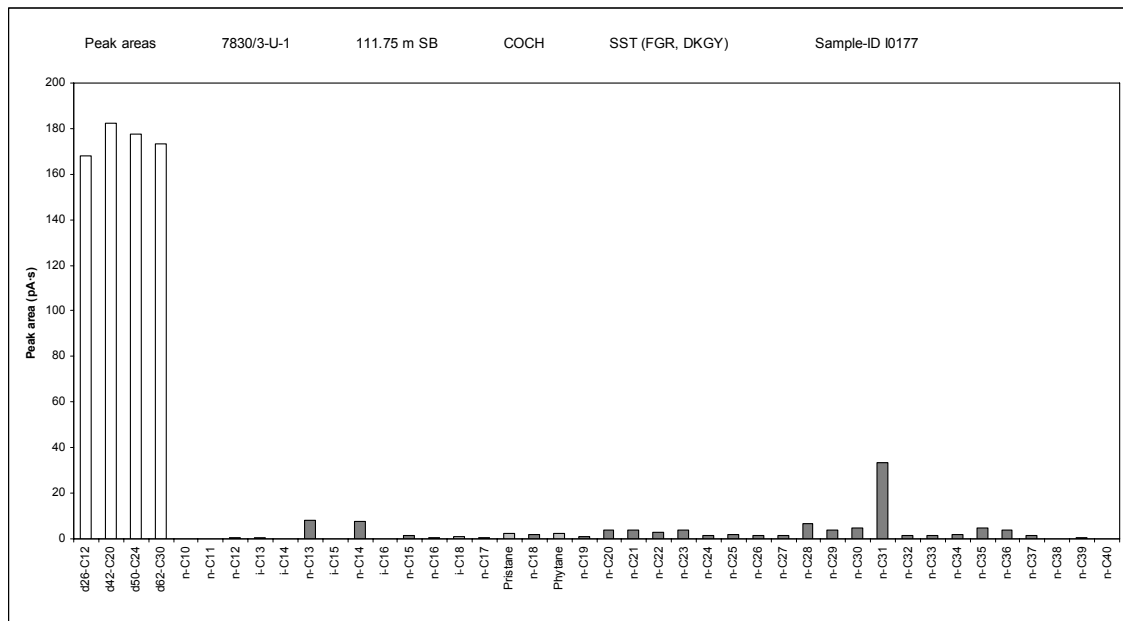
Retention time (min)	Compound name	Internal standard compound used for quantification	Peak area (pA·s)	Concentration based on peak area (ng/g EOM)
0.000	n-C10	d26-C12	0	0
0.000	n-C11	d26-C12	0	0
17.419	d26-C12	d26-C12	168	355556
17.975	n-C12	d26-C12	1	13469
18.721	i-C13	d26-C12	0	8571
0.000	i-C14	d26-C12	0	0
21.312	n-C13	d26-C12	8	167237
0.000	i-C15	d26-C12	0	0
24.485	n-C14	d26-C12	7	158053
0.000	i-C16	d42-C20	0	0
27.496	n-C15	d42-C20	1	27041
30.349	n-C16	d42-C20	0	6663
31.789	i-C18	d42-C20	1	22820
33.061	n-C17	d42-C20	0	7548
33.322	Pristane	d42-C20	2	43247
35.632	n-C18	d42-C20	2	36054
35.955	Phytane	d42-C20	2	48337
38.129	n-C19	d42-C20	1	17820
39.765	d42-C20	d42-C20	182	355556
40.427	n-C20	d42-C20	4	78573
42.638	n-C21	d50-C24	4	77393
44.860	n-C22	d50-C24	3	60640
46.932	n-C23	d50-C24	4	77433
48.182	d50-C24	d50-C24	178	355556
48.889	n-C24	d50-C24	1	26043
50.829	n-C25	d50-C24	2	41644
52.683	n-C26	d50-C24	2	33369
54.459	n-C27	d50-C24	1	26863
56.183	n-C28	d62-C30	7	135972
57.867	n-C29	d62-C30	4	80849
58.639	d62-C30	d62-C30	173	355556
59.361	n-C30	d62-C30	5	97159
61.024	n-C31	d62-C30	33	686065
62.467	n-C32	d62-C30	1	24574
63.937	n-C33	d62-C30	1	24917
65.308	n-C34	d62-C30	2	36160
66.659	n-C35	d62-C30	5	100563
68.080	n-C36	d62-C30	4	76619
69.512	n-C37	d62-C30	1	28254
70.621	n-C38	d62-C30	0	4350
72.261	n-C39	d62-C30	0	9285
73.915	n-C40	d62-C30	0	2329

Peak ratios

Pristane / nC17 [=A]	5.73	5.73
Phytane / n-C18 [=B]	1.34	1.34
[A] / [B]	4.27	4.27
Pristane / Phytane	0.89	0.89
CPI 1	2.86	2.86
n-C17/(n-C17+n-C27)	0.22	0.22
n-C15/n-C20	0.34	0.34
n-C30/n-C20	1.18	1.24

Key

CPI 1 = 0.5 x [(Sum n-C25 to n-C31 odd)/(Sum n-C24 to n-C30 even)+(Sum n-C25 to n-C31 odd)/(Sum n-C26 to n-C32 even)]



SAT GC-FID Analysis Data Sheet
Sample information

Well 7830/3-U-1
Sample ID I0184
Depth (m SB) 124.63
Sample type COPL
Lithology SST (FGR, LTGY)

Analysis information

Analysis date 03/11/2006
Instrument HP 6890
Column DB-1, 30 m
EOM weight (g) 0.0189
Int. std. volume (µl) 378
Int. std. conc. (ng/µl) 2000

Analysis results

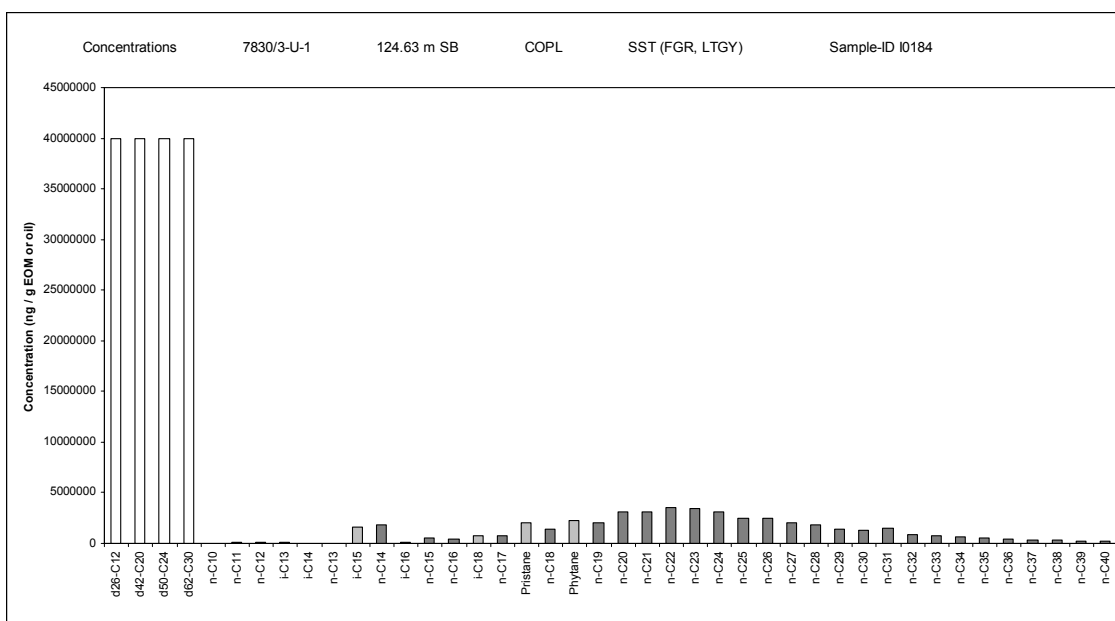
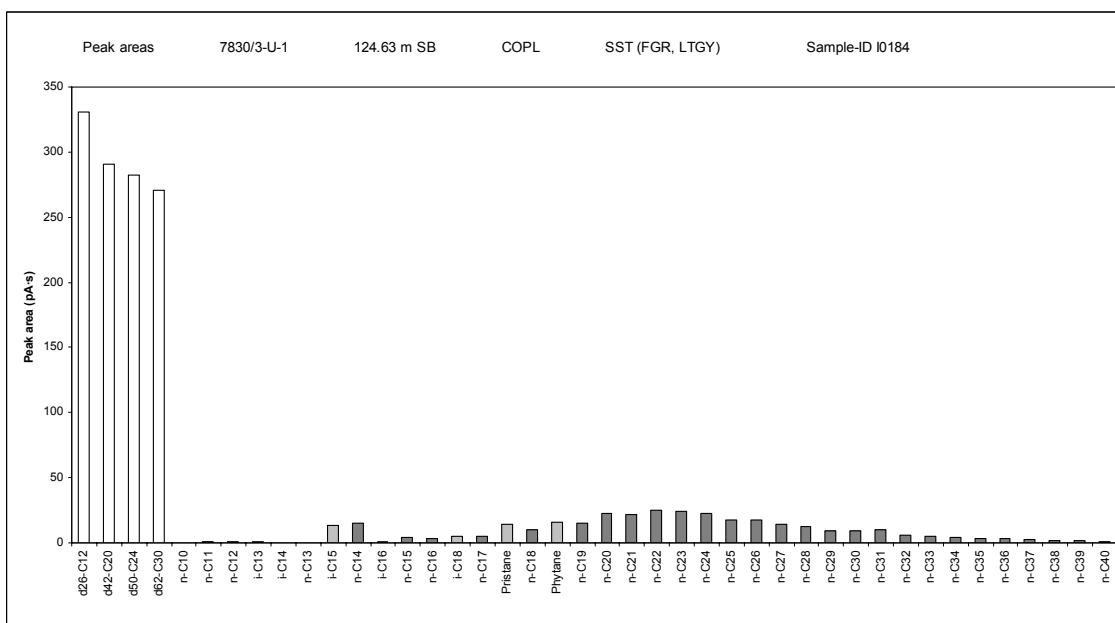
Retention time (min)	Compound name	Internal standard compound used for quantification	Peak area (pA·s)	Concentration based on peak area (ng/g EOM)
0.000	n-C10	d26-C12	0	0
14.503	n-C11	d26-C12	1	63598
17.424	d26-C12	d26-C12	331	40000000
17.974	n-C12	d26-C12	1	130820
18.726	i-C13	d26-C12	1	100832
0.000	i-C14	d26-C12	0	0
0.000	n-C13	d26-C12	0	0
21.311	i-C15	d26-C12	13	1625231
24.484	n-C14	d26-C12	15	1829613
26.447	i-C16	d42-C20	1	92409
27.493	n-C15	d42-C20	4	569996
30.347	n-C16	d42-C20	3	467528
31.785	i-C18	d42-C20	5	703781
33.059	n-C17	d42-C20	5	741795
33.322	Pristane	d42-C20	15	2000494
35.643	n-C18	d42-C20	10	1350242
35.966	Phytane	d42-C20	16	2220894
38.108	n-C19	d42-C20	15	2025951
39.774	d42-C20	d42-C20	291	40000000
40.459	n-C20	d42-C20	22	3093472
42.706	n-C21	d50-C24	22	3116190
44.859	n-C22	d50-C24	25	3505743
46.927	n-C23	d50-C24	24	3420915
48.190	d50-C24	d50-C24	282	40000000
48.911	n-C24	d50-C24	22	3154776
50.821	n-C25	d50-C24	18	2522014
52.663	n-C26	d50-C24	17	2457752
54.438	n-C27	d50-C24	14	2015139
56.153	n-C28	d62-C30	12	1793578
57.808	n-C29	d62-C30	10	1408636
58.641	d62-C30	d62-C30	271	40000000
59.411	n-C30	d62-C30	9	1316685
60.966	n-C31	d62-C30	10	1500923
62.474	n-C32	d62-C30	6	850801
63.925	n-C33	d62-C30	5	748376
65.346	n-C34	d62-C30	5	667701
66.716	n-C35	d62-C30	3	495766
68.061	n-C36	d62-C30	3	443760
69.368	n-C37	d62-C30	2	355024
70.724	n-C38	d62-C30	2	291904
72.240	n-C39	d62-C30	2	237500
73.989	n-C40	d62-C30	1	167032

Peak ratios

Pristane / n-C17 [=A]	2.70	2.70
Phytane / n-C18 [=B]	1.64	1.64
[A] / [B]	1.64	1.64
Pristane / Phytane	0.90	0.90
CPI 1	1.01	1.01
n-C17/(n-C17+n-C27)	0.27	0.27
n-C15/n-C20	0.18	0.18
n-C30/n-C20	0.40	0.43

Key

CPI 1 = 0.5 x [(Sum n-C25 to n-C31 odd)/(Sum n-C24 to n-C30 even) + (Sum n-C25 to n-C31 odd)/(Sum n-C26 to n-C32 even)]



SAT GC-FID Analysis Data Sheet
Sample information

Well 7830/3-U-1
Sample ID I0195
Depth (m SB) 154.88
Sample type COCH
Lithology CLYST (SL SLTY, DKGY)

Analysis information

Analysis date 03/11/2006
Instrument HP 6890
Column DB-1, 30 m
EOM weight (g) 0.0027
Int. std. volume (µl) 5.4
Int. std. conc. (ng/µl) 2000

Analysis results

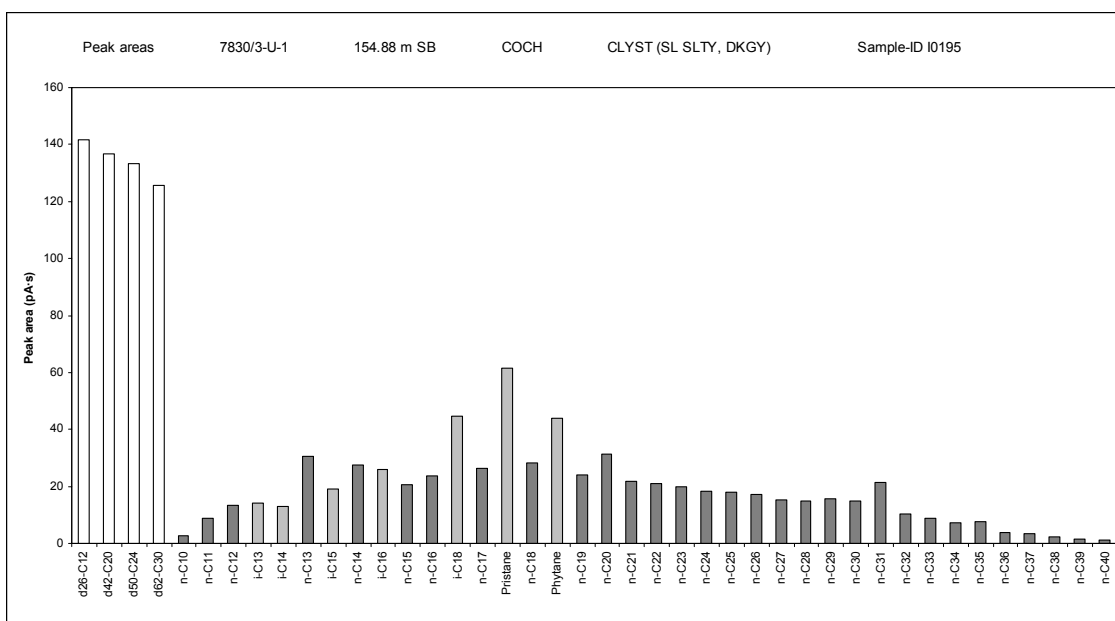
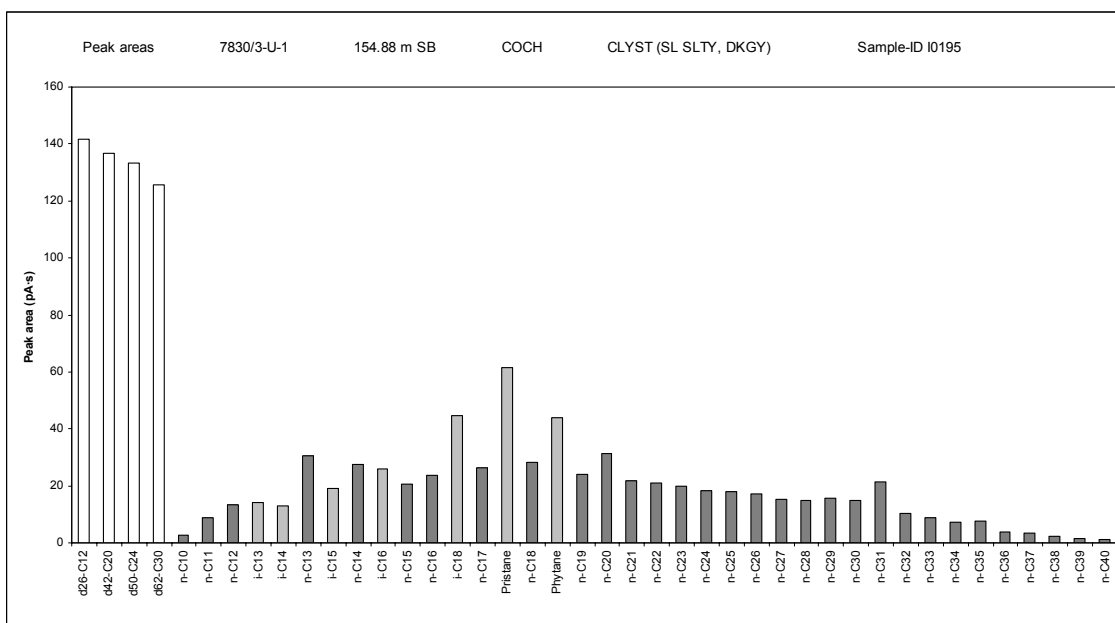
Retention time (min)	Compound name	Internal standard compound used for quantification	Peak area (pA·s)	Concentration based on peak area (ng/g EOM)
10.995	n-C10	d26-C12	3	74311
14.503	n-C11	d26-C12	9	245228
17.417	d26-C12	d26-C12	142	4000000
17.973	n-C12	d26-C12	13	380325
18.511	i-C13	d26-C12	14	395641
20.509	i-C14	d26-C12	13	368672
21.311	n-C13	d26-C12	31	862301
23.829	i-C15	d26-C12	19	538755
24.485	n-C14	d26-C12	28	777065
26.452	i-C16	d42-C20	26	756152
27.493	n-C15	d42-C20	21	605605
30.348	n-C16	d42-C20	24	690181
31.780	i-C18	d42-C20	44	1301471
33.063	n-C17	d42-C20	26	766966
33.329	Pristane	d42-C20	61	1794857
35.642	n-C18	d42-C20	28	828952
35.979	Phytane	d42-C20	44	1281907
38.106	n-C19	d42-C20	24	703381
39.759	d42-C20	d42-C20	137	4000000
40.457	n-C20	d42-C20	31	911018
42.703	n-C21	d50-C24	22	657555
44.860	n-C22	d50-C24	21	627576
46.925	n-C23	d50-C24	20	599151
48.180	d50-C24	d50-C24	133	4000000
48.912	n-C24	d50-C24	18	546821
50.825	n-C25	d50-C24	18	535623
52.661	n-C26	d50-C24	17	521028
54.442	n-C27	d50-C24	15	454936
56.151	n-C28	d62-C30	15	473634
57.811	n-C29	d62-C30	16	503330
58.632	d62-C30	d62-C30	126	4000000
59.413	n-C30	d62-C30	15	473524
60.969	n-C31	d62-C30	21	680349
62.473	n-C32	d62-C30	10	328155
63.931	n-C33	d62-C30	9	279413
65.346	n-C34	d62-C30	7	234350
66.722	n-C35	d62-C30	8	244639
68.063	n-C36	d62-C30	4	122327
69.365	n-C37	d62-C30	3	104168
70.705	n-C38	d62-C30	2	72322
72.241	n-C39	d62-C30	1	42972
73.981	n-C40	d62-C30	1	33227

Peak ratios

Pristane / nC17 [=A]	2.34	2.34
Phytane / n-C18 [=B]	1.55	1.55
[A] / [B]	1.51	1.51
Pristane / Phytane	1.40	1.40
CPI 1	1.15	1.14
n-C17/(n-C17+n-C27)	0.63	0.63
n-C15/n-C20	0.66	0.66
n-C30/n-C20	0.48	0.52

Key

CPI 1 = 0.5 x [(Sum n-C25 to n-C31 odd)/(Sum n-C24 to n-C30 even)+(Sum n-C25 to n-C31 odd)/(Sum n-C26 to n-C32 even)]



SAT GC-FID Analysis Data Sheet
Sample information

Well 7830/3-U-1
Sample ID I0287
Depth (m SB) 174.15
Sample type COCH
Lithology SST (FGR, MGY)

Analysis information

Analysis date 04/11/2006
Instrument HP 6890
Column DB-1, 30 m
EOM weight (g) 0.0549
Int. std. volume (µl) 109.8
Int. std. conc. (ng/µl) 2000

Analysis results

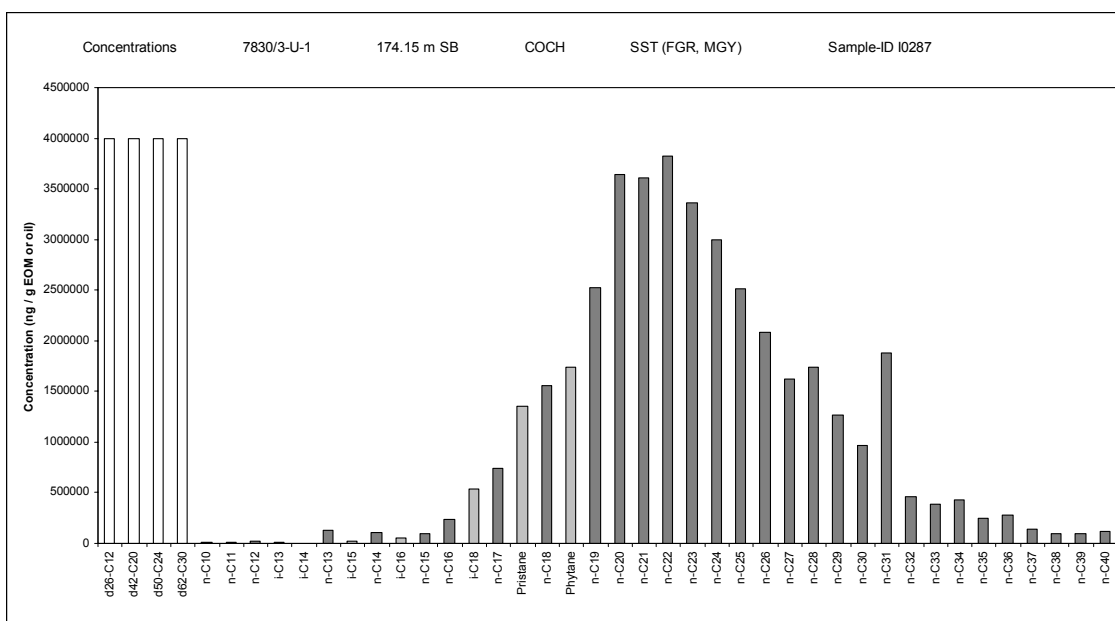
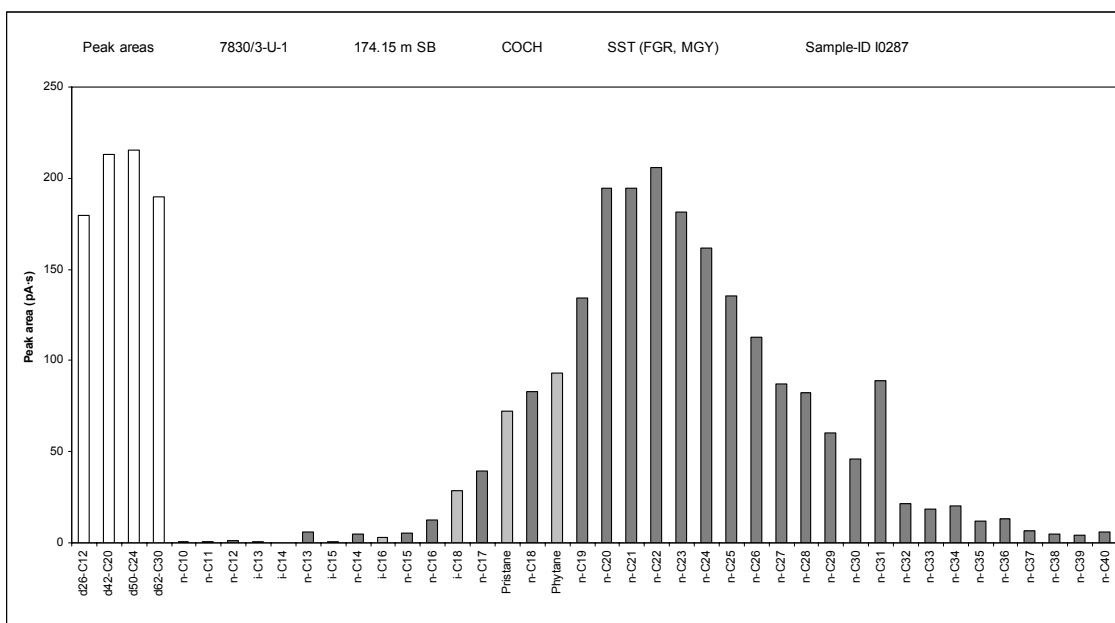
Retention time (min)	Compound name	Internal standard compound used for quantification	Peak area (pA·s)	Concentration based on peak area (ng/g EOM)
11.005	n-C10	d26-C12	0	8832
14.505	n-C11	d26-C12	1	12758
17.420	d26-C12	d26-C12	179	4000000
17.975	n-C12	d26-C12	1	21224
18.726	i-C13	d26-C12	0	9896
0.000	i-C14	d26-C12	0	0
21.311	n-C13	d26-C12	6	126924
23.827	i-C15	d26-C12	1	16244
24.482	n-C14	d26-C12	5	110528
26.447	i-C16	d42-C20	3	52581
27.493	n-C15	d42-C20	5	95331
30.348	n-C16	d42-C20	13	238236
31.783	i-C18	d42-C20	29	540132
33.067	n-C17	d42-C20	40	743381
33.330	Pristane	d42-C20	72	1355874
35.649	n-C18	d42-C20	83	1553773
35.984	Phytane	d42-C20	93	1742476
38.119	n-C19	d42-C20	135	2522904
39.767	d42-C20	d42-C20	213	4000000
40.473	n-C20	d42-C20	194	3645987
42.723	n-C21	d50-C24	195	3607763
44.880	n-C22	d50-C24	206	3822026
46.948	n-C23	d50-C24	181	3359200
48.191	d50-C24	d50-C24	216	4000000
48.934	n-C24	d50-C24	162	3000623
50.844	n-C25	d50-C24	136	2513570
52.683	n-C26	d50-C24	113	2088677
54.455	n-C27	d50-C24	87	1621072
56.168	n-C28	d62-C30	83	1737769
57.819	n-C29	d62-C30	60	1269475
58.649	d62-C30	d62-C30	190	4000000
59.423	n-C30	d62-C30	46	963386
61.035	n-C31	d62-C30	89	1877173
62.482	n-C32	d62-C30	22	458375
63.944	n-C33	d62-C30	18	386980
65.357	n-C34	d62-C30	20	424668
66.736	n-C35	d62-C30	12	245912
68.083	n-C36	d62-C30	13	275665
69.392	n-C37	d62-C30	7	138094
70.723	n-C38	d62-C30	5	95374
72.250	n-C39	d62-C30	4	93258
73.990	n-C40	d62-C30	6	119638

Peak ratios

Pristane / nC17 [=A]	1.82	1.82
Phytane / n-C18 [=B]	1.12	1.12
[A] / [B]	1.63	1.63
Pristane / Phytane	0.78	0.78
CPI 1	1.17	1.16
n-C17/(n-C17+n-C27)	0.31	0.31
n-C15/n-C20	0.03	0.03
n-C30/n-C20	0.24	0.26

Key

CPI 1 = 0.5 x [(Sum n-C25 to n-C31 odd)/(Sum n-C24 to n-C30 even)+(Sum n-C25 to n-C31 odd)/(Sum n-C26 to n-C32 even)]



SAT GC-FID Analysis Data Sheet
Sample information

Well 7830/5-U-1
Sample ID I0221
Depth (m SB) 58.97
Sample type COCH
Lithology CLYST (SL SLTY, LAM, DKGY)

Analysis information

Analysis date 04/11/2006
Instrument HP 6890
Column DB-1, 30 m
EOM weight (g) 0.0072
Int. std. volume (µl) 14.4
Int. std. conc. (ng/µl) 2000

Analysis results

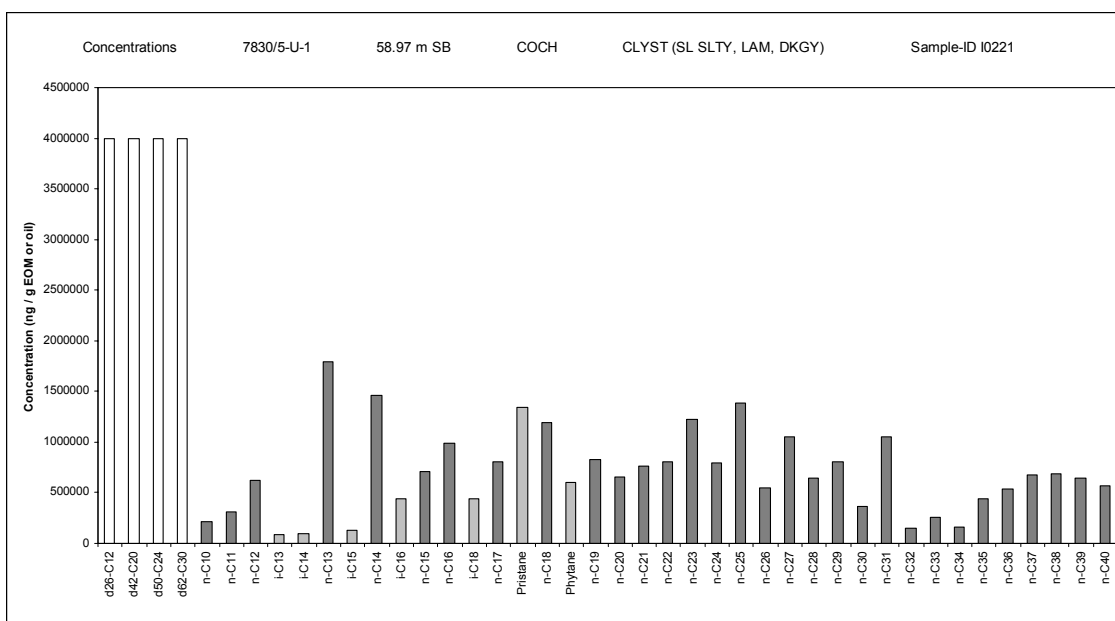
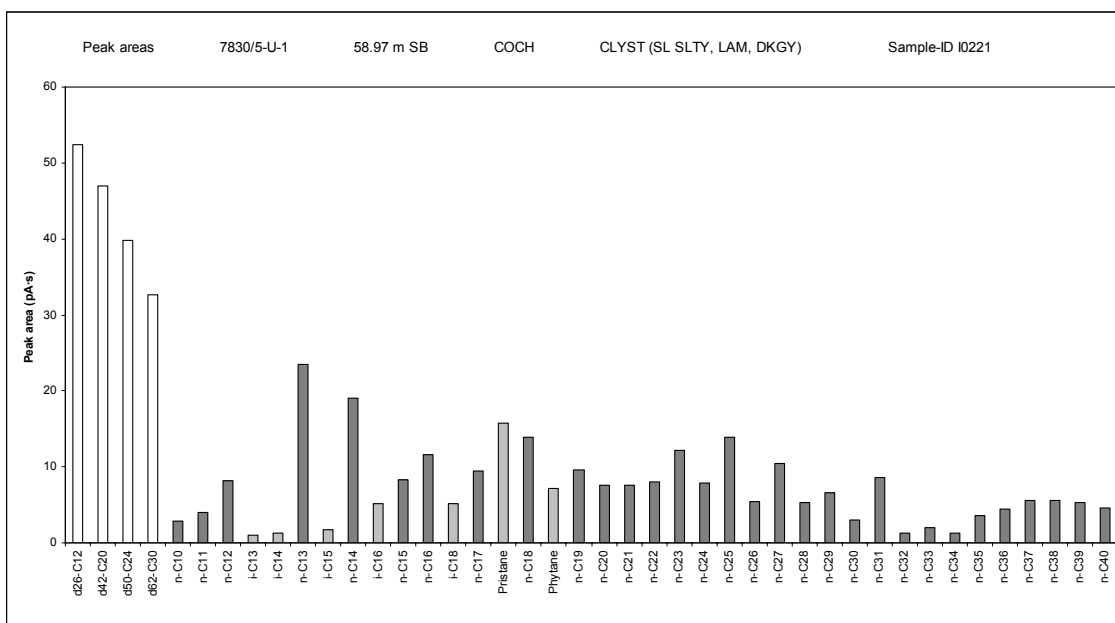
Retention time (min)	Compound name	Internal standard compound used for quantification	Peak area (pA.s)	Concentration based on peak area (ng/g EOM)
10.998	n-C10	d26-C12	3	216741
14.503	n-C11	d26-C12	4	309145
17.415	d26-C12	d26-C12	52	4000000
17.976	n-C12	d26-C12	8	621097
18.511	i-C13	d26-C12	1	81970
20.508	i-C14	d26-C12	1	101620
21.314	n-C13	d26-C12	23	1791912
23.831	i-C15	d26-C12	2	126292
24.487	n-C14	d26-C12	19	1457611
26.452	i-C16	d42-C20	5	437577
27.499	n-C15	d42-C20	8	707191
30.350	n-C16	d42-C20	12	984073
31.768	i-C18	d42-C20	5	438383
33.065	n-C17	d42-C20	9	806415
33.325	Pristane	d42-C20	16	1343743
35.646	n-C18	d42-C20	14	1189857
35.973	Phytane	d42-C20	7	605230
38.110	n-C19	d42-C20	10	821602
39.756	d42-C20	d42-C20	47	4000000
40.458	n-C20	d42-C20	8	650722
42.711	n-C21	d50-C24	8	767274
44.866	n-C22	d50-C24	8	810774
46.932	n-C23	d50-C24	12	1223600
48.179	d50-C24	d50-C24	40	4000000
48.918	n-C24	d50-C24	8	790700
50.828	n-C25	d50-C24	14	1389045
52.666	n-C26	d50-C24	5	552416
54.441	n-C27	d50-C24	10	1051341
56.156	n-C28	d62-C30	5	646479
57.817	n-C29	d62-C30	7	808221
58.626	d62-C30	d62-C30	33	4000000
59.416	n-C30	d62-C30	3	369624
61.022	n-C31	d62-C30	9	1050017
62.477	n-C32	d62-C30	1	151371
63.943	n-C33	d62-C30	2	253617
65.357	n-C34	d62-C30	1	161075
66.733	n-C35	d62-C30	4	441999
68.072	n-C36	d62-C30	4	538920
69.374	n-C37	d62-C30	6	680206
70.725	n-C38	d62-C30	6	688936
72.252	n-C39	d62-C30	5	648081
74.005	n-C40	d62-C30	5	569963

Peak ratios

Pristane / n-C17 [=A]	1.67	1.67
Phytane / n-C18 [=B]	0.51	0.51
[A] / [B]	3.28	3.28
Pristane / Phytane	2.22	2.22
CPI 1	2.22	2.16
n-C17/(n-C17+n-C27)	0.47	0.43
n-C15/n-C20	1.09	1.09
n-C30/n-C20	0.40	0.57

Key

CPI 1 = 0.5 x [(Sum n-C25 to n-C31 odd)/(Sum n-C24 to n-C30 even)+(Sum n-C25 to n-C31 odd)/(Sum n-C26 to n-C32 even)]



SAT GC-FID Analysis Data Sheet
Sample information

Well 7830/5-U-1
Sample ID I0254
Depth (m SB) 128.68
Sample type COCH
Lithology CLYST (VDKGY, LAM)

Analysis information

Analysis date 04/11/2006
Instrument HP 6890
Column DB-1, 30 m
EOM weight (g) 0.0099
Int. std. volume (µl) 19.8
Int. std. conc. (ng/µl) 2000

Analysis results

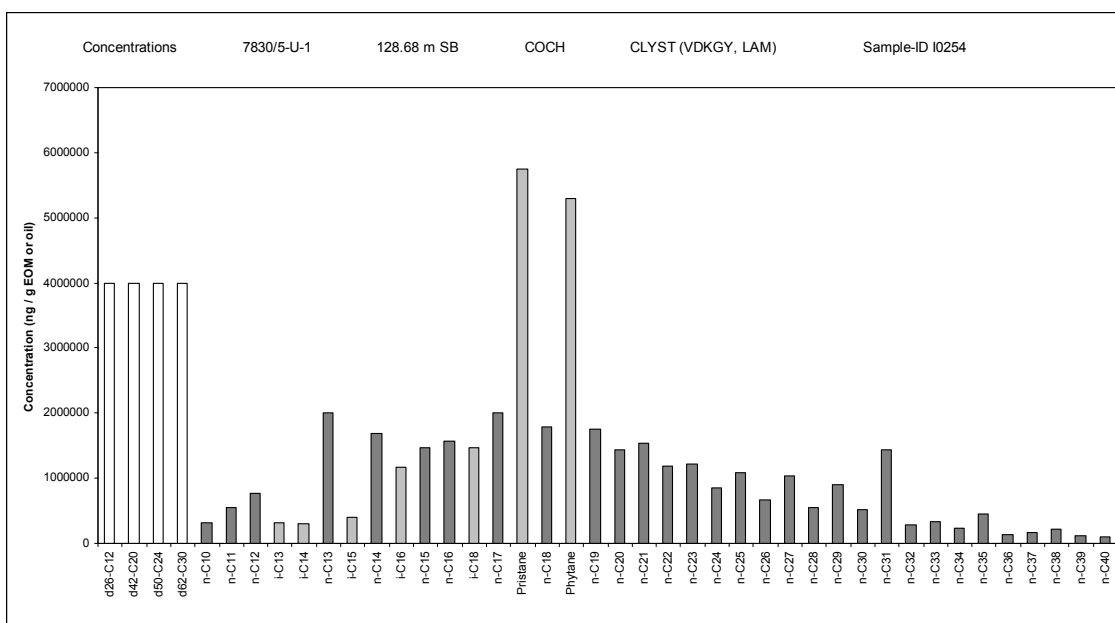
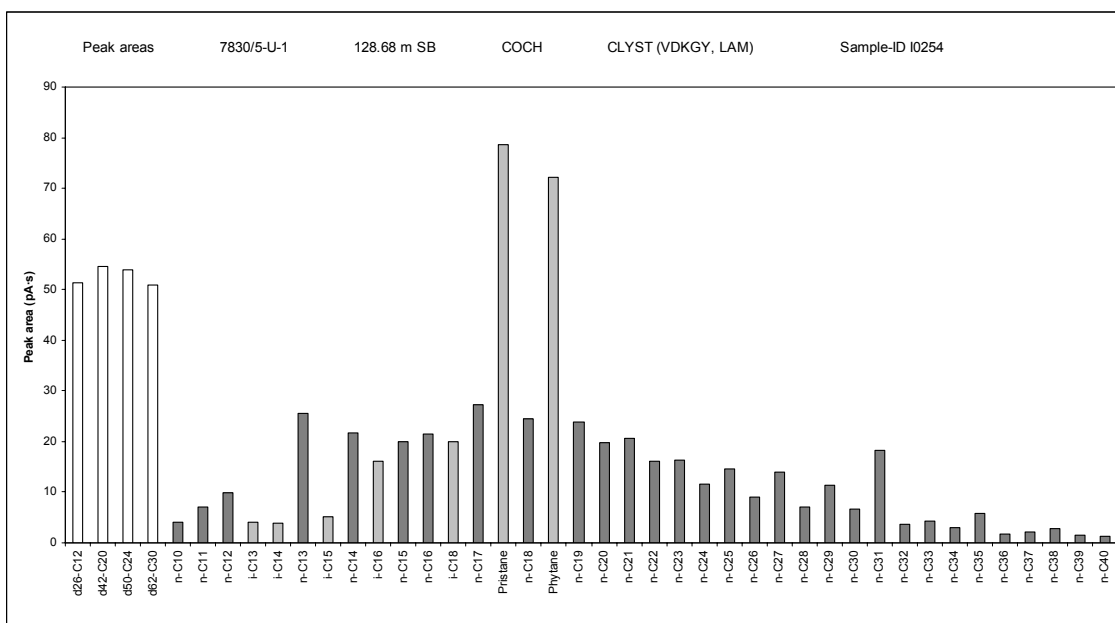
Retention time (min)	Compound name	Internal standard compound used for quantification	Peak area (pA·s)	Concentration based on peak area (ng/g EOM)
10.996	n-C10	d26-C12	4	316280
14.502	n-C11	d26-C12	7	554692
17.414	d26-C12	d26-C12	51	4000000
17.975	n-C12	d26-C12	10	770427
18.511	i-C13	d26-C12	4	316340
20.508	i-C14	d26-C12	4	294064
21.314	n-C13	d26-C12	26	1997126
23.830	i-C15	d26-C12	5	396904
24.485	n-C14	d26-C12	22	1694676
26.452	i-C16	d42-C20	16	1177425
27.496	n-C15	d42-C20	20	1465238
30.350	n-C16	d42-C20	21	1570714
31.781	i-C18	d42-C20	20	1465334
33.066	n-C17	d42-C20	27	1997038
33.335	Pristane	d42-C20	79	5751831
35.647	n-C18	d42-C20	24	1788487
35.982	Phytane	d42-C20	72	5290630
38.107	n-C19	d42-C20	24	1751435
39.755	d42-C20	d42-C20	55	4000000
40.460	n-C20	d42-C20	20	1440397
42.708	n-C21	d50-C24	21	1536087
44.862	n-C22	d50-C24	16	1189555
46.927	n-C23	d50-C24	16	1216784
48.175	d50-C24	d50-C24	54	4000000
48.917	n-C24	d50-C24	12	858811
50.829	n-C25	d50-C24	15	1081794
52.671	n-C26	d50-C24	9	665575
54.446	n-C27	d50-C24	14	1031543
56.158	n-C28	d62-C30	7	552501
57.809	n-C29	d62-C30	11	898479
58.630	d62-C30	d62-C30	51	4000000
59.419	n-C30	d62-C30	7	517115
61.021	n-C31	d62-C30	18	1444227
62.479	n-C32	d62-C30	4	284257
63.943	n-C33	d62-C30	4	330053
65.361	n-C34	d62-C30	3	234000
66.735	n-C35	d62-C30	6	455972
68.073	n-C36	d62-C30	2	133894
69.374	n-C37	d62-C30	2	170433
70.731	n-C38	d62-C30	3	211325
72.258	n-C39	d62-C30	2	122348
73.997	n-C40	d62-C30	1	105206

Peak ratios

Pristane / n-C17 [=A]	2.88	2.88
Phytane / n-C18 [=B]	2.96	2.96
[A] / [B]	0.97	0.97
Pristane / Phytane	1.09	1.09
CPI 1	1.97	1.96
n-C17/(n-C17+n-C27)	0.66	0.66
n-C15/n-C20	1.02	1.02
n-C30/n-C20	0.33	0.36

Key

CPI 1 = 0.5 x [(Sum n-C25 to n-C31 odd)/(Sum n-C24 to n-C30 even) + (Sum n-C25 to n-C31 odd)/(Sum n-C26 to n-C32 even)]



SAT GC-FID Analysis Data Sheet
Sample information

Well
Sample ID NSO-1, #0
Depth (m SB)
Sample type NGS oil standard
Lithology

Analysis information

Analysis date 05/11/2006
Instrument HP 6890
Column DB-1, 30 m
EOM weight (g) 0.0298
Int. std. volume (µl) 59.6
Int. std. conc. (ng/µl) 2000

Analysis results

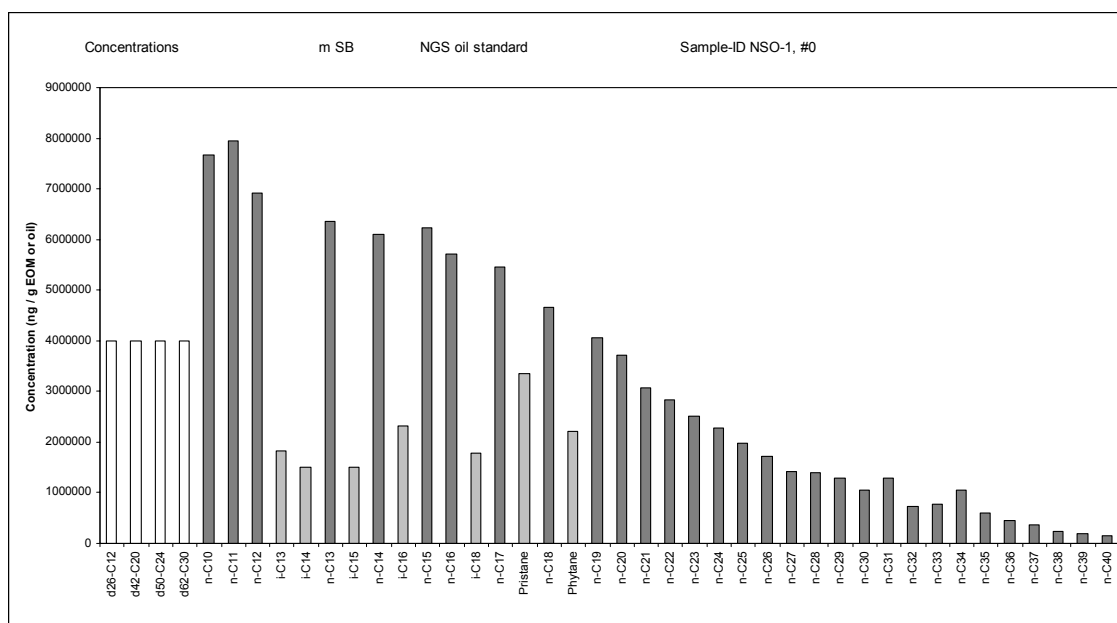
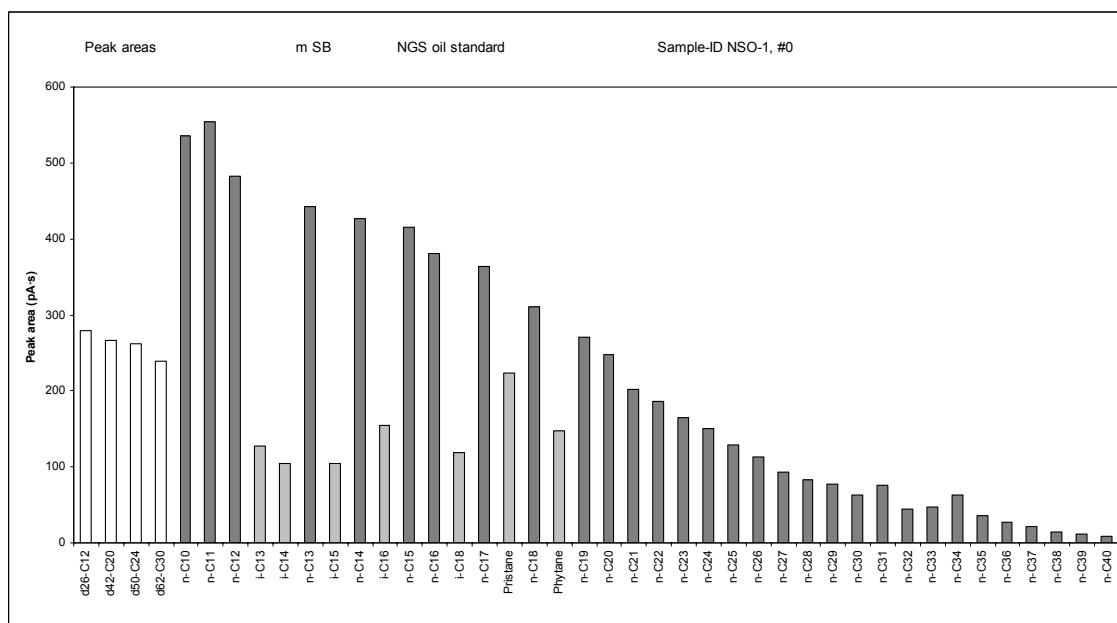
Retention time (min)	Compound name	Internal standard compound used for quantification	Peak area (pA·s)	Concentration based on peak area (ng/g topped oil)
11.008	n-C10	d26-C12	535	7674967
14.520	n-C11	d26-C12	554	7938287
17.425	d26-C12	d26-C12	279	4000000
17.998	n-C12	d26-C12	483	6920354
18.518	i-C13	d26-C12	128	1828423
20.515	i-C14	d26-C12	104	1493982
21.336	n-C13	d26-C12	443	6349889
23.837	i-C15	d26-C12	105	1508427
24.511	n-C14	d26-C12	426	6110874
26.458	i-C16	d42-C20	155	2323841
27.521	n-C15	d42-C20	415	6228500
30.376	n-C16	d42-C20	381	5718318
31.795	i-C18	d42-C20	118	1774744
33.089	n-C17	d42-C20	364	5459813
33.345	Pristane	d42-C20	223	3351593
35.667	n-C18	d42-C20	311	4669990
35.989	Phytane	d42-C20	147	2202114
38.129	n-C19	d42-C20	271	4062197
39.775	d42-C20	d42-C20	267	4000000
40.482	n-C20	d42-C20	247	3707855
42.726	n-C21	d50-C24	202	3075352
44.879	n-C22	d50-C24	186	2834485
46.945	n-C23	d50-C24	165	2510741
48.194	d50-C24	d50-C24	262	4000000
48.933	n-C24	d50-C24	150	2282684
50.841	n-C25	d50-C24	129	1971887
52.682	n-C26	d50-C24	113	1718922
54.456	n-C27	d50-C24	93	1410216
56.168	n-C28	d62-C30	84	1401157
57.823	n-C29	d62-C30	77	1285734
58.650	d62-C30	d62-C30	238	4000000
59.429	n-C30	d62-C30	63	1054583
60.980	n-C31	d62-C30	76	1278793
62.483	n-C32	d62-C30	44	736606
63.943	n-C33	d62-C30	47	783592
65.364	n-C34	d62-C30	63	1051433
66.738	n-C35	d62-C30	36	598176
68.082	n-C36	d62-C30	27	448202
69.378	n-C37	d62-C30	22	366658
70.731	n-C38	d62-C30	15	244018
72.256	n-C39	d62-C30	12	194849
73.995	n-C40	d62-C30	9	147994

Peak ratios

Pristane / nC17 [=A]	0.61	0.61
Phytane / n-C18 [=B]	0.47	0.47
[A] / [B]	1.30	1.30
Pristane / Phytane	1.52	1.52
CPI 1	1.08	1.07
n-C17/(n-C17+n-C27)	0.80	0.79
n-C15/n-C20	1.68	1.68
n-C30/n-C20	0.25	0.28

Key

CPI 1 = 0.5 x [(Sum n-C25 to n-C31 odd)/(Sum n-C24 to n-C30 even)+(Sum n-C25 to n-C31 odd)/(Sum n-C26 to n-C32 even)]



SAT GC-FID Analysis Data Sheet
Sample information

Well
Sample ID NSO-1, #1
Depth (m SB)
Sample type NGS oil standard
Lithology

Analysis information

Analysis date 04/11/2006
Instrument HP 6890
Column DB-1, 30 m
EOM weight (g) 0.0306
Int. std. volume (µl) 61.2
Int. std. conc. (ng/µl) 2000

Analysis results

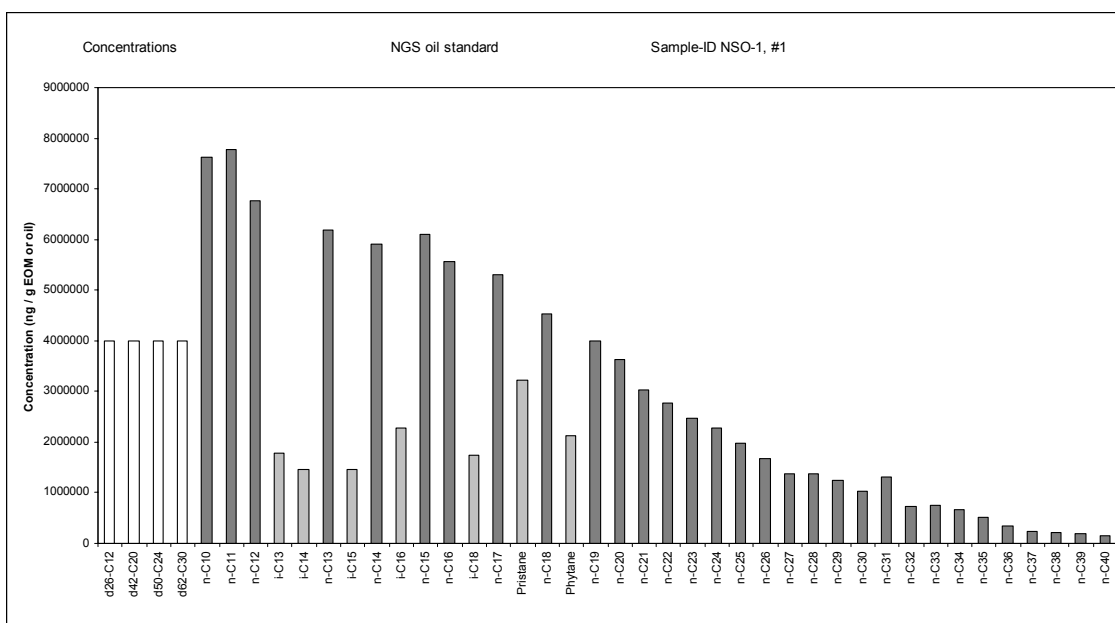
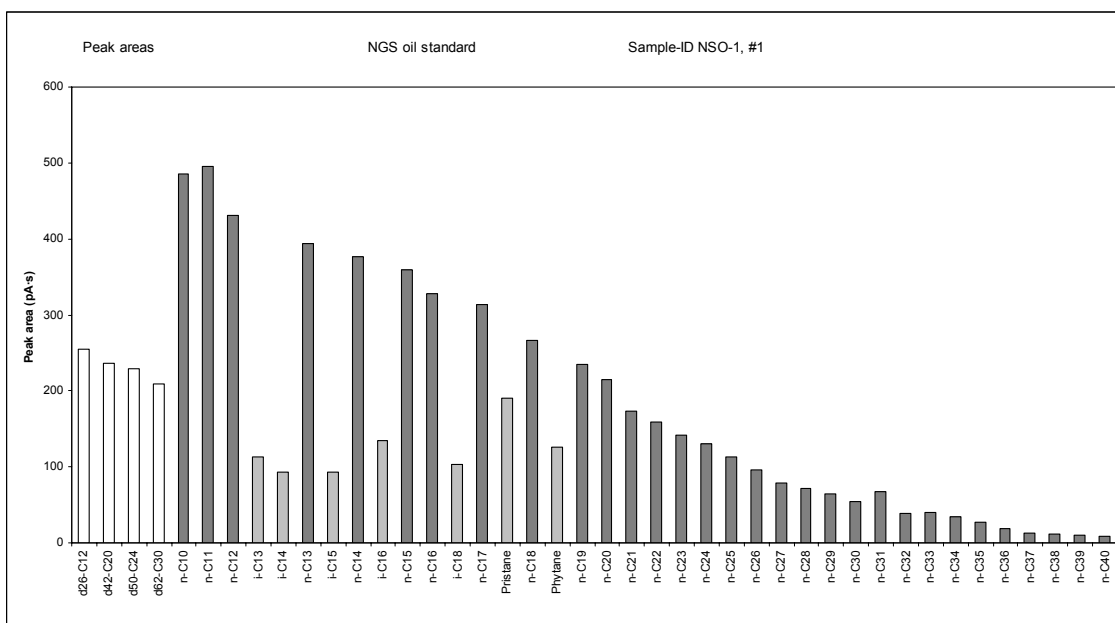
Retention time (min)	Compound name	Internal standard compound used for quantification	Peak area (pA·s)	Concentration based on peak area (ng/g topped oil)
11.010	n-C10	d26-C12	485	7620773
14.520	n-C11	d26-C12	495	7777312
17.424	d26-C12	d26-C12	255	4000000
17.998	n-C12	d26-C12	431	6764461
18.519	i-C13	d26-C12	114	1786226
20.517	i-C14	d26-C12	93	1460351
21.336	n-C13	d26-C12	394	6193181
23.840	i-C15	d26-C12	93	1462558
24.509	n-C14	d26-C12	376	5906912
26.459	i-C16	d42-C20	135	2287022
27.522	n-C15	d42-C20	360	6107576
30.374	n-C16	d42-C20	328	5568555
31.790	i-C18	d42-C20	103	1749393
33.087	n-C17	d42-C20	313	5314730
33.342	Pristane	d42-C20	190	3220742
35.667	n-C18	d42-C20	267	4530643
35.994	Phytane	d42-C20	125	2127617
38.126	n-C19	d42-C20	235	3985722
39.775	d42-C20	d42-C20	236	4000000
40.480	n-C20	d42-C20	214	3638284
42.725	n-C21	d50-C24	174	3032946
44.878	n-C22	d50-C24	159	2774986
46.944	n-C23	d50-C24	142	2472453
48.194	d50-C24	d50-C24	229	4000000
48.928	n-C24	d50-C24	130	2269880
50.841	n-C25	d50-C24	114	1985555
52.682	n-C26	d50-C24	97	1684611
54.458	n-C27	d50-C24	79	1378872
56.166	n-C28	d62-C30	72	1372693
57.825	n-C29	d62-C30	65	1244461
58.647	d62-C30	d62-C30	209	4000000
59.424	n-C30	d62-C30	54	1032713
60.979	n-C31	d62-C30	68	1299818
62.485	n-C32	d62-C30	38	728307
63.942	n-C33	d62-C30	40	756620
65.359	n-C34	d62-C30	35	669235
66.738	n-C35	d62-C30	28	525857
68.074	n-C36	d62-C30	18	343729
69.373	n-C37	d62-C30	13	239911
70.728	n-C38	d62-C30	11	210385
72.246	n-C39	d62-C30	10	187301
74.000	n-C40	d62-C30	8	154264

Peak ratios

Pristane / nC17 [=A]	0.61	0.61
Phytane / n-C18 [=B]	0.47	0.47
[A] / [B]	1.29	1.29
Pristane / Phytane	1.51	1.51
CPI 1	1.09	1.08
n-C17/(n-C17+n-C27)	0.80	0.79
n-C15/n-C20	1.68	1.68
n-C30/n-C20	0.25	0.28

Key

CPI 1 = 0.5 x [(Sum n-C25 to n-C31 odd)/(Sum n-C24 to n-C30 even)+(Sum n-C25 to n-C31 odd)/(Sum n-C26 to n-C32 even)]



SAT GC-FID Analysis Data Sheet
Sample information

Well
Sample ID NSO-1, #2 (dry)
Depth (m SB)
Sample type NGS oil standard
Lithology

Analysis information

Analysis date 05/11/2006
Instrument HP 6890
Column DB-1, 30 m
EOM weight (g) 0.0297
Int. std. volume (µl) 59.4
Int. std. conc. (ng/µl) 2000

Analysis results

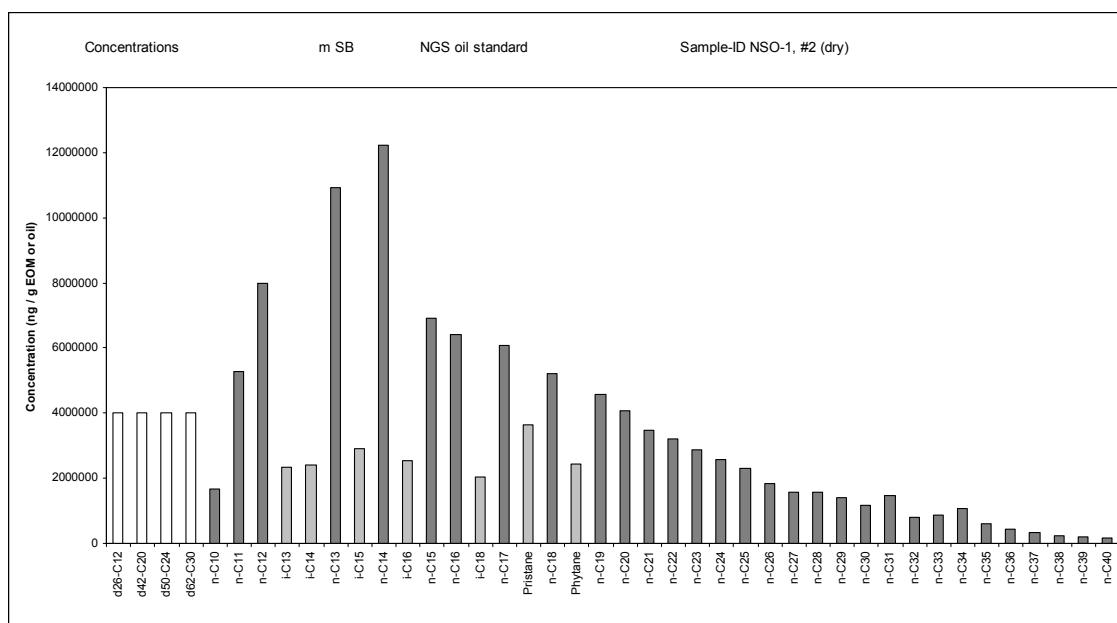
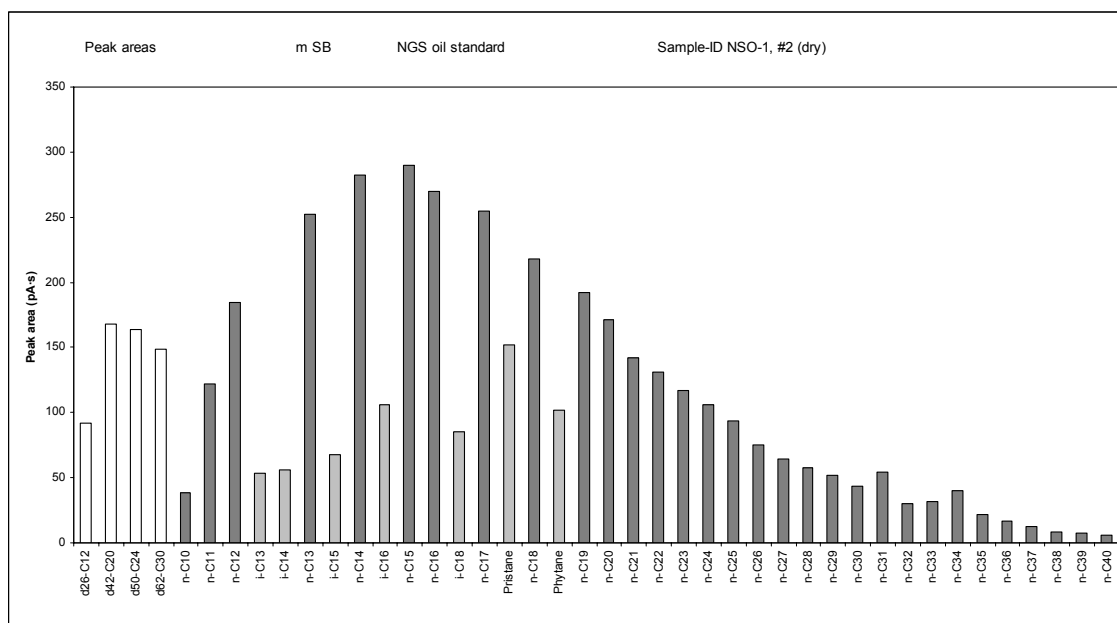
Retention time (min)	Compound name	Internal standard compound used for quantification	Peak area (pA·s)	Concentration based on peak area (ng/g topped oil)
10.997	n-C10	d26-C12	39	1680014
14.504	n-C11	d26-C12	122	5276057
17.415	d26-C12	d26-C12	92	4000000
17.982	n-C12	d26-C12	185	8001514
18.512	i-C13	d26-C12	54	2328849
20.509	i-C14	d26-C12	56	2417228
21.324	n-C13	d26-C12	252	10922351
23.834	i-C15	d26-C12	67	2921214
24.501	n-C14	d26-C12	282	12227198
26.453	i-C16	d42-C20	106	2523442
27.513	n-C15	d42-C20	290	6908485
30.366	n-C16	d42-C20	270	6427681
31.789	i-C18	d42-C20	85	2024084
33.081	n-C17	d42-C20	255	6067586
33.339	Pristane	d42-C20	152	3632272
35.660	n-C18	d42-C20	218	5198828
35.987	Phytane	d42-C20	102	2433339
38.119	n-C19	d42-C20	192	4586537
39.765	d42-C20	d42-C20	168	4000000
40.473	n-C20	d42-C20	171	4083825
42.717	n-C21	d50-C24	142	3476204
44.876	n-C22	d50-C24	131	3212645
46.941	n-C23	d50-C24	117	2861616
48.189	d50-C24	d50-C24	164	4000000
48.925	n-C24	d50-C24	106	2585485
50.836	n-C25	d50-C24	94	2296759
52.673	n-C26	d50-C24	76	1846844
54.451	n-C27	d50-C24	64	1564203
56.162	n-C28	d62-C30	58	1559133
57.815	n-C29	d62-C30	52	1401732
58.637	d62-C30	d62-C30	149	4000000
59.419	n-C30	d62-C30	43	1165012
60.976	n-C31	d62-C30	54	1454391
62.476	n-C32	d62-C30	30	815009
63.938	n-C33	d62-C30	32	854537
65.356	n-C34	d62-C30	40	1085703
66.732	n-C35	d62-C30	22	590919
68.073	n-C36	d62-C30	17	444921
69.375	n-C37	d62-C30	12	326283
70.722	n-C38	d62-C30	9	228935
72.233	n-C39	d62-C30	7	191206
74.009	n-C40	d62-C30	6	160882

Peak ratios

Pristane / n-C17 [=A]	0.60	0.60
Phytane / n-C18 [=B]	0.47	0.47
[A] / [B]	1.28	1.28
Pristane / Phytane	1.49	1.49
CPI 1	1.11	1.09
n-C17/(n-C17+n-C27)	0.80	0.80
n-C15/n-C20	1.69	1.69
n-C30/n-C20	0.25	0.29

Key

CPI 1 = 0.5 x [(Sum n-C25 to n-C31 odd)/(Sum n-C24 to n-C30 even)+(Sum n-C25 to n-C31 odd)/(Sum n-C26 to n-C32 even)]



SAT GC-FID Analysis Data Sheet
Sample information

Well
Sample ID JR-1
Depth (m SB)
Sample type NGS rock standard
Lithology

Analysis information

Analysis date 02/11/2006
Instrument HP 6890
Column DB-1, 30 m
EOM weight (g) 0.0261
Int. std. volume (µl) 0
Int. std. conc. (ng/µl) 2000

Analysis results

Retention time (min)	Compound name	Internal standard compound used for quantification	Peak area (pA·s)	Concentration based on peak area (ng/g EOM)
11.003	n-C10	d26-C12	78	
14.510	n-C11	d26-C12	122	
0.000	d26-C12	d26-C12	0	
17.983	n-C12	d26-C12	103	
18.517	i-C13	d26-C12	47	
20.516	i-C14	d26-C12	32	
21.320	n-C13	d26-C12	106	
23.835	i-C15	d26-C12	39	
24.494	n-C14	d26-C12	110	
26.452	i-C16	d42-C20	51	
27.506	n-C15	d42-C20	128	
30.362	n-C16	d42-C20	127	
31.792	i-C18	d42-C20	63	
33.075	n-C17	d42-C20	135	
33.341	Pristane	d42-C20	149	
35.657	n-C18	d42-C20	106	
35.987	Phytane	d42-C20	114	
38.113	n-C19	d42-C20	92	
0.000	d42-C20	d42-C20	0	
40.466	n-C20	d42-C20	77	
42.716	n-C21	d50-C24	64	
44.871	n-C22	d50-C24	53	
46.938	n-C23	d50-C24	47	
0.000	d50-C24	d50-C24	0	
48.923	n-C24	d50-C24	41	
50.833	n-C25	d50-C24	34	
52.671	n-C26	d50-C24	30	
54.448	n-C27	d50-C24	21	
56.168	n-C28	d62-C30	24	
57.825	n-C29	d62-C30	25	
0.000	d62-C30	d62-C30	0	
59.419	n-C30	d62-C30	16	
60.978	n-C31	d62-C30	32	
62.483	n-C32	d62-C30	13	
63.936	n-C33	d62-C30	11	
65.356	n-C34	d62-C30	6	
66.736	n-C35	d62-C30	7	
68.079	n-C36	d62-C30	4	
69.381	n-C37	d62-C30	2	
0.000	n-C38	d62-C30	0	
0.000	n-C39	d62-C30	0	
0.000	n-C40	d62-C30	0	

Peak ratios

Pristane / n-C17 [=A] 1.10
Phytane / n-C18 [=B] 1.08
[A] / [B] 1.02
Pristane / Phytane 1.31
CPI 1 1.18
n-C17/(n-C17+n-C27) 0.87
n-C15/n-C20 1.66
n-C30/n-C20 0.20

Key

CPI 1 = 0.5 x [(Sum n-C25 to n-C31 odd)/(Sum n-C24 to n-C30 even)+(Sum n-C25 to n-C31 odd)/(Sum n-C26 to n-C32 even)]

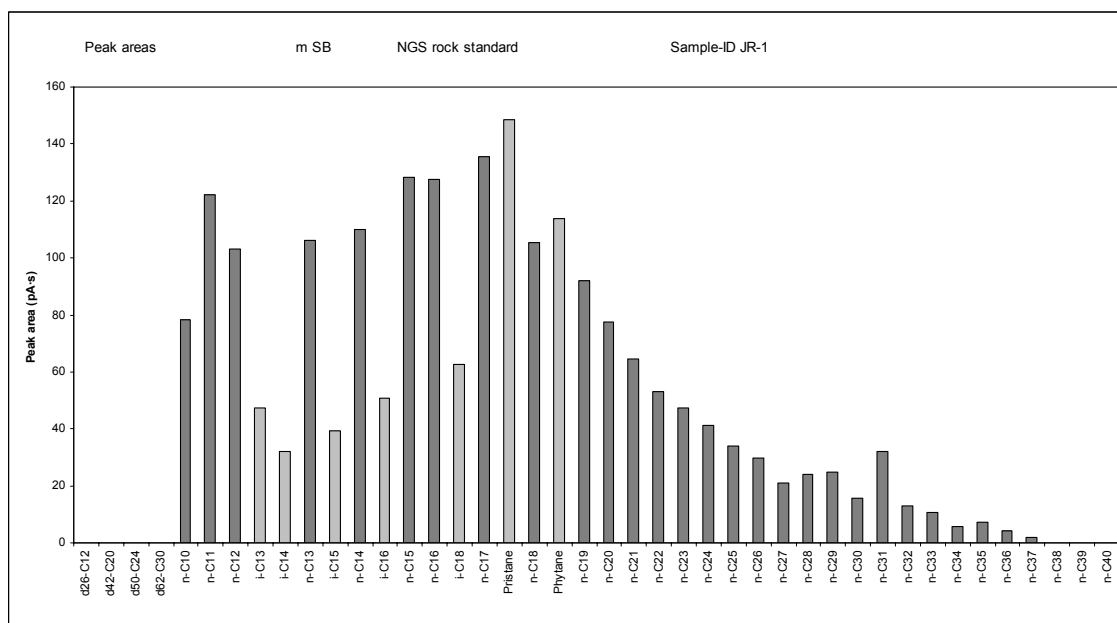


Table 28
SAT GC-MSD analysis data sheets.

For peak labels, identifications, coeluting compounds etc. see Figure 8.

Peak height ratios:

%24/3	$100 * 24/3 / (24/3 + 30ab)$ [191]
%27Ts	$100 * 27Ts / (27Ts + 27Tm)$ [191]
%27b	$100 * 27b / (27b + 27Tm)$ [191]
%28ab	$100 * 28ab / (28ab + 30ab)$ [191]
%25nor30ab	$100 * 25nor30ab [177] / (25nor30ab [177] + 30ab [191])$
%29Ts	$100 * 29Ts / (29Ts + 29ab)$ [191]
%30d	$100 * 30d / (30d + 30ab)$ [191]
%30ab	$100 * 30ab / (30ab + 30ba)$ [191]
%31abS	$100 * 31abS / (31abS + 31abR)$ [191]
%32abS	$100 * 32abS / (32abS + 32abR)$ [191]
%33abS	$100 * 33abS / (33abS + 33abR)$ [191]
%34abS	$100 * 34abS / (34abS + 34abR)$ [191]
%35abS	$100 * 35abS / (35abS + 35abR)$ [191]
%32-35abS	Mean value of %31abS to %35abS
%27dia	$100 * 27dbS / (27dbS + 27aaR)$ [217]
%29aaS	$100 * 29aaS / (29aaS + 29aaR)$ [217]
%29bb(R+S)[1]	$100 * (29bbR + 29bbS) / (29aaS + 29bbR + 29bbS + 29aaR)$ [217]
%29bb(R+S)[2]	$100 * 2 * (29bbR + 29bbS) / (29aaS + 2 * (29bbR + 29bbS) + 29aaR)$ [217]
%27aaRSTER	$100 * 27aaR / (27aaR + 28aaR + 29aaR)$ [217]
%28aaRSTER	$100 * 28aaR / (27aaR + 28aaR + 29aaR)$ [217]
%29aaRSTER	$100 * 29aaR / (27aaR + 28aaR + 29aaR)$ [217]
%27bbSTER	$100 * (27bbR + 27bbS) / (27bbR + 27bbS + 28bbR + 28bbS + 29bbR + 29bbS)$ [218]
%28bbSTER	$100 * (28bbR + 28bbS) / (27bbR + 27bbS + 28bbR + 28bbS + 29bbR + 29bbS)$ [218]
%29bbSTER	$100 * (29bbR + 29bbS) / (27bbR + 27bbS + 28bbR + 28bbS + 29bbR + 29bbS)$ [218]

SAT GC-MSD Analysis Data Sheet
Sample information

Site	7831/2-U-2	7831/2-U-2	7831/2-U-2
Depth (m SB)	I0106	I0102	I0099
Sample ID	6.83	10.28	14.53
Sample type	COCH	COCH	COCH
Lithology	CLYST (SLTY, DKGY)	CLYST (SLTY, MGY)	CLYST (SLTY, DKGY)

Calibration data

EOM (g)	0.0729	0.0540	0.1557
IS (µl)	146	108	173
IS (ng)	2187	1620	2595

Analysis results

Compound	Peak height	Concentration (ng/g EOM)	Peak height	Concentration (ng/g EOM)	Peak height	Concentration (ng/g EOM)
Internal standard (m/z 217)						
5b Cholan	3752	21898	4990	21898	7098	12165
m/z 191						
19/3	279	1628	538	2361	794	1361
20/3	739	4313	2144	9409	2885	4945
21/3	1408	8218	3763	16513	5422	9293
23/3	1974	11521	4526	19862	7803	13374
24/3	954	5568	2461	10800	5118	8772
25/3R	440	2568	1349	5920	2524	4326
25/3S	412	2405	1193	5235	2325	3985
24/4	1292	7541	2098	9207	2314	3966
26/3R	464	2708	1070	4696	2130	3651
26/3S	463	2702	1128	4950	2156	3695
28/3R	466	2720	959	4208	1937	3320
28/3S	436	2545	867	3805	1916	3284
29/3R	825	4815	624	2738	557	955
29/3S	818	4774	262	1150	263	451
27Ts	4302	25108	5204	22837	6202	10630
27Tm	9051	52824	15273	67023	11684	20026
27b	968	5650	1516	6653	1516	2598
28ab	175	1021	416	1826	171	293
25nor30ab	677	3951	760	3335	675	1157
29ab	21040	122796	34869	153017	26977	46237
29Ts	5264	30722	5883	25817	5361	9188
30d	729	4255	1358	5959	1522	2609
29ba	2788	16272	2817	12362	2002	3431
30O	0	0	0	0	0	0
30ab	32554	175874	59999	243727	43651	69254
30D13	704	4109	1179	5174	1045	1791
30ba	6057	32723	4621	18771	3202	5080
31abS	13101	76461	35957	157791	23483	40248
31abR	10458	61036	26761	117436	15782	27049
30G	683	3986	1056	4634	659	1129
31ba	2658	15513	2729	11976	1583	2713
32abS	6660	38870	19349	84910	11955	20490
32abR	4794	27979	12238	53704	7746	13276
33abS	4872	28434	11272	49465	6834	11713
33abR	3345	19522	7083	31083	4584	7857
34abS	3030	17684	5733	25158	3308	5670
34abR	2108	12303	3976	17448	2158	3699
35abS	1298	7576	2723	11949	1620	2777
35abR	980	5720	1759	7719	1118	1916
m/z 177						
25nor28ab	397	2317	516	2264	659	1129
25nor30ab	0	0	0	0	0	0
m/z 217						
21a	786	7142	1154	7884	1751	4672
21b	1004	9122	2471	16881	3297	8797
22a	427	3880	702	4796	954	2546
22b	699	6351	2008	13718	2321	6193
27dbS	806	7323	710	4851	1335	3562
27dbR	583	5297	492	3361	982	2620
27aaS	1437	13057	1567	10706	1797	4795
29dbS	898	8159	1877	12823	1443	3850
27aaR	2416	21952	1858	12694	1970	5256
29dbR	620	5633	594	4058	976	2604
28aaR	1052	9559	900	6149	872	2327
29aaS	1937	17600	1938	13240	1933	5158
29bbR	802	7287	2889	19737	2769	7388
29bbS	771	7005	3111	21254	2932	7823
29aaR	2713	24650	1986	13568	2029	5414
30aaR	900	8177	773	5281	632	1686
m/z 218						
27bbR	800	7269	3481	23782	3441	9182
27bbS	649	5897	2994	20455	2942	7850
28bbR	753	6842	2676	18282	2667	7116
28bbS	550	4997	2445	16704	2496	6660
29bbR	1124	10213	4680	31973	4437	11839
29bbS	1120	10176	5223	35683	4858	12962
30bbR	254	2308	1467	10022	1095	2922
30bbS	278	2526	1450	9906	1080	2882

SAT GC-MSD Analysis Data Sheet (Part 2)

Sample information

Site	7831/2-U-2	7831/2-U-2	7831/2-U-2
Depth (m SB)	I0106	I0102	I0099
Sample ID	6.83	10.28	14.53
Sample type	COCH	COCH	COCH
Lithology	CLYST (SLTY, DKG)	CLYST (SLTY, MGY)	CLYST (SLTY, DKG)

Peak height ratios

%24/3	3	4	10
%27Ts	32	25	35
%27b	10	9	11
%28ab	1	1	0
%28nor30ab	2	1	2
%29Ts	20	14	17
%30d	2	2	3
%30ab	84	93	93
%31abS	56	57	60
%32abS	58	61	61
%33abS	59	61	60
%34abS	59	59	61
%35abS	57	61	59
%32-35abS	58	60	60
%27dia	25	28	40
%29aaS	42	49	49
%29bb(R+S)[1]	25	60	59
%27aaRSTER	39	39	40
%28aaRSTER	17	19	18
%29aaRSTER	44	42	42
%27bbSTER	29	30	31
%28bbSTER	26	24	25
%29bbSTER	45	46	45

SAT GC-MSD Analysis Data Sheet
Sample information

Site	7831/2-U-2	7831/2-U-2	7831/2-U-1
Depth (m SB)	I0096	I0095	I0089
Sample ID	17.87	18.85	21.76
Sample type	COCH	COCH	COCH
Lithology	CLYST (SLTY, DKG)	CLYST (SLTY, DKG)	CLYST (DKG)

Calibration data

EOM (g)	0.0963	0.0594	0.0441
IS (µl)	193	119	88
IS (ng)	2889	1782	1323

Analysis results

Compound	Peak height	Concentration (ng/g EOM)	Peak height	Concentration (ng/g EOM)	Peak height	Concentration (ng/g EOM)
Internal standard (m/z 217)						
5b Cholan	6065	21898	472	21898	5350	21898
m/z 191						
19/3	1059	3824	183	8490	633	2591
20/3	3510	12673	243	11274	1469	6013
21/3	6503	23479	303	14057	3011	12324
23/3	10192	36798	518	24032	3920	16045
24/3	6436	23237	335	15542	2373	9713
25/3R	3290	11879	162	7516	1079	4416
25/3S	3016	10889	128	5938	966	3954
24/4	2776	10023	320	14846	1732	7089
26/3R	2721	9824	139	6449	1014	4150
26/3S	2815	10164	142	6588	946	3872
28/3R	2502	9034	160	7423	880	3602
28/3S	2687	9701	158	7330	820	3356
29/3R	617	2228	66	3062	677	2771
29/3S	293	1058	72	3340	456	1866
27Ts	8125	29335	446	20692	7600	31107
27Tm	13112	47341	4755	220602	12109	49563
27b	2061	7441	420	19485	1820	7449
28ab	160	578	0	0	189	774
25nor30ab	739	2668	0	0	855	3500
29ab	31242	112800	8143	377784	32043	131154
29Ts	6482	23403	556	25795	7555	30923
30d	1996	7207	281	13037	1471	6021
29ba	1815	6553	2805	130134	2701	11055
30O	0	0	0	0	0	0
30ab	47906	160110	8173	350993	55991	212141
30D13	1299	4690	152	7052	1266	5182
30ba	4057	13559	3407	146315	4561	17281
31abS	26049	94050	3666	170079	33496	137101
31abR	18109	65383	2660	123407	24120	98724
30G	743	2683	187	8676	1015	4154
31ba	1702	6145	1173	54420	2530	10355
32abS	13784	49767	1407	65276	17793	72828
32abR	9290	33542	916	42497	11426	46767
33abS	8282	29902	699	32429	9460	38720
33abR	5421	19573	453	21016	6216	25442
34abS	3949	14258	326	15124	4966	20326
34abR	2506	9048	230	10671	3182	13024
35abS	2157	7788	0	0	2204	9021
35abR	1360	4910	0	0	1485	6078
m/z 177						
25nor28ab	850	3069	83	3851	623	2550
25nor30ab	0	0	0	0	0	0
m/z 217						
21a	2167	12181	91	6573	1130	7201
21b	3680	20685	161	11628	1816	11572
22a	1194	6711	65	4695	647	4123
22b	2733	15362	97	7006	1331	8481
27dbS	1806	10151	129	9317	1076	6856
27dbR	1244	6992	102	7367	743	4734
27aaS	2092	11759	154	11123	1408	8972
29dbS	1803	10135	231	16684	1176	7494
27aaR	2420	13603	177	12784	1716	10935
29dbR	1288	7240	136	9823	750	4779
28aaR	1011	5683	102	7367	686	4371
29aaS	2233	12552	381	27518	1831	11667
29bbR	3513	19746	169	12206	2619	16689
29bbS	3578	20112	197	14229	2605	16599
29aaR	2420	13603	490	35391	1955	12458
30aaR	727	4086	40	2889	691	4403
m/z 218						
27bbR	4036	22686	151	10906	2577	16421
27bbS	3758	21123	127	9173	2286	14567
28bbR	3205	18015	161	11628	2166	13802
28bbS	2933	16486	136	9823	1937	12343
29bbR	5460	30690	308	22246	4079	25992
29bbS	5772	32444	303	21885	4277	27254
30bbR	1306	7341	57	4117	1046	6665
30bbS	1281	7200	47	3395	1039	6621

SAT GC-MSD Analysis Data Sheet (Part 2)

Sample information

Site	7831/2-U-2	7831/2-U-2	7831/2-U-1
Depth (m SB)	I0096	I0095	I0089
Sample ID	17.87	18.85	21.76
Sample type	COCH	COCH	COCH
Lithology	CLYST (SLTY, DKGY)	CLYST (SLTY, DKGY)	CLYST (DKGY)

Peak height ratios

%24/3	12	4	4
%27Ts	38	9	39
%27b	14	8	13
%28ab	0	0	0
%28nor30ab	2	0	2
%29Ts	17	6	19
%30d	4	3	3
%30ab	92	71	92
%31abS	59	58	58
%32abS	60	61	61
%33abS	60	61	60
%34abS	61	59	61
%35abS	61	-1	60
%32-35abS	60	-1	60
%27dia	43	42	39
%29aaS	48	44	48
%29bb(R+S)[1]	60	30	58
%27aaRSTER	41	23	39
%28aaRSTER	17	13	16
%29aaRSTER	41	64	45
%27bbSTER	31	23	28
%28bbSTER	24	25	24
%29bbSTER	45	52	48

SAT GC-MSD Analysis Data Sheet
Sample information

Site	7830/6-U-1	7830/6-U-1	7830/6-U-1
Depth (m SB)	I0005	I0126	I0115
Sample ID	12.88	20.1	41.89
Sample type	COCH	COCH	COCH
Lithology	SLST	CLYST (SLTY, LAM, DKG)	CLYST (DKGY, LAM)

Calibration data

EOM (g)	0.0072	0.0036	0.0468
IS (µl)	14	7	94
IS (ng)	216	108	1404

Analysis results

Compound	Peak height	Concentration (ng/g EOM)	Peak height	Concentration (ng/g EOM)	Peak height	Concentration (ng/g EOM)
Internal standard (m/z 217)						
5b Cholan	2059	21898	751	21898	5692	21898
m/z 191						
19/3	1070	11380	408	11897	1742	6702
20/3	3496	37181	466	13588	4061	15623
21/3	5181	55101	464	13529	11337	43615
23/3	7799	82944	422	12305	10821	41630
24/3	4527	48145	206	6007	7052	27130
25/3R	1688	17952	73	2129	2613	10053
25/3S	1502	15974	66	1924	1888	7263
24/4	1211	12879	594	17320	7667	29496
26/3R	1222	12996	68	1983	4153	15977
26/3S	1205	12815	62	1808	4135	15908
28/3R	949	10093	0	0	2687	10337
28/3S	939	9986	0	0	2421	9314
29/3R	0	0	0	0	7697	29611
29/3S	0	0	0	0	857	3297
27Ts	2209	23493	303	8835	49117	188959
27Tm	6913	73521	10371	302400	45588	175383
27b	827	8795	778	22685	6521	25087
28ab	0	0	0	0	759	2920
25nor30ab	0	0	0	0	3872	14896
29ab	18616	197984	18404	536628	139343	536069
29Ts	3088	32841	18243	531933	68928	265174
30d	948	10082	476	13879	8428	32424
29ba	4090	43498	5721	166814	29739	114410
30O	0	0	0	0	0	0
30ab	25782	253816	14774	398766	266065	947507
30D13	710	7551	897	26155	9544	36717
30ba	5572	54855	7225	195010	41449	147608
31abS	11006	117051	7480	218103	91348	351427
31abR	8215	87368	5450	158912	84223	324016
30G	530	5637	320	9331	7659	29465
31ba	2177	23153	2576	75112	16073	61835
32abS	5513	58632	2618	76336	44906	172759
32abR	3681	39148	1843	53739	32423	124735
33abS	3448	36670	1157	33736	36729	141301
33abR	2326	24737	816	23793	24634	94770
34abS	1783	18963	536	15629	26458	101787
34abR	1145	12177	347	10118	17974	69148
35abS	885	9412	167	4869	9659	37159
35abR	603	6413	158	4607	7555	29065
m/z 177						
25nor28ab	414	4403	76	2216	4405	16947
25nor30ab	0	0	0	0	2278	8764
m/z 217						
21a	1894	31359	104	4721	4776	28605
21b	2305	38164	146	6628	5649	33833
22a	984	16292	55	2497	3025	18118
22b	1104	18279	72	3268	3313	19842
27dbS	739	12236	134	6083	9090	54442
27dbR	500	8279	90	4085	6901	41332
27aaS	697	11540	202	9170	13142	78711
29dbS	817	13527	375	17023	10707	64127
27aaR	806	13345	245	11122	23860	142904
29dbR	548	9073	231	10486	7082	42416
28aaR	394	6523	161	7308	10846	64960
29aaS	1013	16772	792	35952	14645	87713
29bbR	969	16044	260	11802	7523	45057
29bbS	870	14405	227	10304	7126	42680
29aaR	1218	20166	978	44395	26186	156835
30aaR	302	5000	72	3268	11537	69098
m/z 218						
27bbR	1013	16772	132	5992	7890	47255
27bbS	914	15133	120	5447	6257	37475
28bbR	945	15646	164	7445	7082	42416
28bbS	814	13477	124	5629	5541	33187
29bbR	1537	25448	393	17840	10404	62312
29bbS	1466	24273	359	16296	10284	61594
30bbR	346	5729	0	0	3147	18848
30bbS	387	6408	0	0	3032	18159

SAT GC-MSD Analysis Data Sheet (Part 2)

Sample information

Site	7830/6-U-1	7830/6-U-1	7830/6-U-1
Depth (m SB)	I0005	I0126	I0115
Sample ID	12.88	20.1	41.89
Sample type	COCH	COCH	COCH
Lithology	SLST	CLYST (SLTY, LAM, DKGY)	CLYST (DKGY, LAM)

Peak height ratios

%24/3	15	1	3
%27Ts	24	3	52
%27b	11	7	13
%28ab	0	0	0
%28nor30ab	0	0	1
%29Ts	14	50	33
%30d	4	3	3
%30ab	82	67	87
%31abS	57	58	52
%32abS	60	59	58
%33abS	60	59	60
%34abS	61	61	60
%35abS	59	51	56
%32-35abS	59	57	57
%27dia	48	35	28
%29aaS	45	45	36
%29bb(R+S)[1]	45	22	26
%27aaRSTER	33	18	39
%28aaRSTER	16	12	18
%29aaRSTER	50	71	43
%27bbSTER	29	20	30
%28bbSTER	26	22	27
%29bbSTER	45	58	44

SAT GC-MSD Analysis Data Sheet
Sample information

Site	7830/6-U-1	7830/3-U-1	7830/3-U-1
Depth (m SB)	I0110	I0146	I0151
Sample ID	50.93	39.99	51.24
Sample type	COCH	COCH	COPL
Lithology	CLYST (DKGY, LAM)	SST (MGR, MGY)	SST (FGR, MGY)

Calibration data

EOM (g)	0.0405	0.0297	0.0531
IS (µl)	81	59	106
IS (ng)	1215	891	1593

Analysis results

Compound	Peak height	Concentration (ng/g EOM)	Peak height	Concentration (ng/g EOM)	Peak height	Concentration (ng/g EOM)
Internal standard (m/z 217)						
5b Cholan	12433	21898	6542	21898	6372	21898
m/z 191						
19/3	3516	6193	991	3317	975	3351
20/3	10985	19347	3416	11434	3168	10887
21/3	21907	38584	6579	22022	6165	21186
23/3	27249	47993	19281	64539	16331	56123
24/3	16035	28242	15269	51109	11876	40813
25/3R	7501	13211	8304	27796	6504	22351
25/3S	6091	10728	7776	26028	5810	19966
24/4	13125	23117	5028	16830	3738	12846
26/3R	8663	15258	8282	27722	5883	20217
26/3S	9152	16119	7871	26346	5784	19877
28/3R	6956	12251	11210	37523	6925	23798
28/3S	6698	11797	11163	37366	7414	25479
29/3R	11550	20343	1319	4415	1012	3478
29/3S	1083	1907	731	2447	463	1591
27Ts	73459	129381	21711	72672	13921	47840
27Tm	83864	147707	15748	52713	10353	35579
27b	13136	23136	2265	7582	2911	10004
28ab	1296	2283	2697	9028	1783	6127
25nor30ab	8030	14143	2236	7484	1531	5261
29ab	246168	433567	69848	233800	44978	154570
29Ts	124866	219922	20996	70279	12966	44559
30d	18262	32164	6928	23190	4182	14372
29ba	58955	103835	5634	18858	3366	11567
30O	0	0	0	0	0	0
30ab	448537	731277	113647	352133	75346	239687
30D13	20947	36893	4300	14393	2411	8286
30ba	81862	133465	9837	30480	6596	20983
31abS	179044	315344	41325	138326	25821	88736
31abR	171554	302152	34018	113867	20683	71079
30G	14545	25618	2817	9429	1679	5770
31ba	35966	63346	4001	13392	2042	7017
32abS	99310	174911	28095	94041	17508	60167
32abR	69548	122492	19560	65473	11691	40177
33abS	75358	132725	24601	82346	15364	52799
33abR	55921	98492	17707	59270	11662	40077
34abS	50501	88946	13786	46145	8743	30046
34abR	36580	64427	9423	31541	6368	21884
35abS	22011	38767	9241	30932	5476	18819
35abR	16566	29177	6117	20475	3841	13200
m/z 177						
25nor28ab	8471	14920	4334	14507	2778	9547
25nor30ab	3646	6422	2018	6755	0	0
m/z 217						
21a	6822	18706	3504	18260	3163	16922
21b	12640	34658	3895	20297	3650	19528
22a	4383	12018	2117	11032	1744	9331
22b	8179	22427	2343	12210	2125	11369
27dbS	15529	42580	6555	34159	4612	24675
27dbR	10968	30074	4692	24450	3396	18169
27aaS	20651	56624	4261	22204	3051	16323
29dbS	19330	53002	7584	39521	5060	27072
27aaR	35150	96380	4467	23278	3090	16532
29dbR	13046	35772	4934	25711	3536	18918
28aaR	18935	51919	1830	9536	1258	6730
29aaS	25941	71129	4983	25967	3360	17976
29bbR	13874	38042	7686	40052	5012	26815
29bbS	13683	37518	7627	39745	5080	27179
29aaR	42283	115939	4509	23497	3095	16559
30aaR	20360	55827	1784	9297	1210	6474
m/z 218						
27bbR	14852	40724	8165	42548	5485	29345
27bbS	12956	35525	6907	35993	4549	24338
28bbR	15387	42191	7189	37462	4765	25493
28bbS	12116	33222	6778	35321	4522	24193
29bbR	20168	55300	12361	64414	8018	42897
29bbS	21308	58426	12512	65201	8277	44283
30bbR	6174	16929	3228	16821	2102	11246
30bbS	6360	17439	3242	16894	2062	11032

SAT GC-MSD Analysis Data Sheet (Part 2)

Sample information

Site	7830/6-U-1	7830/3-U-1	7830/3-U-1
Depth (m SB)	I0110	I0146	I0151
Sample ID	50.93	39.99	51.24
Sample type	COCH	COCH	COPL
Lithology	CLYST (DKGY, LAM)	SST (MGR, MGY)	SST (FGR, MGY)

Peak height ratios

%24/3	3	12	14
%27Ts	47	58	57
%27b	14	21	22
%28ab	0	2	2
%28nor30ab	2	2	2
%29Ts	34	23	22
%30d	4	6	5
%30ab	85	92	92
%31abS	51	55	56
%32abS	59	59	60
%33abS	57	58	57
%34abS	58	59	58
%35abS	57	60	59
%32-35abS	56	58	58
%27dia	31	59	60
%29aaS	38	52	52
%29bb(R+S)[1]	29	62	61
%27aaRSTER	36	41	42
%28aaRSTER	20	17	17
%29aaRSTER	44	42	42
%27bbSTER	29	28	28
%28bbSTER	28	26	26
%29bbSTER	43	46	46

SAT GC-MSD Analysis Data Sheet
Sample information

Site	7830/3-U-1	7830/3-U-1	7830/3-U-1
Depth (m SB)	I0177	I0184	I0195
Sample ID	111.75	124.63	154.88
Sample type	COCH	COPL	COCH
Lithology	SST (FGR, DKG)	SST (FGR, LTGY)	CLYST (SL SLTY, DKG)

Calibration data

EOM (g)	0.1089	0.0189	0.0027
IS (µl)	194	378	5
IS (ng)	2904	5670	81

Analysis results

Compound	Peak height	Concentration (ng/g EOM)	Peak height	Concentration (ng/g EOM)	Peak height	Concentration (ng/g EOM)
Internal standard (m/z 217)						
5b Cholan	6503	19465	11945	218978	7001	21898
m/z 191						
19/3	1172	3508	191	3501	1208	3778
20/3	4081	12215	738	13529	3970	12417
21/3	8669	25948	1533	28103	7395	23130
23/3	23792	71214	3803	69717	11357	35523
24/3	18713	56012	2633	48269	7560	23646
25/3R	9407	28157	1381	25317	3949	12352
25/3S	8946	26777	1291	23667	3548	11097
24/4	4721	14131	745	13657	3091	9668
26/3R	9781	29276	1250	22915	3213	10050
26/3S	9839	29450	1282	23502	3316	10372
28/3R	12609	37741	1510	27682	3402	10641
28/3S	11742	35146	1452	26618	3232	10109
29/3R	2902	8686	269	4931	765	2393
29/3S	593	1775	125	2292	301	941
27Ts	25123	75198	2505	45922	8717	27265
27Tm	13655	40872	3419	62678	13737	42967
27b	3361	10060	693	12704	1984	6206
28ab	4635	13873	0	0	929	2906
25nor30ab	2919	8737	0	0	939	2937
29ab	65772	196868	11967	219381	33378	104400
29Ts	23499	70337	2477	45409	7521	23524
30d	11238	33637	774	14189	2394	7488
29ba	6220	18618	800	14666	2181	6822
30O	0	0	0	0	0	0
30ab	133289	369307	19977	339003	53040	153569
30D13	4215	12616	1108	20312	2298	7188
30ba	14912	41317	1626	27593	4621	13379
31abS	48902	146373	9643	176777	28528	89230
31abR	38443	115067	6965	127684	19980	62494
30G	2924	8752	1005	18424	796	2490
31ba	4571	13682	604	11073	1652	5167
32abS	32703	97886	5623	103082	14611	45700
32abR	22562	67532	3994	73219	10091	31563
33abS	24822	74297	3767	69057	9604	30040
33abR	19476	58295	2595	47572	6700	20956
34abS	14551	43554	2048	37544	5058	15820
34abR	9521	28498	1346	24675	3415	10681
35abS	8256	24712	1167	21394	2804	8770
35abR	5725	17136	833	15271	1868	5843
m/z 177						
25nor28ab	5417	16214	437	8011	991	3100
25nor30ab	1999	5983	0	0	0	0
m/z 217						
21a	4244	19776	646	18437	2573	12529
21b	6693	31188	860	24544	4339	21128
22a	3379	15746	397	11330	1488	7246
22b	4273	19912	583	16639	3110	15144
27dbS	7249	33779	811	23146	2300	11200
27dbR	5478	25527	569	16239	1641	7991
27aaS	4985	23229	767	21890	2338	11385
29dbS	7357	34283	809	23089	2218	10800
27aaR	5528	25760	899	25657	2732	13303
29dbR	5510	25676	607	17324	1558	7587
28aaR	2153	10033	380	10845	1133	5517
29aaS	6415	29893	964	27512	2731	13298
29bbR	9809	45709	1569	44779	3967	19317
29bbS	9803	45681	1539	43923	3964	19302
29aaR	5985	27889	906	25857	2669	12997
30aaR	2526	11771	361	10303	941	4582
m/z 218						
27bbR	9919	46221	1590	45378	4640	22594
27bbS	8930	41612	1365	38957	4323	21051
28bbR	8630	40215	1339	38215	3717	18100
28bbS	7772	36216	1247	35589	3462	16858
29bbR	15555	72484	2401	68524	6196	30171
29bbS	16119	75112	2480	70779	6592	32099
30bbR	4329	20173	657	18751	1558	7587
30bbS	4378	20401	631	18009	1566	7626

SAT GC-MSD Analysis Data Sheet (Part 2)

Sample information

Site	7830/3-U-1	7830/3-U-1	7830/3-U-1
Depth (m SB)	I0177	I0184	I0195
Sample ID	111.75	124.63	154.88
Sample type	COCH	COPL	COCH
Lithology	SST (FGR, DKGy)	SST (FGR, LTGY)	CLYST (SL SLTY, DKGy)

Peak height ratios

%24/3	12	12	12
%27Ts	65	42	39
%27b	20	17	13
%28ab	3	0	2
%28nor30ab	2	0	2
%29Ts	26	17	18
%30d	8	4	4
%30ab	90	92	92
%31abS	56	58	59
%32abS	59	58	59
%33abS	56	59	59
%34abS	60	60	60
%35abS	59	58	60
%32-35abS	58	59	59
%27dia	57	47	46
%29aaS	52	52	51
%29bb(R+S)[1]	61	62	59
%27aaRSTER	40	41	42
%28aaRSTER	16	17	17
%29aaRSTER	44	41	41
%27bbSTER	28	28	31
%28bbSTER	25	25	25
%29bbSTER	47	47	44

SAT GC-MSD Analysis Data Sheet
Sample information

Site	7830/3-U-1	7830/5-U-1	7830/5-U-1
Depth (m SB)	10287	10221	10254
Sample ID	174.15	58.97	128.68
Sample type	COCH	COCH	COCH
Lithology	SST (FGR, MGY)	CLYST (SL SLTY, LAM, DKG)	CLYST (VDKG, LAM)

Calibration data

EOM (g)	0.0549	0.0072	0.0099
IS (µl)	110	14	20
IS (ng)	1647	216	297

Analysis results

Compound	Peak height	Concentration (ng/g EOM)	Peak height	Concentration (ng/g EOM)	Peak height	Concentration (ng/g EOM)
Internal standard (m/z 217)						
5b Cholan	9949	21898	275	21898	2475	21898
m/z 191						
19/3	1325	2916	109	8679	619	5477
20/3	8388	18462	89	7087	1407	12449
21/3	18504	40727	83	6609	4395	38885
23/3	51706	113805	80	6370	2816	24915
24/3	29367	64637	48	3822	2317	20500
25/3R	21211	46686	17	1354	1052	9308
25/3S	20332	44751	14	1115	772	6830
24/4	10429	22954	81	6450	1418	12546
26/3R	18189	40034	0	0	1285	11369
26/3S	18164	39979	0	0	1255	11104
28/3R	22027	48482	0	0	589	5211
28/3S	21827	48041	0	0	499	4415
29/3R	6009	13226	0	0	406	3592
29/3S	1473	3242	0	0	1451	12838
27Ts	29566	65075	82	6530	2294	20296
27Tm	66753	146924	1388	110524	22303	197328
27b	11023	24262	441	35116	5604	49582
28ab	2242	4935	324	25800	449	3973
25nor30ab	3833	8436	185	14731	1981	17527
29ab	188254	414348	2118	168653	26348	233117
29Ts	37192	81860	178	14174	5463	48334
30d	12833	28246	169	13457	3233	28604
29ba	20292	44663	1138	90617	13008	115090
30O	0	0	0	0	0	0
30ab	300173	611578	4104	302506	55703	456208
30D13	8673	19089	497	39575	2682	23729
30ba	37320	76036	1564	115283	24374	199623
31abS	173076	380941	1431	113948	30143	266693
31abR	130423	287062	1330	105906	30728	271869
30G	5718	12585	126	10033	1760	15572
31ba	14970	32949	677	53908	12697	112338
32abS	101681	223801	385	30657	6939	61393
32abR	69585	153157	505	40212	8674	76744
33abS	68375	150494	147	11705	4459	39451
33abR	49868	109760	193	15368	5848	51741
34abS	36816	81032	78	6211	2294	20296
34abR	24667	54292	114	9078	3184	28171
35abS	24359	53614	0	0	1066	9432
35abR	15879	34950	0	0	1644	14545
m/z 177						
25nor28ab	4599	10122	0	0	1693	14979
25nor30ab	2638	5806	149	11865	1965	17386
m/z 217						
21a	4695	16088	30	3719	1277	17590
21b	9090	31147	52	6446	1413	19463
22a	3234	11082	14	1736	767	10565
22b	7178	24596	21	2603	1260	17355
27dbS	9147	31343	48	5950	7443	102521
27dbR	6906	23664	31	3843	5621	77424
27aaS	17170	58834	39	4835	5539	76295
29dbS	19630	67263	162	20083	8897	122548
27aaR	20723	71009	82	10165	19165	263981
29dbR	9053	31021	109	13512	5711	78664
28aaR	9357	32062	81	10041	9123	125661
29aaS	21844	74850	99	12273	4568	62920
29bbR	27077	92781	150	18595	7175	98829
29bbS	28854	98870	153	18967	6842	94242
29aaR	23603	80877	523	64835	26905	370592
30aaR	10597	36311	27	3347	9163	126212
m/z 218						
27bbR	32145	110147	44	5455	1540	21212
27bbS	29508	101111	54	6694	2808	38678
28bbR	26152	89612	92	11405	2978	41019
28bbS	25496	87364	54	6694	1226	16887
29bbR	43229	148127	232	28760	2561	35275
29bbS	48699	166870	229	28388	2119	29187
30bbR	12898	44196	0	0	639	8802
30bbS	13597	46591	0	0	1043	14366

SAT GC-MSD Analysis Data Sheet (Part 2)

Sample information

Site	7830/3-U-1	7830/5-U-1	7830/5-U-1
Depth (m SB)	I0287	I0221	I0254
Sample ID	174.15	58.97	128.68
Sample type	COCH	COCH	COCH
Lithology	SST (FGR, MGY)	CLYST (SL SLTY, LAM, DKGy)	CLYST (VDKGy, LAM)

Peak height ratios

%24/3	9	1	4
%27Ts	31	6	9
%27b	14	24	20
%28ab	1	7	1
%28nor30ab	1	4	3
%29Ts	16	8	17
%30d	4	4	5
%30ab	89	72	70
%31abS	57	52	50
%32abS	59	43	44
%33abS	58	43	43
%34abS	60	41	42
%35abS	61	-1	39
%32-35abS	59	-1	44
%27dia	31	37	28
%29aaS	48	16	15
%29bb(R+S)[1]	55	33	31
%27aaRSTER	39	12	35
%28aaRSTER	17	12	17
%29aaRSTER	44	76	49
%27bbSTER	30	14	33
%28bbSTER	25	21	32
%29bbSTER	45	65	35

SAT GC-MSD Analysis Data Sheet
Sample information

Site	Control sample	Control sample	Control sample
Depth (m SB)			
Sample ID	NSO-1, #0	NSO-1, #1	NSO-1, #2
Sample type			
Lithology			

Calibration data

EOM (g)	0.0298	0.0306	0.0297
IS (µl)	60	61	59
IS (ng)	894	918	891

Analysis results

Compound	Peak height	Concentration (ng/g topped oil)	Peak height	Concentration (ng/g topped oil)	Peak height	Concentration (ng/g topped oil)
Internal standard (m/z 217)						
5b Cholan	2263	21898	11441	21898	5988	21898
m/z 191						
19/3	722	6986	4079	7807	2606	9530
20/3	731	7073	3478	6657	2202	8053
21/3	987	9551	4944	9463	3029	11077
23/3	1474	14263	7967	15249	4655	17023
24/3	1279	12376	6216	11897	3817	13959
25/3R	702	6793	3373	6456	2086	7628
25/3S	627	6067	3123	5977	1844	6743
24/4	1292	12502	6237	11937	3843	14054
26/3R	453	4383	2506	4796	1500	5485
26/3S	494	4780	2523	4829	1557	5694
28/3R	468	4529	2475	4737	1514	5537
28/3S	430	4161	2343	4484	1522	5566
29/3R	502	4858	2585	4948	1527	5584
29/3S	460	4451	2466	4720	1558	5698
27Ts	4051	39199	19430	37189	11179	40881
27Tm	3333	32252	16156	30922	9810	35875
27b	835	8080	5353	10246	2620	9581
28ab	5234	50647	26619	50948	15542	56836
25nor30ab	2795	27046	13697	26216	8550	31267
29ab	9407	91026	46723	89427	28163	102991
29Ts	4017	38870	19850	37992	12214	44666
30d	2232	21598	11409	21837	6397	23394
29ba	2118	20495	11969	22908	7925	28981
30O	0	0	0	0	0	0
30ab	23047	206438	111962	198366	70495	238636
30D13	1227	11873	6650	12728	3592	13136
30ba	2935	26290	14848	26307	8529	28872
31abS	9275	89749	45442	86975	27470	100456
31abR	6748	65297	34874	66748	20331	74349
30G	835	8080	5221	9993	2864	10474
31ba	1083	10480	6437	12320	3763	13761
32abS	6557	63448	34335	65716	20299	74232
32abR	4477	43321	22395	42864	13338	48776
33abS	5925	57333	30492	58361	17390	63594
33abR	3848	37235	20816	39841	12551	45898
34abS	3505	33916	19363	37060	11642	42574
34abR	2306	22314	12449	23827	7465	27299
35abS	3325	32174	18579	35560	11381	41620
35abR	2342	22662	13173	25213	8115	29676
m/z 177						
25nor28ab	3998	38686	19103	36563	11699	42783
25nor30ab	2249	21762	10709	20497	6813	24915
m/z 217						
21a	2594	39077	12542	37372	7609	43320
21b	3013	45389	15098	44988	9422	53641
22a	1585	23877	8006	23856	4708	26804
22b	1661	25022	8468	25232	5214	29684
27dbS	4807	72415	24057	71683	14574	82973
27dbR	3640	54835	18238	54344	11309	64384
27aaS	2177	32795	11859	35336	7573	43115
29dbS	3937	59309	19280	57449	12239	69679
27aaR	1697	25564	8447	25170	6063	34518
29dbR	2572	38746	13541	40348	8258	47014
28aaR	994	14974	4584	13659	2400	13664
29aaS	1670	25158	8711	25956	4716	26849
29bbR	2354	35462	12354	36811	7248	41264
29bbS	1941	29240	10514	31329	6353	36169
29aaR	1511	22762	8408	25053	5154	29343
30aaR	844	12714	5361	15974	3102	17660
m/z 218						
27bbR	2938	44259	14892	44374	9242	52617
27bbS	2511	37827	13243	39460	7498	42688
28bbR	3696	48252	18412	47211	10575	53015
28bbS	2724	41036	13525	40301	8337	47464
29bbR	3329	50150	17022	50721	10179	57951
29bbS	3159	47589	17667	52643	11071	63029
30bbR	1102	16601	6016	17926	3627	20649
30bbS	1234	18590	6386	19028	3927	22357

SAT GC-MSD Analysis Data Sheet (Part 2)

Sample information

Site	Control sample	Control sample	Control sample
Depth (m SB)			
Sample ID	NSO-1, #0	NSO-1, #1	NSO-1, #2
Sample type			
Lithology			

Peak height ratios

%24/3	5	5	5
%27Ts	55	55	53
%27b	20	25	21
%28ab	19	19	18
%28nor30ab	11	11	11
%29Ts	30	30	30
%30d	9	9	8
%30ab	89	88	89
%31abS	58	57	57
%32abS	59	61	60
%33abS	61	59	58
%34abS	60	61	61
%35abS	59	59	58
%32-35abS	59	59	59
%27dia	74	74	71
%29aaS	52	51	48
%29bb(R+S)[1]	57	57	58
%27aaRSTER	40	39	45
%28aaRSTER	24	21	18
%29aaRSTER	36	39	38
%27bbSTER	31	31	30
%28bbSTER	33	32	32
%29bbSTER	36	38	38

Variables for QC (reference samples only)

(23/3) [191] / 30ab [191]	0.06	0.07	0.07
35abR [191] / 30ab [191]	0.10	0.12	0.12
35abR [191] / 30ab [217]	0.31	0.35	0.35
25nor30ab [177] / 25nor28ab [177]	0.56	0.56	0.58
29bbS [218] / 27bbR [218]	1.08	1.19	1.20

SAT GC-MSD Analysis Data Sheet
Sample information

Site	Control sample		
Depth (m SB)			
Sample ID	JR-1		
Sample type			
Lithology			

Calibration data

EOM (g)	0.0261		
IS (µl)	0		
IS (ng)	0		

Analysis results

Compound	Peak height	Concentration (ng/g EOM)	Peak height	Concentration (ng/g EOM)	Peak height	Concentration (ng/g EOM)
Internal standard (m/z 217)						
5b Cholan						
m/z 191						
19/3		228				
20/3		1016				
21/3		2077				
23/3		4047				
24/3		2376				
25/3R		2616				
25/3S		2395				
24/4		837				
26/3R		955				
26/3S		1005				
28/3R		1130				
28/3S		1106				
29/3R		395				
29/3S		410				
27Ts		2812				
27Tm		4379				
27b		738				
28ab		617				
25nor30ab		401				
29ab		10991				
29Ts		4497				
30d		1738				
29ba		1565				
30O		0				
30ab		29245				
30D13		2221				
30ba		5227				
31abS		11749				
31abR		8933				
30G		736				
31ba		2224				
32abS		8126				
32abR		5548				
33abS		8382				
33abR		5781				
34abS		4555				
34abR		3054				
35abS		3287				
35abR		2158				
m/z 177						
25nor28ab		1315				
25nor30ab		405				
m/z 217						
21a		2410				
21b		2191				
22a		1099				
22b		1046				
27dbS		7009				
27dbR		4592				
27aaS		6681				
29dbS		5511				
27aaR		7706				
29dbR		3784				
28aaR		3247				
29aaS		6305				
29bbR		4335				
29bbS		3827				
29aaR		8071				
30aaR		1853				
m/z 218						
27bbR		6537				
27bbS		5565				
28bbR		4576				
28bbS		3539				
29bbR		6215				
29bbS		6101				
30bbR		762				
30bbS		841				

SAT GC-MSD Analysis Data Sheet (Part 2)

Sample information

Site	Control sample		
Depth (m SB)			
Sample ID	JR-1		
Sample type			
Lithology			

Peak height ratios

%24/3	8		
%27Ts	39		
%27b	14		
%28ab	2		
%28nor30ab	1		
%29Ts	29		
%30d	6		
%30ab	85		
%31abS	57		
%32abS	59		
%33abS	59		
%34abS	60		
%35abS	60		
%32-35abS	59		
%27dia	48		
%29aaS	44		
%29bb(R+S)[1]	36		
%27aaRSTER	41		
%28aaRSTER	17		
%29aaRSTER	42		
%27bbSTER	37		
%28bbSTER	25		
%29bbSTER	38		
Variables for QC (reference samples only)			
(23/3) [191] / 30ab [191]	0.14		
35abR [191] / 30ab [191]	0.07		
35abR [191] / 30ab [217]	1.15		
25nor30ab [177] / 25nor28ab [177]			
29bbS [218] / 27bbR [218]	0.93		

Table 29

ARO GC-MSD analysis data sheets

For peak labels and identifications see Figure 9.

Peak height ratios:

MNR	$2\text{-MN}/1\text{-MN}$
%2-MN	$100 * 2\text{-MN} / (2\text{-MN} + 1\text{-MN})$
DNR (DNR 1)	$(2,6\text{-DMN} + 2,7\text{-DMN}) / 1,5\text{-DMN}$
MPI1	$1.5 * (3\text{-MP} + 2\text{-MP}) / (P + 9\text{-MP} + 1\text{-MP})$
MPI2	$3 * 2\text{-MP} / (P + 9\text{-MP} + 1\text{-MP})$
F1	$(3\text{-MP} + 2\text{-MP}) / (3\text{-MP} + 2\text{-MP} + 9\text{-MP} + 1\text{-MP})$
F2	$2\text{-MP} / (3\text{-MP} + 2\text{-MP} + 9\text{-MP} + 1\text{-MP})$
%4-MDBT	$100 * 4\text{-MDBT} / (4\text{-MDBT} + 1\text{-MDBT})$
4-MDBT/1-MDBT	
$100 * \text{DBT} / (\text{DBT} + P)$	
%S-comp / Phenanthrenes	$100 * (\text{DBT} + \text{MDBTs}) / (P + \text{MPs} + \text{DMPs} + \text{Retene})$
%Retene / Phenanthrenes	$100 * \text{Retene} / (P + \text{MPs} + \text{DMPs} + \text{Retene})$

ARO GC-MSD Analysis Data Sheet
Sample information

Site	7831/2-U-2	7831/2-U-2	7831/2-U-2
Depth (m SB)	I0106	I0102	I0099
Sample ID	6.83	10.28	14.53
Sample type	COCH	COCH	COCH
Lithology	CLYST (SLTY, DKG)	CLYST (SLTY, MGY)	CLYST (SLTY, DKG)

Calibration data

EOM (g)	0.0729	0.0540	0.1557
IS (µl)	146	108	173
IS (ng)	2916	2160	3460

Analysis results

Compound	m/z	Peak height	Concentration (ng/g EOM)	Peak height	Concentration (ng/g EOM)	Peak height	Concentration (ng/g EOM)
Internal standards							
d8-N	136	24551		10023		17952	
d10-Biphenyl	164	25176		10411		18653	
d10-P	188	31224		13918		23469	
d12-C	240	33096		16068		24512	
Naphthalenes							
N	128	4160	7367	4759	20644	2175	2926
2-MN	142	18949	39614	25653	129686	4219	6614
1-MN	142	16169	33802	21633	109363	3509	5501
2,6-DMN	156	15608	37573	21146	123098	3859	6966
2,7-DMN	156	16793	40426	22040	128303	3218	5809
1,3+1,7-DMN	156	33654	81015	39262	228558	6242	11267
1,6-DMN	156	34493	83035	43185	251395	5685	10262
2,3+1,4-DMN	156	9942	23933	10916	63546	2444	4412
1,5-DMN	156	14310	34448	16761	97572	3469	6262
1,2-DMN	156	7189	17306	11129	64786	1857	3352
1,3,7-TMN	170	19638	47274	26717	155529	22995	41508
1,3,6-TMN	170	30597	73656	43186	251401	29223	52750
1,3,5+1,4,6-TMN	170	30642	73764	47302	275361	38992	70383
2,3,6-TMN	170	20346	48979	34539	201064	30123	54374
1,2,7-TMN	170	6667	16049	19507	113557	12946	23368
1,6,7+1,2,6-TMN	170	27359	65861	49244	286666	34548	62362
1,2,4-TMN	170	4114	9904	10866	63255	9101	16428
1,2,5-TMN	170	14171	34114	35983	209470	24979	45089
Biphenyls							
BP	154	13476	21411	6869	26391	840	1001
3-MBP	168	24572	39040	10263	39431	3705	4414
4-MBP	168	10624	16880	4379	16825	2107	2510
C2-BP	182	9233	14670	8501	32662	18336	21845
C2-BP	182	26087	41447	18378	70610	14707	17521
C2-BP	182	27446	43607	19988	76796	15735	18746
Phenanthrenes							
P	178	59050	77191	135779	398189	152329	147180
3-MP	192	28808	48559	63849	241448	94726	118018
2-MP	192	27160	45781	69112	261350	101380	126308
2-MA	192	818	1379	19	72	72	90
9-MP	192	48352	81503	99488	376219	142810	177925
1-MP	192	34636	58383	90967	343996	126065	157063
2-EP+9-EP+3,6-DMP	206	5409	10342	11314	48532	17667	24968
1-EP	206	9234	17656	22003	94382	37380	52827
2,6+2,7+3,5-DMP	206	5457	10434	13465	57758	22149	31302
1,3+2,10+3,9+3,10-DMP	206	45091	86216	94958	407324	141416	199856
1,6+2,5+2,9-DMP	206	20143	38514	47640	204353	73541	103932
1,7-DMP	206	24358	46573	51721	221858	78817	111388
2,3-DMP	206	7324	14004	15993	68602	24840	35105
1,9+4,9+4,10-DMP	206	11358	21717	27102	116254	40641	57436
1,8-DMP	206	7310	13977	21340	91538	32933	46542
1,2-DMP	206	4928	9423	13700	58766	20196	28542
Retene	219	5678	7422	3732	10945	3721	3595
Dibenzothiophenes							
DBT	184	78204	112567	63562	205254	23643	25154
4-MDBT	198	57577	103887	103771	420050	134699	179638
3+2-MDBT	198	40373	72846	90880	367869	136469	181999
1-MDBT	198	19122	34502	42983	173989	80572	107453

ARO GC-MSD Analysis Data Sheet (Part 2)
Sample information

Site	7831/2-U-2	7831/2-U-2	7831/2-U-2
Depth (m SB)	I0106	I0102	I0099
Sample ID	6.83	10.28	14.53
Sample type	COCH	COCH	COCH
Lithology	CLYST (SLTY, DKGY)	CLYST (SLTY, MGY)	CLYST (SLTY, DKGY)

Compound	m/z	Peak height	Concentration (ng/g EOM)	Peak height	Concentration (ng/g EOM)	Peak height	Concentration (ng/g EOM)
Triaromatic steroid HC							
a1	231	6500	5948	10871	22316	15184	10270
b1	231	5037	4609	7416	15224	9906	6700
c1	231	7688	7035	4313	8854	3481	2354
d1	231	16881	15447	13456	27623	12654	8558
e1	231	11484	10508	10328	21202	11436	7735
f1	231	6636	6072	6474	13290	6406	4333
g1	231	12535	11470	10920	22417	12614	8531
Monoaromatic steroid HC							
A1	253	3191	6649	2270	9743	3776	5902
B1	253	2987	6224	3206	13760	3928	6140
C1 (a)	253	1989	4145	2366	10155	1807	2824
C1 (b)	253	3021	4622	1498	4720	1339	1537
D1 (a)	253	3587	5488	2777	8751	2233	2563
D1 (b)	253	1963	4091	1292	5545	1053	1646
E1	253	4578	7004	2791	8795	2237	2567
F1	253	2355	3603	1785	5625	2096	2405
G1 (a)	253	1823	3799	1632	7005	1552	2426
G1 (b)	253	2182	4547	1296	5563	1134	1773
G1 (c)	253	4421	6764	3429	10805	2698	3096
G1 (d)	253	8628	13200	5786	18233	4859	5576
H1 (a)	253	2911	6066	1472	6318	1325	2071
H1 (b)	253	2786	5805	2240	9614	1839	2875
H1 (c)	253	5028	7692	3698	11653	2992	3434
I1 (a)	253	2951	6149	1747	7498	1373	2146

Peak height ratios

MNR (2-MN/1-MN)	1.17	1.19	1.20
%2-MN	54	54	55
DNR (DNR 1)	2.26	2.58	2.04
MPI1	0.59	0.61	0.70
MPI2	0.57	0.64	0.72
F1	0.40	0.41	0.42
F2	0.20	0.21	0.22
%4-MDBT	75	71	63
4-MDBT/1-MDBT	3.01	2.41	1.67
100*DBT/(DBT+P)	57	32	13
%S-comp / Phenanthrenes	36	28	25
%Retene / Phenanthrenes	2	0	0

Variables for QC (reference samples only)

1-MP/P (m/z 192 and 178)			
a1/d1 (m/z 231)			
A1/E1 (m/z 253)			

ARO GC-MSD Analysis Data Sheet
Sample information

Site	7831/2-U-2	7831/2-U-2	7831/2-U-1
Depth (m SB)	10096	10095	10089
Sample ID	17.87	18.85	21.76
Sample type	COCH	COCH	COCH
Lithology	CLYST (SLTY, DKGY)	CLYST (SLTY, DKGY)	CLYST (DKGY)

Calibration data

EOM (g)	0.0963	0.0594	0.0441
IS (µl)	193	119	88
IS (ng)	3852	2376	1764

Analysis results

Compound	m/z	Peak height	Concentration (ng/g EOM)	Peak height	Concentration (ng/g EOM)	Peak height	Concentration (ng/g EOM)
Internal standards							
d8-N	136	16580		1935		15562	
d10-Biphenyl	164	17783		1981		15435	
d10-P	188	23807		2374		20199	
d12-C	240	26798		2645		22791	
Naphthalenes							
N	128	2814	7379	159228	3577755	4855	13564
2-MN	142	29561	87490	139969	3718723	34389	117263
1-MN	142	31050	91897	72352	1922261	32900	112185
2,6-DMN	156	40988	139691	19193	587184	51952	203991
2,7-DMN	156	41994	143119	19803	605846	55559	218154
1,3+1,7-DMN	156	79923	272385	35418	1083567	93850	368505
1,6-DMN	156	79922	272381	30034	918850	96052	377151
2,3+1,4-DMN	156	20975	71485	6967	213146	22360	87797
1,5-DMN	156	32915	112177	20119	615514	35169	138092
1,2-DMN	156	20833	71001	10583	323773	17005	66771
1,3,7-TMN	170	67109	228713	8412	257354	60276	236676
1,3,6-TMN	170	109457	373039	11270	344791	91662	359914
1,3,5+1,4,6-TMN	170	108354	369280	9591	293424	80657	316702
2,3,6-TMN	170	76482	260658	11301	345739	62137	243983
1,2,7-TMN	170	36872	125663	3791	115981	20226	79418
1,6,7+1,2,6-TMN	170	99306	338444	18218	557355	67663	265681
1,2,4-TMN	170	20953	71410	2059	62992	9217	36191
1,2,5-TMN	170	63830	217538	30293	926774	35189	138171
Biphenyls							
BP	154	6990	15723	14629	295386	11523	29862
3-MBP	168	17779	39991	12174	245815	31789	82382
4-MBP	168	7255	16319	4870	98334	14073	36470
C2-BP	182	17043	38335	2038	41151	15245	39508
C2-BP	182	36787	82746	21847	441131	23927	62007
C2-BP	182	29977	67428	30727	620434	20162	52250
Phenanthrenes							
P	178	218817	375155	74080	1273662	96921	195849
3-MP	192	111612	246747	21364	473640	58402	152175
2-MP	192	121244	268041	22696	503170	61388	159956
2-MA	192	169	374	1380	30595	811	2113
9-MP	192	166070	367141	21623	479382	93001	242328
1-MP	192	155630	344061	26773	593557	68538	178586
2-EP+9-EP+3,6-DMP	206	21743	54526	1708	42953	10740	31744
1-EP	206	41941	105177	3619	91011	21940	64847
2,6+2,7+3,5-DMP	206	24926	62508	2630	66139	13482	39848
1,3+2,10+3,9+3,10-DMP	206	167150	419167	10523	264633	98852	292173
1,6+2,5+2,9-DMP	206	87756	220068	5927	149053	48757	144109
1,7-DMP	206	88264	221342	9802	246501	44384	131184
2,3-DMP	206	27676	69404	4167	104792	14670	43360
1,9+4,9+4,10-DMP	206	46031	115433	3161	79493	26847	79351
1,8-DMP	206	38631	96876	1859	46750	16487	48730
1,2-DMP	206	24957	62585	3734	93903	9910	29291
Retene	219	3979	6822	92217	1585492	11137	22505
Dibenzothiophenes							
DBT	184	176575	333345	2687	74080	168299	374474
4-MDBT	198	273046	646149	2687	63766	203761	568320
3+2-MDBT	198	256727	607531	2168	51449	171622	478679
1-MDBT	198	84254	199383	785	18629	49809	138925

ARO GC-MSD Analysis Data Sheet (Part 2)
Sample information

Site	7831/2-U-2	7831/2-U-2	7831/2-U-1
Depth (m SB)	I0096	I0095	I0089
Sample ID	17.87	18.85	21.76
Sample type	COCH	COCH	COCH
Lithology	CLYST (SLTY, DKGY)	CLYST (SLTY, DKGY)	CLYST (DKGY)

Compound	m/z	Peak height	Concentration (ng/g EOM)	Peak height	Concentration (ng/g EOM)	Peak height	Concentration (ng/g EOM)
Triaromatic steroid HC							
a1	231	17598	21120	390	4694	7857	11114
b1	231	12197	14638	281	3382	5034	7121
c1	231	3305	3966	344	4140	3211	4542
d1	231	13736	16485	940	11313	9918	14029
e1	231	14199	17041	1385	16669	7728	10931
f1	231	7312	8775	434	5223	4736	6699
g1	231	14748	17699	1334	16055	9329	13196
Monoaromatic steroid HC							
A1	253	5721	14723	64	1669	2415	7308
B1	253	5312	13671	58	1512	2219	6715
C1 (a)	253	2292	5899	363	9465	1683	5093
C1 (b)	253	1786	3375	166	3178	1295	2877
D1 (a)	253	2885	5451	75	1436	2346	5212
D1 (b)	253	1345	3461	52	1356	883	2672
E1	253	2805	5300	470	8997	2605	5787
F1	253	2418	4569	5651	108176	3750	8331
G1 (a)	253	1821	4686	76	1982	1131	3422
G1 (b)	253	1350	3474	74	1929	1148	3474
G1 (c)	253	3234	6110	143	2737	2947	6547
G1 (d)	253	6202	11718	594	11371	5643	12537
H1 (a)	253	1396	3593	94	2451	1324	4006
H1 (b)	253	2260	5816	190	4954	1912	5786
H1 (c)	253	3697	6985	343	6566	3284	7296
I1 (a)	253	1723	4434	114	2972	1349	4082

Peak height ratios

MNR (2-MN/1-MN)	0.95	1.93	1.05
%2-MN	49	66	51
DNR (DNR 1)	2.52	1.94	3.06
MPI1	0.65	0.54	0.70
MPI2	0.67	0.56	0.71
F1	0.42	0.48	0.43
F2	0.22	0.25	0.22
%4-MDBT	76	77	80
4-MDBT/1-MDBT	3.24	3.42	4.09
100*DBT/(DBT+P)	45	5	63
%S-comp / Phenanthrenes	37	3	46
%Retene / Phenanthrenes	0	30	2

Variables for QC (reference samples only)

1-MP/P (m/z 192 and 178)			
a1/d1 (m/z 231)			
A1/E1 (m/z 253)			

ARO GC-MSD Analysis Data Sheet
Sample information

Site	7830/6-U-1	7830/6-U-1	7830/6-U-1
Depth (m SB)	I0005	I0126	I0115
Sample ID	12.88	20.1	41.89
Sample type	COCH	COCH	COCH
Lithology	SLST	CLYST (SLTY, LAM, DKG)	CLYST (DKGY, LAM)

Calibration data

EOM (g)	0.0072	0.0036	0.0468
IS (µl)	14	7	94
IS (ng)	288	144	1872

Analysis results

Compound	m/z	Peak height	Concentration (ng/g EOM)	Peak height	Concentration (ng/g EOM)	Peak height	Concentration (ng/g EOM)
Internal standards							
d8-N	136	6082		1386		11743	
d10-Biphenyl	164	6523		1447		11944	
d10-P	188	8095		1880		16800	
d12-C	240	9500		2515		22672	
Naphthalenes							
N	128	7248	51814	121881	3823358	25637	94921
2-MN	142	20590	166133	166201	6045212	250140	1102249
1-MN	142	11919	96170	97021	3528935	199451	878887
2,6-DMN	156	18751	174218	38732	1622249	132384	671741
2,7-DMN	156	20382	189372	38219	1600762	144782	734651
1,3+1,7-DMN	156	24688	229379	59506	2492346	217368	1102965
1,6-DMN	156	26388	245174	60731	2543654	247721	1256982
2,3+1,4-DMN	156	5390	50079	13484	564763	55912	283708
1,5-DMN	156	12183	113194	27029	1132081	92368	468692
1,2-DMN	156	6049	56202	15986	669557	59895	303918
1,3,7-TMN	170	25296	235029	15630	654646	84832	430453
1,3,6-TMN	170	40311	374535	21964	919939	133087	675308
1,3,5+1,4,6-TMN	170	26398	245267	19133	801365	108644	551280
2,3,6-TMN	170	37186	345500	19624	821930	103685	526117
1,2,7-TMN	170	8335	77442	6575	275387	36665	186045
1,6,7+1,2,6-TMN	170	32066	297929	25647	1074197	121179	614885
1,2,4-TMN	170	3482	32352	3291	137840	19726	100093
1,2,5-TMN	170	20050	186287	33006	1382421	82758	419929
Biphenyls							
BP	154	4500	27595	16093	444865	38997	130599
3-MBP	168	6642	40730	14295	395162	51855	173660
4-MBP	168	5188	31814	6032	166745	20900	69993
C2-BP	182	14561	89290	3053	84395	17540	58741
C2-BP	182	12104	74224	19878	549496	40172	134534
C2-BP	182	12389	75971	27669	764865	41500	138982
Phenanthrenes							
P	178	113826	573929	89922	1952280	262460	637658
3-MP	192	93311	606684	24399	683063	105128	329348
2-MP	192	98791	642313	26583	744205	112394	352112
2-MA	192	372	2419	1271	35582	76	238
9-MP	192	84272	547915	26995	755739	135380	424123
1-MP	192	71443	464504	33402	935106	143734	450294
2-EP+9-EP+3,6-DMP	206	24474	180498	2441	77517	14527	51624
1-EP	206	45791	337714	5410	171801	28797	102335
2,6+2,7+3,5-DMP	206	25230	186074	3507	111369	15855	56343
1,3+2,10+3,9+3,10-DMP	206	104608	771495	16535	525087	100078	355643
1,6+2,5+2,9-DMP	206	54868	404657	9655	306605	55605	197601
1,7-DMP	206	52066	383992	13871	440489	87971	312619
2,3-DMP	206	23071	170151	5077	161226	22821	81098
1,9+4,9+4,10-DMP	206	23786	175424	5021	159447	28538	101414
1,8-DMP	206	12372	91245	3321	105462	24959	88696
1,2-DMP	206	10062	74208	5107	162178	21483	76343
Retene	219	23954	120780	152449	3309792	23369	56776
Dibenzothiophenes							
DBT	184	42533	236145	29174	697442	200055	535193
4-MDBT	198	197632	1375441	15382	460953	151449	507877
3+2-MDBT	198	158602	1103808	12902	386635	121545	407596
1-MDBT	198	58592	407777	3568	106922	38978	130711

ARO GC-MSD Analysis Data Sheet (Part 2)
Sample information

Site	7830/6-U-1	7830/6-U-1	7830/6-U-1
Depth (m SB)	I0005	I0126	I0115
Sample ID	12.88	20.1	41.89
Sample type	COCH	COCH	COCH
Lithology	SLST	CLYST (SLTY, LAM, DKGY)	CLYST (DKGY, LAM)

Compound	m/z	Peak height	Concentration (ng/g EOM)	Peak height	Concentration (ng/g EOM)	Peak height	Concentration (ng/g EOM)
Triaromatic steroid HC							
a1	231	3486	12304	598	9088	26002	44221
b1	231	1771	6251	420	6383	16842	28643
c1	231	1376	4857	496	7538	57919	98502
d1	231	3777	13331	1308	19878	109487	186202
e1	231	3644	12862	1687	25638	79181	134662
f1	231	1715	6053	611	9286	42833	72845
g1	231	3684	13003	1602	24347	75165	127832
Monoaromatic steroid HC							
A1	253	3460	25118	92	2523	8064	24530
B1	253	1875	13612	80	2194	6285	19118
C1 (a)	253	428	3107	287	7870	5807	17664
C1 (b)	253	766	4083	205	4127	14093	31474
D1 (a)	253	858	4573	110	2215	14153	31608
D1 (b)	253	227	1648	51	1399	10223	31097
E1	253	1112	5927	519	10449	19364	43245
F1	253	3246	17300	4250	85563	6395	14282
G1 (a)	253	293	2127	84	2303	9826	29890
G1 (b)	253	287	2083	70	1920	11993	36481
G1 (c)	253	1027	5474	265	5335	15973	35672
G1 (d)	253	2082	11097	795	16005	36730	82028
H1 (a)	253	357	2592	107	2934	17171	52232
H1 (b)	253	476	3456	196	5375	12469	37929
H1 (c)	253	1218	6492	461	9281	20912	46702
I1 (a)	253	371	2693	83	2276	13717	41725

Peak height ratios

MNR (2-MN/1-MN)	1.73	1.71	1.25
%2-MN	63	63	56
DNR (DNR 1)	3.21	2.85	3.00
MPI1	1.07	0.51	0.60
MPI2	1.10	0.53	0.62
F1	0.55	0.46	0.44
F2	0.28	0.24	0.23
%4-MDBT	77	81	80
4-MDBT/1-MDBT	3.37	4.31	3.89
100*DBT/(DBT+P)	27	24	43
%S-comp / Phenanthrenes	35	13	30
%Retene / Phenanthrenes	3	36	2

Variables for QC (reference samples only)

1-MP/P (m/z 192 and 178)			
a1/d1 (m/ 231)			
A1/E1 (m/z 253)			

ARO GC-MSD Analysis Data Sheet
Sample information

Site	7830/6-U-1	7830/3-U-1	7830/3-U-1
Depth (m SB)	I0110	I0146	I0151
Sample ID	50.93	39.99	51.24
Sample type	COCH	COCH	COPL
Lithology	CLYST (DKGY, LAM)	SST (MGR, MGY)	SST (FGR, MGY)

Calibration data

EOM (g)	0.0405	0.0297	0.0531
IS (µl)	81	59	106
IS (ng)	1620	1188	2124

Analysis results

Compound	m/z	Peak height	Concentration (ng/g EOM)	Peak height	Concentration (ng/g EOM)	Peak height	Concentration (ng/g EOM)
Internal standards							
d8-N	136	13660		11546		17941	
d10-Biphenyl	164	15414		11928		18259	
d10-P	188	24715		15562		27815	
d12-C	240	30011		15698		31478	
Naphthalenes							
N	128	11284	35916	563	2120	770	1866
2-MN	142	81769	279203	1208	5330	1894	5459
1-MN	142	63856	218038	836	3689	1373	3958
2,6-DMN	156	89037	350083	789	4009	1500	4979
2,7-DMN	156	93422	367324	886	4502	1609	5341
1,3+1,7-DMN	156	144657	568775	1687	8572	3029	10054
1,6-DMN	156	160547	631252	1352	6869	2663	8839
2,3+1,4-DMN	156	38408	151016	429	2180	804	2669
1,5-DMN	156	58308	229260	651	3308	1291	4285
1,2-DMN	156	35385	139130	379	1926	686	2277
1,3,7-TMN	170	138675	545254	2059	10462	4249	14103
1,3,6-TMN	170	176418	693655	3017	15329	6498	21568
1,3,5+1,4,6-TMN	170	186009	731366	2878	14623	5372	17831
2,3,6-TMN	170	129674	509863	2161	10980	4638	15395
1,2,7-TMN	170	48883	192202	545	2769	1129	3747
1,6,7+1,2,6-TMN	170	154066	605770	2963	15055	5001	16600
1,2,4-TMN	170	33572	132001	422	2144	694	2304
1,2,5-TMN	170	98968	389131	1612	8191	3324	11033
Biphenyls							
BP	154	14218	36896	281	942	352	771
3-MBP	168	38421	99704	471	1579	553	1211
4-MBP	168	16401	42561	246	825	347	760
C2-BP	182	28687	74444	495	1660	1286	2817
C2-BP	182	51690	134138	754	2529	1378	3019
C2-BP	182	44928	116590	568	1905	1268	2778
Phenanthrenes							
P	178	329035	543395	22130	58043	38821	56967
3-MP	192	190934	406602	17325	58594	53103	100482
2-MP	192	205313	437222	19196	64922	54246	102644
2-MA	192	282	601	157	531	35	66
9-MP	192	303273	645832	20092	67952	57732	109241
1-MP	192	258614	550729	15056	50920	46965	88867
2-EP+9-EP+3,6-DMP	206	38975	94148	6281	24096	21003	45080
1-EP	206	83780	202379	12462	47809	40572	87083
2,6+2,7+3,5-DMP	206	46933	113371	5825	22347	21977	47171
1,3+2,10+3,9+3,10-DMP	206	309305	747156	35888	137679	104361	223998
1,6+2,5+2,9-DMP	206	168400	406787	17062	65456	52588	112874
1,7-DMP	206	166020	401037	13971	53598	47257	101431
2,3-DMP	206	49366	119248	7149	27426	22714	48753
1,9+4,9+4,10-DMP	206	85827	207323	8075	30979	24562	52719
1,8-DMP	206	68480	165420	4832	18537	14419	30949
1,2-DMP	206	41526	100310	3309	12695	10151	21788
Retene	219	32110	53029	8394	22016	20601	30230
Dibenzothiophenes							
DBT	184	254633	463046	11968	34564	11794	19057
4-MDBT	198	422736	963630	15388	55708	81777	165636
3+2-MDBT	198	387114	882429	16168	58532	77713	157404
1-MDBT	198	121439	276821	13389	48471	39196	79390

ARO GC-MSD Analysis Data Sheet (Part 2)
Sample information

Site	7830/6-U-1	7830/3-U-1	7830/3-U-1
Depth (m SB)	I0110	I0146	I0151
Sample ID	50.93	39.99	51.24
Sample type	COCH	COCH	COPL
Lithology	CLYST (DKGY, LAM)	SST (MGR, MGY)	SST (FGR, MGY)

Compound	m/z	Peak height	Concentration (ng/g EOM)	Peak height	Concentration (ng/g EOM)	Peak height	Concentration (ng/g EOM)
Triaromatic steroid HC							
a1	231	30751	35549	5878	10792	11502	11815
b1	231	21665	25046	3887	7136	6773	6957
c1	231	35409	40934	1231	2260	2134	2192
d1	231	81330	94020	5624	10326	9151	9400
e1	231	71053	82140	7977	14646	12328	12663
f1	231	32272	37308	3186	5849	4776	4906
g1	231	66424	76789	8743	16052	12498	12838
Monoaromatic steroid HC							
A1	253	7263	16690	2275	9995	4419	9682
B1	253	7431	17076	1589	6981	2574	5639
C1 (a)	253	5697	13092	770	3383	1094	2397
C1 (b)	253	10459	17646	1279	4125	2018	3246
D1 (a)	253	10635	17943	1814	5851	2449	3939
D1 (b)	253	8319	19117	563	2473	820	1797
E1	253	16304	27507	2053	6622	3161	5085
F1	253	7779	13124	1571	5067	2604	4189
G1 (a)	253	7874	18095	498	2188	822	1801
G1 (b)	253	10126	23270	395	1735	621	1361
G1 (c)	253	13366	22550	1916	6180	2779	4470
G1 (d)	253	33499	56518	4015	12950	6255	10061
H1 (a)	253	16114	37030	711	3124	949	2079
H1 (b)	253	11104	25517	1272	5588	1791	3924
H1 (c)	253	19587	33046	2600	8386	3879	6239
I1 (a)	253	12968	29801	842	3699	1176	2577

Peak height ratios

MNR (2-MN/1-MN)	1.28	1.44	1.38
%2-MN	56	59	58
DNR (DNR 1)	3.13	2.57	2.41
MPI1	0.67	0.96	1.12
MPI2	0.69	1.01	1.13
F1	0.41	0.51	0.51
F2	0.21	0.27	0.26
%4-MDBT	78	53	68
4-MDBT/1-MDBT	3.48	1.15	2.09
100*DBT/(DBT+P)	44	35	23
%S-comp / Phenanthrenes	33	21	25
%Retene / Phenanthrenes	1	4	3

Variables for QC (reference samples only)

1-MP/P (m/z 192 and 178)			
a1/d1 (m/ 231)			
A1/E1 (m/z 253)			

ARO GC-MSD Analysis Data Sheet
Sample information

Site	7830/3-U-1	7830/3-U-1	7830/3-U-1
Depth (m SB)	I0177	I0184	I0195
Sample ID	111.75	124.63	154.88
Sample type	COCH	COPL	COCH
Lithology	SST (FGR, DKG)	SST (FGR, LTGY)	CLYST (SL SLTY, DKG)

Calibration data

EOM (g)	0.1089	0.0189	0.0027
IS (µl)	194	378	5
IS (ng)	3872	7560	108

Analysis results

Compound	m/z	Peak height	Concentration (ng/g EOM)	Peak height	Concentration (ng/g EOM)	Peak height	Concentration (ng/g EOM)
Internal standards							
d8-N	136	24309		25979		14535	
d10-Biphenyl	164	24706		26853		14748	
d10-P	188	30246		33893		18887	
d12-C	240	31489		36222		21341	
Naphthalenes							
N	128	552	878	1360	22761	3031	9067
2-MN	142	854	1617	2961	58035	13203	47118
1-MN	142	628	1189	1523	29851	12665	45198
2,6-DMN	156	360	785	1119	25255	16129	66281
2,7-DMN	156	370	807	1176	26542	15787	64876
1,3+1,7-DMN	156	760	1657	1564	35299	33420	137338
1,6-DMN	156	669	1459	1616	36472	30664	126012
2,3+1,4-DMN	156	197	430	284	6410	9203	37819
1,5-DMN	156	288	628	560	12639	13776	56612
1,2-DMN	156	171	373	289	6523	8057	33110
1,3,7-TMN	170	408	890	937	21148	34865	143276
1,3,6-TMN	170	538	1173	1428	32229	53664	220529
1,3,5+1,4,6-TMN	170	587	1280	1005	22682	65613	269633
2,3,6-TMN	170	376	820	1057	23856	36474	149888
1,2,7-TMN	170	127	277	254	5733	20277	83327
1,6,7+1,2,6-TMN	170	450	981	1038	23427	57268	235340
1,2,4-TMN	170	79	172	130	2934	16529	67925
1,2,5-TMN	170	333	726	582	13135	47982	197179
Biphenyls							
BP	154	149	214	385	5735	2517	6827
3-MBP	168	168	242	590	8789	6227	16889
4-MBP	168	66	95	228	3396	2730	7404
C2-BP	182	88	127	387	5765	7852	21296
C2-BP	182	157	226	352	5243	20352	55199
C2-BP	182	125	180	318	4737	19066	51711
Phenanthrenes							
P	178	1432	1718	4704	56649	181212	391614
3-MP	192	883	1366	6434	99912	98664	274943
2-MP	192	862	1333	6488	100751	98496	274475
2-MA	192	33	51	65	1009	201	560
9-MP	192	1314	2032	6721	104369	134866	375825
1-MP	192	954	1476	5549	86169	129123	359821
2-EP+9-EP+3,6-DMP	206	855	1500	2281	40179	17218	54426
1-EP	206	481	844	4925	86752	34396	108725
2,6+2,7+3,5-DMP	206	367	644	2346	41324	20606	65135
1,3+2,10+3,9+3,10-DMP	206	38146	66929	13241	233236	133652	422472
1,6+2,5+2,9-DMP	206	851	1493	6131	107996	69858	220820
1,7-DMP	206	820	1439	5326	93816	73744	233104
2,3-DMP	206	848	1488	2514	44283	23801	75235
1,9+4,9+4,10-DMP	206	692	1214	2641	46520	35463	112098
1,8-DMP	206	222	390	1511	26616	31684	100153
1,2-DMP	206	211	370	1080	19024	20199	63849
Retene	219	607	728	2393	28818	3555	7683
Dibenzothiophenes							
DBT	184	841	1111	3113	41280	54656	130060
4-MDBT	198	1434	2374	13588	225864	165178	492709
3+2-MDBT	198	1035	1714	10749	178673	171263	510860
1-MDBT	198	451	747	3722	61868	69327	206795

ARO GC-MSD Analysis Data Sheet (Part 2)
Sample information

Site	7830/3-U-1	7830/3-U-1	7830/3-U-1
Depth (m SB)	I0177	I0184	I0195
Sample ID	111.75	124.63	154.88
Sample type	COCH	COPL	COCH
Lithology	SST (FGR, DKGy)	SST (FGR, LTGY)	CLYST (SL SLTY, DKGy)

Compound	m/z	Peak height	Concentration (ng/g EOM)	Peak height	Concentration (ng/g EOM)	Peak height	Concentration (ng/g EOM)
Triaromatic steroid HC							
a1	231	242	203	1137	9585	14373	21743
b1	231	453	380	704	5935	9802	14828
c1	231	173	145	447	3768	2589	3917
d1	231	477	401	1640	13825	10517	15910
e1	231	582	489	1823	15368	10223	15465
f1	231	275	231	831	7005	5657	8558
g1	231	1172	984	2580	21749	11163	16887
Monoaromatic steroid HC							
A1	253	501	975	656	12490	4665	15075
B1	253	322	627	486	9253	4263	13776
C1 (a)	253	201	391	338	6435	1727	5581
C1 (b)	253	68	97	303	4235	1327	3148
D1 (a)	253	74	106	516	7213	2047	4857
D1 (b)	253	43	84	212	4036	952	3076
E1	253	171	244	481	6724	2102	4987
F1	253	1674	2393	221	3089	1942	4608
G1 (a)	253	57	111	179	3408	1440	4654
G1 (b)	253	50	97	198	3770	1036	3348
G1 (c)	253	119	170	556	7772	2584	6131
G1 (d)	253	205	293	1144	15991	4601	10916
H1 (a)	253	101	197	287	5464	1187	3836
H1 (b)	253	108	210	309	5883	1599	5167
H1 (c)	253	131	187	659	9212	2765	6560
I1 (a)	253	49	95	299	5693	1334	4311

Peak height ratios

MNR (2-MN/1-MN)	1.36	1.94	1.04
%2-MN	58	66	51
DNR (DNR 1)	2.53	4.10	2.32
MPI1	0.71	1.14	0.66
MPI2	0.70	1.15	0.66
F1	0.43	0.51	0.43
F2	0.21	0.26	0.21
%4-MDBT	76	78	70
4-MDBT/1-MDBT	3.18	3.65	2.38
100*DBT/(DBT+P)	37	40	23
%S-comp / Phenanthrenes	7	30	29
%Retene / Phenanthrenes	1	3	0

Variables for QC (reference samples only)

1-MP/P (m/z 192 and 178)			
a1/d1 (m/z 231)			
A1/E1 (m/z 253)			

ARO GC-MSD Analysis Data Sheet
Sample information

Site	7830/3-U-1	7830/5-U-1	7830/5-U-1
Depth (m SB)	10287	10221	10254
Sample ID	174.15	58.97	128.68
Sample type	COCH	COCH	COCH
Lithology	SST (FGR, MGY)	CLYST (SL SLTY, LAM, DKG)	CLYST (VDKGY, LAM)

Calibration data

EOM (g)	0.0549	0.0072	0.0099
IS (µl)	110	14	20
IS (ng)	2196	288	396

Analysis results

Compound	m/z	Peak height	Concentration (ng/g EOM)	Peak height	Concentration (ng/g EOM)	Peak height	Concentration (ng/g EOM)
Internal standards							
d8-N	136	26368		29		12280	
d10-Biphenyl	164	27317		126		12984	
d10-P	188	36895		274		15612	
d12-C	240	39210		1326		18355	
Naphthalenes							
N	128	1152	1900	850	293306	164150	581185
2-MN	142	1931	3720	1089	454887	193828	785696
1-MN	142	1095	2110	704	294069	115430	467904
2,6-DMN	156	636	1411	278	133718	32473	151576
2,7-DMN	156	656	1455	282	135642	33224	155081
1,3+1,7-DMN	156	1181	2620	660	317460	59857	279397
1,6-DMN	156	1146	2543	486	233766	59934	279757
2,3+1,4-DMN	156	286	635	159	76479	16636	77653
1,5-DMN	156	571	1267	419	201539	32537	151875
1,2-DMN	156	331	734	235	113035	23937	111732
1,3,7-TMN	170	802	1779	243	116883	16707	77984
1,3,6-TMN	170	1190	2640	380	182780	30058	140303
1,3,5+1,4,6-TMN	170	1067	2367	399	191919	23871	111424
2,3,6-TMN	170	915	2030	371	178451	20516	95764
1,2,7-TMN	170	314	697	163	78403	11063	51639
1,6,7+1,2,6-TMN	170	1299	2882	695	334295	52550	245290
1,2,4-TMN	170	201	446	86	41366	5863	27367
1,2,5-TMN	170	1470	3261	853	410293	83752	390933
Biphenyls							
BP	154	206	302	135	42857	8278	25502
3-MBP	168	384	562	187	59365	11644	35872
4-MBP	168	154	226	114	36190	4888	15059
C2-BP	182	293	429	106	33651	4431	13651
C2-BP	182	726	1063	520	165079	34846	107351
C2-BP	182	946	1385	1054	334603	38991	120120
Phenanthrenes							
P	178	5963	6597	4096	610159	163336	427029
3-MP	192	5340	7618	1290	247791	53811	181409
2-MP	192	4950	7061	1479	284095	51097	172260
2-MA	192	165	235	559	107376	900	3034
9-MP	192	5919	8444	1672	321168	51152	172445
1-MP	192	5950	8488	1840	353438	56906	191843
2-EP+9-EP+3,6-DMP	206	1561	2526	135	29415	4517	17273
1-EP	206	2838	4592	347	75607	9027	34520
2,6+2,7+3,5-DMP	206	1350	2184	524	114174	6740	25774
1,3+2,10+3,9+3,10-DMP	206	8387	13571	884	192614	25782	98592
1,6+2,5+2,9-DMP	206	4343	7028	618	134655	13145	50267
1,7-DMP	206	5129	8299	1080	235320	20455	78221
2,3-DMP	206	2173	3516	411	89552	8118	31044
1,9+4,9+4,10-DMP	206	2359	3817	353	76915	7207	27560
1,8-DMP	206	1371	2218	192	41835	5390	20612
1,2-DMP	206	1659	2685	452	98486	12086	46218
Retene	219	73812	81657	25628	3817667	47626	124514
Dibenzothiophenes							
DBT	184	1341	1634	107	17551	11840	34085
4-MDBT	198	5913	9029	130	26730	9041	32626
3+2-MDBT	198	4033	6158	58	11926	6556	23658
1-MDBT	198	1449	2213	40	8225	3356	12111

ARO GC-MSD Analysis Data Sheet (Part 2)
Sample information

Site	7830/3-U-1	7830/5-U-1	7830/5-U-1
Depth (m SB)	I0287	I0221	I0254
Sample ID	174.15	58.97	128.68
Sample type	COCH	COCH	COCH
Lithology	SST (FGR, MGY)	CLYST (SL SLTY, LAM, DKGy)	CLYST (VDKGy, LAM)

Compound	m/z	Peak height	Concentration (ng/g EOM)	Peak height	Concentration (ng/g EOM)	Peak height	Concentration (ng/g EOM)
Triaromatic steroid HC							
a1	231	7301	5654	187	19499	5962	10911
b1	231	7987	6185	43	4484	4987	9127
c1	231	36484	28253	26	2711	67744	123978
d1	231	100998	78213	79	8238	133855	244967
e1	231	91882	71153	84	8759	69366	126946
f1	231	43300	33531	36	3754	52751	96539
g1	231	93940	72747	77	8029	70331	128712
Monoaromatic steroid HC							
A1	253	6656	11707	39	2028	9301	34947
B1	253	7891	13879	60	3121	10189	38283
C1 (a)	253	8925	15698	75	3901	20145	75691
C1 (b)	253	12879	16631	287	10959	58882	162428
D1 (a)	253	17039	22003	245	9355	64285	177332
D1 (b)	253	9278	16319	82	4265	18849	70822
E1	253	17947	23175	634	24209	77197	212951
F1	253	2865	3700	2760	105390	26592	73355
G1 (a)	253	8030	14124	83	4317	17670	66392
G1 (b)	253	8722	15341	175	9102	32064	120475
G1 (c)	253	20595	26595	577	22033	75926	209445
G1 (d)	253	39196	50615	1874	71558	121487	335126
H1 (a)	253	11965	21045	434	22572	27481	103255
H1 (b)	253	11022	19386	327	17007	32779	123161
H1 (c)	253	23763	30686	1229	46929	75687	208785
I1 (a)	253	11897	20925	263	13679	27626	103800

Peak height ratios

MNR (2-MN/1-MN)	1.76	1.61	1.68
%2-MN	64	62	63
DNR (DNR 1)	2.26	1.20	2.02
MPI1	0.87	0.55	0.58
MPI2	0.83	0.59	0.56
F1	0.46	0.44	0.49
F2	0.22	0.24	0.24
%4-MDBT	80	76	73
4-MDBT/1-MDBT	4.08	3.25	2.69
100*DBT/(DBT+P)	18	3	7
%S-comp / Phenanthrenes	9	1	5
%Retene / Phenanthrenes	55	63	9

Variables for QC (reference samples only)

1-MP/P (m/z 192 and 178)			
a1/d1 (m/ 231)			
A1/E1 (m/z 253)			

ARO GC-MSD Analysis Data Sheet
Sample information

Site	Control sample	Control sample	Control sample
Depth (m SB)			
Sample ID	NSO-1, #0	NSO-1, #1	NSO-1, #2
Sample type			
Lithology			

Calibration data

EOM (g)	0.0298	0.0306	0.0297
IS (µl)	60	61	59
IS (ng)	1192	1224	1188

Analysis results

Compound	m/z	Peak height	Concentration (ng/g topped oil)	Peak height	Concentration (ng/g topped oil)	Peak height	Concentration (ng/g topped oil)
Internal standards							
d8-N	136	12295		3047		13491	
d10-Biphenyl	164	12736		3415		14405	
d10-P	188	16610		5345		20045	
d12-C	240	15875		5727		20897	
Naphthalenes							
N	128	252207	891868	66507	949002	292850	943785
2-MN	142	318516	1316269	87879	1354381	369957	1351713
1-MN	142	246149	1017212	69113	1065161	292782	1069738
2,6-DMN	156	97003	461603	25604	454395	116921	491921
2,7-DMN	156	104434	496964	26920	477750	122805	516677
1,3+1,7-DMN	156	191855	912969	53781	954452	232034	976235
1,6-DMN	156	167358	796397	46348	822539	208883	878832
2,3+1,4-DMN	156	34664	164954	11410	202493	53592	225477
1,5-DMN	156	67606	321713	18281	324433	82752	348162
1,2-DMN	156	33764	160671	8766	155570	41543	174784
1,3,7-TMN	170	72021	342722	20770	368606	92412	388804
1,3,6-TMN	170	93401	444462	27938	495816	121650	511817
1,3,5+1,4,6-TMN	170	87430	416048	25490	452371	115192	484647
2,3,6-TMN	170	63290	301174	17822	316287	82391	346643
1,2,7-TMN	170	20699	98499	7020	124584	27215	114501
1,6,7+1,2,6-TMN	170	96675	460042	23135	410577	117059	492502
1,2,4-TMN	170	11253	53549	2956	52460	22593	95055
1,2,5-TMN	170	38989	185535	10830	192200	51468	216541
Biphenyls							
BP	154	99888	313719	26958	315760	119163	330893
3-MBP	168	88860	279083	25473	298366	108594	301545
4-MBP	168	31649	99400	9261	108474	40319	111958
C2-BP	182	24034	75484	7079	82917	31631	87833
C2-BP	182	26109	82001	7429	87016	35019	97241
C2-BP	182	19425	61008	5937	69540	26199	72750
Phenanthrenes							
P	178	107840	264999	35175	268609	143103	291391
3-MP	192	47294	149859	16452	162001	66274	174014
2-MP	192	50906	161304	18005	177293	74459	195505
2-MA	192	1901	6024	561	5524	2724	7152
9-MP	192	76748	243189	25620	252277	121845	319925
1-MP	192	58925	186714	21133	208094	84688	222363
2-EP+9-EP+3,6-DMP	206	7299	26235	2474	27634	10709	31895
1-EP	206	15093	54249	5539	61868	24164	71969
2,6+2,7+3,5-DMP	206	10133	36421	3355	37474	14963	44565
1,3+2,10+3,9+3,10-DMP	206	65756	236347	25321	282825	93725	279148
1,6+2,5+2,9-DMP	206	31823	114382	11654	130170	47632	141866
1,7-DMP	206	34789	125042	12212	136403	54889	163480
2,3-DMP	206	13444	48322	3695	41272	16242	48375
1,9+4,9+4,10-DMP	206	20517	73744	7707	86084	31920	95070
1,8-DMP	206	8611	30951	3006	33576	12941	38543
1,2-DMP	206	5677	20405	2039	22775	8664	25805
Retene	219	38783	95303	14891	113713	61577	125385
Dibenzothiophenes							
DBT	184	22870	61882	6967	58583	31439	70491
4-MDBT	198	29459	99919	10003	105435	43027	120931
3+2-MDBT	198	13903	47156	4544	47895	19302	54250
1-MDBT	198	9813	33284	3251	34267	14788	41563

ARO GC-MSD Analysis Data Sheet (Part 2)
Sample information

Site	Control sample	Control sample	Control sample
Depth (m SB)			
Sample ID	NSO-1, #0	NSO-1, #1	NSO-1, #2
Sample type			
Lithology			

Compound	m/z	Peak height	Concentration (ng/g topped oil)	Peak height	Concentration (ng/g topped oil)	Peak height	Concentration (ng/g topped oil)
Triaromatic steroid HC							
a1	231	6993	12029	2641	12957	11139	15877
b1	231	7596	13066	2656	14198	12930	18430
c1	231	7302	12560	1959	10472	10870	15494
d1	231	21701	37329	5979	32137	31337	44667
e1	231	10735	18466	2950	15769	16578	23630
f1	231	9906	17040	2616	13984	14482	20642
g1	231	11806	20308	3168	16934	17402	24804
Monoaromatic steroid HC							
A1	253	3162	13737	1130	13608	5228	17254
B1	253	2654	11530	1043	12560	4543	14993
C1 (a)	253	1610	6994	512	6166	2588	8541
C1 (b)	253	4532	14455	1508	13332	7417	17971
D1 (a)	253	5374	17140	1653	14614	8432	20431
D1 (b)	253	1874	8141	641	7719	2954	9749
E1	253	6635	21162	2065	18257	10179	24663
F1	253	1246	3974	417	3687	1682	4075
G1 (a)	253	1813	7876	618	7442	2790	9208
G1 (b)	253	2224	9662	733	8827	3617	11937
G1 (c)	253	5708	18206	1836	16232	9261	22439
G1 (d)	253	7190	22932	2256	19945	10811	26195
H1 (a)	253	1618	7029	461	5551	2333	7700
H1 (b)	253	2357	10239	738	8887	3601	11884
H1 (c)	253	4058	12943	1259	11131	6240	15119
I1 (a)	253	1593	6920	493	5937	2501	8254

Peak height ratios

MNR (2-MN/1-MN)	1.29	1.27	1.26
%2-MN	56	56	56
DNR (DNR 1)	2.98	2.87	2.90
MPI1	0.60	0.63	0.60
MPI2	0.63	0.66	0.64
F1	0.42	0.42	0.41
F2	0.22	0.22	0.21
%4-MDBT	75	75	74
4-MDBT/1-MDBT	3.00	3.08	2.91
100*DBT/(DBT+P)	17	17	18
%S-comp / Phenanthrenes	11	11	11
%Retene / Phenanthrenes	7	7	7

Variables for QC (reference samples only)

1-MP/P (m/z 192 and 178)	0.55	0.60	0.59
a1/d1 (m/ 231)	0.32	0.40	0.36
A1/E1 (m/z 253)	0.48	0.55	0.51

ARO GC-MSD Analysis Data Sheet
Sample information

Site	Control sample		
Depth (m SB)			
Sample ID	JR-1		
Sample type			
Lithology			

Calibration data

EOM (g)	0.0261		
IS (µl)	0		
IS (ng)	0		

Analysis results

Compound	m/z	Peak height	Concentration (ng/g EOM)	Peak height	Concentration (ng/g EOM)	Peak height	Concentration (ng/g EOM)
Internal standards							
d8-N	136	0					
d10-Biphenyl	164	0					
d10-P	188	0					
d12-C	240	0					
Naphthalenes							
N	128	17806					
2-MN	142	26708					
1-MN	142	24856					
2,6-DMN	156	5043					
2,7-DMN	156	5609					
1,3+1,7-DMN	156	12676					
1,6-DMN	156	14911					
2,3+1,4-DMN	156	3353					
1,5-DMN	156	5189					
1,2-DMN	156	4071					
1,3,7-TMN	170	2863					
1,3,6-TMN	170	6159					
1,3,5+1,4,6-TMN	170	5558					
2,3,6-TMN	170	3058					
1,2,7-TMN	170	2004					
1,6,7+1,2,6-TMN	170	5561					
1,2,4-TMN	170	1120					
1,2,5-TMN	170	3552					
Biphenyls							
BP	154	3301					
3-MBP	168	2437					
4-MBP	168	818					
C2-BP	182	433					
C2-BP	182	1649					
C2-BP	182	1405					
Phenanthrenes							
P	178	25836					
3-MP	192	8836					
2-MP	192	8909					
2-MA	192	32					
9-MP	192	13019					
1-MP	192	13418					
2-EP+9-EP+3,6-DMP	206	949					
1-EP	206	2000					
2,6+2,7+3,5-DMP	206	1059					
1,3+2,10+3,9+3,10-DMP	206	9557					
1,6+2,5+2,9-DMP	206	4732					
1,7-DMP	206	5367					
2,3-DMP	206	1492					
1,9+4,9+4,10-DMP	206	2831					
1,8-DMP	206	2057					
1,2-DMP	206	1410					
Retene	219	499					
Dibenzothiophenes							
DBT	184	2598					
4-MDBT	198	4002					
3+2-MDBT	198	1167					
1-MDBT	198	2391					

ARO GC-MSD Analysis Data Sheet (Part 2)
Sample information

Site	Control sample
Depth (m SB)	
Sample ID	JR-1
Sample type	
Lithology	

Compound	m/z	Peak height	Concentration (ng/g EOM)	Peak height	Concentration (ng/g EOM)	Peak height	Concentration (ng/g EOM)
Triaromatic steroid HC							
a1	231	1442					
b1	231	1144					
c1	231	3373					
d1	231	7576					
e1	231	5419					
f1	231	3196					
g1	231	5244					
Monoaromatic steroid HC							
A1	253	367					
B1	253	323					
C1 (a)	253	269					
C1 (b)	253	900					
D1 (a)	253	971					
D1 (b)	253	330					
E1	253	1245					
F1	253	236					
G1 (a)	253	388					
G1 (b)	253	373					
G1 (c)	253	1046					
G1 (d)	253	2044					
H1 (a)	253	370					
H1 (b)	253	404					
H1 (c)	253	1239					
I1 (a)	253	349					

Peak height ratios

MNR (2-MN/1-MN)	1.07
%2-MN	52
DNR (DNR 1)	2.05
MPI1	0.51
MPI2	0.51
F1	0.40
F2	0.20
%4-MDBT	63
4-MDBT/1-MDBT	1.67
100*DBT/(DBT+P)	9
%S-comp / Phenanthrenes	9
%Retene / Phenanthrenes	0

Variables for QC (reference samples only)

1-MP/P (m/z 192 and 178)	0.52
a1/d1 (m/z 231)	0.19
A1/E1 (m/z 253)	0.29

Figures

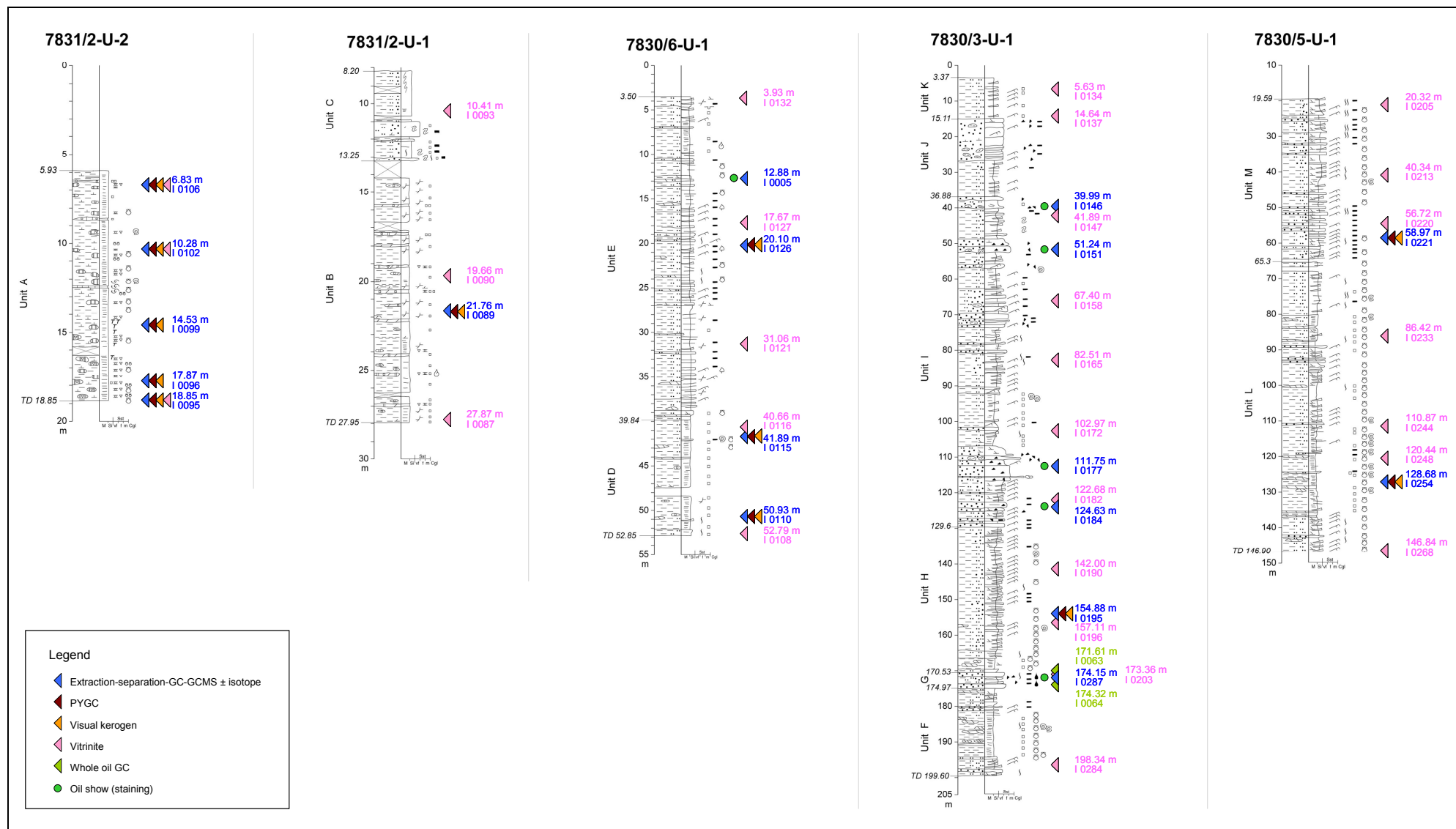
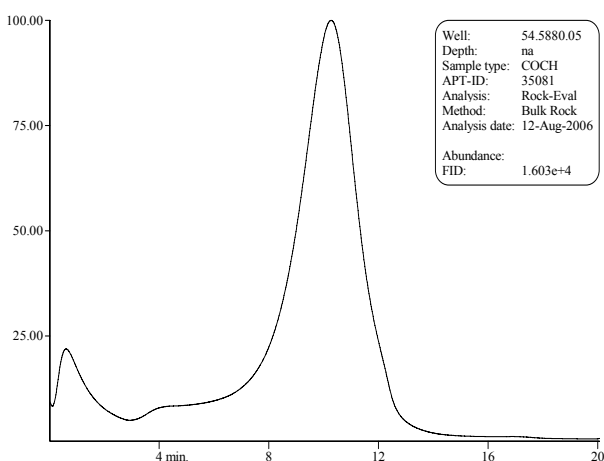
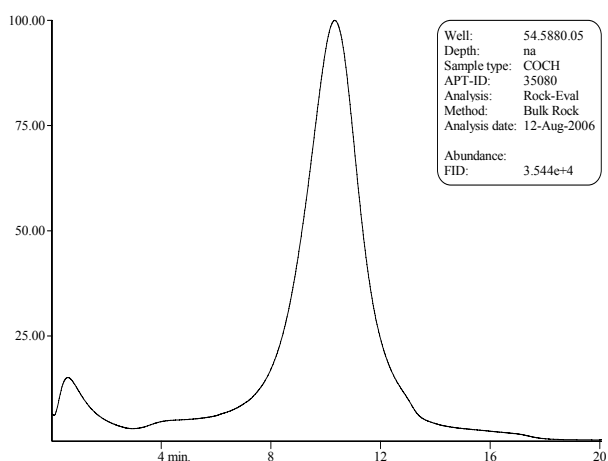
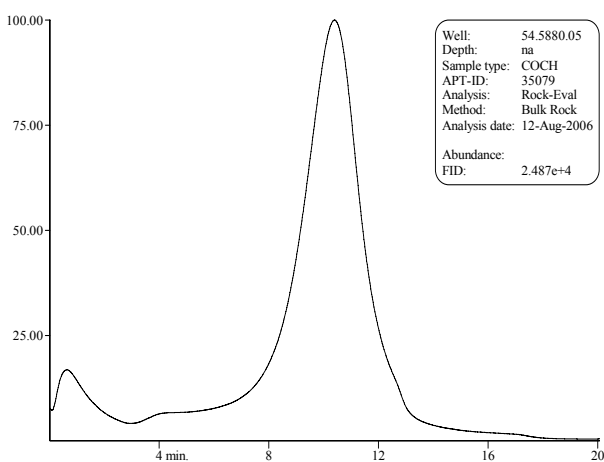
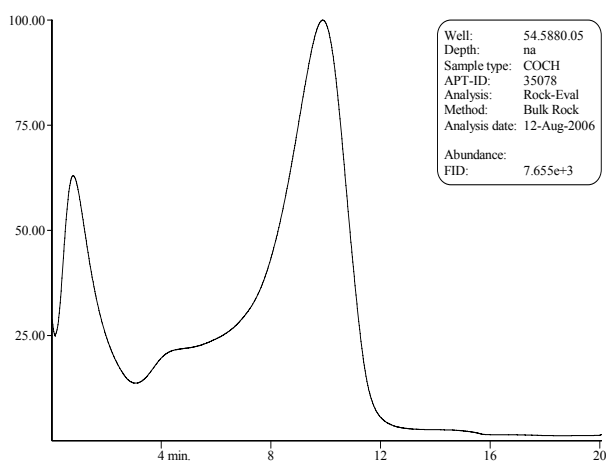
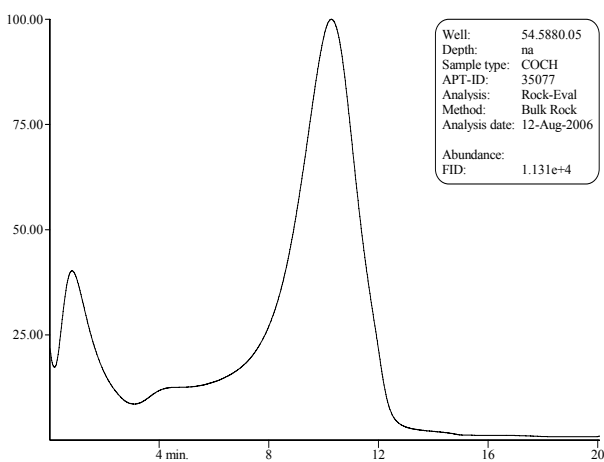
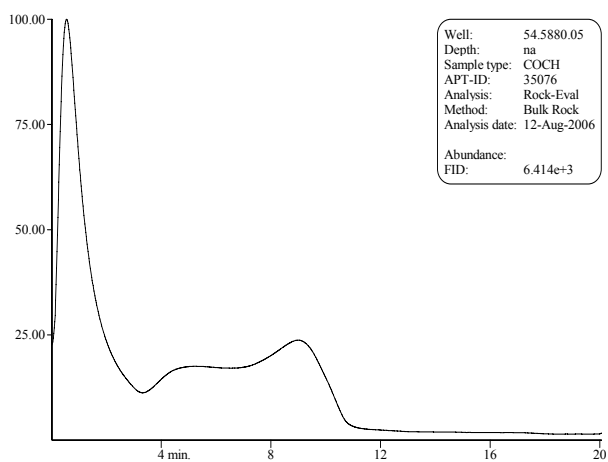
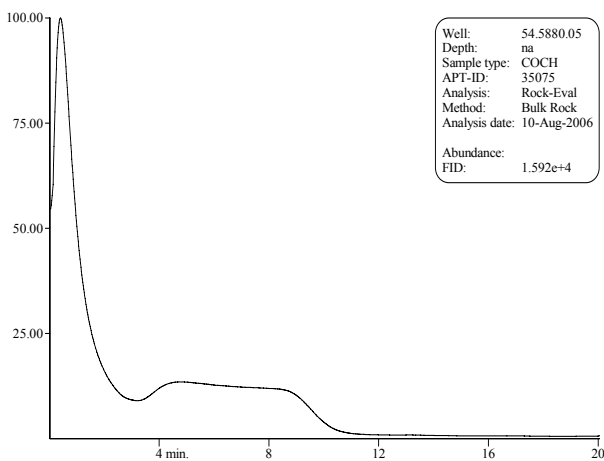
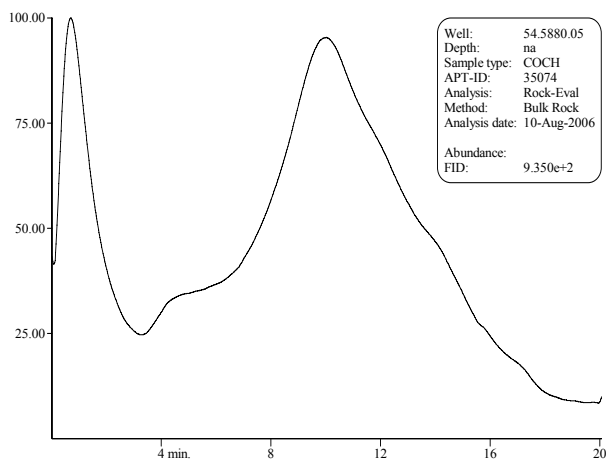
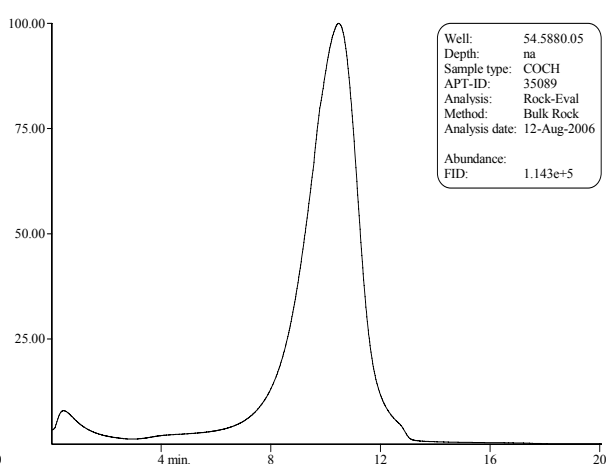
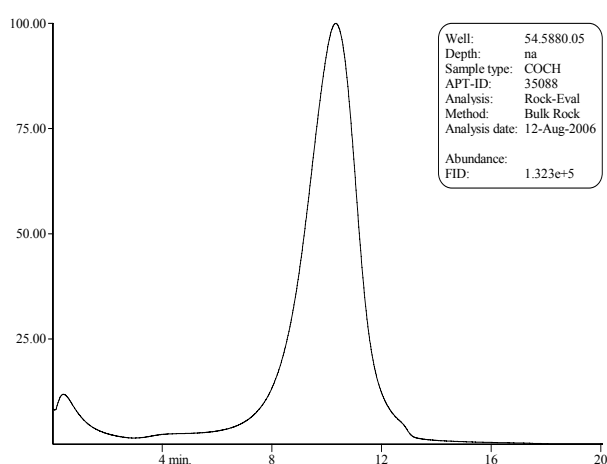
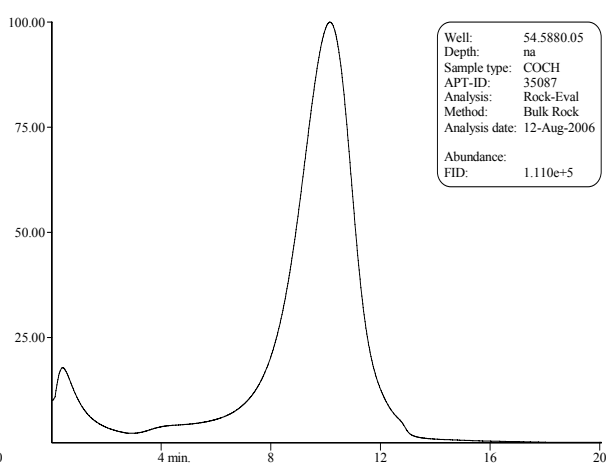
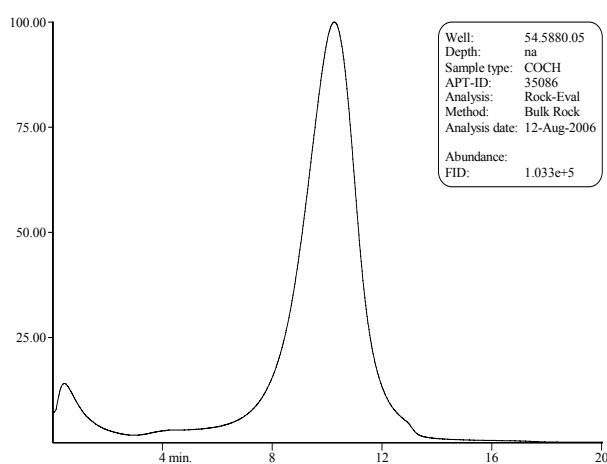
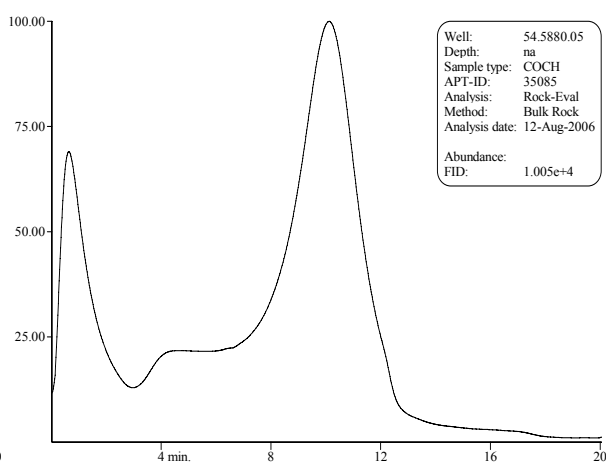
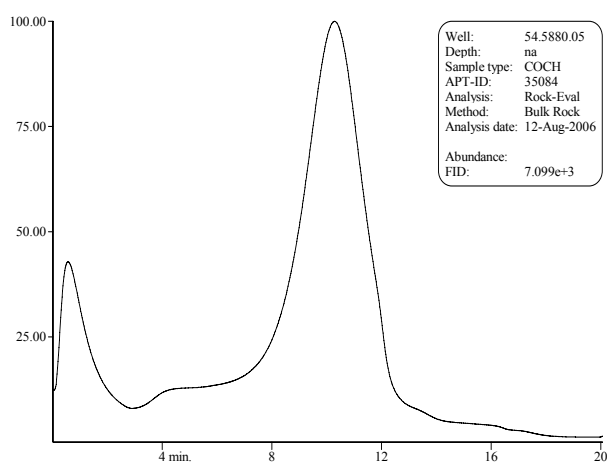
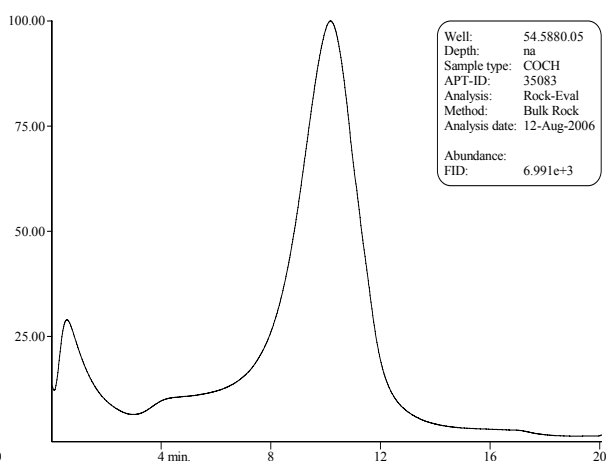
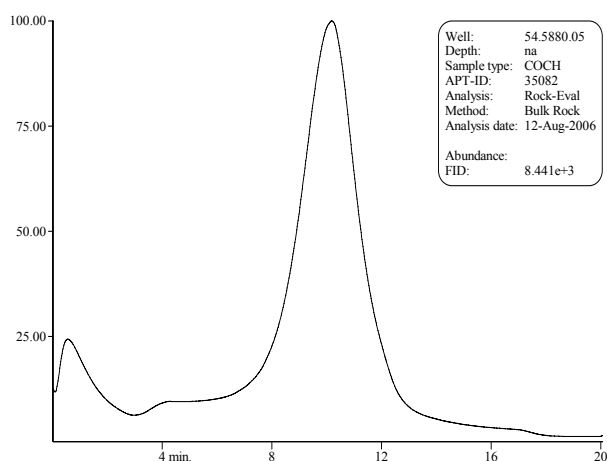
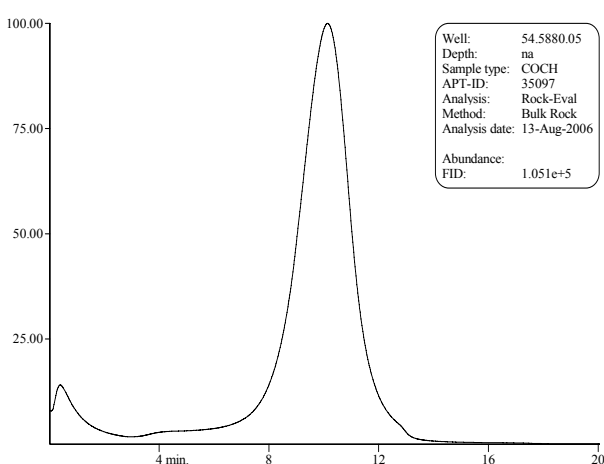
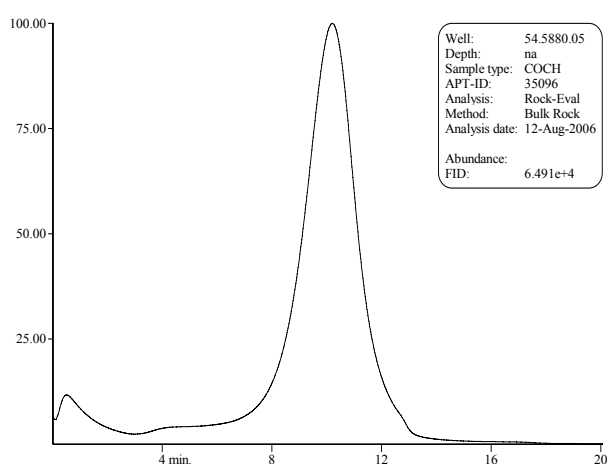
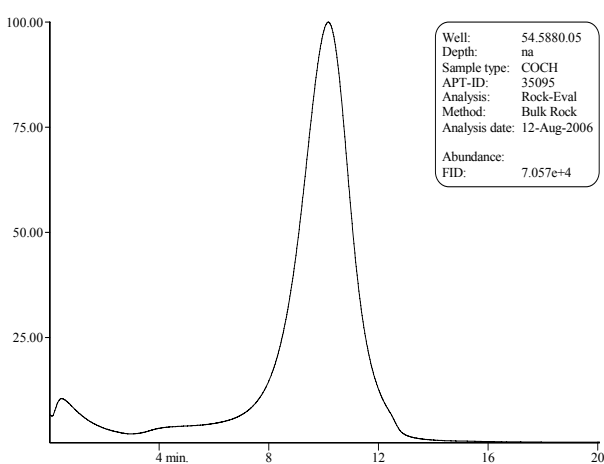
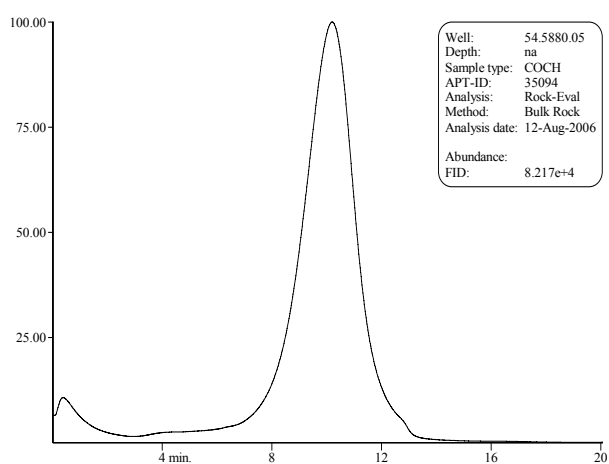
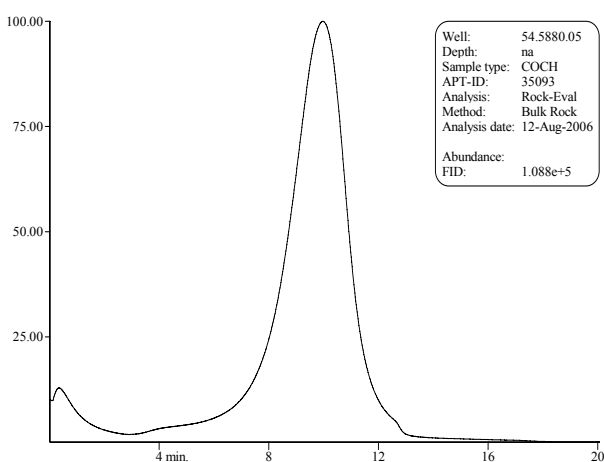
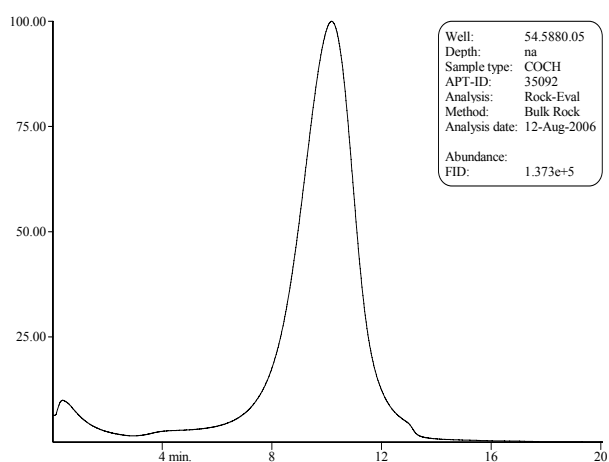
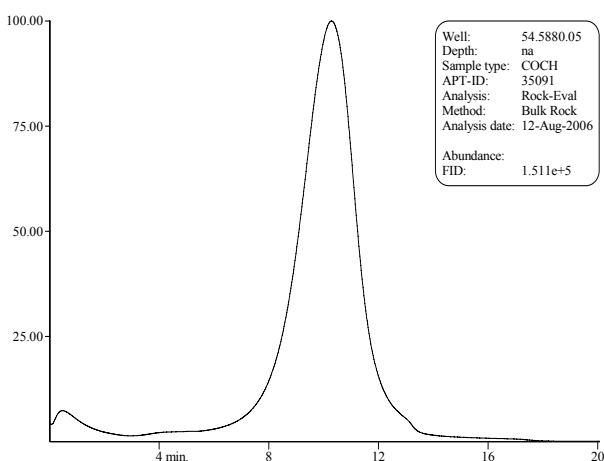
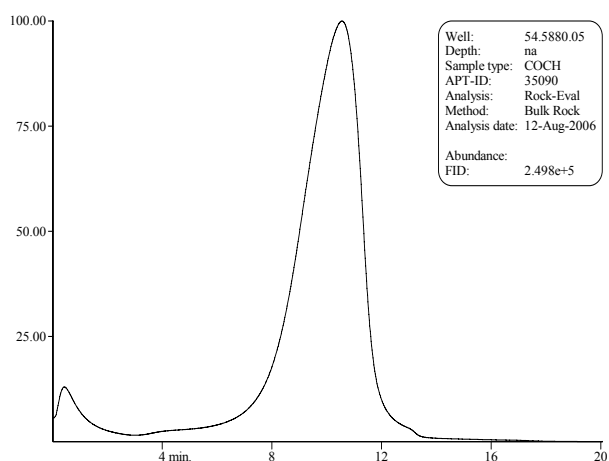


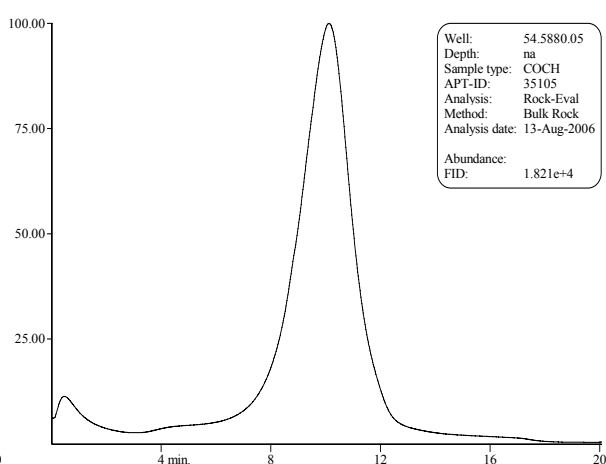
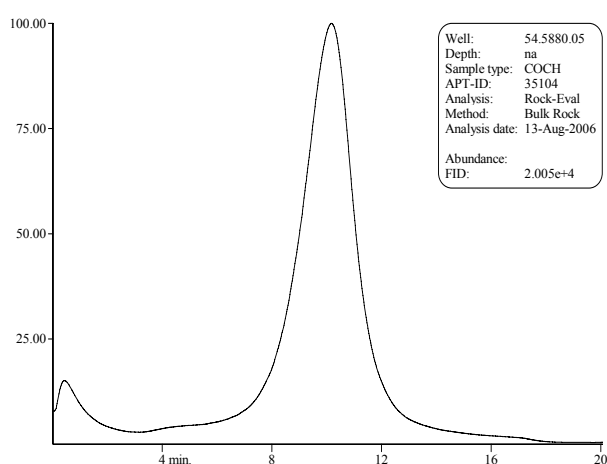
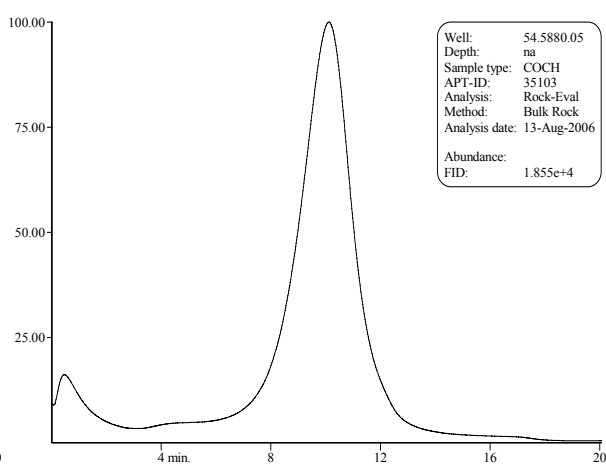
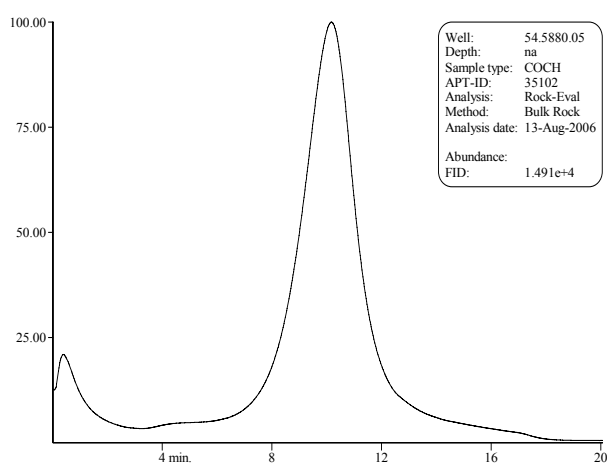
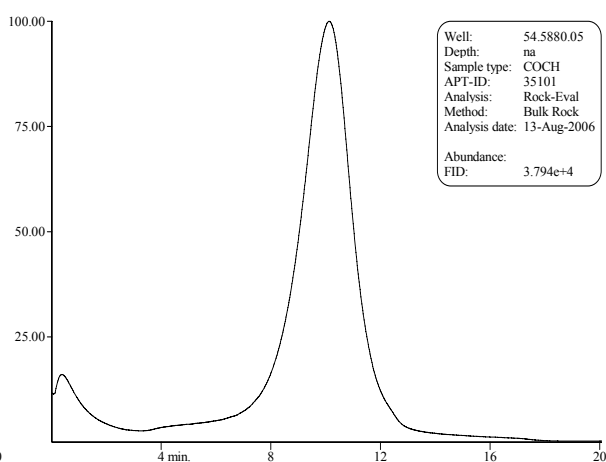
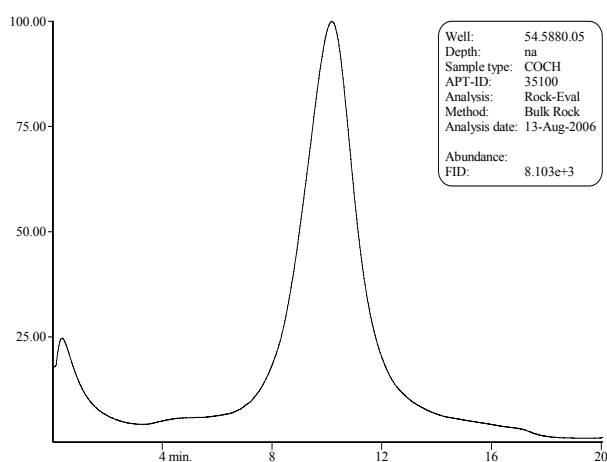
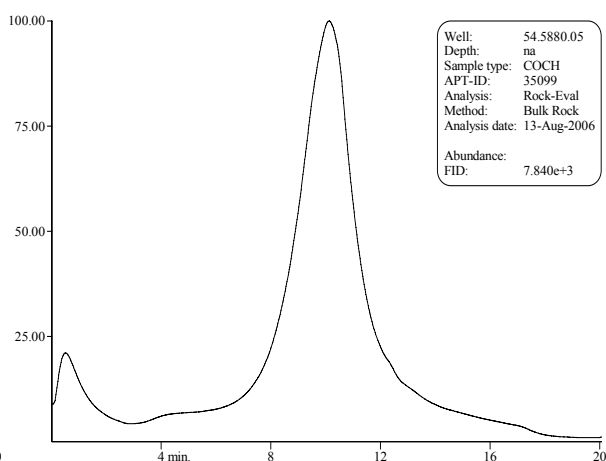
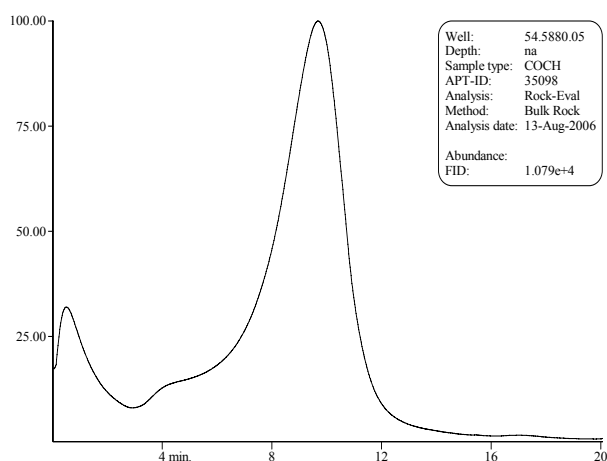
Figure 1 Core logs and samples for follow-up analyses

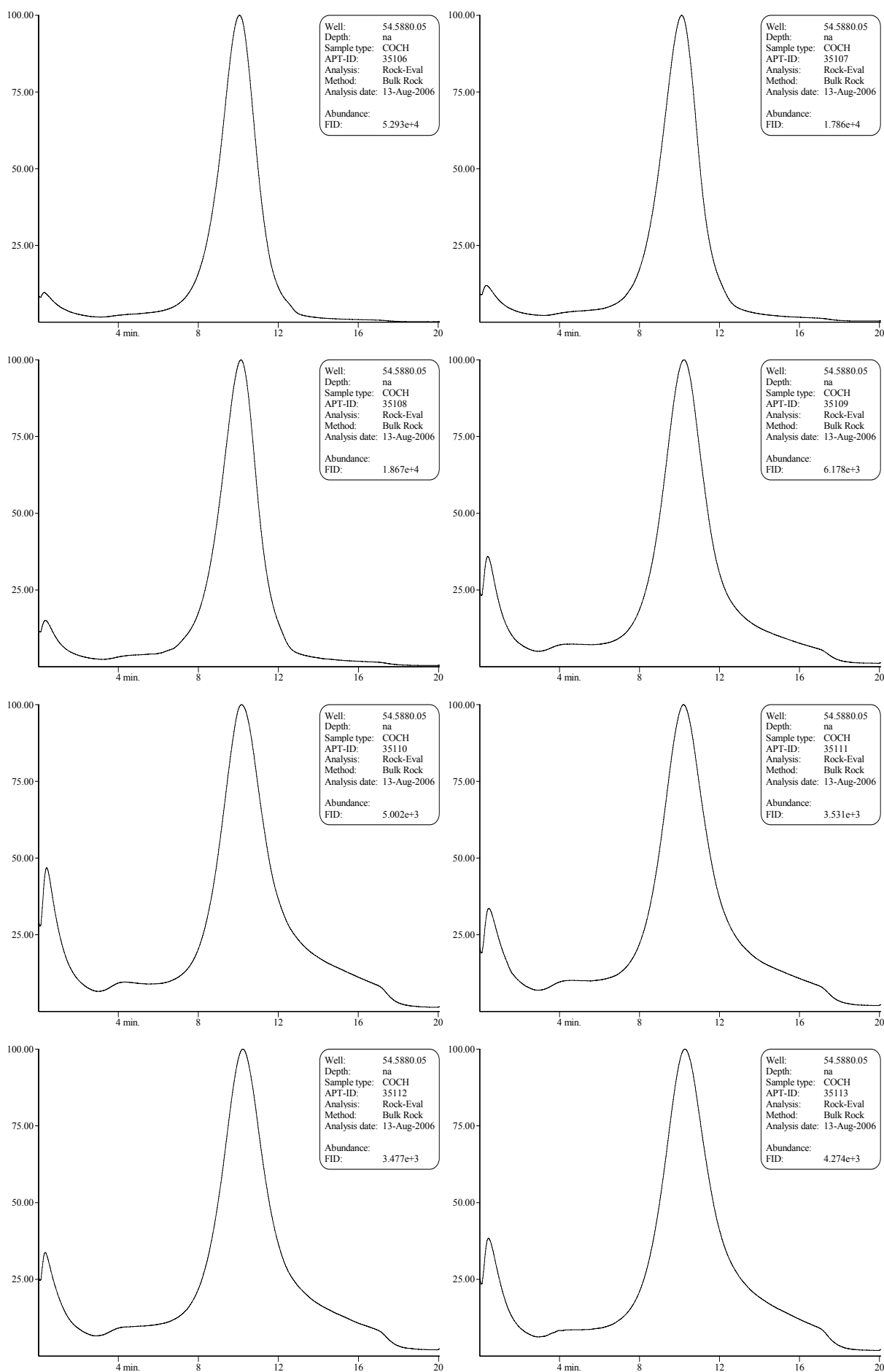
Figure 2
Rock-Eval pyrograms

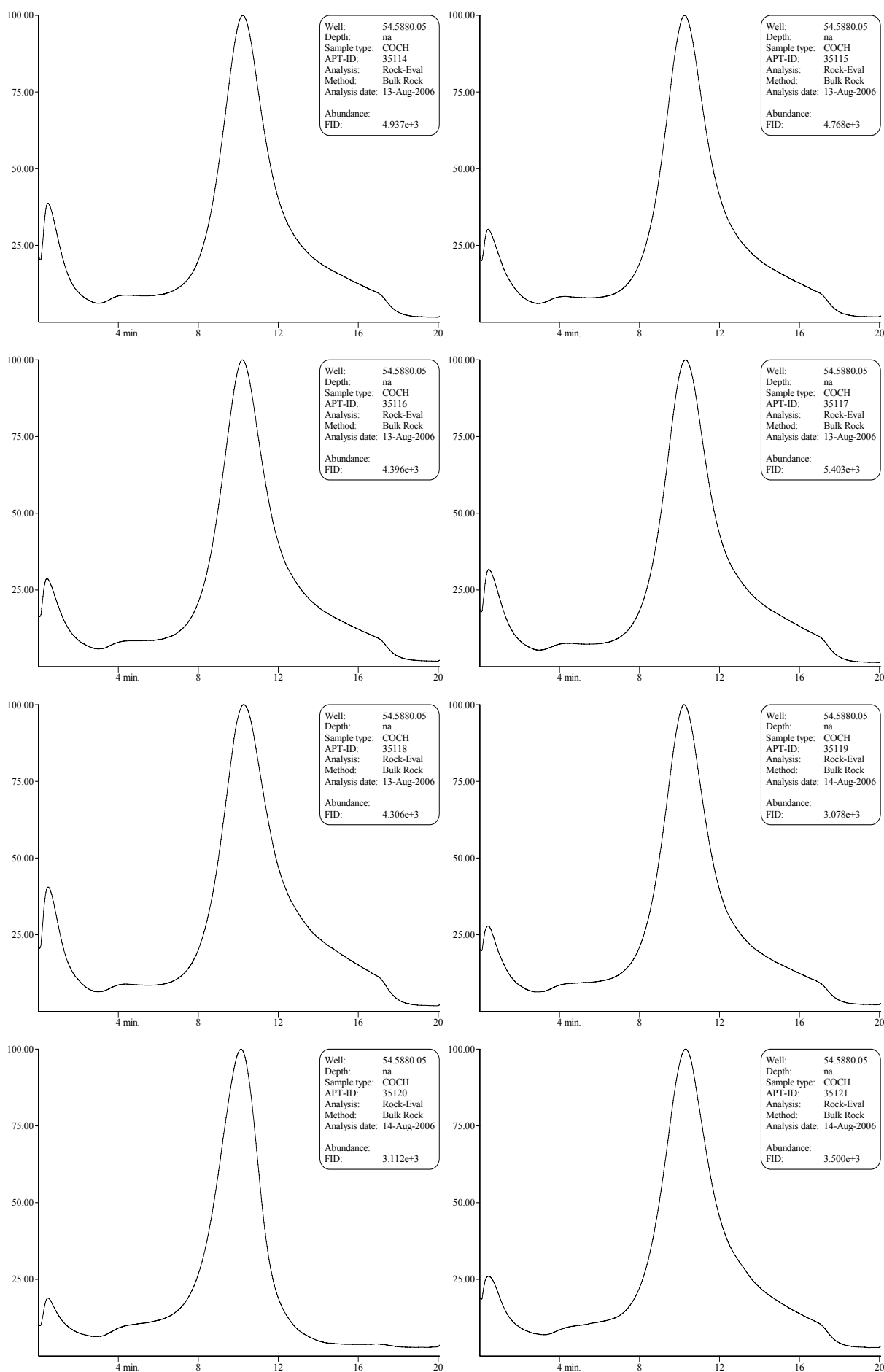


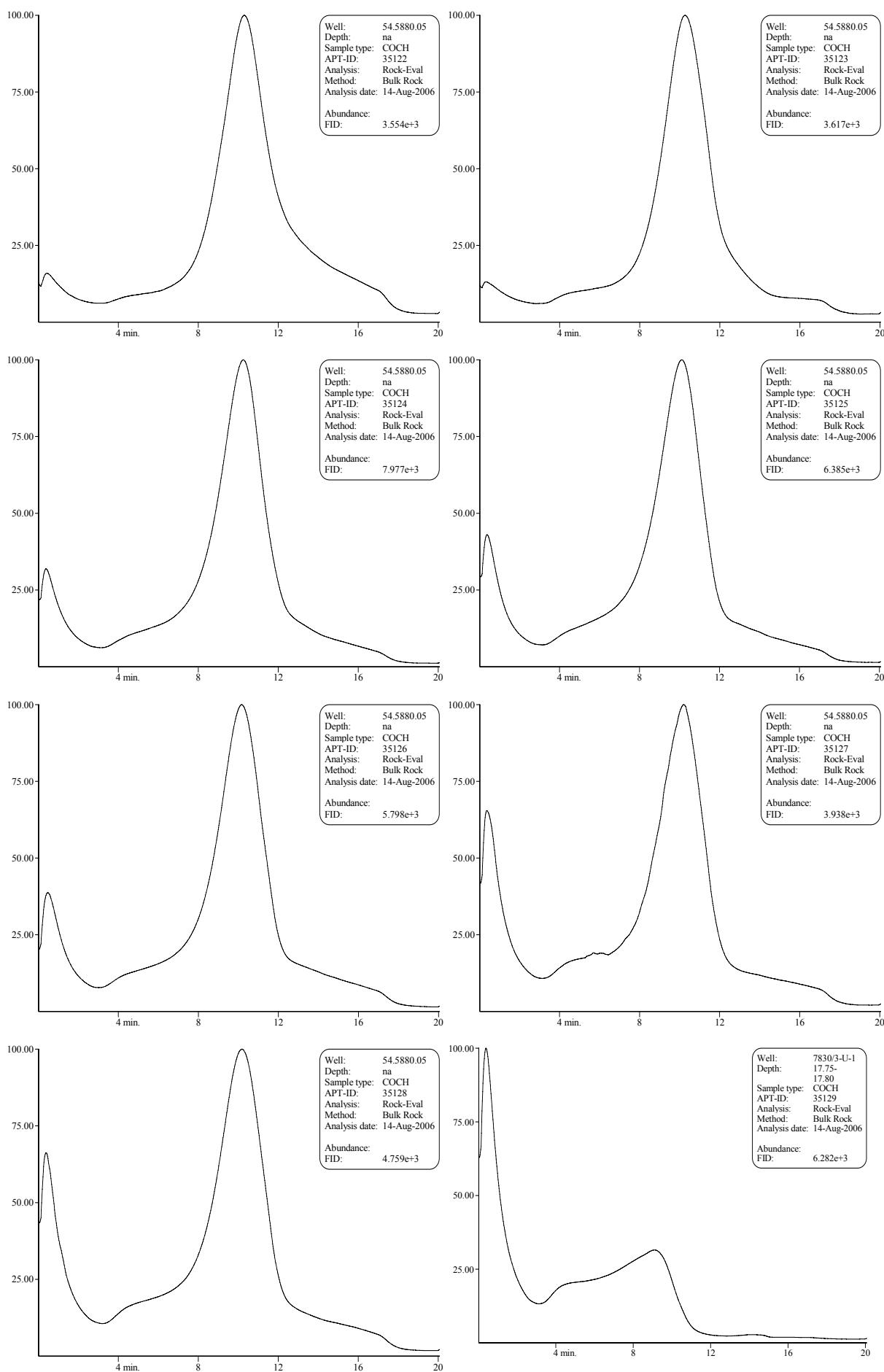


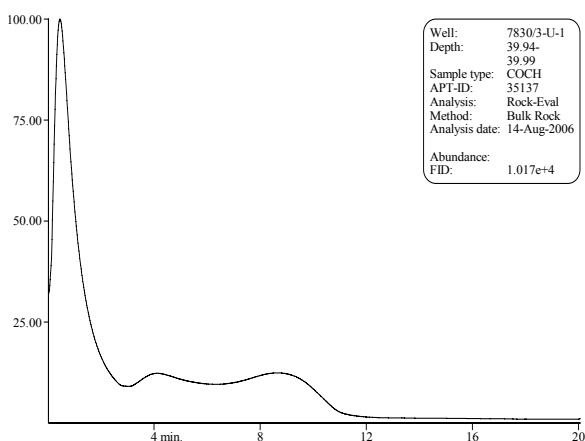
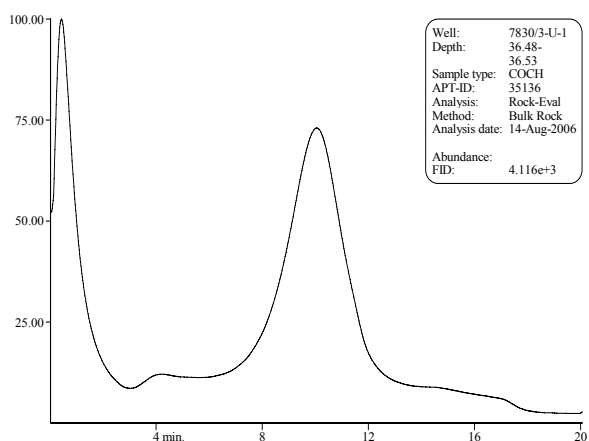
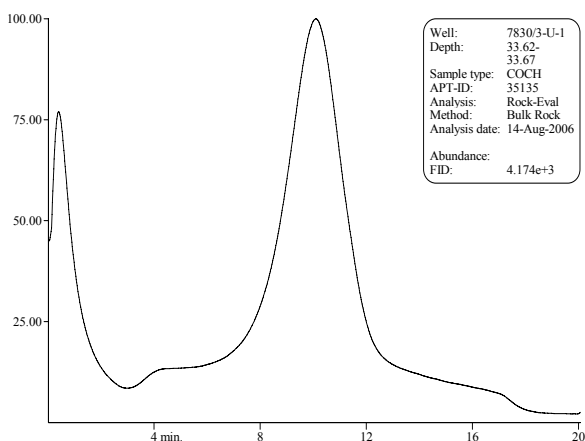
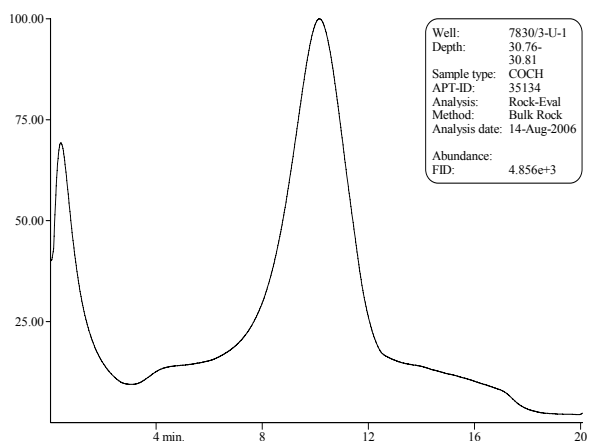
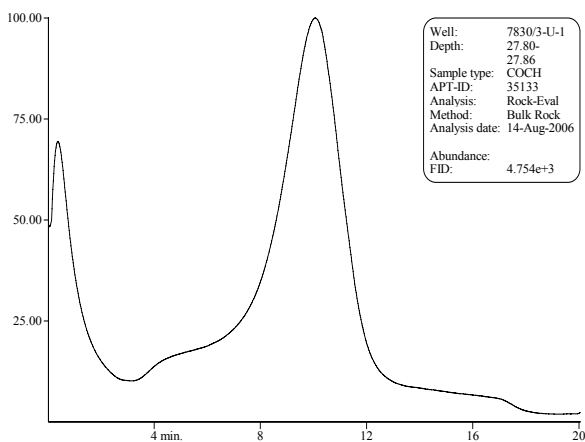
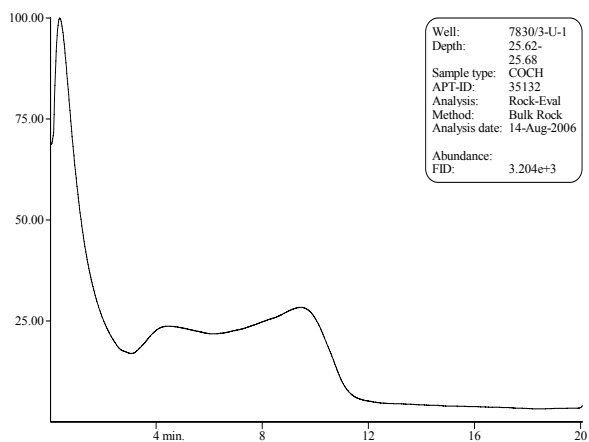
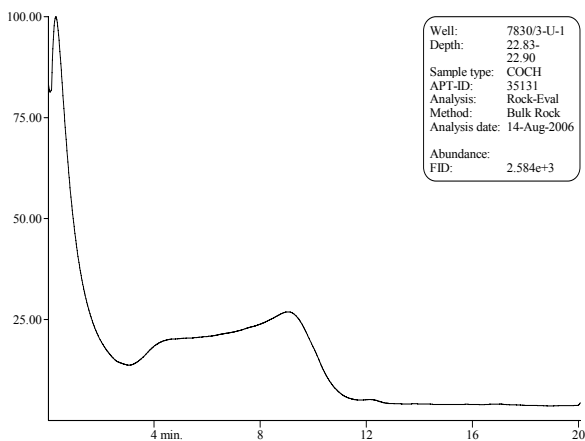
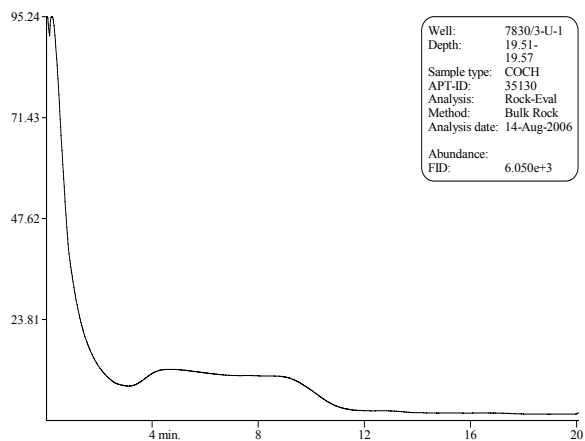


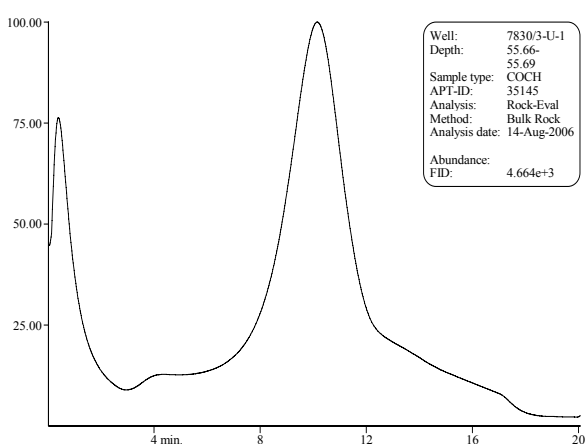
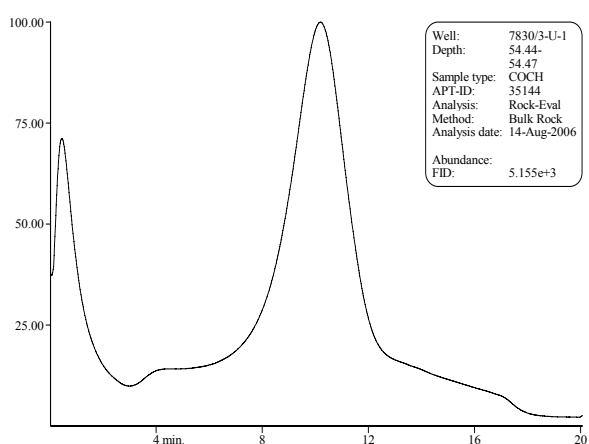
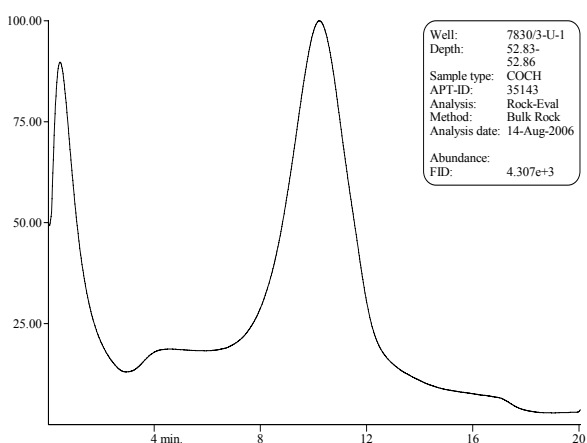
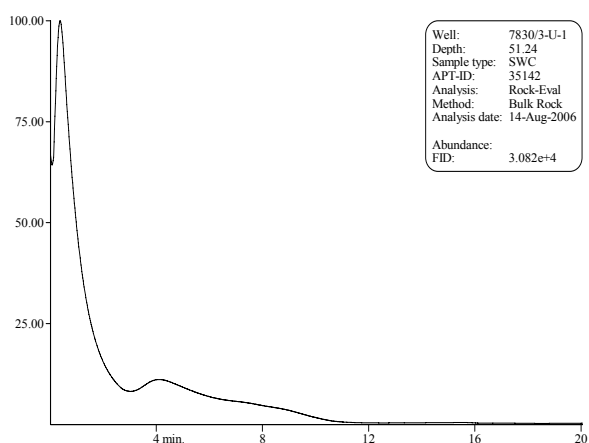
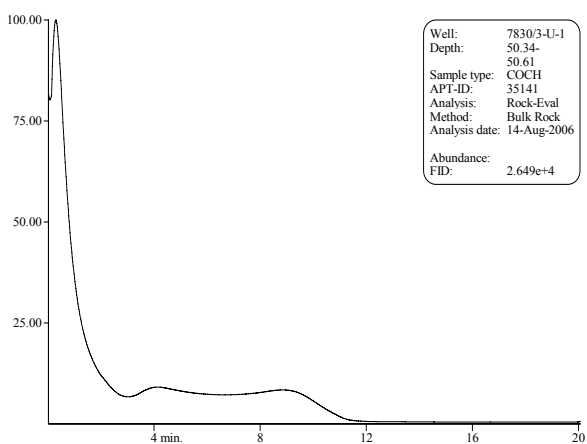
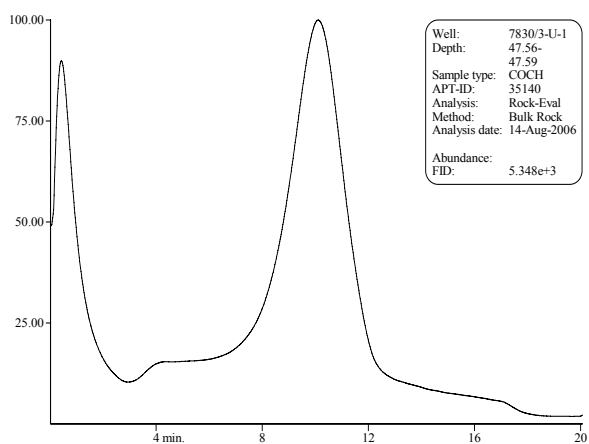
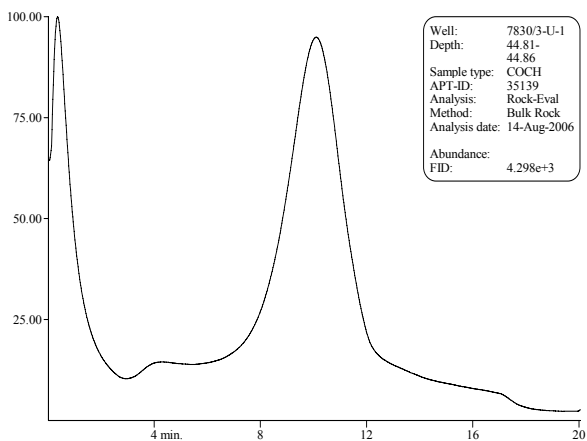
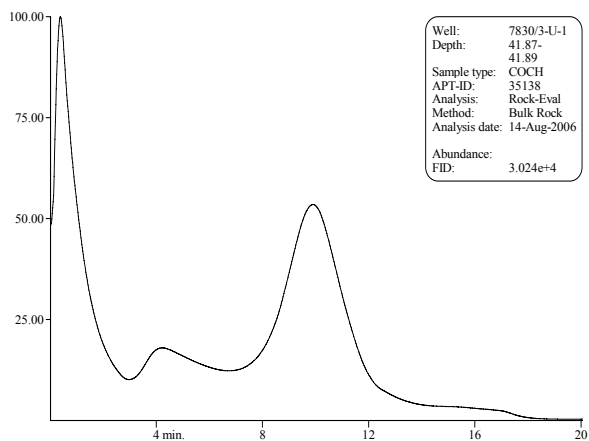


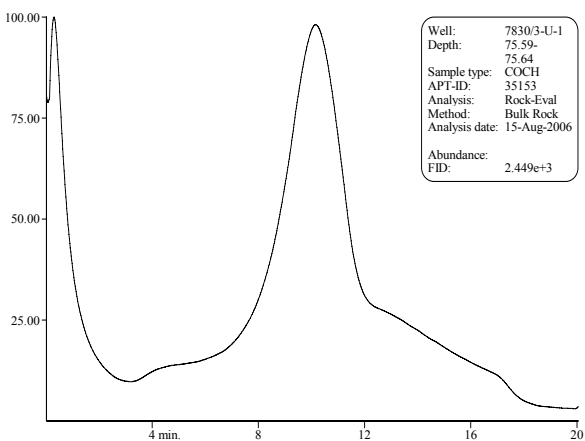
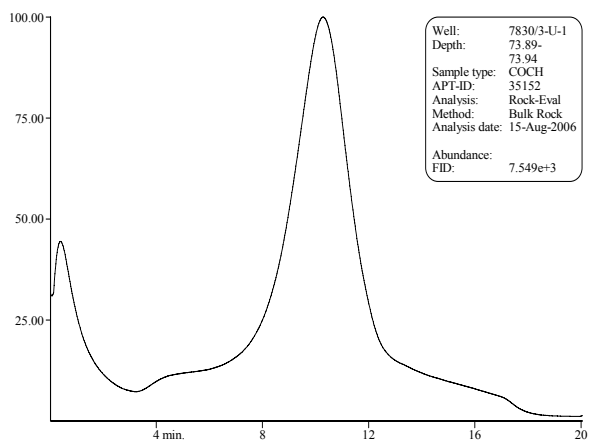
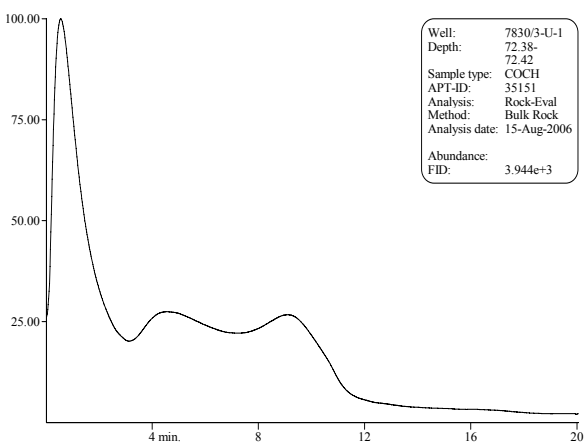
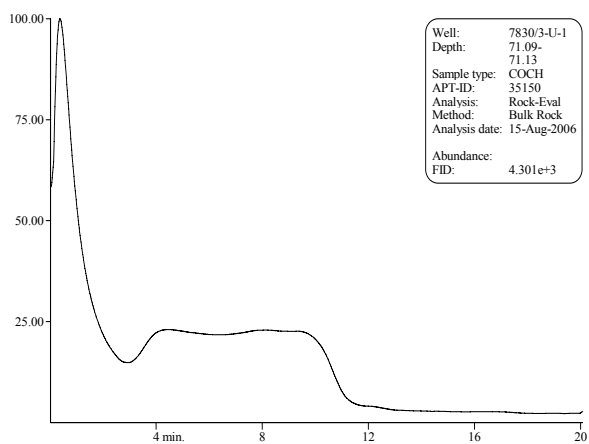
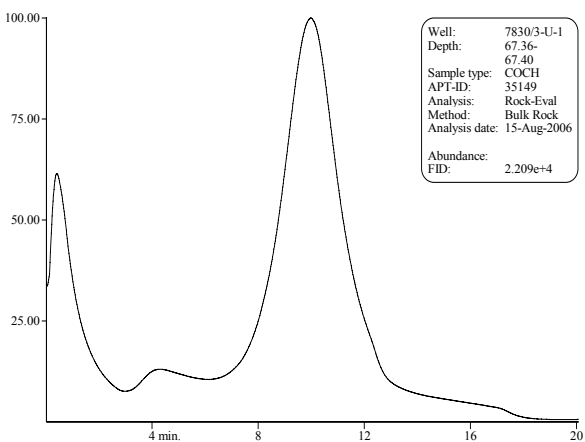
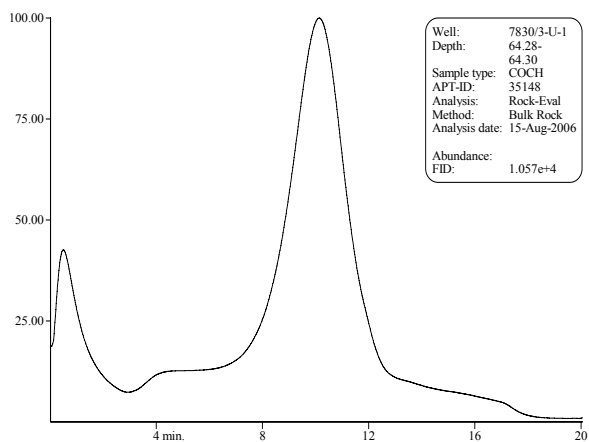
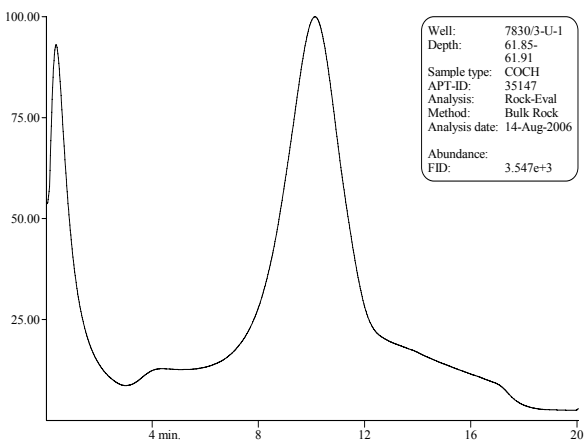
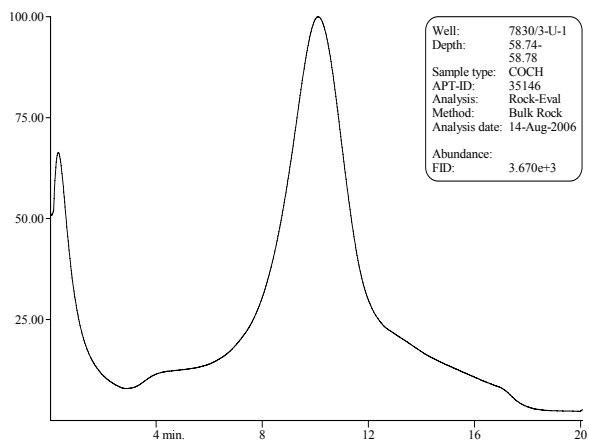


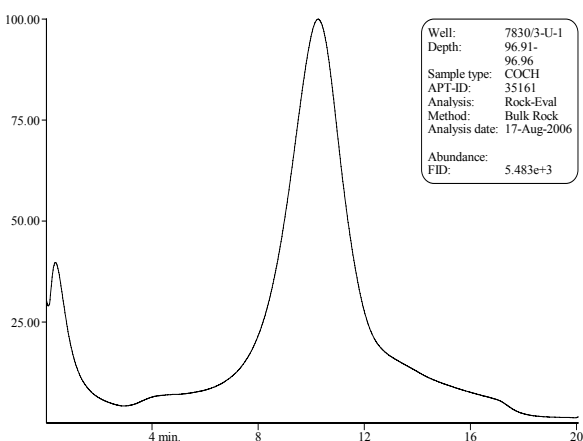
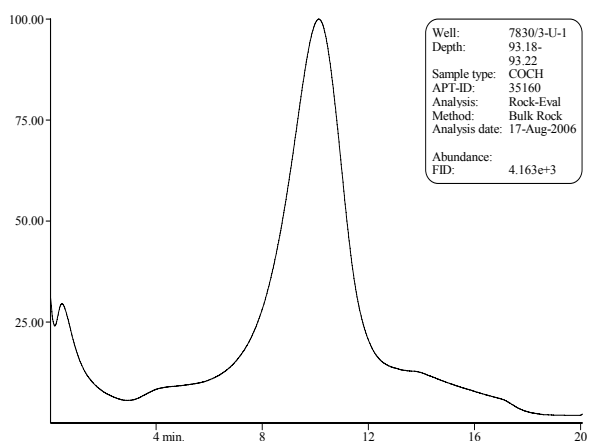
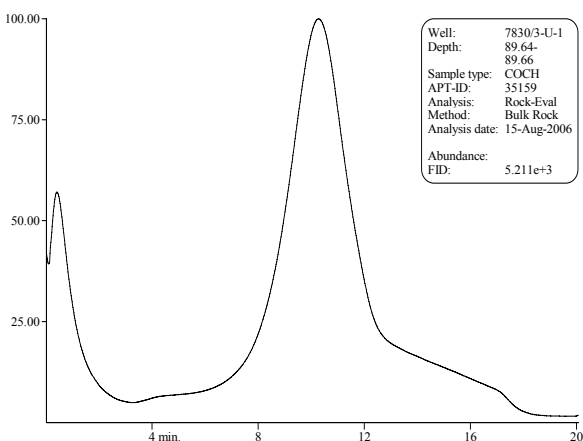
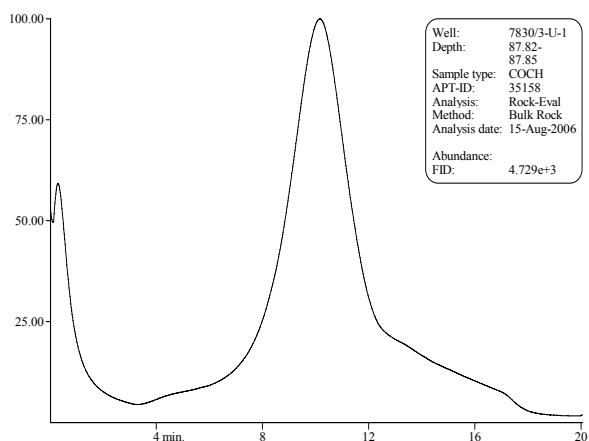
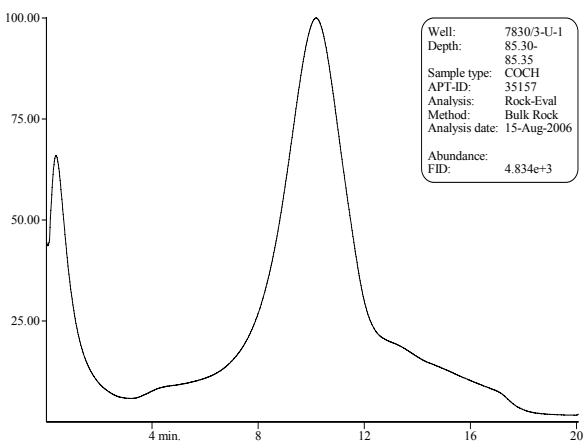
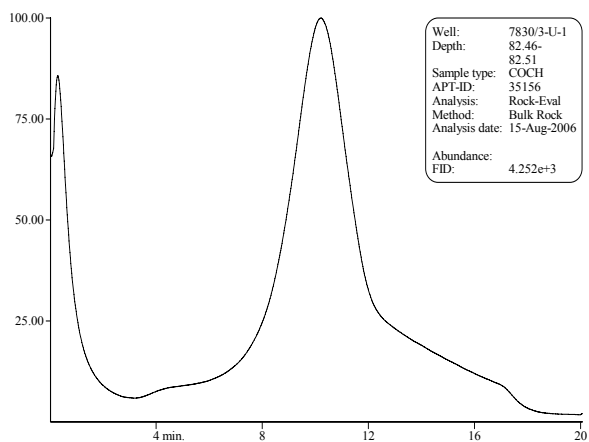
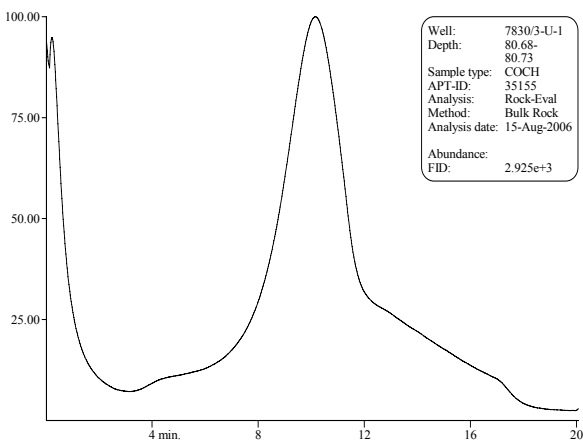
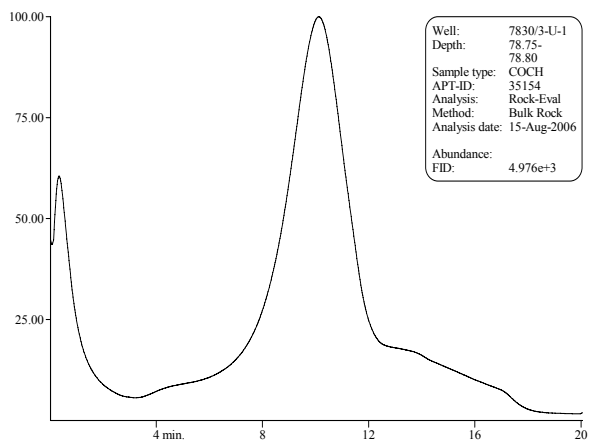


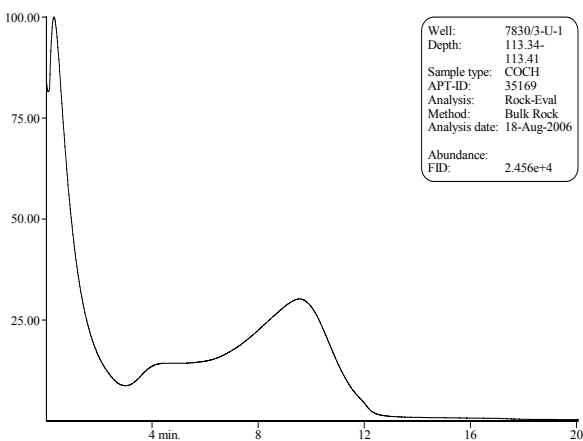
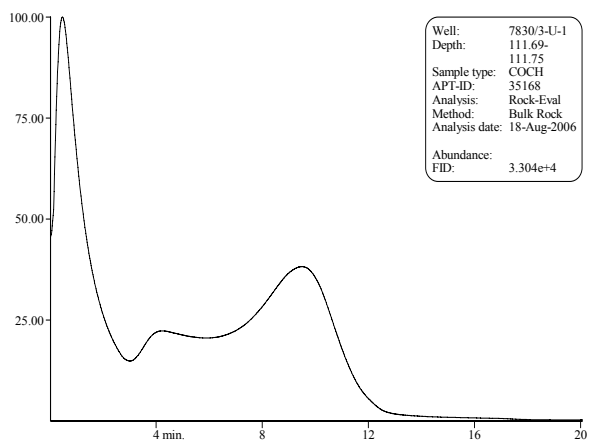
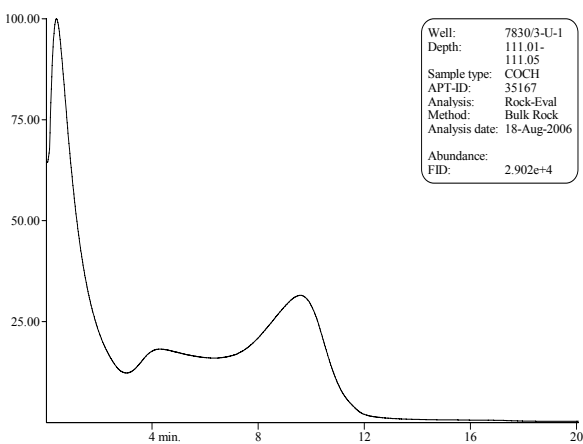
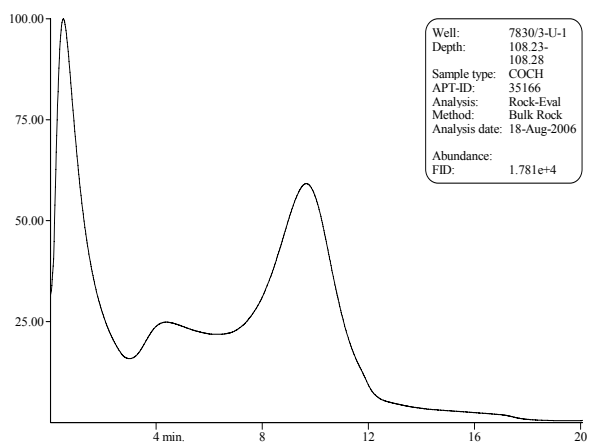
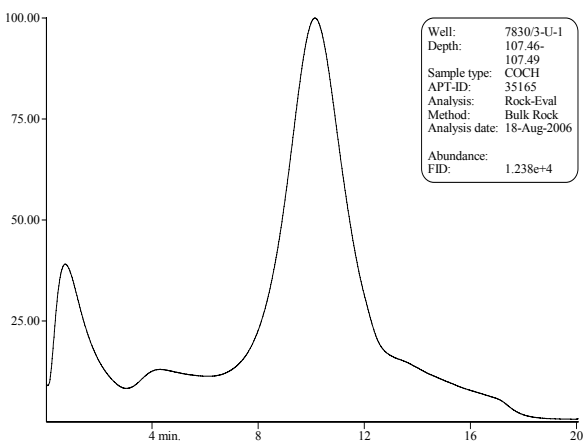
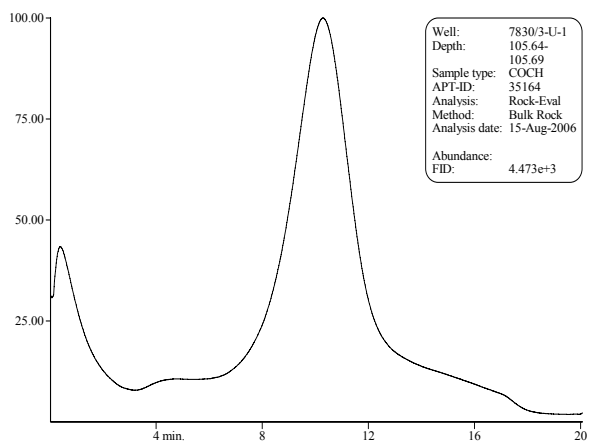
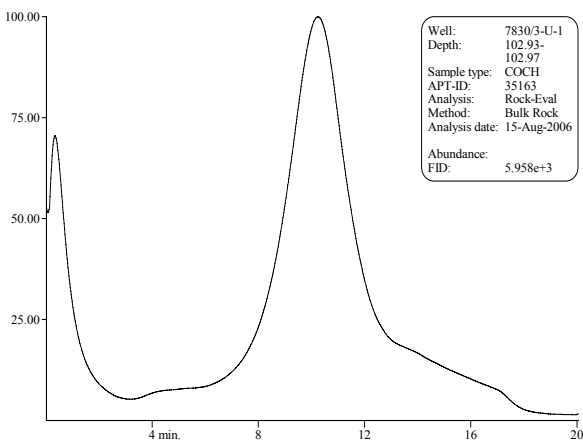
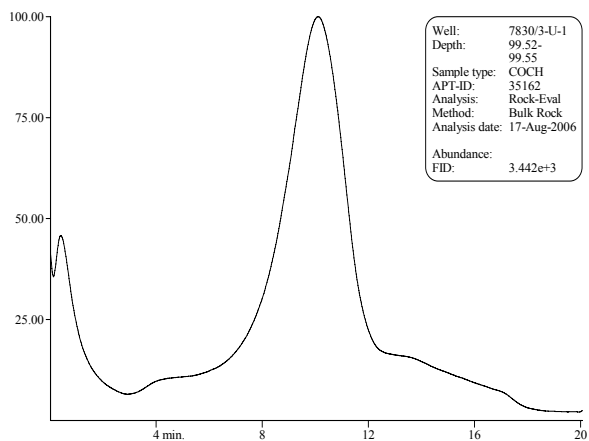


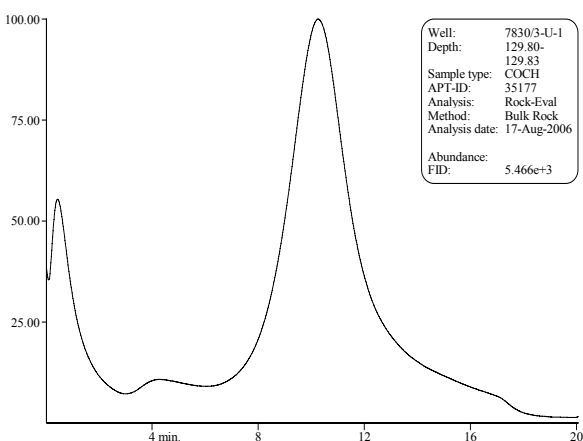
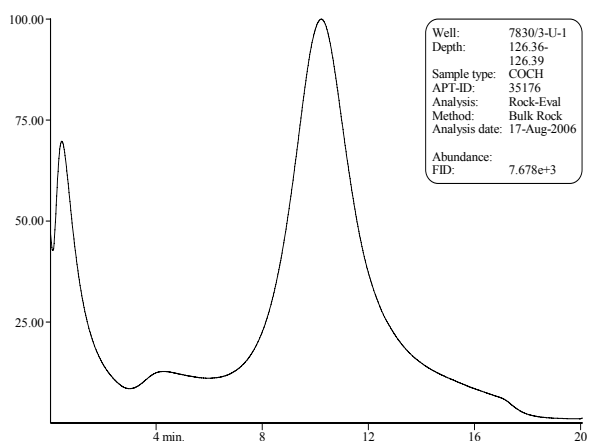
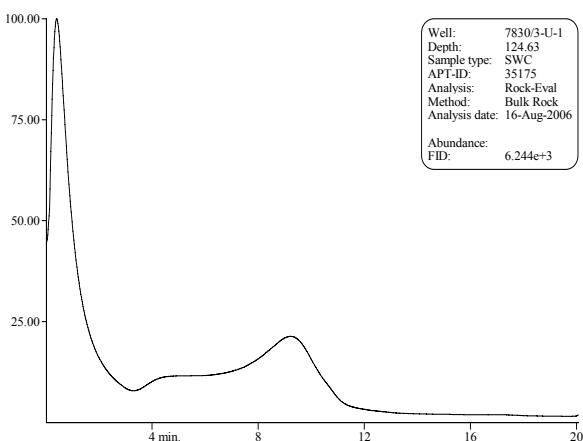
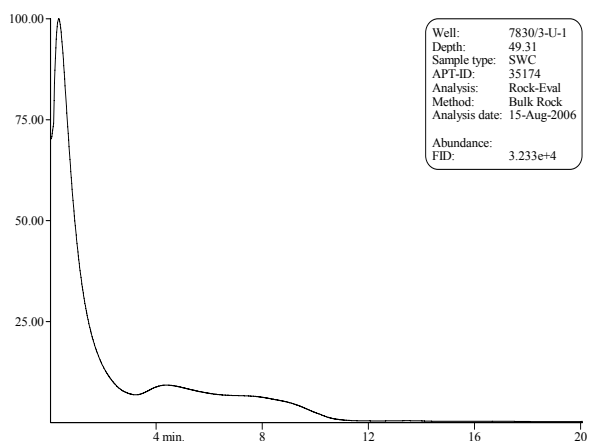
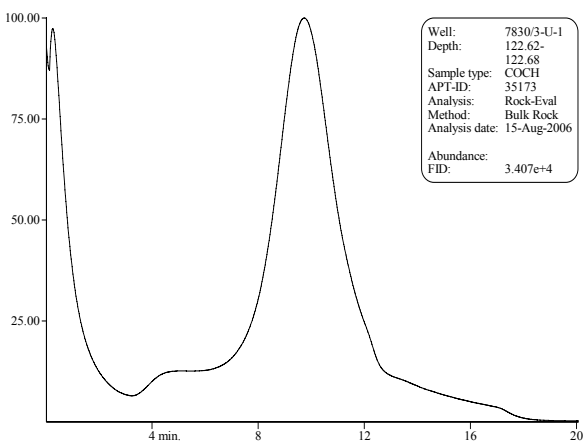
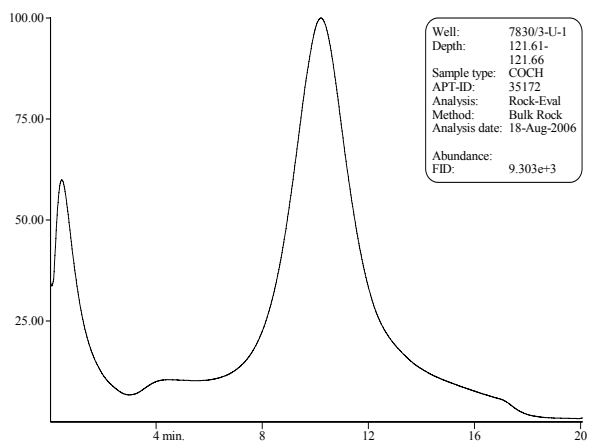
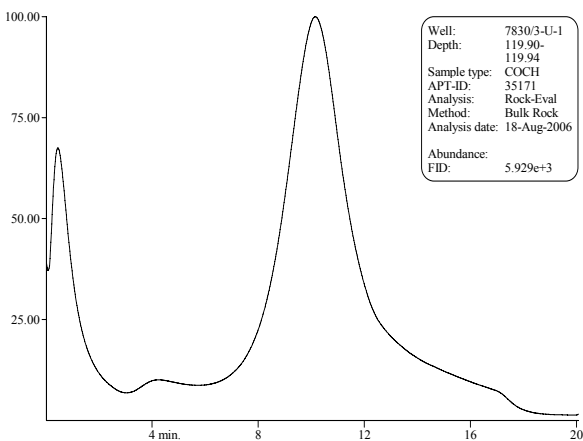
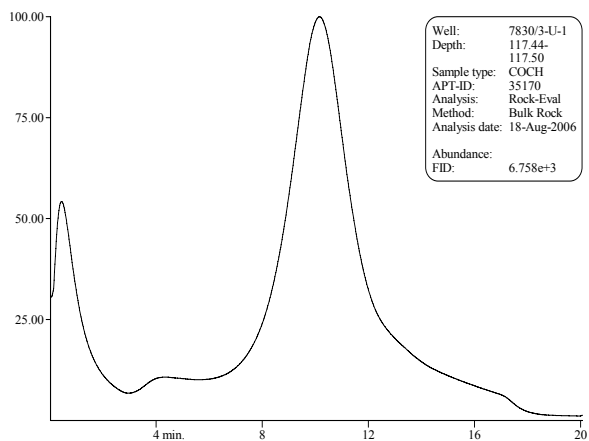


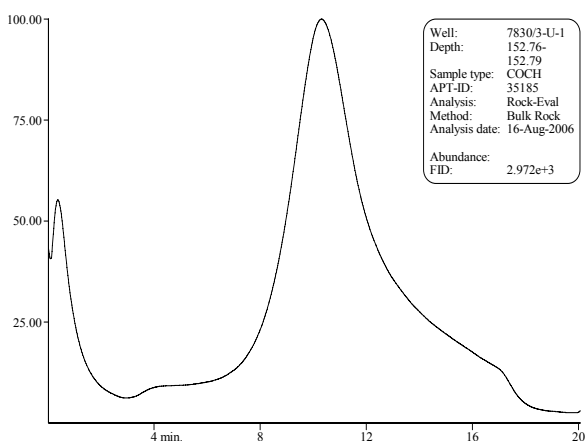
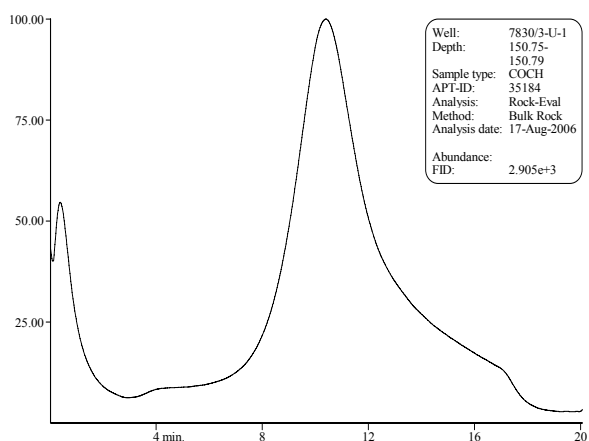
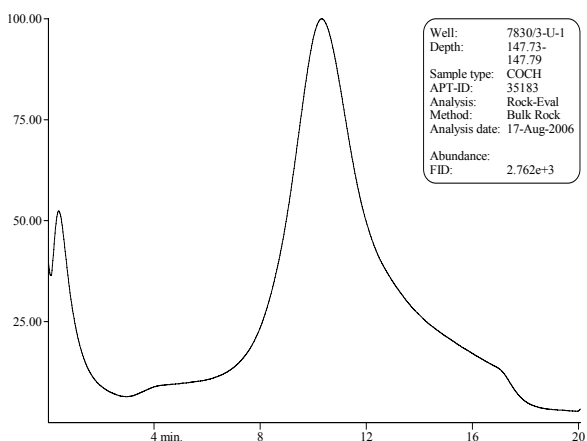
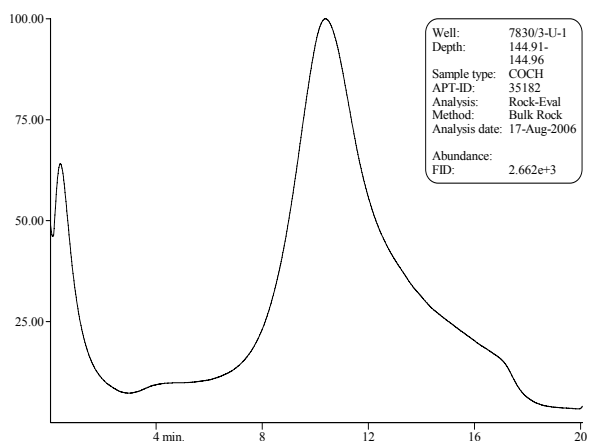
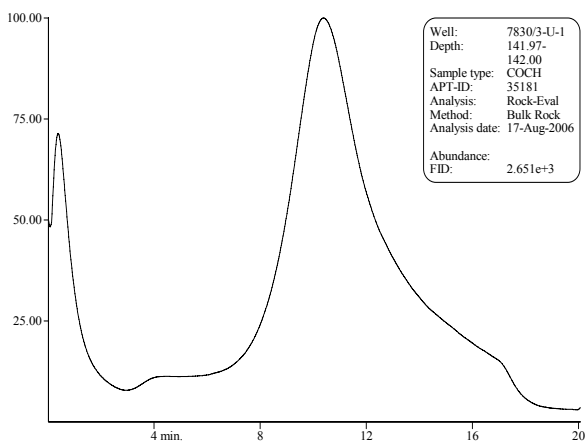
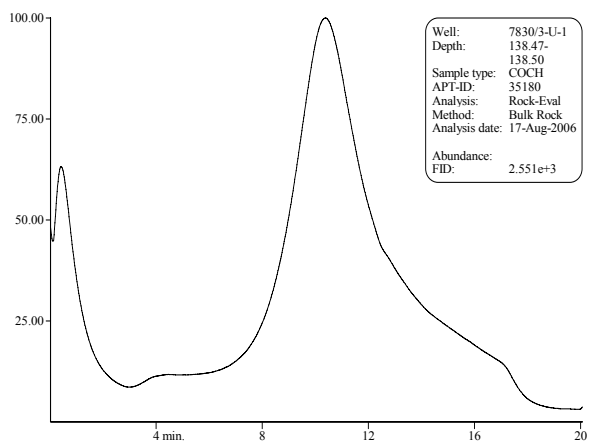
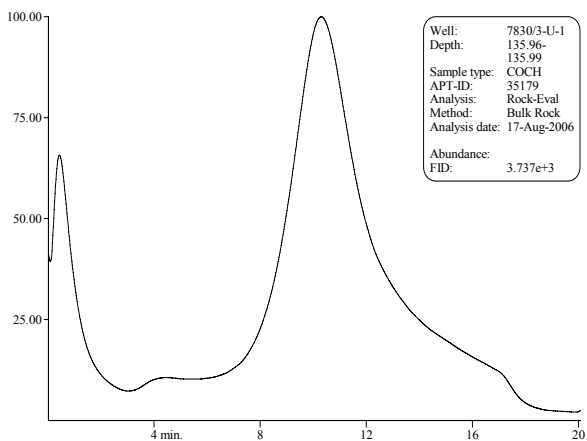
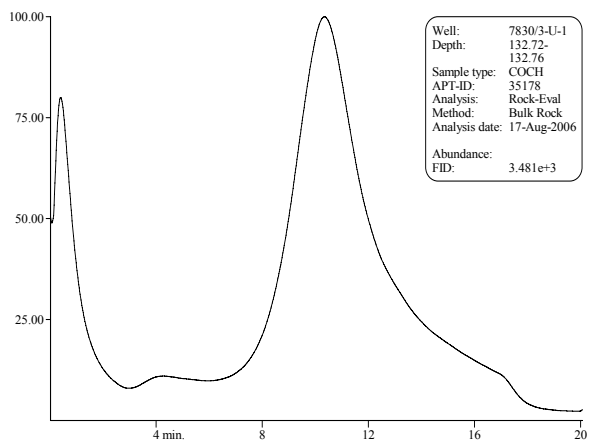


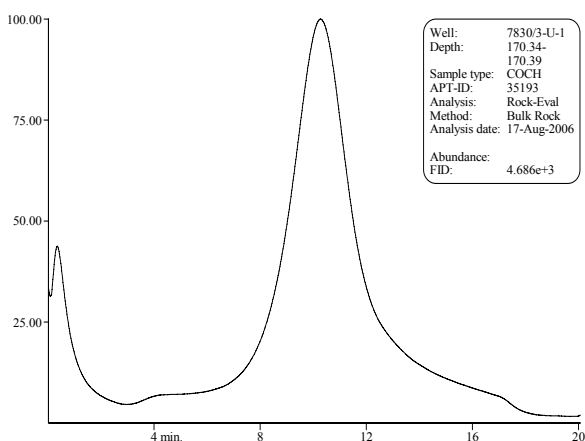
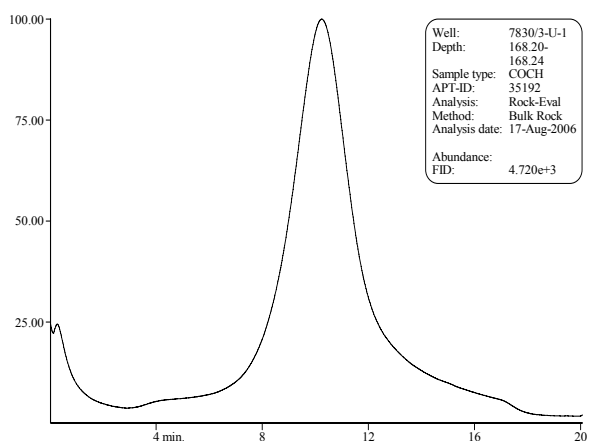
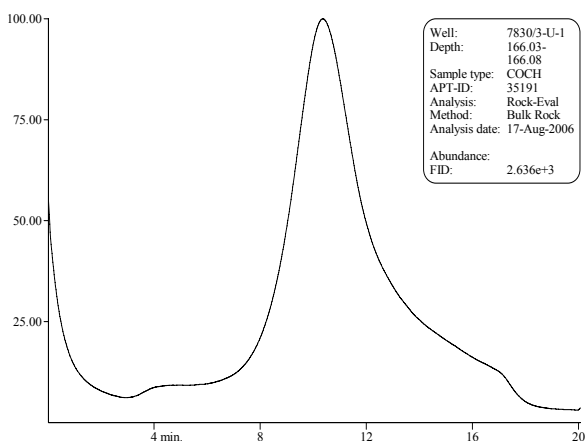
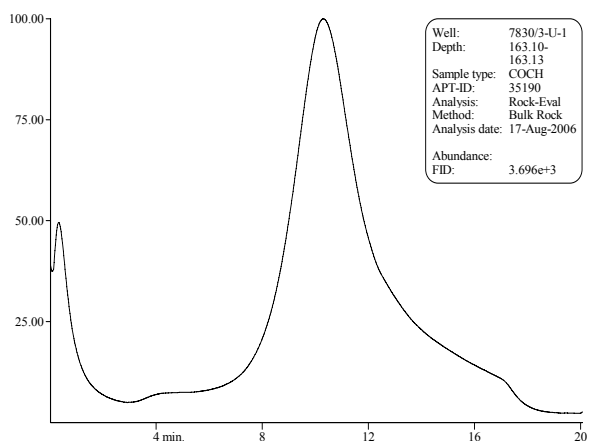
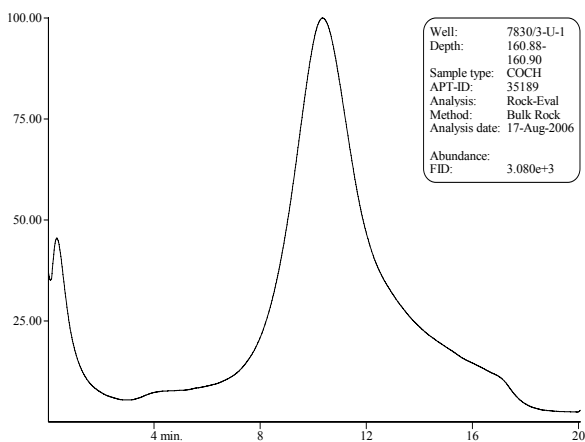
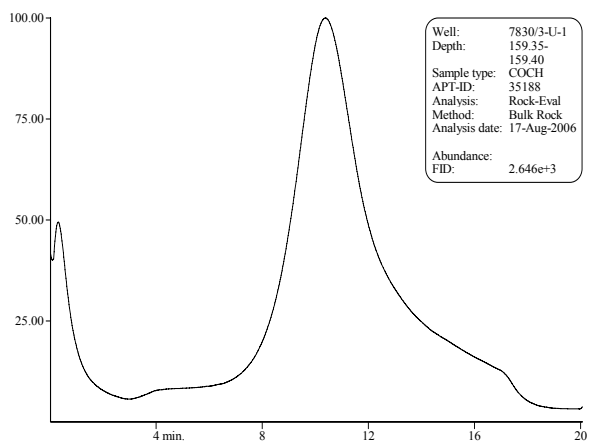
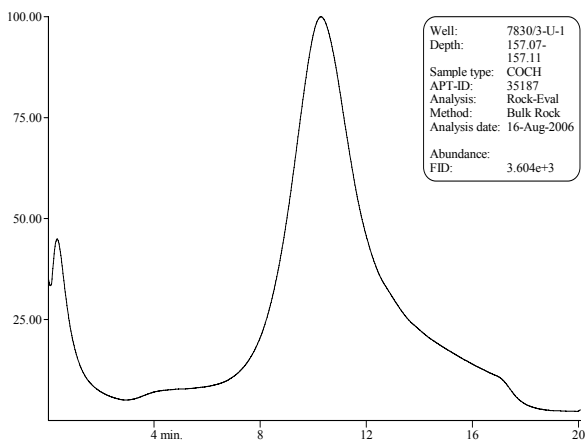
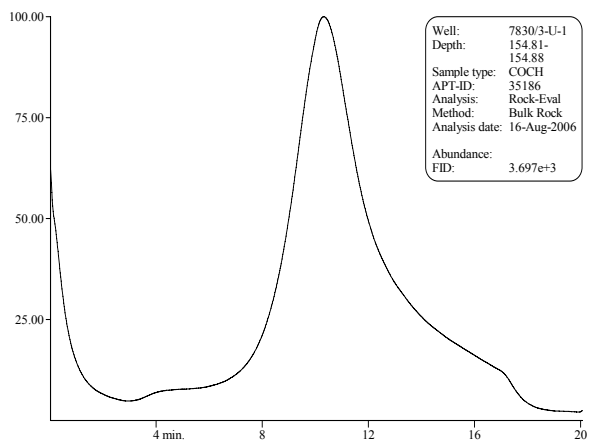


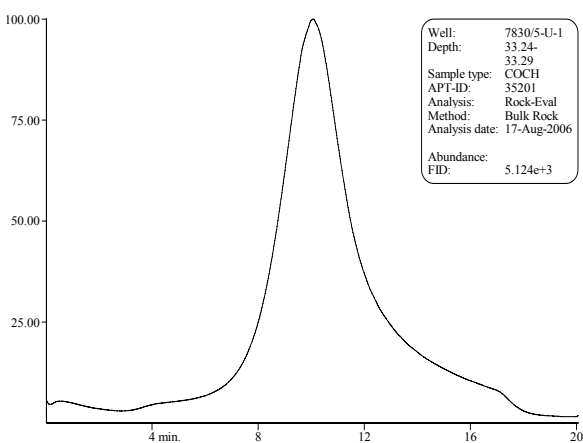
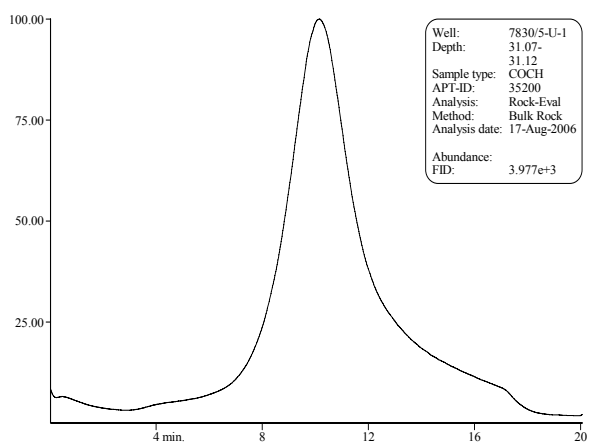
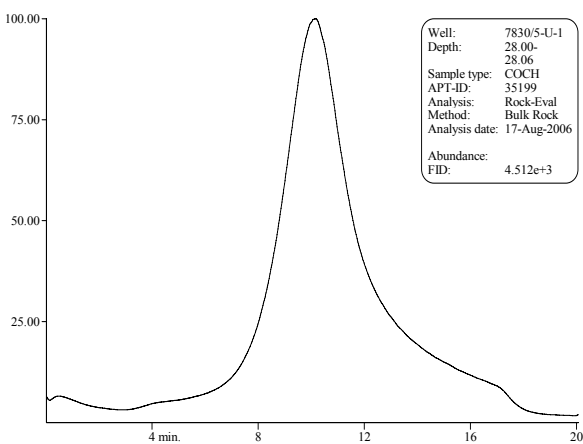
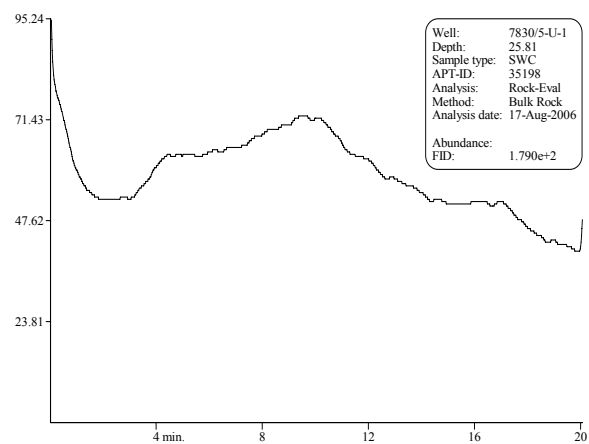
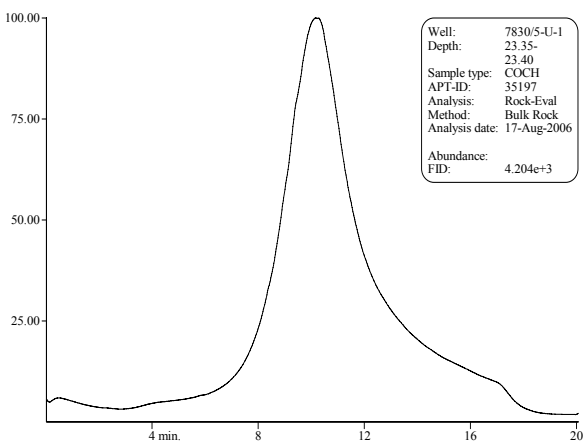
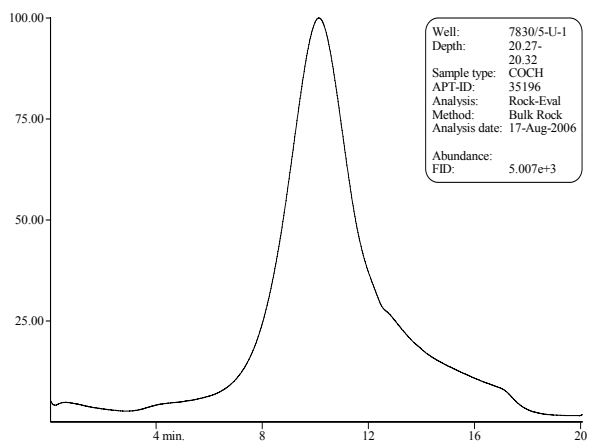
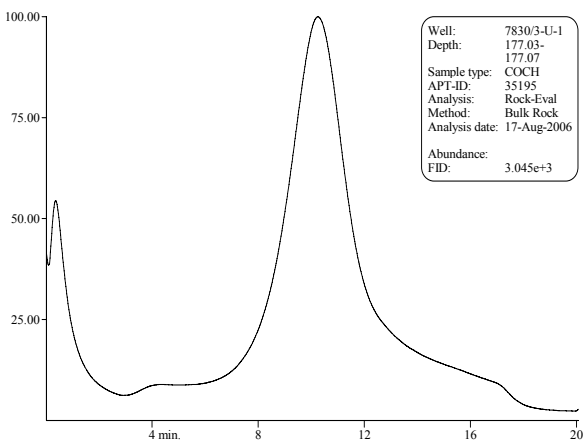
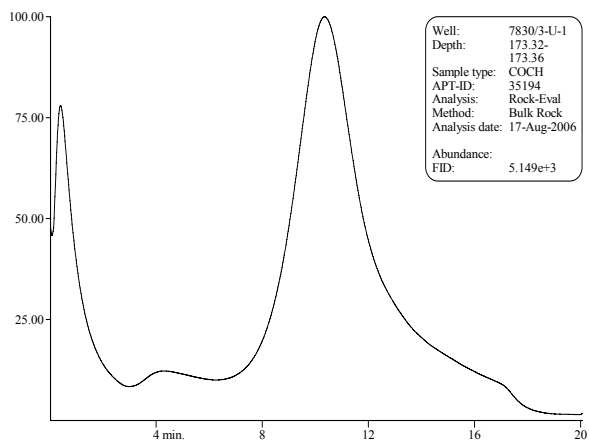


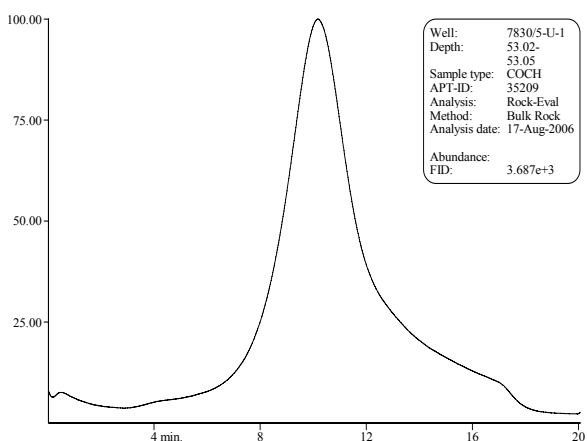
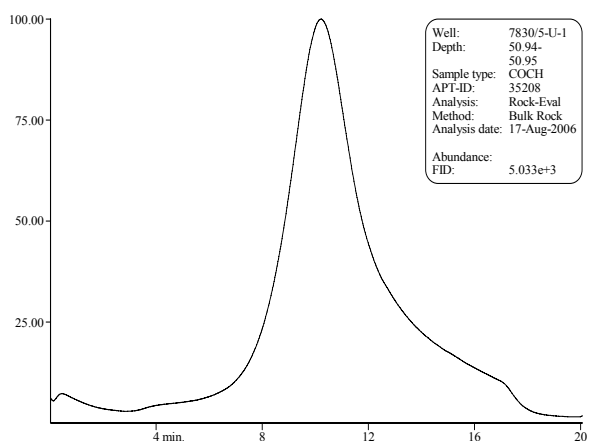
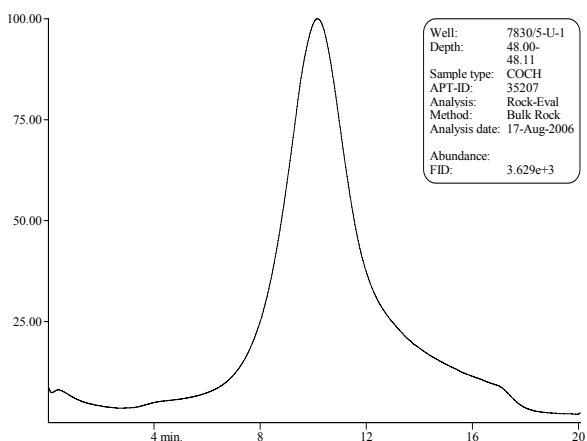
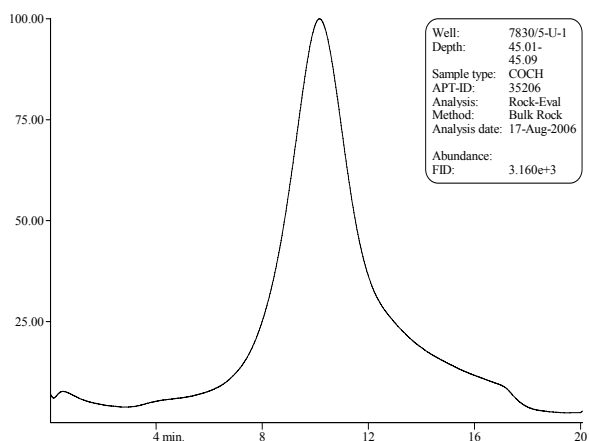
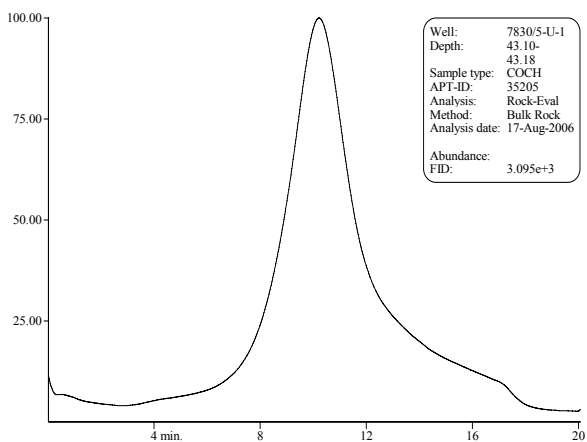
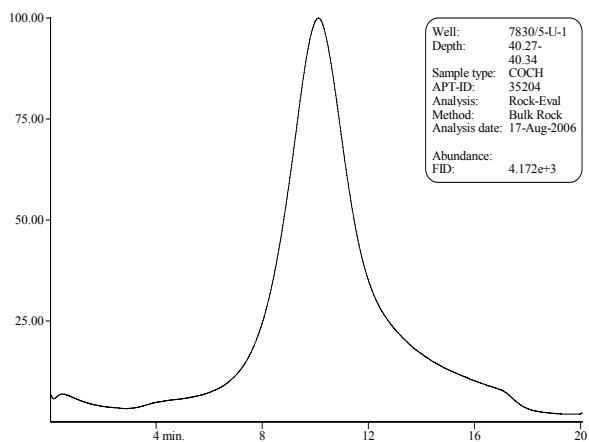
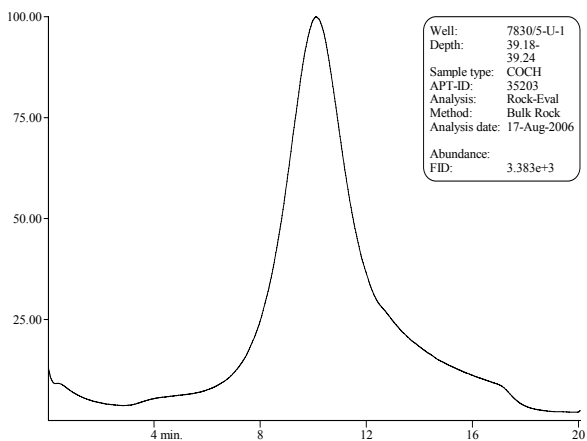
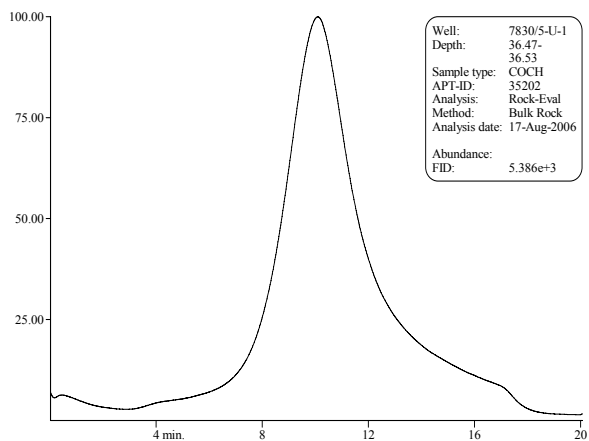


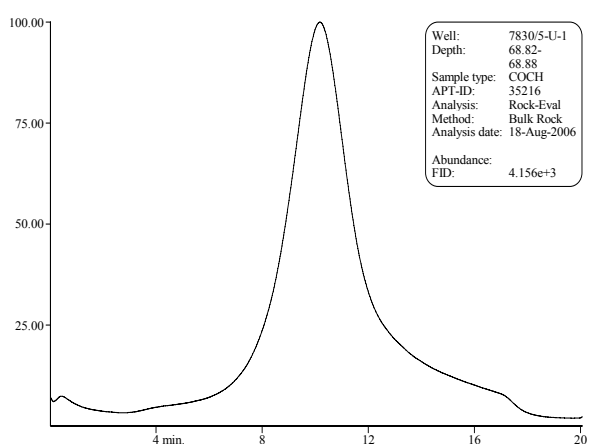
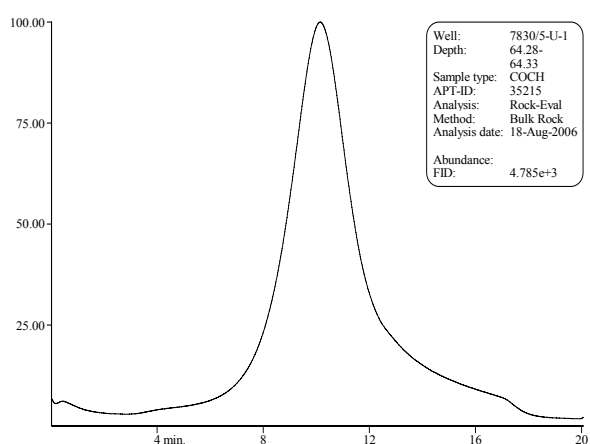
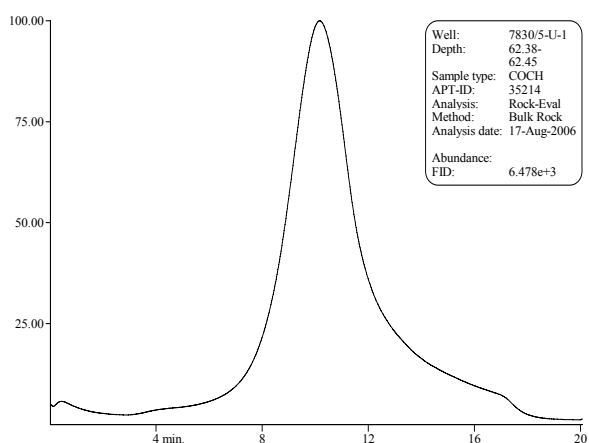
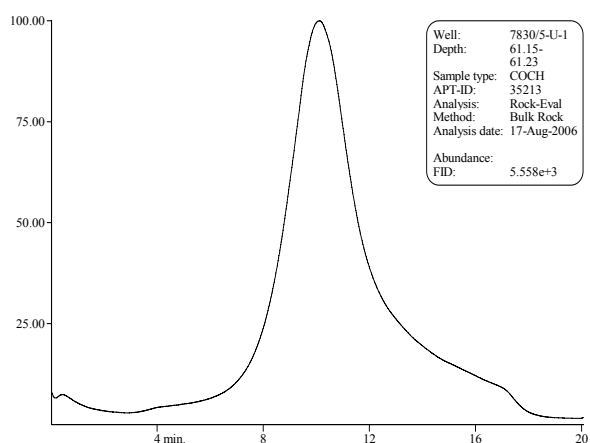
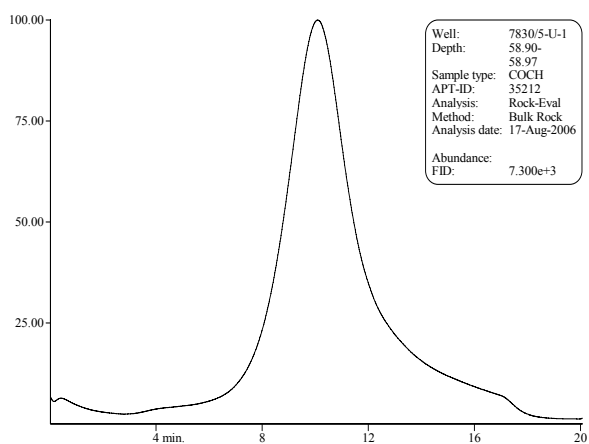
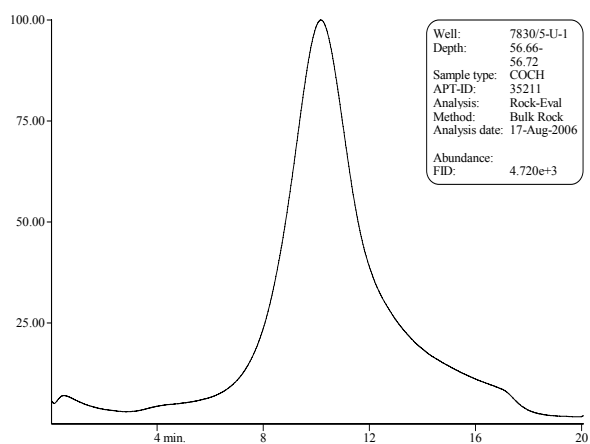
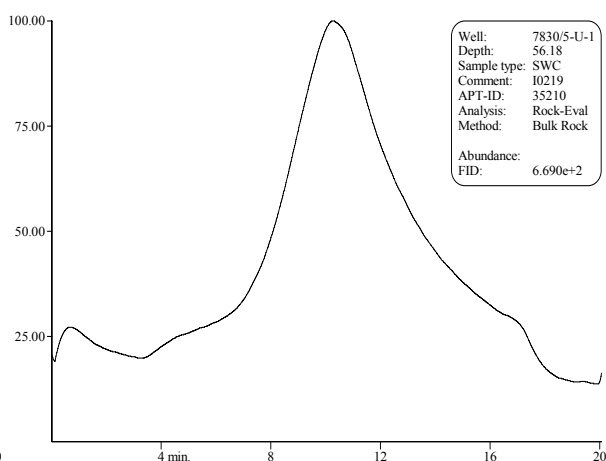
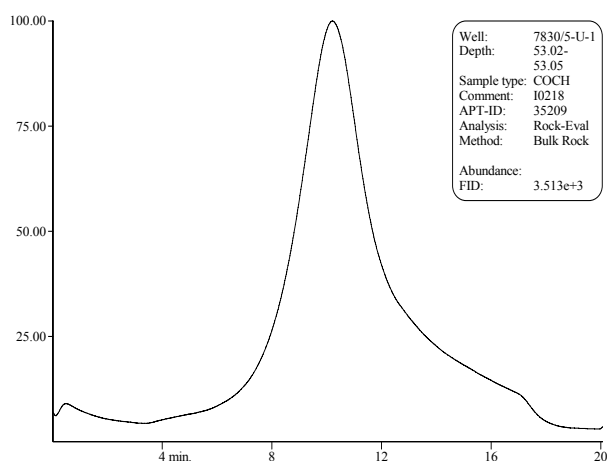


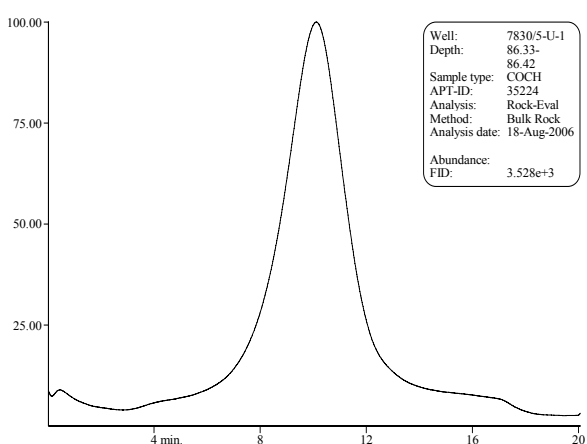
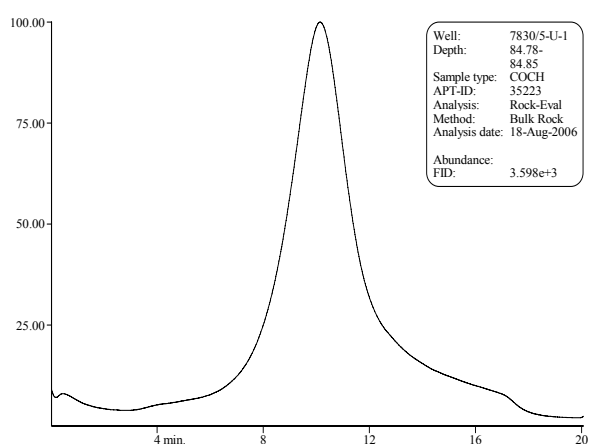
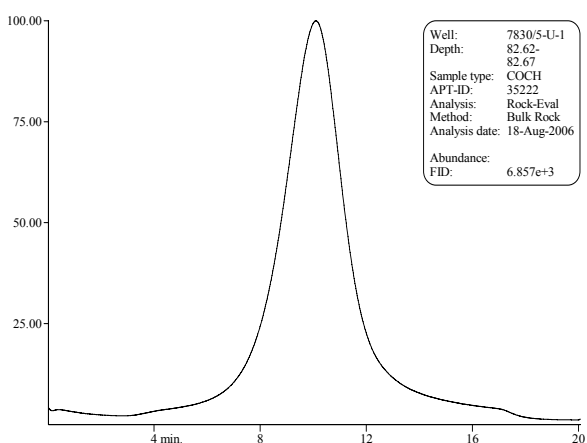
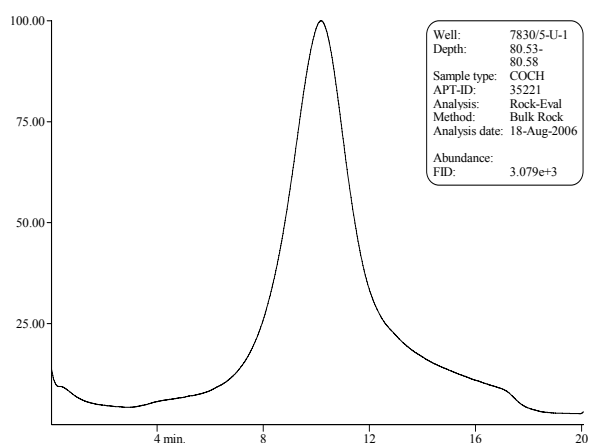
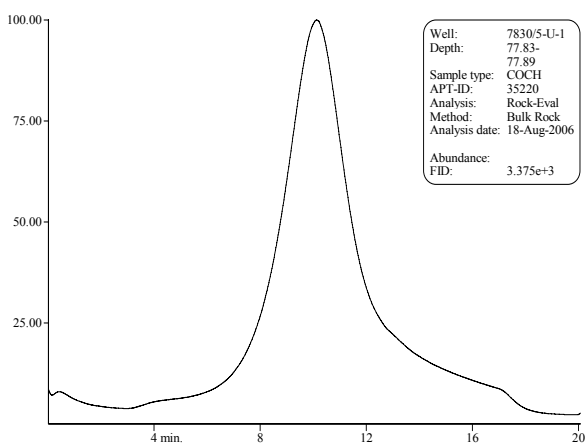
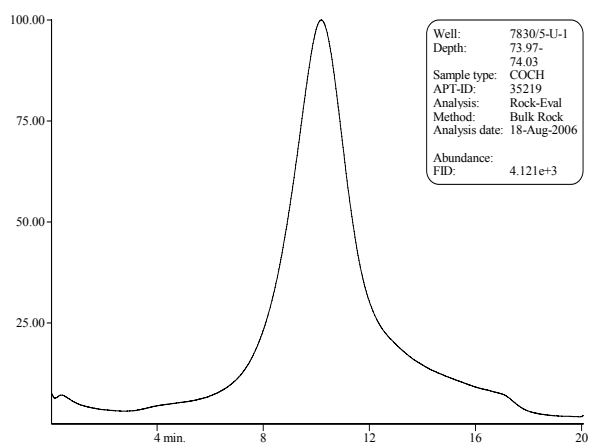
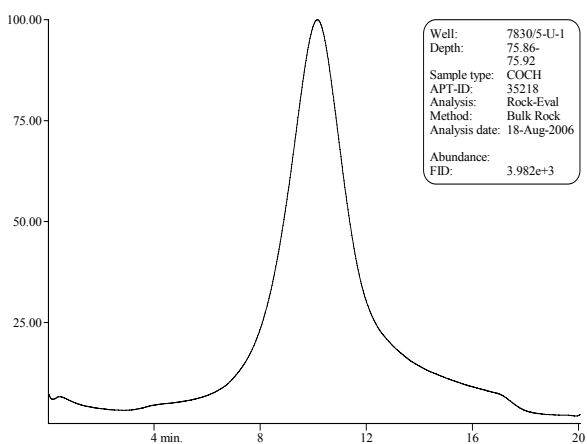
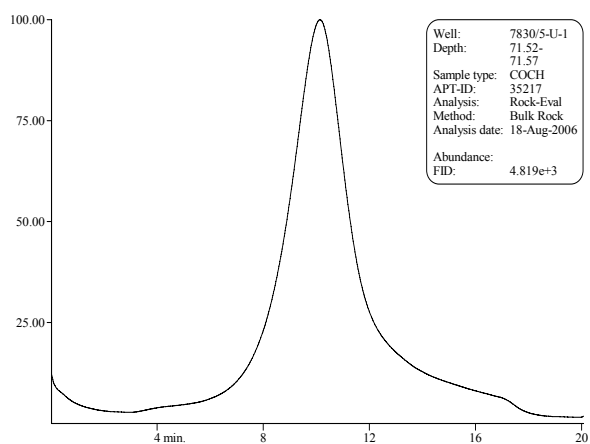


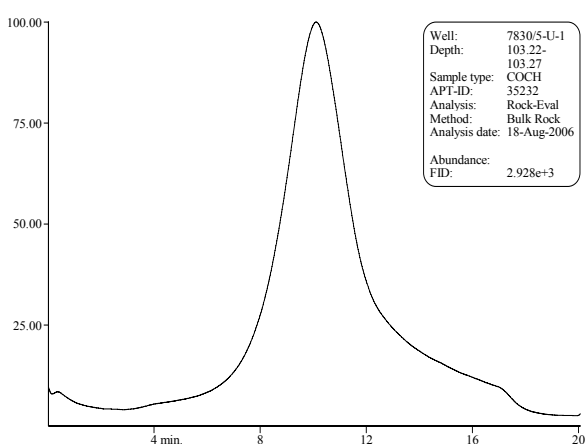
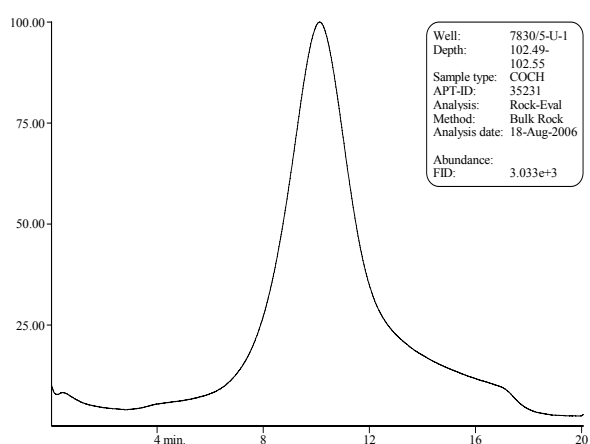
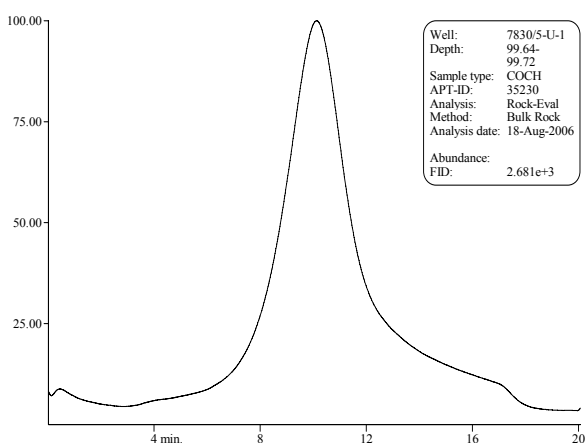
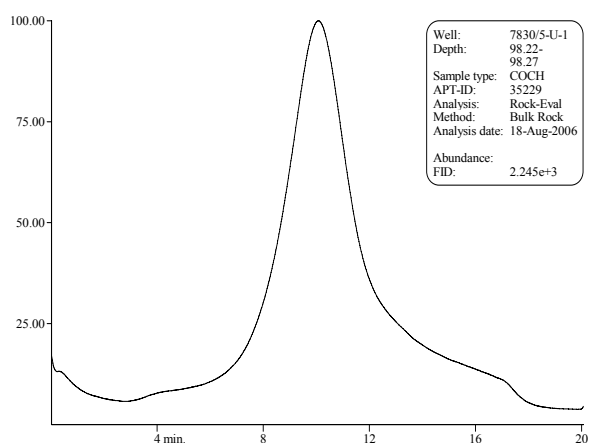
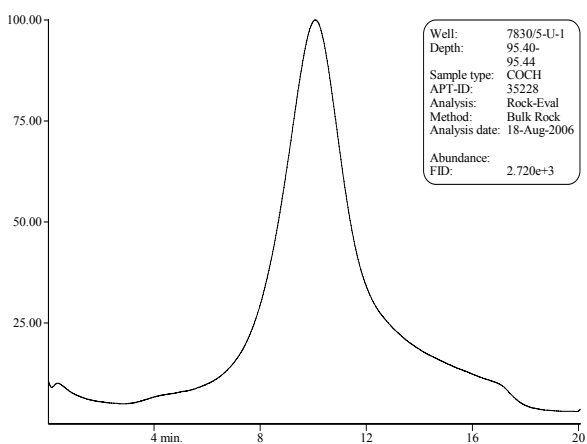
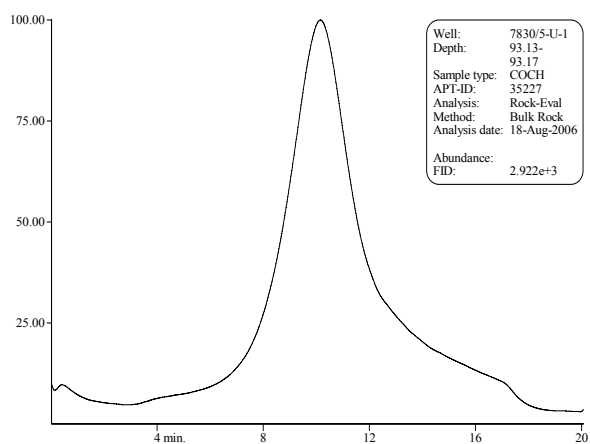
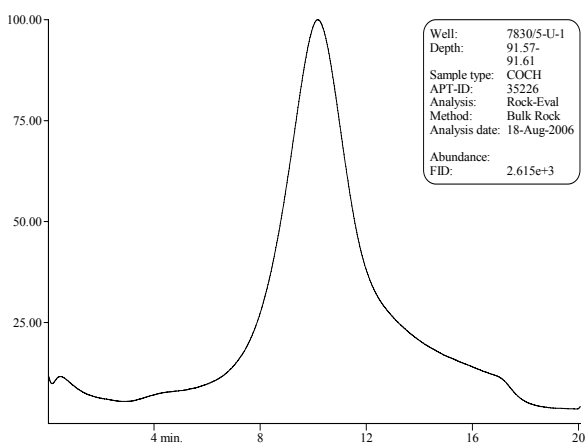
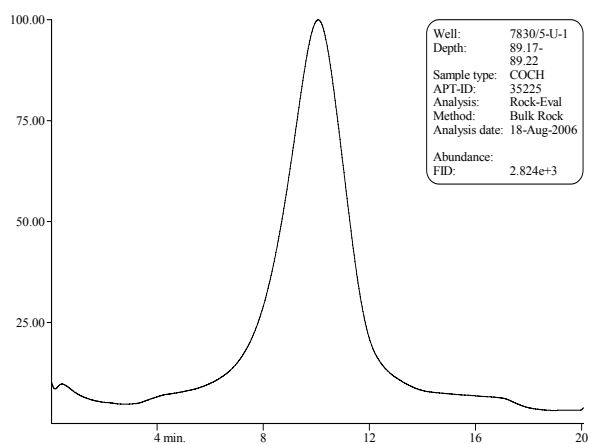


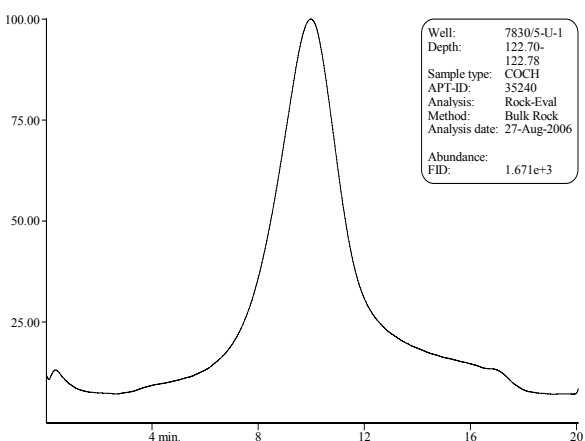
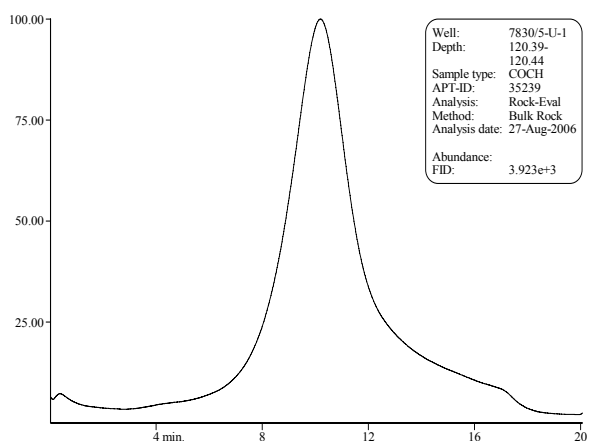
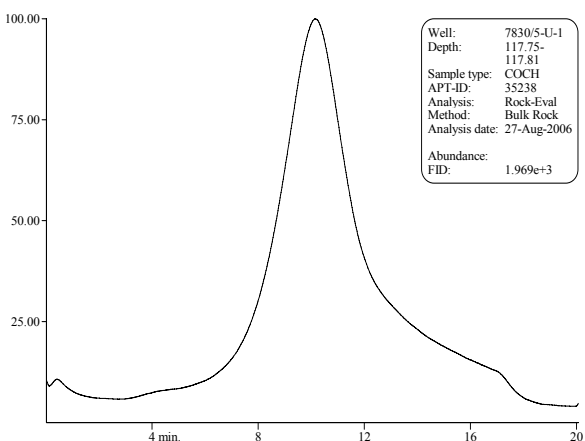
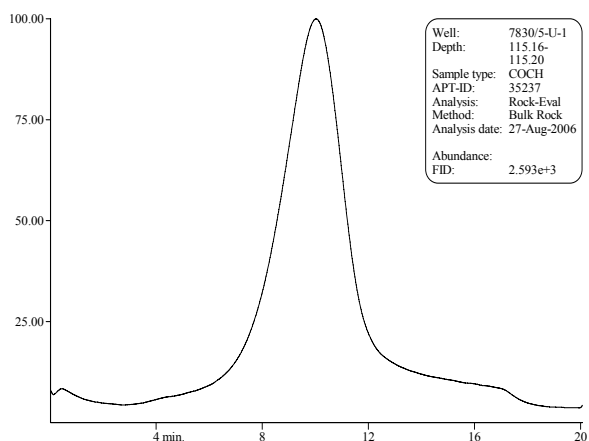
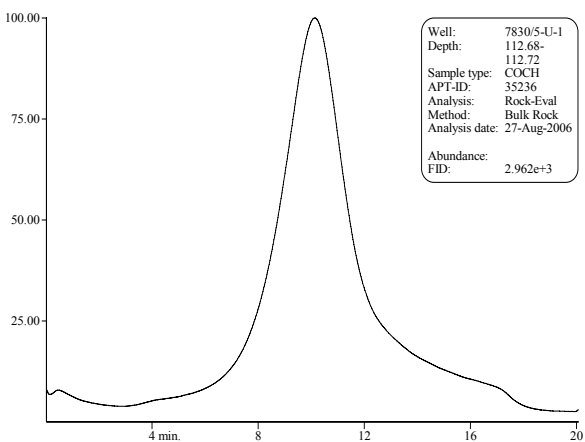
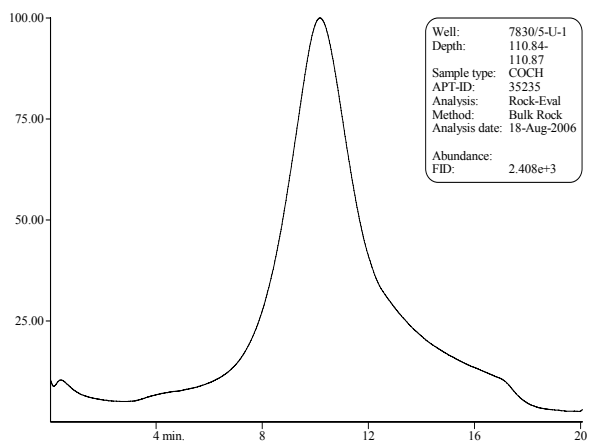
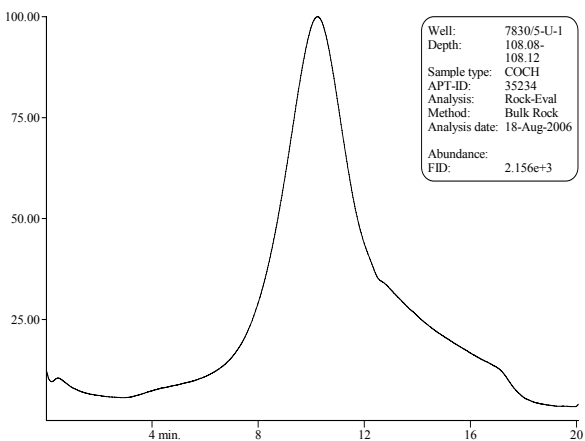
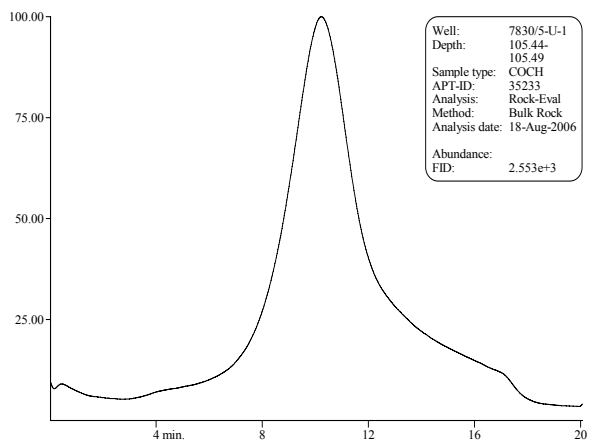


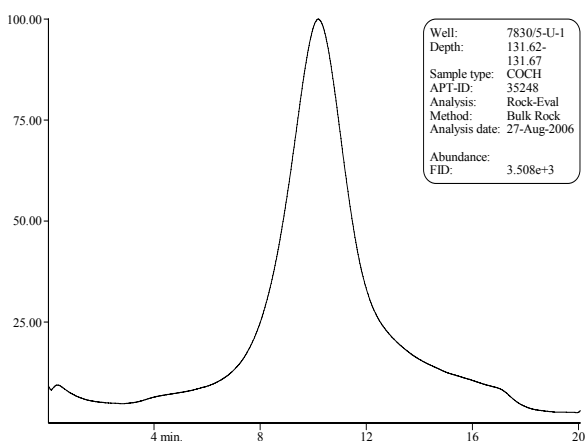
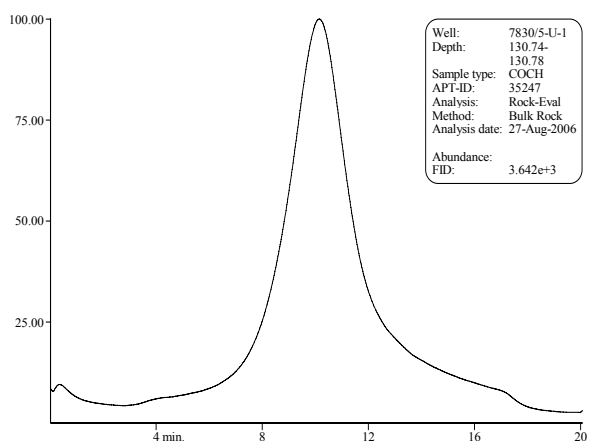
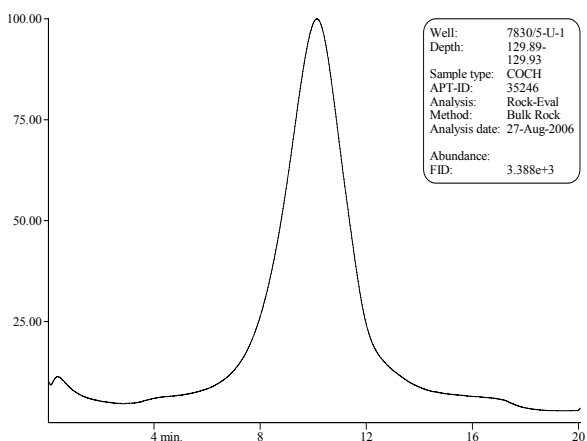
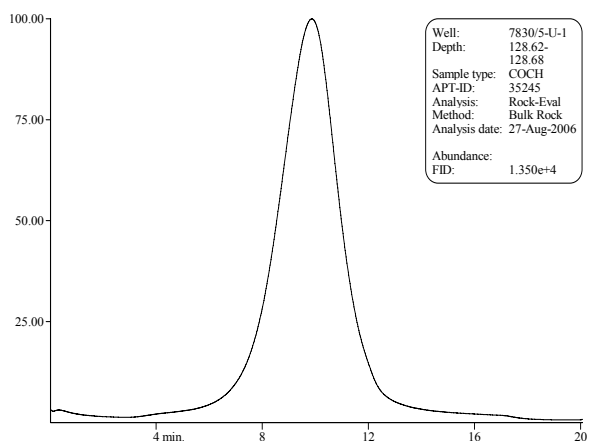
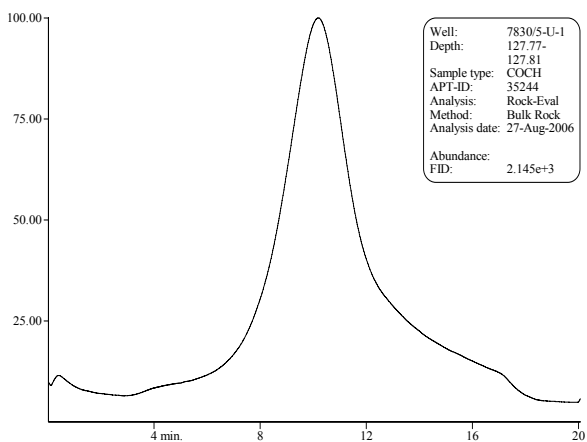
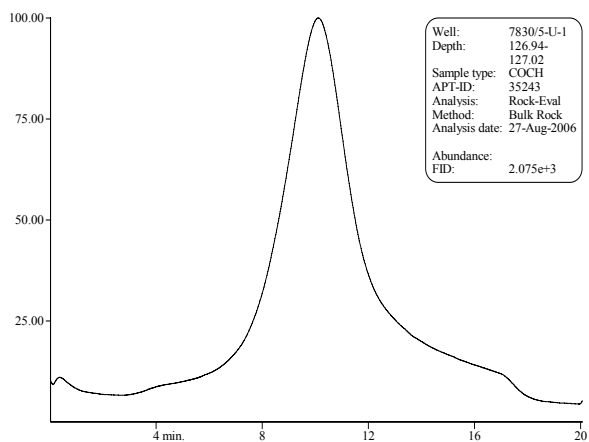
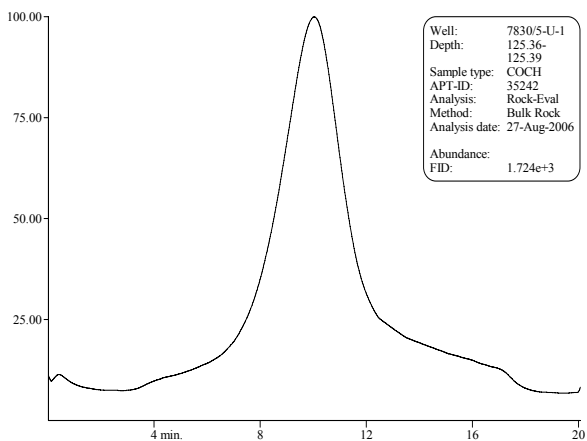
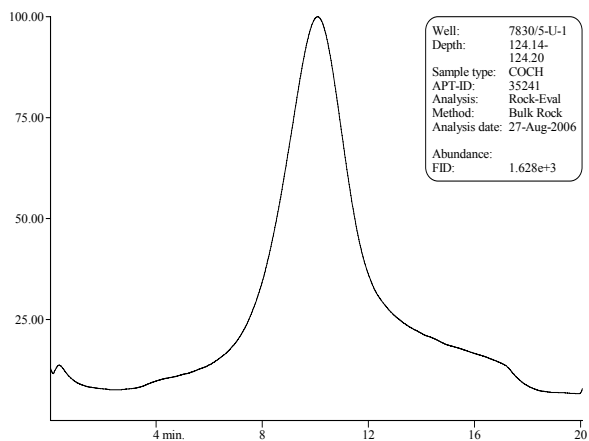


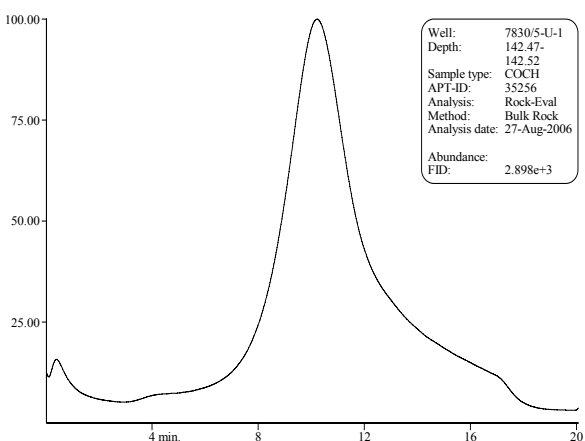
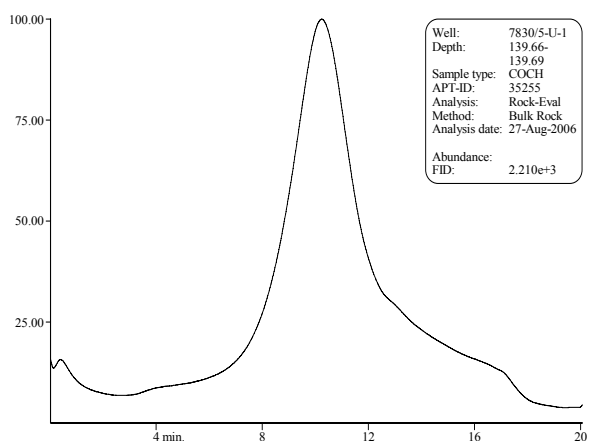
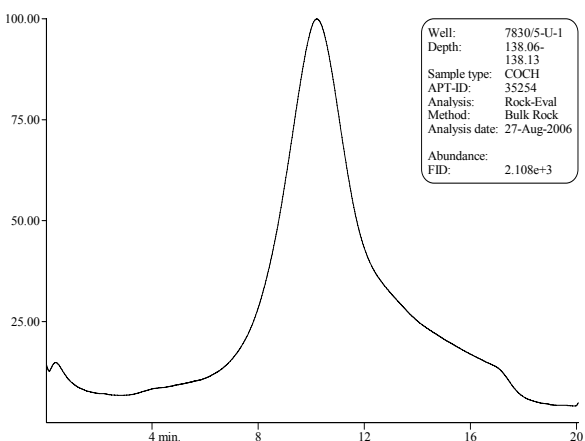
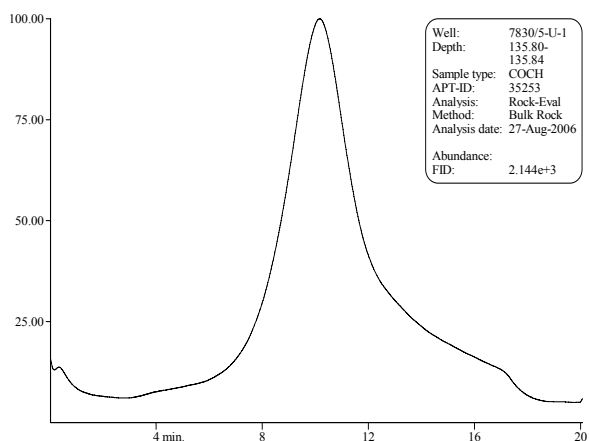
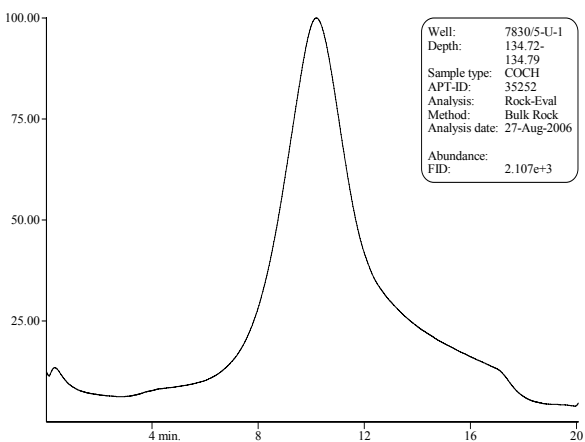
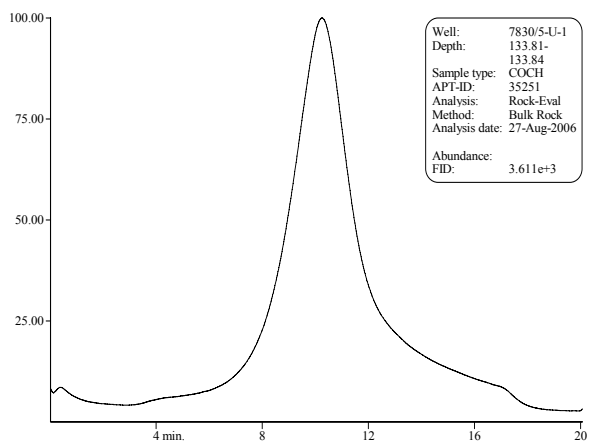
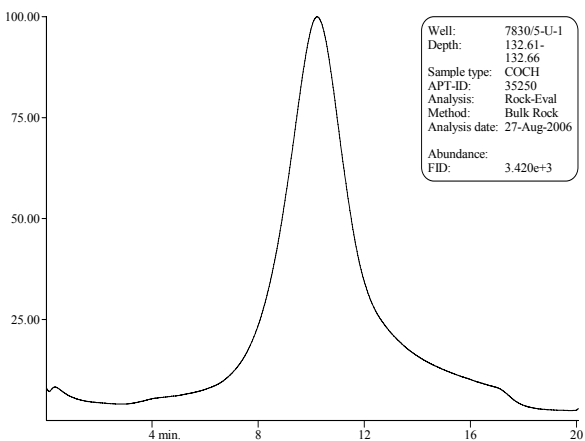
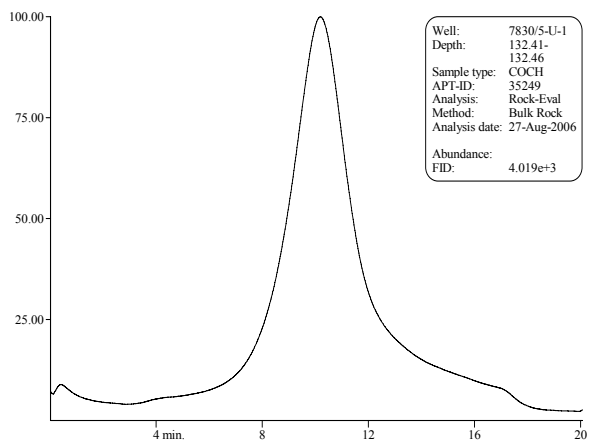


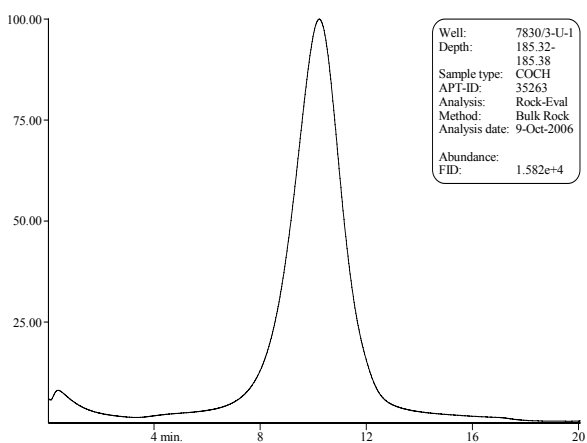
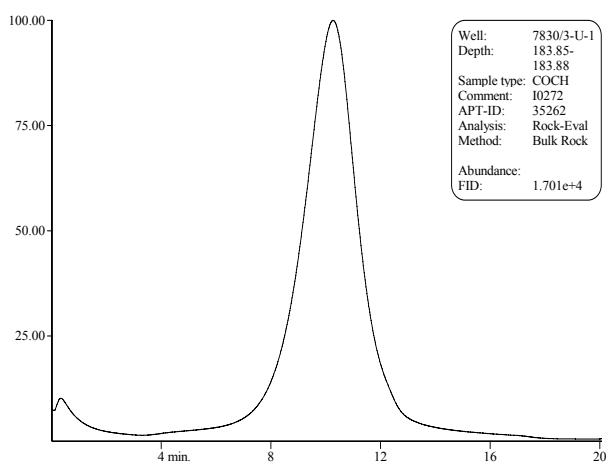
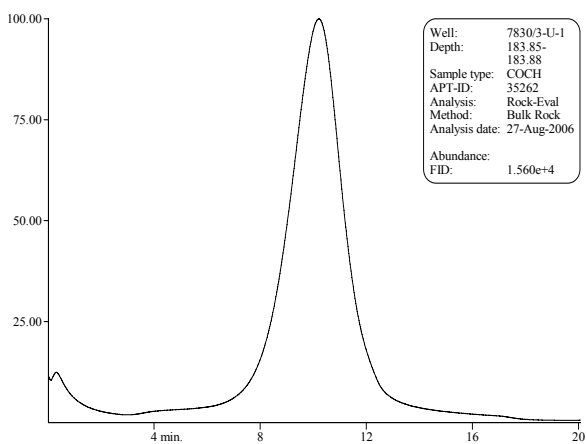
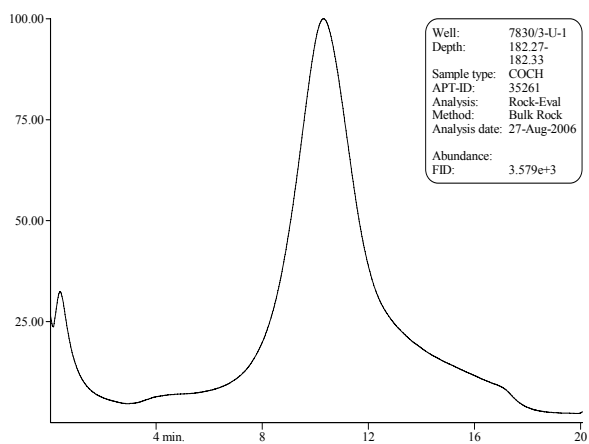
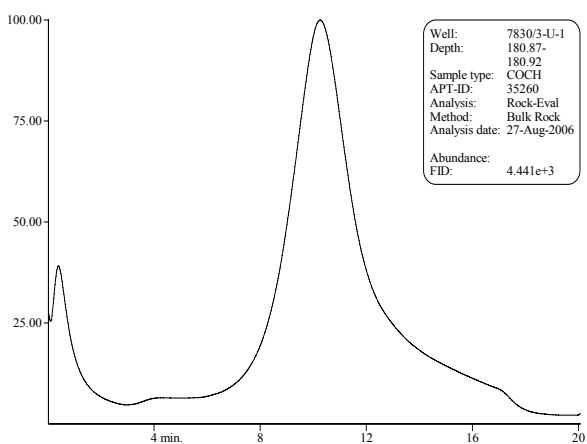
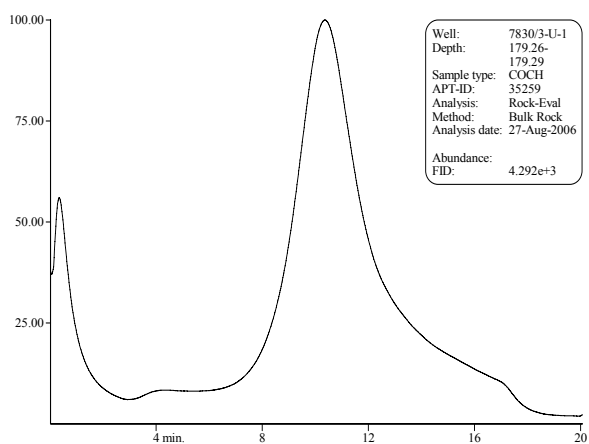
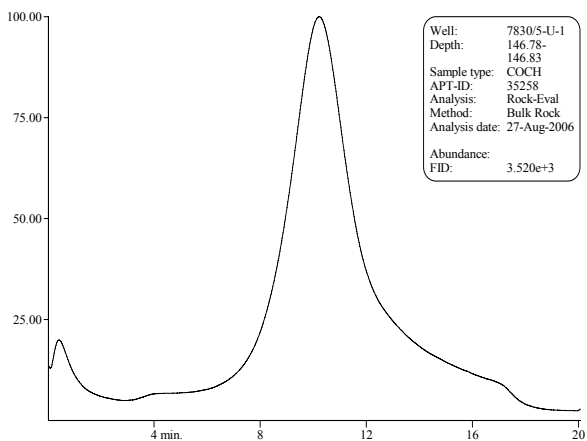
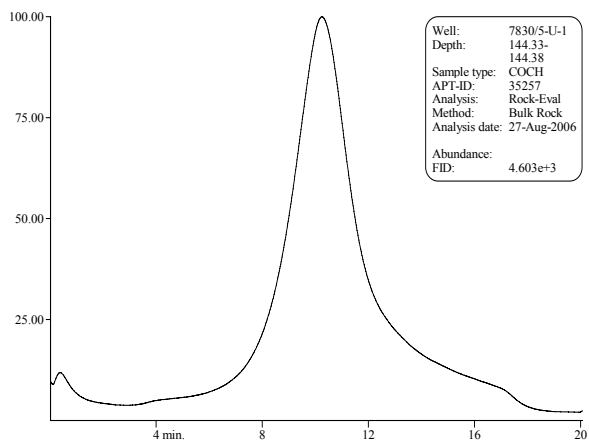


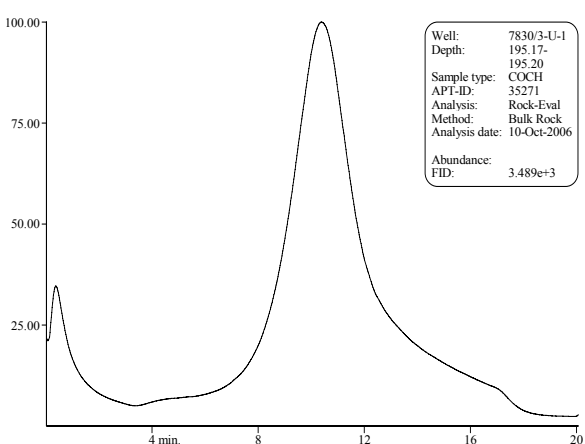
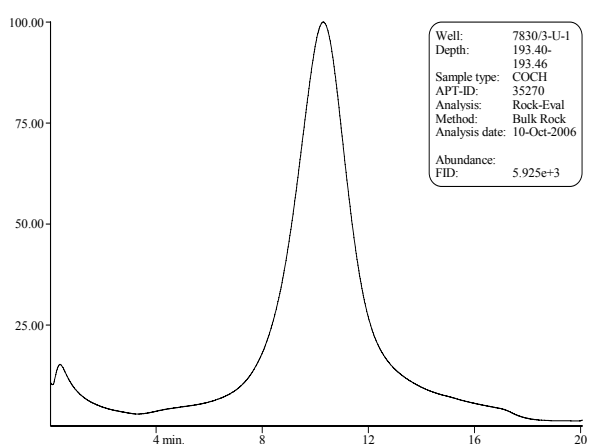
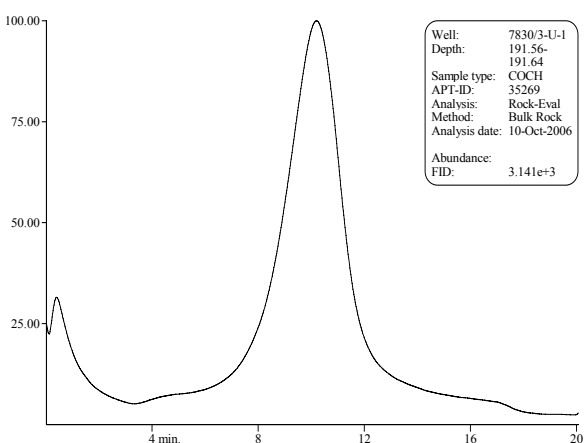
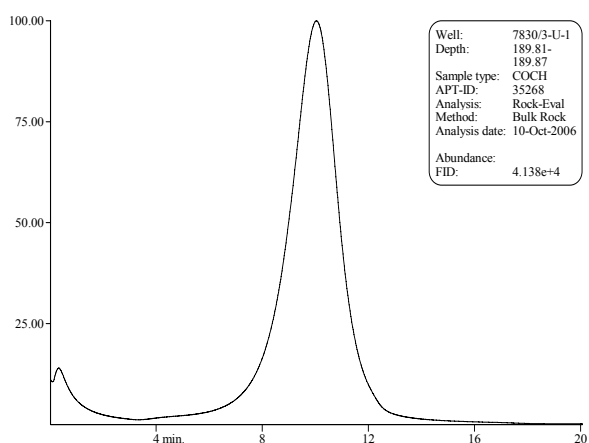
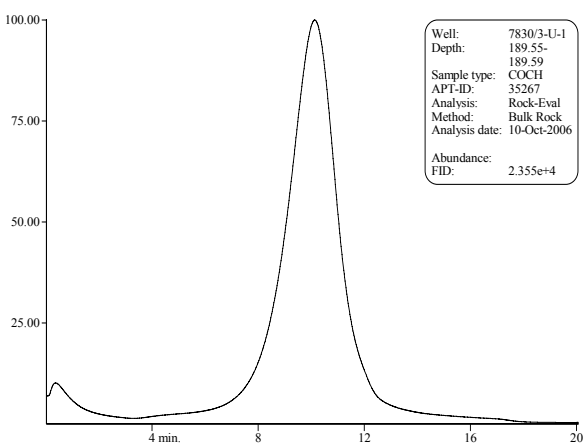
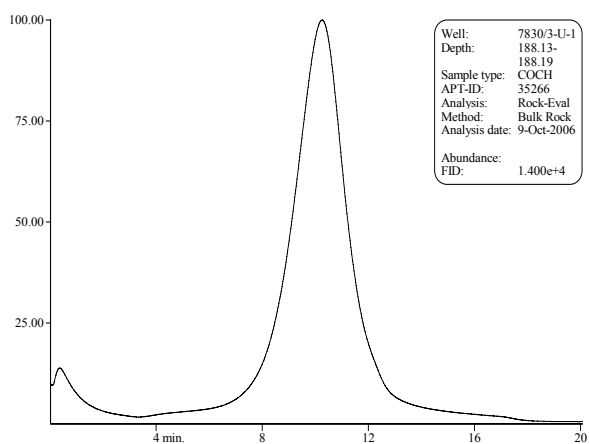
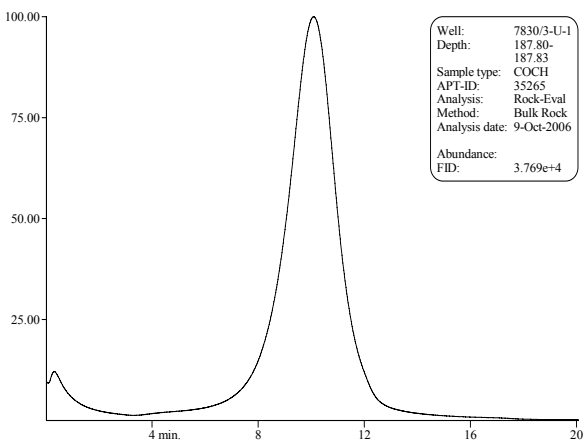
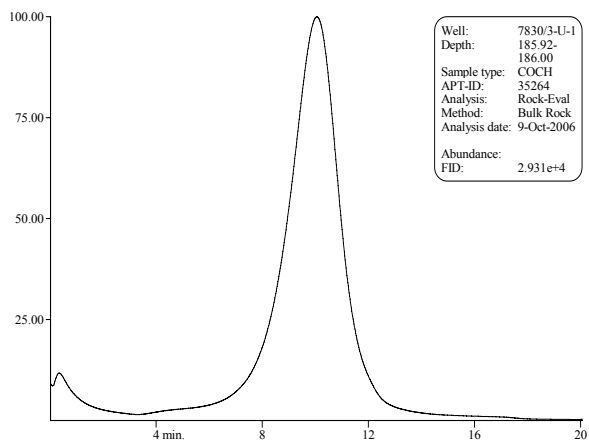












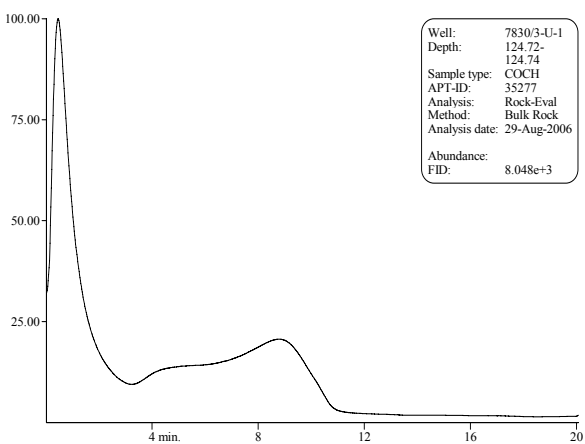
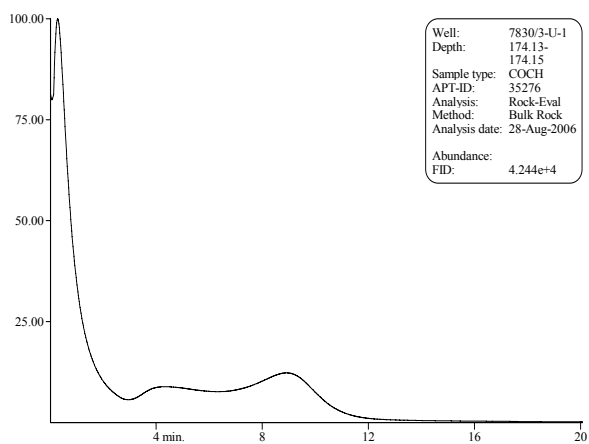
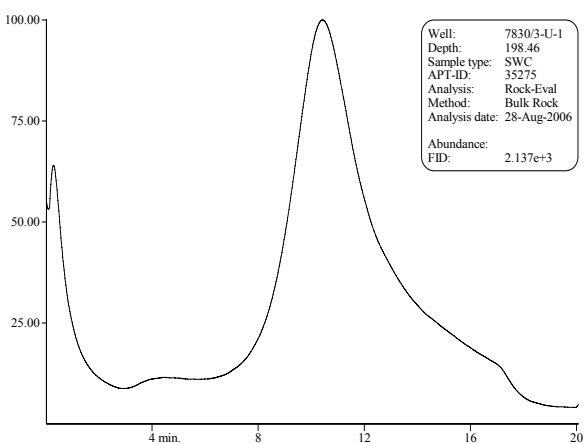
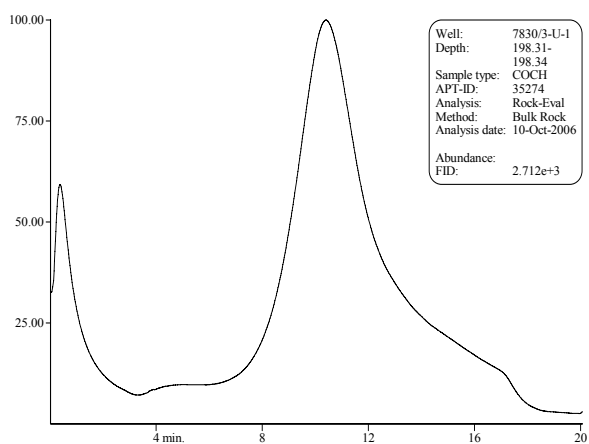
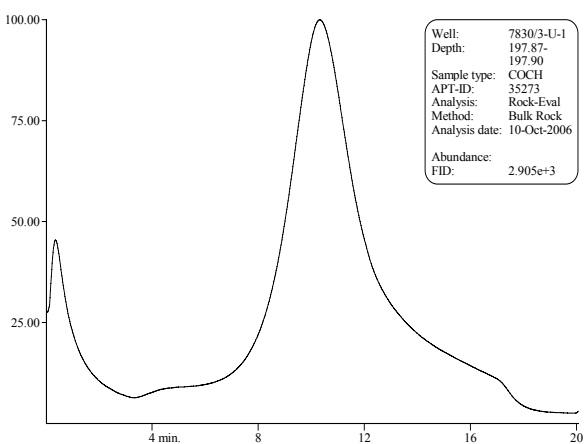
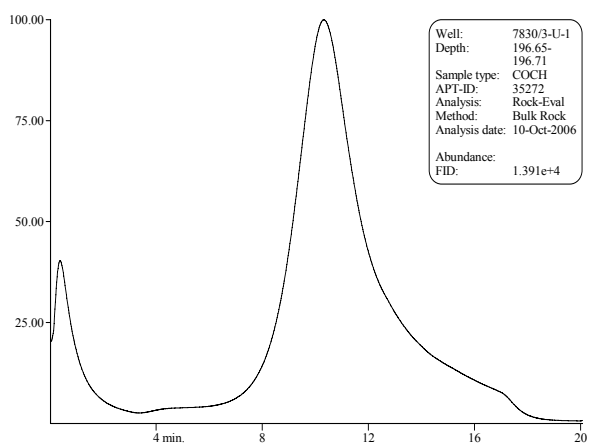


Figure 3
Thermal extraction gas chromatogram.

Legend:

n-C20 etc.
i-C16 etc.
COCH

n-alkanes
acyclic isoprenoids
core chips (sample type)

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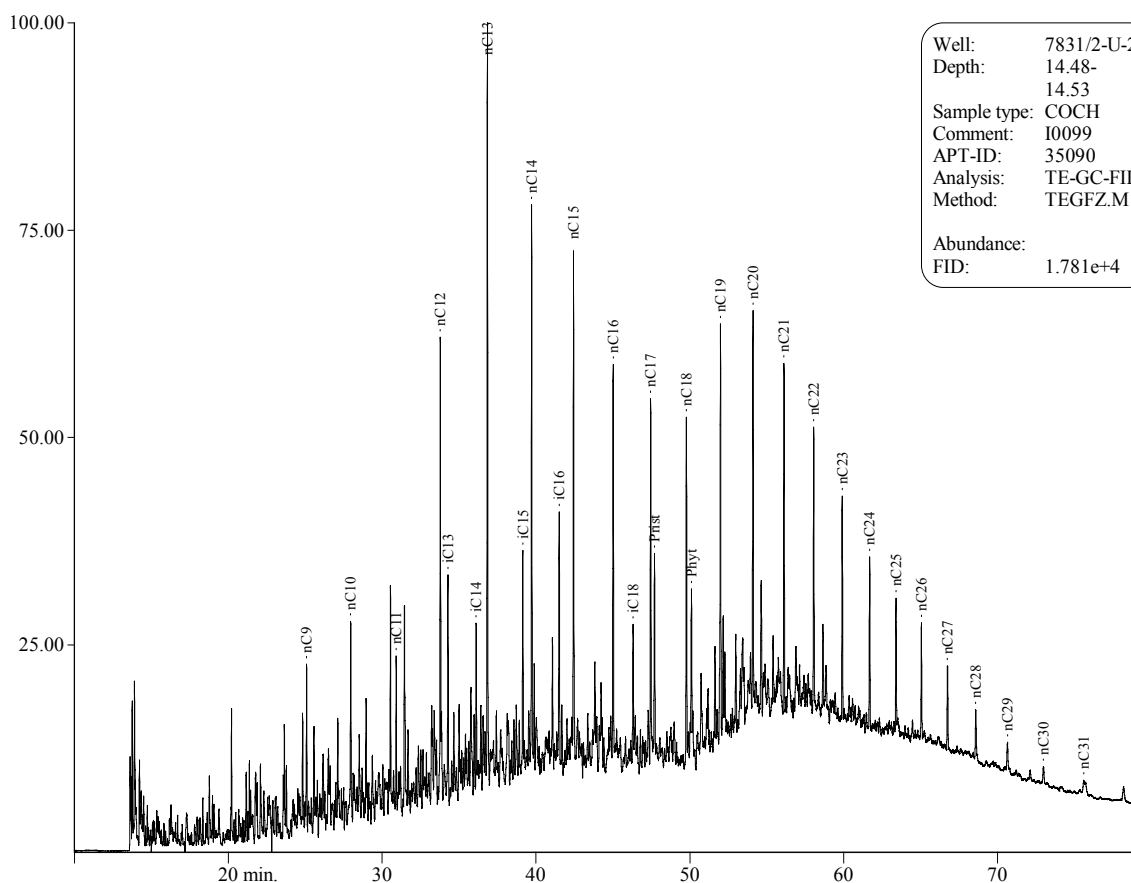


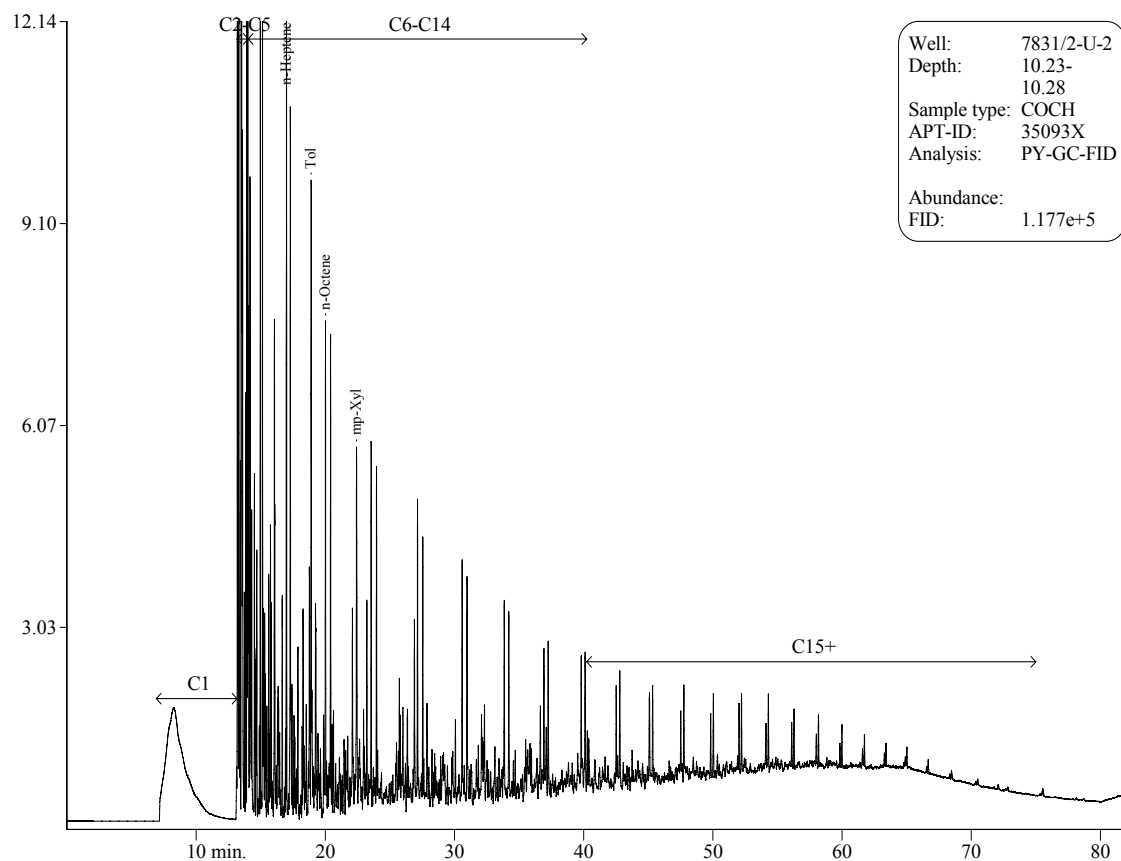
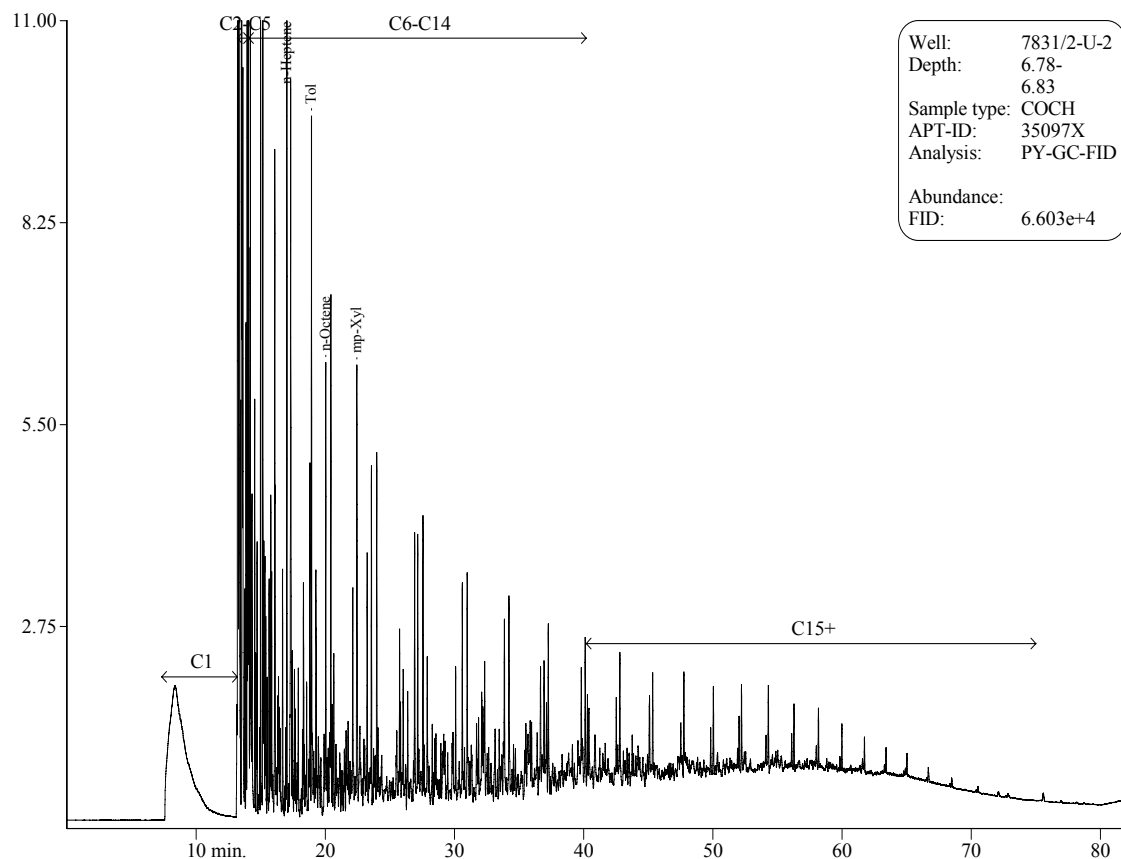
Figure 4
Pyrolysis-gas chromatograms of solvent-extracted rock.

Legend:

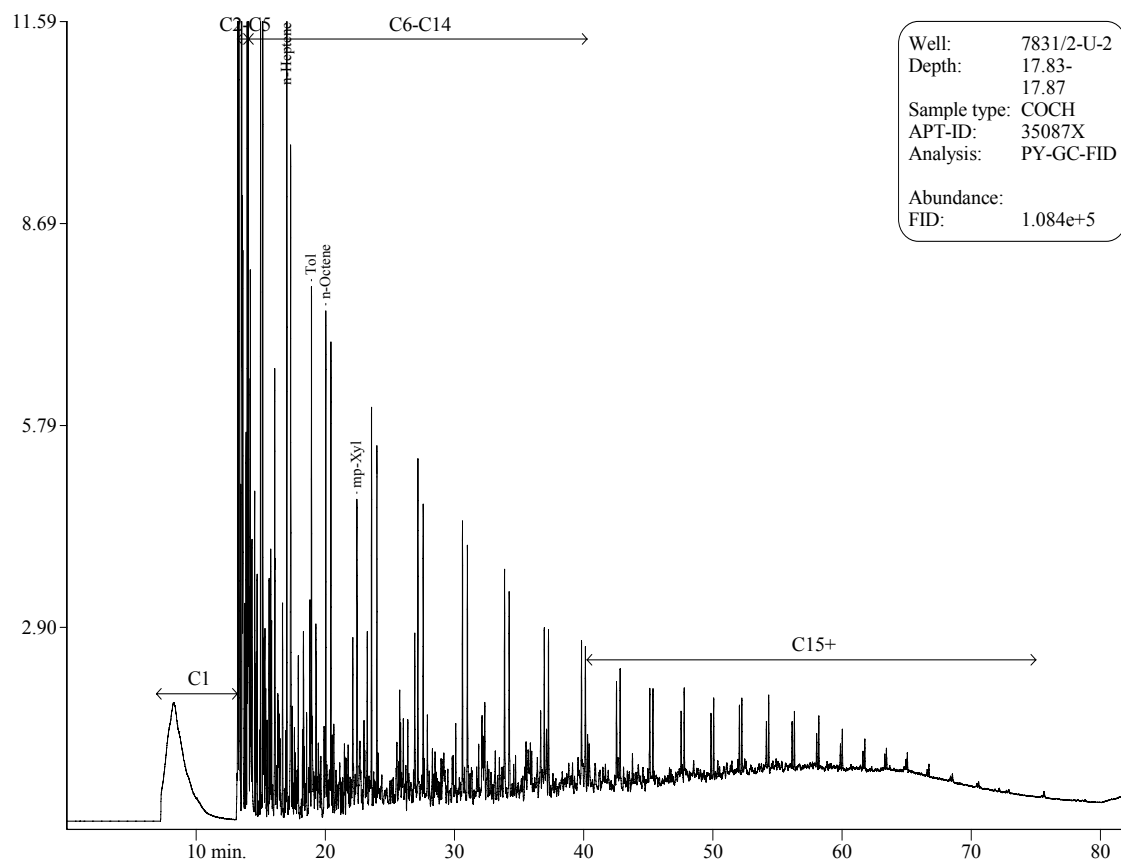
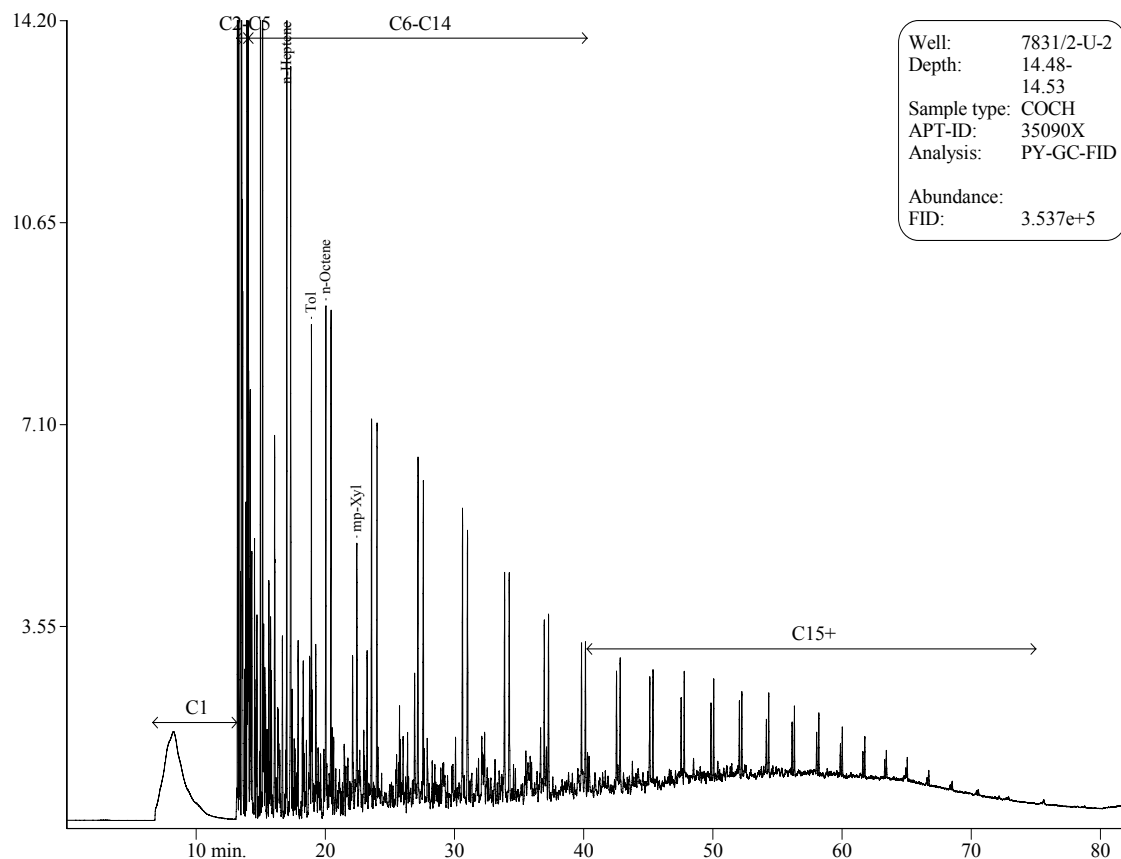
Tol
mp-Xyl
COCH

toluene
m-xylene and p-xylene
core chips (sample type)

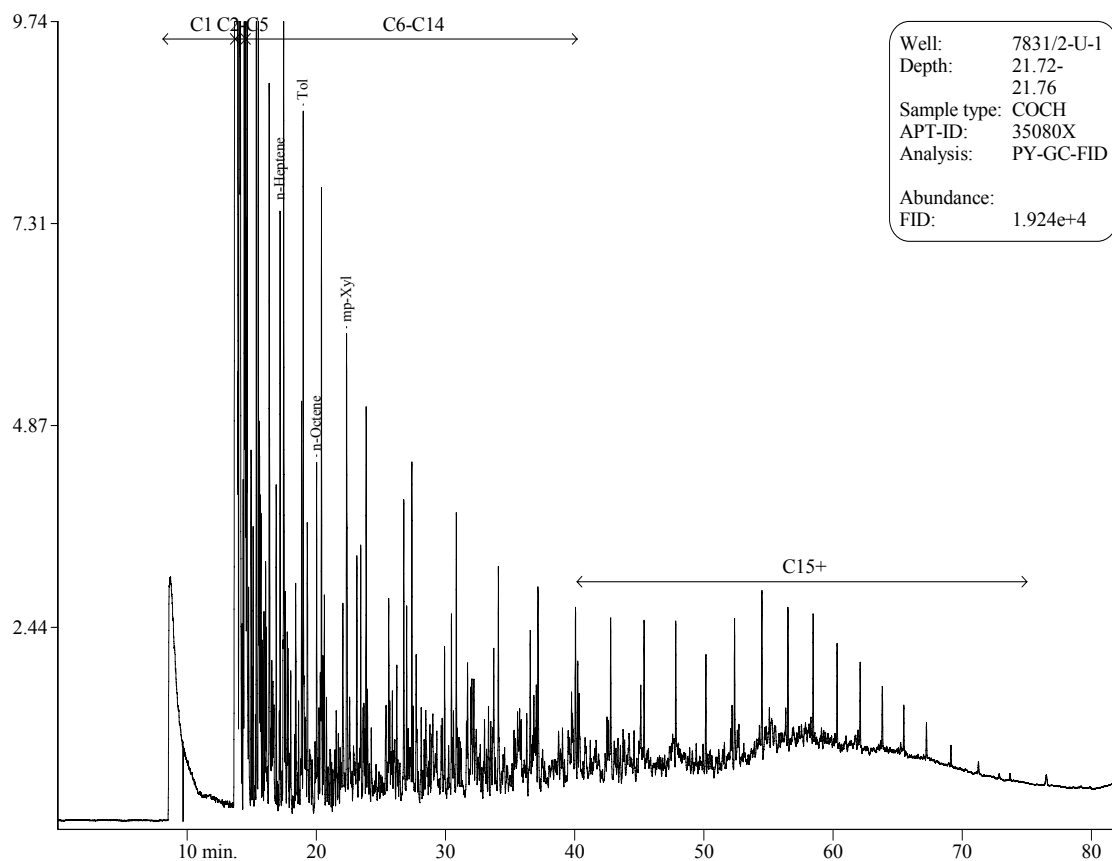
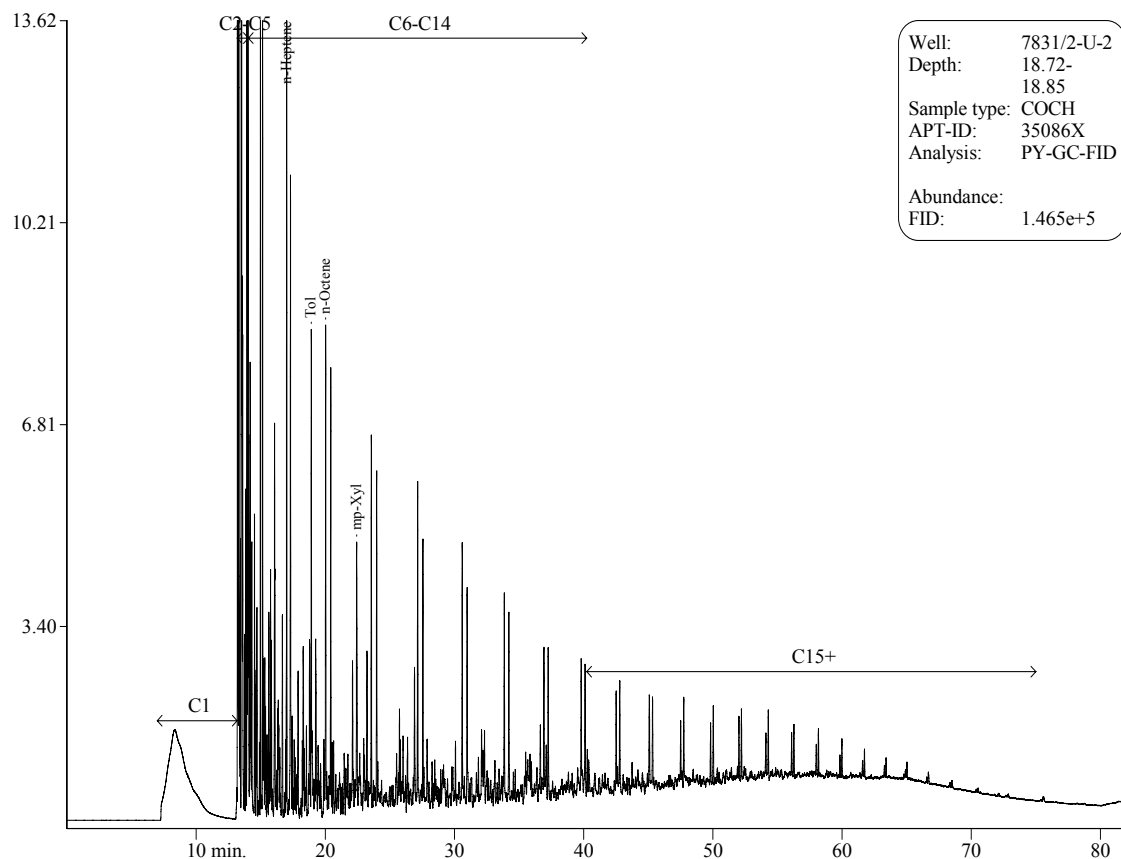
- 175 -



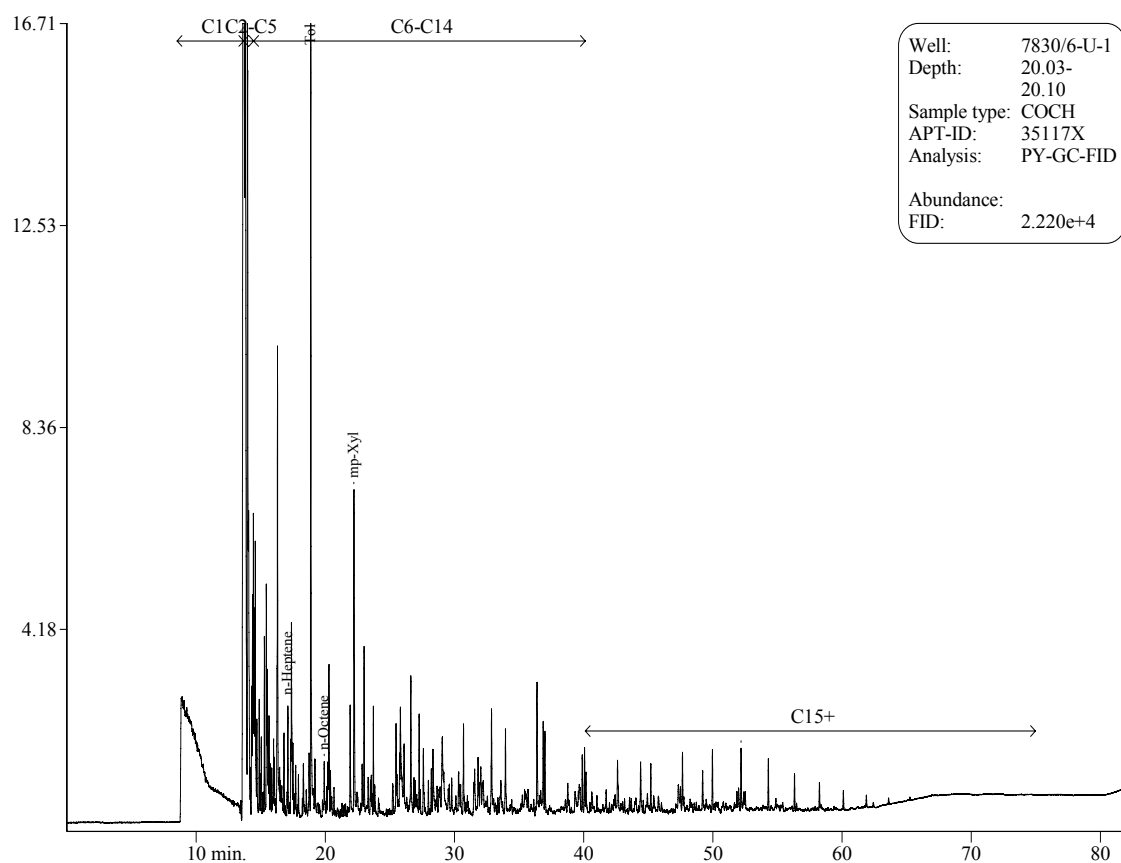
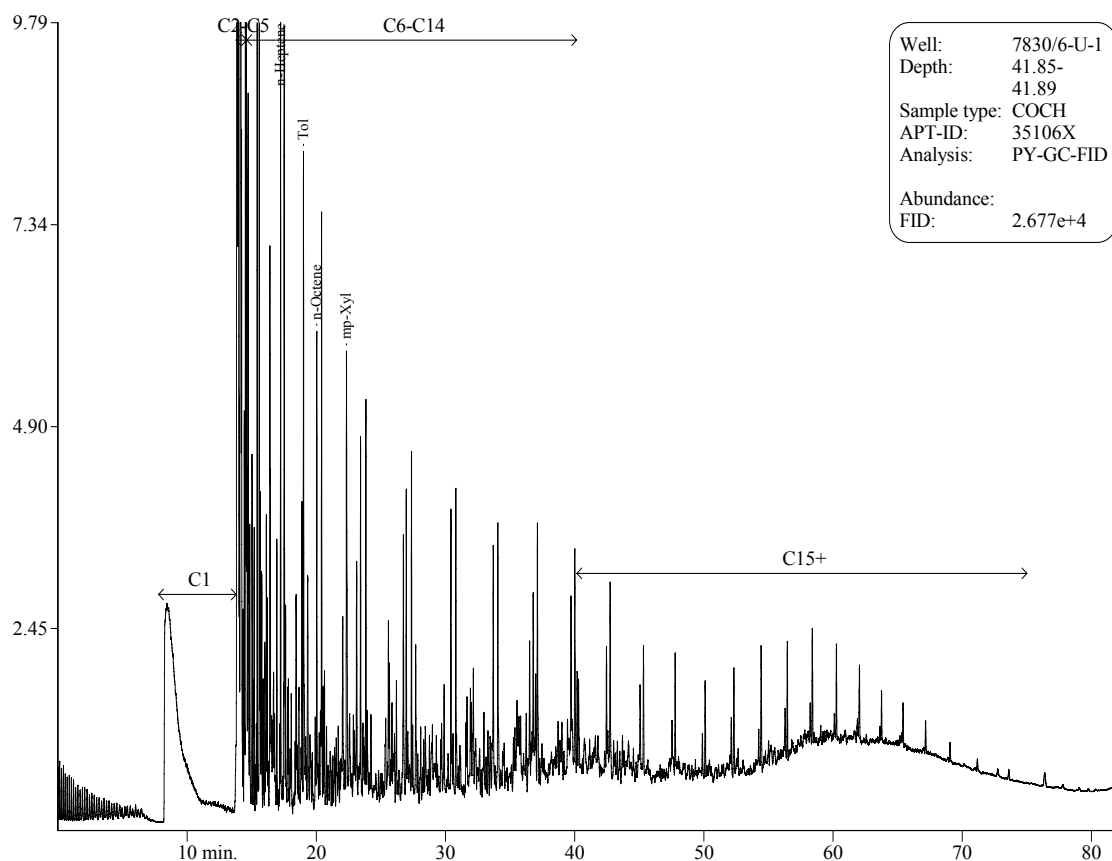
- 176 -



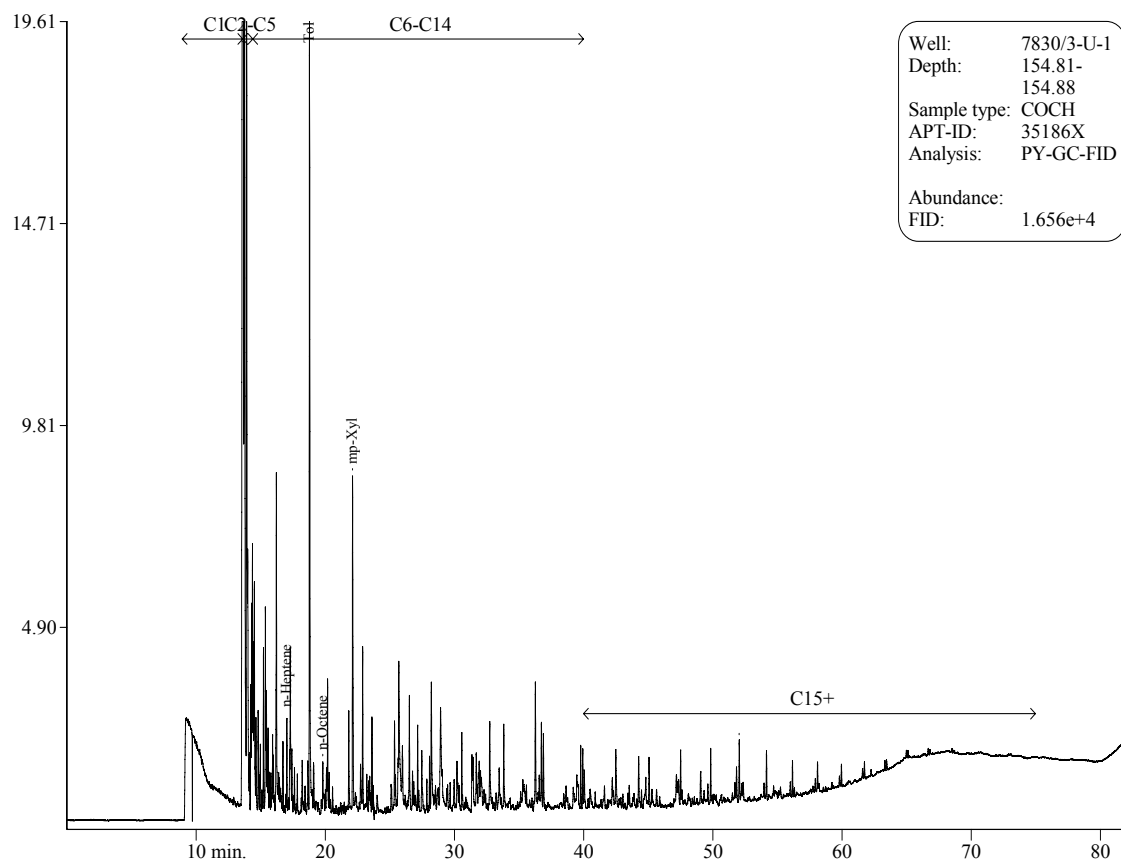
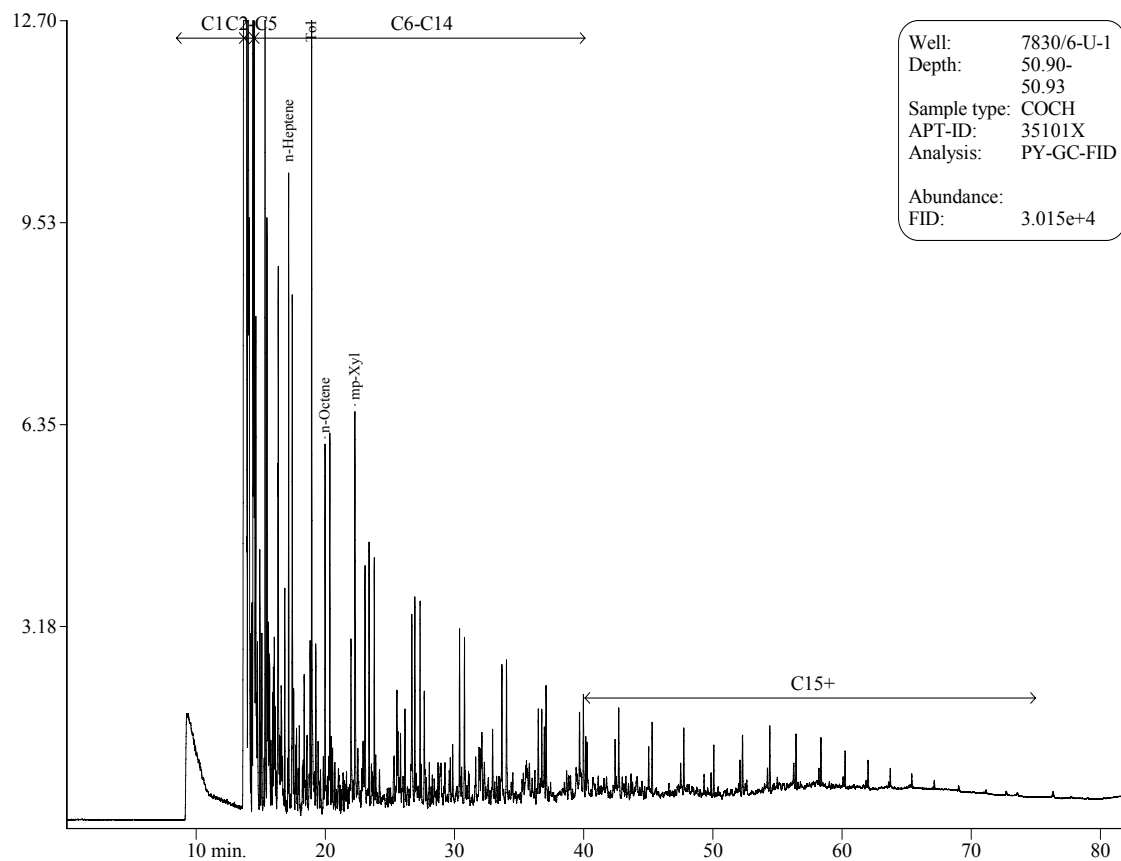
- 177 -



- 178 -



- 179 -



- 180 -

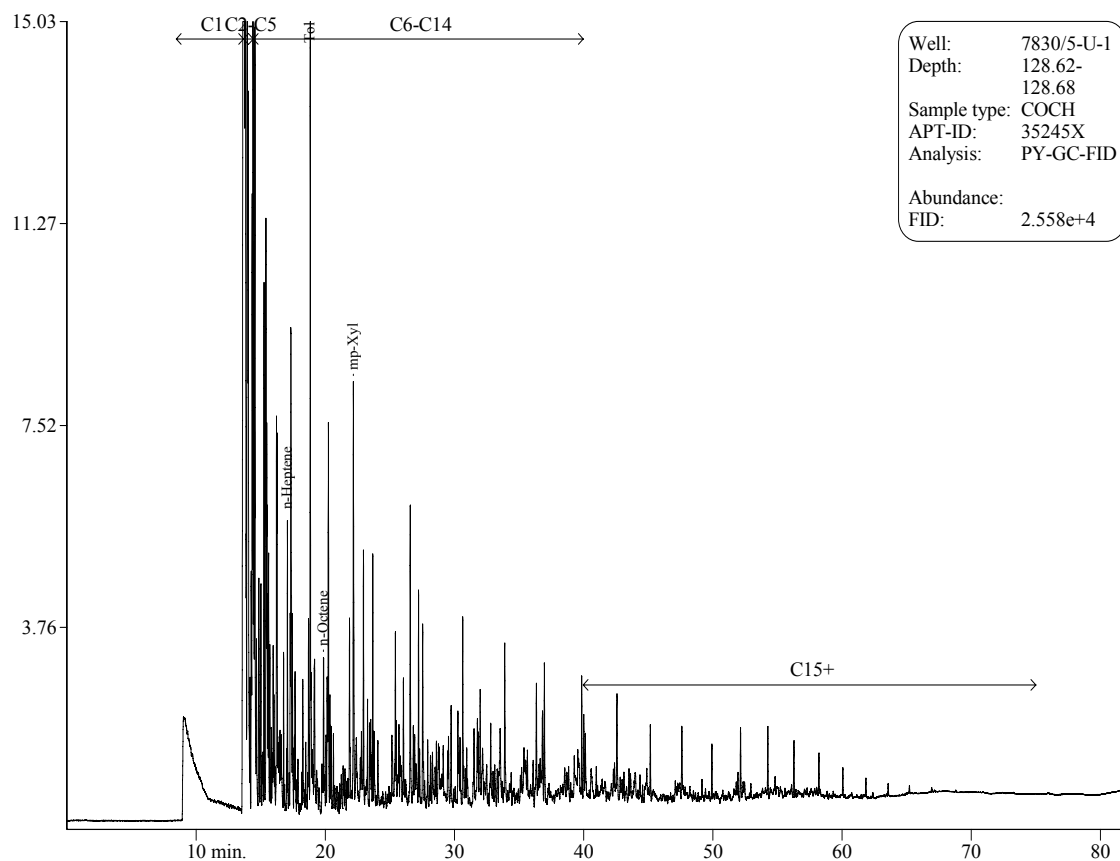
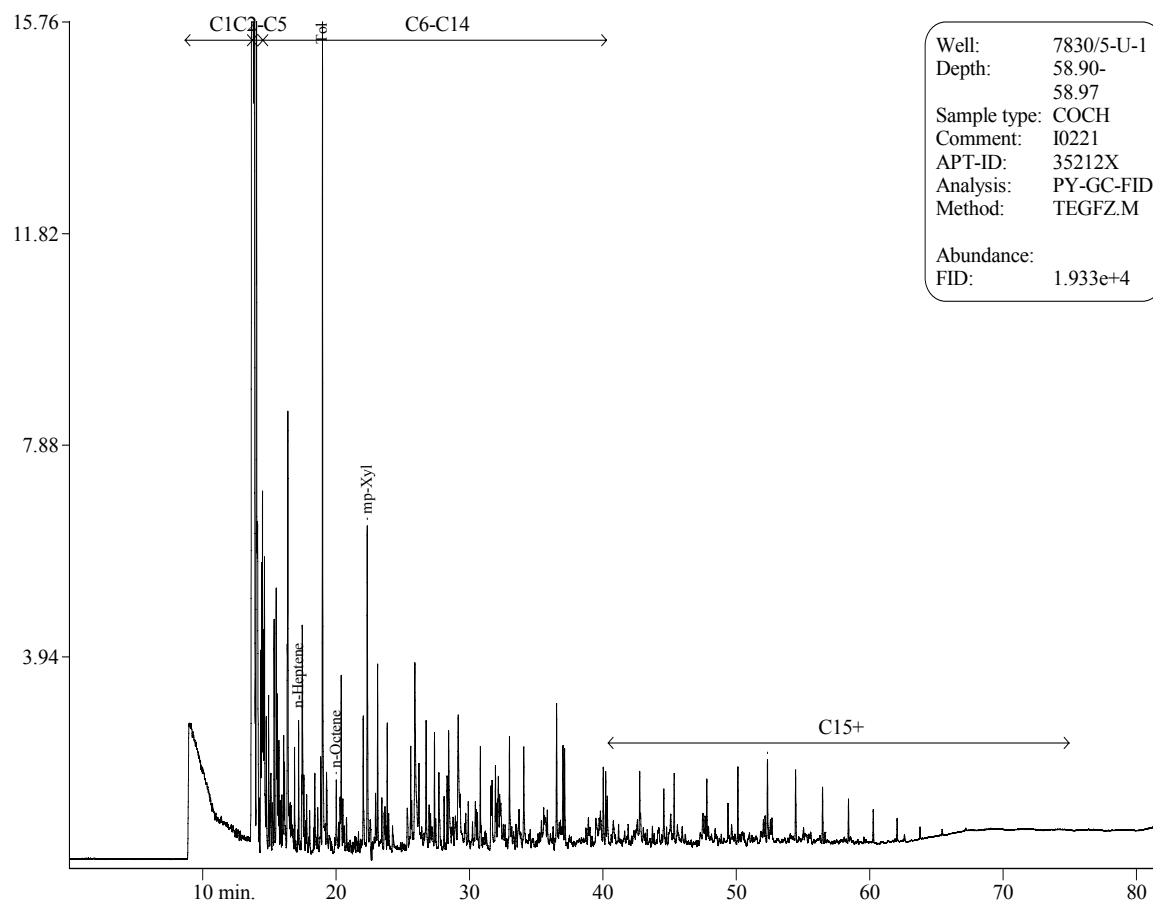
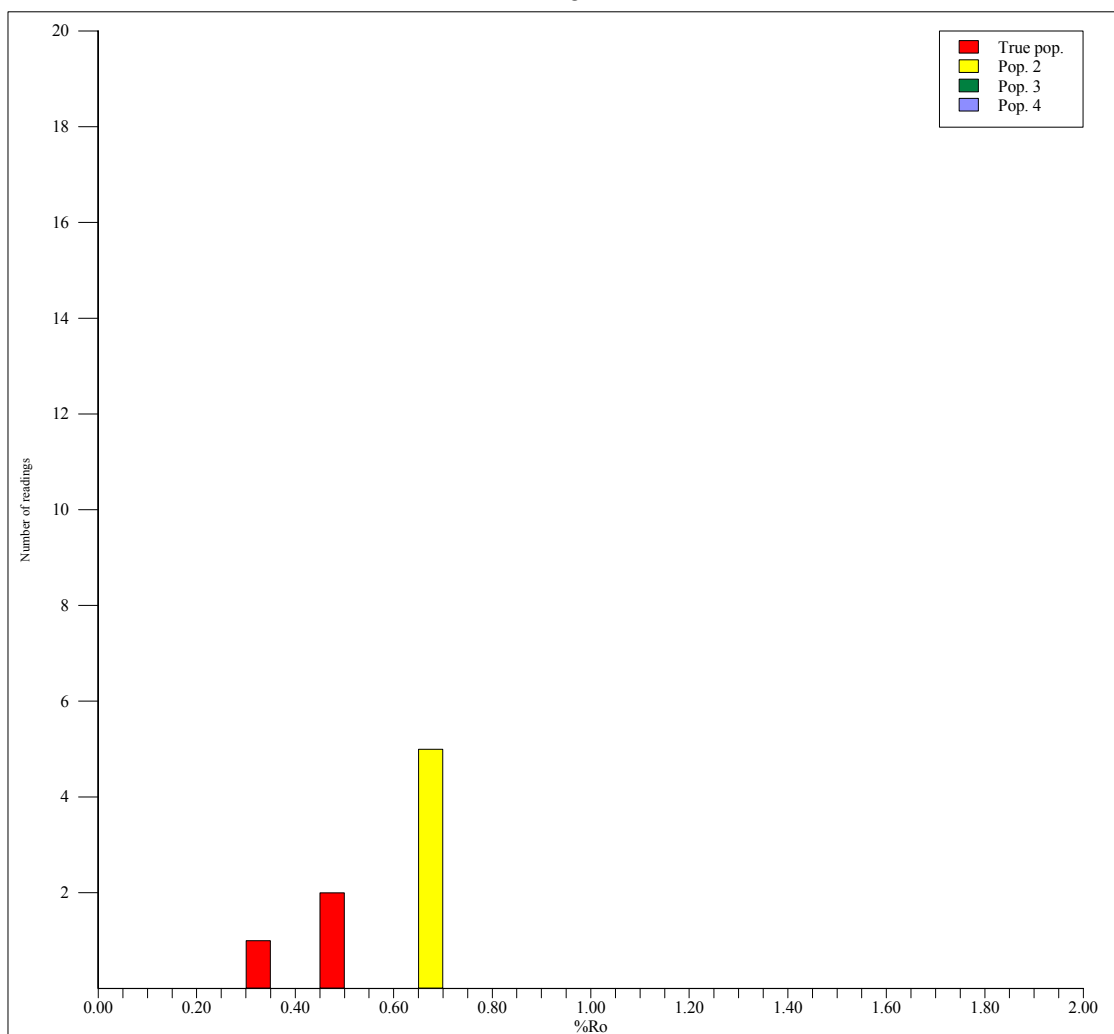
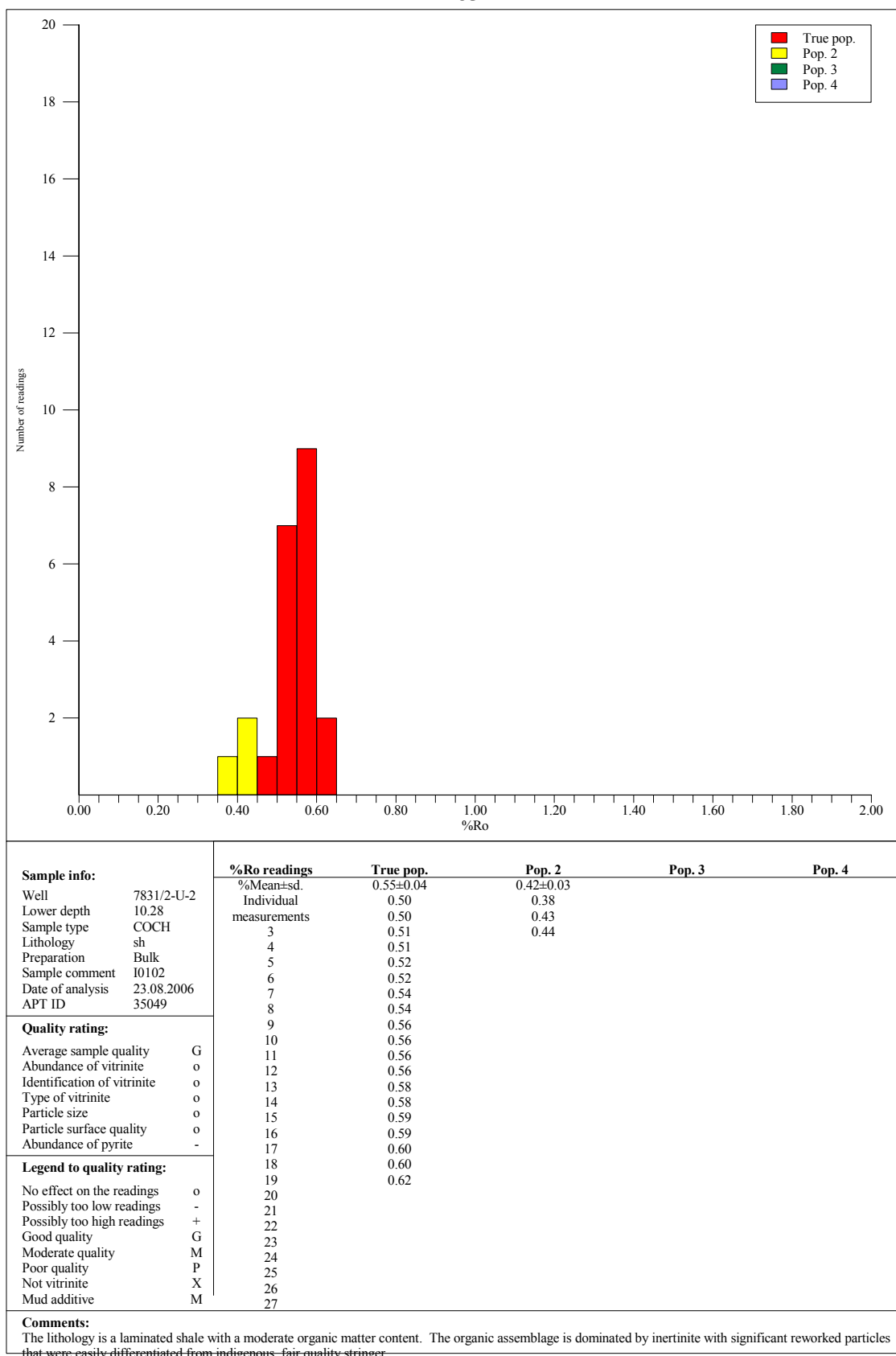
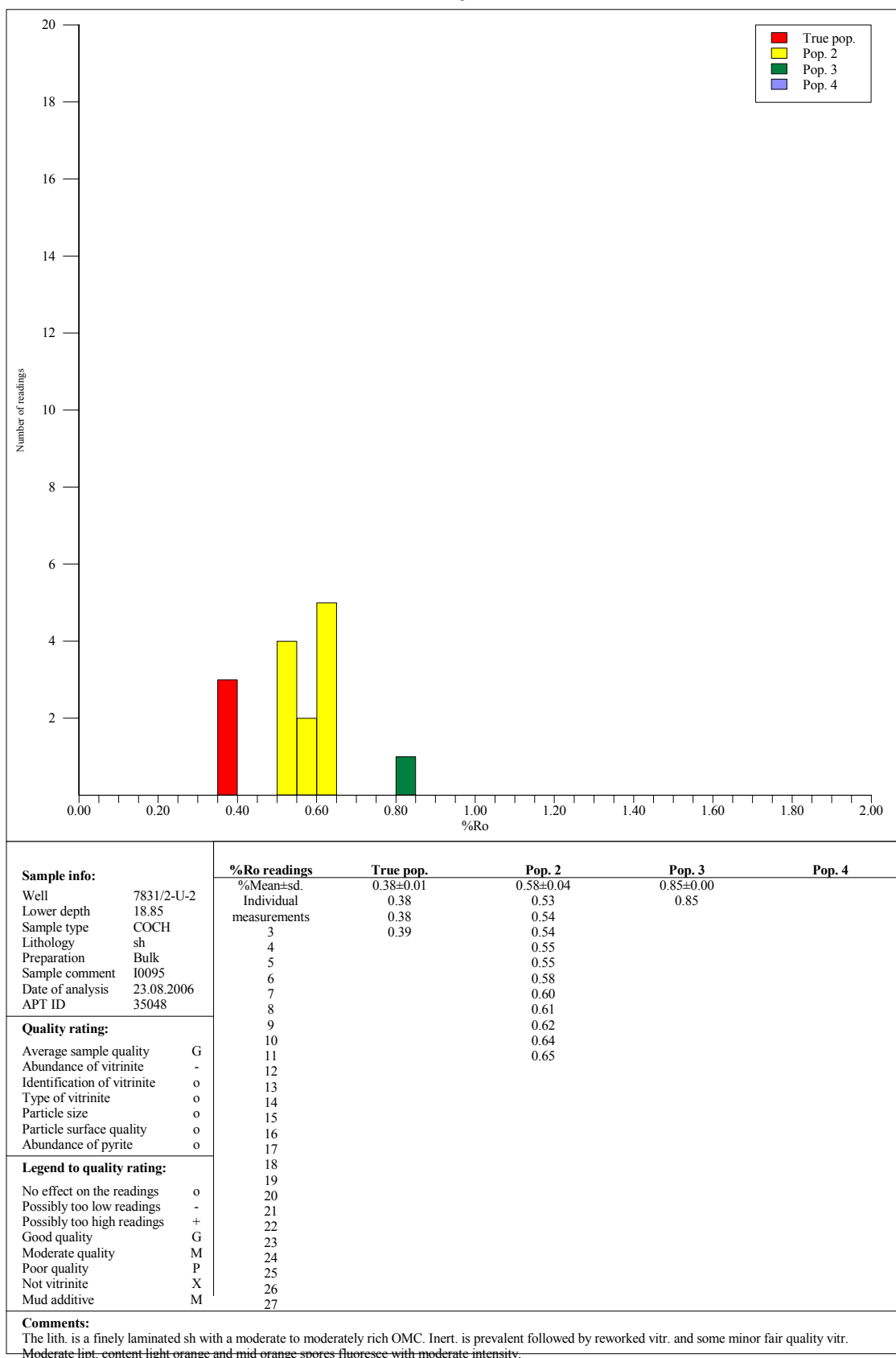


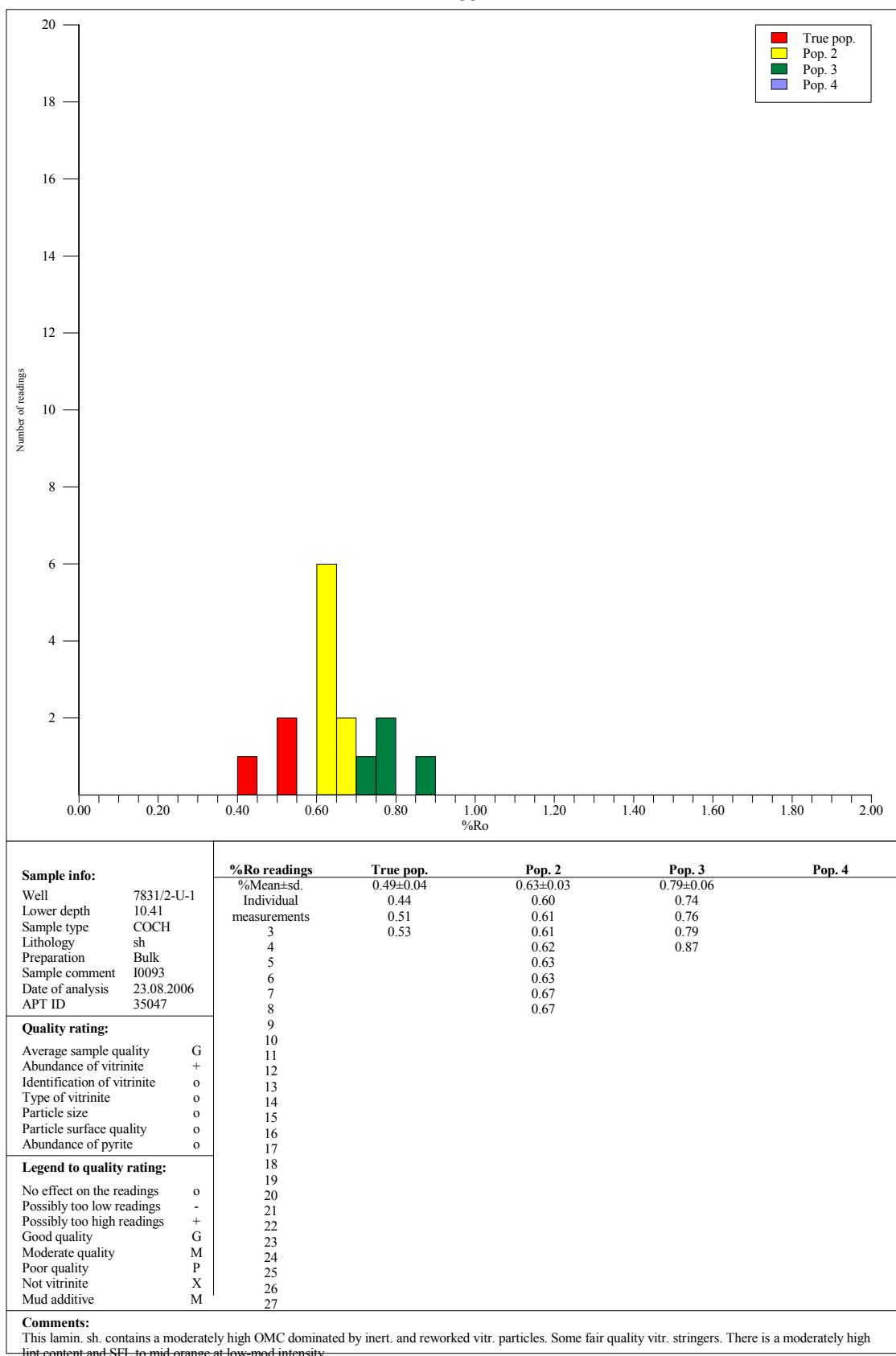
Figure 5
Vitrinite reflectance data sheets.

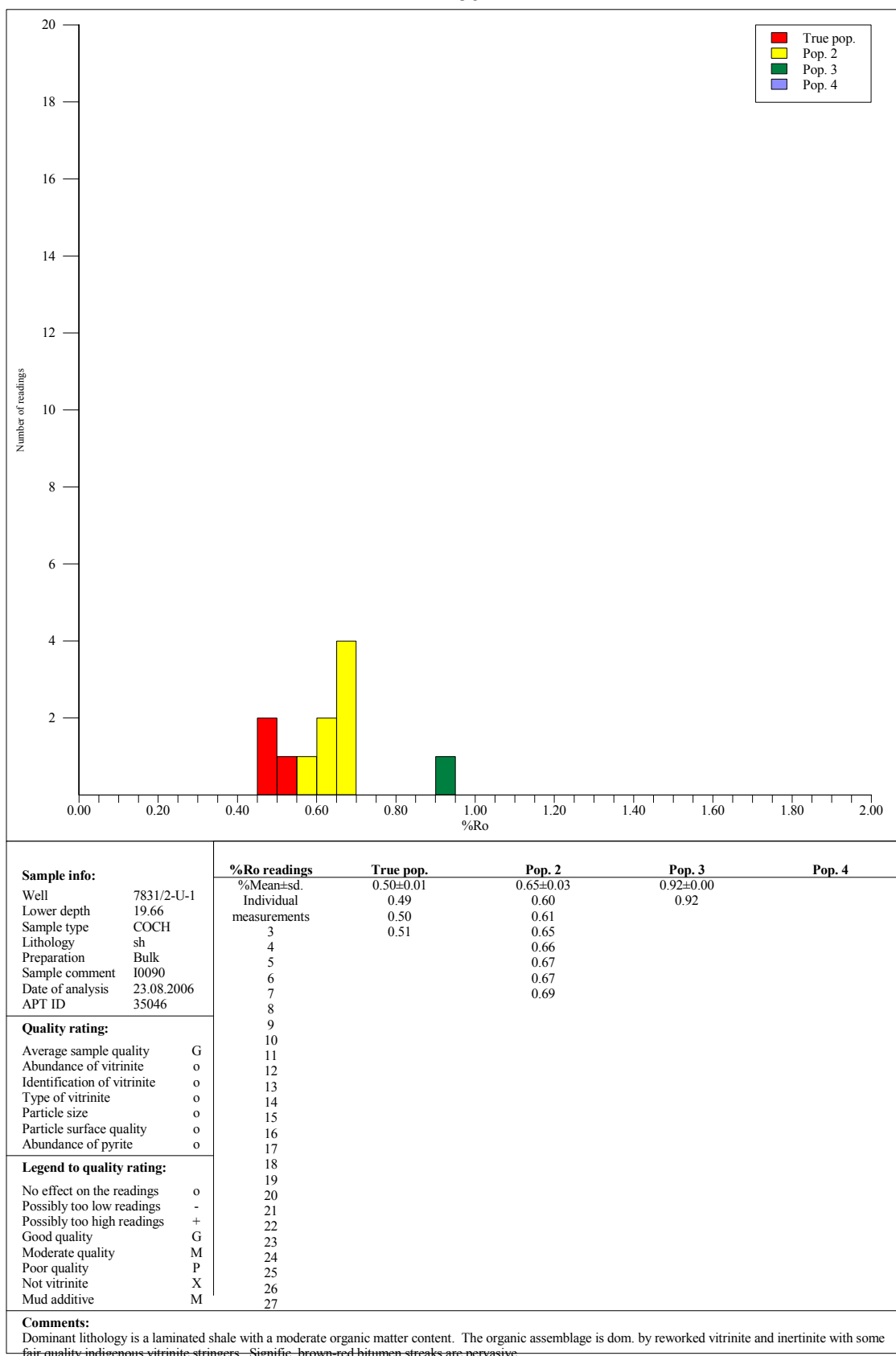


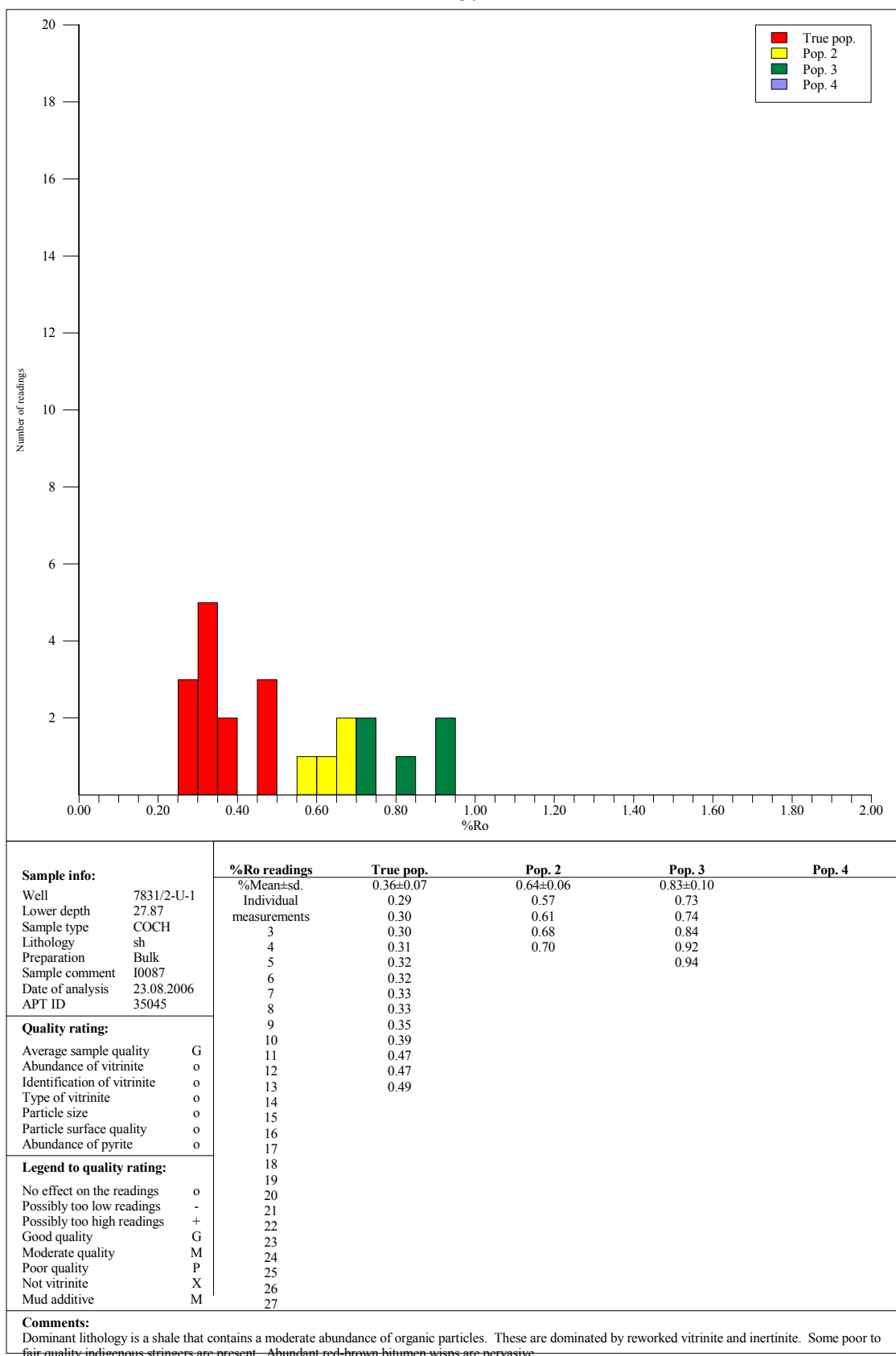
Sample info:		%Ro readings	True pop.	Pop. 2	Pop. 3	Pop. 4
Well	7831/2-U-2	%Mean±sd.	0.42±0.08	0.66±0.01		
Lower depth	6.83	Individual	0.32	0.65		
Sample type	COCH	measurements	0.46	0.65		
Lithology	sh	3	0.47	0.65		
Preparation	Bulk	4		0.66		
Sample comment	I0106	5		0.67		
Date of analysis	23.08.2006	6				
APT ID	35050	7				
Quality rating:		8				
Average sample quality	G	9				
Abundance of vitrinite	o	10				
Identification of vitrinite	+	11				
Type of vitrinite	+	12				
Particle size	o	13				
Particle surface quality	+	14				
Abundance of pyrite	+	15				
Legend to quality rating:		16				
No effect on the readings	o	17				
Possibly too low readings	-	18				
Possibly too high readings	+	19				
Good quality	G	20				
Moderate quality	M	21				
Poor quality	P	22				
Not vitrinite	X	23				
Mud additive	M	24				
Comments:		25				
Lam. Sh. often pyritic. M-H O.M.C. Dom. Inert; rwk'd vit; minor fair quality indig. vit Differentn. often diff. Mod. Lipt. Dom. Dino(?) fluor. Yel-or, mod. - high		26				
inten. SFC light orange mod-inten.		27				

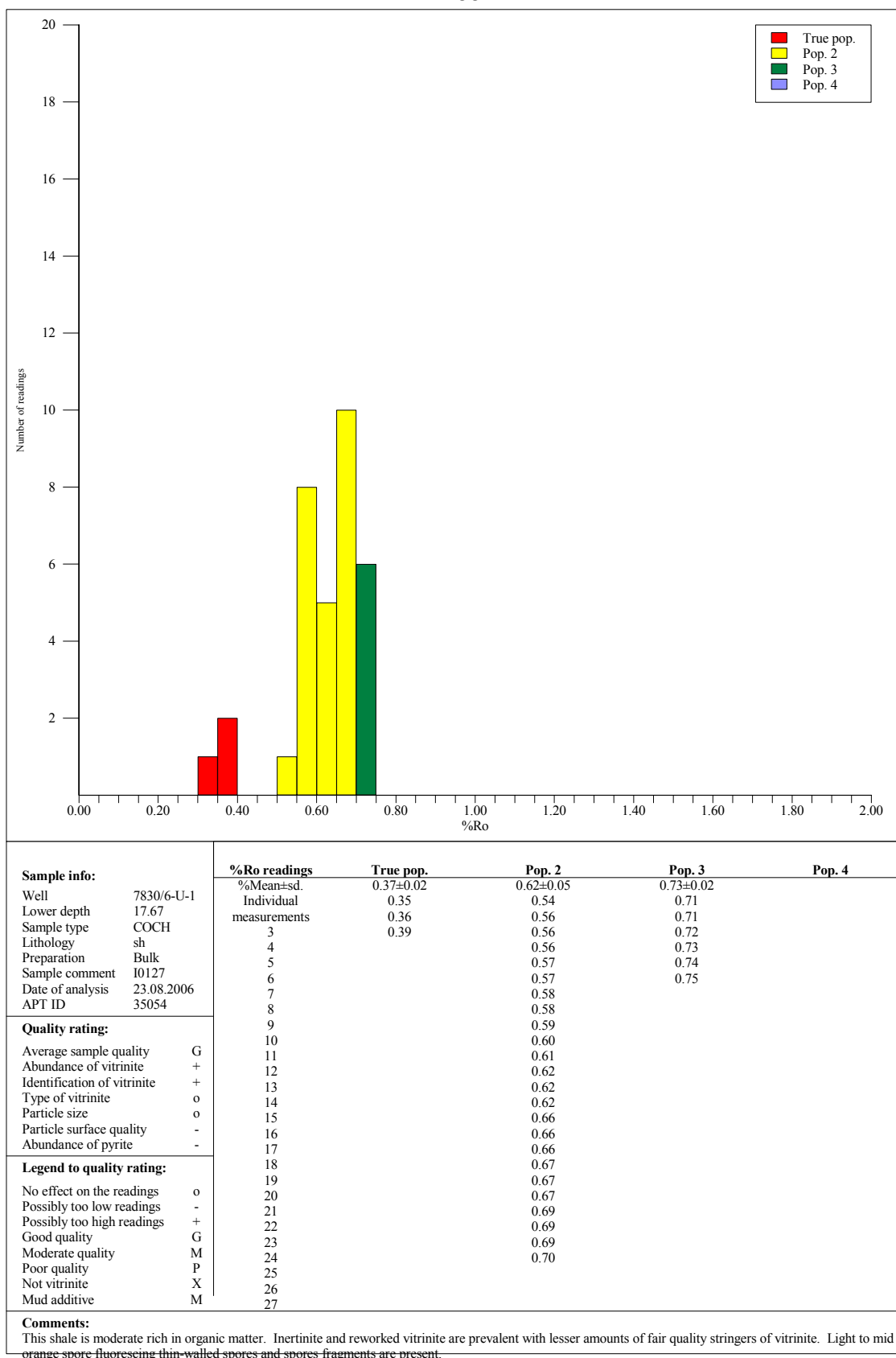


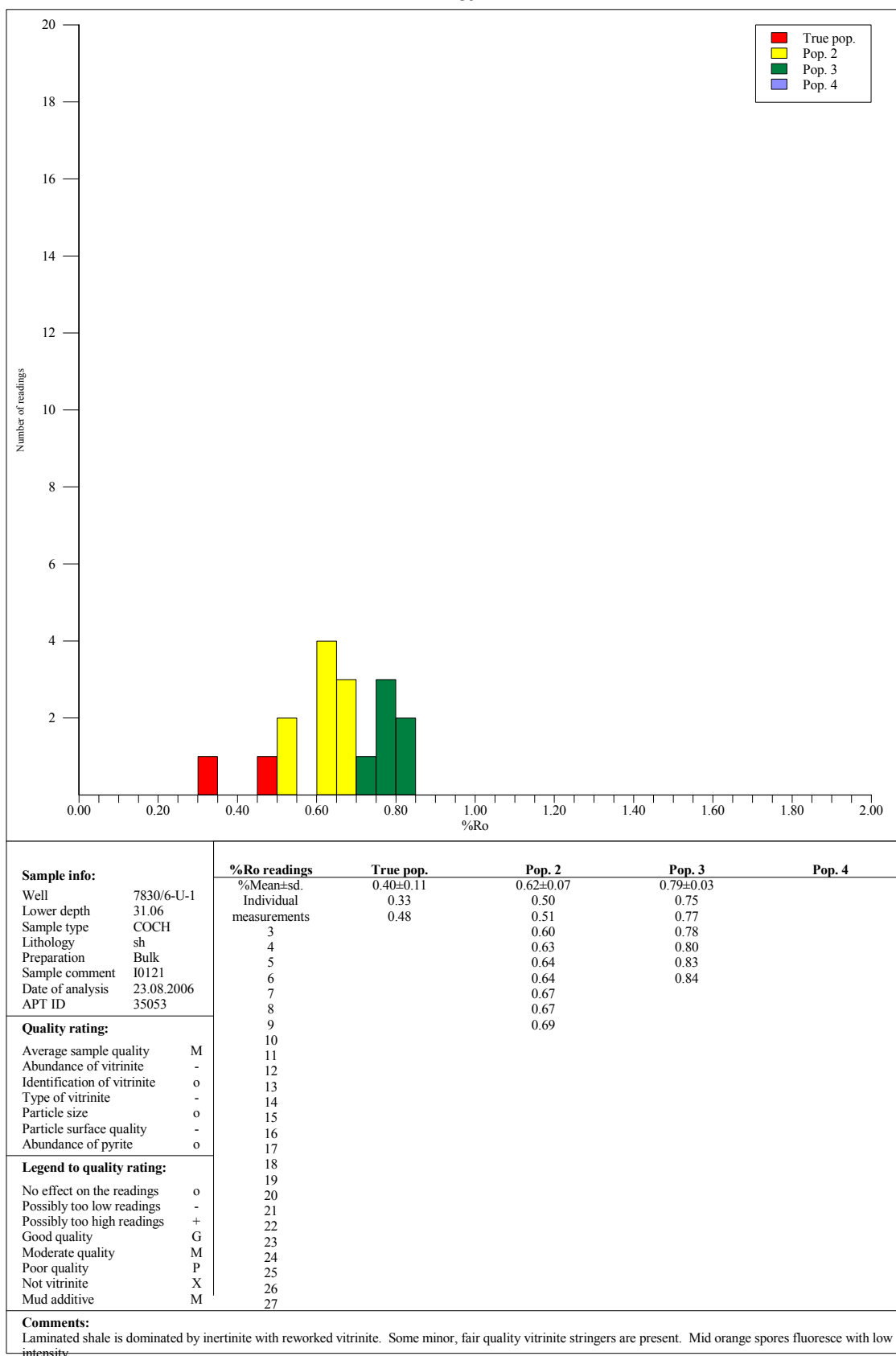


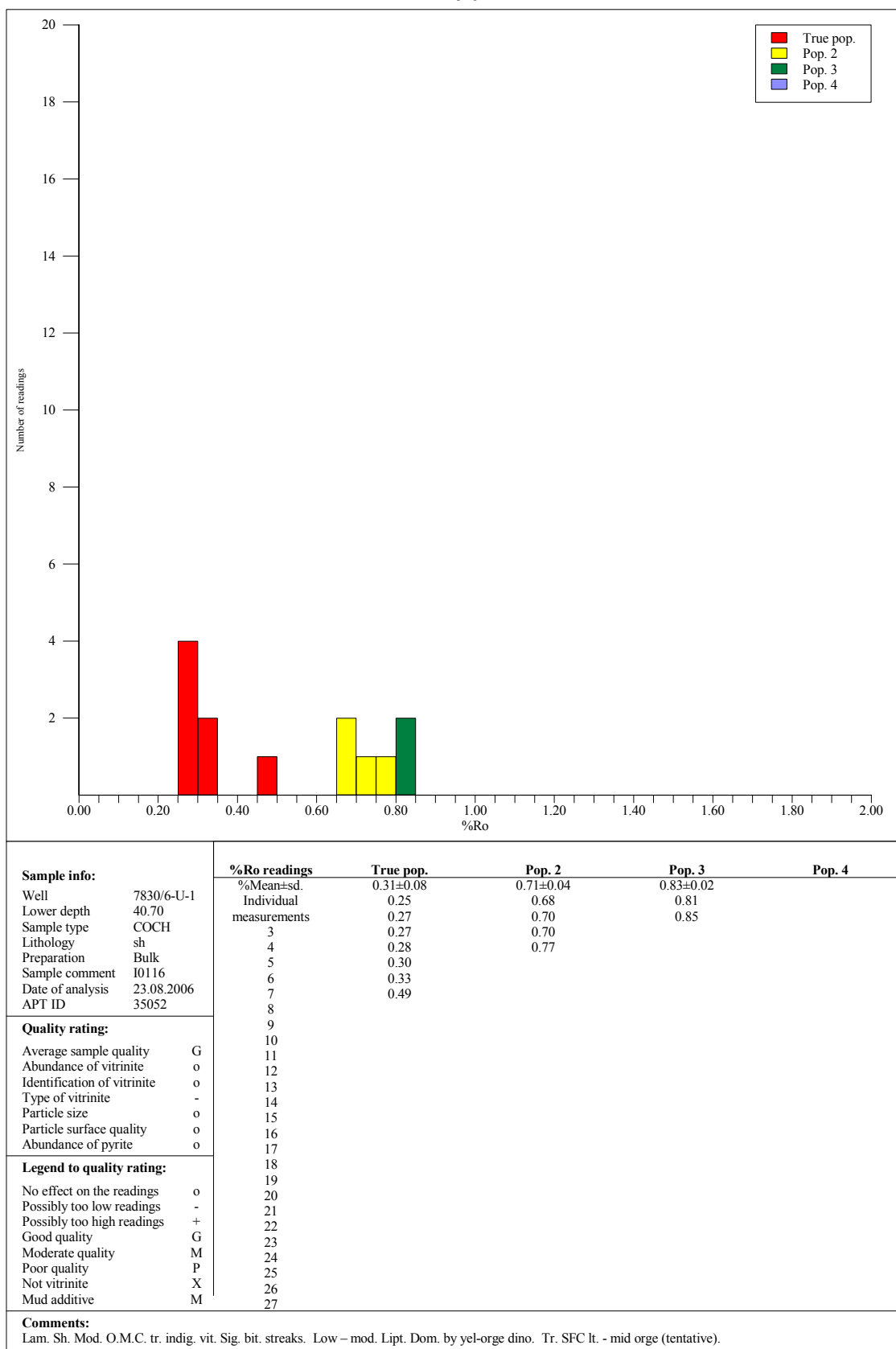


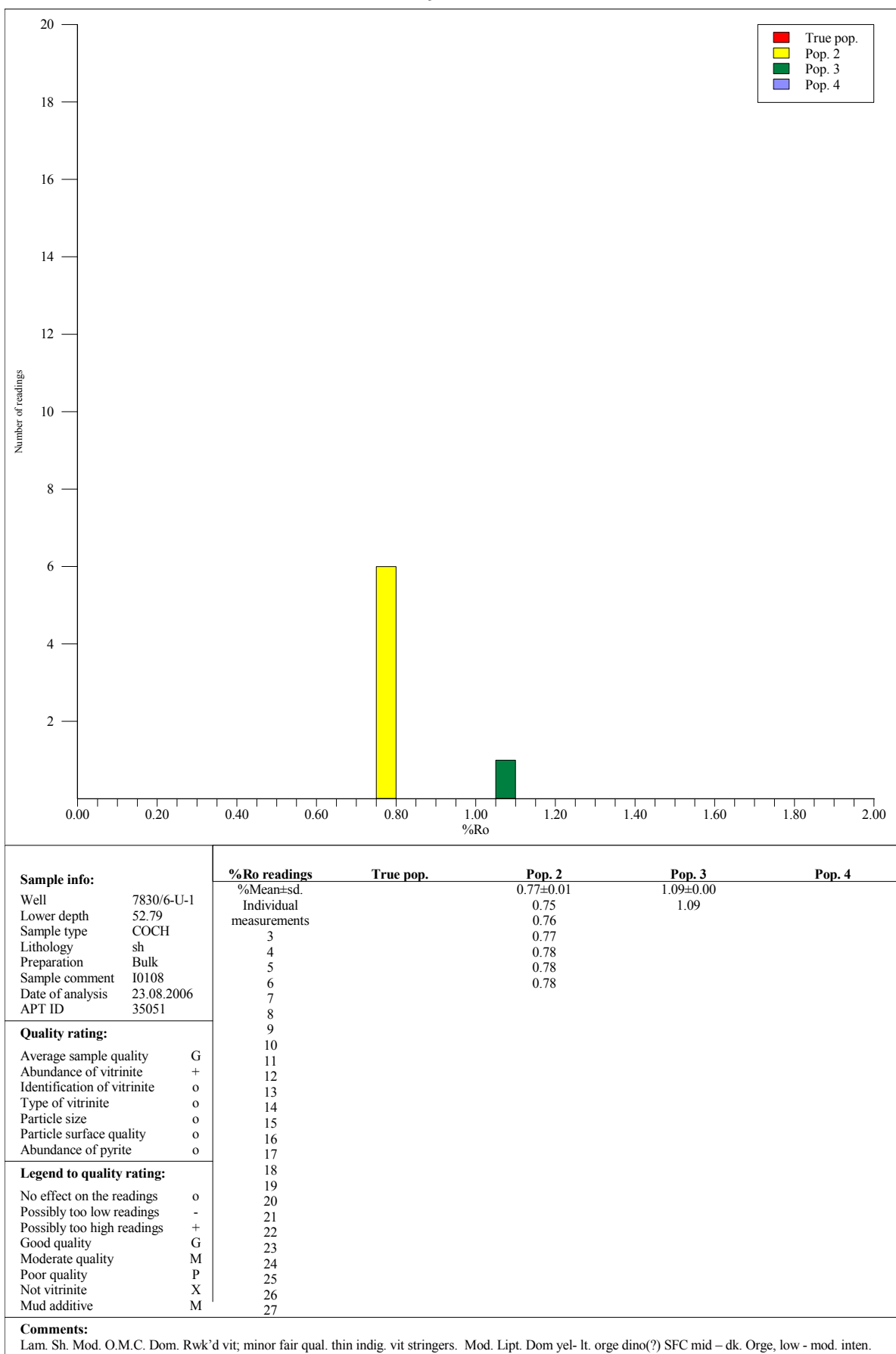


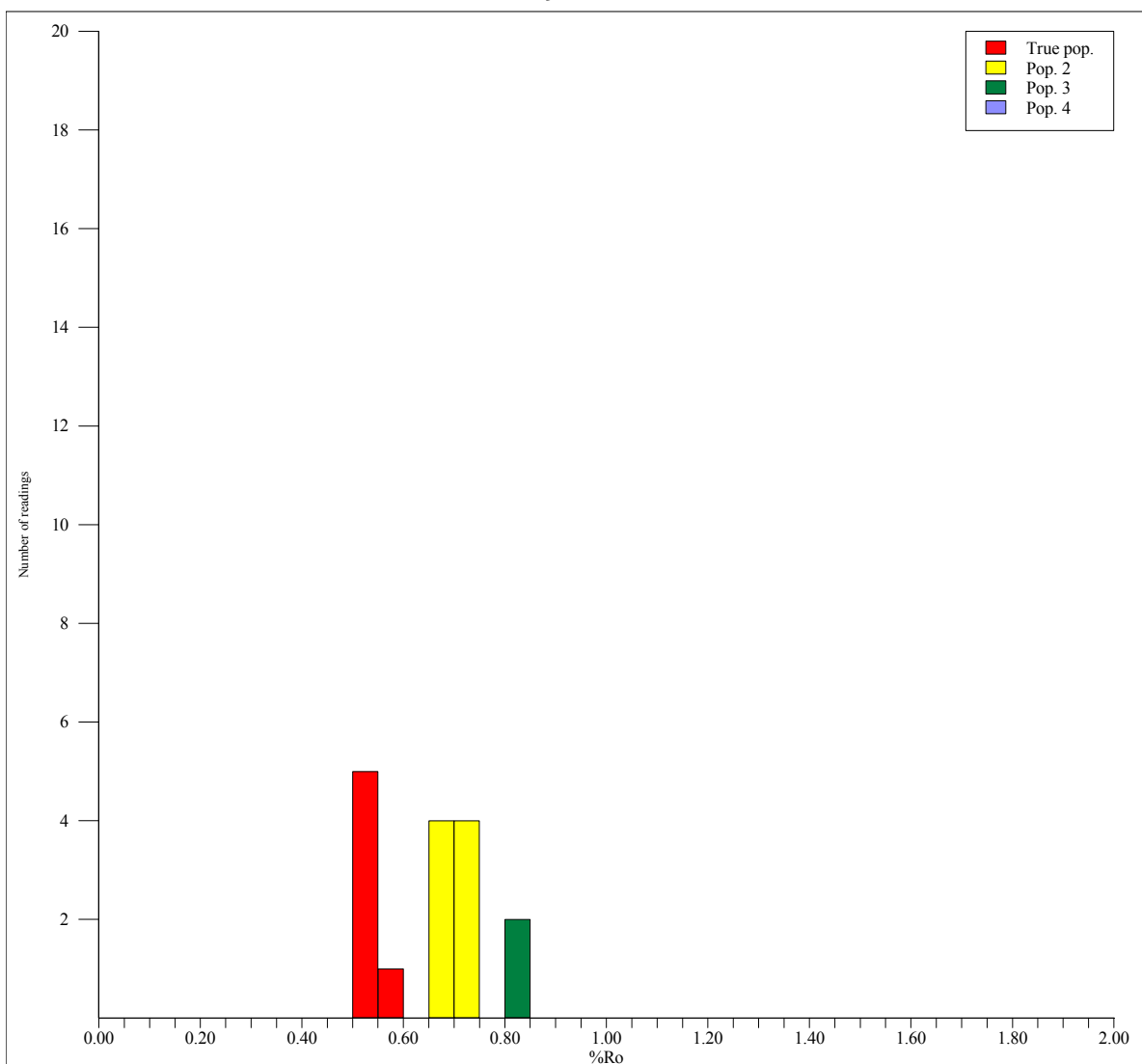




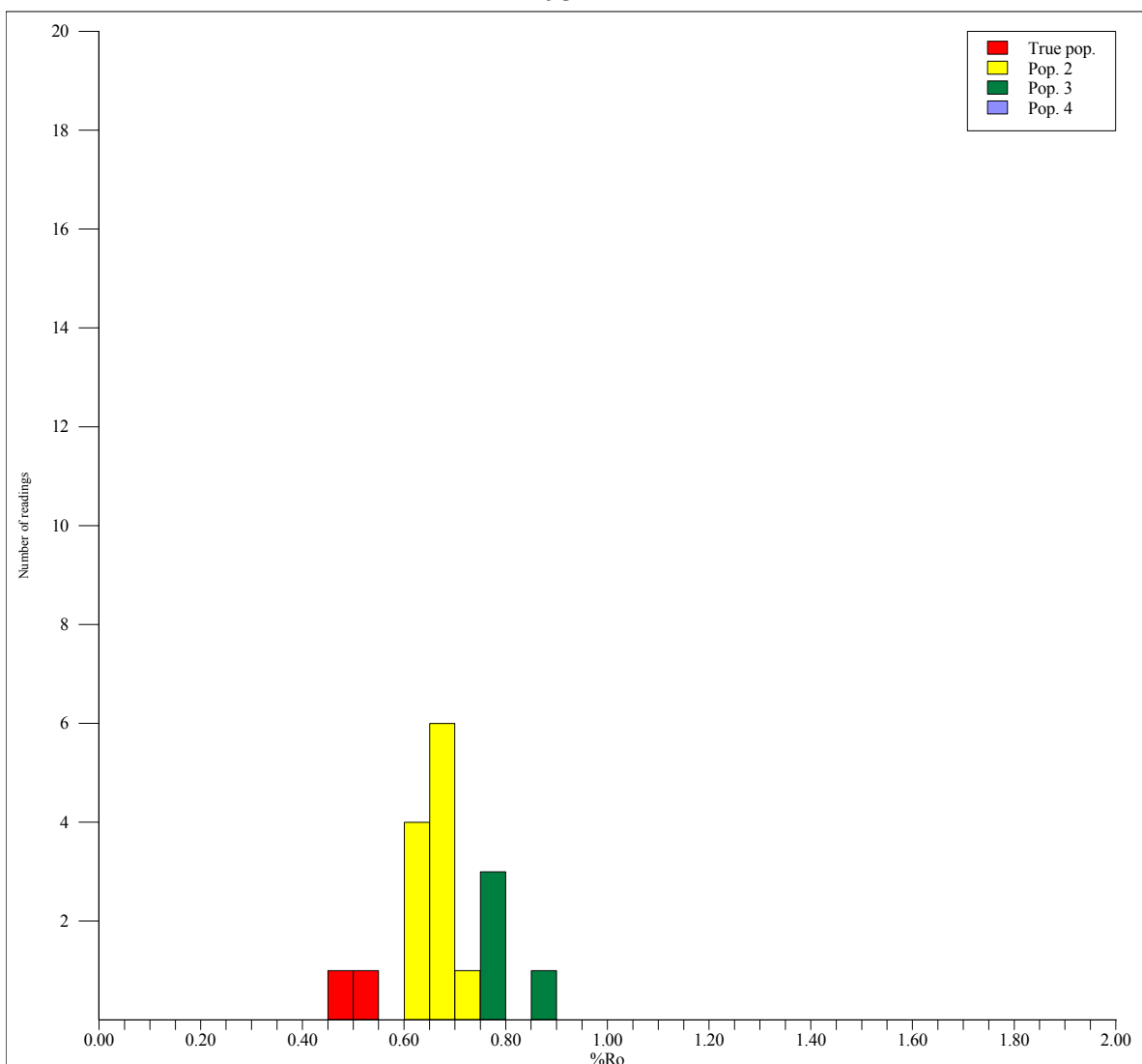




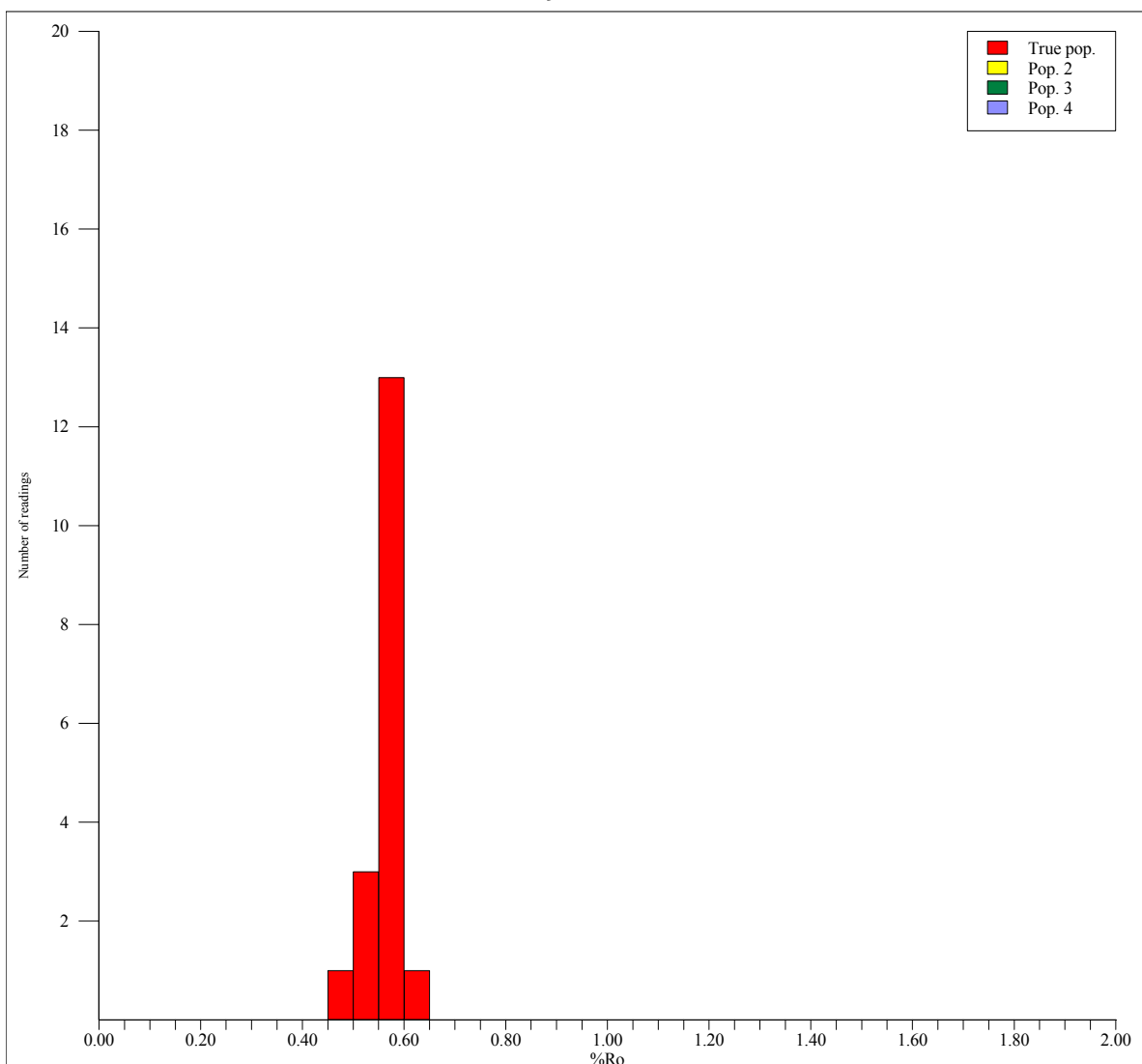




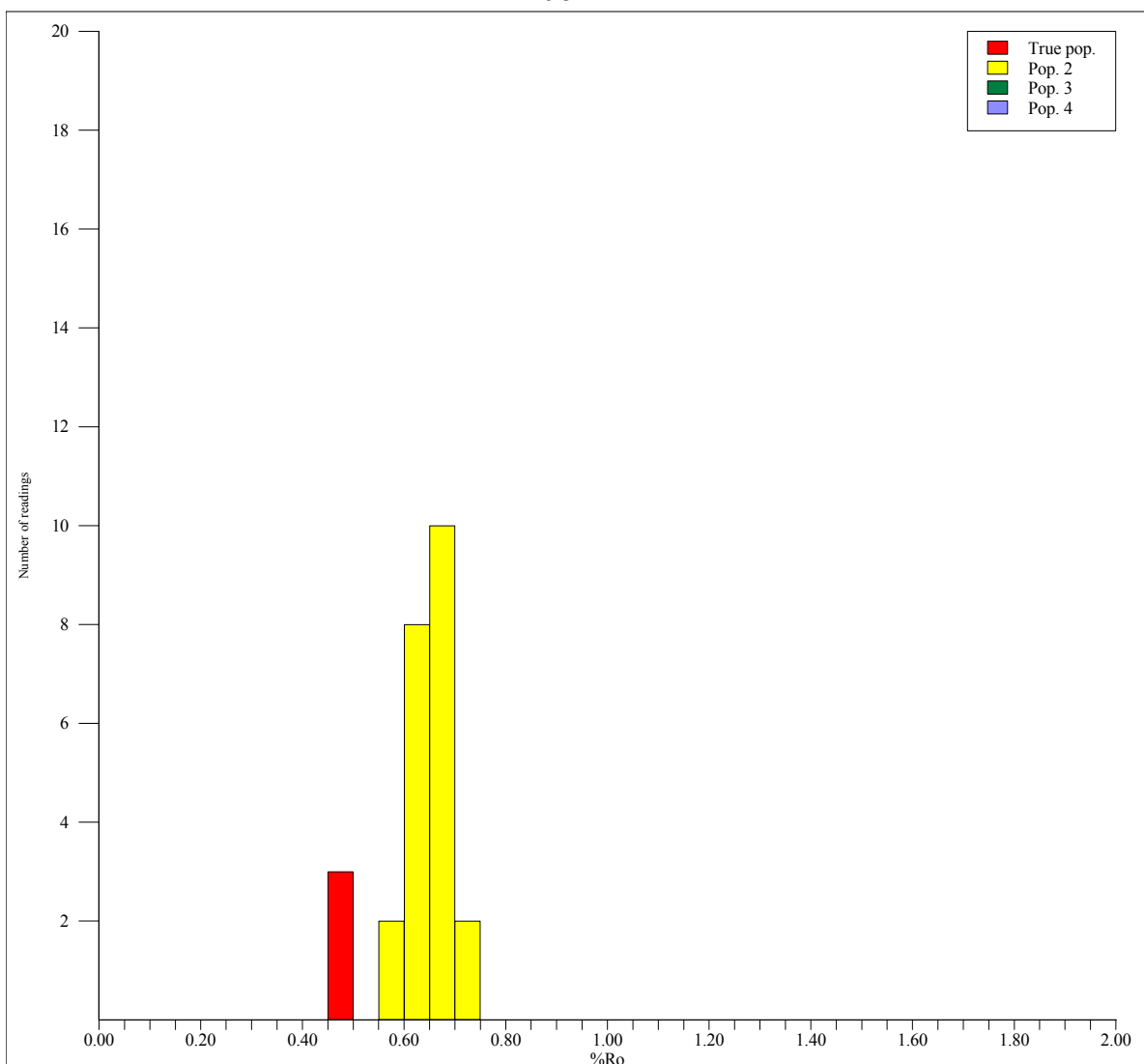
Sample info:		%Ro readings	True pop.	Pop. 2	Pop. 3	Pop. 4
Well	7830/3-U-1	%Mean±sd.	0.53±0.02	0.71±0.02	0.82±0.00	
Lower depth	3.93	Individual	0.51	0.66	0.82	
Sample type	COCH	measurements	0.51	0.69	0.83	
Lithology	sh	3	0.52	0.70		
Preparation	Bulk	4	0.53	0.70		
Sample comment	10132	5	0.55	0.71		
Date of analysis	23.08.2006	6	0.55	0.72		
APT ID	35055	7		0.73		
Quality rating:		8		0.74		
		9				
		10				
		11				
		12				
		13				
		14				
		15				
		16				
		17				
Legend to quality rating:		18				
		19				
		20				
		21				
		22				
		23				
		24				
		25				
		26				
		27				
Comments:		Dom. Sh; Mod. O.M.C. Dom. inert & Rwk'd vit. Minor fair quality vit. stringers. Mod. - lipt. SFC light - mid orange low – mod. intensity.				



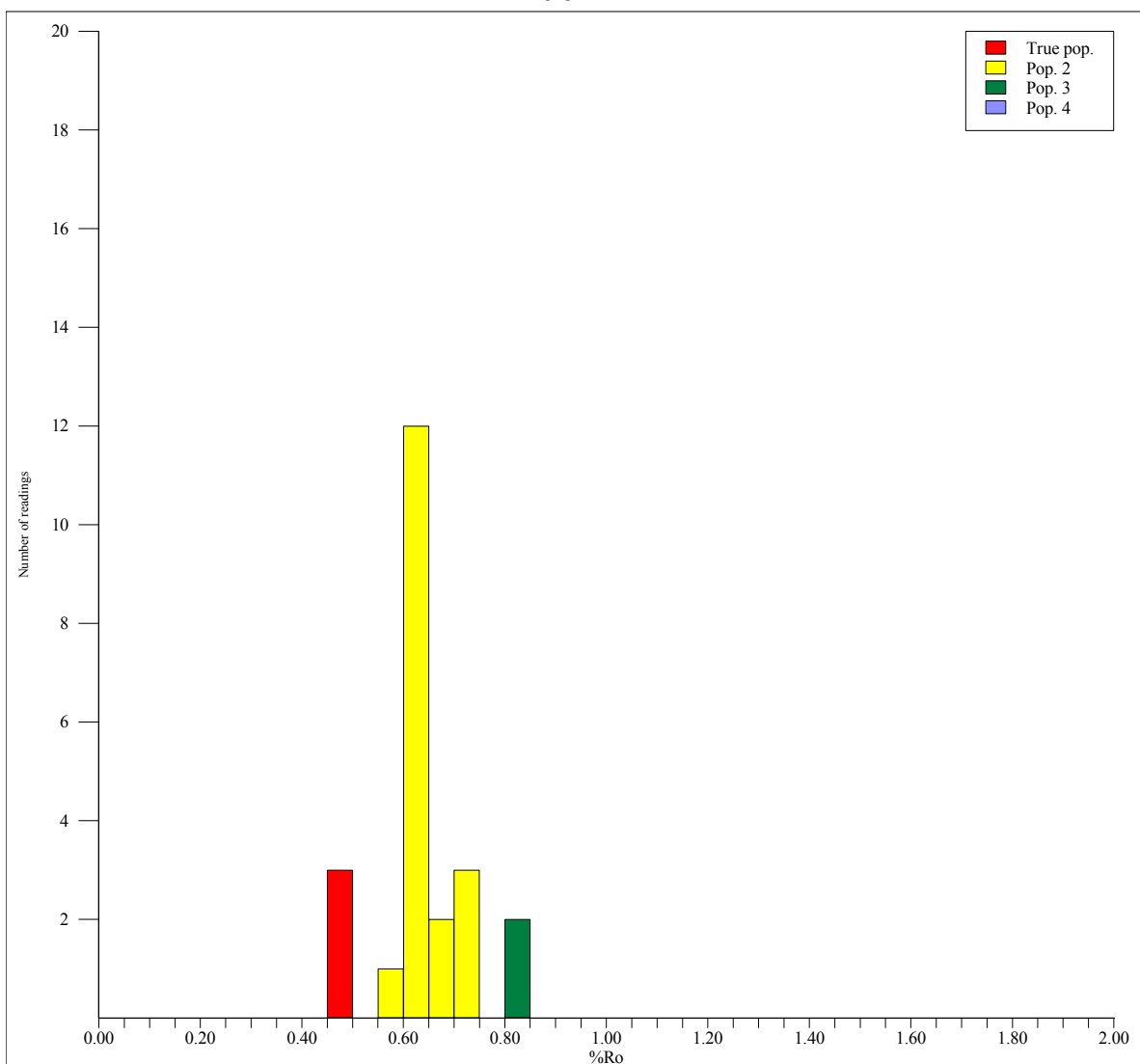
Sample info:		%Ro readings	True pop.	Pop. 2	Pop. 3	Pop. 4
Well	7830/3-U-1	%Mean±sd.	0.50±0.06	0.66±0.02	0.79±0.05	
Lower depth	5.63	Individual	0.46	0.64	0.76	
Sample type	COCH	measurements	0.54	0.64	0.77	
Lithology	sh	3		0.65	0.78	
Preparation	Bulk	4		0.65	0.86	
Sample comment	10134	5		0.65		
Date of analysis	23.08.2006	6		0.66		
APT ID	35056	7		0.66		
Quality rating:		8		0.68		
		9		0.69		
		10		0.70		
		11		0.70		
		12				
		13				
		14				
		15				
		16				
		17				
Legend to quality rating:		18				
		19				
		20				
		21				
		22				
		23				
		24				
		25				
		26				
		27				
Comments:		This pyritic shale has a rich organic assemblage dominated by inertinite and reworked vitrinite with minor amounts of very good quality vitrinite stringers. Tenuisporae fluoresce mid-orange with moderate intensity. Low to moderate liptinite content.				



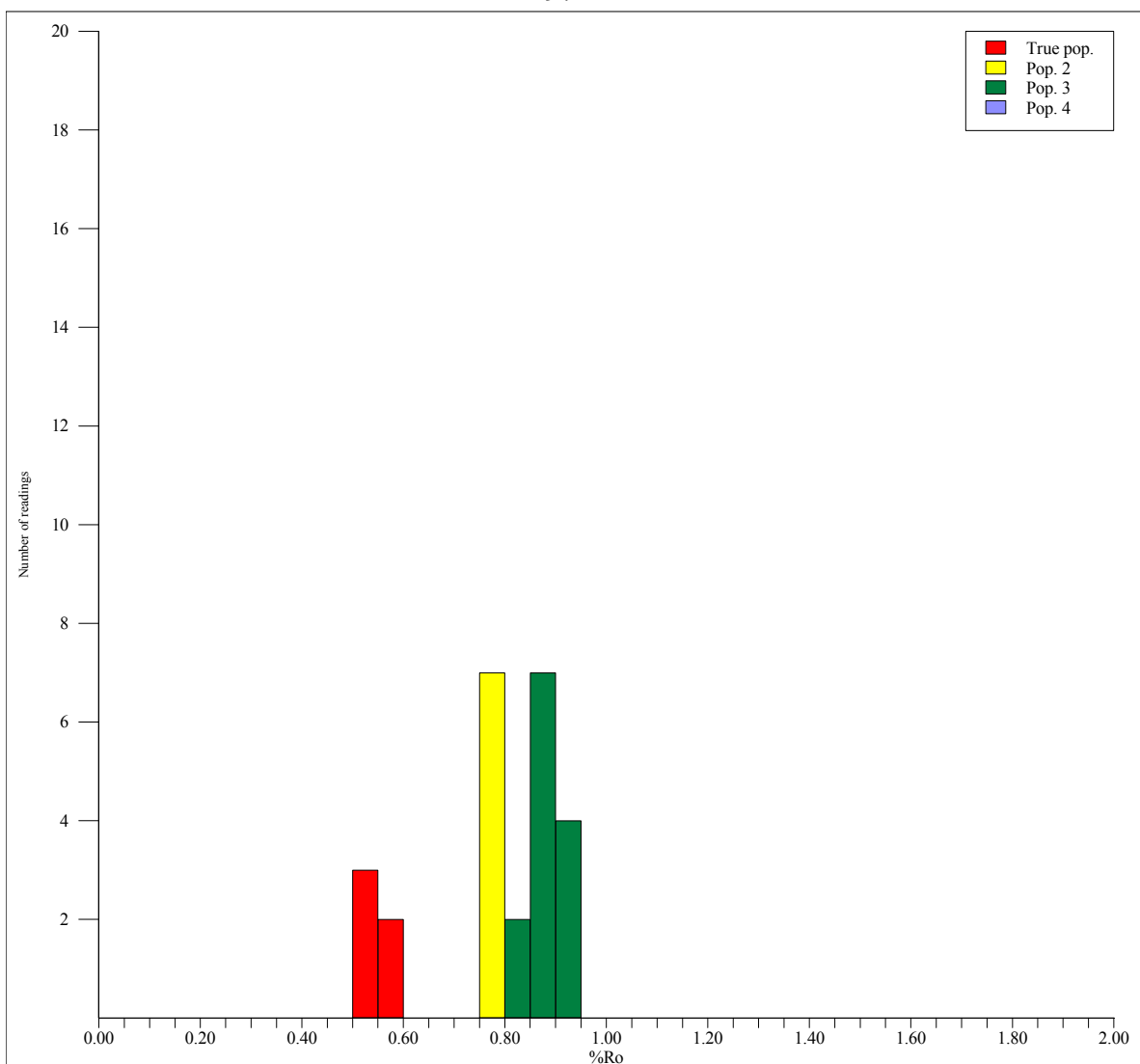
Sample info:		%Ro readings	True pop.	Pop. 2	Pop. 3	Pop. 4
Well	7830/3-U-1	%Mean±sd.	0.56±0.03			
Lower depth	14.64	Individual	0.50			
Sample type	COCH	measurements	0.50			
Lithology	sh	3	0.51			
Preparation	Bulk	4	0.55			
Sample comment	10137	5	0.56			
Date of analysis	23.08.2006	6	0.56			
APT ID	35057	7	0.56			
Quality rating:		8	0.56			
		9	0.56			
		10	0.57			
		11	0.57			
		12	0.58			
		13	0.58			
		14	0.58			
		15	0.59			
		16	0.59			
		17	0.60			
Legend to quality ratings:		18	0.60			
		19				
		20				
		21				
		22				
		23				
		24				
		25				
		26				
		27				
Comments:		Lam. Sh. mod. O.M.C. DOM. inert. & rwk'd vit. Minor good qual. indig. vit. Sig. bit. wisps. SFC mid to dk-orge; wisps of red, very low inten. Vit.				



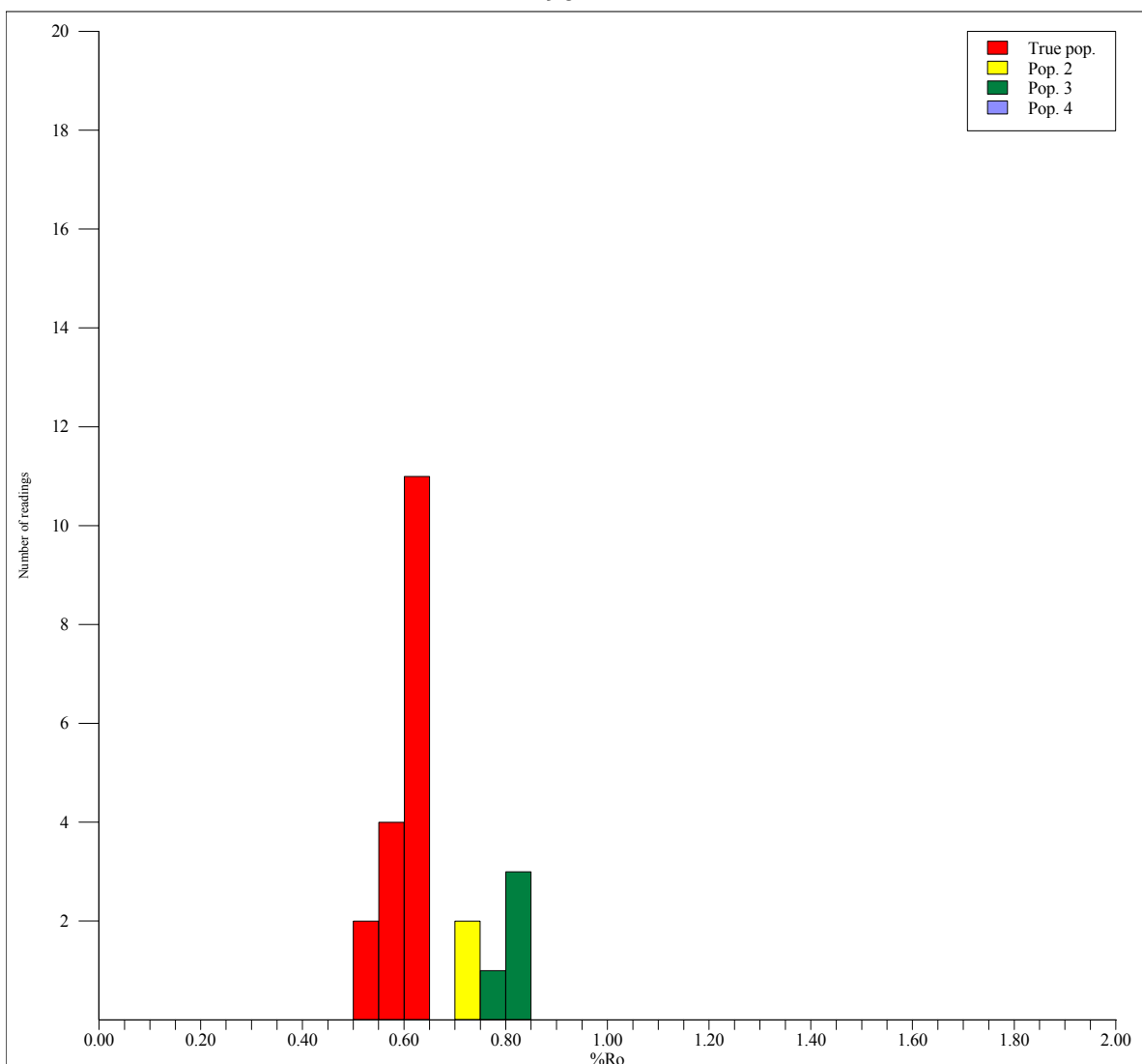
Sample info:		%Ro readings	True pop.	Pop. 2	Pop. 3	Pop. 4
Well	7830/3-U-1	%Mean±sd.	0.49±0.01	0.65±0.04		
Lower depth	41.89	Individual	0.48	0.55		
Sample type	COCH	measurements	0.49	0.57		
Lithology	sh	3	0.50	0.63		
Preparation	Bulk	4		0.63		
Sample comment	10147	5		0.63		
Date of analysis	23.08.2006	6		0.64		
APT ID	35058	7		0.64		
Quality rating:		8		0.65		
		9		0.65		
		10		0.65		
		11		0.66		
		12		0.66		
		13		0.66		
		14		0.66		
		15		0.66		
		16		0.66		
		17		0.67		
Legend to quality rating:		18		0.68		
		19		0.69		
		20		0.70		
		21		0.70		
		22		0.72		
		23				
		24				
		25				
		26				
		27				
Comments:		Lam. Sh. mod. O.M.C. DOM. inert. & rwk'd vit. Minor good qual. indig. vit. Sig. bit. wisps. SFC mid to dk-orge; wisps of red, very low inten. Vit.				



Sample info:		%Ro readings	True pop.	Pop. 2	Pop. 3	Pop. 4
Well	7830/3-U-1	%Mean±sd.	0.46±0.01	0.64±0.04	0.81±0.01	
Lower depth	67.40	Individual	0.45	0.59	0.80	
Sample type	COCH	measurements	0.46	0.60	0.82	
Lithology	sh	3	0.47	0.60		
Preparation	Bulk	4		0.62		
Sample comment	10158	5		0.63		
Date of analysis	23.08.2006	6		0.63		
APT ID	35059	7		0.63		
Quality rating:		8		0.63		
		9		0.64		
		10		0.64		
		11		0.65		
		12		0.65		
		13		0.65		
		14		0.65		
		15		0.66		
		16		0.71		
		17		0.71		
Legend to quality rating:		18		0.72		
		19				
		20				
		21				
		22				
		23				
		24				
		25				
		26				
		27				
Comments:		Sh. Mod. O.M.C. Dom. coaly indigo. good qual. vit. then inert. Trace SFC mid orge with mod. inten; Vit. fluoresces dk red w/ weak inten.				



Sample info:		%Ro readings	True pop.	Pop. 2	Pop. 3	Pop. 4
Well	7830/3-U-1	%Mean±sd.	0.56±0.03	0.79±0.01	0.89±0.02	
Lower depth	82.51	Individual	0.53	0.76	0.86	
Sample type	COCH	measurements	0.53	0.78	0.86	
Lithology	sh	3	0.54	0.78	0.87	
Preparation	Bulk	4	0.58	0.78	0.88	
Sample comment	10165	5	0.60	0.79	0.89	
Date of analysis	23.08.2006	6		0.79	0.89	
APT ID	35060	7		0.80	0.90	
Quality rating:		8		0.80	0.91	
		9		0.81	0.92	
		10			0.92	
		11			0.92	
		12			0.92	
		13				
		14				
		15				
		16				
		17				
Legend to quality rating:		18				
Average sample quality	M	19				
Abundance of vitrinite	o	20				
Identification of vitrinite	-	21				
Type of vitrinite	o	22				
Particle size	o	23				
Particle surface quality	o	24				
Abundance of pyrite	-	25				
		26				
		27				
Comments:						
Shale Mod. O.M.C. Dom. rwk'd vit. then inert. Minor fair qual. indigo. vit. Differentn diff. Vit. fluoresces dk red w/ weak inten.. Mid-dk orge SFC low inten.						



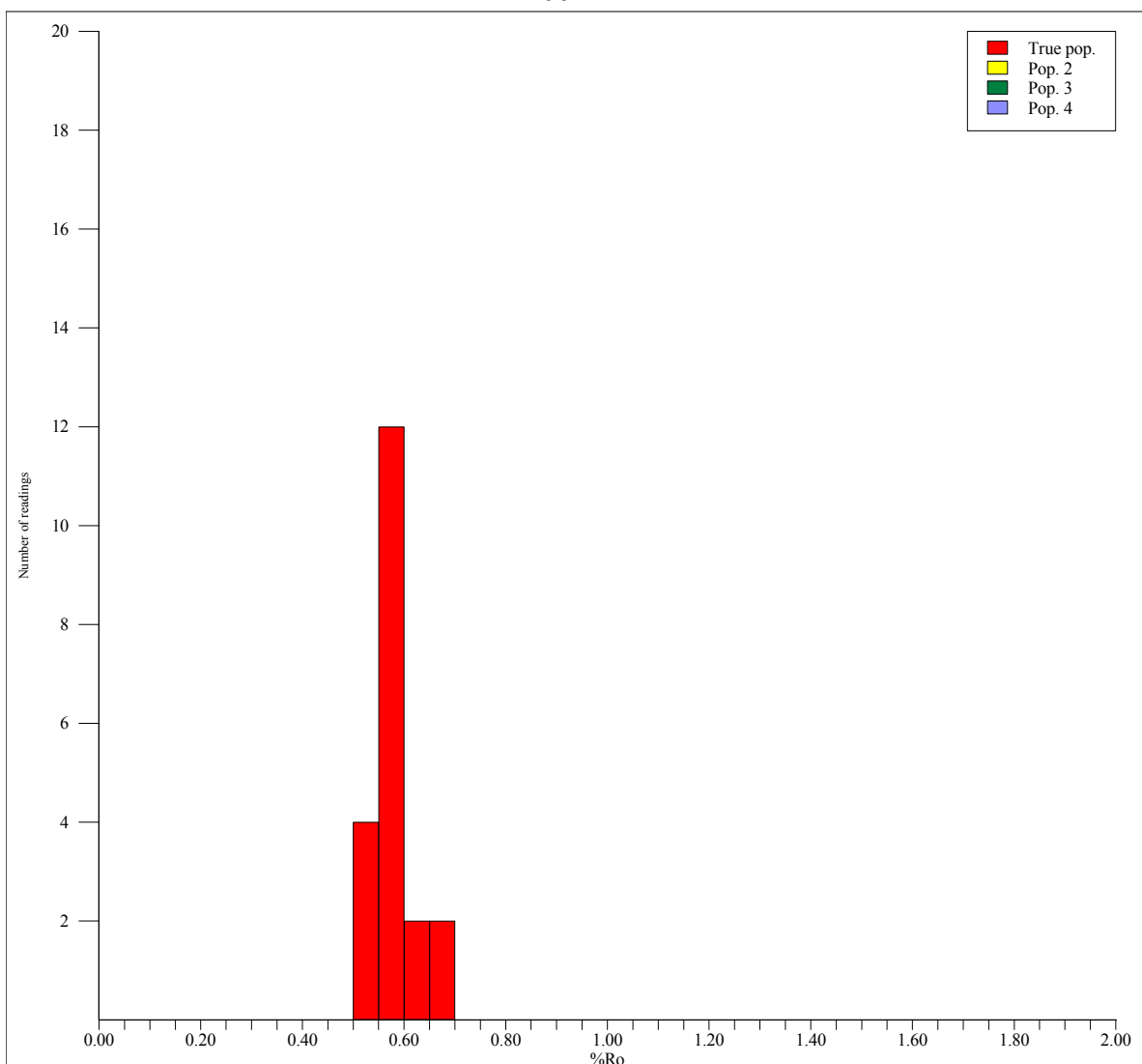
%Ro readings		True pop.	Pop. 2	Pop. 3	Pop. 4
%Mean±sd.		0.60±0.03	0.73±0.00	0.82±0.02	
Individual measurements		0.53	0.73	0.80	
3		0.54	0.73	0.82	
4		0.58		0.83	
5		0.58		0.84	
6		0.60			
7		0.60			
8		0.61			
9		0.61			
10		0.61			
11		0.62			
12		0.62			
13		0.62			
14		0.63			
15		0.63			
16		0.63			
17		0.64			
18					
19					
20					
21					
22					
23					
24					
25					
26					
27					

Sample info:	
Well	7830/3-U-1
Lower depth	102.97
Sample type	COCH
Lithology	sh
Preparation	Bulk
Sample comment	10172
Date of analysis	23.08.2006
APT ID	35061

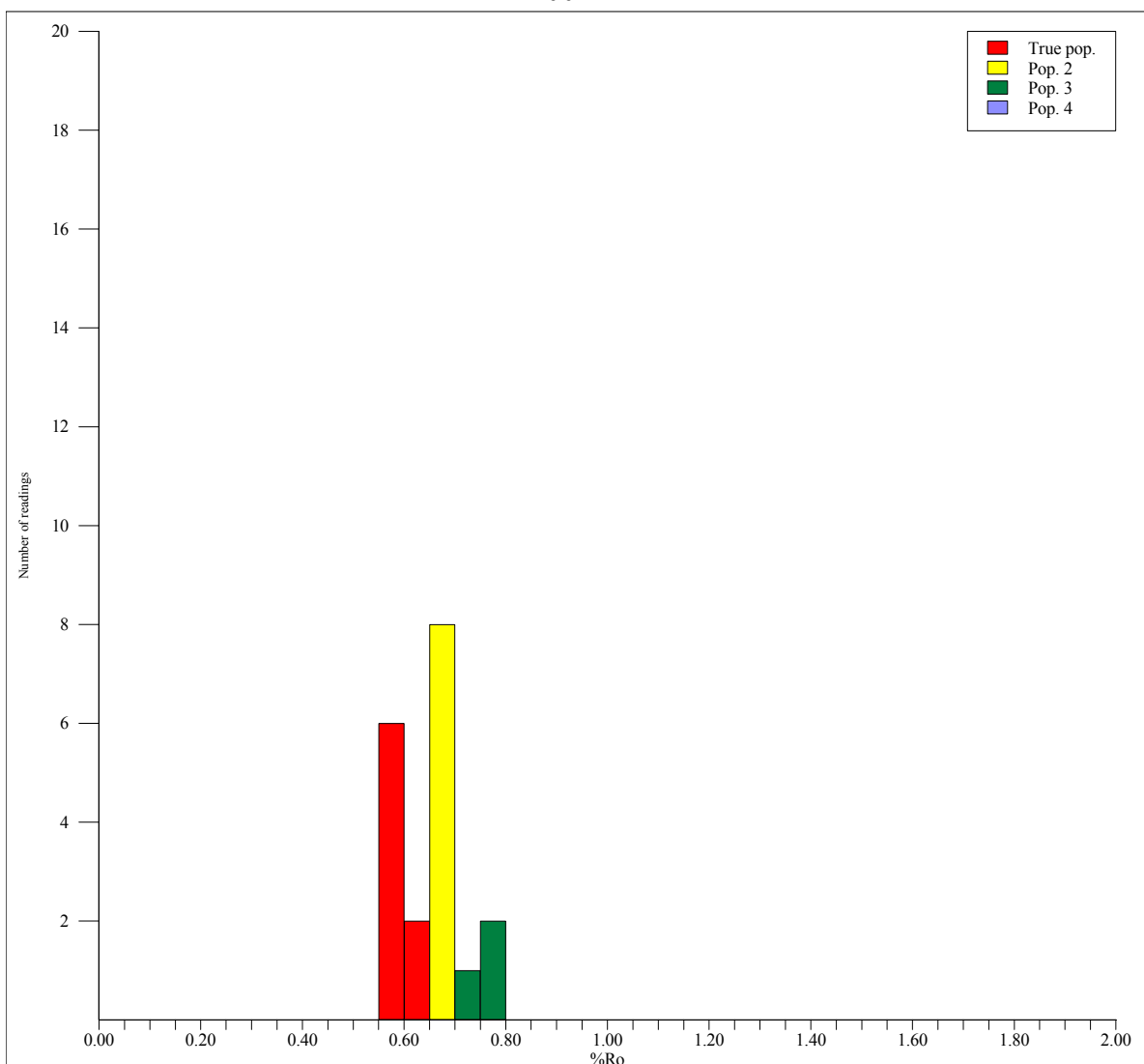
Quality rating:	
Average sample quality	G
Abundance of vitrinite	+
Identification of vitrinite	+
Type of vitrinite	+
Particle size	+
Particle surface quality	+
Abundance of pyrite	o

Legend to quality rating:	
No effect on the readings	o
Possibly too low readings	-
Possibly too high readings	+
Good quality	G
Moderate quality	M
Poor quality	P
Not vitrinite	X
Mud additive	M

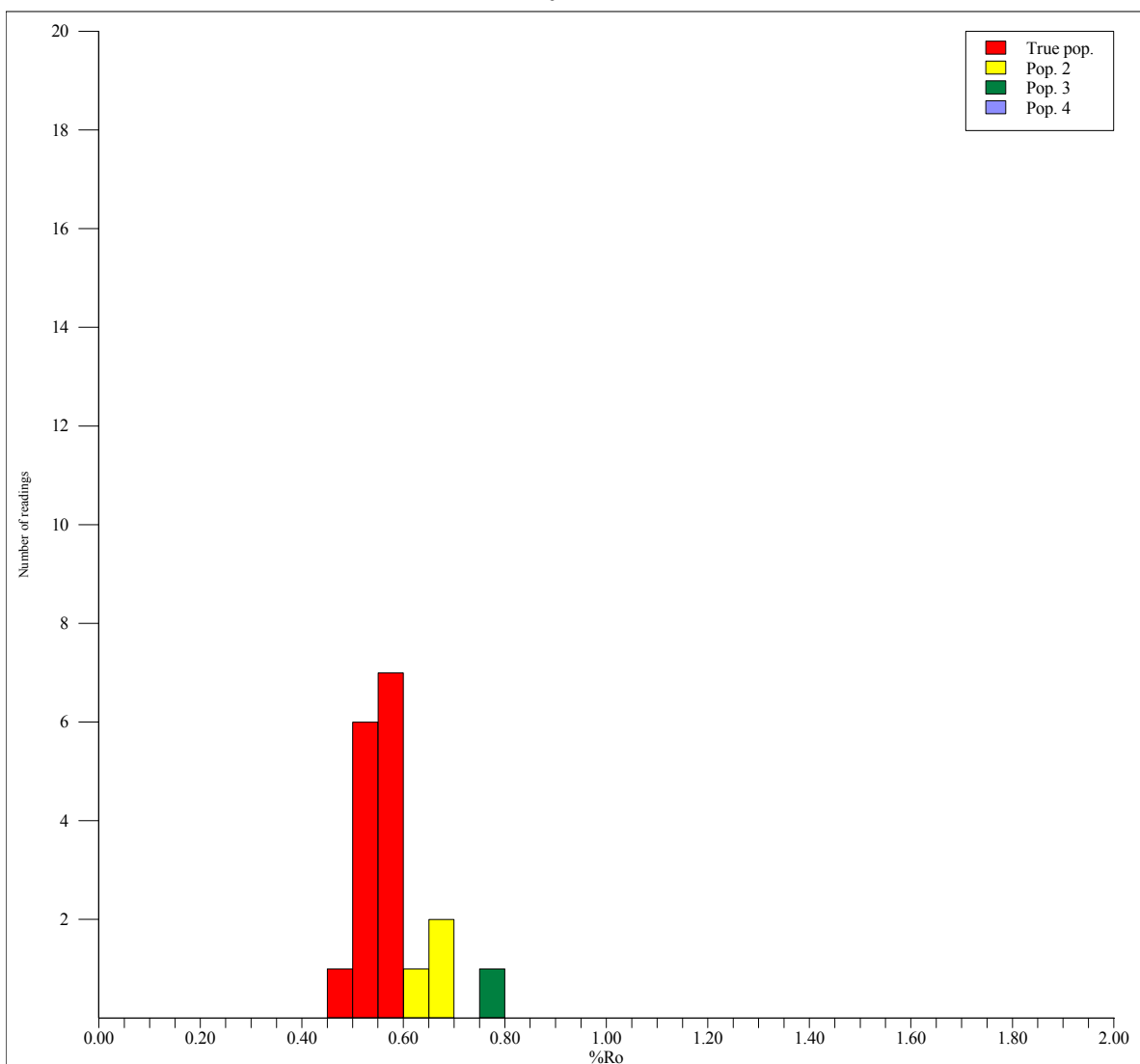
Comments:	
The laminated organic rich shale is dominated by long, very good quality indigenous vitrinite stringers. Spores fluoresce mid orange with moderate intensity. Some fine vitrinite stringers fluoresce dark red with weak intensity.	



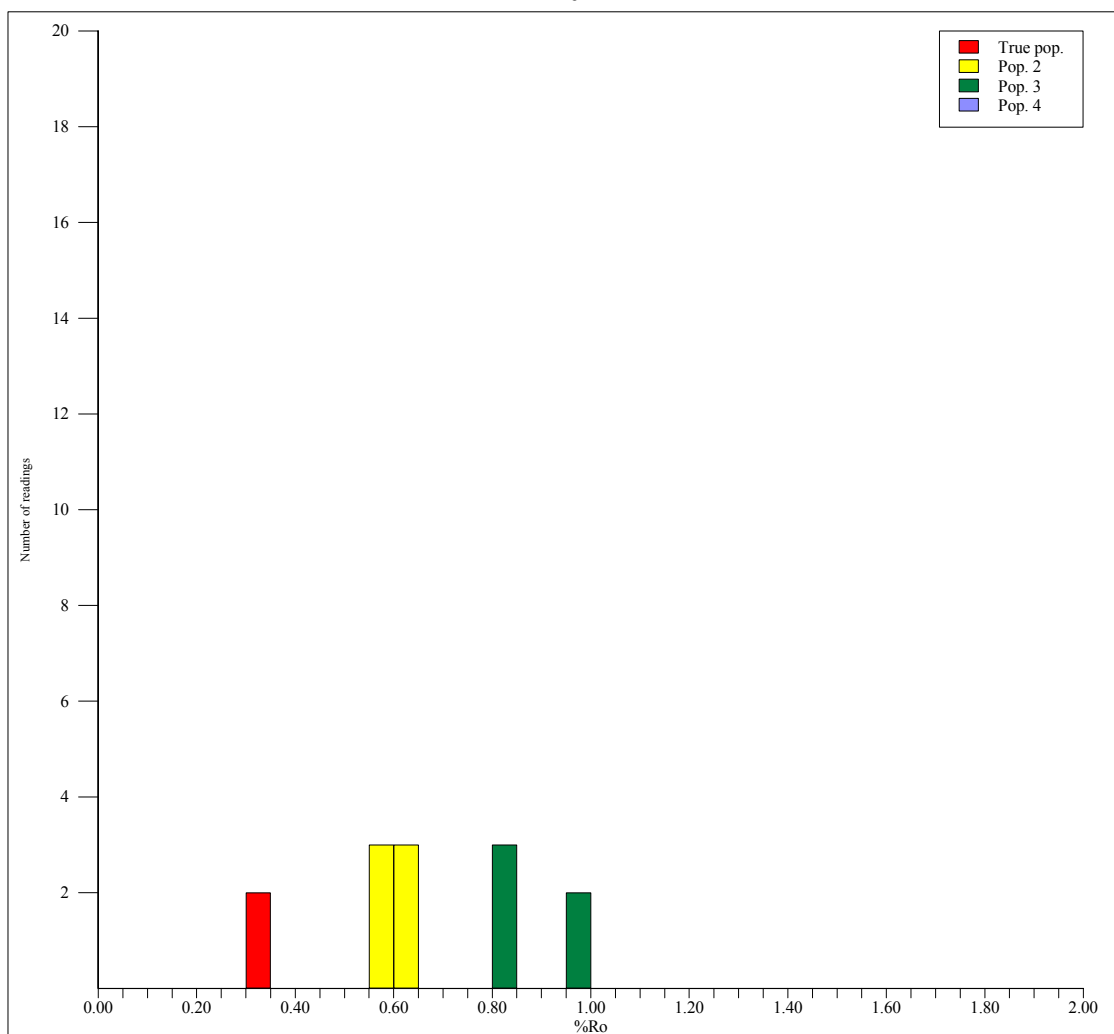
Sample info:		%Ro readings	True pop.	Pop. 2	Pop. 3	Pop. 4
Well	7830/3-U-1	%Mean±sd.	0.58±0.04			
Lower depth	122.68	Individual	0.53			
Sample type	COCH	measurements	0.54			
Lithology	sh	3	0.54			
Preparation	Bulk	4	0.54			
Sample comment	10182	5	0.56			
Date of analysis	23.08.2006	6	0.56			
APT ID	35062	7	0.57			
Quality rating:		8	0.57			
		9	0.57			
		10	0.57			
		11	0.57			
		12	0.58			
		13	0.58			
		14	0.58			
		15	0.58			
		16	0.58			
		17	0.64			
Legend to quality rating:		18	0.64			
		19	0.65			
		20	0.66			
		21				
		22				
		23				
		24				
		25				
		26				
		27				
Comments:		Coaly silty shale has a moderately rich organic assemblage dominated by inertinite and reworked vitrinite with some fair to good quality coal-like vitrinite particles and stringers. Cuticle fluoresces yellow; no spores.				



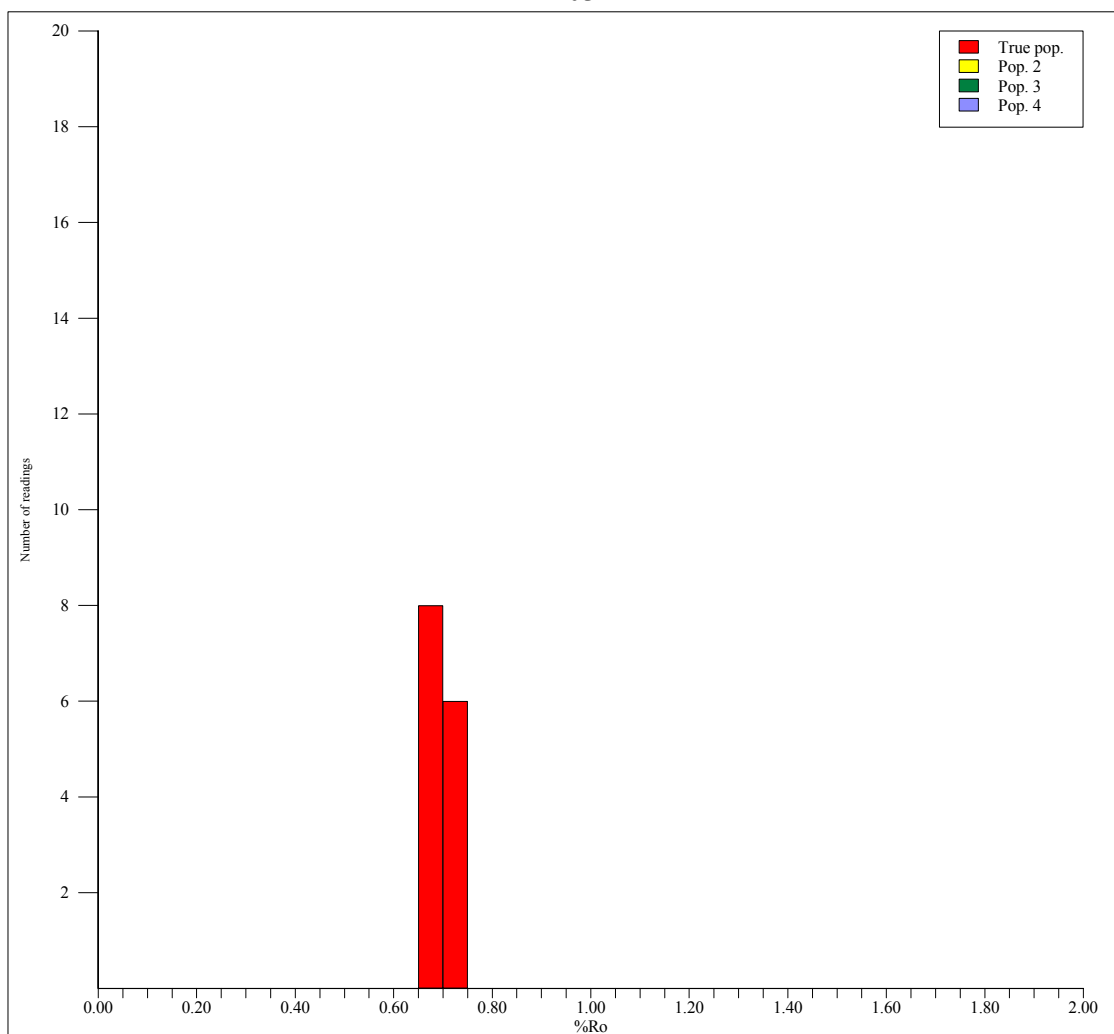
Sample info:		%Ro readings	True pop.	Pop. 2	Pop. 3	Pop. 4
Well	7830/3-U-1	%Mean±sd.	0.60±0.02	0.69±0.01	0.76±0.00	
Lower depth	142.00	Individual	0.57	0.66	0.76	
Sample type	COCH	measurements	0.58	0.68	0.76	
Lithology	sh	3	0.59	0.68		
Preparation	Bulk	4	0.59	0.69		
Sample comment	10190	5	0.60	0.70		
Date of analysis	23.08.2006	6	0.60	0.70		
APT ID	35063	7	0.60	0.70		
Quality rating:		8	0.64	0.70		
		9		0.71		
		10				
		11				
		12				
		13				
		14				
		15				
		16				
		17				
Legend to quality rating:		18				
Average sample quality	G	19				
Abundance of vitrinite	+	20				
Identification of vitrinite	+	21				
Type of vitrinite	o	22				
Particle size	o	23				
Particle surface quality	o	24				
Abundance of pyrite	-	25				
No effect on the readings	o	26				
Possibly too low readings	-	27				
Possibly too high readings	+					
Good quality	G					
Moderate quality	M					
Poor quality	P					
Not vitrinite	X					
Mud additive	M					
Comments:						
Laminated shale is moderately rich in organic matter that comprise almost equal proportions of inertinite and vitrinite. Indigenous vitrinite is of fair quality.						
Mid-dark orange spores fluoresce at low to moderate intensity.						



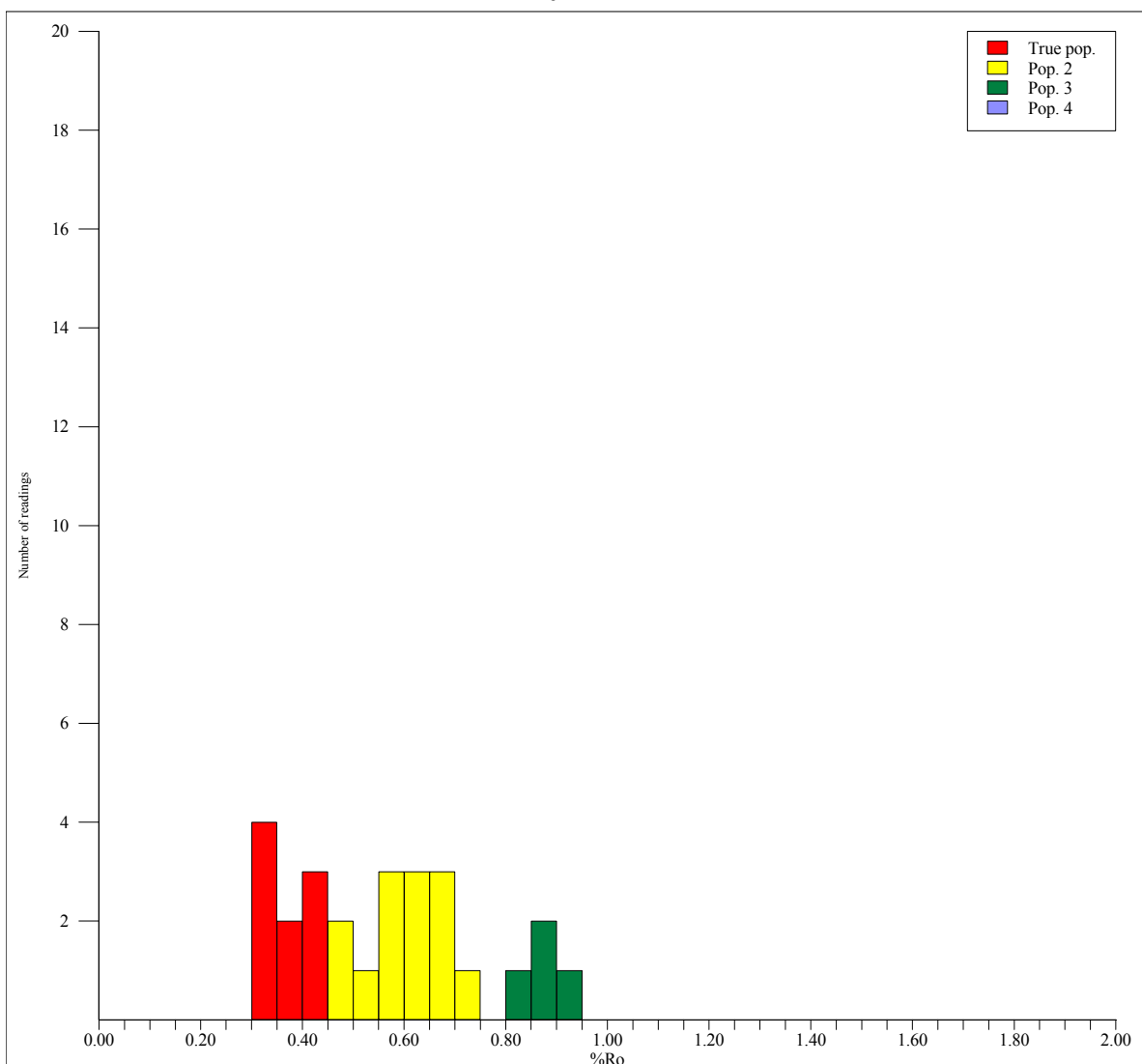
Sample info:		%Ro readings	True pop.	Pop. 2	Pop. 3	Pop. 4
Well	7830/3-U-1	%Mean±sd.	0.55±0.03	0.65±0.03	0.76±0.00	
Lower depth	157.11	Individual	0.48	0.61	0.76	
Sample type	COCH	measurements	0.52	0.66		
Lithology	sh	3	0.53	0.67		
Preparation	Bulk	4	0.54			
Sample comment	10196	5	0.54			
Date of analysis	23.08.2006	6	0.55			
APT ID	35064	7	0.55			
Quality rating:		8	0.56			
		9	0.56			
		10	0.57			
		11	0.58			
		12	0.59			
		13	0.59			
		14	0.60			
		15				
		16				
		17				
Legend to quality rating:		18				
Average sample quality	M	19				
Abundance of vitrinite	o	20				
Identification of vitrinite	o	21				
Type of vitrinite	o	22				
Particle size	o	23				
Particle surface quality	-	24				
Abundance of pyrite	-	25				
		26				
		27				
Comments:						
Moderately rich shale is dominated by inertinite and reworked vitrinite. Some indigenous poor to fair quality stringers are also present. Mid orange tenuisporae fluoresce with moderate intensity.						



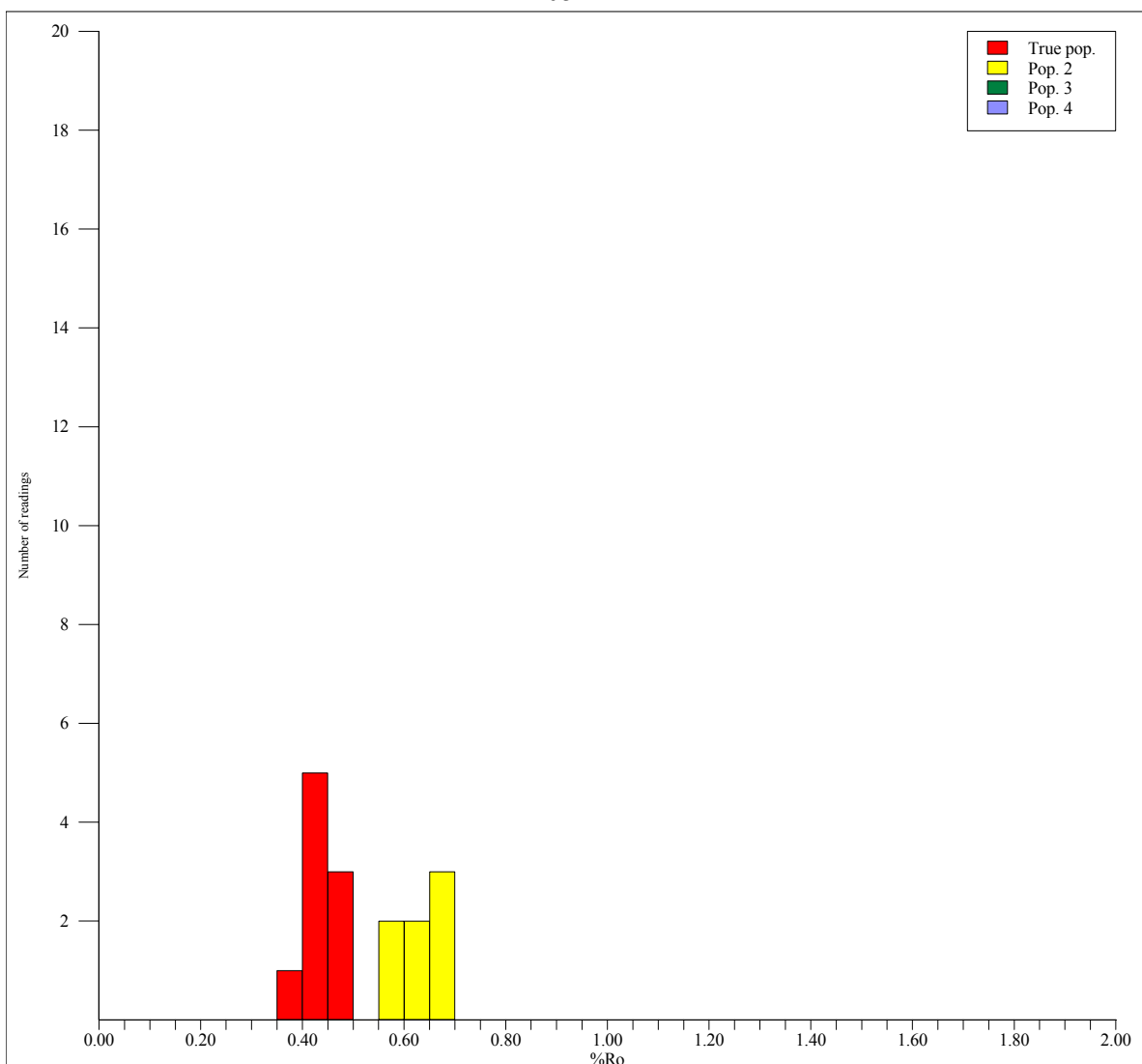
Sample info:		%Ro readings	True pop.	Pop. 2	Pop. 3	Pop. 4
Well	7830/3-U-1	%Mean±sd.	0.34±0.01	0.60±0.01	0.89±0.08	
Lower depth	173.36	Individual	0.33	0.58	0.81	
Sample type	COCH	measurements	0.34	0.59	0.83	
Lithology	sh	3		0.60	0.84	
Preparation	Bulk	4		0.60	0.96	
Sample comment	I0203	5		0.61	0.99	
Date of analysis	23.08.2006	6		0.62		
APT ID	35065	7				
Quality rating:		8				
Average sample quality	M	9				
Abundance of vitrinite	o	10				
Identification of vitrinite	-	11				
Type of vitrinite	o	12				
Particle size	o	13				
Particle surface quality	o	14				
Abundance of pyrite	-	15				
Legend to quality rating:		16				
No effect on the readings	o	17				
Possibly too low readings	-	18				
Possibly too high readings	+	19				
Good quality	G	20				
Moderate quality	M	21				
Poor quality	P	22				
Not vitrinite	X	23				
Mud additive	M	24				
Comments:		25				
Silty shale is laminated with moderate amounts of organic particles dominated by inertinite. Differentiation from indig. vitrinite from reworked particles and semi-fusinite was difficult at times. Mid to dark orange spores fluoresce at low intensity.		26				
		27				



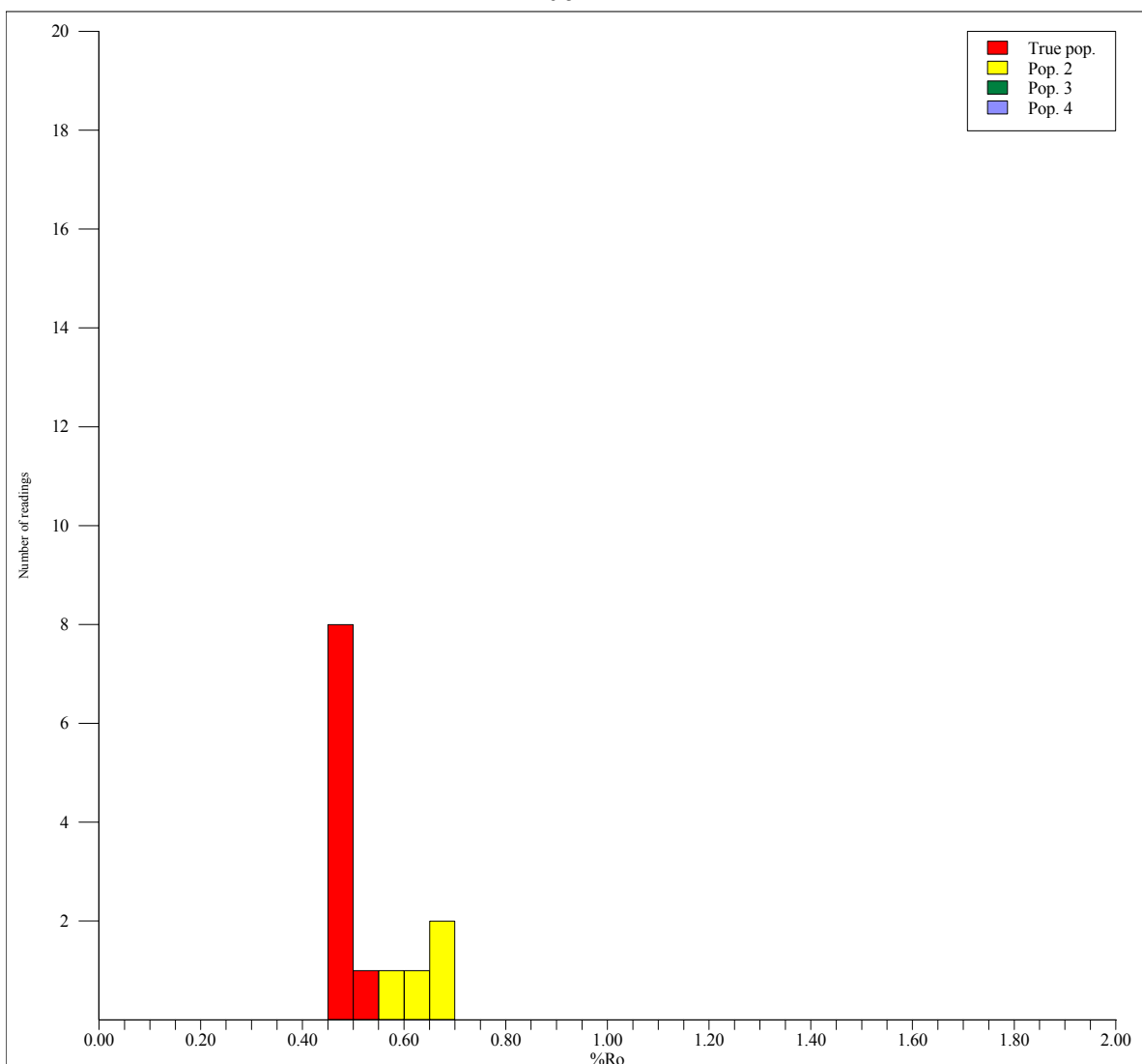
Sample info:		%Ro readings	True pop.	Pop. 2	Pop. 3	Pop. 4
Well	7830/3-U-1	%Mean±sd.	0.69±0.03			
Lower depth	198.34	Individual	0.65			
Sample type	COCH	measurements	0.65			
Lithology	sh	3	0.66			
Preparation	Bulk	4	0.67			
Sample comment	I0284	5	0.69			
Date of analysis	23.08.2006	6	0.69			
APT ID	35073	7	0.69			
Quality rating:		8	0.70			
		9	0.70			
		10	0.71			
		11	0.71			
		12	0.71			
		13	0.72			
		14	0.74			
		15				
		16				
		17				
Legend to quality rating:		18				
		19				
		20				
		21				
		22				
		23				
		24				
		25				
		26				
		27				
Comments:		This silty shale is rich in organic matter. This is dominated by good quality large particles of coaly vitrinite followed by inertinite. Spores fluoresce mid-dark orange at very weak intensity. spores tentative.				



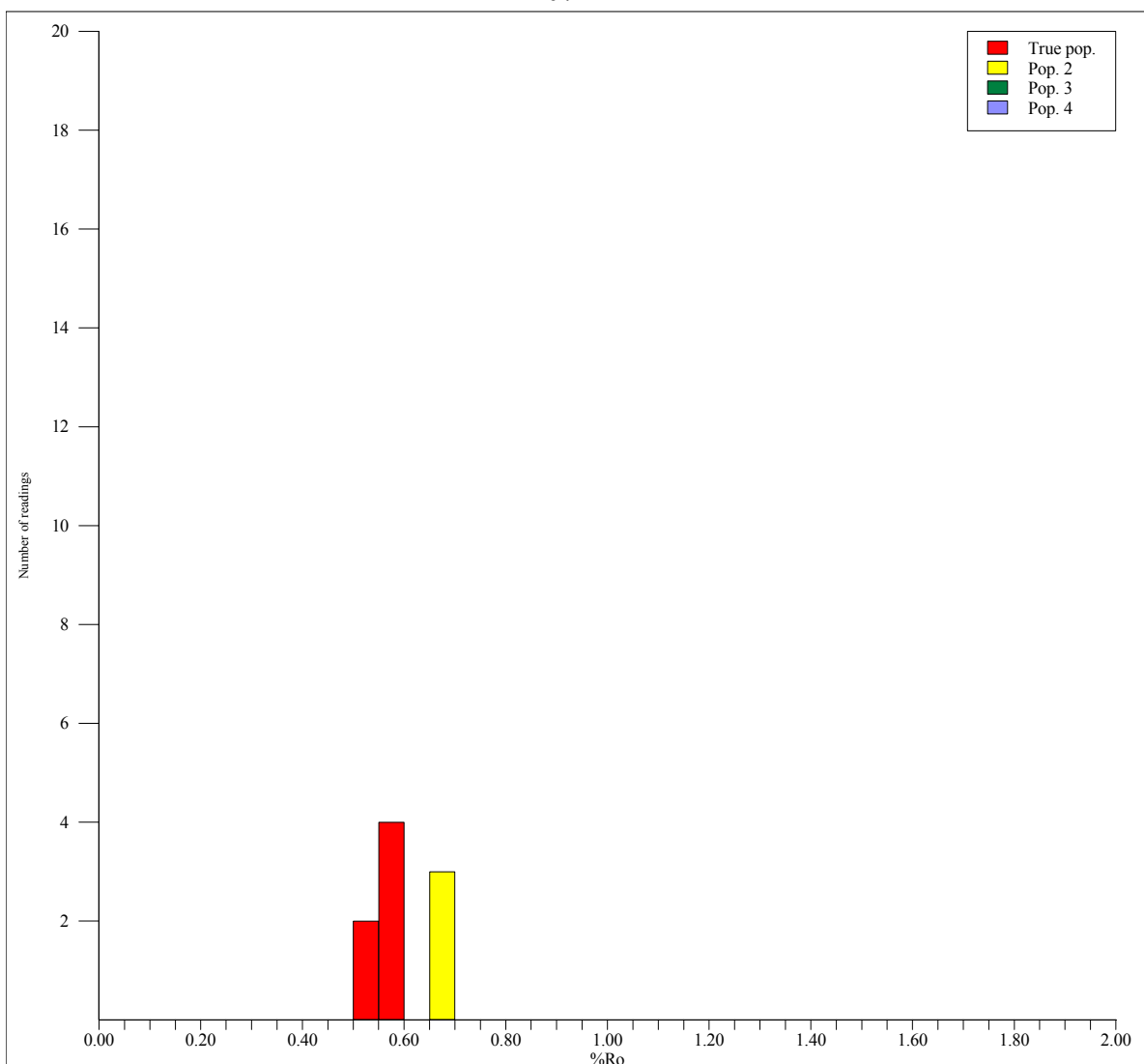
Sample info:		%Ro readings	True pop.	Pop. 2	Pop. 3	Pop. 4
Well	7830/5-U-1	%Mean±sd.	0.37±0.04	0.61±0.07	0.87±0.03	
Lower depth	20.32	Individual	0.32	0.50	0.84	
Sample type	COCH	measurements	0.33	0.50	0.85	
Lithology	sh	3	0.33	0.55	0.86	
Preparation	Bulk	4	0.34	0.56	0.91	
Sample comment	10205	5	0.37	0.56		
Date of analysis	23.08.2006	6	0.38	0.59		
APT ID	35066	7	0.41	0.61		
Quality rating:		8	0.42	0.64		
		9	0.45	0.65		
		10		0.66		
		11		0.70		
		12		0.70		
		13		0.70		
		14				
		15				
		16				
		17				
Legend to quality rating:		18				
		19				
		20				
		21				
		22				
		23				
		24				
		25				
		26				
		27				
Comments:		This shale is rich in coaly clasts that are dominated by inertinite and semi-fusinite. differentiation from indigenous vitrinite was sometimes difficult. Tenuisporae fluoresce mid orange with low intensity.				



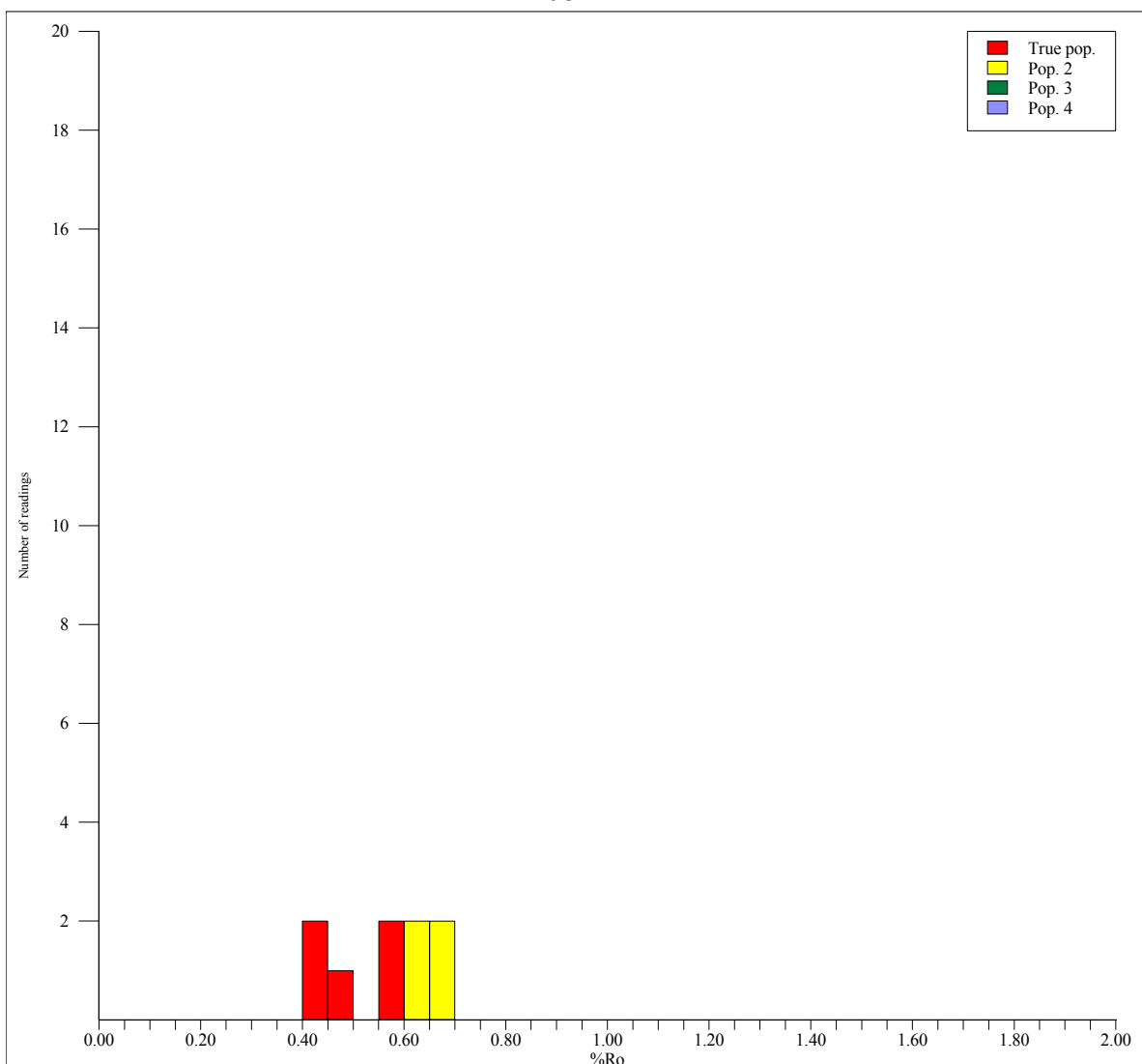
Sample info:		%Ro readings	True pop.	Pop. 2	Pop. 3	Pop. 4
Well	7830/5-U-1	%Mean±sd.	0.43±0.03	0.64±0.05		
Lower depth	40.34	Individual	0.39	0.60		
Sample type	COCH	measurements	0.41	0.60		
Lithology	sh	3	0.41	0.61		
Preparation	Bulk	4	0.42	0.61		
Sample comment	10213	5	0.43	0.69		
Date of analysis	23.08.2006	6	0.44	0.70		
APT ID	35067	7	0.46	0.70		
Quality rating:		8	0.46			
		9	0.46			
		10				
		11				
		12				
		13				
		14				
		15				
		16				
		17				
Legend to quality rating:		18				
		19				
		20				
		21				
		22				
		23				
		24				
		25				
		26				
		27				
Comments:		Lam sh. Mod. O.M.C. Dom. inert. & rwk'd vit. Minor fair qual. indig. vit. Low lip; SFC yel- orge w/ low inten.				



Sample info:		%Ro readings	True pop.	Pop. 2	Pop. 3	Pop. 4
Well	7830/5-U-1	%Mean±sd.	0.49±0.01	0.64±0.06		
Lower depth	56.72	Individual	0.47	0.58		
Sample type	COCH	measurements	0.48	0.60		
Lithology	sh	3	0.49	0.69		
Preparation	Bulk	4	0.49	0.70		
Sample comment	10220	5	0.49			
Date of analysis	23.08.2006	6	0.49			
APT ID	35068	7	0.49			
Quality rating:		8	0.50			
		9	0.50			
		10				
		11				
		12				
		13				
		14				
		15				
		16				
		17				
Legend to quality rating:		18				
		19				
		20				
		21				
		22				
		23				
		24				
		25				
		26				
		27				
Comments:		This silty shale has a moderate organic matter content dominated by inertinite and reworked vitrinite and poor to fair quality indigenous vitrinite. Low to moderate liptinite content. Mid orange tenuisporae fluoresce with low intensity.				



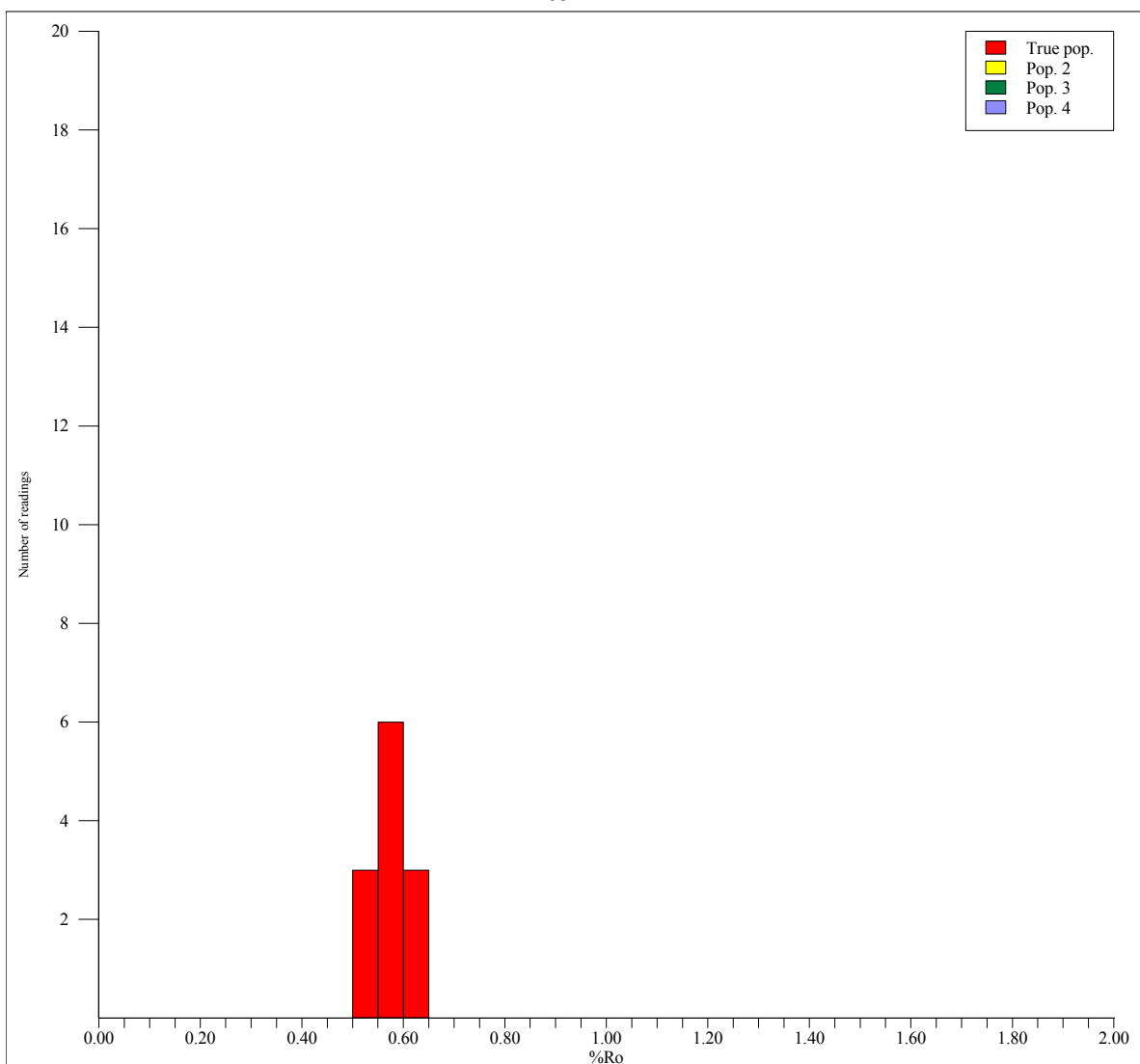
Sample info:		%Ro readings	True pop.	Pop. 2	Pop. 3	Pop. 4
Well	7830/5-U-1	%Mean±sd.	0.54±0.03	0.68±0.01		
Lower depth	86.42	Individual	0.51	0.67		
Sample type	COCH	measurements	0.51	0.69		
Lithology	sh	3	0.55	0.70		
Preparation	Bulk	4	0.55			
Sample comment	10233	5	0.56			
Date of analysis	23.08.2006	6	0.56			
APT ID	35069	7				
Quality rating:		8				
		9				
		10				
		11				
		12				
		13				
		14				
		15				
		16				
		17				
Legend to quality rating:		18				
		19				
		20				
		21				
		22				
		23				
		24				
		25				
		26				
		27				
Comments:		Very finely laminated shale is dominated by very fine particles of reworked vitrinite and inertinite. Light to mid orange spores fluoresce with low to moderate intensity.				



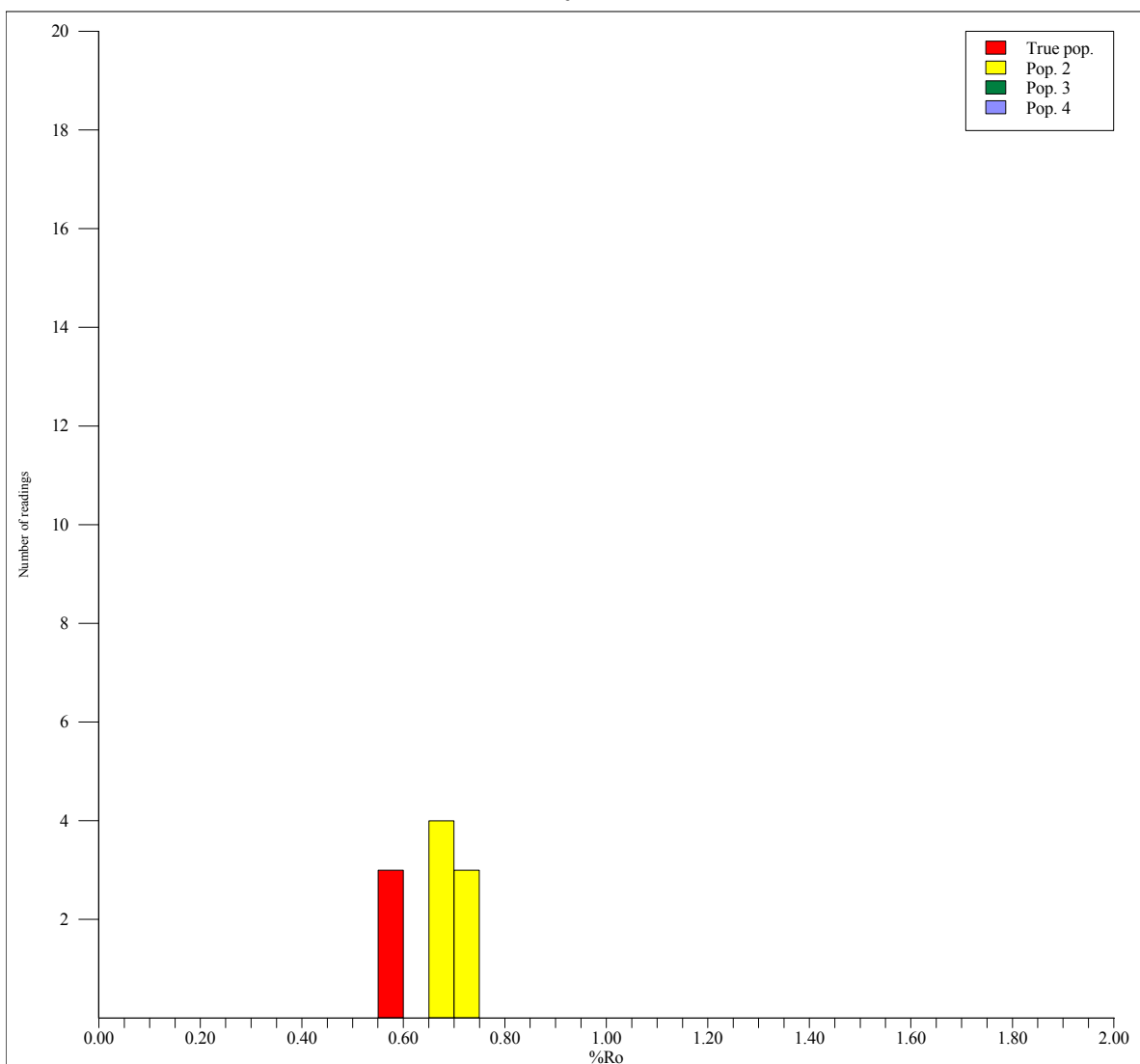
%Ro readings		True pop.	Pop. 2	Pop. 3	Pop. 4
%Mean±sd.		0.49±0.07	0.65±0.01		
Individual measurements		0.44	0.63		
3		0.45	0.66		
4		0.56	0.66		
5		0.57			
6					
7					
8					
9					
10					
11					
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14					
15					
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18					
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21					
22					
23					
24					
25					
26					
27					

Sample info:	
Well	7830/5-U-1
Lower depth	110.87
Sample type	COCH
Lithology	sh
Preparation	Bulk
Sample comment	10244
Date of analysis	23.08.2006
APT ID	35070
Quality rating:	
Average sample quality	M
Abundance of vitrinite	-
Identification of vitrinite	-
Type of vitrinite	o
Particle size	-
Particle surface quality	-
Abundance of pyrite	-
Legend to quality ratings:	
No effect on the readings	o
Possibly too low readings	-
Possibly too high readings	+
Good quality	G
Moderate quality	M
Poor quality	P
Not vitrinite	X
Mud additive	M

Comments:	
Laminated shale is dominated by very fine inertinite particles. Minor amounts of very small vitrinite particles of poor to fair quality. Light to mid orange spores fluoresce very low intensity.	



Sample info:		%Ro readings	True pop.	Pop. 2	Pop. 3	Pop. 4
Well	7830/S-U-1	%Mean±sd.	0.58±0.04			
Lower depth	120.44	Individual	0.53			
Sample type	COCH	measurements	0.54			
Lithology	sh	3	0.54			
Preparation	Bulk	4	0.55			
Sample comment	10248	5	0.56			
Date of analysis	23.08.2006	6	0.56			
APT ID	35071	7	0.57			
Quality rating:		8	0.58			
		9	0.58			
		10	0.58			
		11	0.64			
		12	0.65			
		13				
		14				
		15				
		16				
		17				
Legend to quality rating:		18				
Average sample quality	M	19				
Abundance of vitrinite	o	20				
Identification of vitrinite	o	21				
Type of vitrinite	o	22				
Particle size	-	23				
Particle surface quality	-	24				
Abundance of pyrite	-	25				
		26				
		27				
Comments:						
Shale with moderate organic matter content is dominated by inertinite and very thin particles and stingers of poor to fair quality indigenous vitrinite. Weak intensity fluorescing light to mid orange spores.						



Sample info:		%Ro readings	True pop.	Pop. 2	Pop. 3	Pop. 4
Well	7830/5-U-1	%Mean±sd.	0.58±0.01	0.69±0.02		
Lower depth	146.84	Individual	0.57	0.66		
Sample type	COCH	measurements	0.58	0.67		
Lithology	sh	3	0.59	0.67		
Preparation	Bulk	4		0.69		
Sample comment	10268	5		0.71		
Date of analysis	23.08.2006	6		0.71		
APT ID	35072	7		0.72		
Quality rating:		8				
Average sample quality	M	9				
Abundance of vitrinite	+	10				
Identification of vitrinite	o	11				
Type of vitrinite	-	12				
Particle size	o	13				
Particle surface quality	o	14				
Abundance of pyrite	-	15				
Legend to quality rating:		16				
No effect on the readings	o	17				
Possibly too low readings	-	18				
Possibly too high readings	+	19				
Good quality	G	20				
Moderate quality	M	21				
Poor quality	P	22				
Not vitrinite	X	23				
Mud additive	M	24				
Comments:		25				
This shale is moderately rich in organic matter. This is dominated by inertinite and reworked vitrinite with some low to minor abundances of indigenous vitrinite.		26				
Mid to dark orange spores fluoresce with very weak intensity.		27				

Figure 6***Gas chromatograms of whole oil (GC-FID).*****Legend:**

n-C20 etc.

i-C16 etc.

d26-c12, d42-C20, d50-C24 and d62-C30

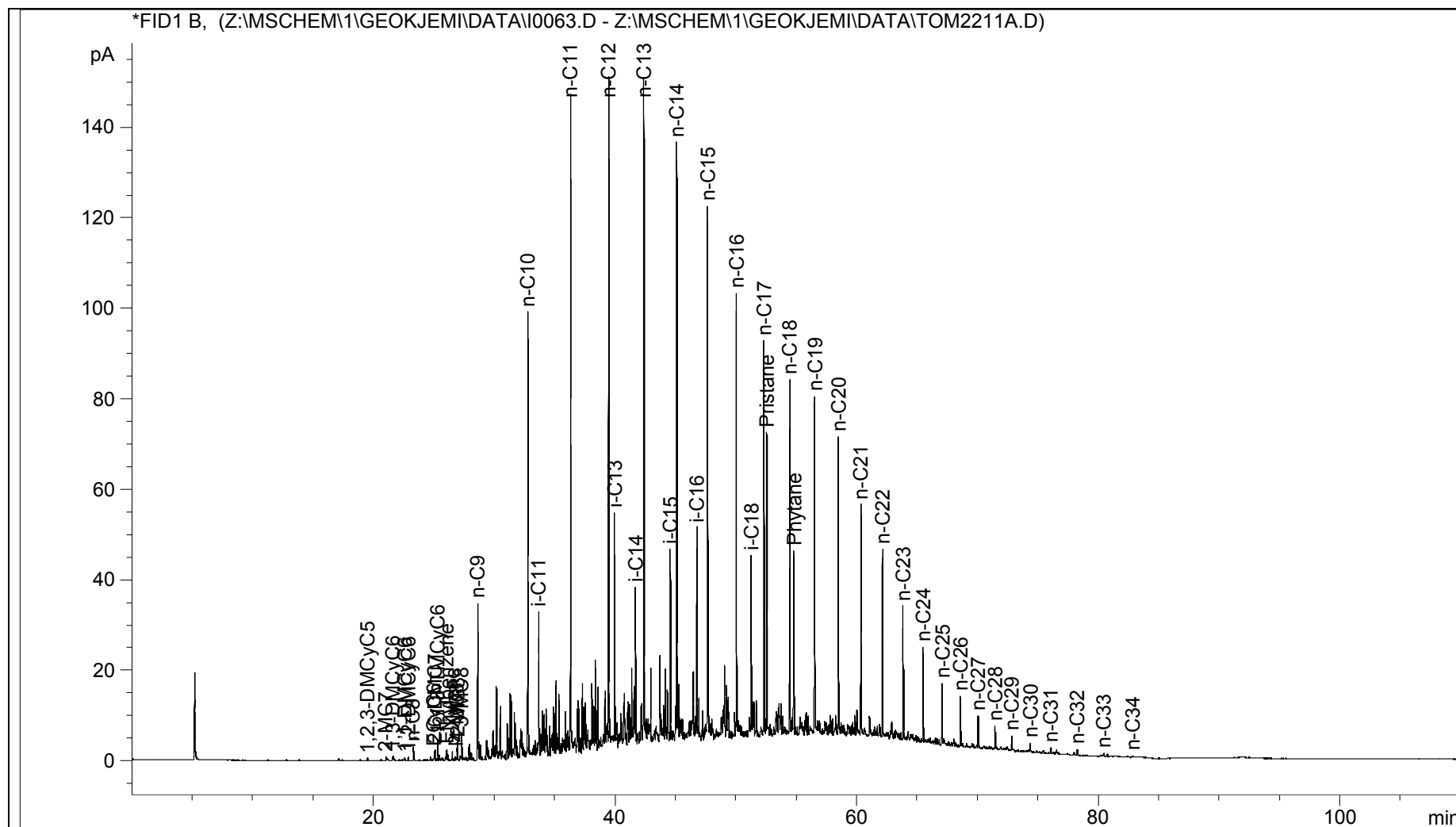
COCH

n-alkanes

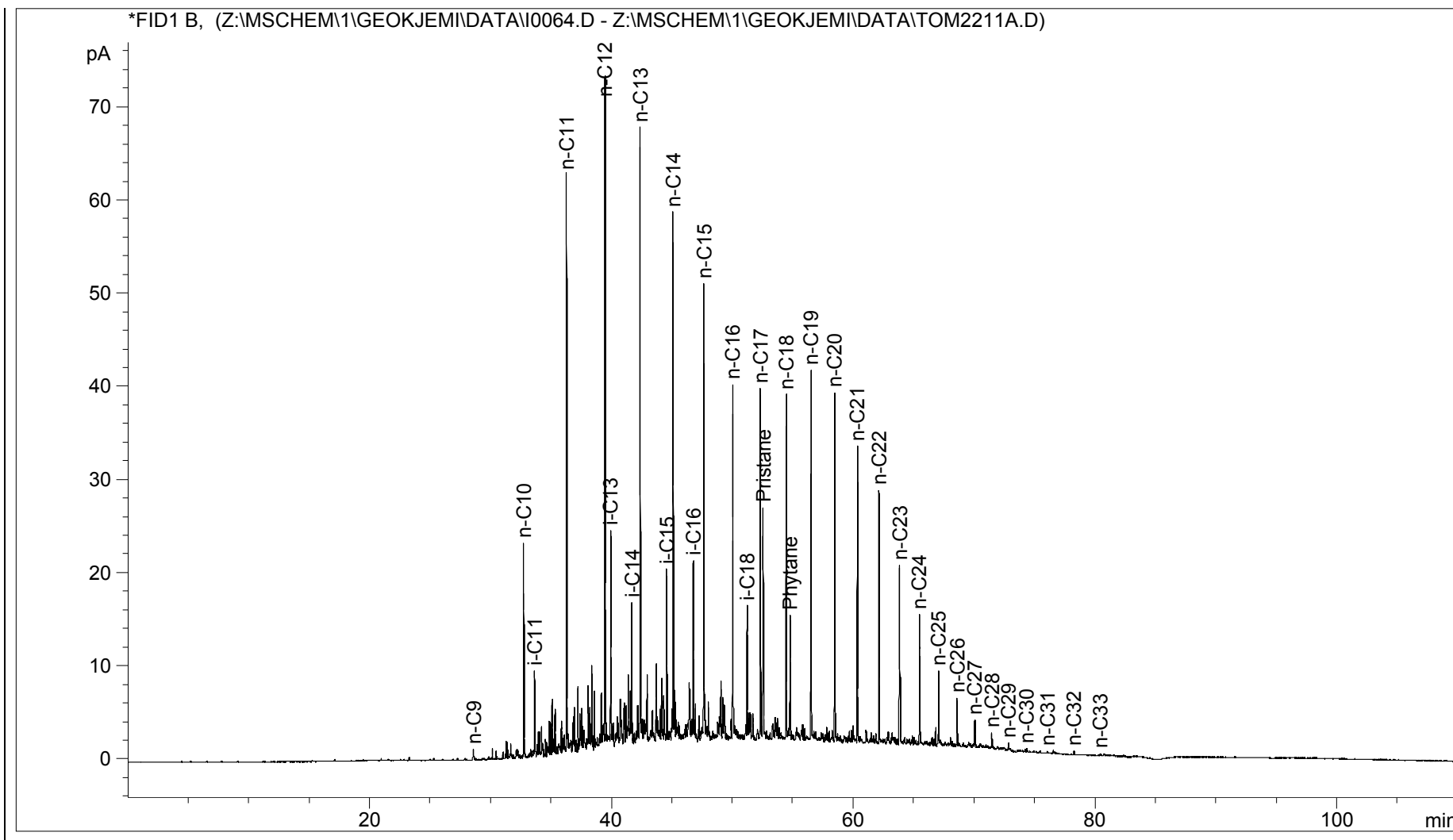
acyclic isoprenoids

deuterated n-alkanes (internal standard for quantification)

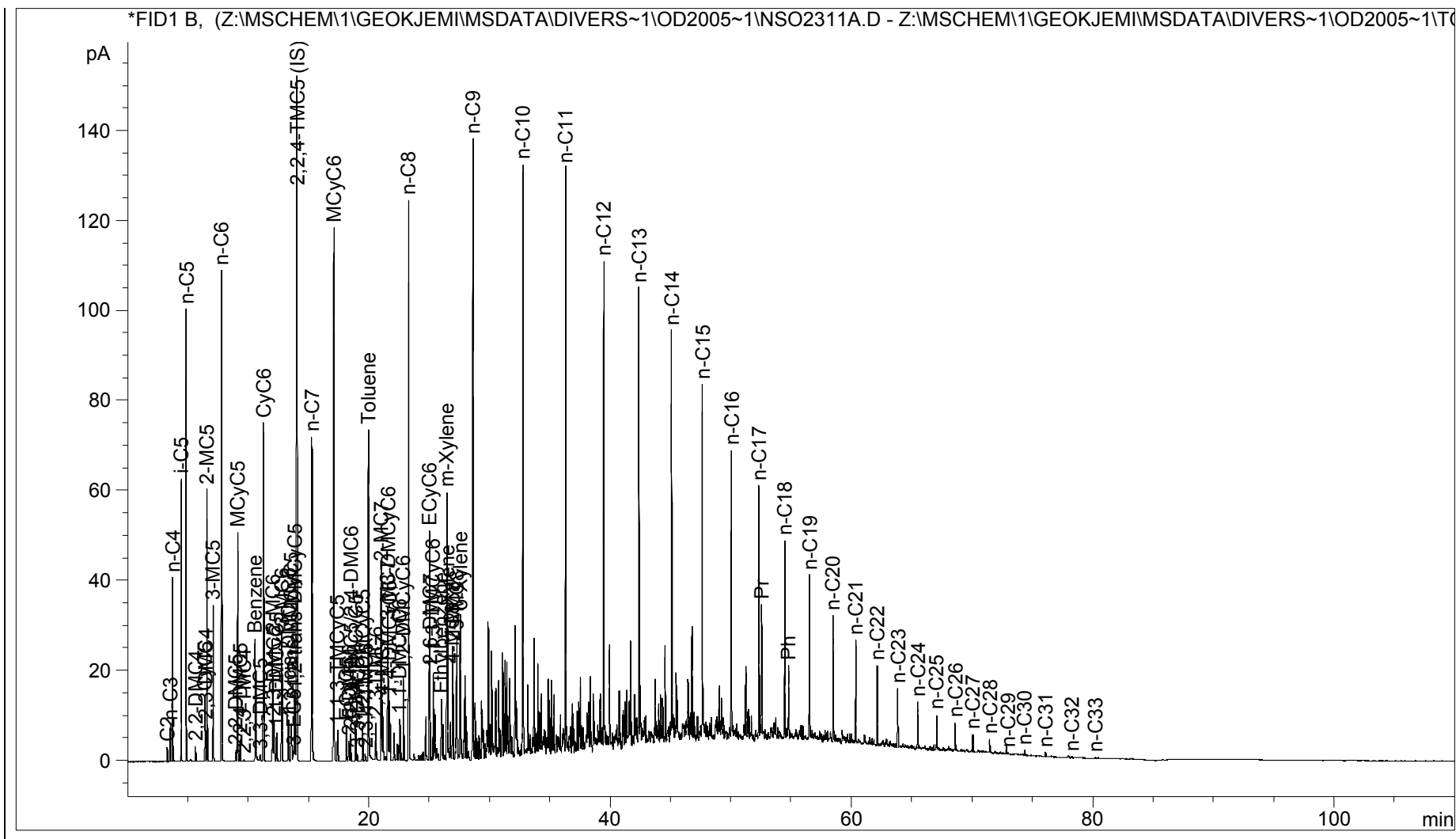
core chips (sample type)



I0063, 7830/3-U-1, ~171.1 – 171.6 m, COCH, Sst (oil-stained), Whole oil GC



I0064, 7830/3-U-1, ~173.9 – 174.3 m, COCH, Sst (oil-stained), Whole oil GC



H2795, NSO-1, NGS reference oil, SAT GC, Whole oil GC

Figure 7***Gas chromatograms of saturated hydrocarbons (GC-FID).*****Legend:**

n-C20 etc.

i-C16 etc.

d26-c12, d42-C20, d50-C24 and d62-C30

COCH

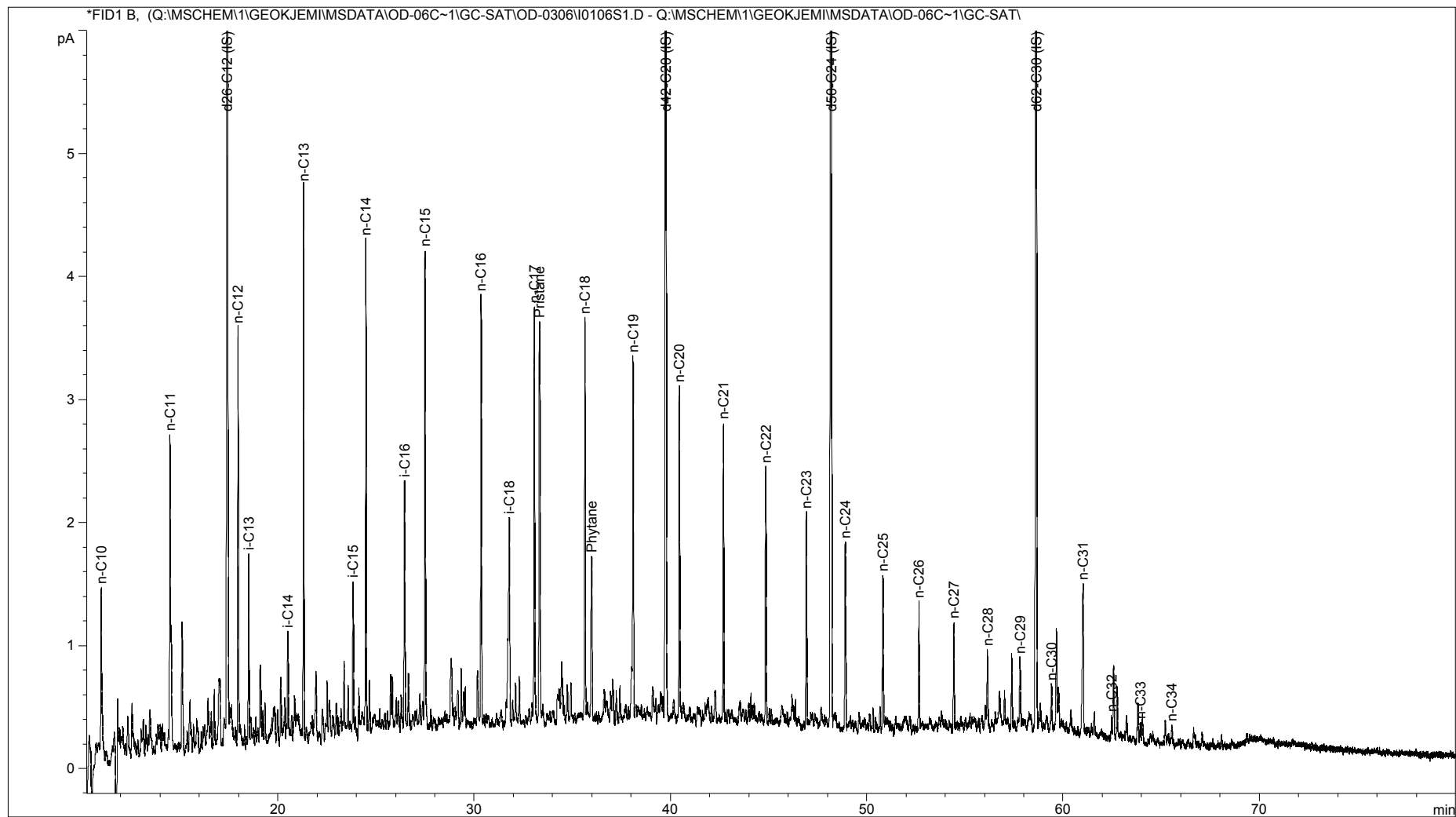
n-alkanes

acyclic isoprenoids

deuterated n-alkanes (internal standard for quantification)

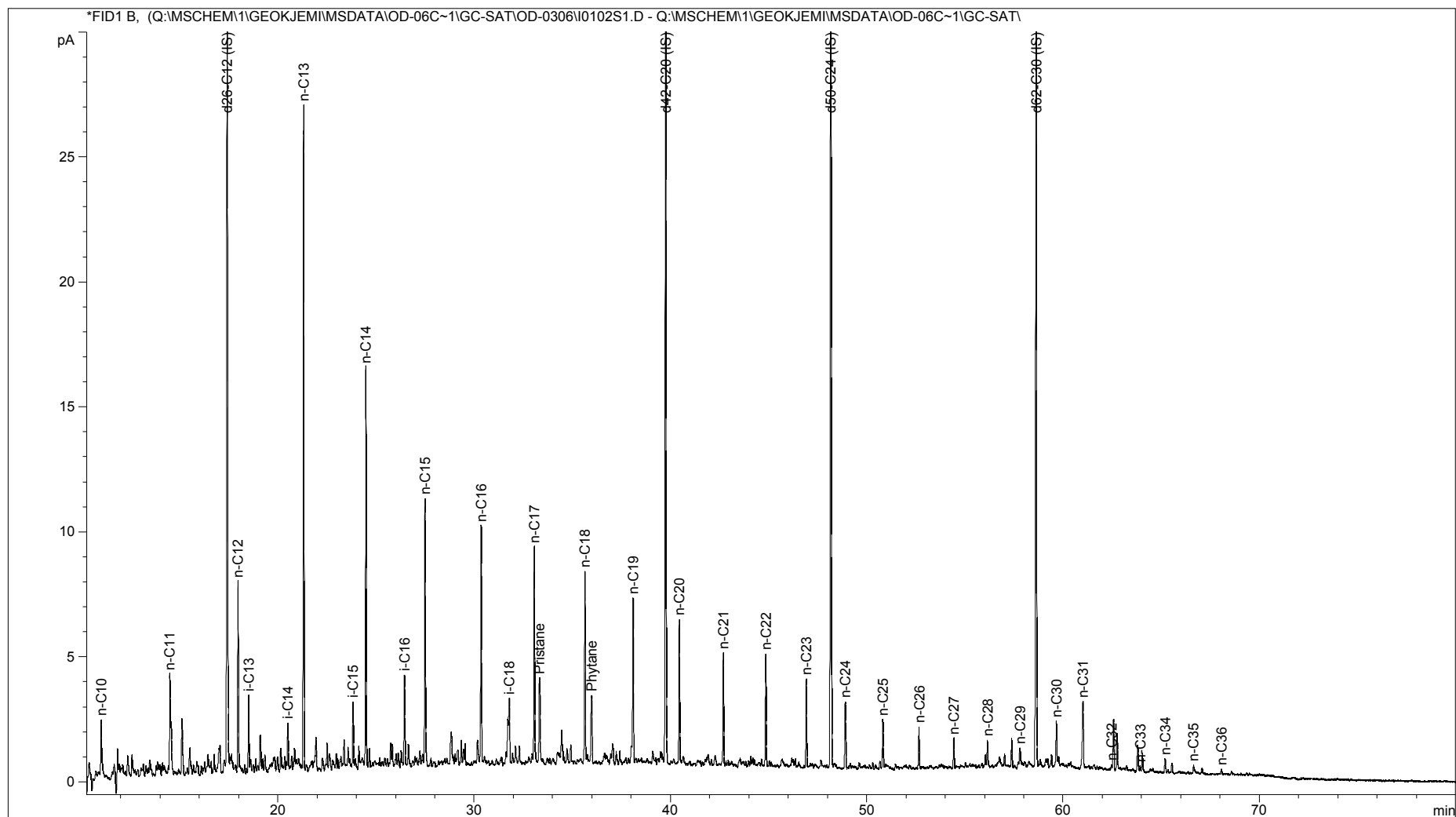
core chips (sample type)

- 216 -

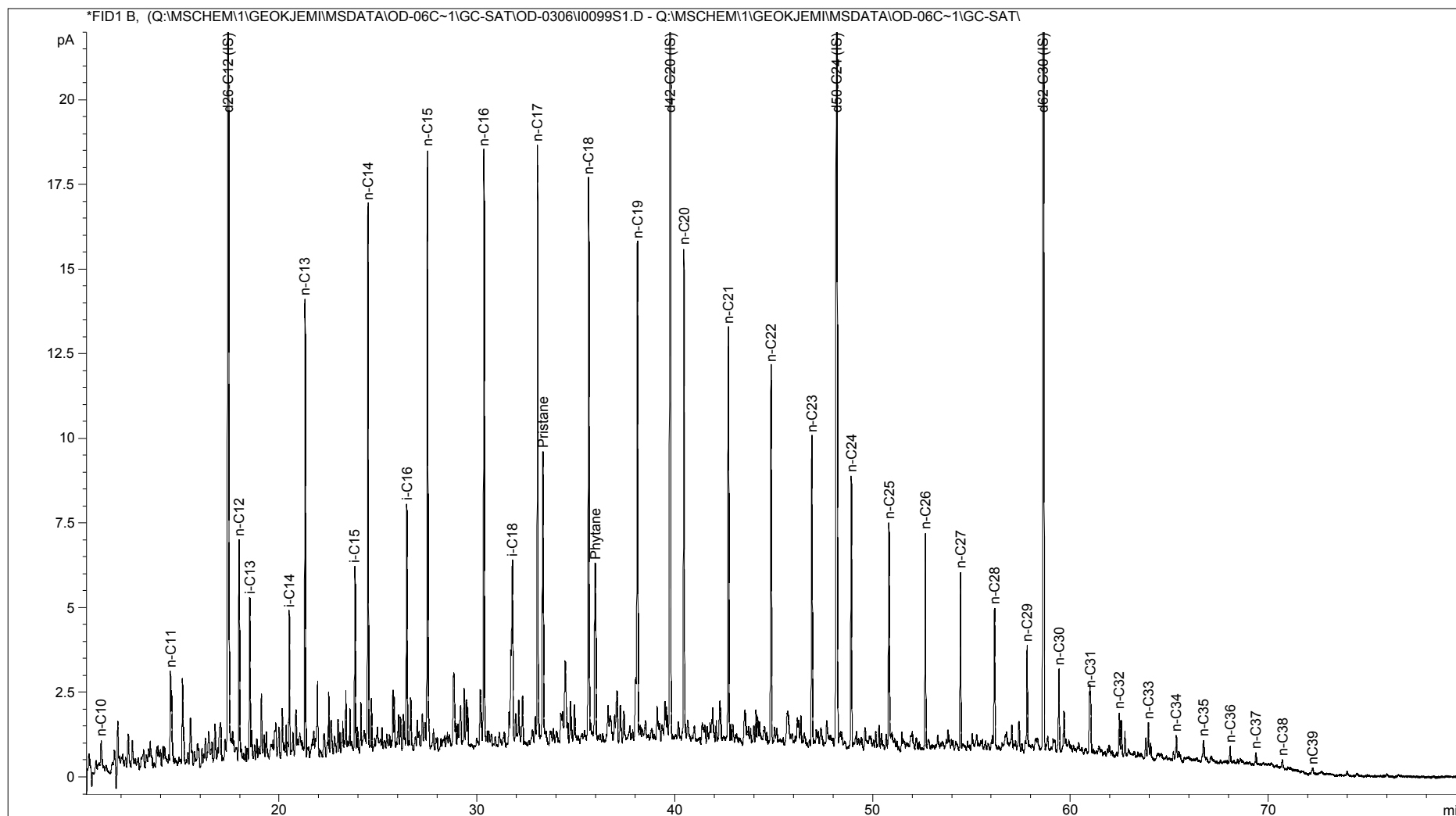


I0106, 7831/2-U-2, 6.78 - 6.83 m, COCH, Clyst (slty, dkgy), SAT GC

- 217 -

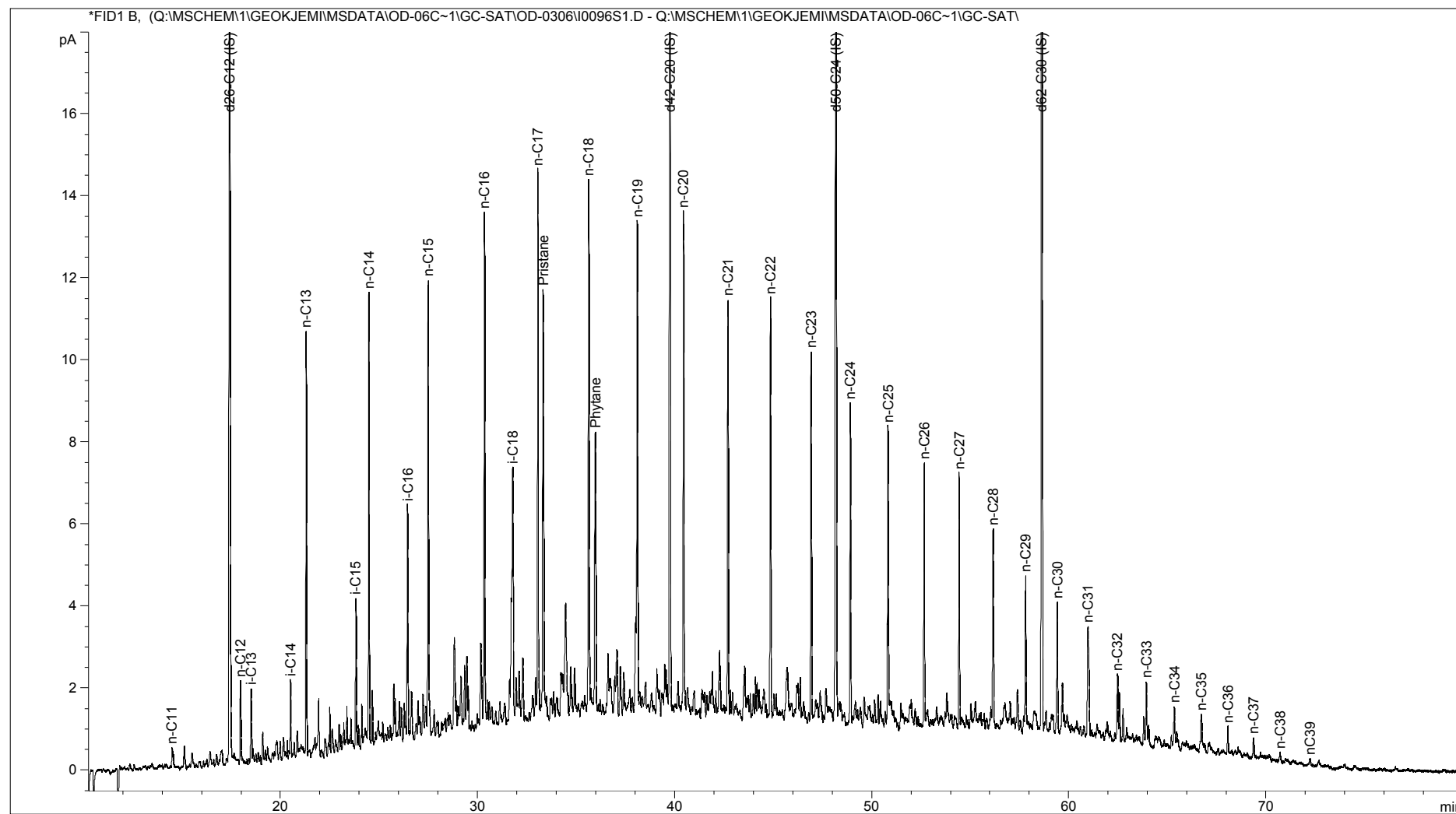


I0102, 7831/2-U-2, 10.23 - 10.28 m, COCH, Clyst (sly, mgy), SAT GC



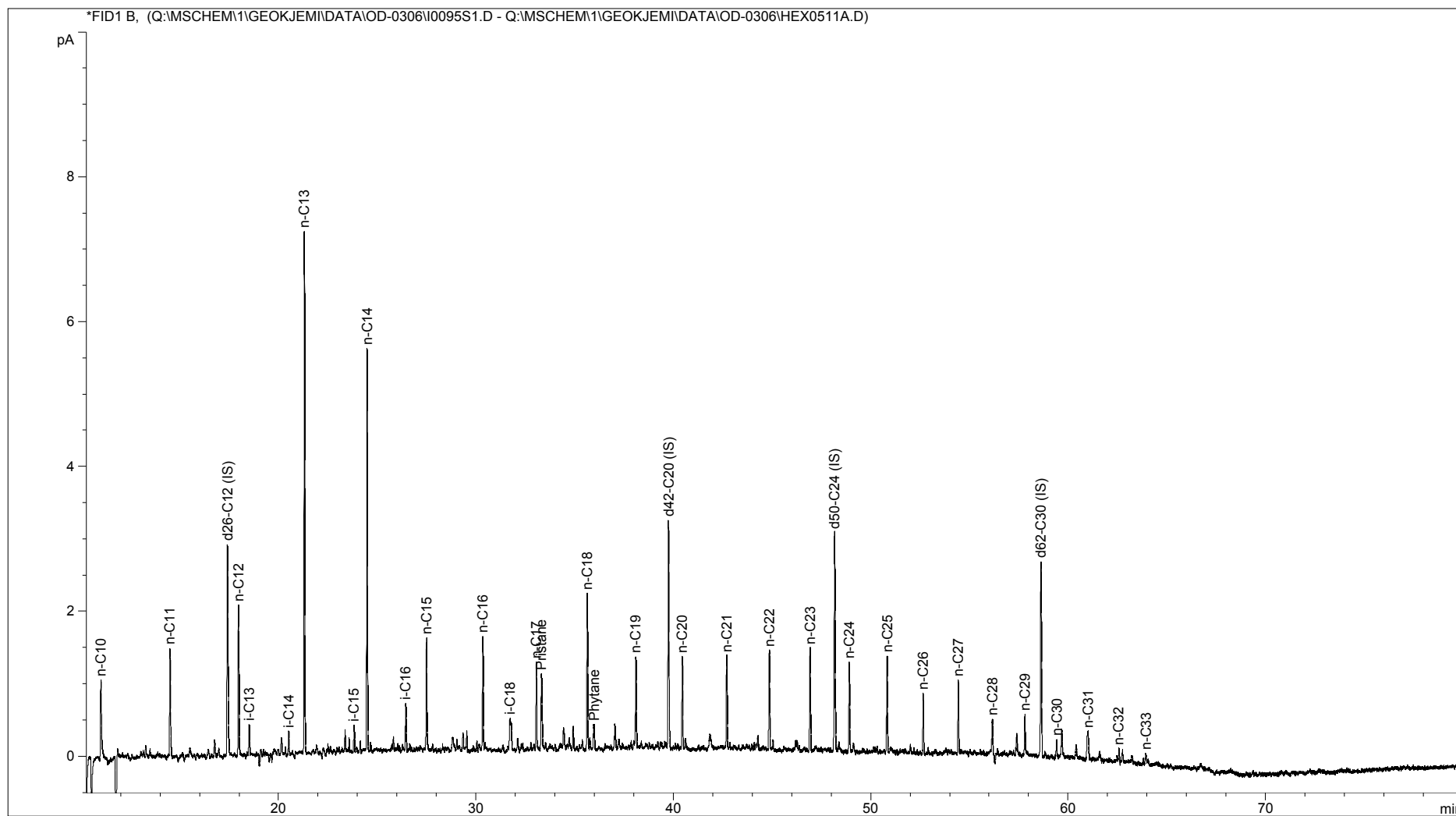
I0099, 7831/2-U-2, 14.48 - 14.53 m, COCH, Clyst (sly, dkgy), SAT GC

- 219 -

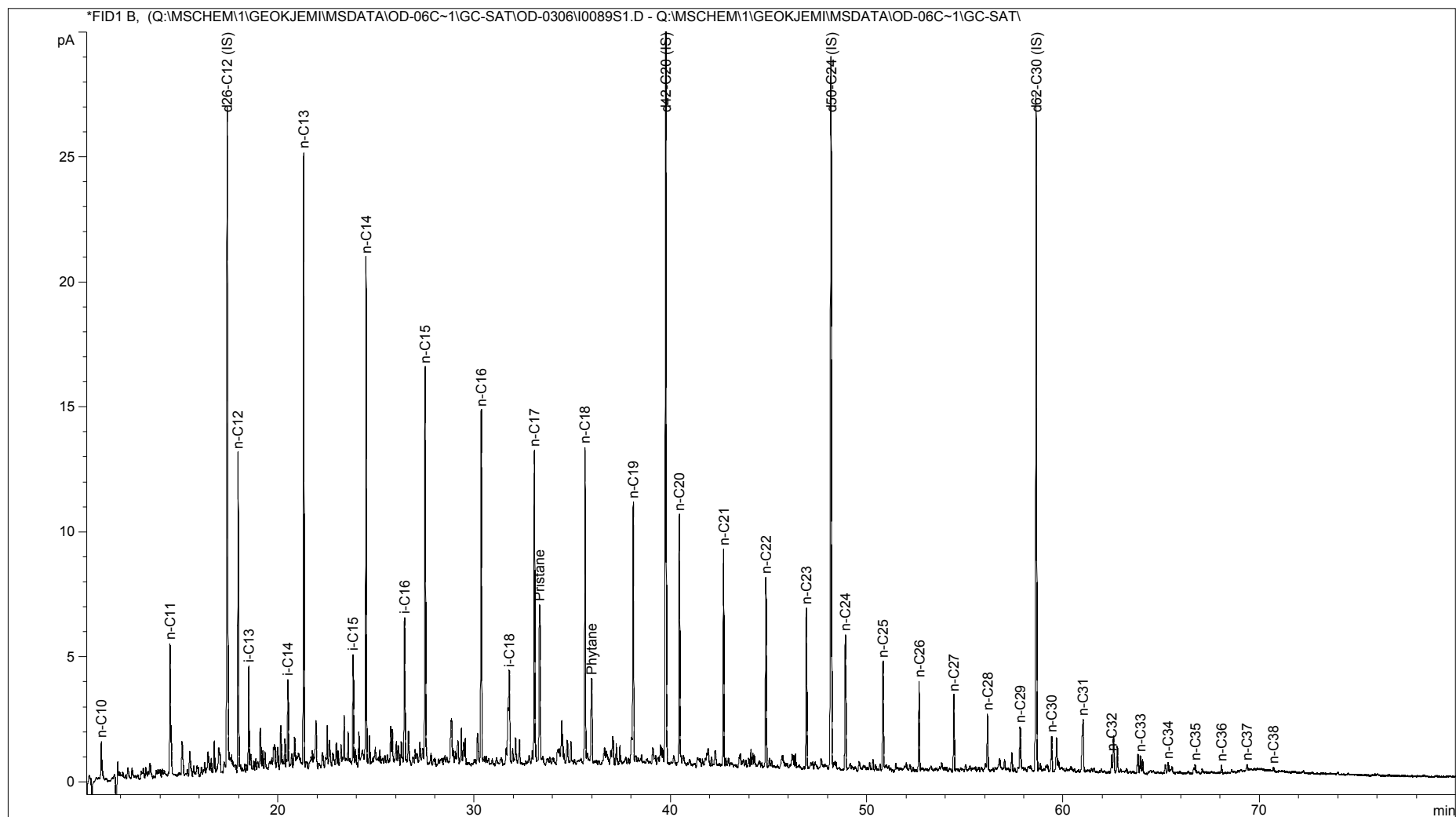


I0096, 7831/2-U-2, 17.83 - 17.87 m, COCH, Cyst (slty, dkgy), SAT GC

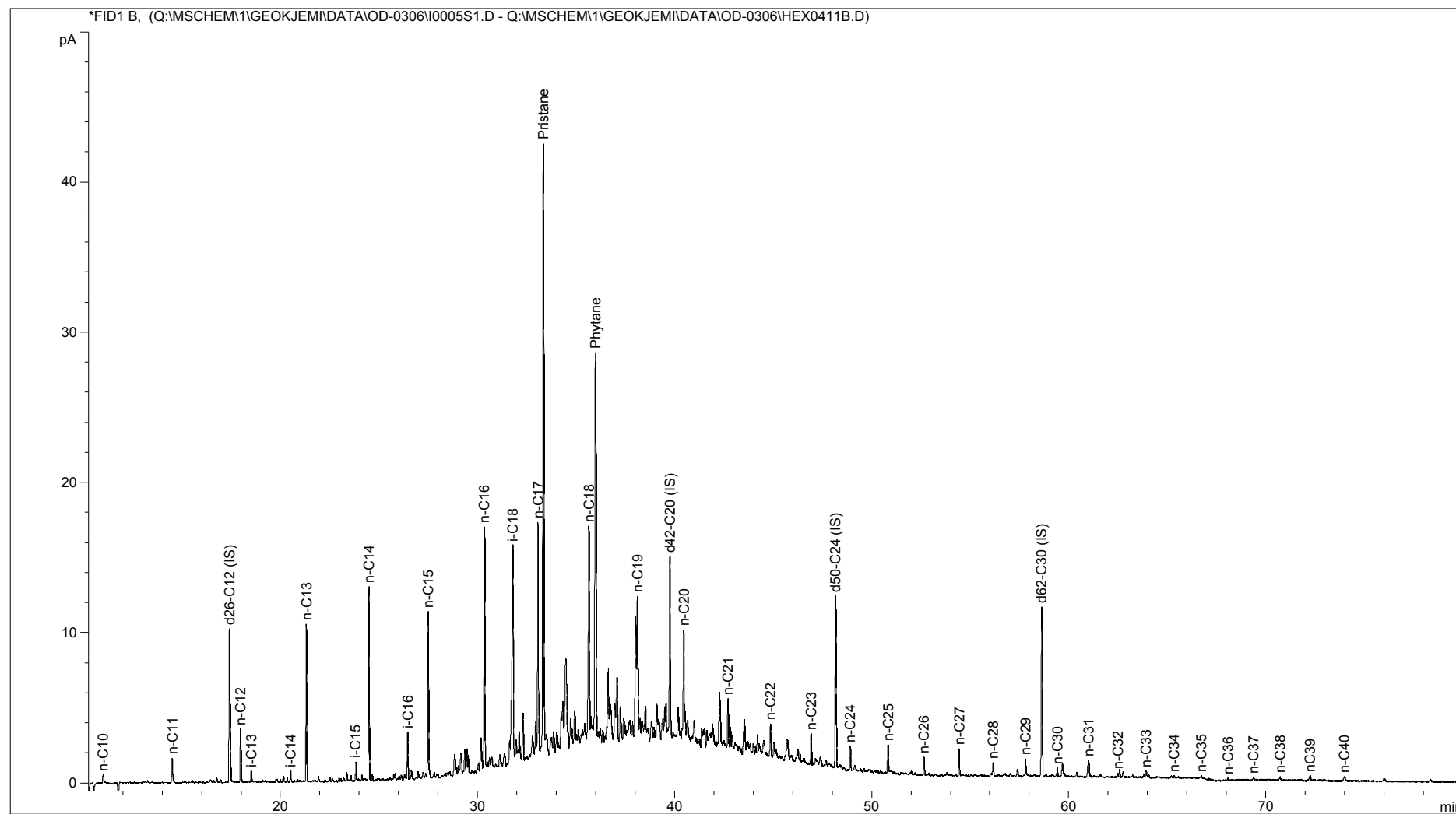
- 220 -



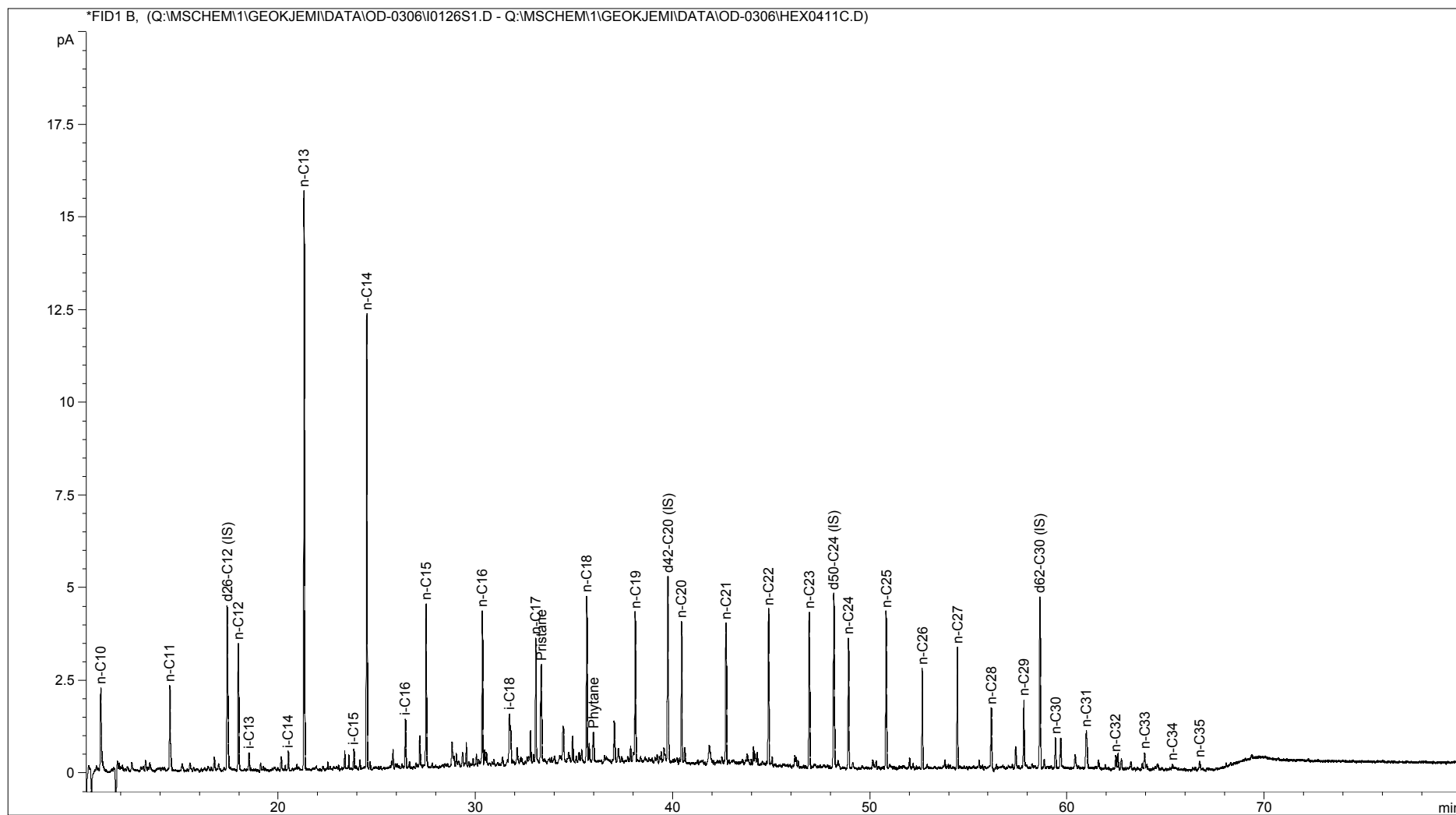
I0095, 7831/2-U-2, 18.72 - 18.85 m, COCH, Cylst (sly, dkgy), SAT GC



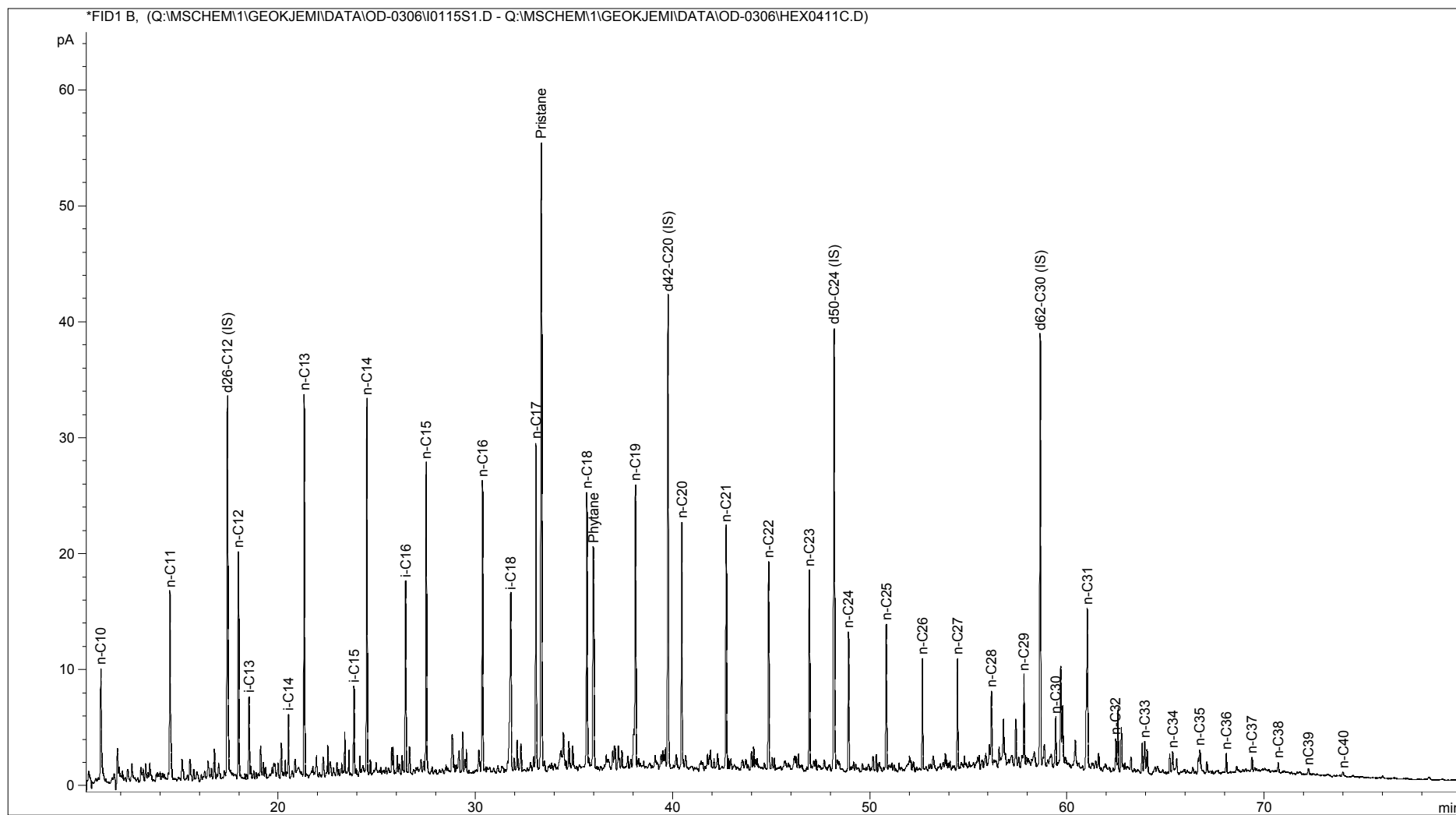
I0089, 7831/2-U-1, 21.72 - 21.76 m, COCH, Clyst (dkgy), SAT GC



I0005, 7830/6-U-1, 12.85 - 12.88 m, COCH, Slst, SAT GC

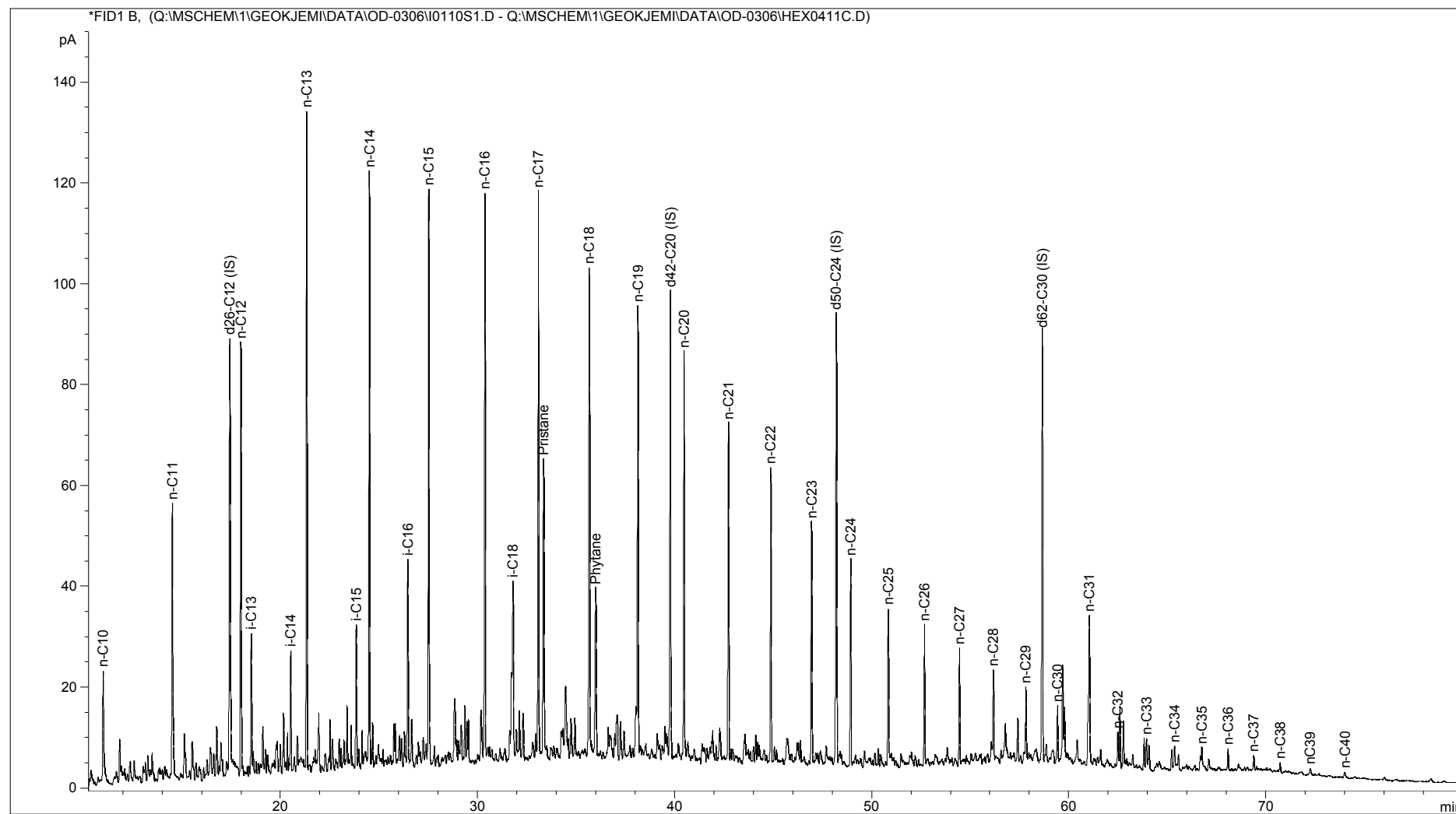


I0126, 7830/6-U-1, 20.03 - 20.10 m, COCH, Clyst (sly, lam, dkgy), SAT GC



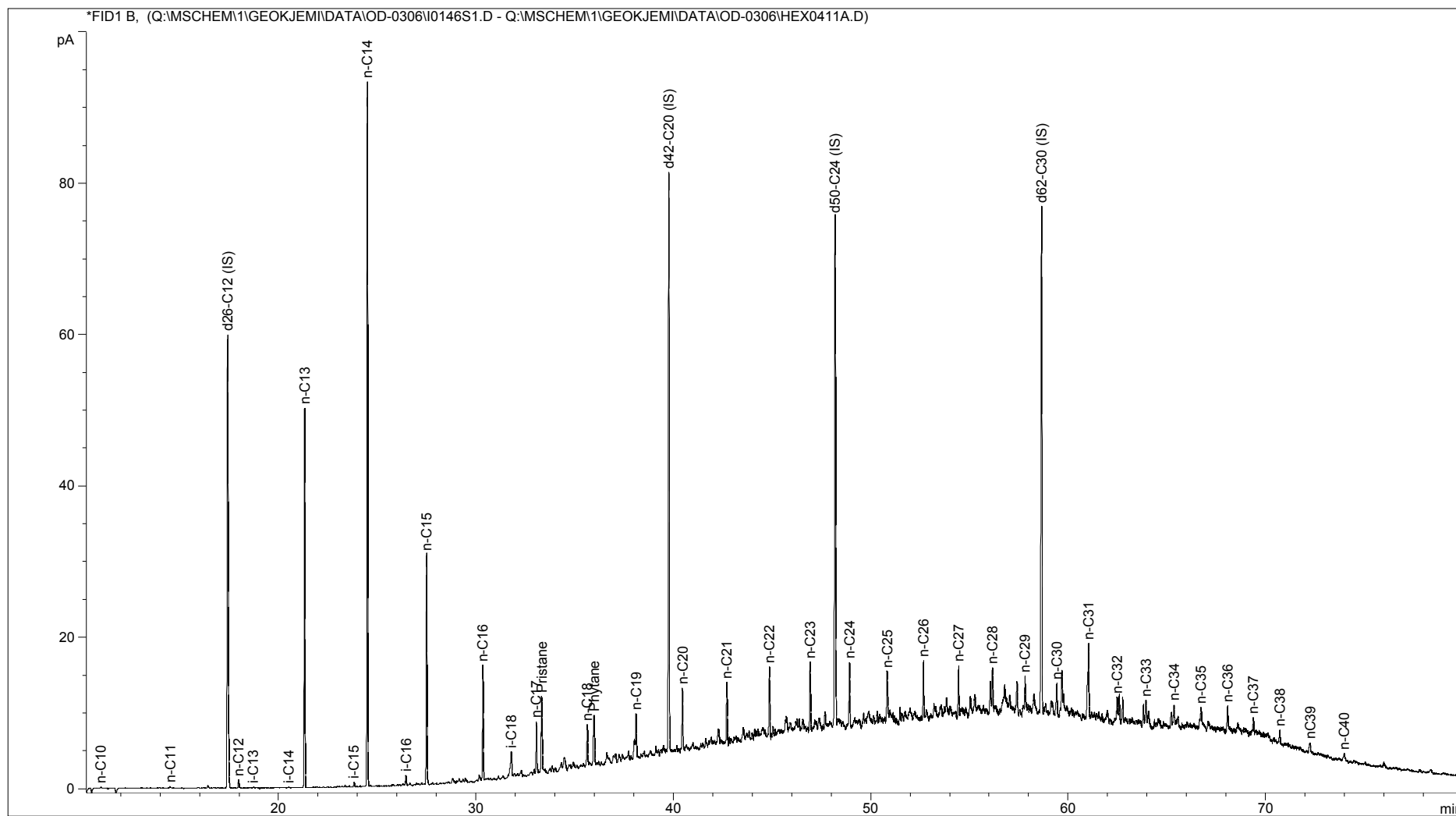
I0115, 7830/6-U-1, 41.85 - 41.89 m, COCH, Clyst (dkgy, lam), SAT GC

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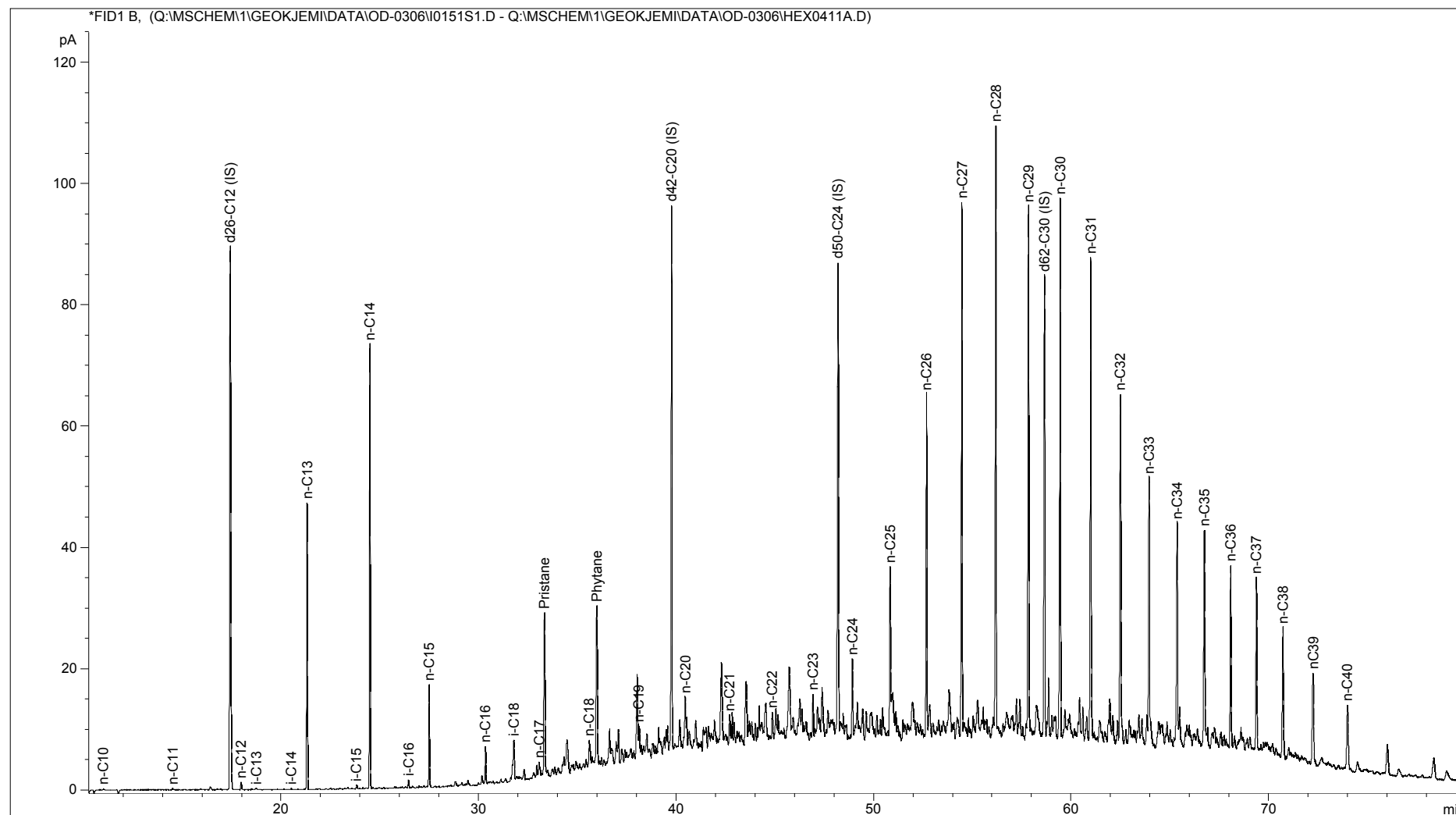


I0110, 7830/6-U-1, 50.90 - 50.93 m, COCH, Clyst (dkgy, lam), SAT GC

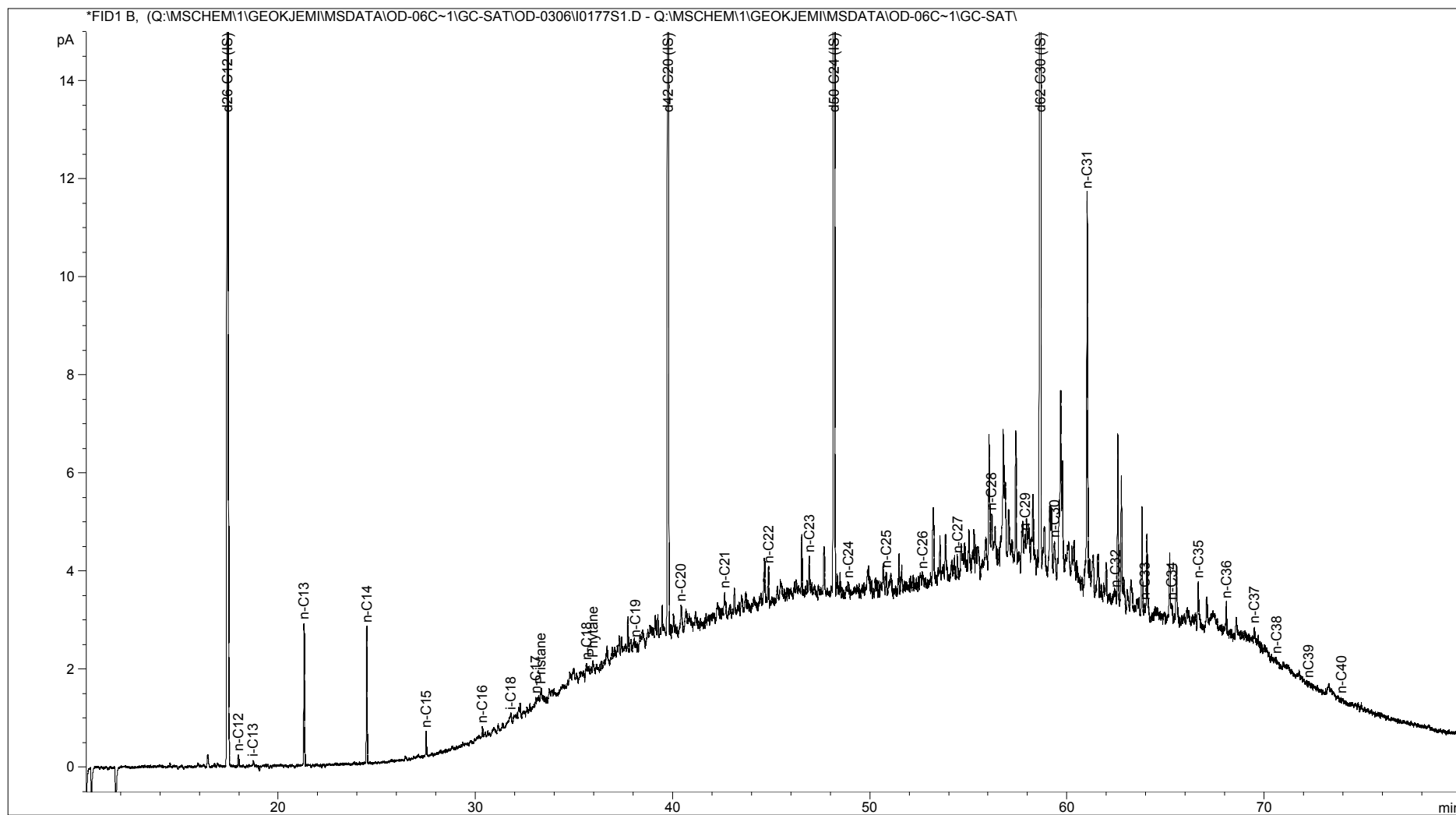
- 226 -



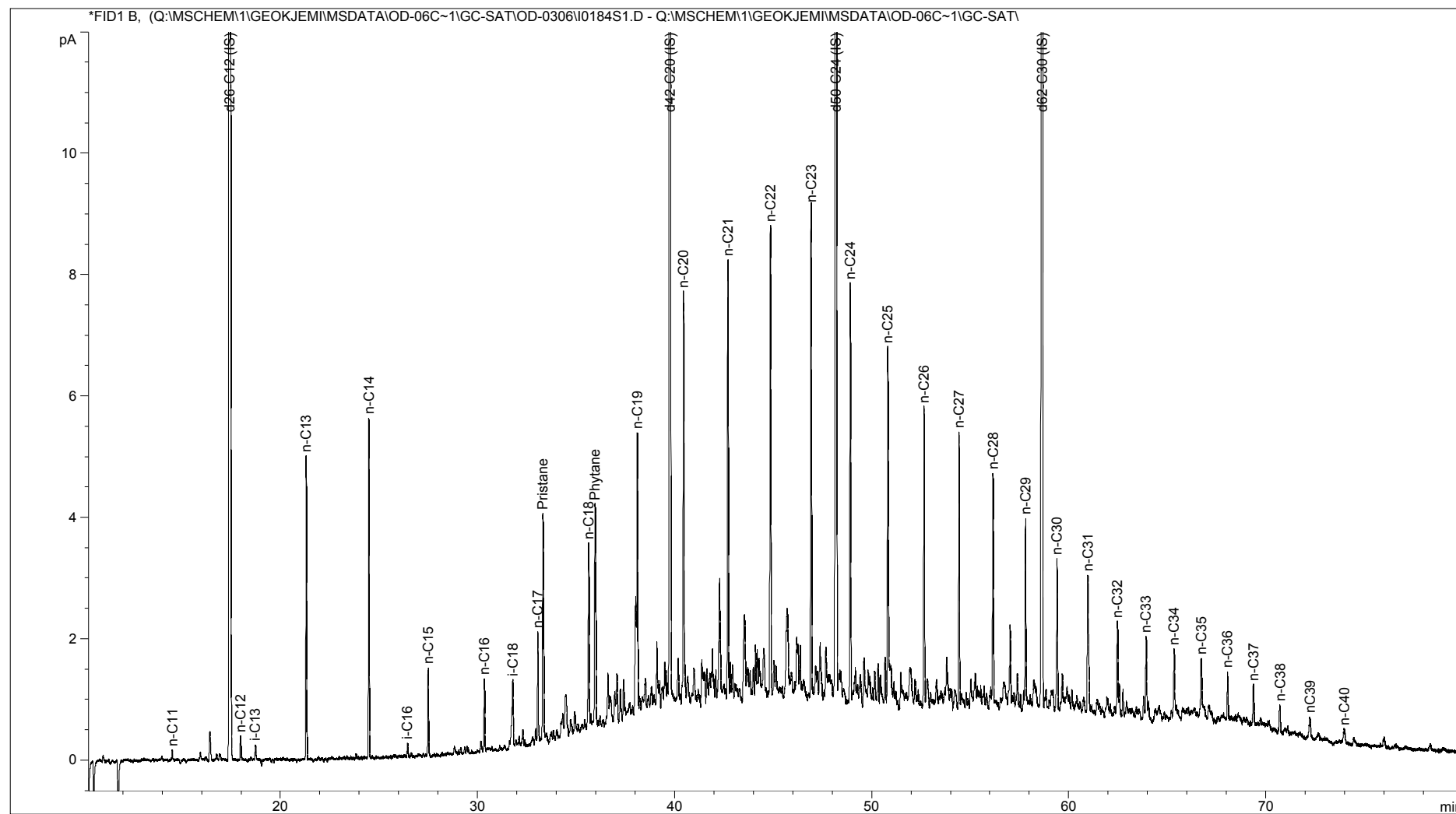
I0146, 7830/3-U-1, 39.94 - 39.99 m, COCH, Sst (mgr, mgy), SAT GC



I0151, 7830/3-U-1, 51.24 m, COPL, Sst (fgr, mgy), SAT GC

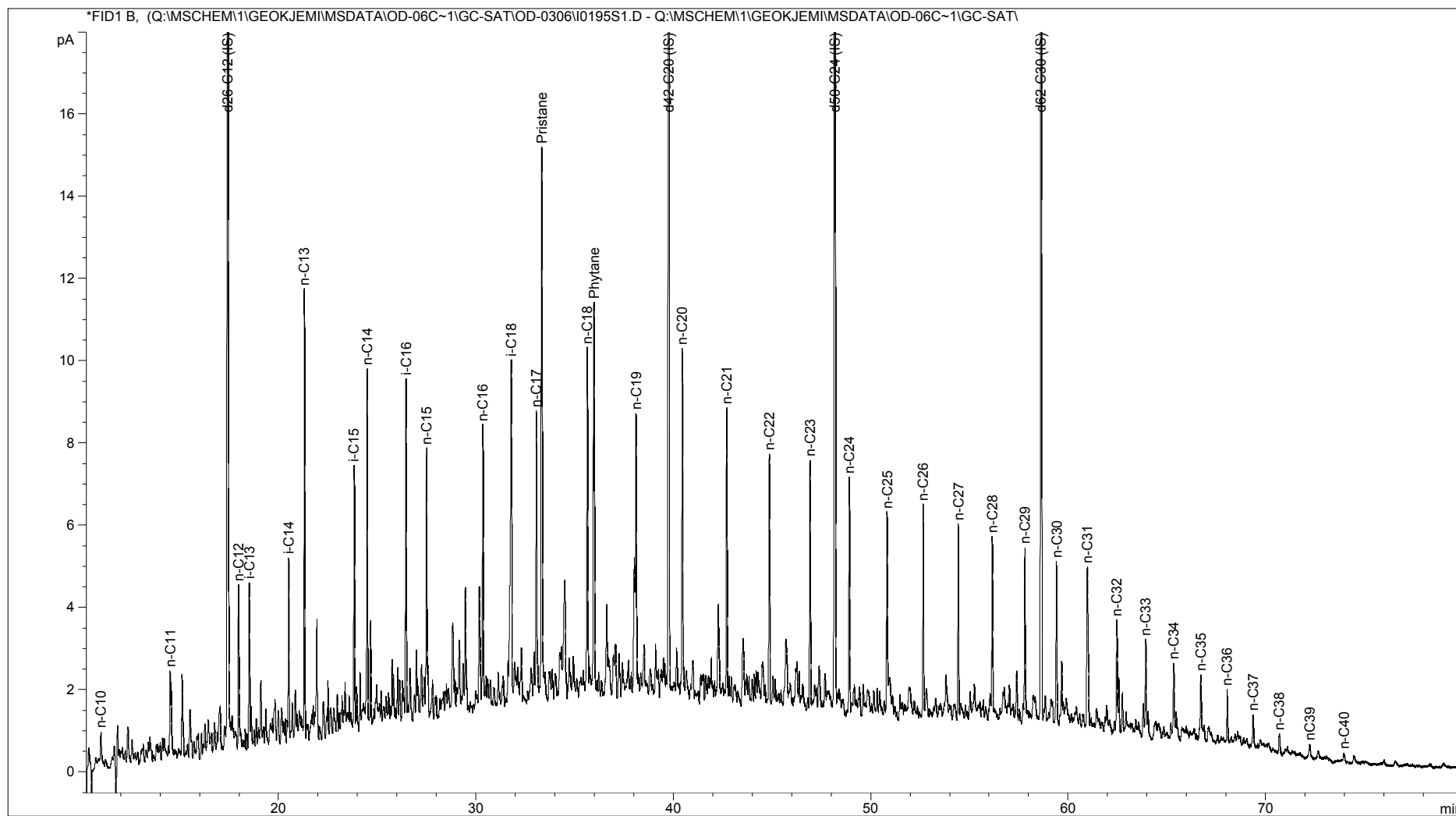


I0177, 7830/3-U-1, 111.69 - 111.75 m, COCH, Sst (fgr, dkgy), SAT GC

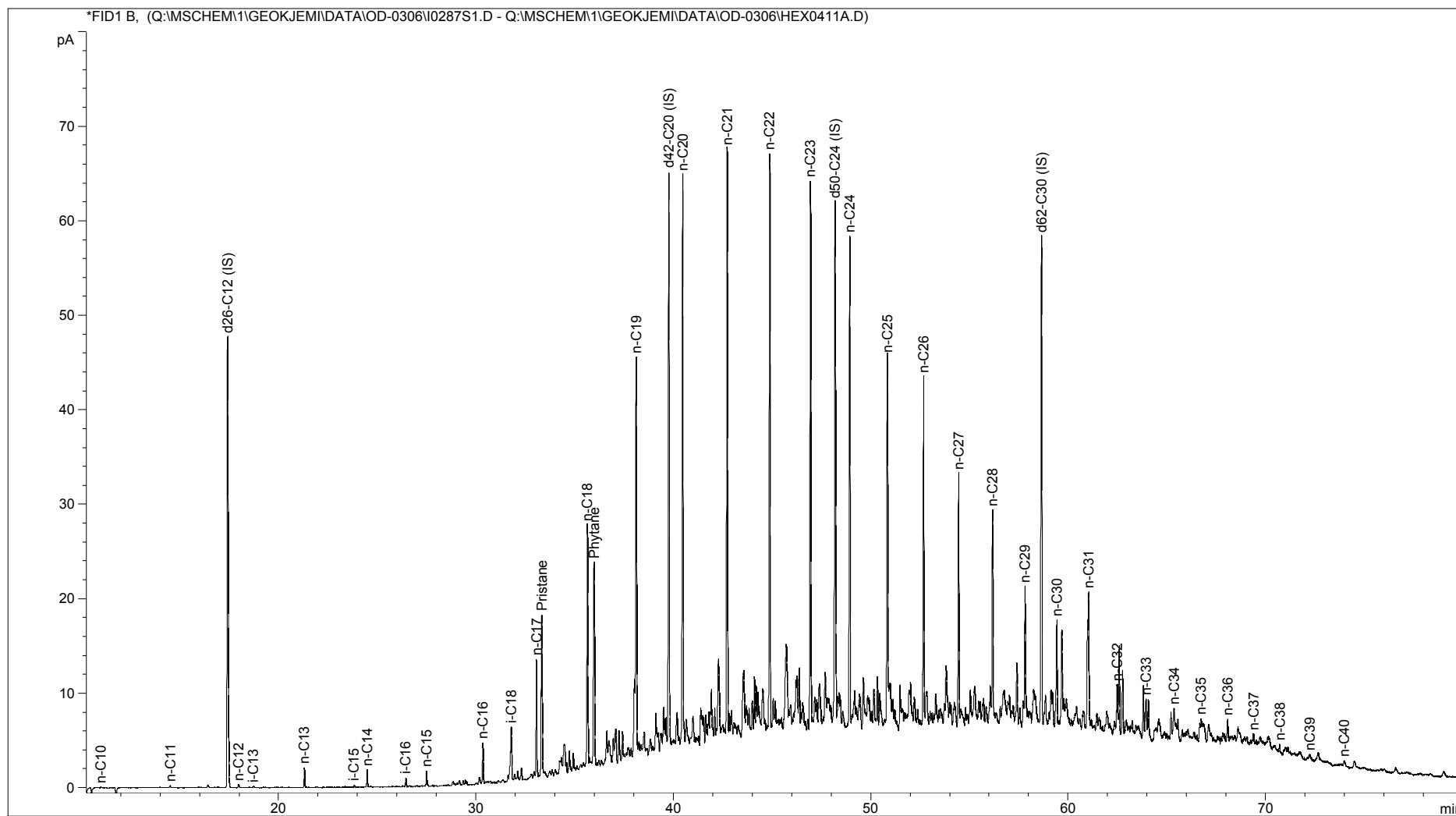


I0184, 7830/3-U-1, 124.63 m, COPL, Sst (fgr, Itgy), SAT GC

- 230 -

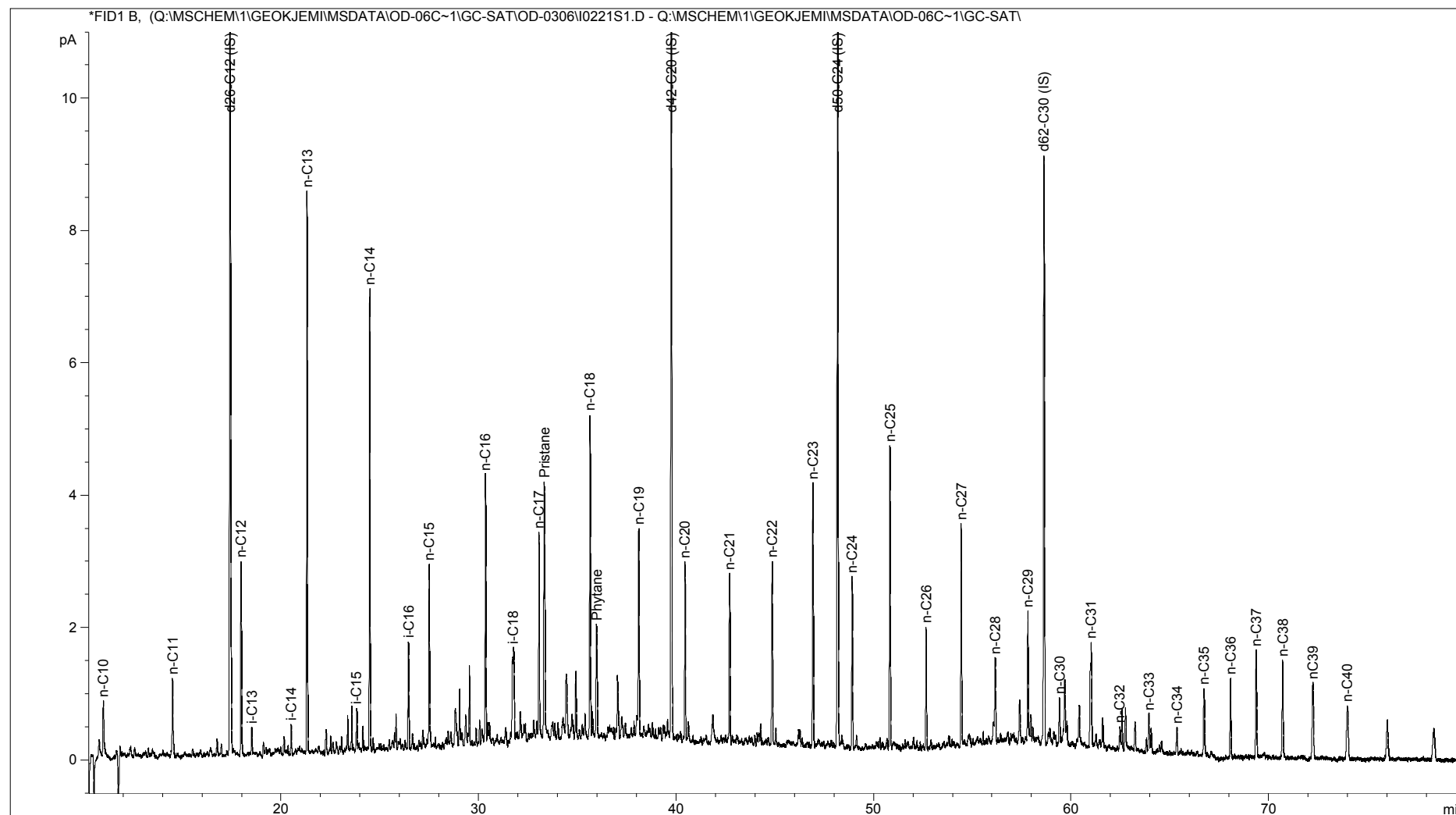


I0195, 7830/3-U-1, 154.81 - 154.88 m, COCH, Clyst (sl slty, ltgy), SAT GC

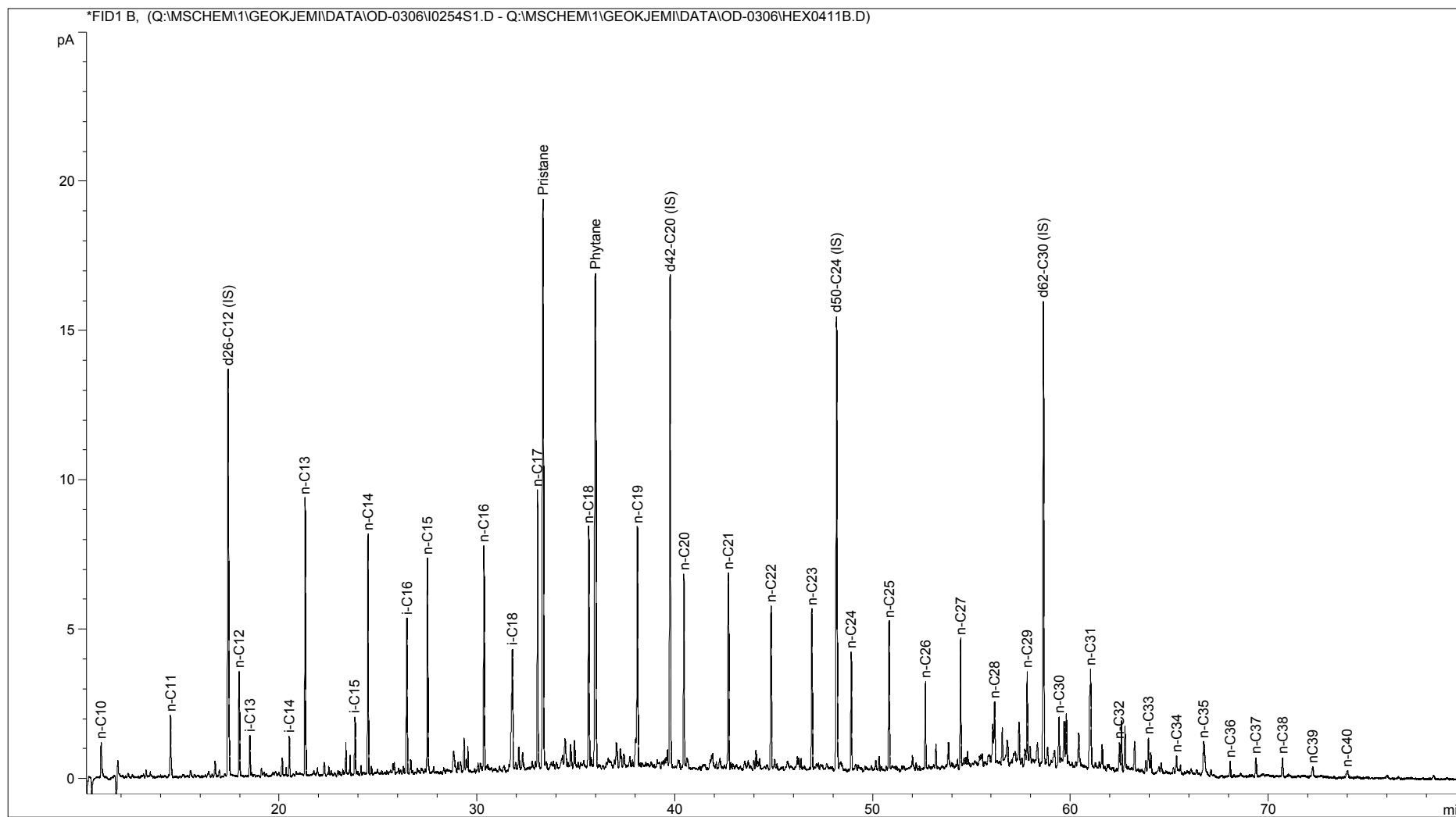


I0287, 7830/3-U-1, 174.13 - 174.15 m, COCH, Sst (fgr, mgy), SAT GC

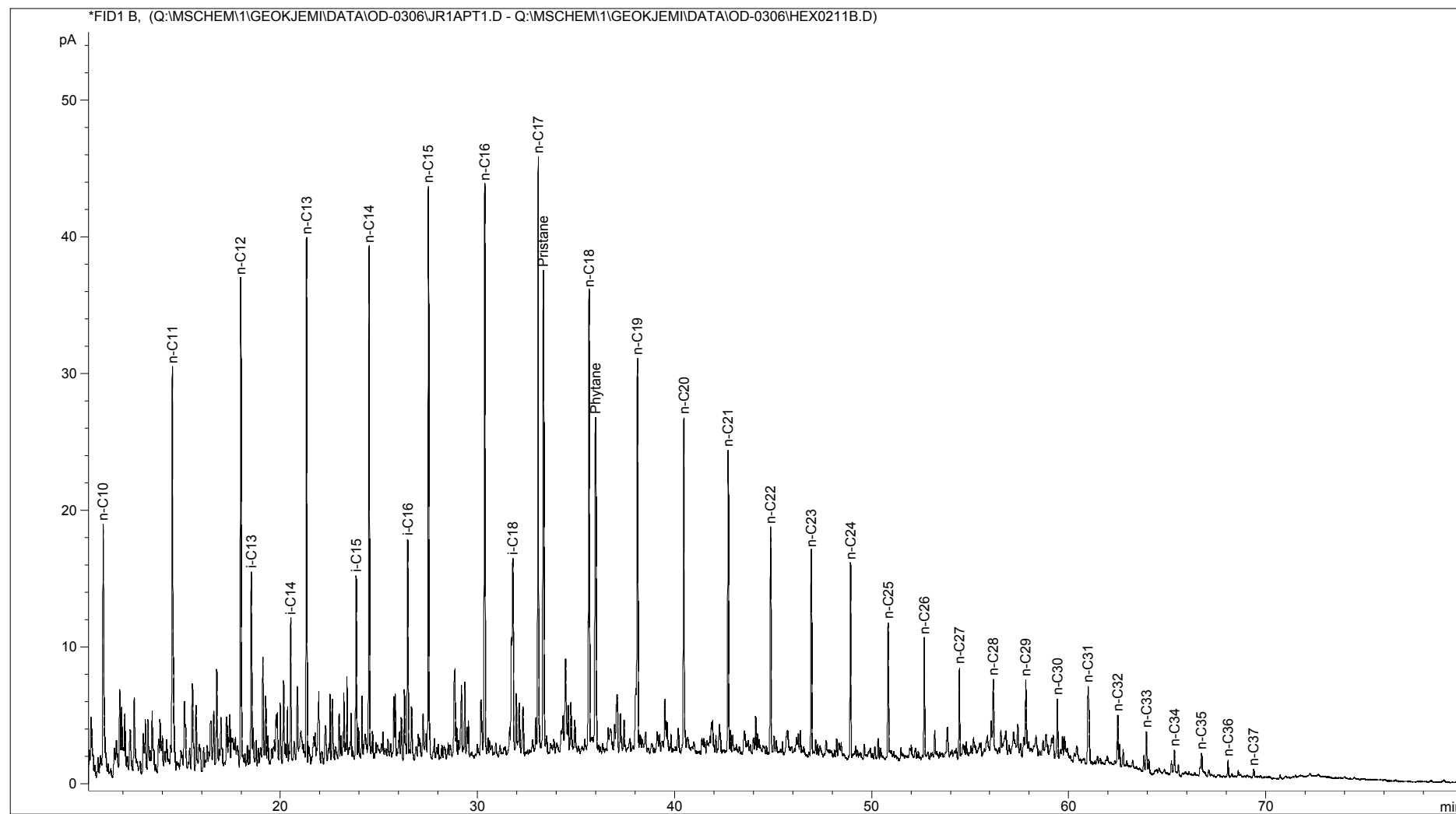
- 232 -



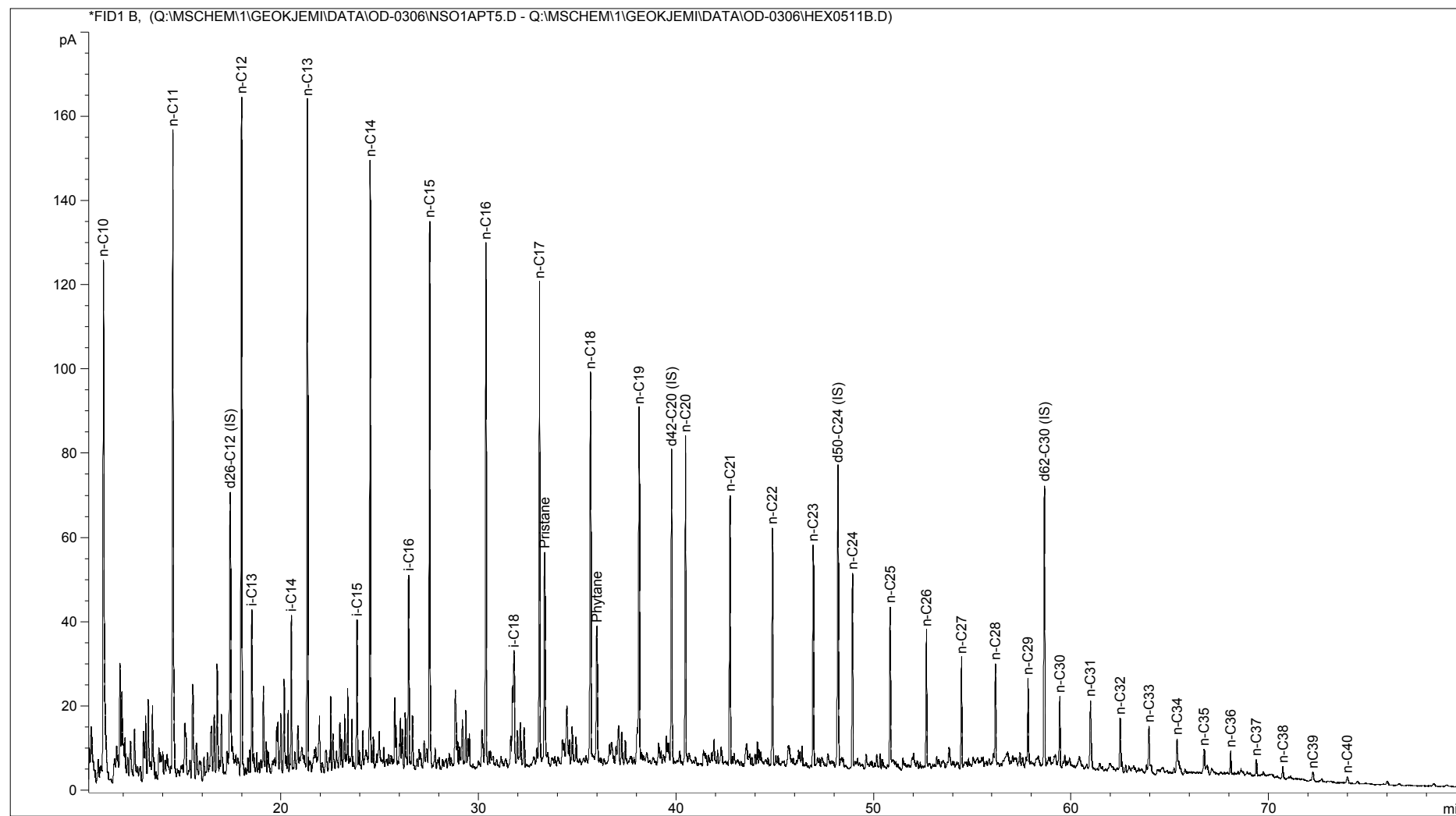
I0221, 7830/5-U-1, 58.90 - 58.97 m, COCH, Clyst (sl slty, lam, dkgy), SAT GC



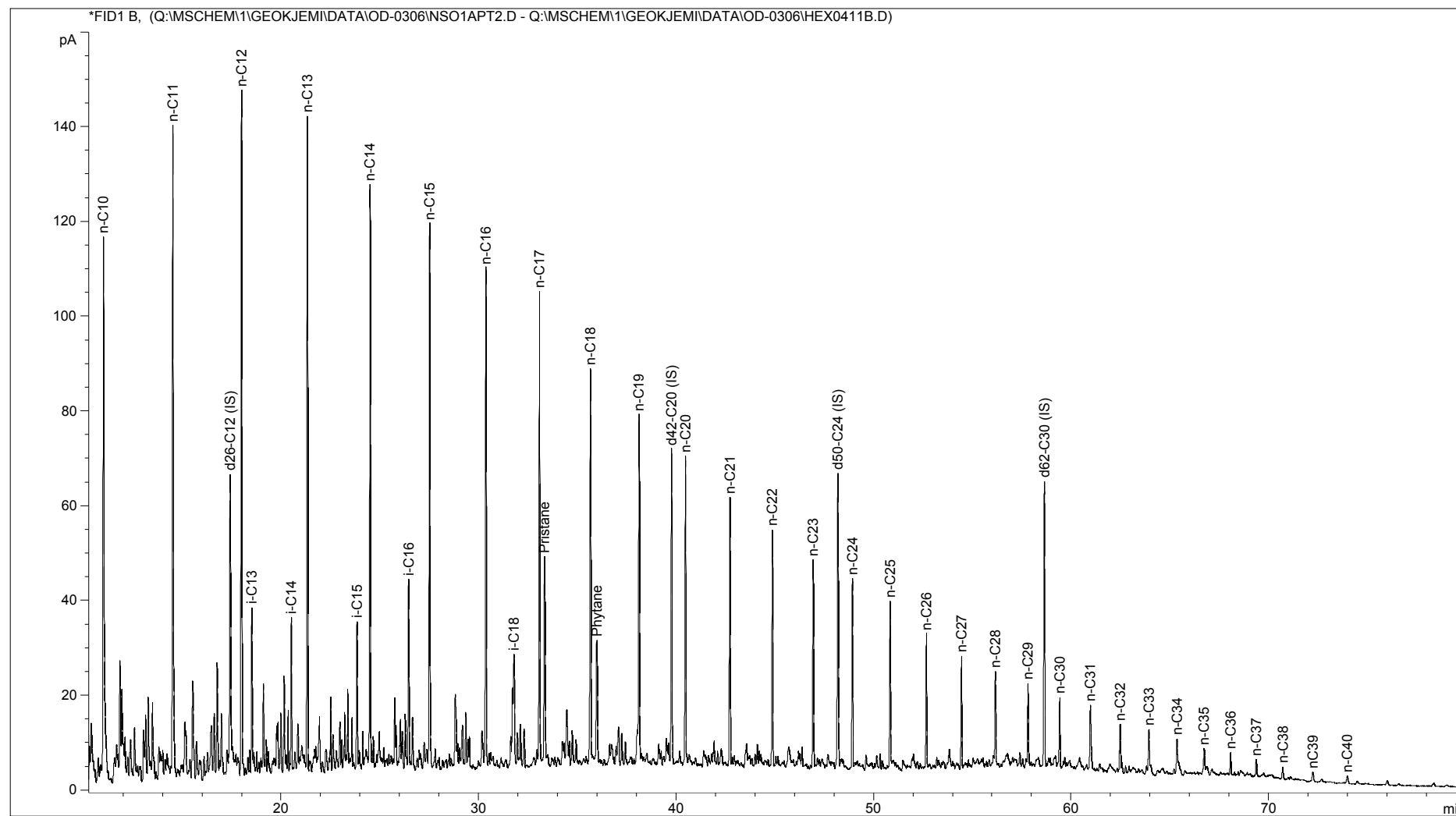
I0254, 7830/5-U-1, 128.62 - 128.68 m, COCH, Clyst (vdkgy, lam), SAT GC



JR-1, NGS reference sample, SAT GC

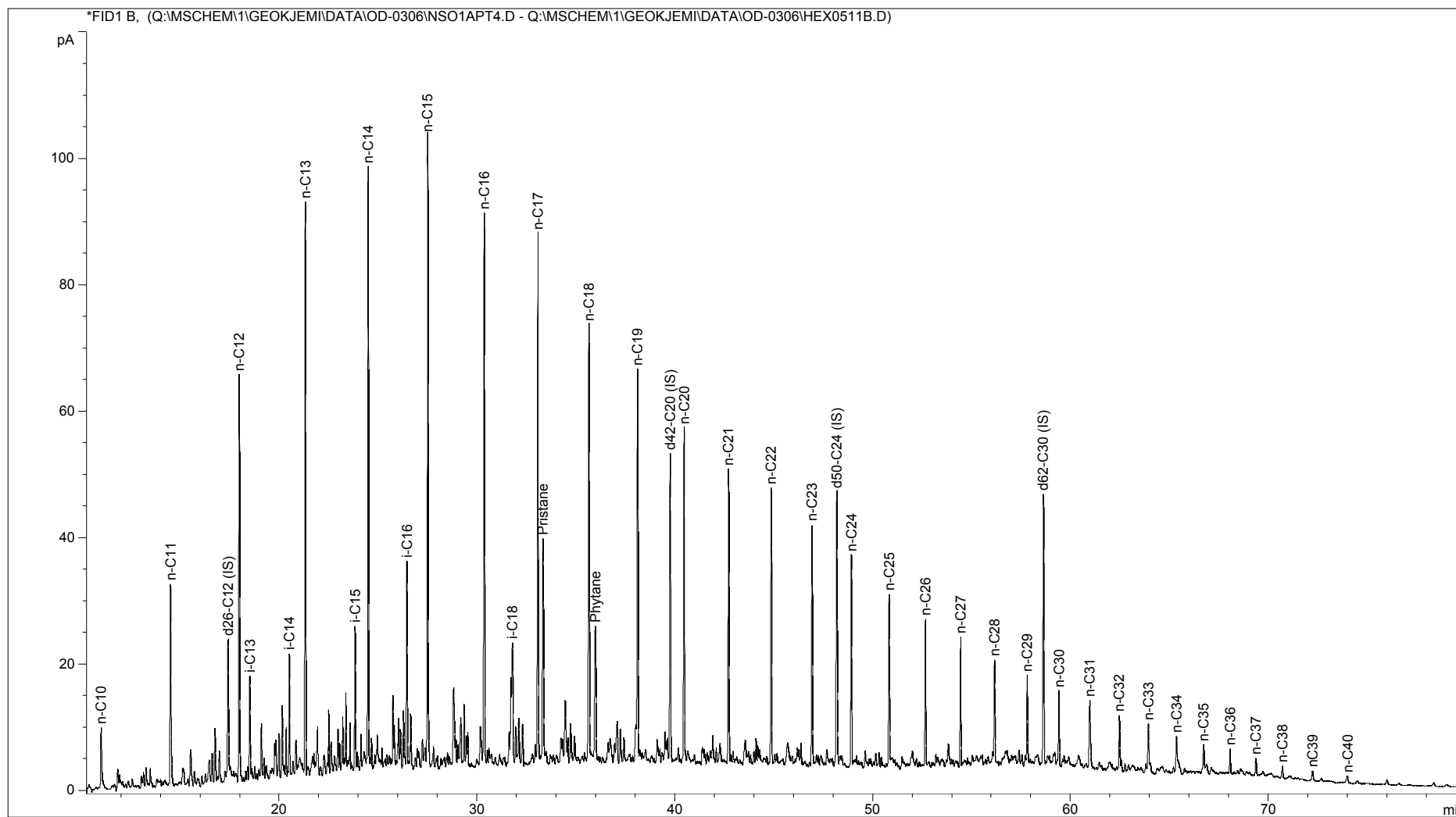


NSO-1, #0, NGS reference oil, SAT GC



NSO-1, #1, NGS reference oil, SAT GC

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NSO-1, #2, NGS reference oil, SAT GC

Figure 8***GC-MSD mass fragmentograms of saturated hydrocarbons.******(m/z 177, 191, 205, 217, 218, 231, 232, 259, 253)***

Peak labels
DEMETHYLATED TRITERPANES (m/z 177)

Label	Name	Footnotes
25nor28 $\alpha\beta$	17 α (H), 21 β (H)-25,28,30-trisnorhopane	
25nor29 $\alpha\beta$	17 α (H), 21 β (H)-25,30-bisnorhopane	
25nor30 $\alpha\beta$	17 α (H), 21 β (H)-25-norhopane	
25nor31 $\alpha\beta$ R	17 α (H), 21 β (H), 22(R)-25-norhomohopane	
30nor32 $\alpha\beta$	17 α (H), 21 β (H)-30-norbishomohopane	

DI- and TRITERPANES (m/z 191)

Label	Name	Footnotes
20/3	C ₂₀ H ₃₆ tricyclic terpane	
21/3	C ₂₁ H ₃₈ tricyclic terpane	
23/3	C ₂₃ H ₄₂ tricyclic terpane	
24/3	C ₂₄ H ₄₄ tricyclic terpane	
25/3R	C ₂₅ H ₄₆ tricyclic terpane	1
25/3S	C ₂₅ H ₄₆ tricyclic terpane	1
24/4	C ₂₄ H ₄₂ tetracyclic terpane	
26/3R	C ₂₆ H ₄₈ tricyclic terpane	1
26/3S	C ₂₆ H ₄₈ tricyclic terpane	1
28/3R	C ₂₈ H ₅₂ tricyclic terpane	1
28/3S	C ₂₈ H ₅₂ tricyclic terpane	1
29/3R	C ₂₉ H ₅₄ tricyclic terpane	1
29/3S	C ₂₉ H ₅₄ tricyclic terpane	1
30/3R	C ₃₀ H ₅₆ tricyclic terpane	1
30/3S	C ₃₀ H ₅₆ tricyclic terpane	1
27Ts	18 α (H)-22,29,30-trisnorneohopane	
25nor28 $\alpha\beta$	17 α (H), 21 β (H)-25,28,30-trisnorhopane	
27Tm	17 α (H)-22,29,30-trisnorhopane	
27 β	17 β (H)-22,29,30-trisnorhopane	
28 $\alpha\beta$	17 α (H), 21 β (H)-28,30-bisnorhopane	
25nor30 $\alpha\beta$	17 α (H), 21 β (H)-25-norhopane	
29 $\alpha\beta$	17 α (H), 21 β (H)-30-norhopane	
29Ts	18 α (H)-30-norneohopane	
30d	15 α -methyl-17 α (H)-27-norhopane (diahopane)	
29 $\beta\alpha$	17 β (H), 21 α (H)-30-norhopane (normoretane)	5
30O	18 α (H)-oleanane	
30 $\alpha\beta$	17 α (H), 21 β (H)-hopane	
29 $\beta\beta$	17 β (H), 21 β (H)-norhopane	
30G	gammacerane	
30 $\beta\alpha$	17 β (H), 21 α (H)-hopane (moretane)	
31 $\alpha\beta$ S	17 α (H), 21 β (H), 22(S)-homohopane	
31 $\alpha\beta$ R	17 α (H), 21 β (H), 22(R)-homohopane	
30 $\beta\beta$	17 β (H), 21 β (H)-hopane	
31 $\beta\alpha$	17 β (H), 21 α (H)-homohopane	
32 $\alpha\beta$ S	17 α (H), 21 β (H), 22(S)-bishomohopane	
32 $\alpha\beta$ R	17 α (H), 21 β (H), 22(R)-bishomohopane	
32 $\beta\alpha$	17 β (H), 21 α (H)-bishomohopane	
33 $\alpha\beta$ S	17 α (H), 21 β (H), 22(S)-trishomohopane	
33 $\alpha\beta$ R	17 α (H), 21 β (H), 22(R)-trishomohopane	
34 $\alpha\beta$ S	17 α (H), 21 β (H), 22(S)-tetrakishomohopane	
34 $\alpha\beta$ R	17 α (H), 21 β (H), 22(R)-tetrakishomohopane	
35 $\alpha\beta$ S	17 α (H), 21 β (H), 22(S)-pentakishomohopane	
35 $\alpha\beta$ R	17 α (H), 21 β (H), 22(R)-pentakishomohopane	
30D13	C ₃₀ H ₅₄ $\Delta^{13(18)}$ -hopene	

Footnotes regarding di- and triterpanes:

- The elution order of the 22R- and 22S-isomers of the tricyclic diterpanes still appears to be uncertain. In this report it is assumed that 22R elutes before 22S on non-polar columns.
- 29 $\beta\alpha$ may co-elute with at least two other compounds, depending on column polarity.

STERANES (m/z 217)

Label	Name	Footnotes
21 α (21 $\alpha\alpha$)	5 α (H), 14 α (H), 17 α (H)-pregnane	
21 β (21 $\beta\beta$)	5 α (H), 14 β (H), 17 β (H)-pregnane	
22 α (22 $\alpha\alpha$)	5 α (H), 14 α (H), 17 α (H)-methylpregnane	
22 β (22 $\beta\beta$)	5 α (H), 14 β (H), 17 β (H)-methylpregnane	
27d β S	13 β (H), 17 α (H), 20(S)-cholestane (diasterane)	
27d β R	13 β (H), 17 α (H), 20(R)-cholestane (diasterane)	
27d α R	13 α (H), 17 β (H), 20(R)-cholestane (diasterane)	
27d α S	13 α (H), 17 β (H), 20(S)-cholestane (diasterane)	8
27 $\alpha\alpha$ S	5 α (H), 14 α (H), 17 α (H), 20(S)-cholestane	6
27 $\beta\beta$ R	5 α (H), 14 β (H), 17 β (H), 20(R)-cholestane	7
27 $\beta\beta$ S	5 α (H), 14 β (H), 17 β (H), 20(S)-cholestane	8
27 $\alpha\alpha$ R	5 α (H), 14 α (H), 17 α (H), 20(R)-cholestane	
28d β S	24-methyl-13 β (H), 17 α (H), 20(S)-cholestane (diasterane)	
28d β R	24-methyl-13 β (H), 17 α (H), 20(R)-cholestane (diasterane)	10
28d α R	24-methyl-13 α (H), 17 β (H), 20(R)-cholestane (diasterane)	6
28d α S	24-methyl-13 α (H), 17 β (H), 20(S)-cholestane (diasterane)	
28 $\alpha\alpha$ S	24-methyl-5 α (H), 14 α (H), 17 α (H), 20(S)-cholestane	
28 $\beta\beta$ R	24-methyl-5 α (H), 14 β (H), 17 β (H), 20(R)-cholestane	9
28 $\beta\beta$ S	24-methyl-5 α (H), 14 β (H), 17 β (H), 20(S)-cholestane	
28 $\alpha\alpha$ R	24-methyl-5 α (H), 14 α (H), 17 α (H), 20(R)-cholestane	
29d β S	24-ethyl-13 β (H), 17 α (H), 20(S)-cholestane (diasterane)	7
29d β R	24-ethyl-13 β (H), 17 α (H), 20(R)-cholestane (diasterane)	
29d α R	24-ethyl-13 α (H), 17 β (H), 20(R)-cholestane (diasterane)	
29d α S	24-ethyl-13 α (H), 17 β (H), 20(S)-cholestane (diasterane)	9
29 $\alpha\alpha$ S	24-ethyl-5 α (H), 14 α (H), 17 α (H), 20(S)-cholestane	
29 $\beta\beta$ R	24-ethyl-5 α (H), 14 β (H), 17 β (H), 20(R)-cholestane	
29 $\beta\beta$ S	24-ethyl-5 α (H), 14 β (H), 17 β (H), 20(S)-cholestane	
29 $\alpha\alpha$ R	24-ethyl-5 α (H), 14 α (H), 17 α (H), 20(R)-cholestane	
30 $\alpha\alpha$ S	24-propyl-5 α (H), 14 α (H), 17 α (H), 20(S)-cholestane	
30 $\beta\beta$ R	24-propyl-5 α (H), 14 β (H), 17 β (H), 20(R)-cholestane	
30 $\beta\beta$ S	24-propyl-5 α (H), 14 β (H), 17 β (H), 20(S)-cholestane	
30 $\alpha\alpha$ R	24-propyl-5 α (H), 14 α (H), 17 α (H), 20(R)-cholestane	
M28 $\alpha\alpha$	4-methyl-14 α (H), 17 α (H)-cholestanes	11
M29 $\alpha\alpha$	4,24-dimethyl-14 α (H), 17 α (H)-cholestanes	12
M30 $\alpha\alpha$	4-methyl-24-ethyl-14 α (H), 17 α (H)-cholestanes	12
M30D	4,23,24-trimethyl-14 α (H), 17 α (H)-cholestanes (dinosteranes)	13

STERANES (m/z 218)

Label	Name	Footnotes
27 $\beta\beta$ R	5 α (H), 14 β (H), 17 β (H), 20(R)-cholestane	
27 $\beta\beta$ S	5 α (H), 14 β (H), 17 β (H), 20(S)-cholestane	
28 $\beta\beta$ R	24-methyl-5 α (H), 14 β (H), 17 β (H), 20(R)-cholestane	
28 $\beta\beta$ S	24-methyl-5 α (H), 14 β (H), 17 β (H), 20(S)-cholestane	
29 $\beta\beta$ R	24-ethyl-5 α (H), 14 β (H), 17 β (H), 20(R)-cholestane	
29 $\beta\beta$ S	24-ethyl-5 α (H), 14 β (H), 17 β (H), 20(S)-cholestane	
30 $\beta\beta$ R	24-propyl-5 α (H), 14 β (H), 17 β (H), 20(R)-cholestane	
30 $\beta\beta$ S	24-propyl-5 α (H), 14 β (H), 17 β (H), 20(S)-cholestane	

Footnotes regarding steranes:

- | | |
|------------|---|
| 6, 7, 8, 9 | Pairs of coeluting compounds. |
| 10 | Occurs as 24S/24R doublet. |
| 11 | Various possible isomers at 4,5,20 positions. |
| 12 | Various possible isomers at 4,5,20,24 positions. |
| 13 | Various possible isomers at 4,5,20,23,24 positions. |

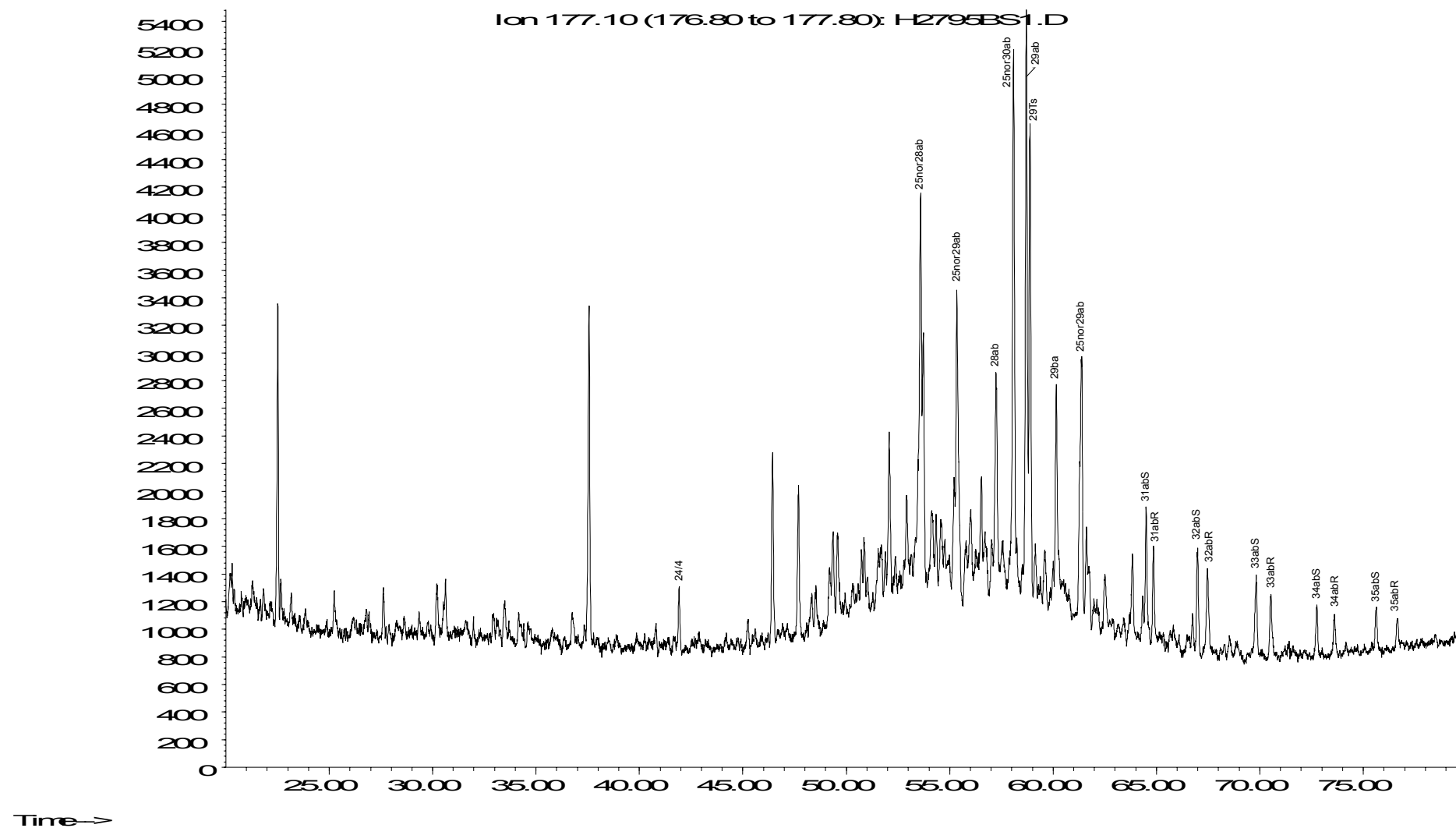
Other remarks:

Deuterated n-alkanes (internal standards for SAT GC-FID) appear as major peaks in m/z 177 and m/z 191 (RT ~44 and ~65 min.). The last eluting of these compounds interferes with 29 $\alpha\beta$ in m/z 191.

29 $\beta\beta$ in m/z 191 coelutes with 30 $\alpha\alpha$ R in m/z 217 (RT ~68 min.)

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Abundance

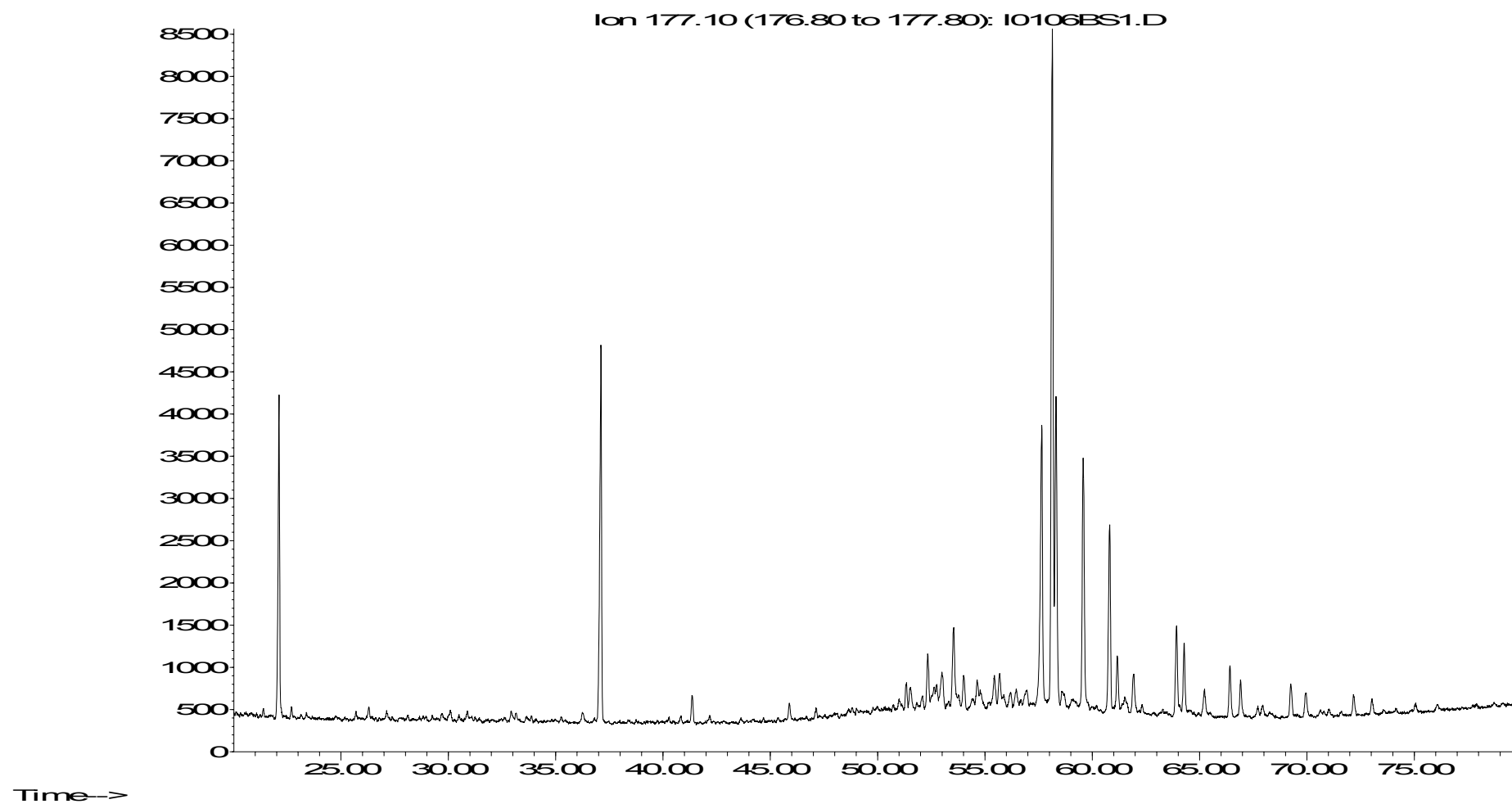


Peak identification, NSO-1, SAT GCMSD

Terpanes (m/z 177)

- 242 -

Abundance

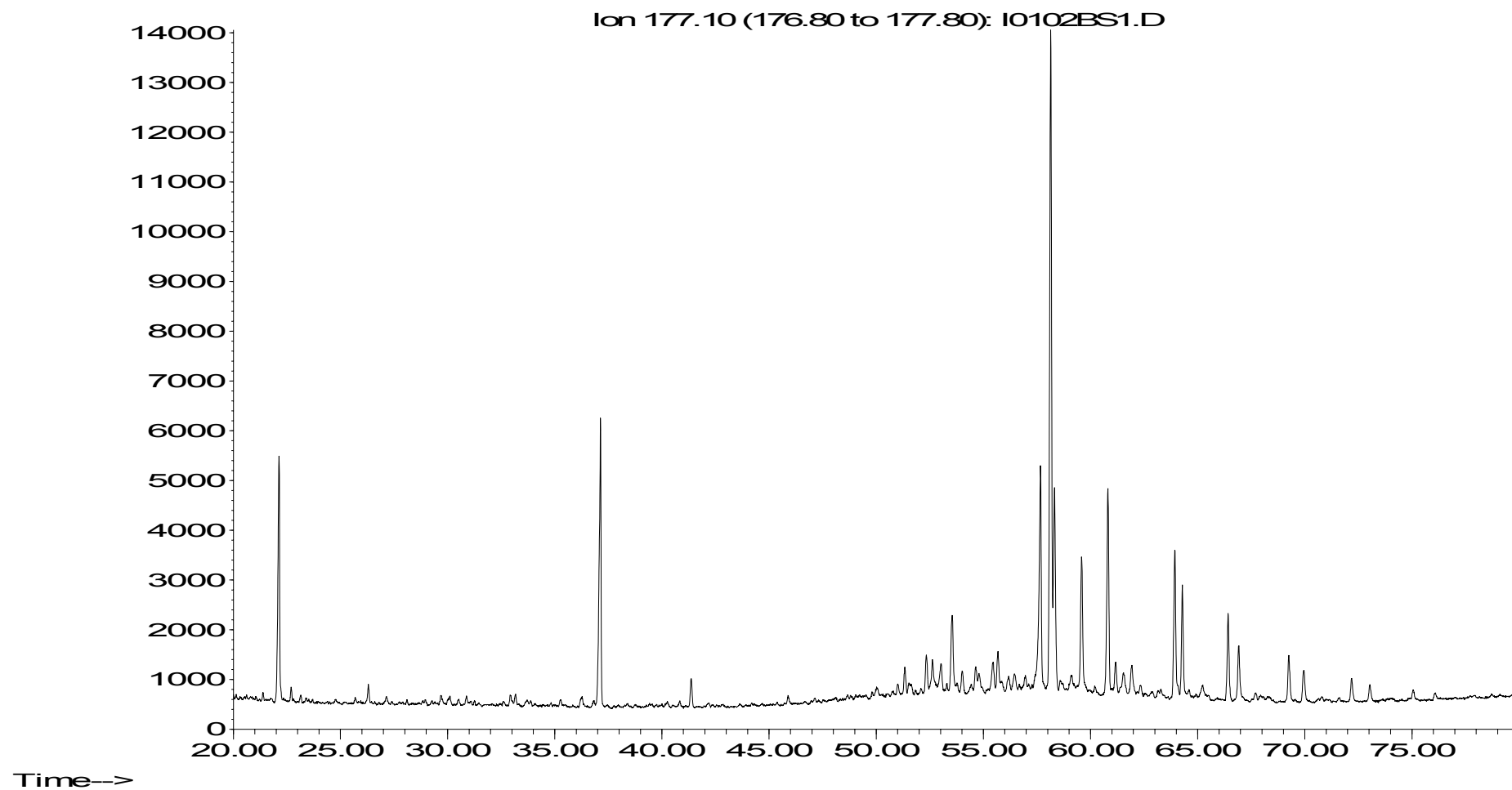


I0106, 7831/2-U-2, 6.78 - 6.83 m, COCH, Clyst (slty, dkgy), SAT GCMSD

Terpanes (m/z 177)

- 243 -

Abundance

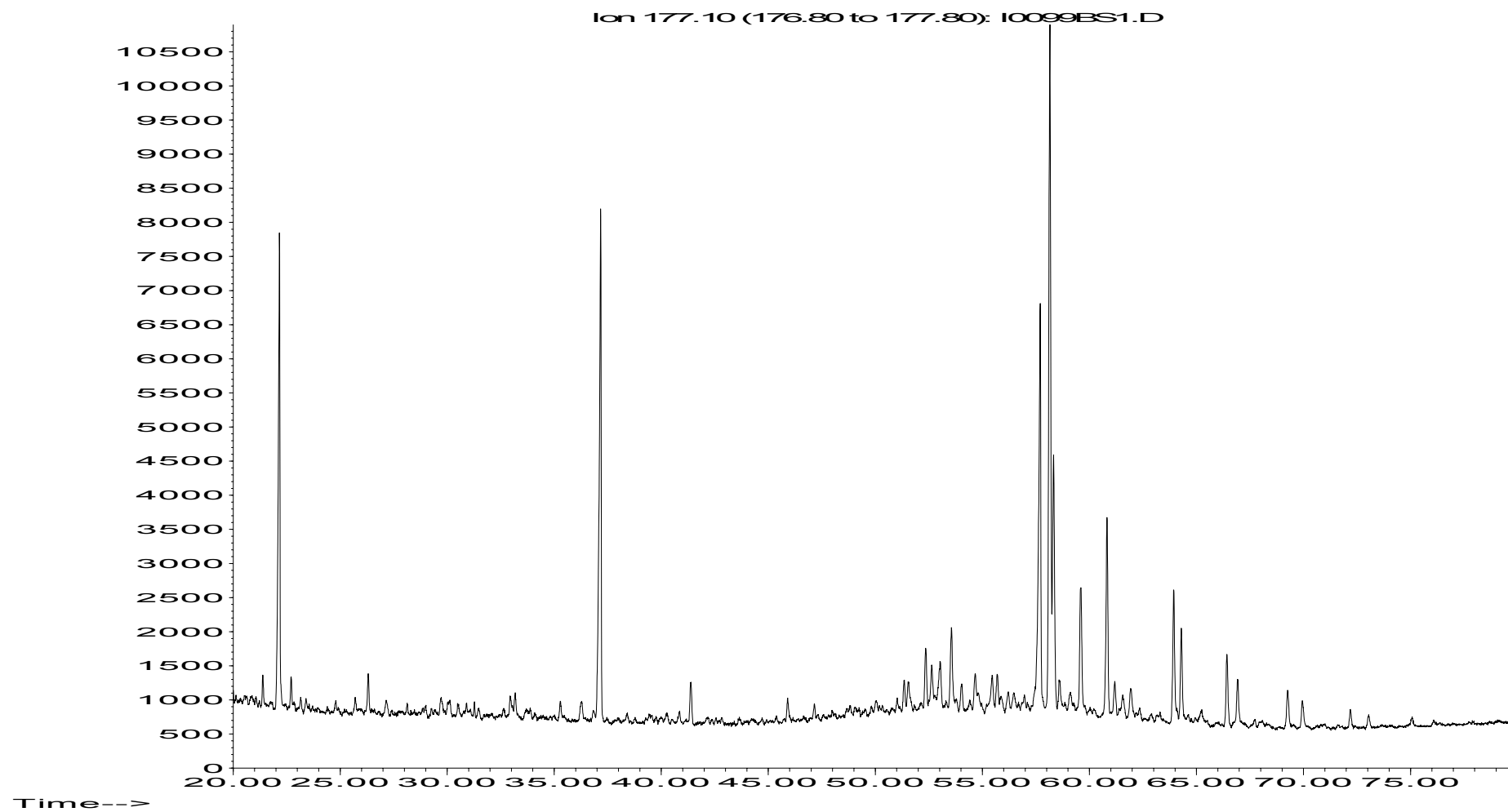


I0102, 7831/2-U-2, 10.23 - 10.28 m, COCH, Cyst (slty, mgy), SAT GCMSD

Terpanes (m/z 177)

- 244 -

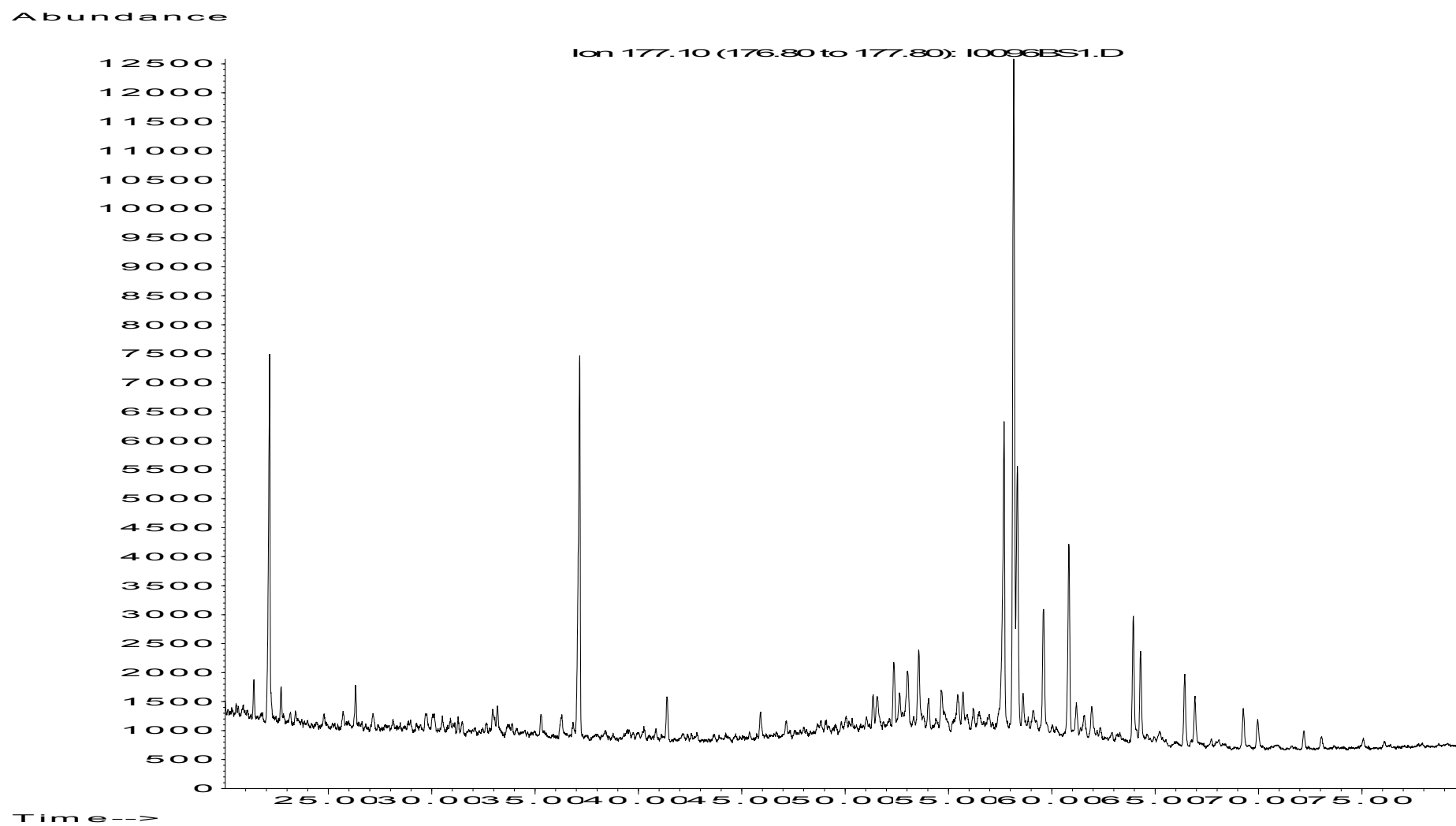
Abundance



I0099, 7831/2-U-2, 14.48 - 14.53 m, COCH, Clyst (sly, dkgy), SAT GCMSD

Terpanes (m/z 177)

- 245 -

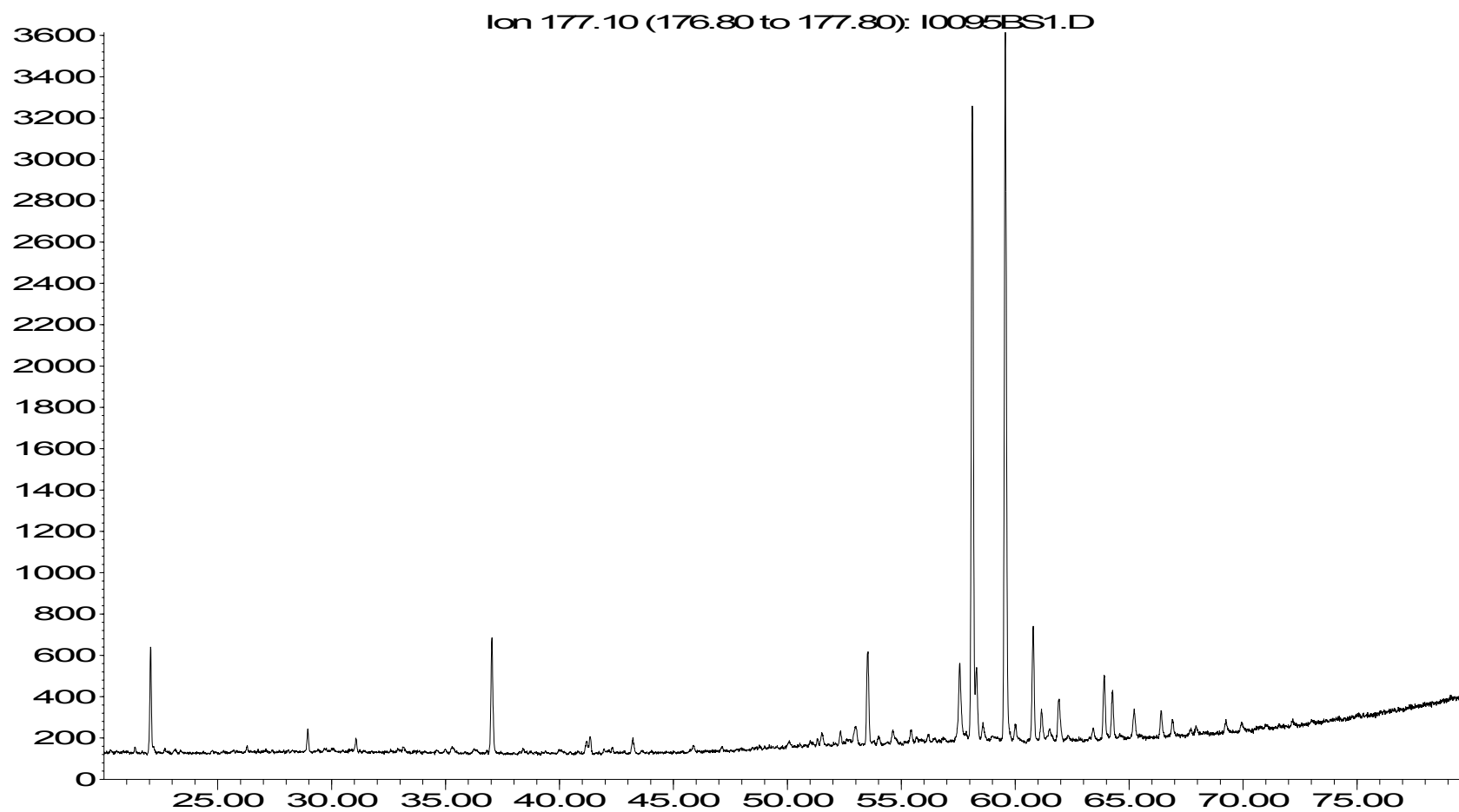


I0096, 7831/2-U-2, 17.83 - 17.87 m, COCH, Cylst (slyt, dkgy), SAT GCMSD

Terpanes (m/z 177)

- 246 -

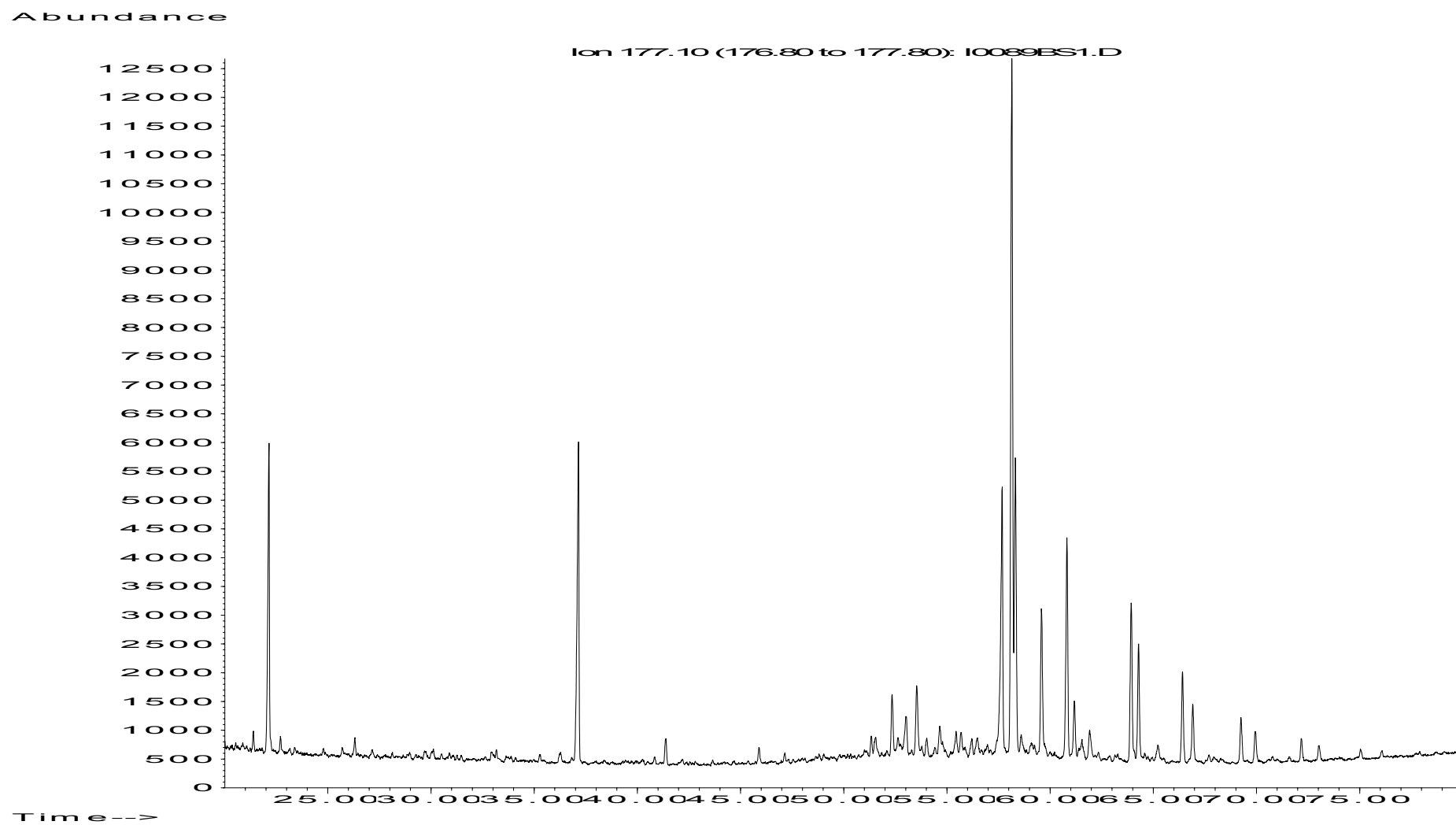
Abundance



I0095, 7831/2-U-2, 18.72 - 18.85 m, COCH, Cyst (slty, dkgy), SAT GCMSD

Terpanes (m/z 177)

- 247 -



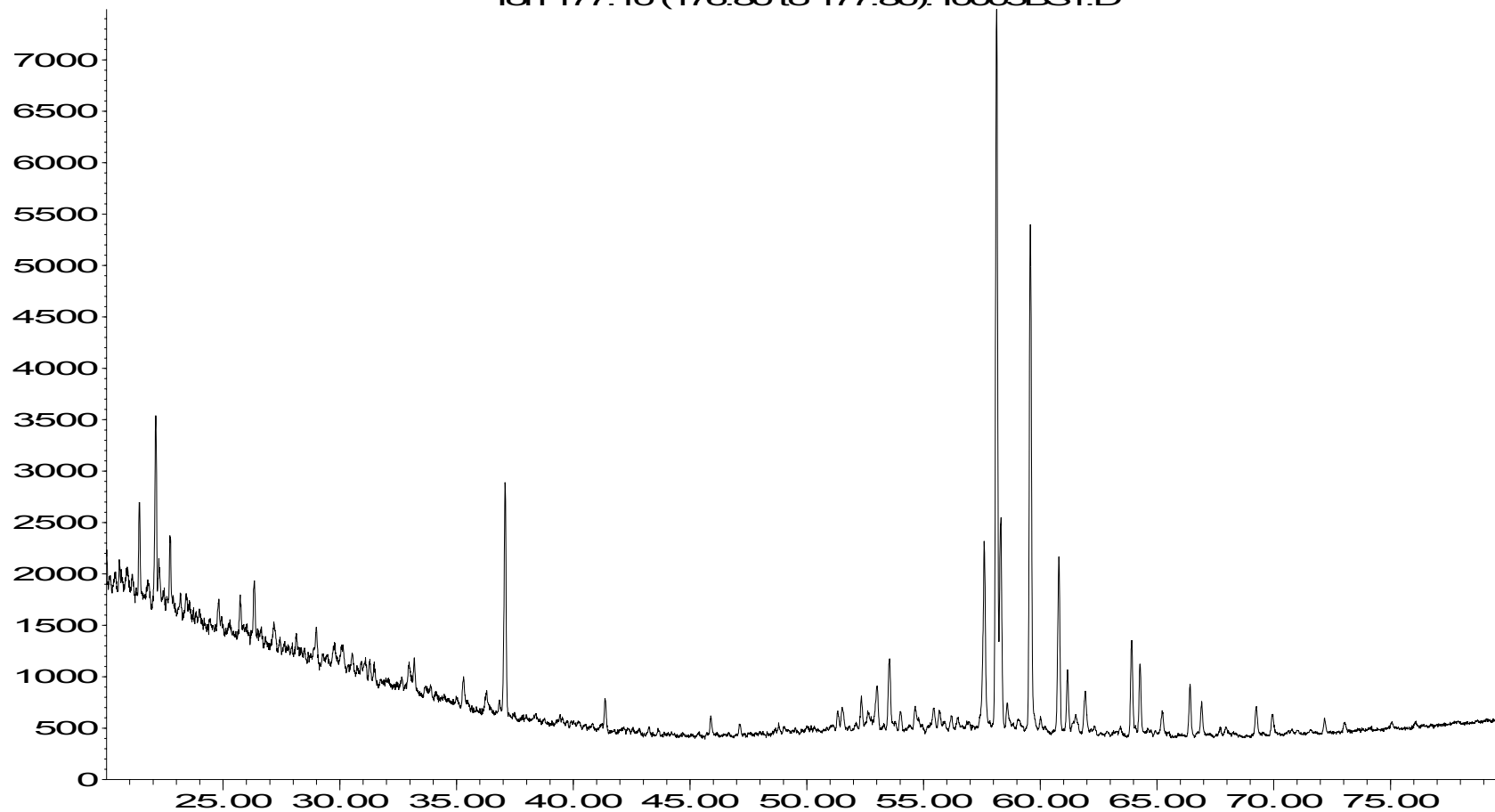
I0089, 7831/2-U-1, 21.72 - 21.76 m, COCH, Cyst (dkgy), SAT GCMSD

Terpanes (m/z 177)

- 248 -

Abundance

Ion 177.10 (176.80 to 177.80): I0005BS1.D



Time-->

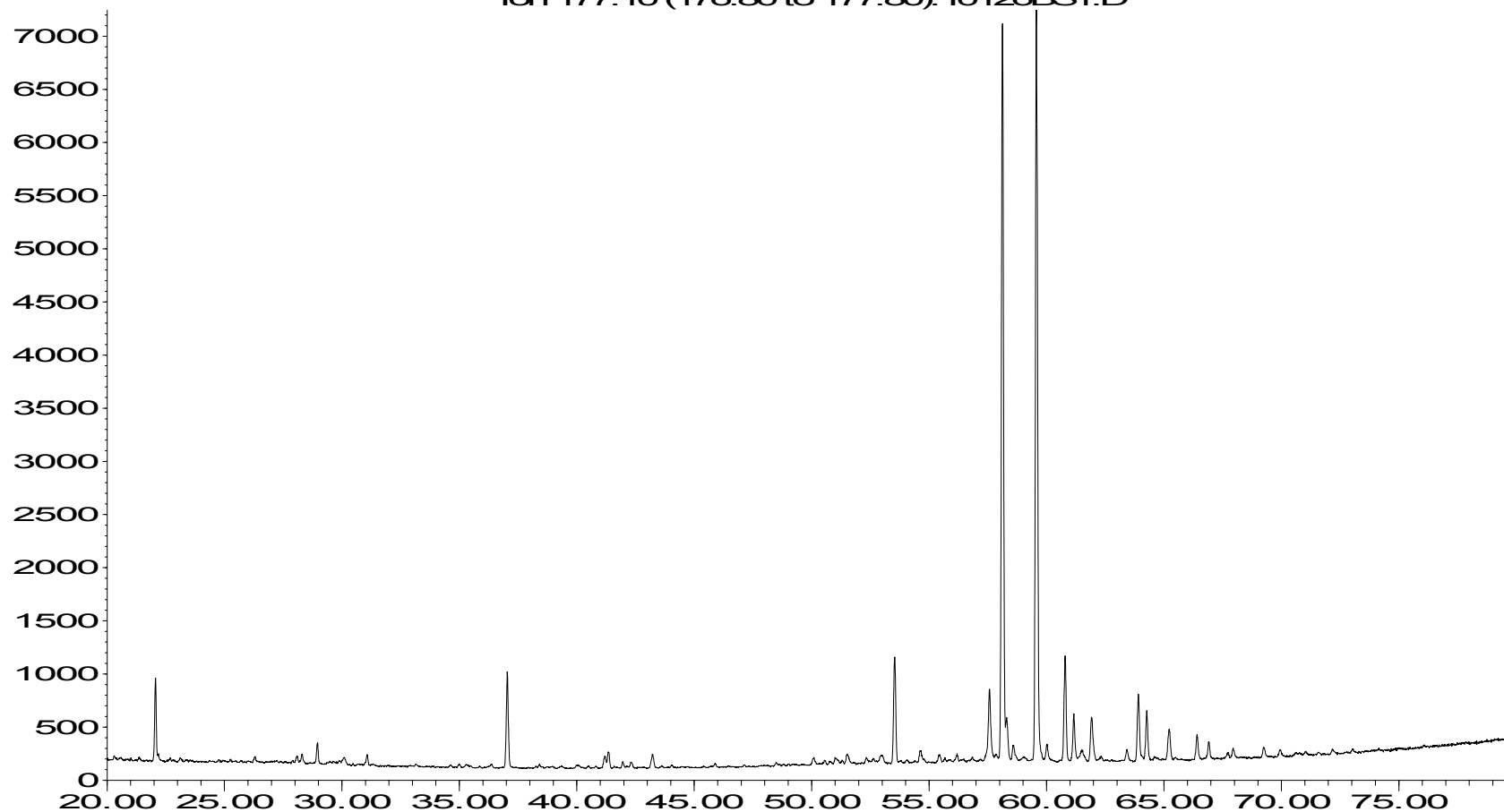
I0005, 7830/6-U-1, 12.85 - 12.88 m, COCH, Slst, SAT GCMSD

Terpanes (m/z 177)

- 249 -

Abundance

Ion 177.10 (176.80 to 177.80): I0126BS1.D



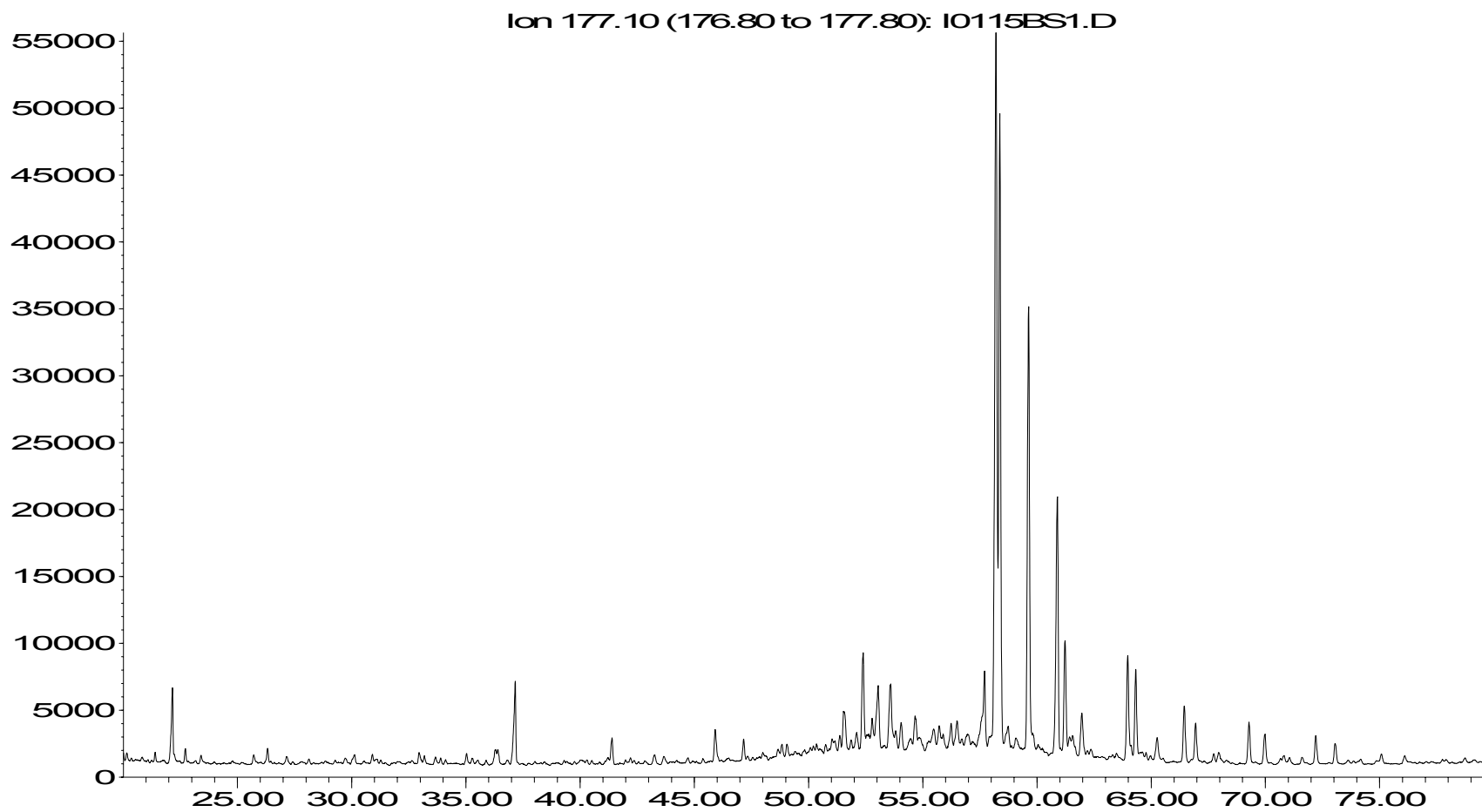
Time-->

I0126, 7830/6-U-1, 20.03 - 20.10 m, COCH, Cyst (sly, lam, dkgy), SAT GCMSD

Terpanes (m/z 177)

- 250 -

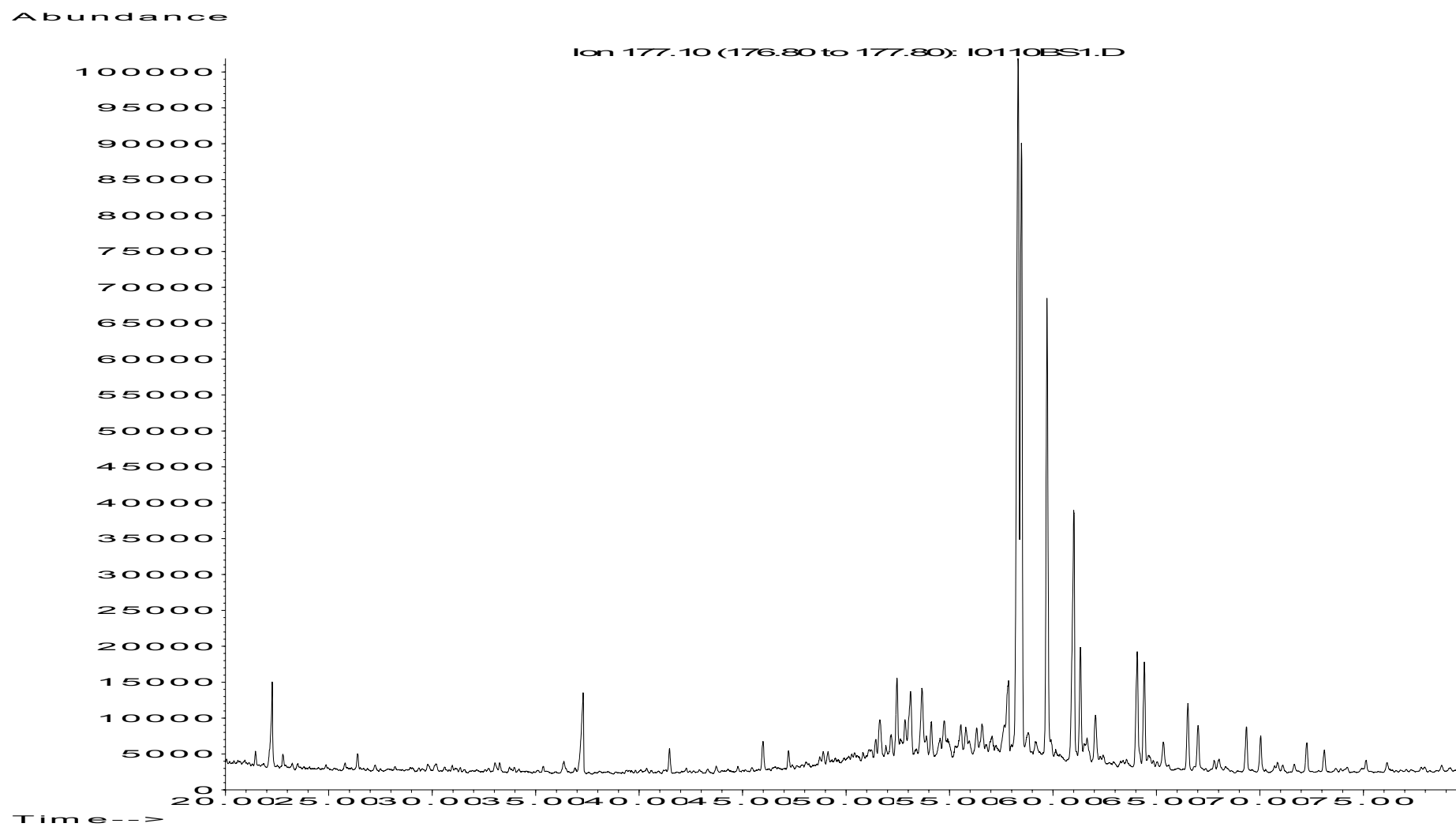
Abundance



I0115, 7830/6-U-1, 41.85 - 41.89 m, COCH, Clyst (dkgy, lam), SAT GCMSD

Terpanes (m/z 177)

- 251 -

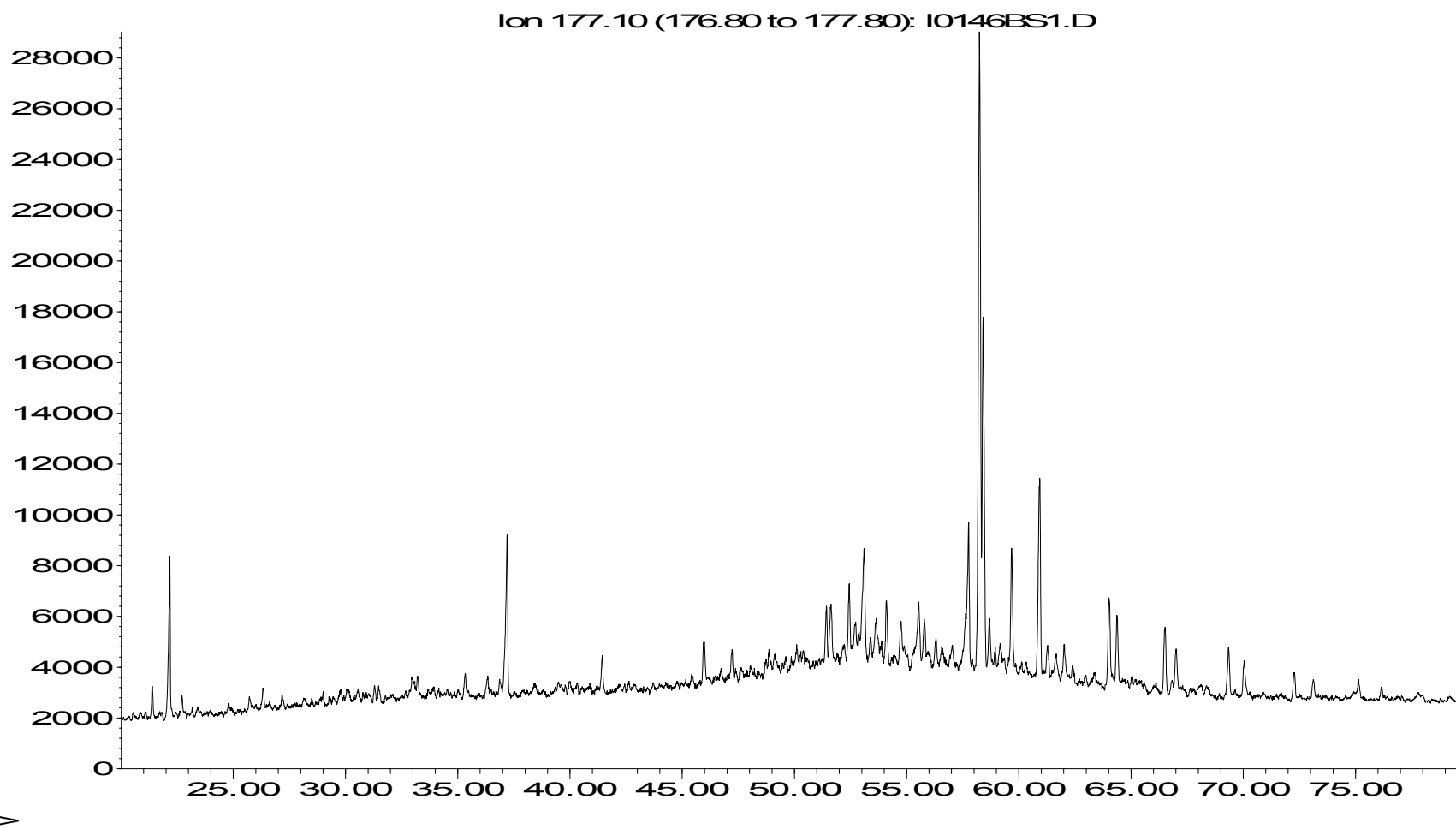


I0110, 7830/6-U-1, 50.90 - 50.93 m, COCH, Clyst (dkgy, lam), SAT GCMSD

Terpanes (m/z 177)

- 252 -

Abundance



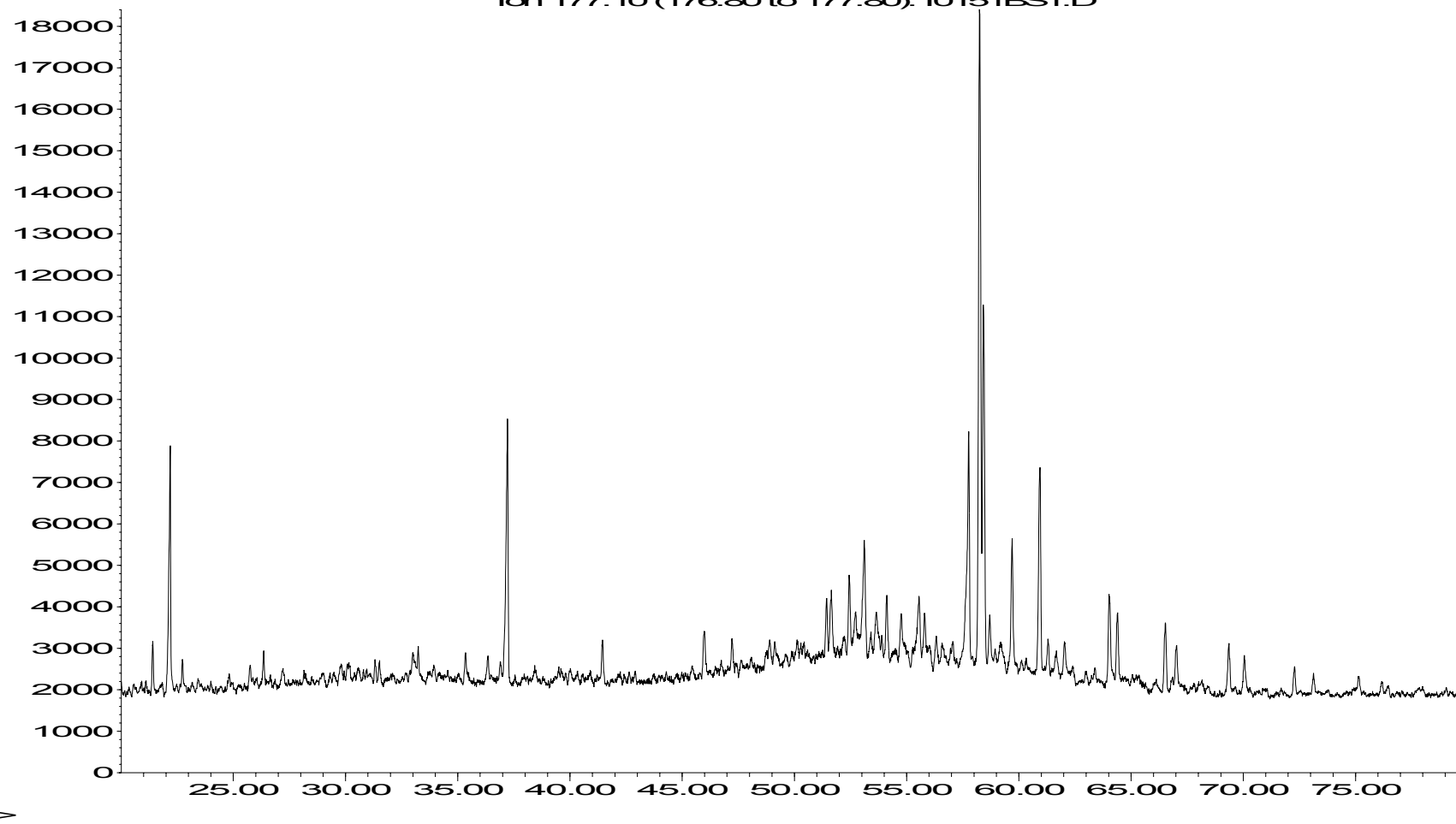
I0146, 7830/3-U-1, 39.94 - 39.99 m, COCH, Sst (mgr, mgy), SAT GCMSD

Terpanes (m/z 177)

- 253 -

Abundance

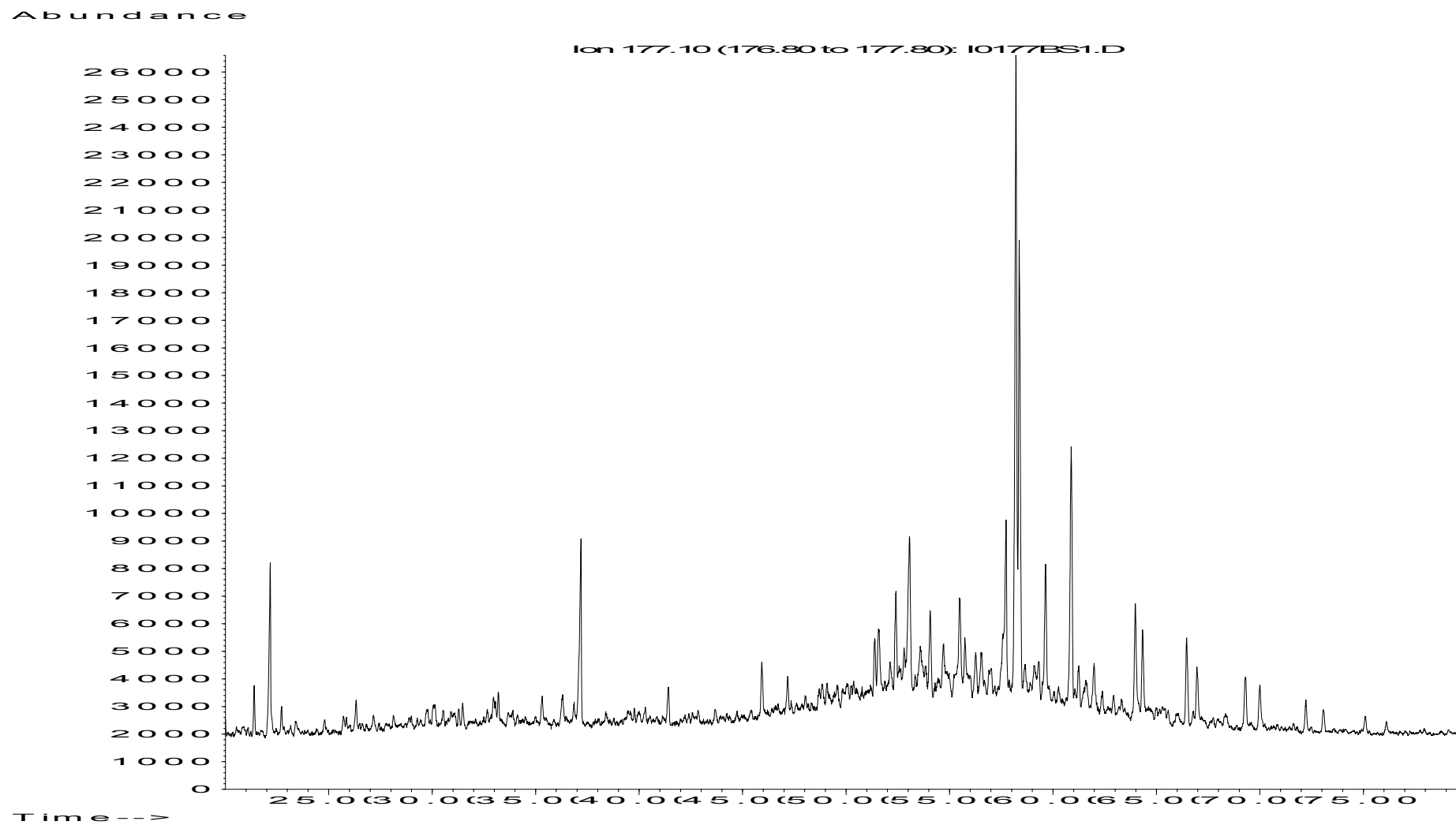
Ion 177.10 (176.80 to 177.80): I0151BS1.D



I0151, 7830/3-U-1, 51.24 m, COPL, Sst (fgr, mgy), SAT GCMSD

Terpanes (m/z 177)

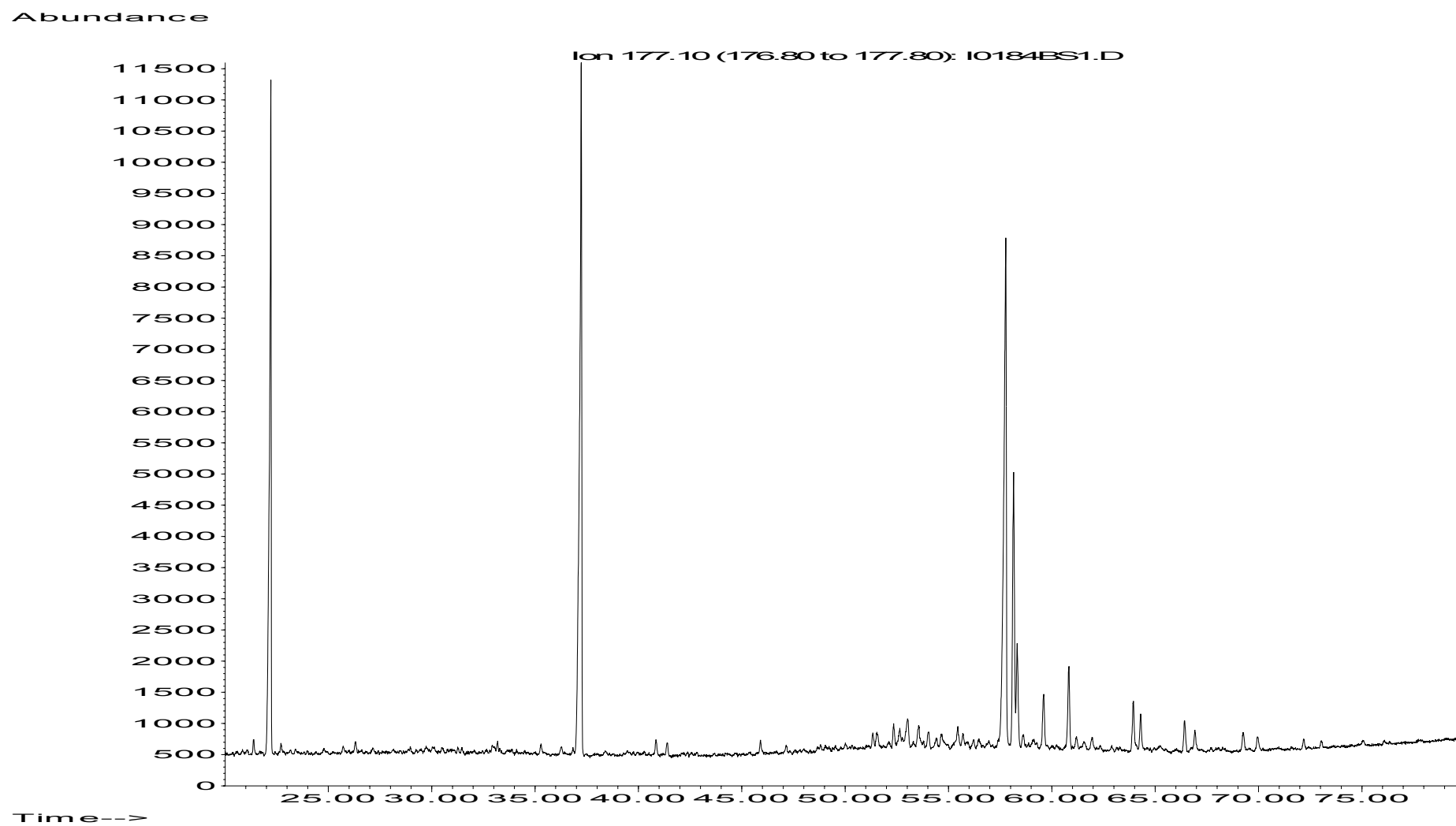
- 254 -



I0177, 7830/3-U-1, 111.69 - 111.75 m, COCH, Sst (fgr, dkgy), SAT GCMSD

Terpanes (m/z 177)

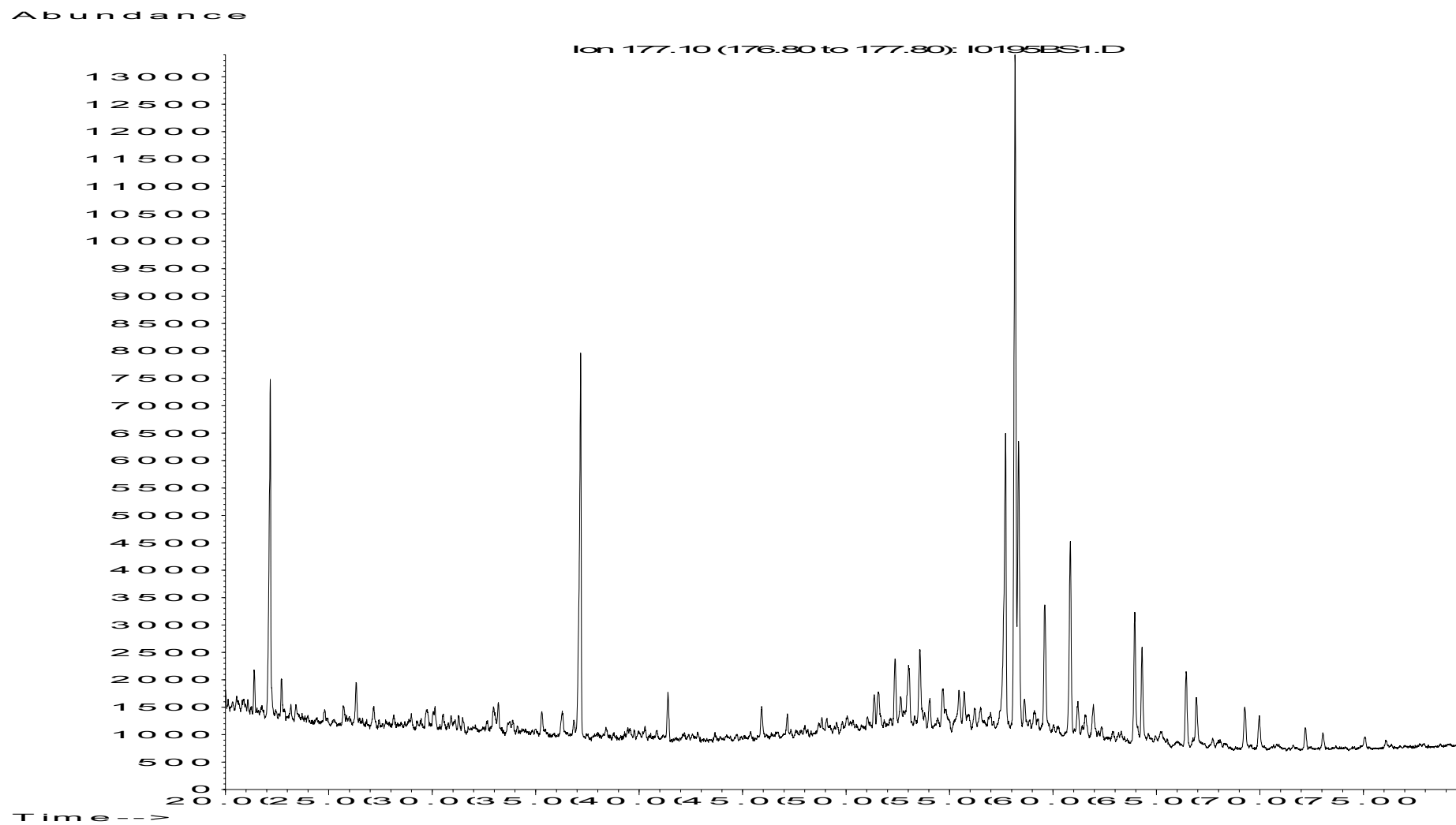
- 255 -



I0184, 7830/3-U-1, 124.63 m, COPL, Sst (fgr, ltgy), SAT GCMSD

Terpanes (m/z 177)

- 256 -



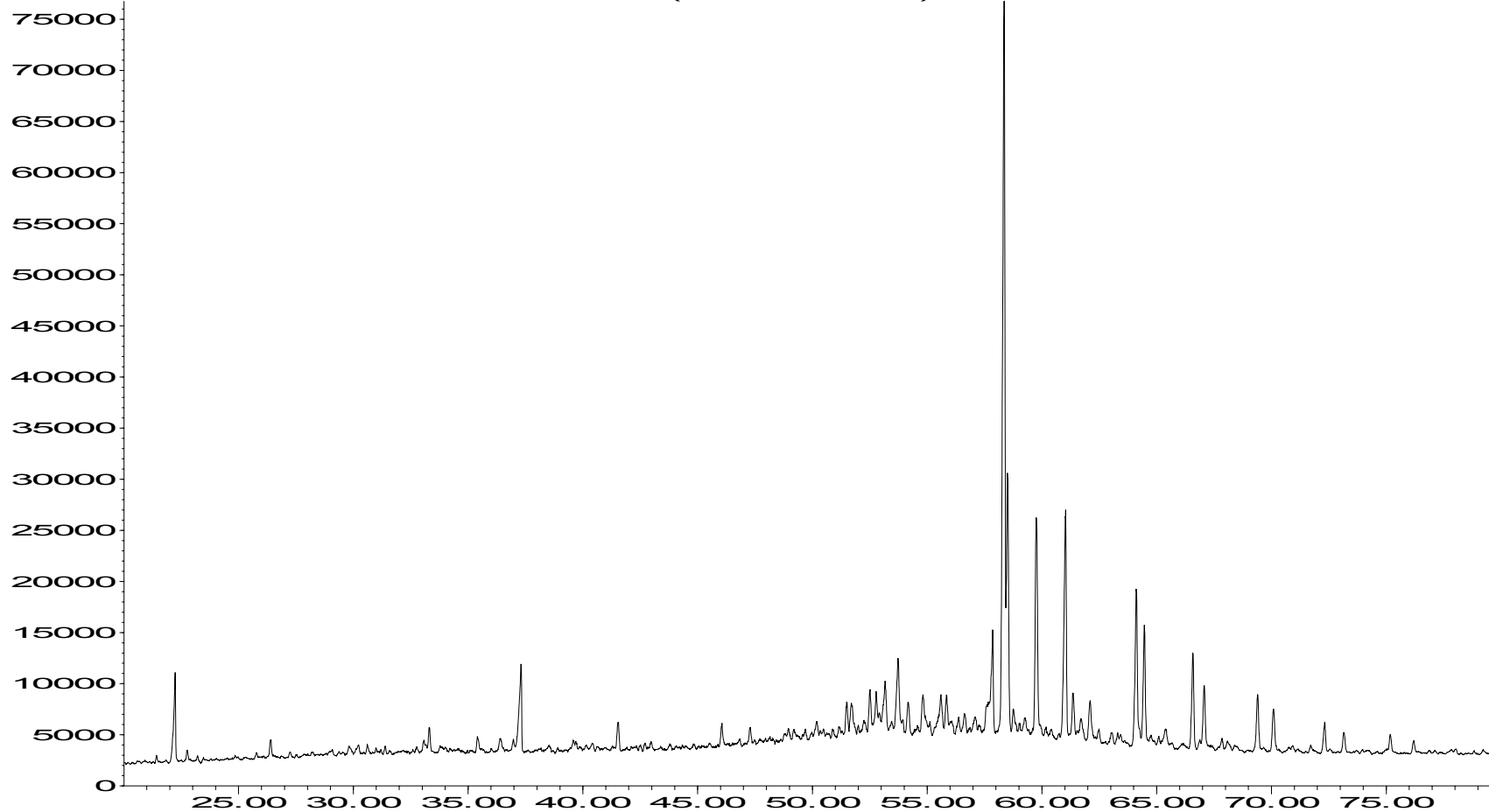
I0195, 7830/3-U-1, 154.81 - 154.88 m, COCH, Clyst (sl slty, ltgy), SAT GCMSD

Terpanes (m/z 177)

- 257 -

Abundance

Ion 177.10 (176.80 to 177.80): I0287BS1.D

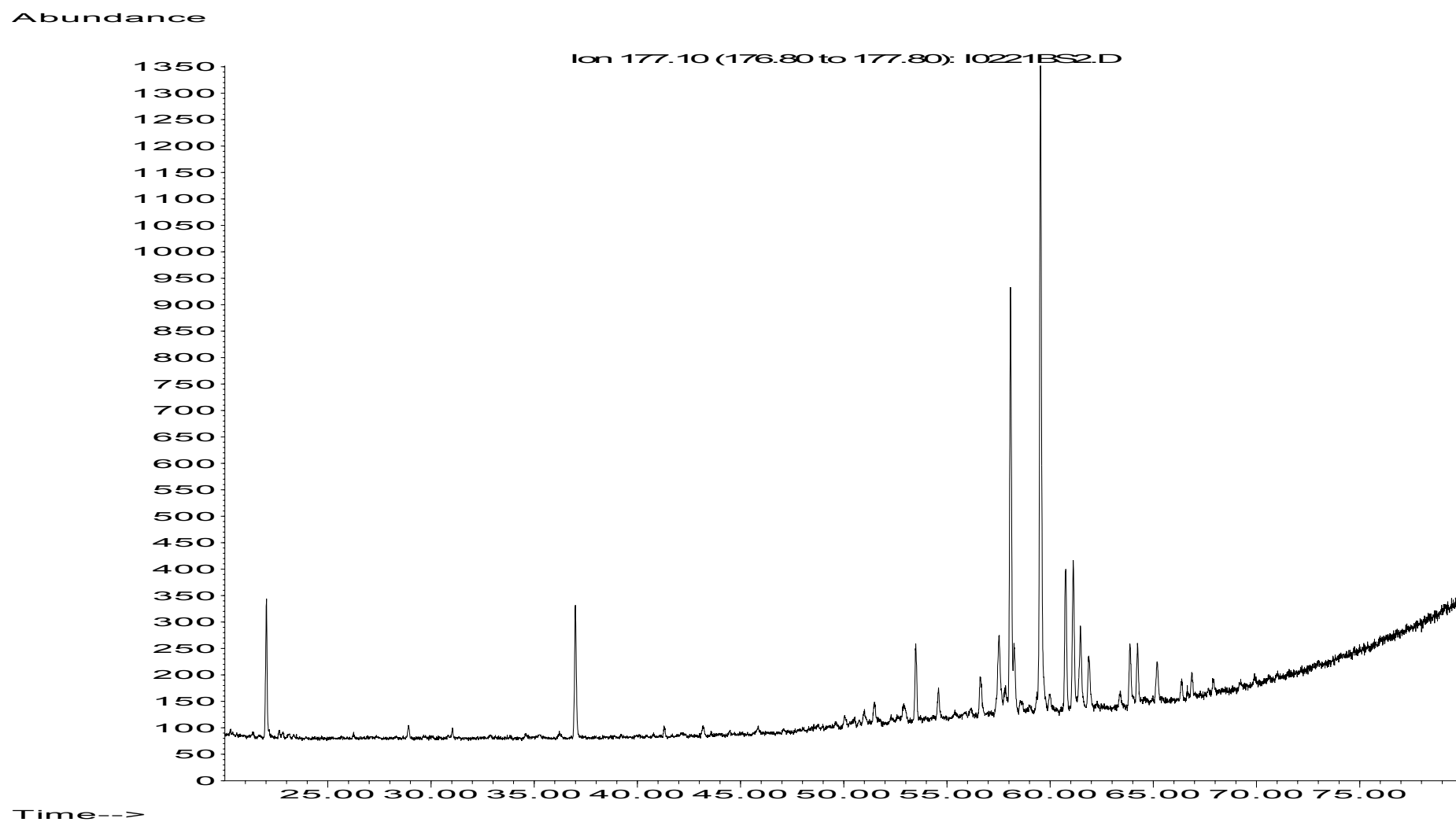


Time-->

I0287, 7830/3-U-1, 174.13 - 174.15 m, COCH, Sst (fgr, mgy), SAT GCMSD

Terpanes (m/z 177)

- 258 -



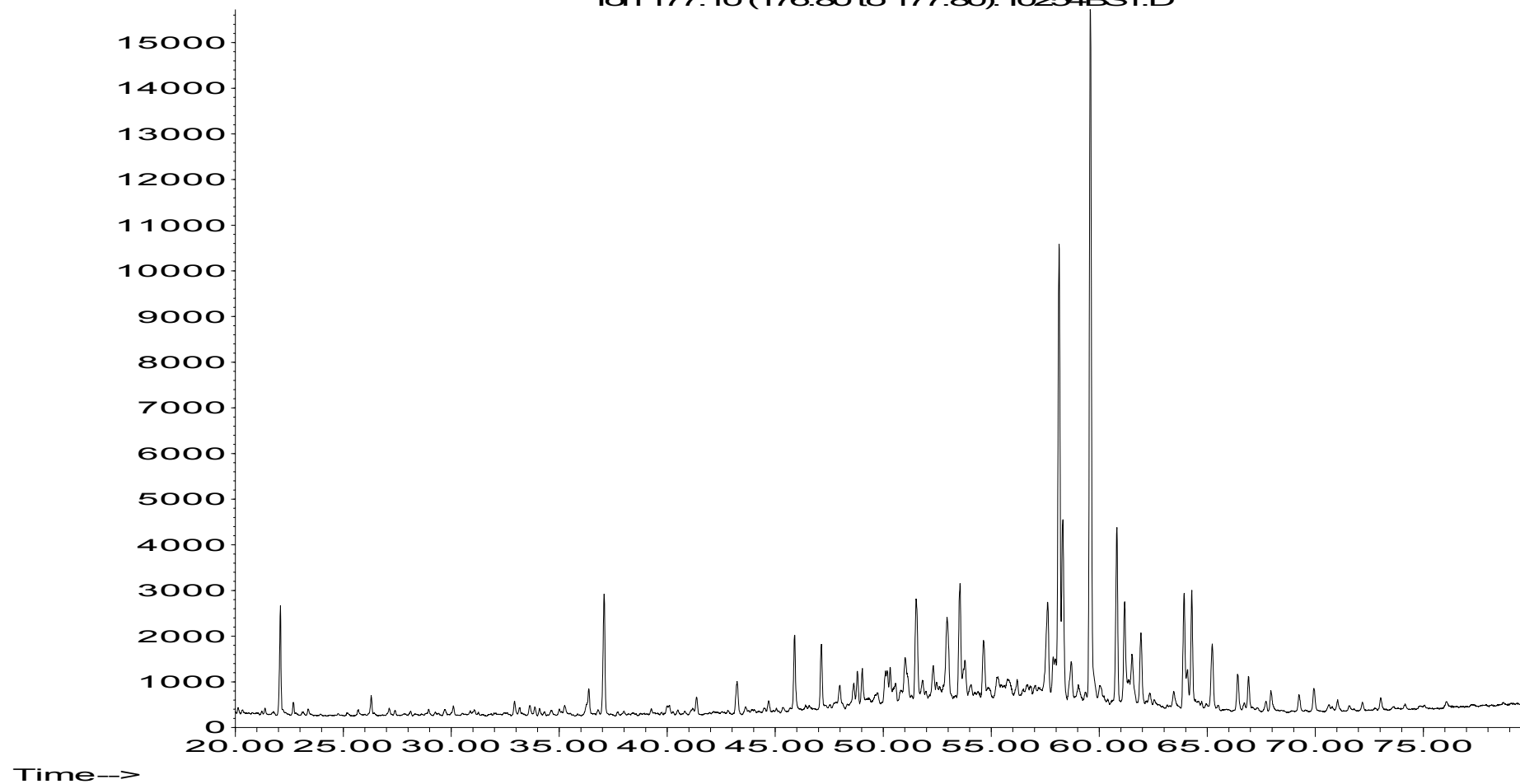
I0221, 7830/5-U-1, 58.90 - 58.97 m, COCH, Clyst (sl slty, lam, dkgy), SAT GCMSD

Terpanes (m/z 177)

- 259 -

Abundance

Ion 177.10 (176.80 to 177.80): I0254BS1.D



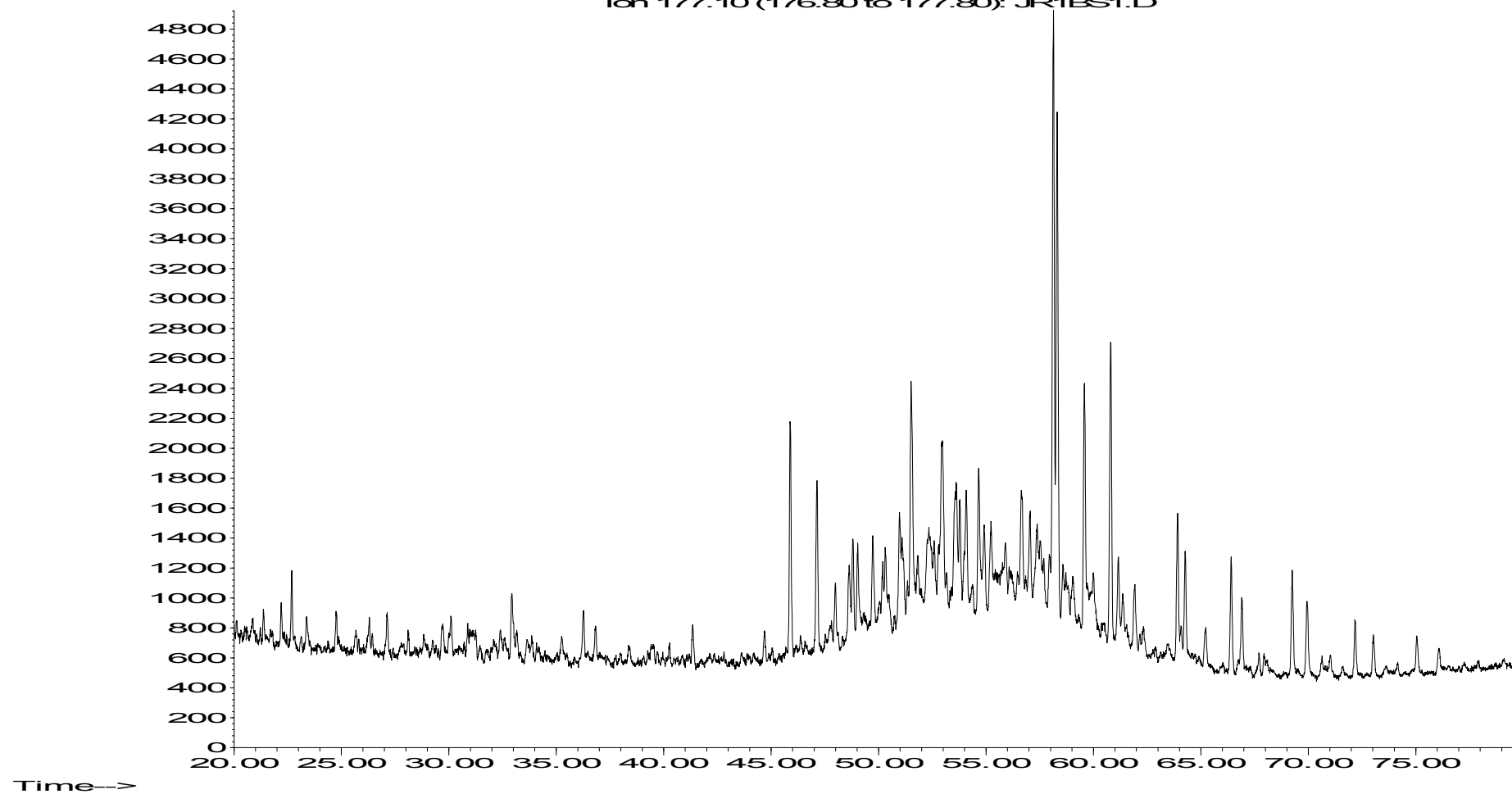
I0254, 7830/5-U-1, 128.62 - 128.68 m, COCH, Clyst (vdkgy, lam), SAT GCMSD

Terpanes (m/z 177)

- 260 -

Abundance

Ion 177.10 (176.80 to 177.80): JR1BS1.D



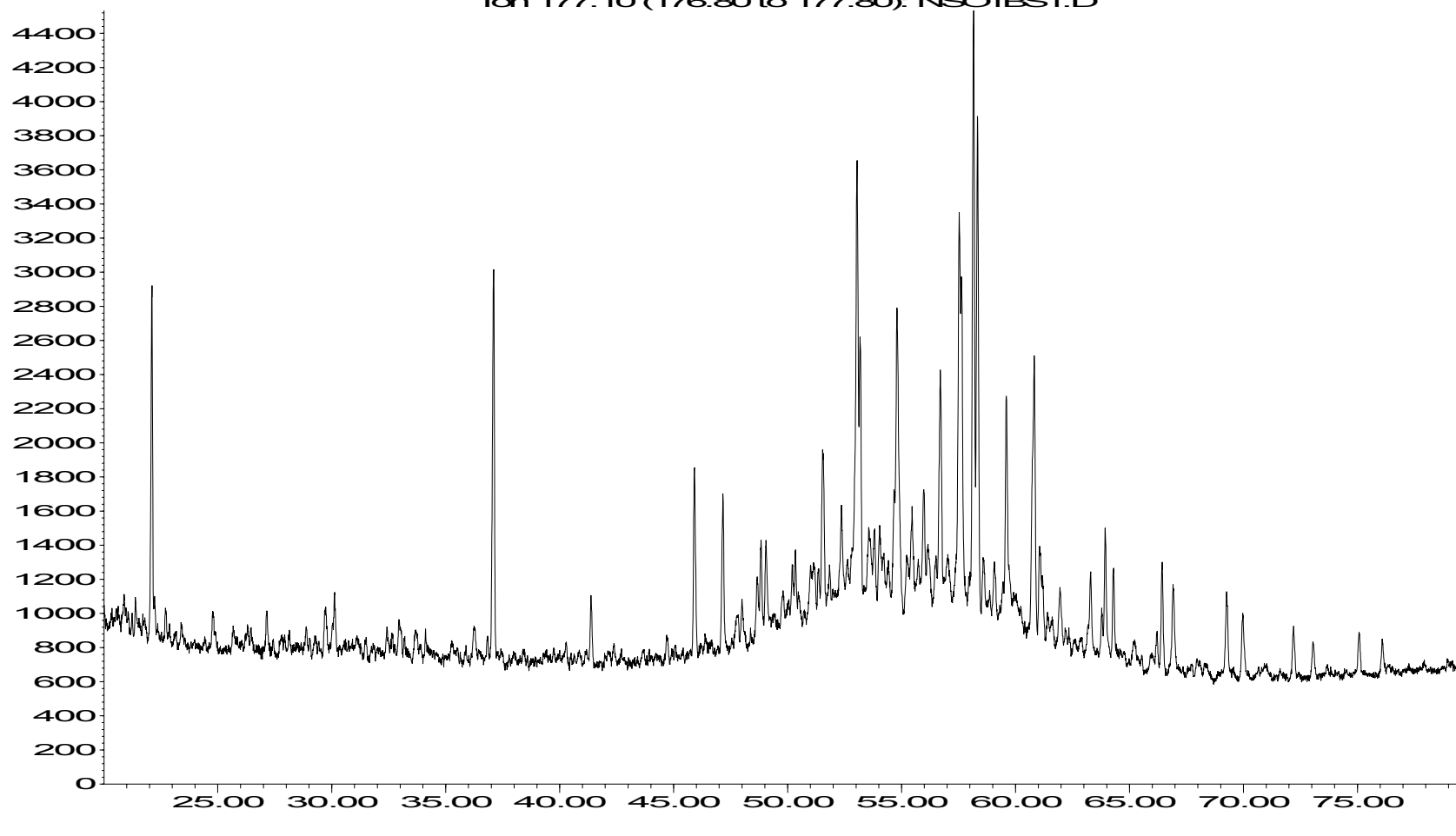
JR-1, NGS reference sample, SAT GCMSD

Terpanes (m/z 177)

- 261 -

Abundance

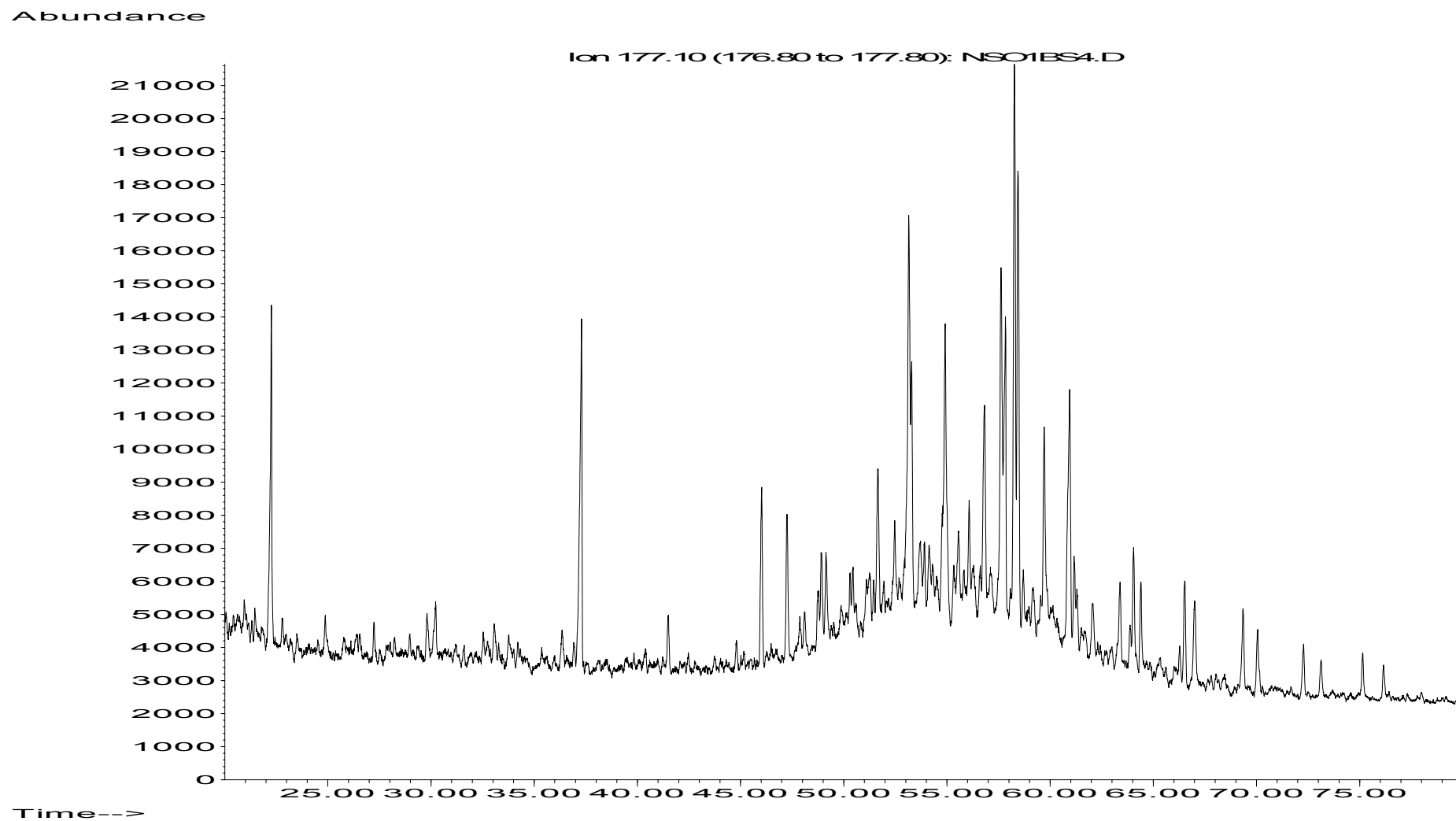
Ion 177.10 (176.80 to 177.80): NSO1BS1.D



NSO-1, #0, NGS reference oil, SAT GCMSD

Terpanes (m/z 177)

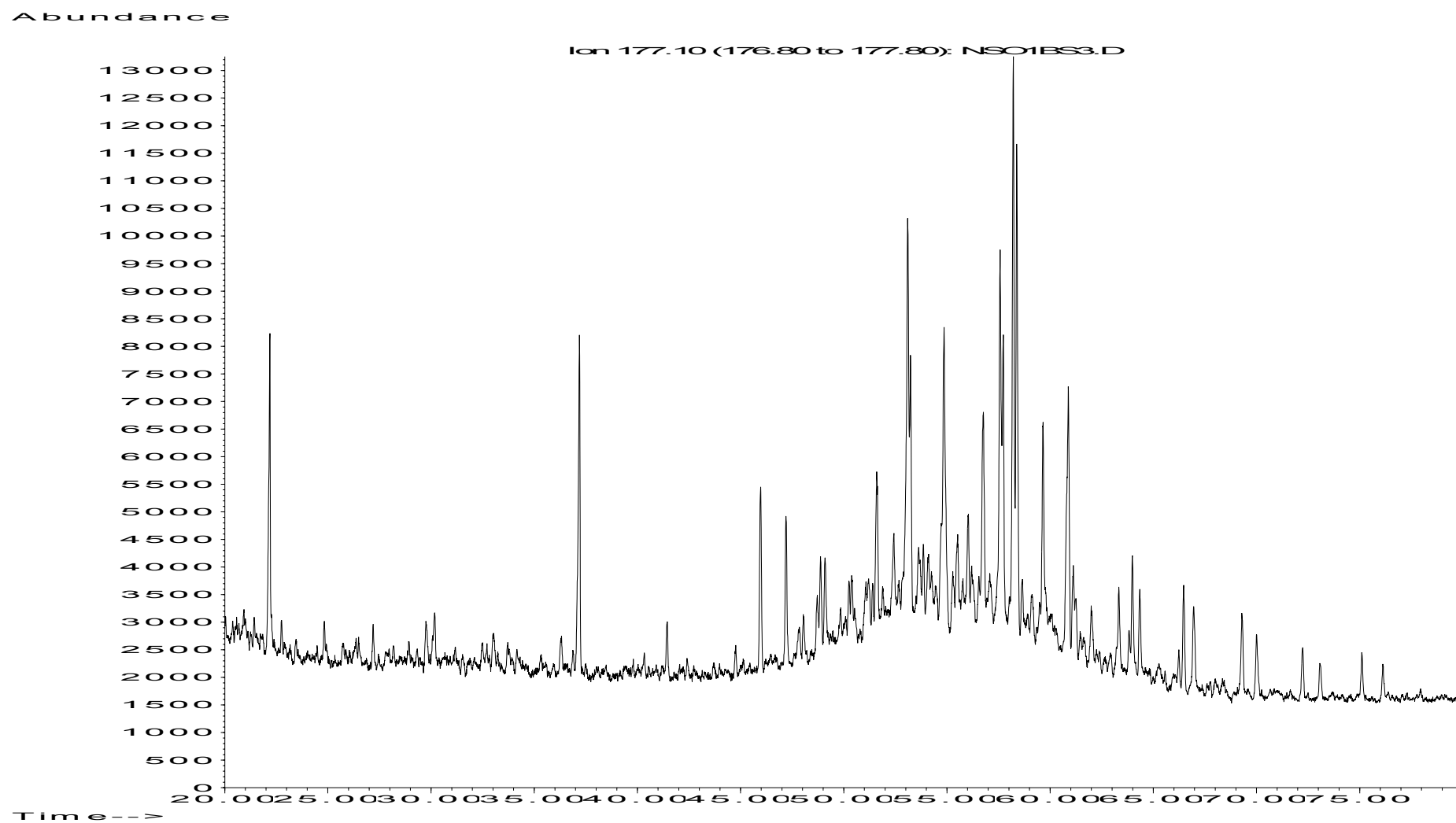
- 262 -



NSO-1, #1, NGS reference oil, SAT GCMSD

Terpanes (m/z 177)

- 263 -

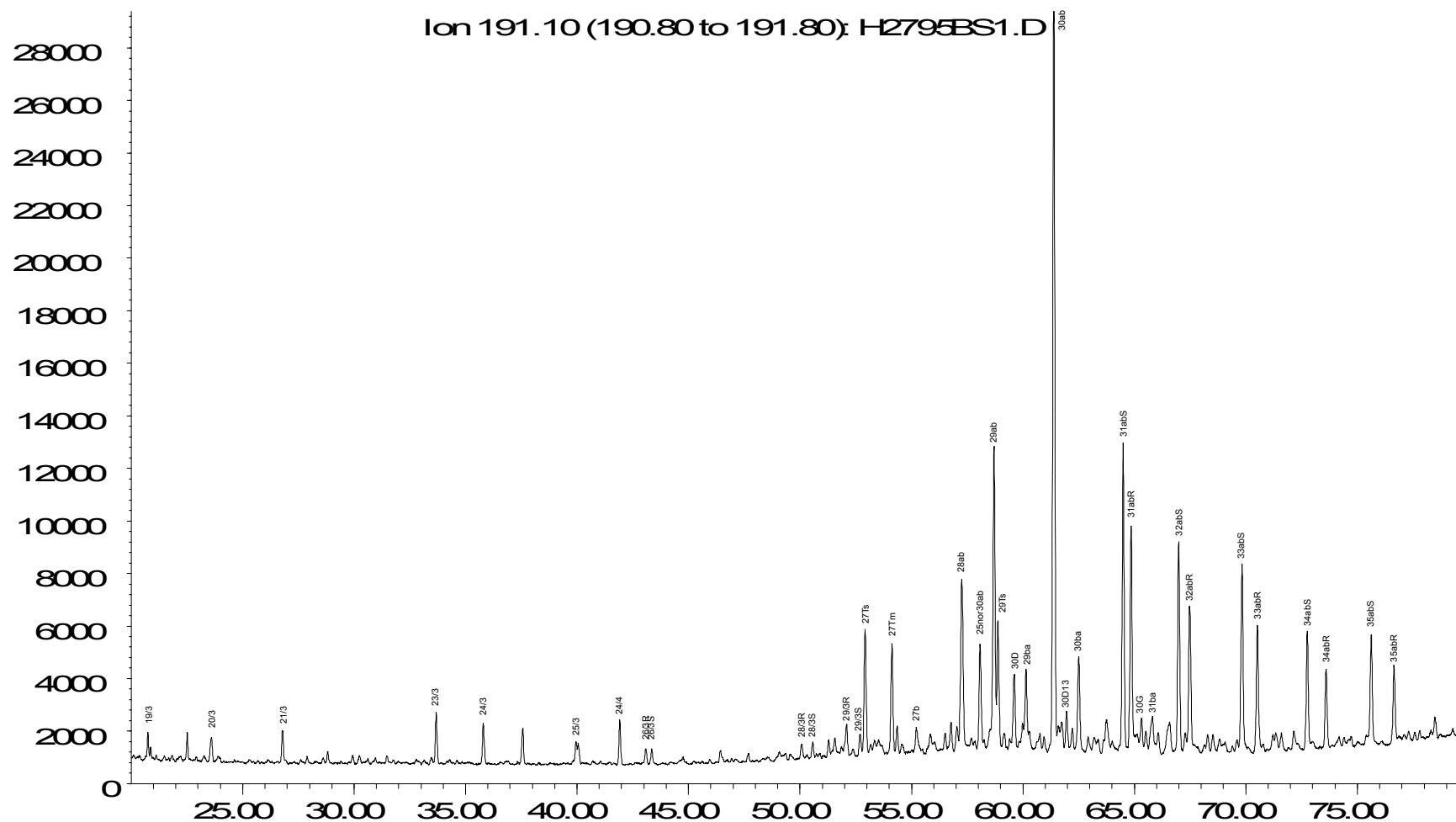


NSO-1, #2, NGS reference oil, SAT GCMSD

Terpanes (m/z 177)

- 264 -

Abundance



Time →

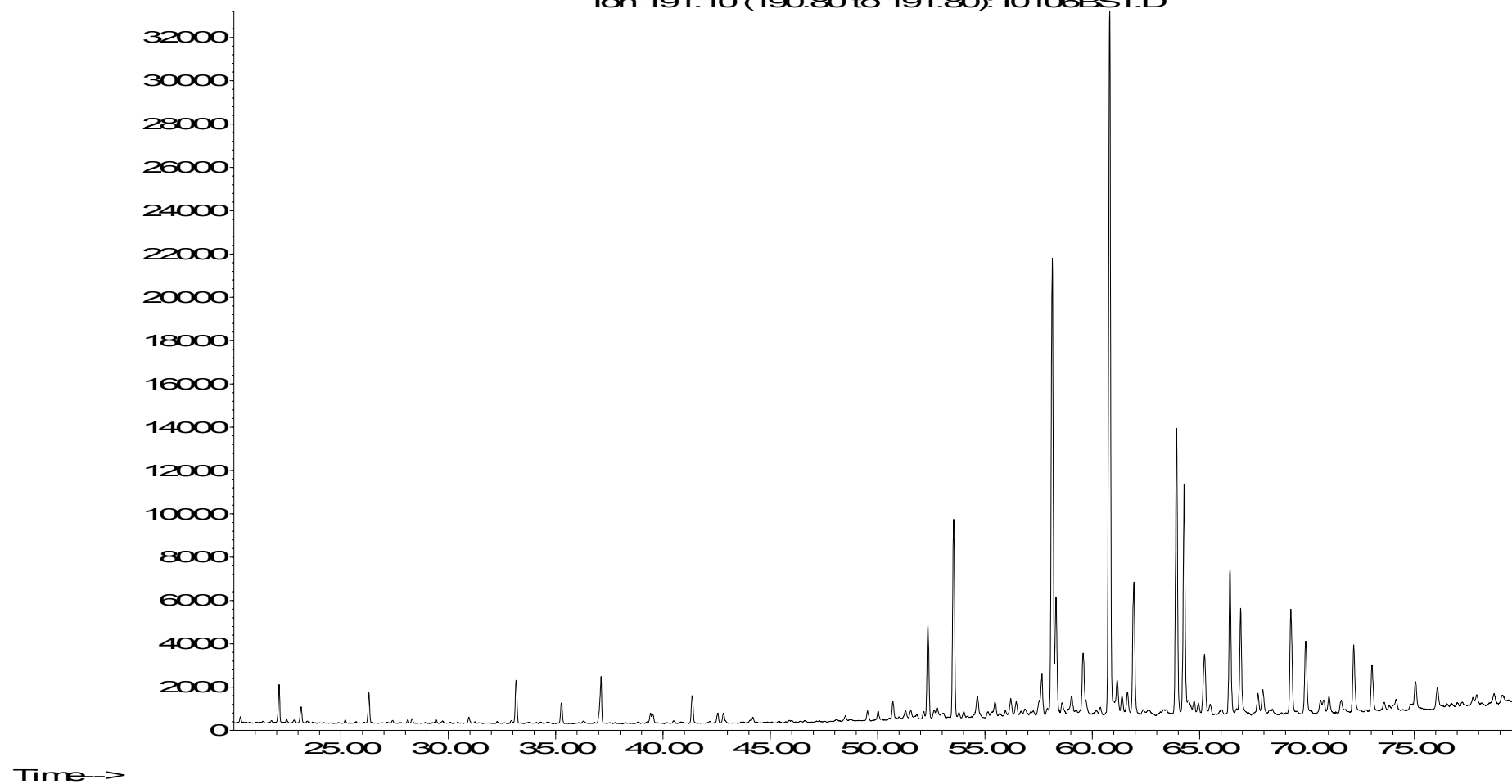
Peak identification, NSO-1, SAT GCMSD

Terpanes (m/z 191)

- 265 -

Abundance

Ion 191.10 (190.80 to 191.80): I0106BS1.D



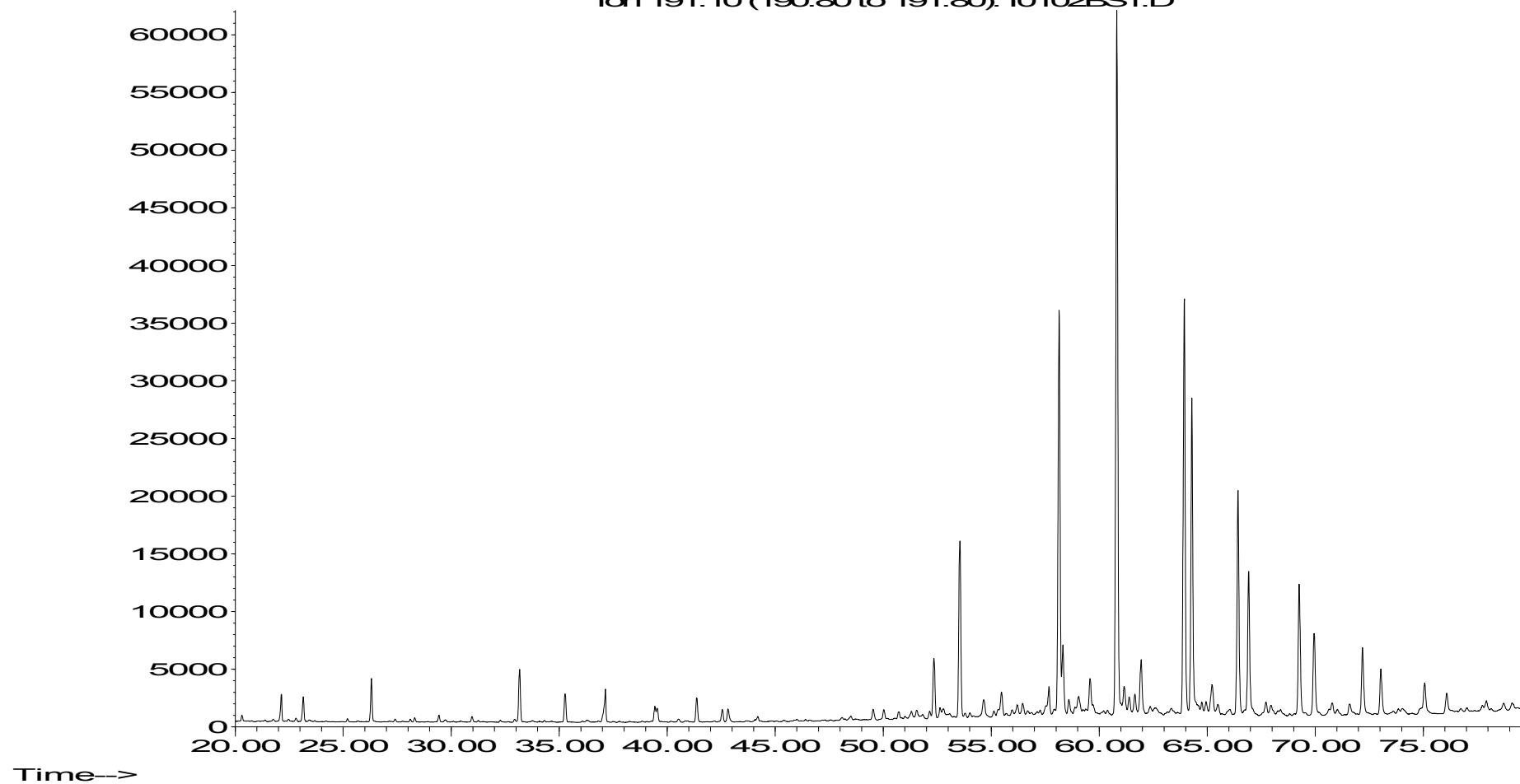
I0106, 7831/2-U-2, 6.78 - 6.83 m, COCH, Clyst (slty, dkgy), SAT GCMSD

Terpanes (m/z 191)

- 266 -

Abundance

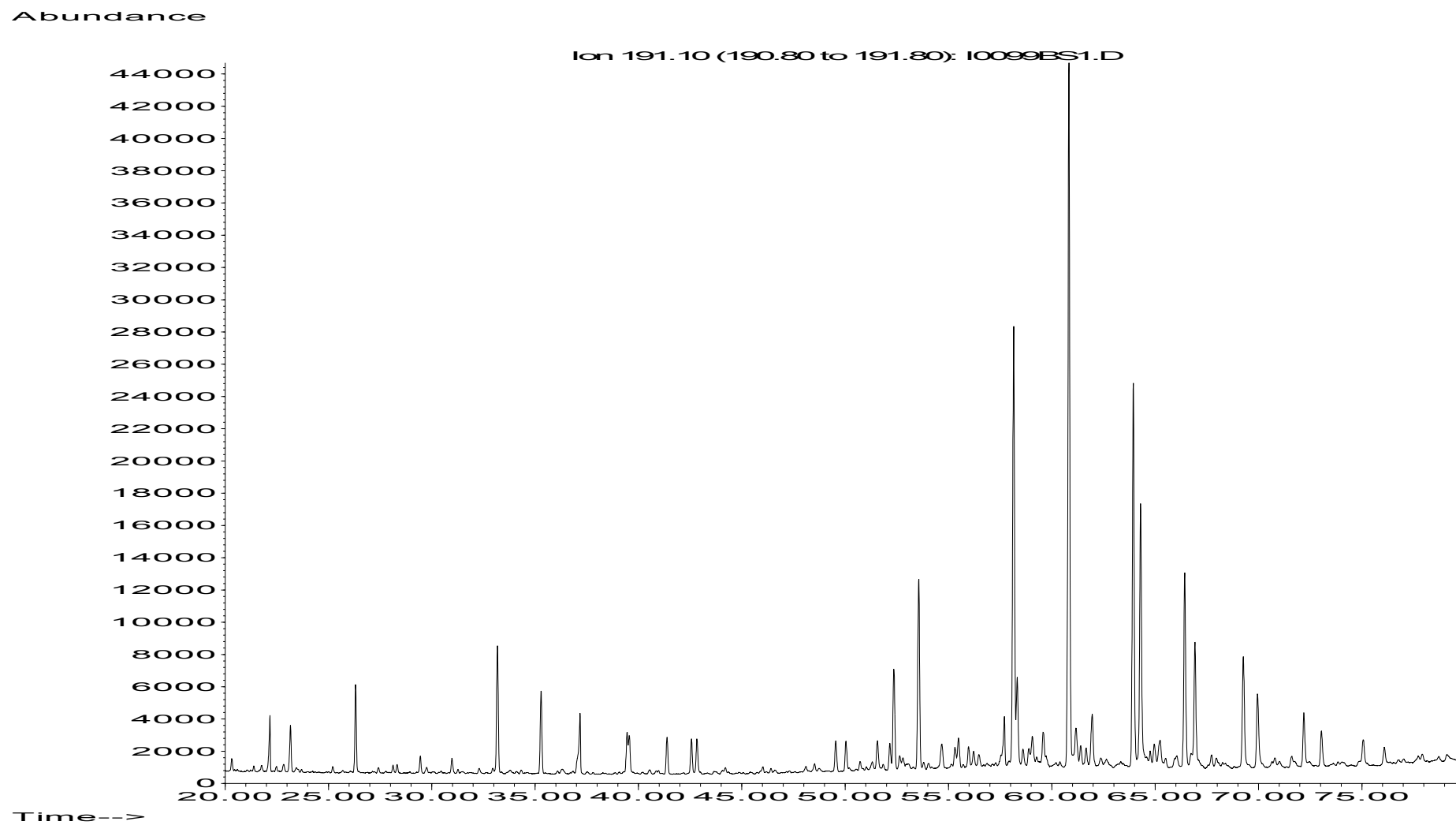
Ion 191.10 (190.80 to 191.80): I0102BS1.D



I0102, 7831/2-U-2, 10.23 - 10.28 m, COCH, Cyst (sly, mgy), SAT GCMSD

Terpanes (m/z 191)

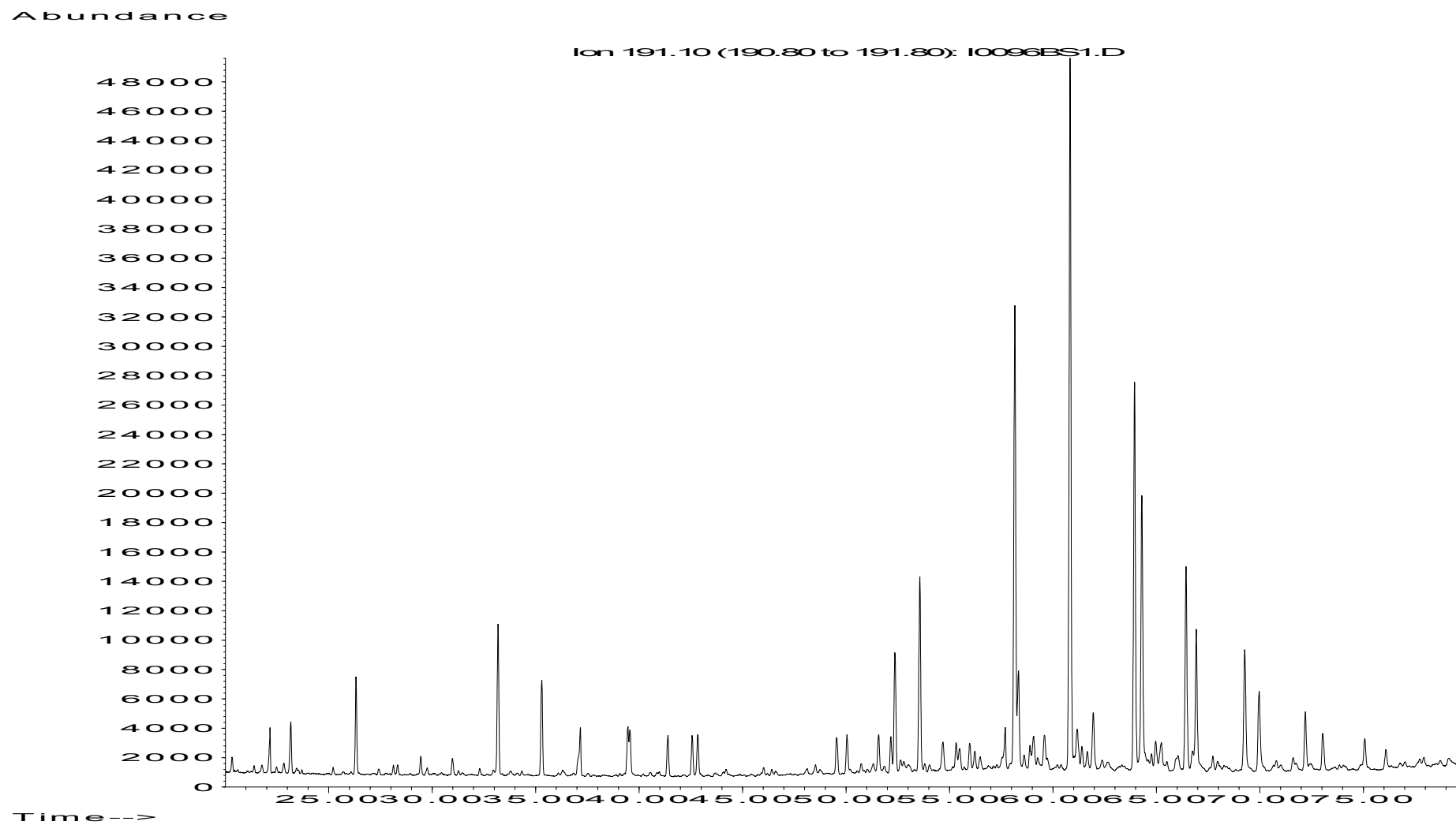
- 267 -



I0099, 7831/2-U-2, 14.48 - 14.53 m, COCH, Cyst (slty, dkgy), SAT GCMSD

Terpanes (m/z 191)

- 268 -



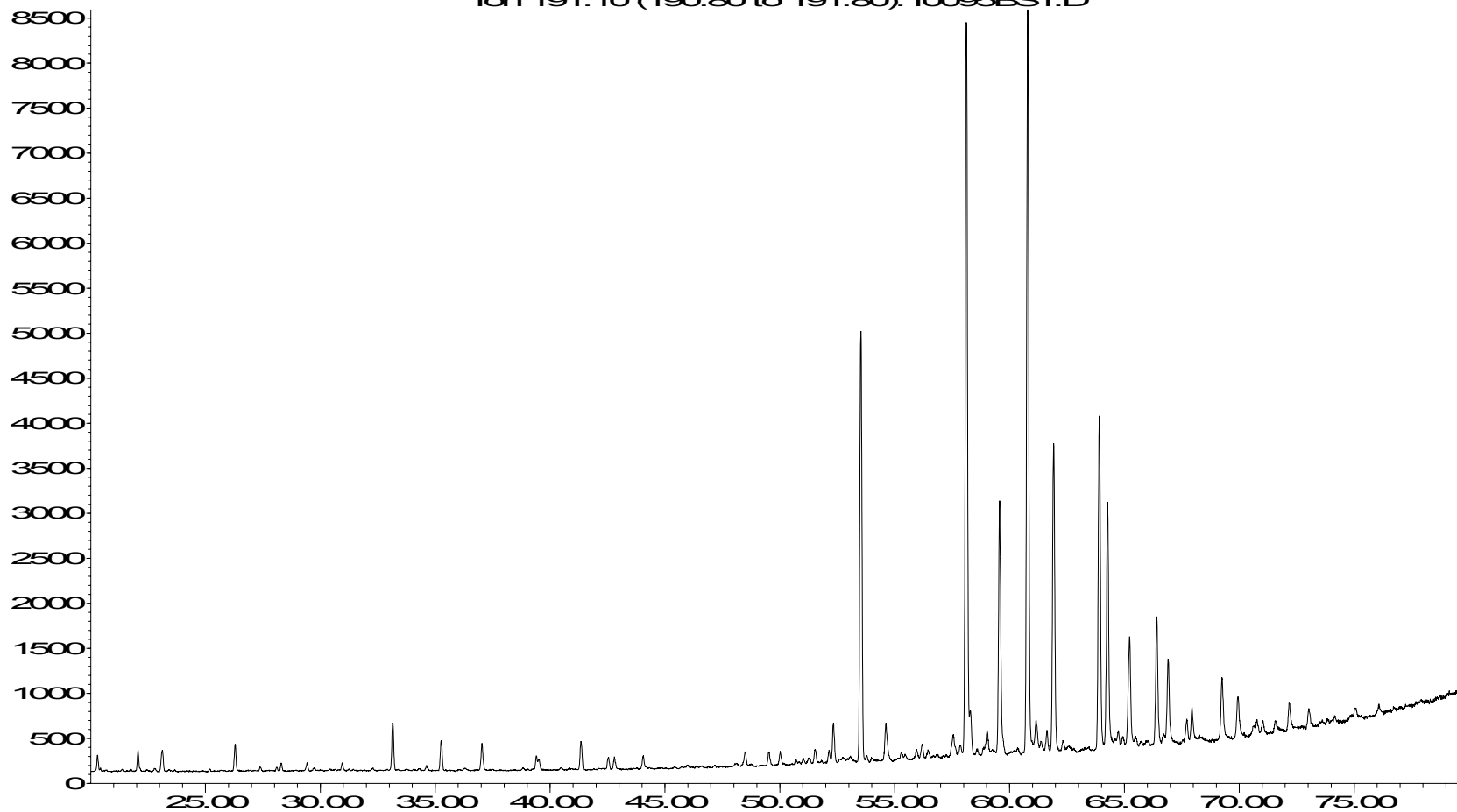
I0096, 7831/2-U-2, 17.83 - 17.87 m, COCH, Cyst (sly, dky), SAT GCMSD

Terpanes (m/z 191)

- 269 -

Abundance

Ion 191.10 (190.80 to 191.80): I0095BS1.D



Time-->

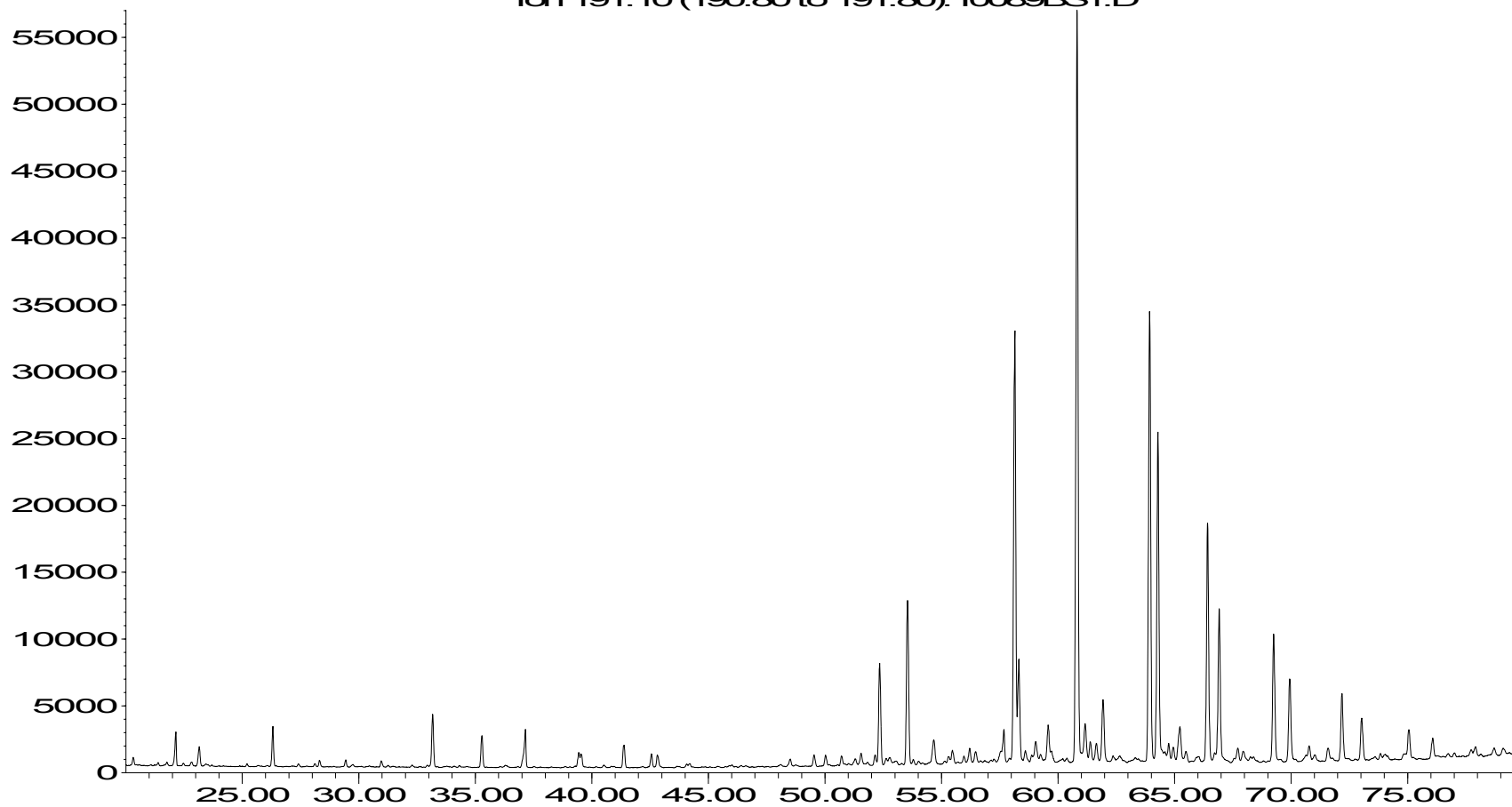
I0095, 7831/2-U-2, 18.72 - 18.85 m, COCH, Cyst (sly, dkgy), SAT GCMSD

Terpanes (m/z 191)

- 270 -

Abundance

Ion 191.10 (190.80 to 191.80): I0089BS1.D

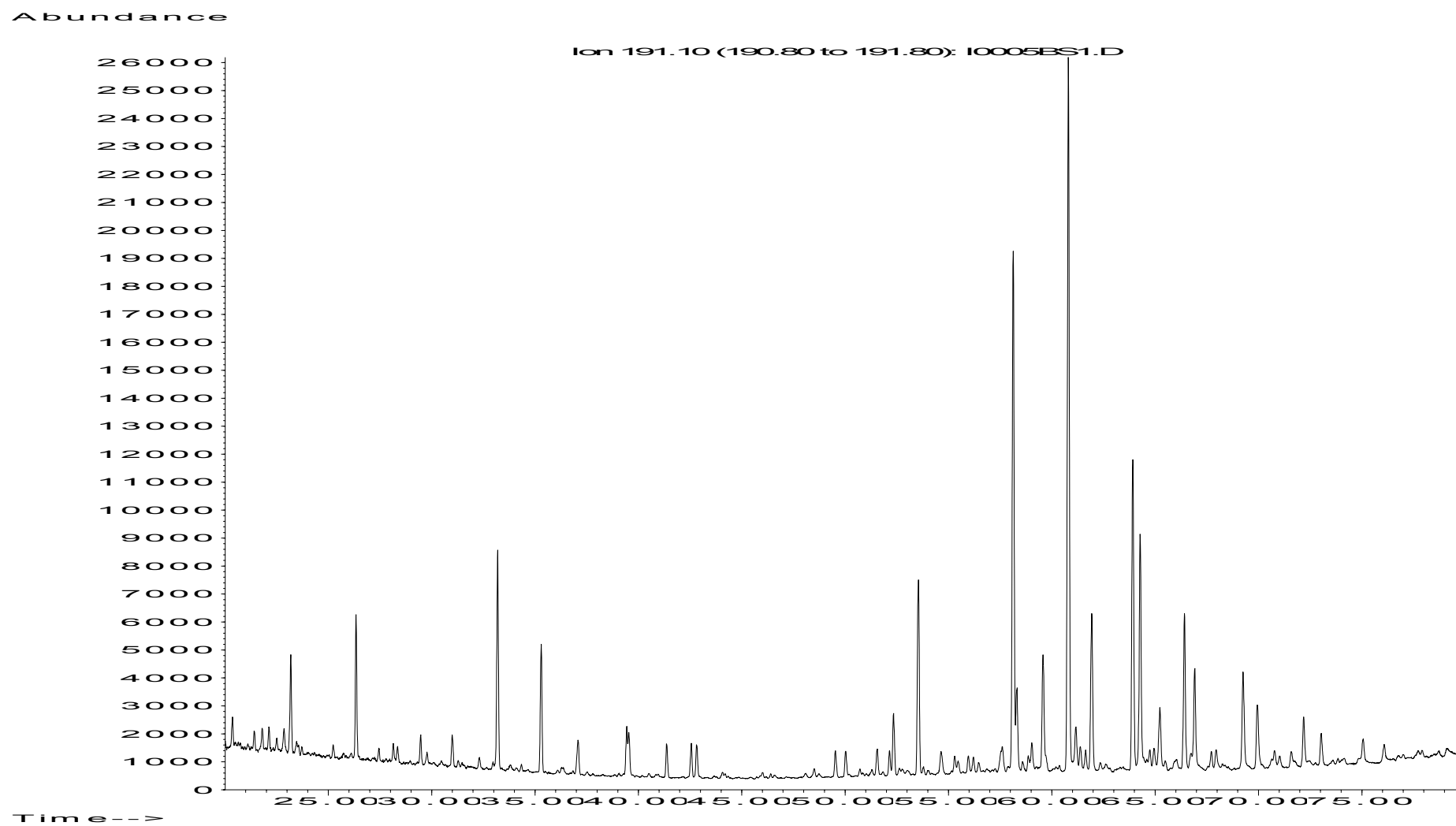


Time-->

I0089, 7831/2-U-1, 21.72 - 21.76 m, COCH, Cyst (dkgy), SAT GCMSD

Terpanes (m/z 191)

- 271 -



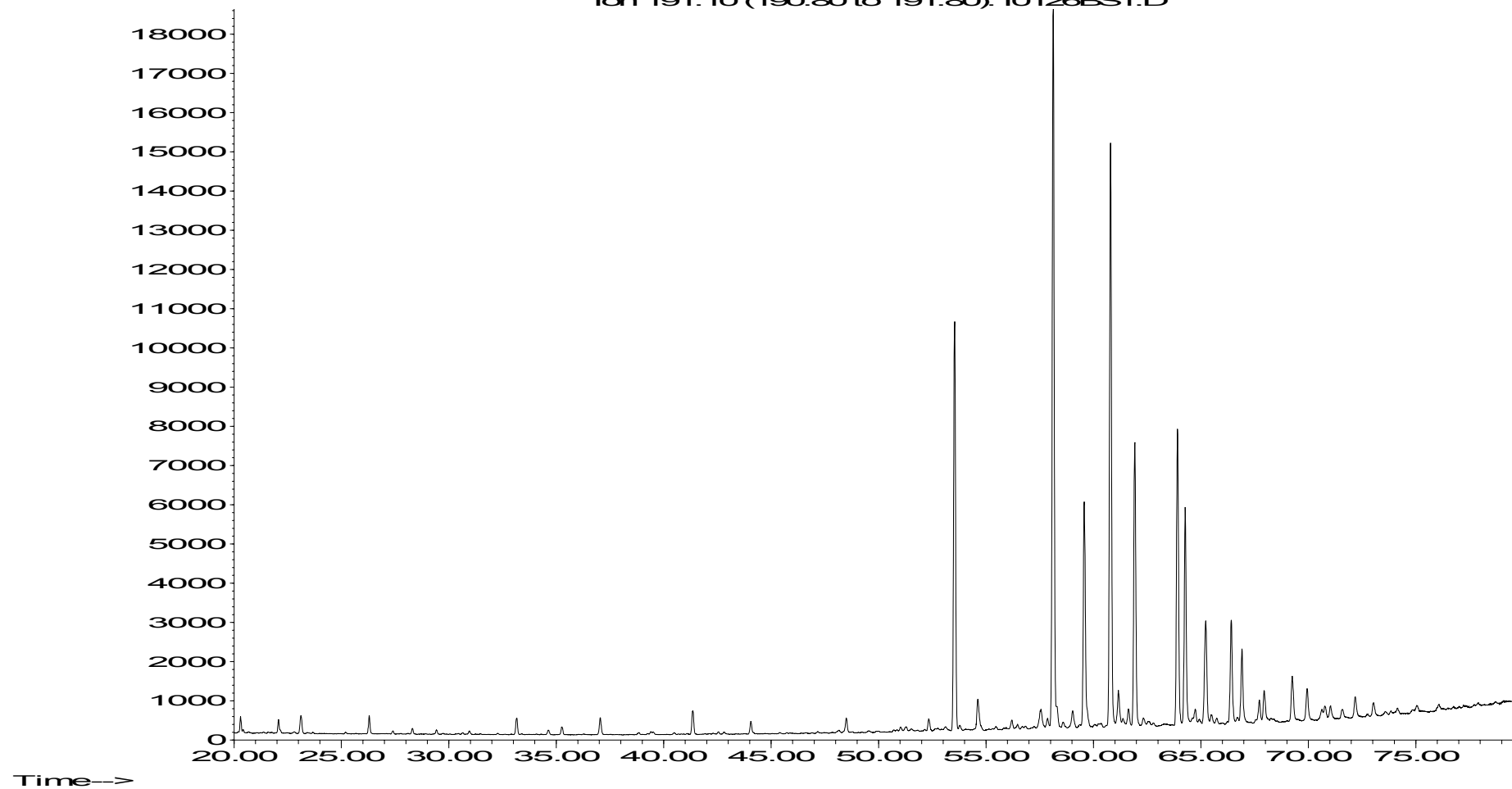
I0005, 7830/6-U-1, 12.85 - 12.88 m, COCH, Slst, SAT GCMSD

Terpanes (m/z 191)

- 272 -

Abundance

Ion 191.10 (190.80 to 191.80): I0126BS1.D



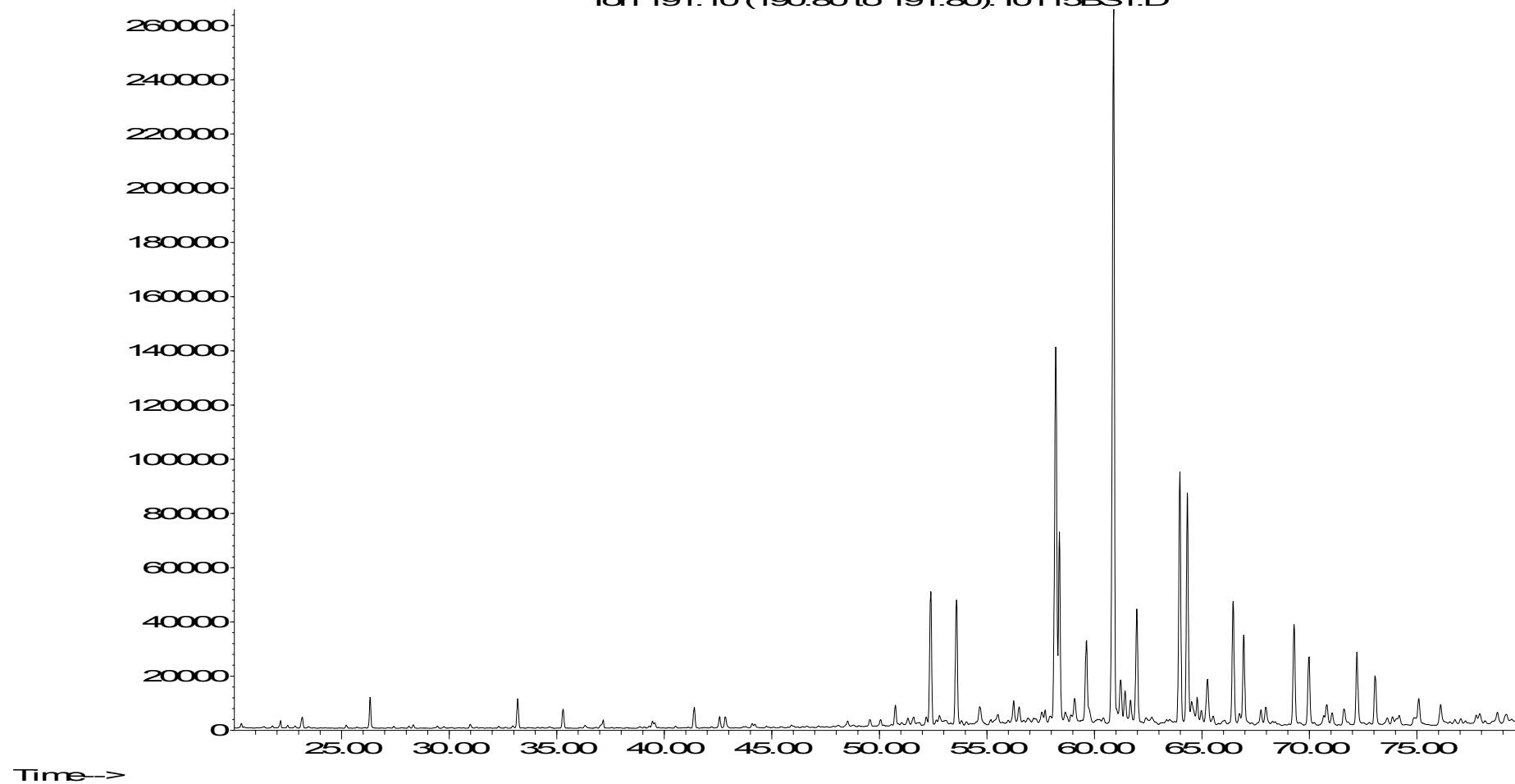
I0126, 7830/6-U-1, 20.03 - 20.10 m, COCH, Cyst (sly, lam, dkgy), SAT GCMSD

Terpanes (m/z 191)

- 273 -

Abundance

Ion 191.10 (190.80 to 191.80): I0115BS1.D

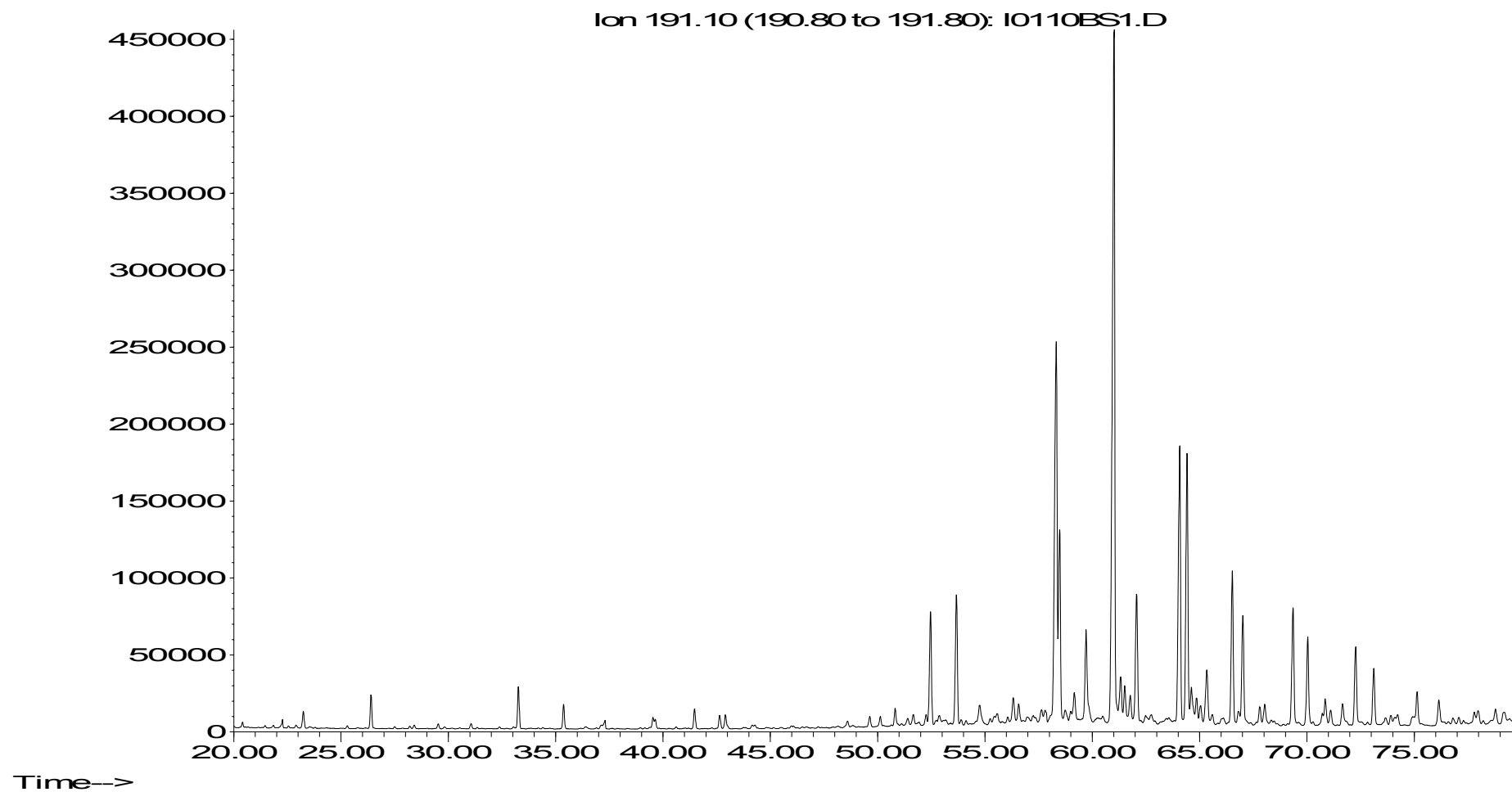


I0115, 7830/6-U-1, 41.85 - 41.89 m, COCH, Clyst (dkgy, lam), SAT GCMSD

Terpanes (m/z 191)

- 274 -

Abundance

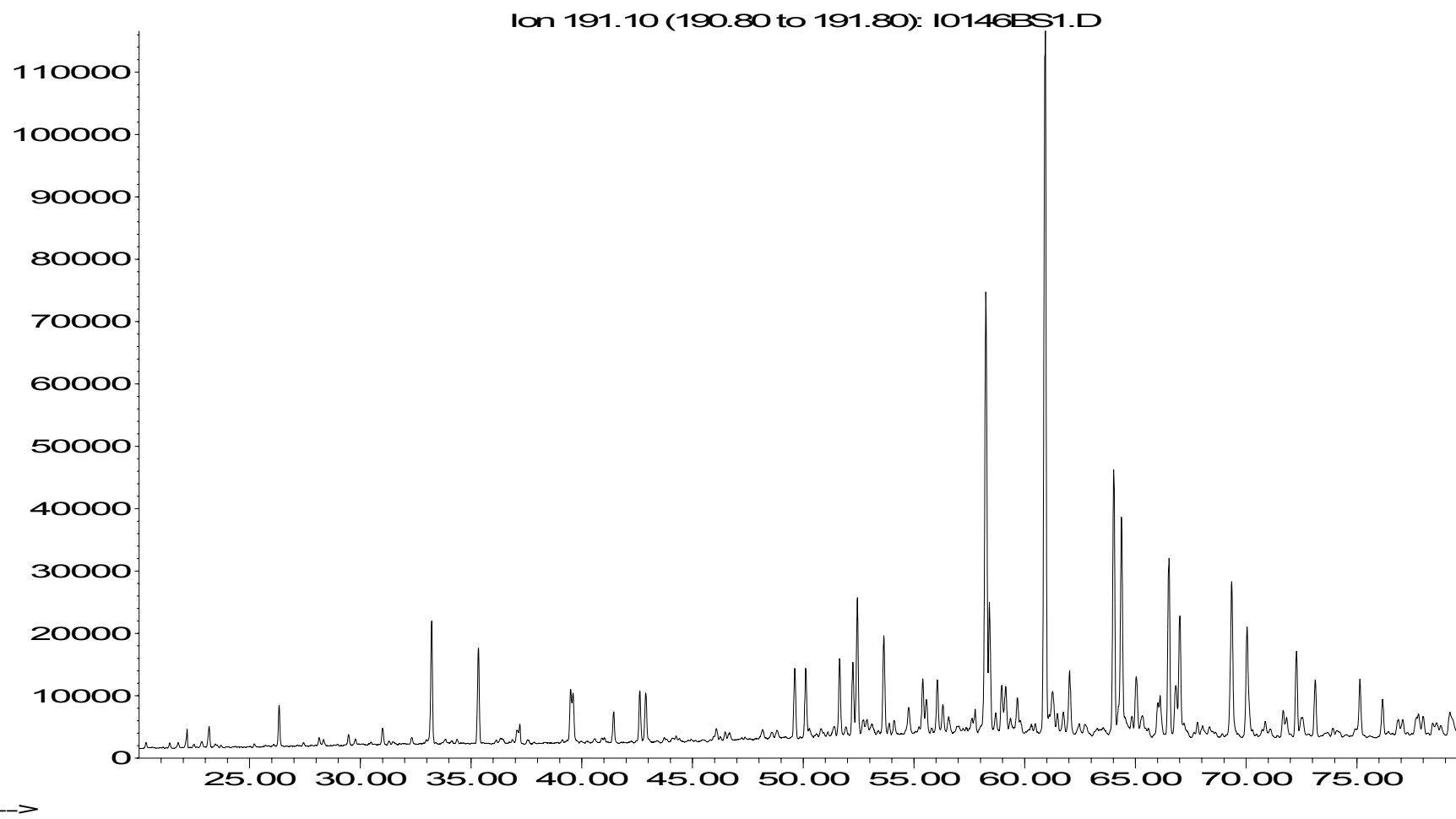


I0110, 7830/6-U-1, 50.90 - 50.93 m, COCH, Clyst (dkgy, lam), SAT GCMSD

Terpanes (m/z 191)

- 275 -

Abundance



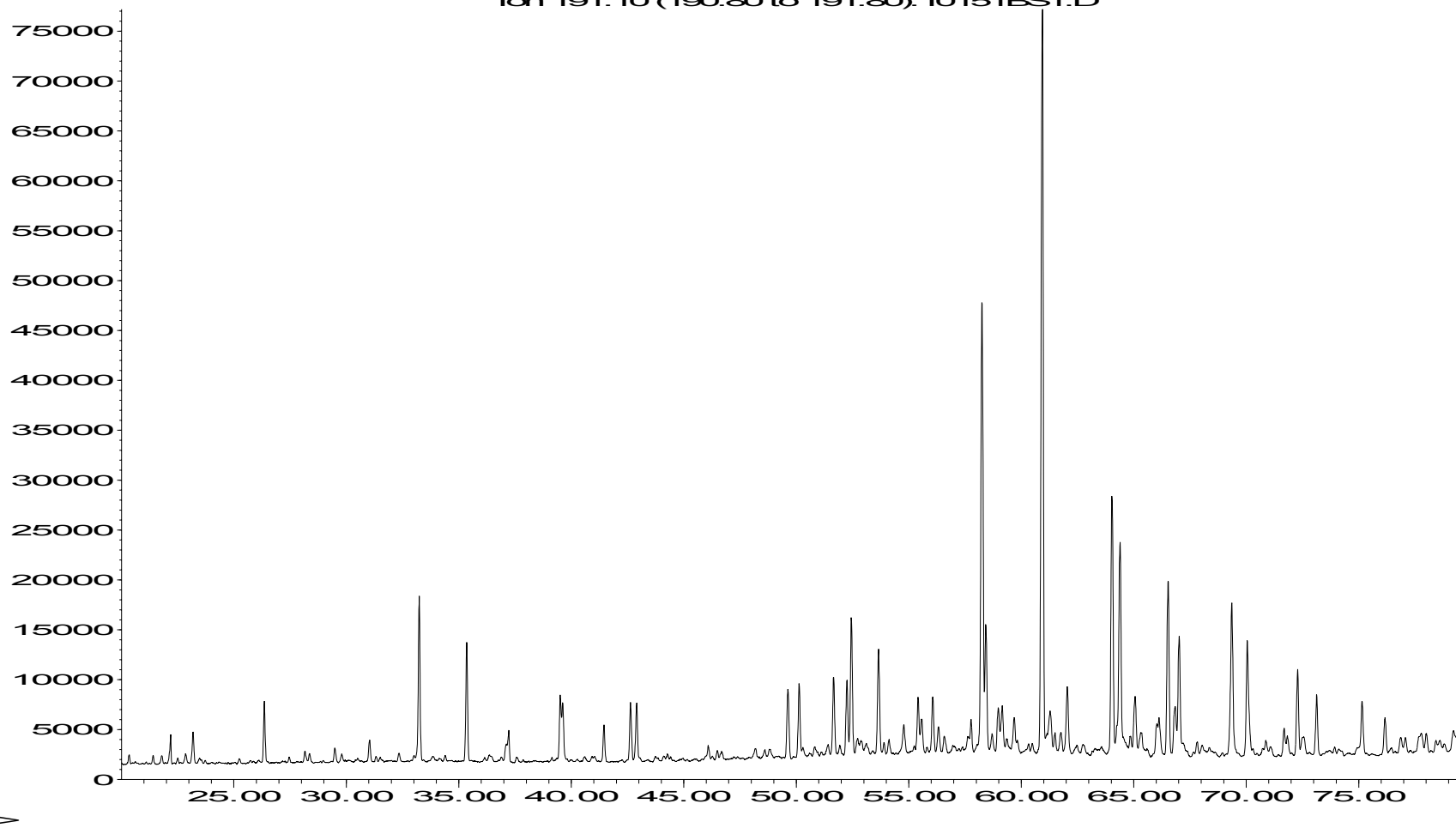
I0146, 7830/3-U-1, 39.94 - 39.99 m, COCH, Sst (mgr, mgy), SAT GCMSD

Terpanes (m/z 191)

- 276 -

Abundance

Ion 191.10 (190.80 to 191.80): I0151BS1.D



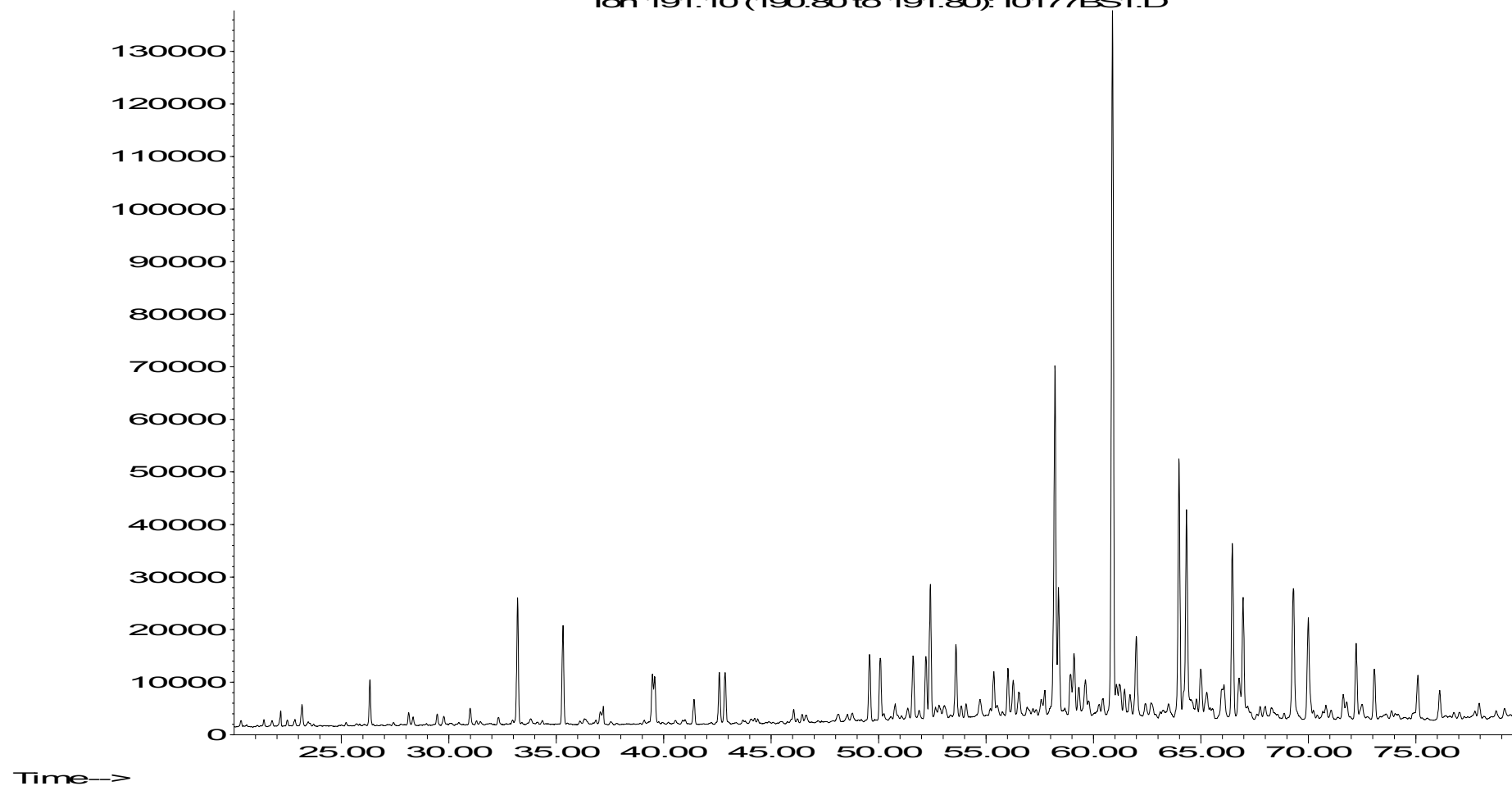
I0151, 7830/3-U-1, 51.24 m, COPL, Sst (fgr, mgy), SAT GCMSD

Terpanes (m/z 191)

- 277 -

Abundance

Ion 191.10 (190.80 to 191.80): I0177BS1.D



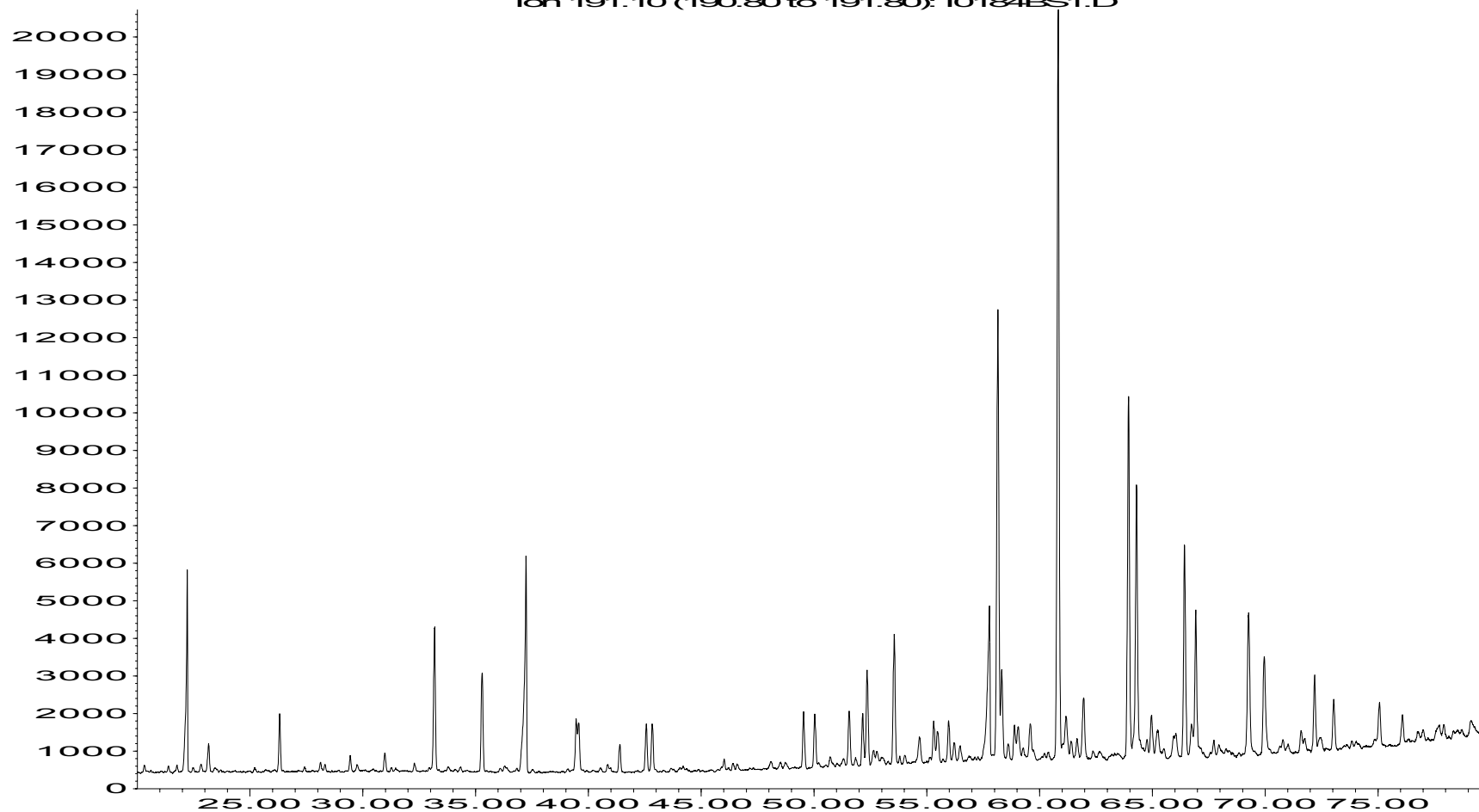
I0177, 7830/3-U-1, 111.69 - 111.75 m, COCH, Sst (fgr, dkgy), SAT GCMSD

Terpanes (m/z 191)

- 278 -

Abundance

Ion 191.10 (190.80 to 191.80): I0184BS1.D



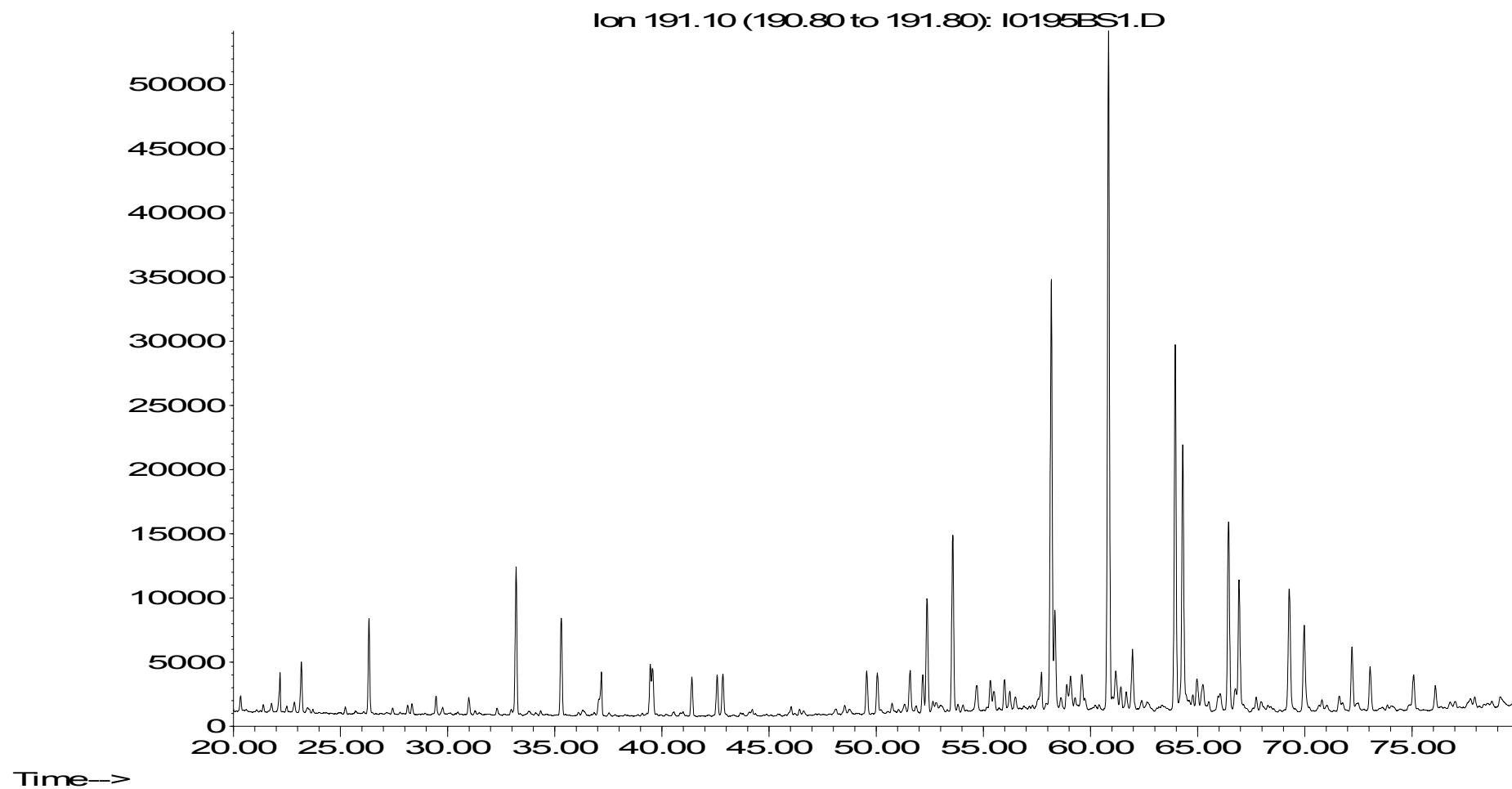
Time-->

I0184, 7830/3-U-1, 124.63 m, COPL, Sst (fgr, ltgy), SAT GCMSD

Terpanes (m/z 191)

- 279 -

Abundance



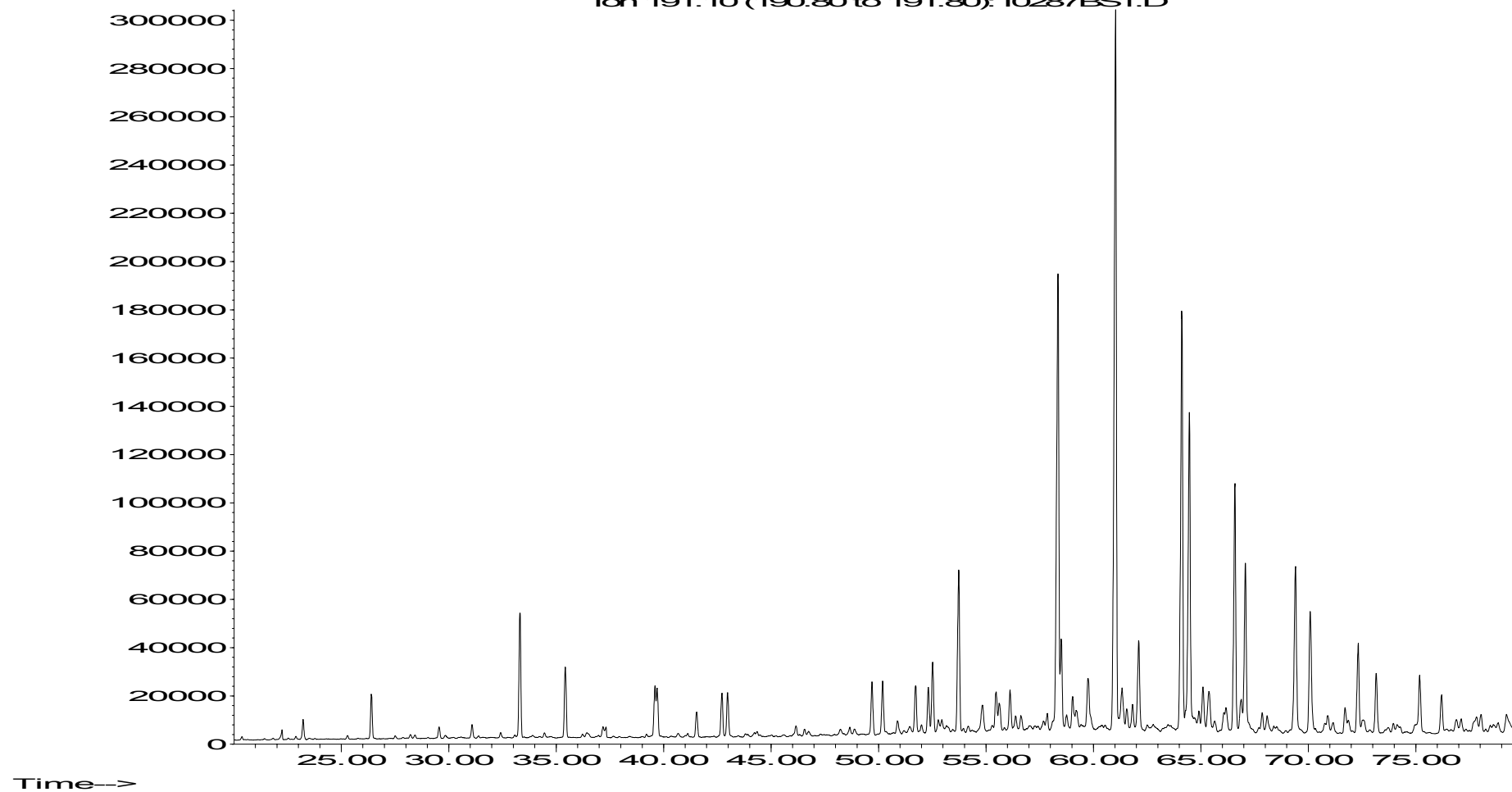
I0195, 7830/3-U-1, 154.81 - 154.88 m, COCH, Clyst (sl slty, ltgy), SAT GCMSD

Terpanes (m/z 191)

- 280 -

Abundance

Ion 191.10 (190.80 to 191.80): I0287BS1.D



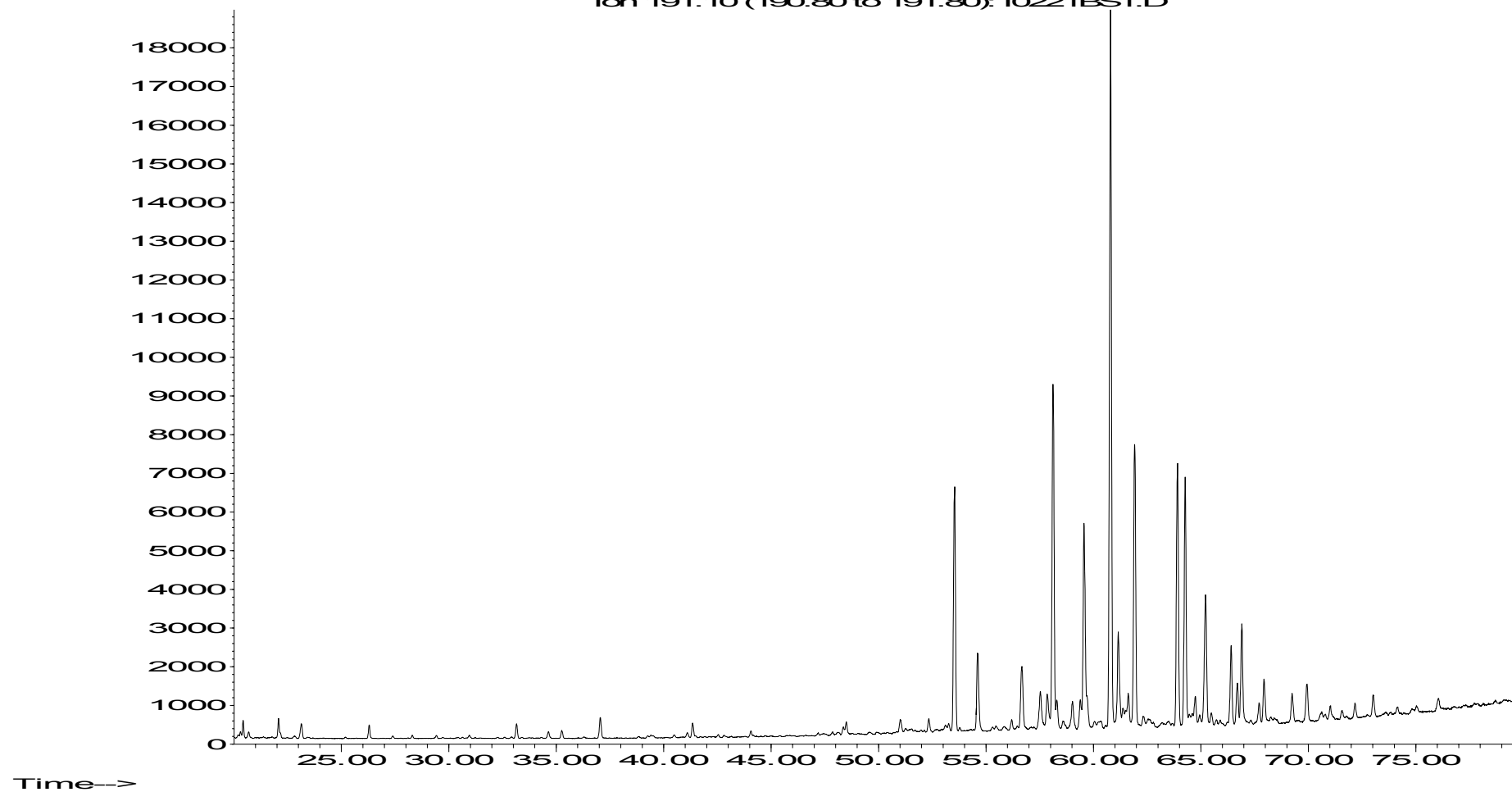
I0287, 7830/3-U-1, 174.13 - 174.15 m, COCH, Sst (fgr, mgy), SAT GCMSD

Terpanes (m/z 191)

- 281 -

Abundance

Ion 191.10 (190.80 to 191.80): I0221BS1.D



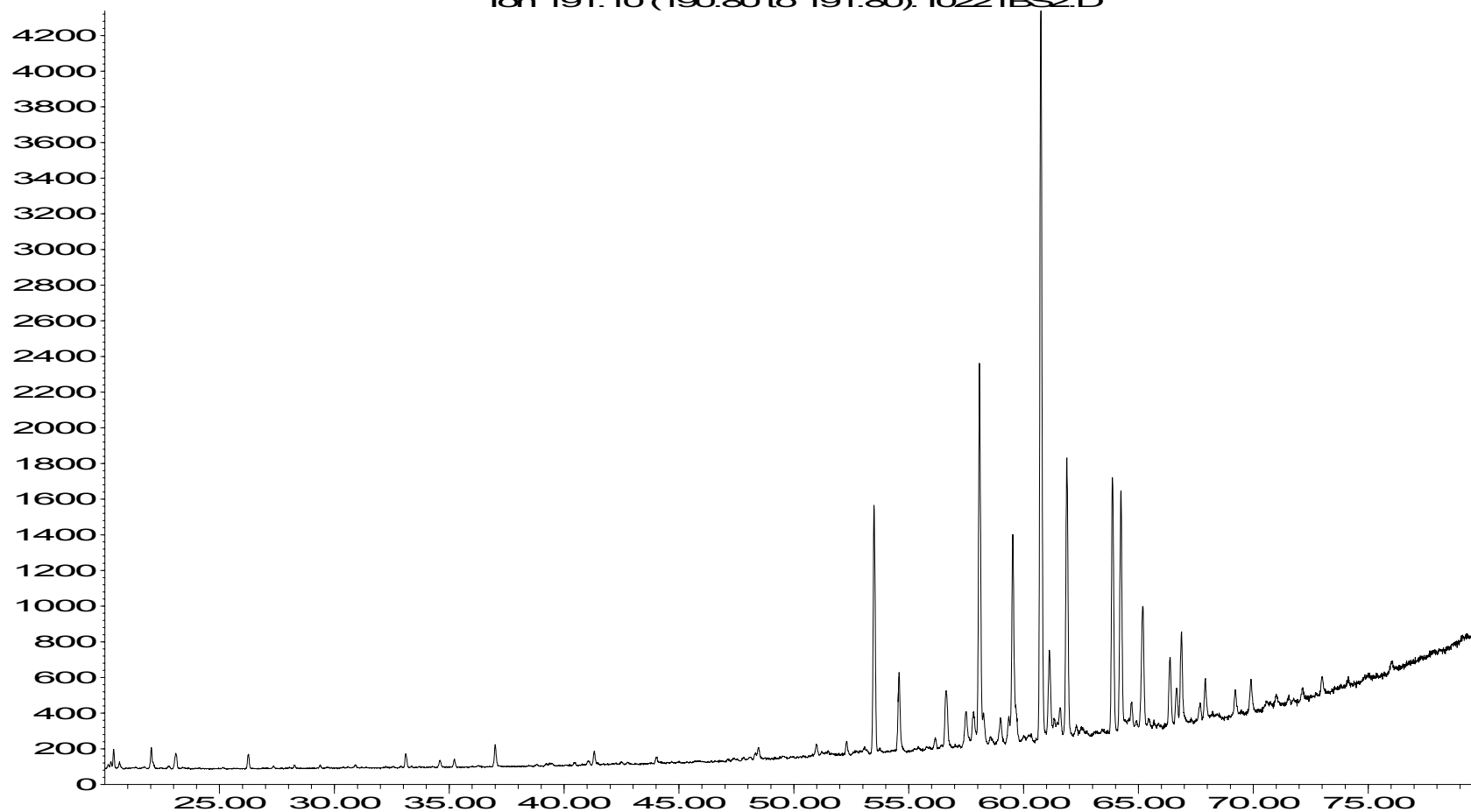
I0221, 7830/5-U-1, 58.90 - 58.97 m, COCH, Cylst (sl slty, lam, dkgy), SAT GCMSD

Terpanes (m/z 191)

- 282 -

Abundance

Ion 191.10 (190.80 to 191.80): I0221BS2.D



Time-->

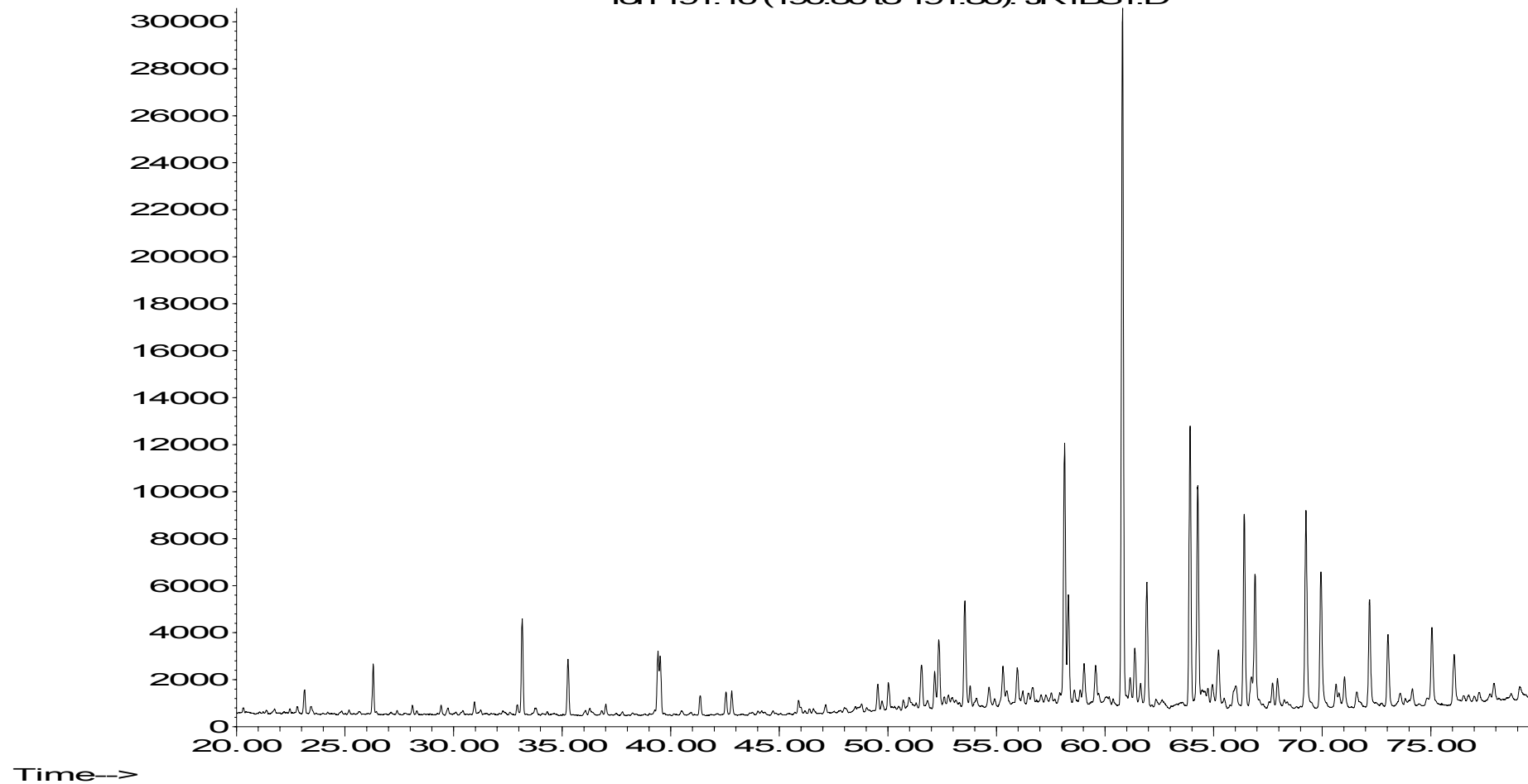
I0254, 7830/5-U-1, 128.62 - 128.68 m, COCH, Clyst (vdkg, lam), SAT GCMSD

Terpanes (m/z 191)

- 283 -

Abundance

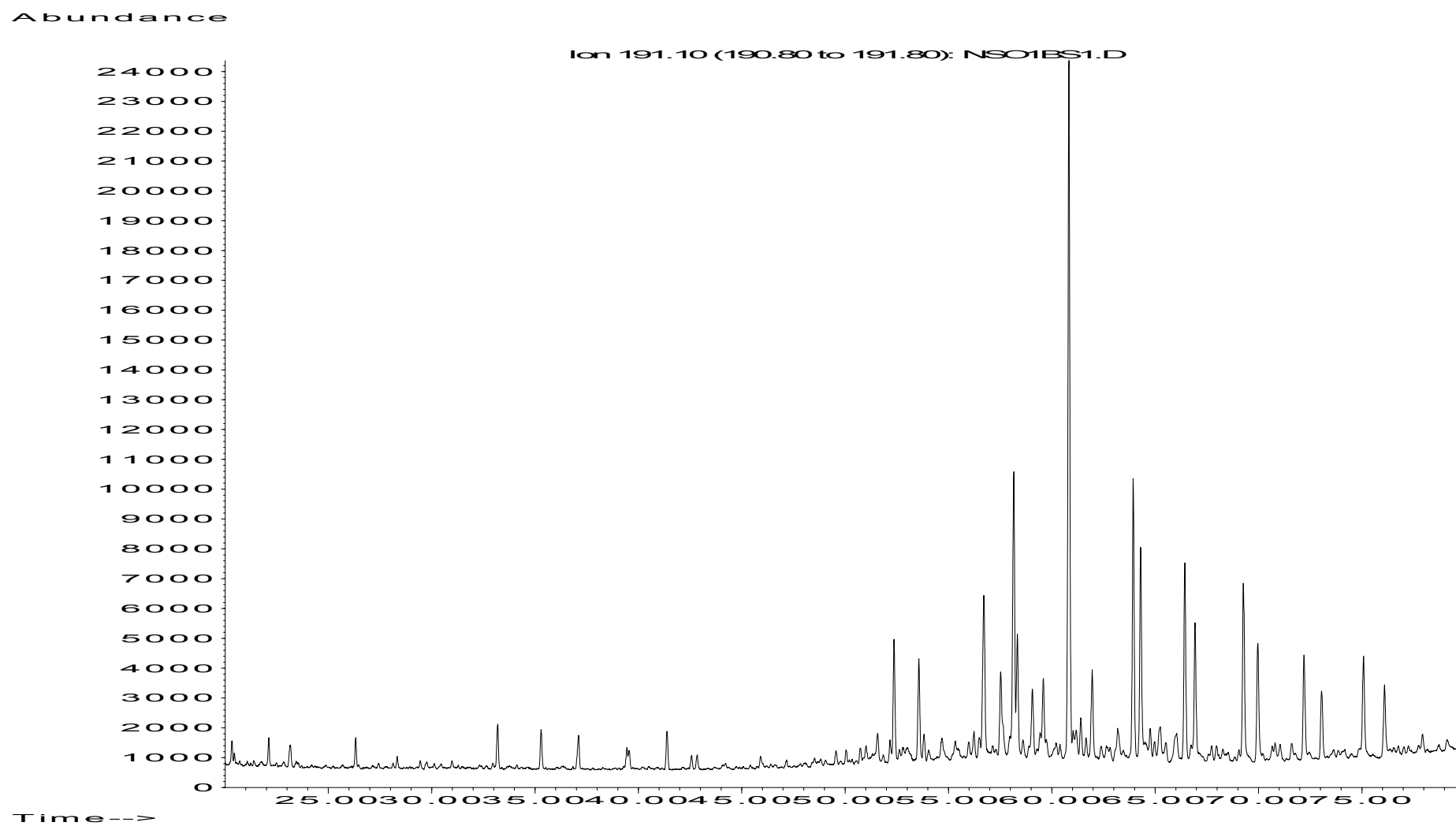
Ion 191.10 (190.80 to 191.80): JR1BS1.D



JR-1, NGS reference sample, SAT GCMSD

Terpanes (m/z 191)

- 284 -

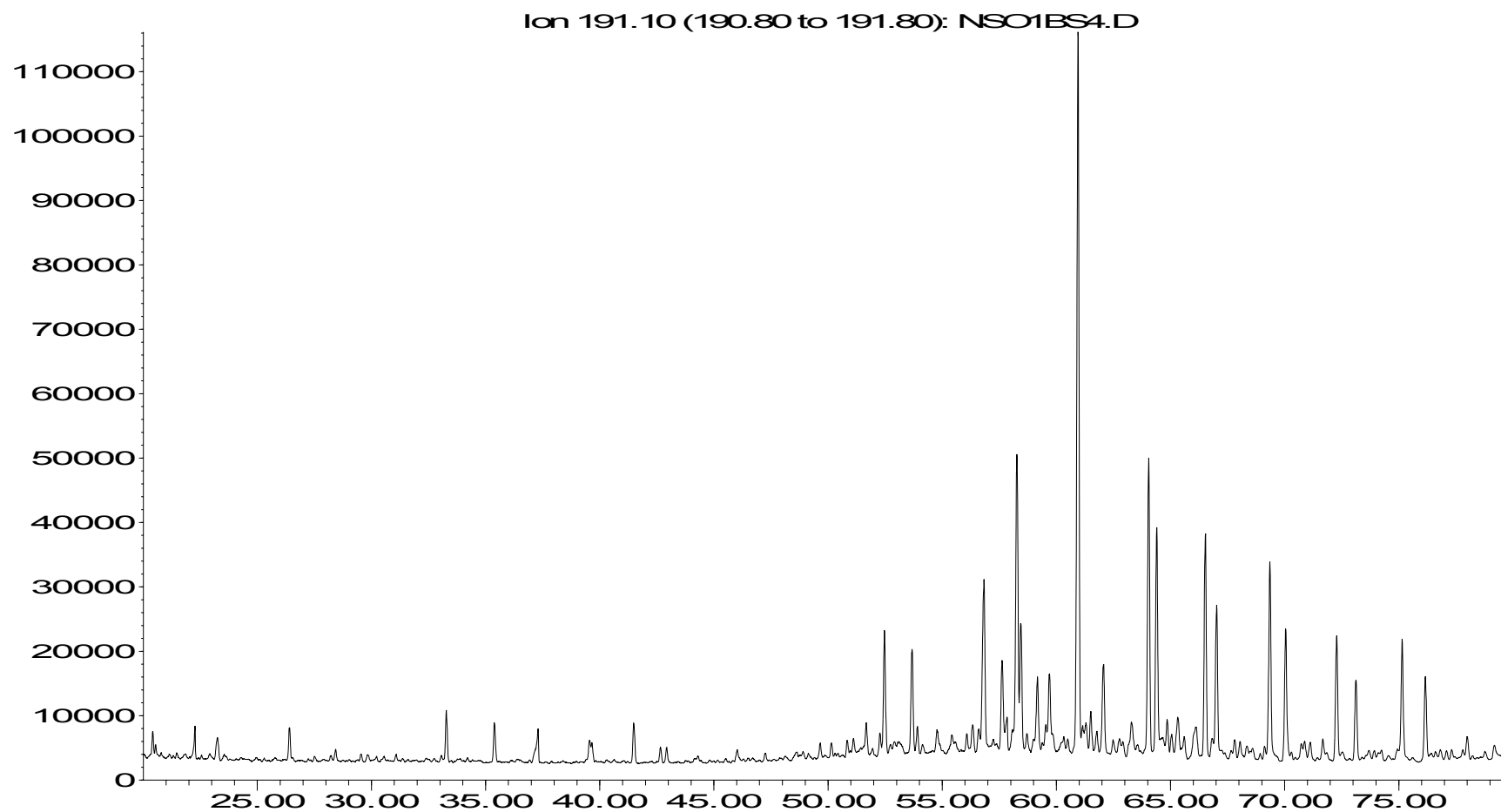


NSO-1, #0, NGS reference oil, SAT GCMSD

Terpanes (m/z 191)

- 285 -

Abundance



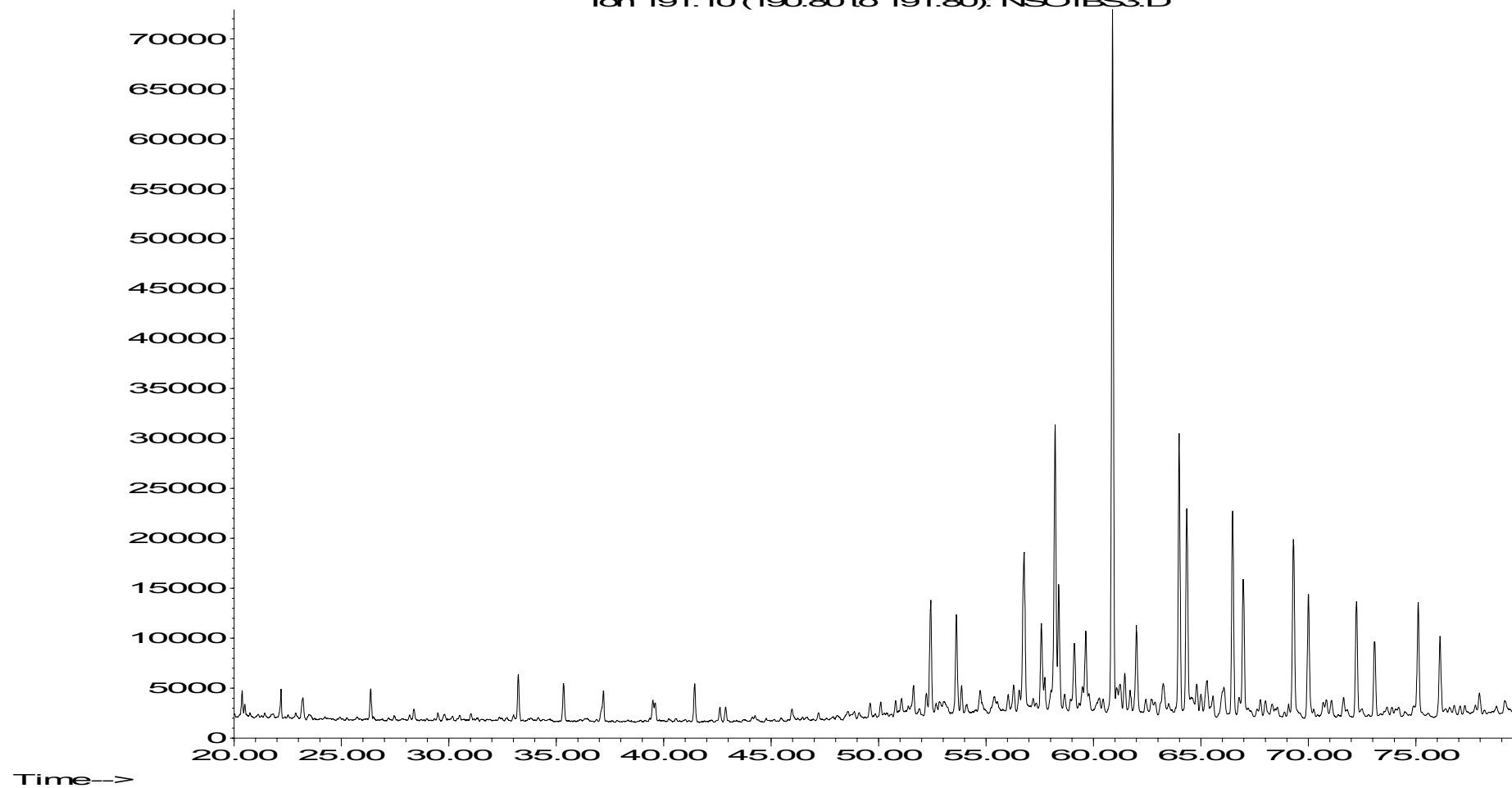
NSO-1, #1, NGS reference oil, SAT GCMSD

Terpanes (m/z 191)

- 286 -

Abundance

Ion 191.10 (190.80 to 191.80): NSO1BS3.D

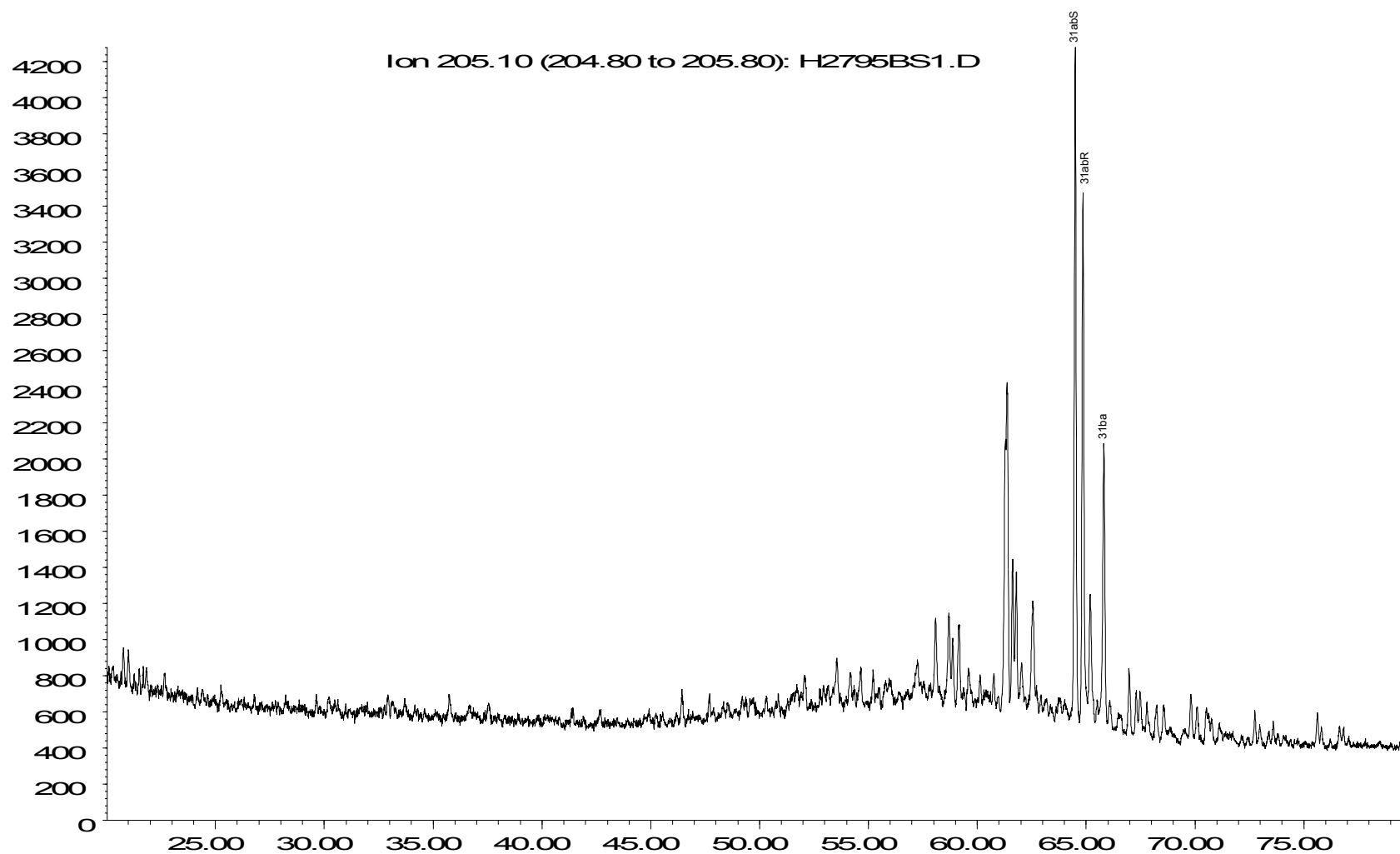


NSO-1, #2, NGS reference oil, SAT GCMSD

Terpanes (m/z 191)

- 287 -

Abundance



Time-->

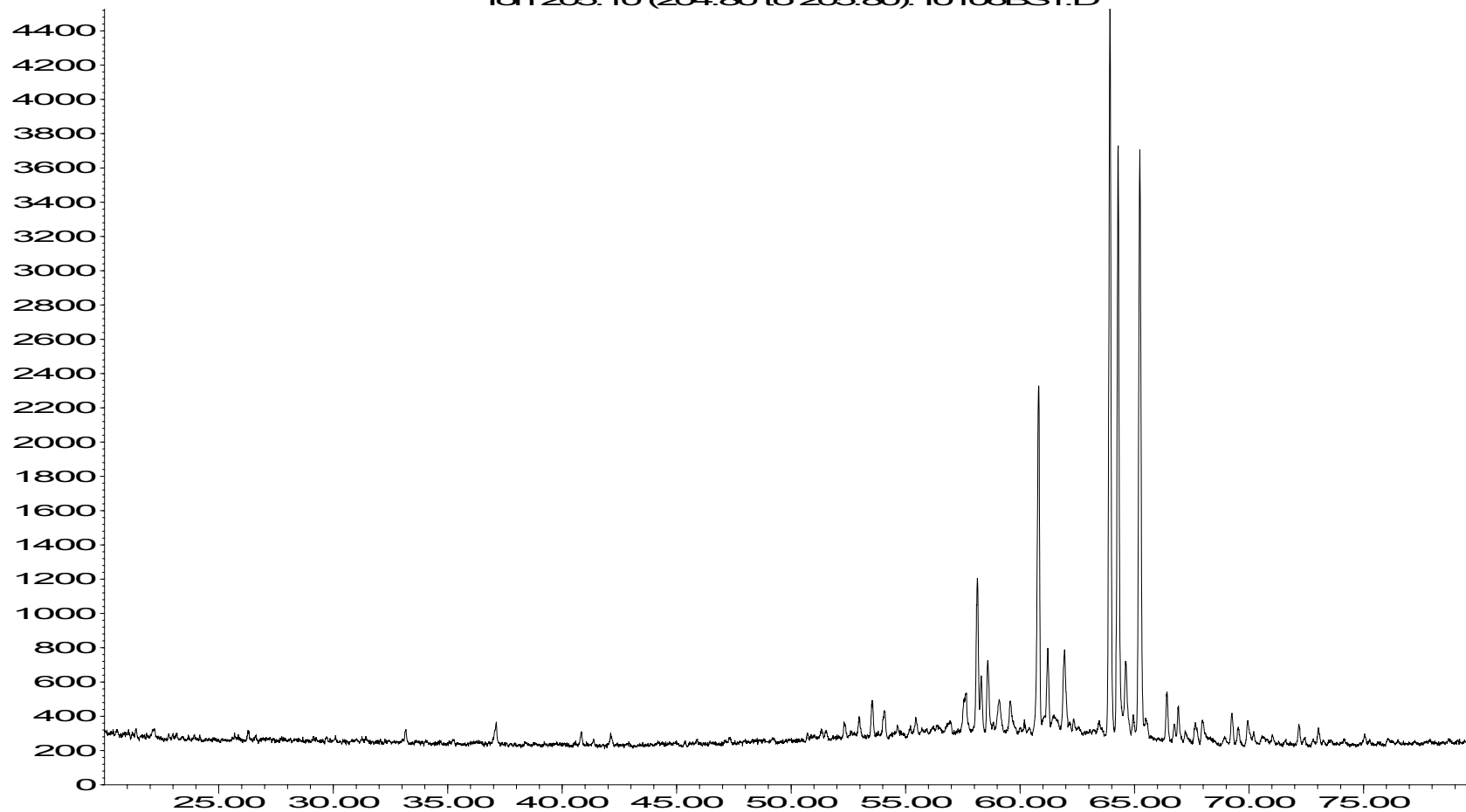
Peak identification, NSO-1, SAT GCMSD

Terpanes (m/z 205)

- 288 -

Abundance

Ion 205.10 (204.80 to 205.80): I0106BS1.D

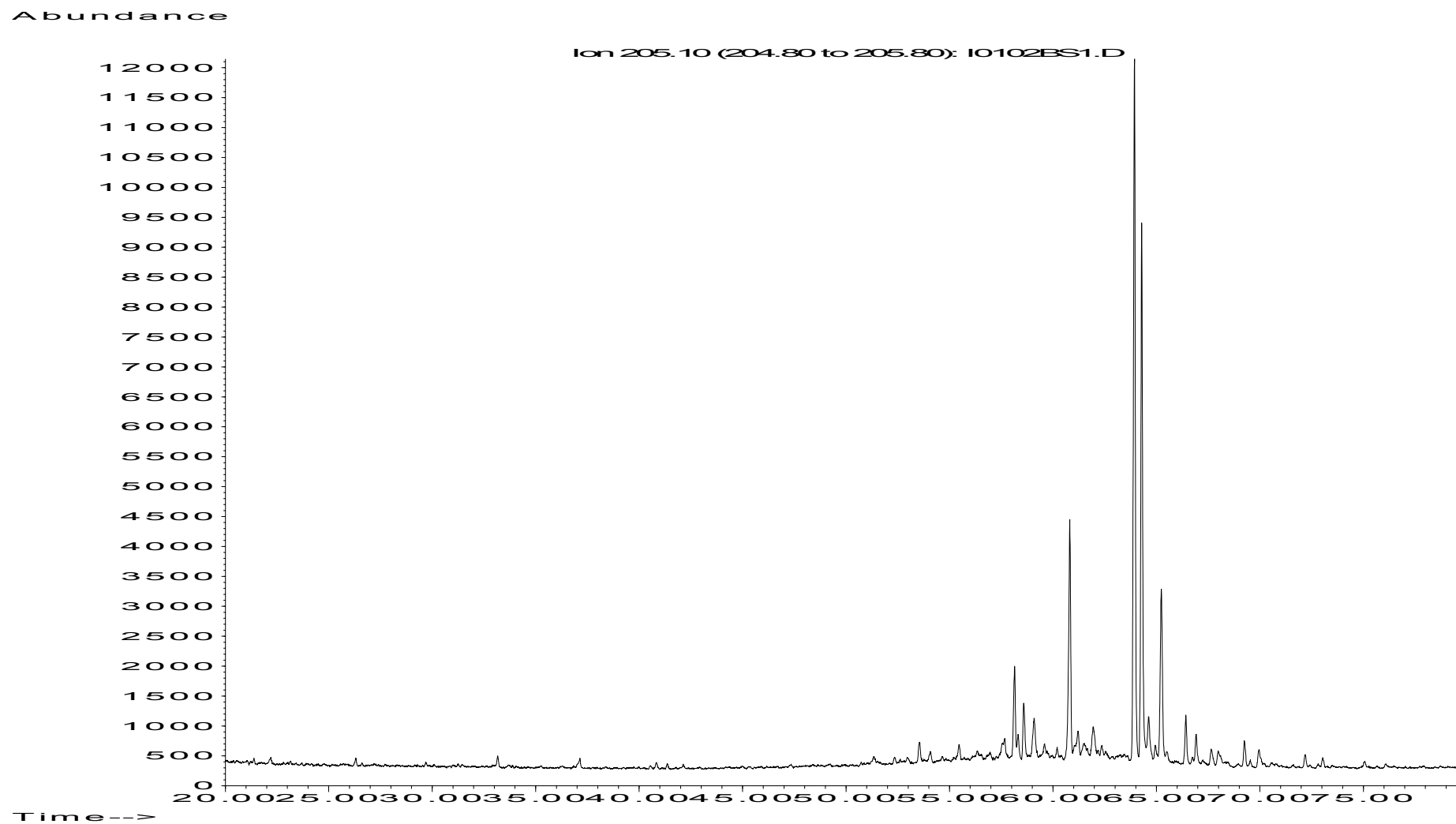


Time-->

I0106, 7831/2-U-2, 6.78 - 6.83 m, COCH, Clyst (slty, dkgy), SAT GCMSD

Terpanes (m/z 205)

- 289 -



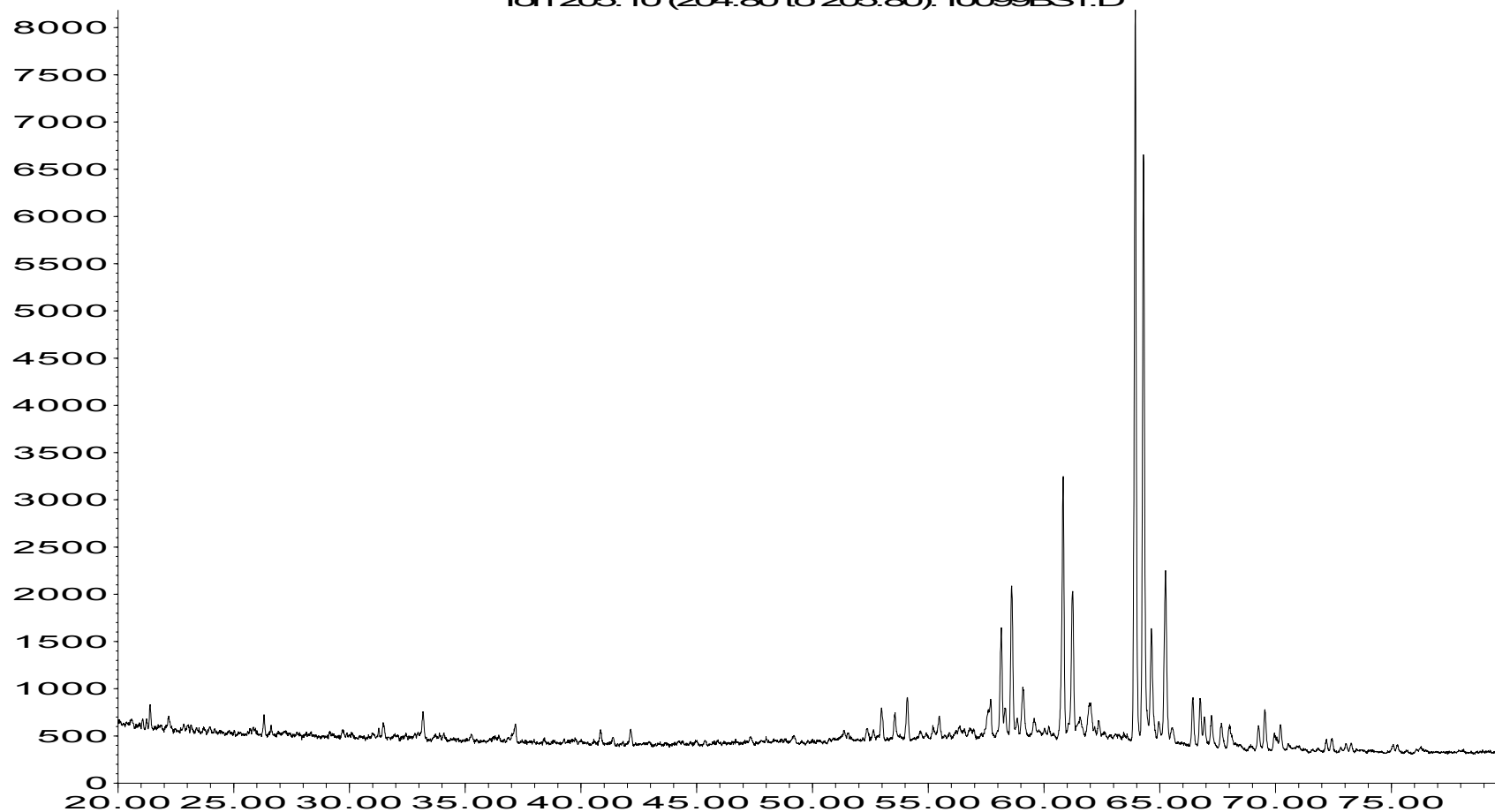
I0102, 7831/2-U-2, 10.23 - 10.28 m, COCH, Cyst (sly, mgy), SAT GCMSD

Terpanes (m/z 205)

- 290 -

Abundance

Ion 205.10 (204.80 to 205.80): I0099BS1.D



Time-->

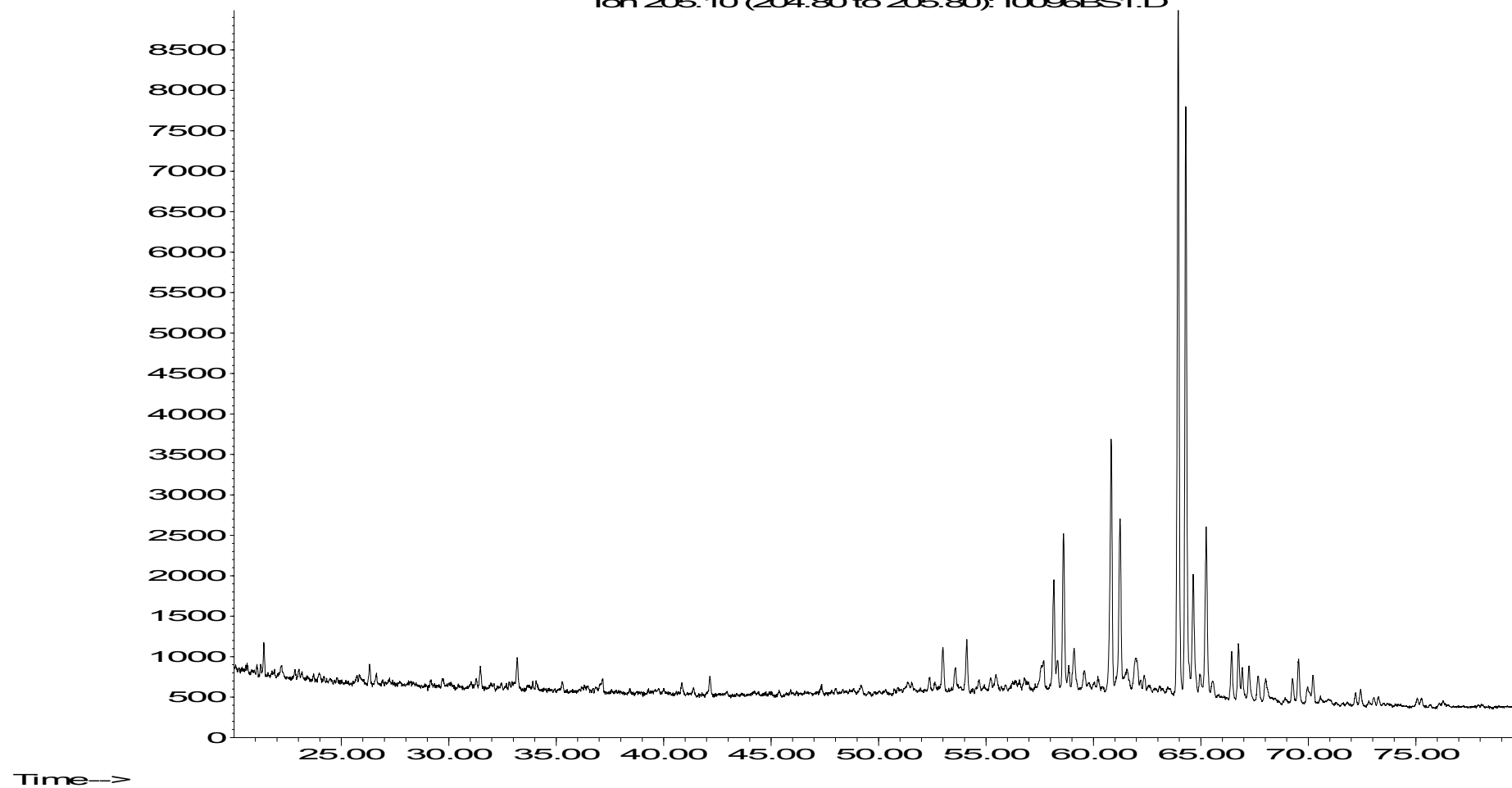
I0099, 7831/2-U-2, 14.48 - 14.53 m, COCH, Cylst (sity, dkgy), SAT GCMSD

Terpanes (m/z 205)

- 291 -

Abundance

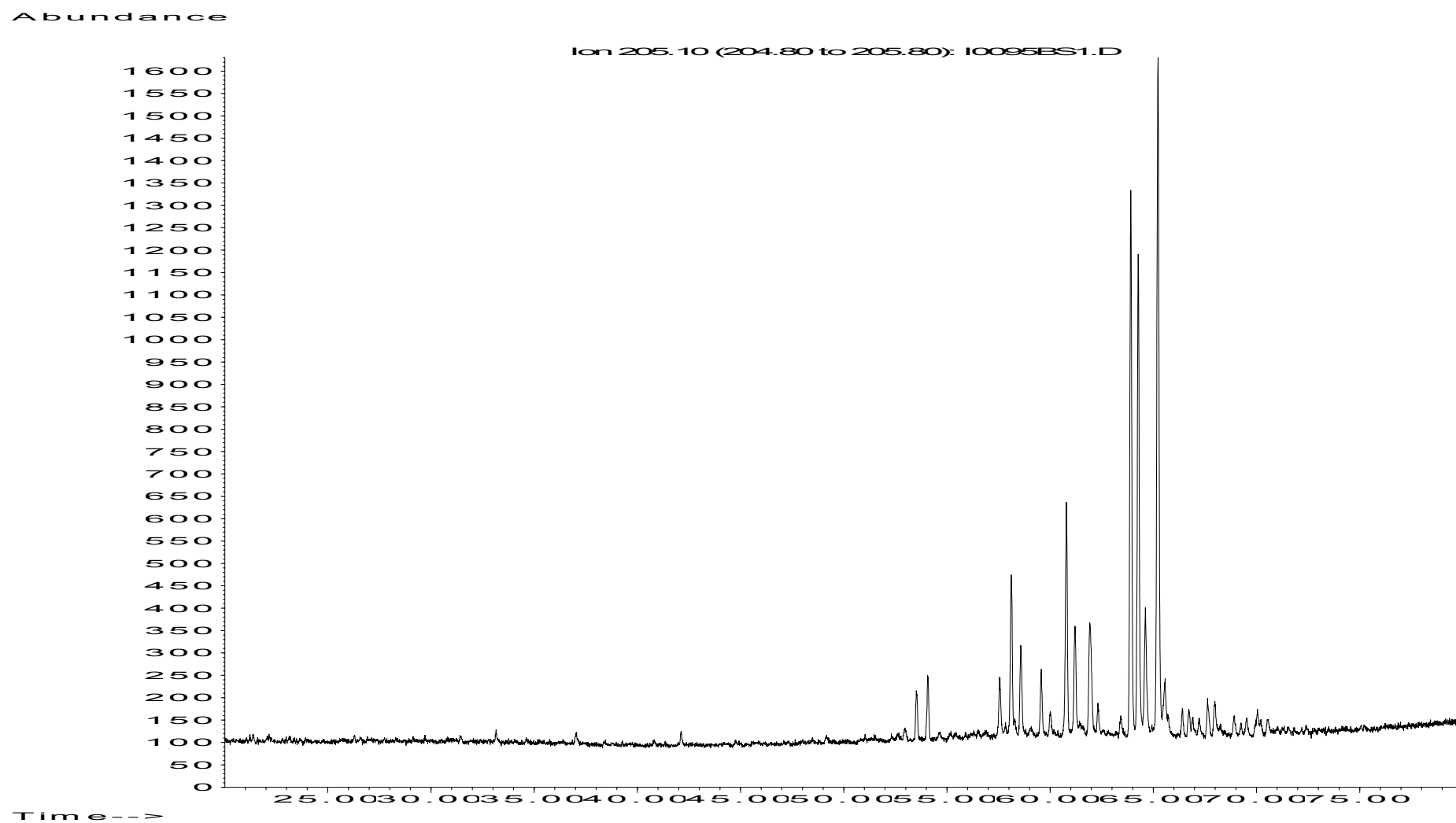
Ion 205.10 (204.80 to 205.80): I0096BS1.D



I0096, 7831/2-U-2, 17.83 - 17.87 m, COCH, Cyst (slty, dkgy), SAT GCMSD

Terpanes (m/z 205)

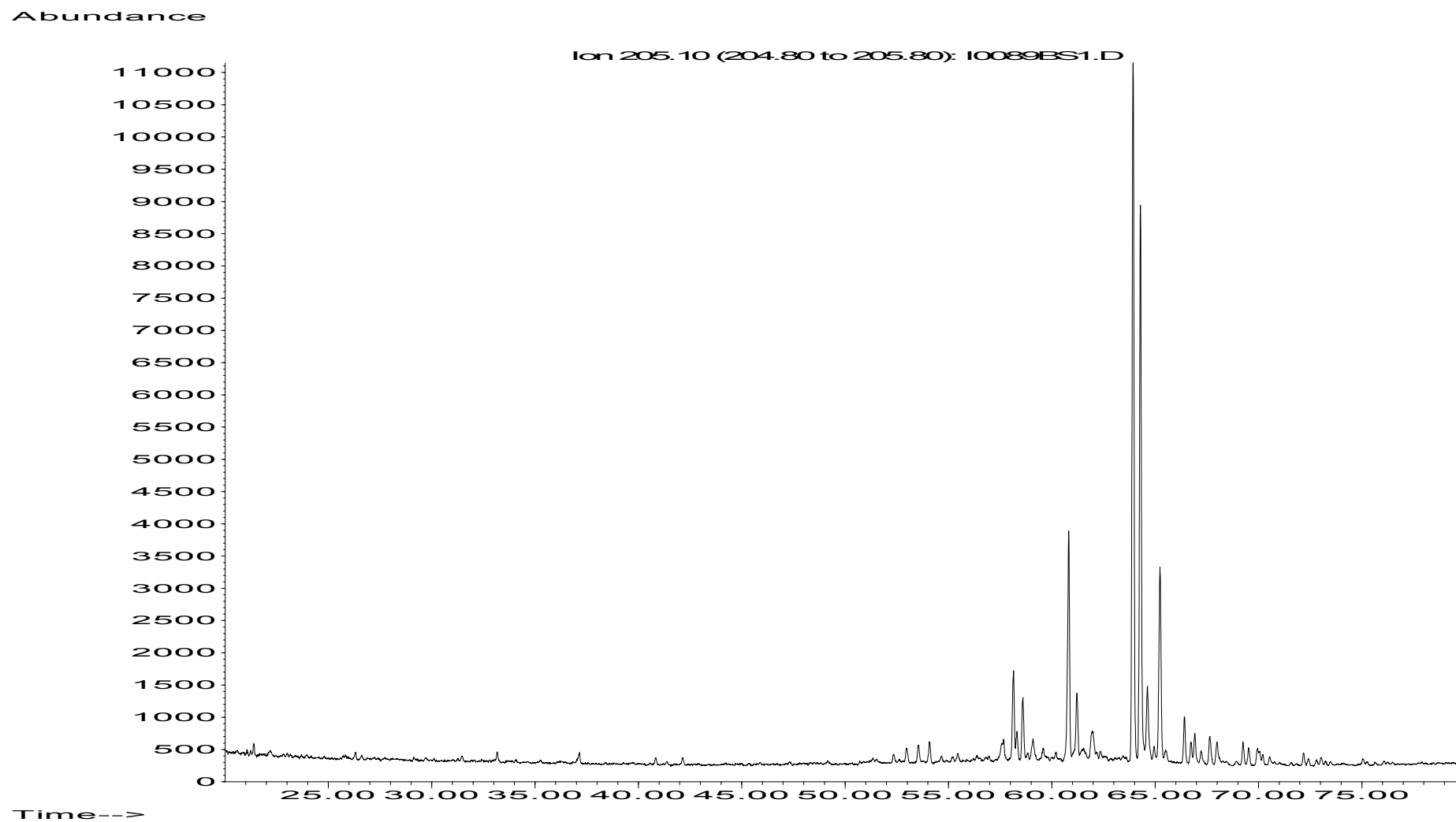
- 292 -



I0095, 7831/2-U-2, 18.72 - 18.85 m, COCH, Cyst (slty, dkgy), SAT GCMSD

Terpanes (m/z 205)

- 293 -



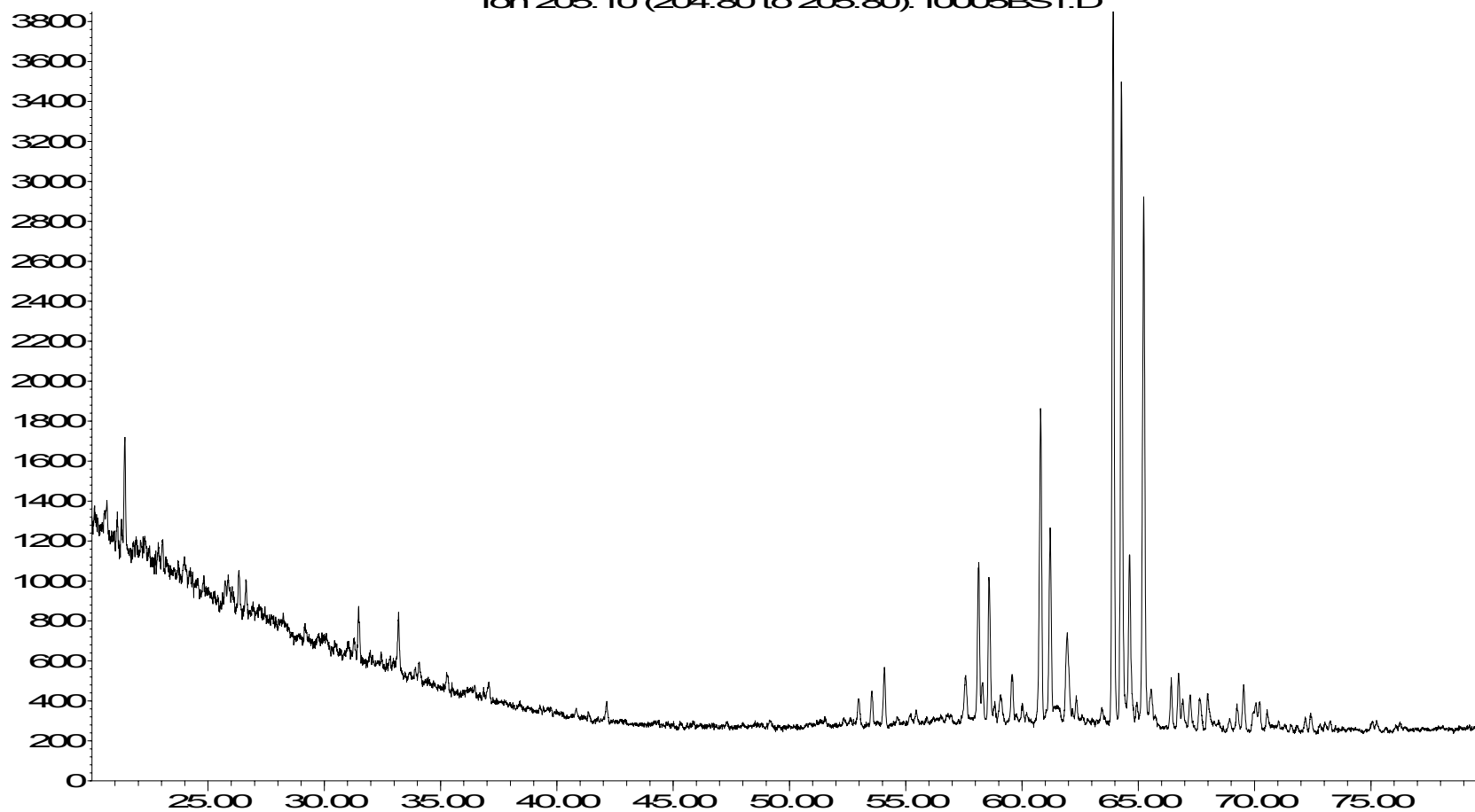
I0089, 7831/2-U-1, 21.72 - 21.76 m, COCH, Clyst (dkgy), SAT GCMSD

Terpanes (m/z 205)

- 294 -

Abundance

Ion 205.10 (204.80 to 205.80): I0005BS1.D

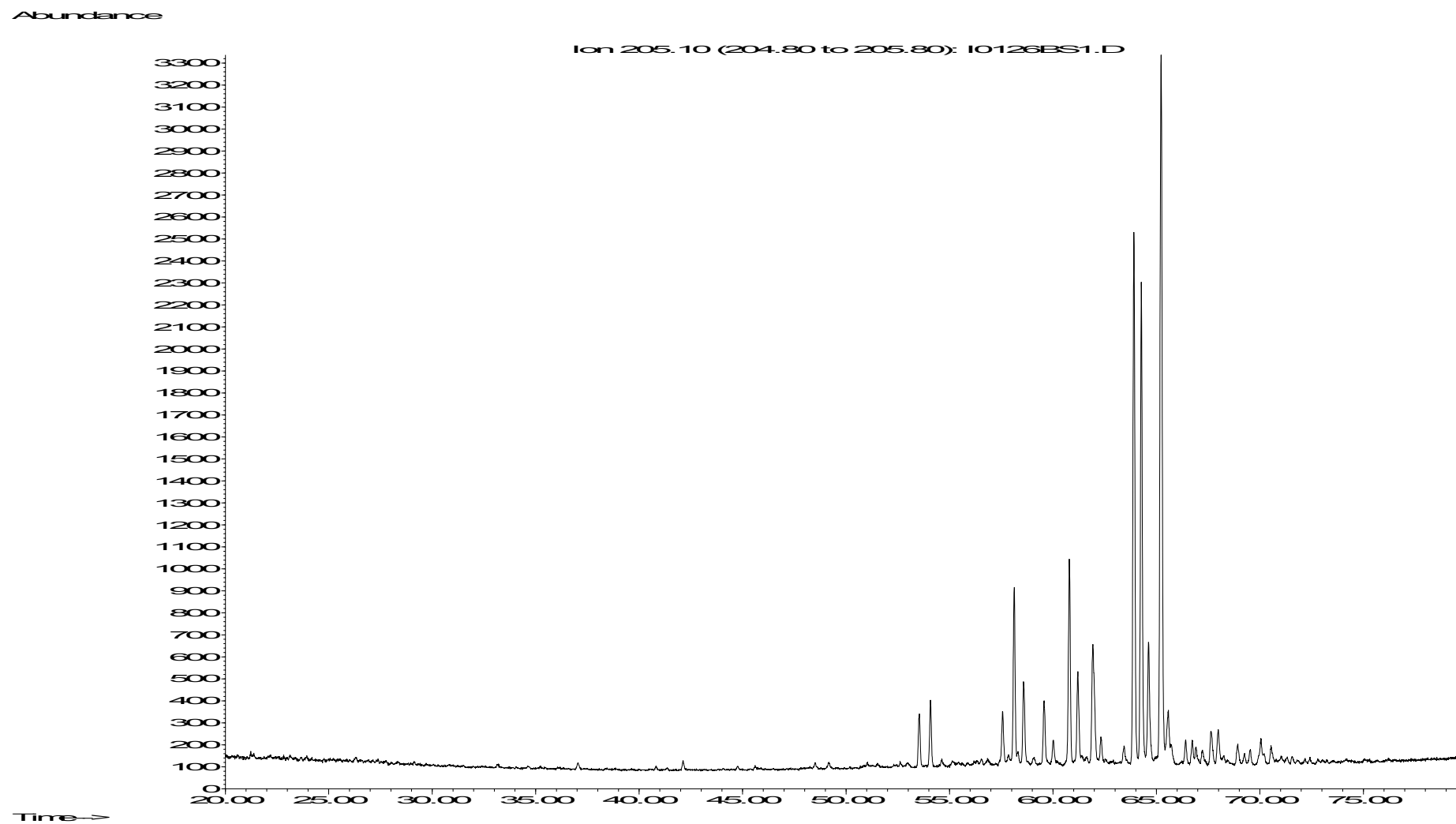


Time-->

I0005, 7830/6-U-1, 12.85 - 12.88 m, COCH, Slst, SAT GCMSD

Terpanes (m/z 205)

- 295 -



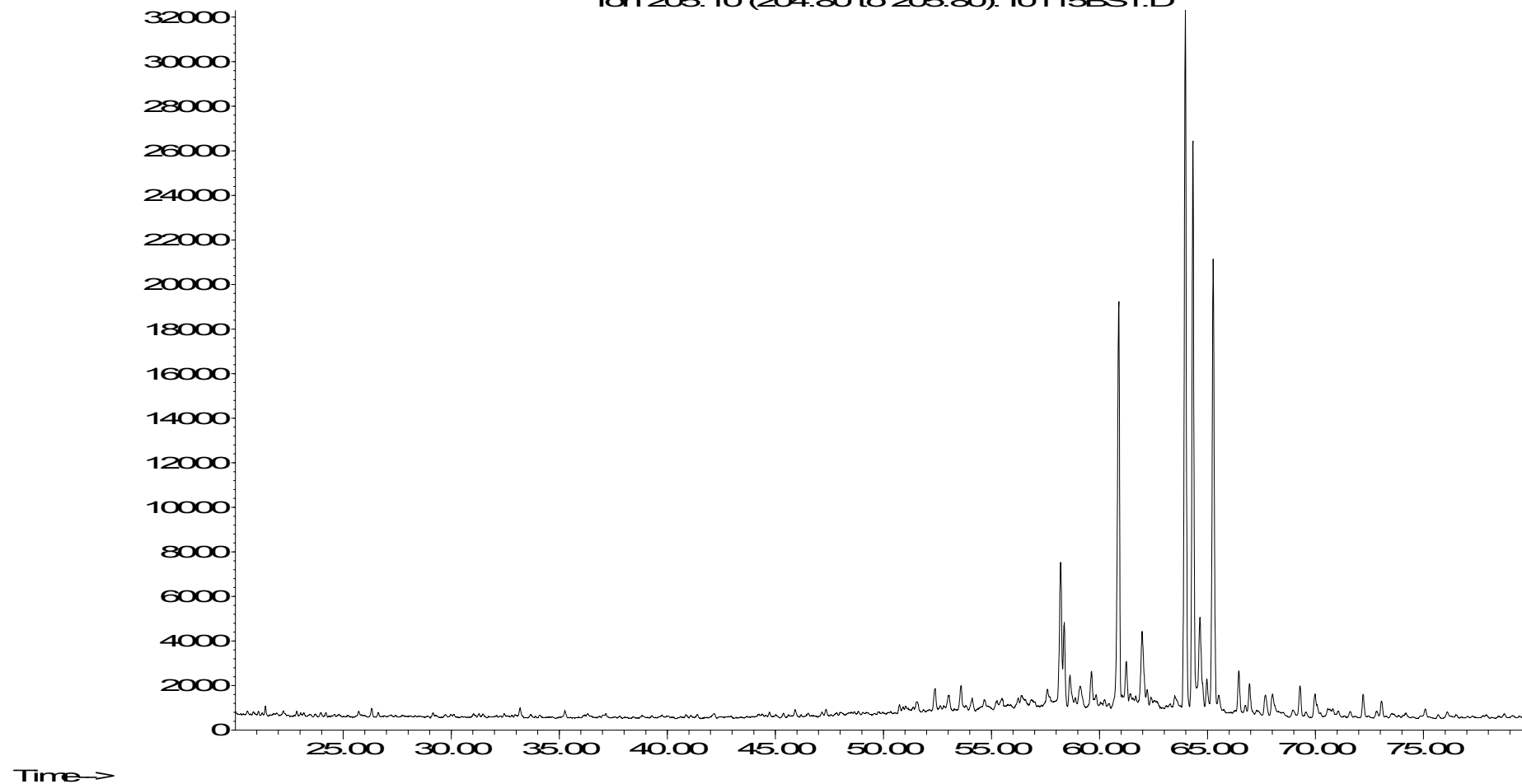
I0126, 7830/6-U-1, 20.03 - 20.10 m, COCH, Cylst (slty, lam, dkgy), SAT GCMSD

Terpanes (m/z 205)

- 296 -

Abundance

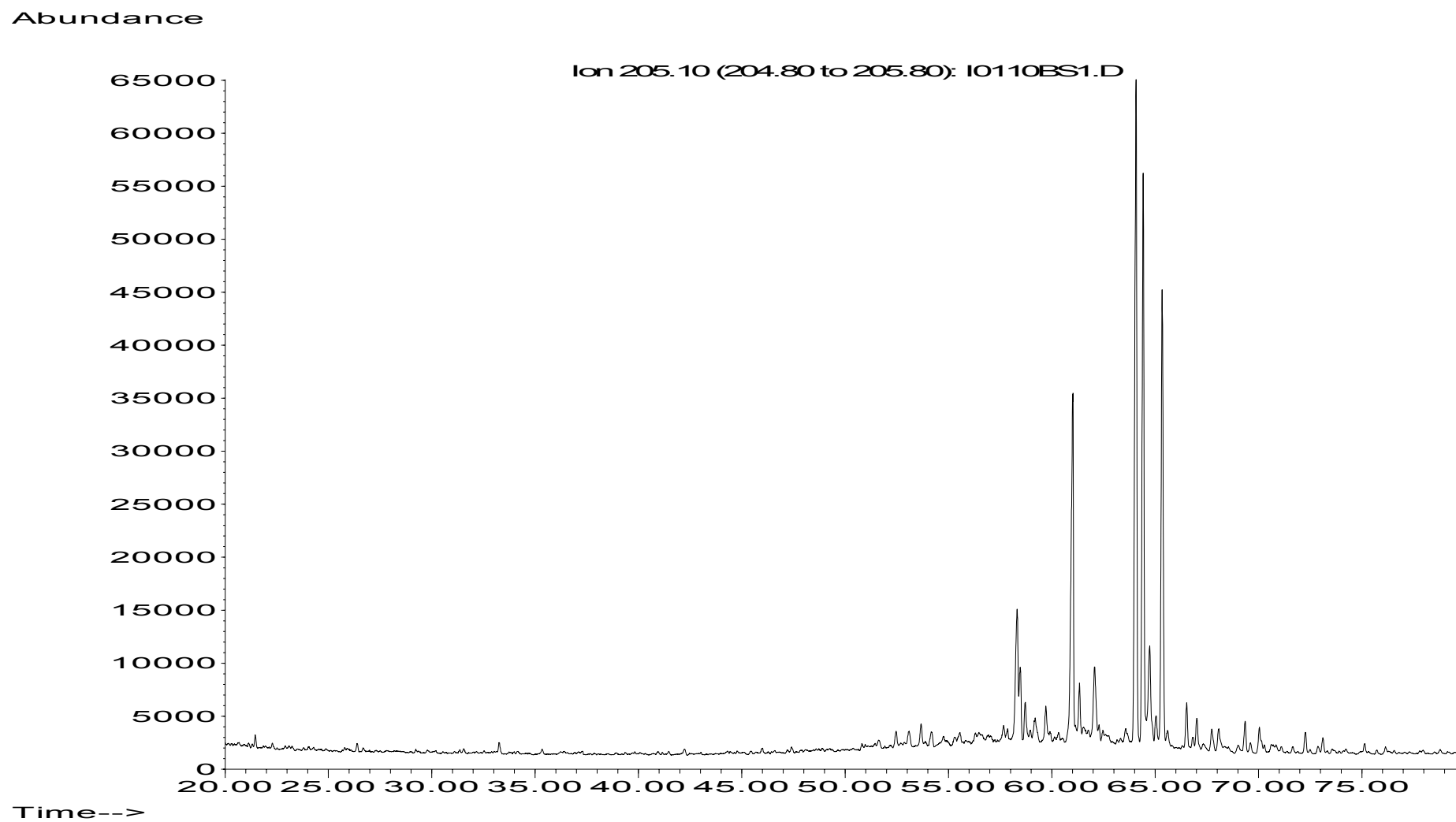
Ion 205.10 (204.80 to 205.80): I0115BS1.D



I0115, 7830/6-U-1, 41.85 - 41.89 m, COCH, Clyst (dkgy, lam), SAT GCMSD

Terpanes (m/z 205)

- 297 -



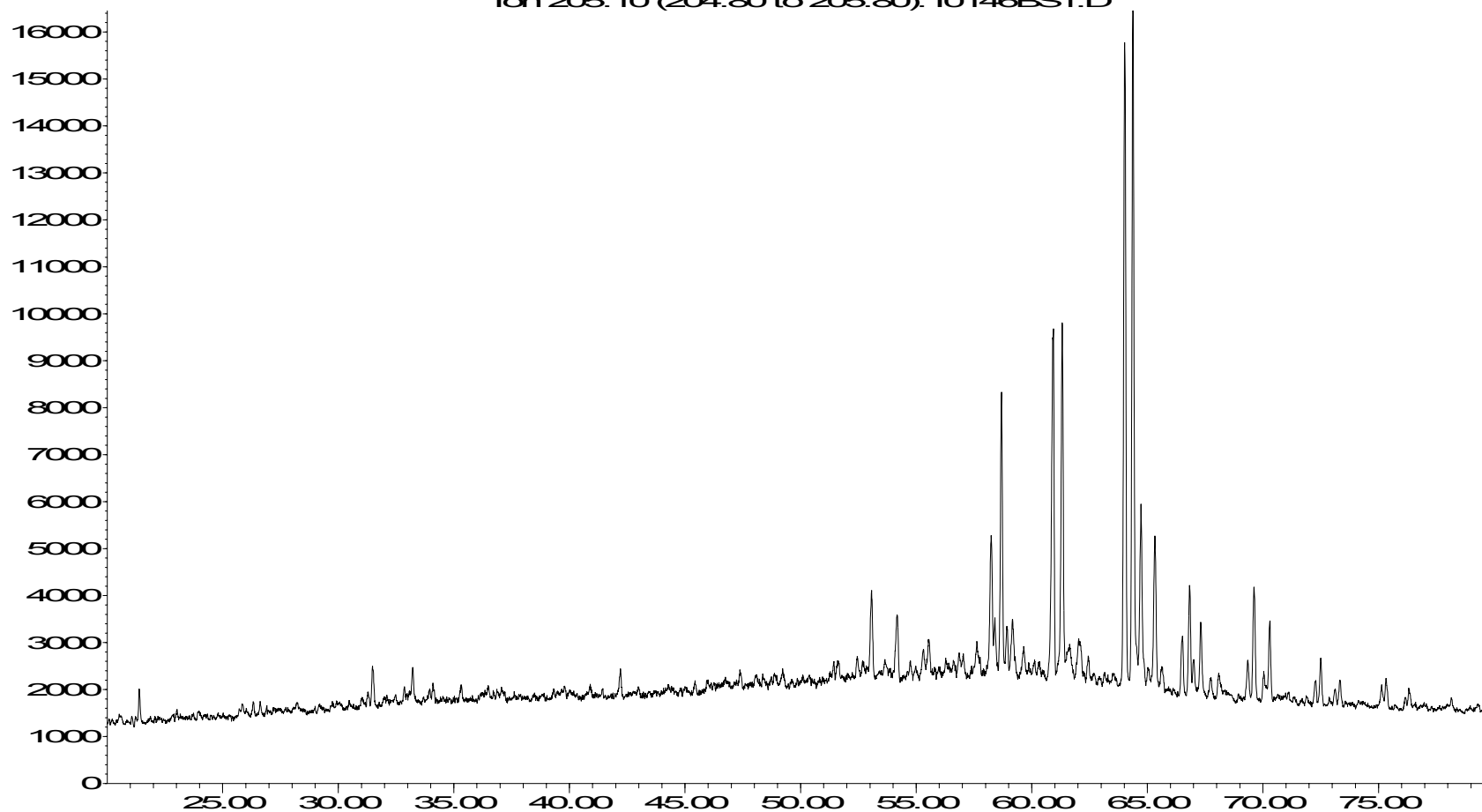
I0110, 7830/6-U-1, 50.90 - 50.93 m, COCH, Clyst (dkgy, lam), SAT GCMSD

Terpanes (m/z 205)

- 298 -

Abundance

Ion 205.10 (204.80 to 205.80): I0146BS1.D



Time-->

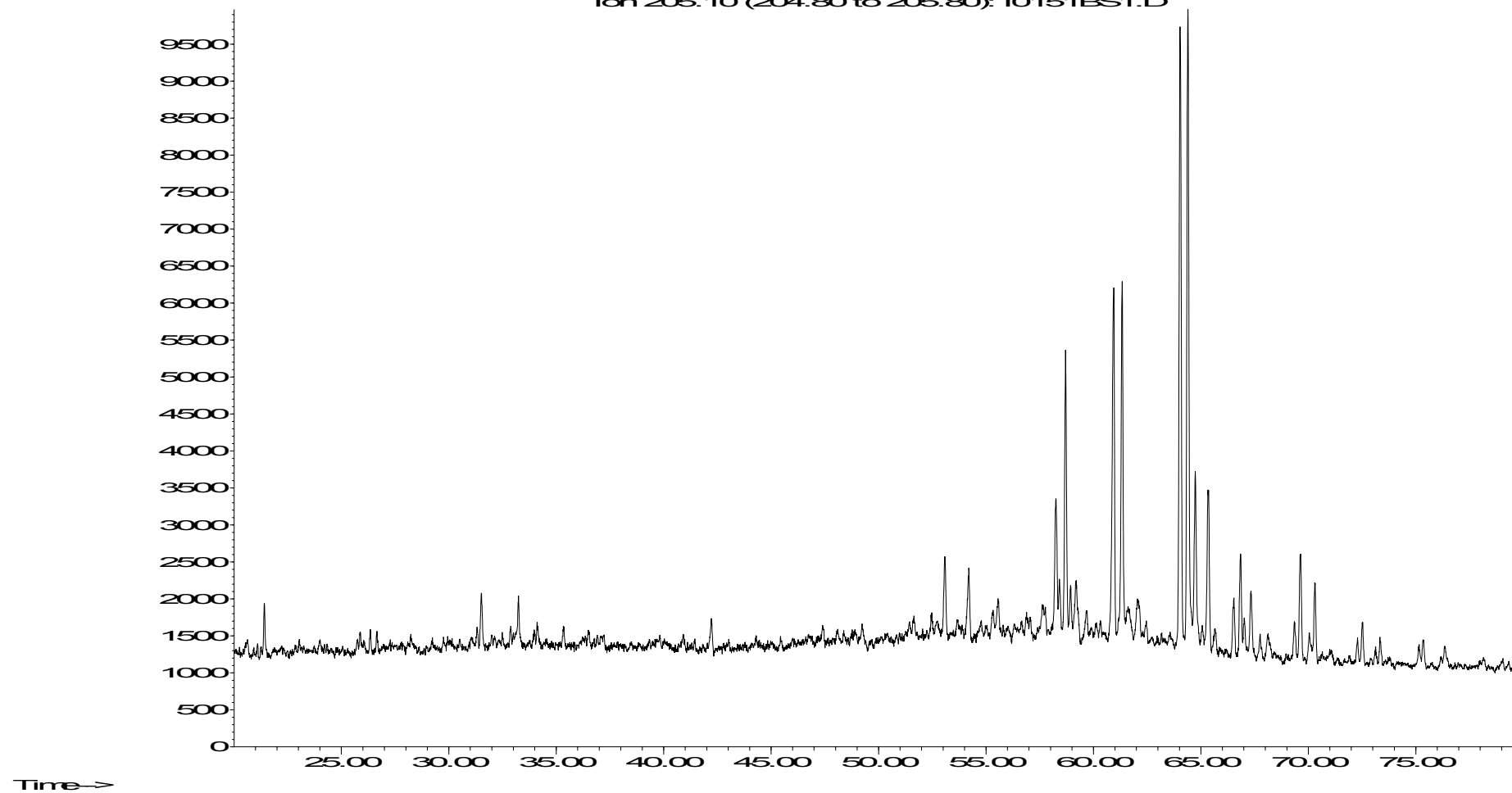
I0146, 7830/3-U-1, 39.94 - 39.99 m, COCH, Sst (mgr, mgy), SAT GCMSD

Terpanes (m/z 205)

- 299 -

Abundance

Ion 205.10 (204.80 to 205.80): I0151BS1.D



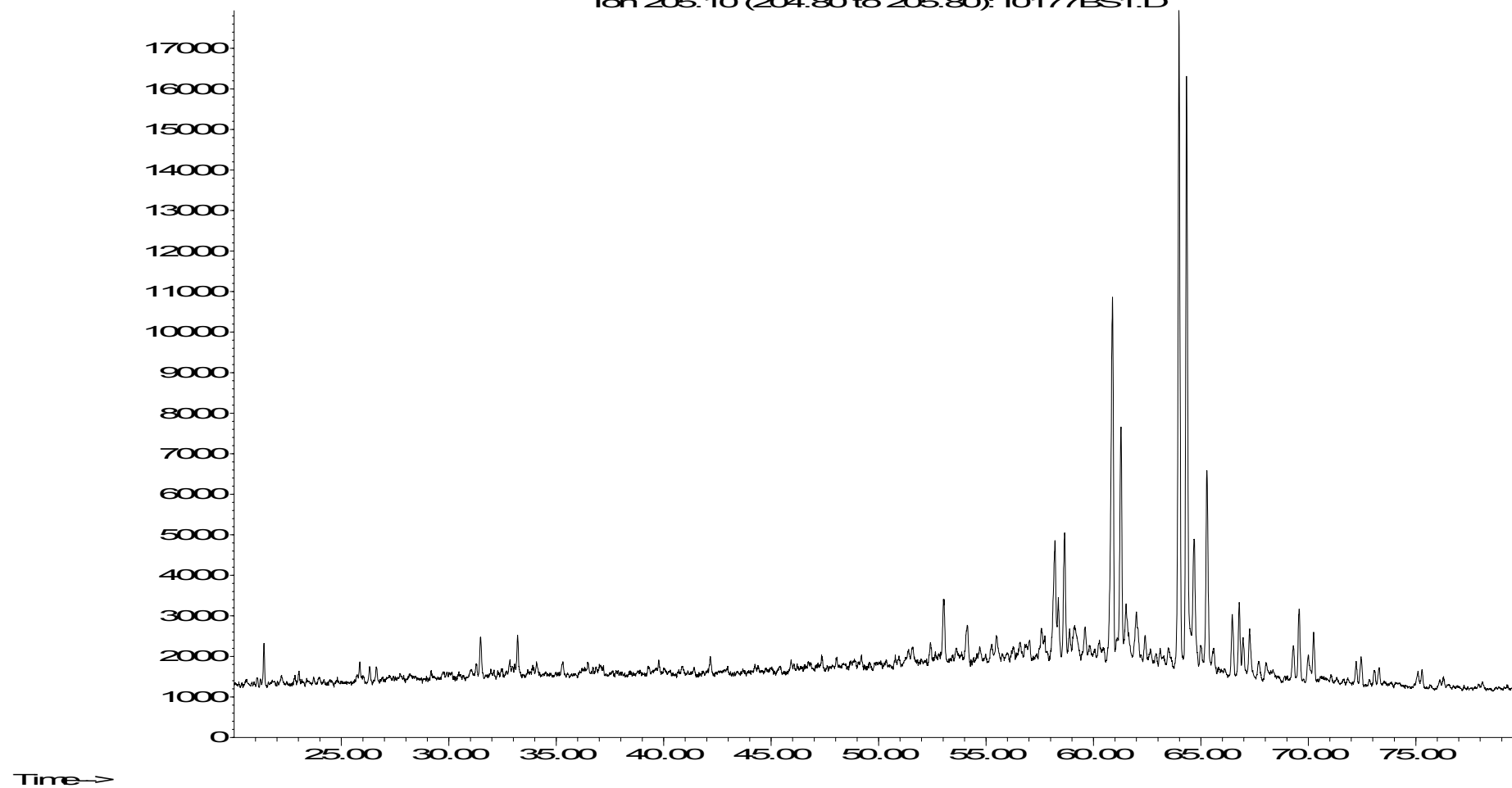
I0151, 7830/3-U-1, 51.24 m, COPL, Sst (fgr, mgy), SAT GCMSD

Terpanes (m/z 205)

- 300 -

Abundance

Ion 205.10 (204.80 to 205.80): I0177BS1.D



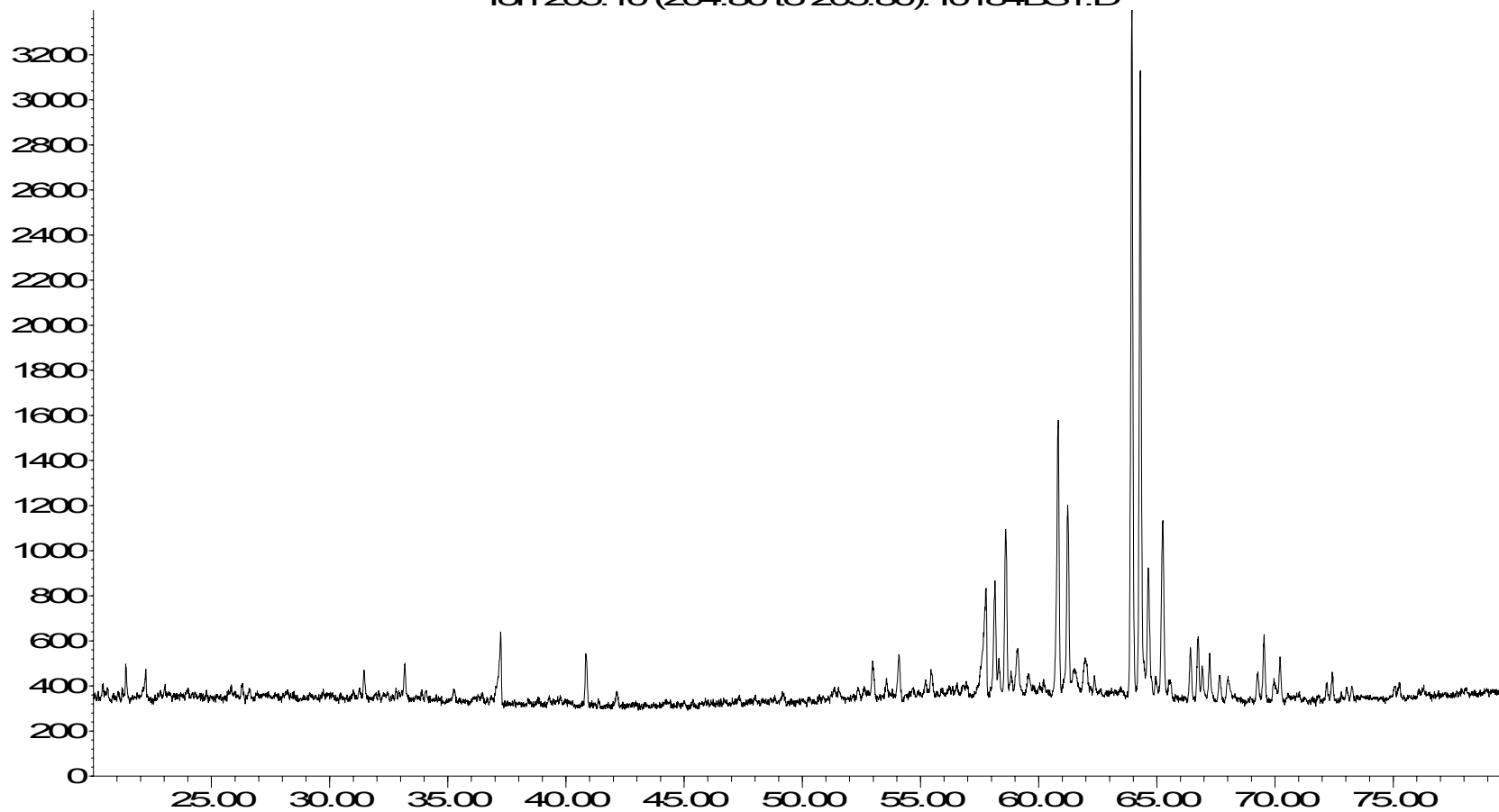
I0177, 7830/3-U-1, 111.69 - 111.75 m, COCH, Sst (fgr, dkgy), SAT GCMSD

Terpanes (m/z 205)

- 301 -

Abundance

Ion 205.10 (204.80 to 205.80): I0184BS1.D



Time-->

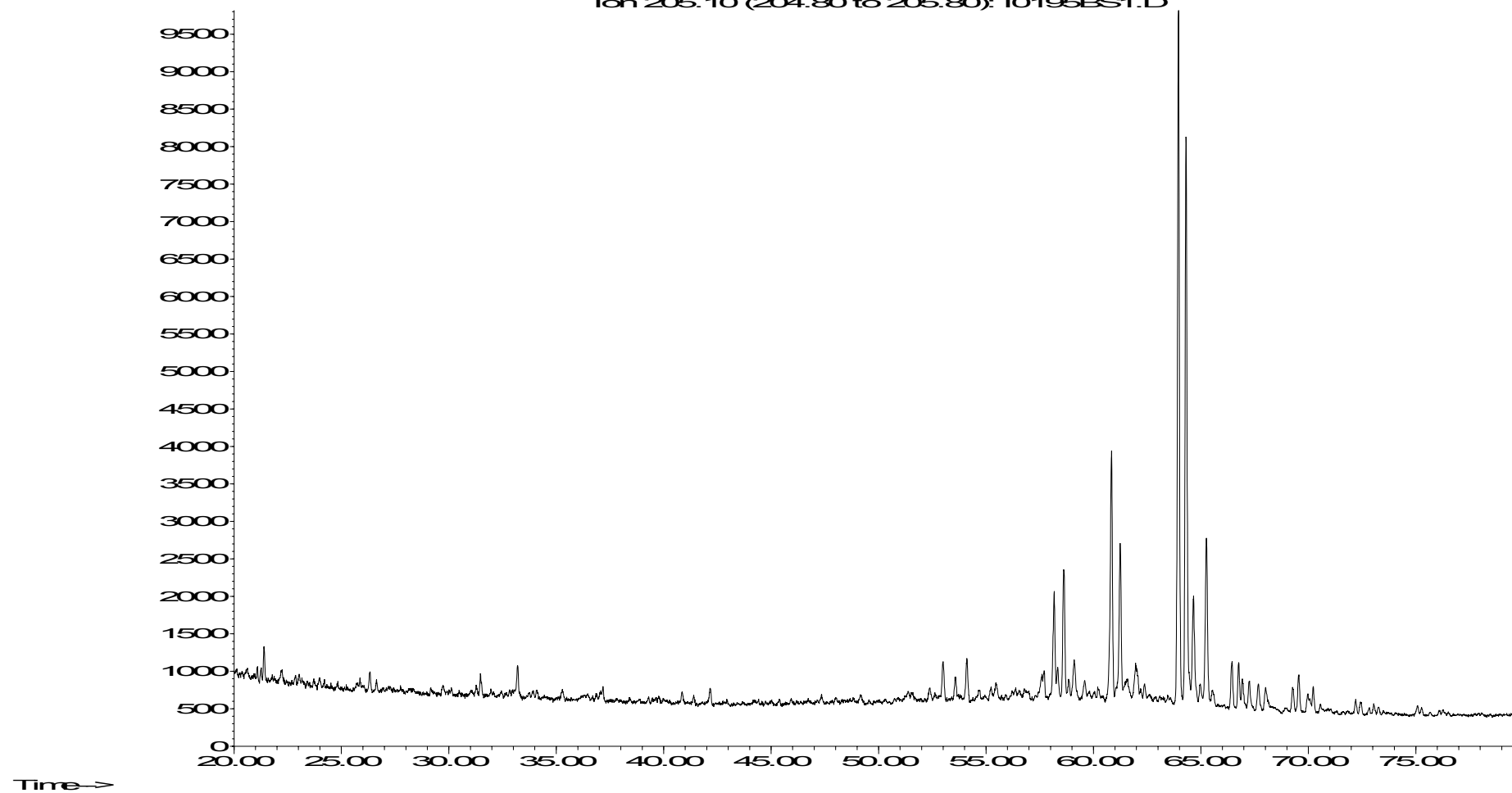
I0184, 7830/3-U-1, 124.63 m, COPL, Sst (fgr, Itgy), SAT GCMSD

Terpanes (m/z 205)

- 302 -

Abundance

Ion 205.10 (204.80 to 205.80): I0195BS1.D



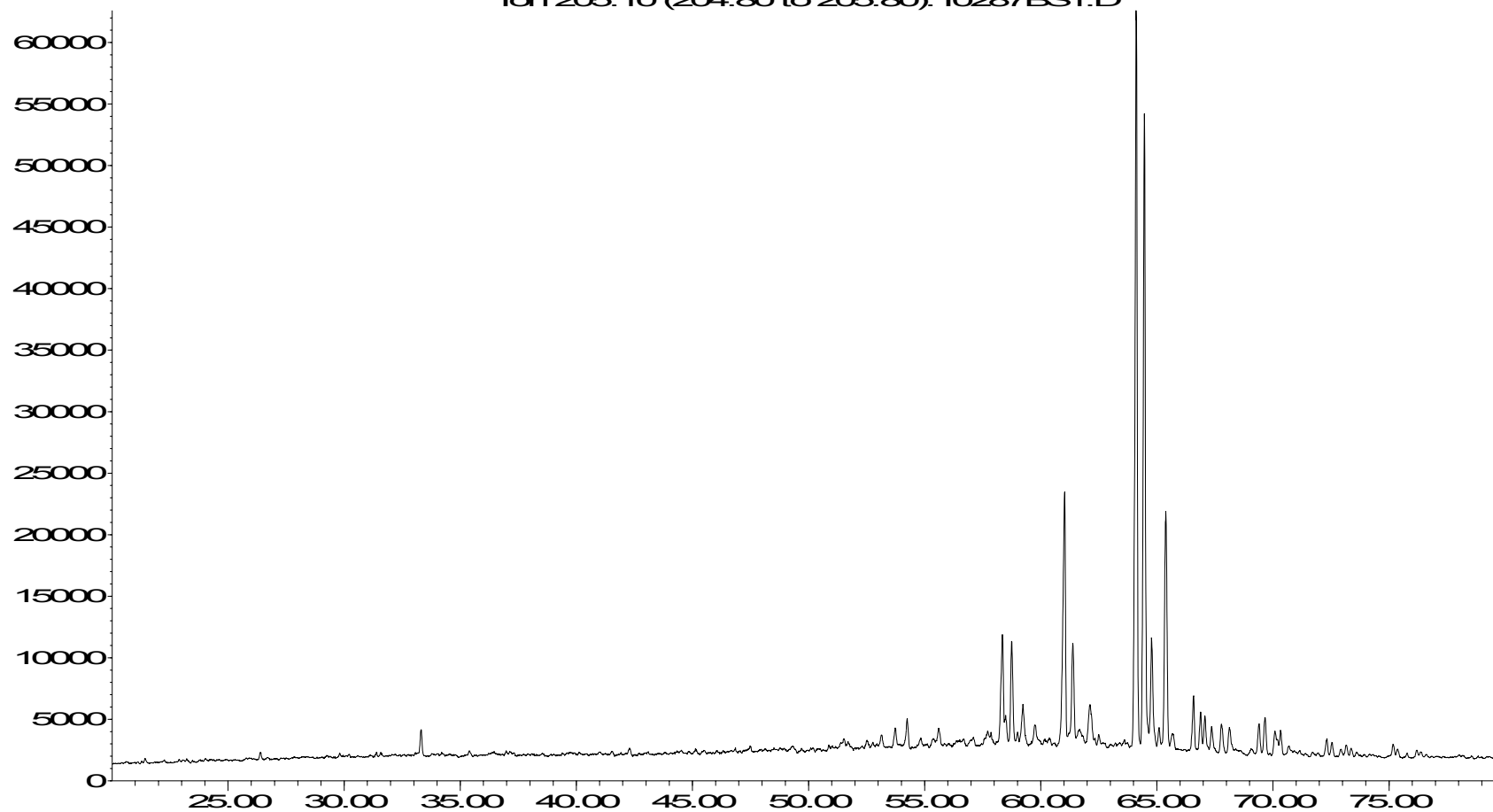
I0195, 7830/3-U-1, 154.81 - 154.88 m, COCH, Clyst (sl slty, ltgy), SAT GCMSD

Terpanes (m/z 205)

- 303 -

Abundance

Ion 205.10 (204.80 to 205.80): I0287BS1.D



Time→

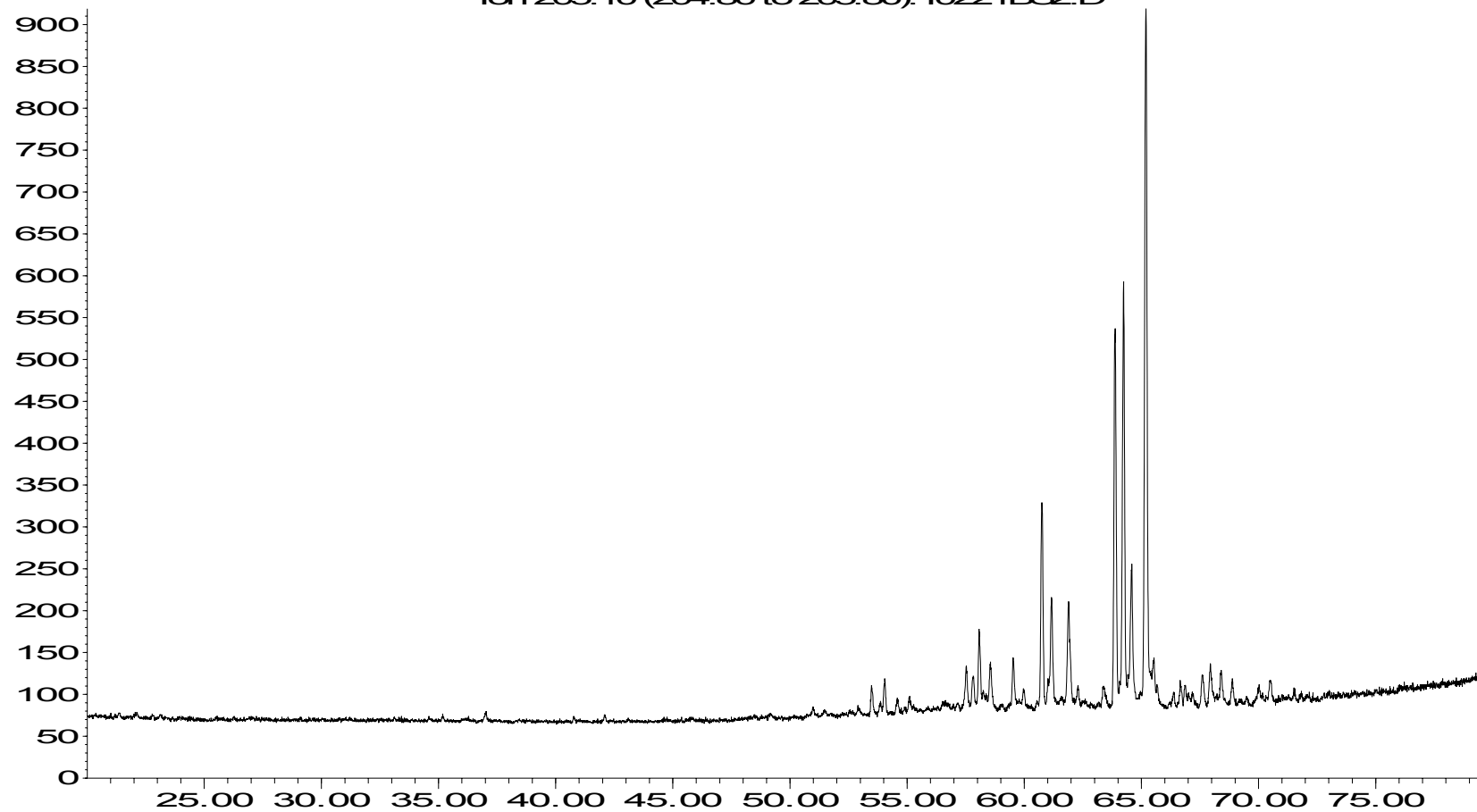
I0287, 7830/3-U-1, 174.13 - 174.15 m, COCH, Sst (fgr, mgy), SAT GCMSD

Terpanes (m/z 205)

- 304 -

Abundance

Ion 205.10 (204.80 to 205.80): I0221BS2.D



Time-->

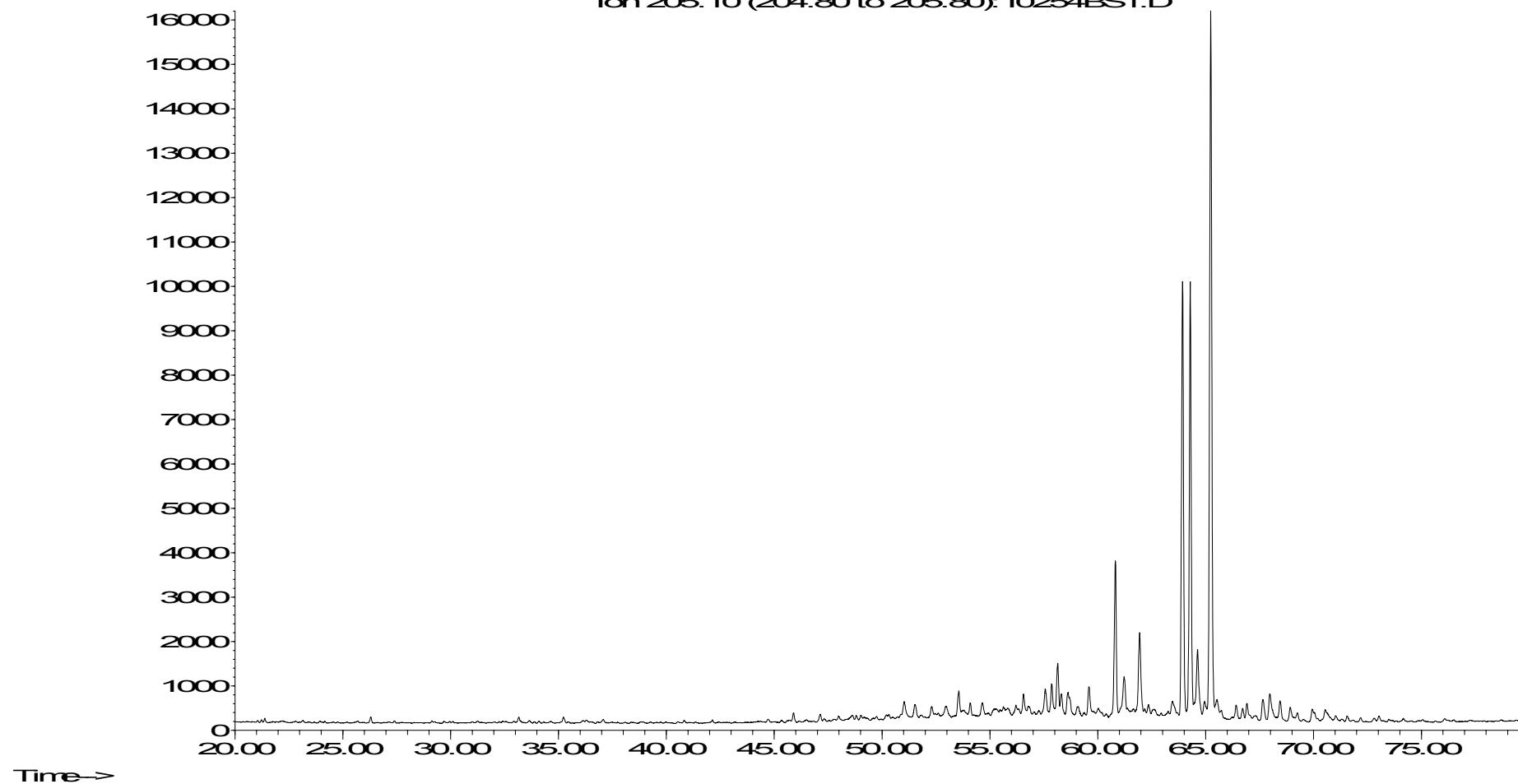
I0221, 7830/5-U-1, 58.90 - 58.97 m, COCH, Cylst (sl slty, lam, dkgy), SAT GCMSD

Terpanes (m/z 205)

- 305 -

Abundance

Ion 205.10 (204.80 to 205.80): I0254BS1.D



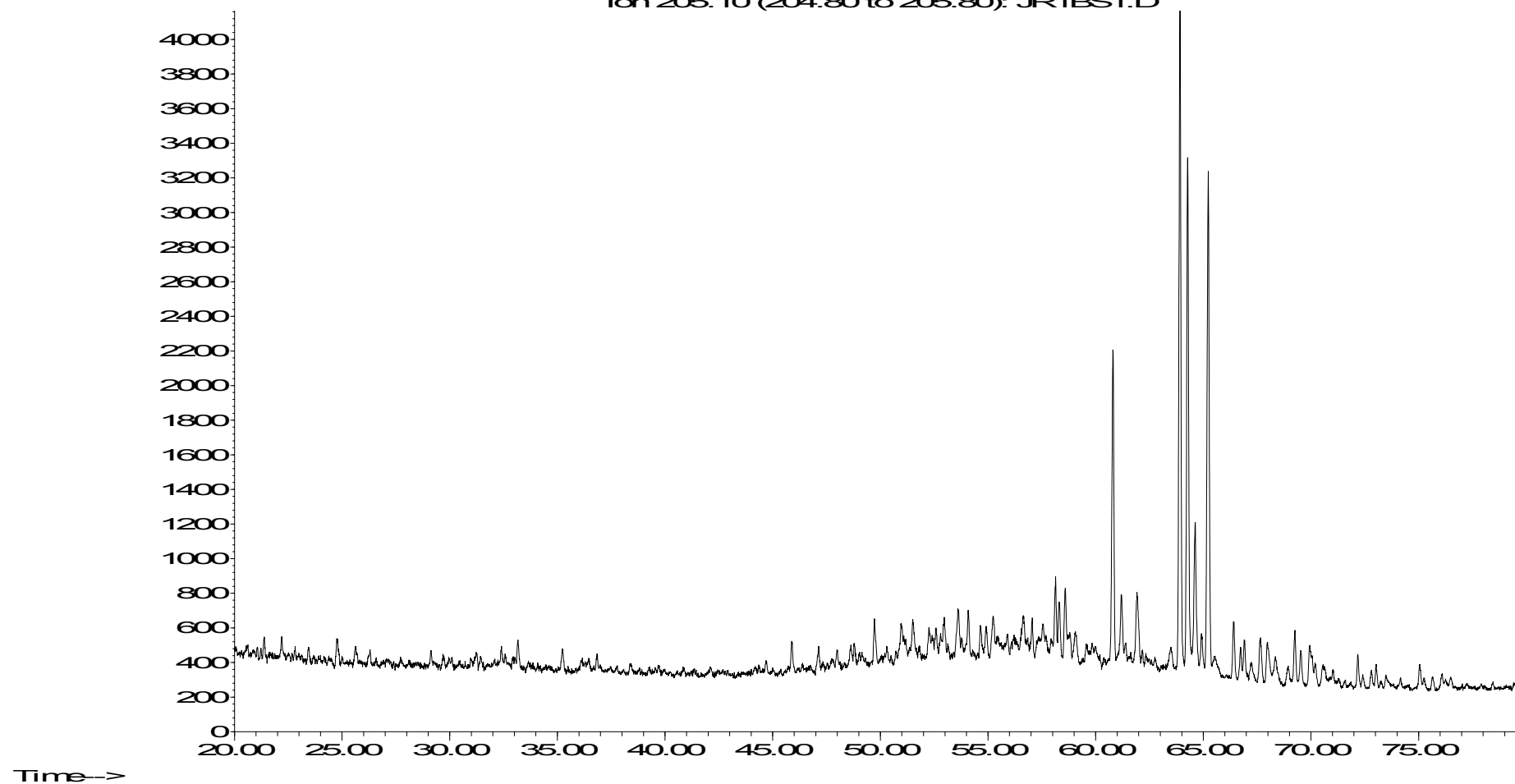
I0254, 7830/5-U-1, 128.62 - 128.68 m, COCH, Clyst (vdkgy, lam), SAT GCMSD

Terpanes (m/z 205)

- 306 -

Abundance

Ion 205.10 (204.80 to 205.80): JR1BS1.D

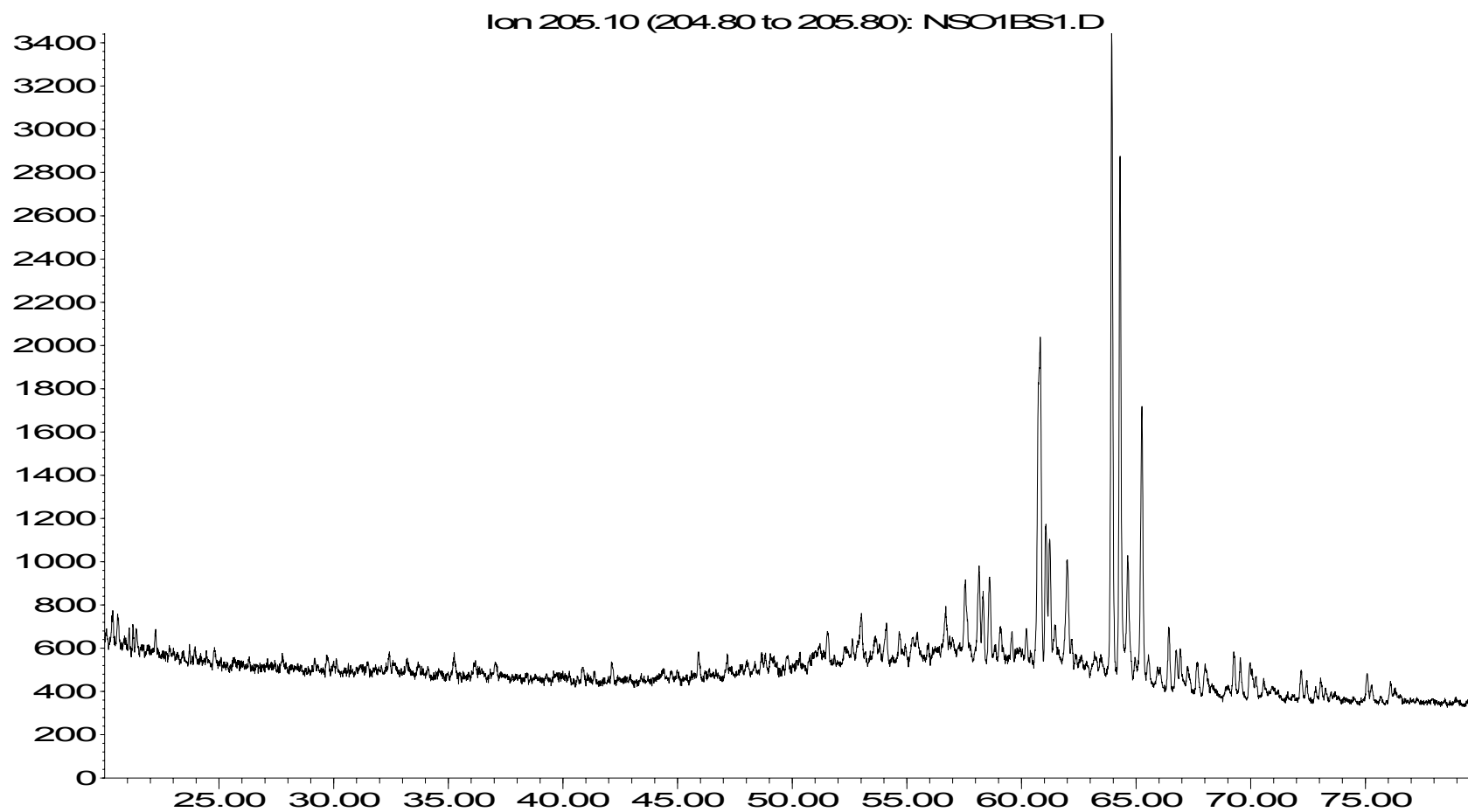


JR-1, NGS reference sample, SAT GCMSD

Terpanes (m/z 205)

- 307 -

Abundance



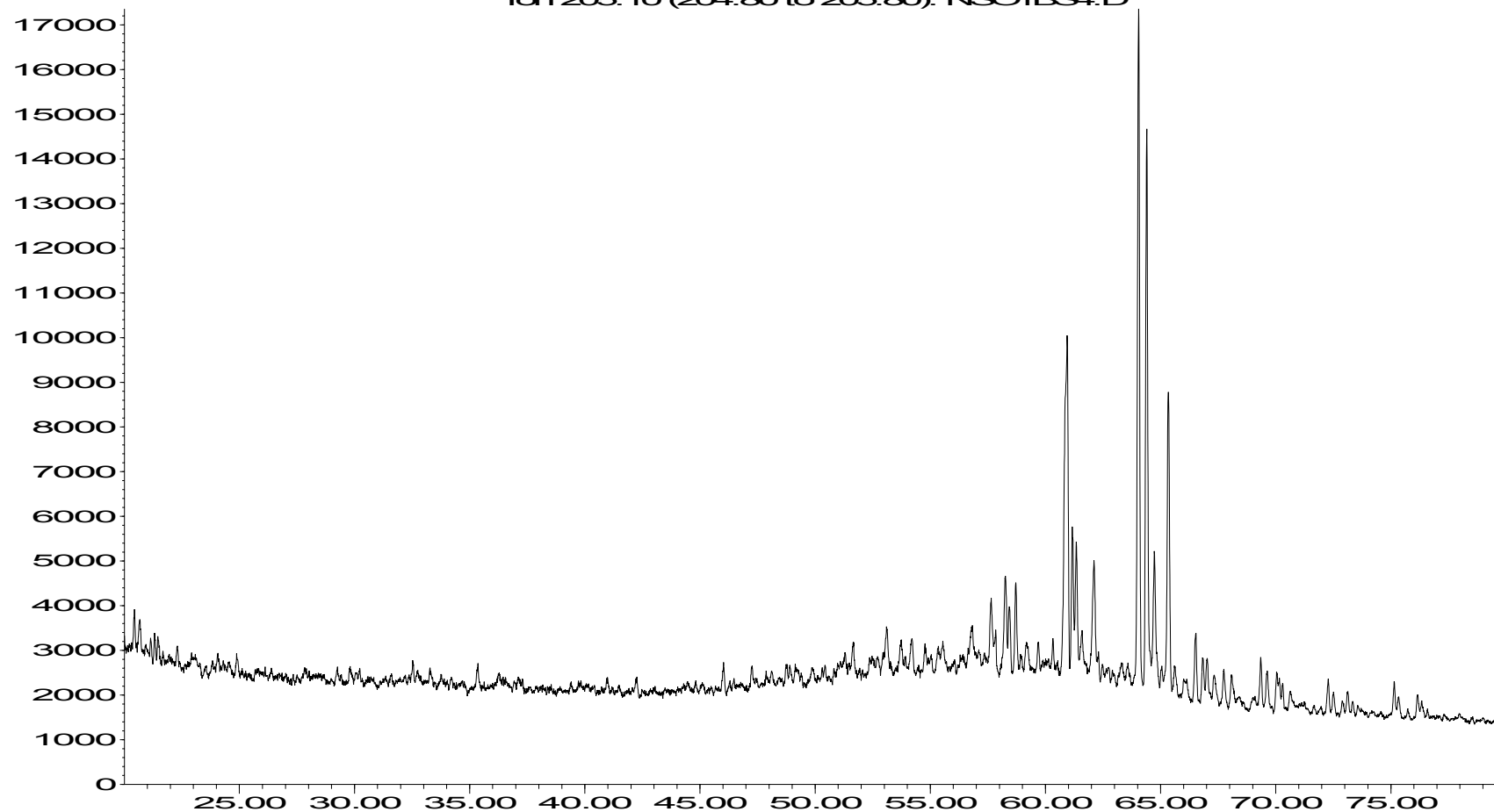
NSO-1, #0, NGS reference oil, SAT GCMSD

Terpanes (m/z 205)

- 308 -

Abundance

Ion 205.10 (204.80 to 205.80): NSO1BS4.D

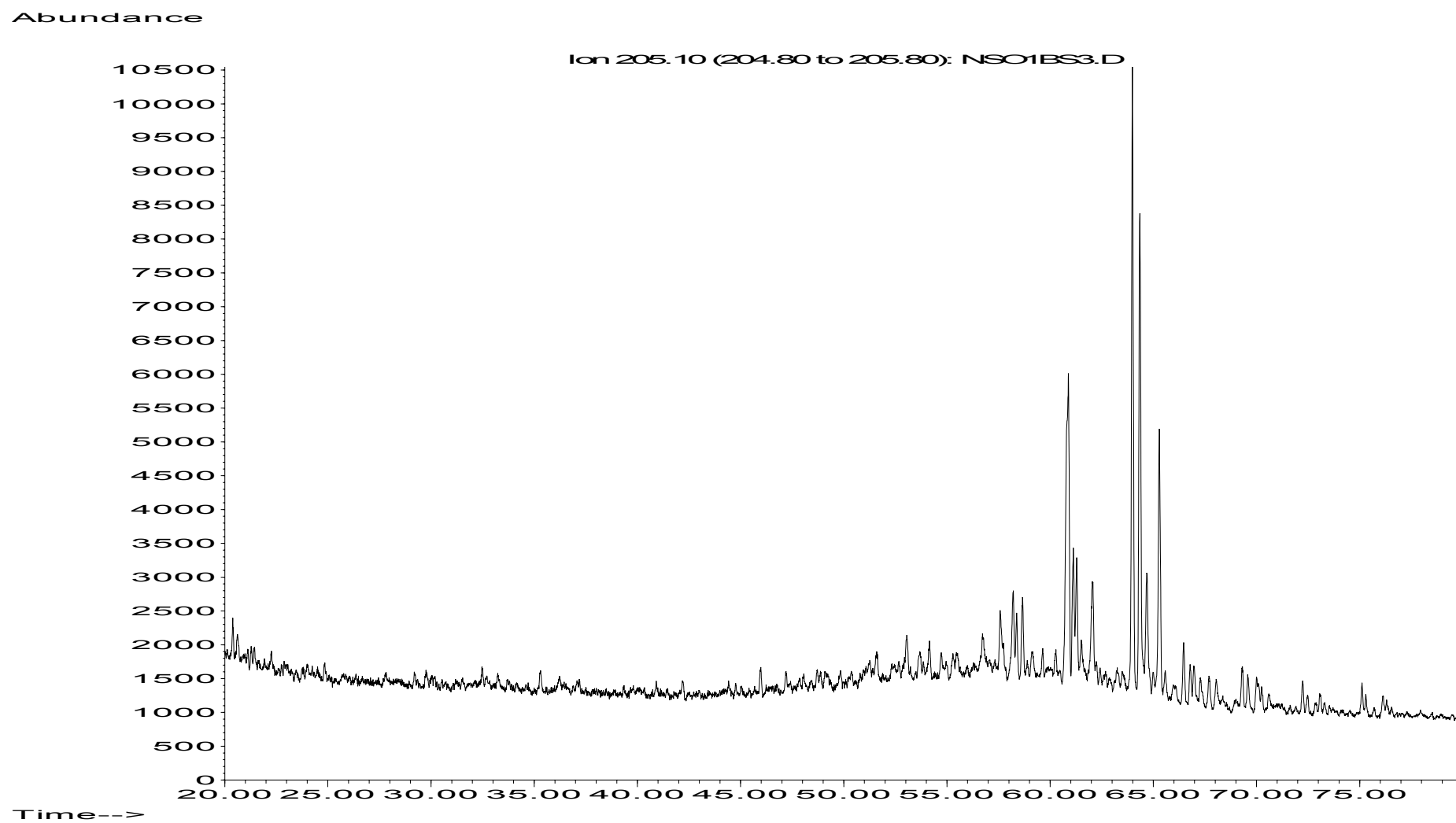


Time-->

NSO-1, #1, NGS reference oil, SAT GCMSD

Terpanes (m/z 205)

- 309 -

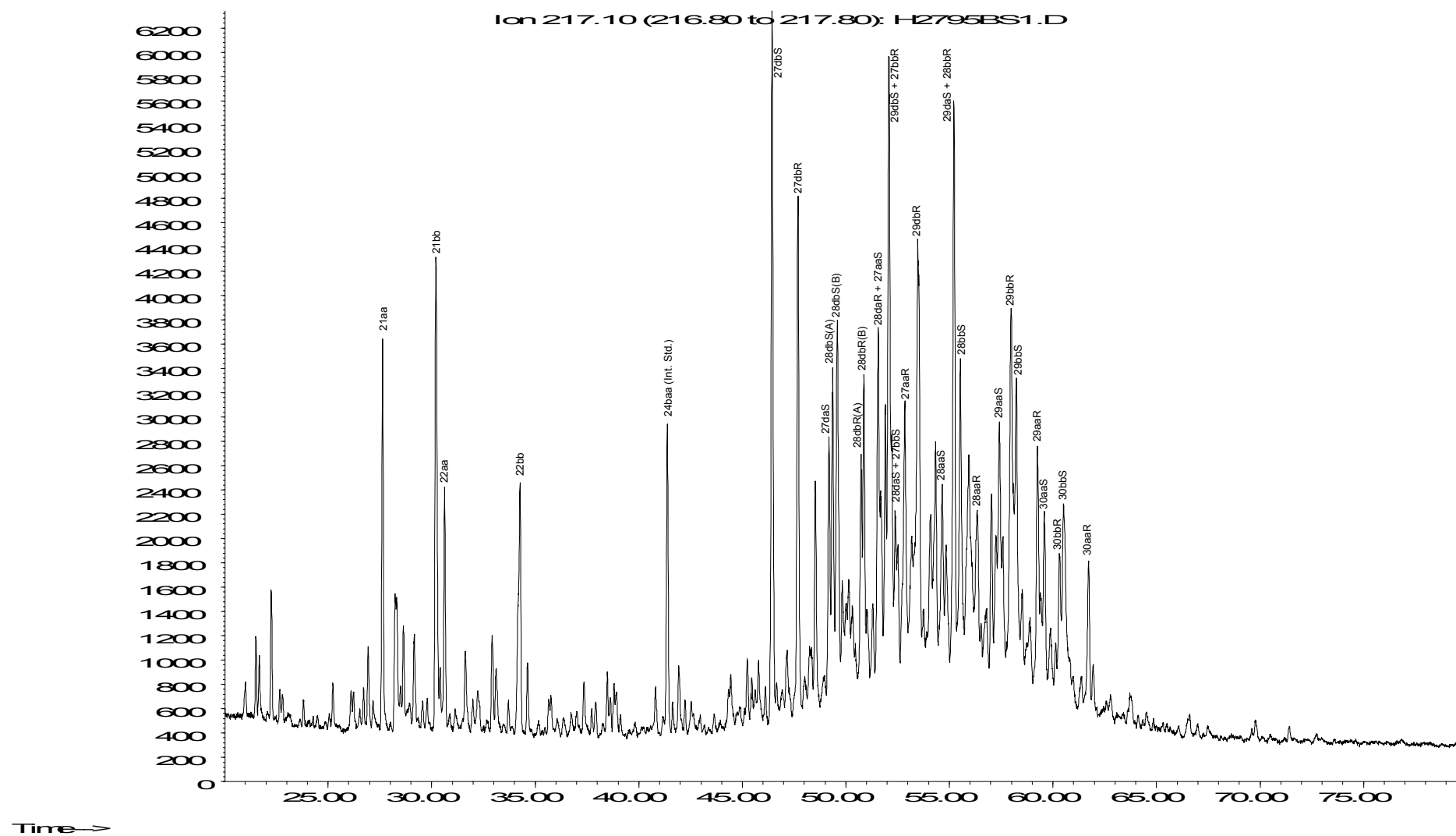


NSO-1, #2, NGS reference oil, SAT GCMSD

Terpanes (m/z 205)

- 310 -

Abundance

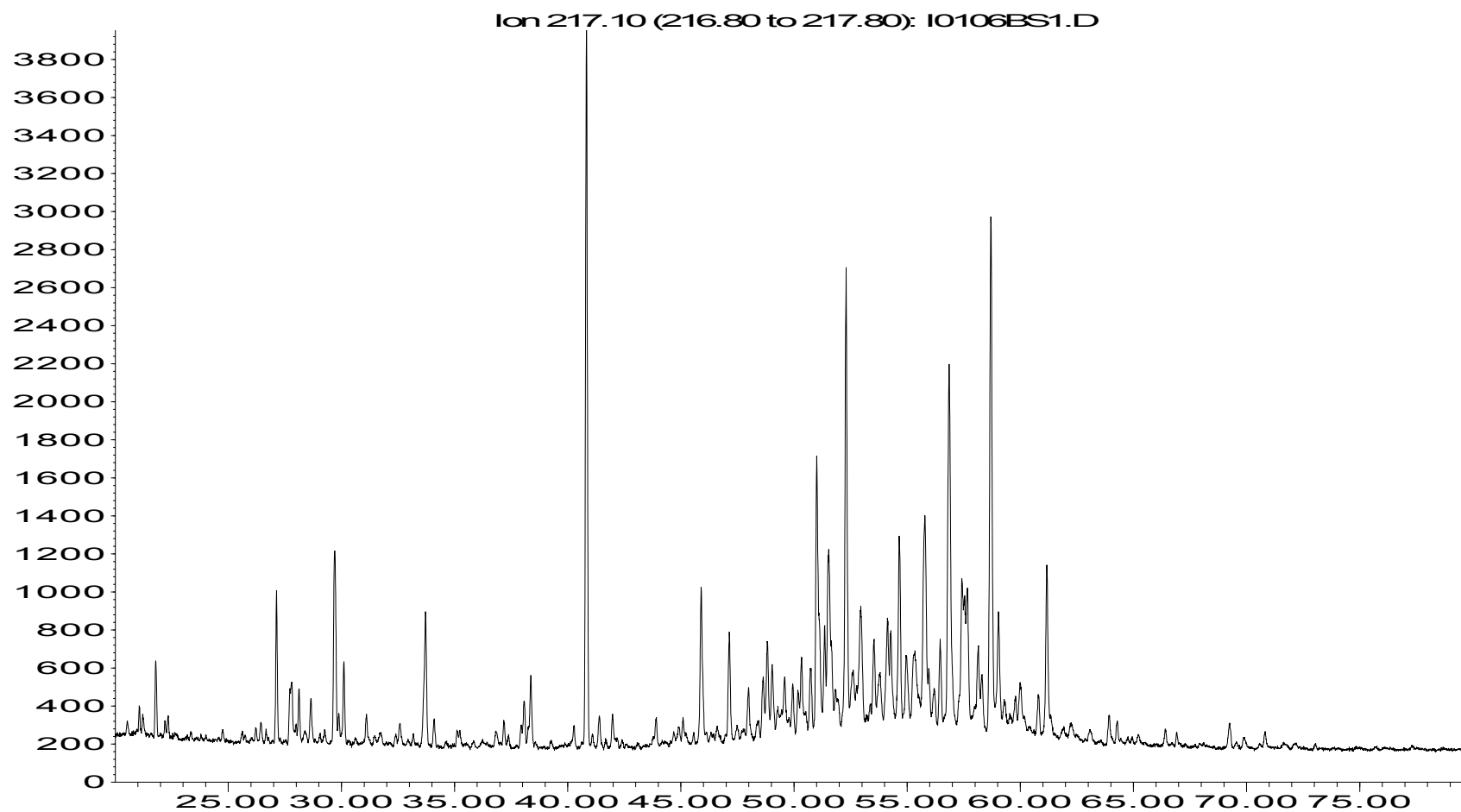


Peak identification, NSO-1, SAT GCMSD

Steranes (m/z 217)

- 311 -

Abundance

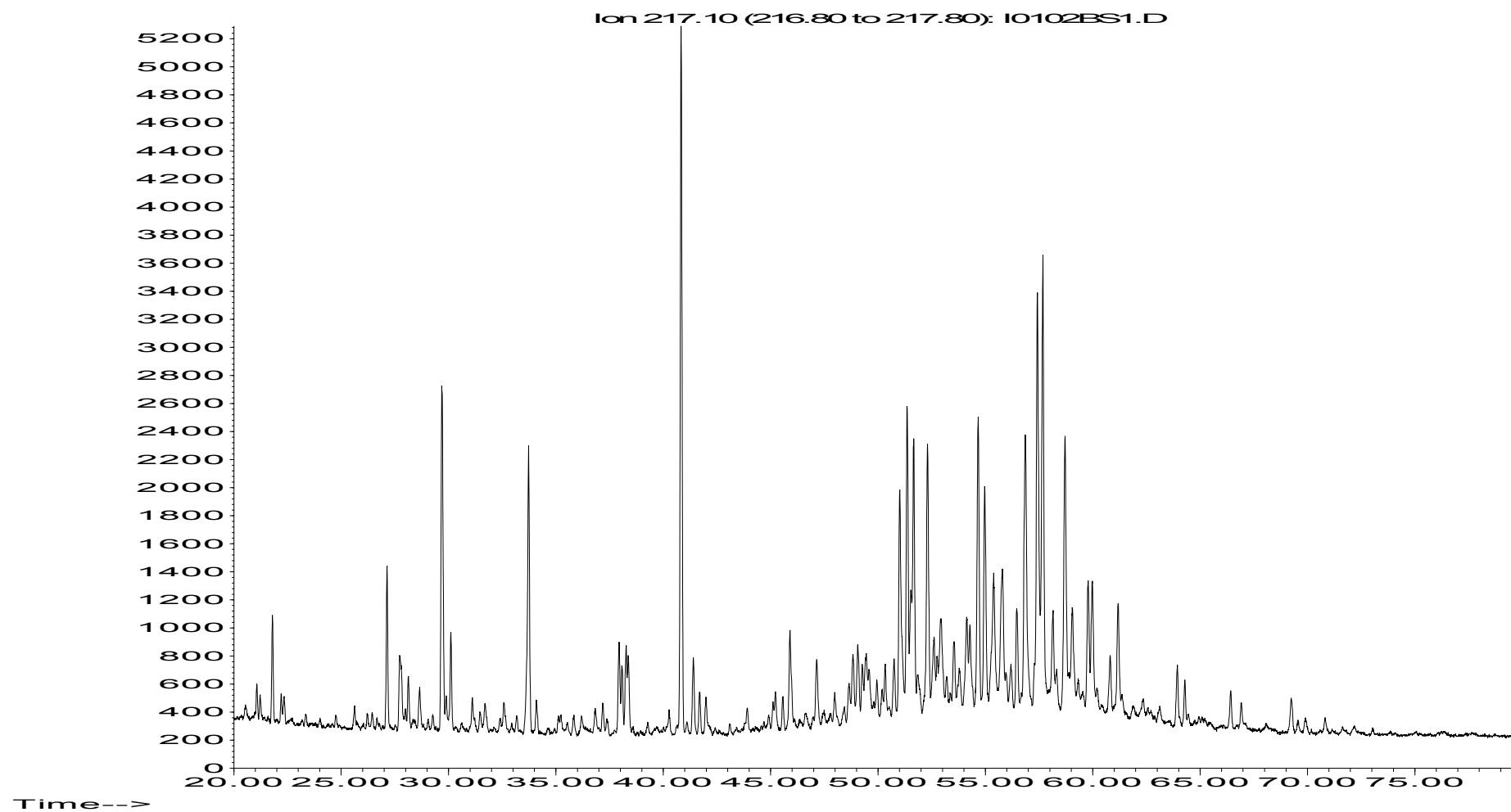


I0106, 7831/2-U-2, 6.78 - 6.83 m, COCH, Clyst (slty, dkgy), SAT GCMSD

Steranes (m/z 217)

- 312 -

Abundance

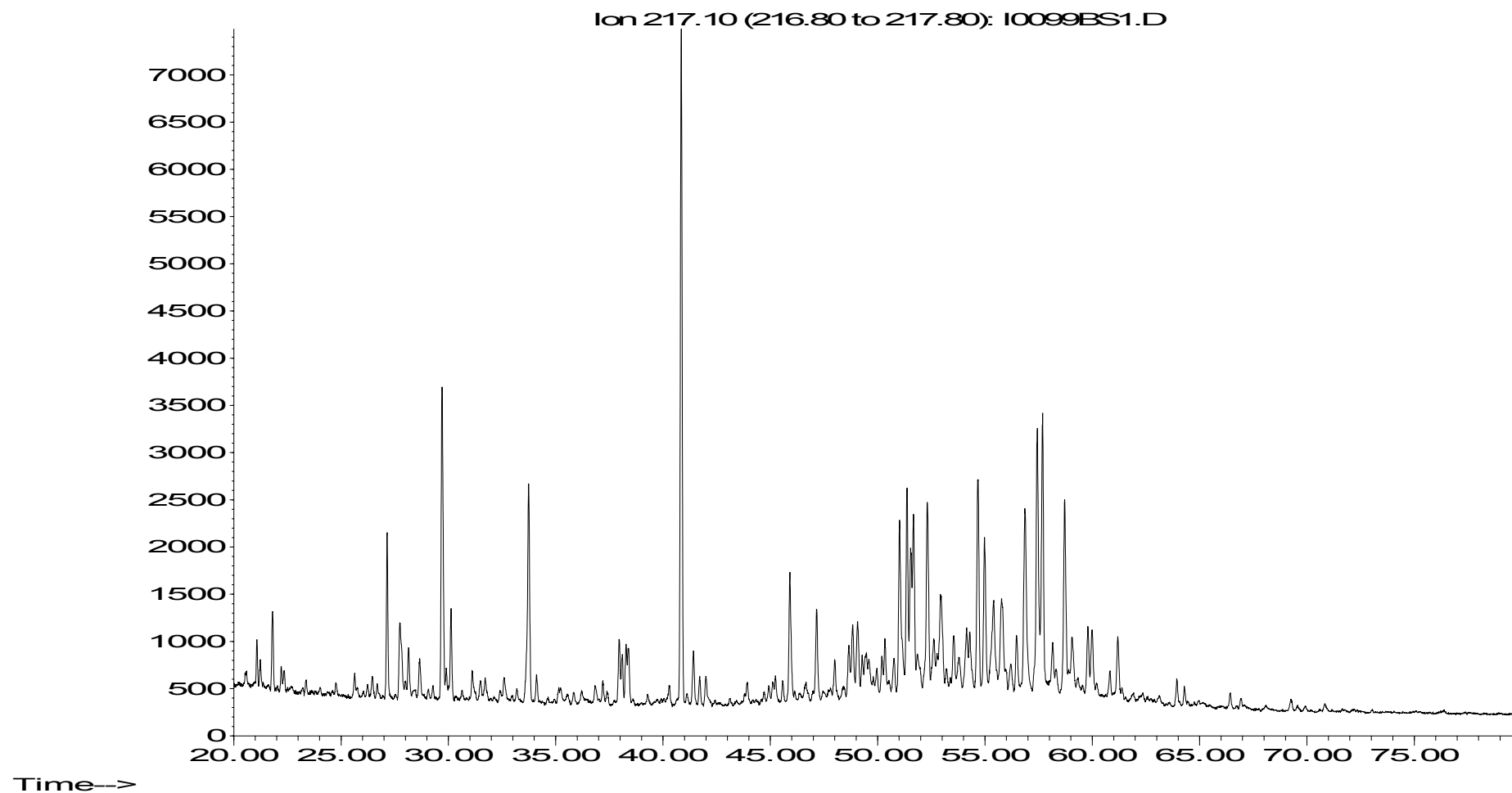


I0102, 7831/2-U-2, 10.23 - 10.28 m, COCH, Cyst (slty, mgy), SAT GCMSD

Steranes (m/z 217)

- 313 -

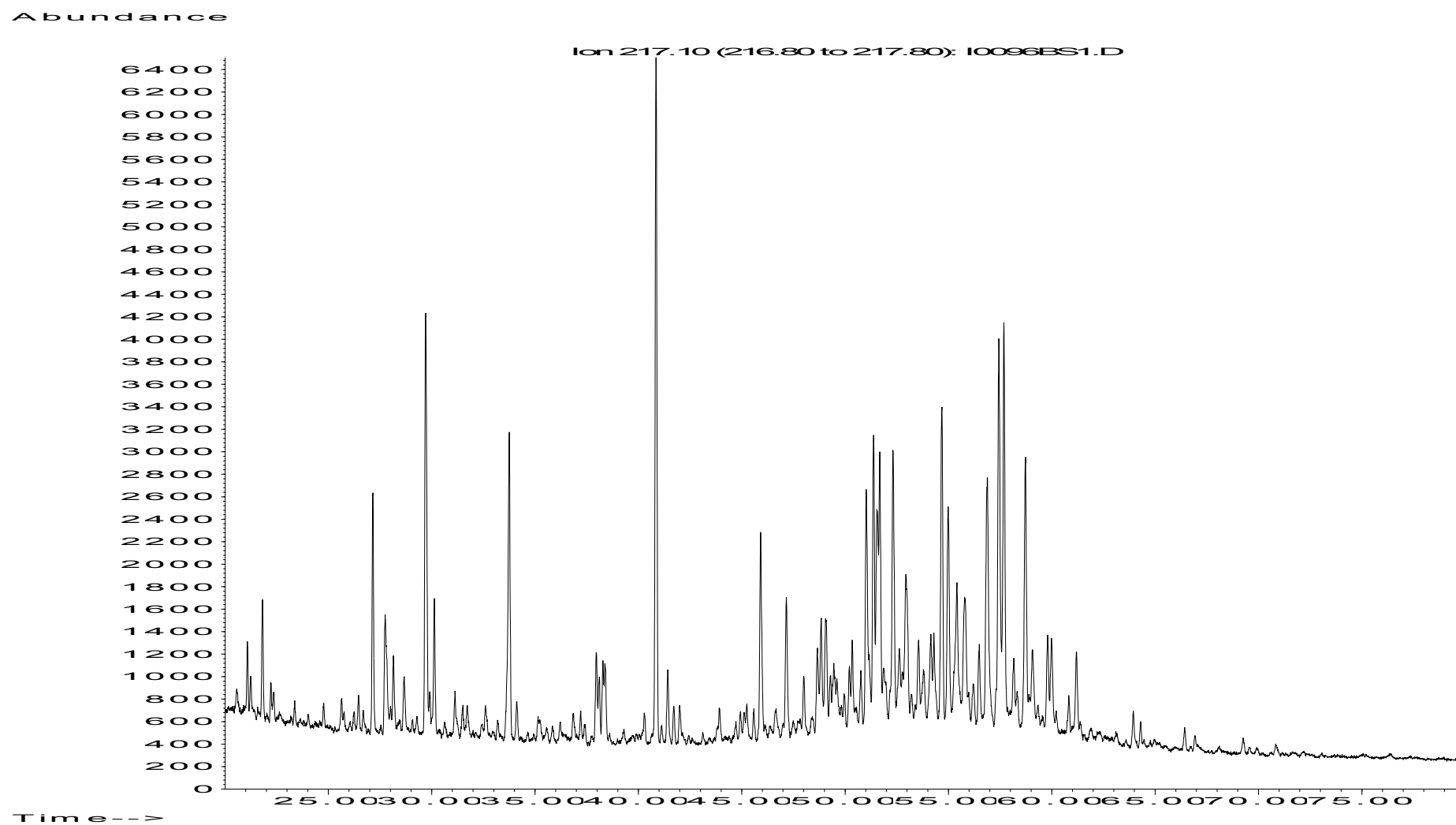
Abundance



I0099, 7831/2-U-2, 14.48 - 14.53 m, COCH, Cyst (slty, dkgy), SAT GCMSD

Steranes (m/z 217)

- 314 -



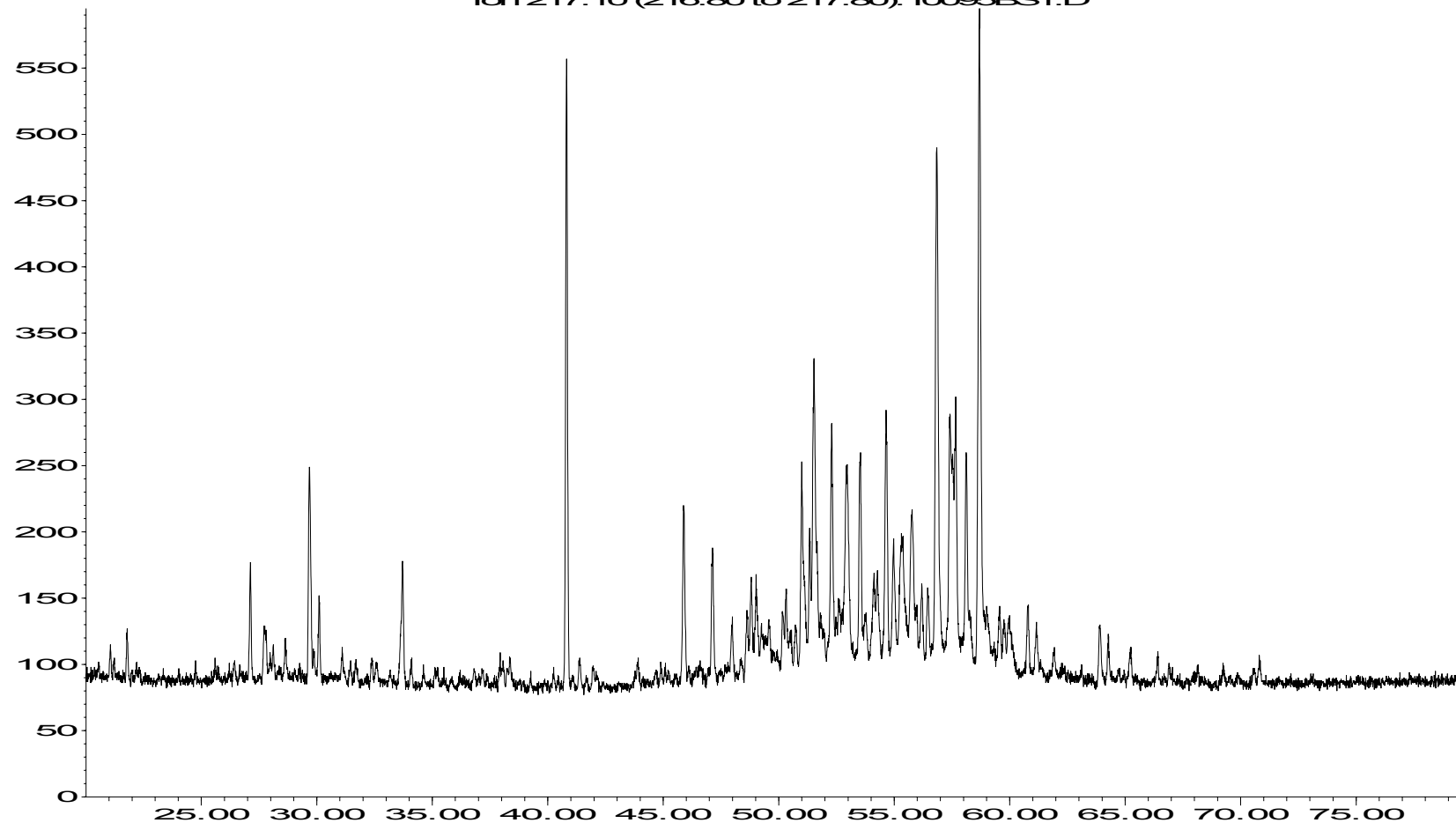
I0096, 7831/2-U-2, 17.83 - 17.87 m, COCH, Cyst (slty, dkgy), SAT GCMSD

Steranes (m/z 217)

- 315 -

Abundance

Ion 217.10 (216.80 to 217.80): I0095BS1.D

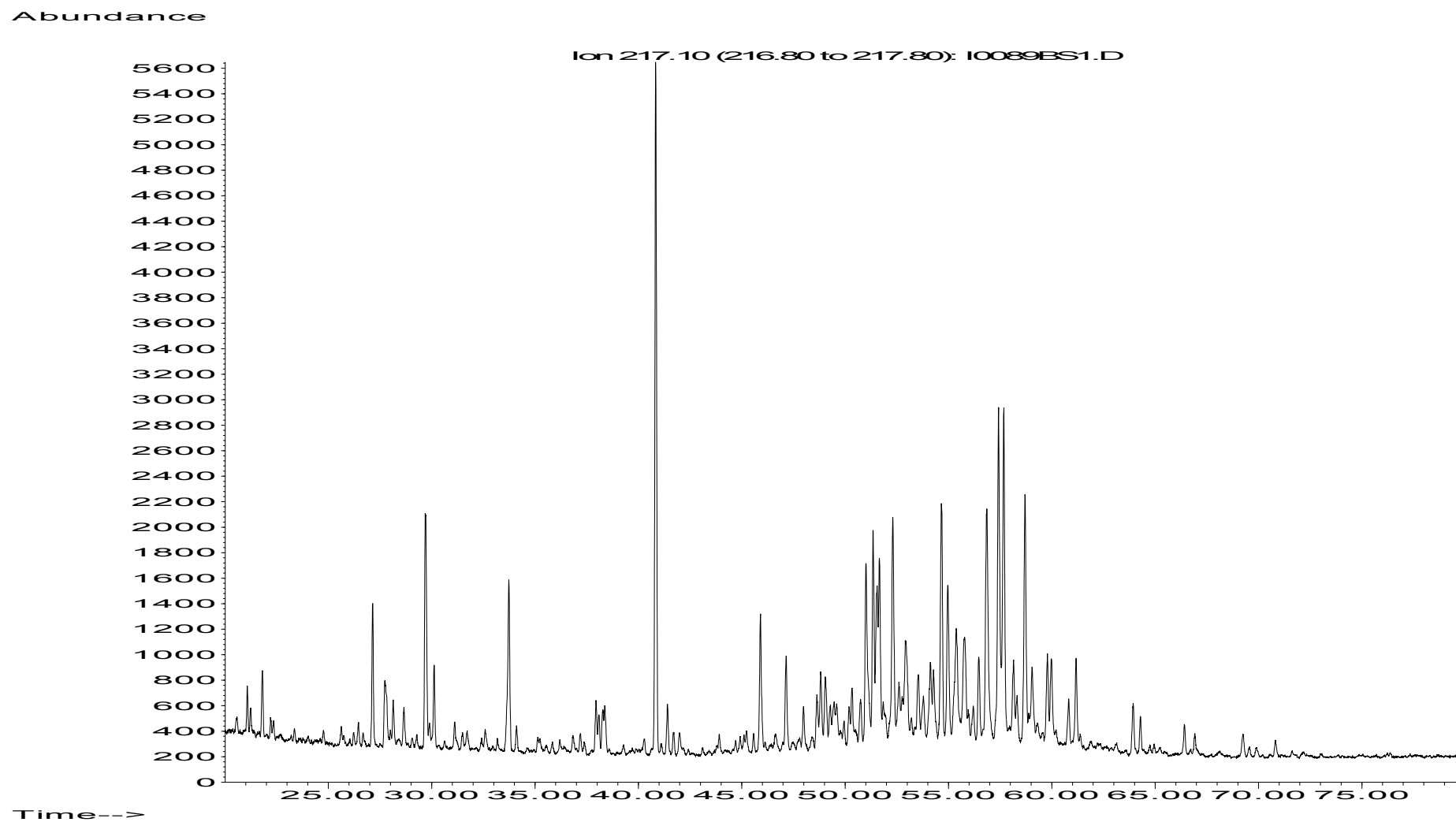


Time-->

I0095, 7831/2-U-2, 18.72 - 18.85 m, COCH, Cyst (slty, dkgy), SAT GCMSD

Steranes (m/z 217)

- 316 -



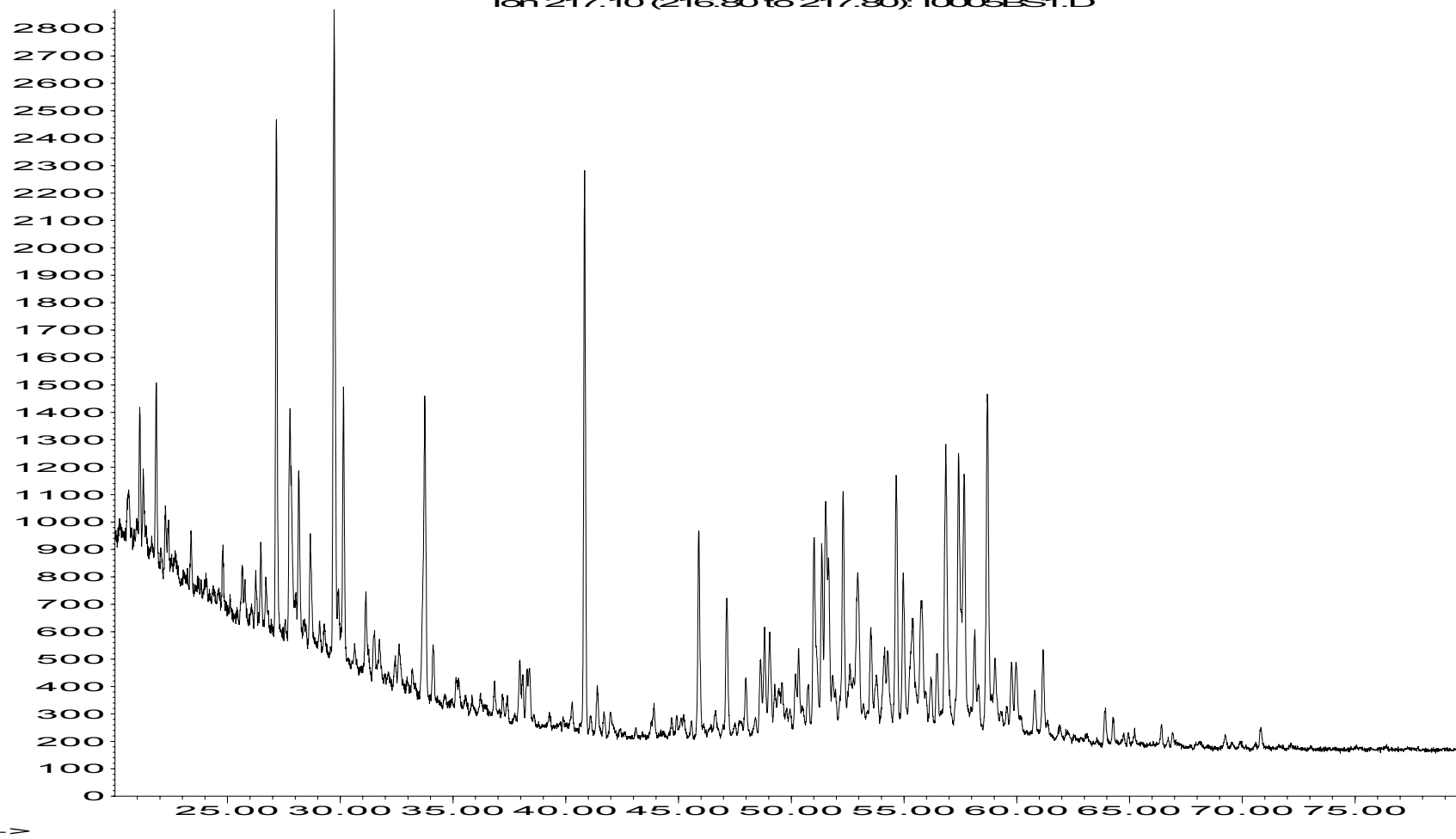
I0089, 7831/2-U-1, 21.72 - 21.76 m, COCH, Cyst (dkgy), SAT GCMSD

Steranes (m/z 217)

- 317 -

Abundance

Ion 217.10 (216.80 to 217.80): I0005BS1.D



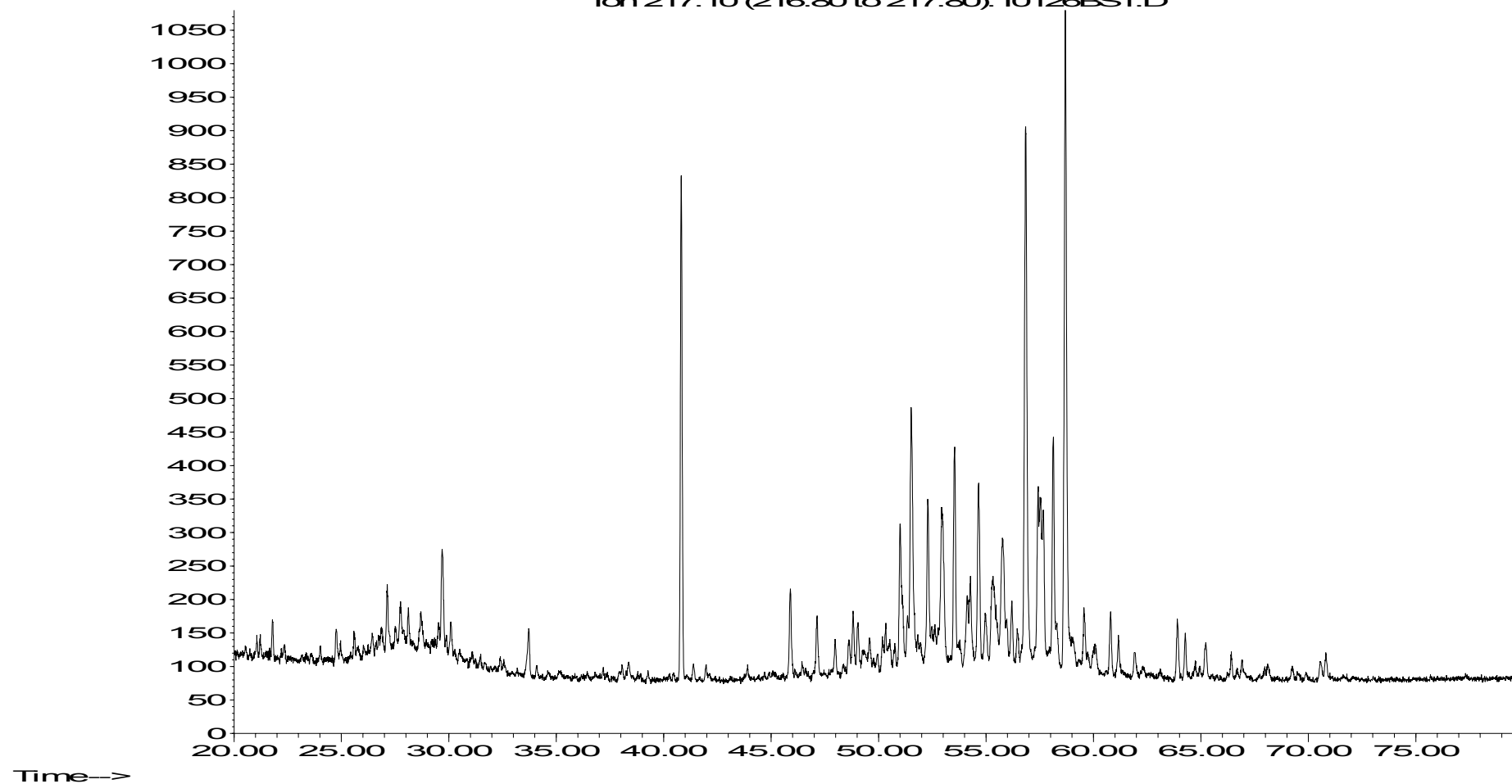
I0005, 7830/6-U-1, 12.85 - 12.88 m, COCH, Slst, SAT GCMSD

Steranes (m/z 217)

- 318 -

Abundance

Ion 217.10 (216.80 to 217.80): I0126BS1.D



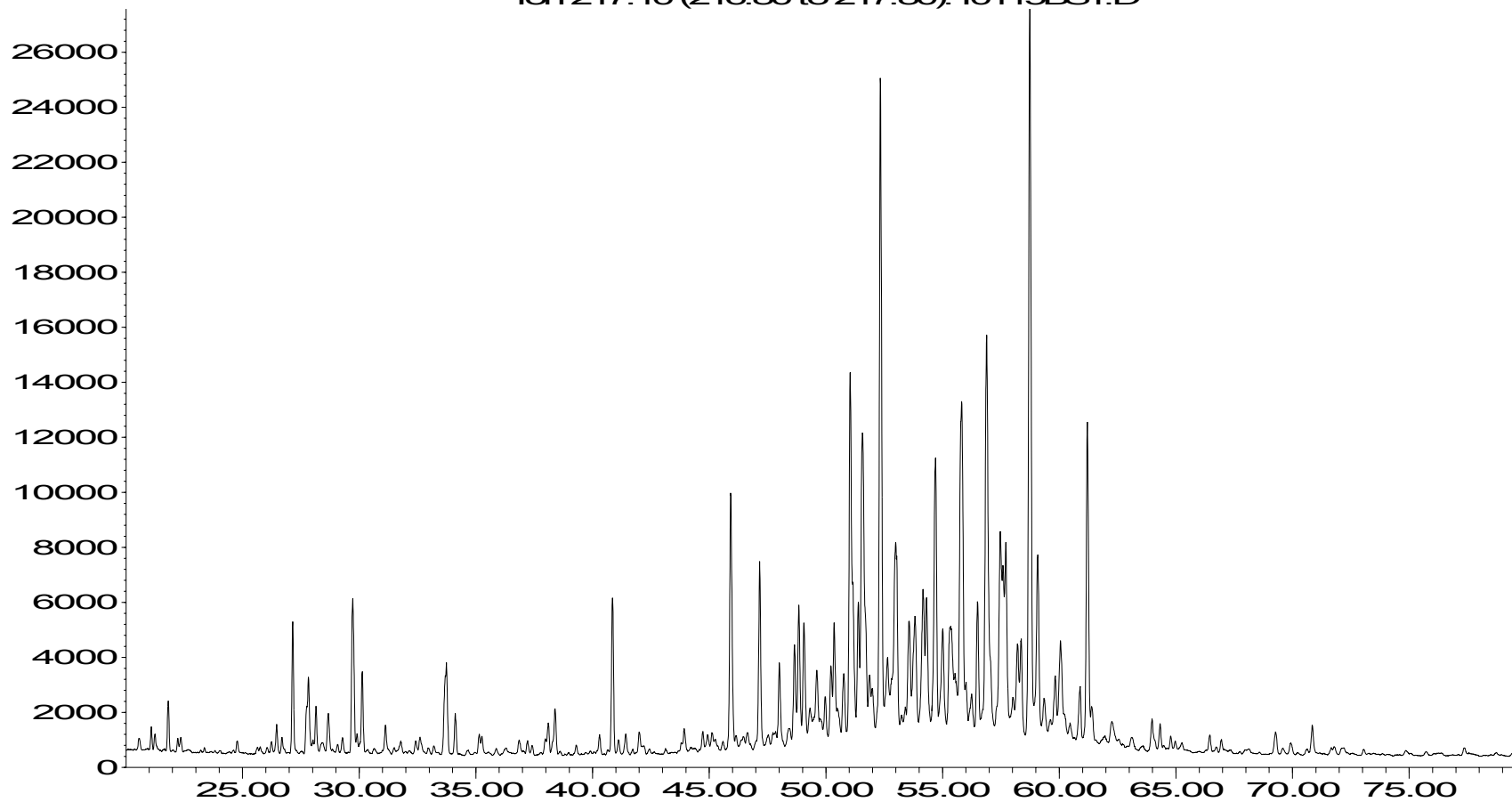
I0126, 7830/6-U-1, 20.03 - 20.10 m, COCH, Cylst (slyt, lam, dkgy), SAT GCMSD

Steranes (m/z 217)

- 319 -

Abundance

Ion 217.10 (216.80 to 217.80): I0115BS1.D

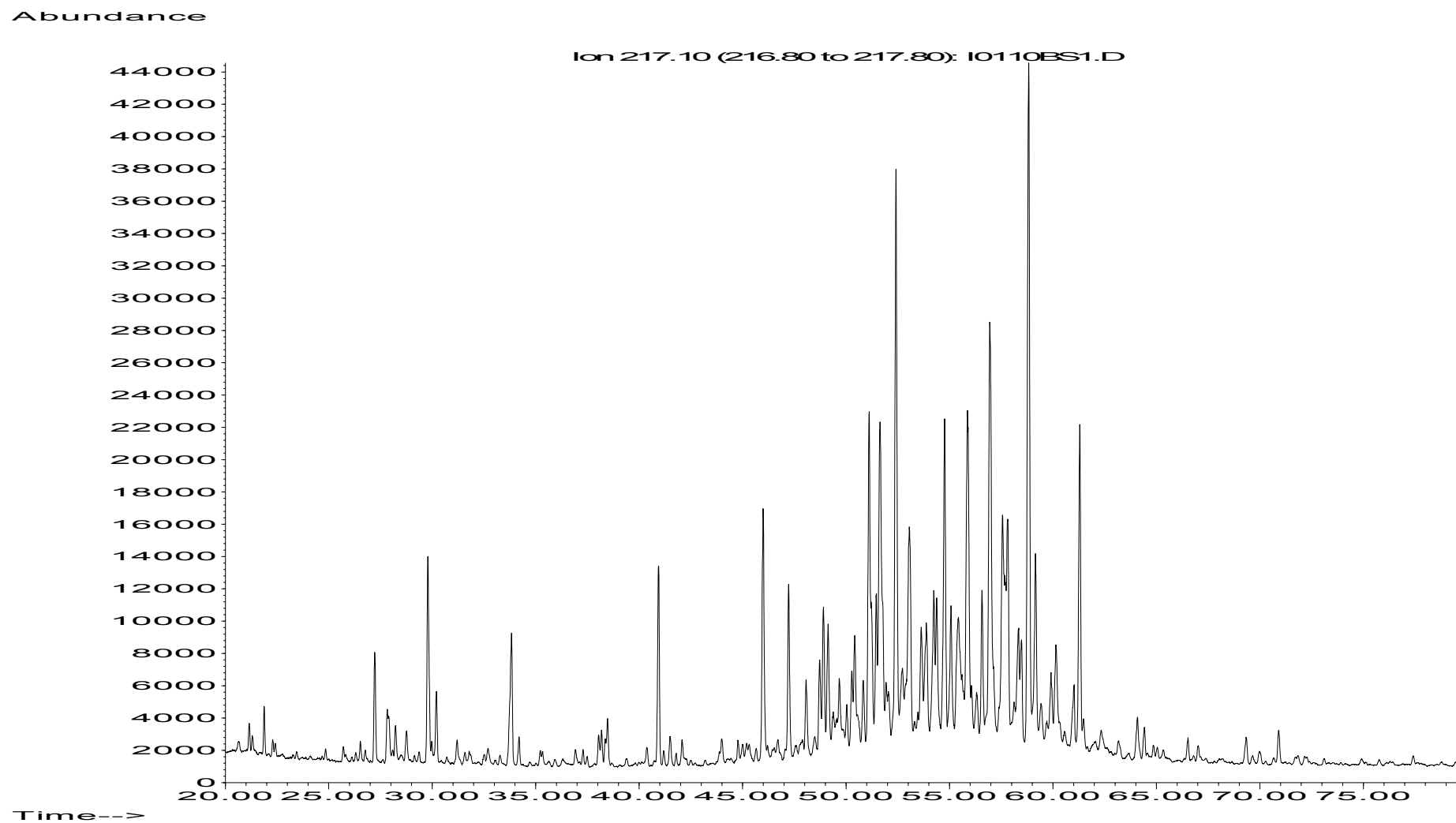


Time-->

I0115, 7830/6-U-1, 41.85 - 41.89 m, COCH, Cyst (dkgy, lam), SAT GCMSD

Steranes (m/z 217)

- 320 -



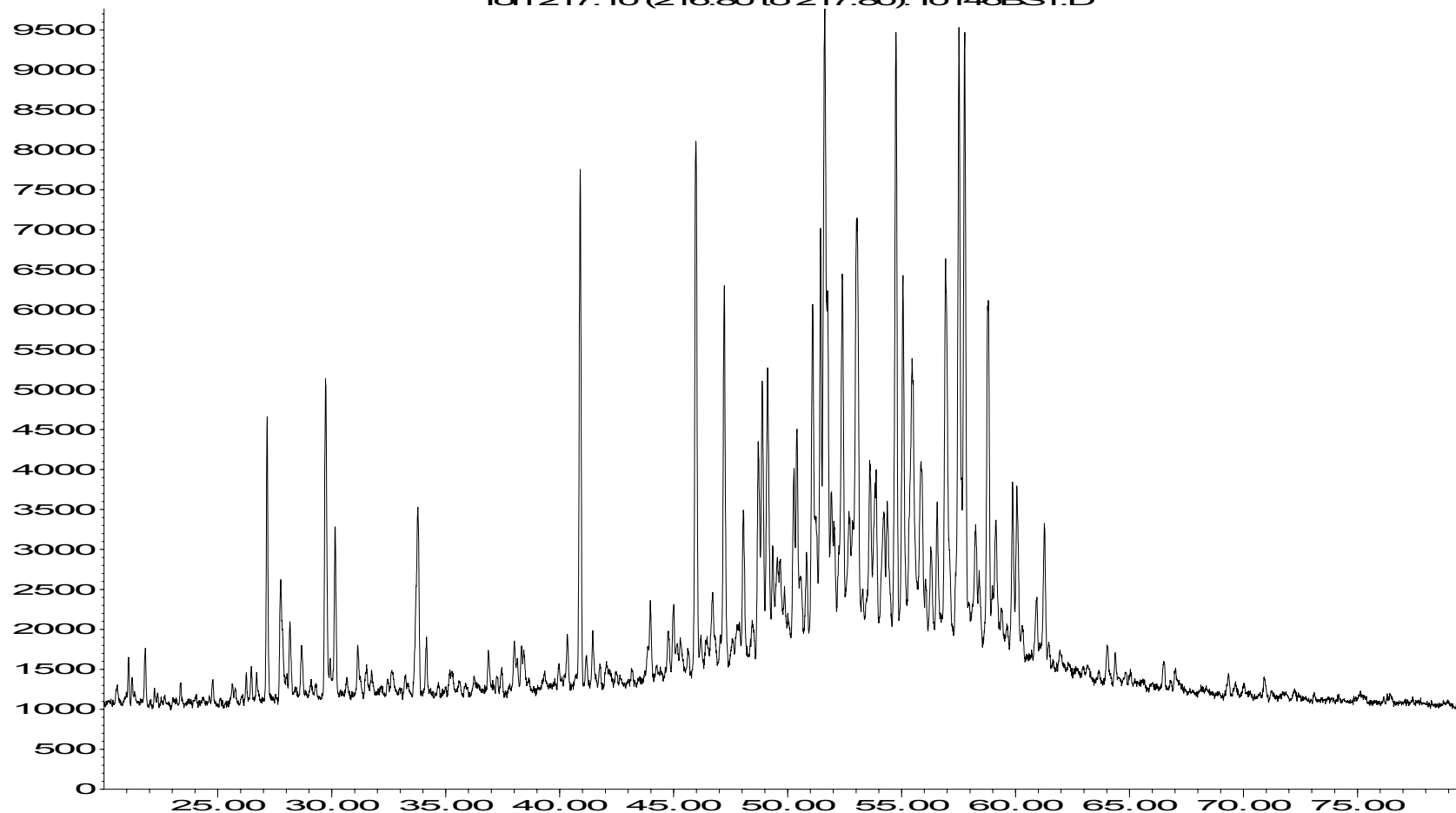
I0110, 7830/6-U-1, 50.90 - 50.93 m, COCH, Cyst (dkgy, lam), SAT GCMSD

Steranes (m/z 217)

- 321 -

Abundance

Ion 217.10 (216.80 to 217.80): I0146BS1.D



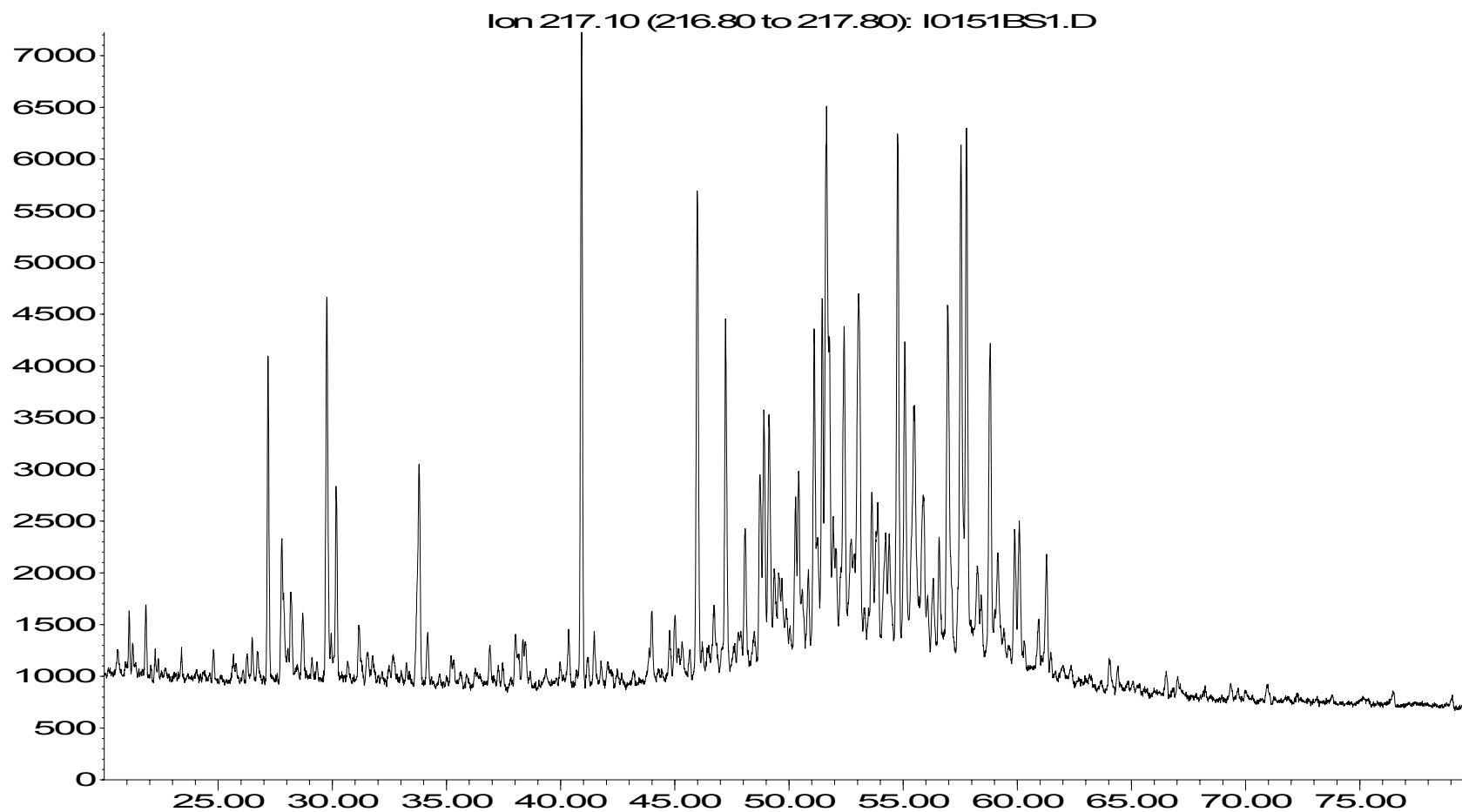
Time-->

I0146, 7830/3-U-1, 39.94 - 39.99 m, COCH, Sst (mgr, mgy), SAT GCMSD

Steranes (m/z 217)

- 322 -

Abundance

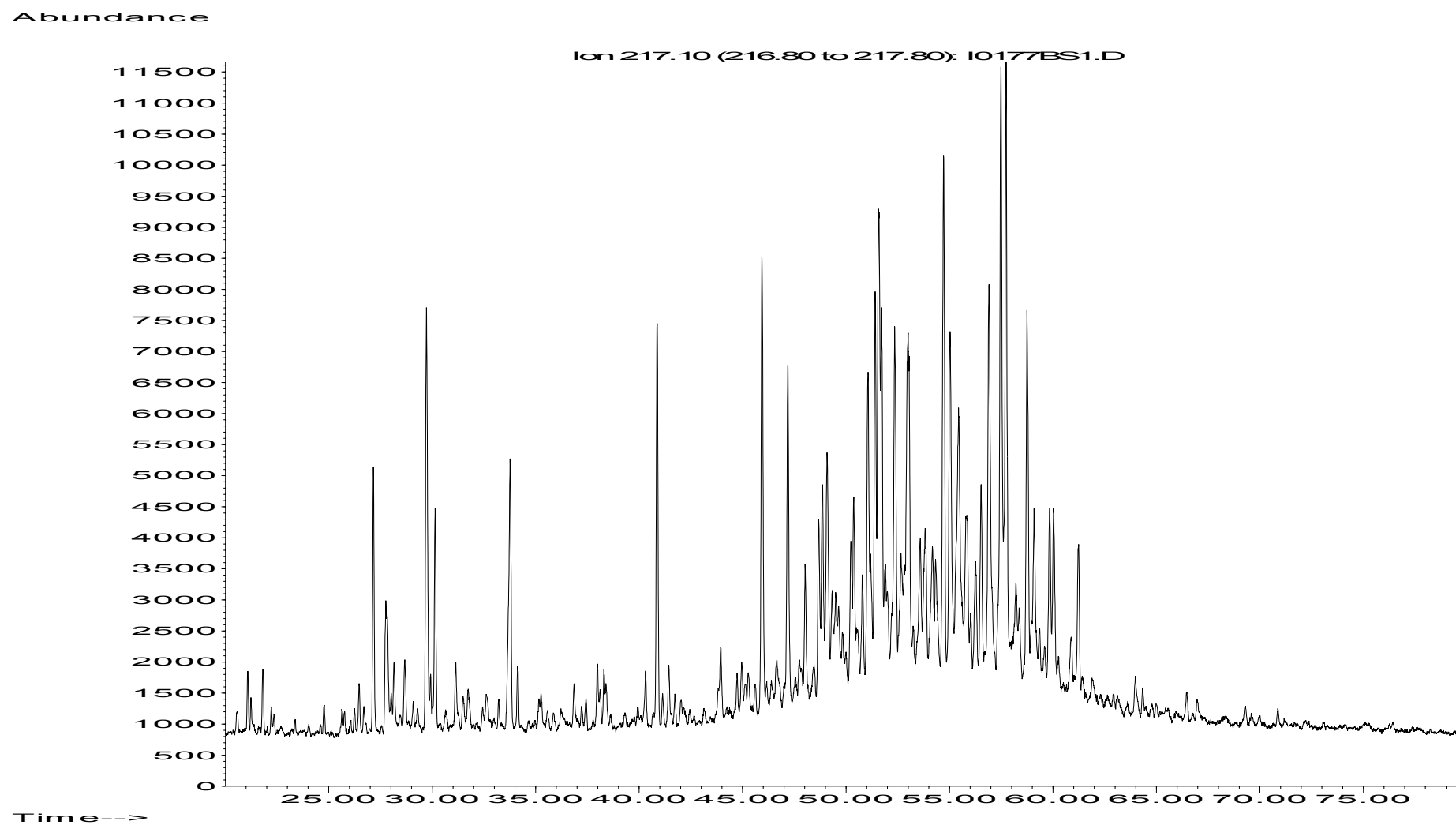


Time-->

I0151, 7830/3-U-1, 51.24 m, COPL, Sst (fgr, mgy), SAT GCMSD

Steranes (m/z 217)

- 323 -

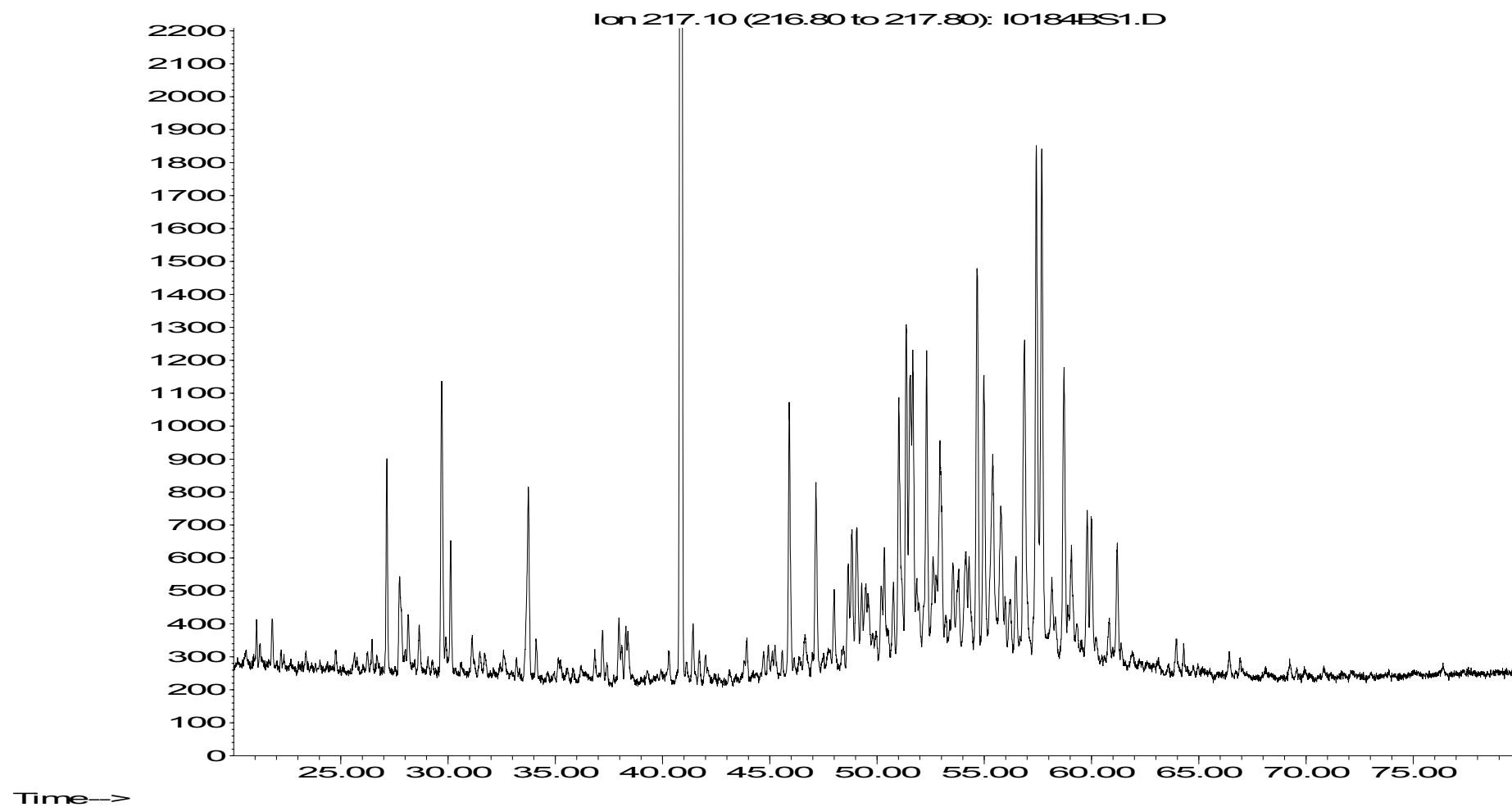


I0177, 7830/3-U-1, 111.69 - 111.75 m, COCH, Sst (fgr, dkgy), SAT GCMSD

Steranes (m/z 217)

- 324 -

Abundance

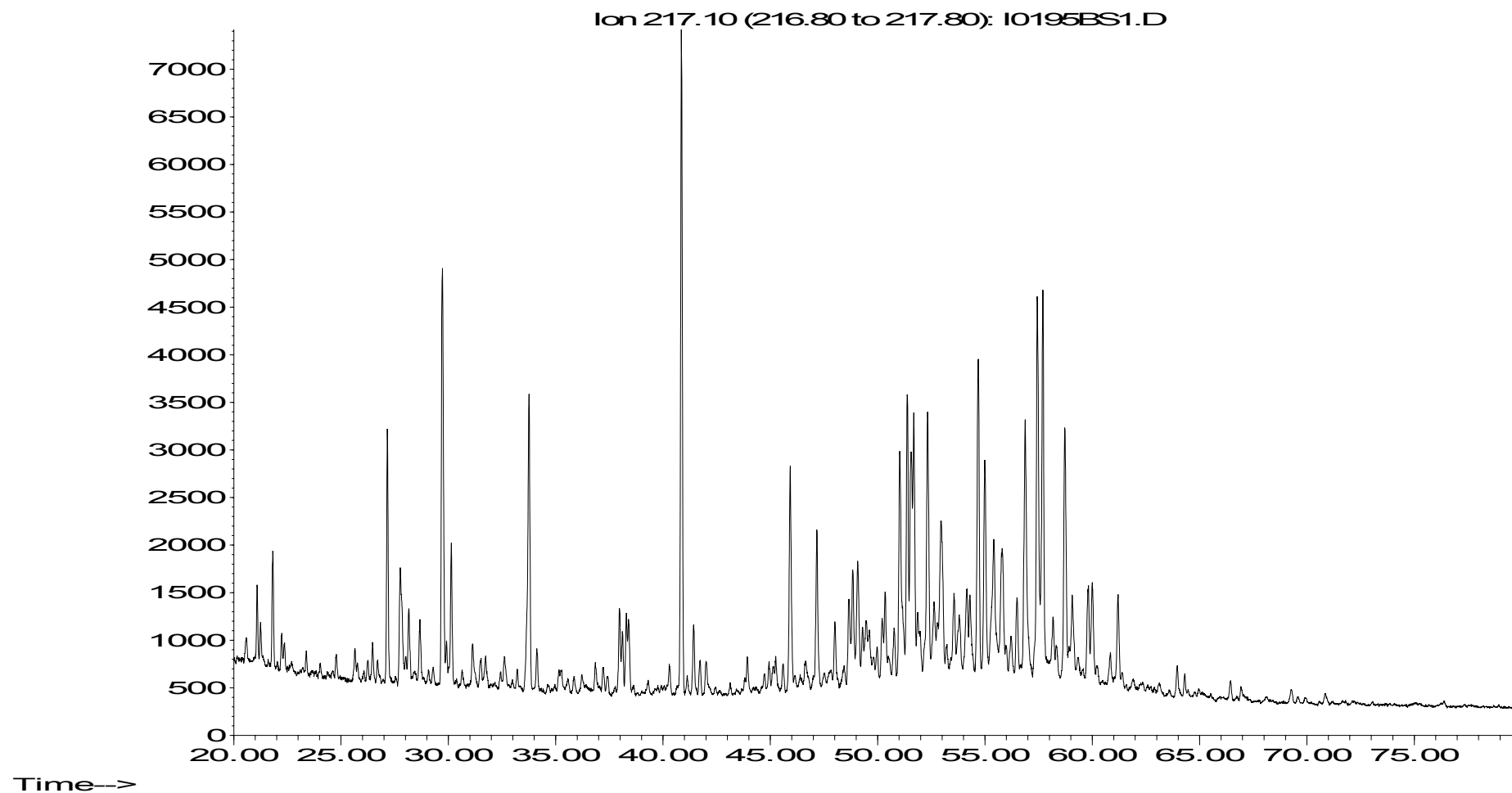


I0184, 7830/3-U-1, 124.63 m, COPL, Sst (fgr, ltgy), SAT GCMSD

Steranes (m/z 217)

- 325 -

Abundance



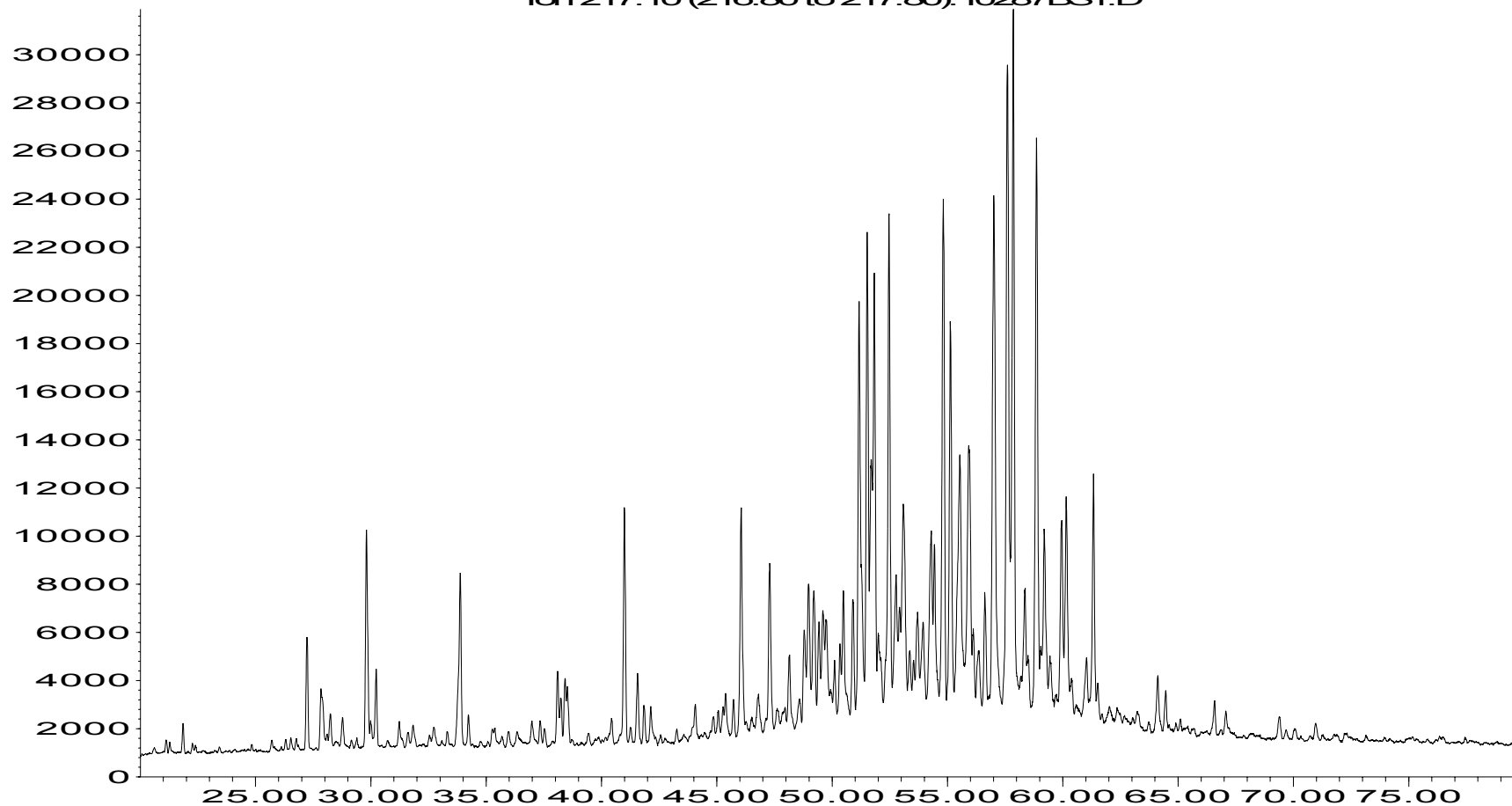
I0195, 7830/3-U-1, 154.81 - 154.88 m, COCH, Clyst (sl slty, ltgy), SAT GCMSD

Steranes (m/z 217)

- 326 -

Abundance

Ion 217.10 (216.80 to 217.80): I0287BS1.D



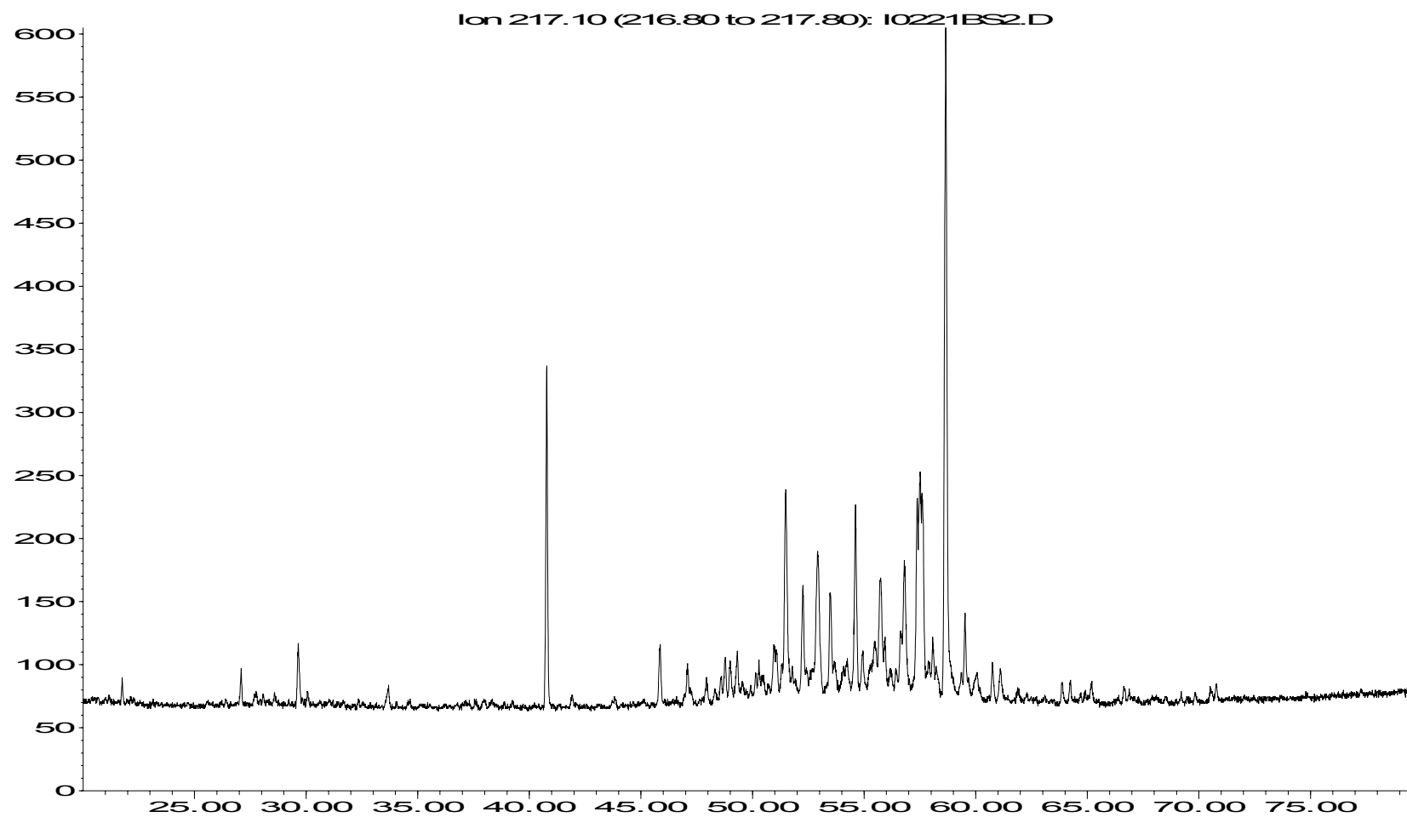
Time-->

I0287, 7830/3-U-1, 174.13 - 174.15 m, COCH, Sst (fgr, mgy), SAT GCMSD

Steranes (m/z 217)

- 327 -

Abundance



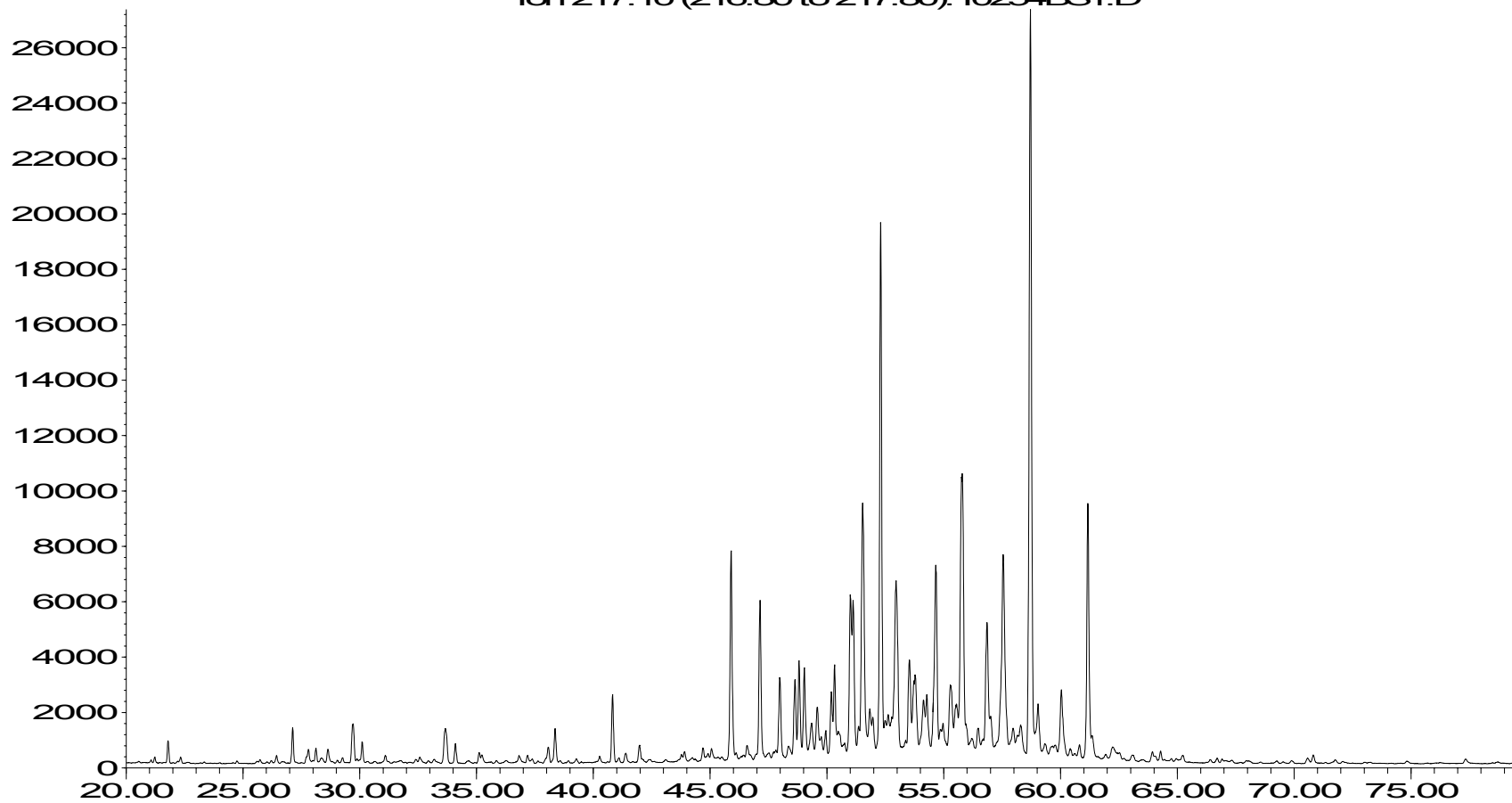
I0221, 7830/5-U-1, 58.90 - 58.97 m, COCH, Cyst (sl slty, lam, dkgy), SAT GCMSD

Steranes (m/z 217)

- 328 -

Abundance

Ion 217.10 (216.80 to 217.80): I0254BS1.D



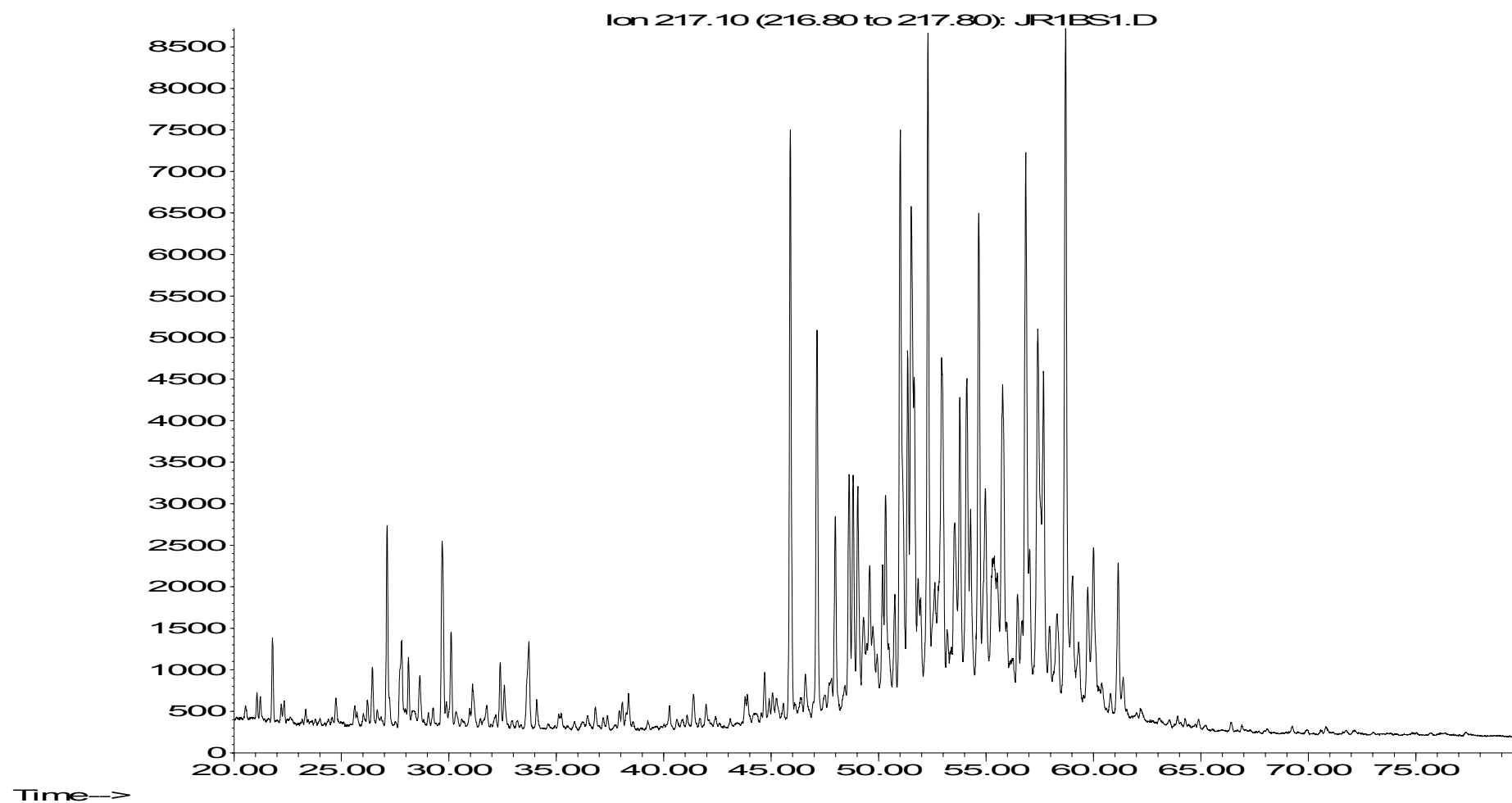
Time-->

I0254, 7830/5-U-1, 128.62 - 128.68 m, COCH, Clyst (vdkgy, lam), SAT GCMSD

Steranes (m/z 217)

- 329 -

Abundance



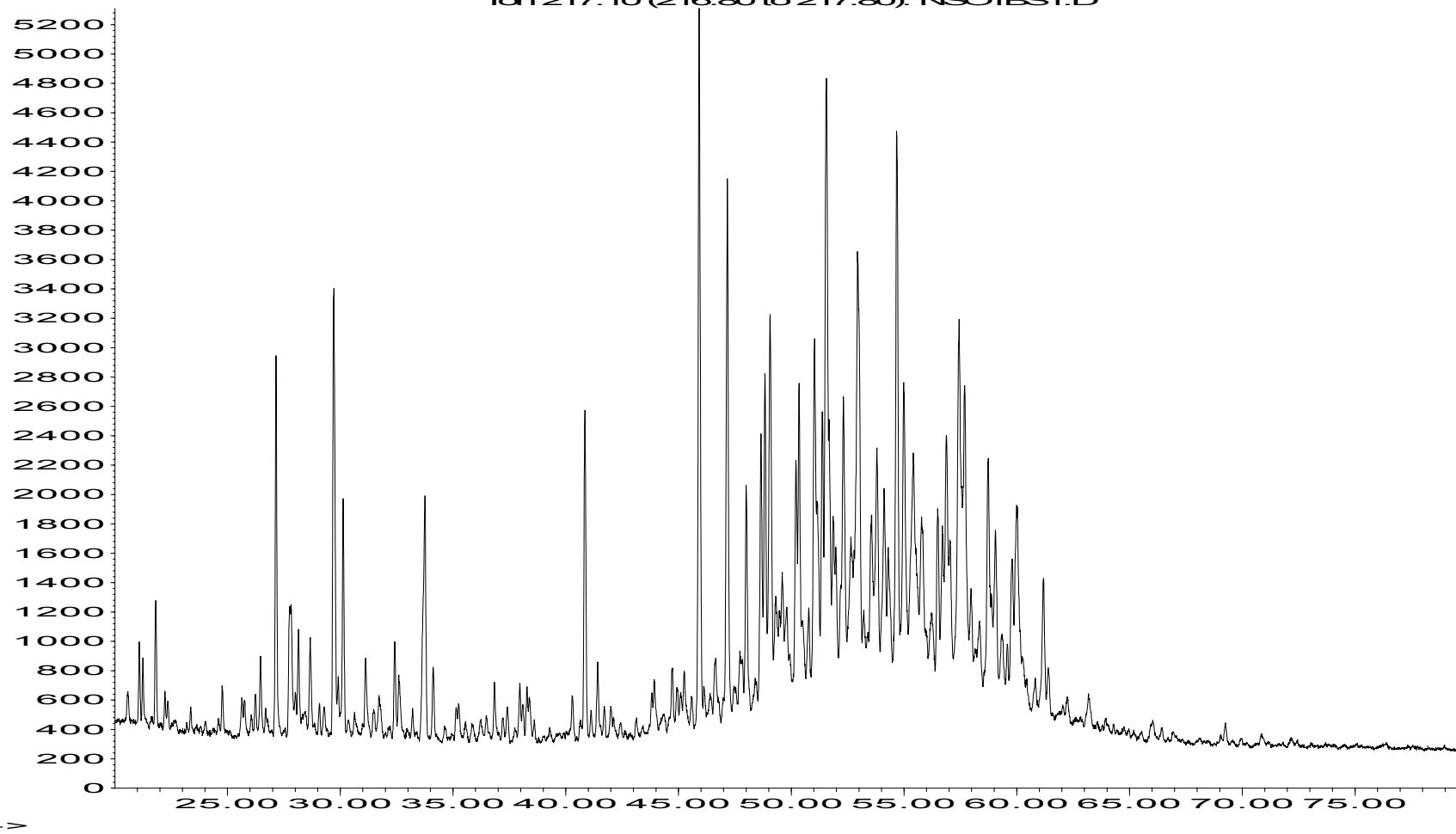
JR-1, NGS reference sample, SAT GCMSD

Steranes (m/z 217)

- 330 -

Abundance

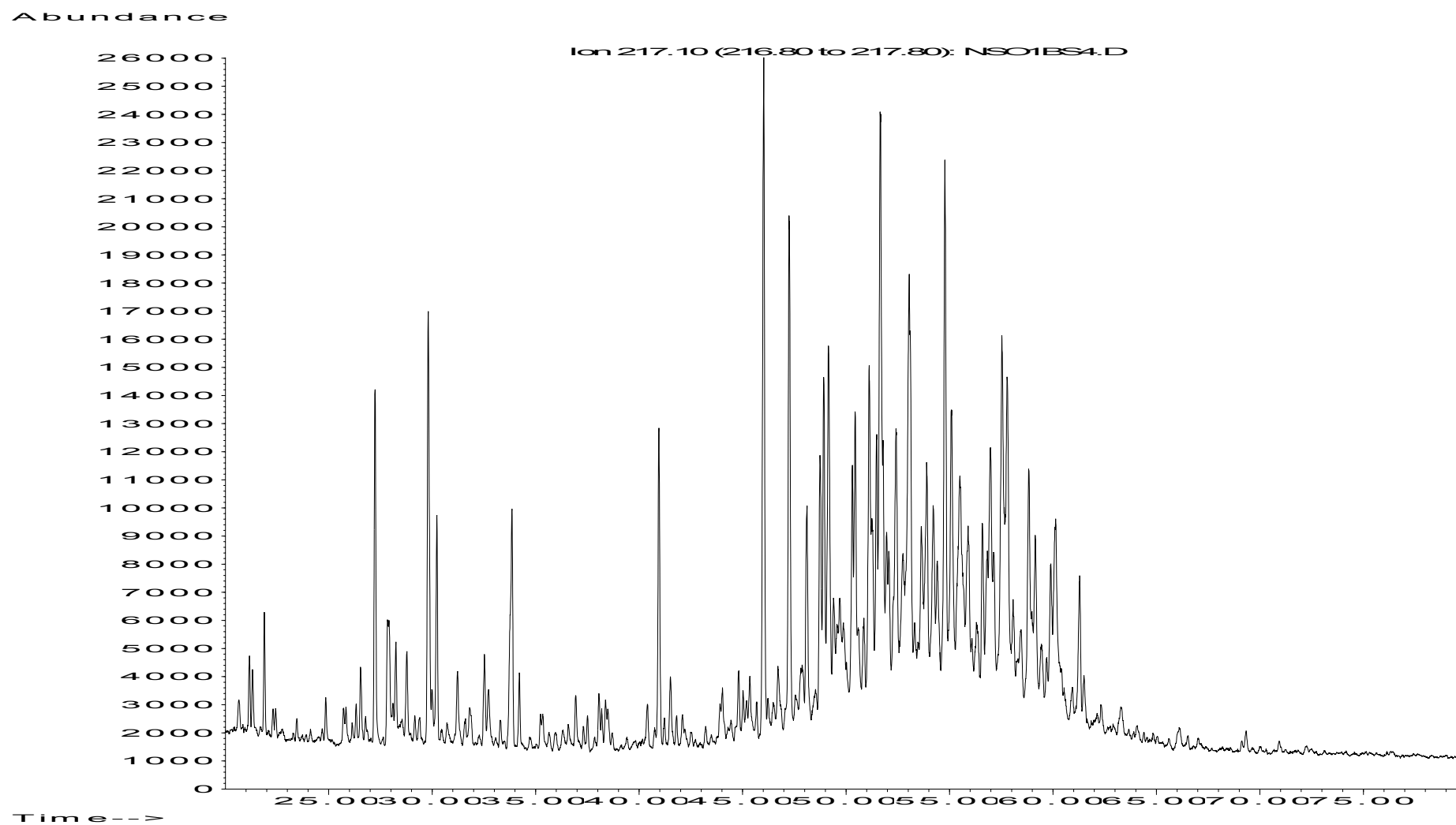
Ion 217.10 (216.80 to 217.80): NSO1BS1.D



NSO-1, #0, NGS reference oil, SAT GCMSD

Steranes (m/z 217)

- 331 -



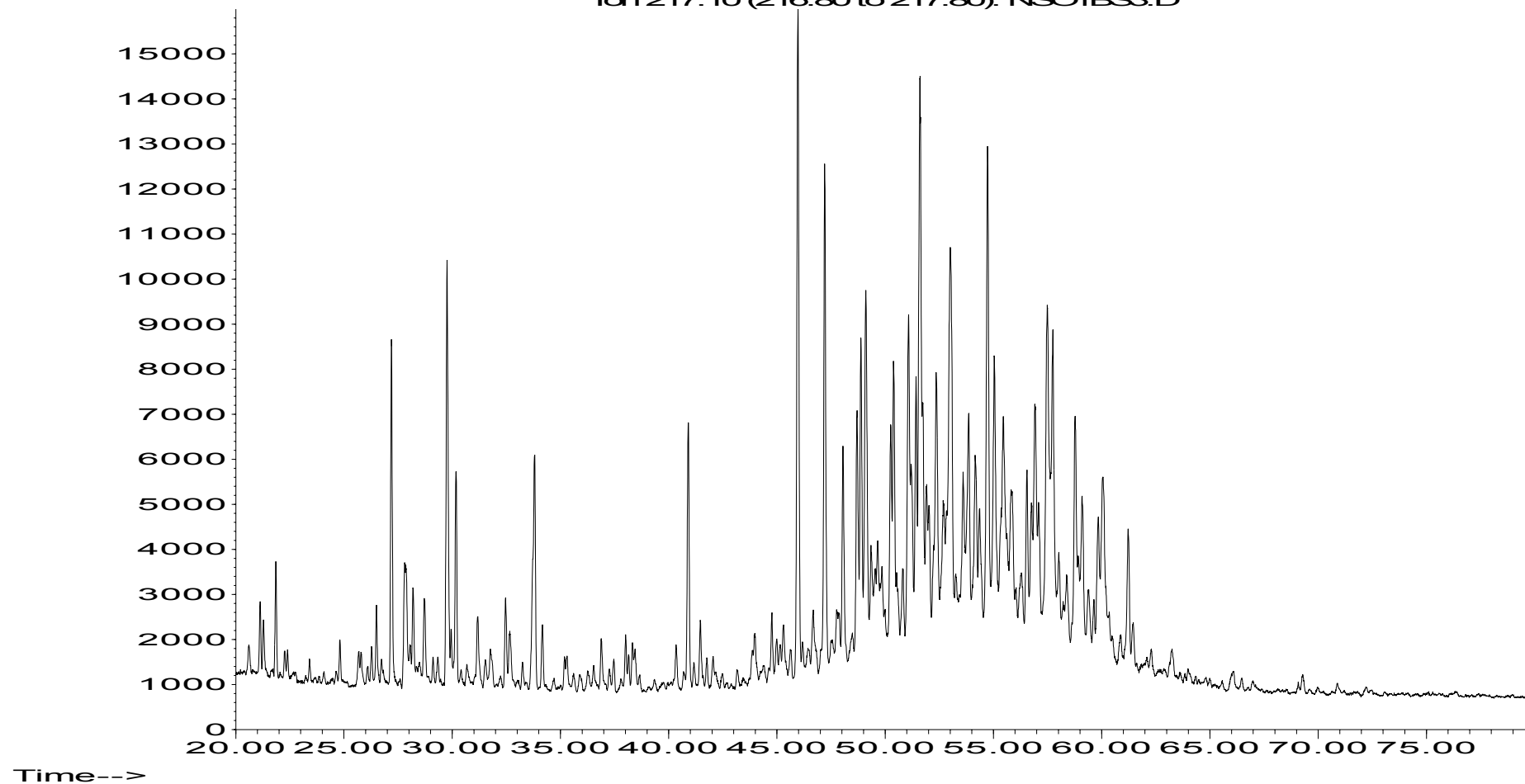
NSO-1, #1, NGS reference oil, SAT GCMSD

Steranes (m/z 217)

- 332 -

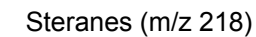
Abundance

Ion 217.10 (216.80 to 217.80): NSO1BS3.D



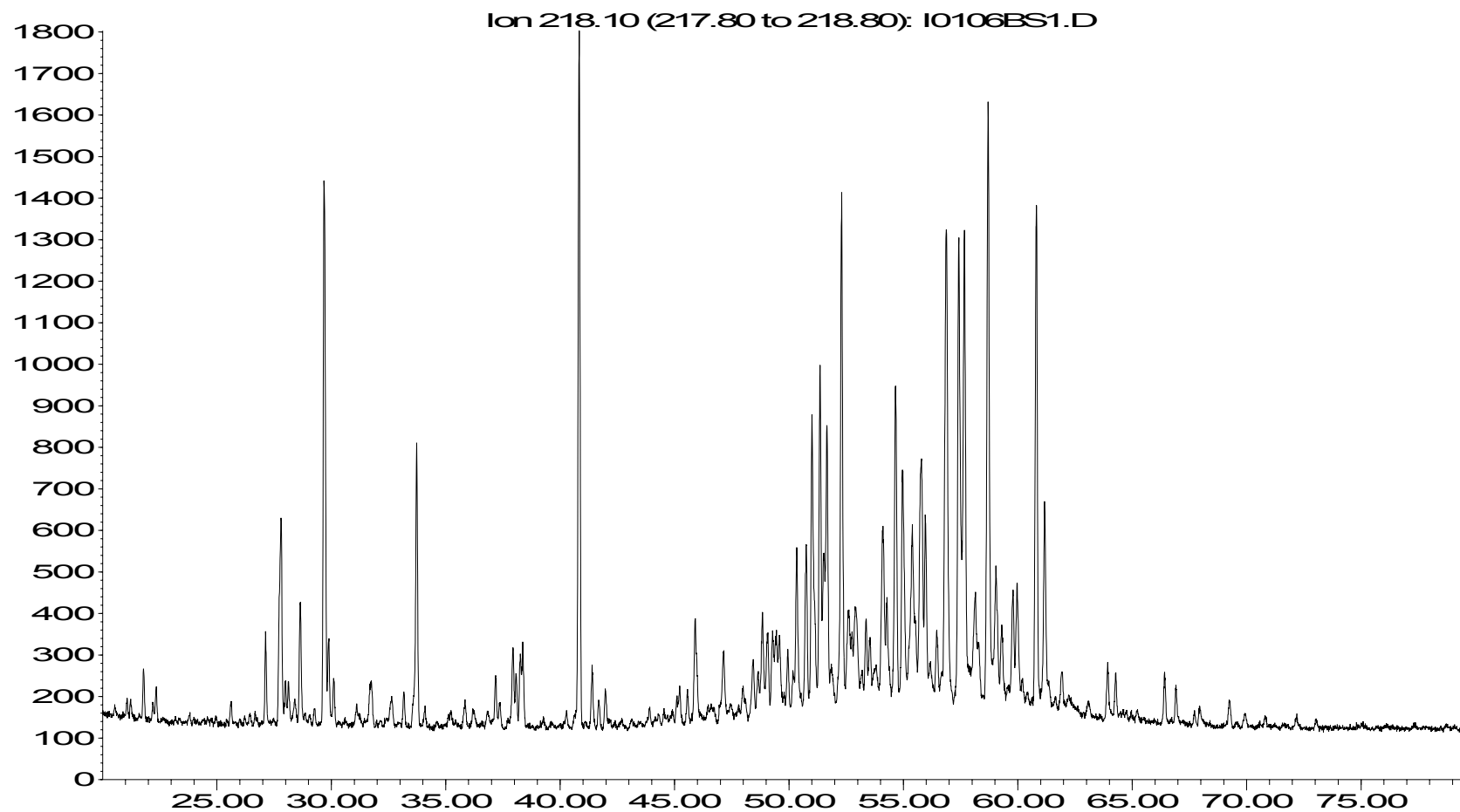
NSO-1, #2, NGS reference oil, SAT GCMSD

Steranes (m/z 217)



- 334 -

Abundance



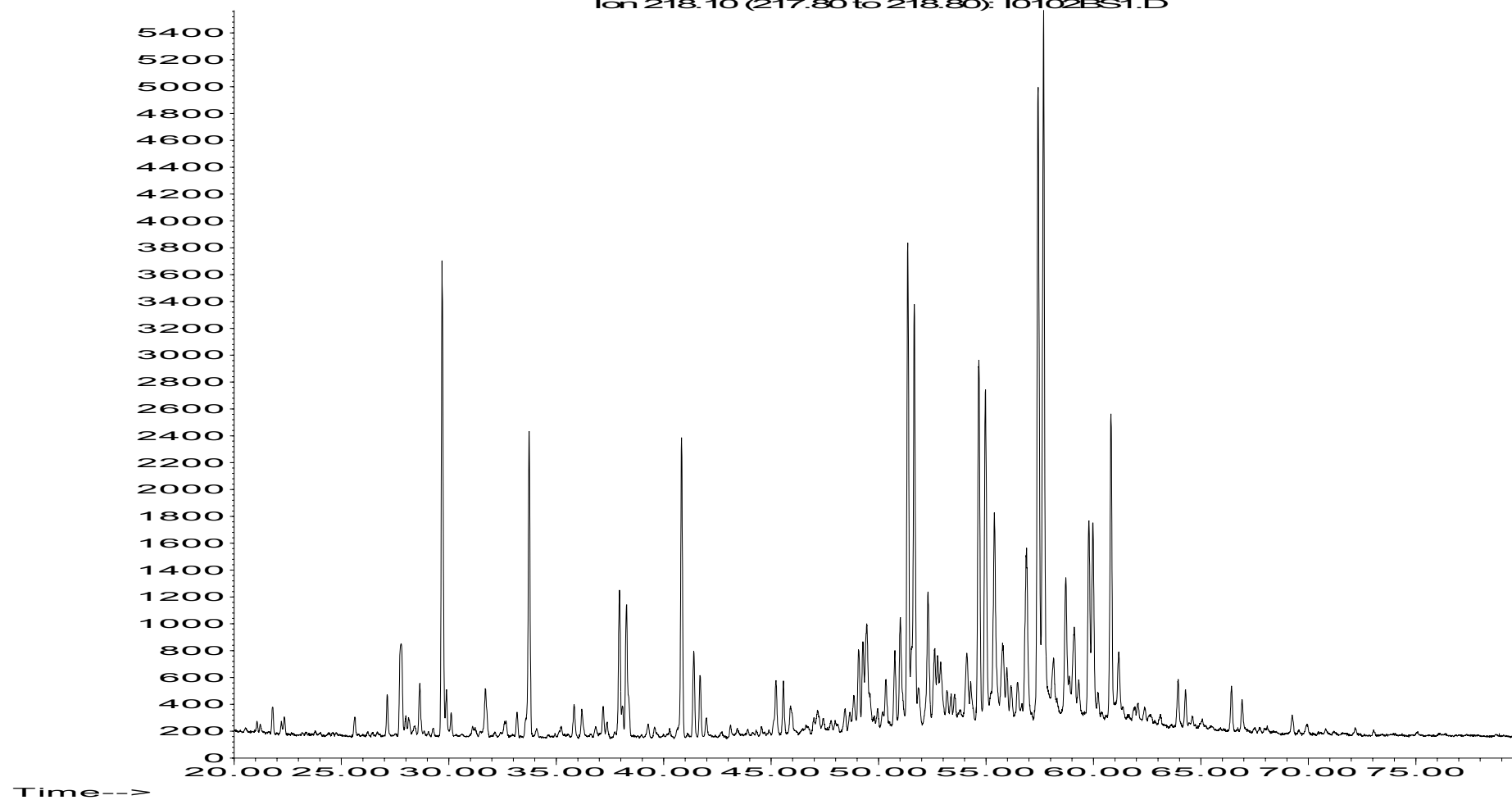
I0106, 7831/2-U-2, 6.78 - 6.83 m, COCH, Clyst (slty, dkgy), SAT GCMSD

Steranes (m/z 218)

- 335 -

Abundance

Ion 218.10 (217.80 to 218.80): I0102BS1.D



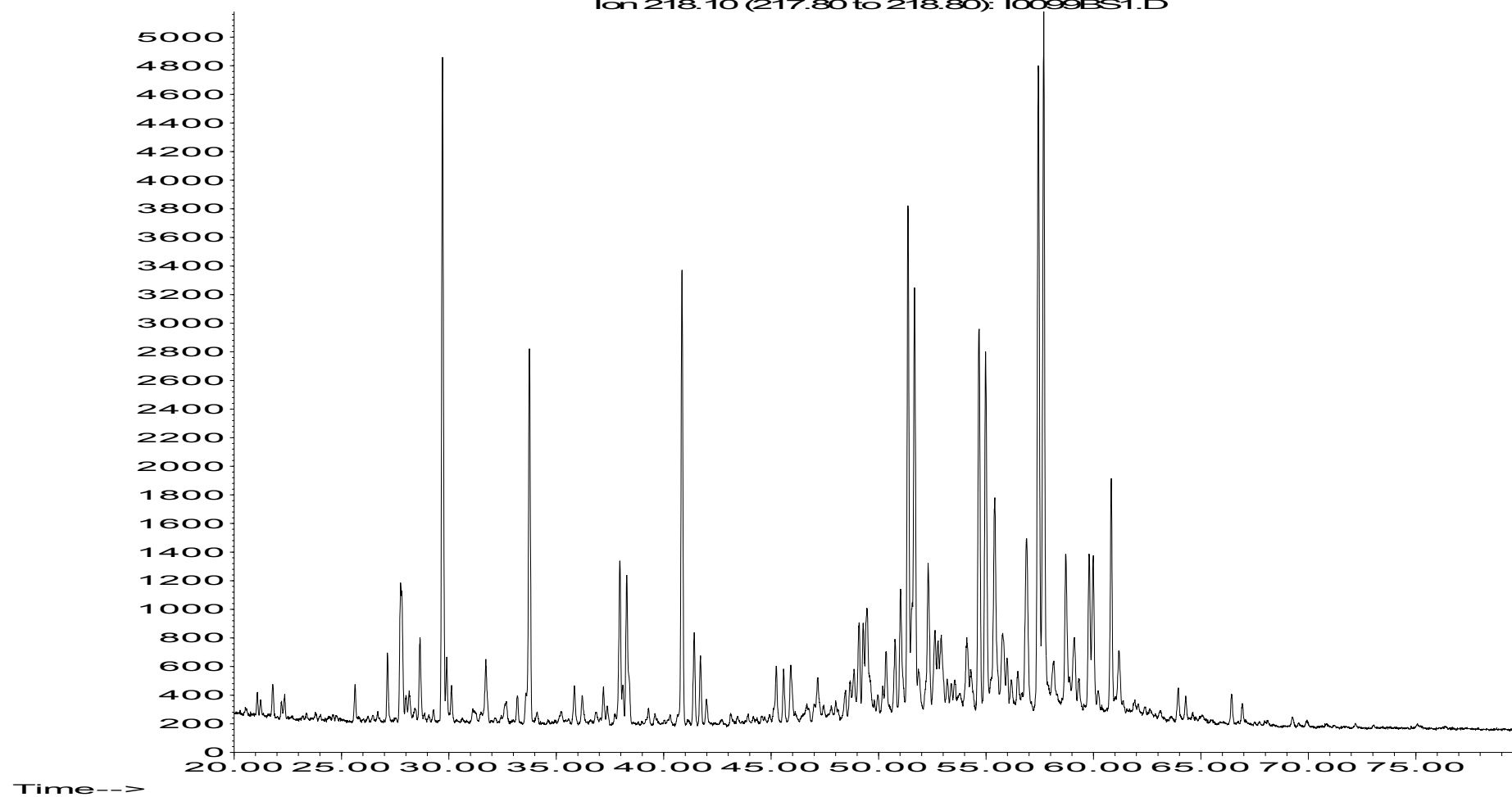
I0102, 7831/2-U-2, 10.23 - 10.28 m, COCH, Cyst (slty, mgy), SAT GCMSD

Steranes (m/z 218)

- 336 -

Abundance

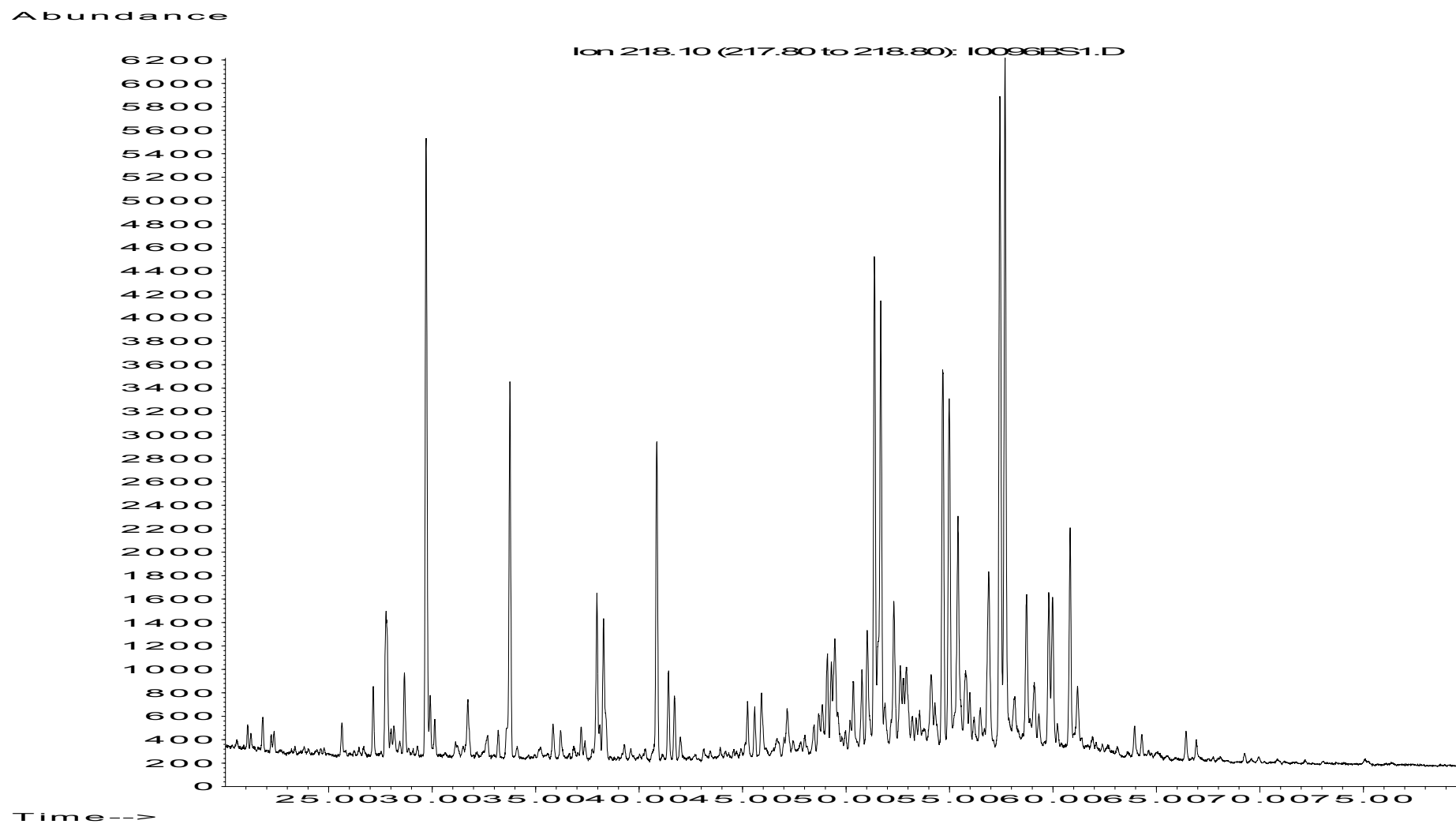
Ion 218.10 (217.80 to 218.80); I0099BS1.D



I0099, 7831/2-U-2, 14.48 - 14.53 m, COCH, Cyst (slty, dkgy), SAT GCMSD

Steranes (m/z 218)

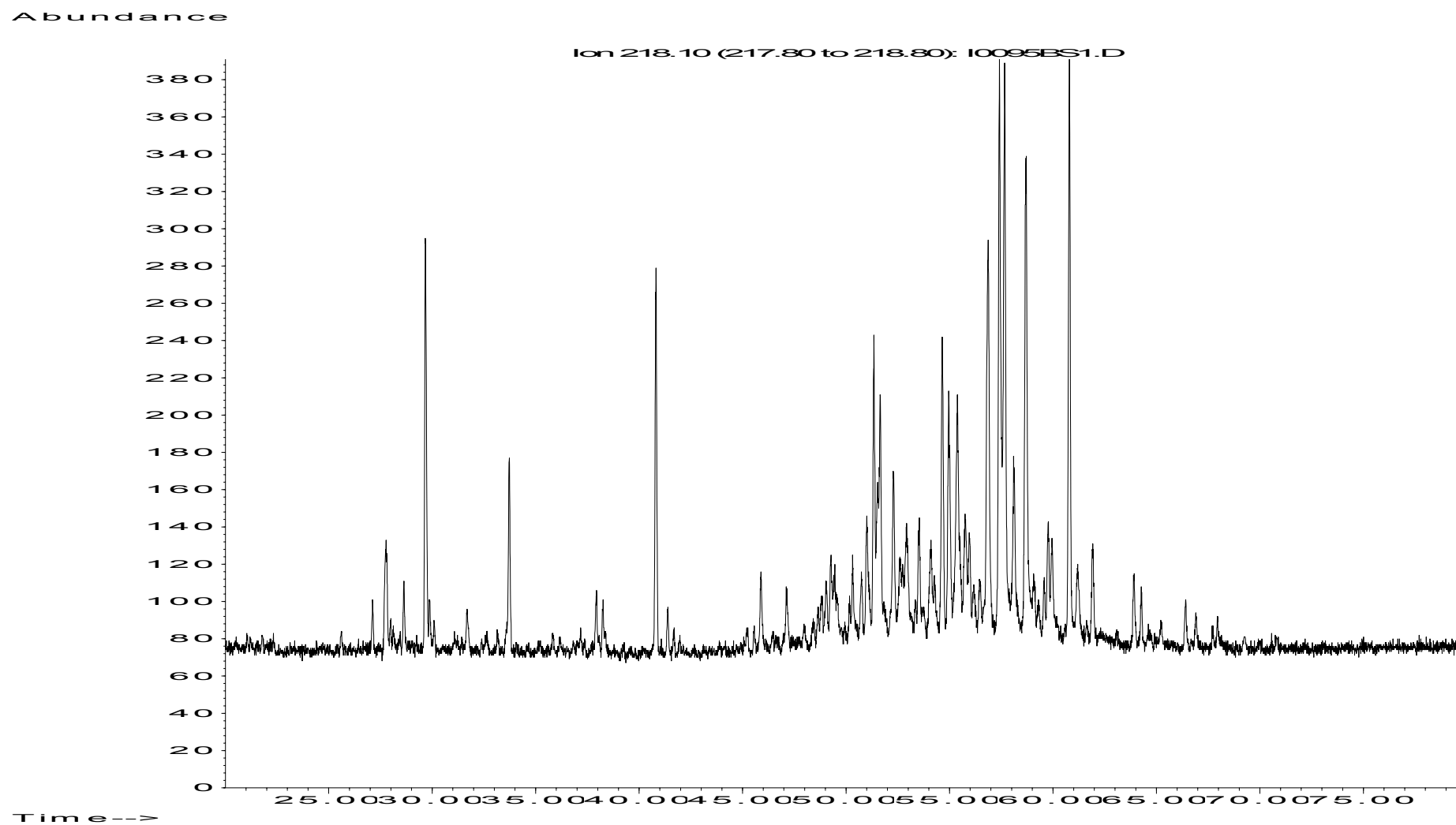
- 337 -



I0096, 7831/2-U-2, 17.83 - 17.87 m, COCH, Cyst (slty, dkgy), SAT GCMSD

Steranes (m/z 218)

- 338 -



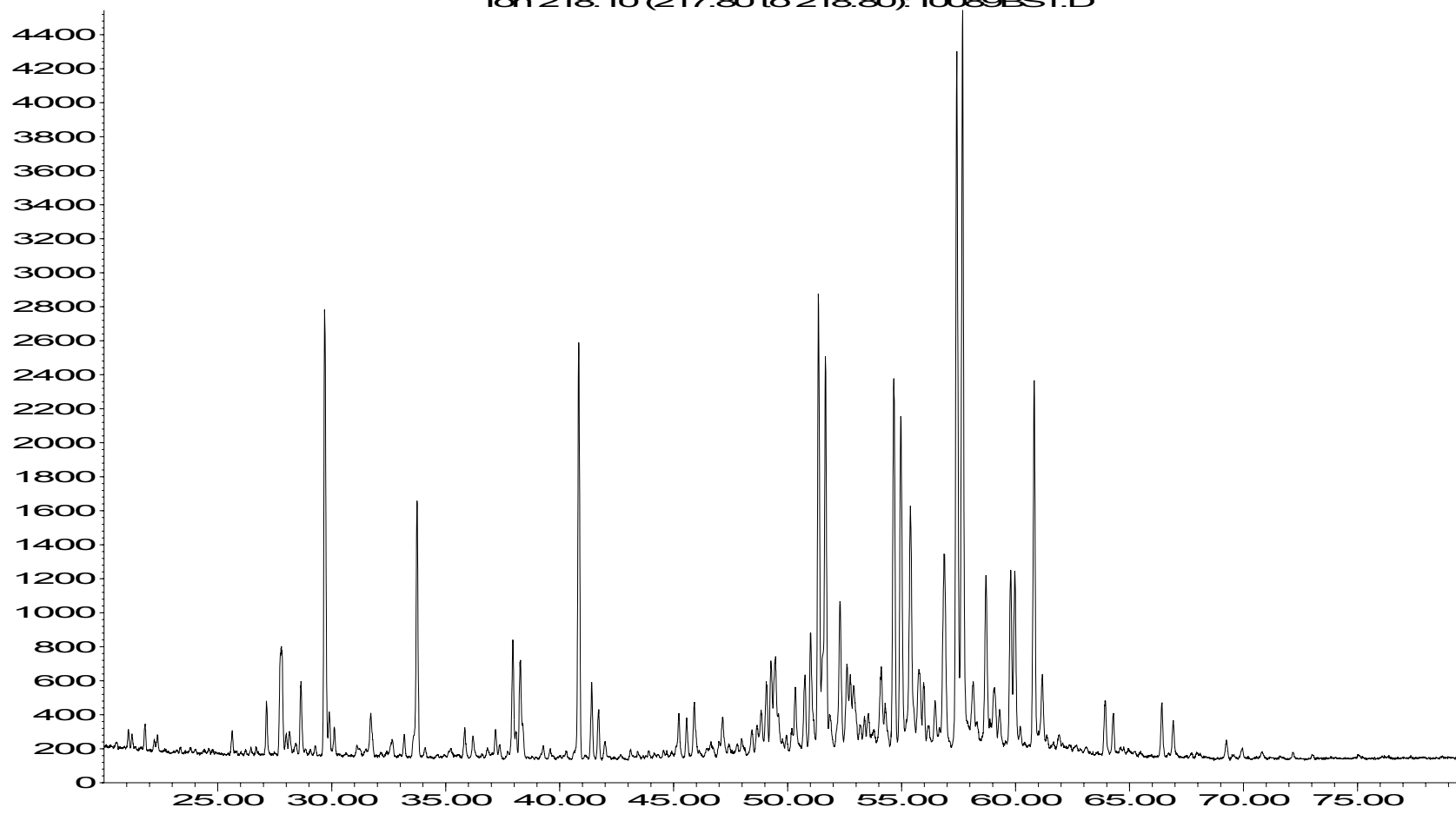
I0095, 7831/2-U-2, 18.72 - 18.85 m, COCH, Cyst (slty, dkgy), SAT GCMSD

Steranes (m/z 218)

- 339 -

Abundance

Ion 218.10 (217.80 to 218.80): I0089BS1.D



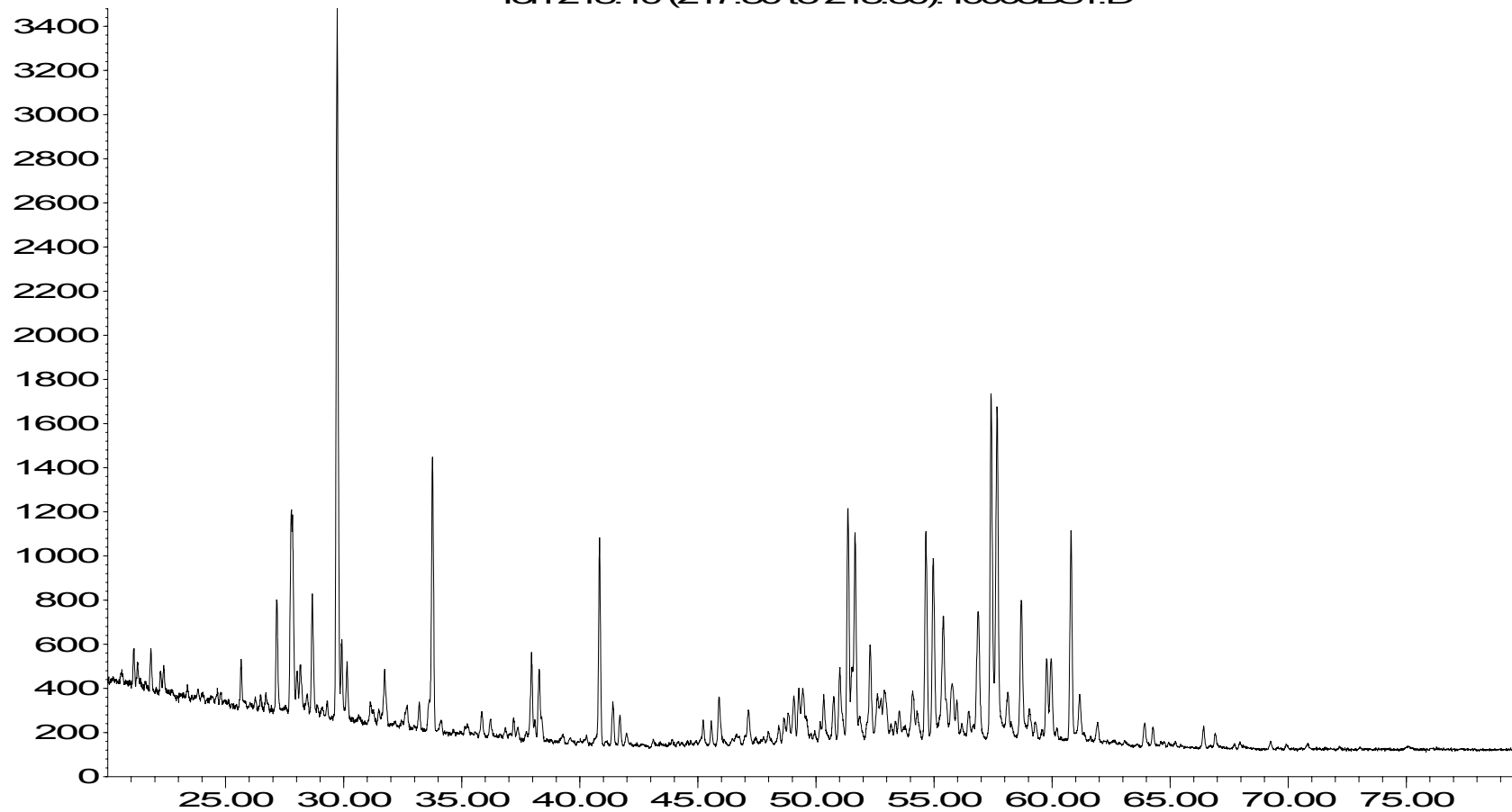
I0089, 7831/2-U-1, 21.72 - 21.76 m, COCH, Cyst (dkgy), SAT GCMSD

Steranes (m/z 218)

- 340 -

Abundance

Ion 218.10 (217.80 to 218.80): I0005BS1.D



Time-->

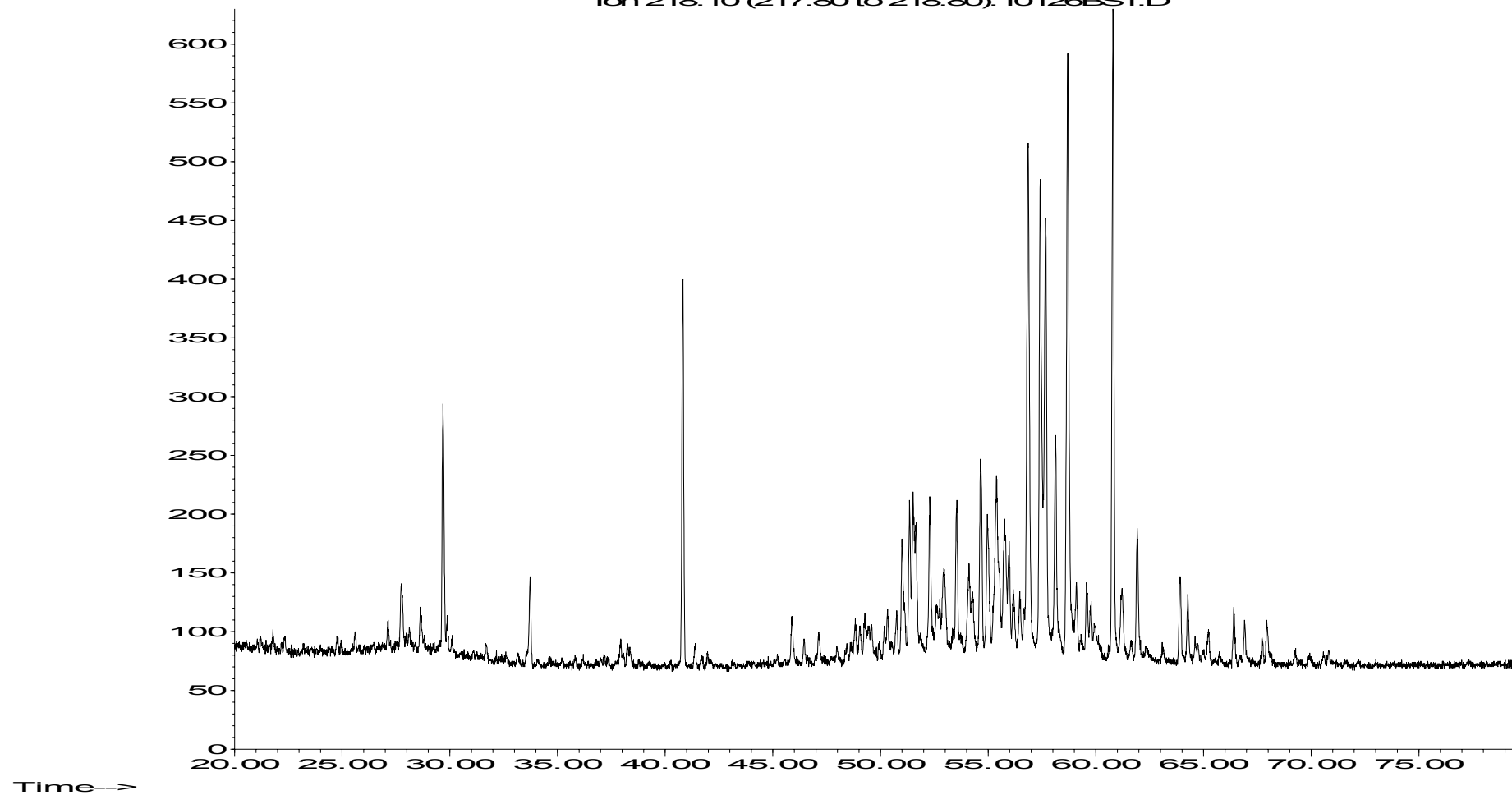
I0005, 7830/6-U-1, 12.85 - 12.88 m, COCH, Slst, SAT GCMSD

Steranes (m/z 218)

- 341 -

Abundance

Ion 218.10 (217.80 to 218.80); I0126BS1.D



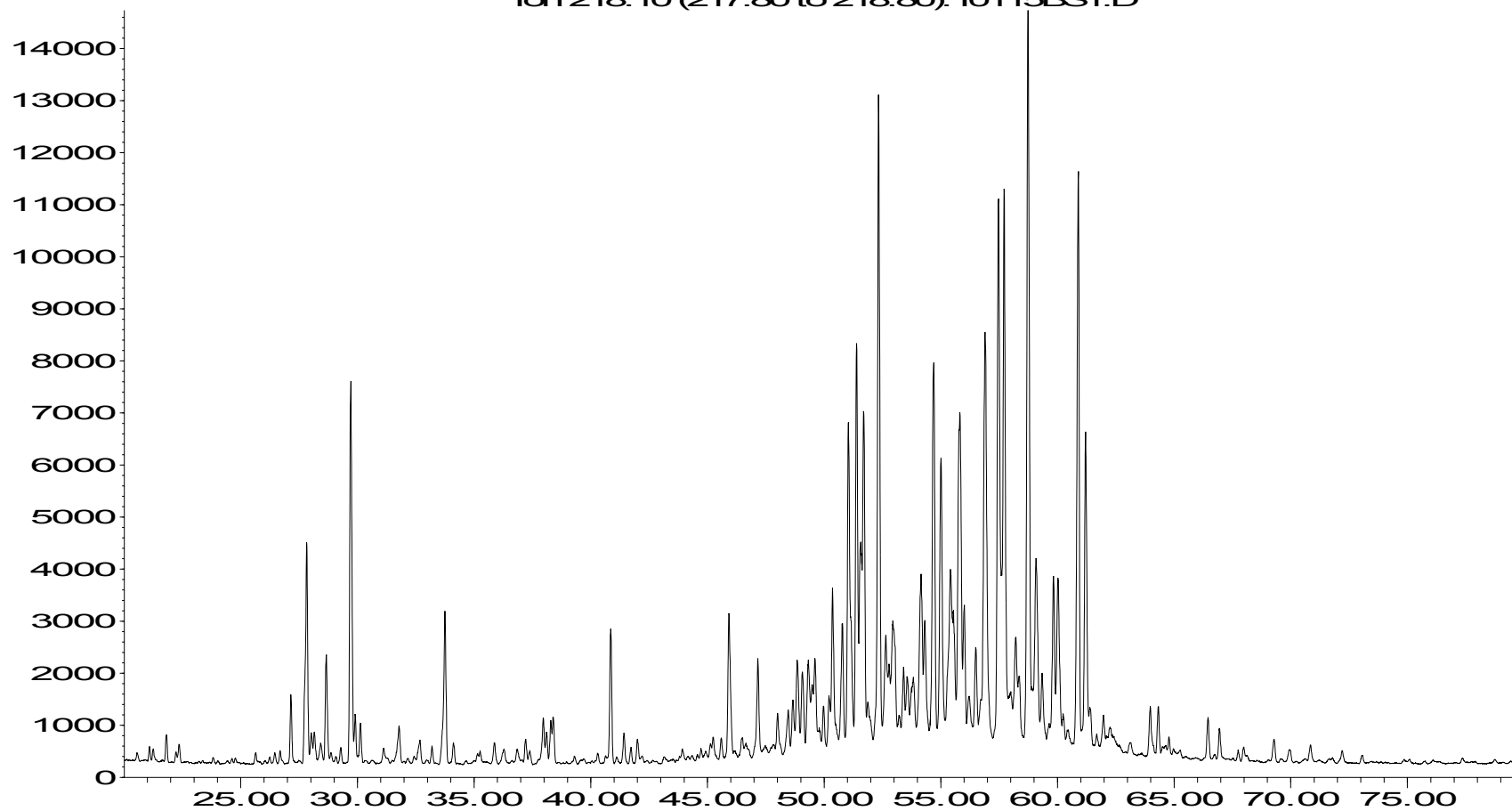
I0126, 7830/6-U-1, 20.03 - 20.10 m, COCH, Cyst (slty, lam, dkgy), SAT GCMSD

Steranes (m/z 218)

- 342 -

Abundance

Ion 218.10 (217.80 to 218.80): I0115BS1.D

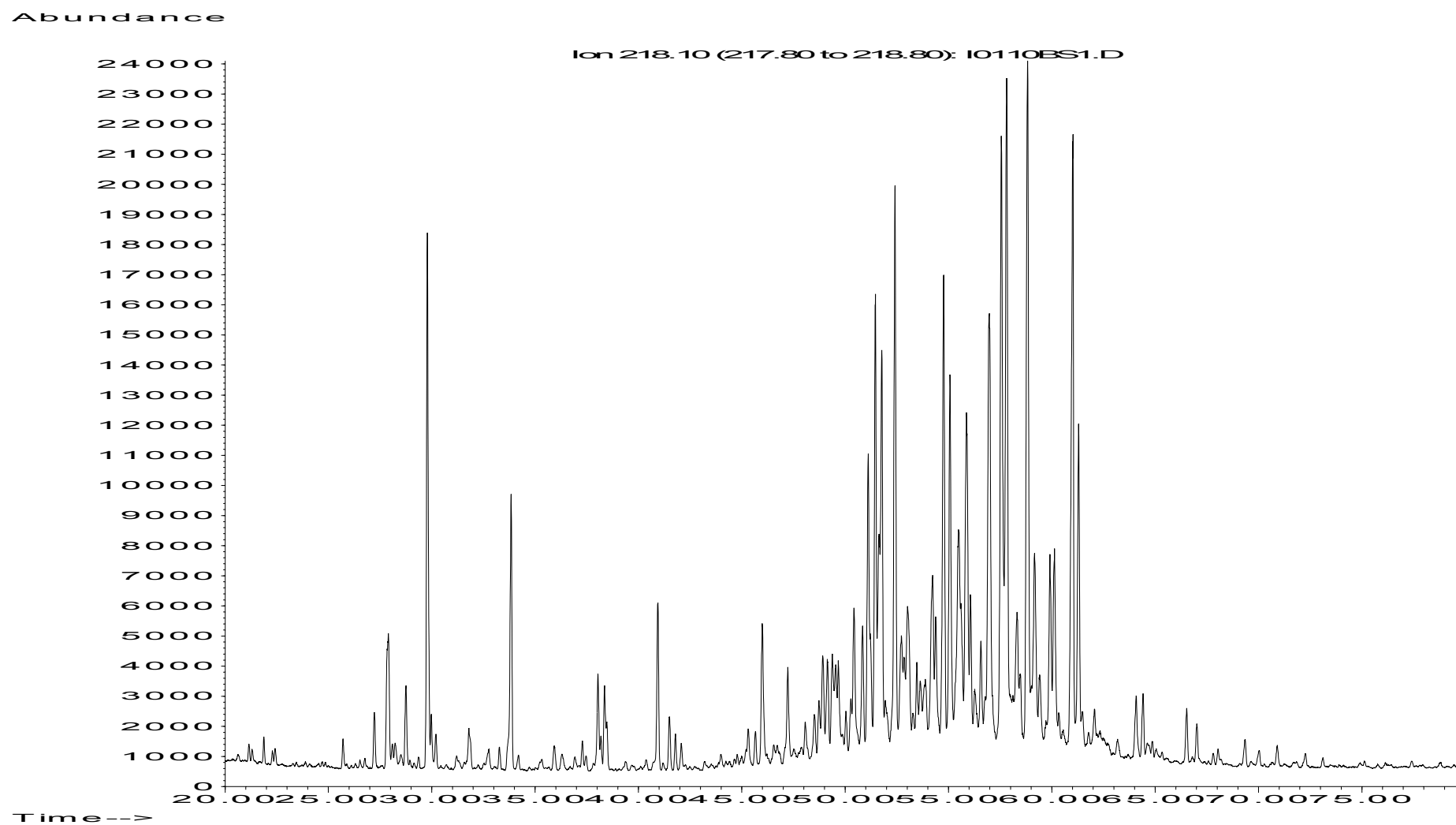


Time-->

I0115, 7830/6-U-1, 41.85 - 41.89 m, COCH, Cyst (dkgy, lam), SAT GCMSD

Steranes (m/z 218)

- 343 -

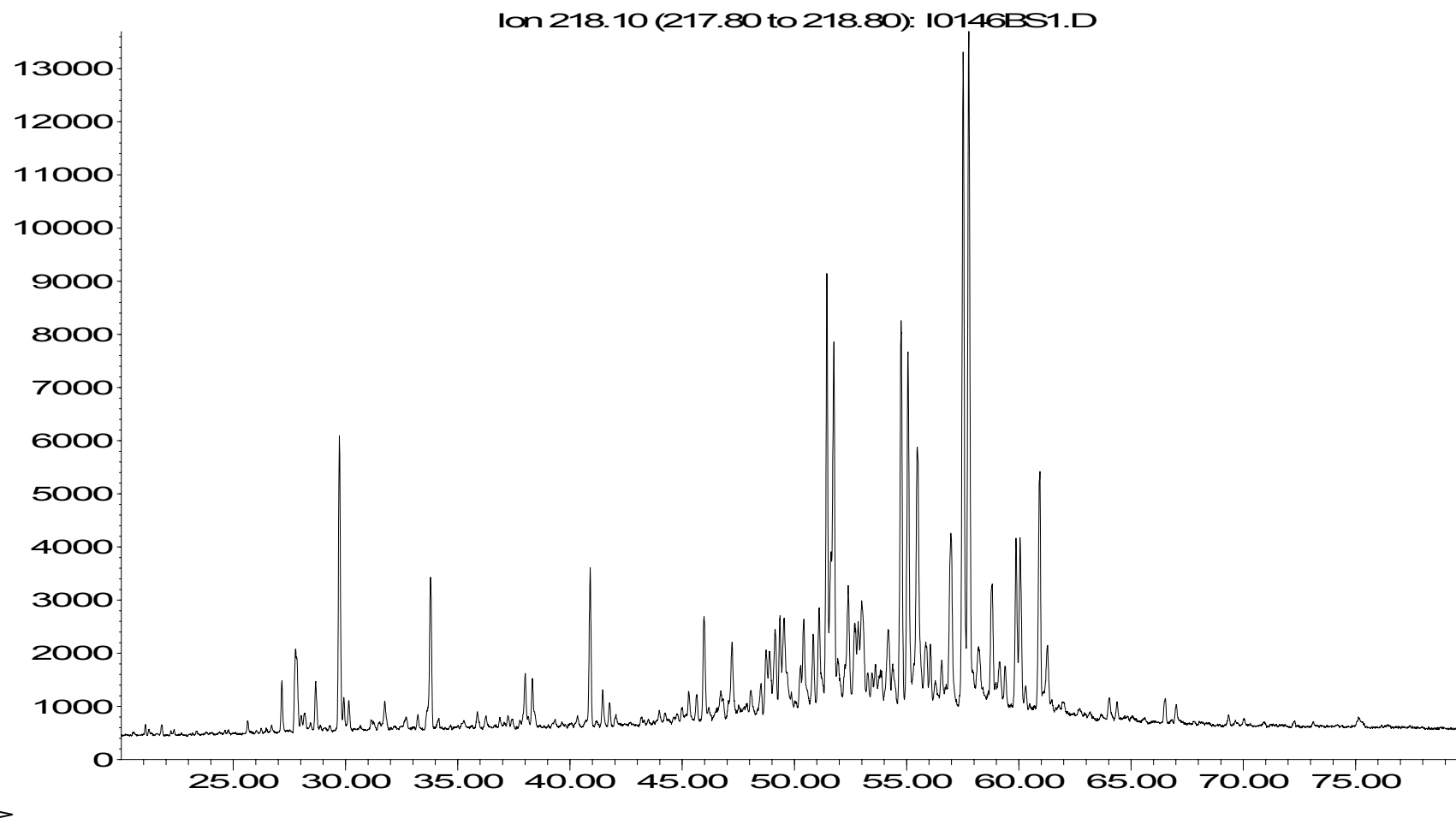


I0110, 7830/6-U-1, 50.90 - 50.93 m, COCH, Cyst (dkgy, lam), SAT GCMSD

Steranes (m/z 218)

- 344 -

Abundance



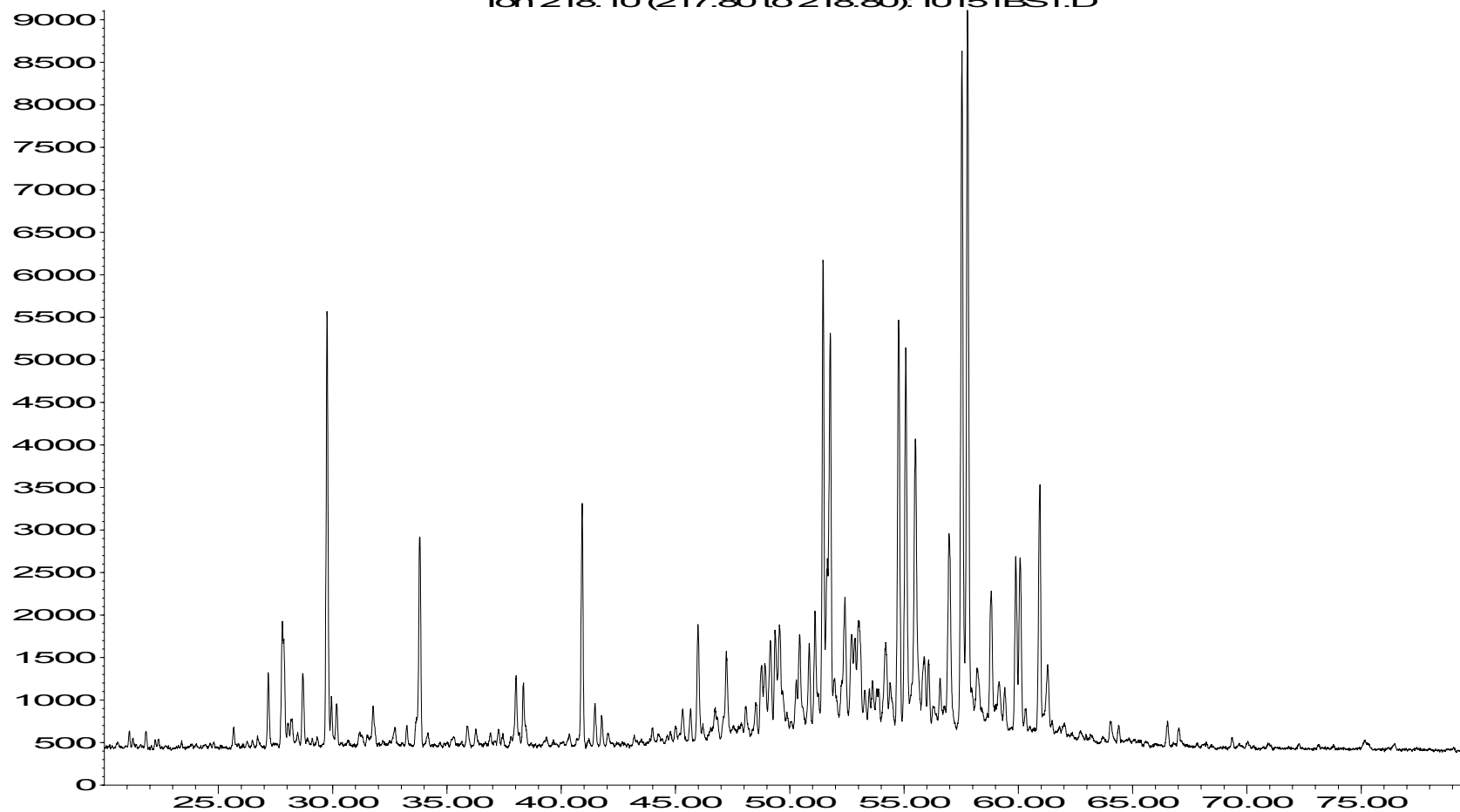
I0146, 7830/3-U-1, 39.94 - 39.99 m, COCH, Sst (mgr, mgy), SAT GCMSD

Steranes (m/z 218)

- 345 -

Abundance

Ion 218.10 (217.80 to 218.80): I0151BS1.D



Time—>

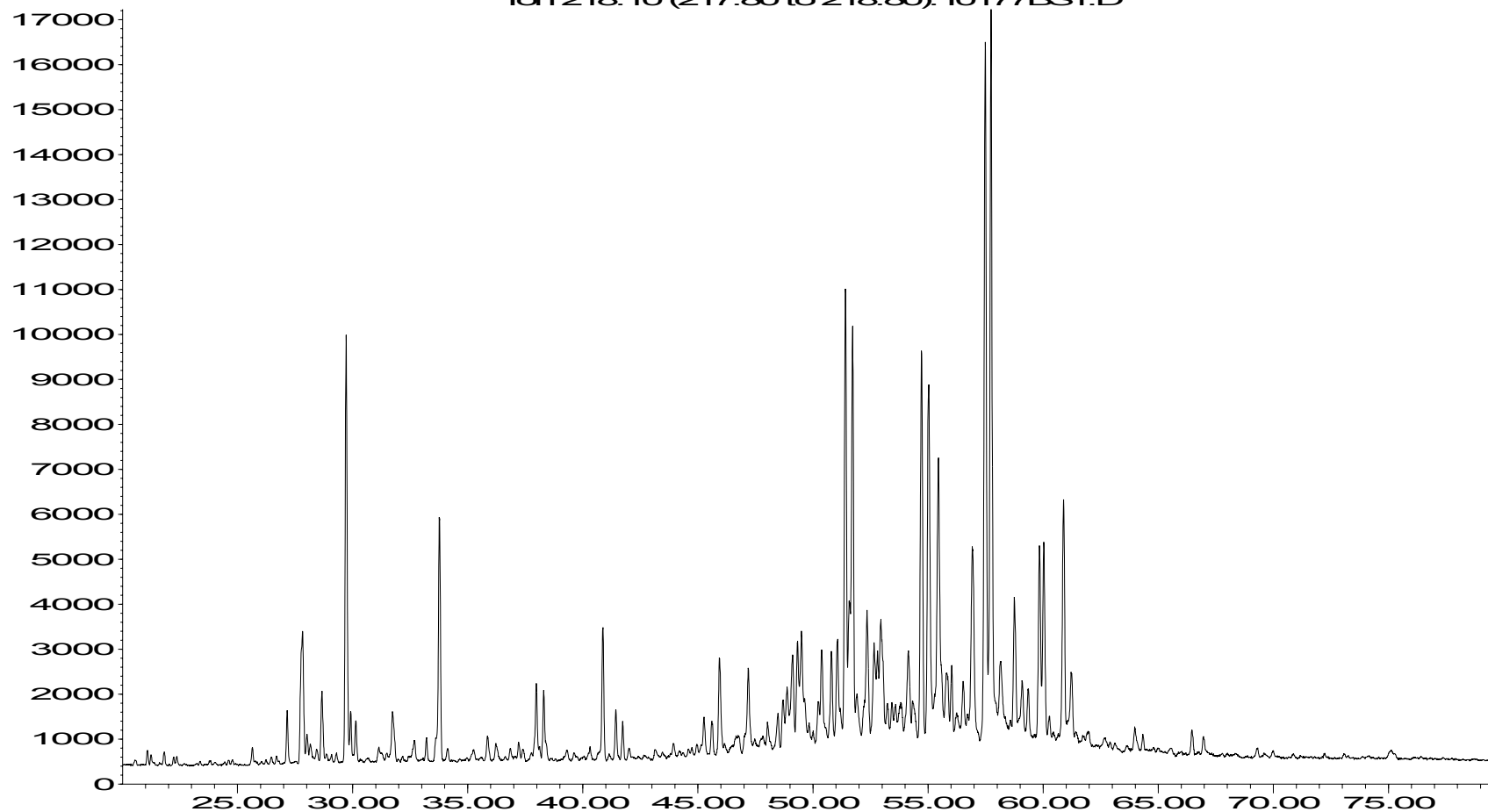
I0151, 7830/3-U-1, 51.24 m, COPL, Sst (fgr, mgy), SAT GCMSD

Steranes (m/z 218)

- 346 -

Abundance

Ion 218.10 (217.80 to 218.80): I0177BS1.D

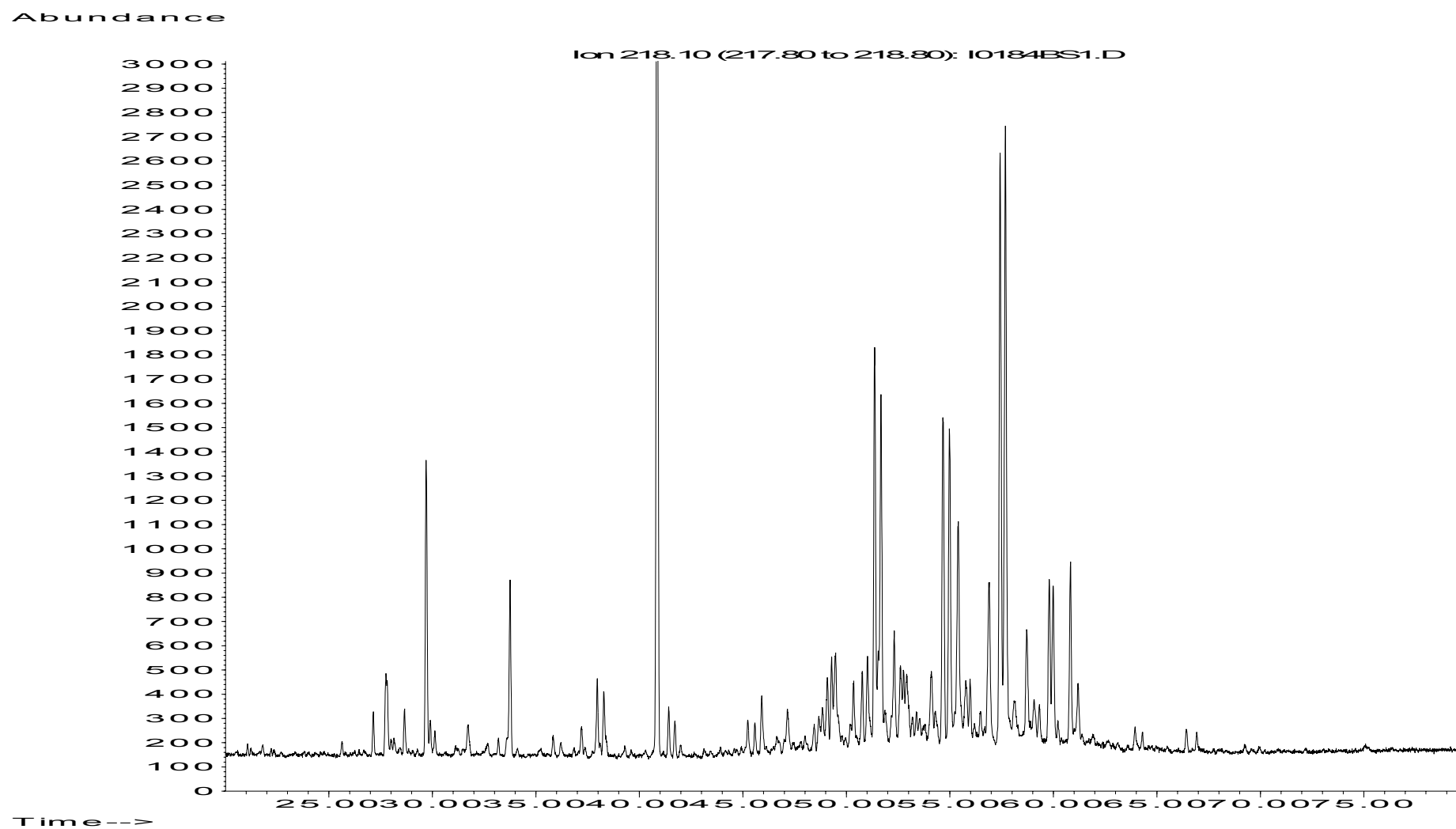


Time-->

I0177, 7830/3-U-1, 111.69 - 111.75 m, COCH, Sst (fgr, dkgy), SAT GCMSD

Steranes (m/z 218)

- 347 -



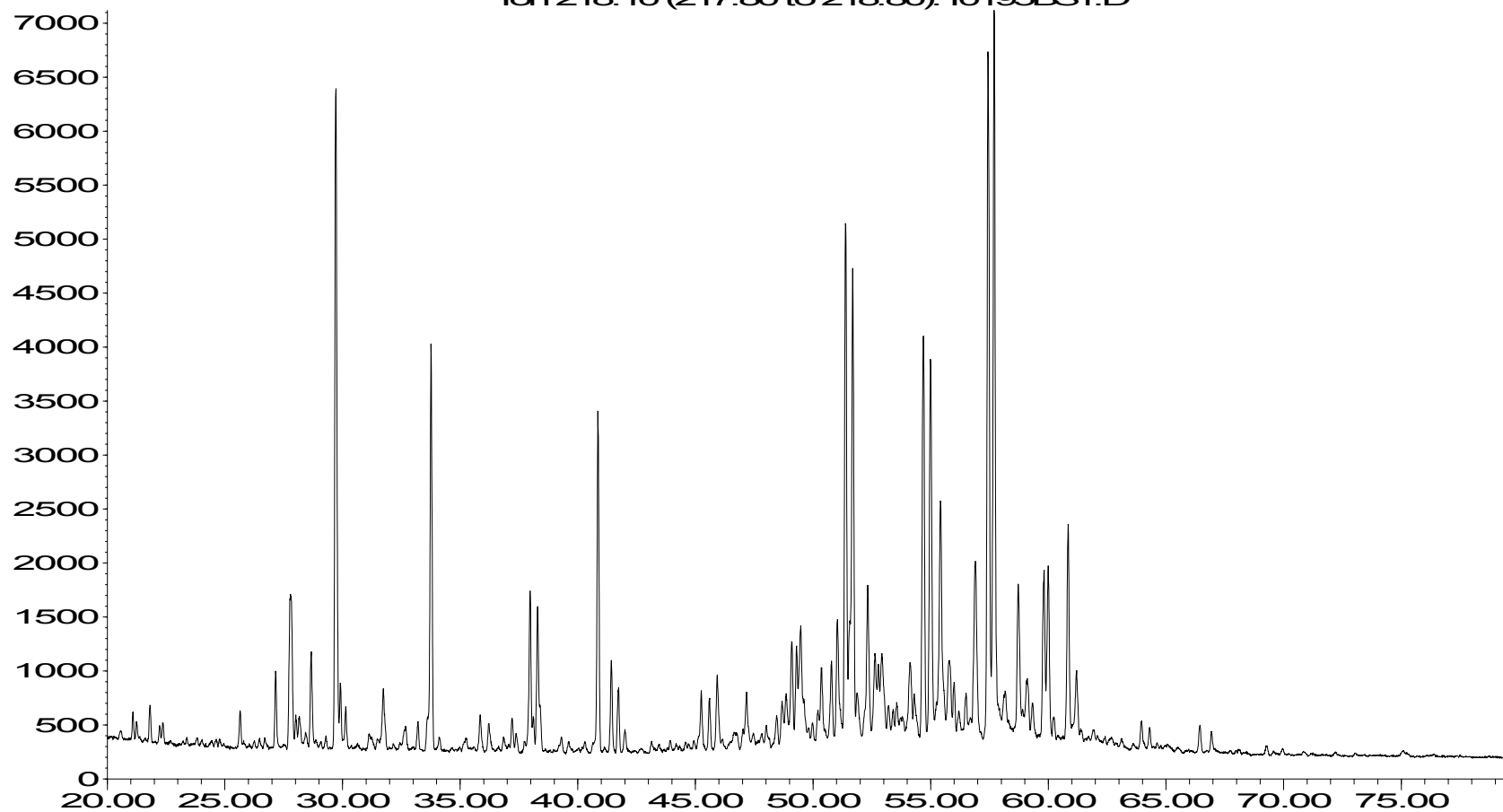
I0184, 7830/3-U-1, 124.63 m, COPL, Sst (fgr, ltgy), SAT GCMSD

Steranes (m/z 218)

- 348 -

Abundance

Ion 218.10 (217.80 to 218.80): I0195BS1.D

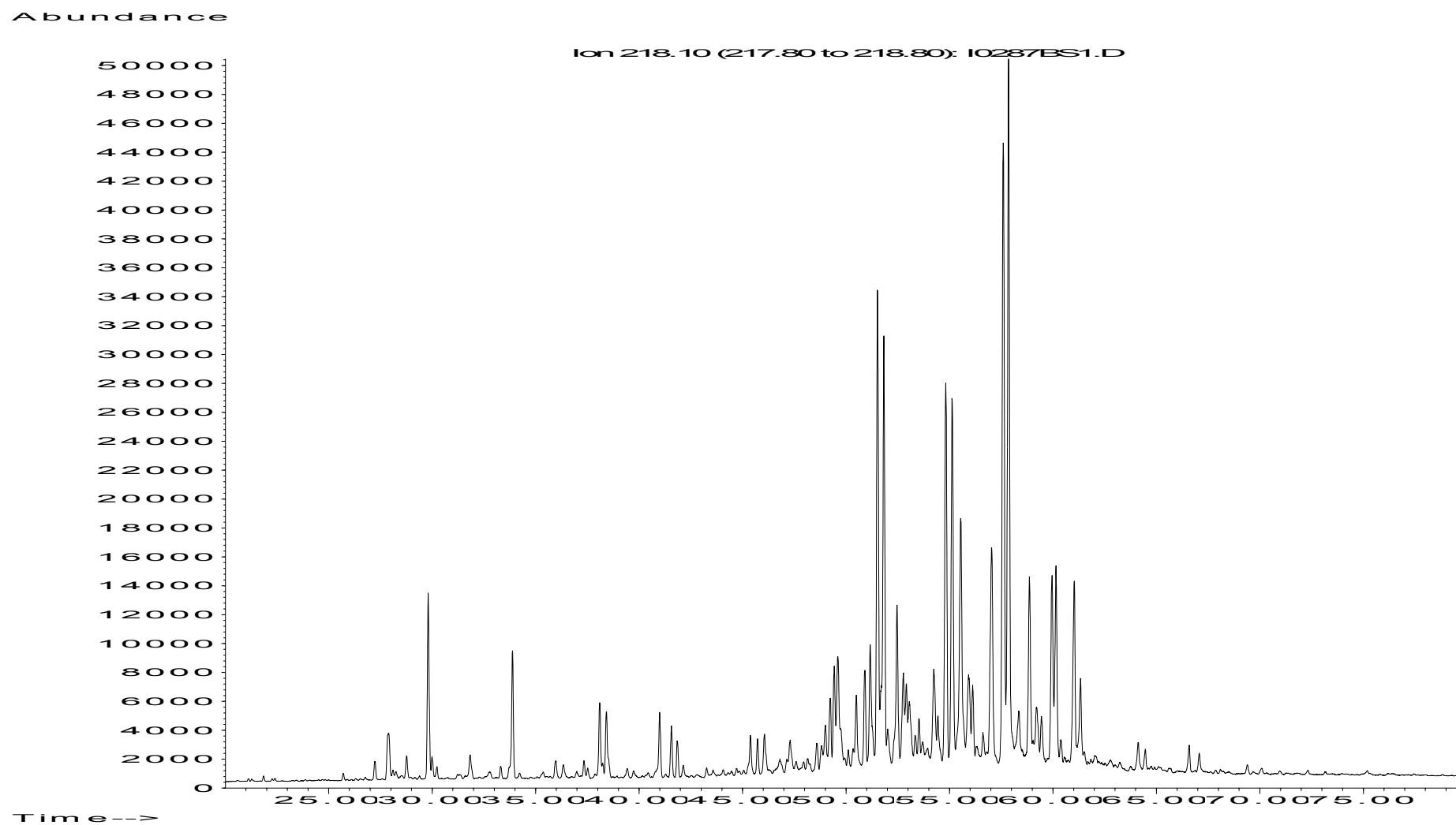


Time-->

I0195, 7830/3-U-1, 154.81 - 154.88 m, COCH, Clyst (sl slty, ltgy), SAT GCMSD

Steranes (m/z 218)

- 349 -

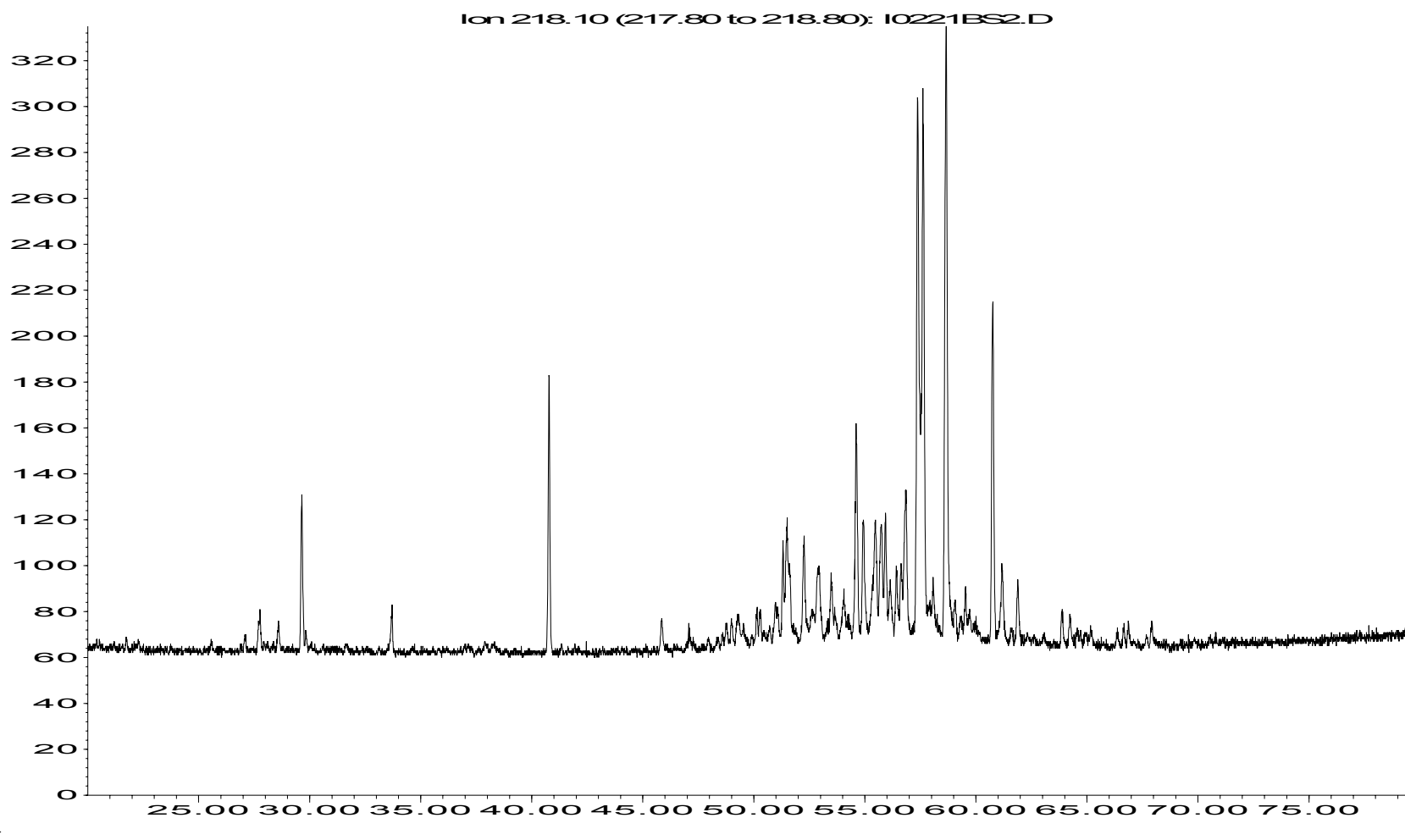


I0287, 7830/3-U-1, 174.13 - 174.15 m, COCH, Sst (fgr, mgy), SAT GCMSD

Steranes (m/z 218)

- 350 -

Abundance



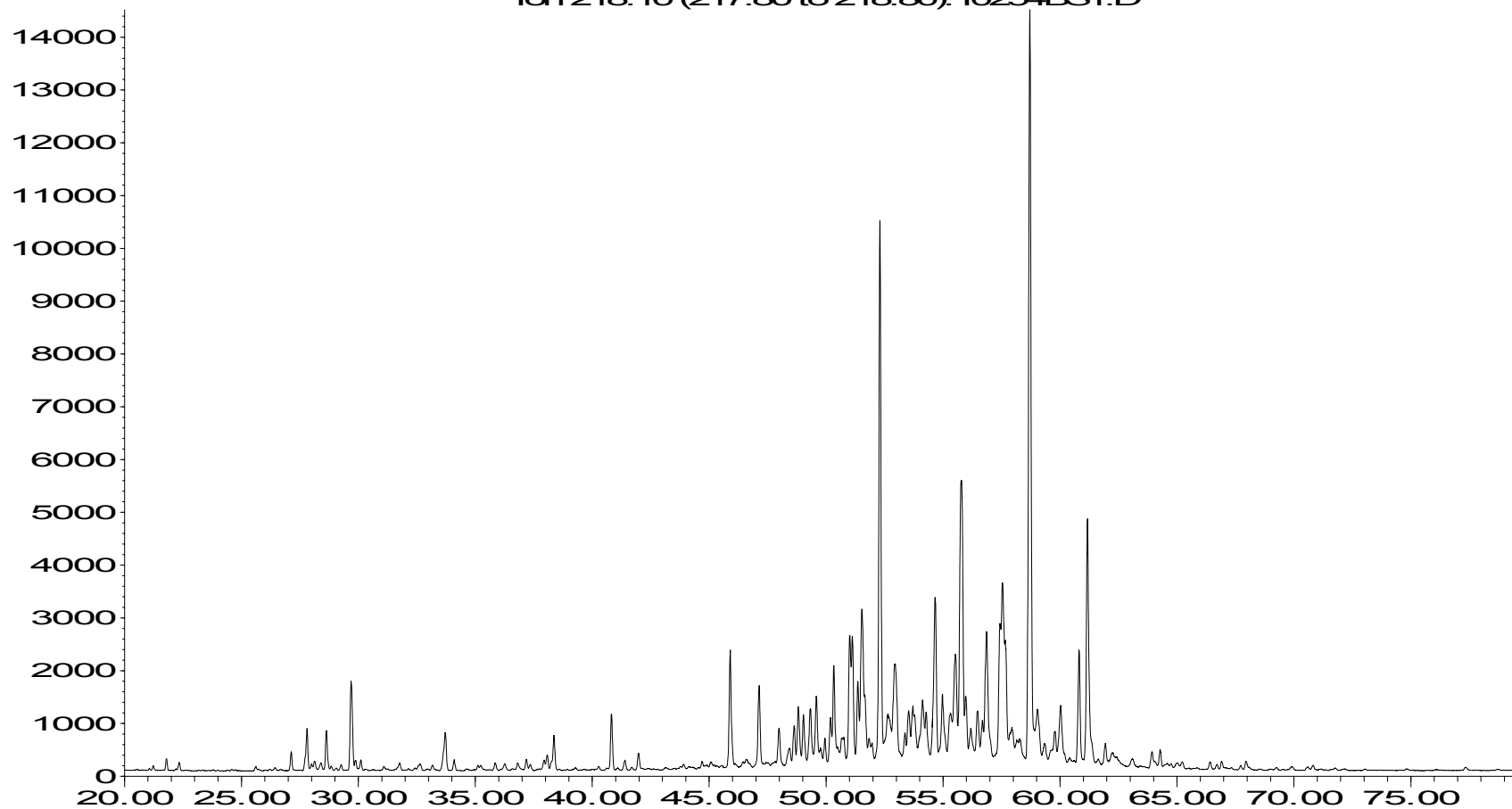
I0221, 7830/5-U-1, 58.90 - 58.97 m, COCH, Cyst (sl slty, lam, dkgy), SAT GCMSD

Steranes (m/z 218)

- 351 -

Abundance

Ion 218.10 (217.80 to 218.80): I0254BS1.D



Time-->

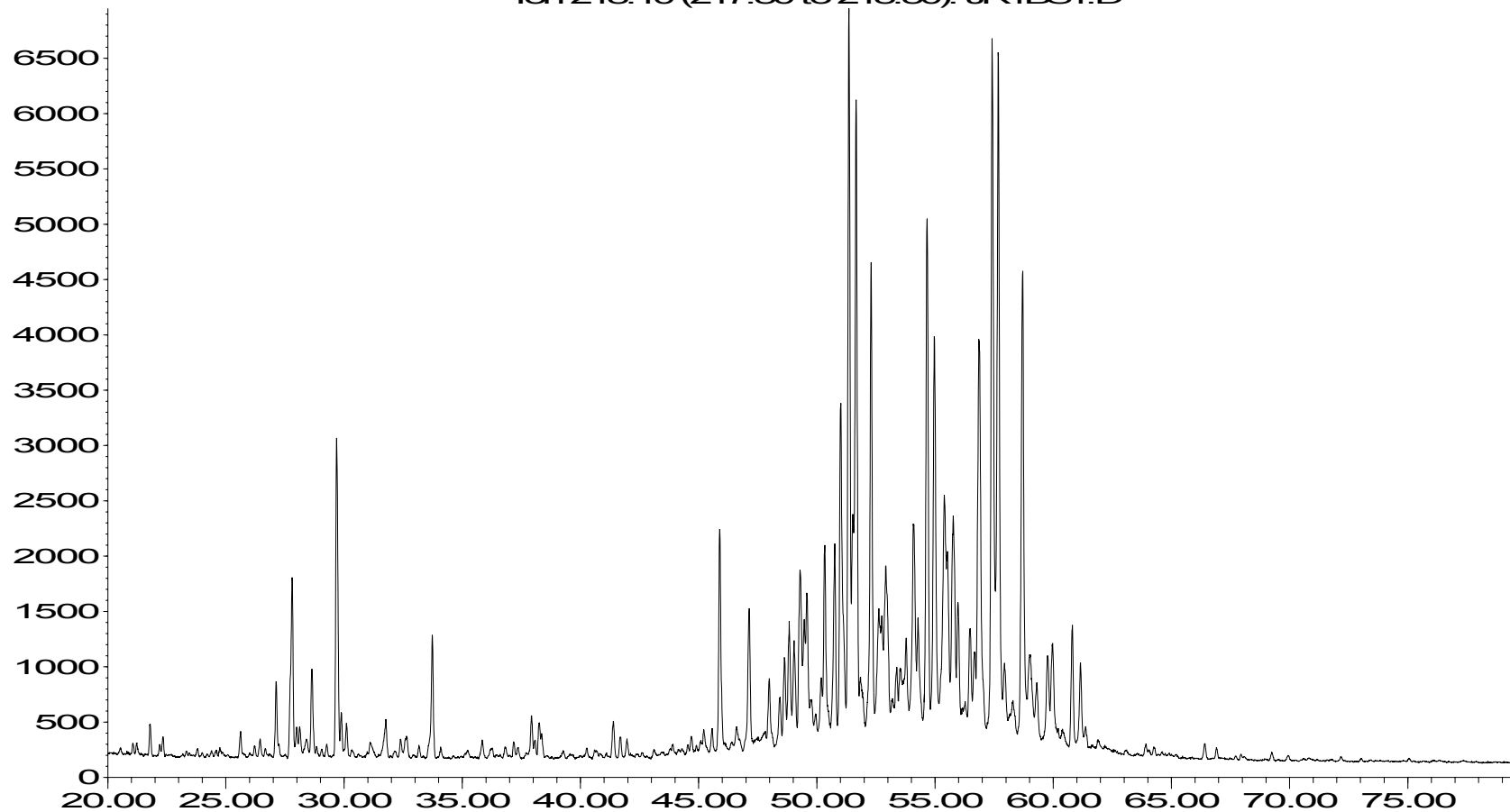
I0254, 7830/5-U-1, 128.62 - 128.68 m, COCH, Clyst (vdkgy, lam), SAT GCMSD

Steranes (m/z 218)

- 352 -

Abundance

Ion 218.10 (217.80 to 218.80): JR1BS1.D



Time-->

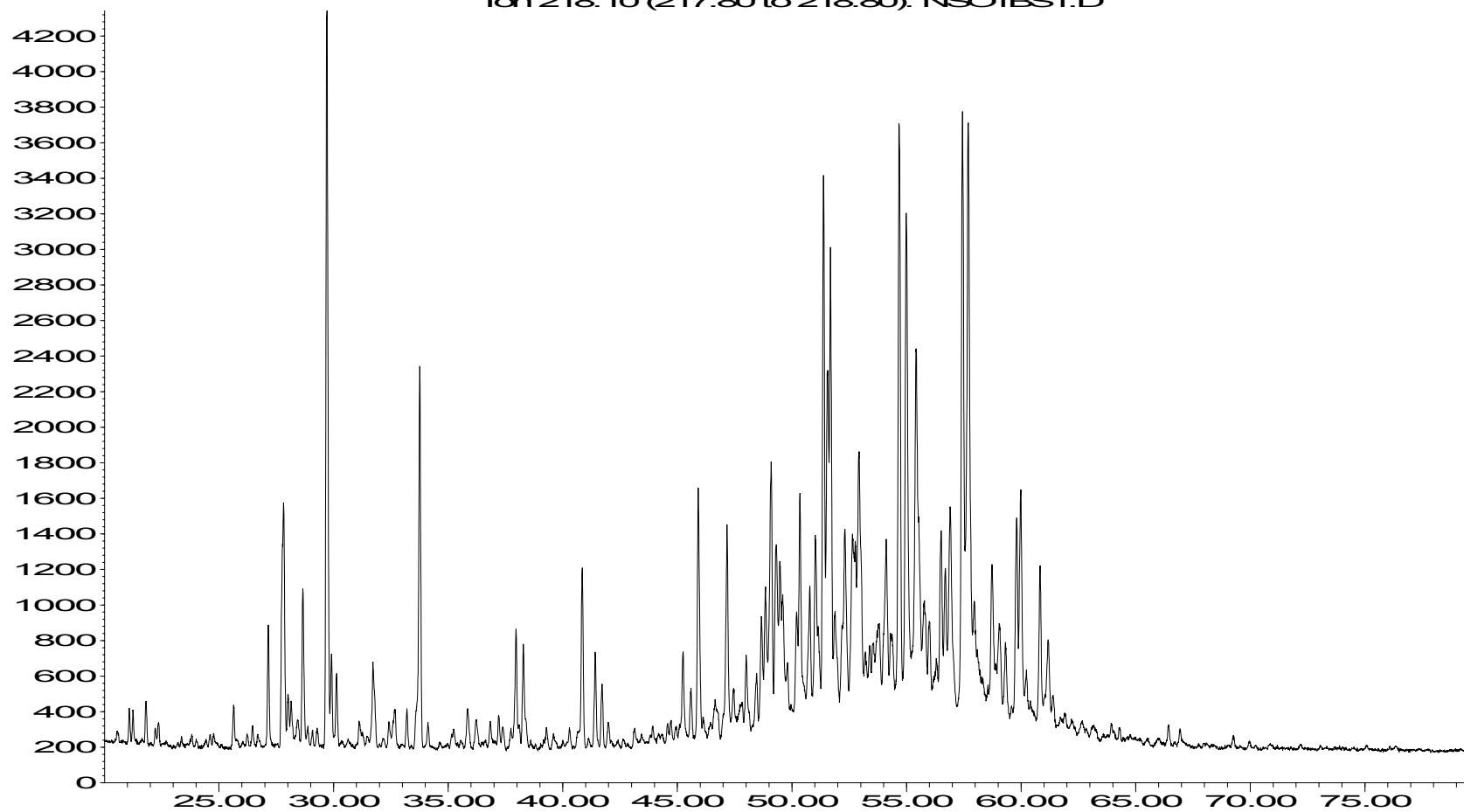
JR-1, NGS reference sample, SAT GCMSD

Steranes (m/z 218)

- 353 -

Abundance

Ion 218.10 (217.80 to 218.80): NSO1BS1.D



Time-->

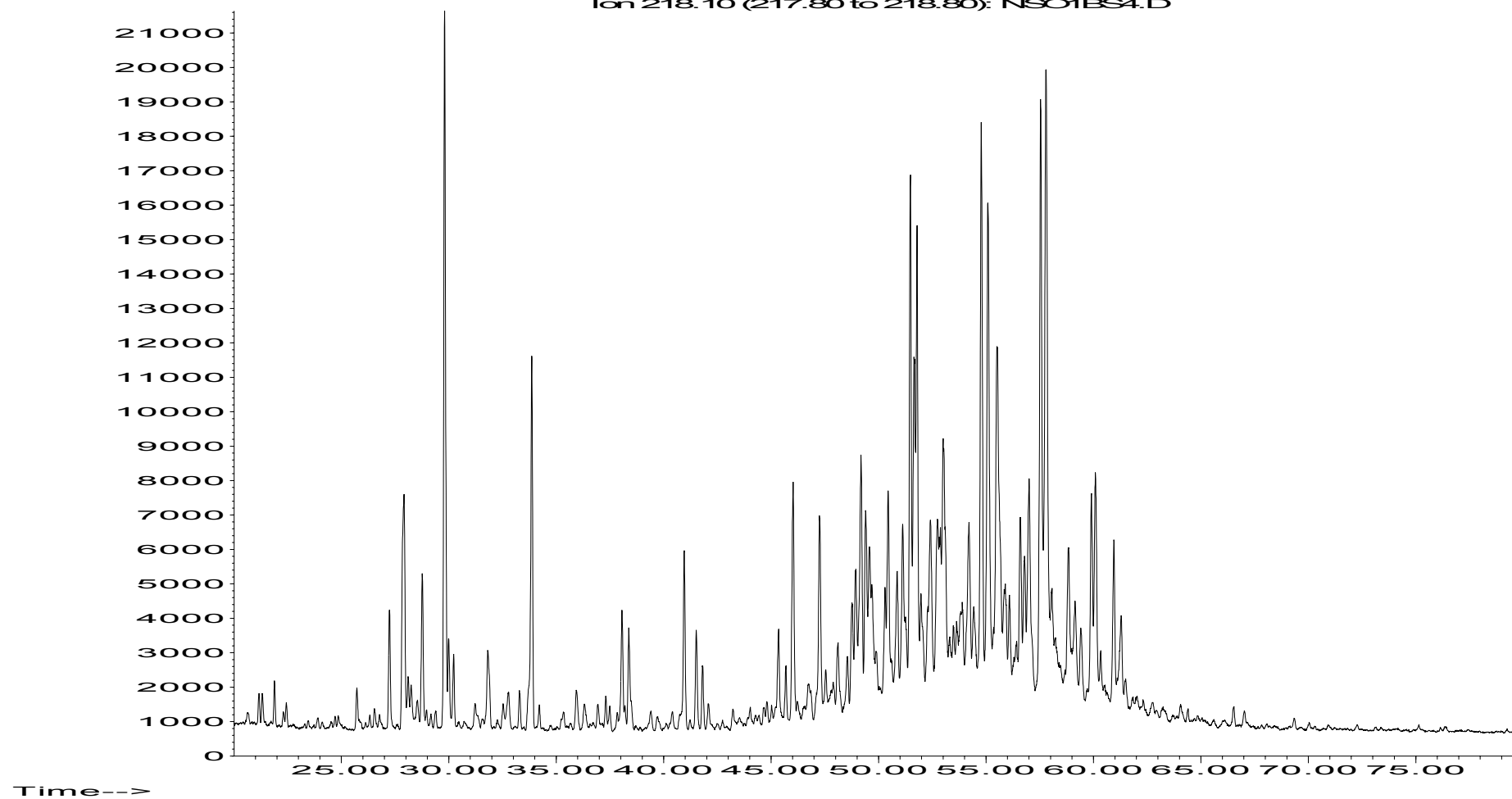
NSO-1, #0, NGS reference oil, SAT GCMSD

Steranes (m/z 218)

- 354 -

Abundance

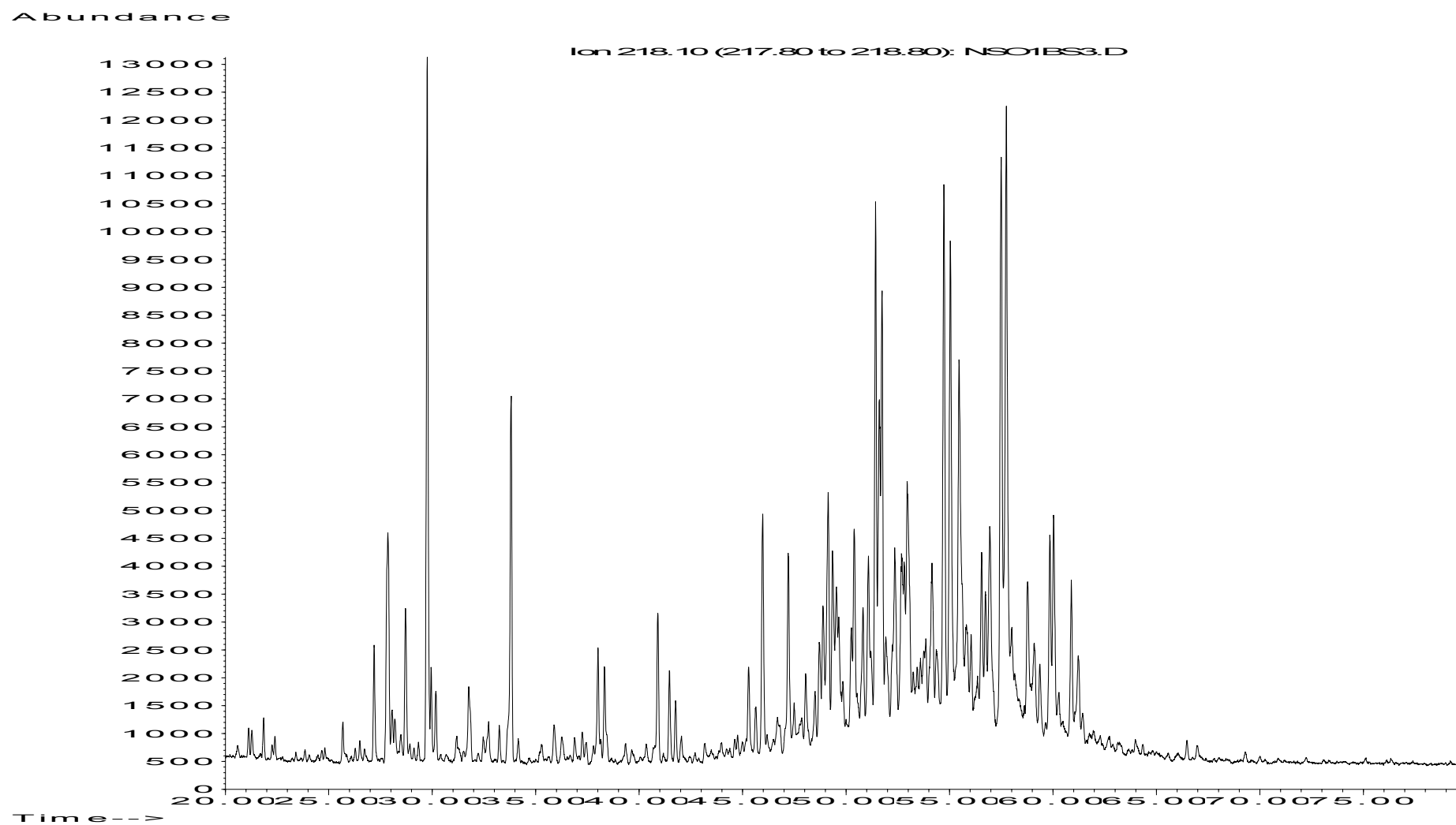
Ion 218.10 (217.80 to 218.80): NSO1BS4.D



NSO-1, #1, NGS reference oil, SAT GCMSD

Steranes (m/z 218)

- 355 -



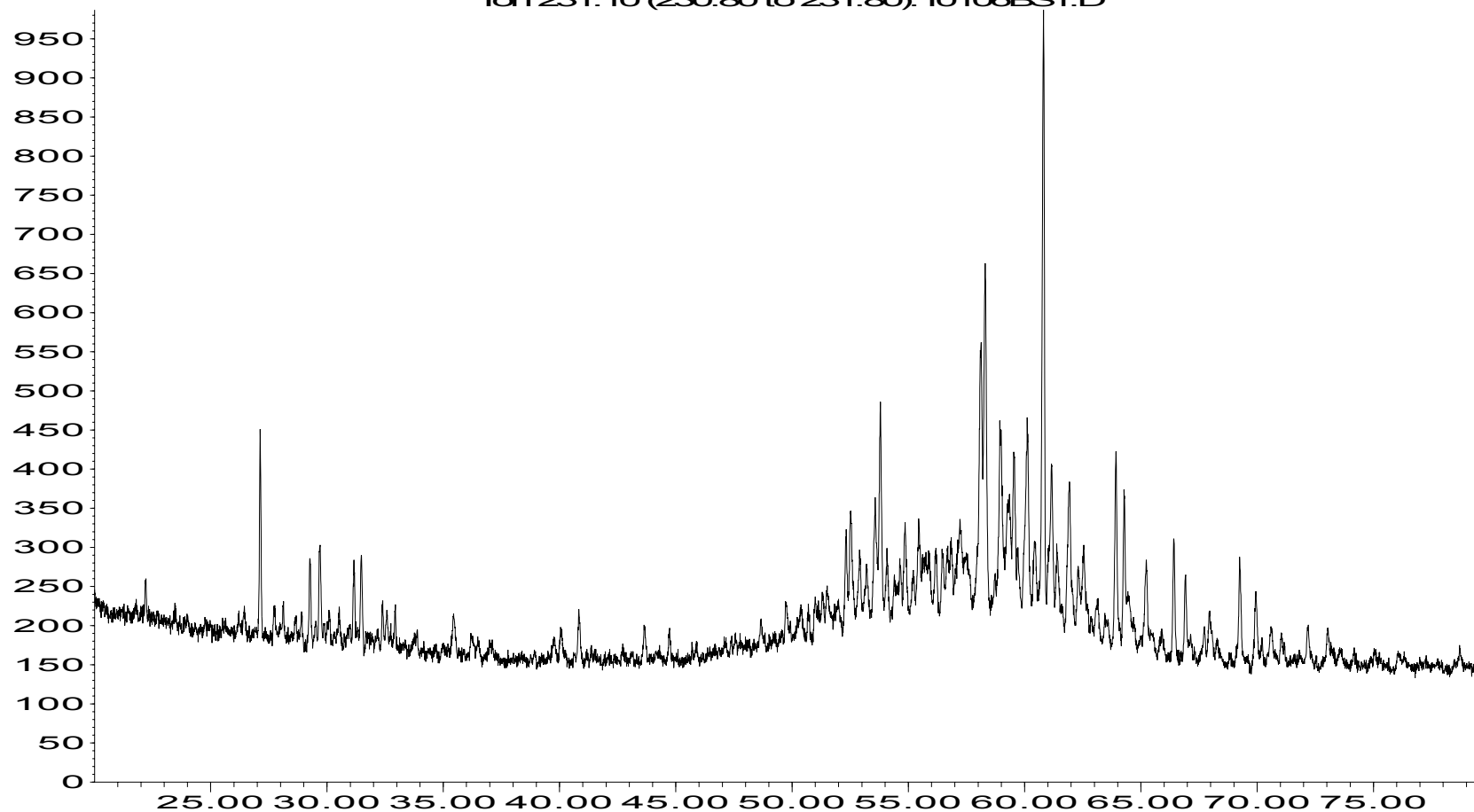
NSO-1, #2, NGS reference oil, SAT GCMSD

Steranes (m/z 218)

- 356 -

Abundance

Ion 231.10 (230.80 to 231.80): I0106BS1.D



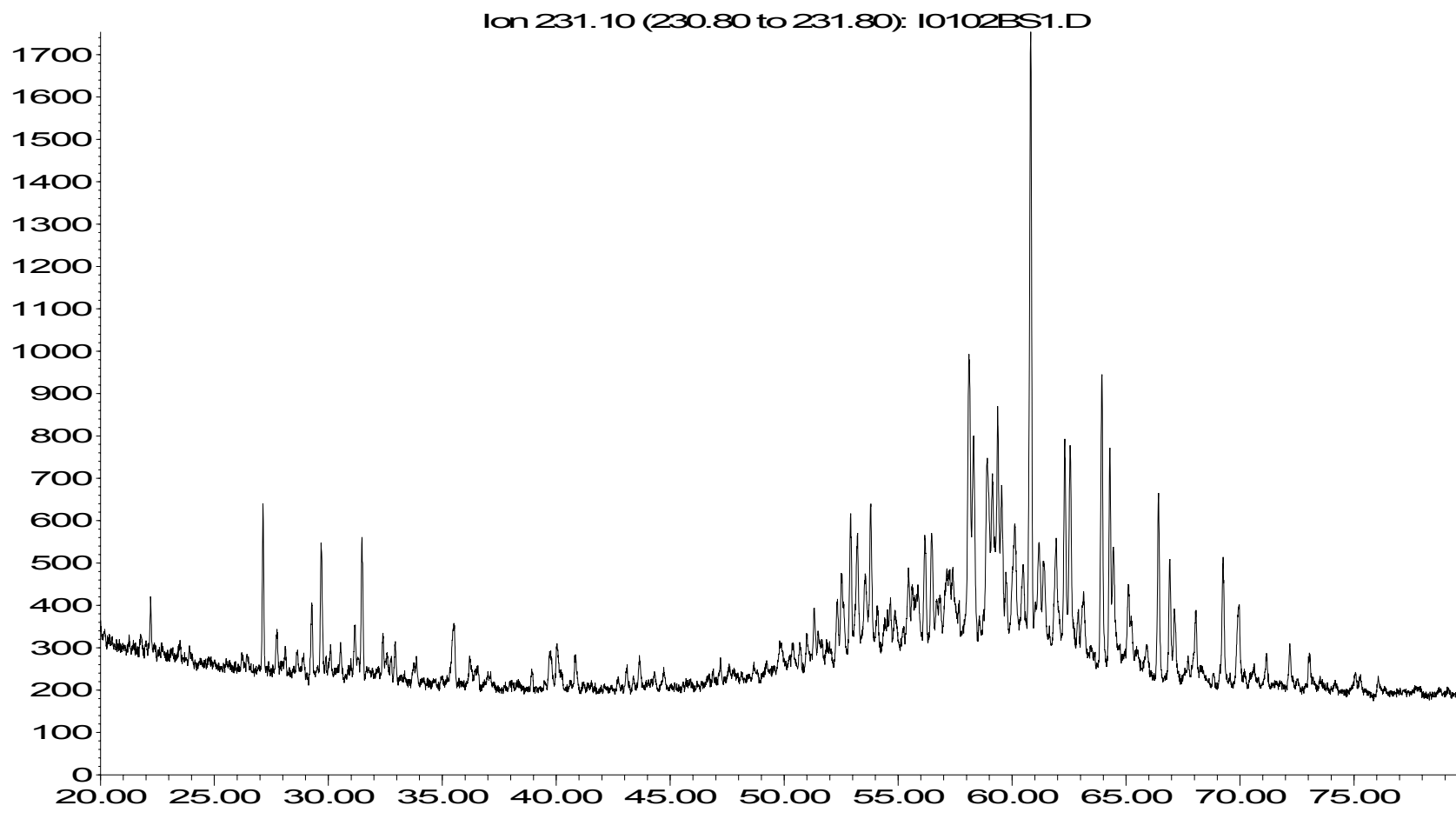
Time-->

I0106, 7831/2-U-2, 6.78 - 6.83 m, COCH, Clyst (slty, dkgy), SAT GCMSD

4-Methylsteranes (m/z 231)

- 357 -

Abundance



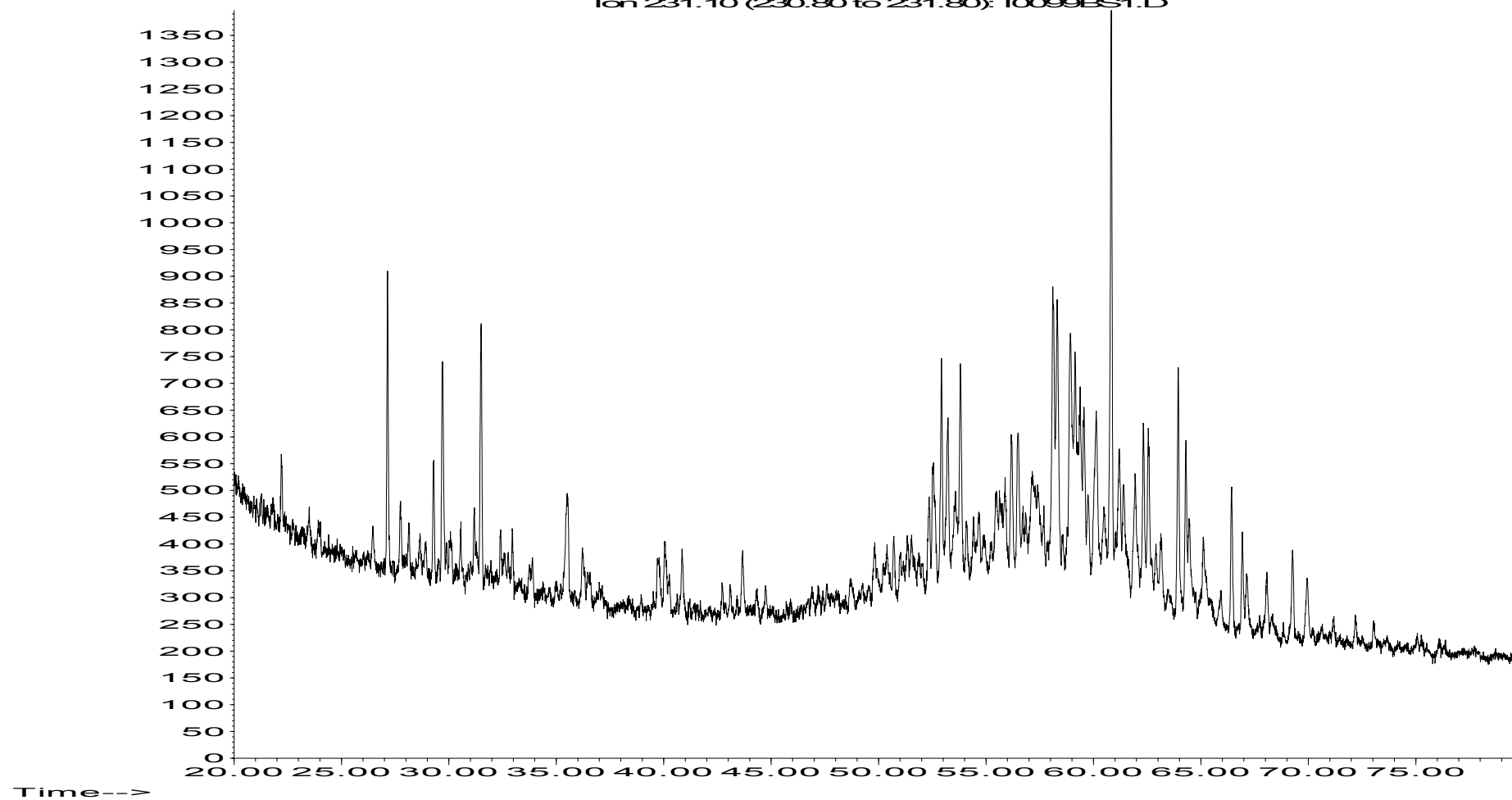
I0102, 7831/2-U-2, 10.23 - 10.28 m, COCH, Cyst (sly, mgy), SAT GCMSD

4-Methylsteranes (m/z 231)

- 358 -

Abundance

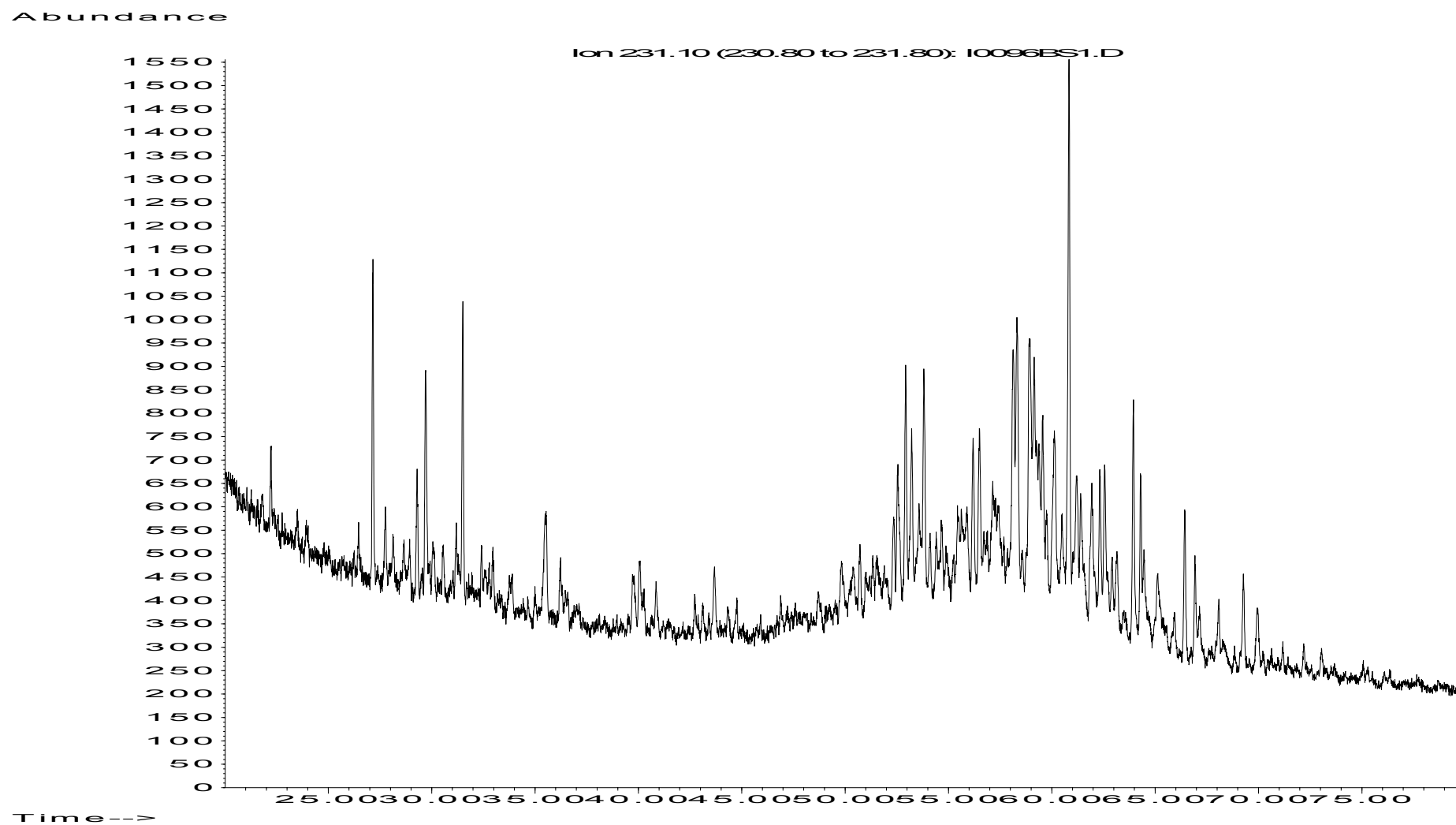
Ion 231.10 (230.80 to 231.80): I0099BS1.D



I0099, 7831/2-U-2, 14.48 - 14.53 m, COCH, Cyst (slty, dkgy), SAT GCMSD

4-Methylsteranes (m/z 231)

- 359 -



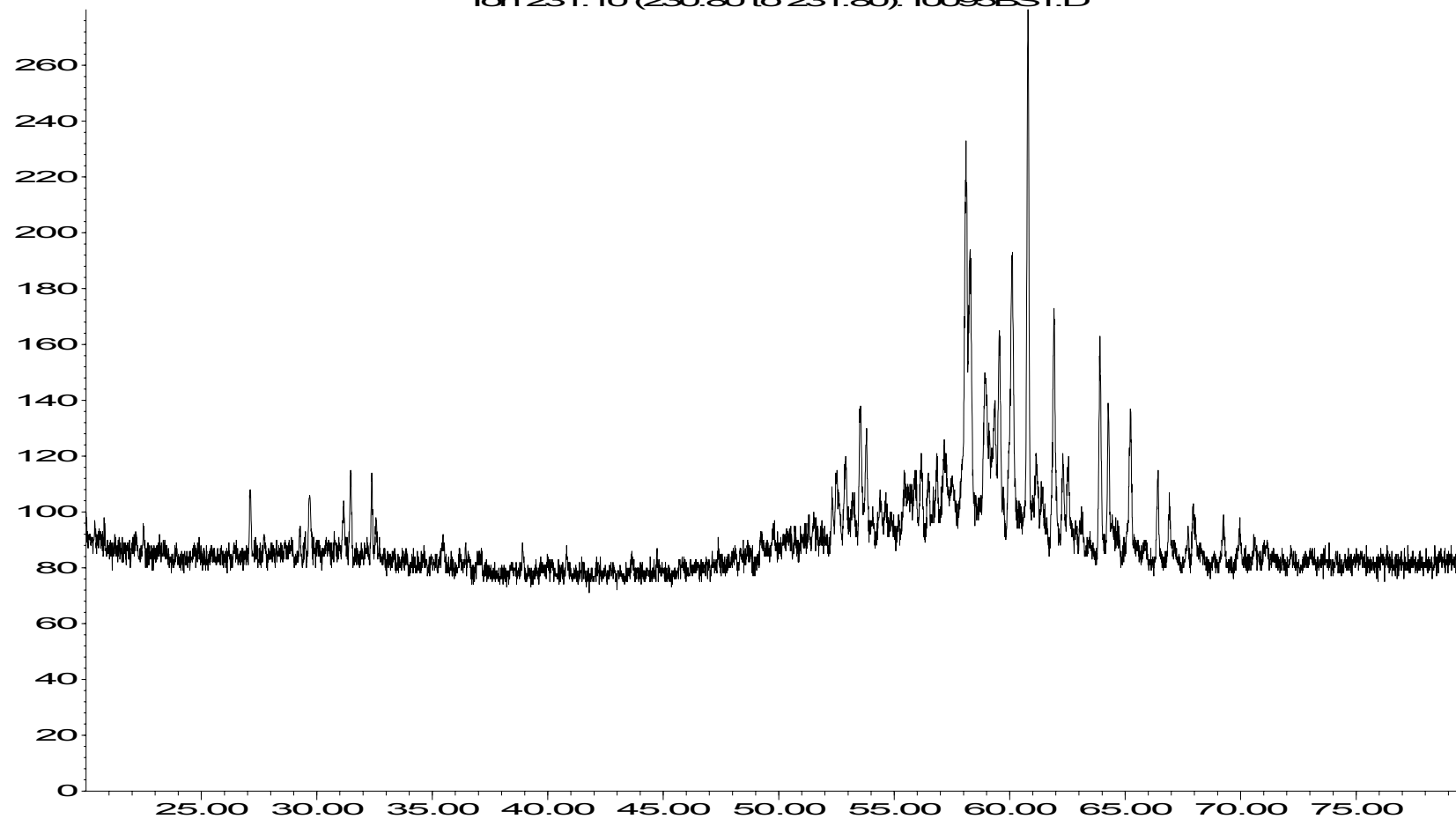
I0096, 7831/2-U-2, 17.83 - 17.87 m, COCH, Cyst (slty, dkgy), SAT GCMSD

4-Methylsteranes (m/z 231)

- 360 -

Abundance

Ion 231.10 (230.80 to 231.80): I0095BS1.D

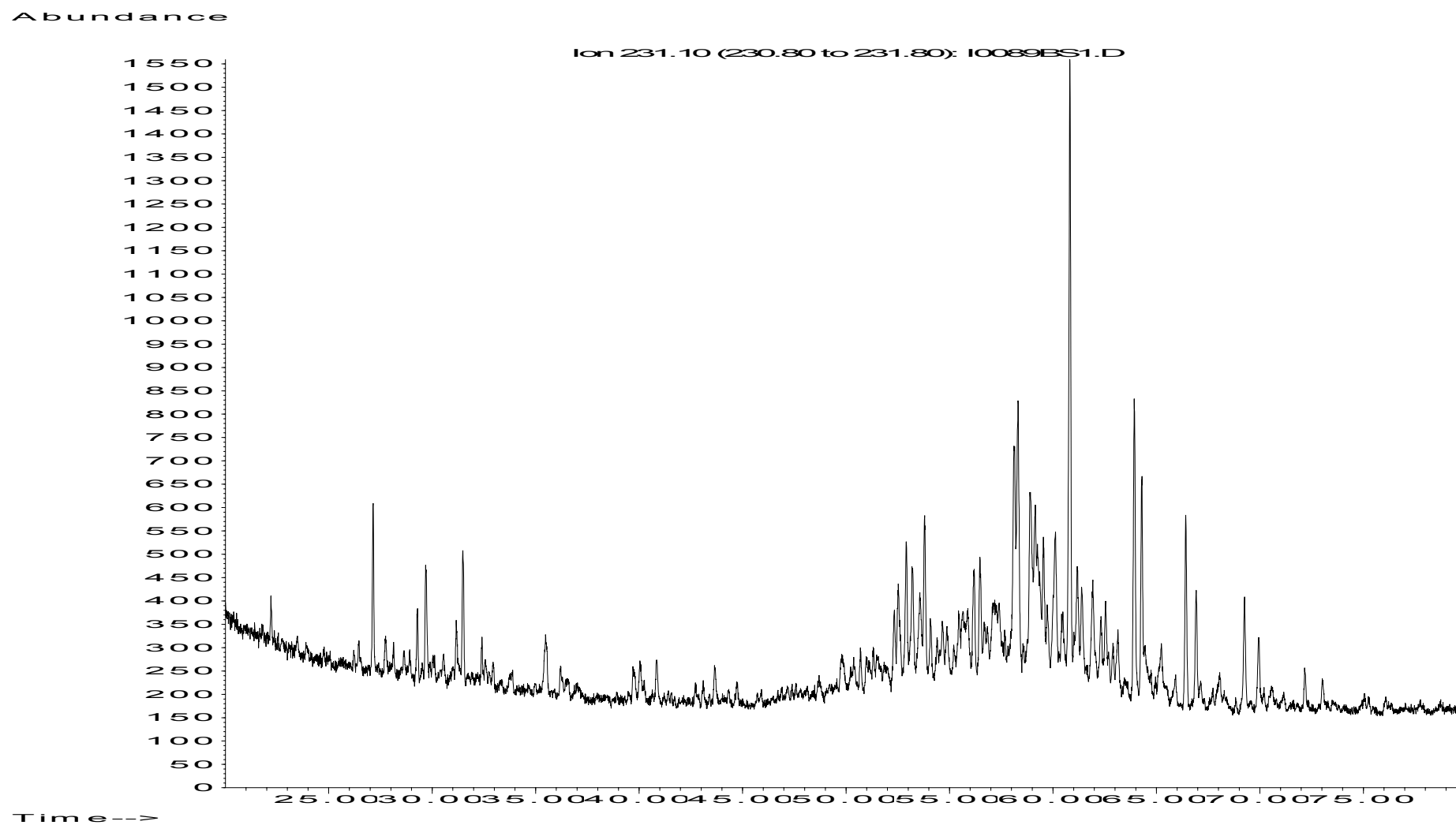


Time-->

I0095, 7831/2-U-2, 18.72 - 18.85 m, COCH, Cyst (slty, dkgy), SAT GCMSD

4-Methylsteranes (m/z 231)

- 361 -



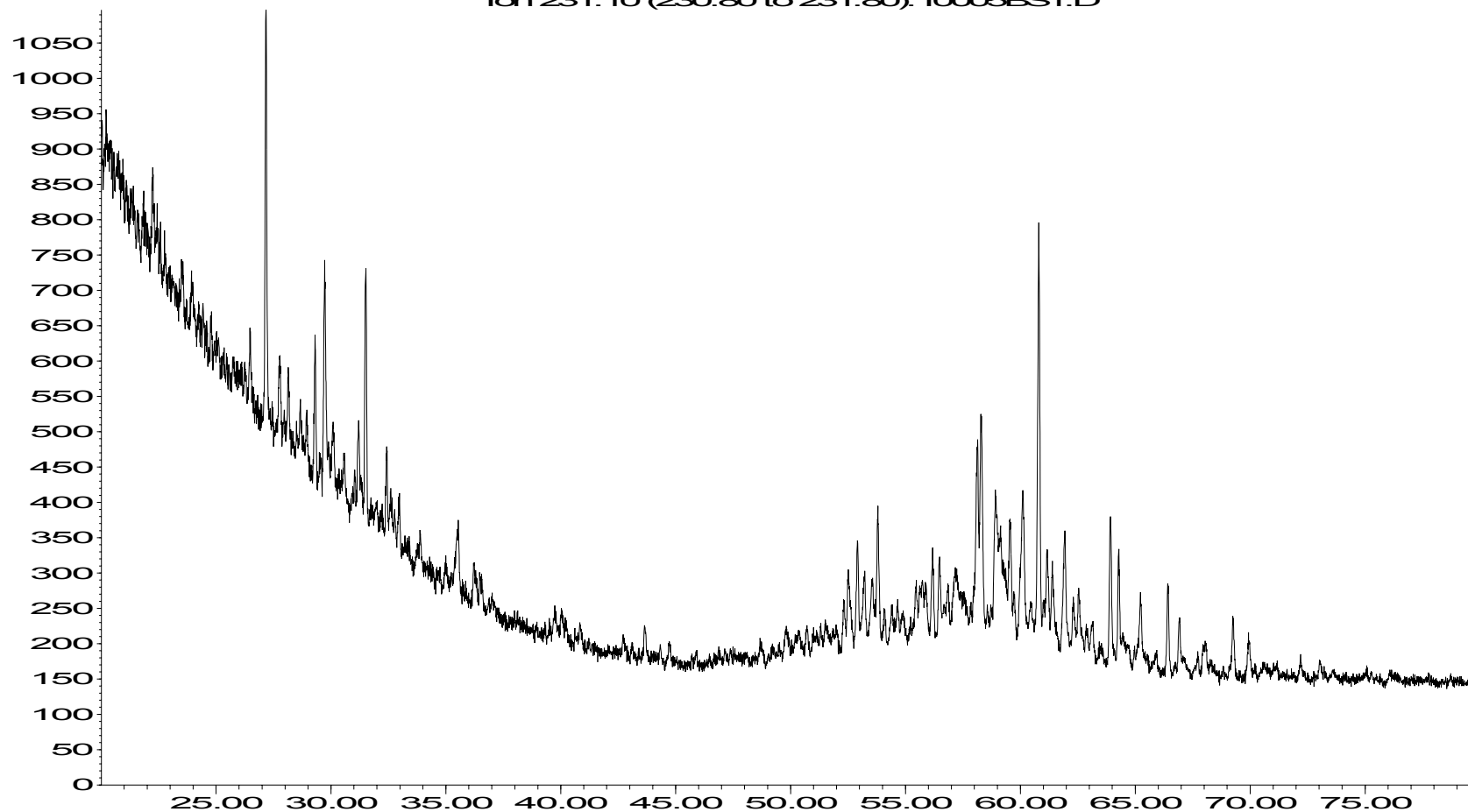
I0089, 7831/2-U-1, 21.72 - 21.76 m, COCH, Cyst (dkgy), SAT GCMSD

4-Methylsteranes (m/z 231)

- 362 -

Abundance

Ion 231.10 (230.80 to 231.80): I0005BS1.D

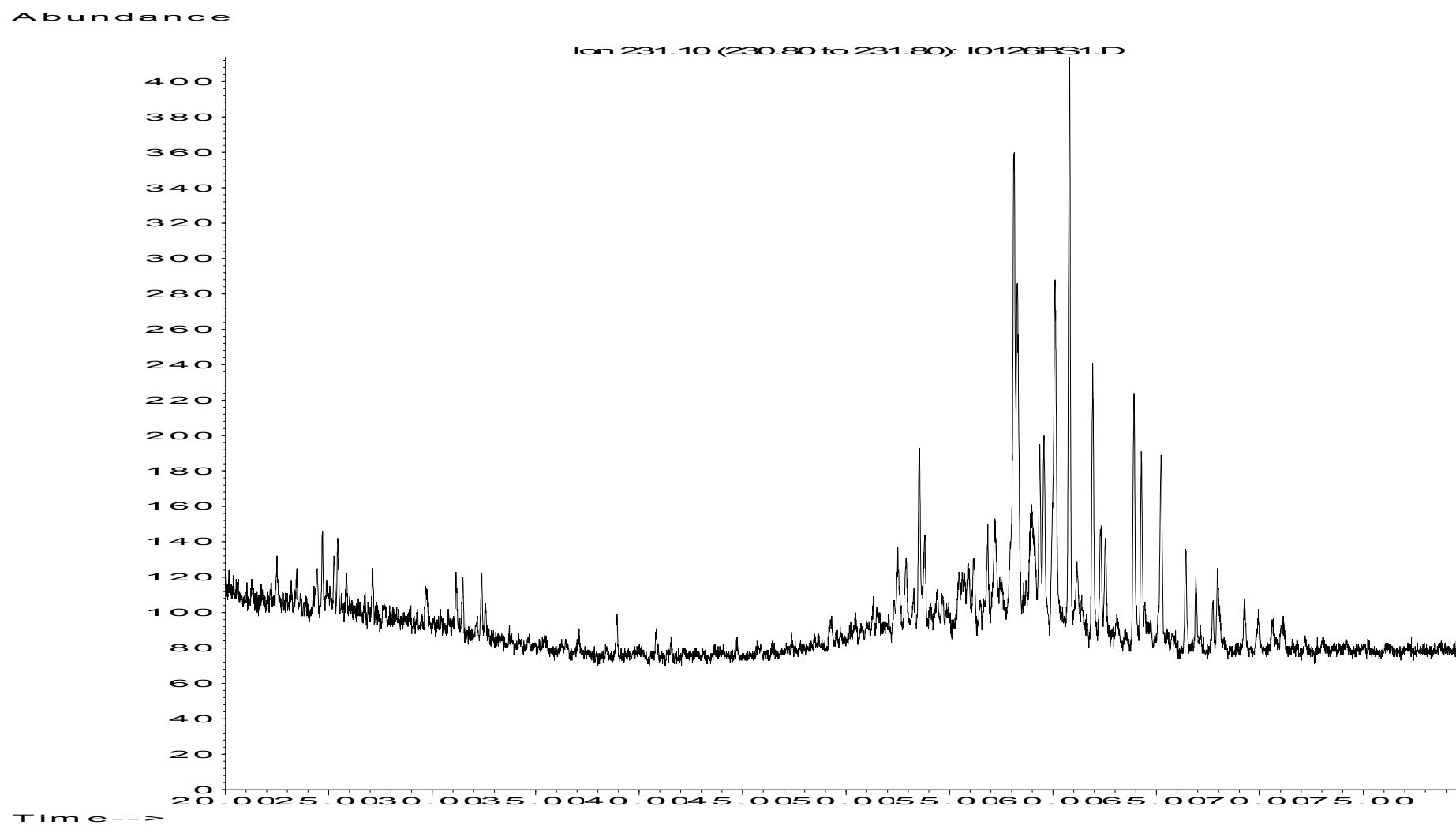


Time-->

I0005, 7830/6-U-1, 12.85 - 12.88 m, COCH, Slst, SAT GCMSD

4-Methylsteranes (m/z 231)

- 363 -



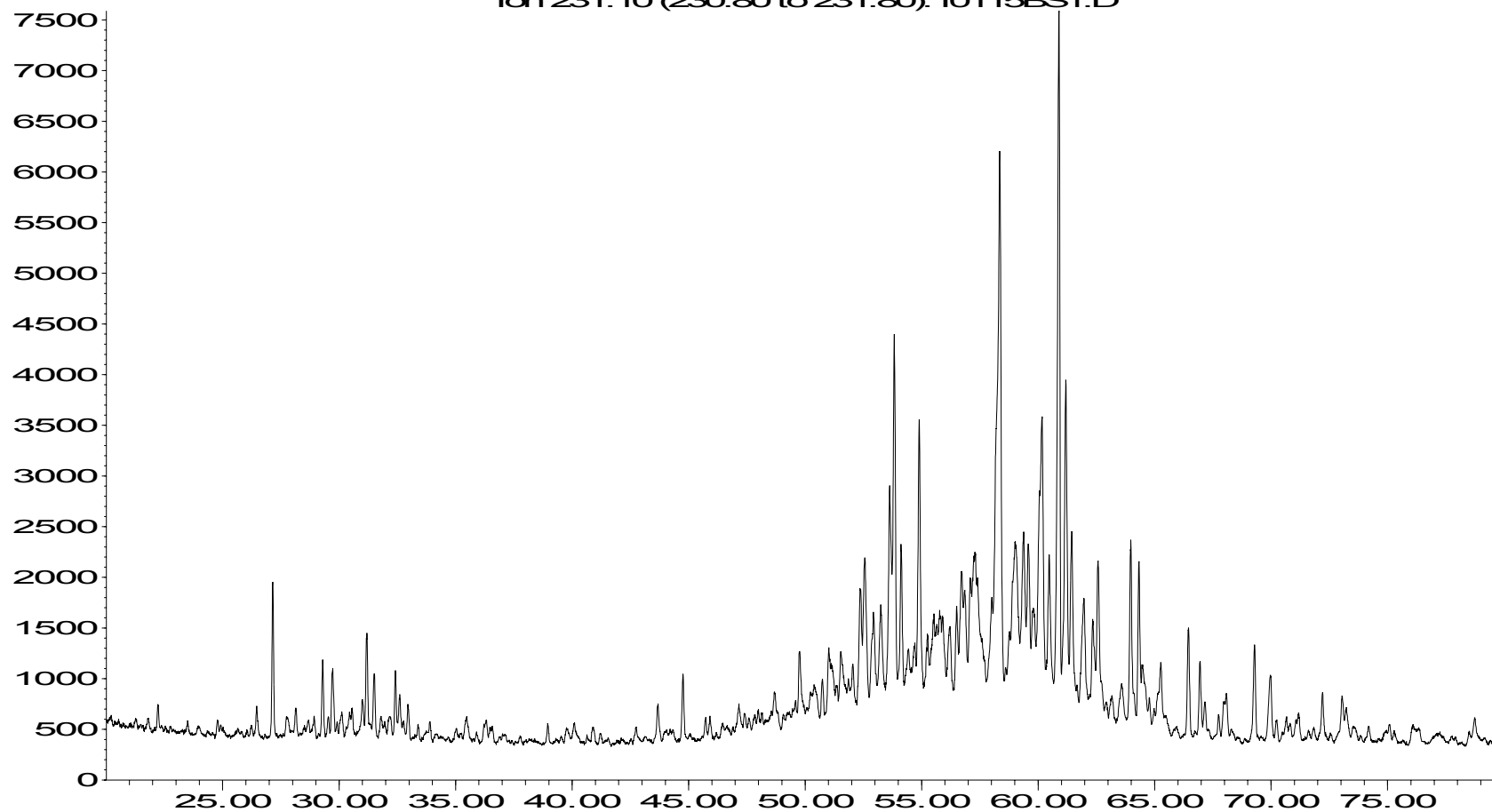
I0126, 7830/6-U-1, 20.03 - 20.10 m, COCH, Cyst (slty, lam, dkgy), SAT GCMSD

4-Methylsteranes (m/z 231)

- 364 -

Abundance

Ion 231.10 (230.80 to 231.80): I0115BS1.D



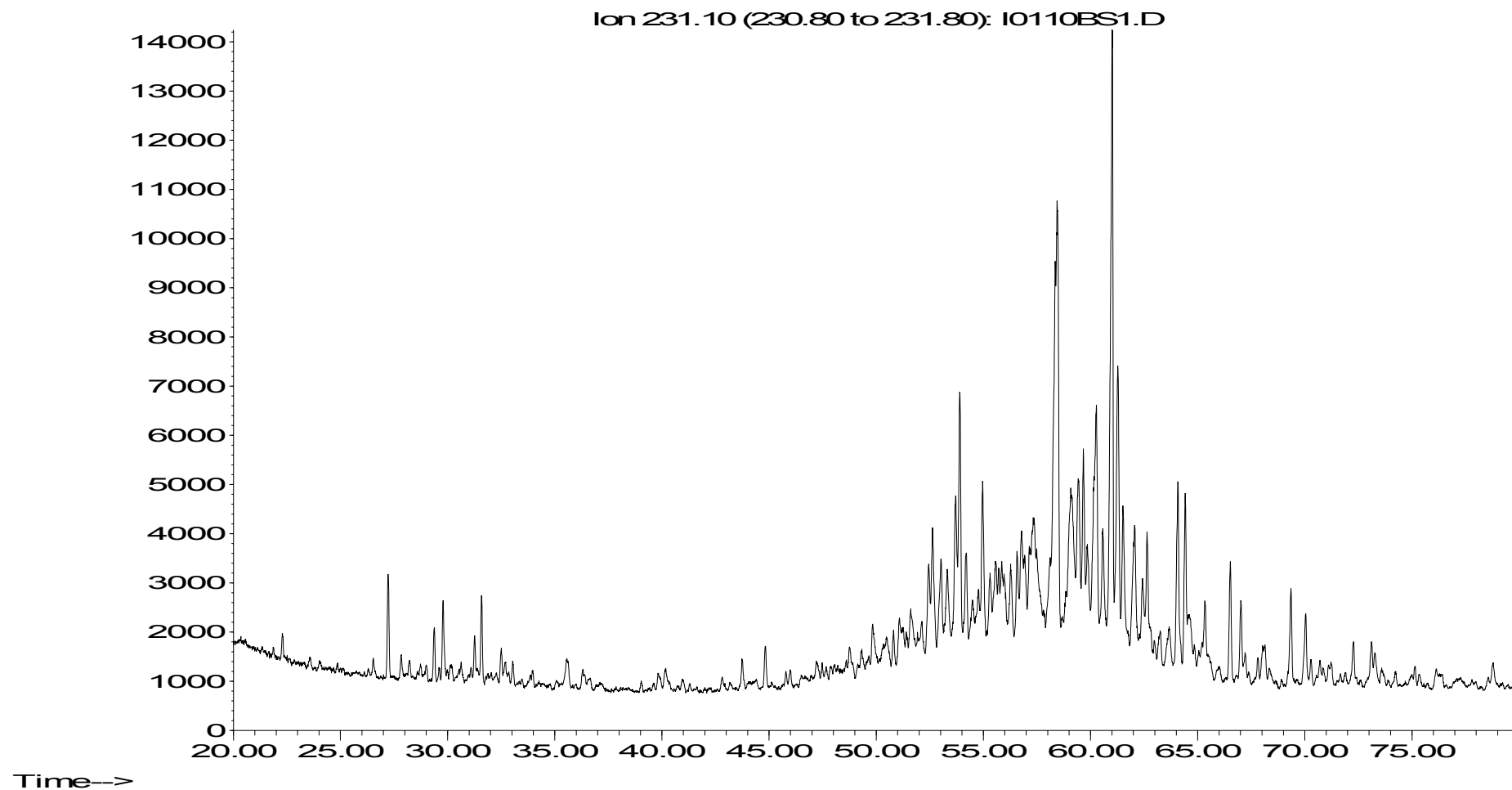
Time-->

I0115, 7830/6-U-1, 41.85 - 41.89 m, COCH, Clyst (dkgy, lam), SAT GCMSD

4-Methylsteranes (m/z 231)

- 365 -

Abundance



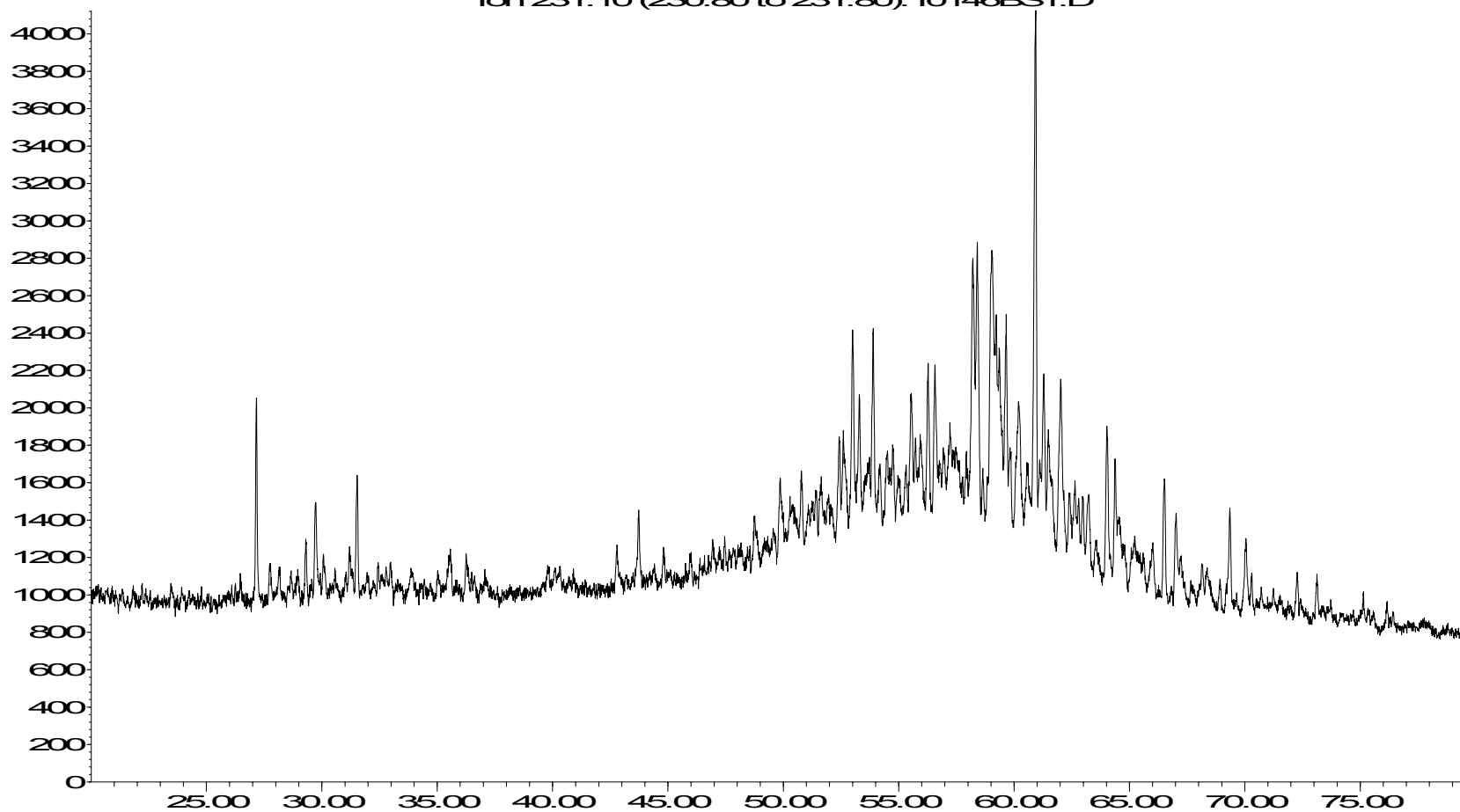
I0110, 7830/6-U-1, 50.90 - 50.93 m, COCH, Clyst (dkgy, lam), SAT GCMSD

4-Methylsteranes (m/z 231)

- 366 -

Abundance

Ion 231.10 (230.80 to 231.80): I0146BS1.D



Time-->

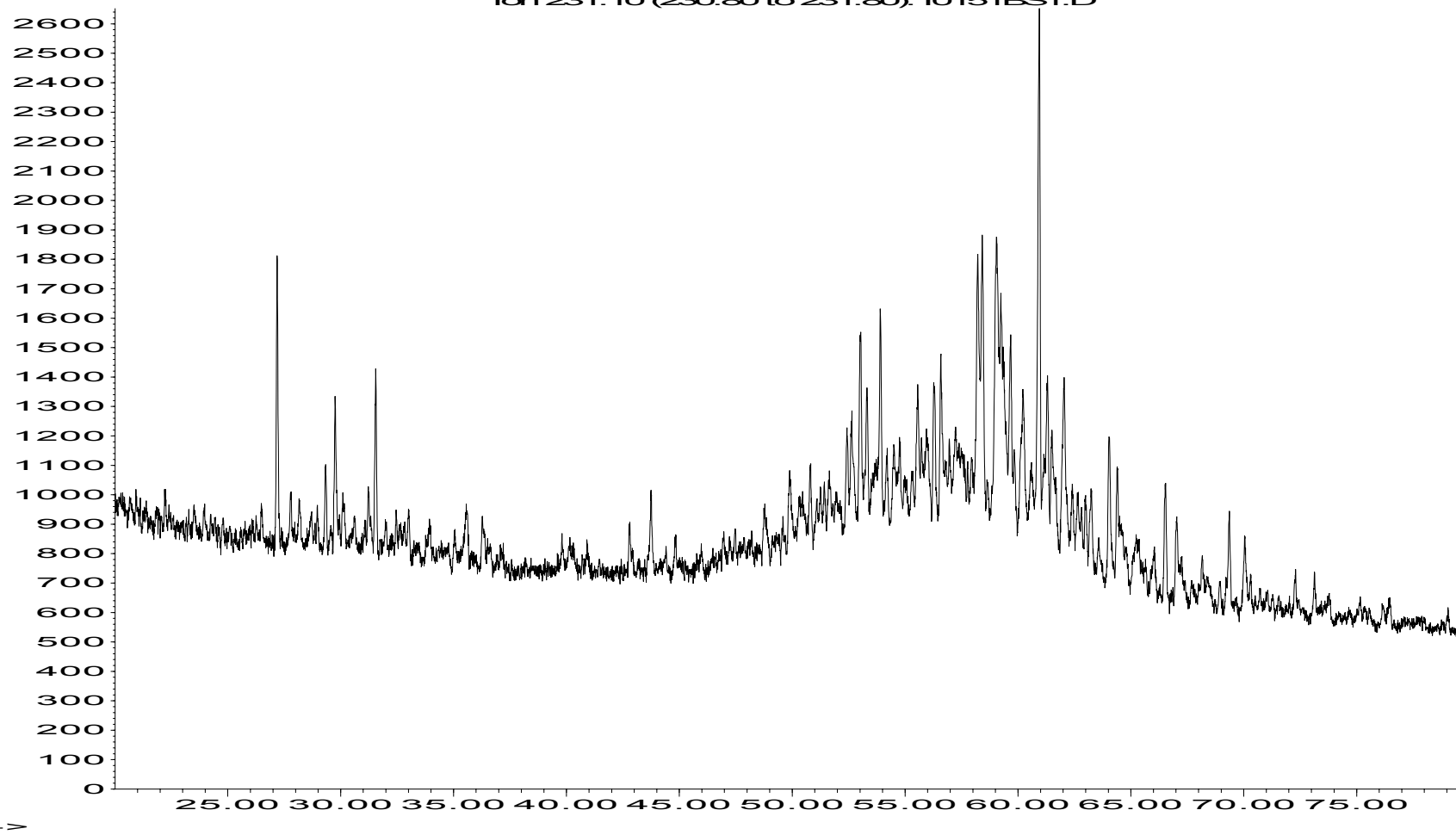
I0146, 7830/3-U-1, 39.94 - 39.99 m, COCH, Sst (mgr, mgy), SAT GCMSD

4-Methylsteranes (m/z 231)

- 367 -

Abundance

Ion 231.10 (230.80 to 231.80): I0151BS1.D



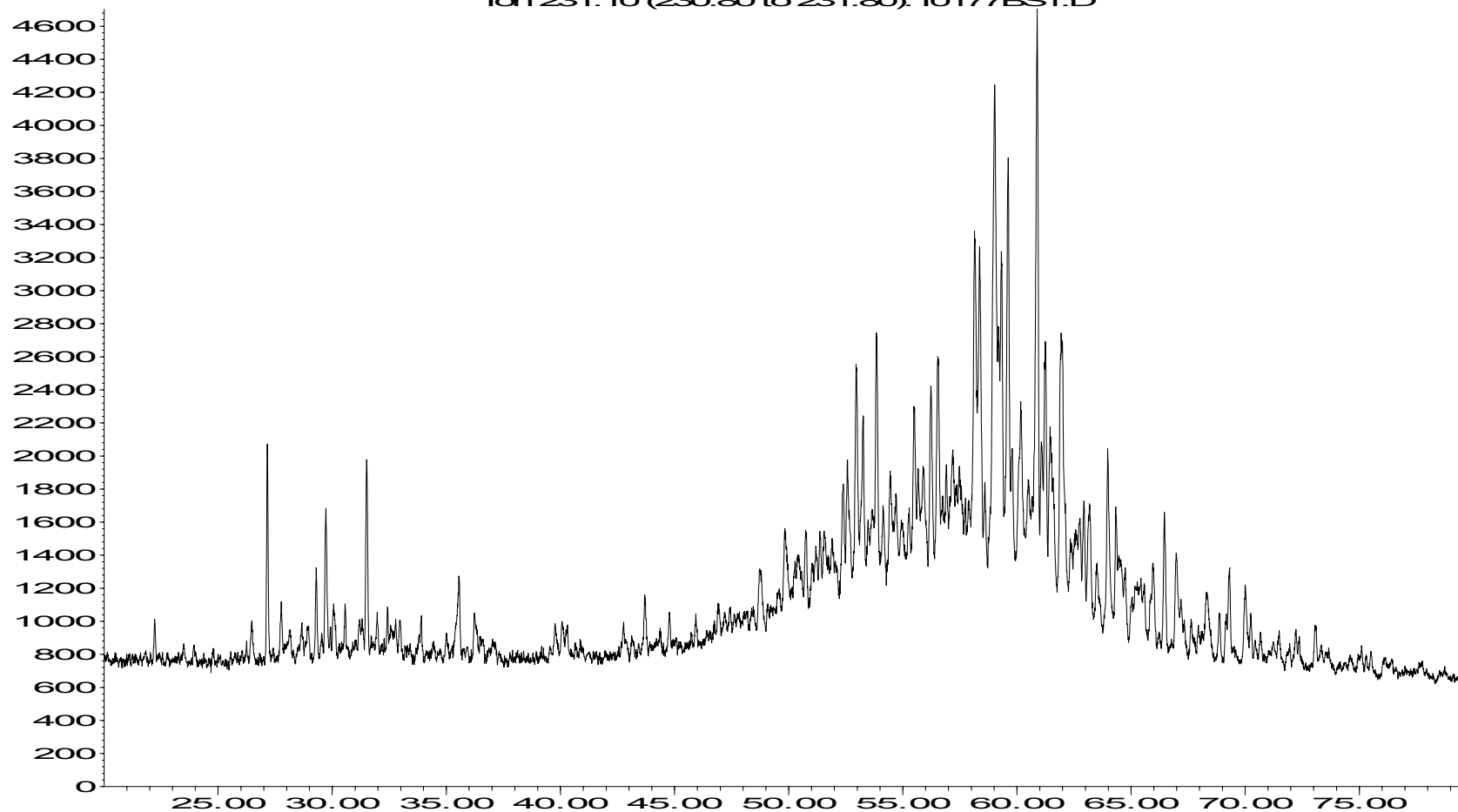
I0151, 7830/3-U-1, 51.24 m, COPL, Sst (fgr, mgy), SAT GCMSD

4-Methylsteranes (m/z 231)

- 368 -

Abundance

Ion 231.10 (230.80 to 231.80): I0177BS1.D

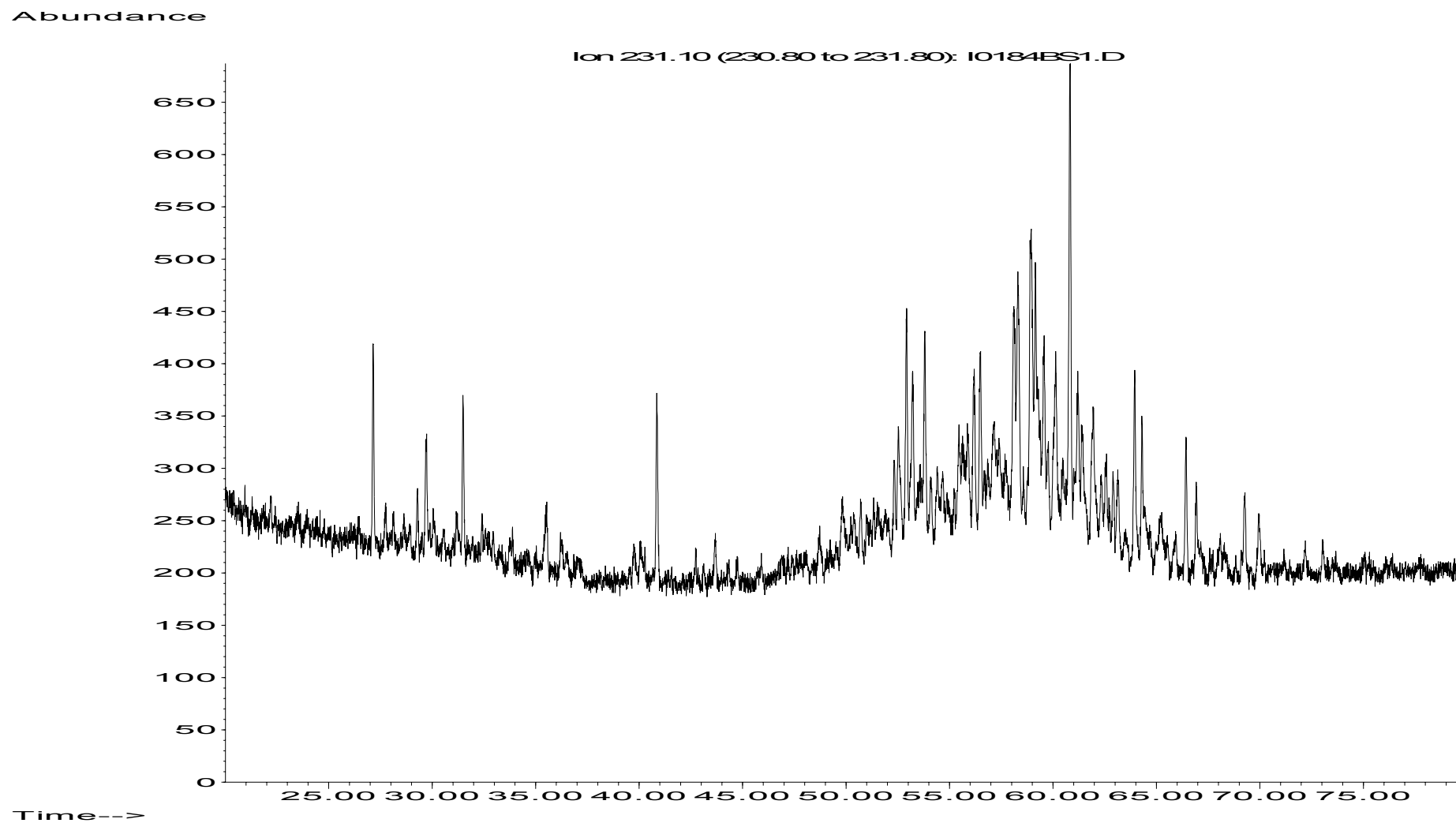


Time-->

I0177, 7830/3-U-1, 111.69 - 111.75 m, COCH, Sst (fgr, dkgy), SAT GCMSD

4-Methylsteranes (m/z 231)

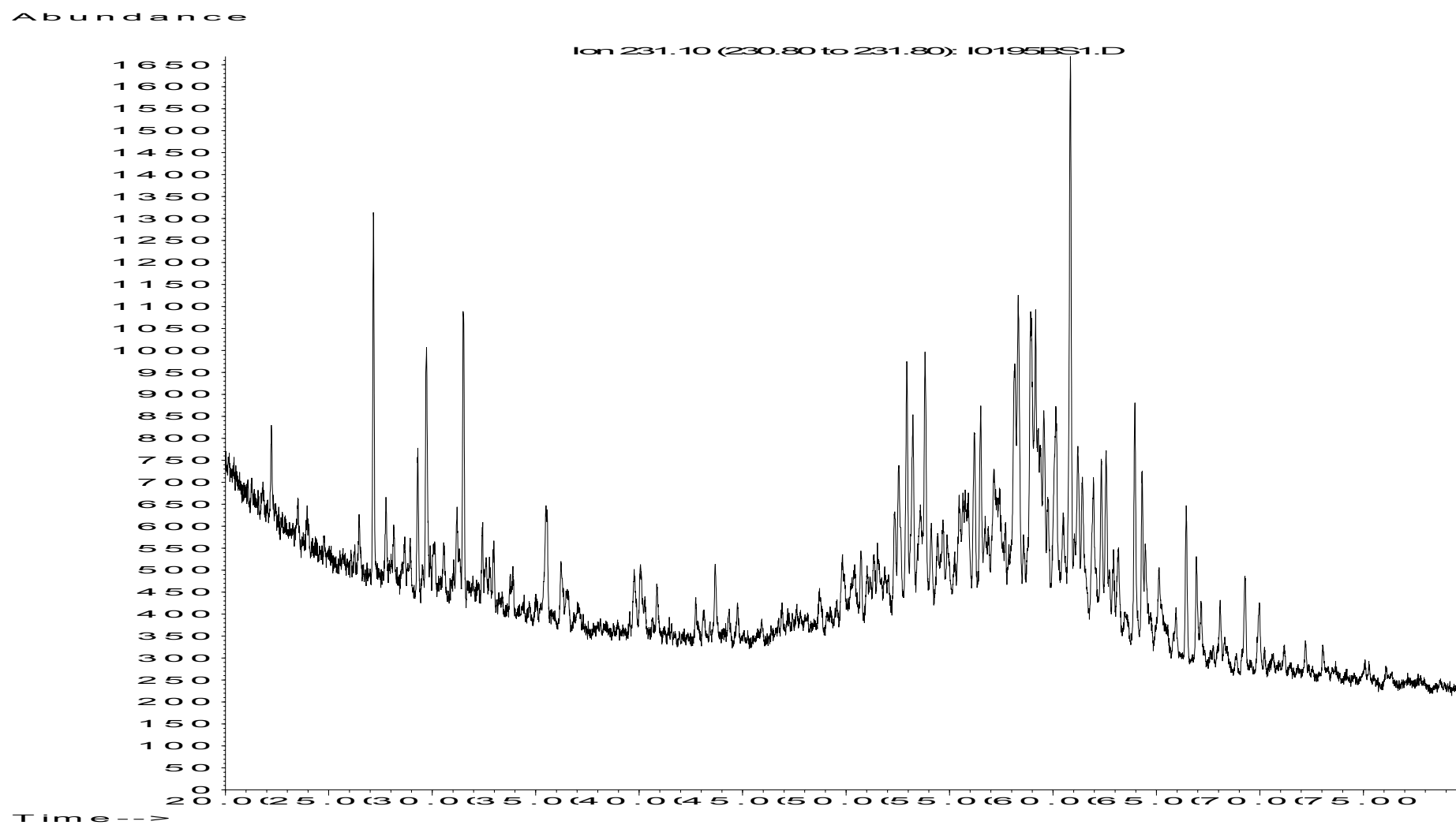
- 369 -



I0184, 7830/3-U-1, 124.63 m, COPL, Sst (fgr, Itgy), SAT GCMSD

4-Methylsteranes (m/z 231)

- 370 -



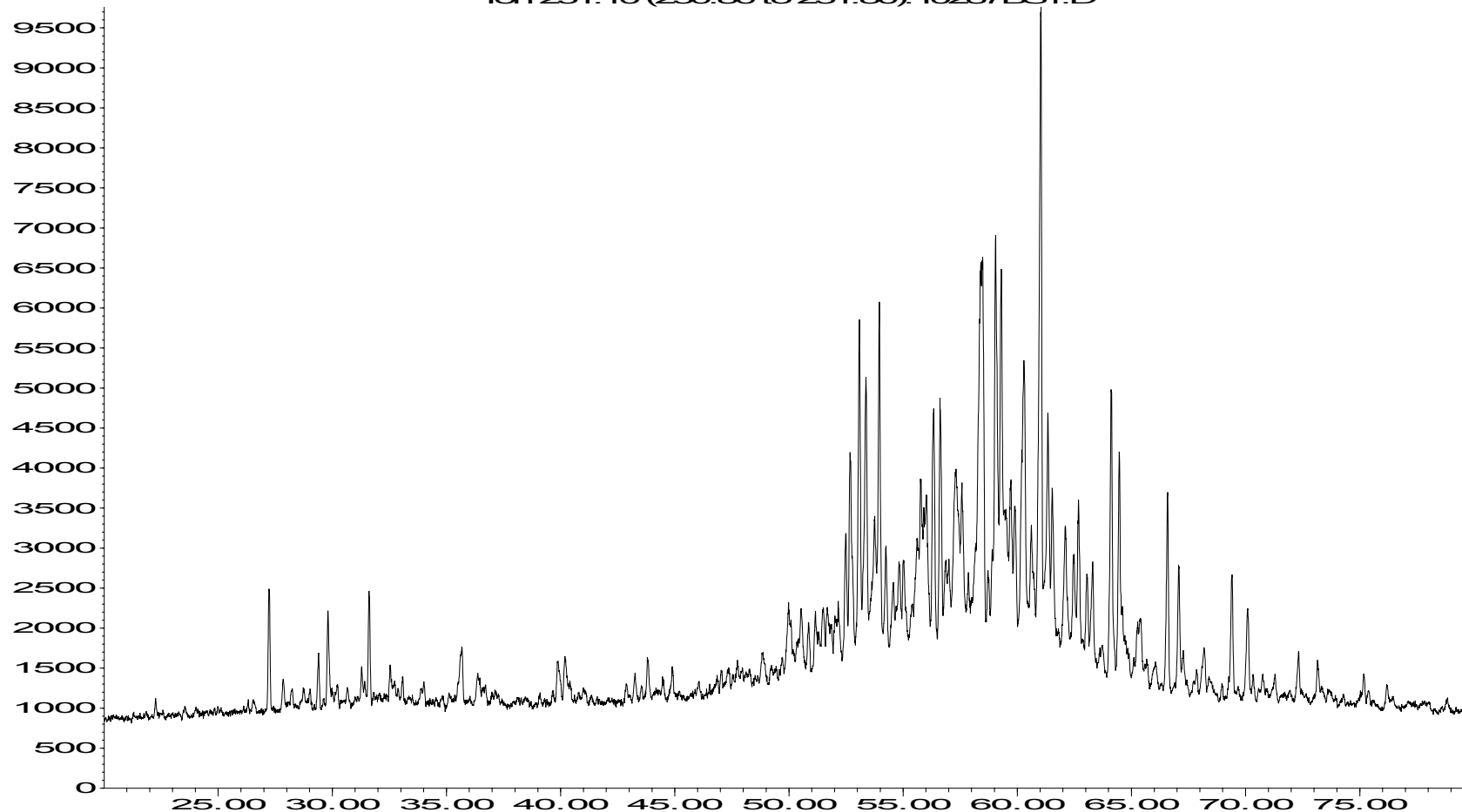
I0195, 7830/3-U-1, 154.81 - 154.88 m, COCH, Clyst (sl slty, ltgy), SAT GCMSD

4-Methylsteranes (m/z 231)

- 371 -

Abundance

Ion 231.10 (230.80 to 231.80): I0287BS1.D

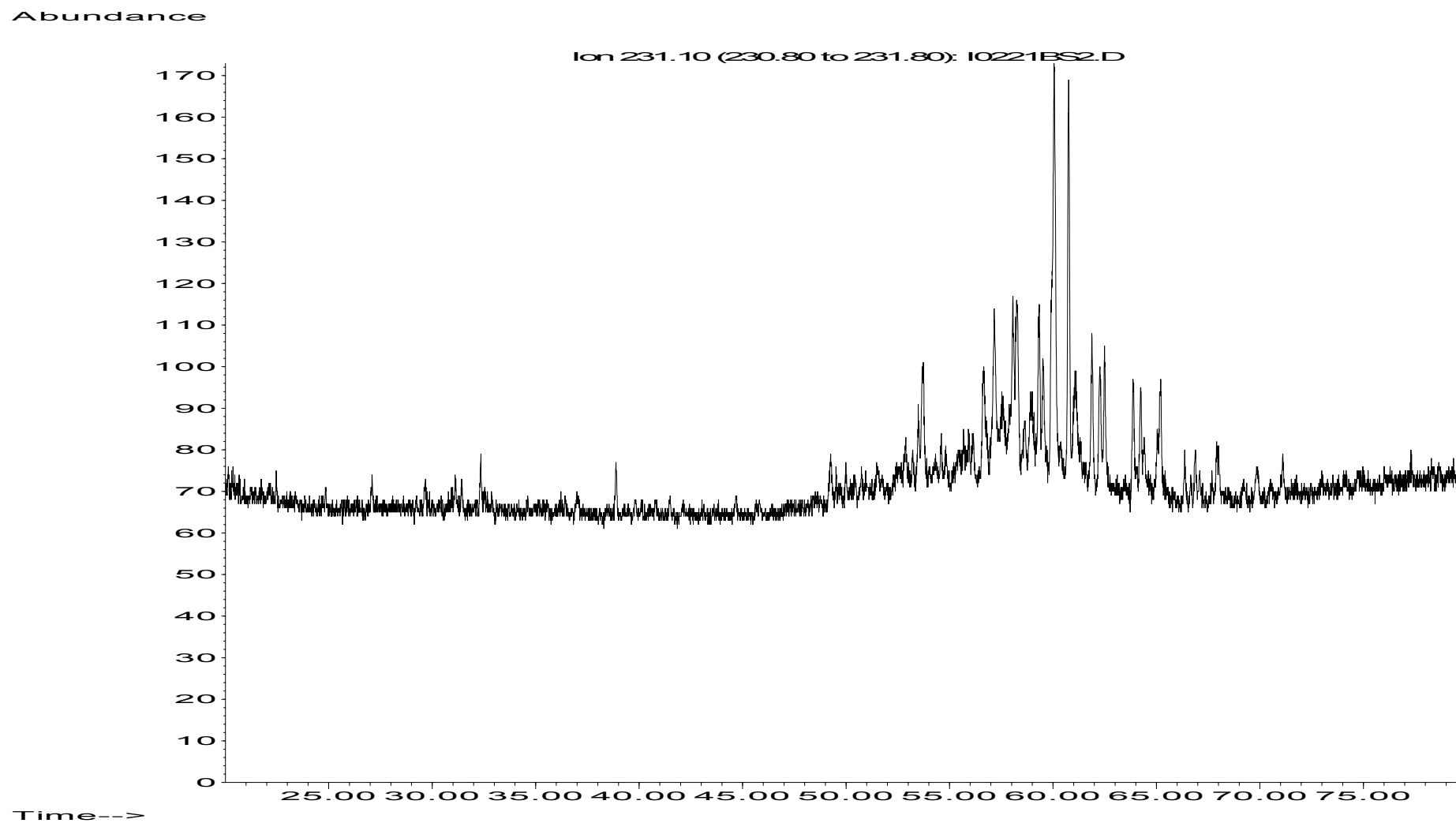


Time-->

I0287, 7830/3-U-1, 174.13 - 174.15 m, COCH, Sst (fgr, mgy), SAT GCMSD

4-Methylsteranes (m/z 231)

- 372 -



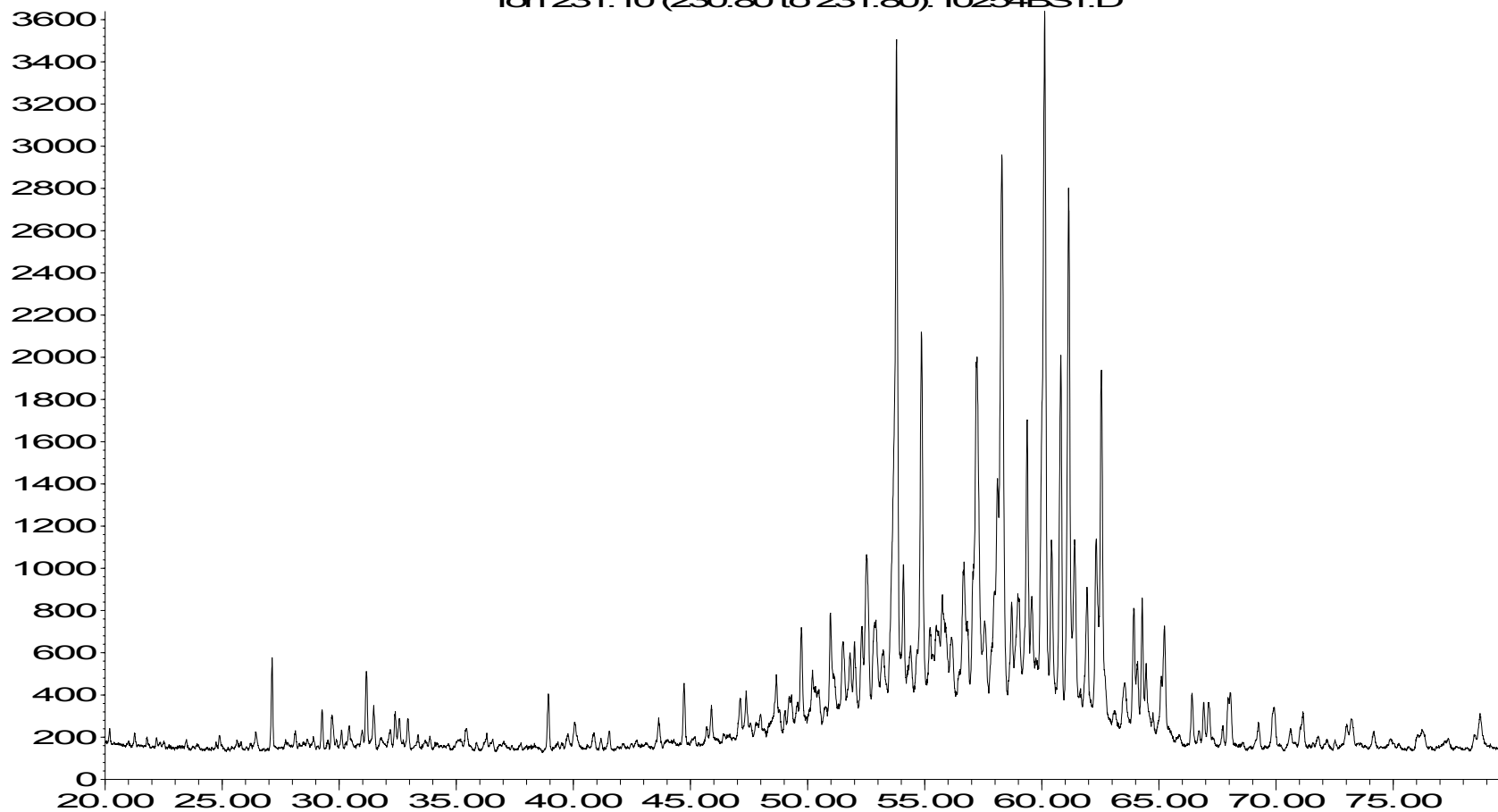
I0221, 7830/5-U-1, 58.90 - 58.97 m, COCH, Cylst (sl slty, lam, dkgy), SAT GCMSD

4-Methylsteranes (m/z 231)

- 373 -

Abundance

Ion 231.10 (230.80 to 231.80): I0254BS1.D



Time-->

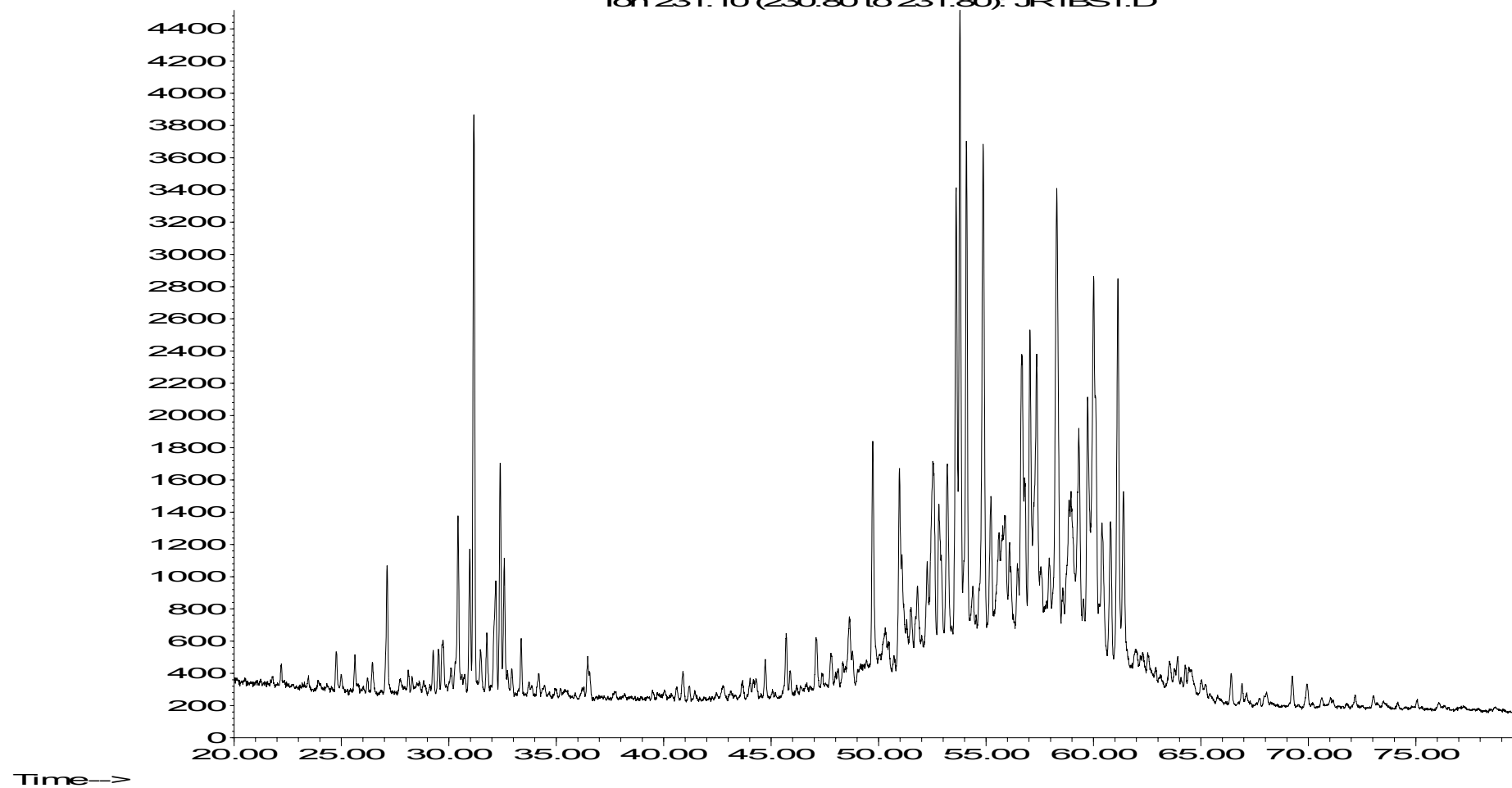
I0254, 7830/5-U-1, 128.62 - 128.68 m, COCH, Clyst (vdkgy, lam), SAT GCMSD

4-Methylsteranes (m/z 231)

- 374 -

Abundance

Ion 231.10 (230.80 to 231.80): JR1BS1.D



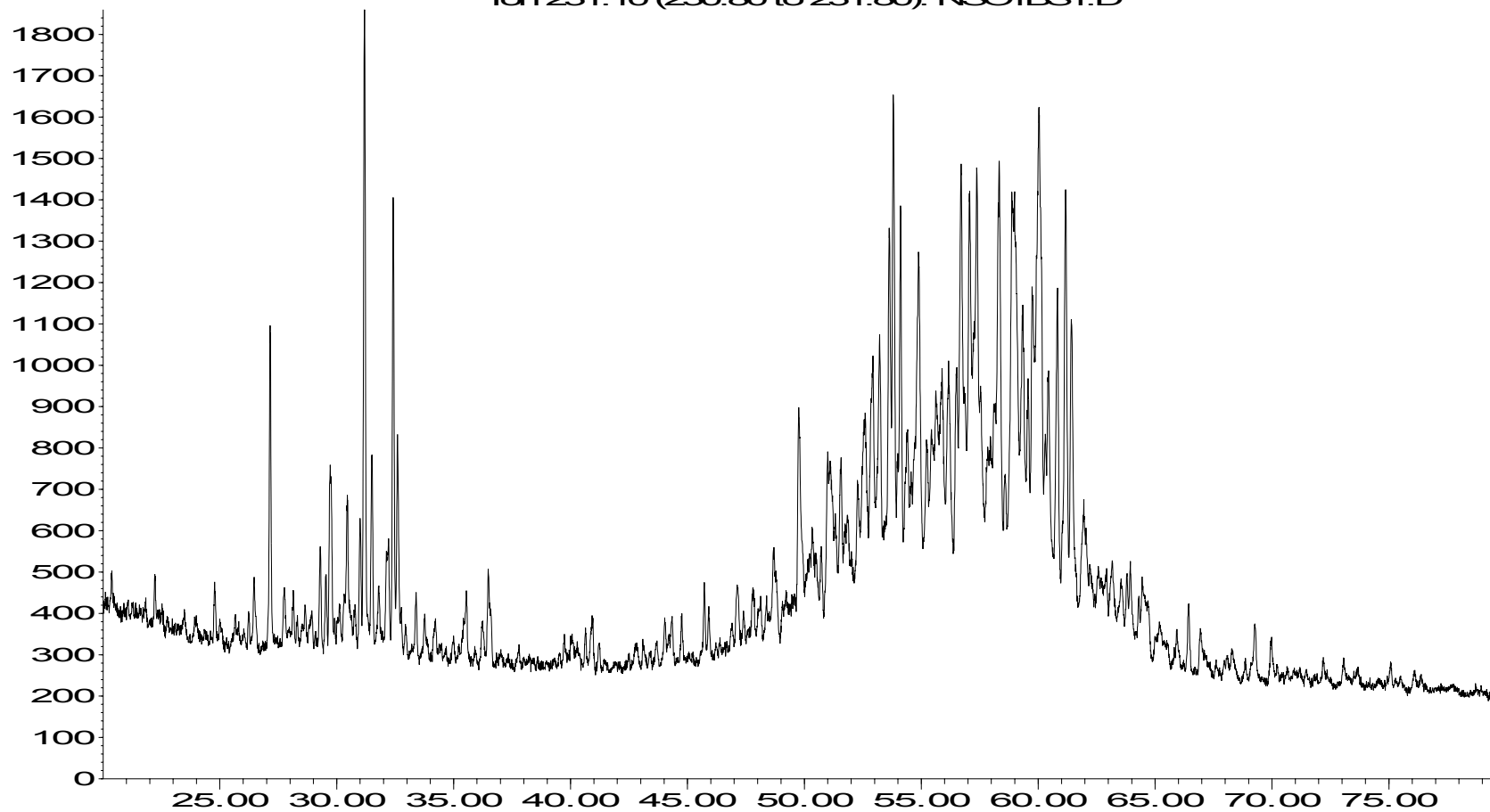
JR-1, NGS reference sample, SAT GCMSD

4-Methylsteranes (m/z 231)

- 375 -

Abundance

Ion 231.10 (230.80 to 231.80): NSO1BS1.D



Time-->

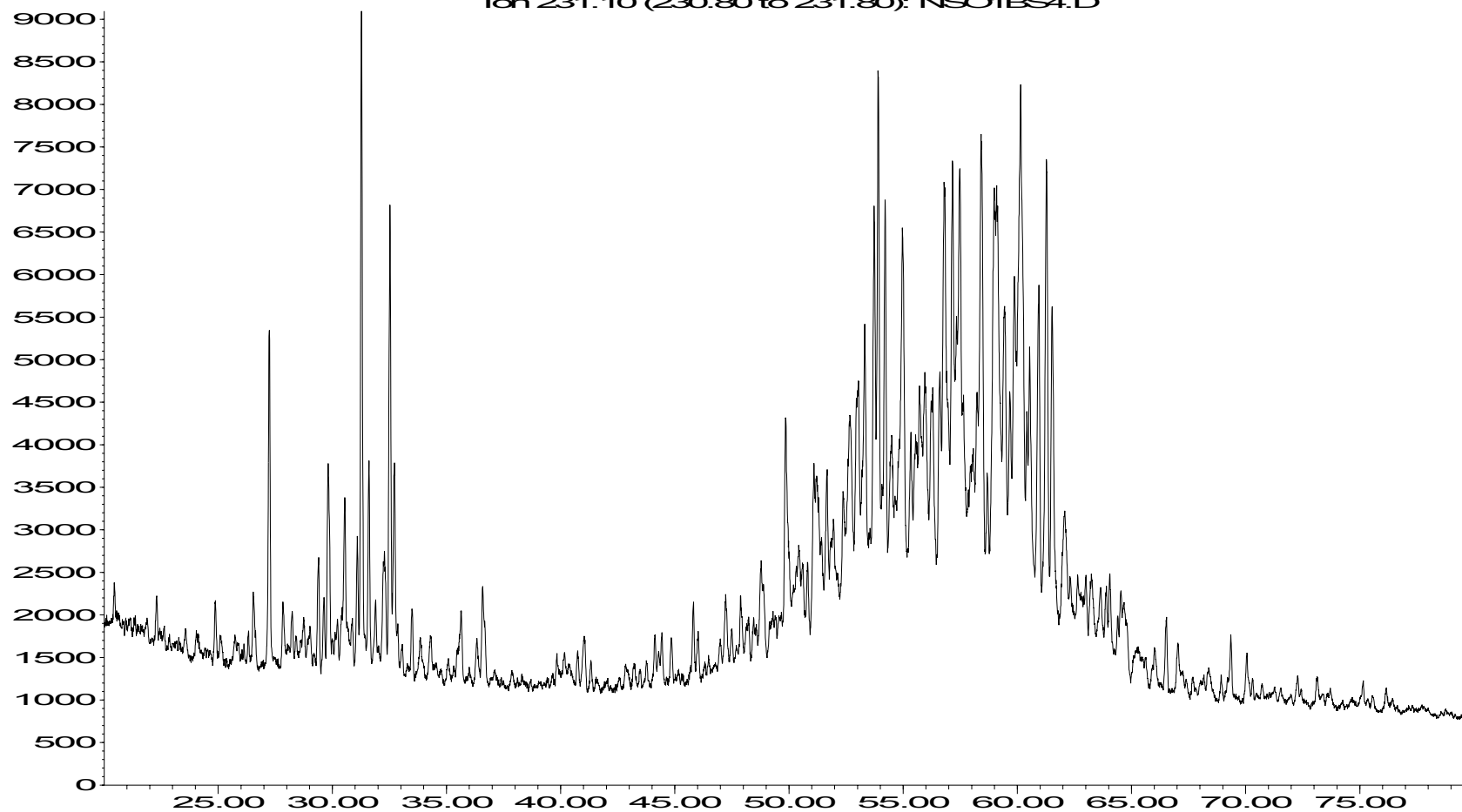
NSO-1, #0, NGS reference oil, SAT GCMSD

4-Methylsteranes (m/z 231)

- 376 -

Abundance

Ion 231.10 (230.80 to 231.80): NSO1BS4.D



Time—>

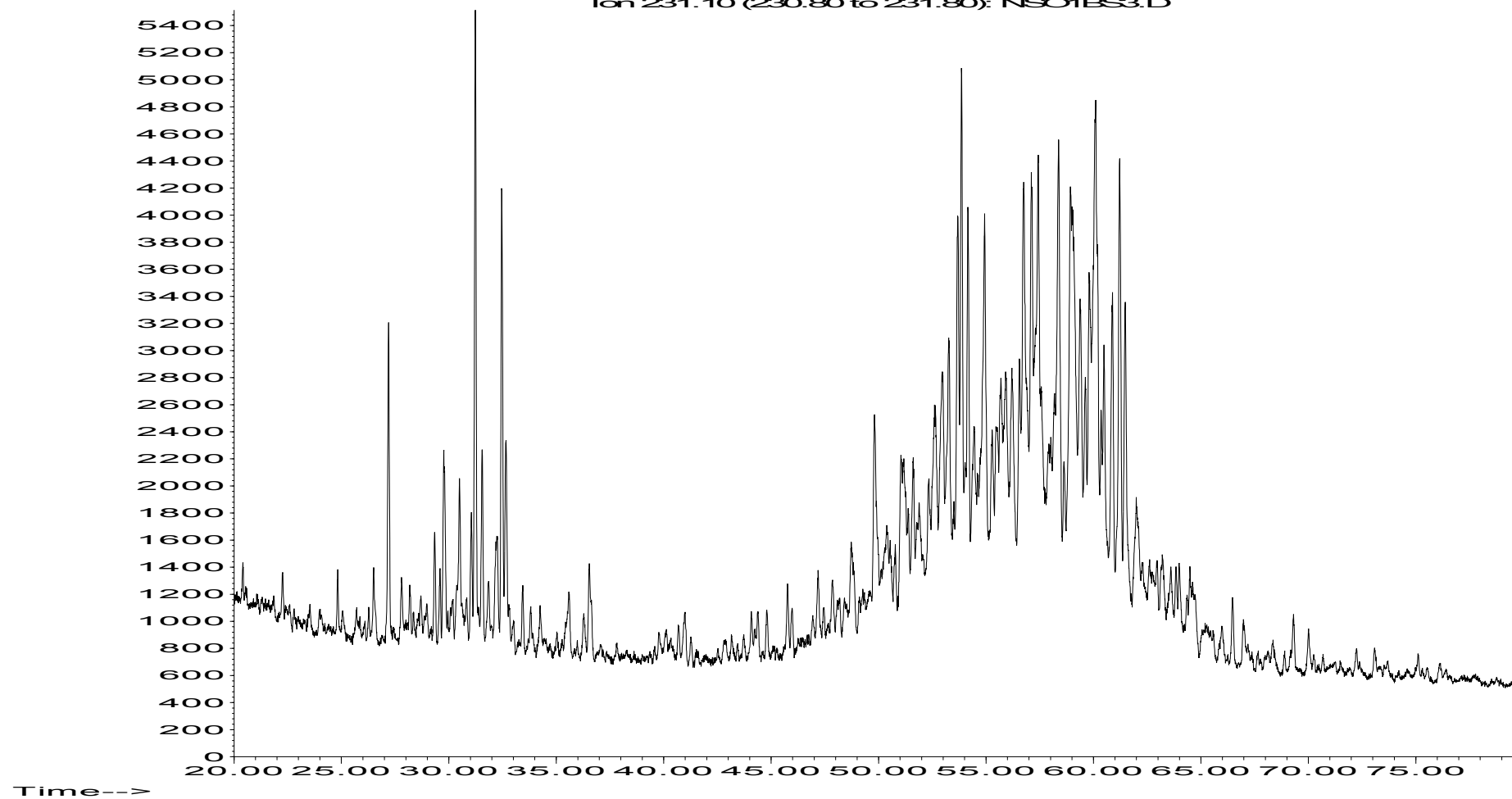
NSO-1, #1, NGS reference oil, SAT GCMSD

4-Methylsteranes (m/z 231)

- 377 -

Abundance

Ion 231.10 (230.80 to 231.80): NSO1BS3.D



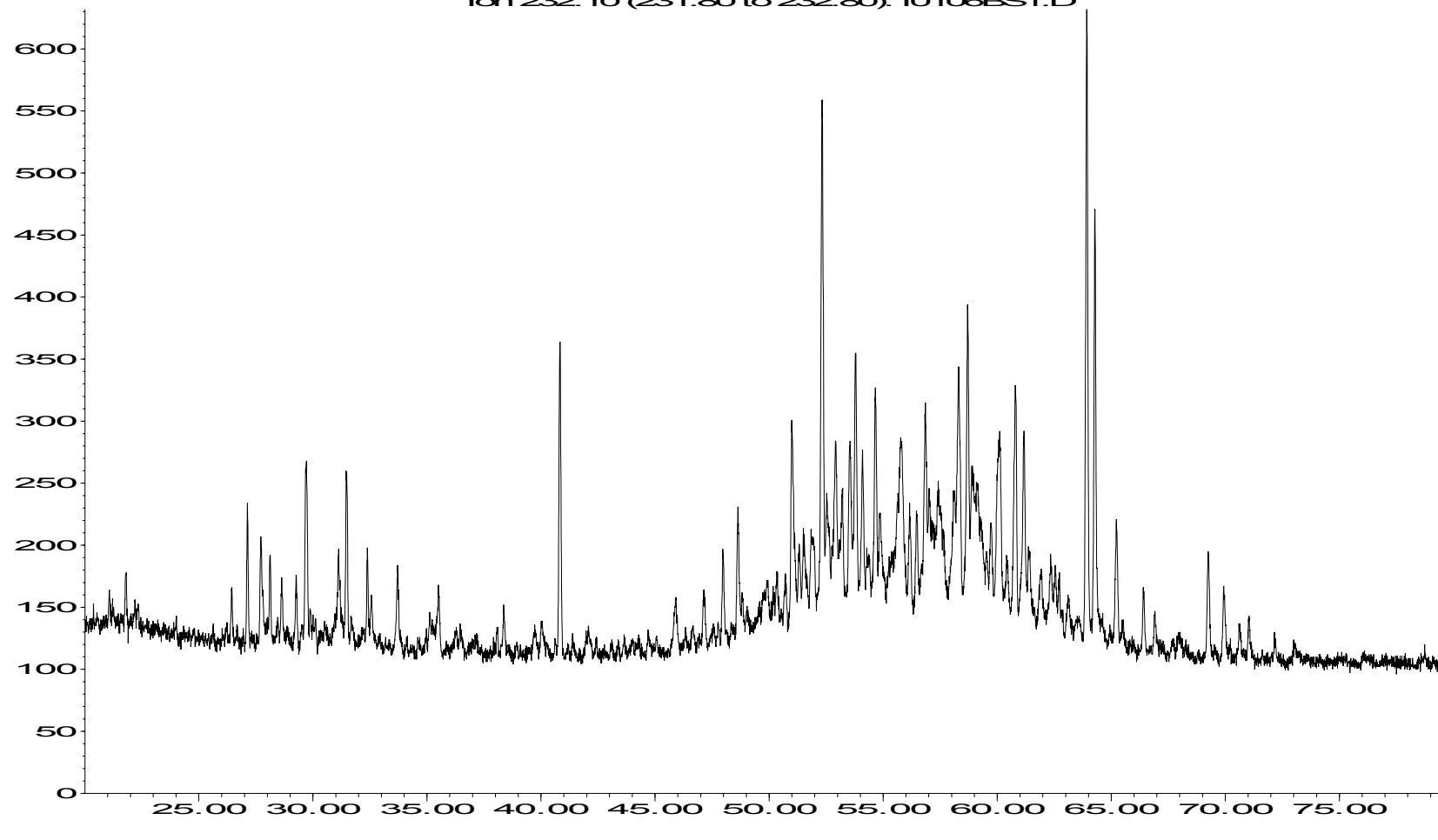
NSO-1, #2, NGS reference oil, SAT GCMSD

4-Methylsteranes (m/z 231)

- 378 -

Abundance

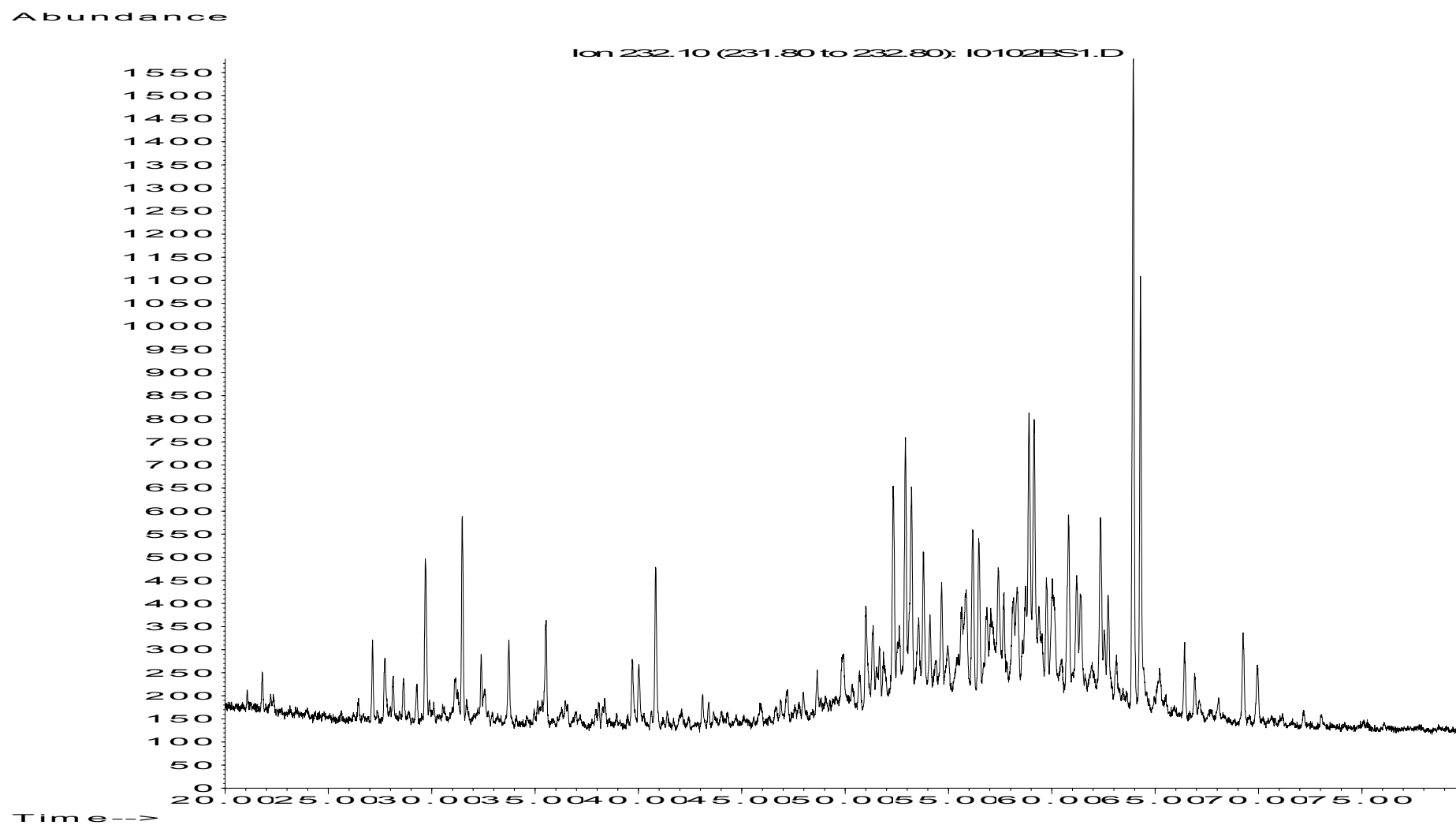
Ion 232.10 (231.80 to 232.80); I0106BS1.D



I0106, 7831/2-U-2, 6.78 - 6.83 m, COCH, Cylst (slty, dkgy), SAT GCMSD

4-Methylsteranes (m/z 232)

- 379 -

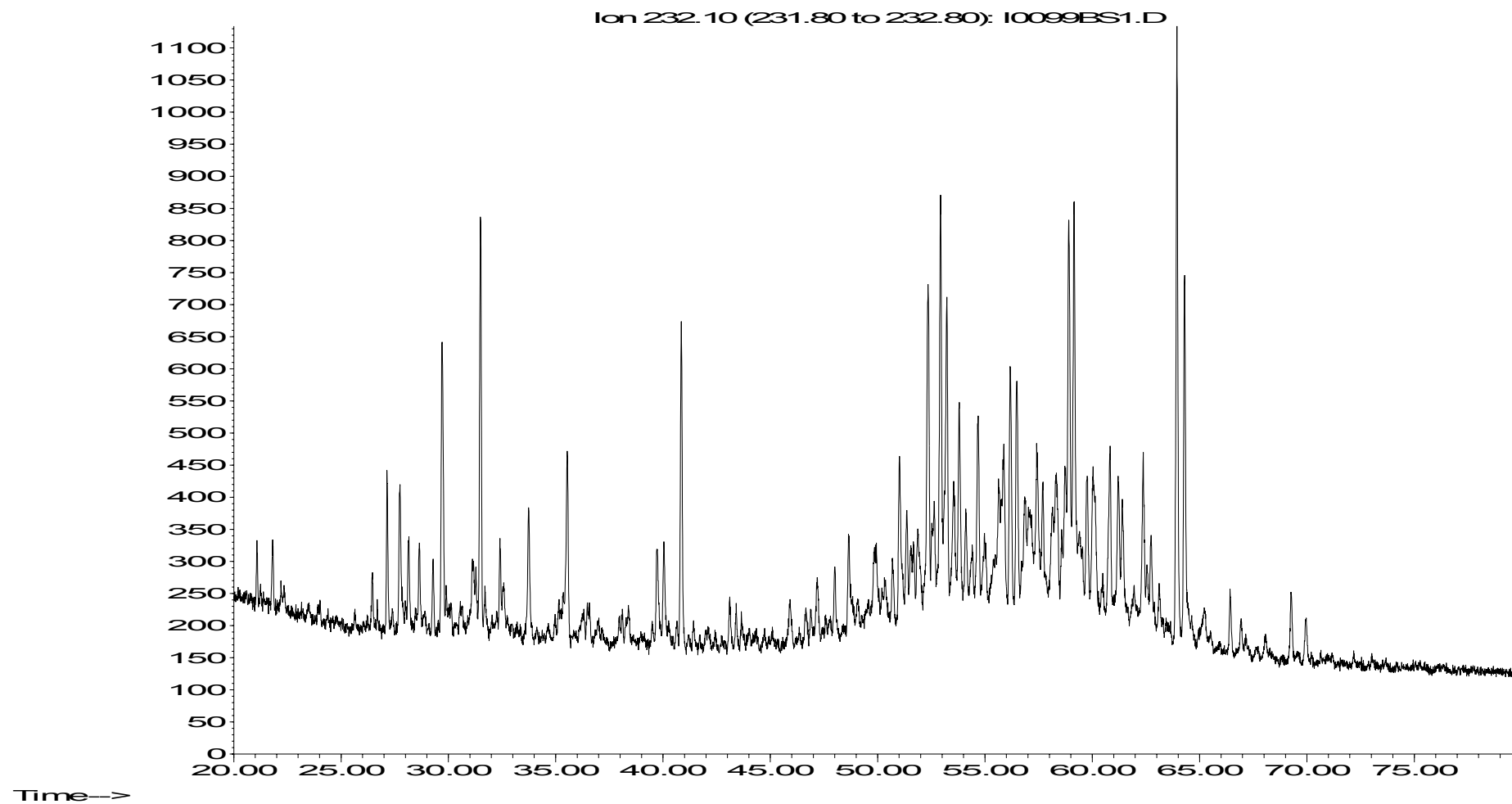


I0102, 7831/2-U-2, 10.23 - 10.28 m, COCH, Cyst (slty, mgy), SAT GCMSD

4-Methylsteranes (m/z 232)

- 380 -

Abundance



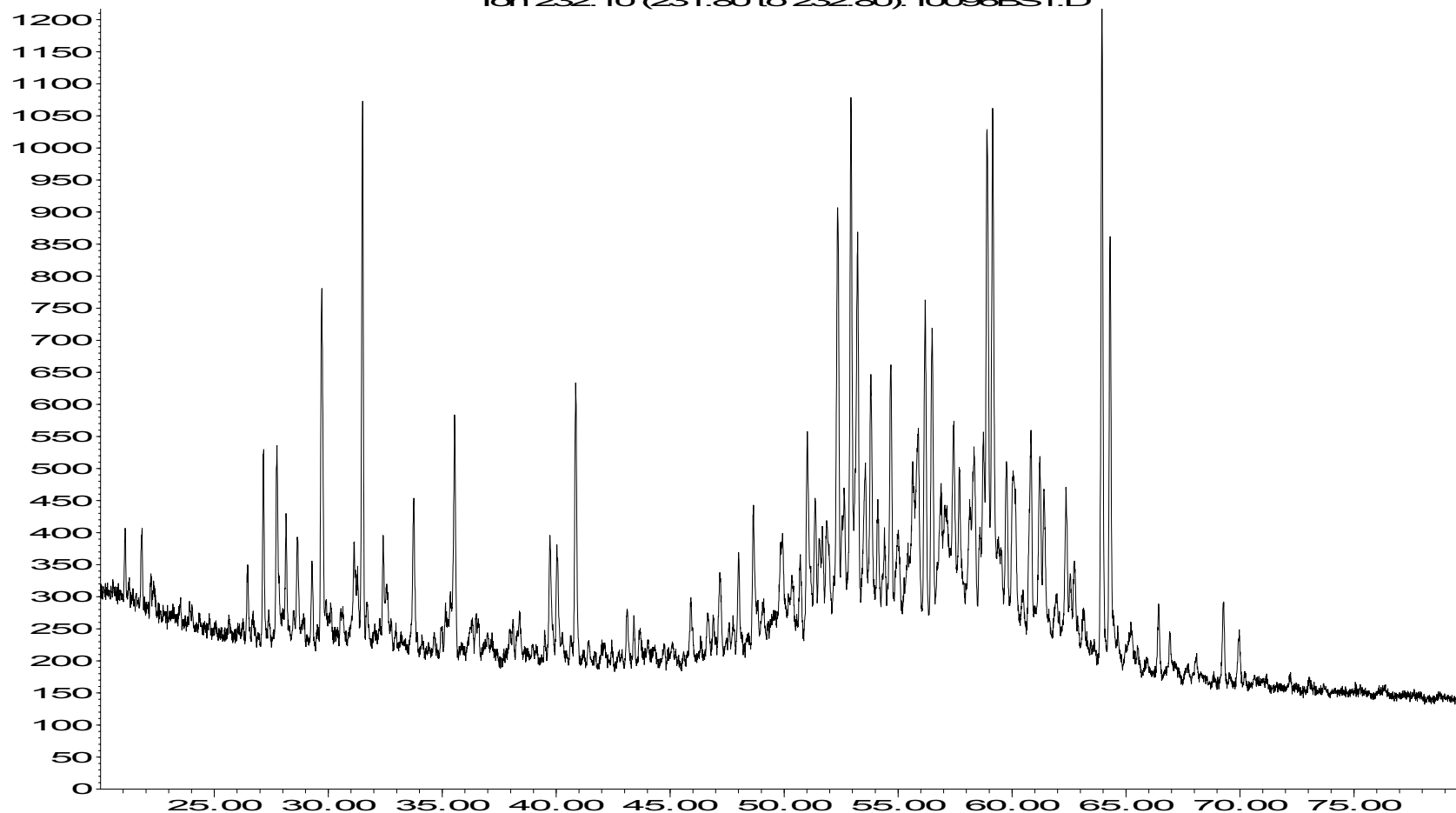
I0099, 7831/2-U-2, 14.48 - 14.53 m, COCH, Cyst (sly, dkgy), SAT GCMSD

4-Methylsteranes (m/z 232)

- 381 -

Abundance

Ion 232.10 (231.80 to 232.80): I0096BS1.D



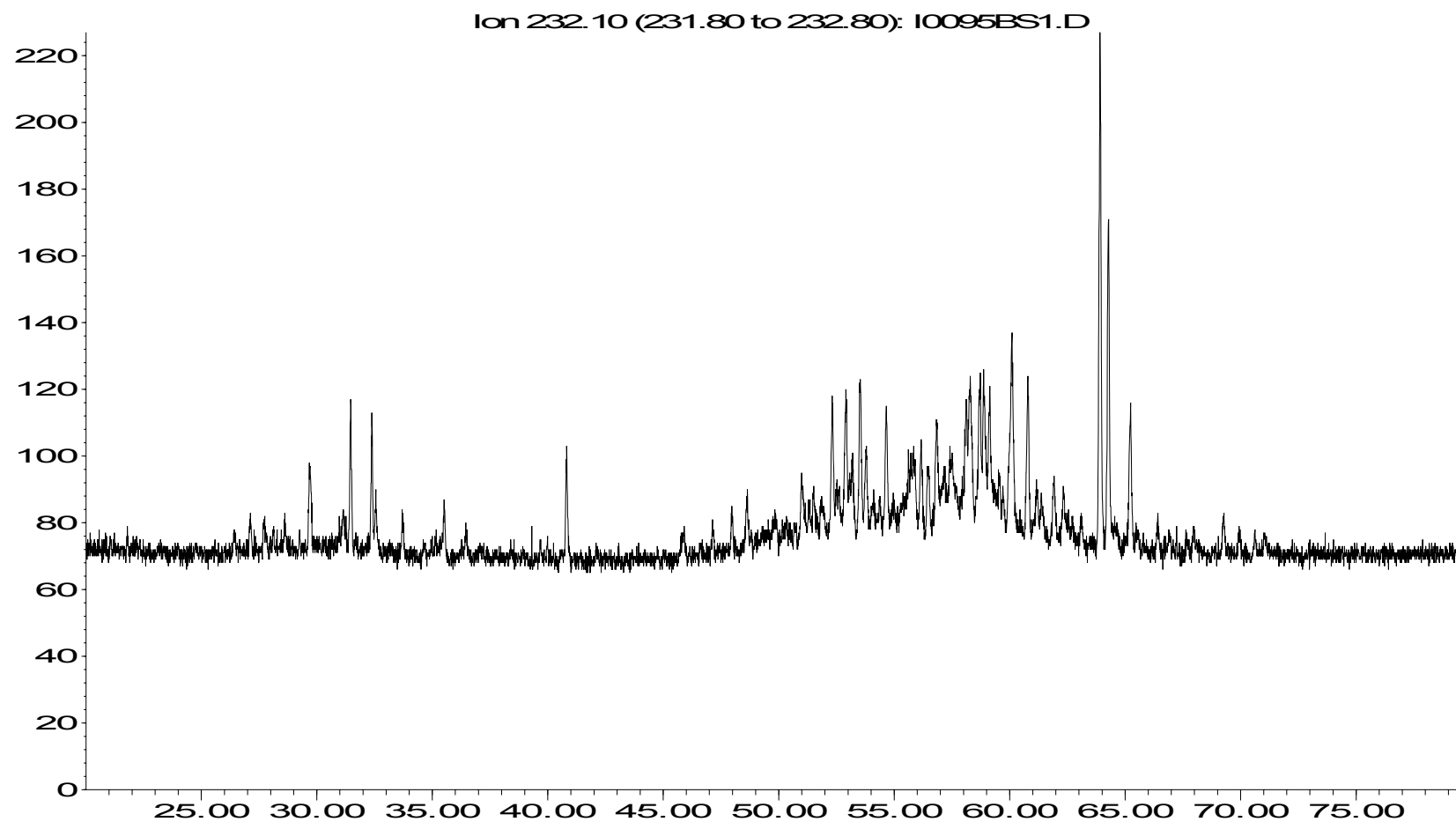
Time-->

I0096, 7831/2-U-2, 17.83 - 17.87 m, COCH, Cyst (slty, dkgy), SAT GCMSD

4-Methylsteranes (m/z 232)

- 382 -

Abundance



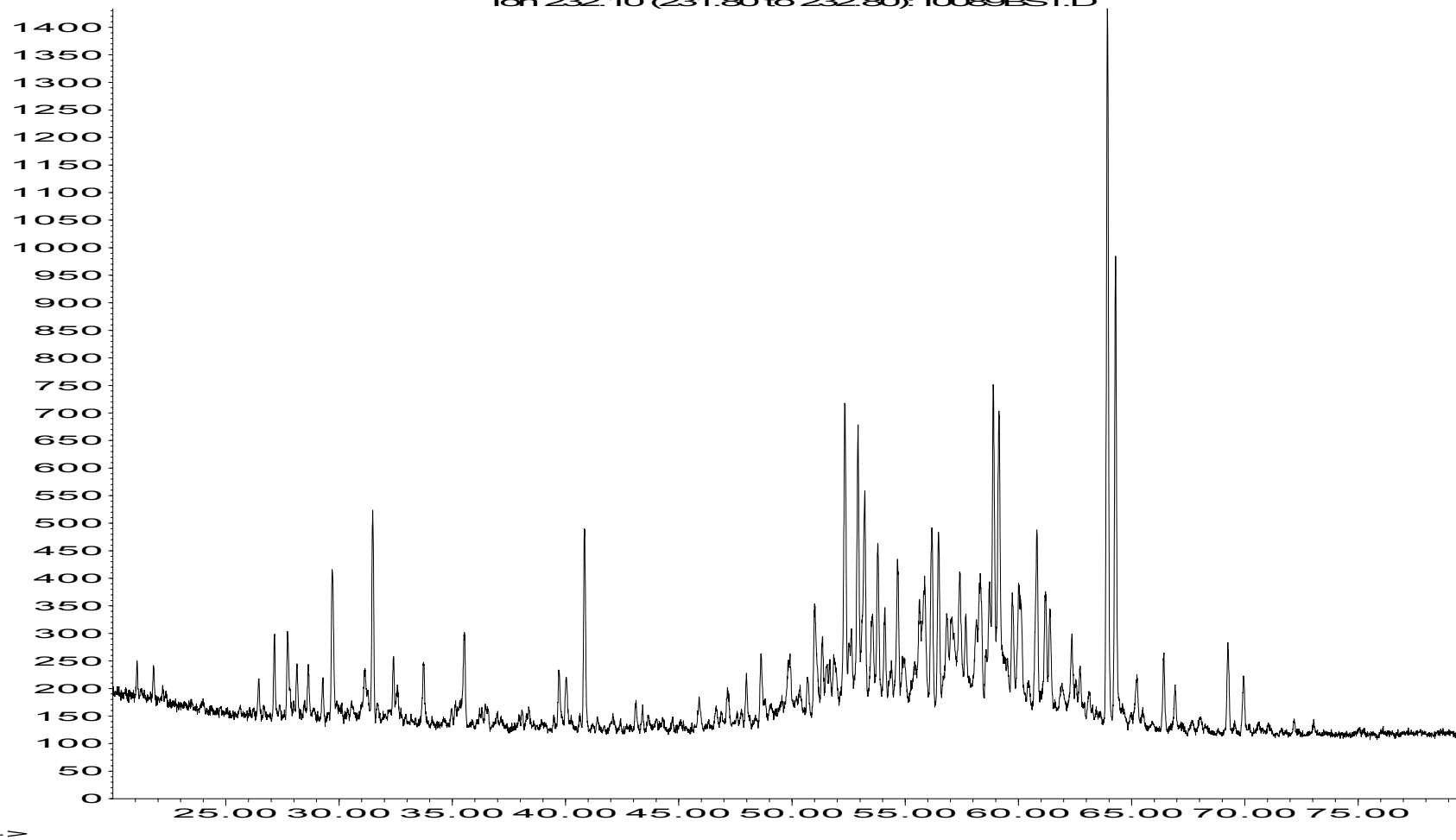
I0095, 7831/2-U-2, 18.72 - 18.85 m, COCH, Clyst (slyt, dkgy), SAT GCMSD

4-Methylsteranes (m/z 232)

- 383 -

Abundance

Ion 232.10 (231.80 to 232.80): I0089BS1.D



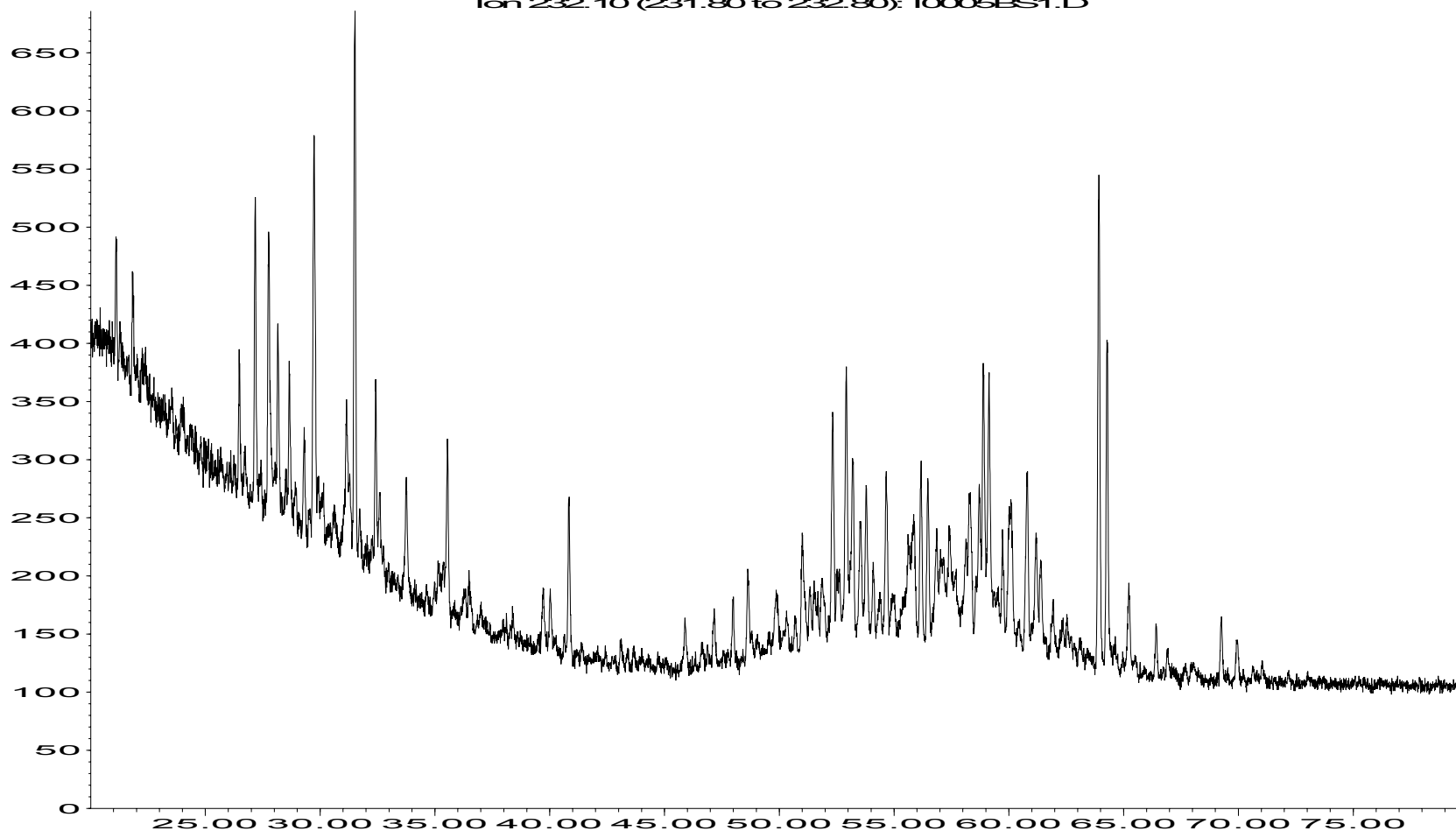
I0089, 7831/2-U-1, 21.72 - 21.76 m, COCH, Cyst (dkgy), SAT GCMSD

4-Methylsteranes (m/z 232)

- 384 -

Abundance

Ion 232.10 (231.80 to 232.80): I0005BS1.D

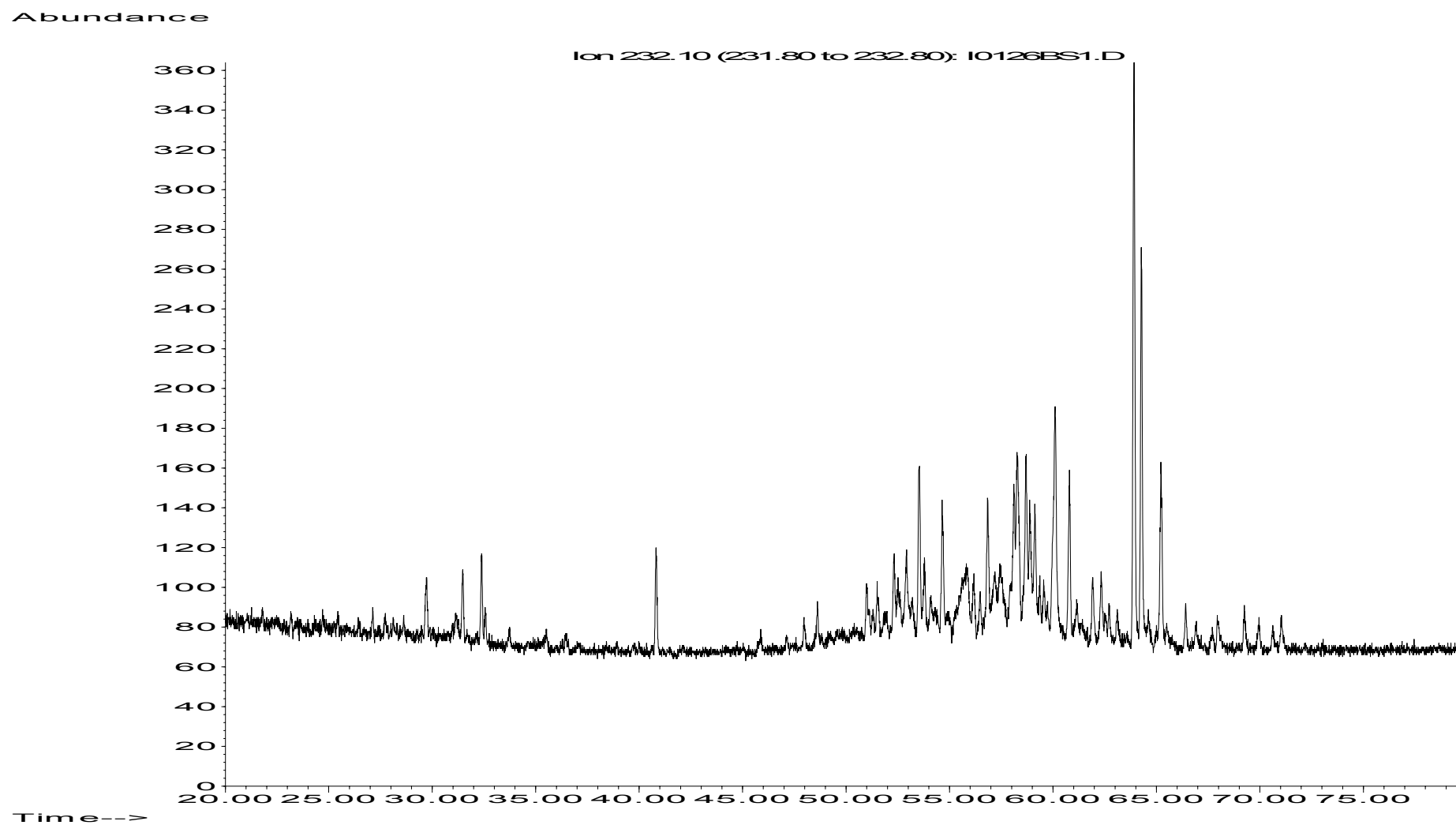


Time-->

I0005, 7830/6-U-1, 12.85 - 12.88 m, COCH, Slst, SAT GCMSD

4-Methylsteranes (m/z 232)

- 385 -



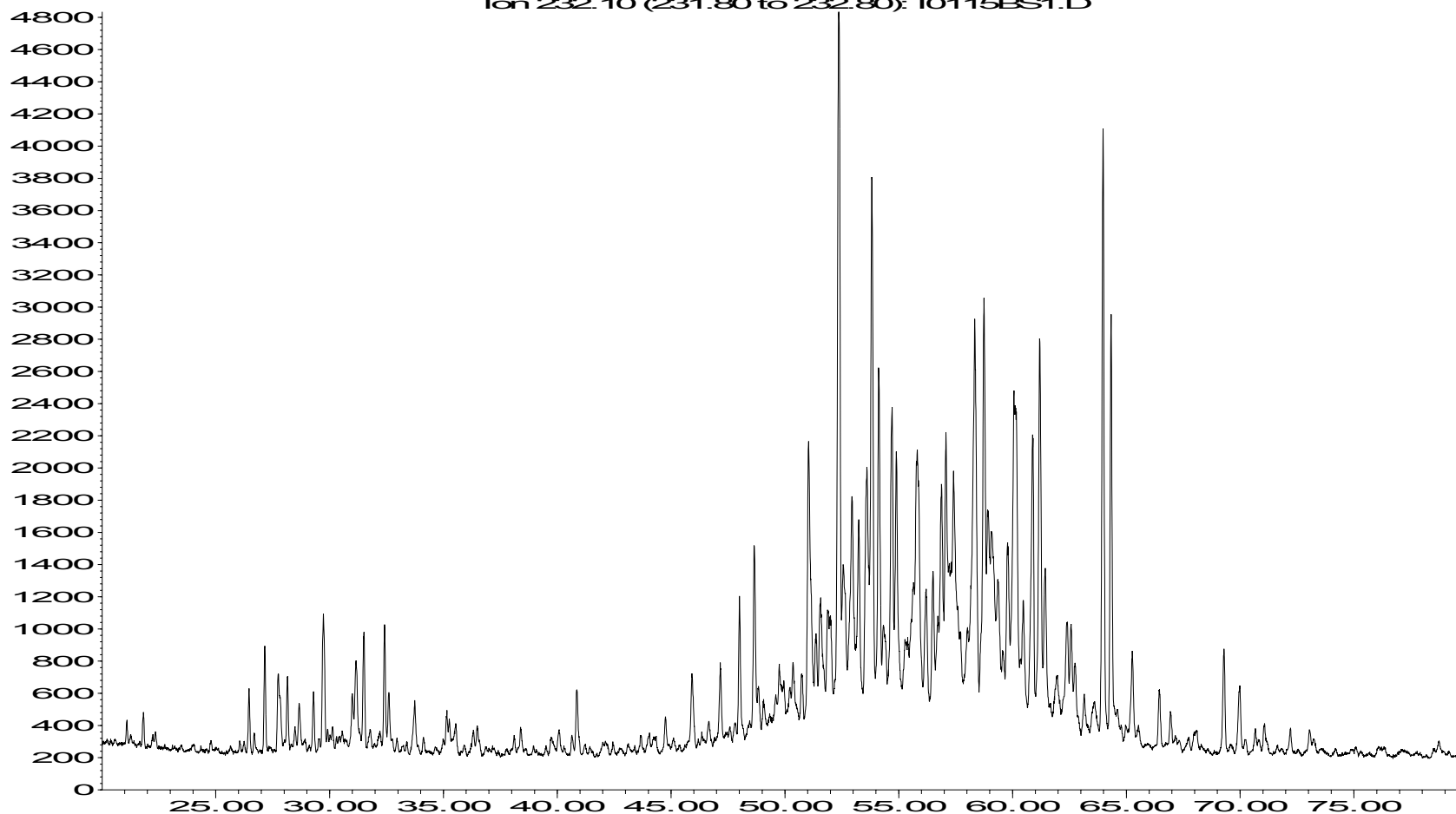
I0126, 7830/6-U-1, 20.03 - 20.10 m, COCH, Cyst (slty, lam, dkgy), SAT GCMSD

4-Methylsteranes (m/z 232)

- 386 -

Abundance

Ion 232.10 (231.80 to 232.80): I0115BS1.D



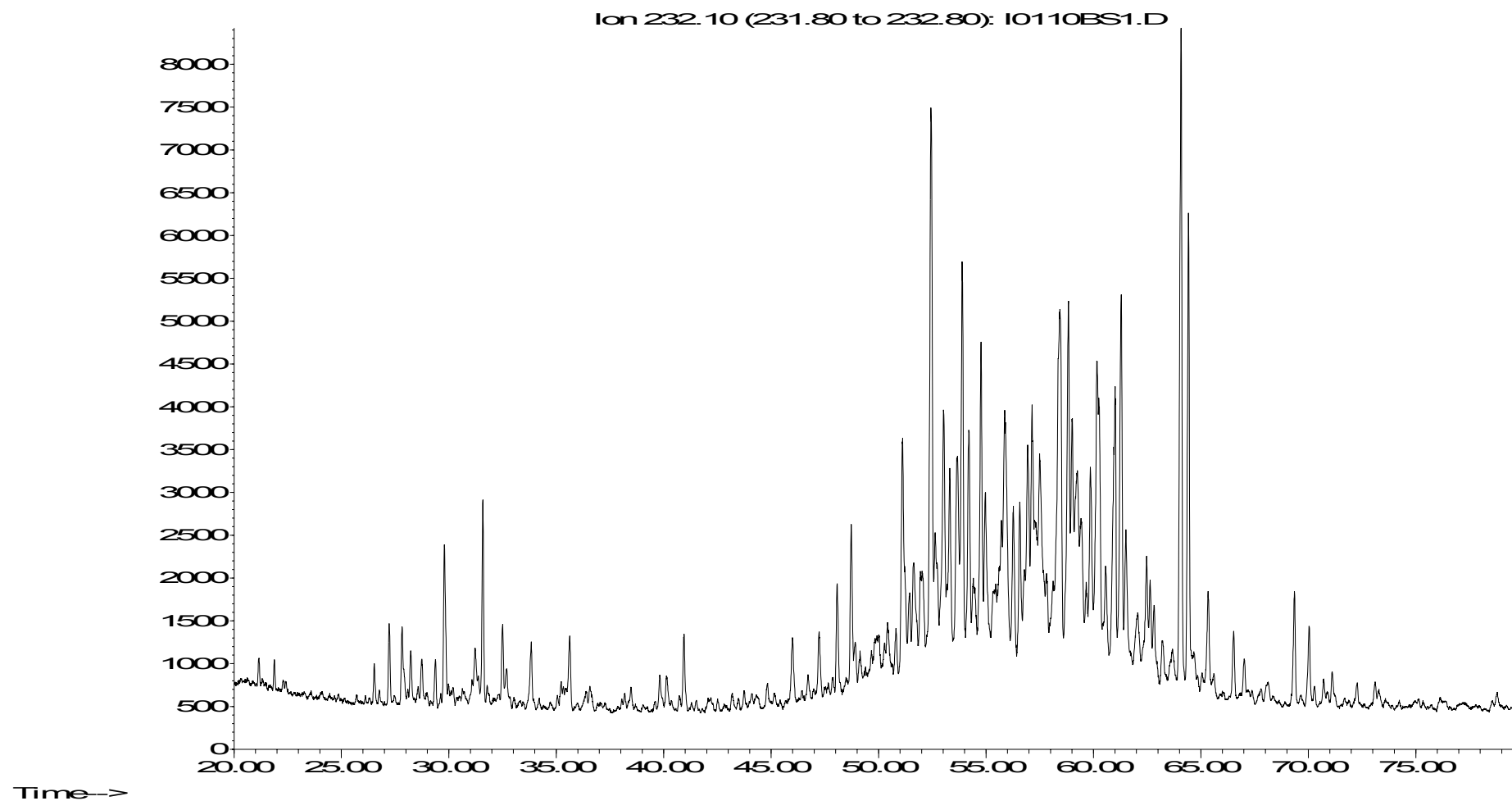
Time-->

I0115, 7830/6-U-1, 41.85 - 41.89 m, COCH, Clyst (dkgy, lam), SAT GCMSD

4-Methylsteranes (m/z 232)

- 387 -

Abundance

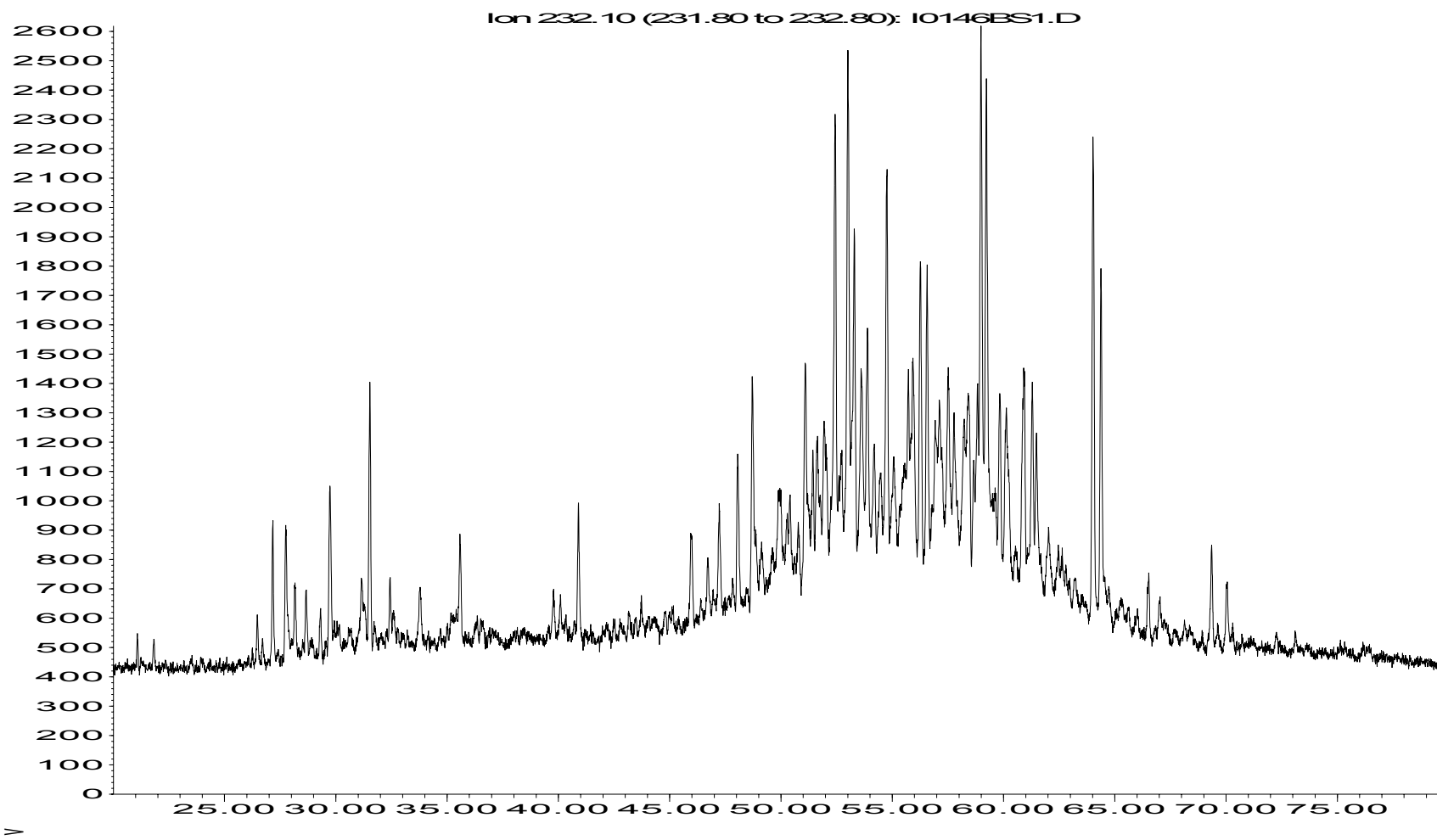


I0110, 7830/6-U-1, 50.90 - 50.93 m, COCH, Clyst (dkgy, lam), SAT GCMSD

4-Methylsteranes (m/z 232)

- 388 -

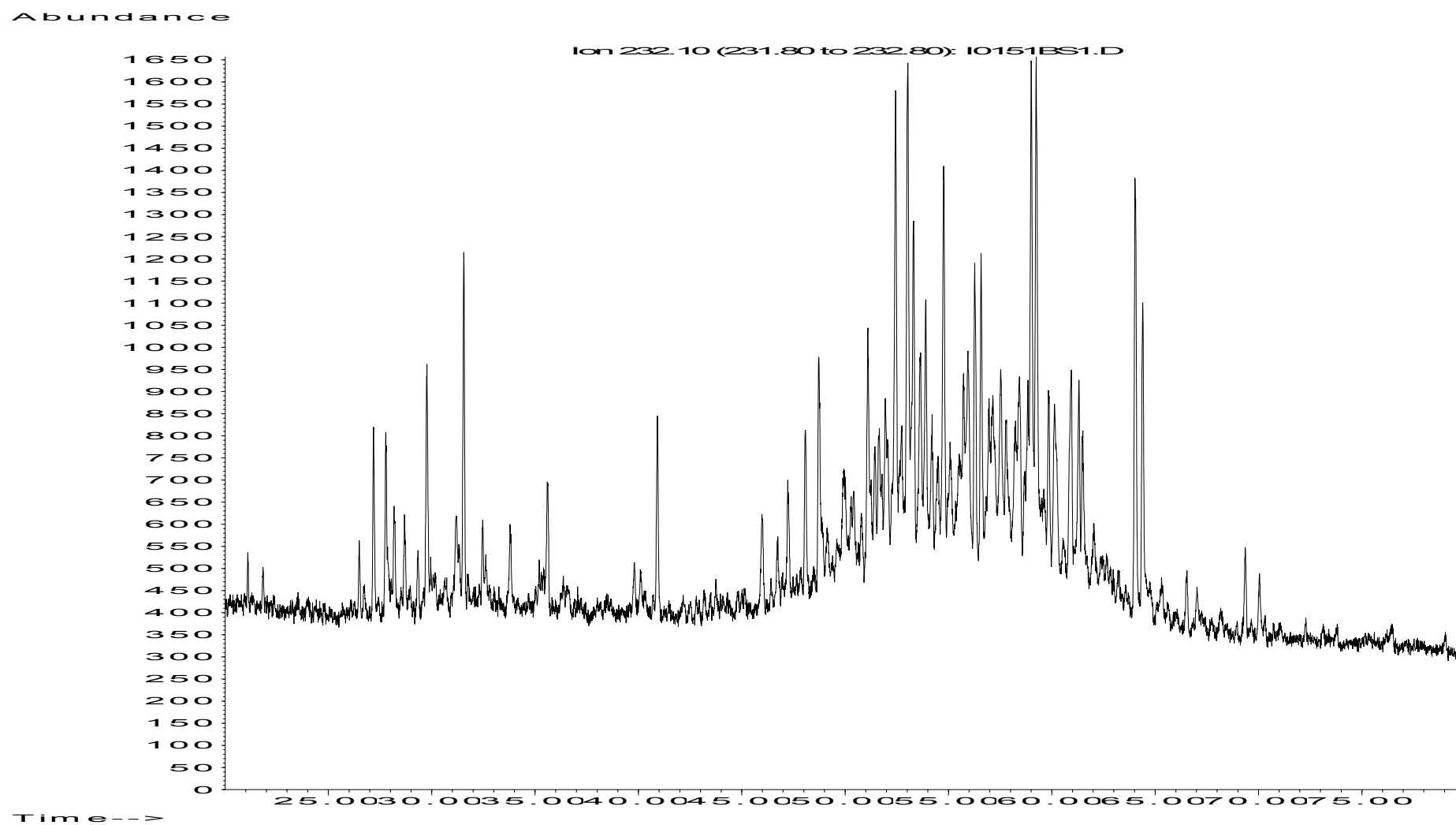
Abundance



I0146, 7830/3-U-1, 39.94 - 39.99 m, COCH, Sst (mgr, mgy), SAT GCMSD

4-Methylsteranes (m/z 232)

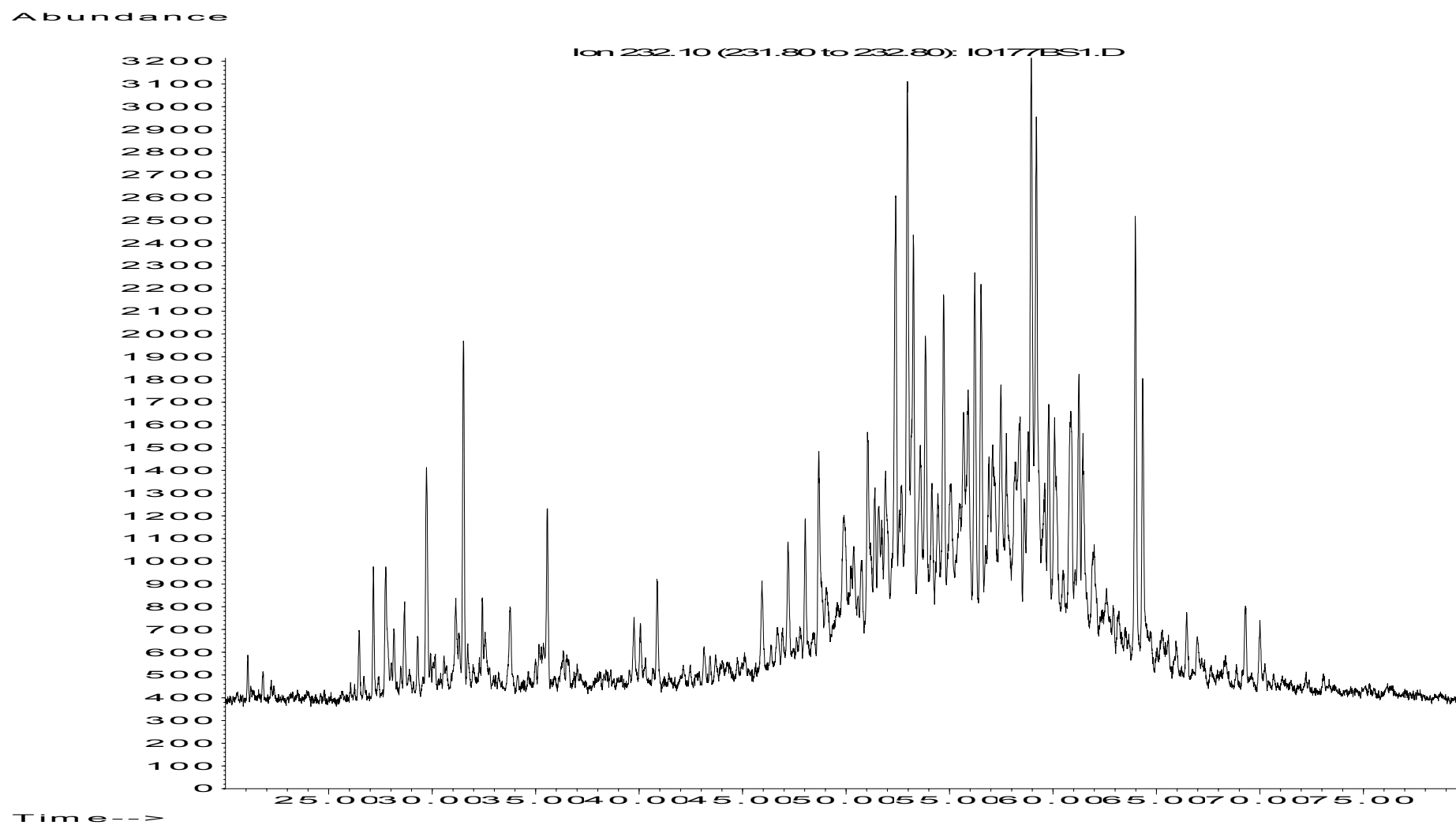
- 389 -



I0151, 7830/3-U-1, 51.24 m, COPL, Sst (fgr, mgy), SAT GCMSD

4-Methylsteranes (m/z 232)

- 390 -

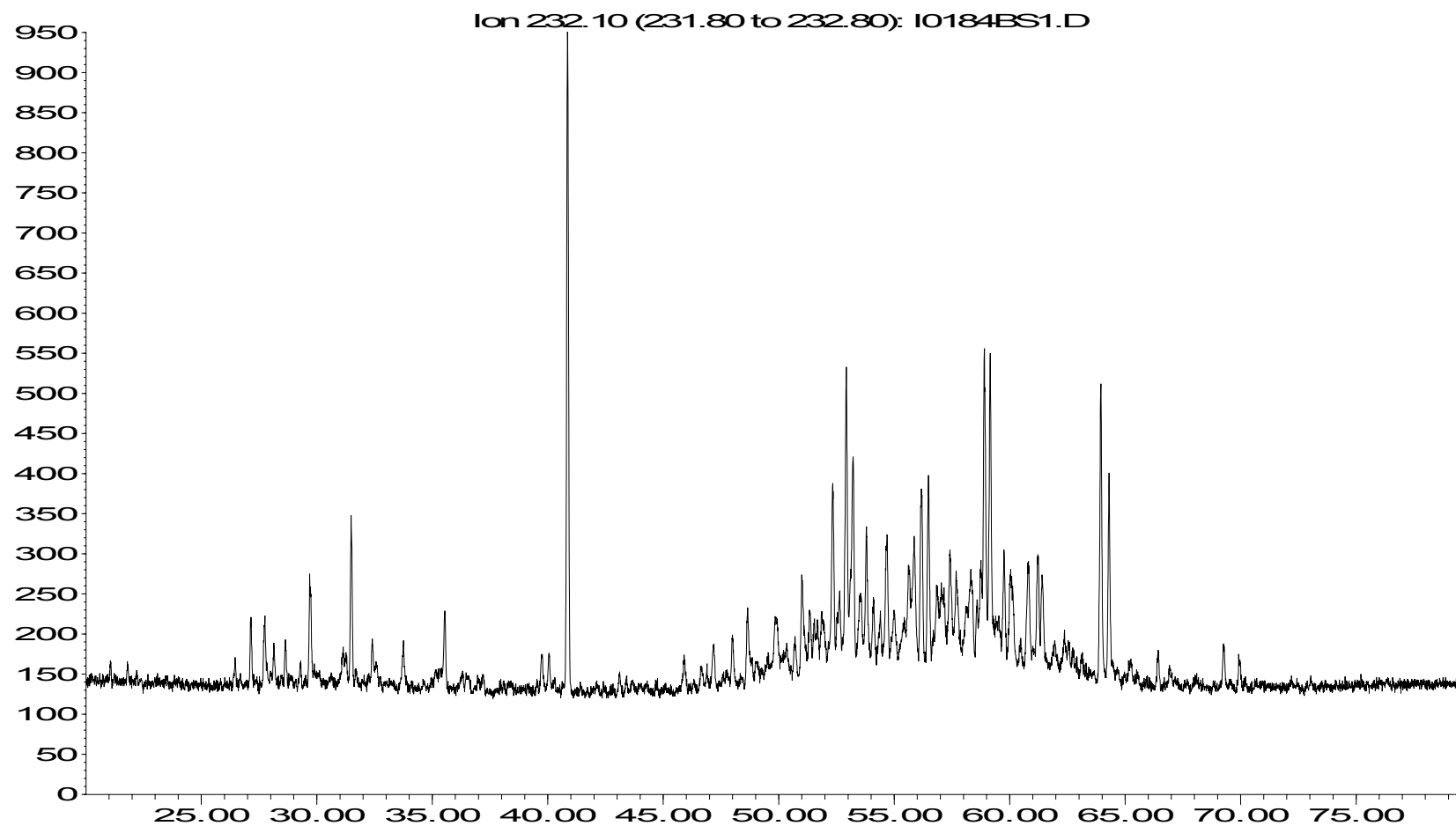


I0177, 7830/3-U-1, 111.69 - 111.75 m, COCH, Sst (fgr, dkgy), SAT GCMSD

4-Methylsteranes (m/z 232)

- 391 -

Abundance



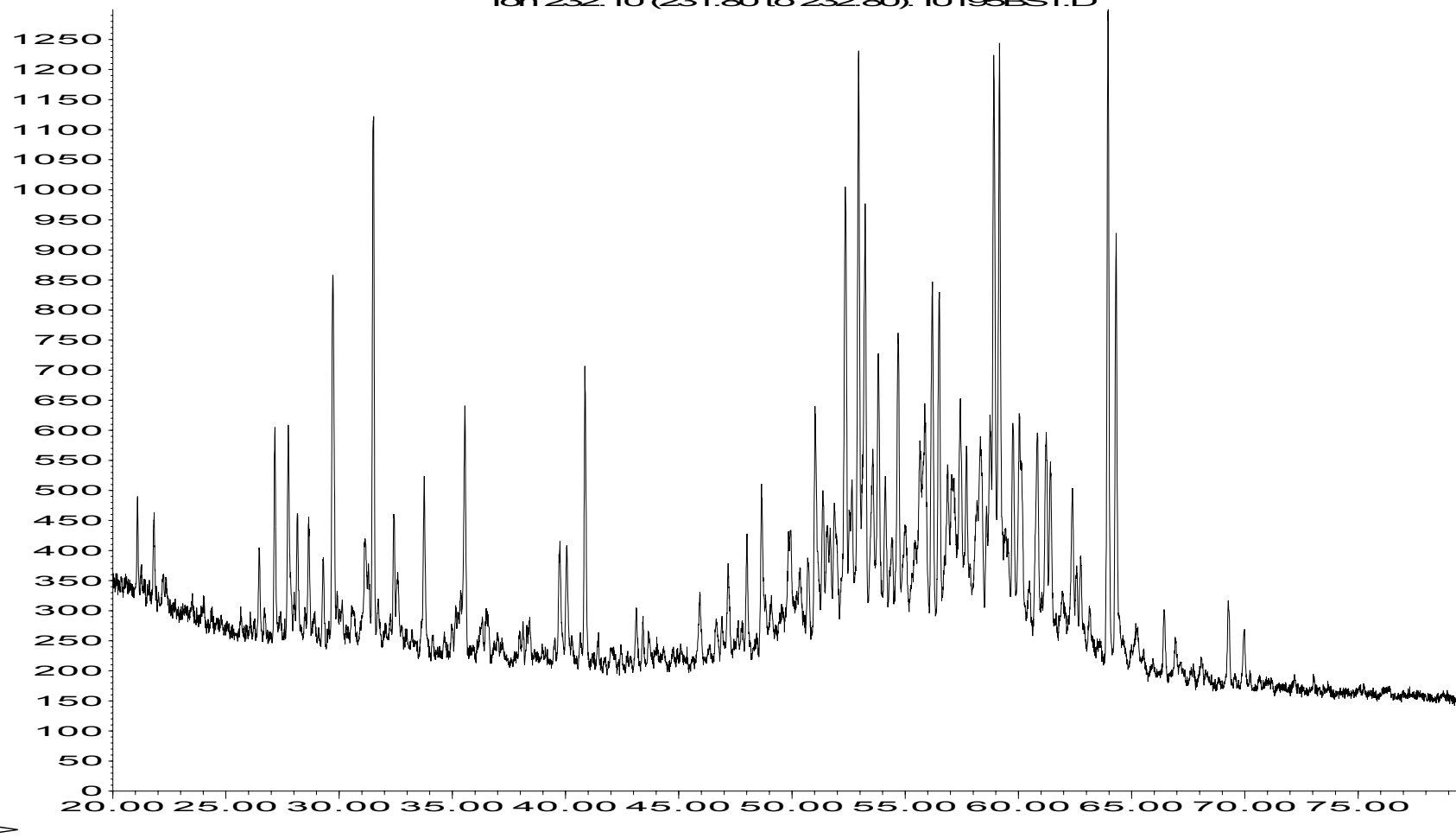
I0184, 7830/3-U-1, 124.63 m, COPL, Sst (fgr, Itgy), SAT GCMSD

4-Methylsteranes (m/z 232)

- 392 -

Abundance

Ion 232.10 (231.80 to 232.80): I0195BS1.D



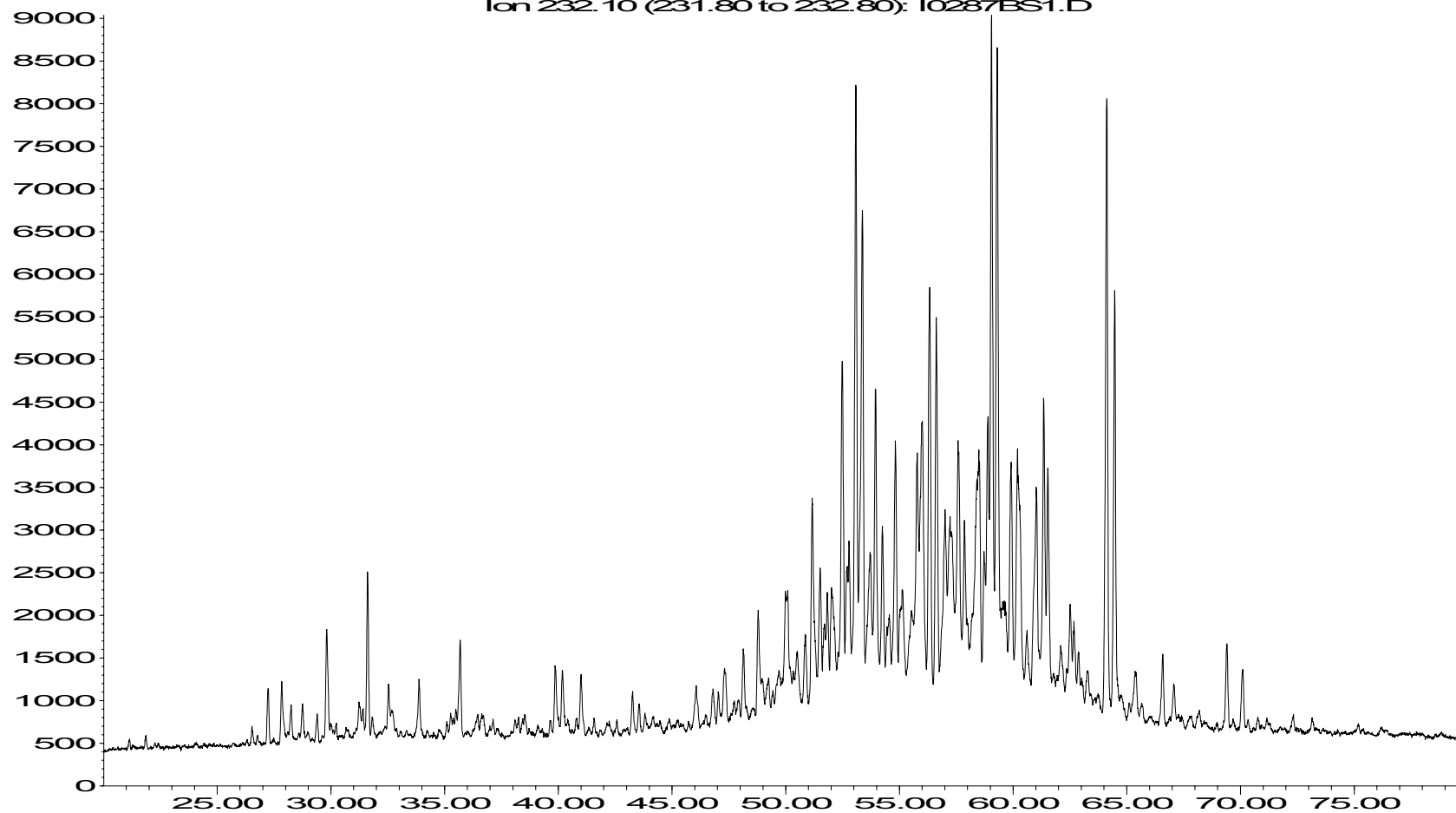
I0195, 7830/3-U-1, 154.81 - 154.88 m, COCH, Clyst (sl slty, ltgy), SAT GCMSD

4-Methylsteranes (m/z 232)

- 393 -

Abundance

Ion 232.10 (231.80 to 232.80): I0287BS1.D



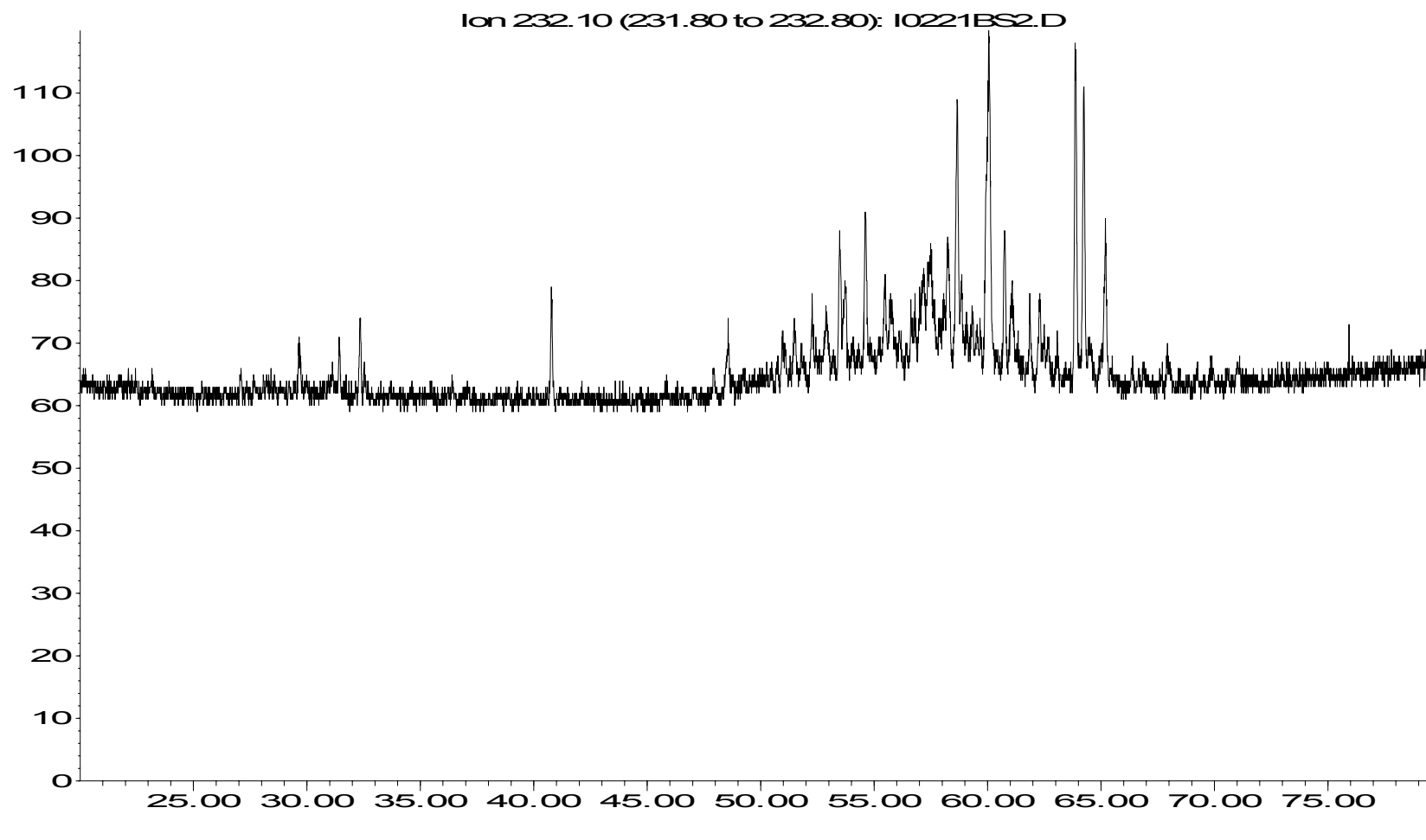
Time-->

I0287, 7830/3-U-1, 174.13 - 174.15 m, COCH, Sst (fgr, mgy), SAT GCMSD

4-Methylsteranes (m/z 232)

- 394 -

Abundance



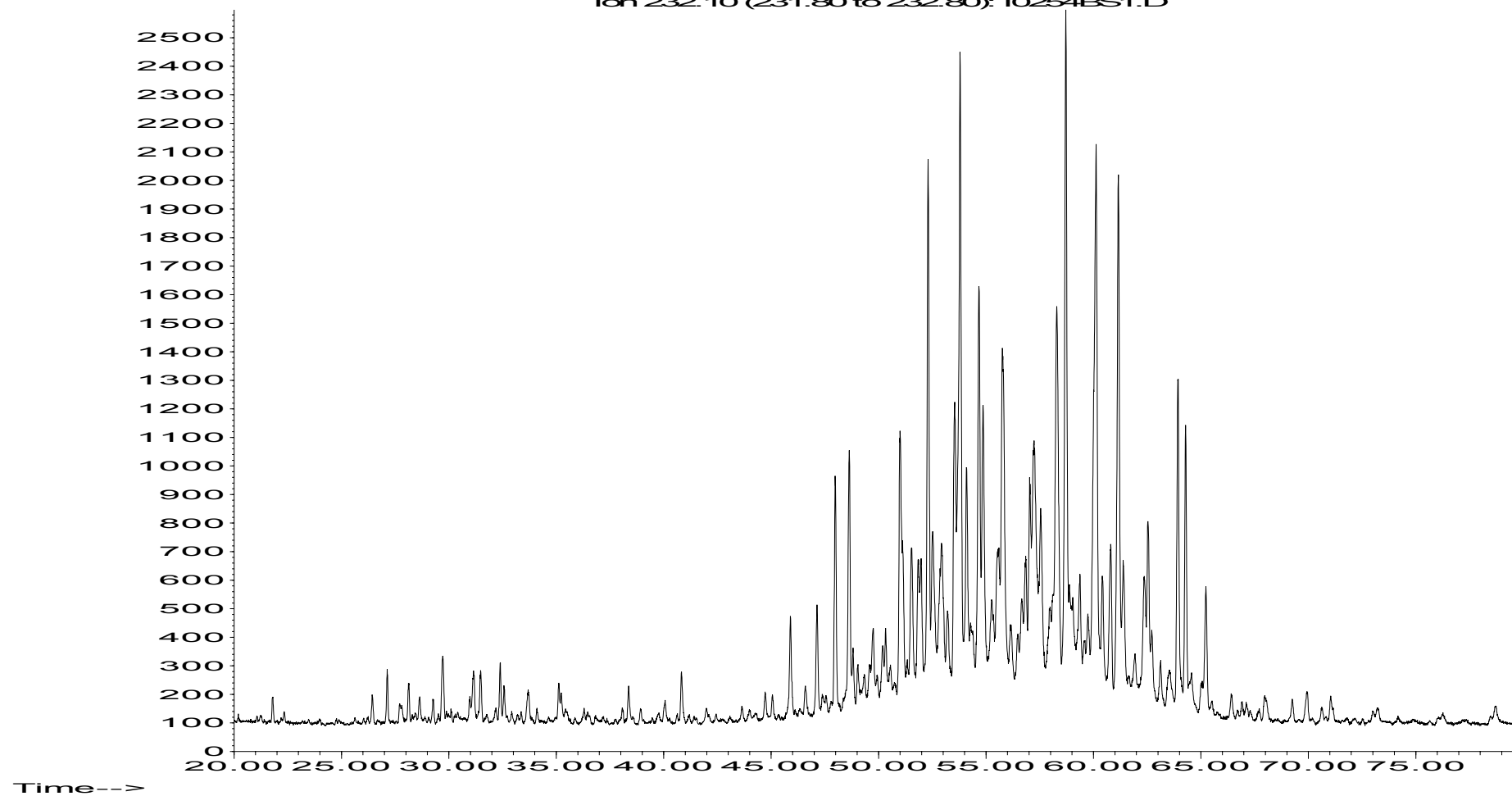
I0221, 7830/5-U-1, 58.90 - 58.97 m, COCH, Cyst (sl slty, lam, dkgy), SAT GCMSD

4-Methylsteranes (m/z 232)

- 395 -

Abundance

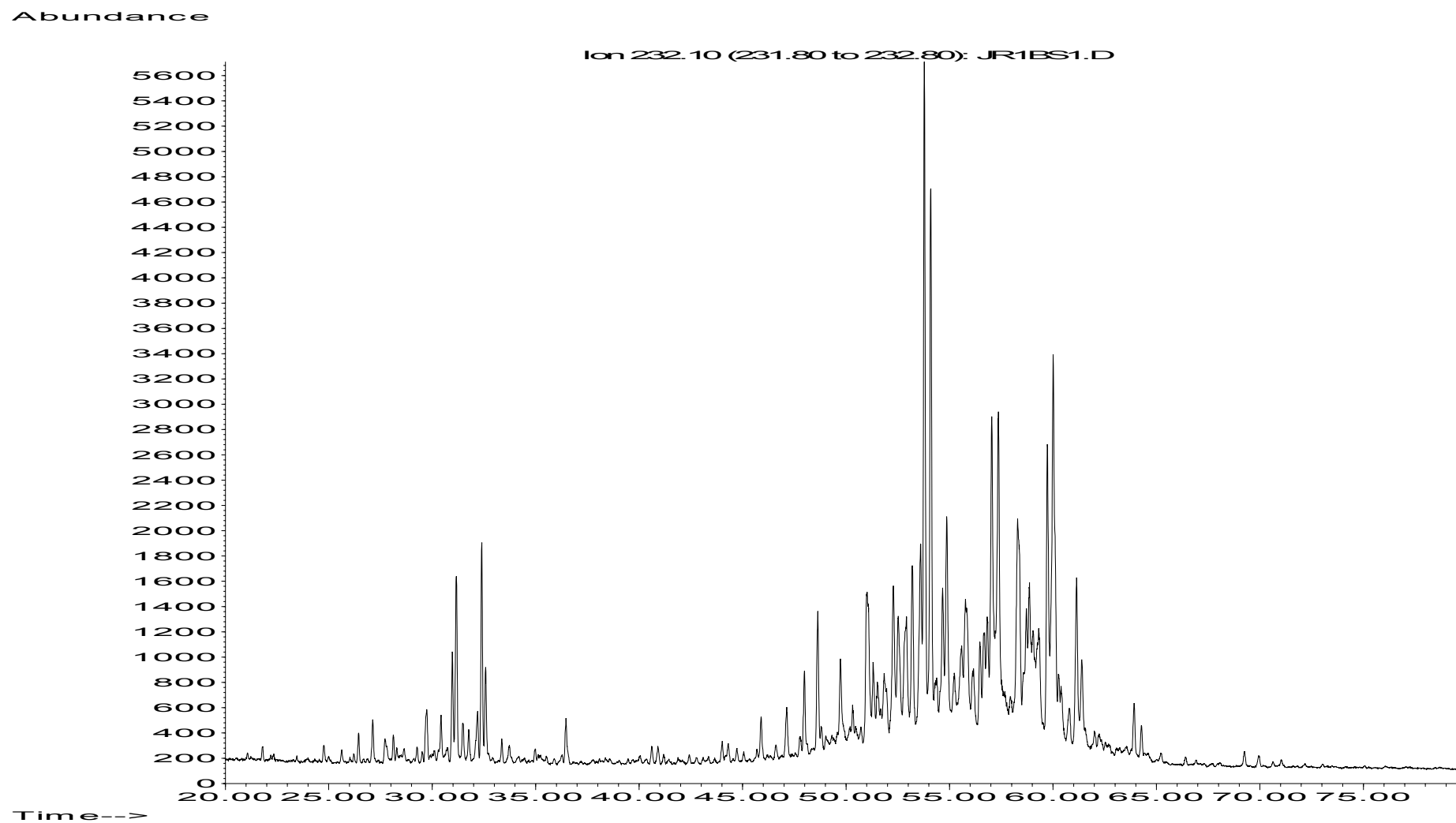
Ion 232.10 (231.80 to 232.80): I0254BS1.D



I0254, 7830/5-U-1, 128.62 - 128.68 m, COCH, Clyst (vdkgy, lam), SAT GCMSD

4-Methylsteranes (m/z 232)

- 396 -



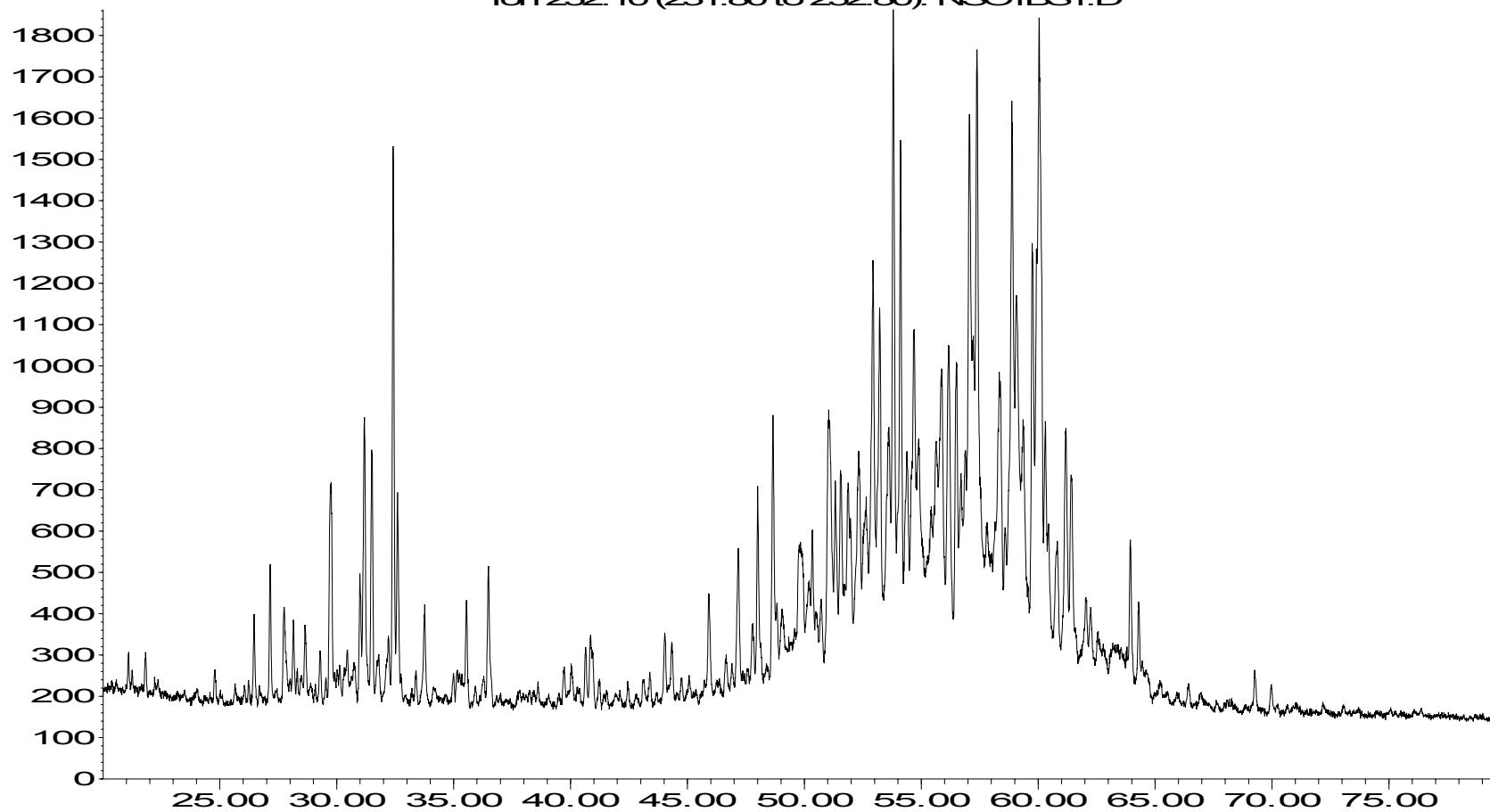
JR-1, NGS reference sample, SAT GCMSD

4-Methylsteranes (m/z 232)

- 397 -

Abundance

Ion 232.10 (231.80 to 232.80): NSO1BS1.D

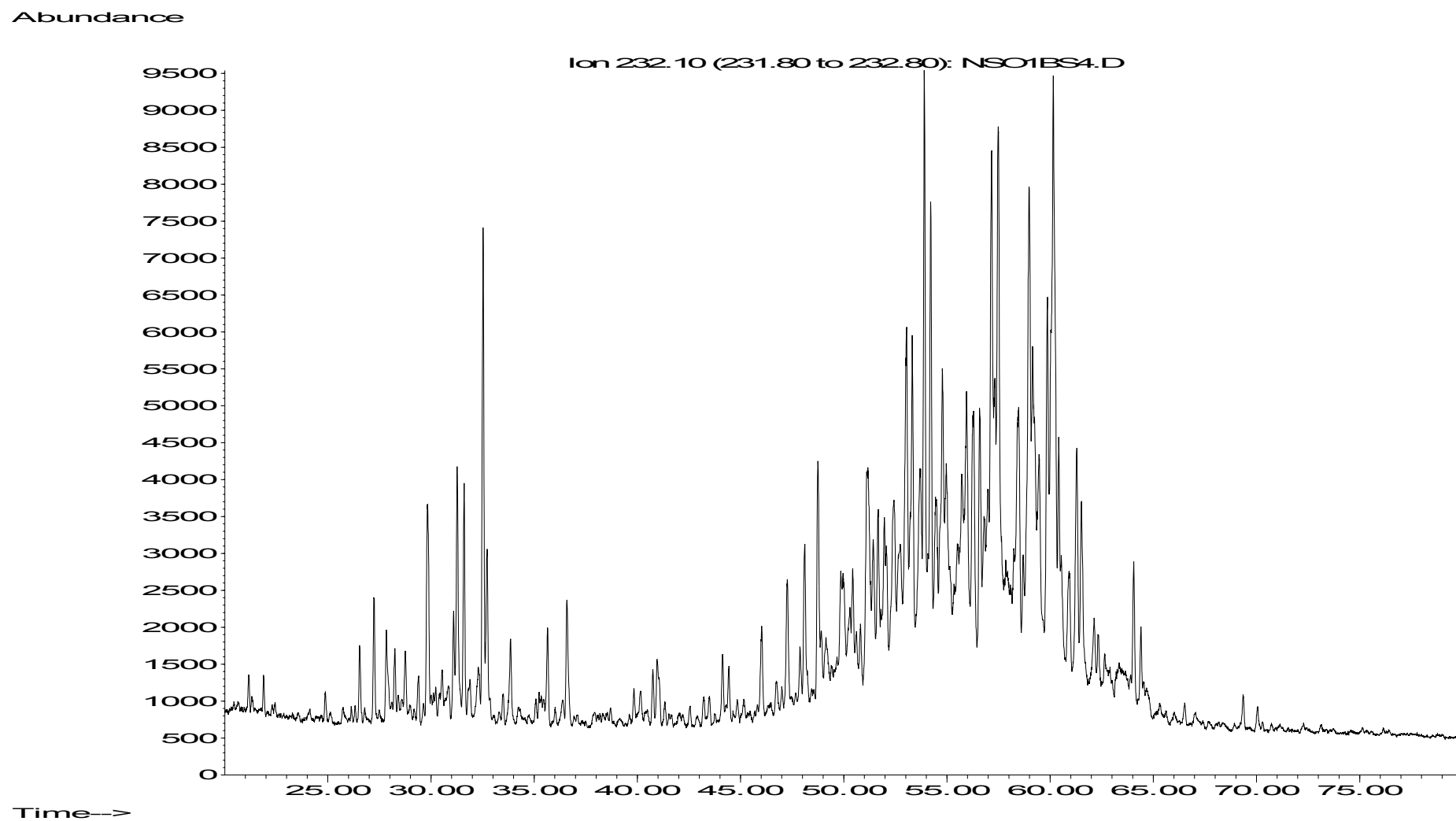


Time-->

NSO-1, #0, NGS reference oil, SAT GCMSD

4-Methylsteranes (m/z 232)

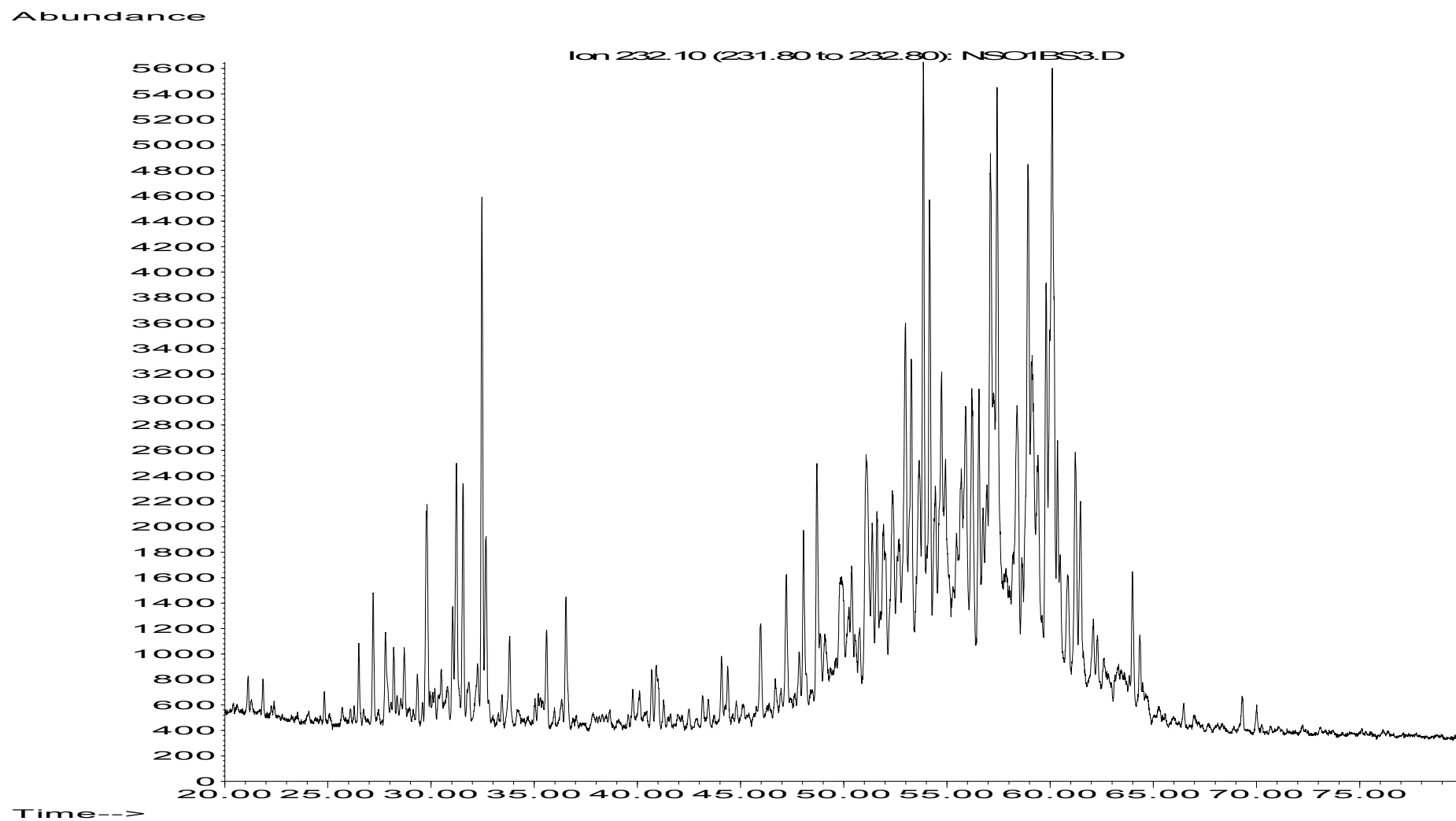
- 398 -



NSO-1, #1, NGS reference oil, SAT GCMSD

4-Methylsteranes (m/z 232)

- 399 -

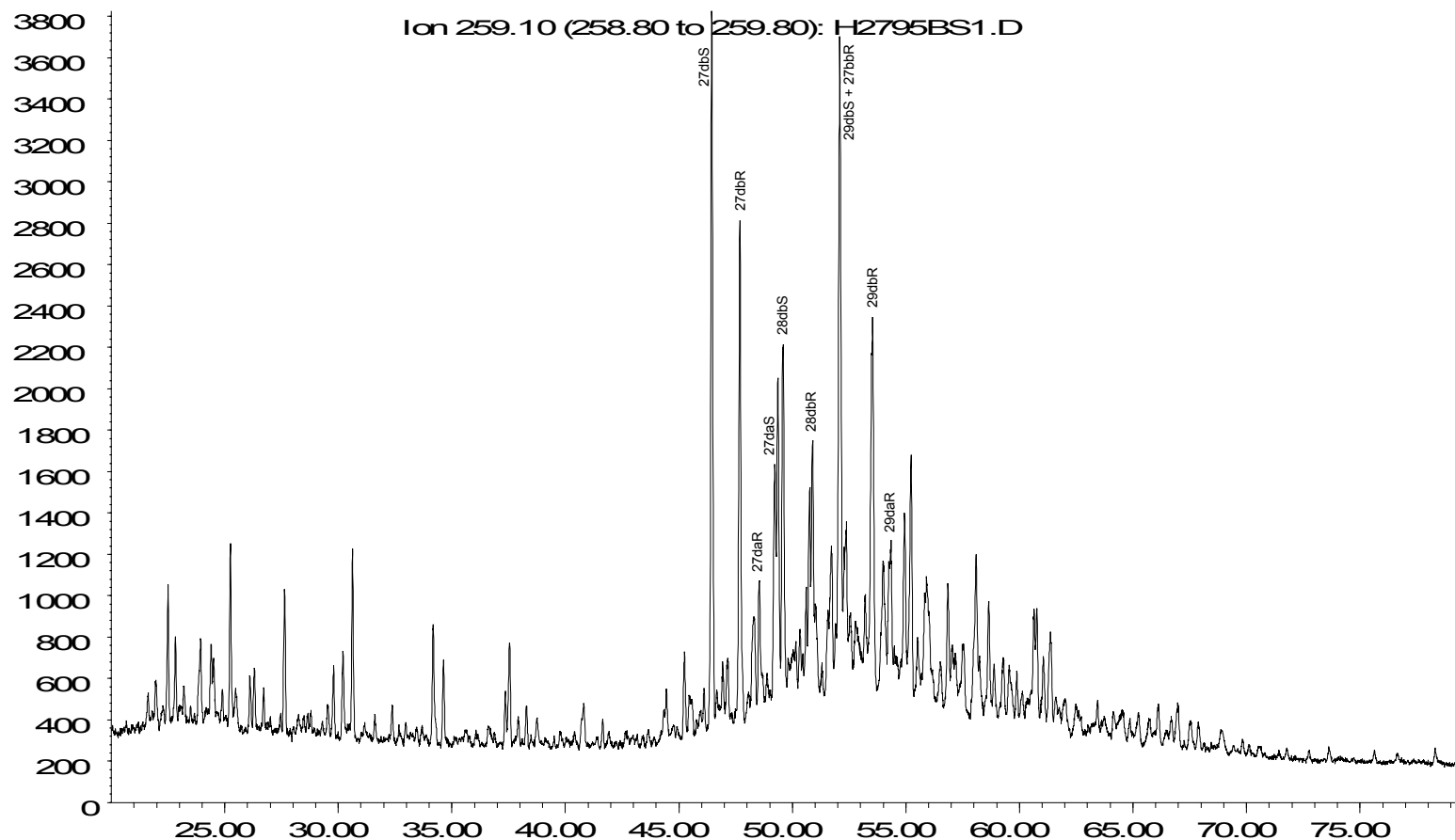


NSO-1, #2, NGS reference oil, SAT GCMSD

4-Methylsteranes (m/z 232)

- 400 -

Abundance



Time→

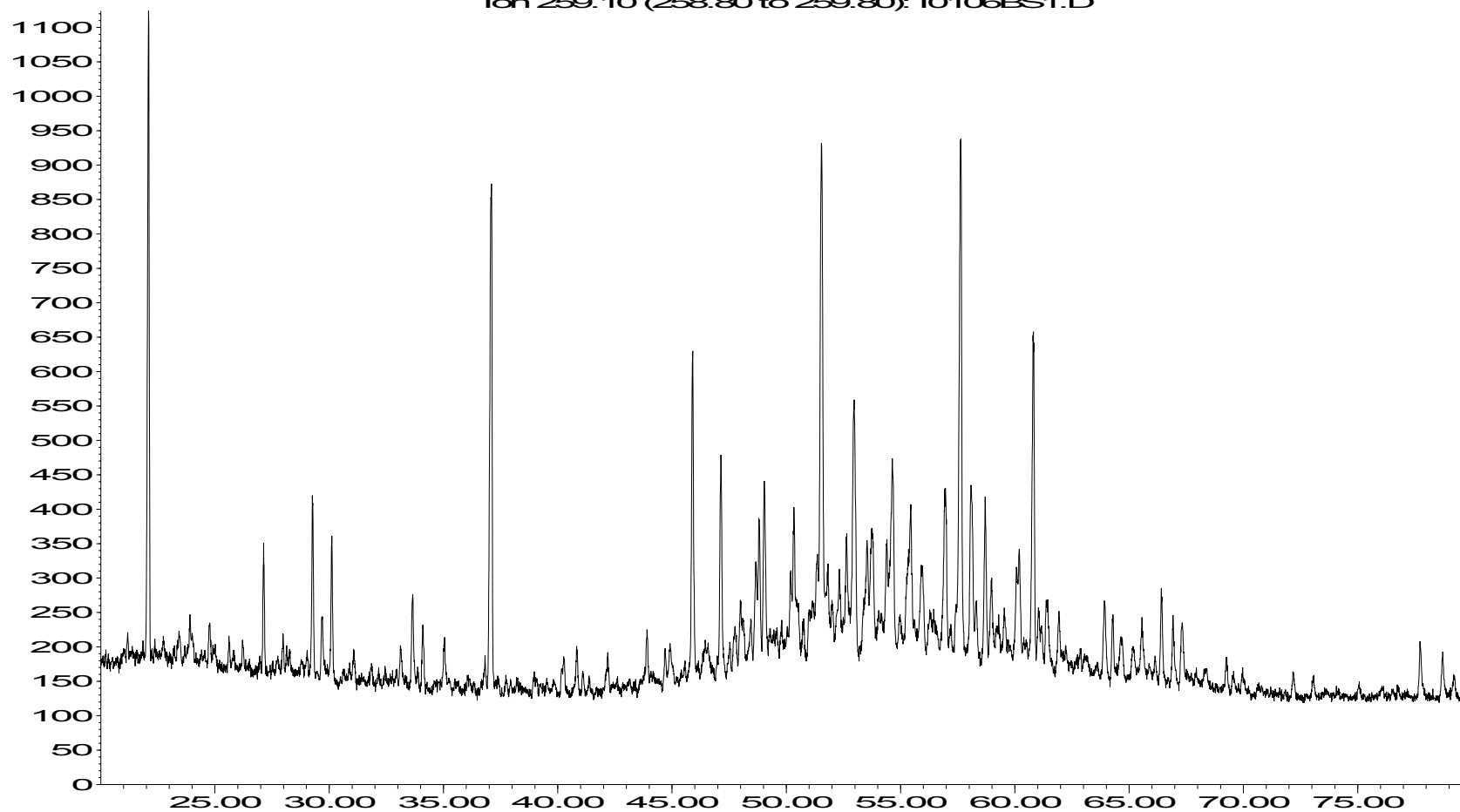
Peak identification, NSO-1, SAT GCMSD

Diasteranes (m/z 259)

- 401 -

Abundance

Ion 259.10 (258.80 to 259.80): I0106BS1.D

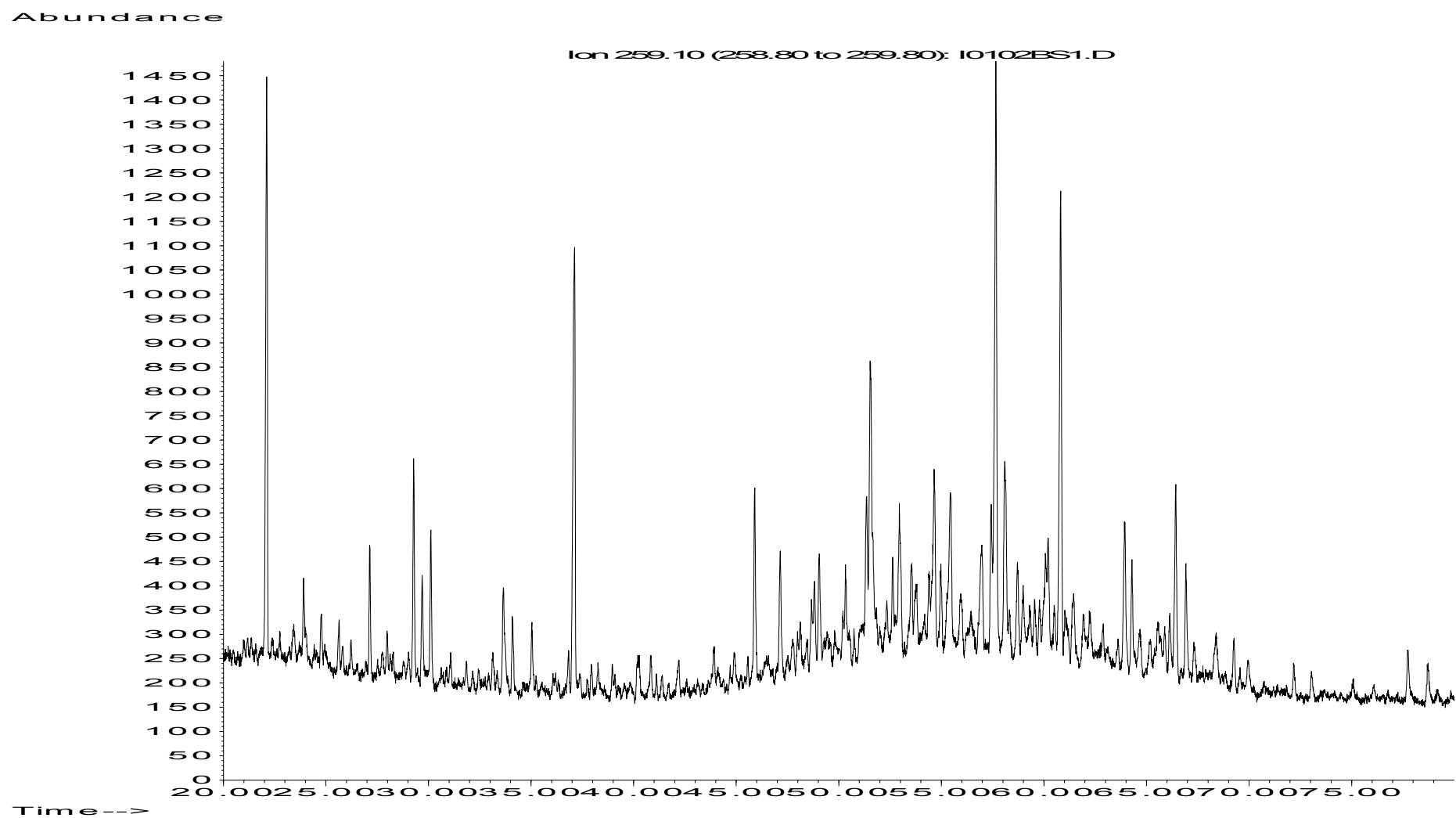


Time-->

I0106, 7831/2-U-2, 6.78 - 6.83 m, COCH, Clyst (slty, dkgy), SAT GCMSD

Diasteranes (m/z 259)

- 402 -



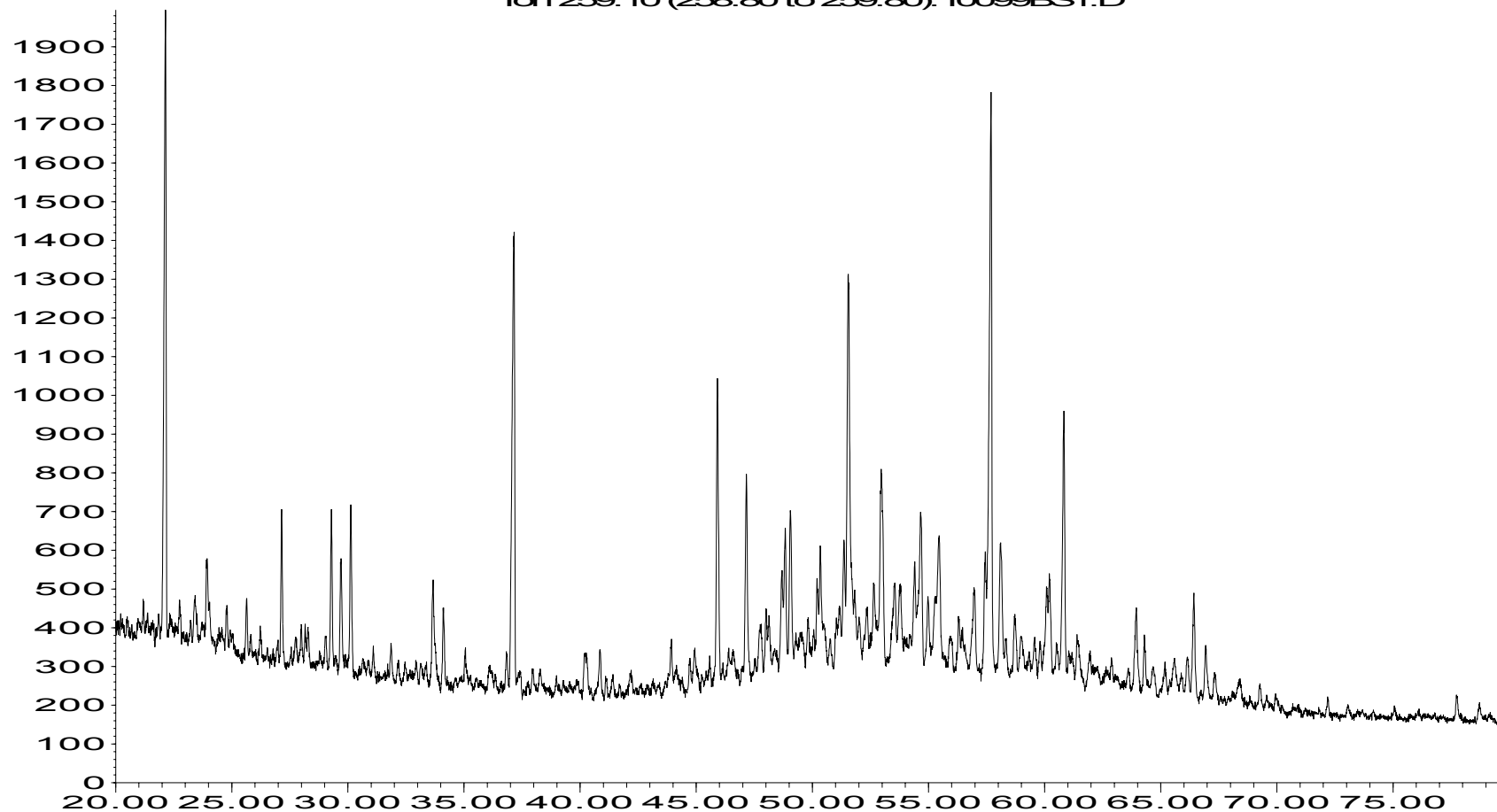
I0102, 7831/2-U-2, 10.23 - 10.28 m, COCH, Cyst (slty, mgy), SAT GCMSD

Diasteranes (m/z 259)

- 403 -

Abundance

Ion 259.10 (258.80 to 259.80): I0099BS1.D



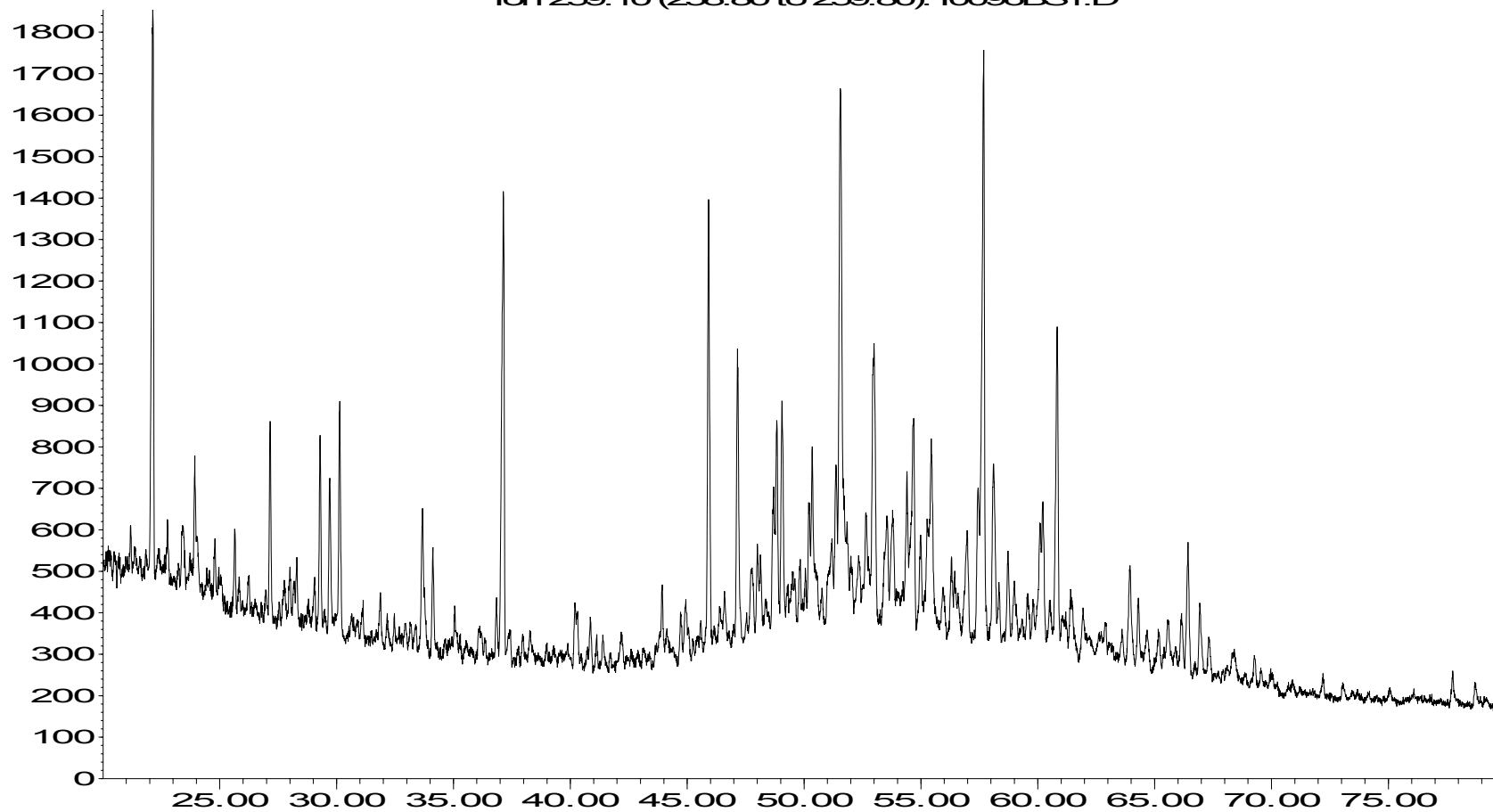
Time-->

I0099, 7831/2-U-2, 14.48 - 14.53 m, COCH, Cyst (slty, dkgy), SAT GCMSD

Diasteranes (m/z 259)

Abundance

Ion 259.10 (258.80 to 259.80): I0096BS1.D



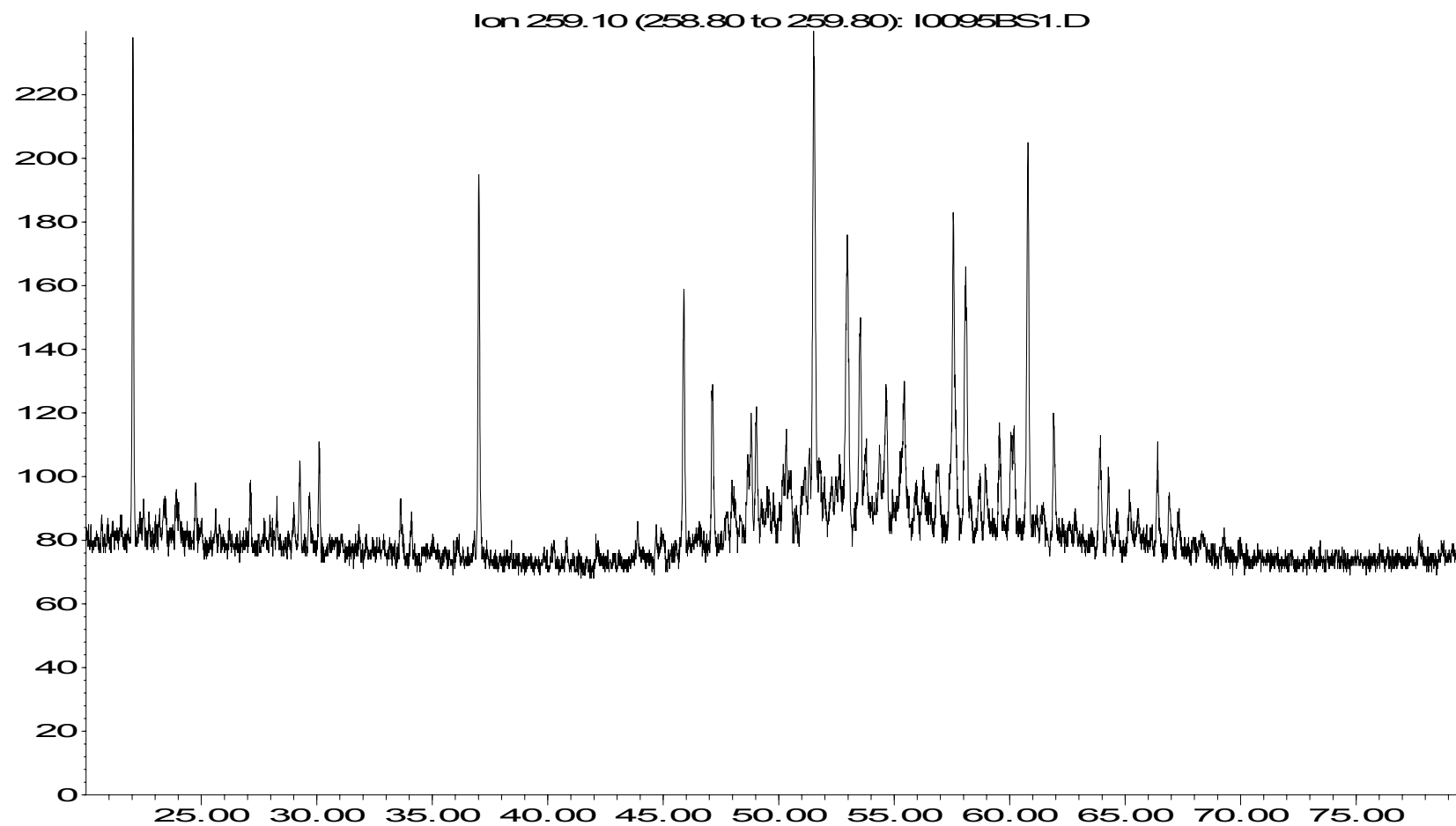
Time-->

I0096, 7831/2-U-2, 17.83 - 17.87 m, COCH, Cyst (slty, dkgy), SAT GCMSD

Diasteranes (m/z 259)

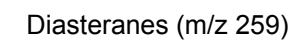
- 405 -

Abundance



I0095, 7831/2-U-2, 18.72 - 18.85 m, COCH, Clyst (slty, dkgy), SAT GCMSD

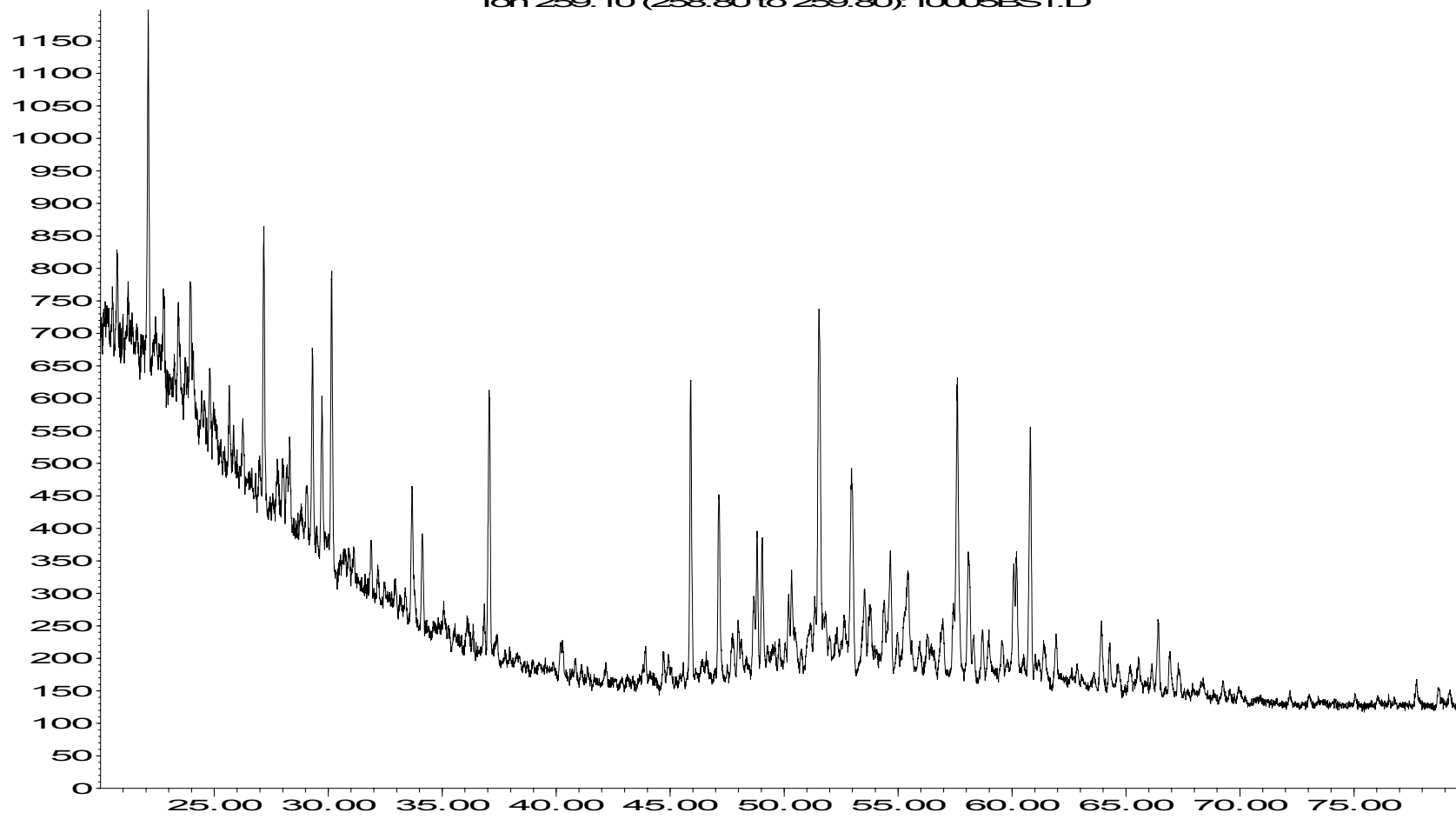
Diasteranes (m/z 259)



- 407 -

Abundance

Ion 259.10 (258.80 to 259.80): I0005BS1.D



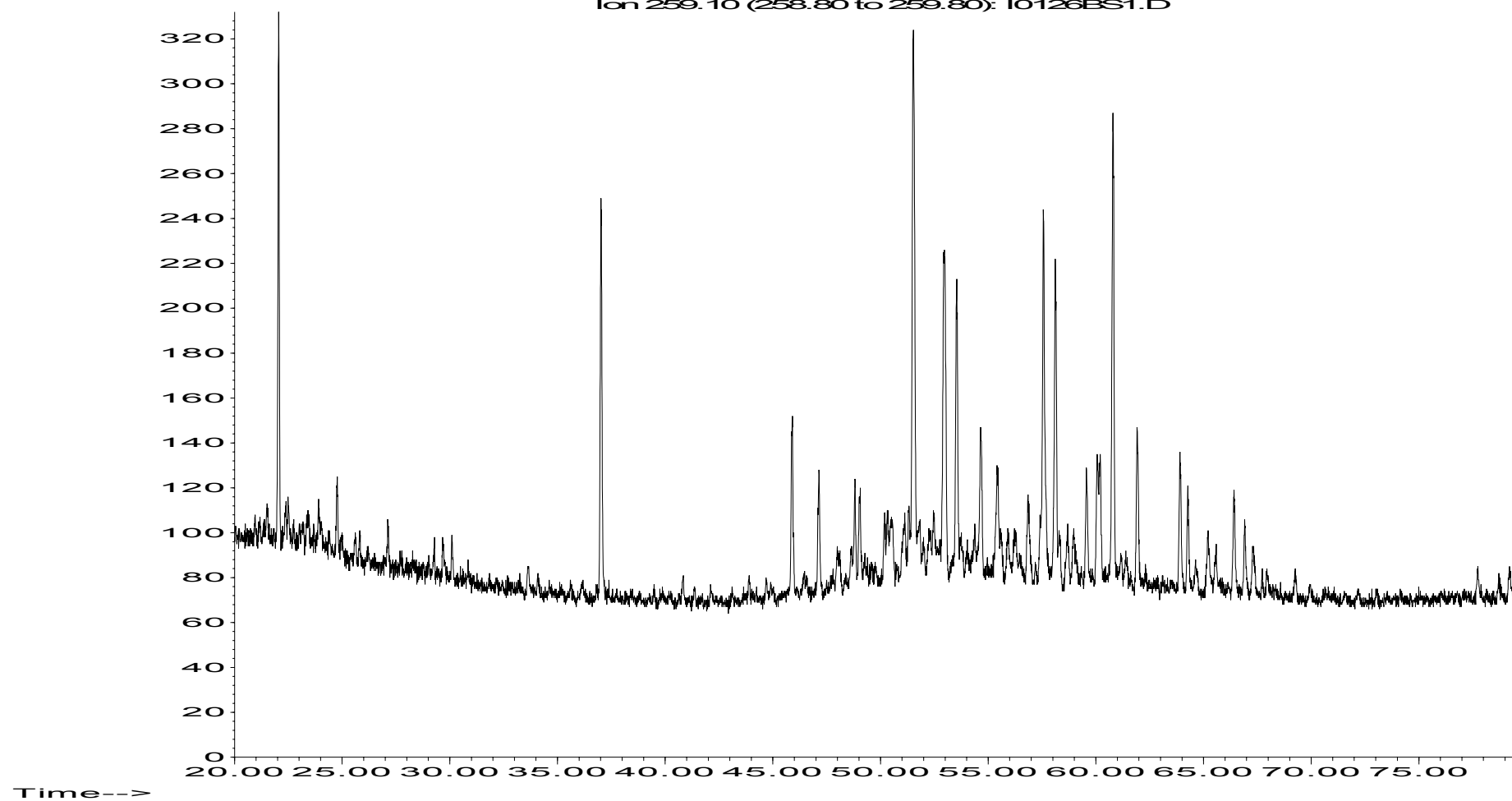
I0005, 7830/6-U-1, 12.85 - 12.88 m, COCH, Slst, SAT GCMSD

Diasteranes (m/z 259)

- 408 -

Abundance

Ion 259.10 (258.80 to 259.80): I0126BS1.D



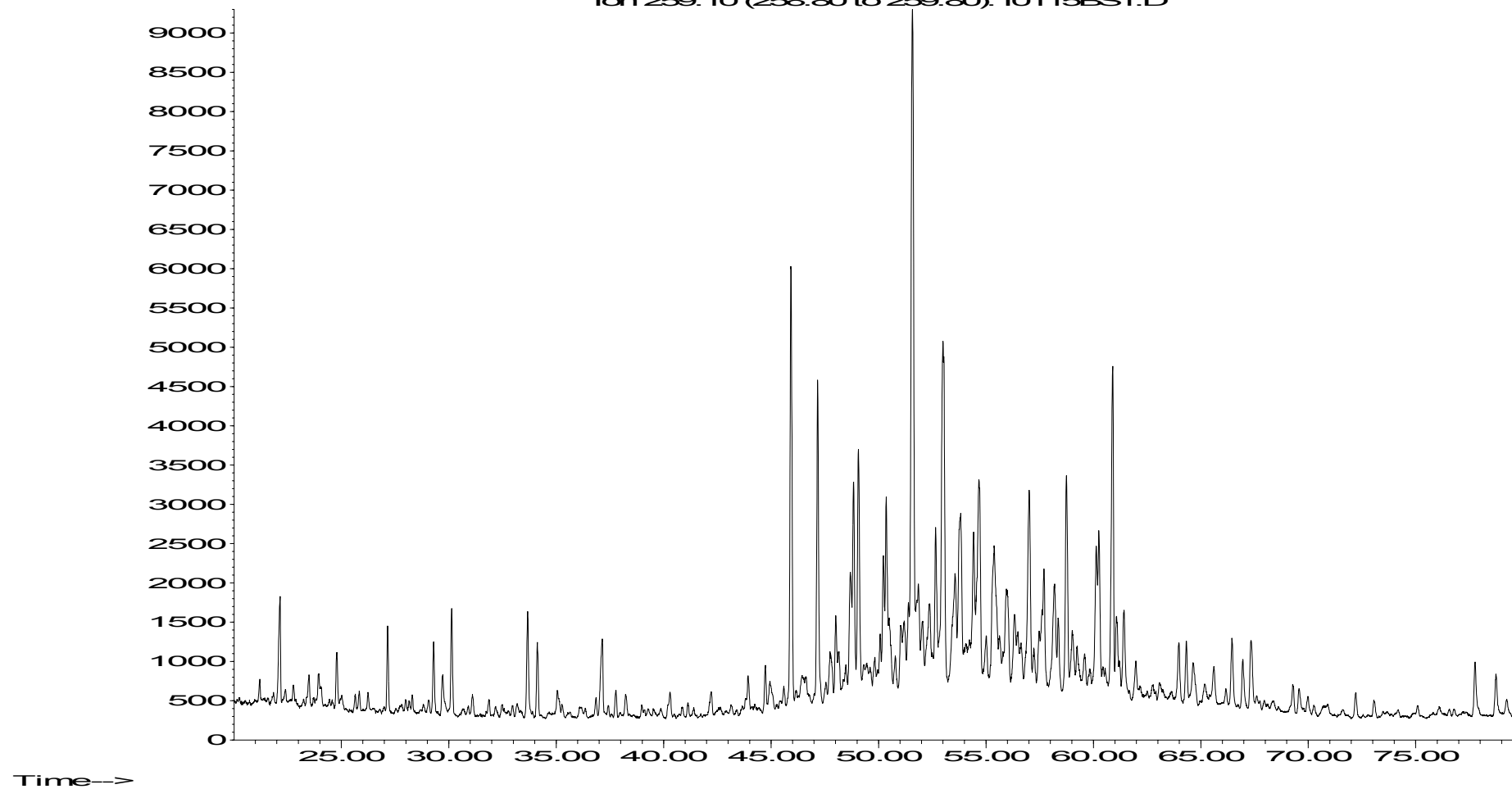
I0126, 7830/6-U-1, 20.03 - 20.10 m, COCH, Cyst (slty, lam, dkg), SAT GCMSD

Diasteranes (m/z 259)

- 409 -

Abundance

Ion 259.10 (258.80 to 259.80): I0115BS1.D



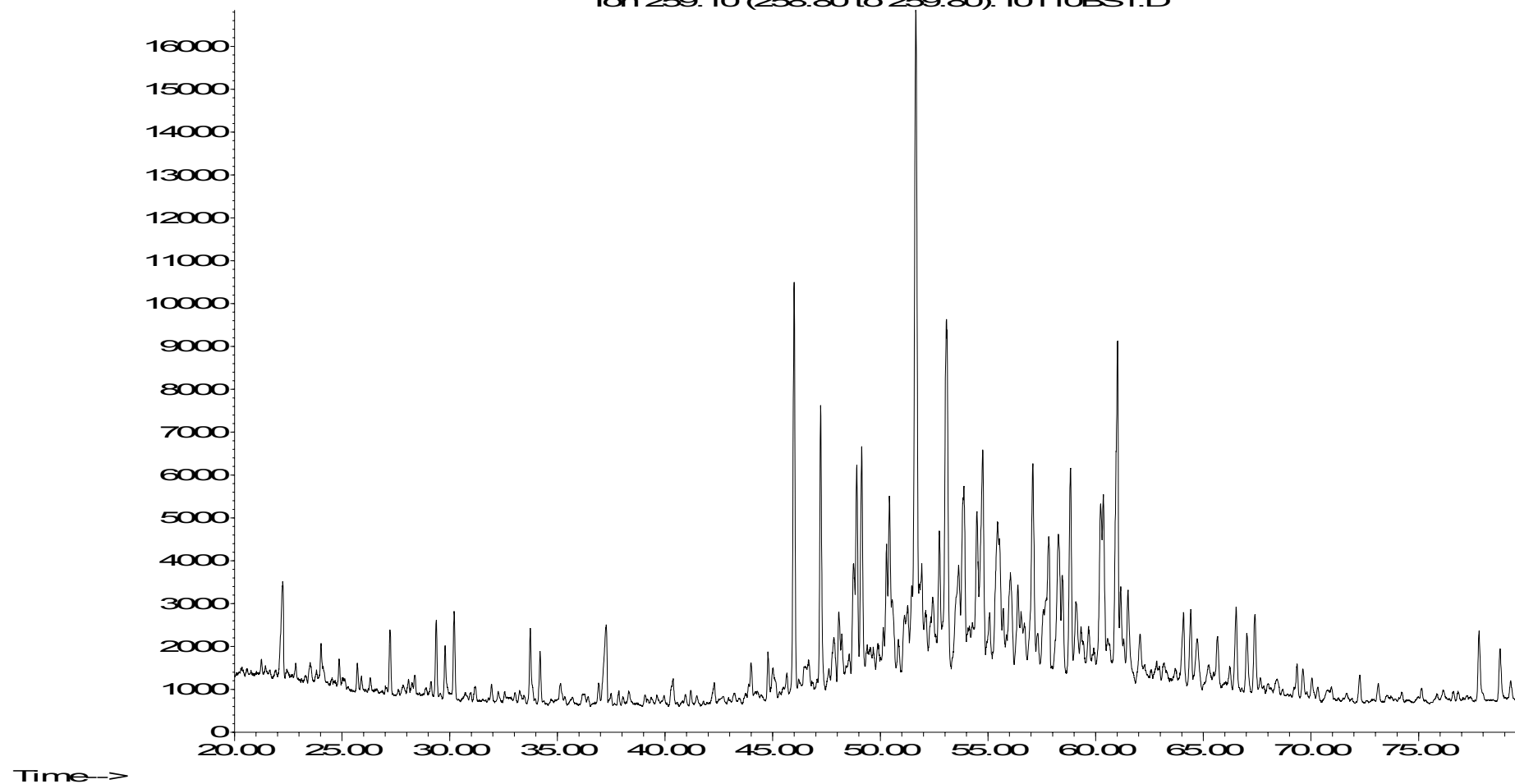
I0115, 7830/6-U-1, 41.85 - 41.89 m, COCH, Clyst (dkgy, lam), SAT GCMSD

Diasteranes (m/z 259)

- 410 -

Abundance

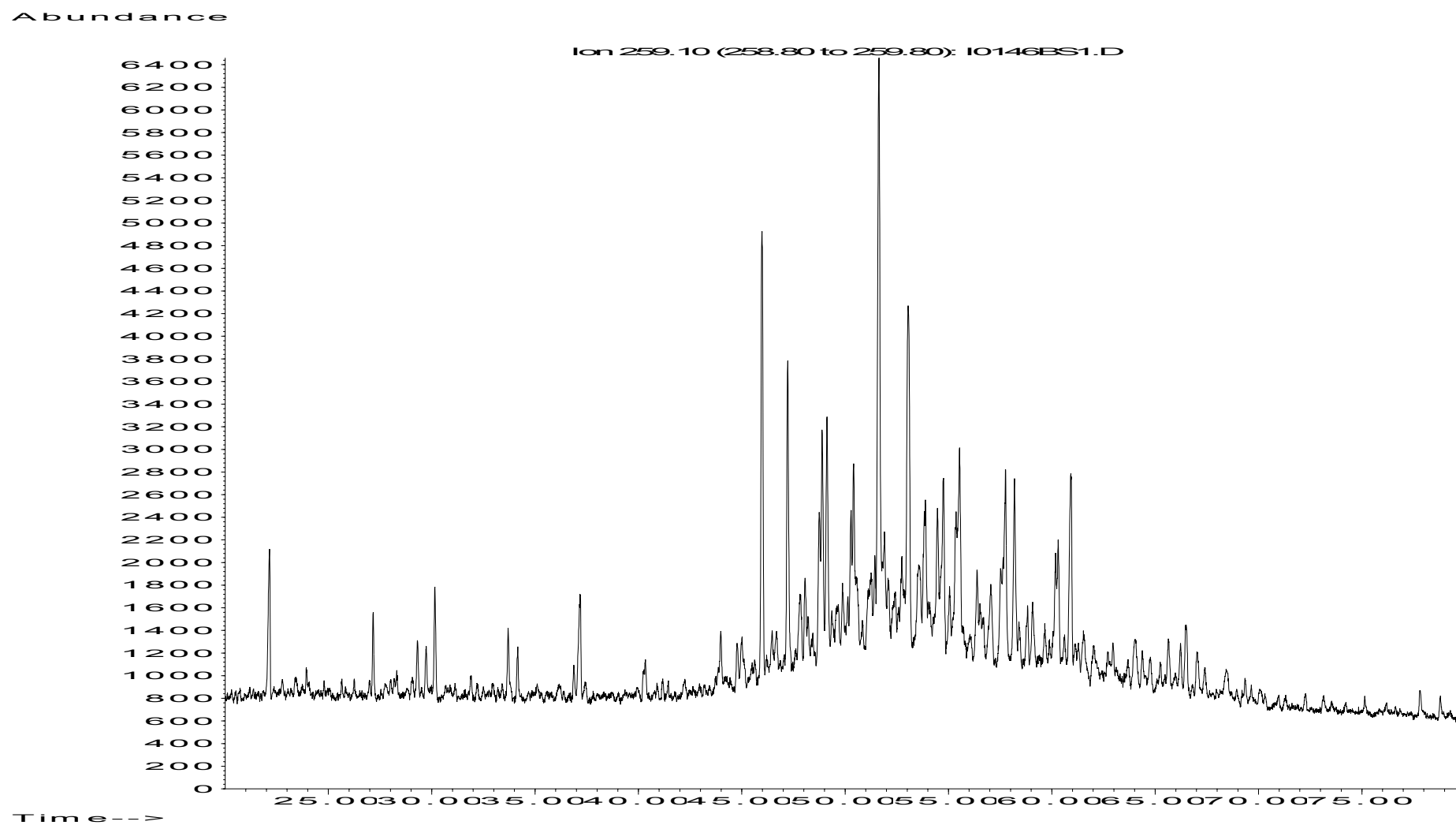
Ion 259.10 (258.80 to 259.80): I0110BS1.D



I0110, 7830/6-U-1, 50.90 - 50.93 m, COCH, Cyst (dkgy, lam), SAT GCMSD

Diasteranes (m/z 259)

- 411 -

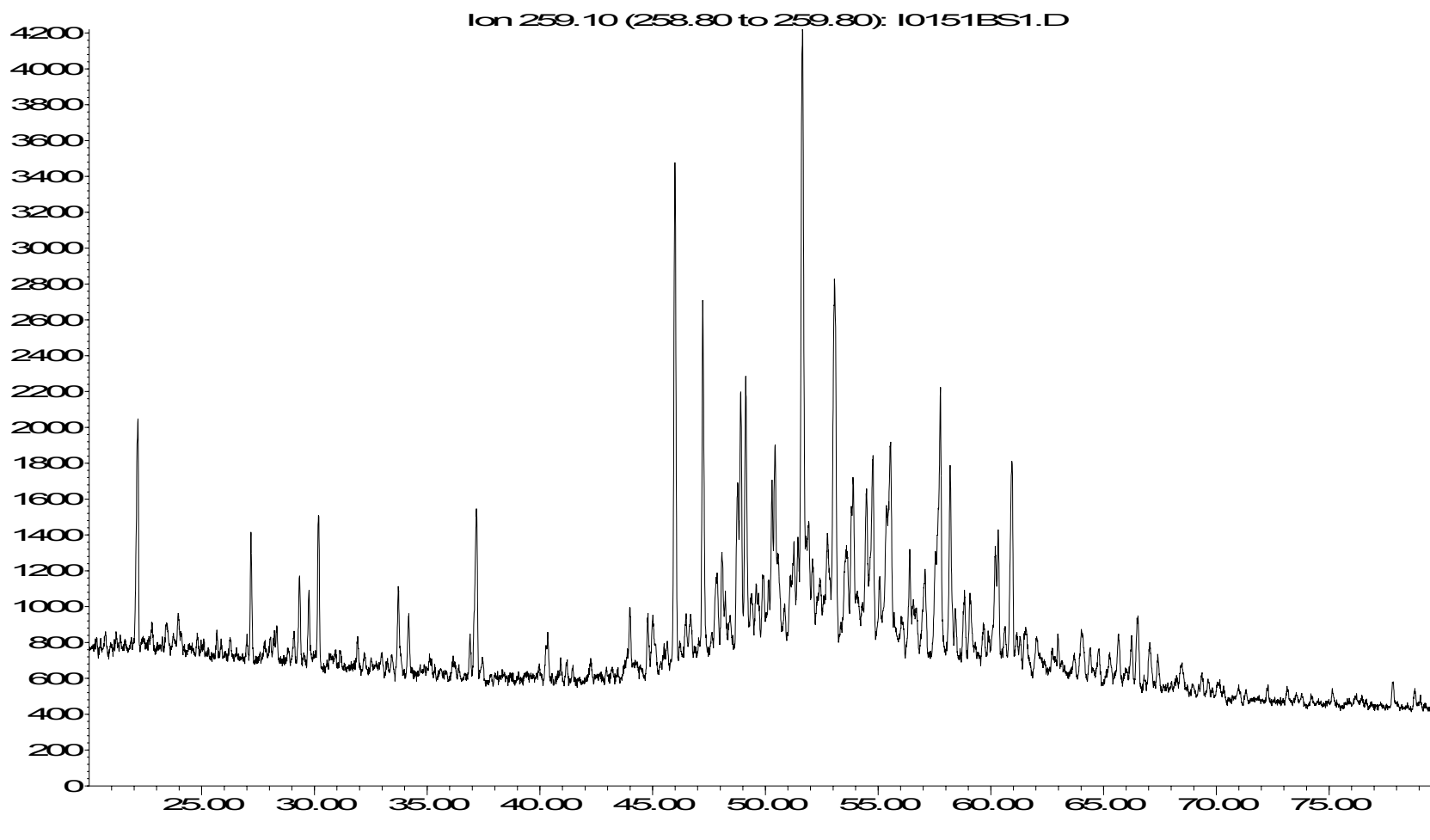


I0146, 7830/3-U-1, 39.94 - 39.99 m, COCH, Sst (mgr, mgy), SAT GCMSD

Diasteranes (m/z 259)

- 412 -

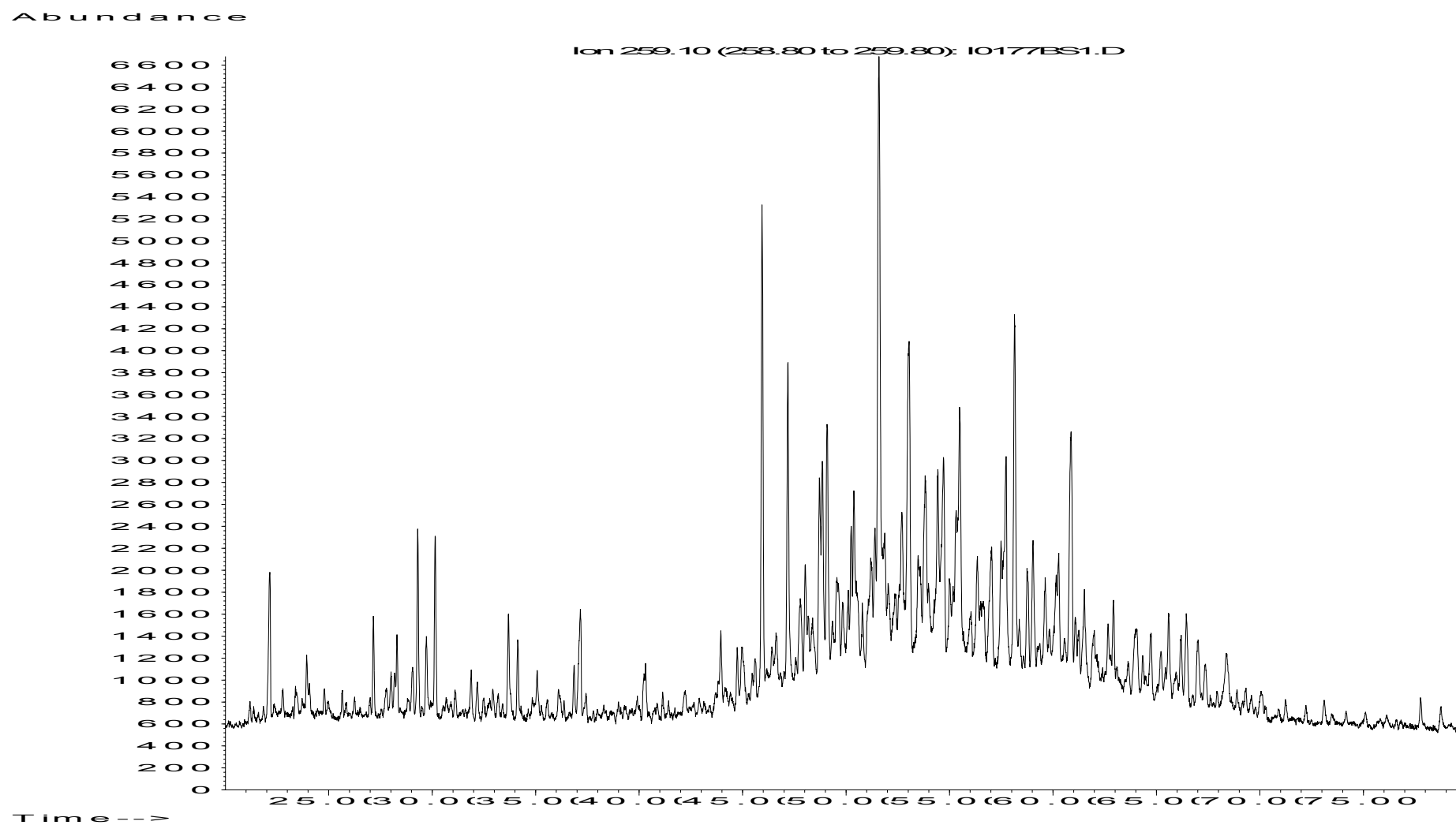
Abundance



I0151, 7830/3-U-1, 51.24 m, COPL, Sst (fgr, mgy), SAT GCMSD

Diasteranes (m/z 259)

- 413 -



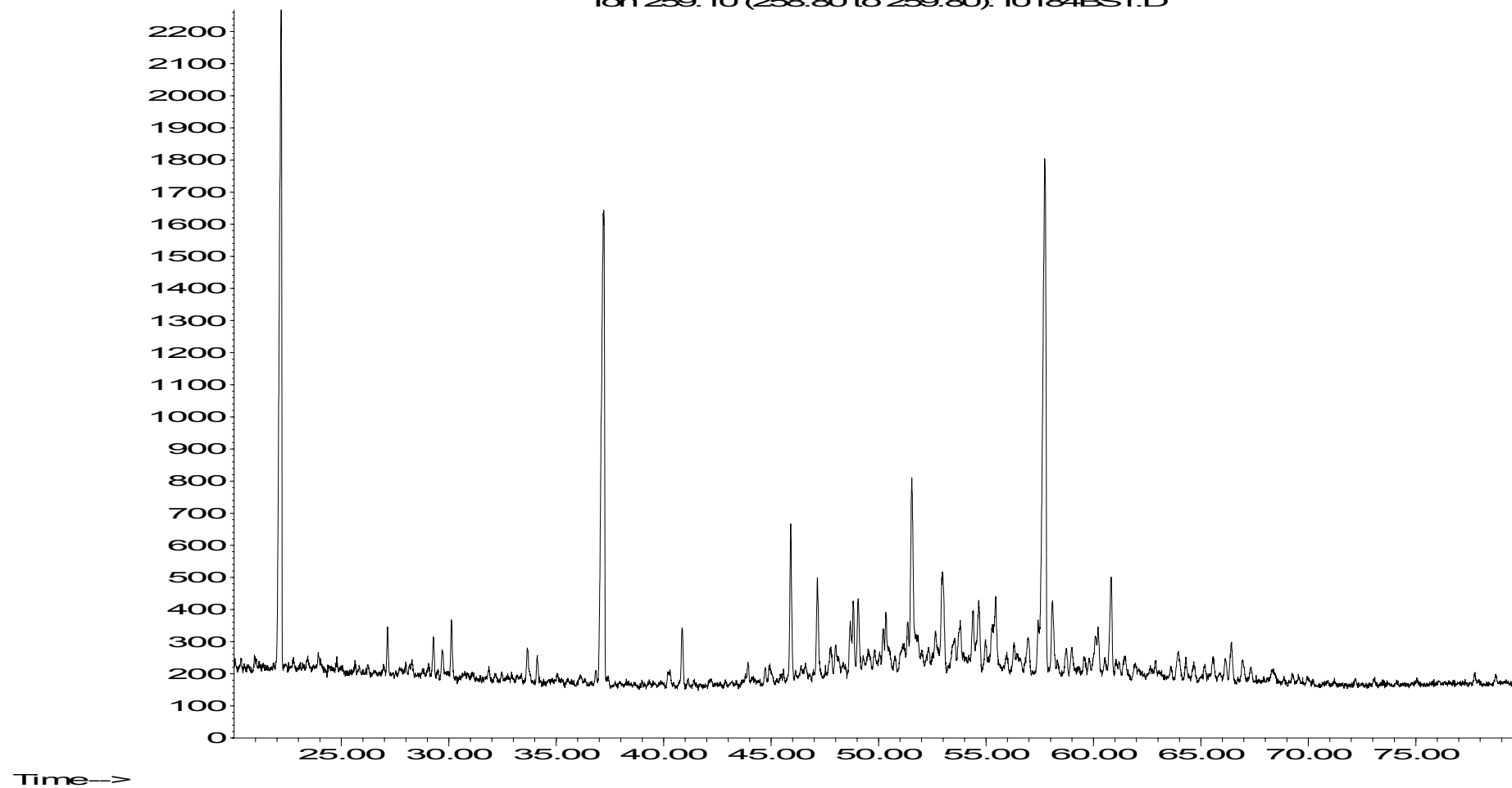
I0177, 7830/3-U-1, 111.69 - 111.75 m, COCH, Sst (fgr, dkgy), SAT GCMSD

Diasteranes (m/z 259)

- 414 -

Abundance

Ion 259.10 (258.80 to 259.80): I0184BS1.D



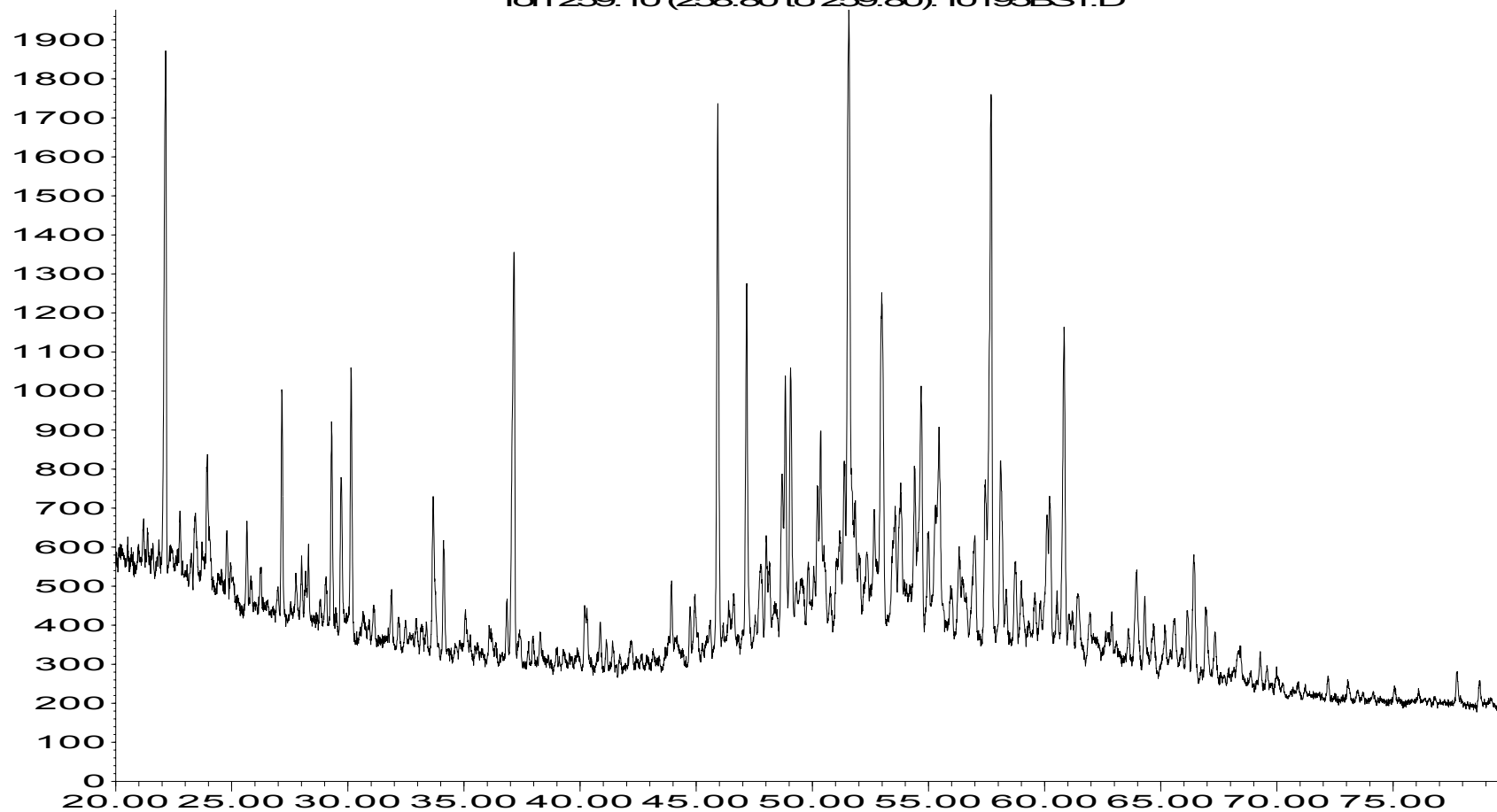
I0184, 7830/3-U-1, 124.63 m, COPL, Sst (fgr, Itgy), SAT GCMSD

Diasteranes (m/z 259)

- 415 -

Abundance

Ion 259.10 (258.80 to 259.80): I0195BS1.D



Time-->

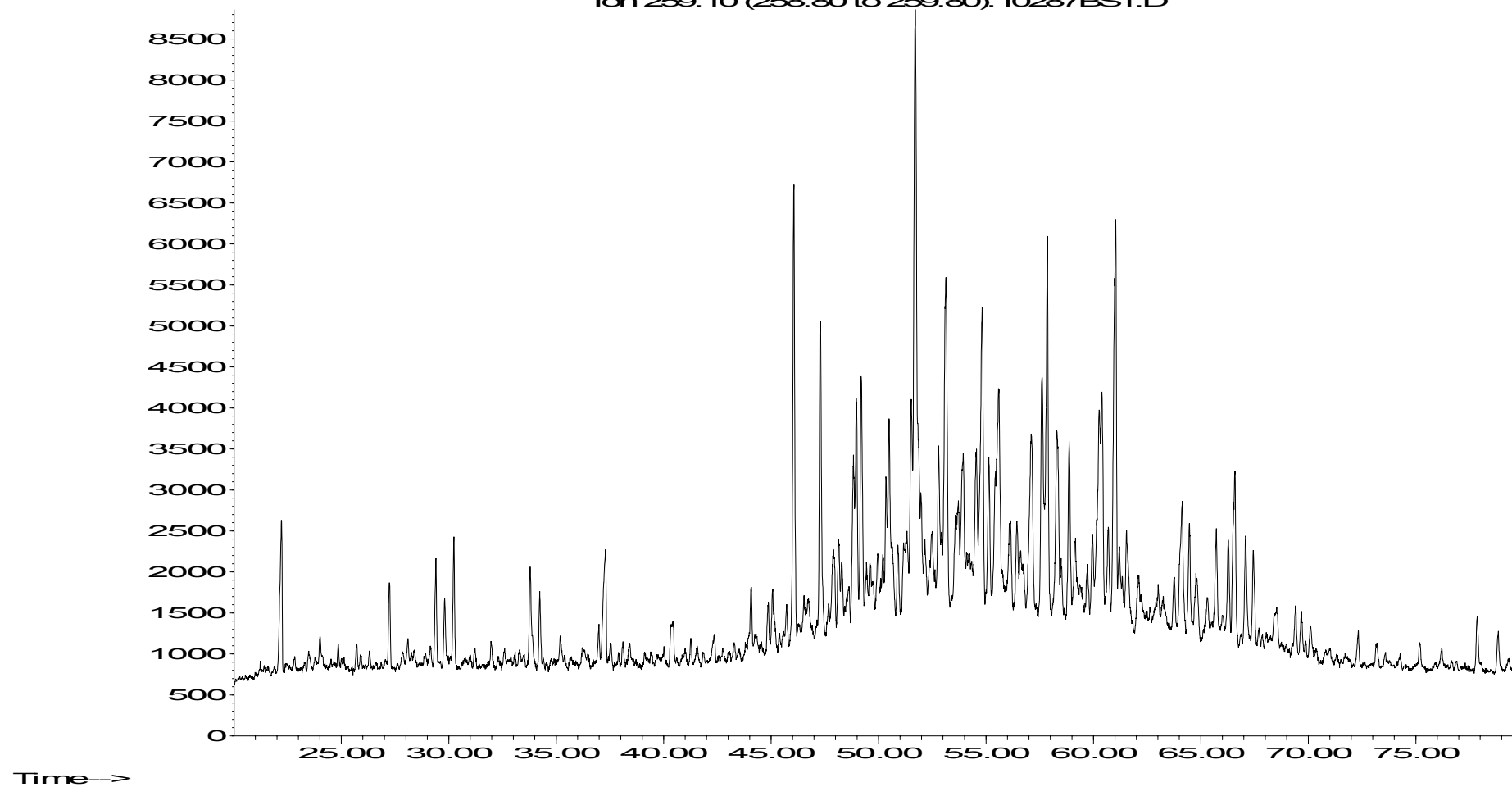
I0195, 7830/3-U-1, 154.81 - 154.88 m, COCH, Clyst (sl slty, ltgy), SAT GCMSD

Diasteranes (m/z 259)

- 416 -

Abundance

Ion 259.10 (258.80 to 259.80): I0287BS1.D



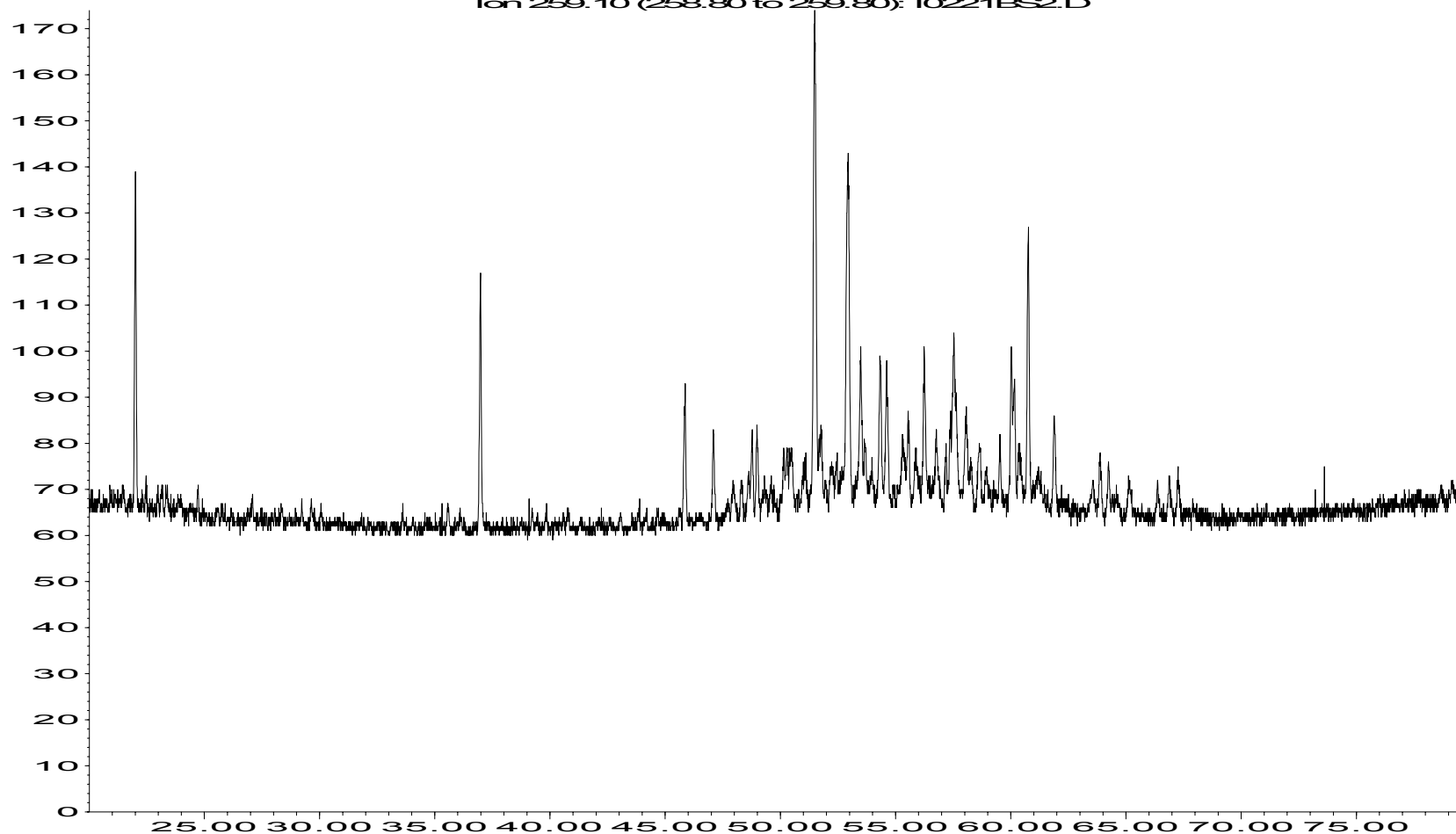
I0287, 7830/3-U-1, 174.13 - 174.15 m, COCH, Sst (fgr, mgy), SAT GCMSD

Diasteranes (m/z 259)

- 417 -

Abundance

Ion 259.10 (258.80 to 259.80): I0221BS2.D

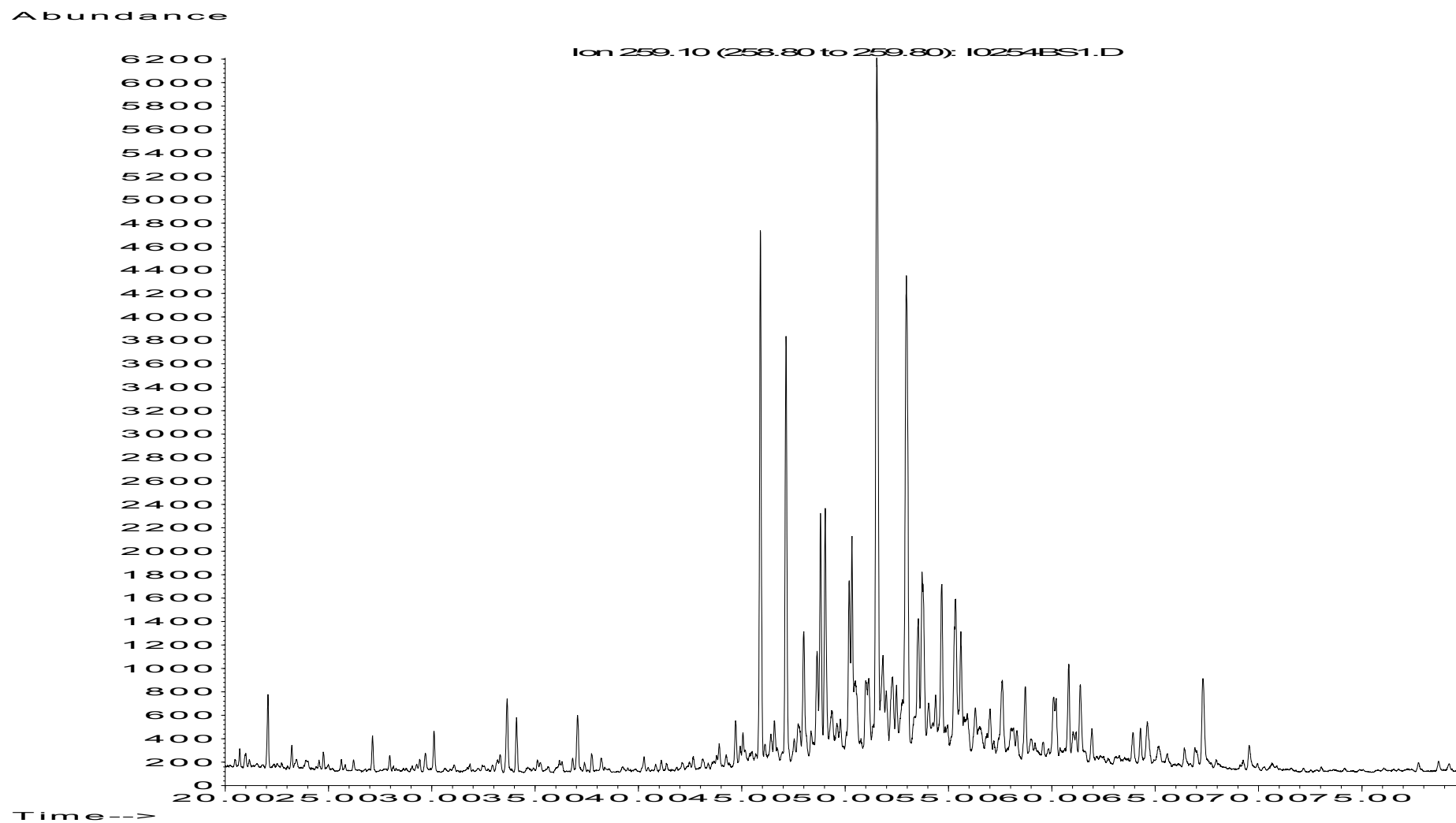


Time-->

I0221, 7830/5-U-1, 58.90 - 58.97 m, COCH, Cylst (sl slty, lam, dkgy), SAT GCMSD

Diasteranes (m/z 259)

- 418 -



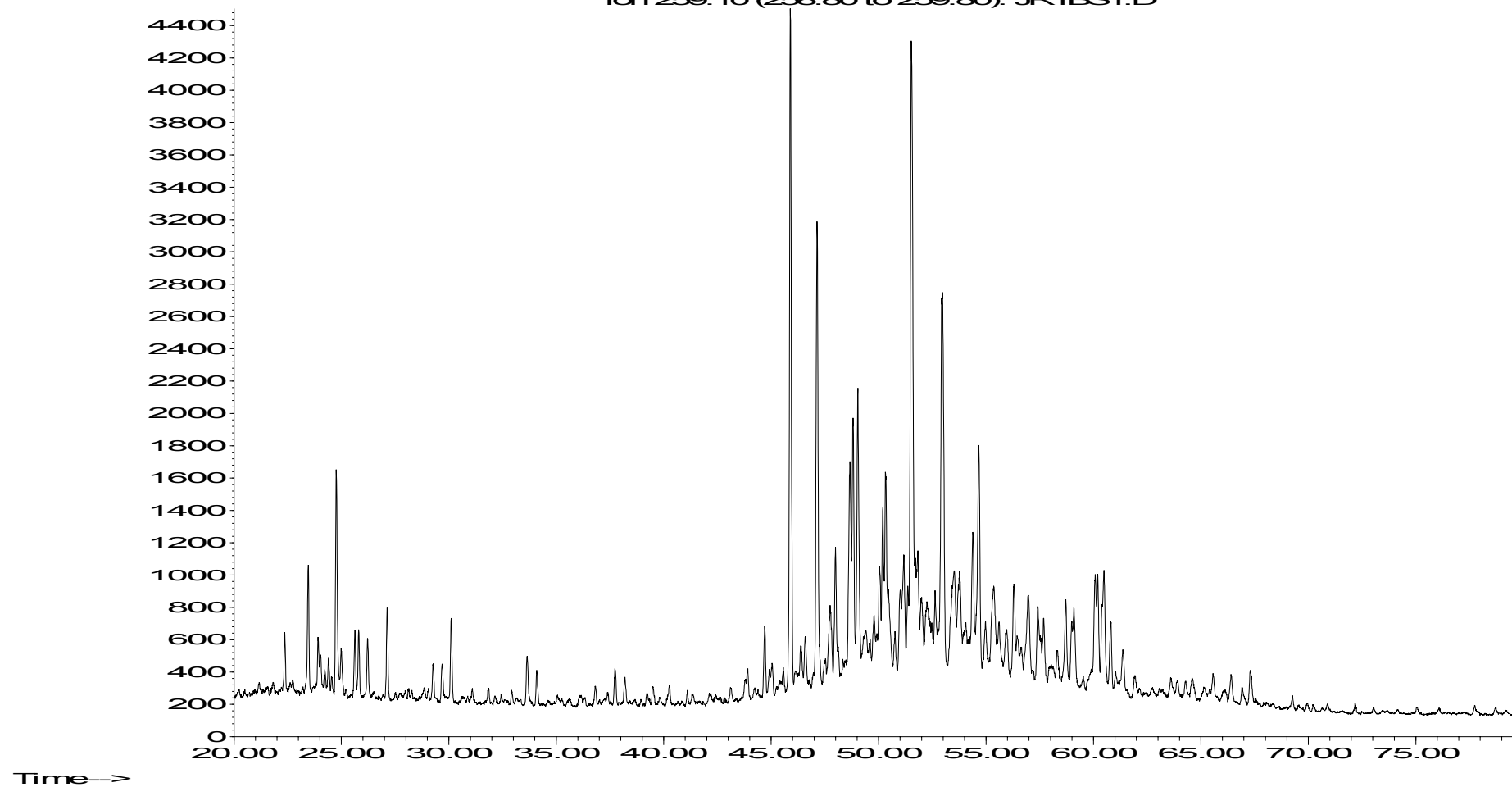
I0254, 7830/5-U-1, 128.62 - 128.68 m, COCH, Clyst (vdkgy, lam), SAT GCMSD

Diasteranes (m/z 259)

- 419 -

Abundance

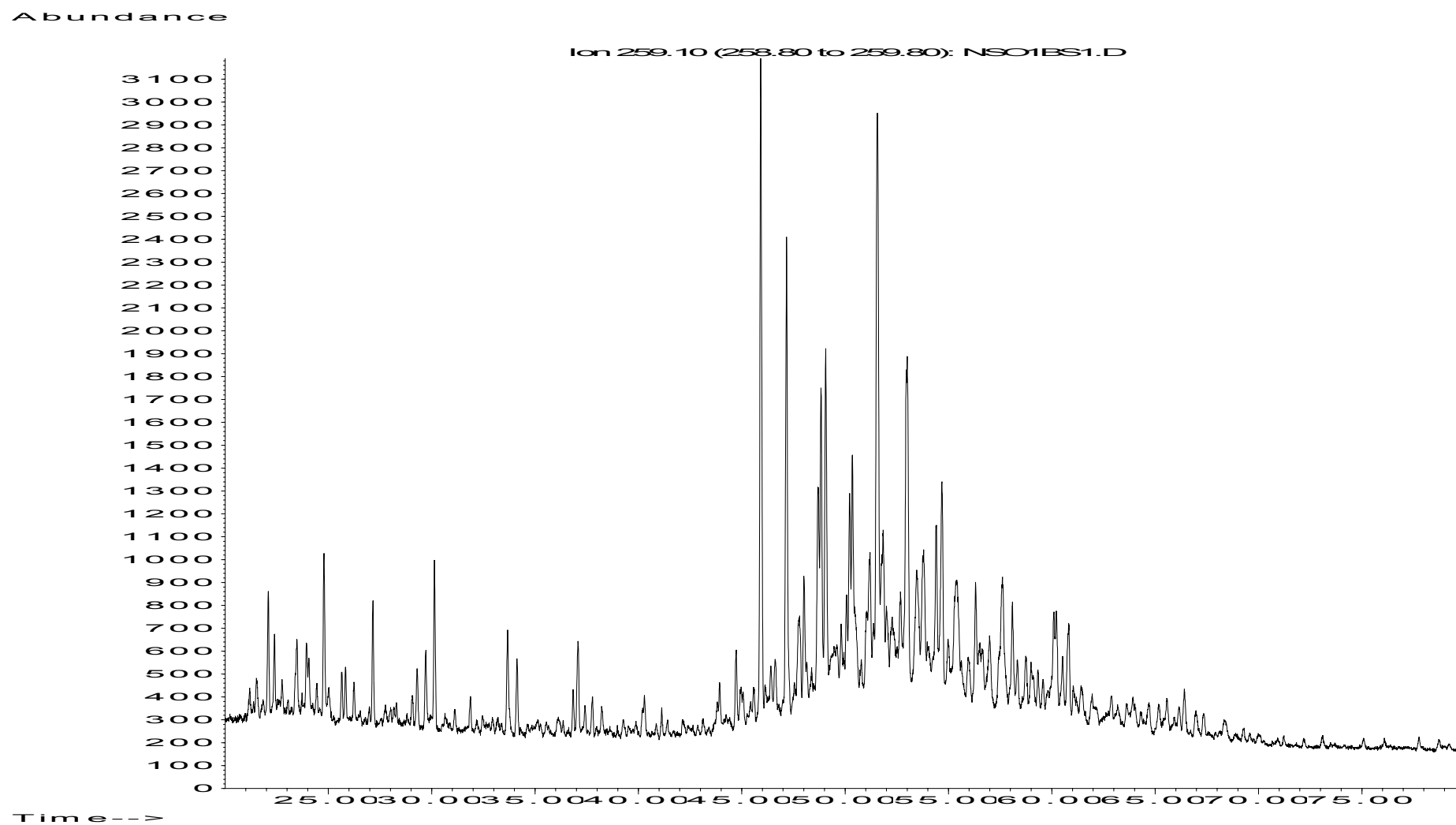
Ion 259.10 (258.80 to 259.80): JR1BS1.D



JR-1, NGS reference sample, SAT GCMSD

Diasteranes (m/z 259)

- 420 -

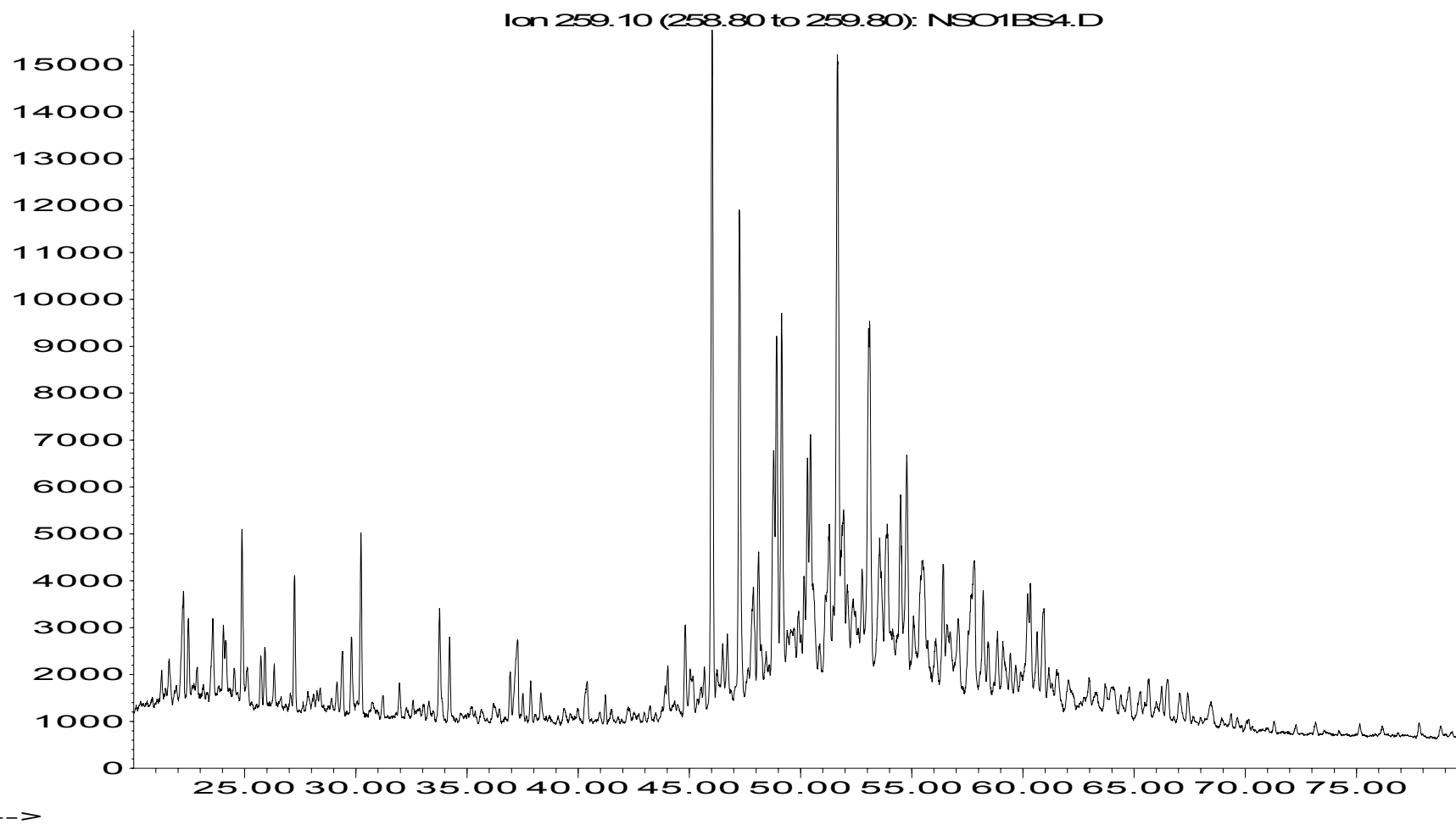


NSO-1, #0, NGS reference oil, SAT GCMSD

Diasteranes (m/z 259)

- 421 -

Abundance



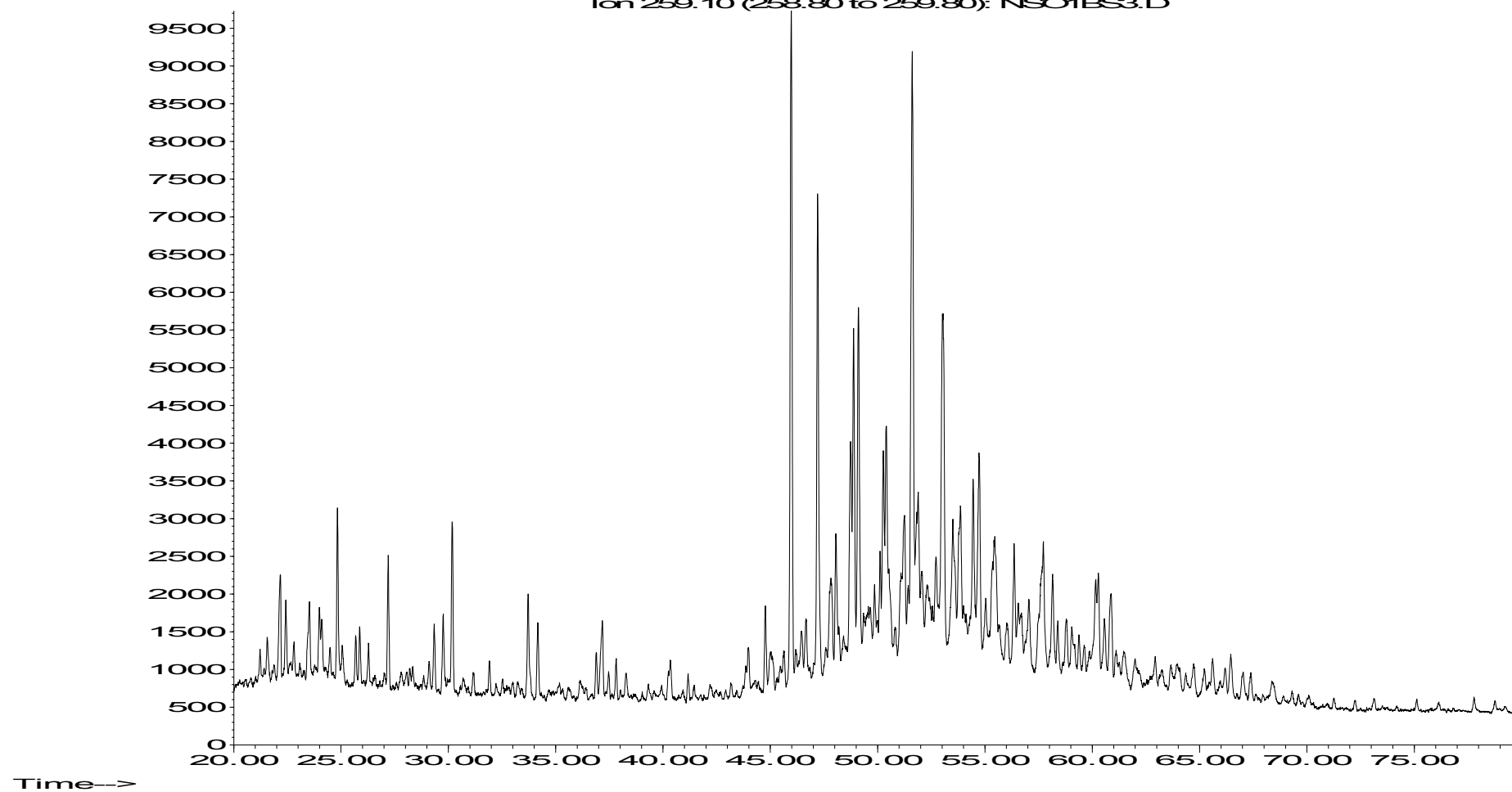
NSO-1, #1, NGS reference oil, SAT GCMSD

Diasteranes (m/z 259)

- 422 -

Abundance

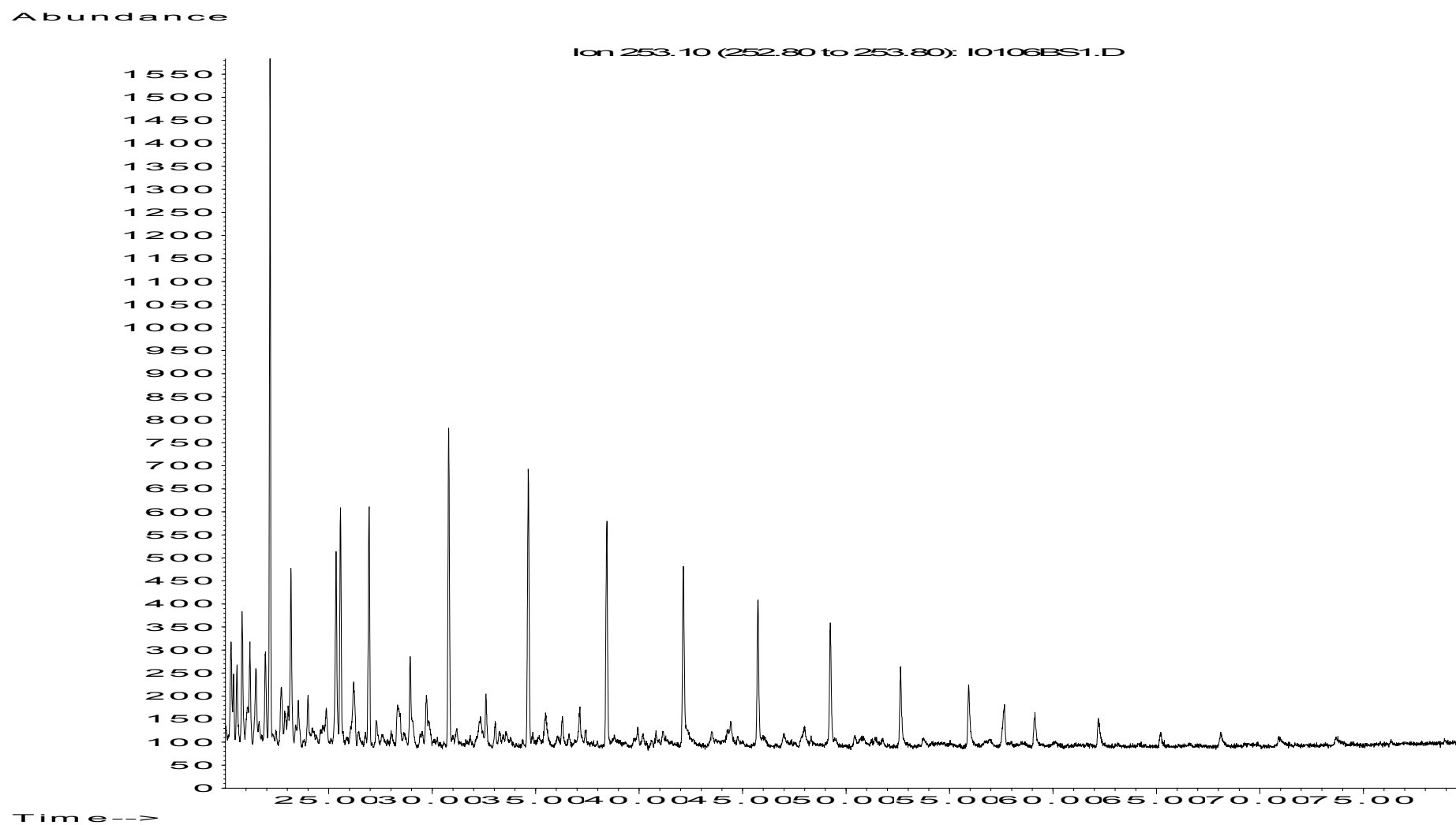
Ion 259.10 (258.80 to 259.80): NSO1BS3.D



NSO-1, #2, NGS reference oil, SAT GCMSD

Diasteranes (m/z 259)

- 423 -



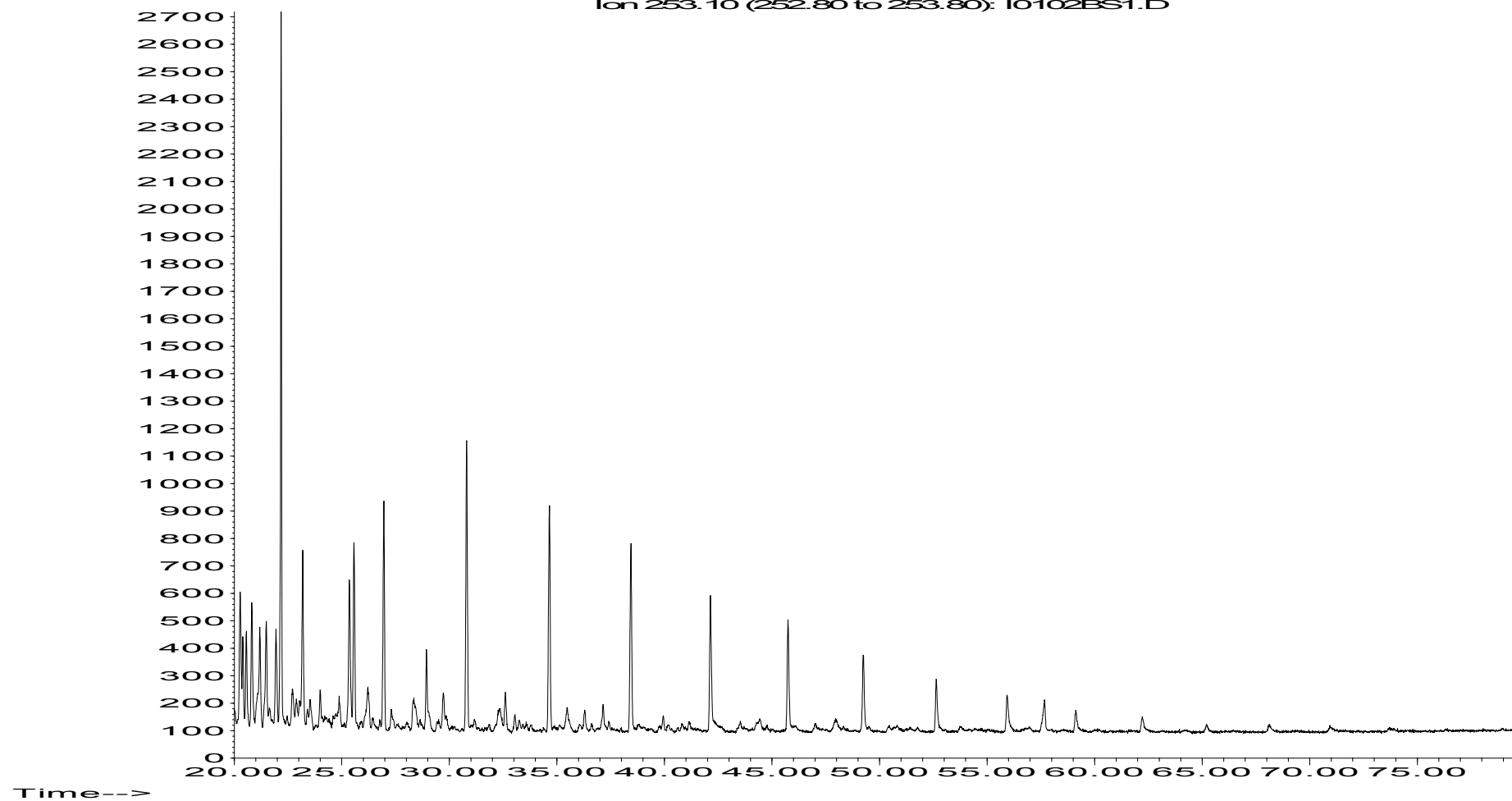
I0106, 7831/2-U-2, 6.78 - 6.83 m, COCH, Clyst (slty, dkgy), SAT GCMSD

Test for absence of monoaromatic steroids (m/z 253)

- 424 -

Abundance

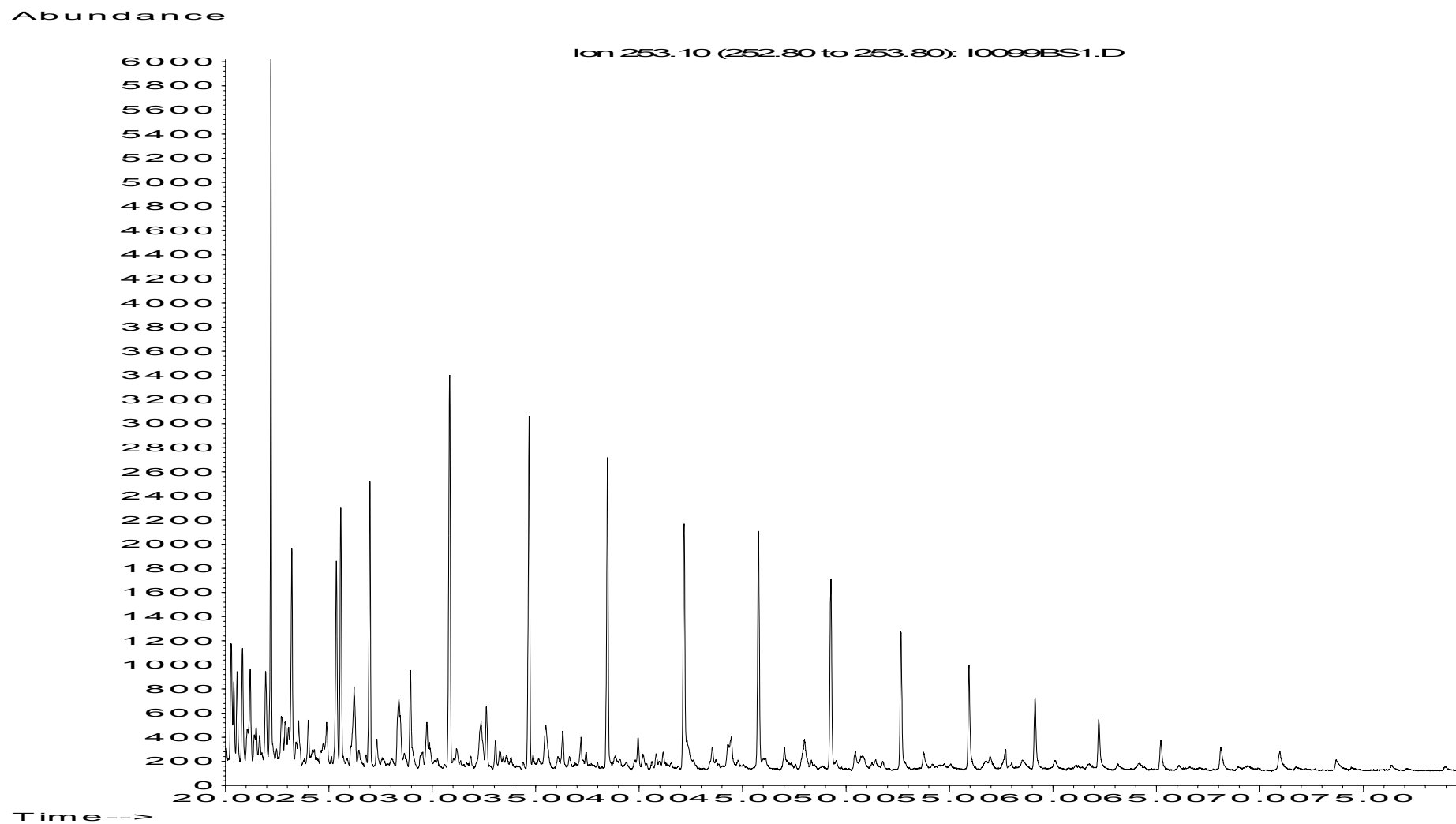
Ion 253.10 (252.80 to 253.80): I0102BS1.D



I0102, 7831/2-U-2, 10.23 - 10.28 m, COCH, Cyst (sly, mgy), SAT GCMSD

Test for absence of monoaromatic steroids (m/z 253)

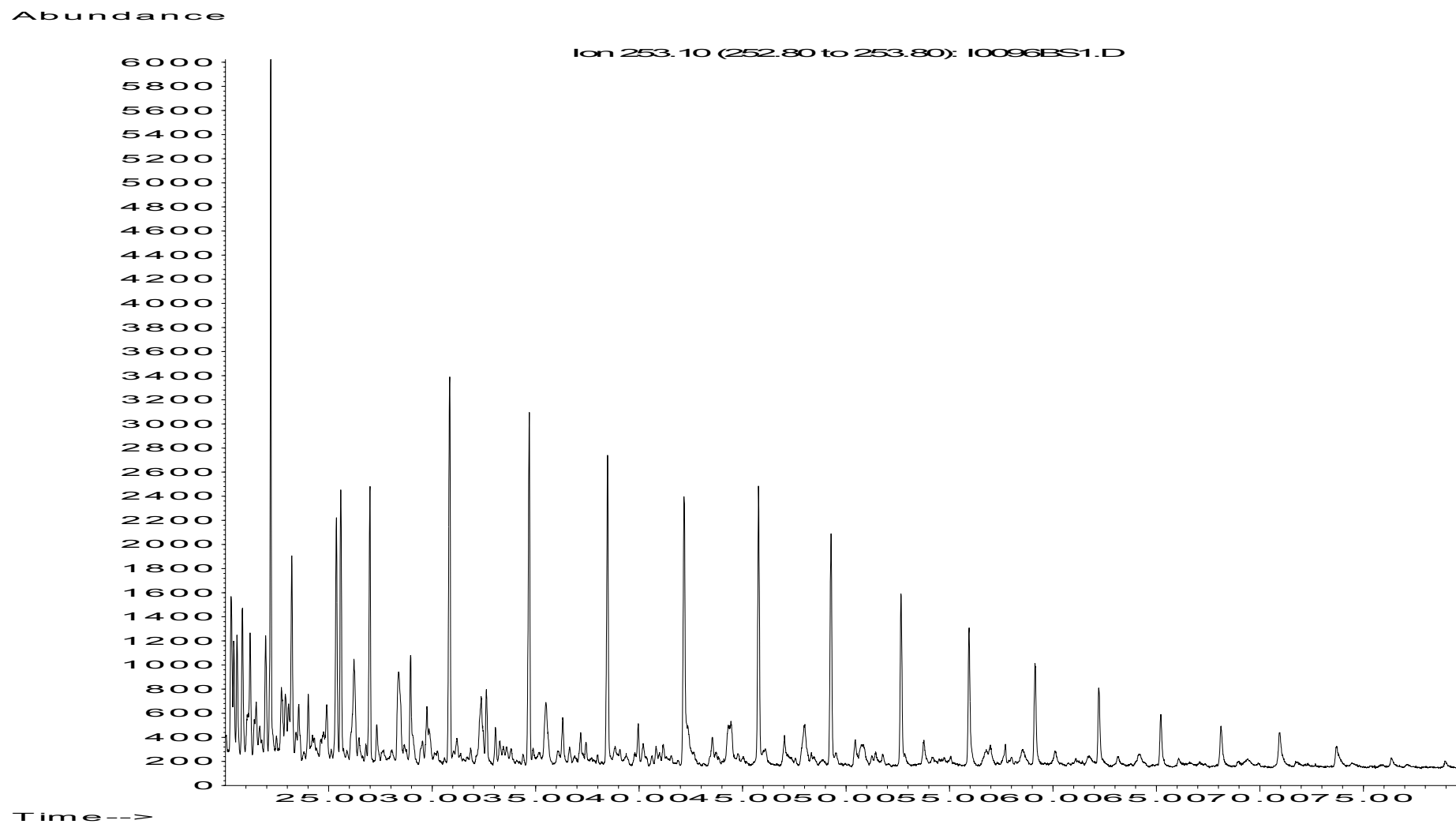
- 425 -



I0099, 7831/2-U-2, 14.48 - 14.53 m, COCH, Cyst (slty, dkgy), SAT GCMSD

Test for absence of monoaromatic steroids (m/z 253)

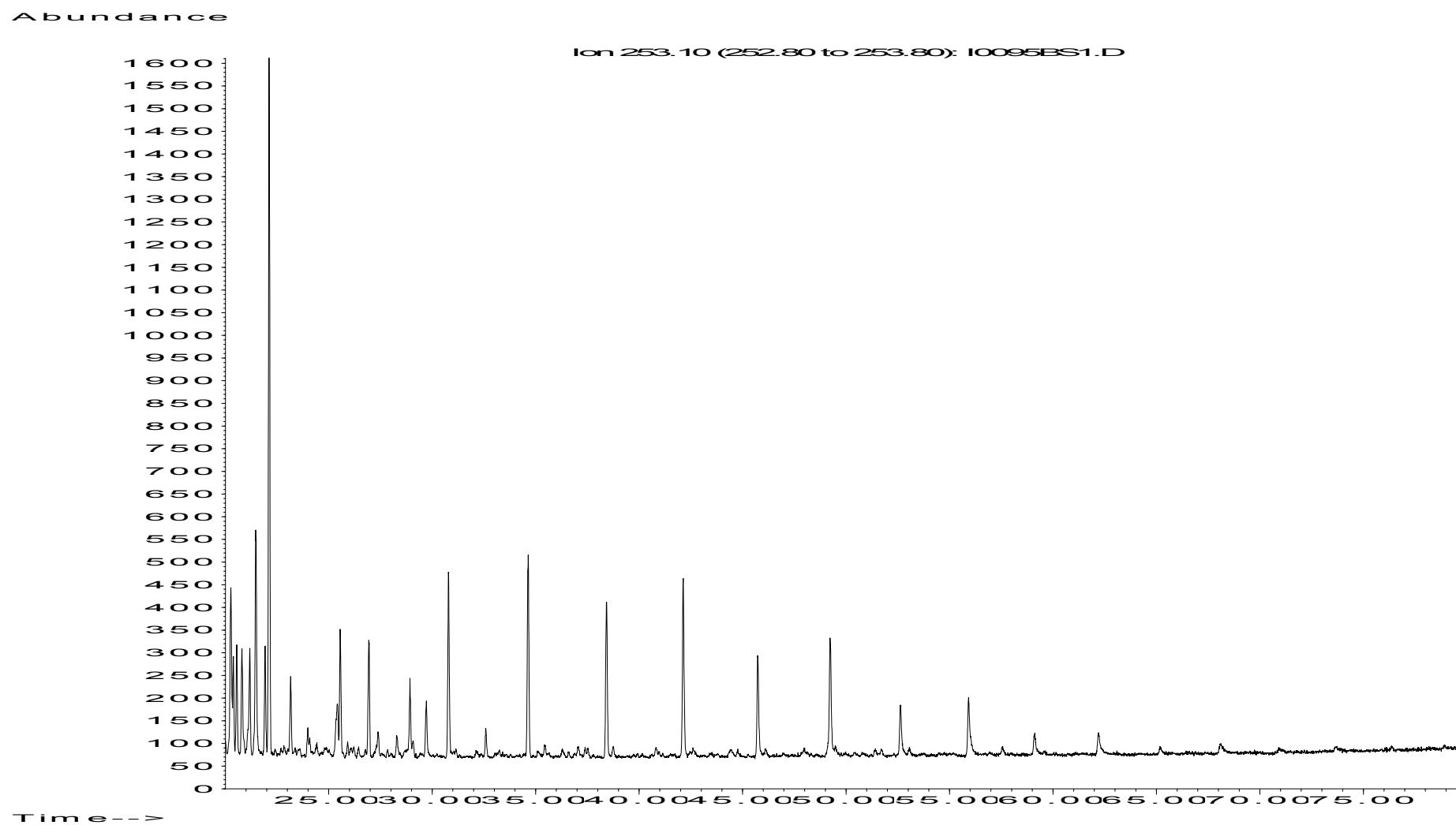
- 426 -



I0096, 7831/2-U-2, 17.83 - 17.87 m, COCH, Cyst (slty, dkgy), SAT GCMSD

Test for absence of monoaromatic steroids (m/z 253)

- 427 -



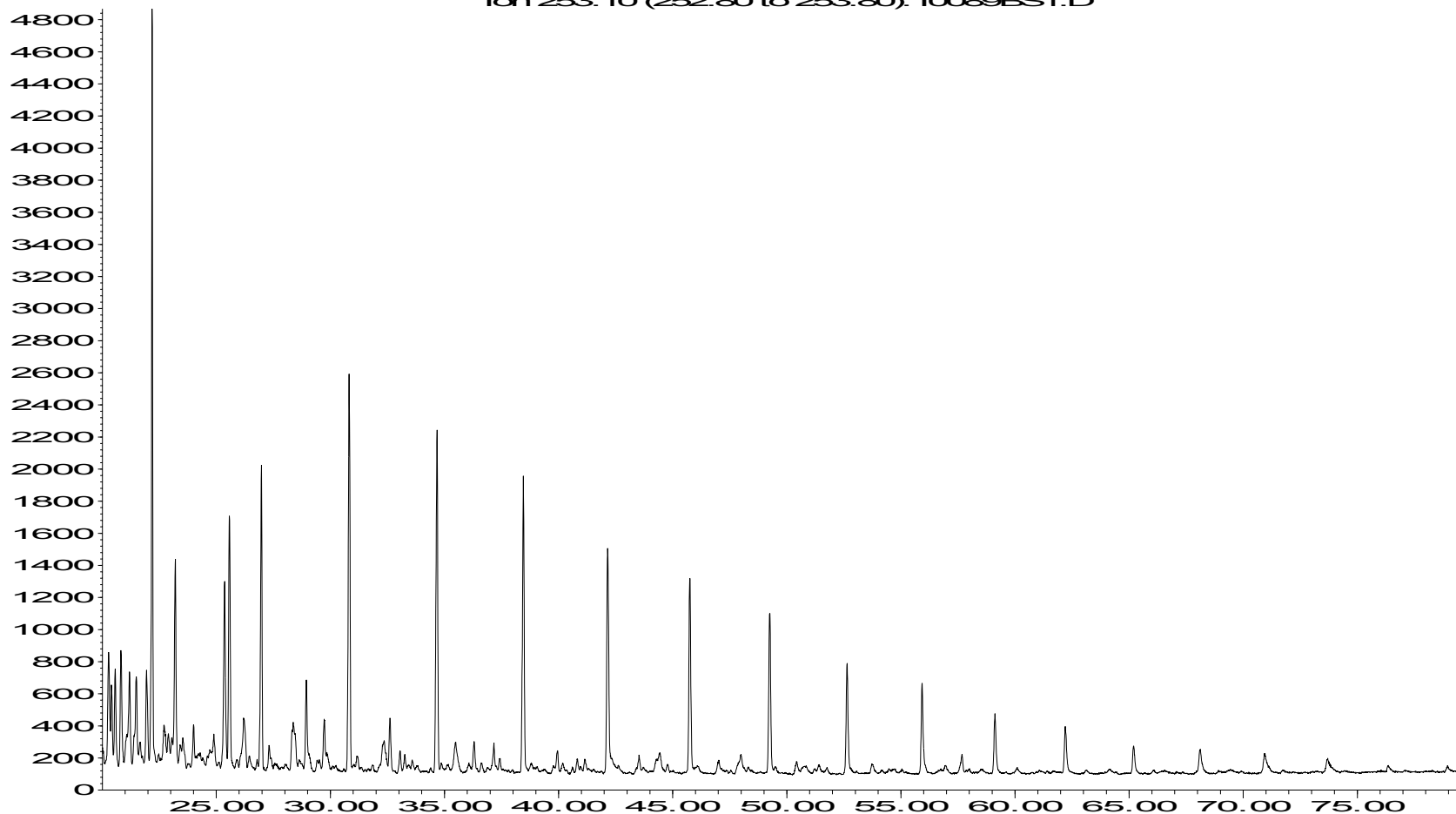
I0095, 7831/2-U-2, 18.72 - 18.85 m, COCH, Cyst (slty, dkgy), SAT GCMSD

Test for absence of monoaromatic steroids (m/z 253)

- 428 -

Abundance

Ion 253.10 (252.80 to 253.80): I0089BS1.D



Time-->

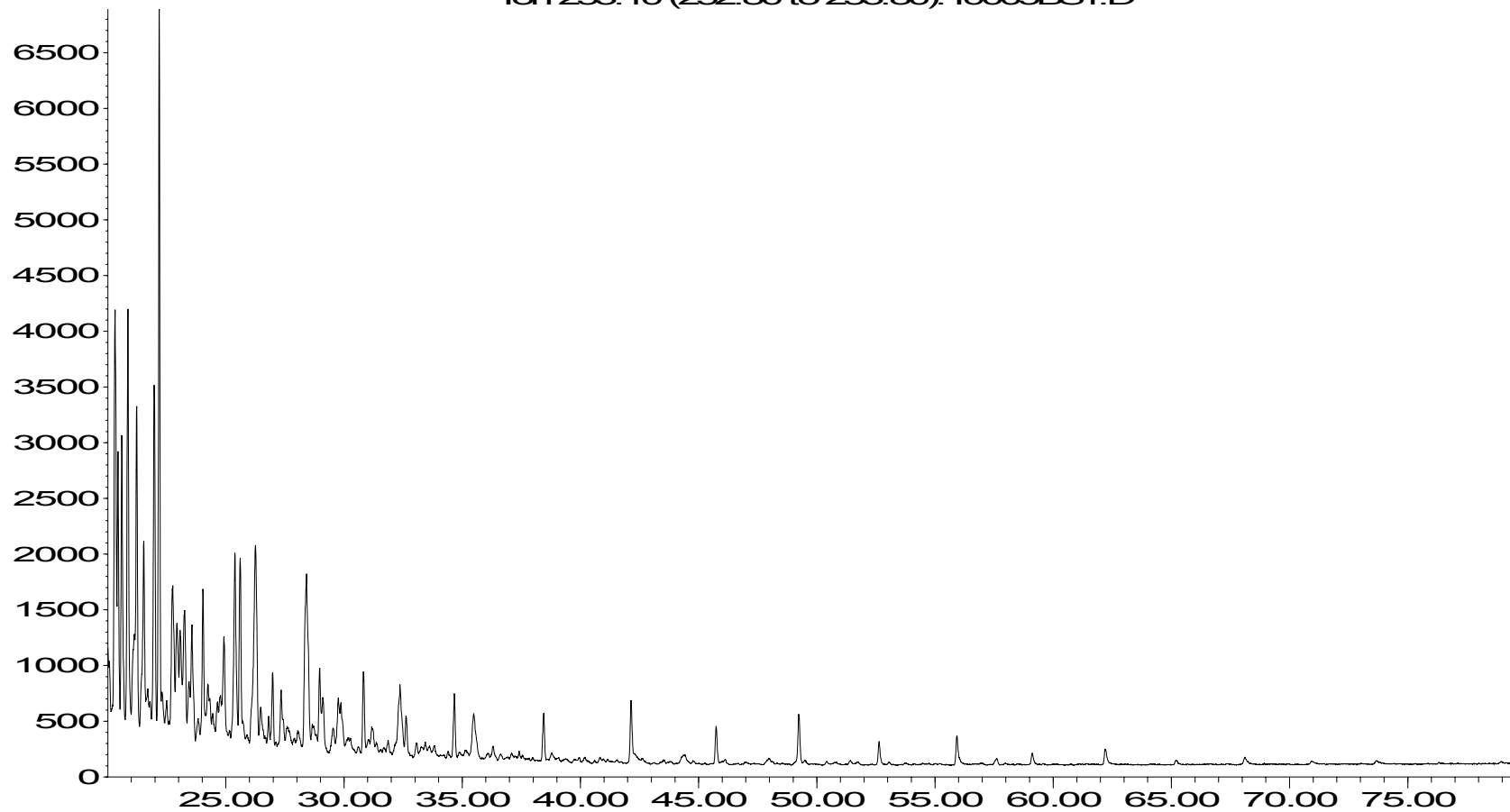
I0089, 7831/2-U-1, 21.72 - 21.76 m, COCH, Cyst (dkgy), SAT GCMSD

Test for absence of monoaromatic steroids (m/z 253)

- 429 -

Abundance

Ion 253.10 (252.80 to 253.80): I0005BS1.D



Time-->

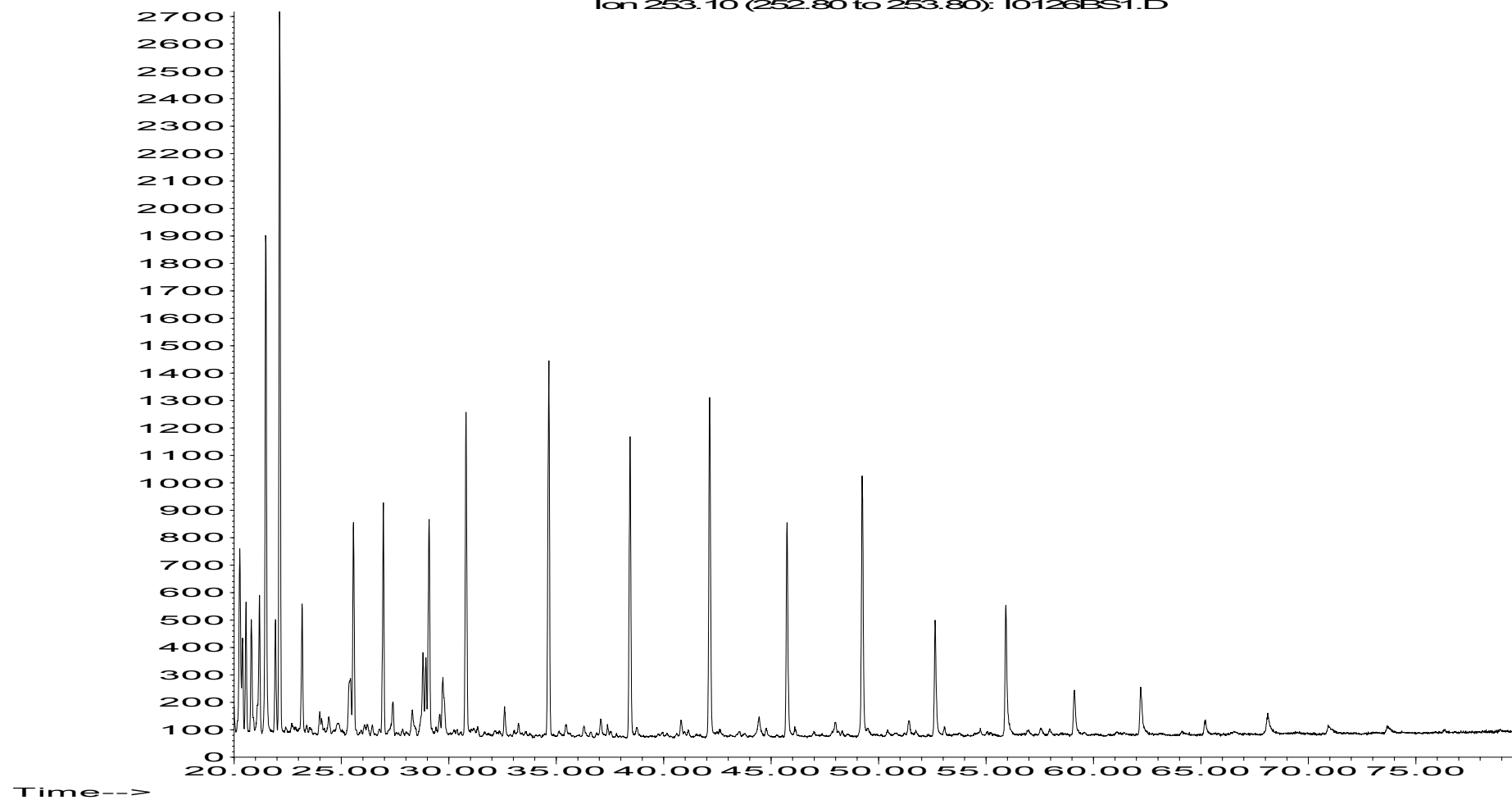
I0005, 7830/6-U-1, 12.85 - 12.88 m, COCH, Slst, SAT GCMSD

Test for absence of monoaromatic steroids (m/z 253)

- 430 -

Abundance

Ion 253.10 (252.80 to 253.80): I0126BS1.D



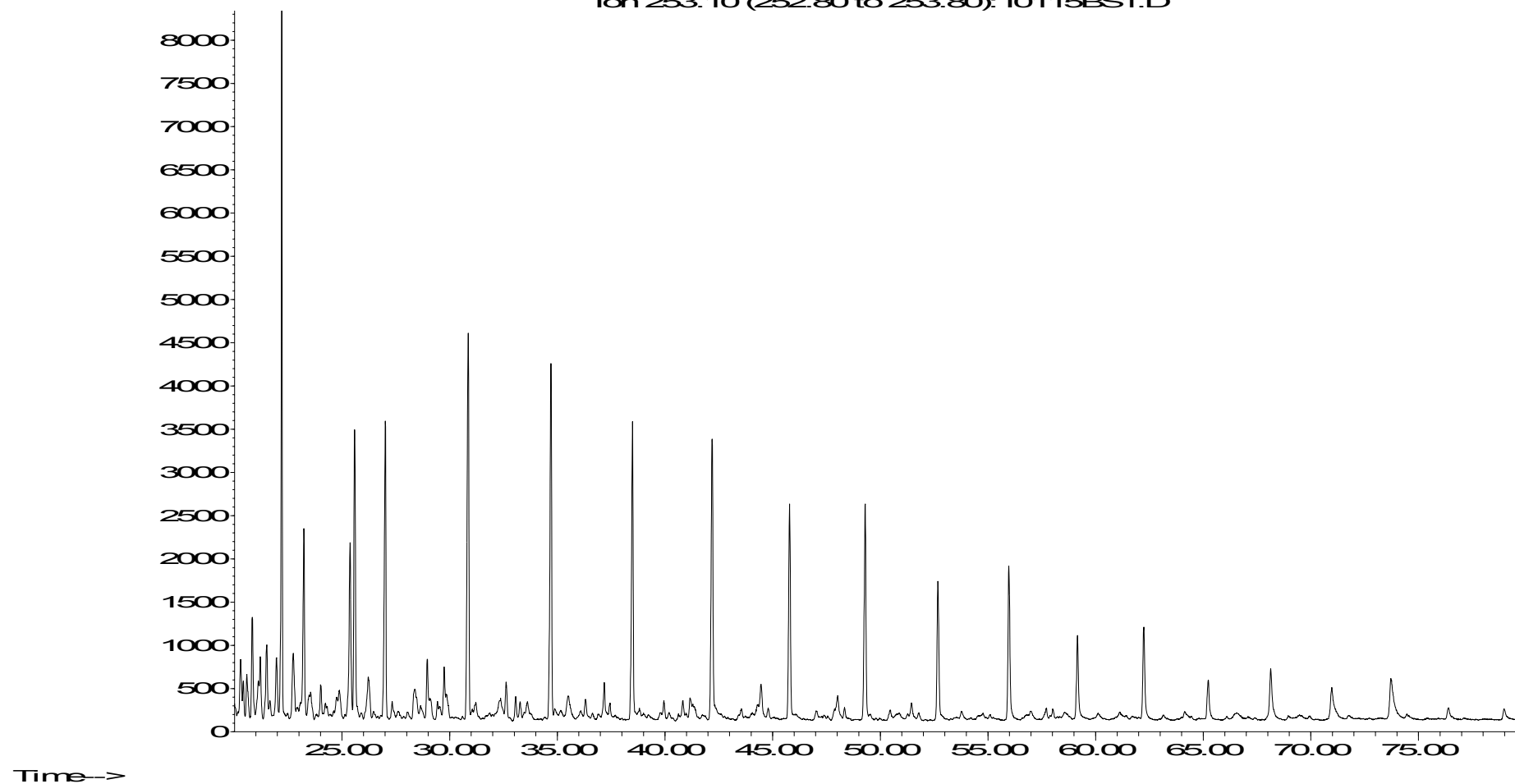
I0126, 7830/6-U-1, 20.03 - 20.10 m, COCH, Cyst (sly, lam, dkgy), SAT GCMSD

Test for absence of monoaromatic steroids (m/z 253)

- 431 -

Abundance

Ion 253.10 (252.80 to 253.80): I0115BS1.D



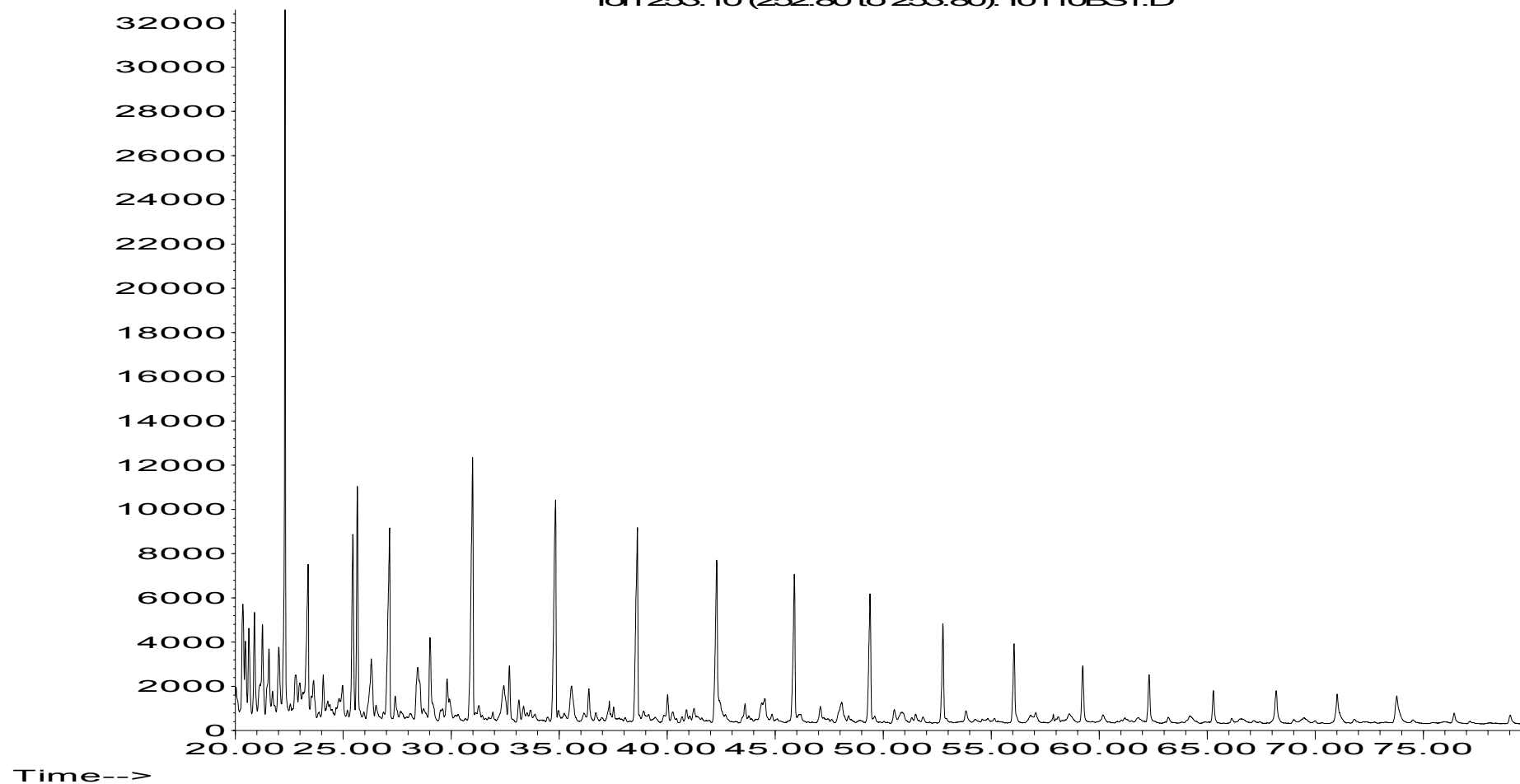
I0115, 7830/6-U-1, 41.85 - 41.89 m, COCH, Clyst (dkgy, lam), SAT GCMSD

Test for absence of monoaromatic steroids (m/z 253)

- 432 -

Abundance

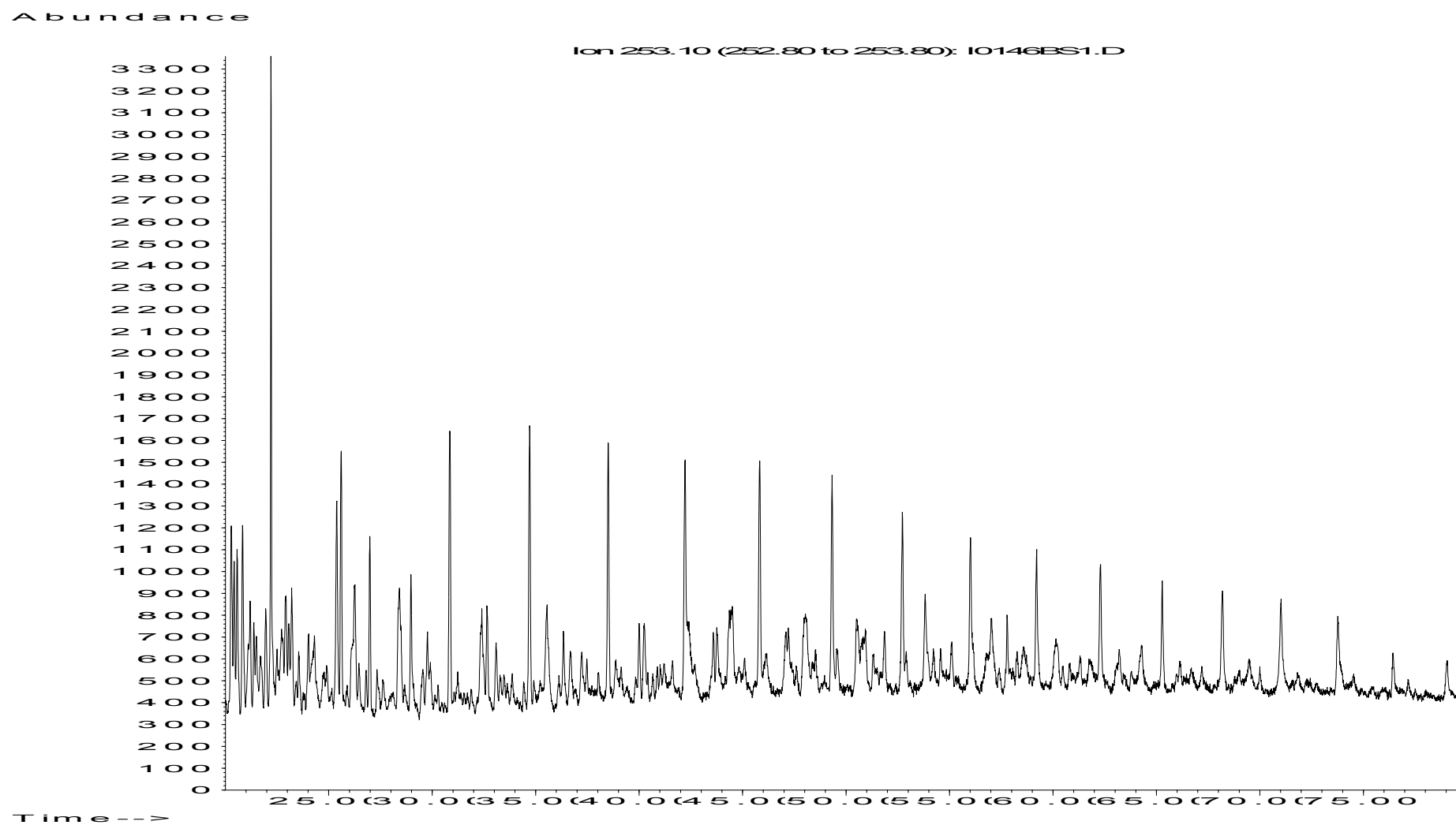
Ion 253.10 (252.80 to 253.80): I0110BS1.D



I0110, 7830/6-U-1, 50.90 - 50.93 m, COCH, Clyst (dkgy, lam), SAT GCMSD

Test for absence of monoaromatic steroids (m/z 253)

- 433 -



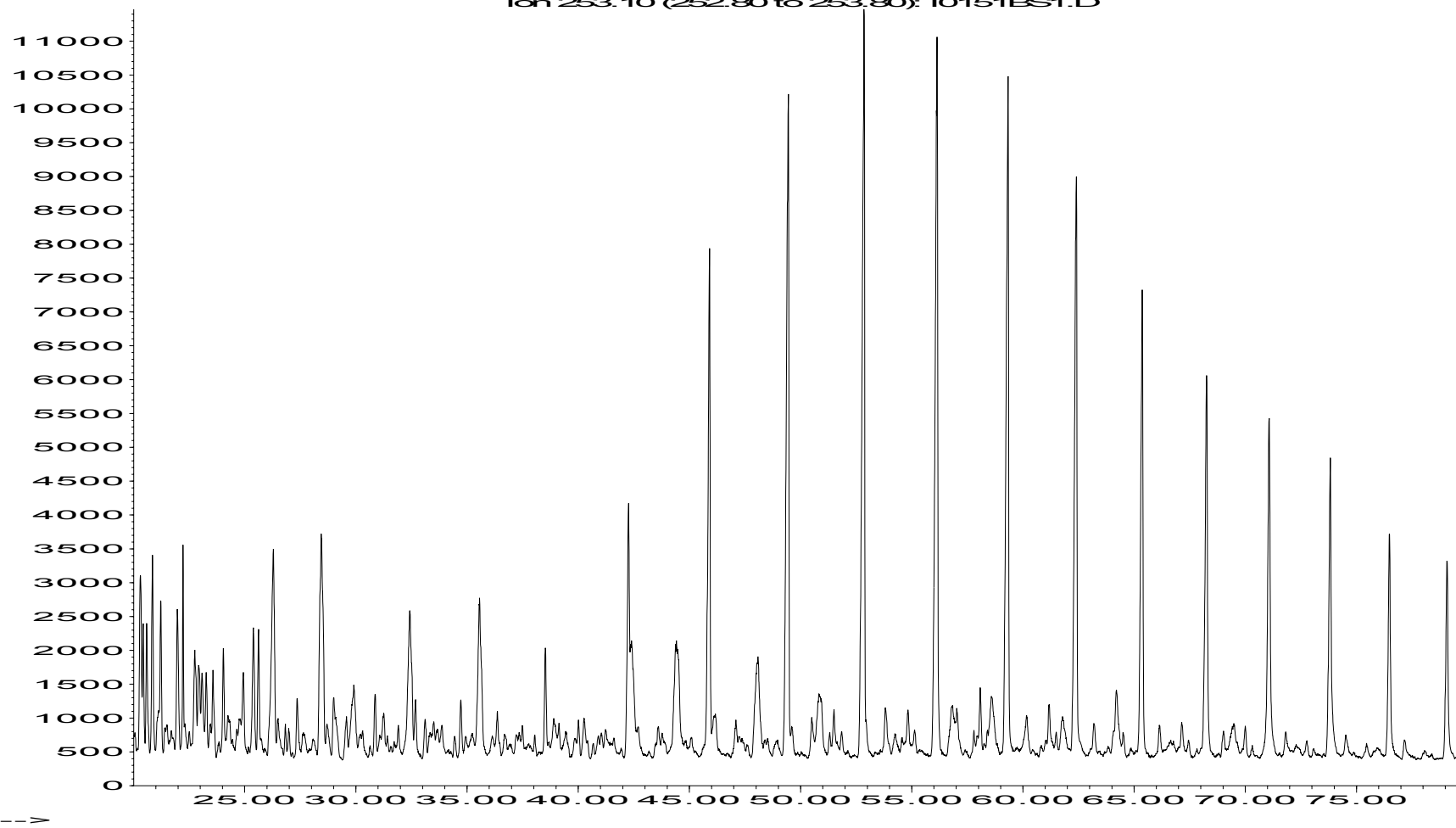
I0146, 7830/3-U-1, 39.94 - 39.99 m, COCH, Sst (mgr, mgy), SAT GCMSD

Test for absence of monoaromatic steroids (m/z 253)

- 434 -

Abundance

Ion 253.10 (252.80 to 253.80): I0151BS1.D



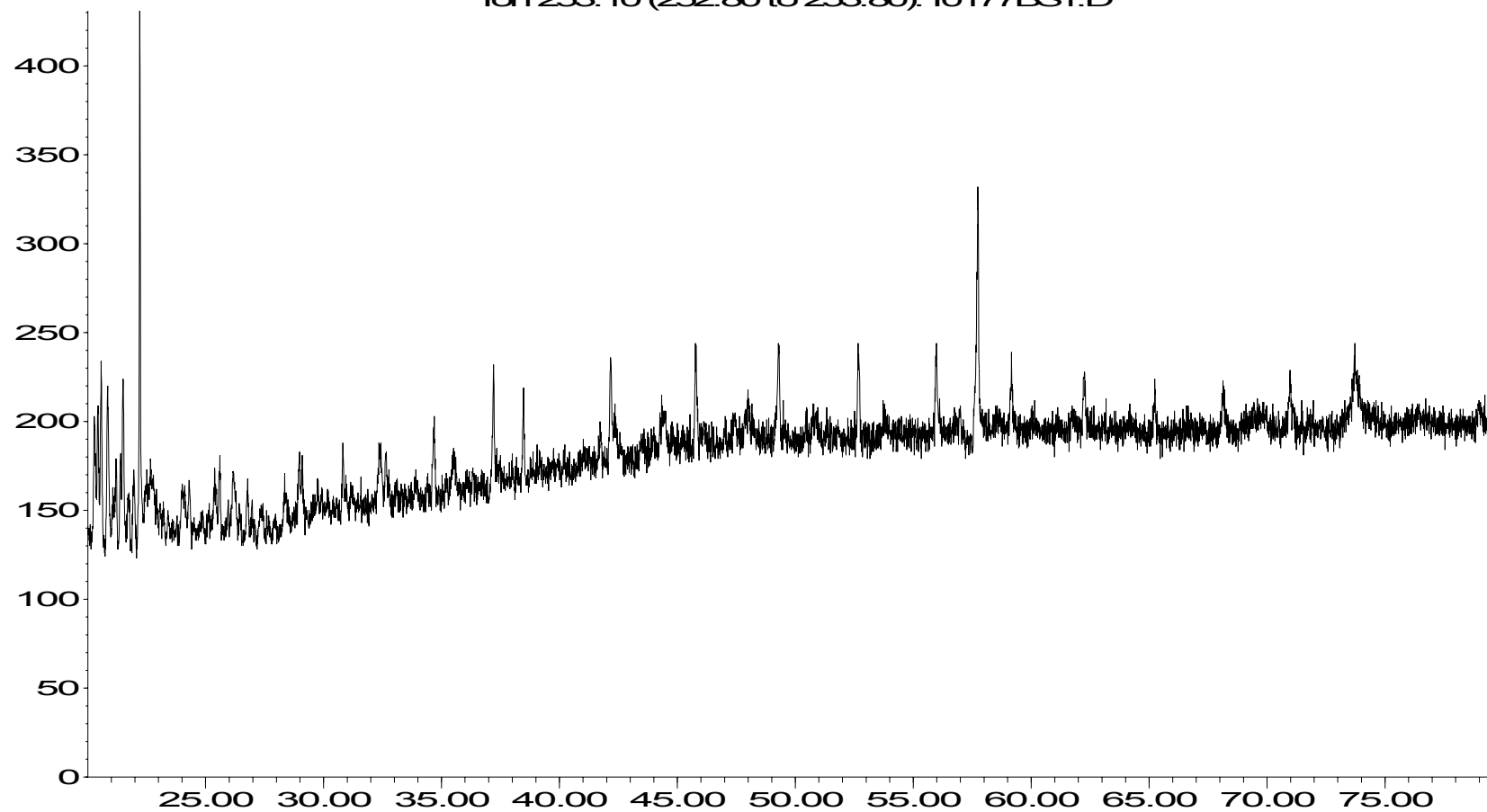
I0151, 7830/3-U-1, 51.24 m, COPL, Sst (fgr, mgy), SAT GCMSD

Test for absence of monoaromatic steroids (m/z 253)

- 435 -

Abundance

Ion 253.10 (252.80 to 253.80): I0177BS1.D

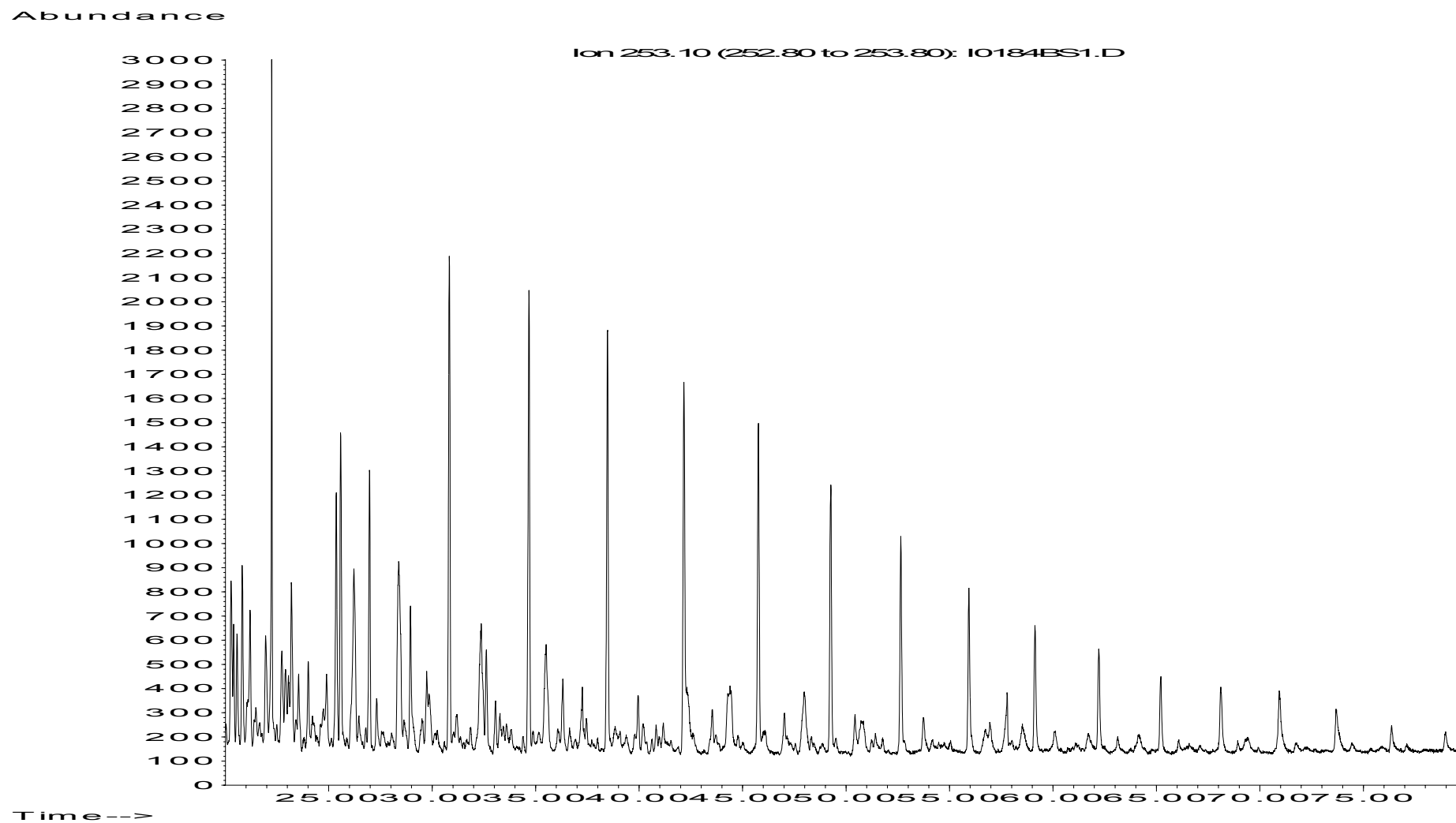


Time-->

I0177, 7830/3-U-1, 111.69 - 111.75 m, COCH, Sst (fgr, dkgy), SAT GCMSD

Test for absence of monoaromatic steroids (m/z 253)

- 436 -



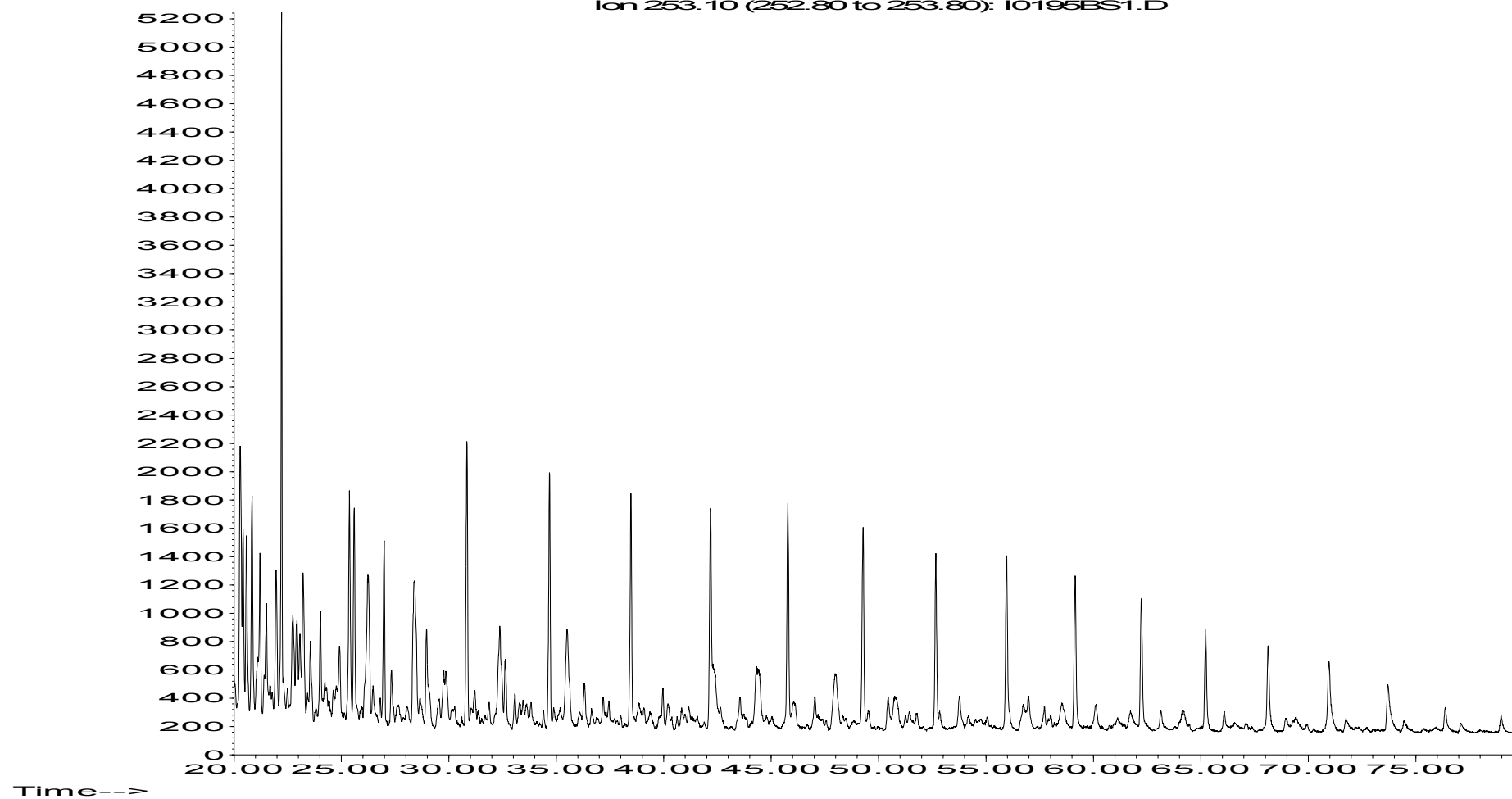
I0184, 7830/3-U-1, 124.63 m, COPL, Sst (fgr, Itgy), SAT GCMSD

Test for absence of monoaromatic steroids (m/z 253)

- 437 -

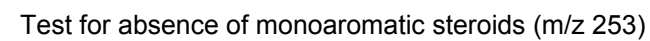
Abundance

Ion 253.10 (252.80 to 253.80): I0195BS1.D

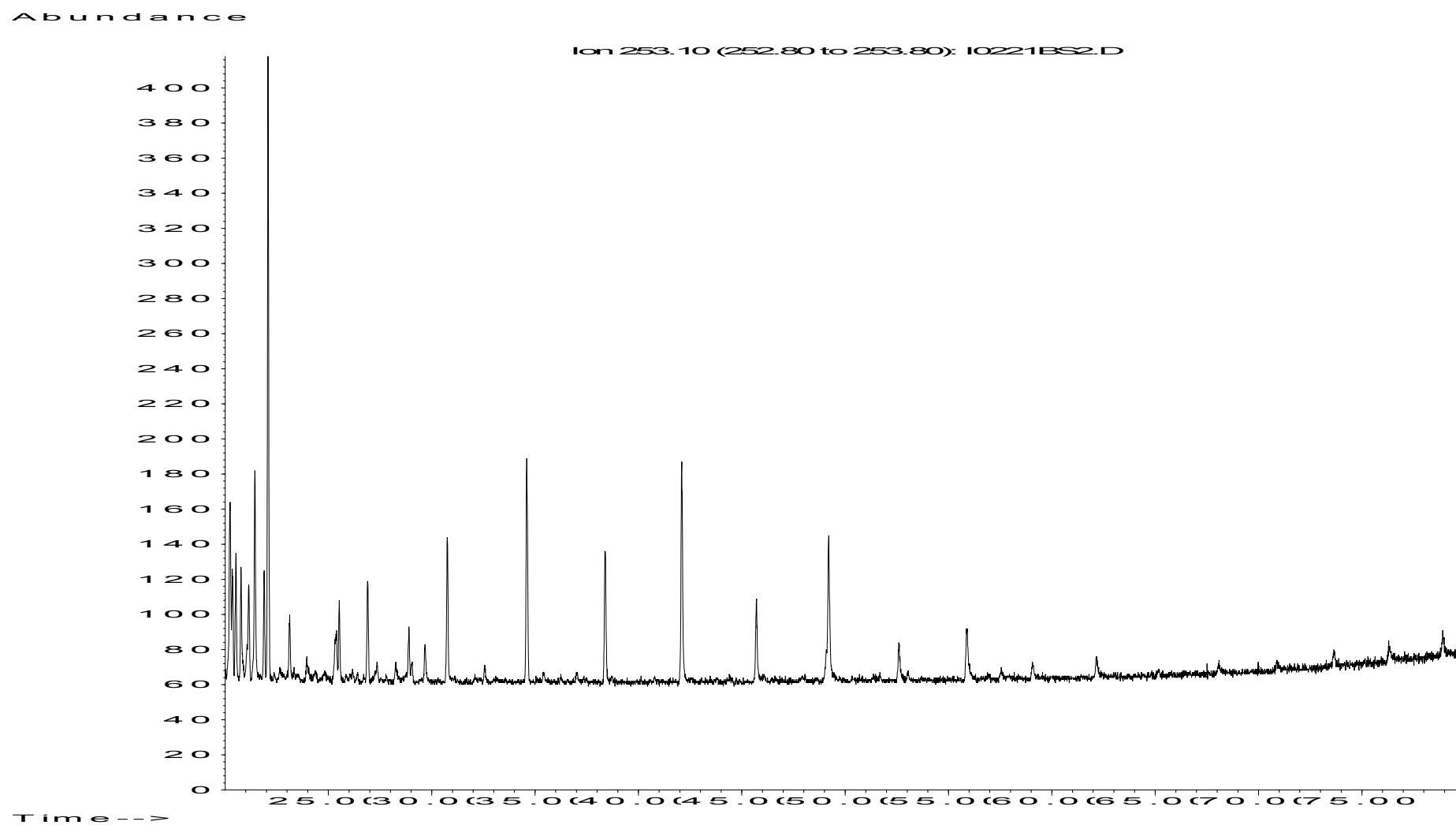


I0195, 7830/3-U-1, 154.81 - 154.88 m, COCH, Clyst (sl slty, lty), SAT GCMSD

Test for absence of monoaromatic steroids (m/z 253)



- 439 -



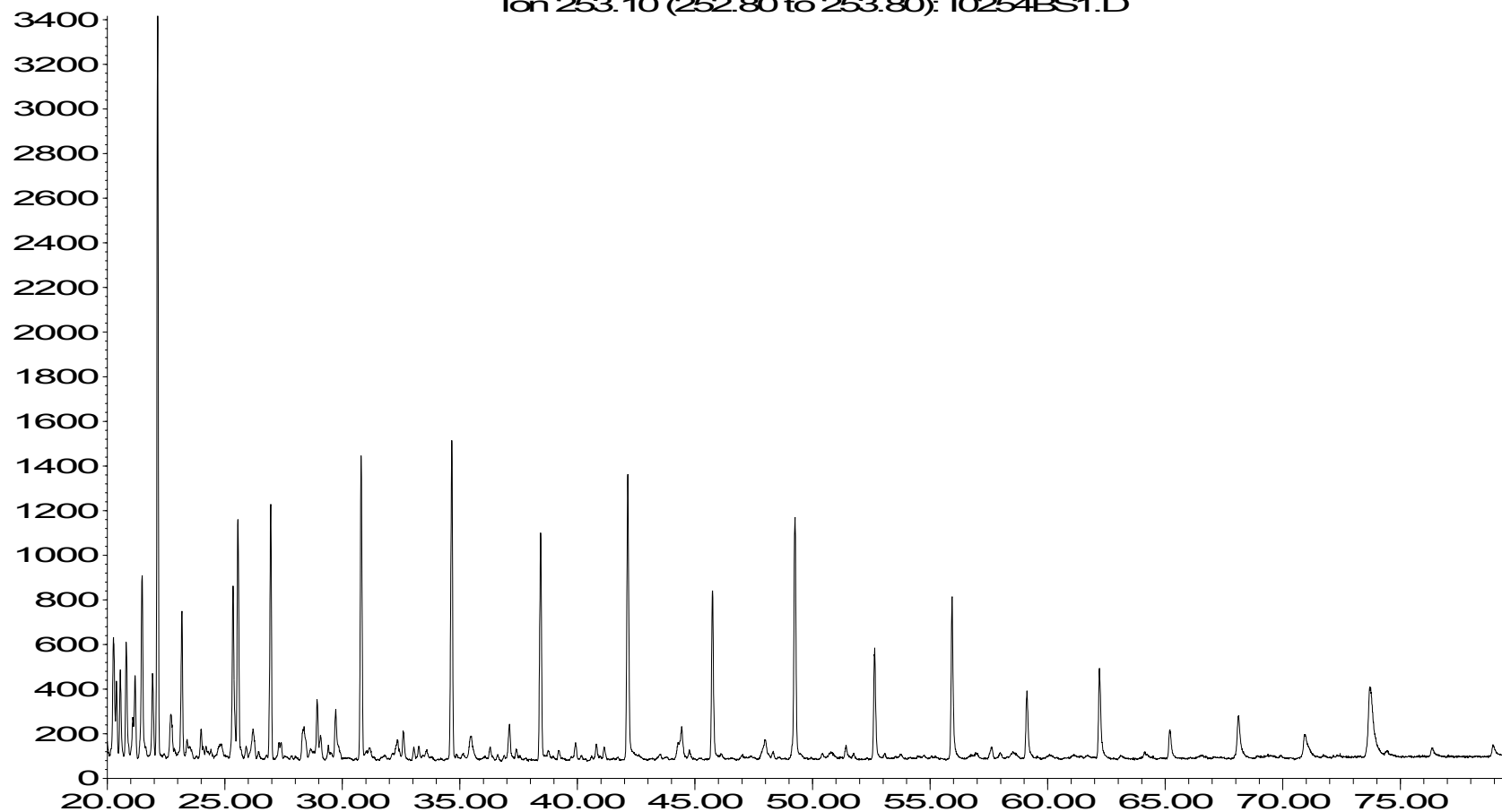
I0221, 7830/5-U-1, 58.90 - 58.97 m, COCH, Cyst (sl slty, lam, dkgy), SAT GCMSD

Test for absence of monoaromatic steroids (m/z 253)

- 440 -

Abundance

Ion 253.10 (252.80 to 253.80): I0254BS1.D



Time-->

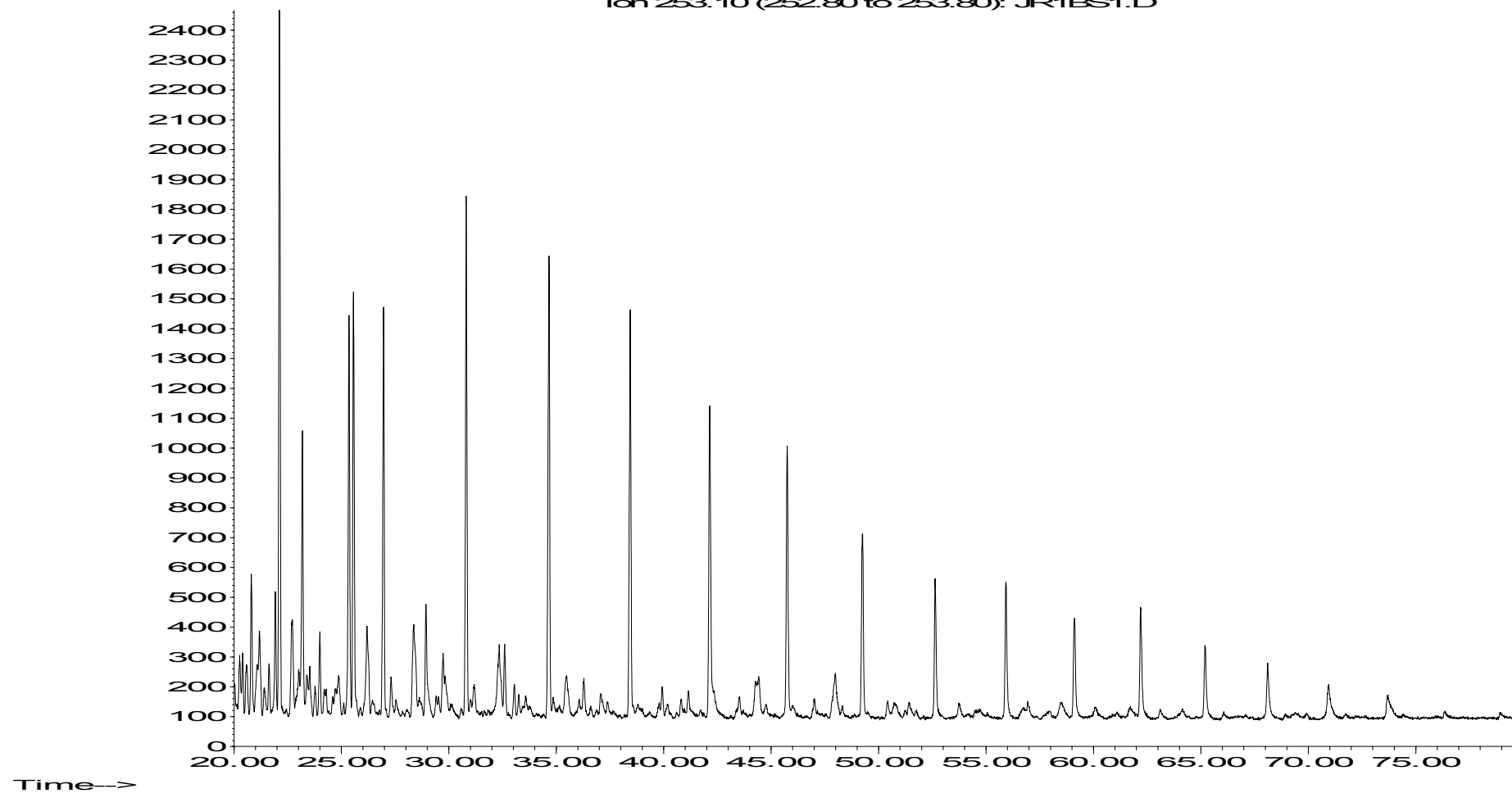
I0254, 7830/5-U-1, 128.62 - 128.68 m, COCH, Clyst (vdkgy, lam), SAT GCMSD

Test for absence of monoaromatic steroids (m/z 253)

- 441 -

Abundance

Ion 253.10 (252.80 to 253.80): JR1BS1.D



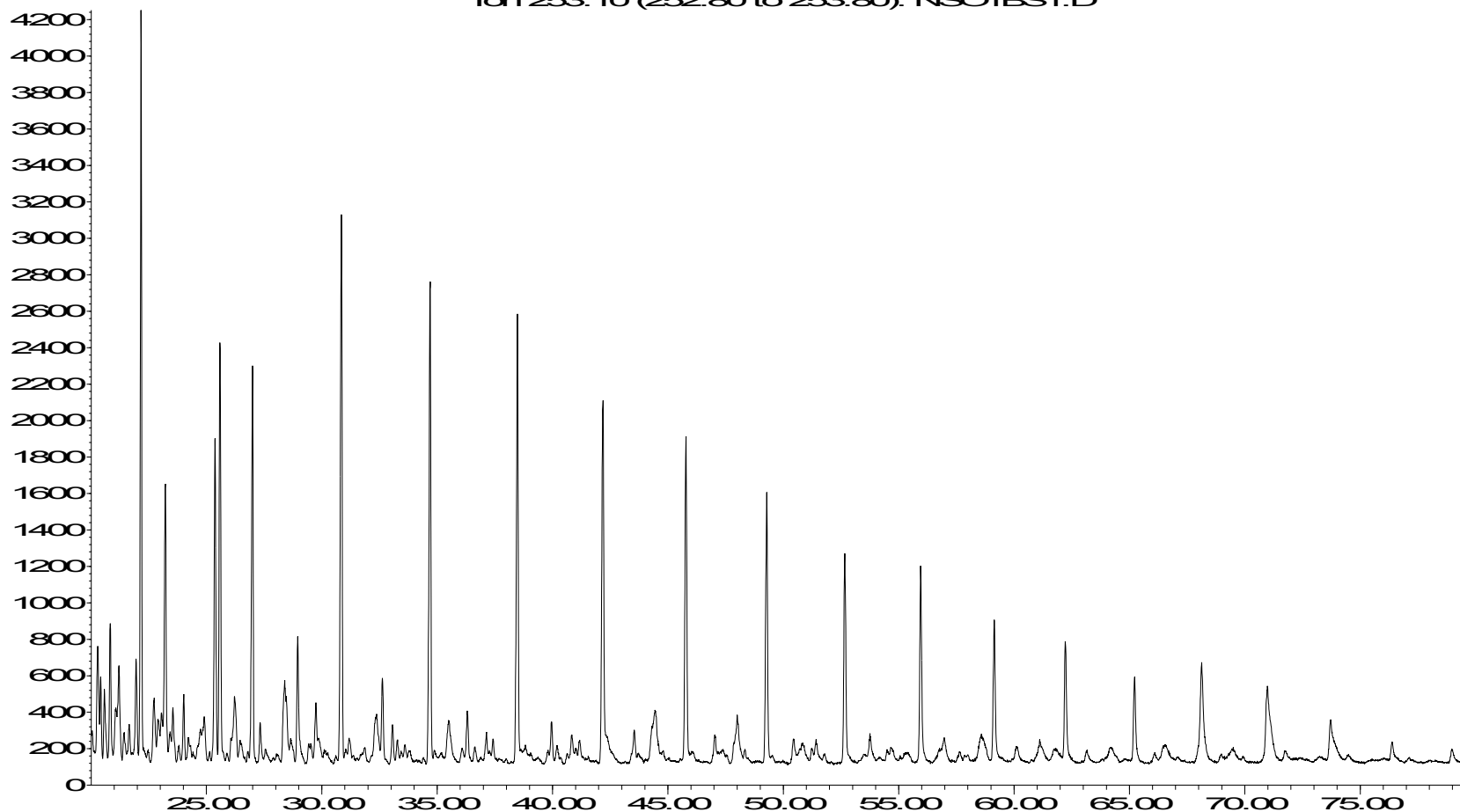
JR-1, NGS reference sample, SAT GCMSD

Test for absence of monoaromatic steroids (m/z 253)

- 442 -

Abundance

Ion 253.10 (252.80 to 253.80): NSO1BS1.D



Time-->

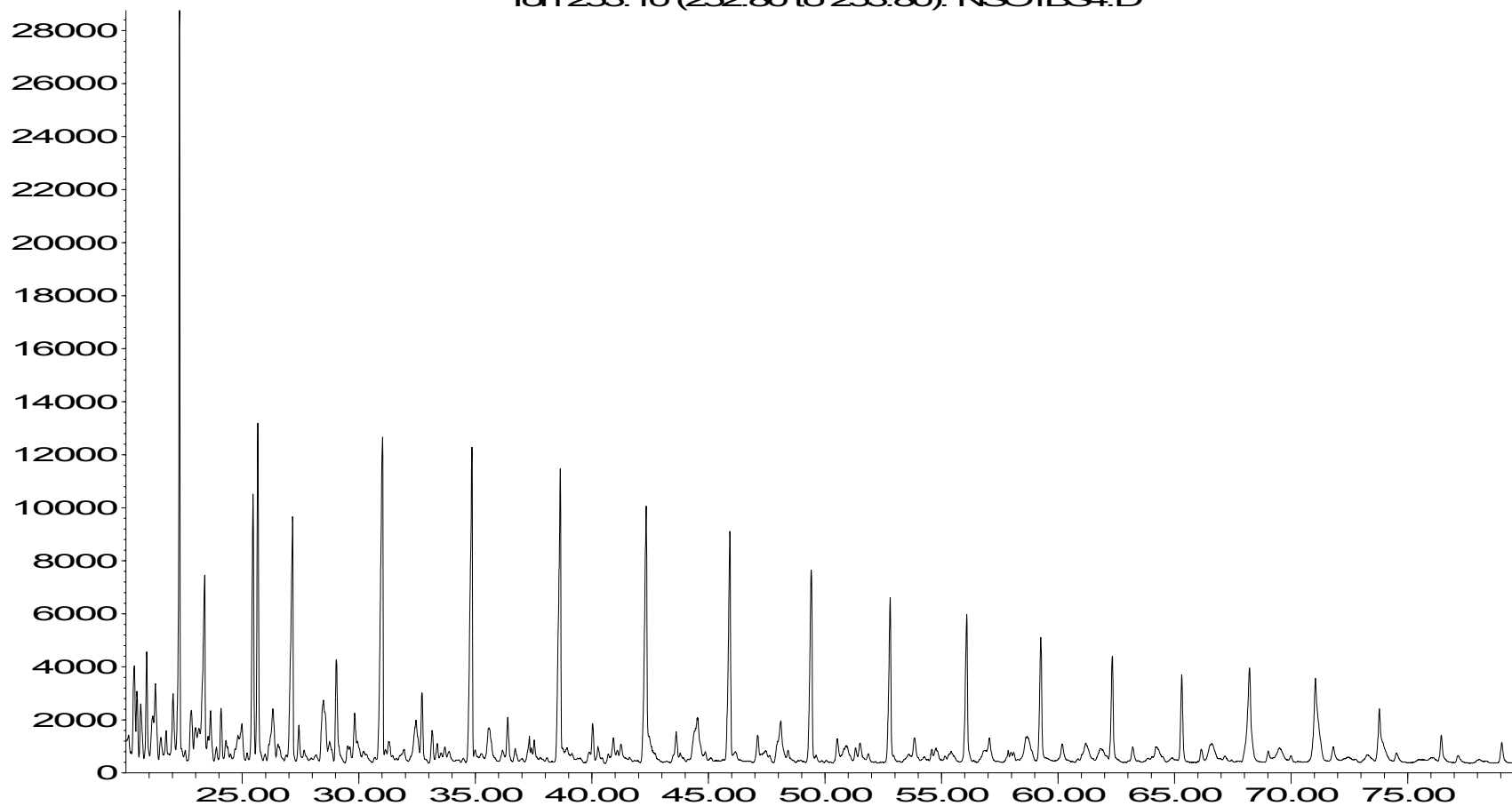
NSO-1, #0, NGS reference oil, SAT GCMSD

Test for absence of monoaromatic steroids (m/z 253)

- 443 -

Abundance

Ion 253.10 (252.80 to 253.80): NSO1BS4.D



Time-->

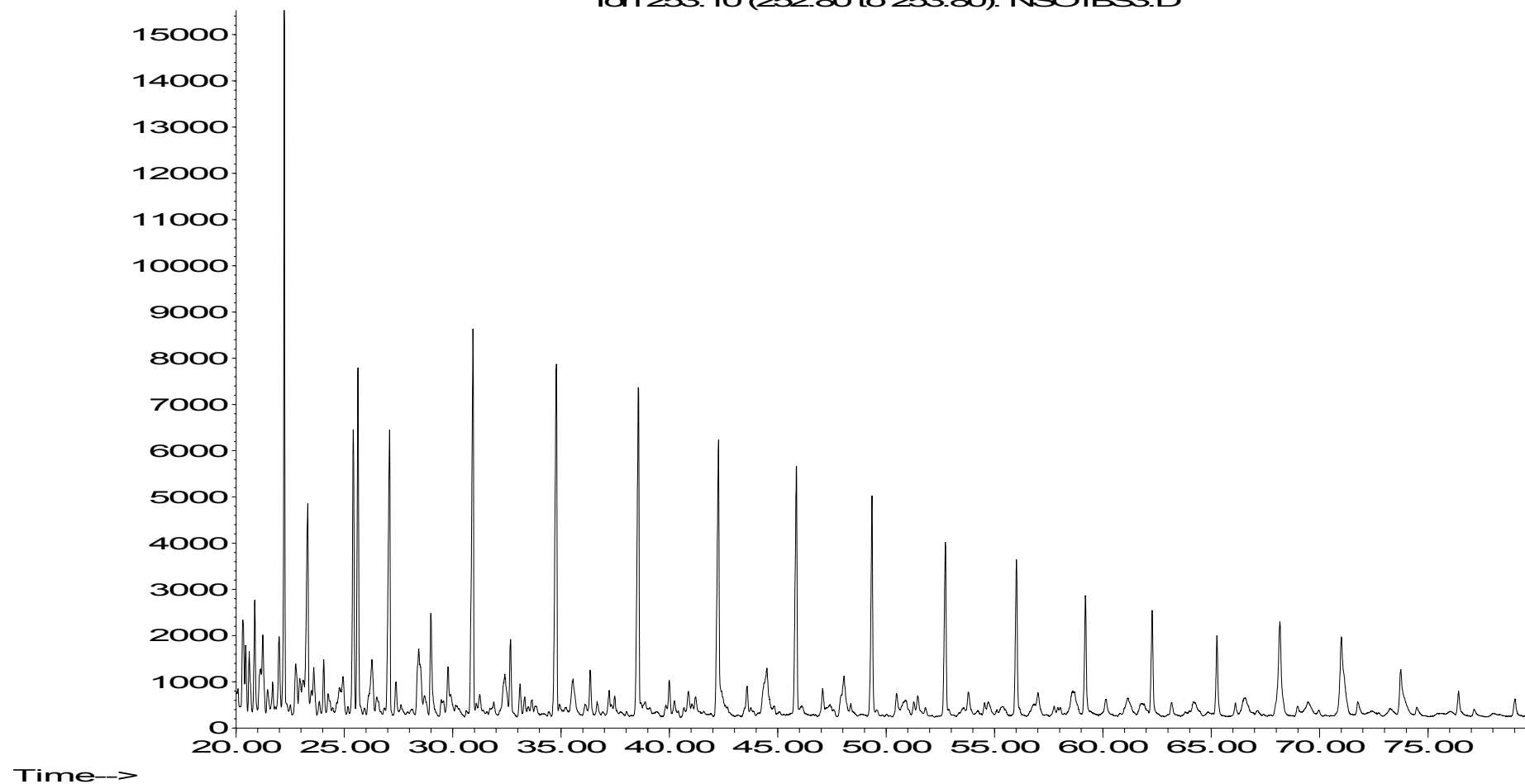
NSO-1, #1, NGS reference oil, SAT GCMSD

Test for absence of monoaromatic steroids (m/z 253)

- 444 -

Abundance

Ion 253.10 (252.80 to 253.80): NSO1BS3.D



NSO-1, #2, NGS reference oil, SAT GCMSD

Test for absence of monoaromatic steroids (m/z 253)

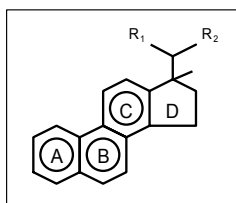
Figure 9

GC-MSD mass fragmentograms of aromatic hydrocarbons.

<i>m/z</i>	<i>142, 156, 170</i>	<i>naphthalenes</i>
	<i>154, 168, 182</i>	<i>biphenyls</i>
	<i>178, 182, 206, 219</i>	<i>phenanthrenes</i>
	<i>184, 198, 212</i>	<i>dibenzothiophenes</i>
	<i>231</i>	<i>triaromatic steroid hydrocarbons</i>
	<i>253</i>	<i>monoaromatic steroid hydrocarbons</i>

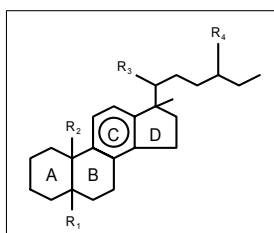
Peak labels:
ABC-RING TRIAROMATIC STEROID HYDROCARBONS (m/z 231)

Peak or peak group	Substituents (see figure below)		Label
	R ₁	R ₂	
a1	CH ₃	H	C ₂₀ TA
b1	CH ₃	CH ₃	C ₂₁ TA
c1	S(CH ₃)	C ₆ H ₁₃	SC ₂₆ TA
d1	R(CH ₃)	C ₆ H ₁₃	RC ₂₆ TA
	S(CH ₃)	C ₇ H ₁₅	SC ₂₇ TA
e1	S(CH ₃)	C ₈ H ₁₇	SC ₂₈ TA
f1	R(CH ₃)	C ₇ H ₁₅	RC ₂₇ TA
g1	R(CH ₃)	C ₈ H ₁₇	RC ₂₈ TA


Positions of substituents in triaromatic steroid hydrocarbons
C-RING MONOAROMATIC STEROID HYDROCARBONS (m/z 253)¹

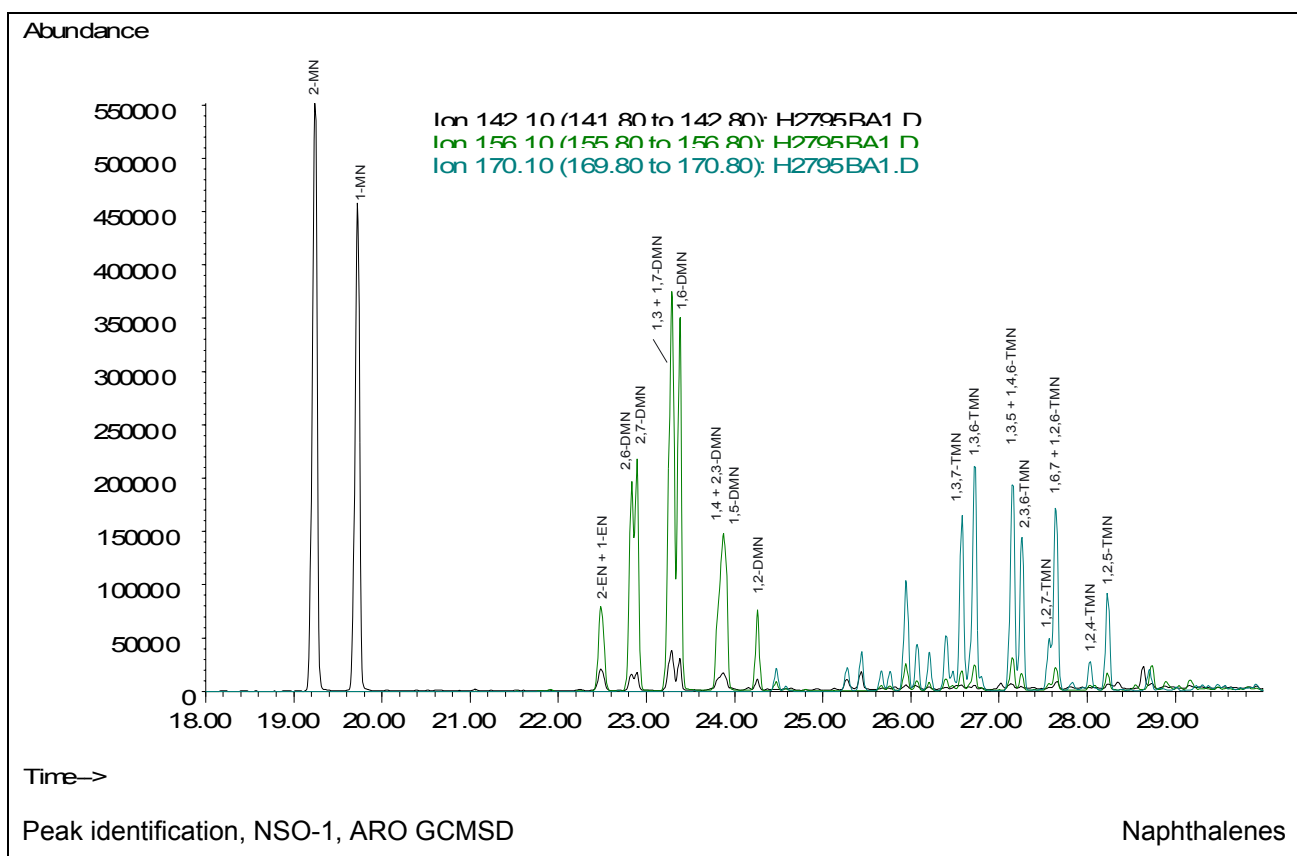
Peak or peak group	Substituents (see figure below)				Label
	R ₁	R ₂	R ₃	R ₄	
A1					C ₂₁ MA
B1					C ₂₂ MA
C1	β(H)	CH ₃	S(CH ₃)	H	βSC ₂₇ MA
	β(CH ₃)	H	S(CH ₃)	H	βSC ₂₇ DMA
D1	β(CH ₃)	H	R(CH ₃)	H	βRC ₂₇ DMA
	β(H)	CH ₃	R(CH ₃)	H	βRC ₂₇ MA
	α(H)	CH ₃	S(CH ₃)	H	αSC ₂₇ MA
E1	β(H)	CH ₃	S(CH ₃)	CH ₃	βSC ₂₈ MA
	α(CH ₃)	H	R(CH ₃)	H	αRC ₂₇ DMA
	β(CH ₃)	H	S(CH ₃)	CH ₃	βSC ₂₈ DMA
F1	α(CH ₃)	H	S(CH ₃)	CH ₃	αSC ₂₇ DMA
G1	α(H)	CH ₃	R(CH ₃)	H	αRC ₂₇ MA
	α(H)	CH ₃	S(CH ₃)	CH ₃	αSC ₂₈ MA
	β(H)	CH ₃	R(CH ₃)	CH ₃	βRC ₂₈ MA
	β(CH ₃)	H	R(CH ₃)	CH ₃	βRC ₂₈ DMA
	β(H)	CH ₃	S(CH ₃)	C ₂ H ₅	βSC ₂₉ MA
	bCH ₃	H	S(CH ₃)	C ₂ H ₅	βSC ₂₉ DMA
H1	α(H)	CH ₃	S(CH ₃)	C ₂ H ₅	αSC ₂₉ MA
	α(H)	CH ₃	R(CH ₃)	CH ₃	αRC ₂₈ MA
	β(H)	CH ₃	R(CH ₃)	C ₂ H ₅	βRC ₂₉ MA
	bCH ₃	H	R(CH ₃)	C ₂ H ₅	βRC ₂₉ DMA
I1	α(H)	CH ₃	R(CH ₃)	C ₂ H ₅	αRC ₂₉ MA

¹ Not all possible αDMA isomers are tabulated (rarely present in geological samples).

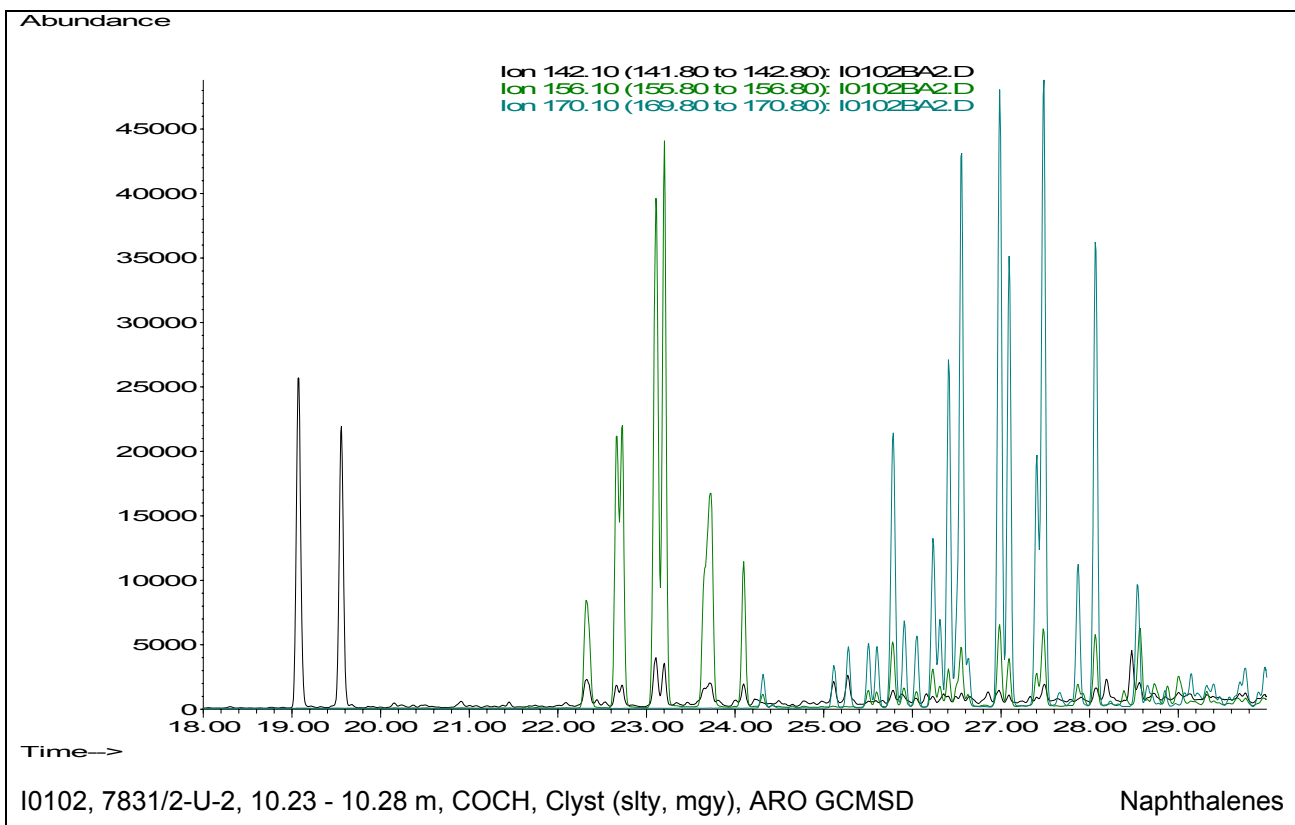
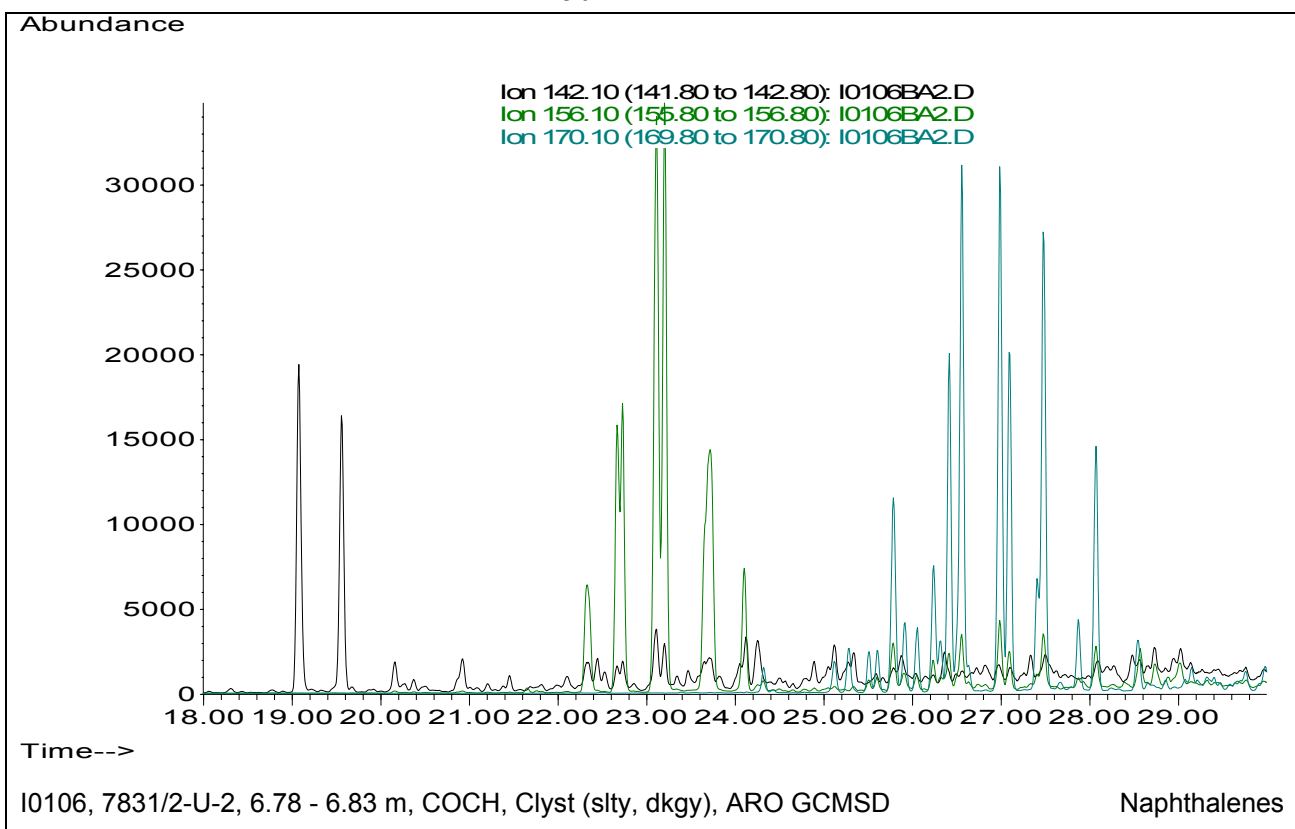
² The monoaromatic steroid groups C1, D1, E1, G1 and H1 can all be present as multiple peaks.

Positions of substituents in monoaromatic steroid hydrocarbons.

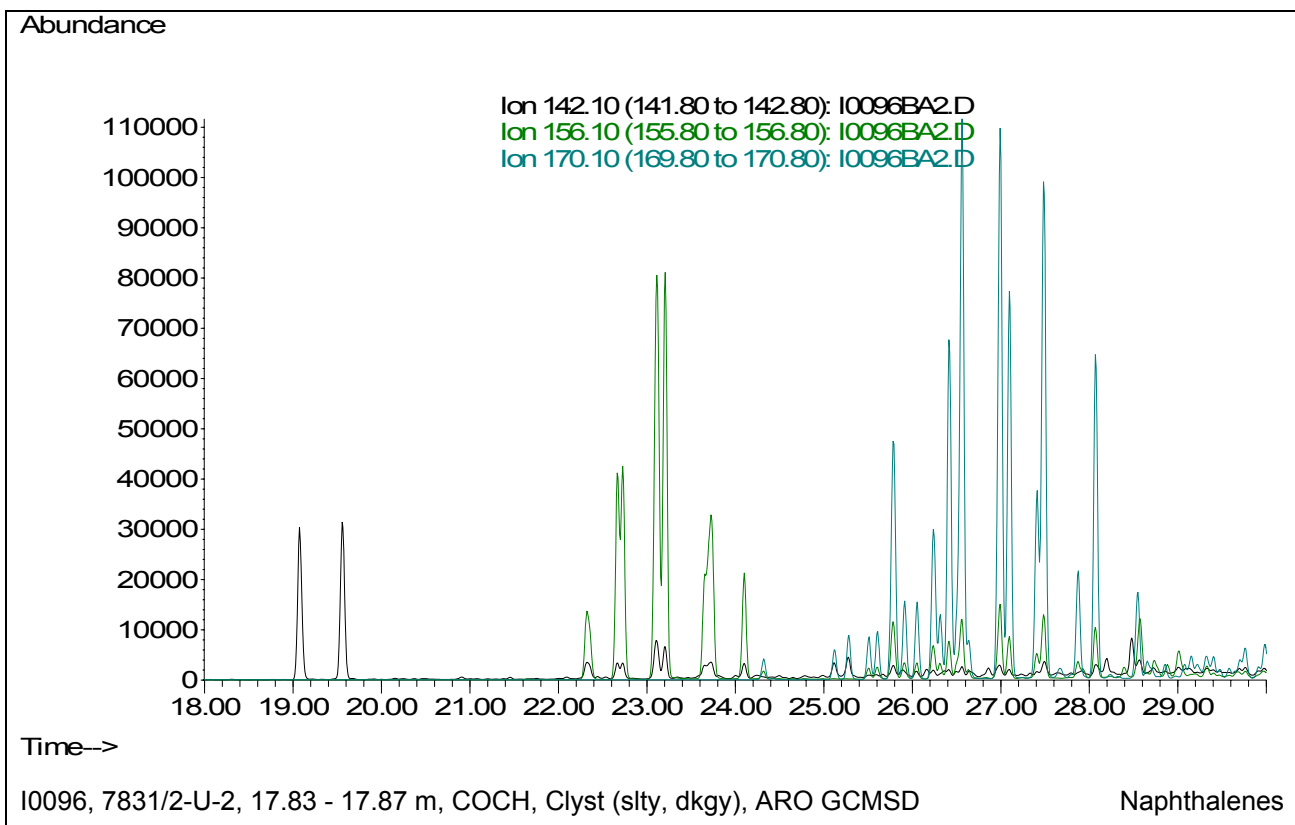
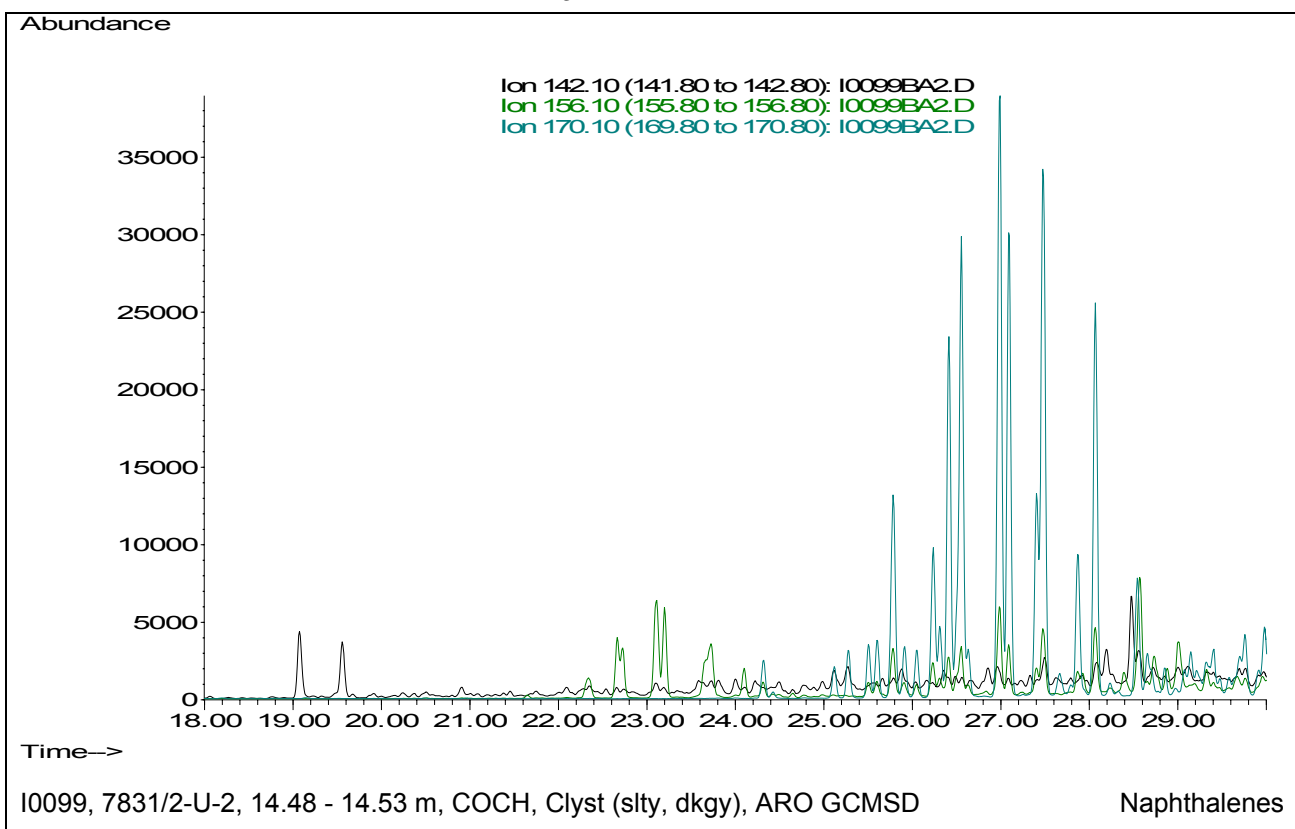
POLYCYCLIC AROMATIC HYDROCARBONS AND SULPHUR COMPOUNDS

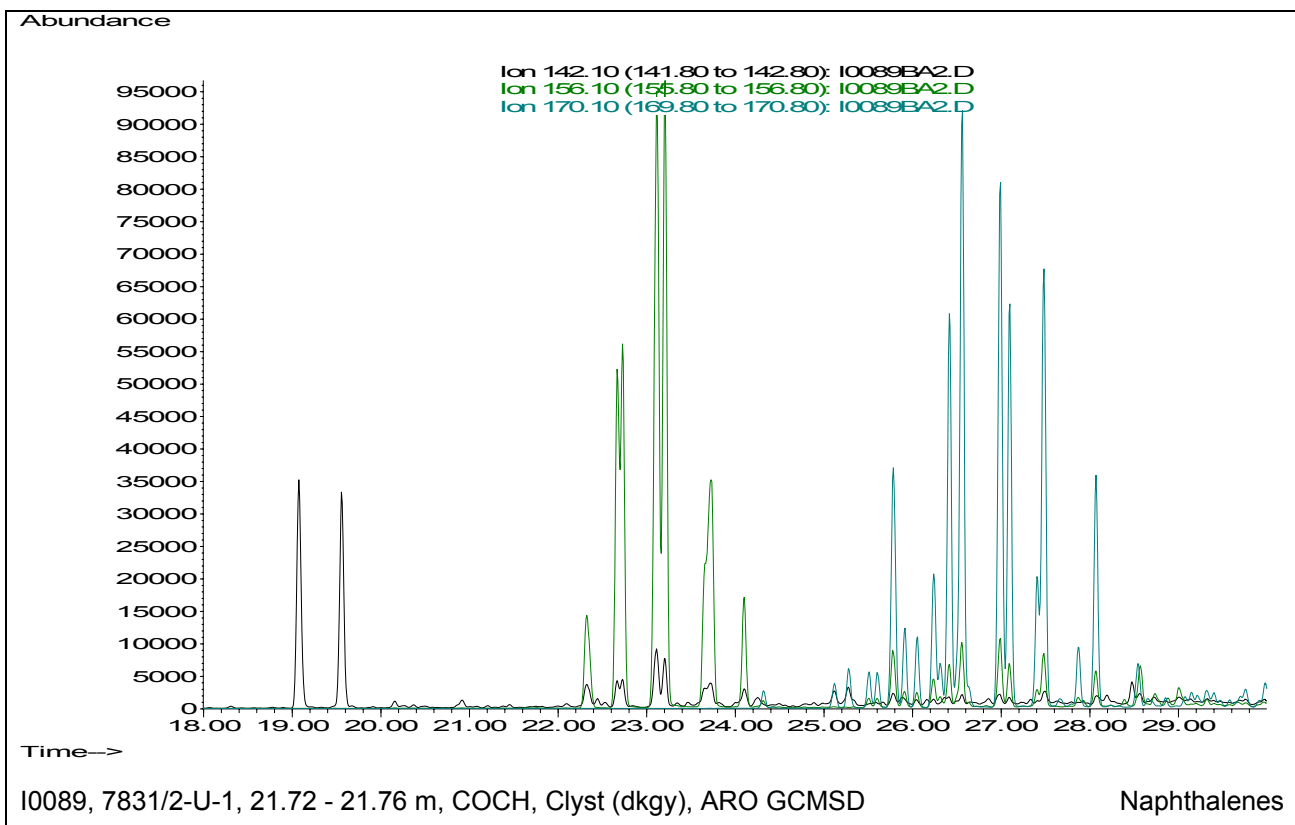
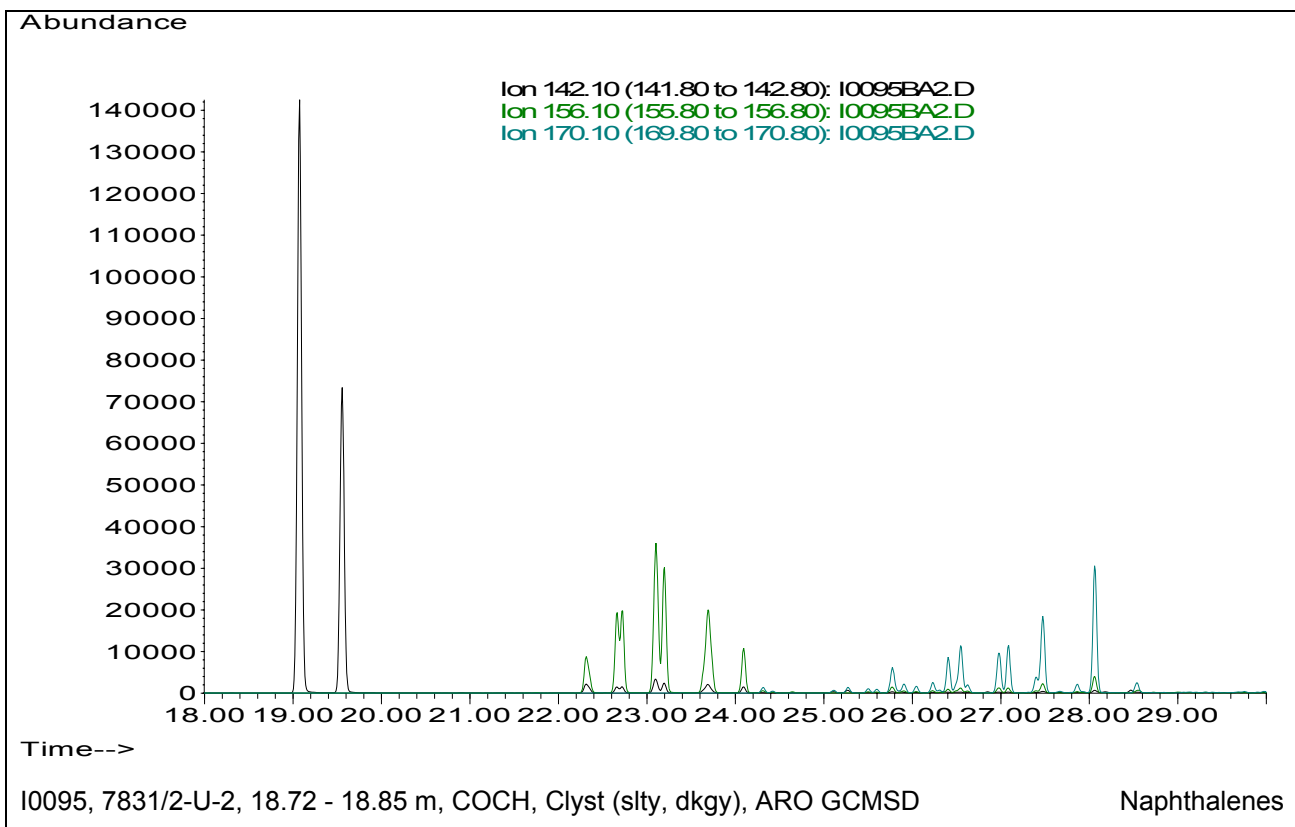
Label	Name	m/z (ion)
2-MN	2-Methylnaphthalene	142
1-MN	1-Methylnaphthalene	142
2-EN	2-Ethylnaphthalene	156
1-EN	1-Ethylnaphthalene	156
2,6- + 2,7-DMN	2,6+2,7-Dimethylnaphthalene	156
1,3- + 1,7-DMN	1,3+1,7-Dimethylnaphthalene	156
1,6-DMN	1,6-Dimethylnaphthalene	156
2,3- + 1,4-DMN	2,3+1,4-Dimethylnaphthalene	156
1,5-DMN	1,5-Dimethylnaphthalene	156
1,2-DMN	1,2-Dimethylnaphthalene	156
1,3,7-TMN	1,3,7-Trimethylnaphthalene	170
1,3,6-TMN	1,3,6-Trimethylnaphthalene	170
1,3,5- + 1,4,6-TMN	1,3,5+1,4,6-Trimethylnaphthalene	170
2,3,6-TMN	2,3,6-Trimethylnaphthalene	170
1,6,7- + 1,2,7-TMN	1,6,7+1,2,7-Trimethylnaphthalene	170
1,2,6-TMN	1,2,6-Trimethylnaphthalene	170
1,2,4-TMN	1,2,4-Trimethylnaphthalene	170
1,2,5-TMN	1,2,5-Trimethylnaphthalene	170
P	Phenanthrene	178
3-MP	3-Methylphenanthrene	192
2-MP	2-Methylphenanthrene	192
9-MP	9-Methylphenanthrene	192
1-MP	1-Methylphenanthrene	192
2-EP+9-EP+3,6-DMP	2- Ethylphenanthrene +9-Ethylphenanthrene +3,6-Dimethylphenanthrene	206
1-EP	1-Ethylphenanthrene	206
2,6- + 2,7- + 3,5-DMP	2,6+2,7+3,5-Dimethylphenanthrene	206
1,3- + 2,10- + 3,9- + 3,10-DMP	1,3+2,10+3,9+3,10-Dimethylphenanthrene	206
1,6- + 2,5- + 2,9-DMP	1,6+2,5+2,9-Dimethylphenanthrene	206
1,7-DMP	1,7-Dimethylphenanthrene	206
2,3-DMP	2,3-Dimethylphenanthrene	206
1,9- + 4,9- + 4,10-DMP	1,9+4,9+4,10-Dimethylphenanthrene	206
1,8-DMP	1,8-Dimethylphenanthrene	206
Retene	Retene (= 1-methyl-7-isopropylphenanthrene)	219
DBT	Dibenzothiophene	184
4-MDBT	4-Methyldibenzothiophene	198
(3+2)-MDBT	3+2-Methyldibenzothiophene	198
1-MDBT	1-Methyldibenzothiophene	198



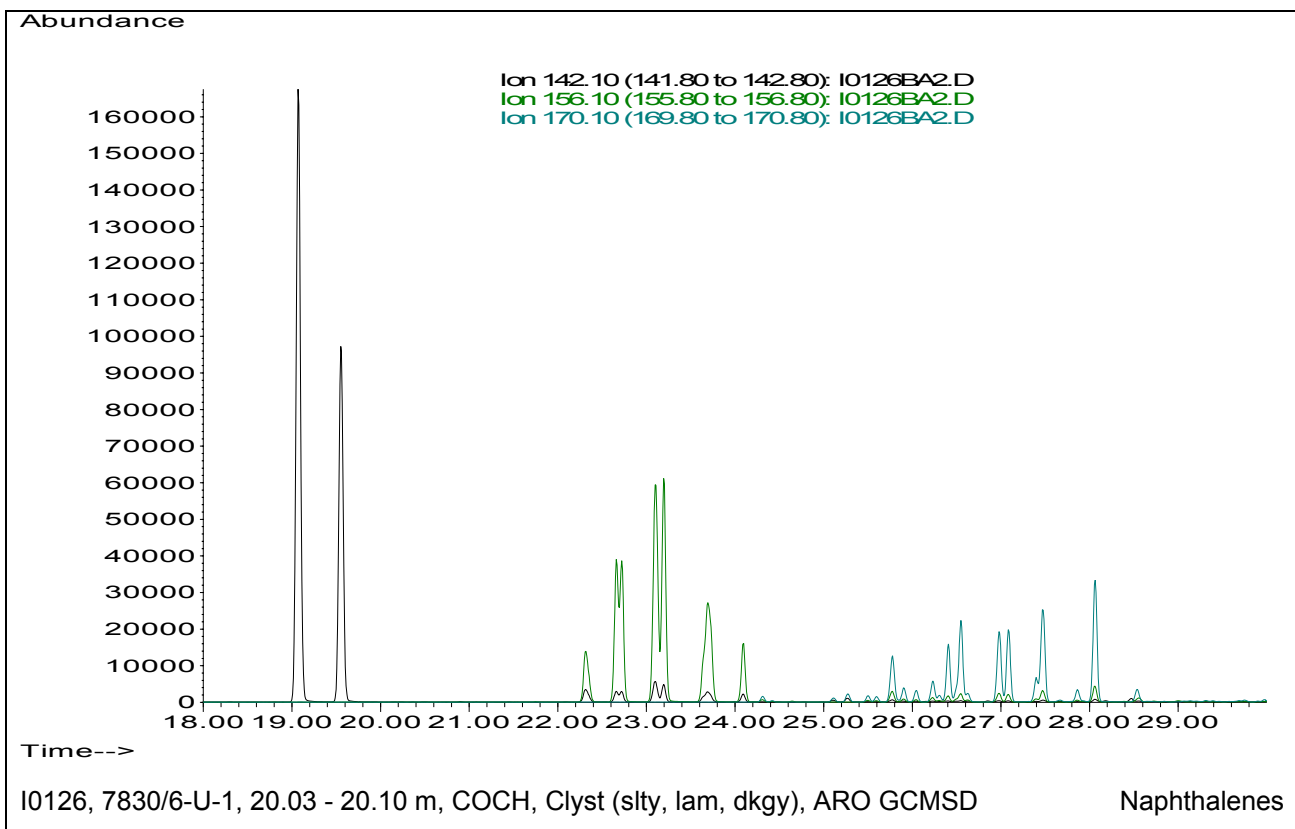
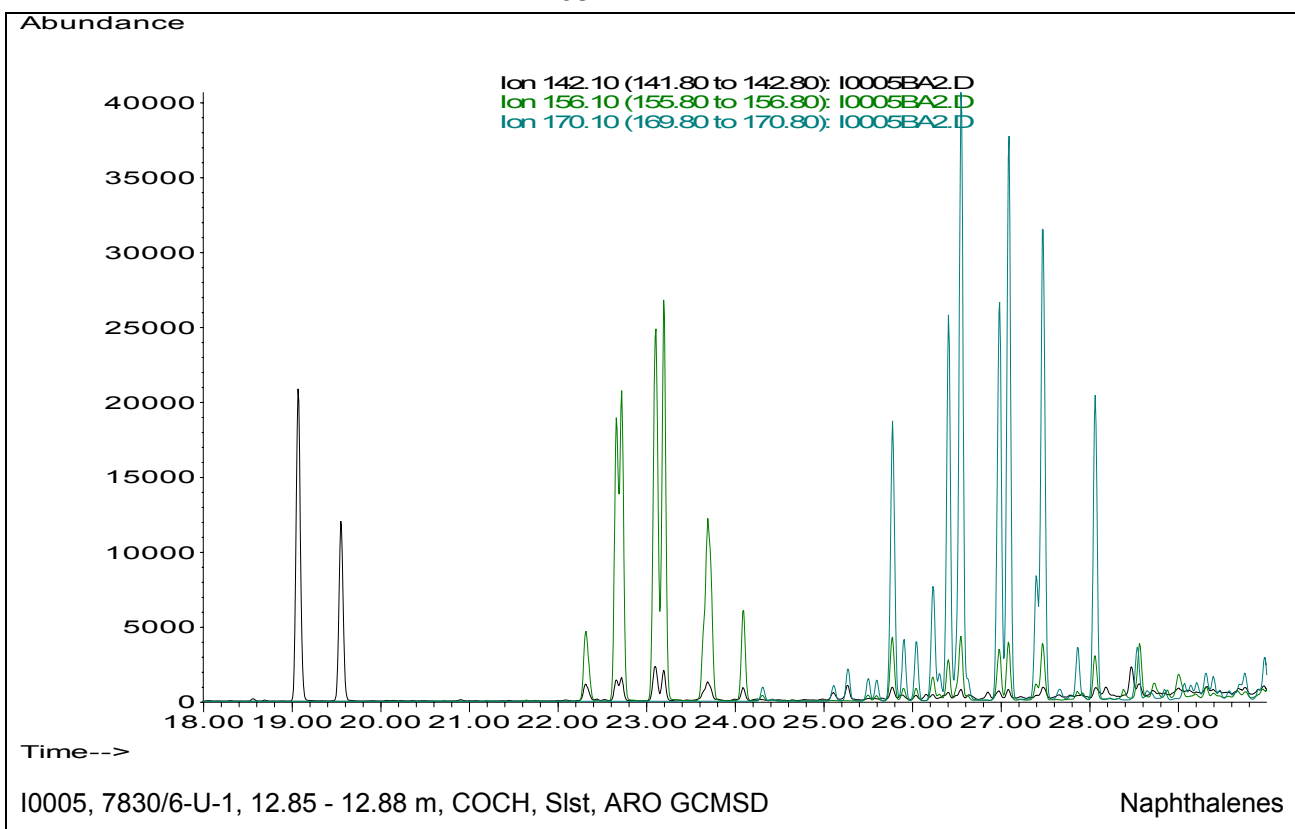
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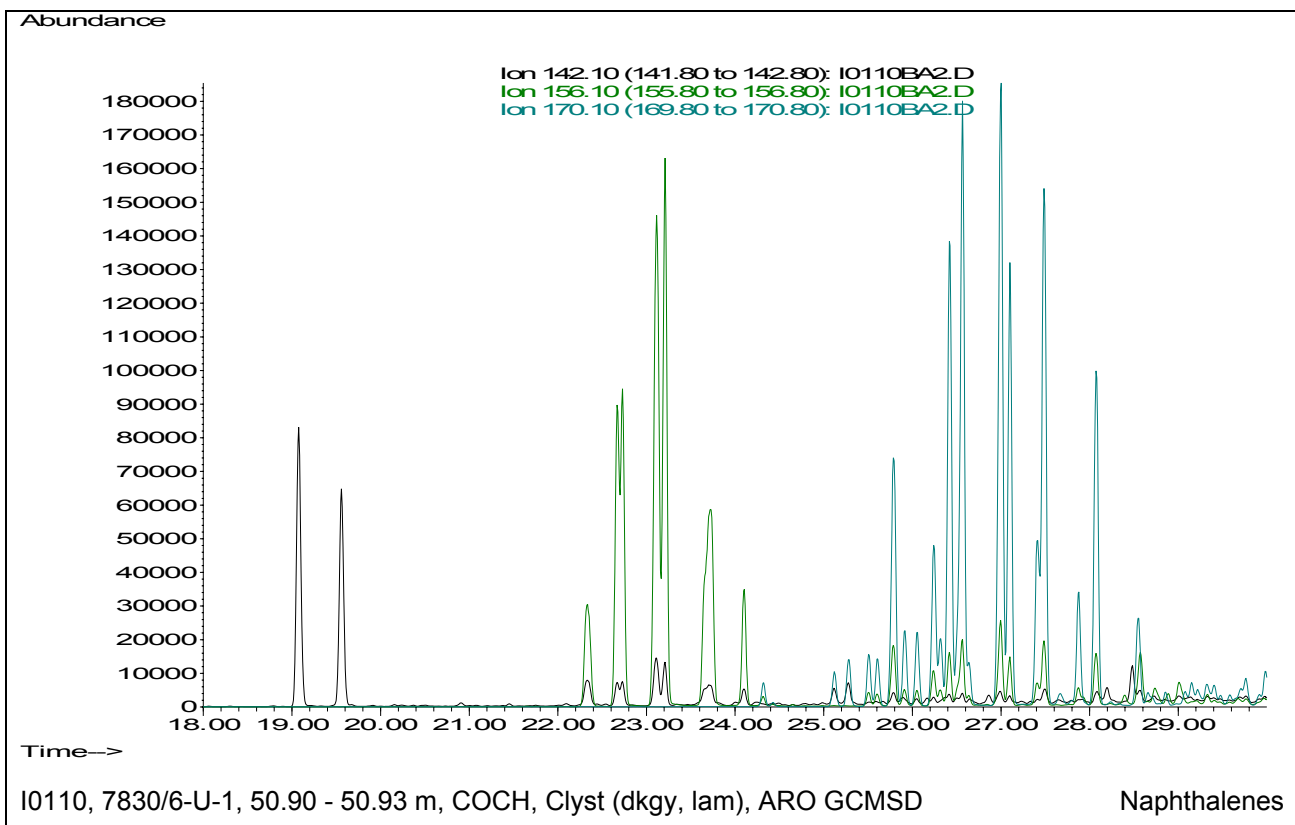
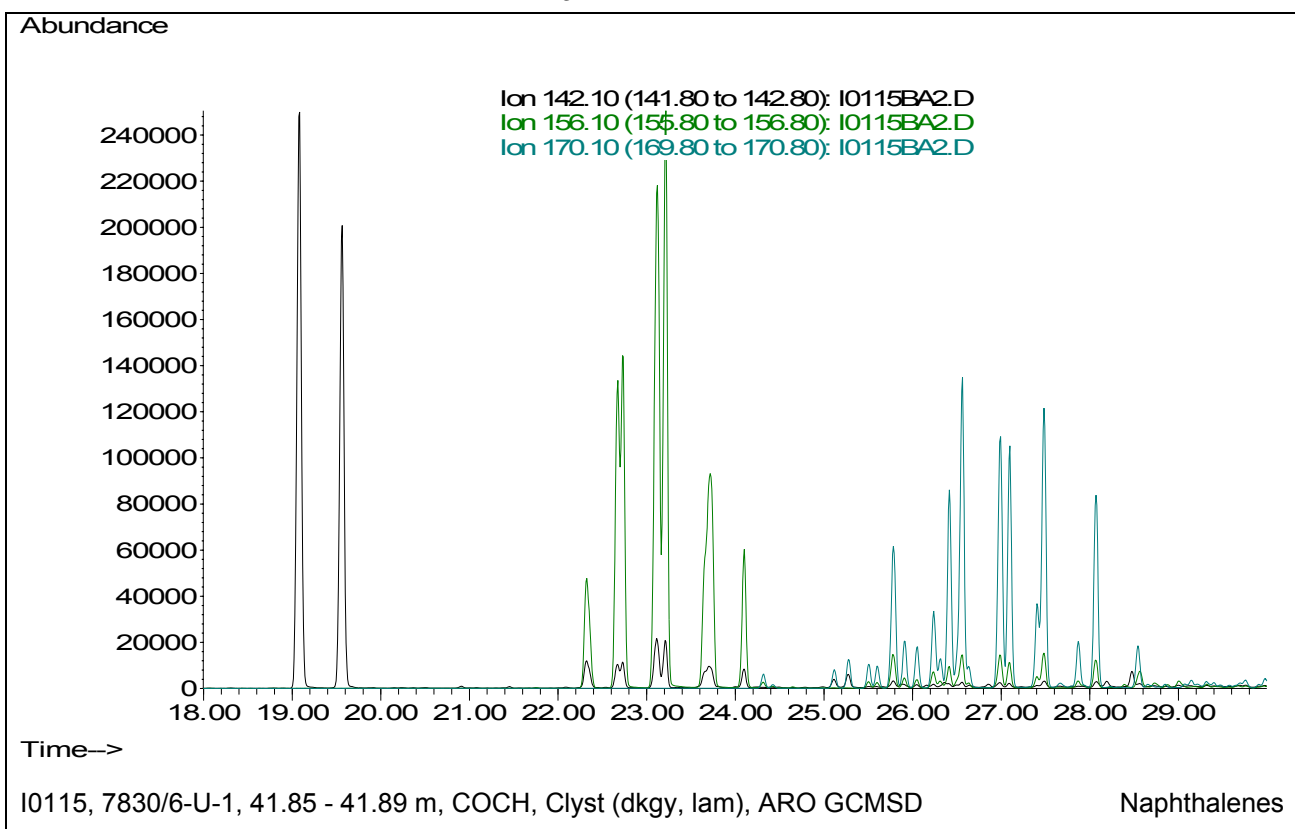




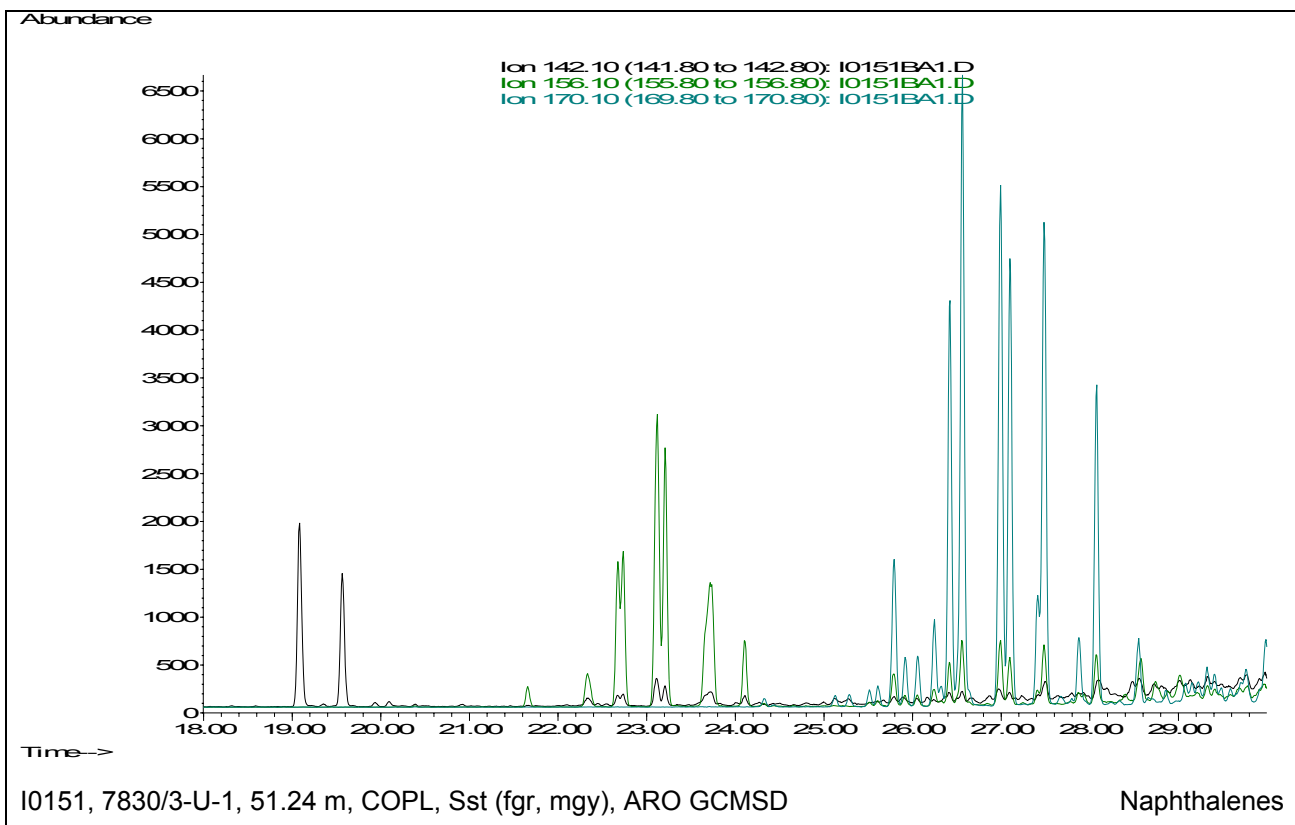
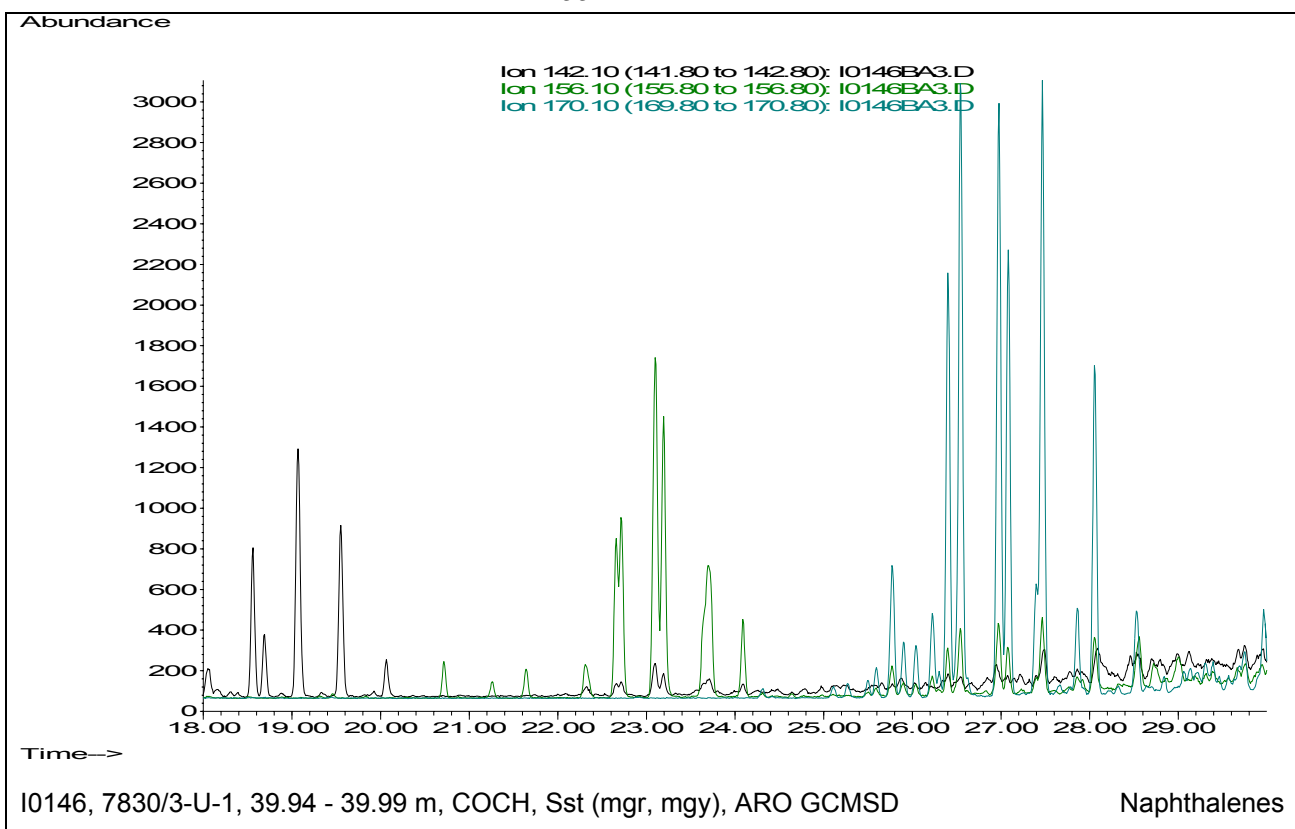
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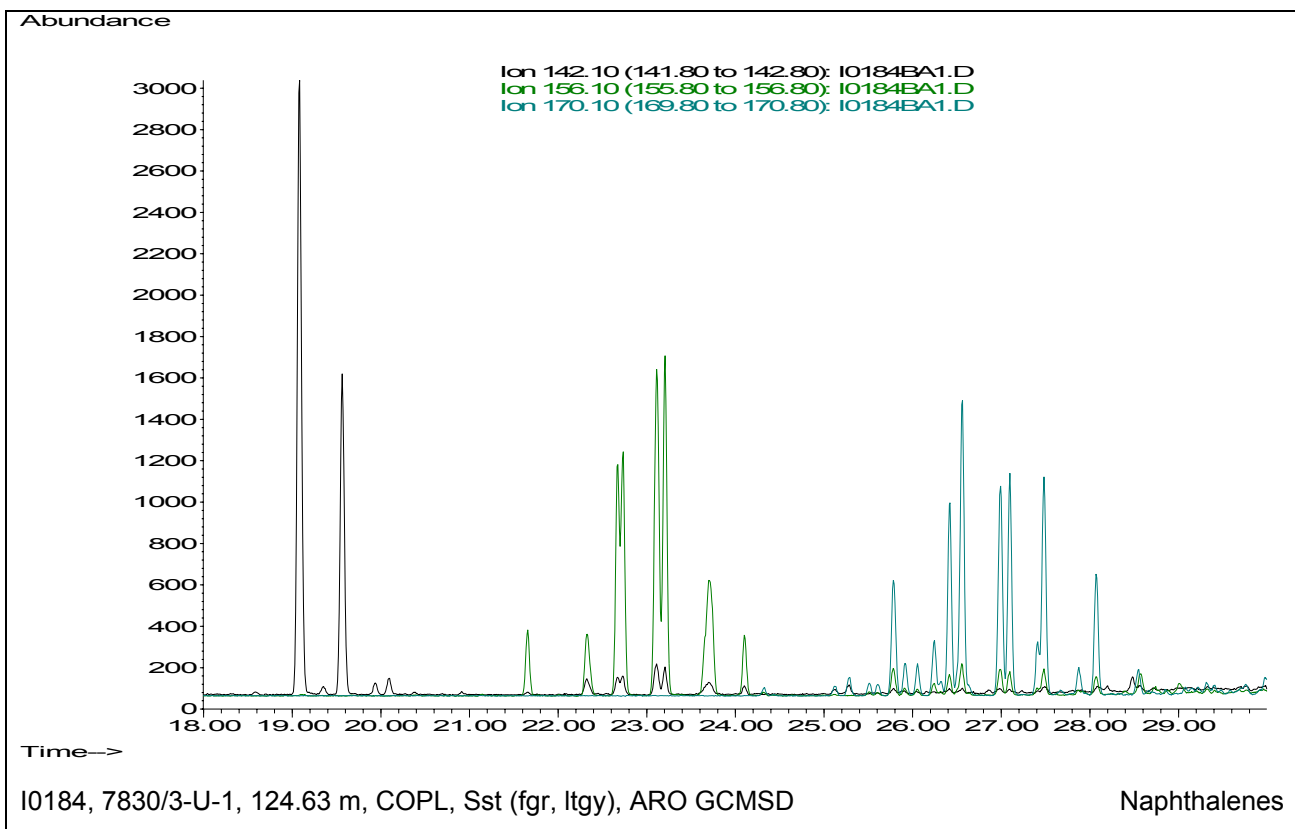
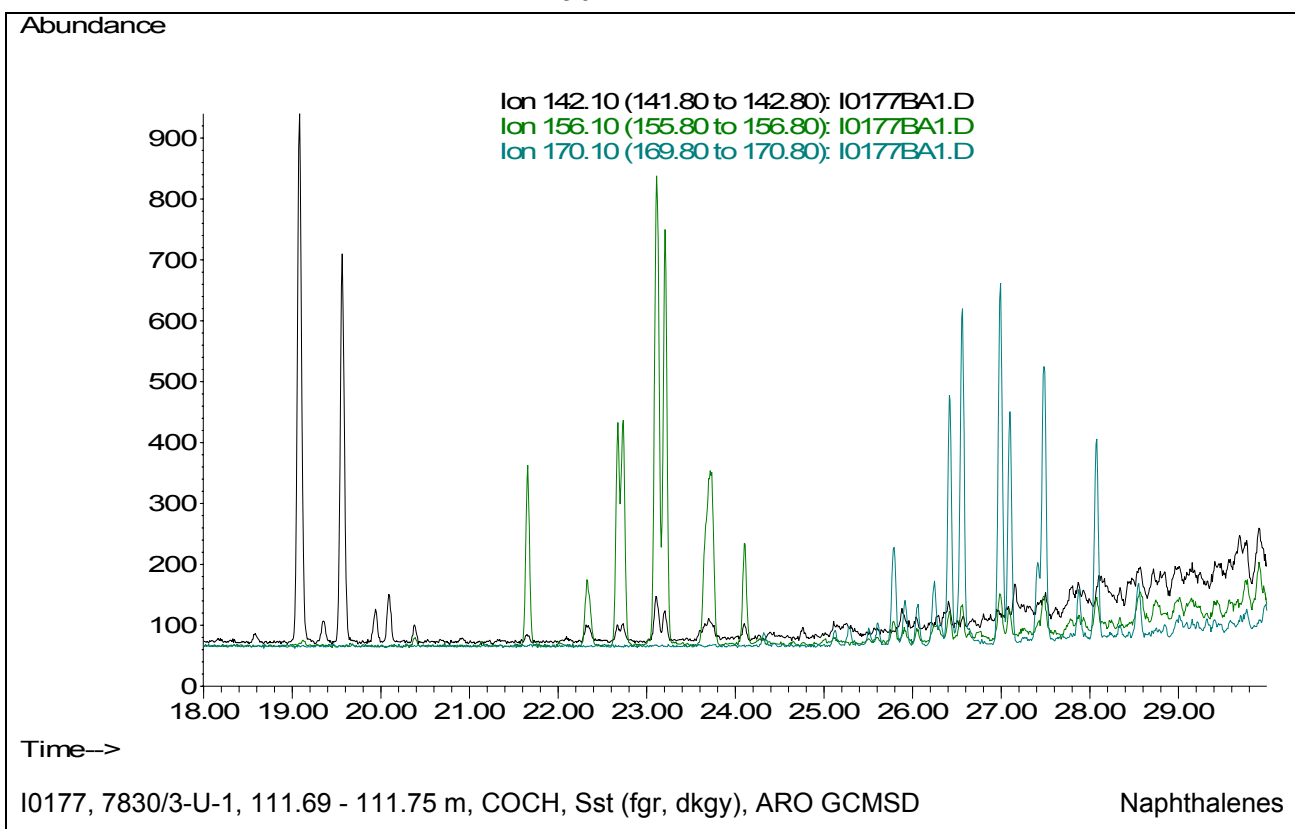
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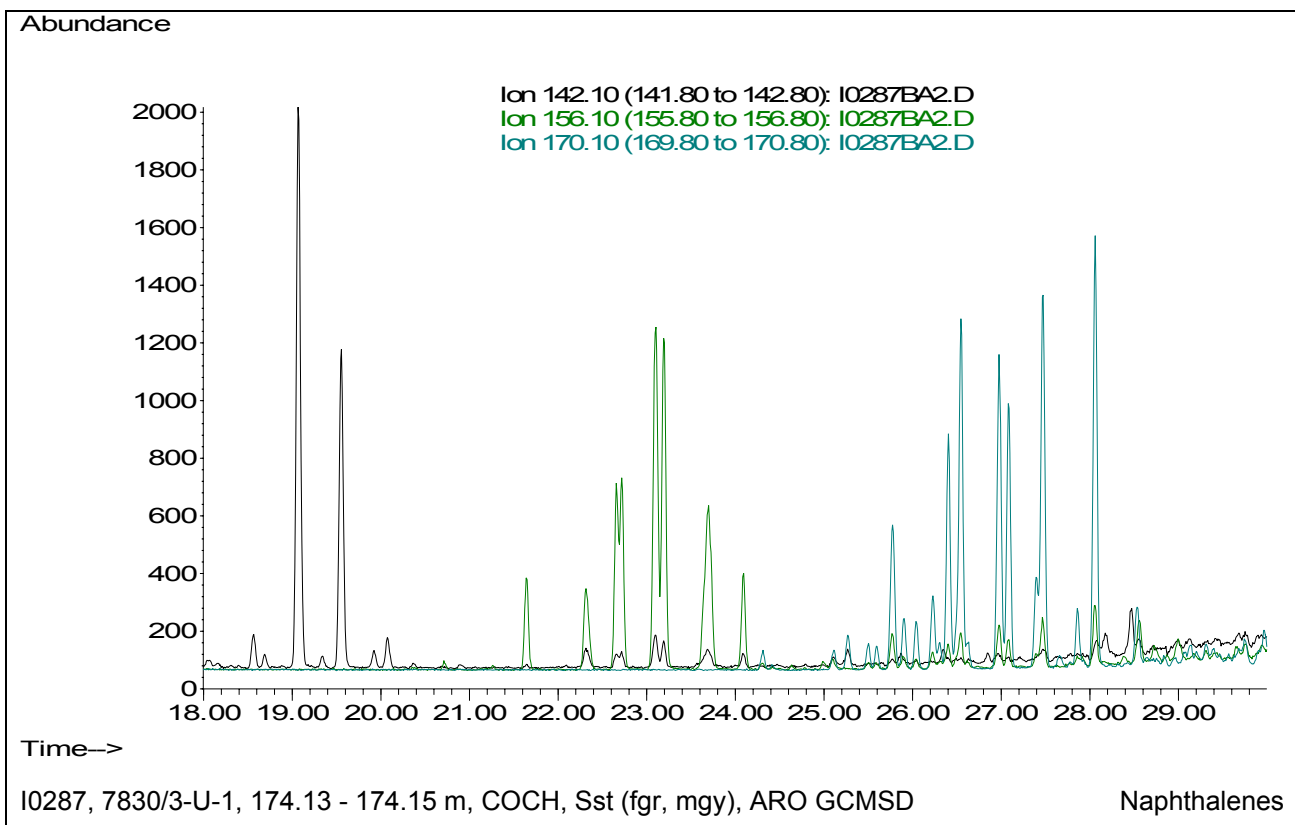
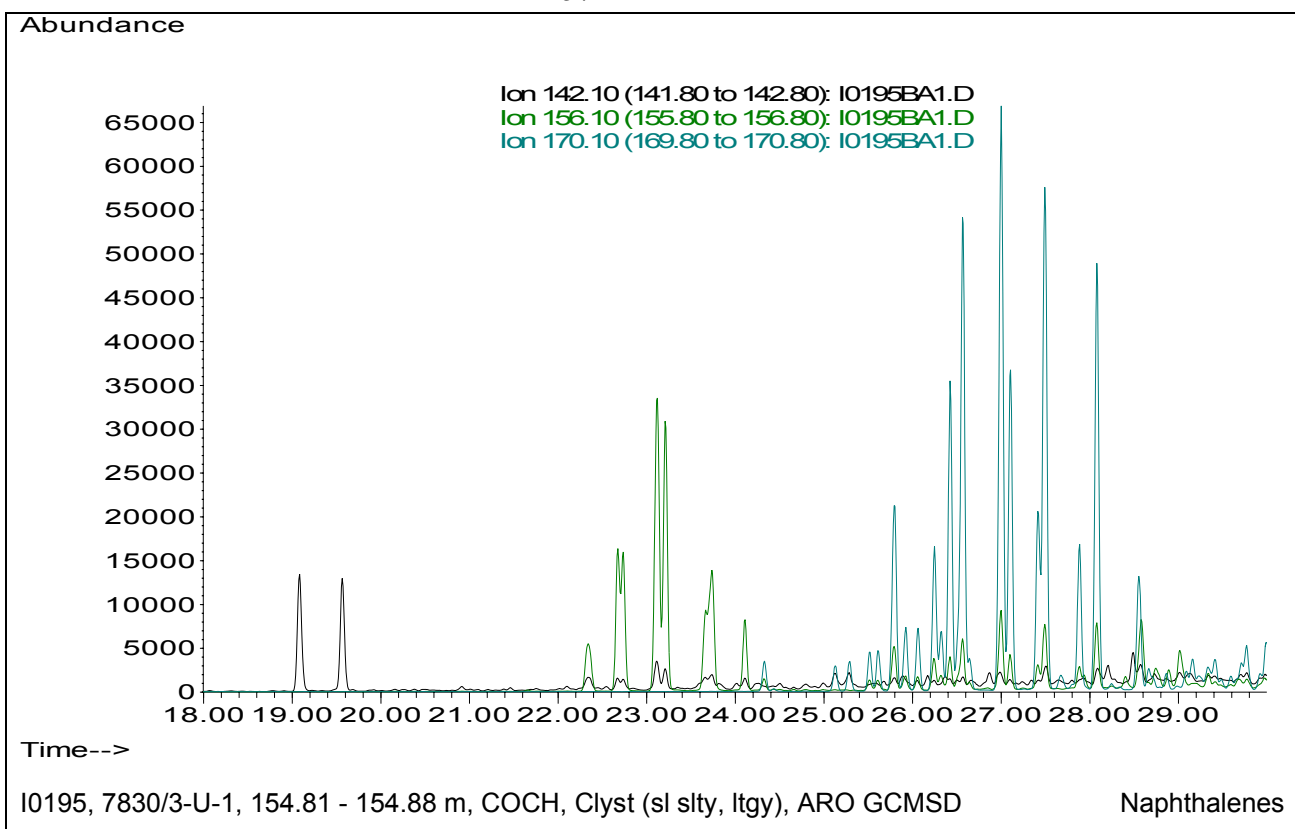
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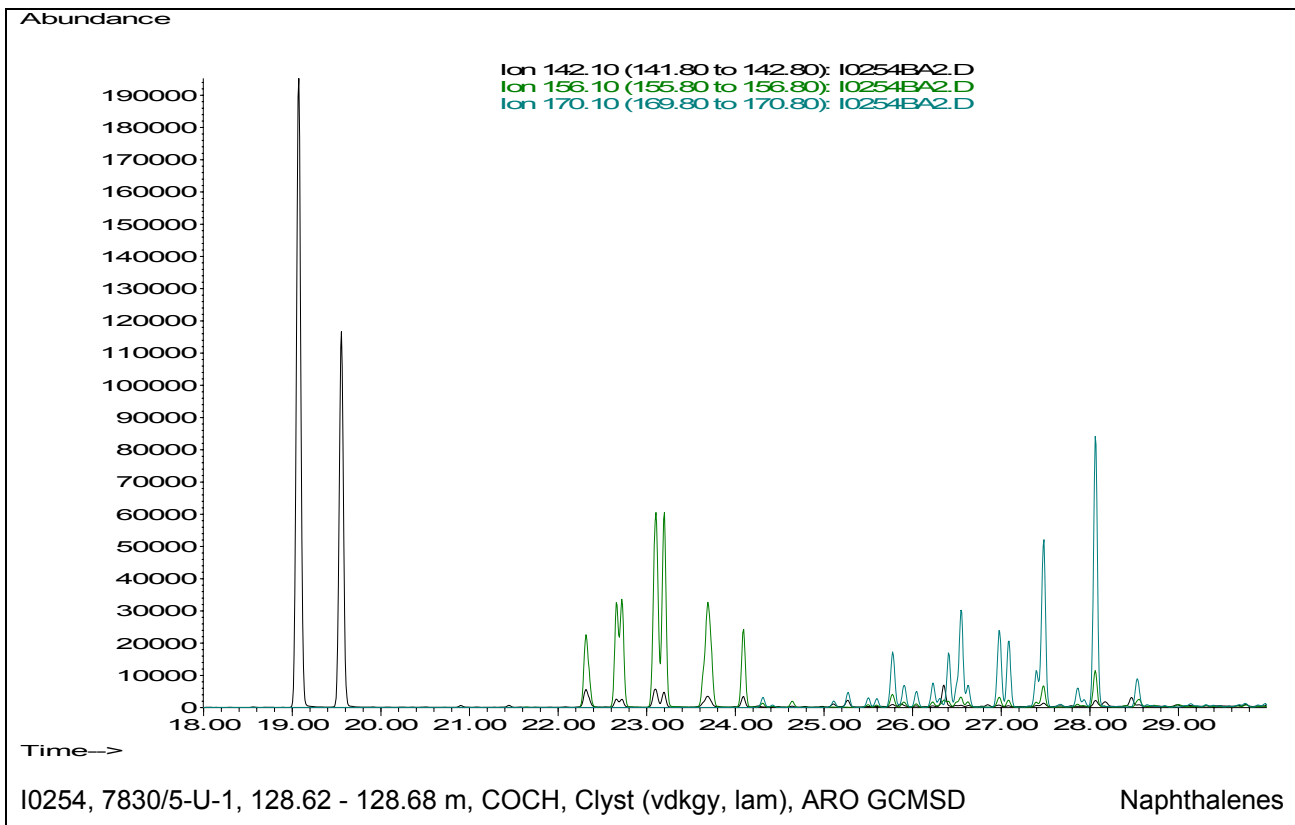
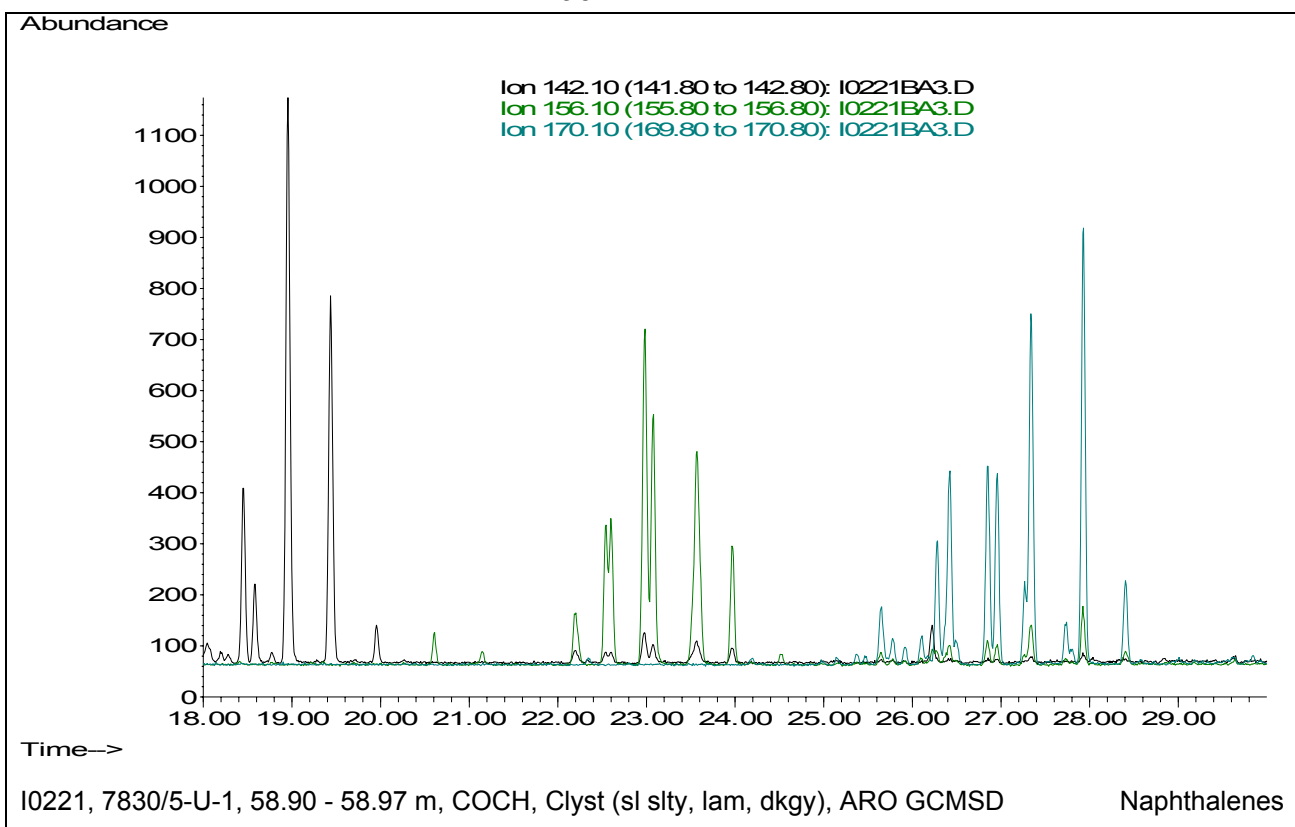
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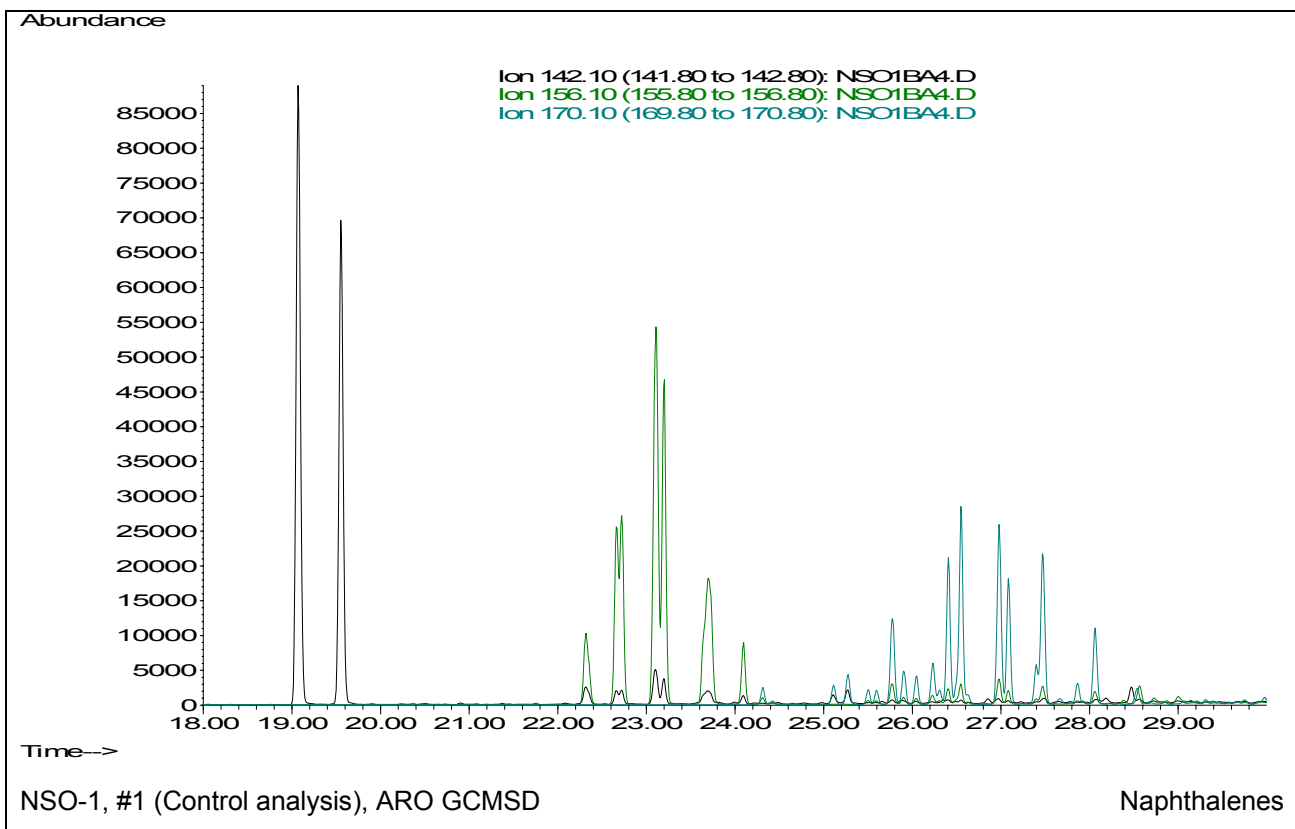
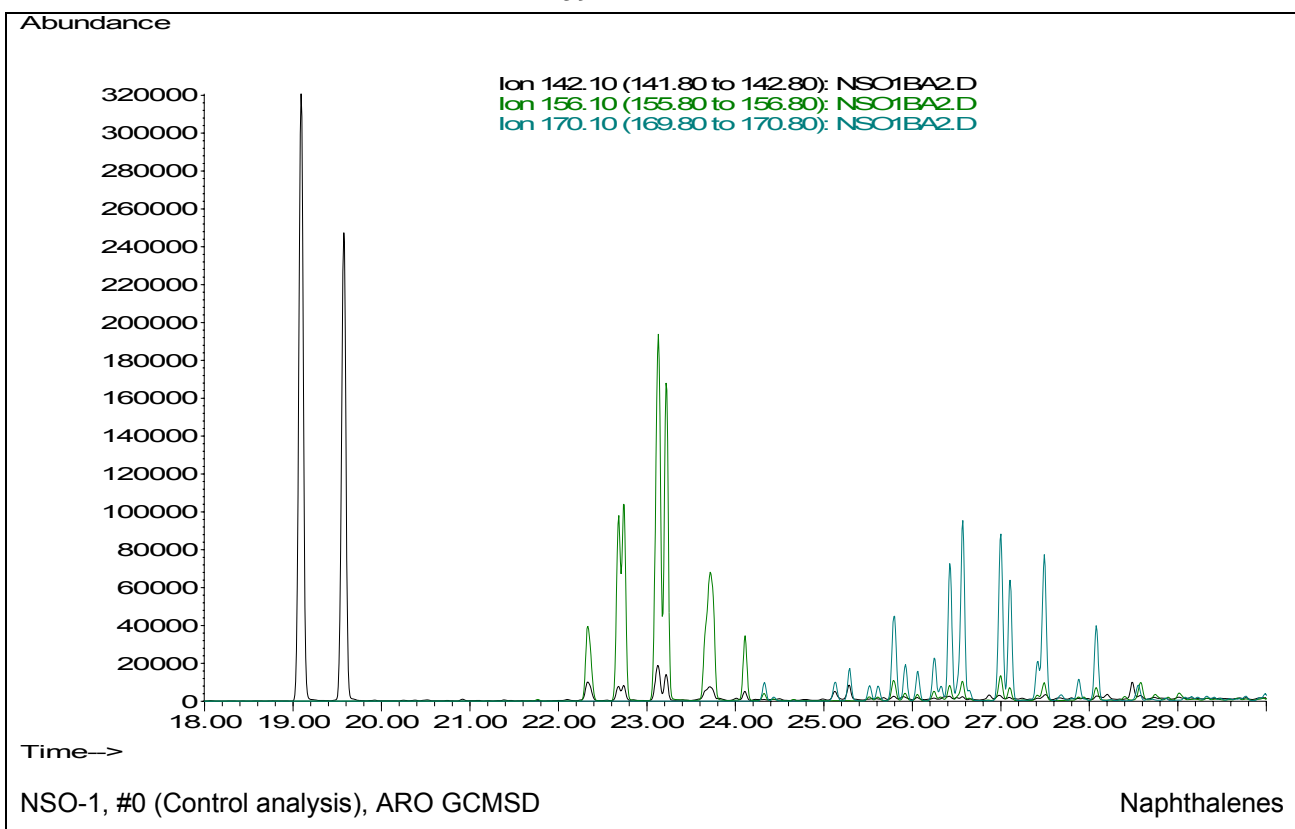


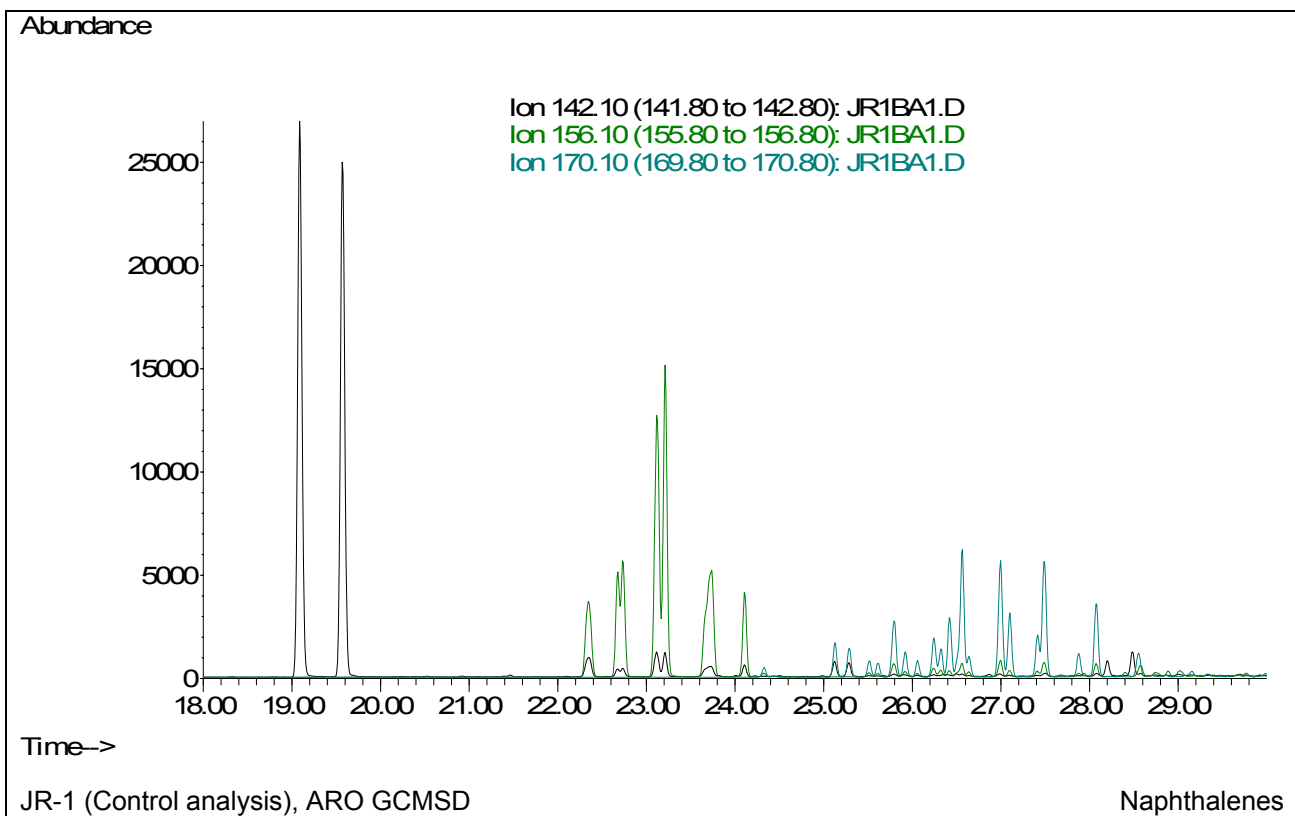
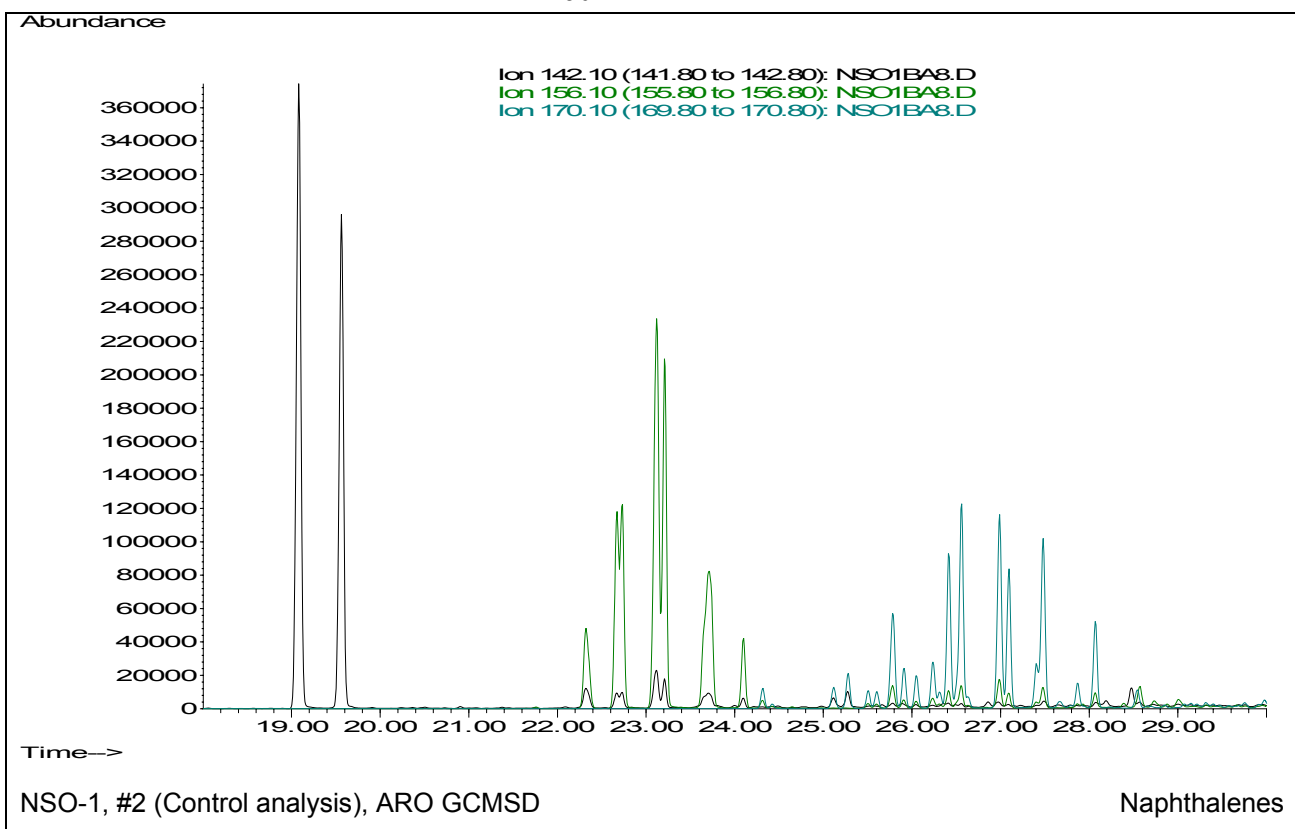
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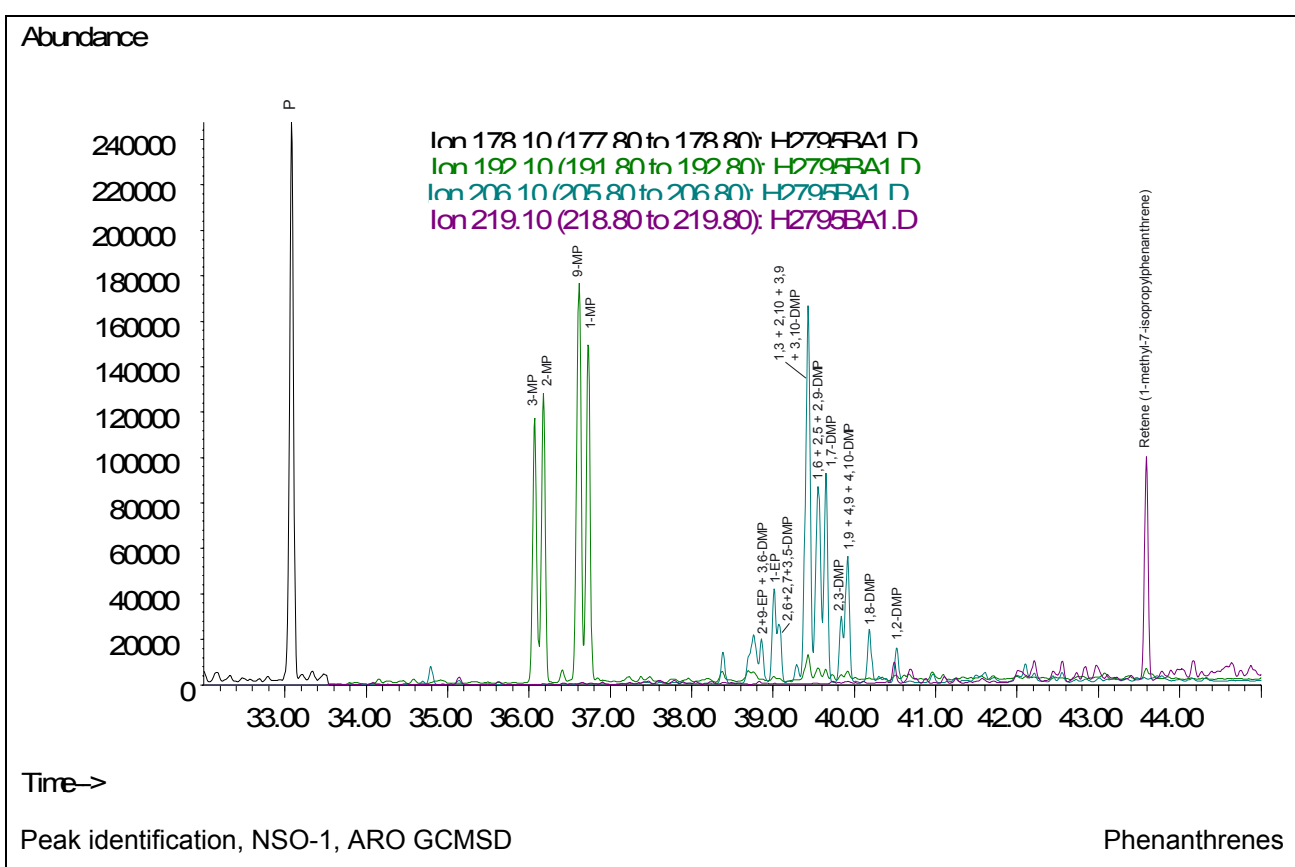


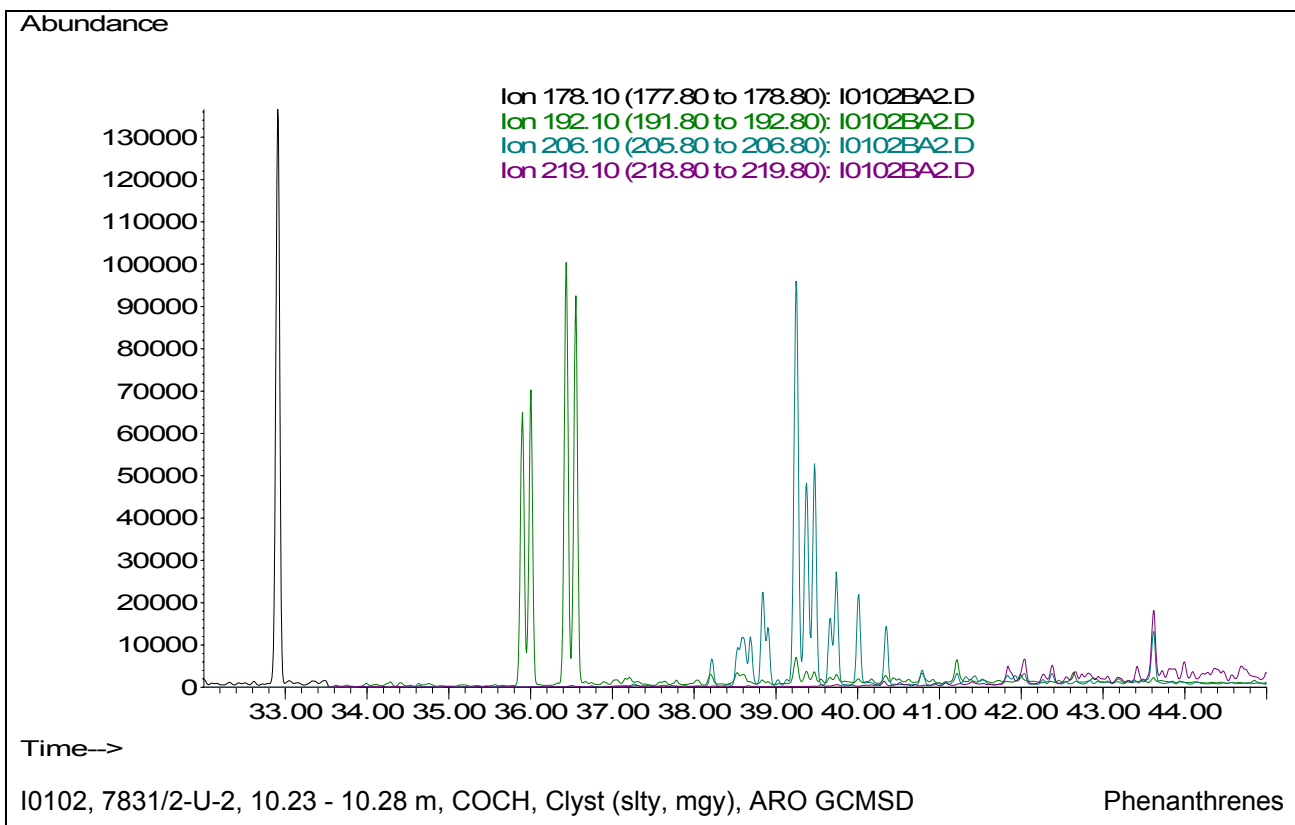
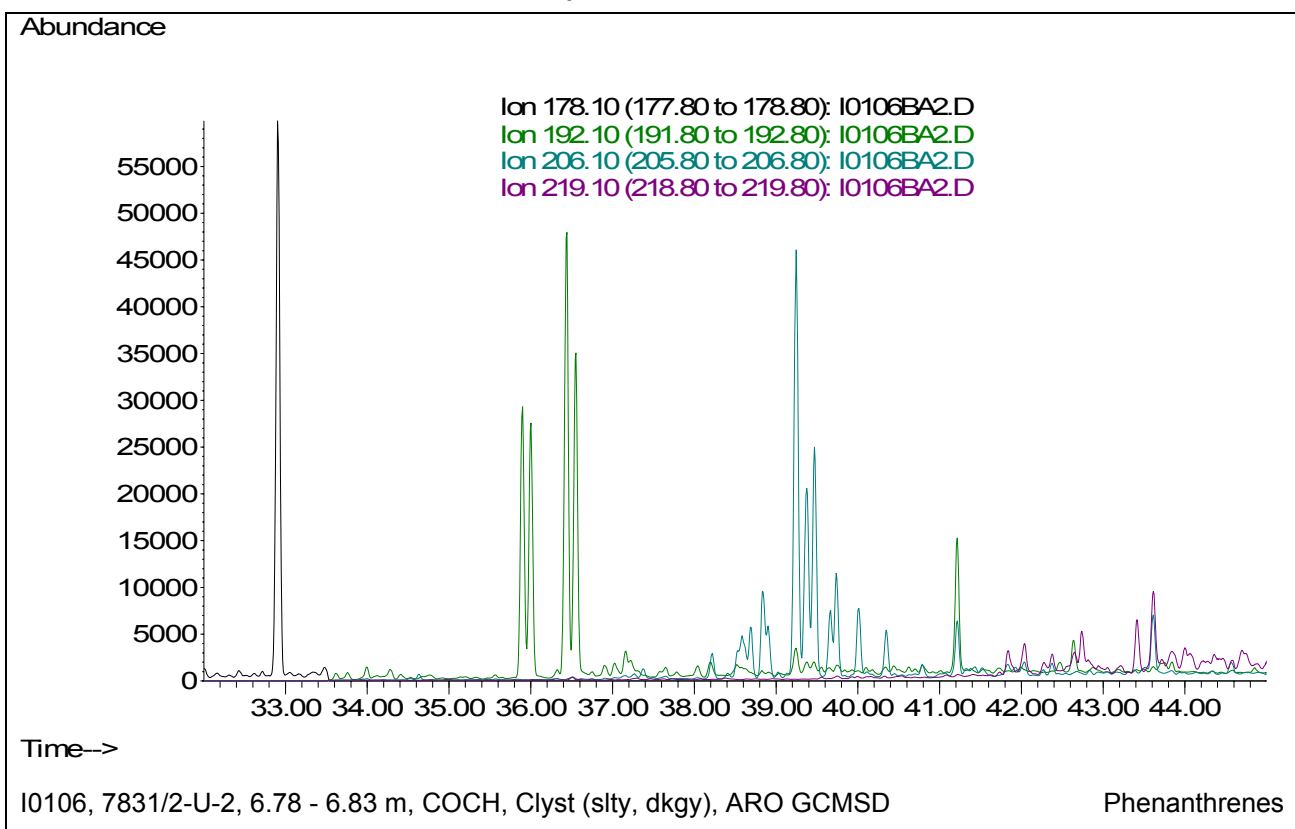
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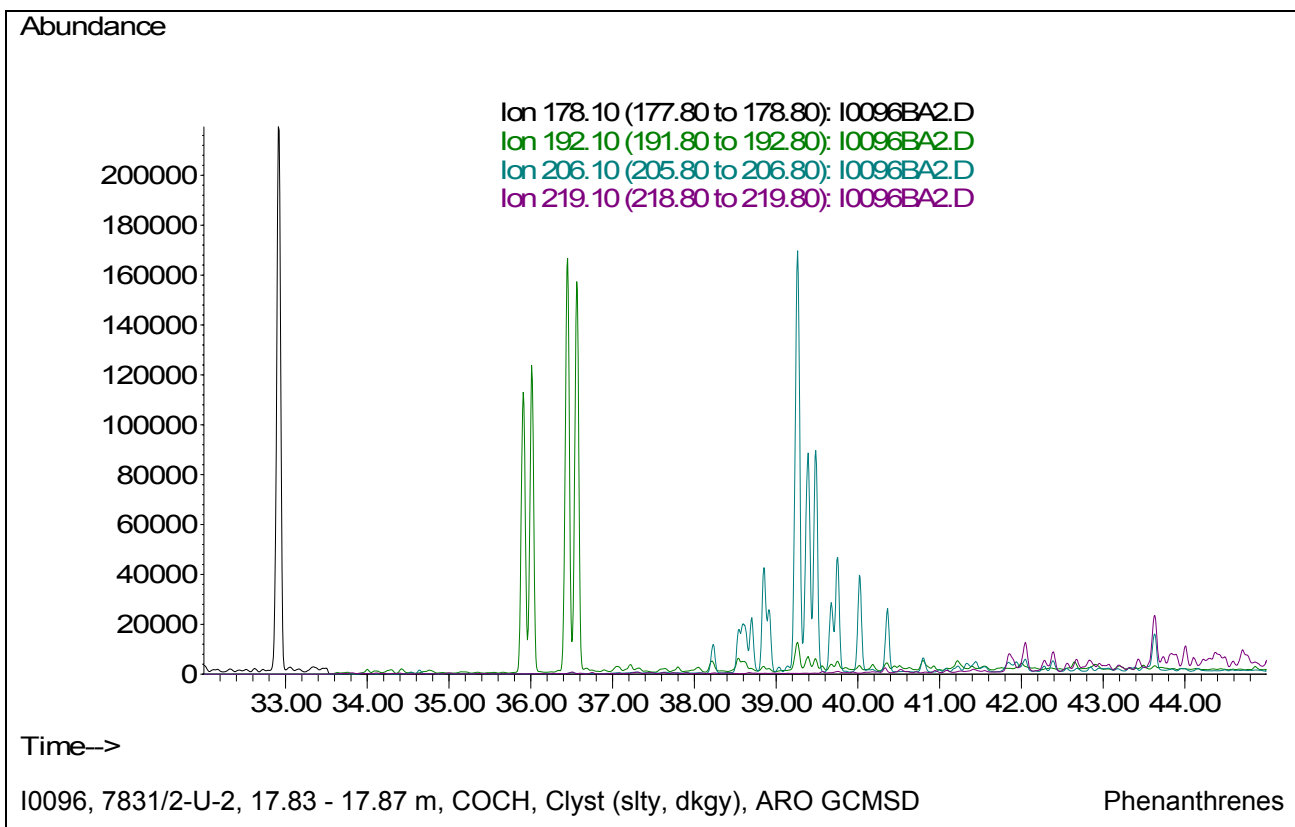
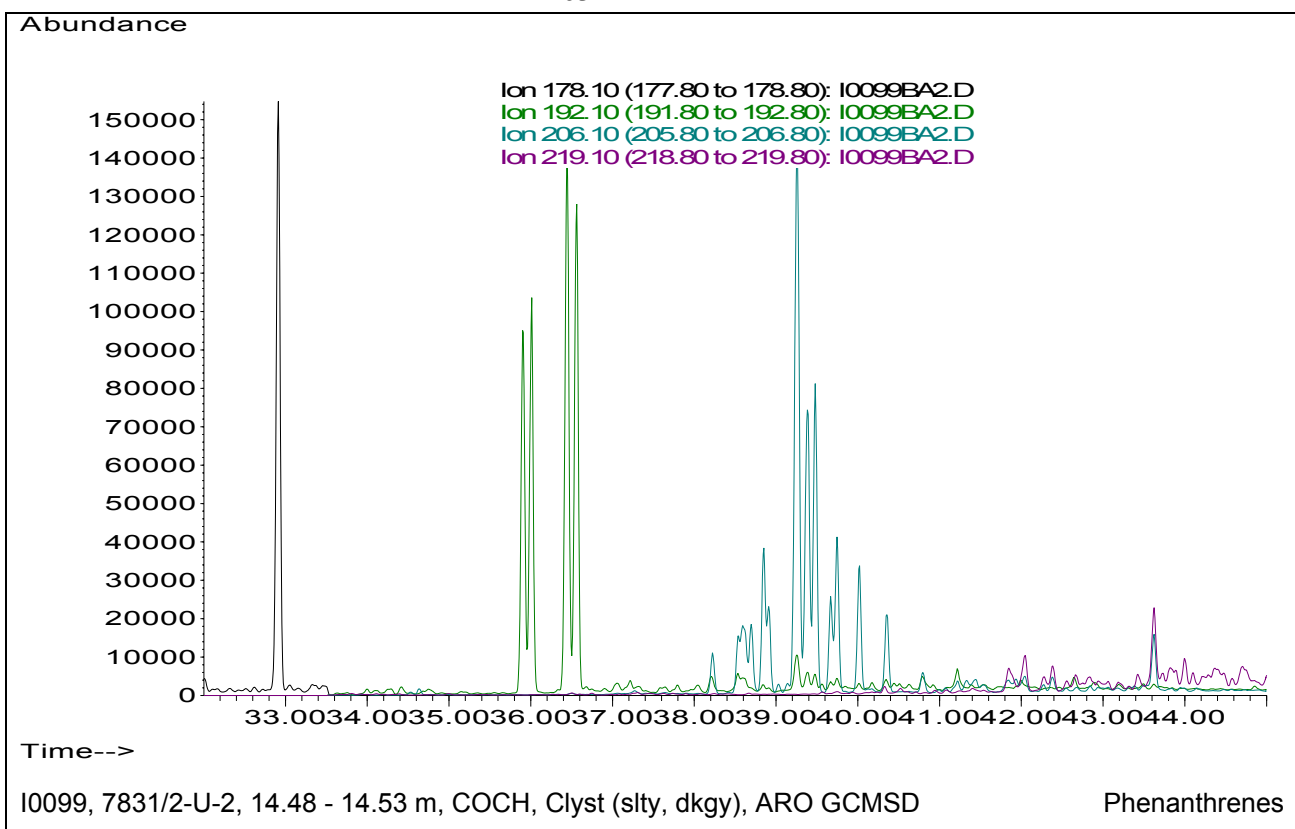


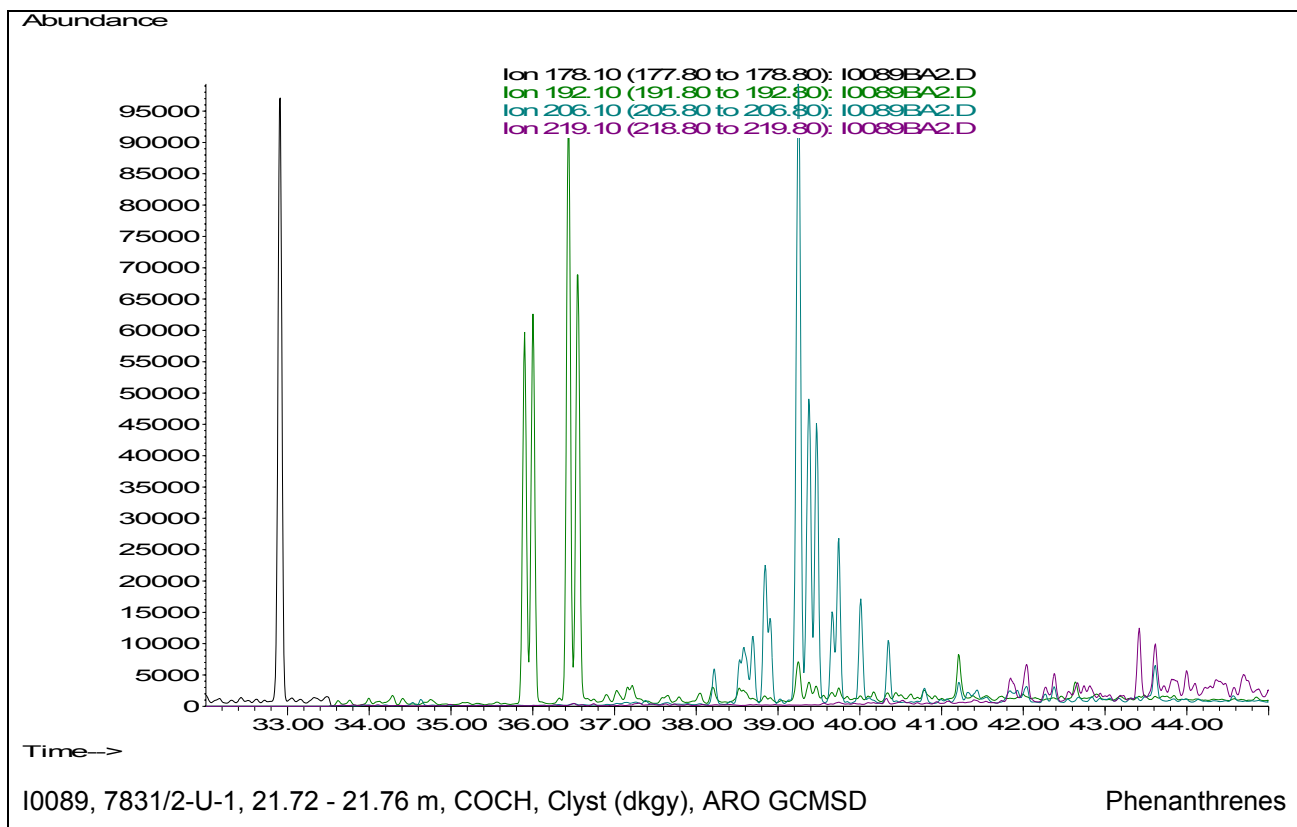
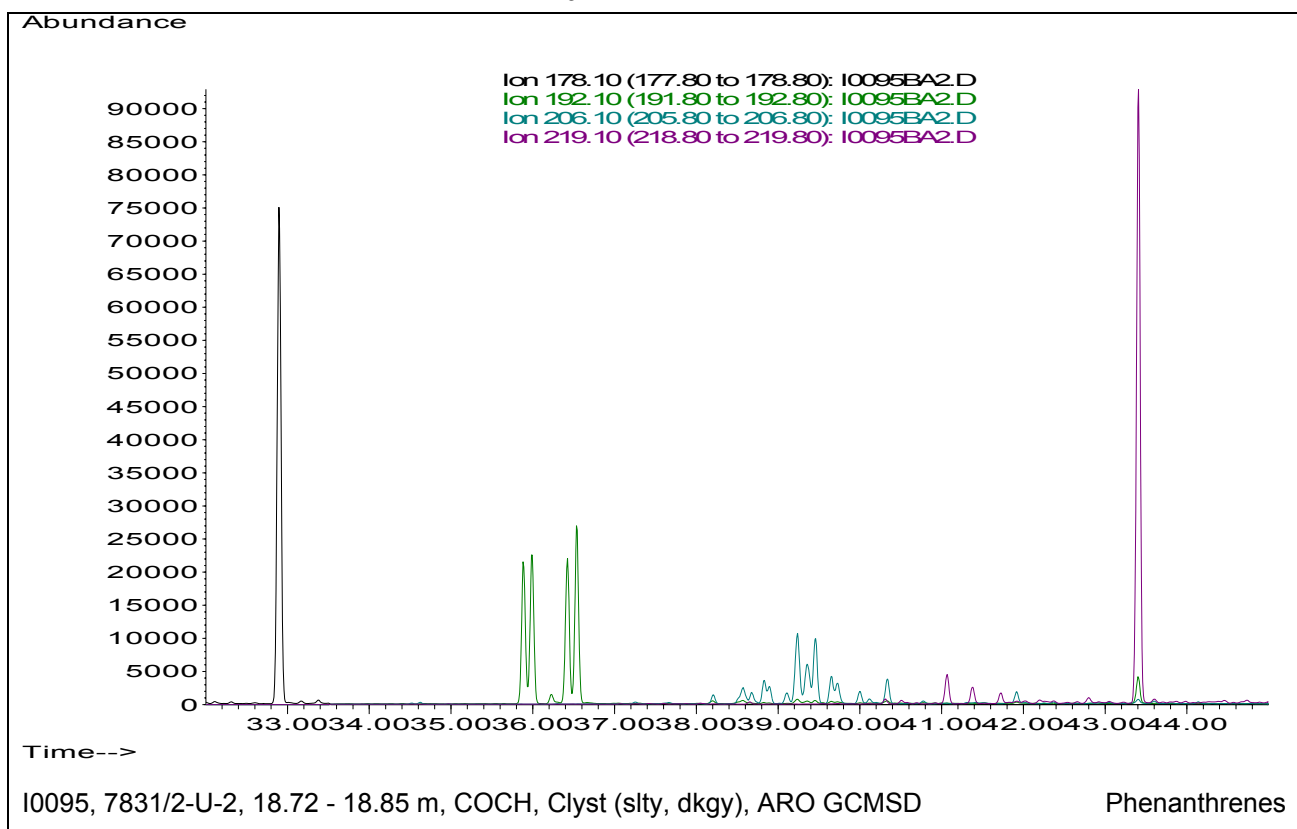




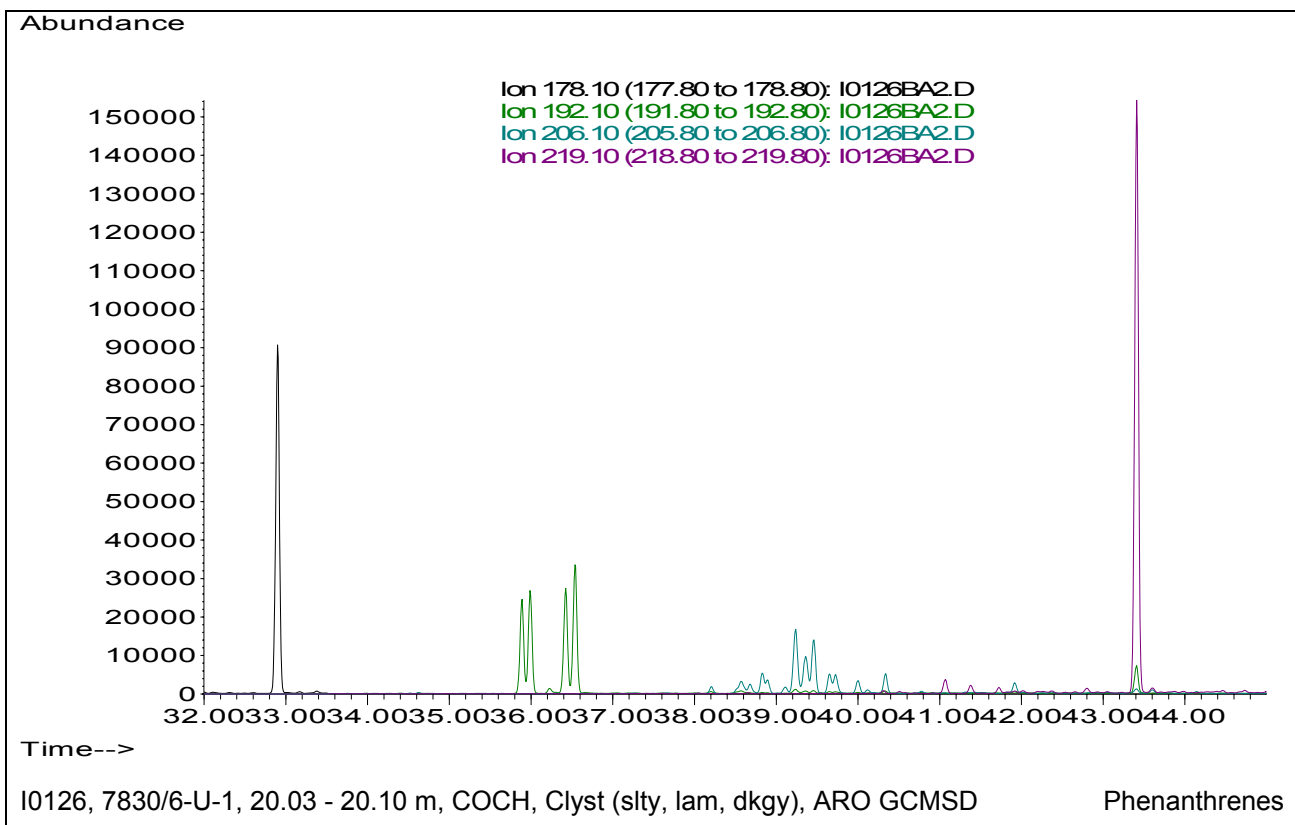
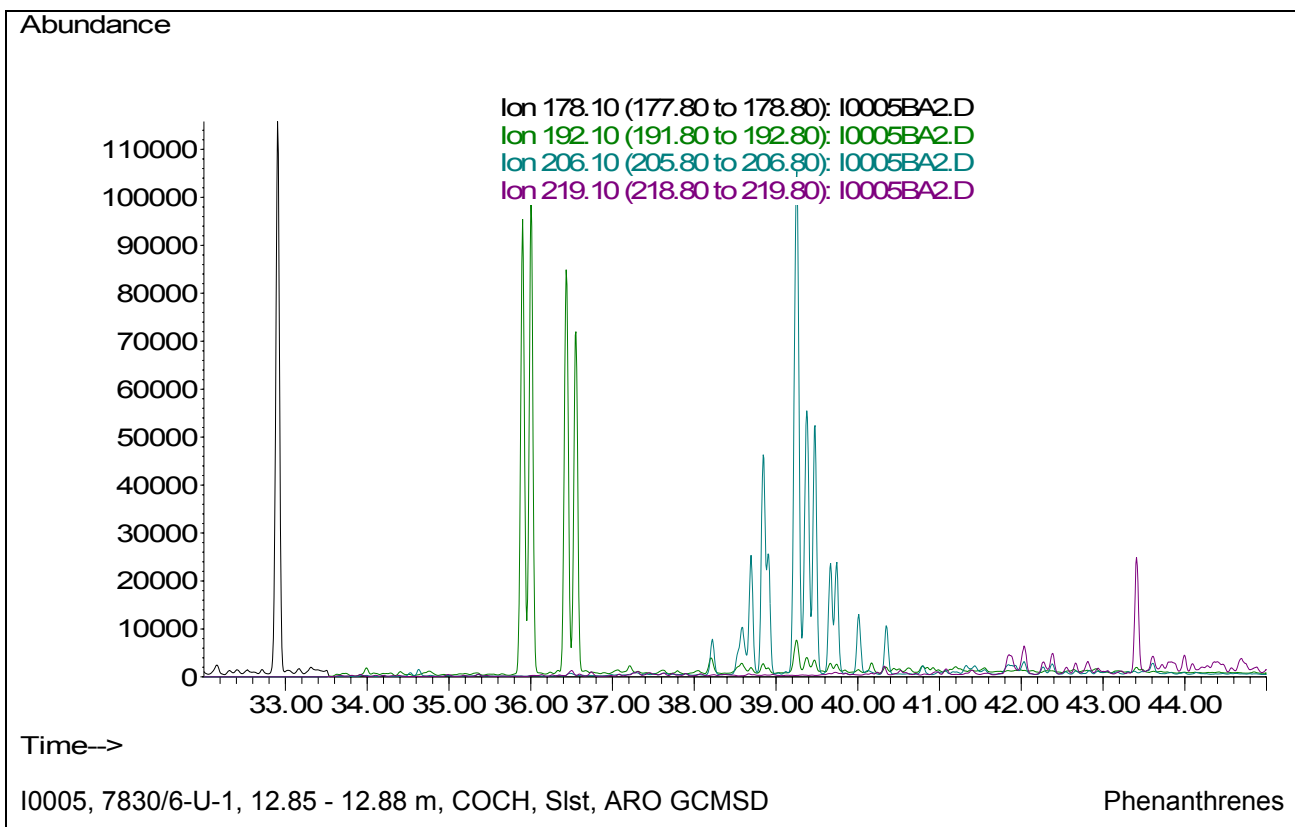


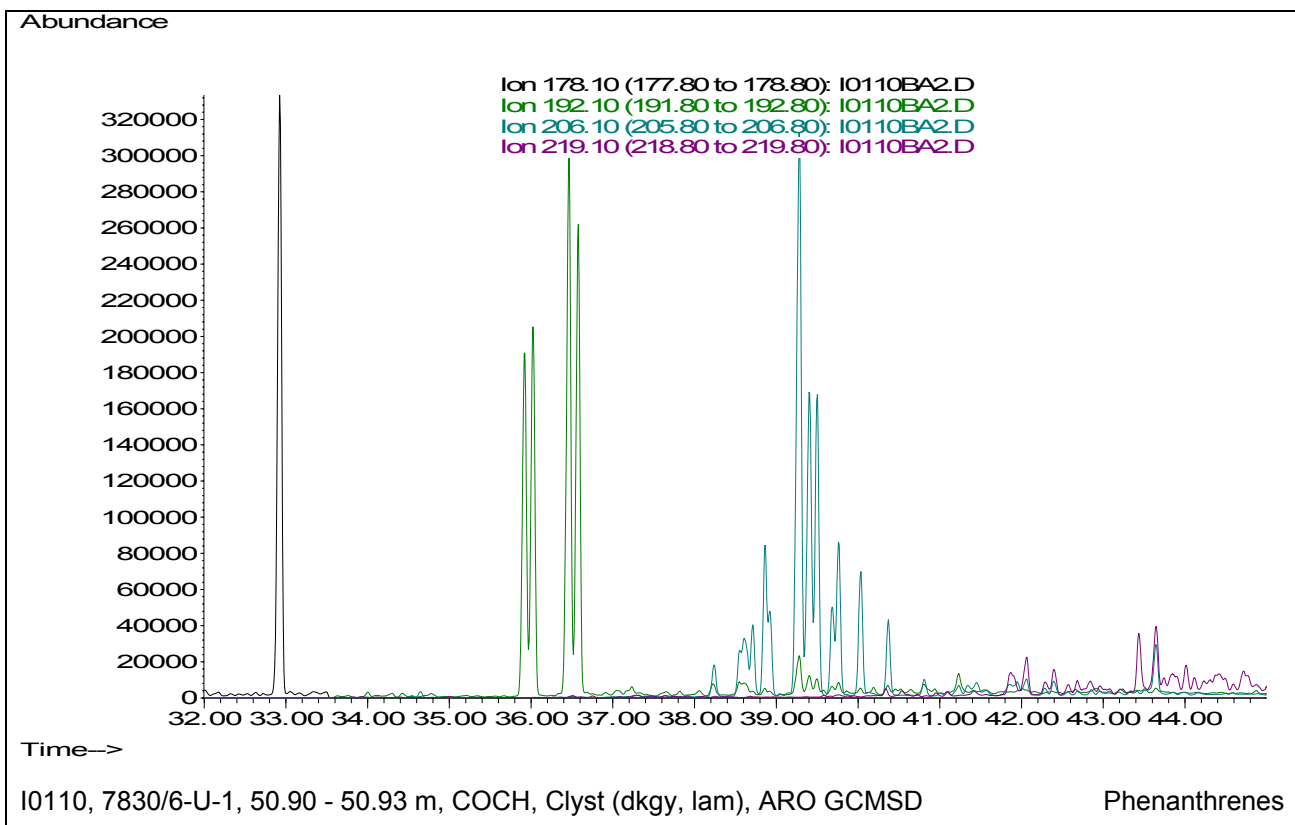
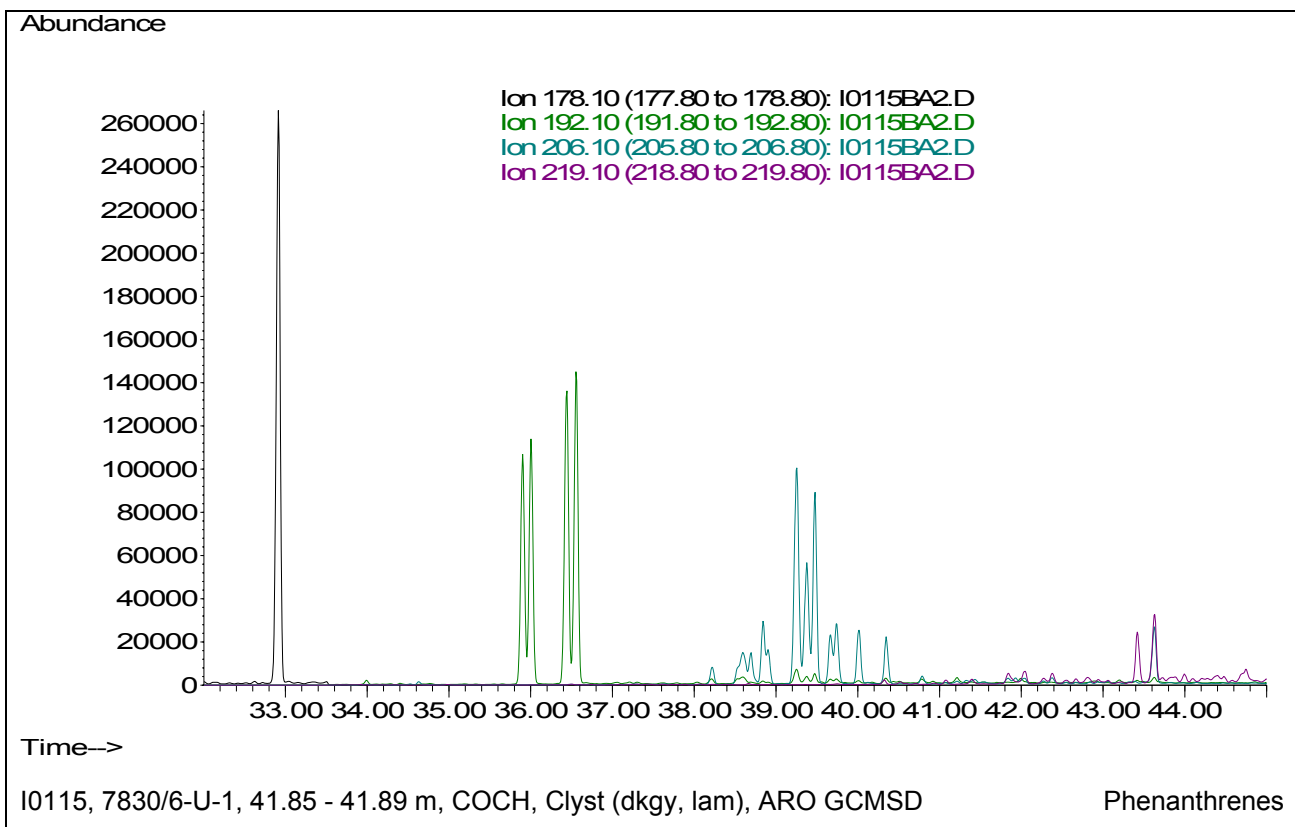


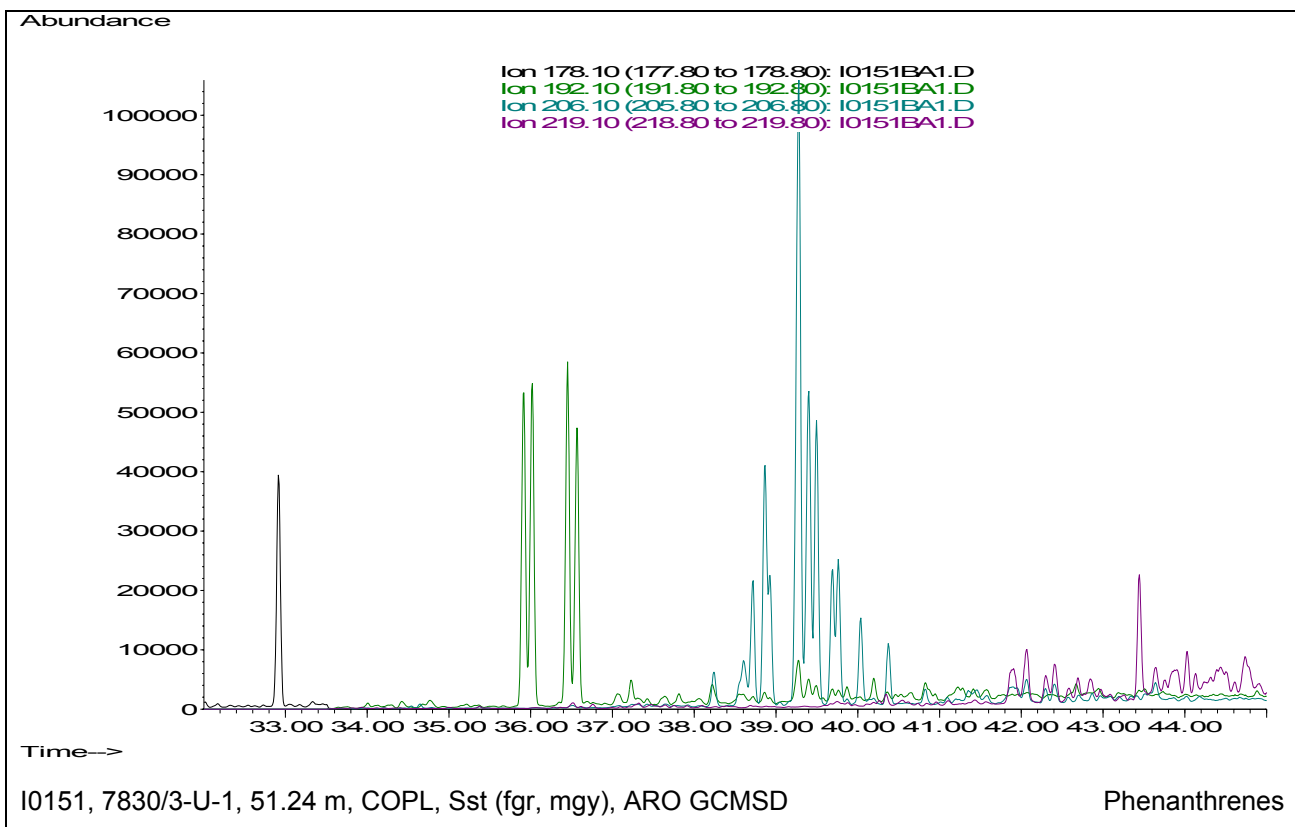
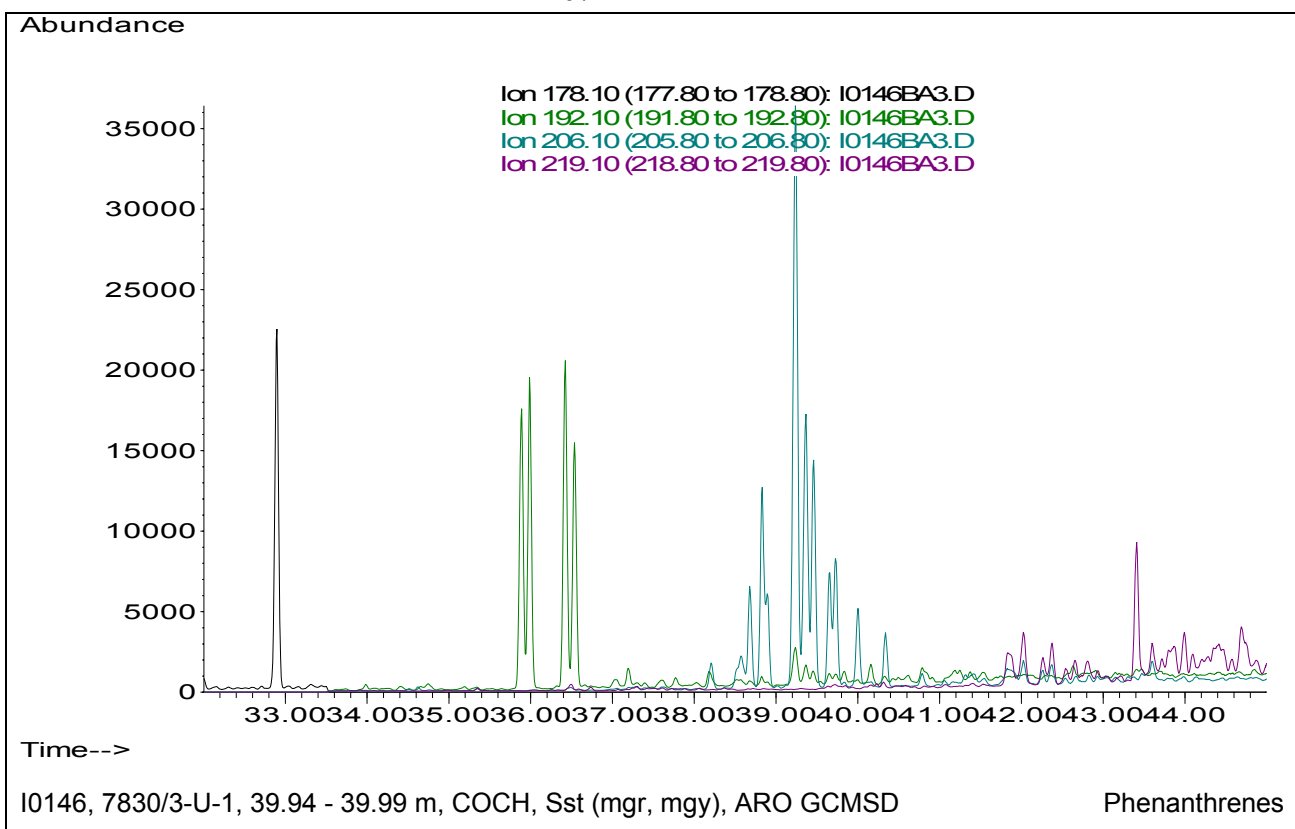


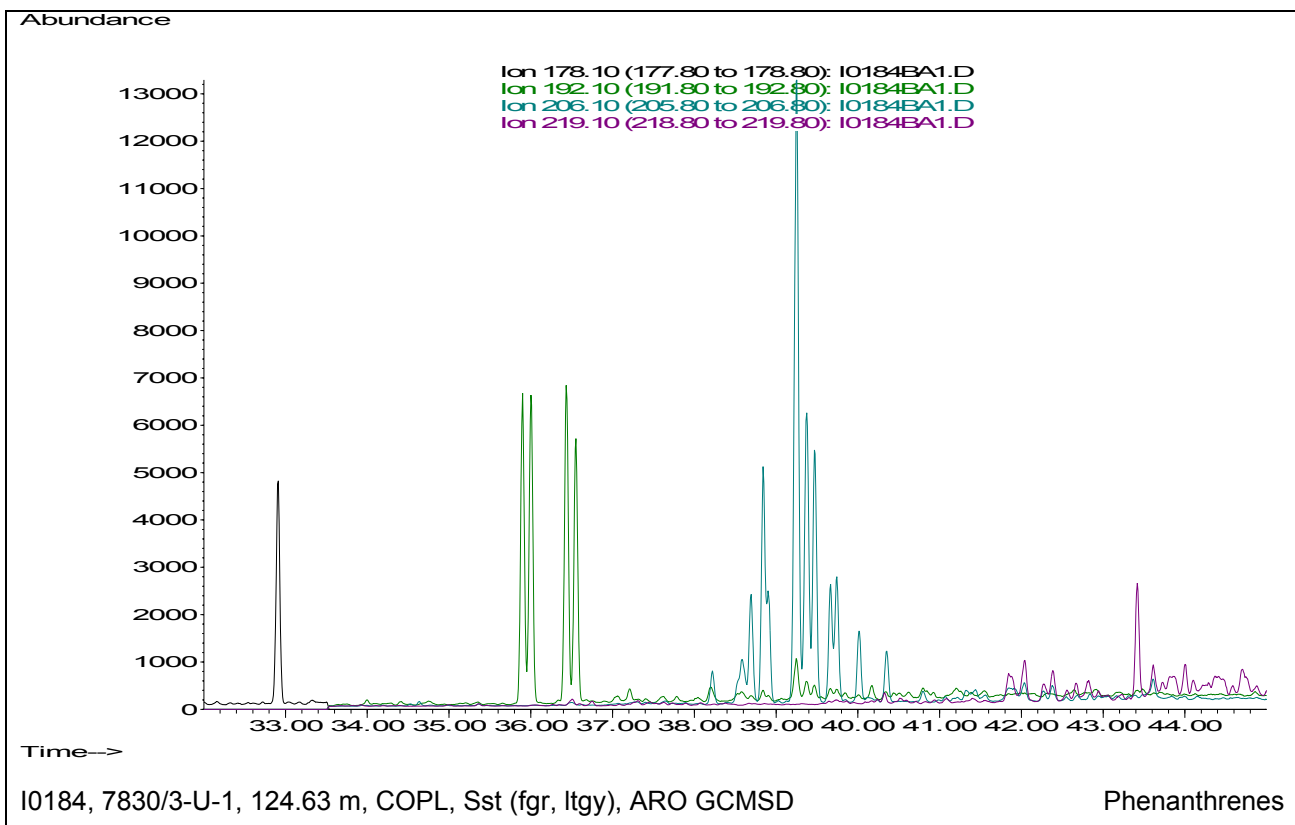
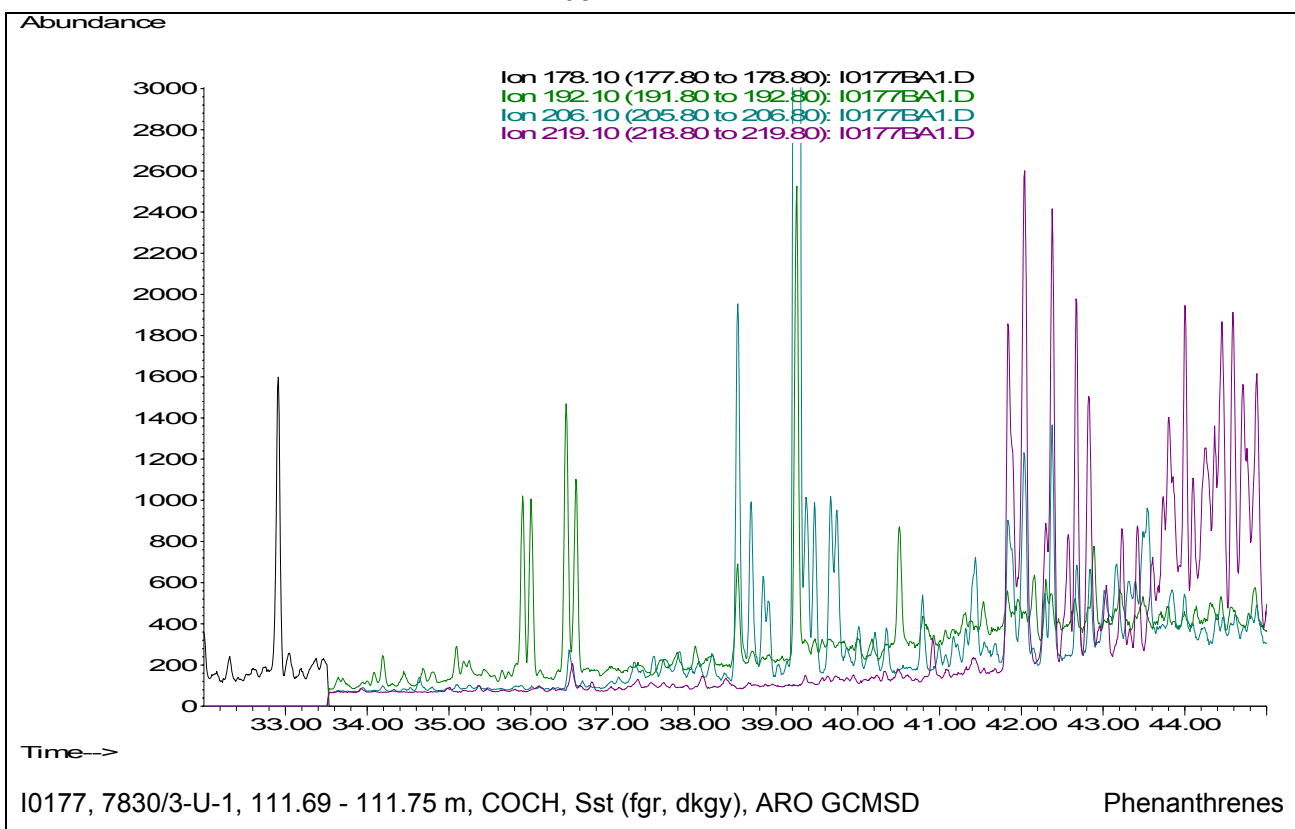


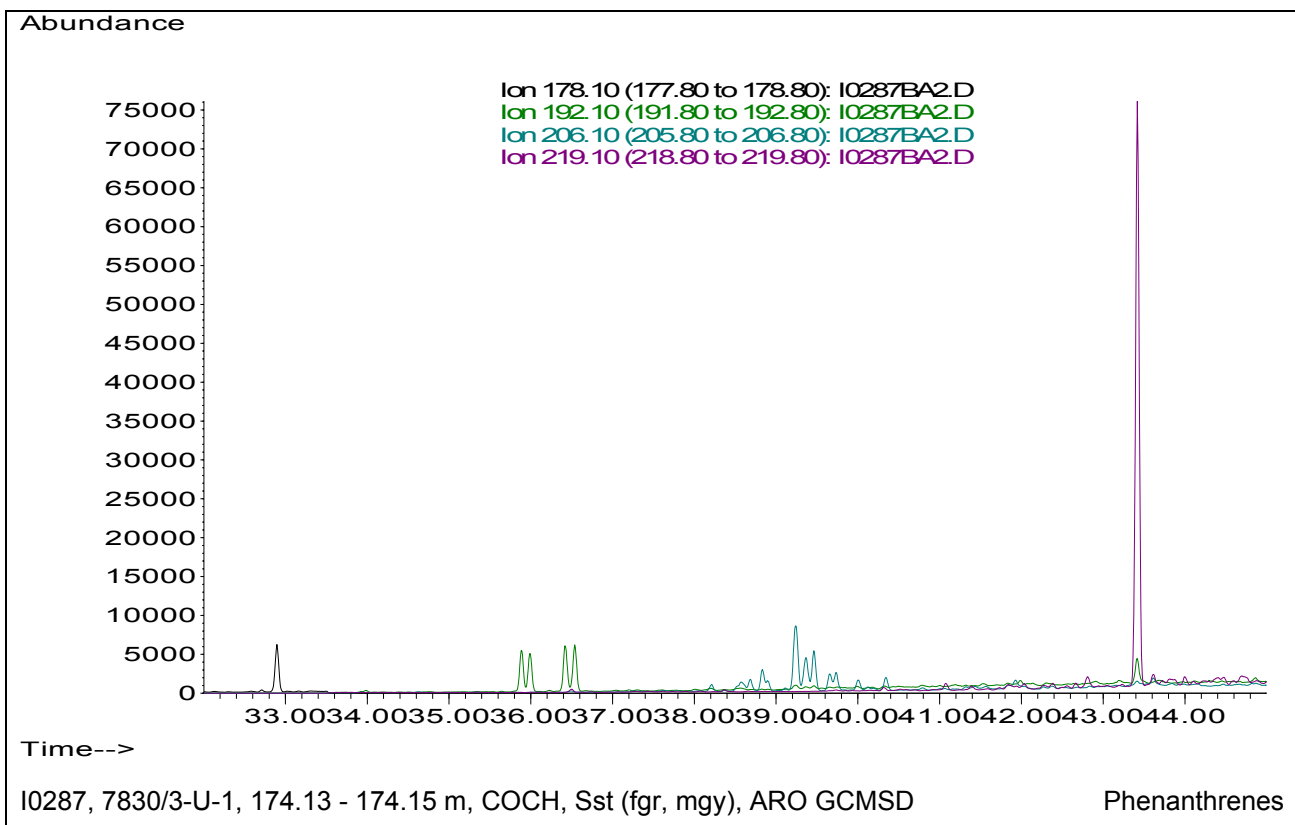
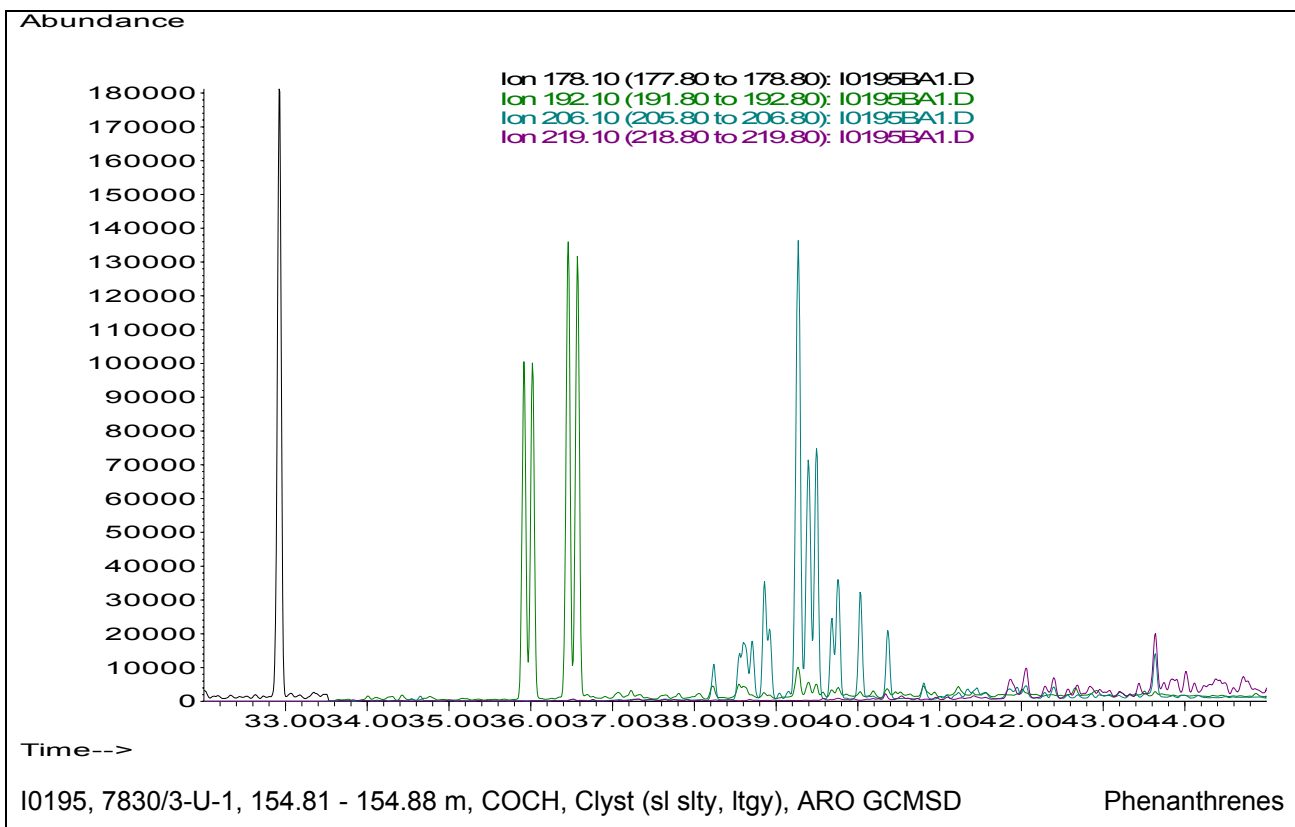
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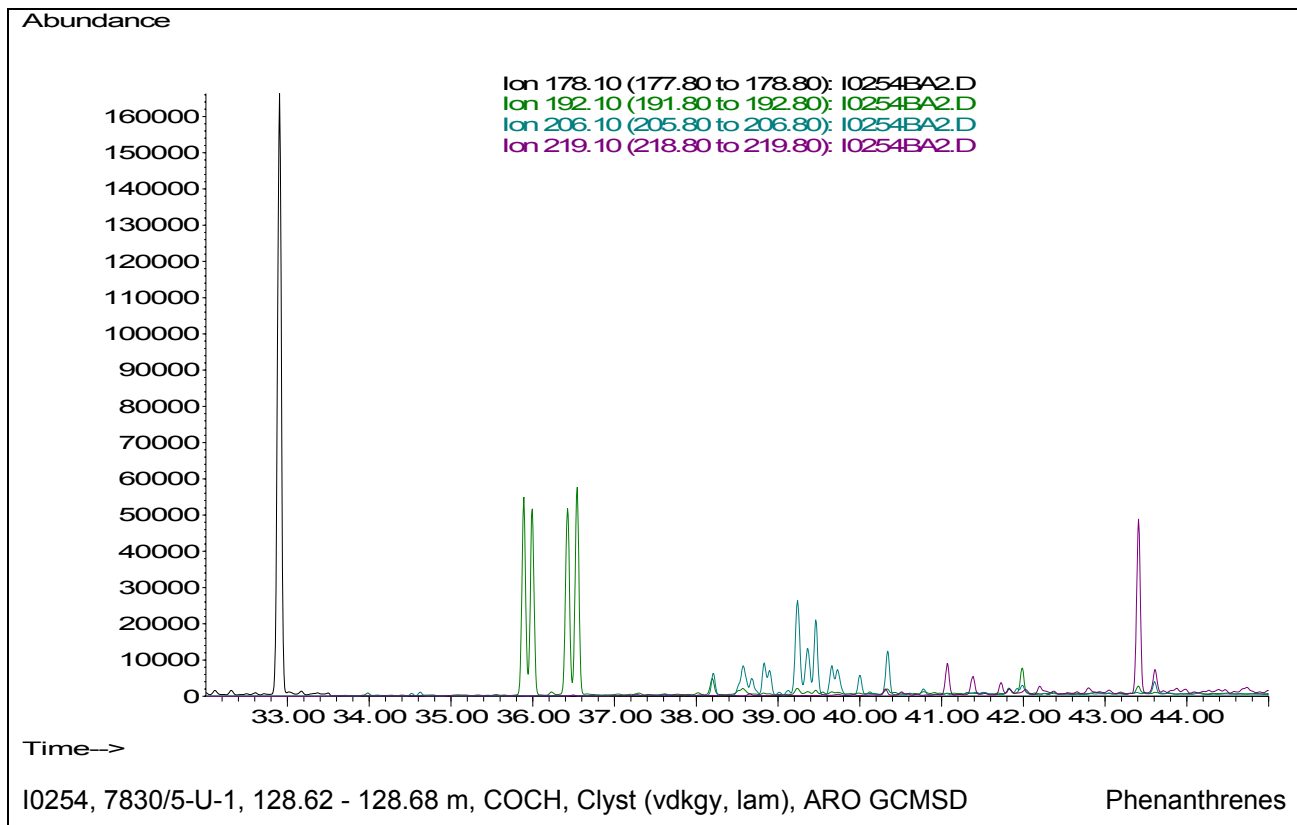
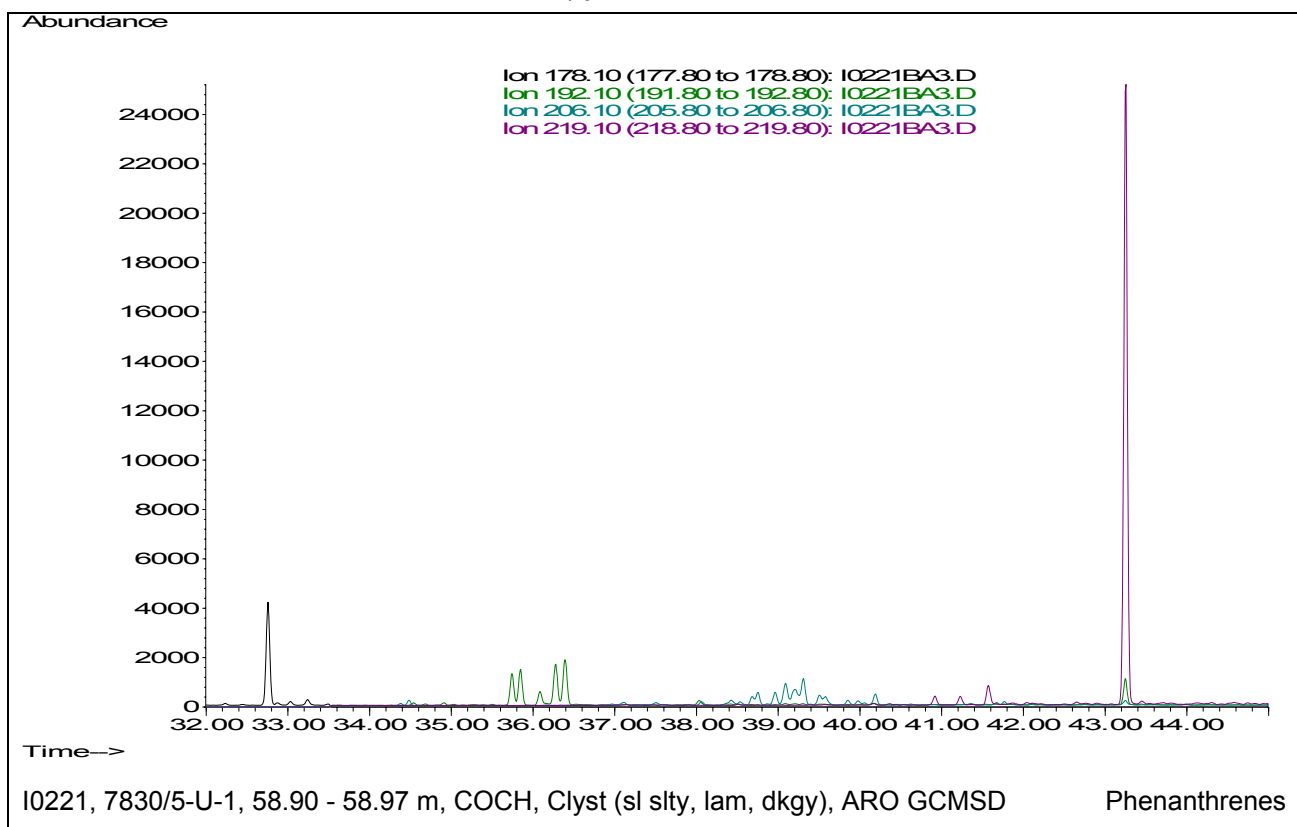


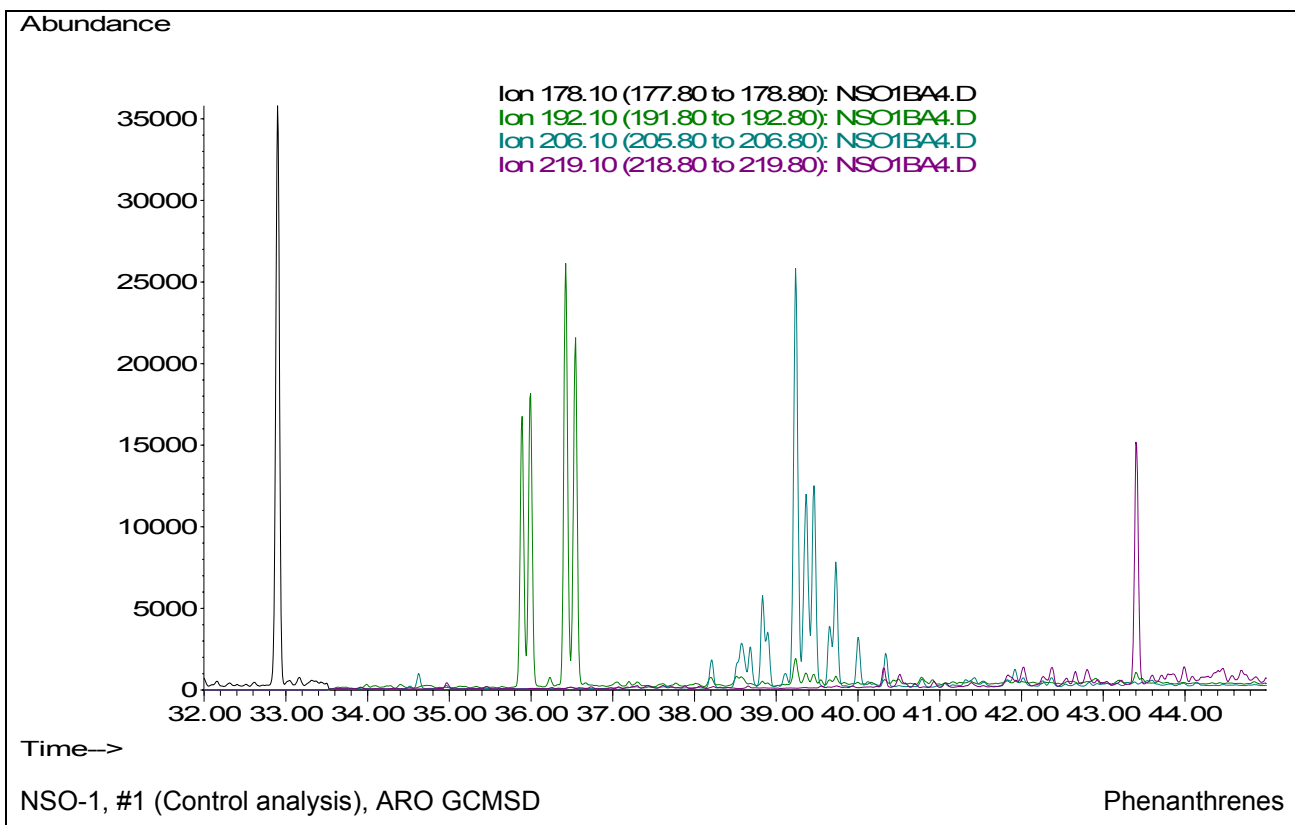
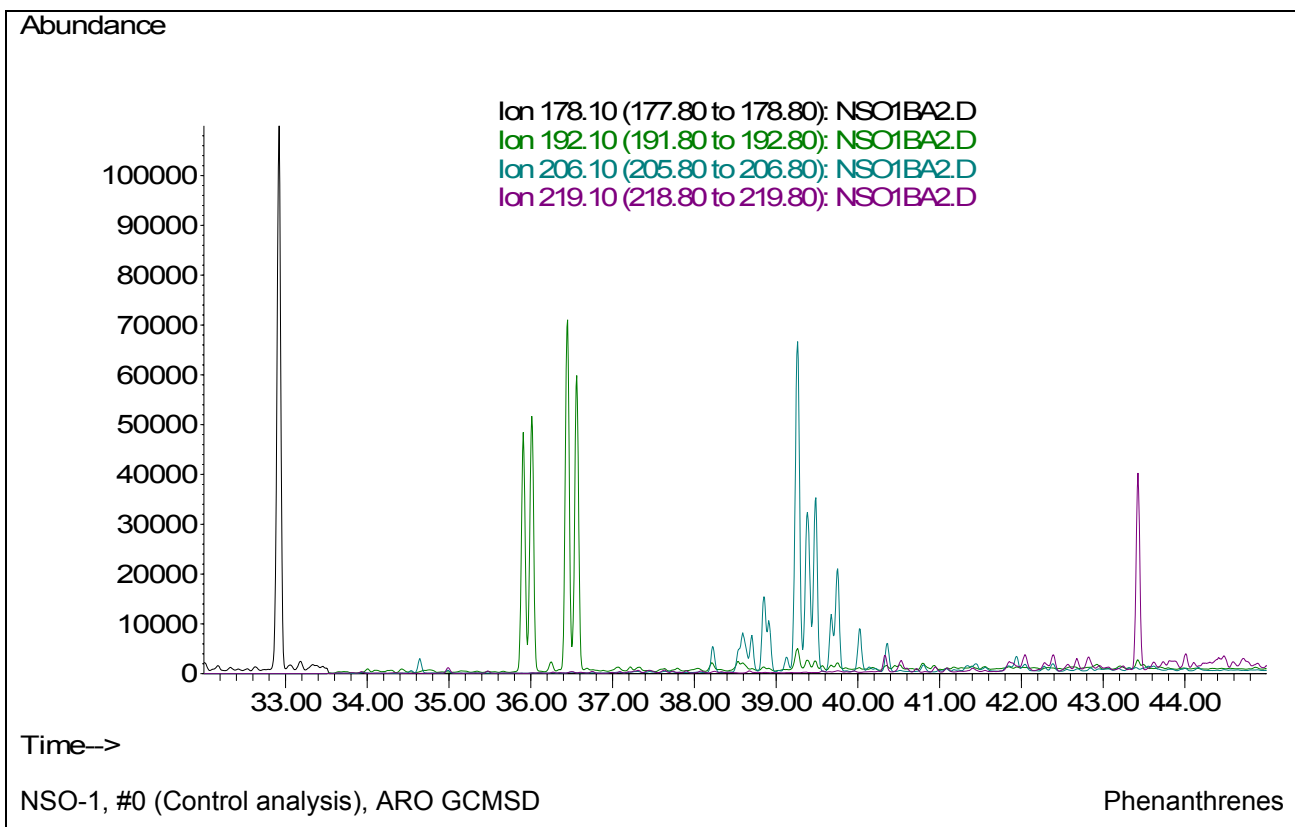


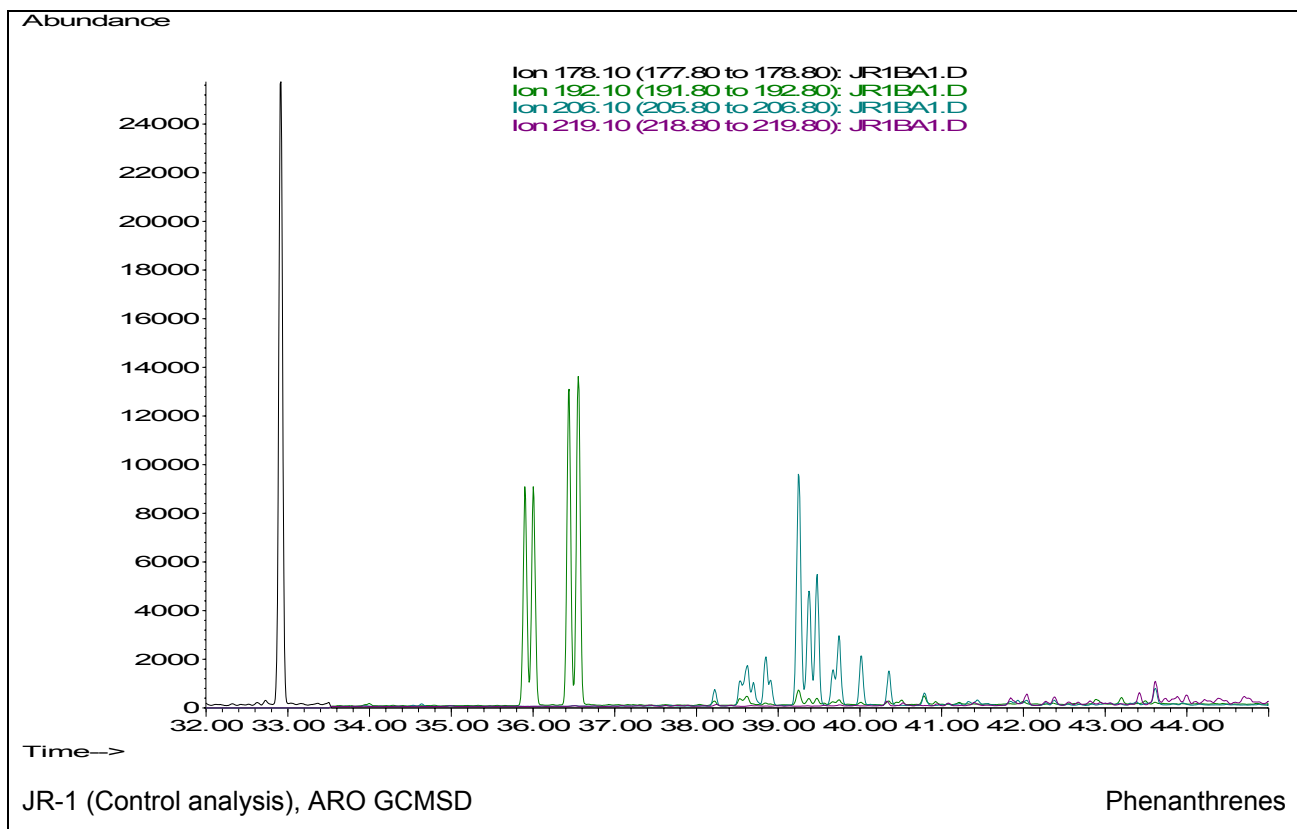
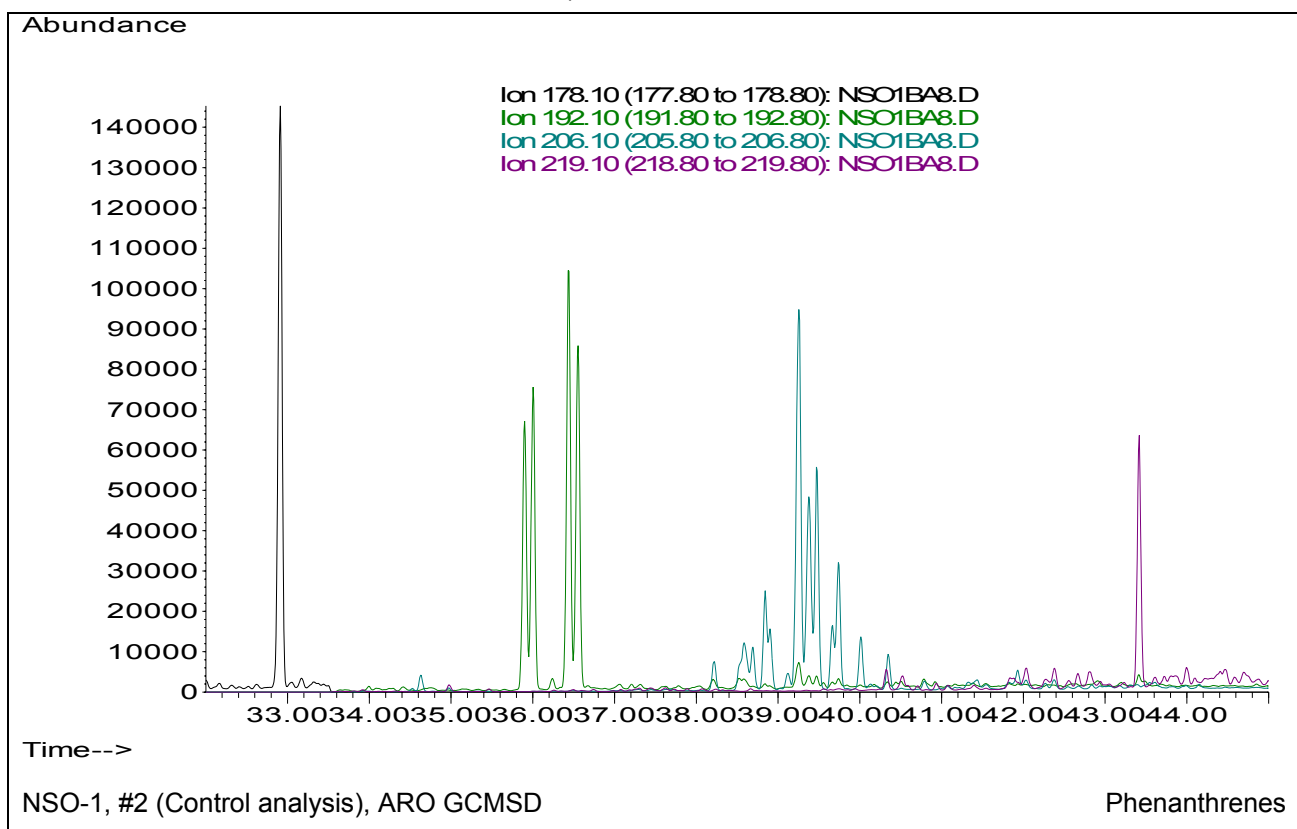


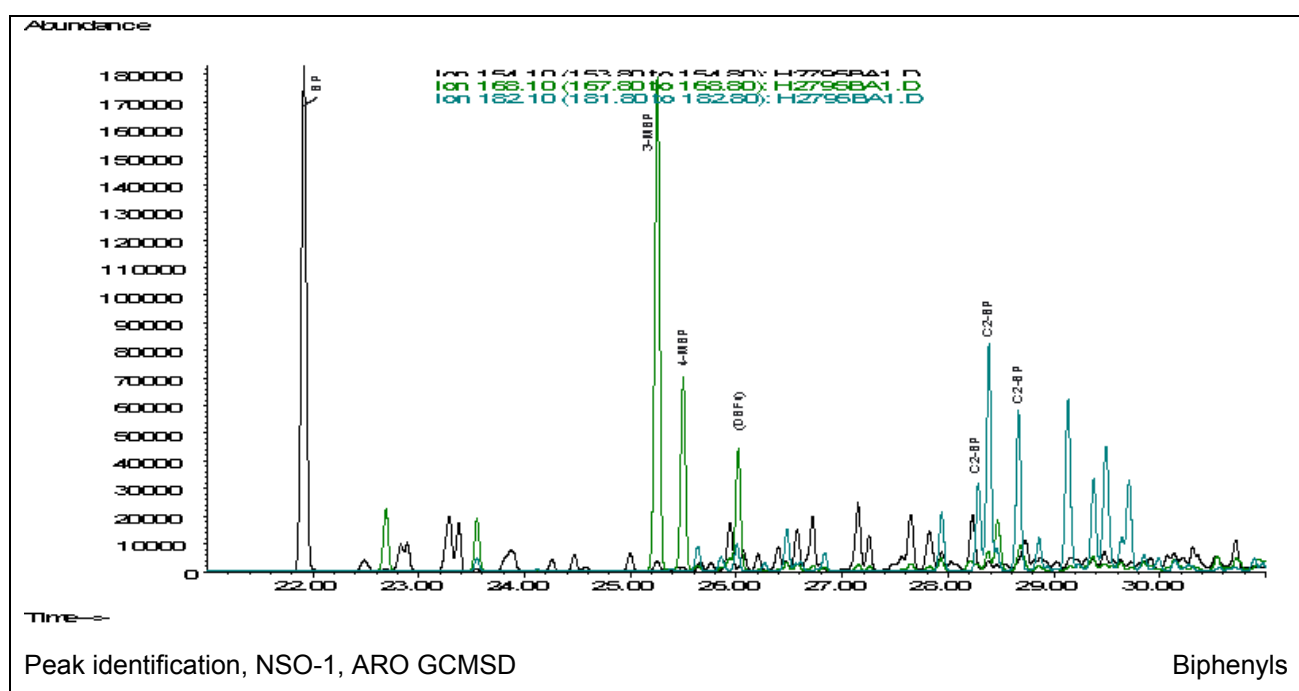


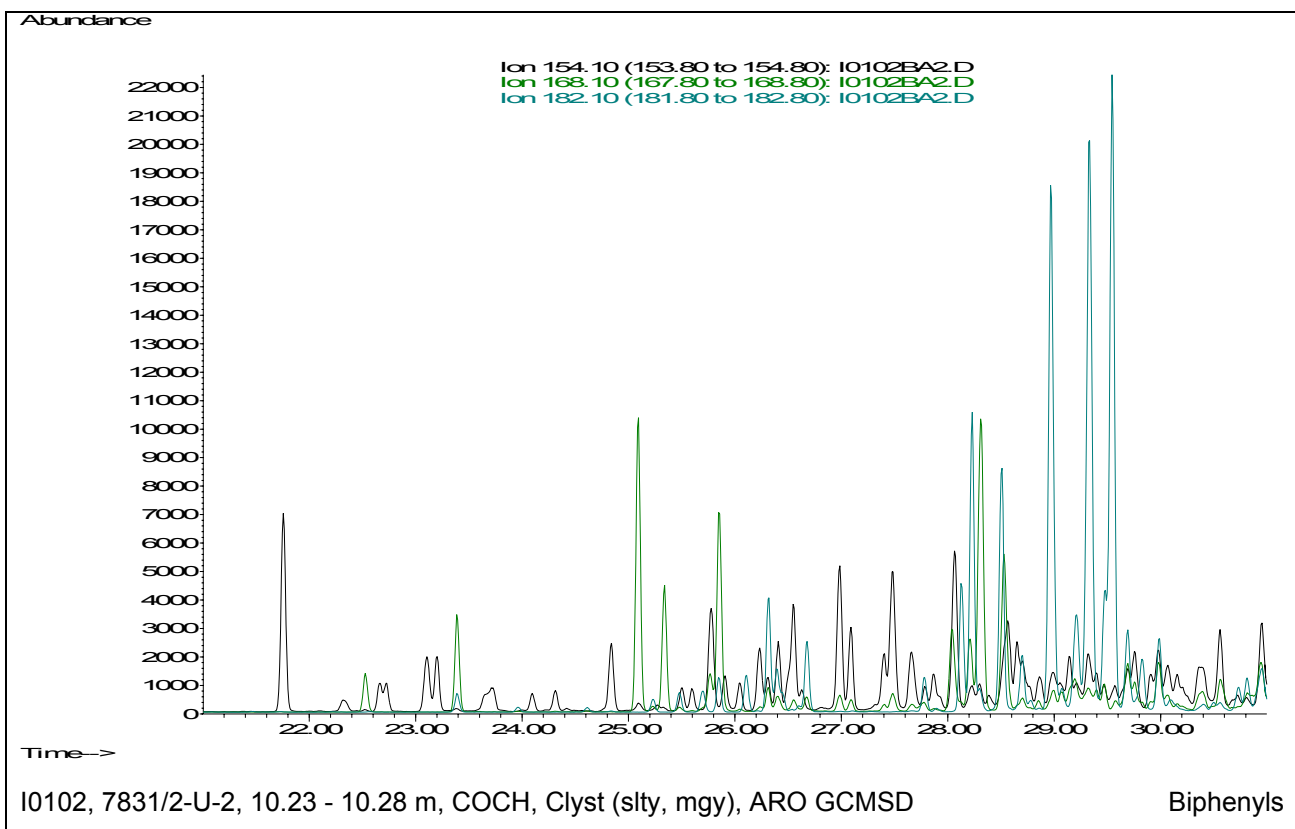
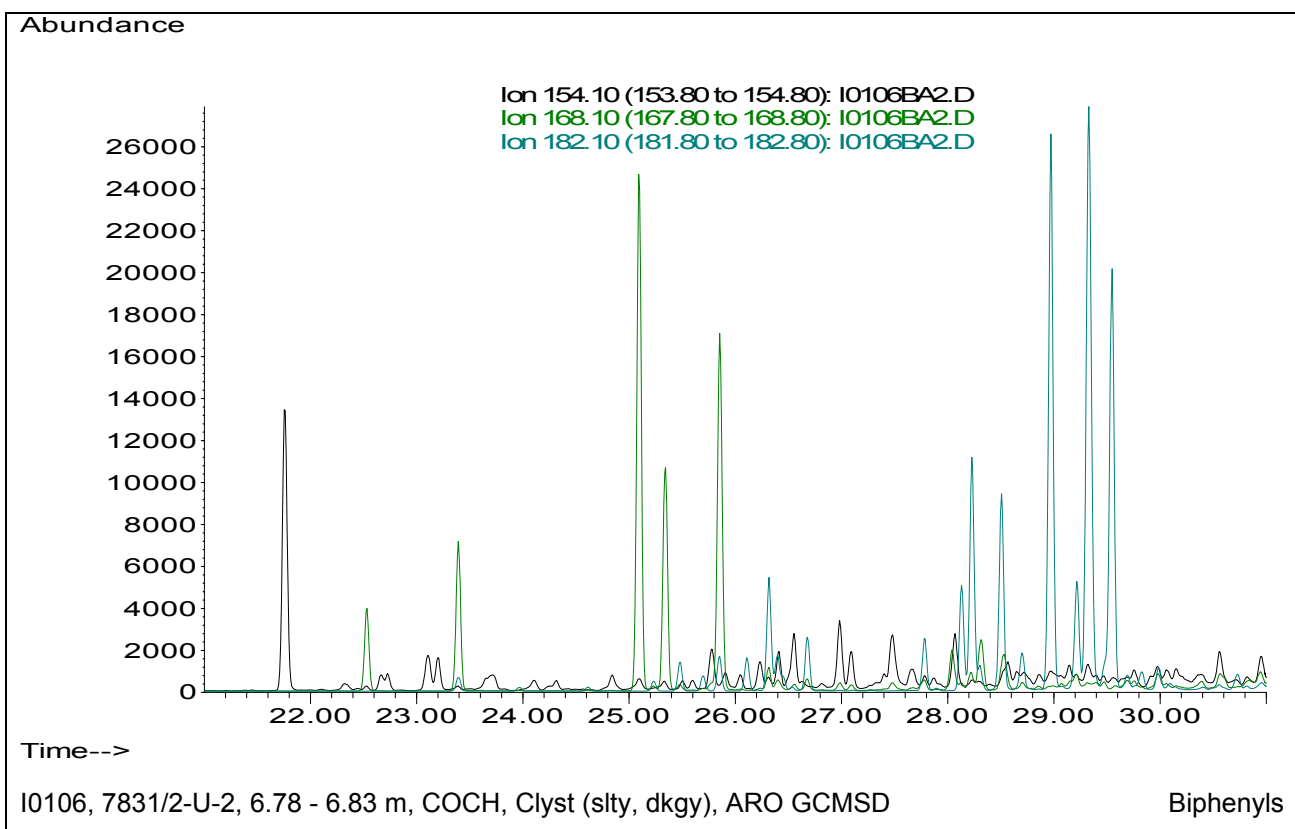
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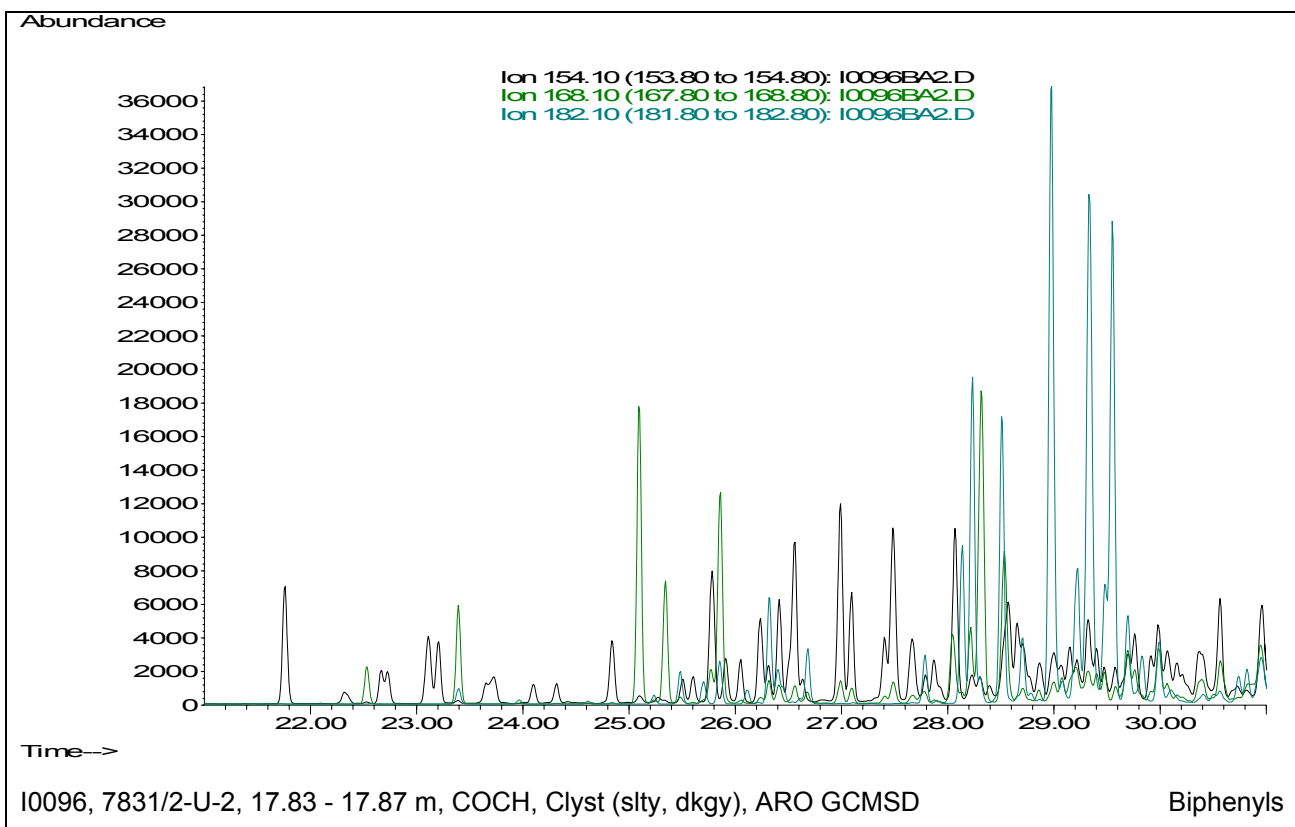
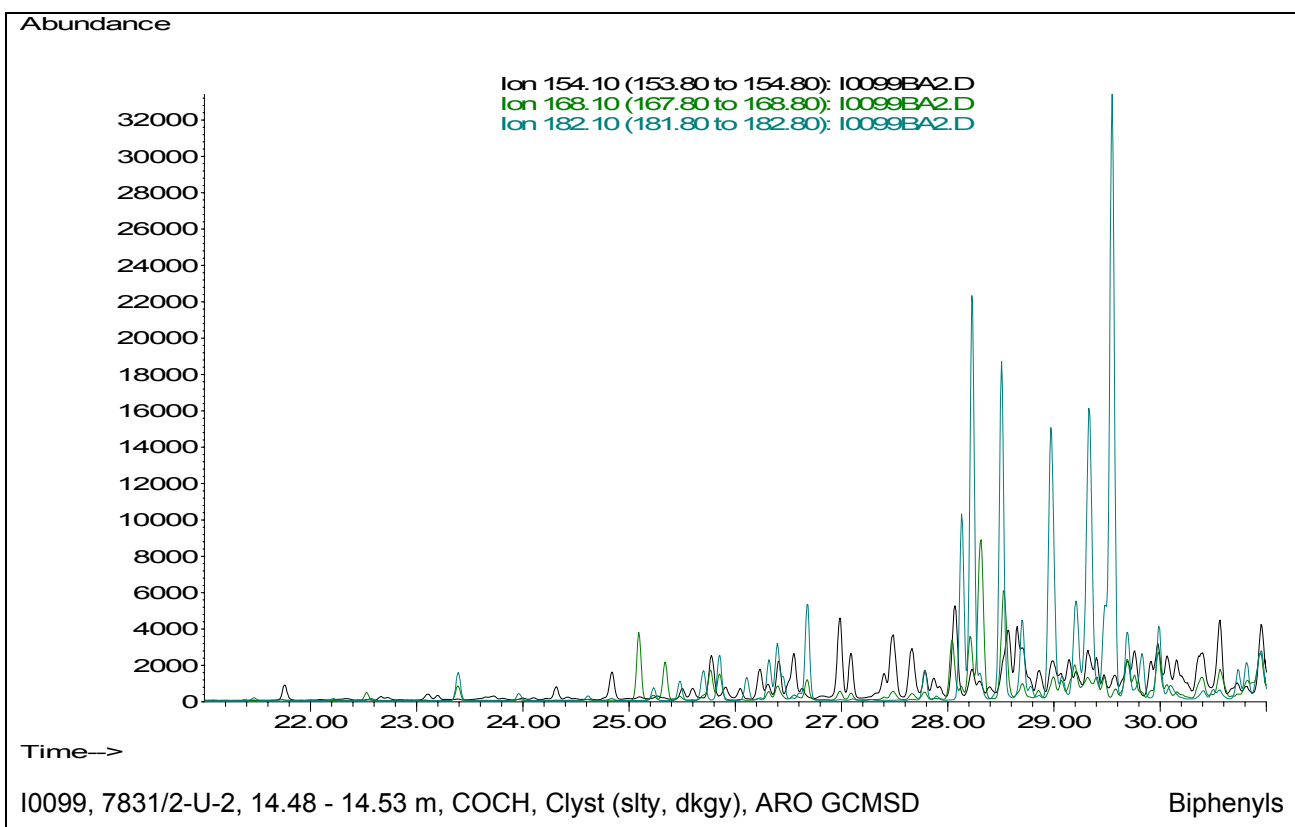


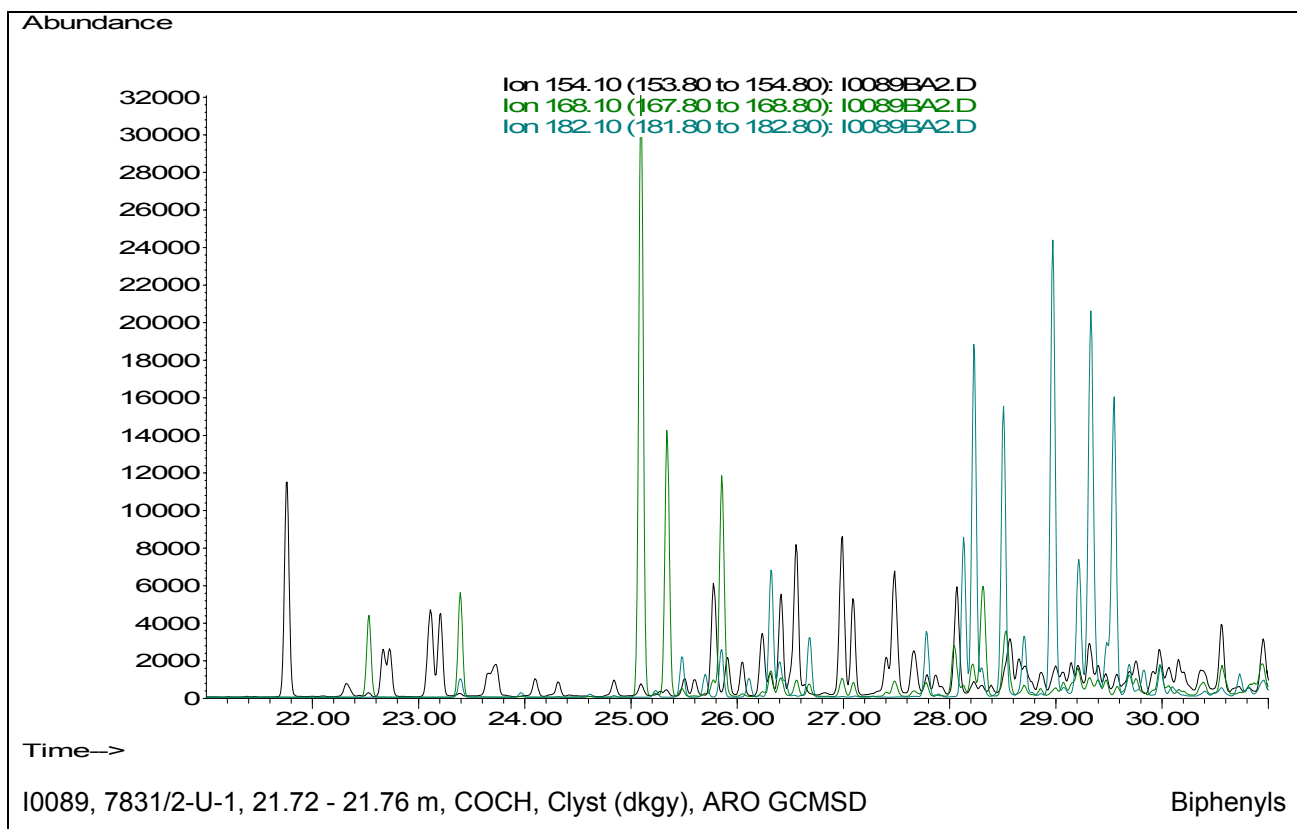
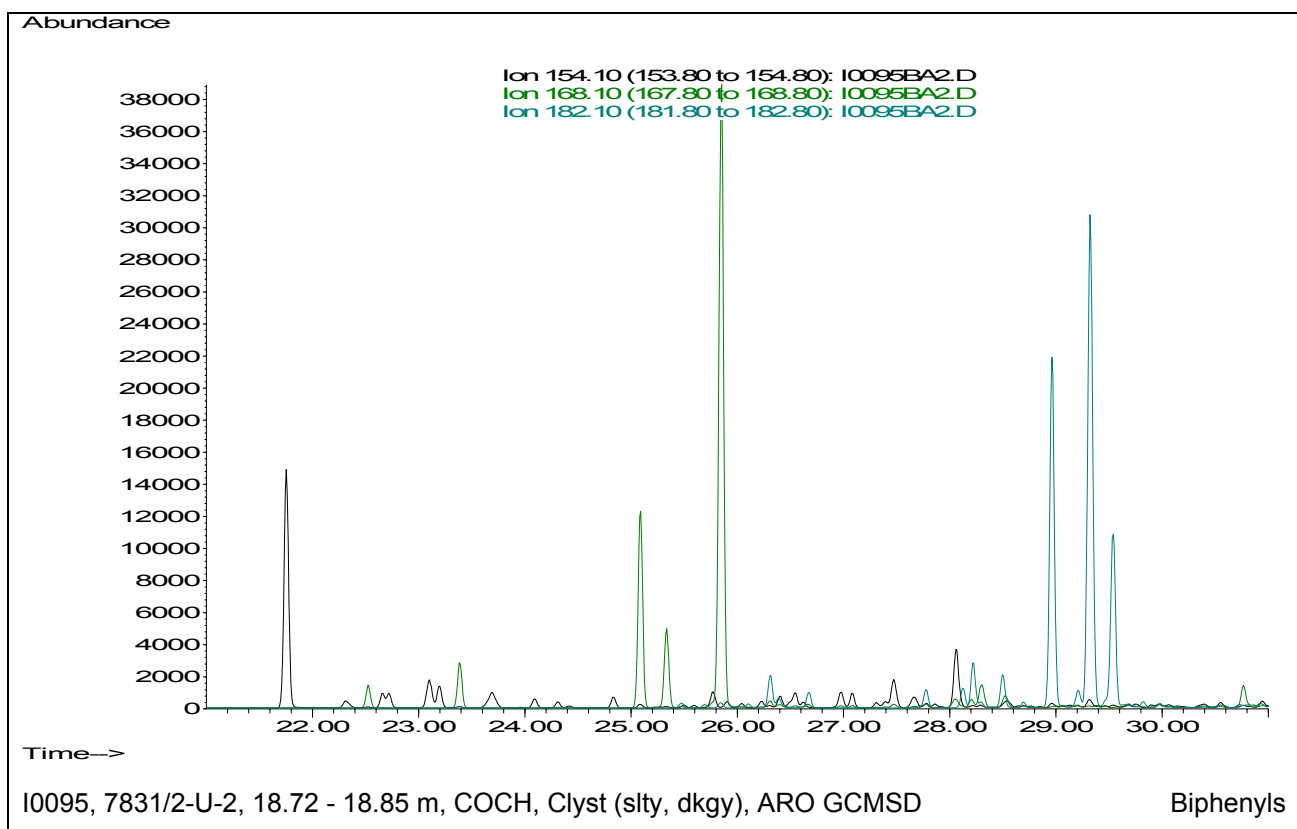


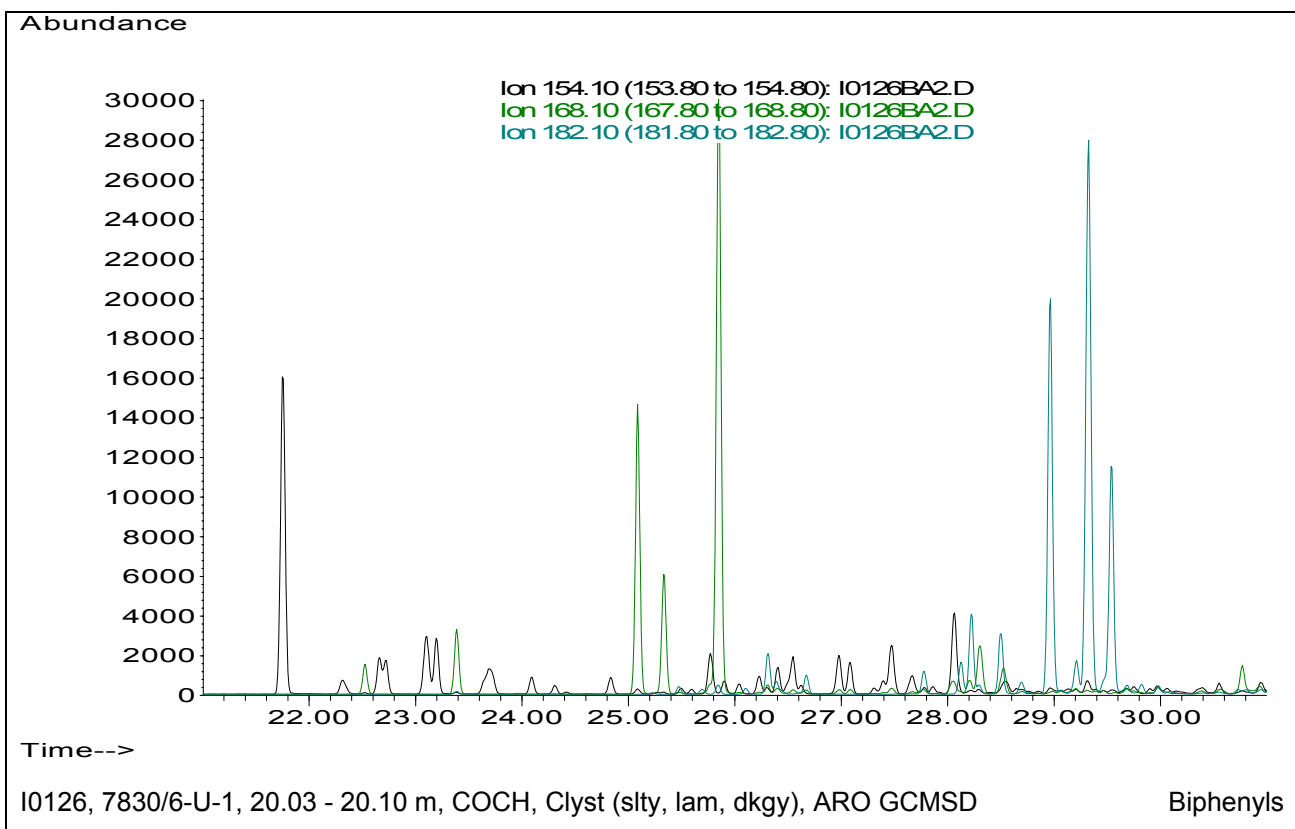
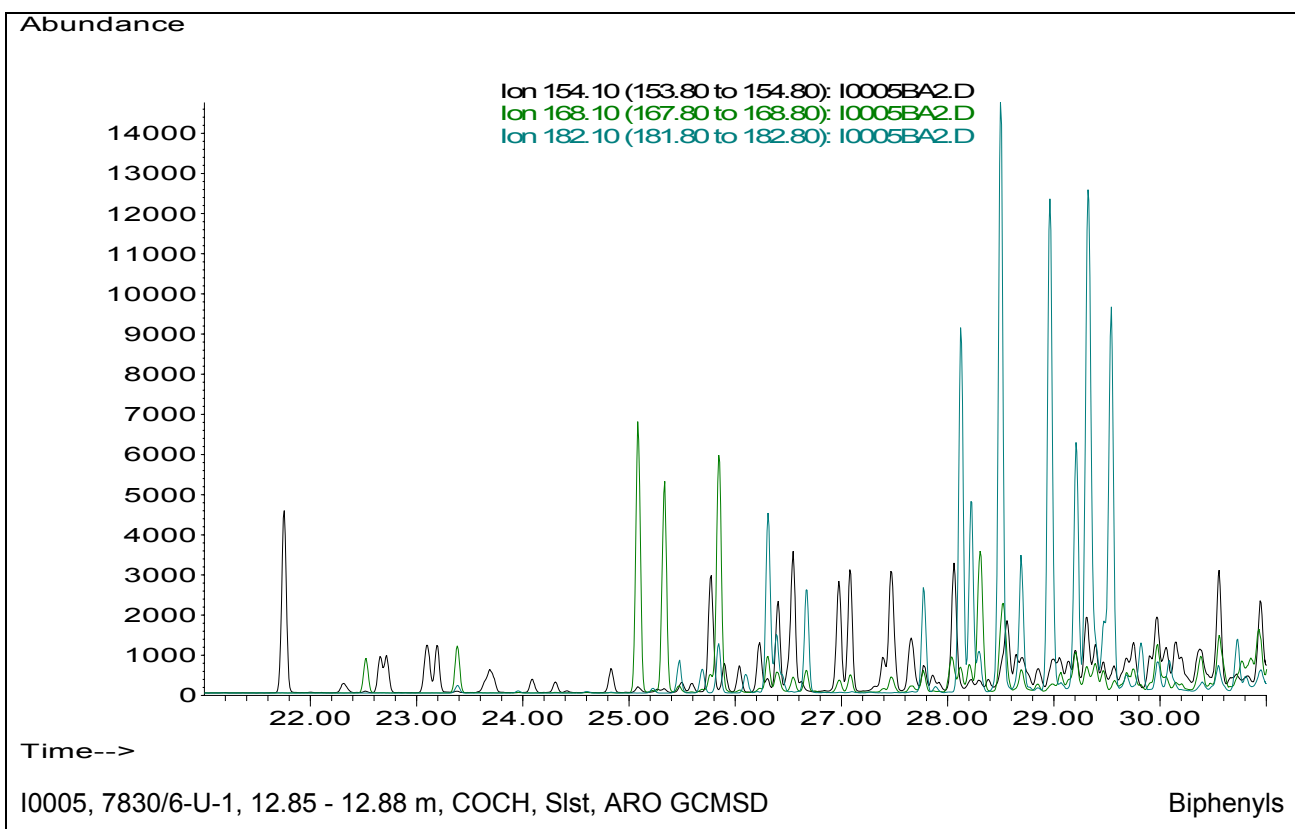


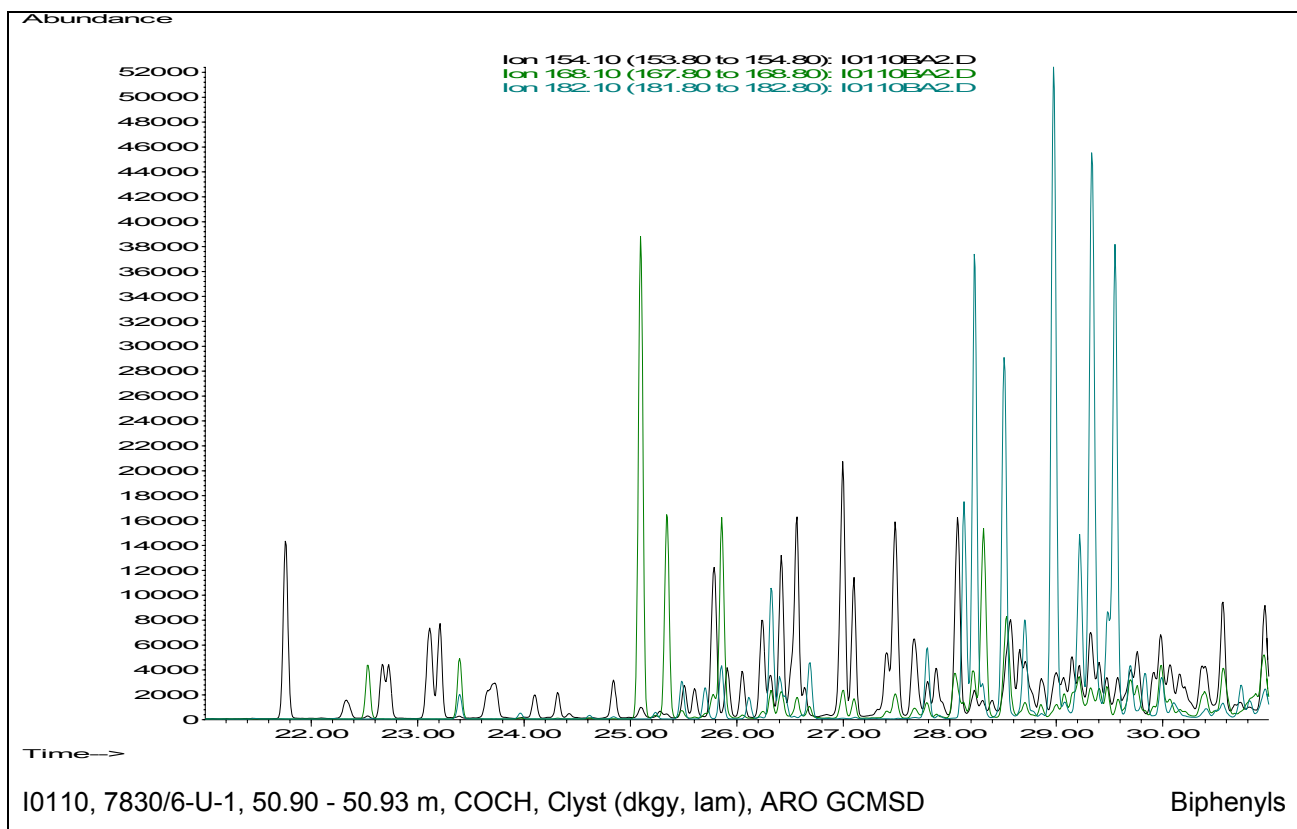
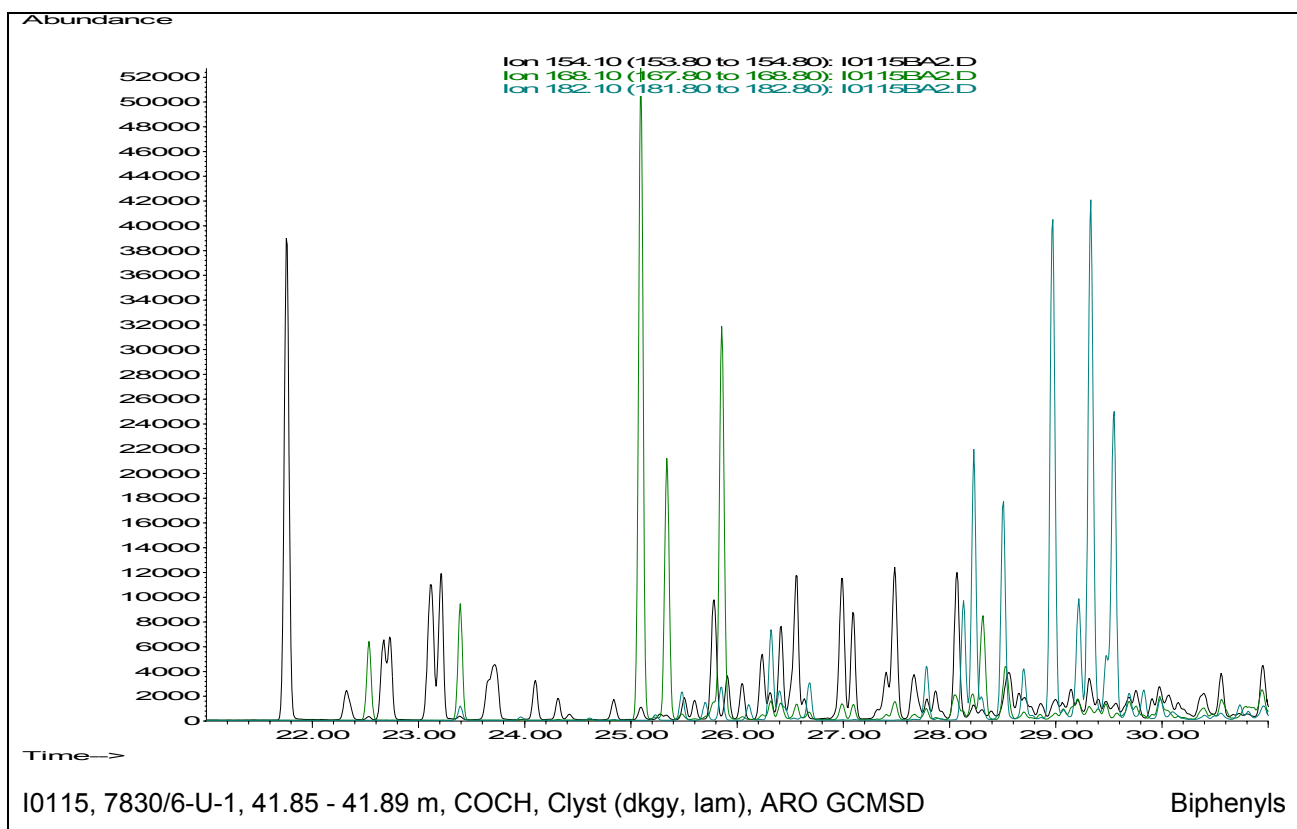


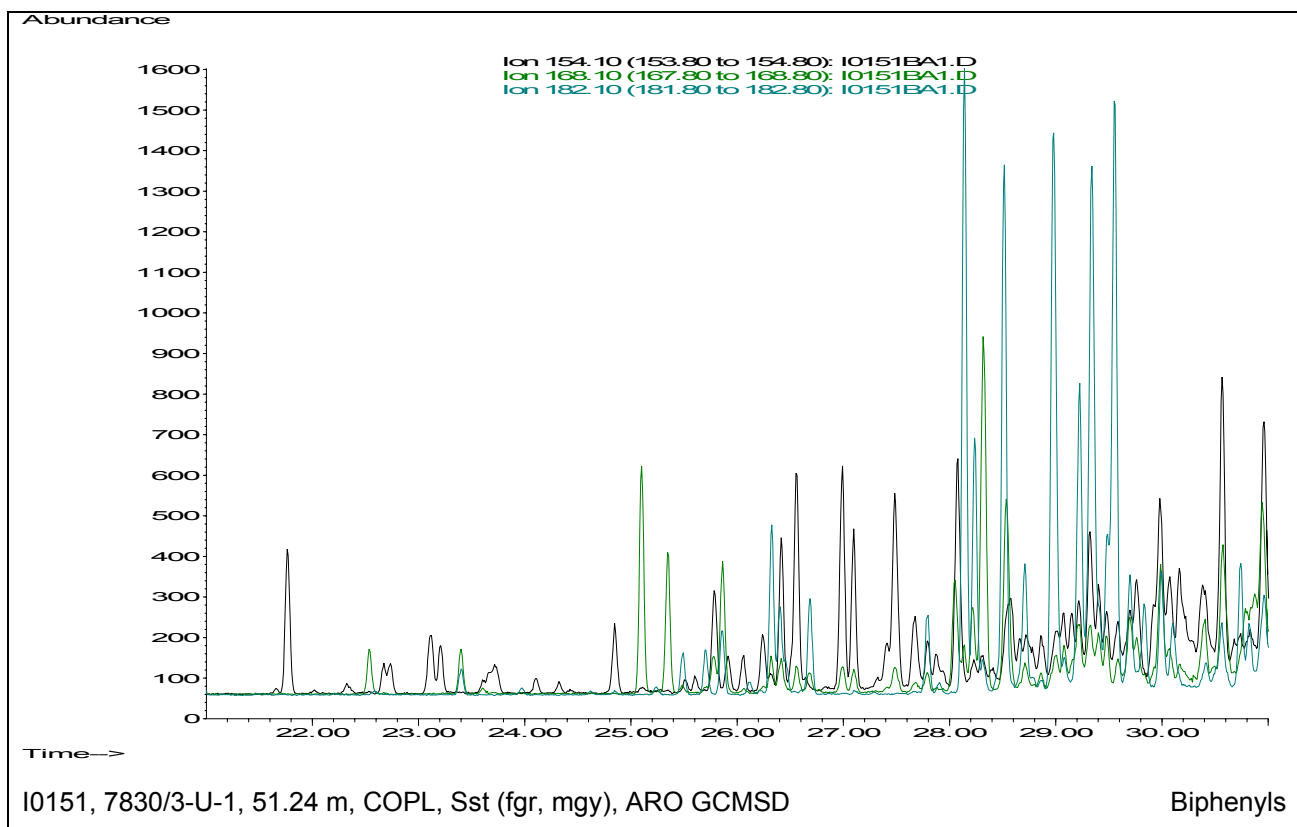
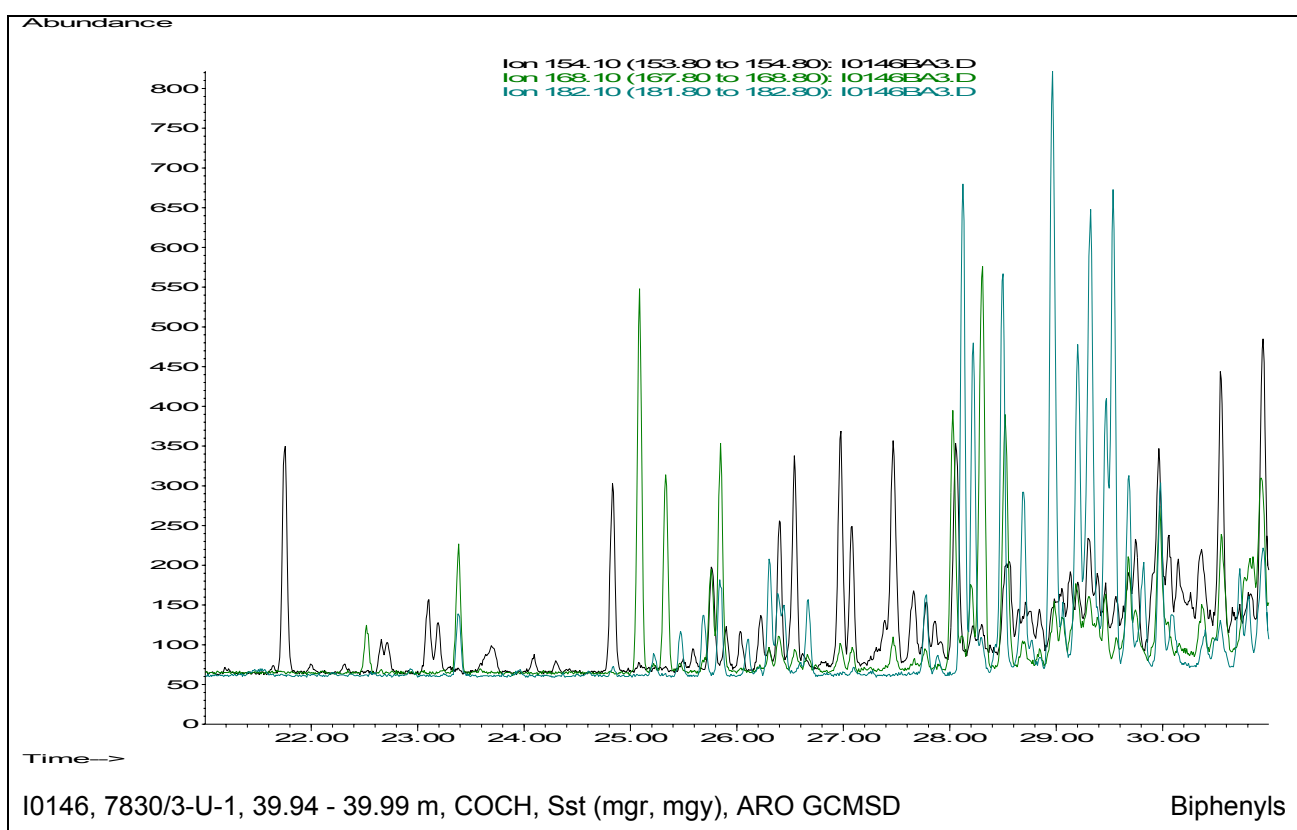


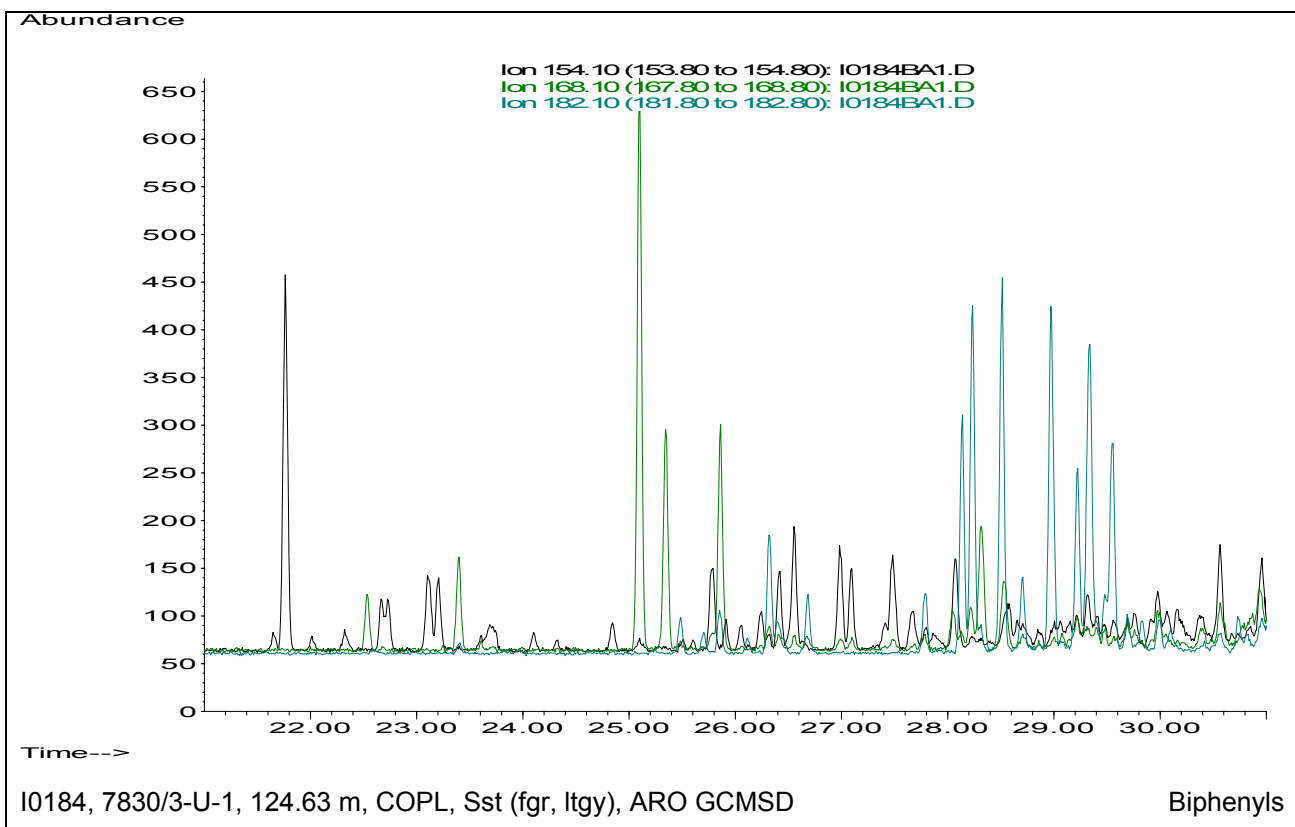
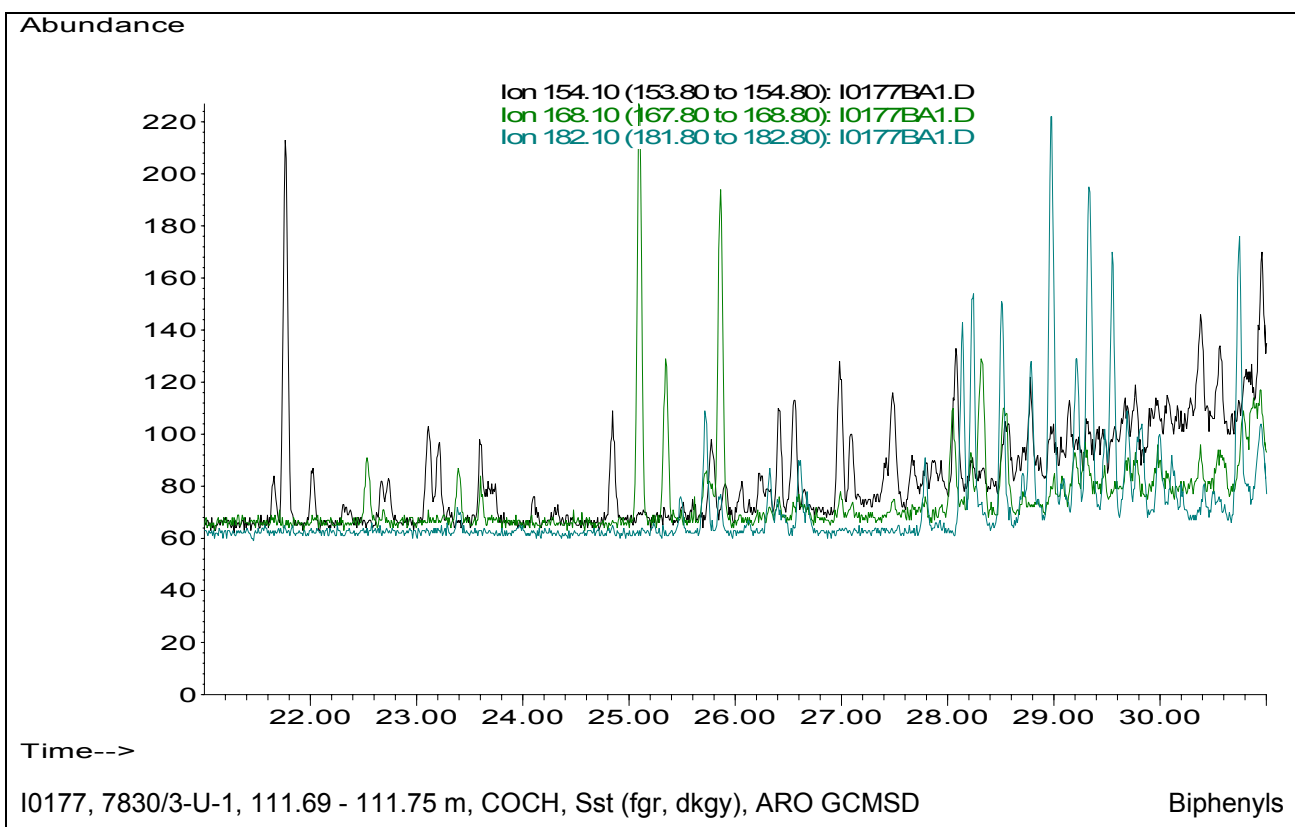


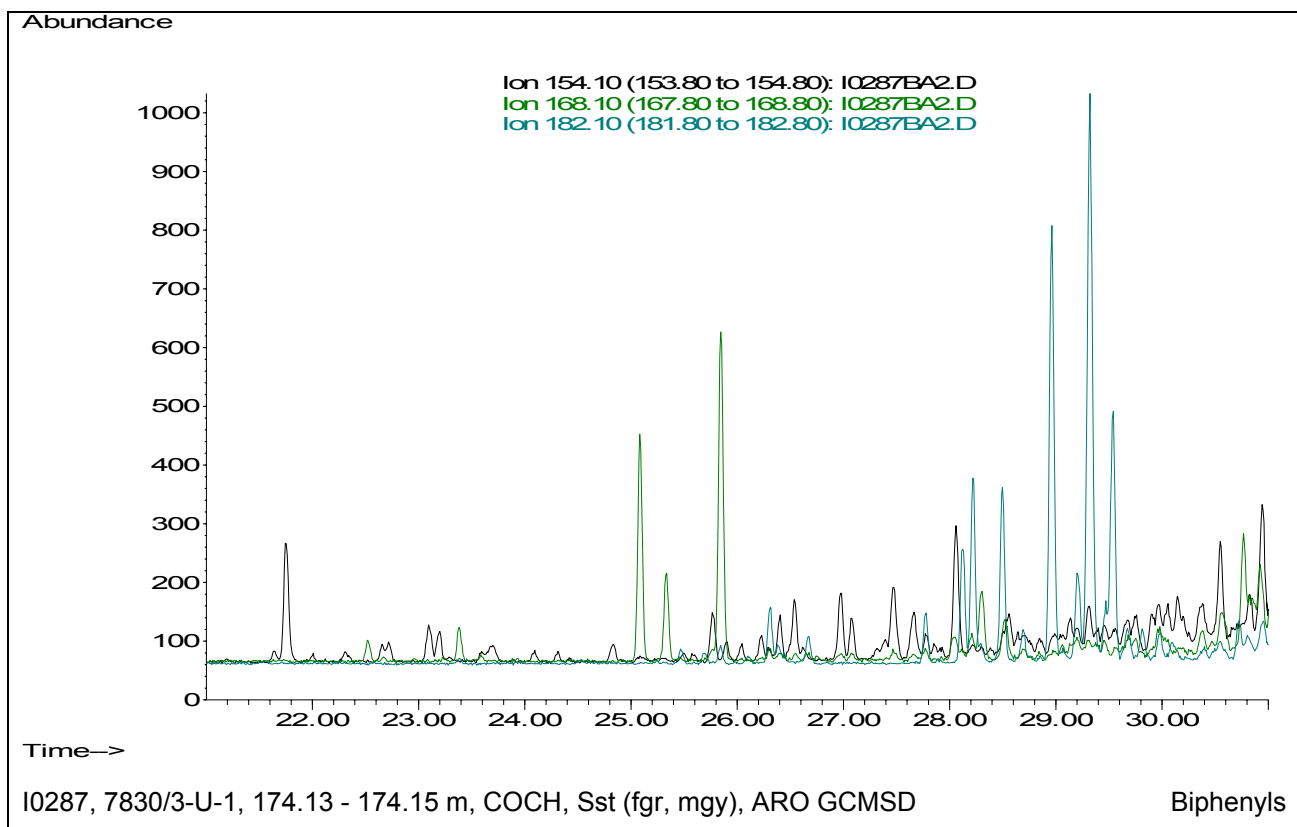
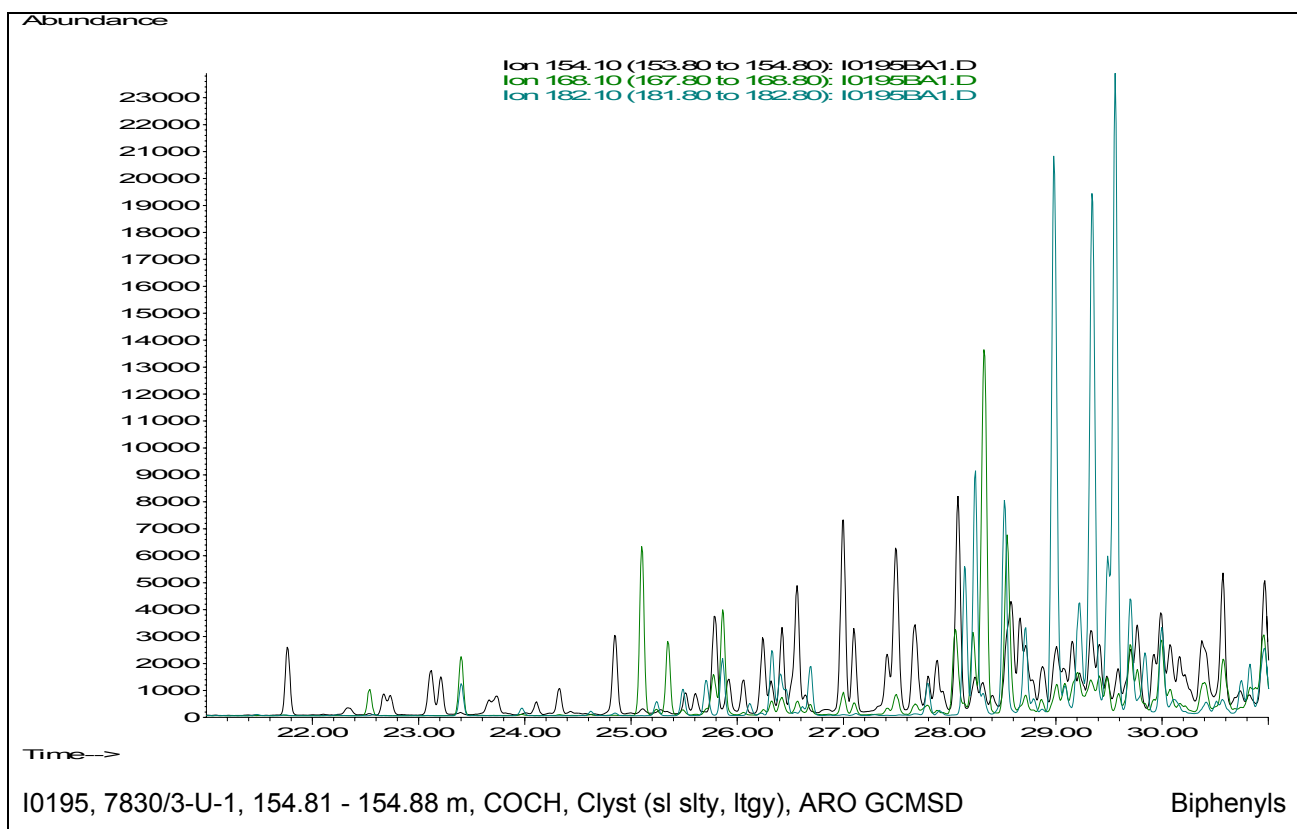


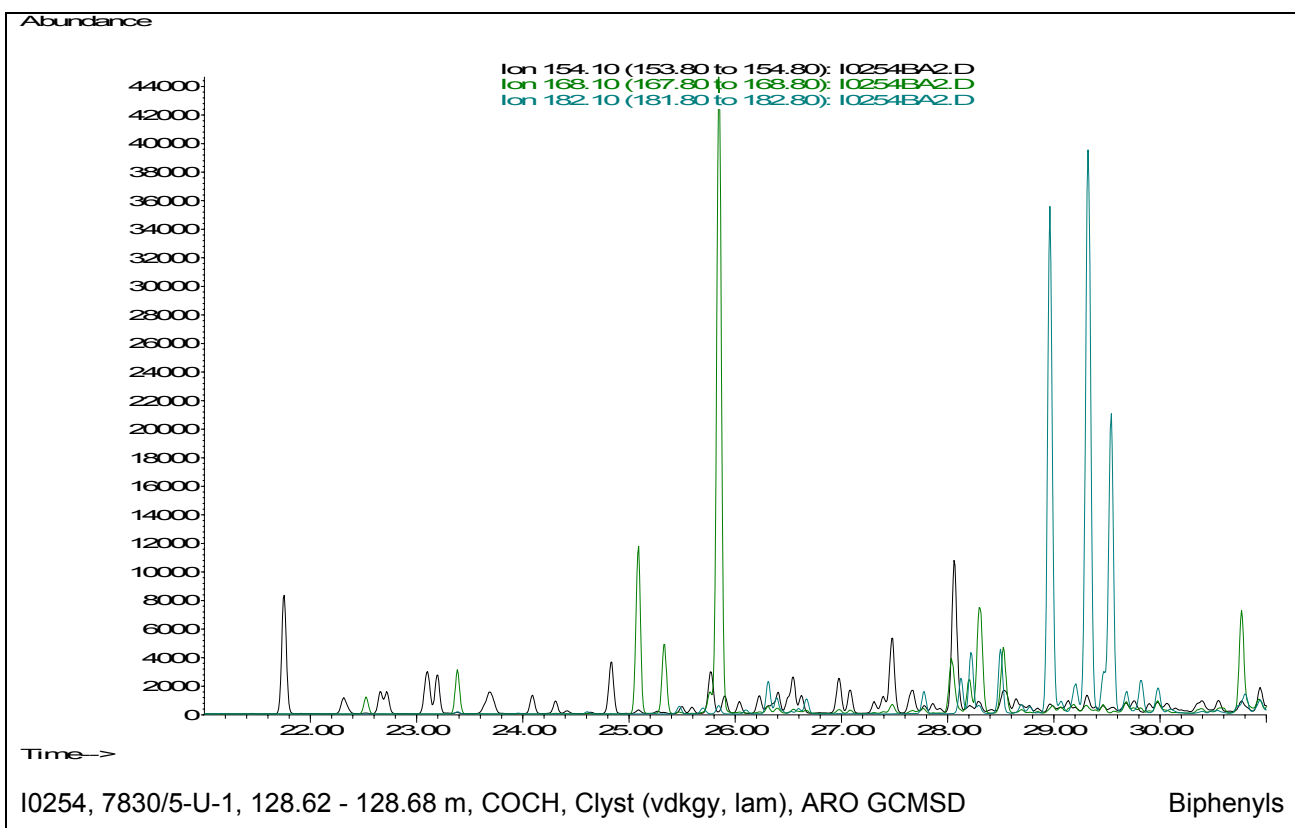
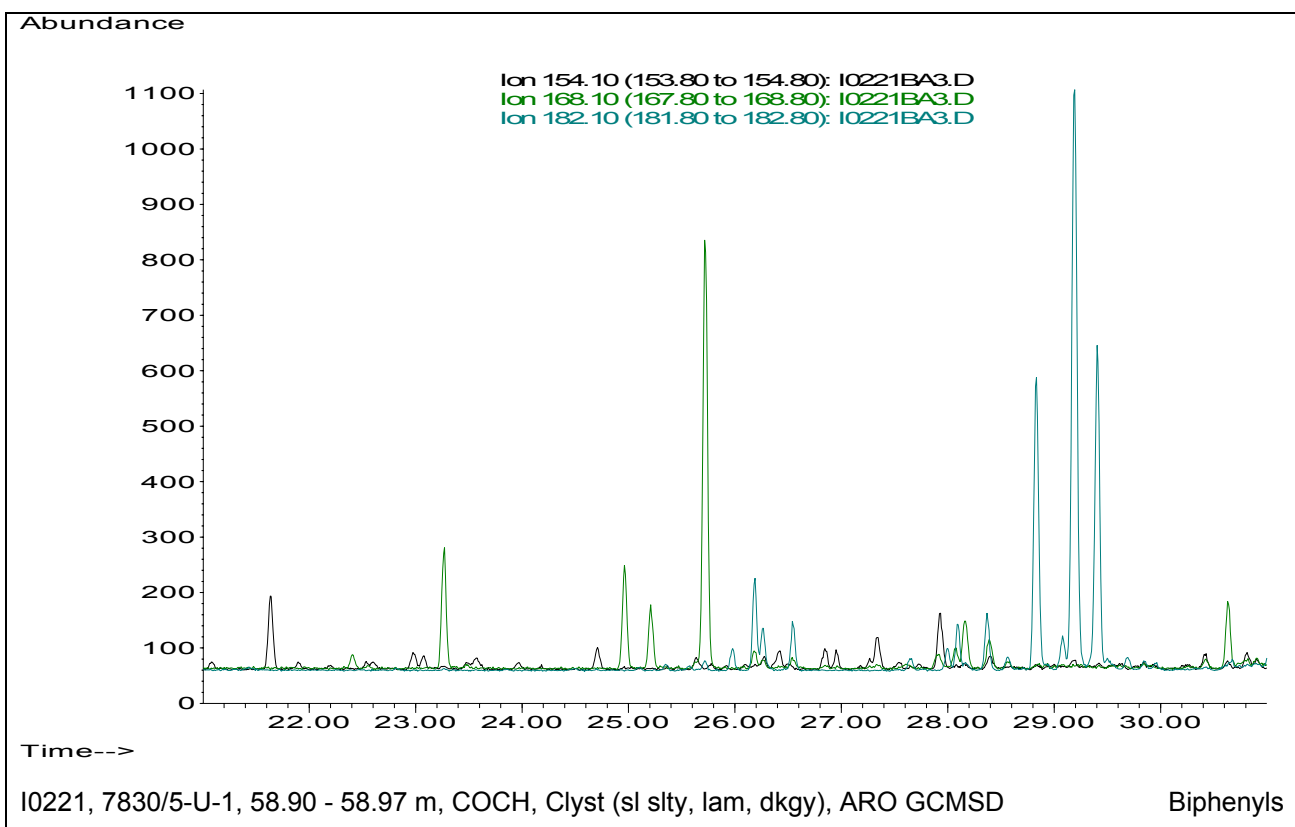


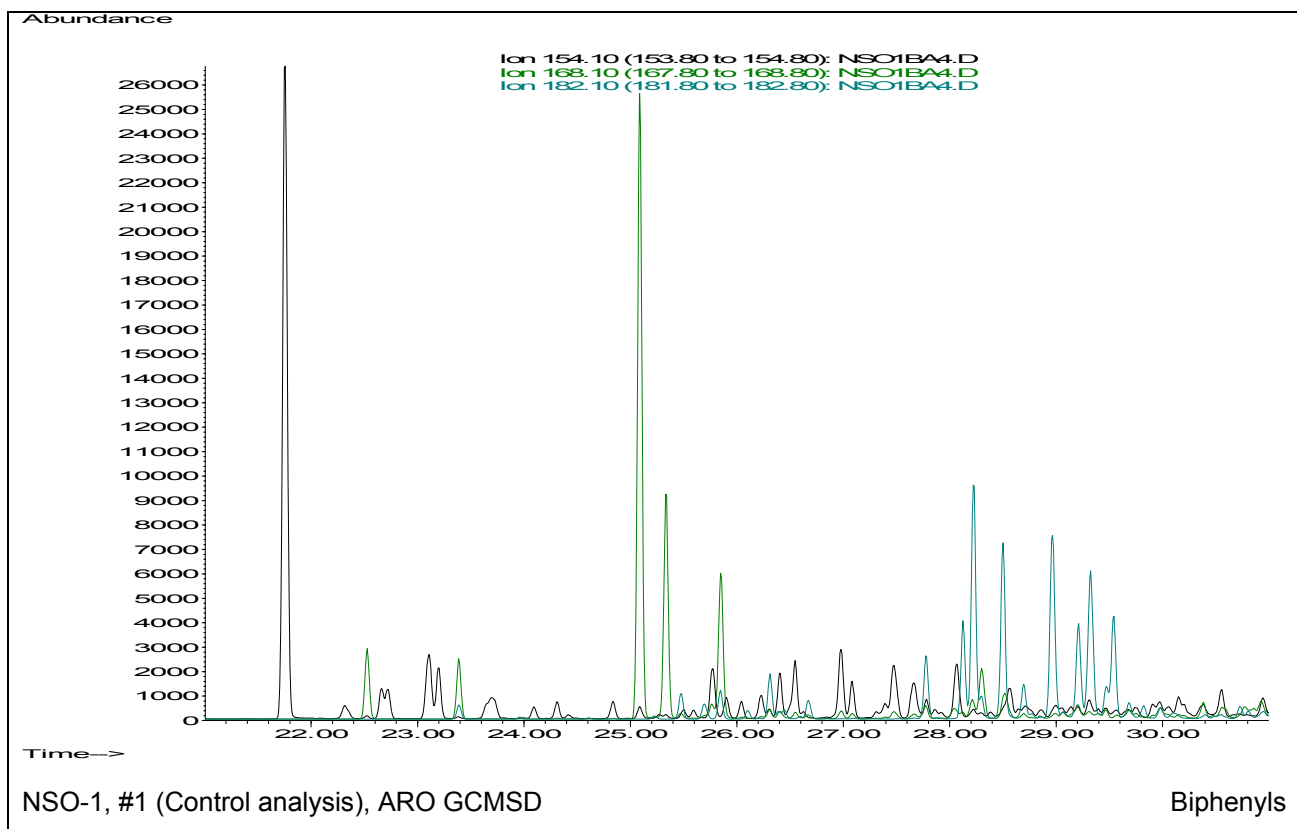
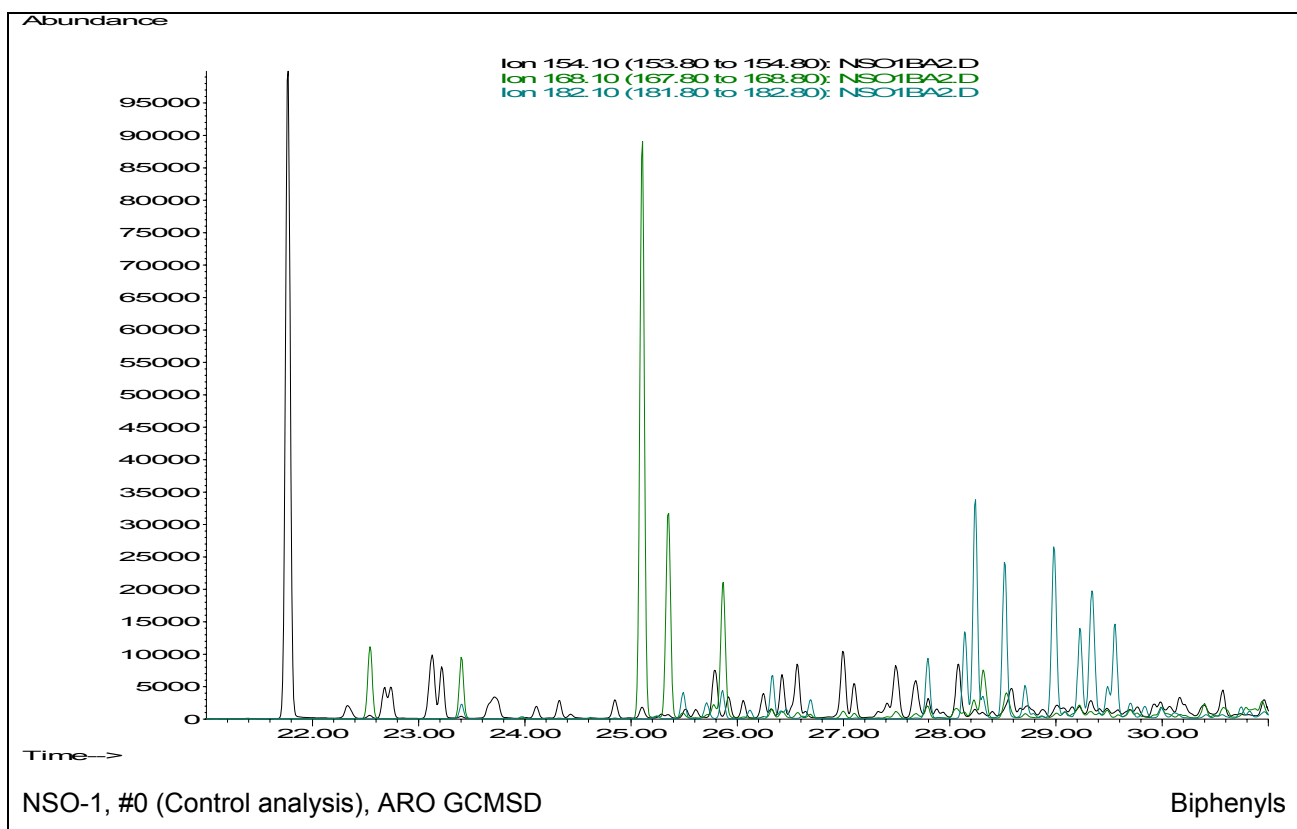


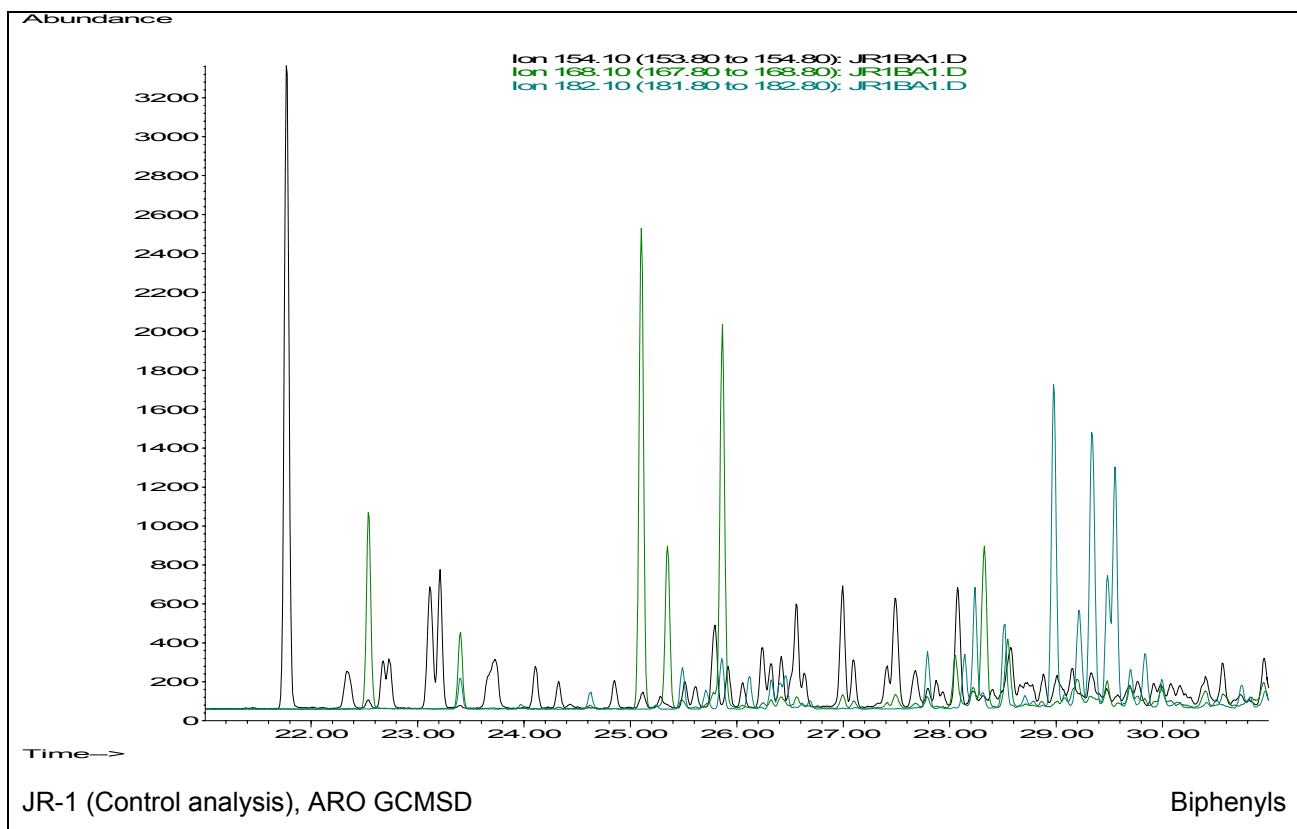
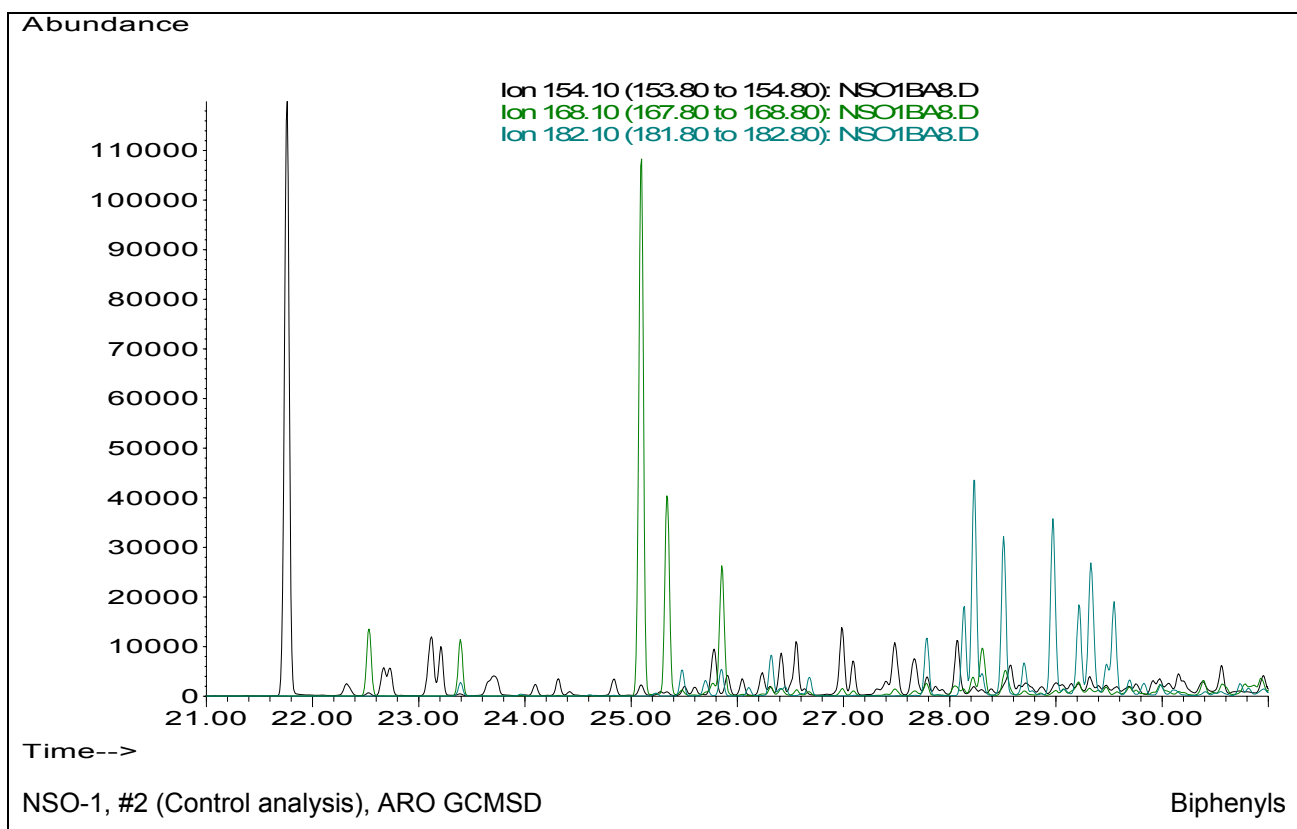


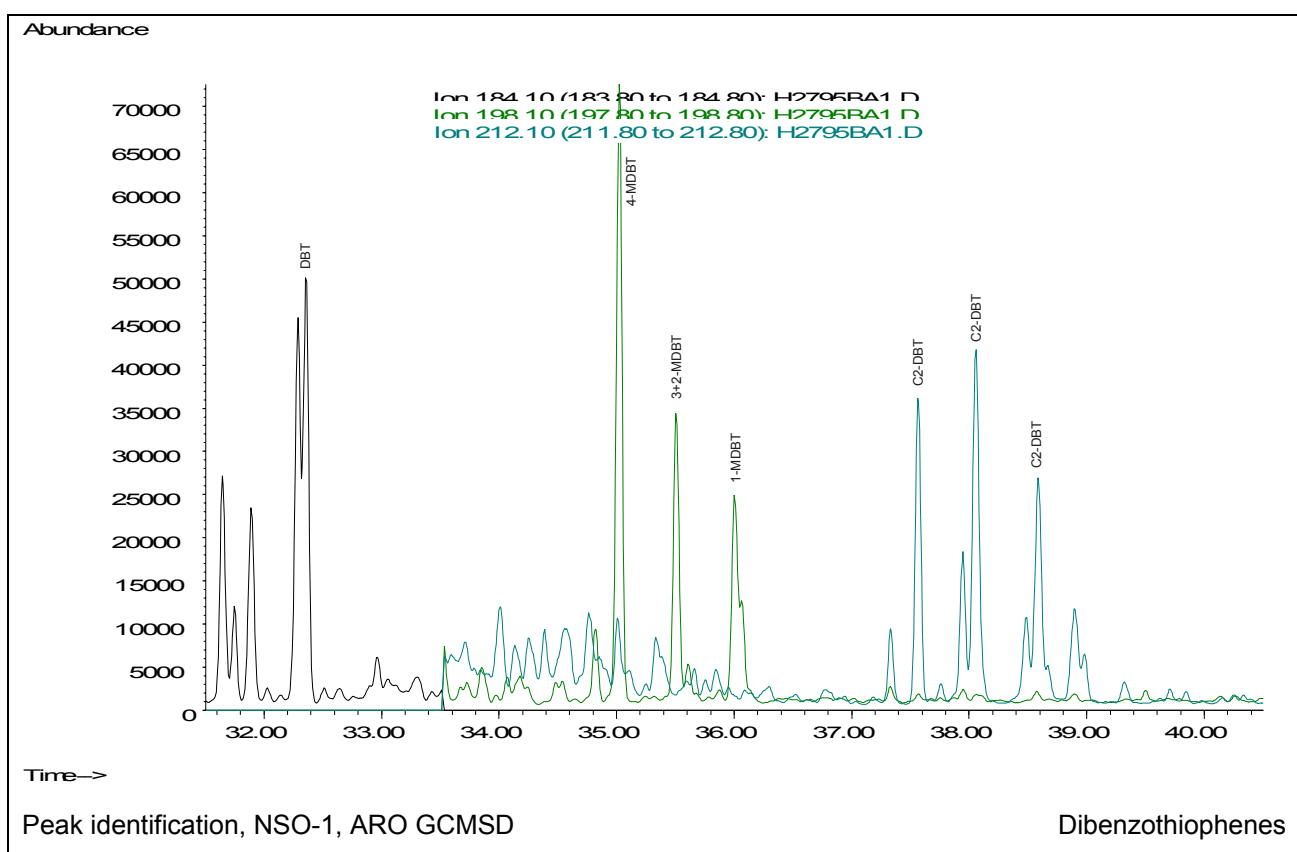


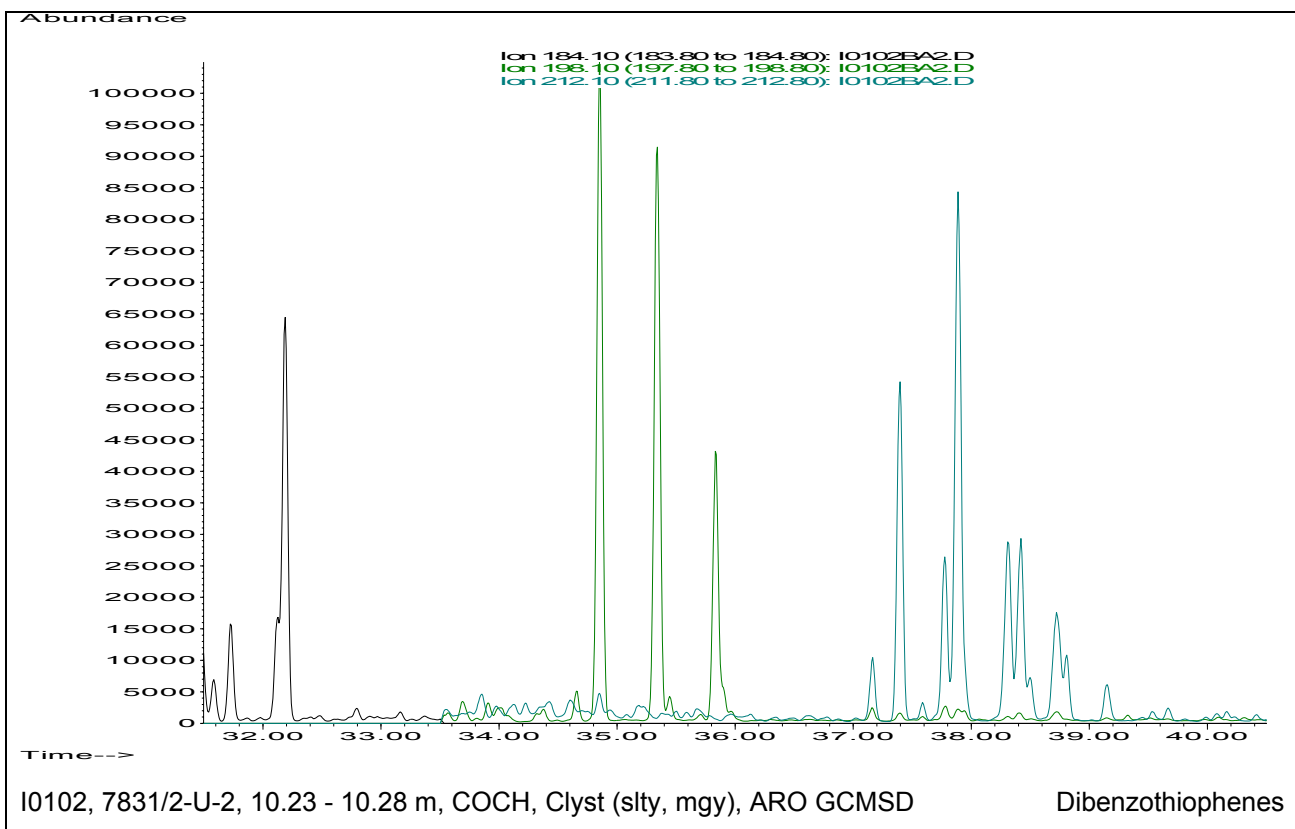
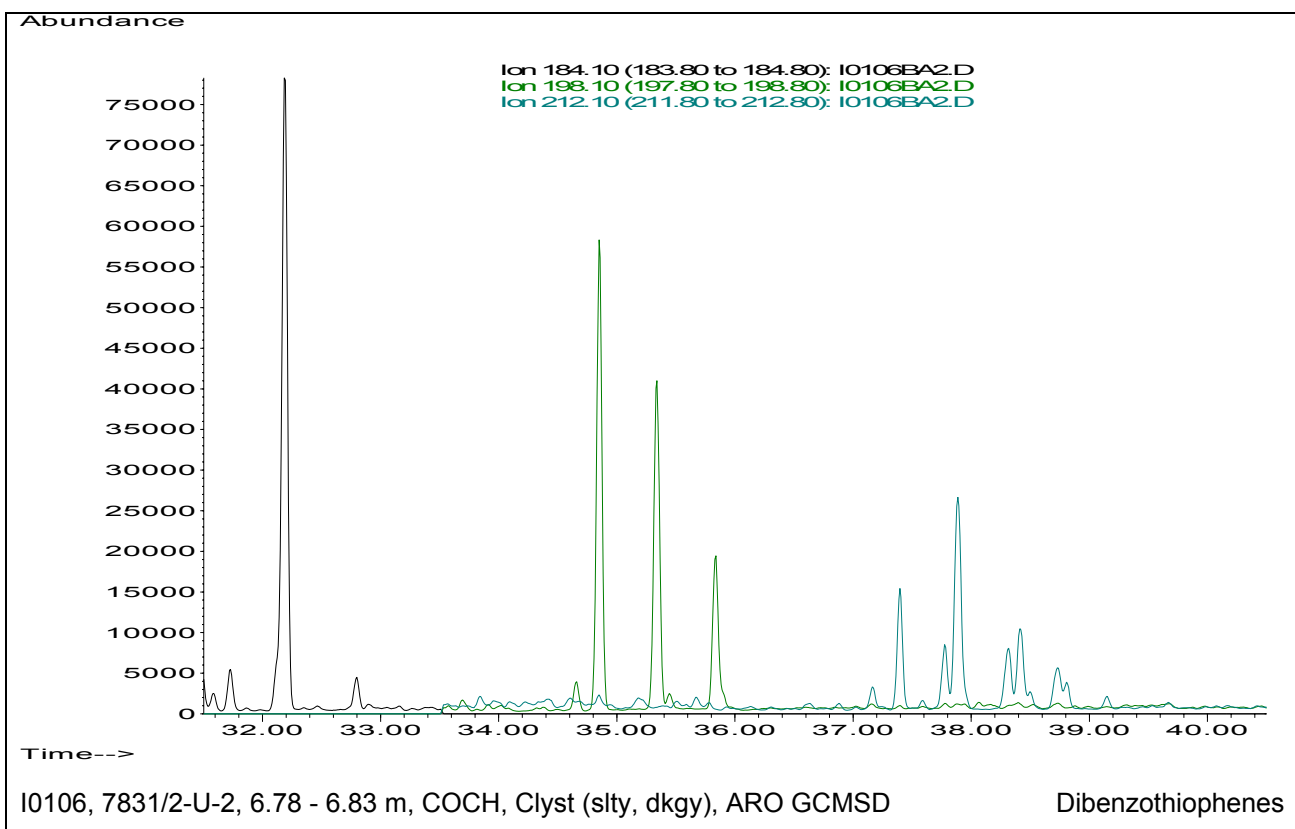


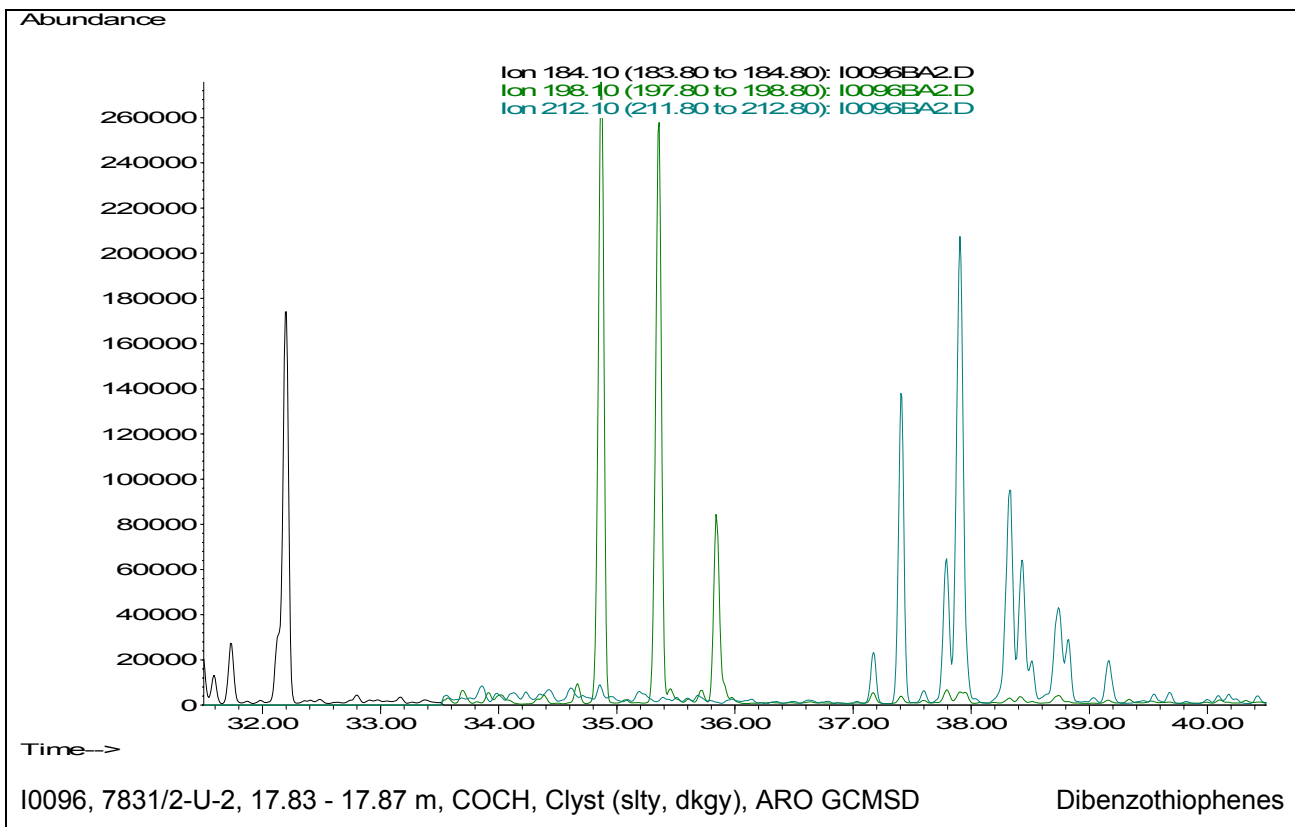
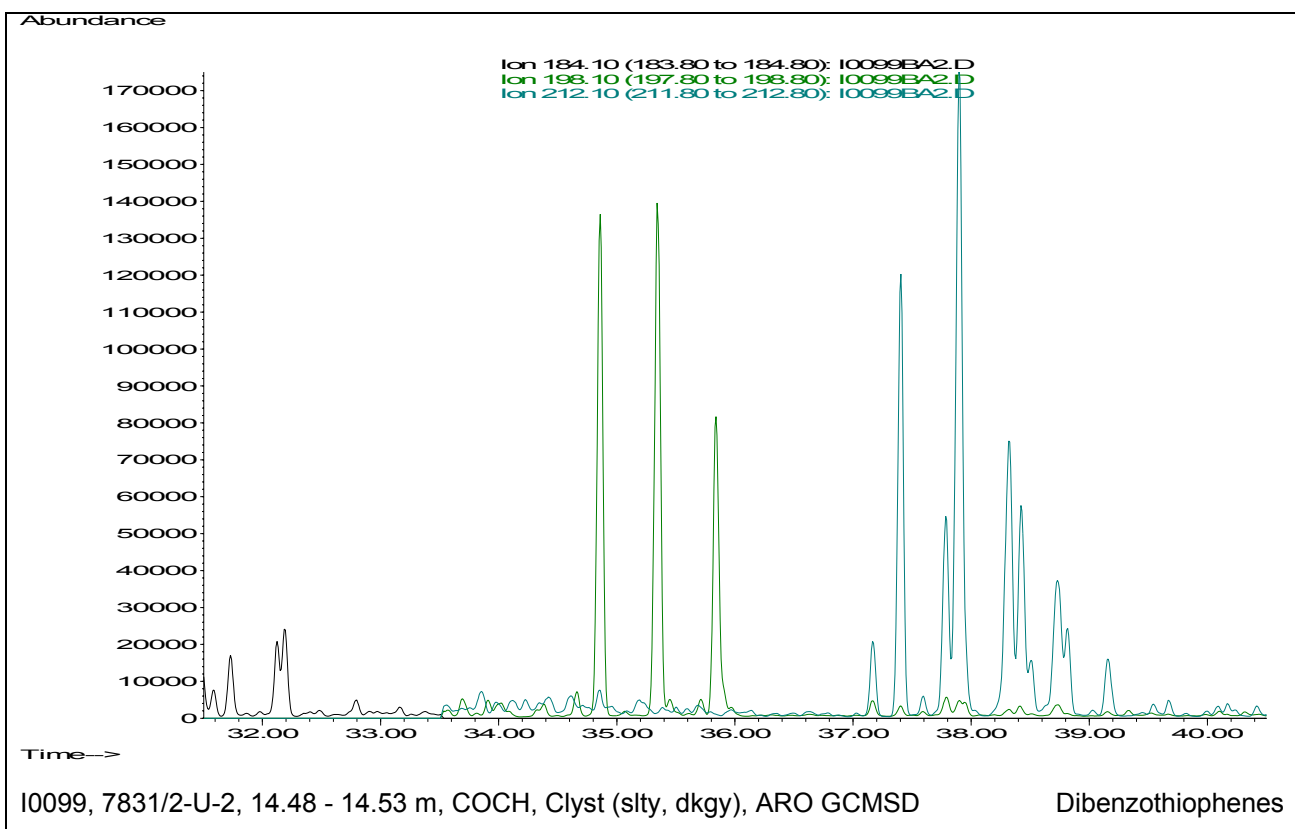


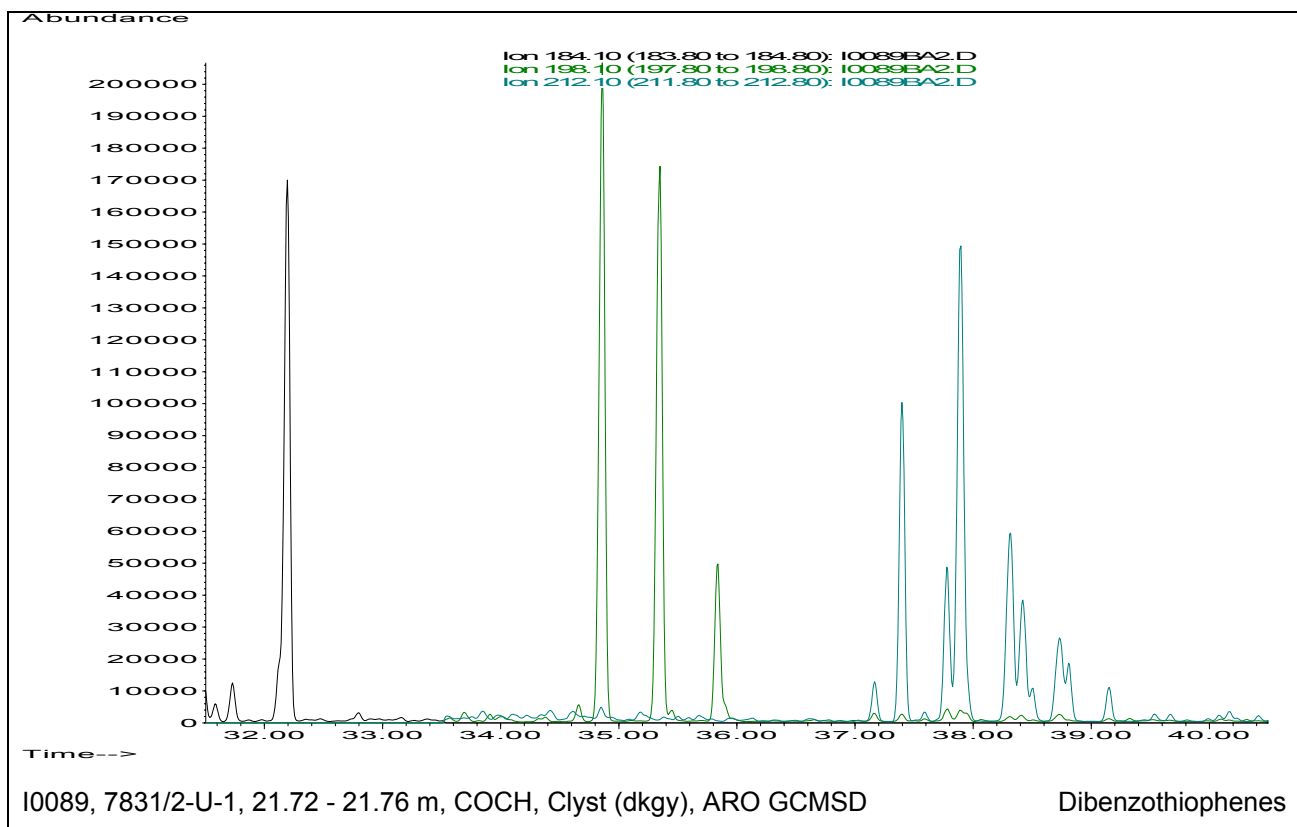
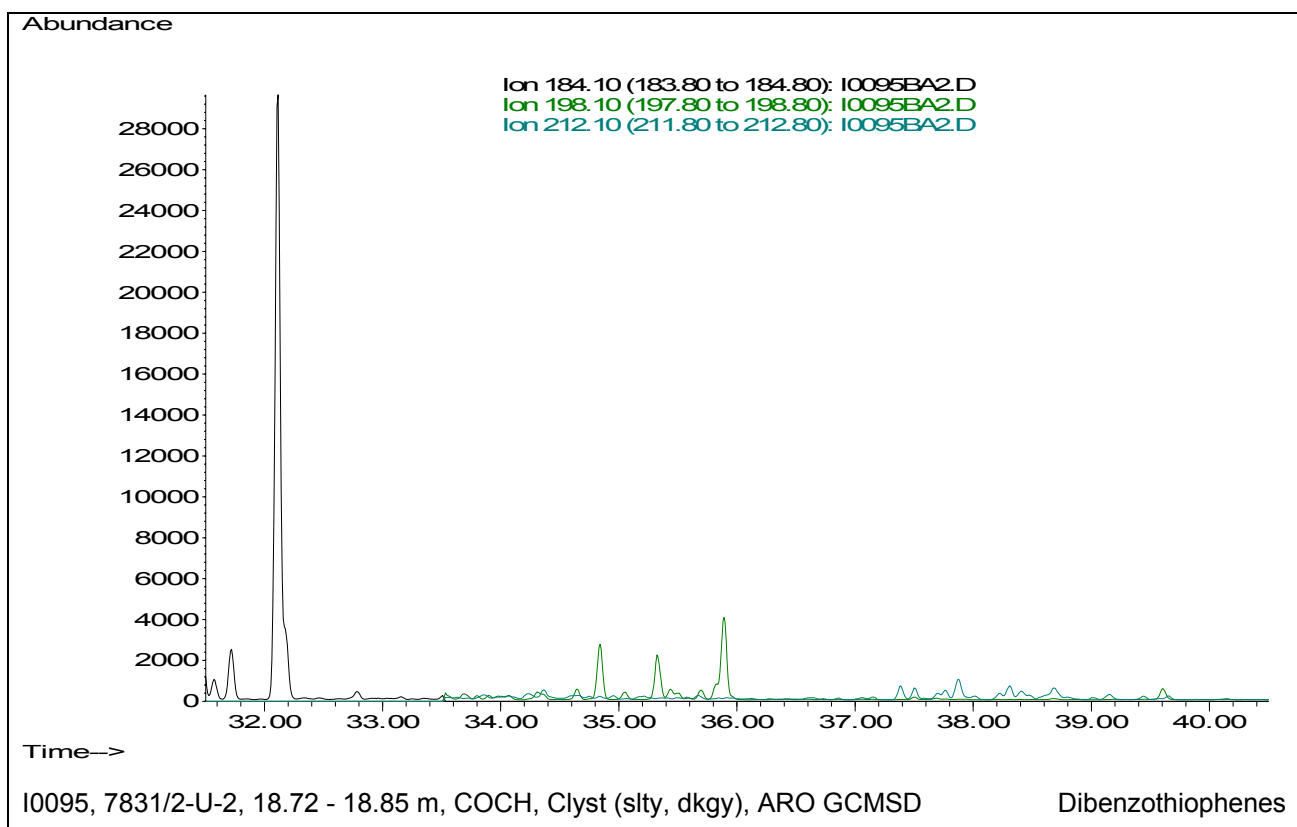


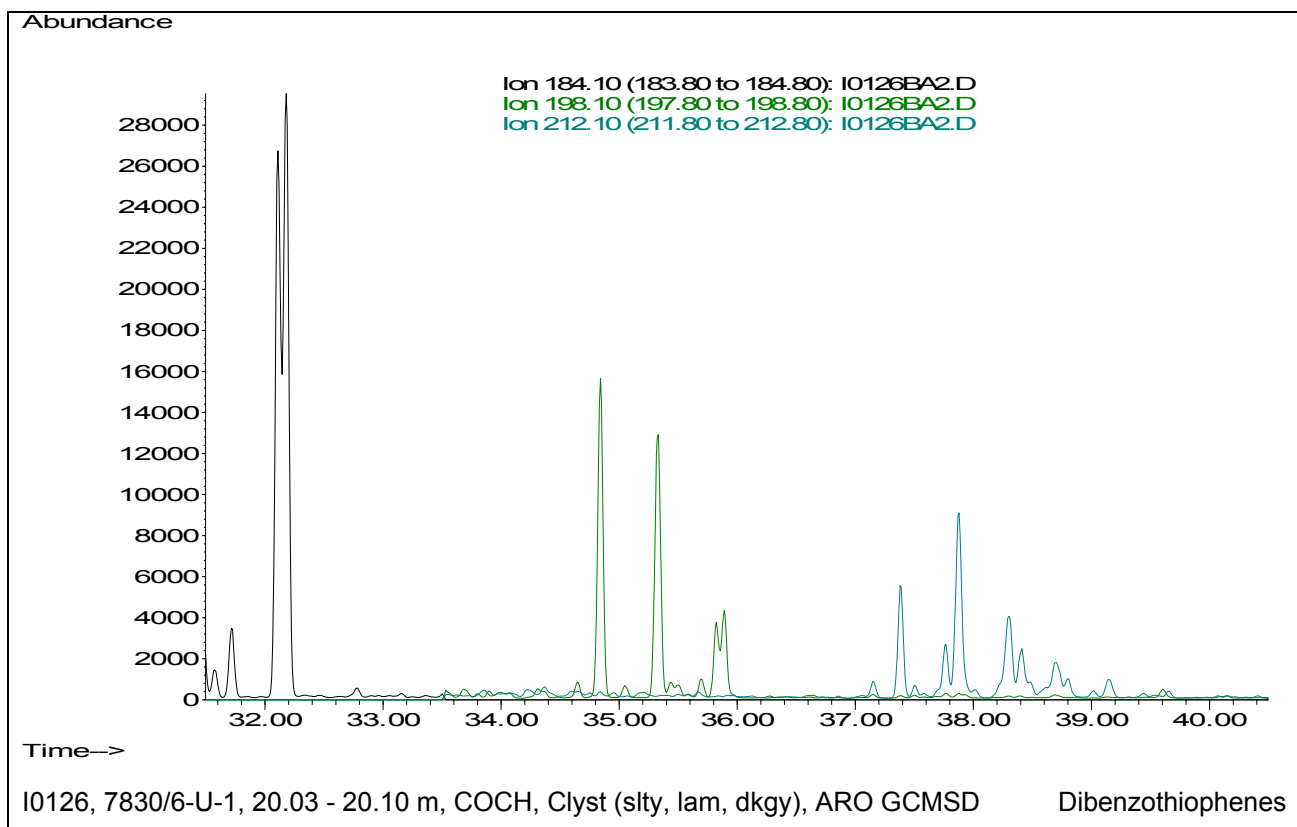
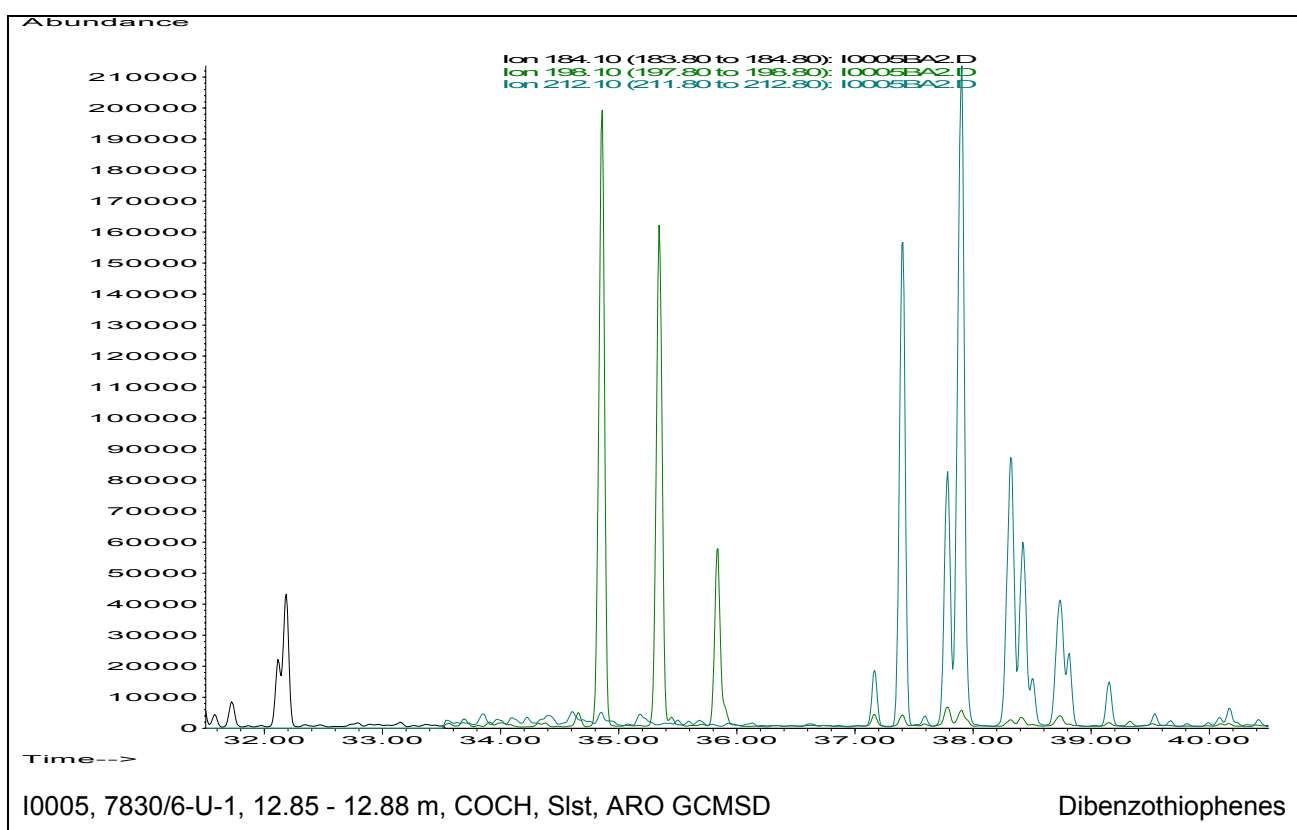


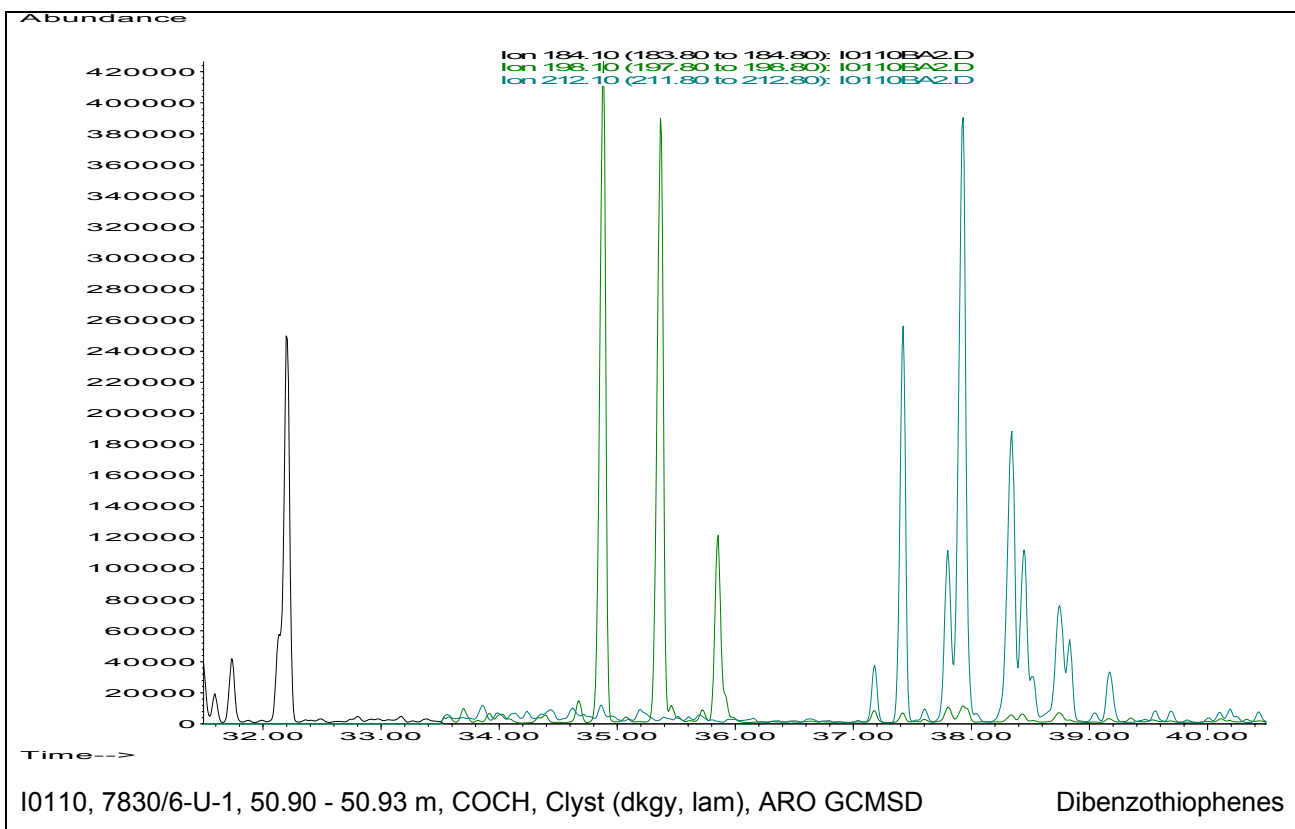
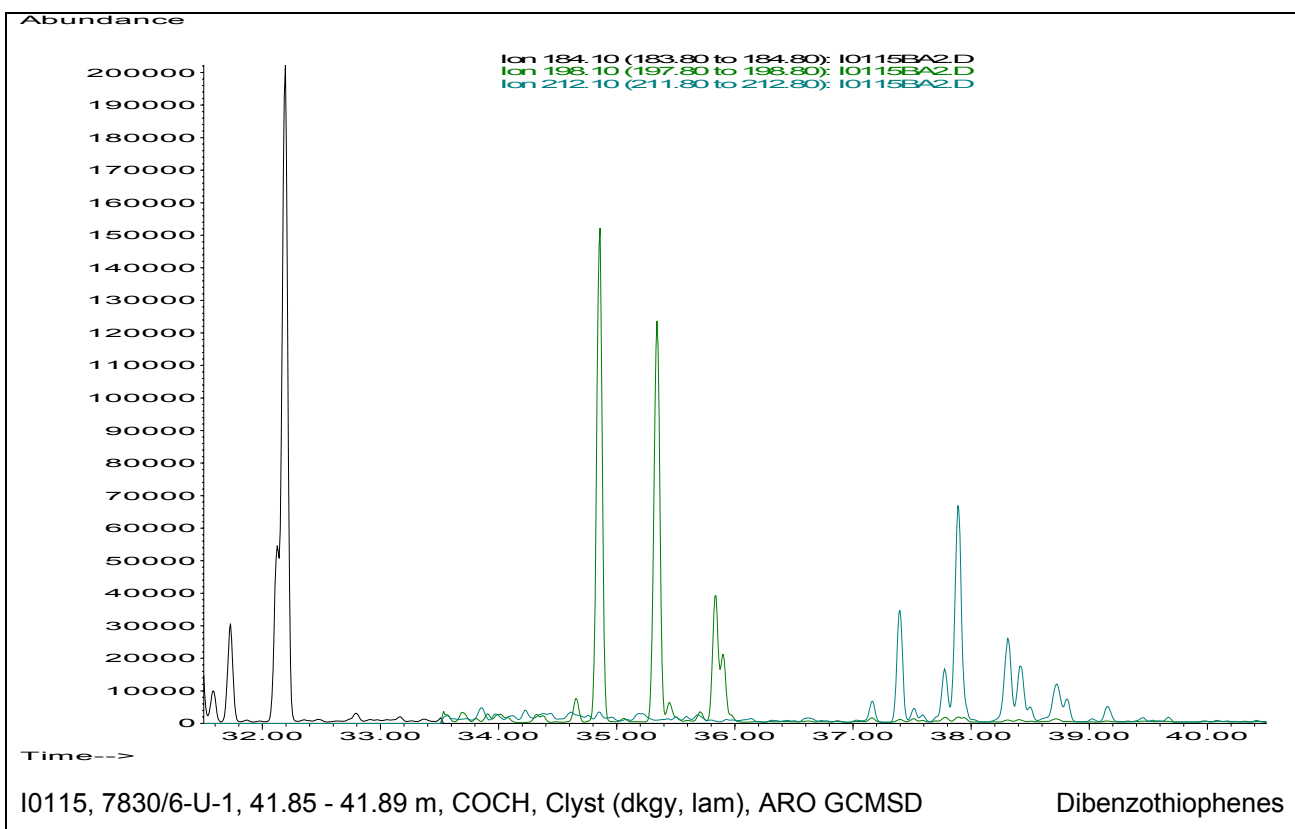


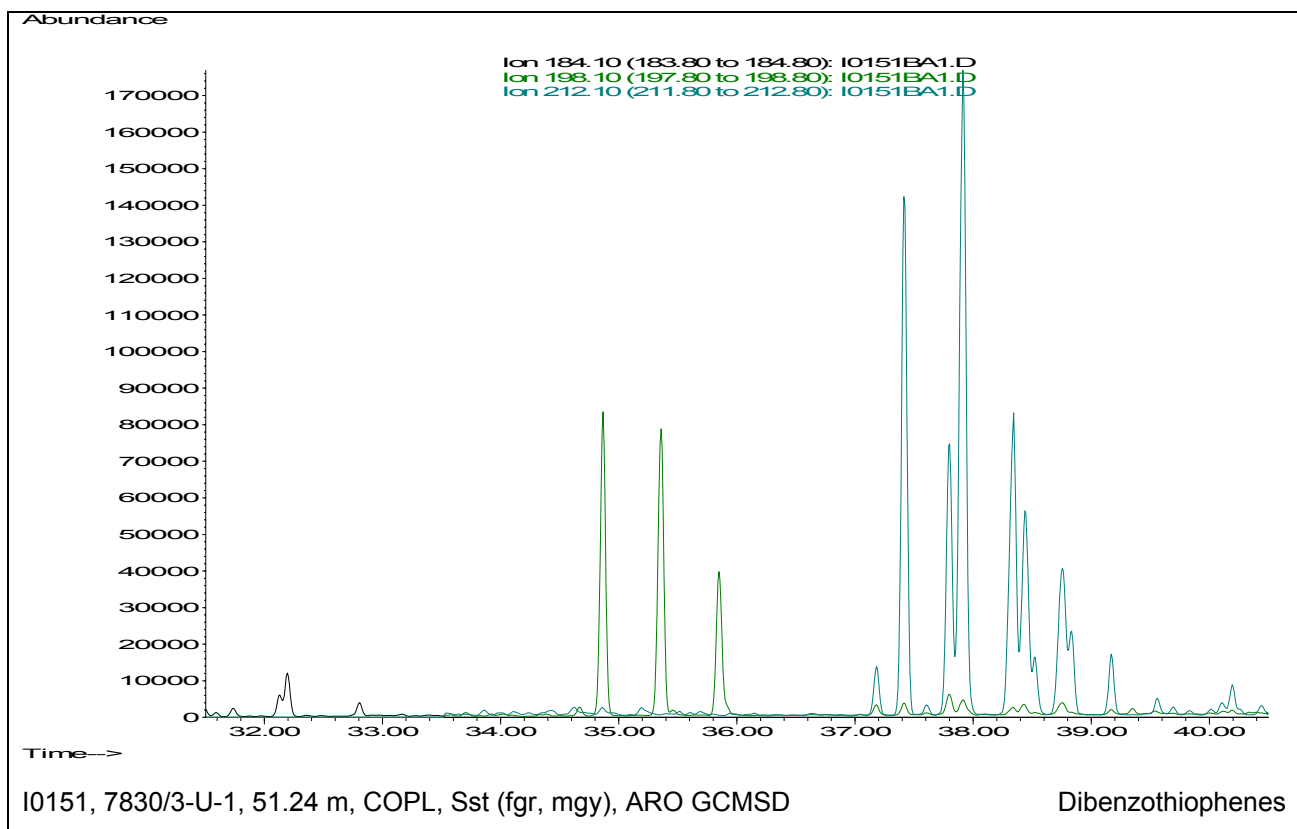
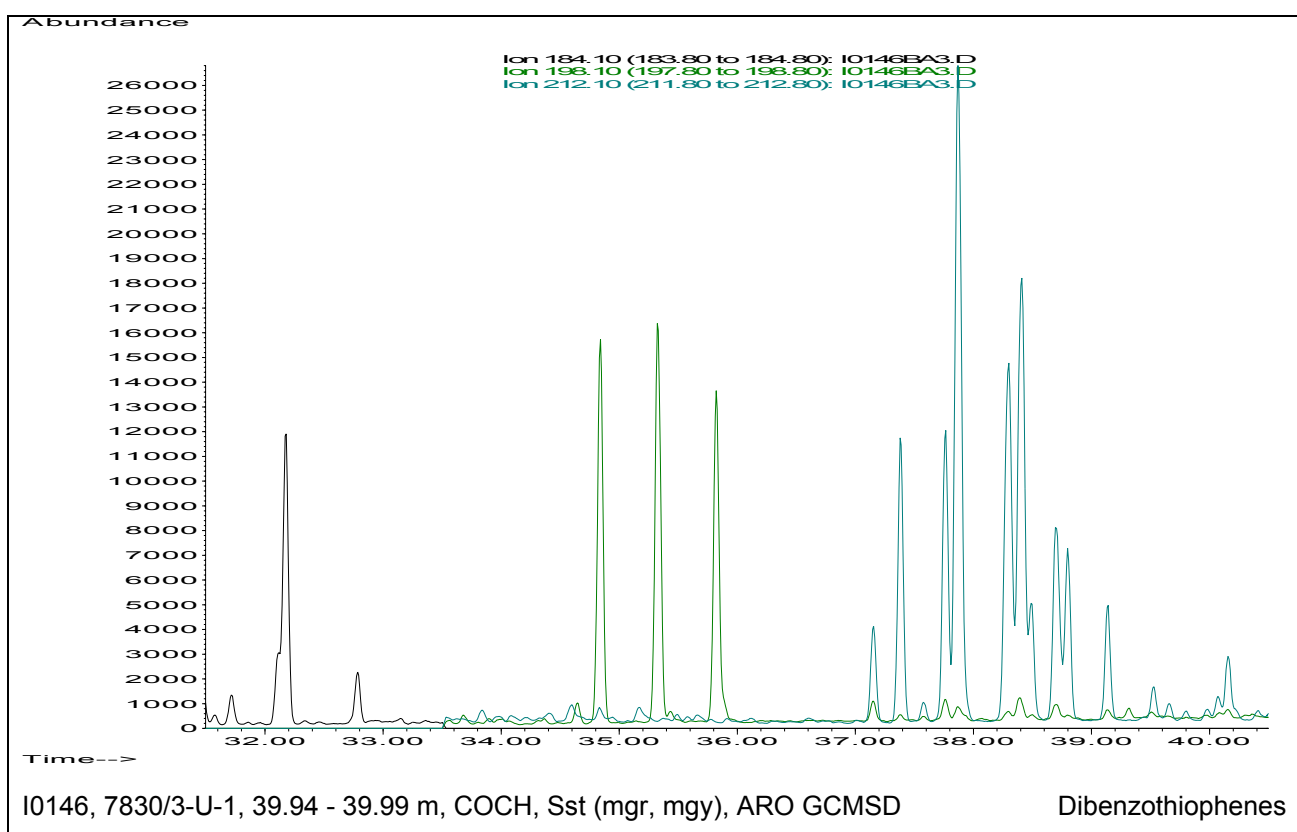


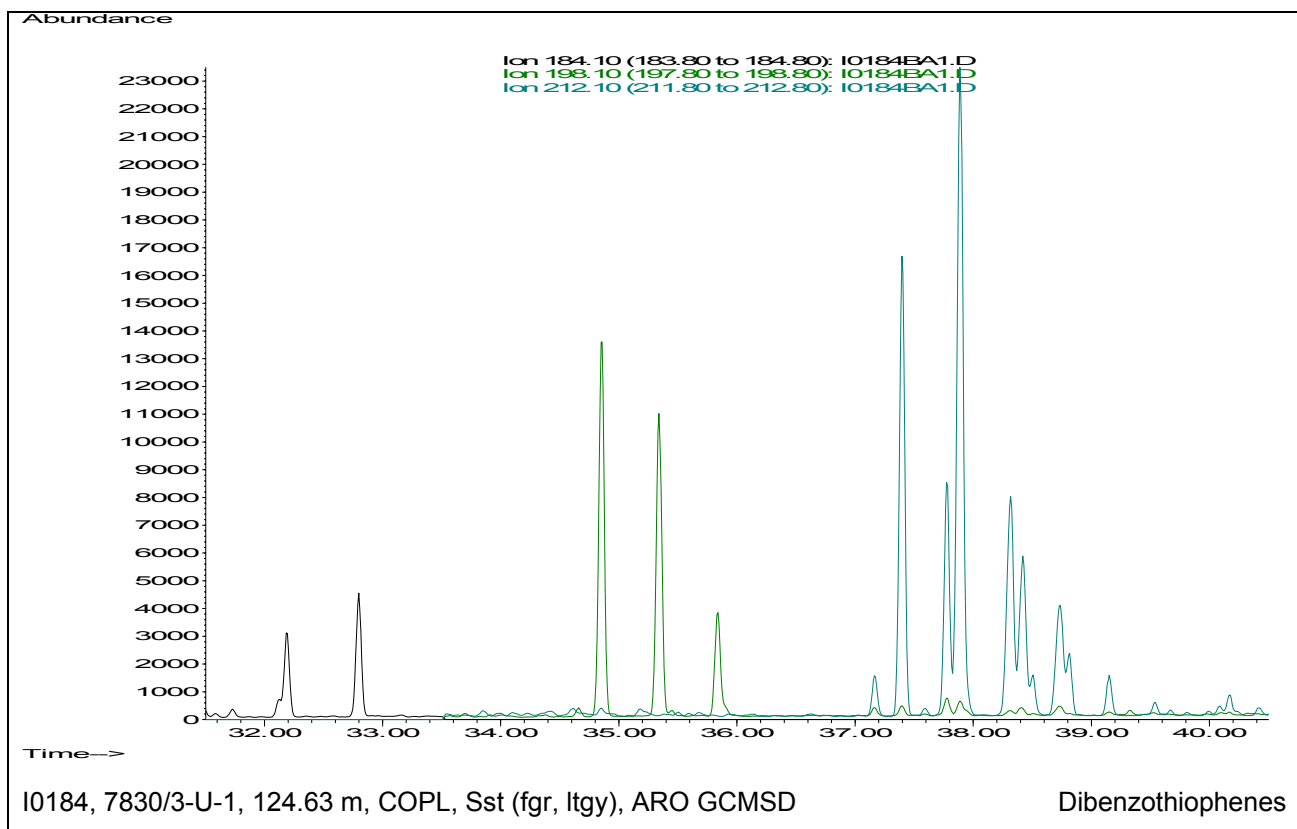
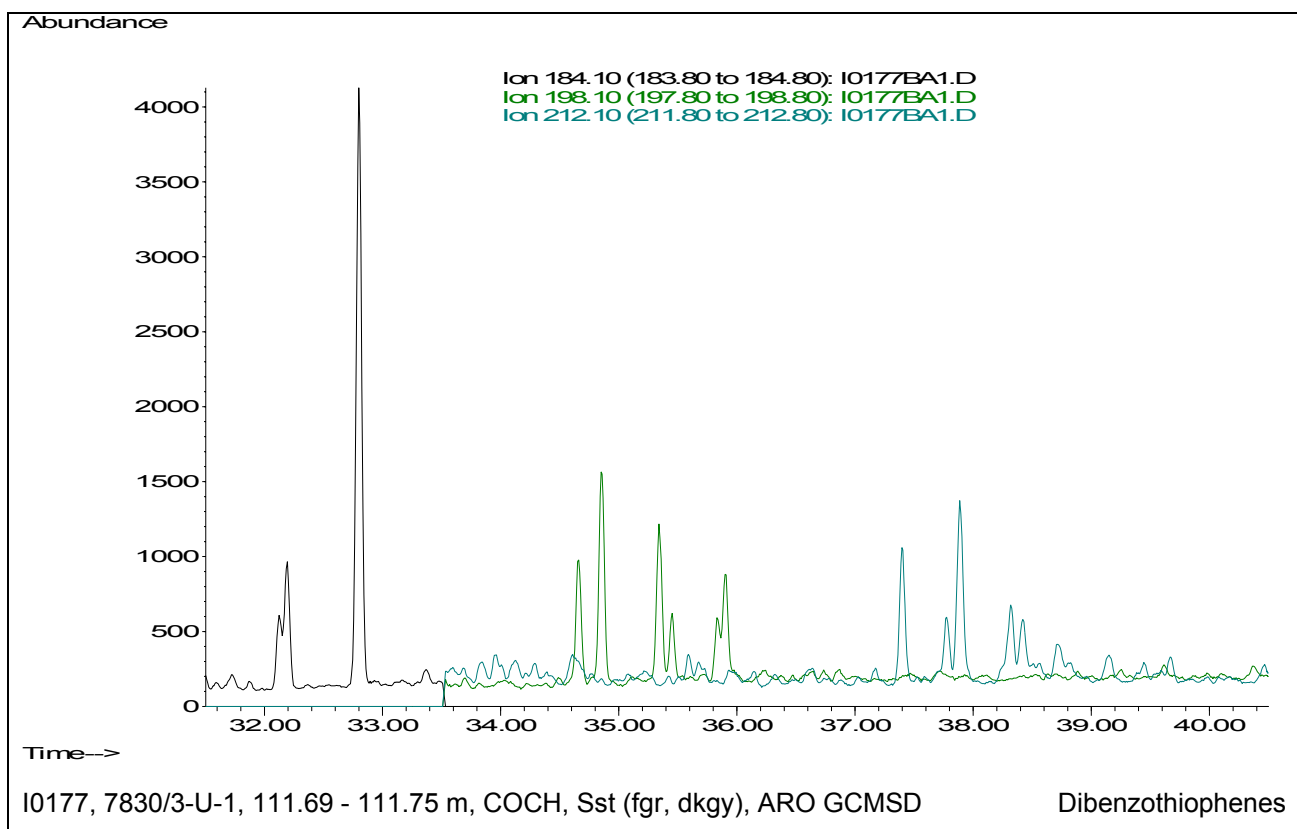


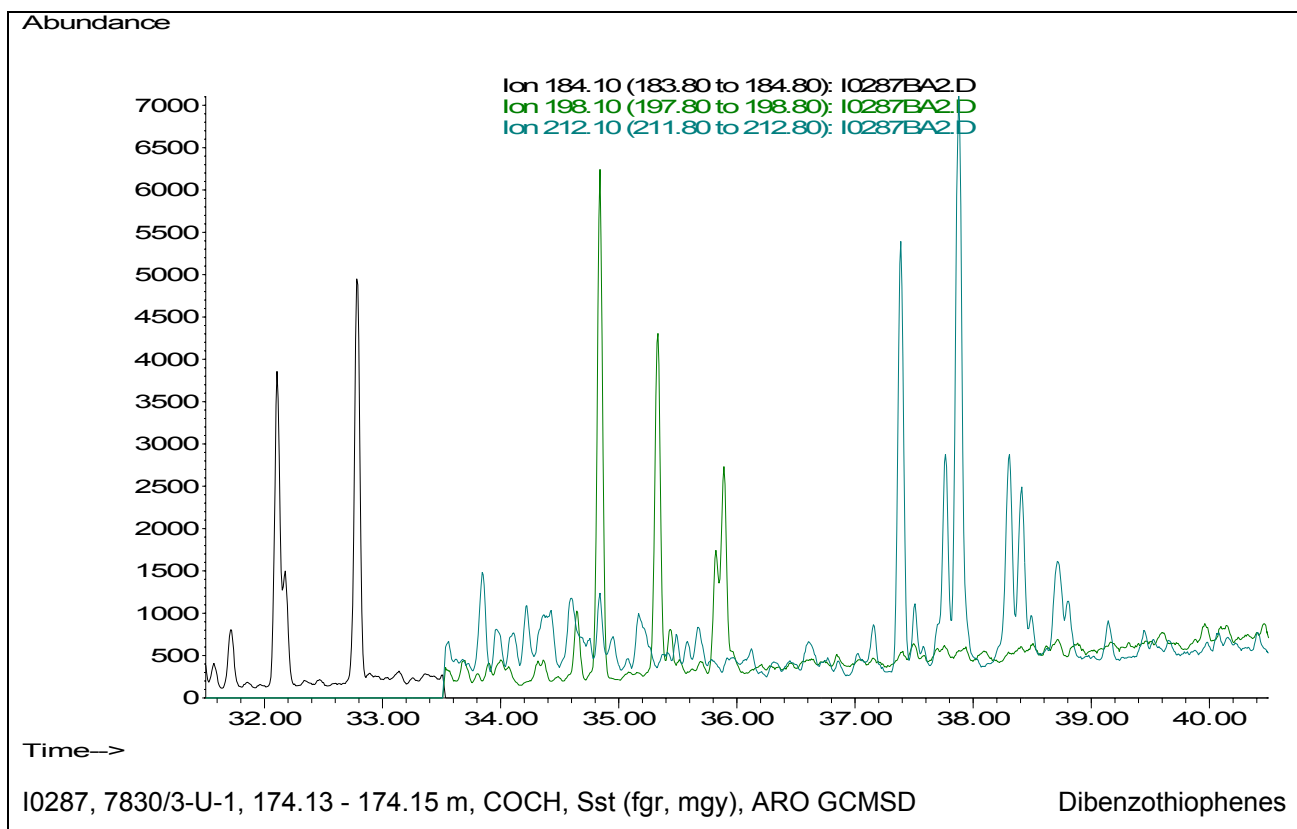
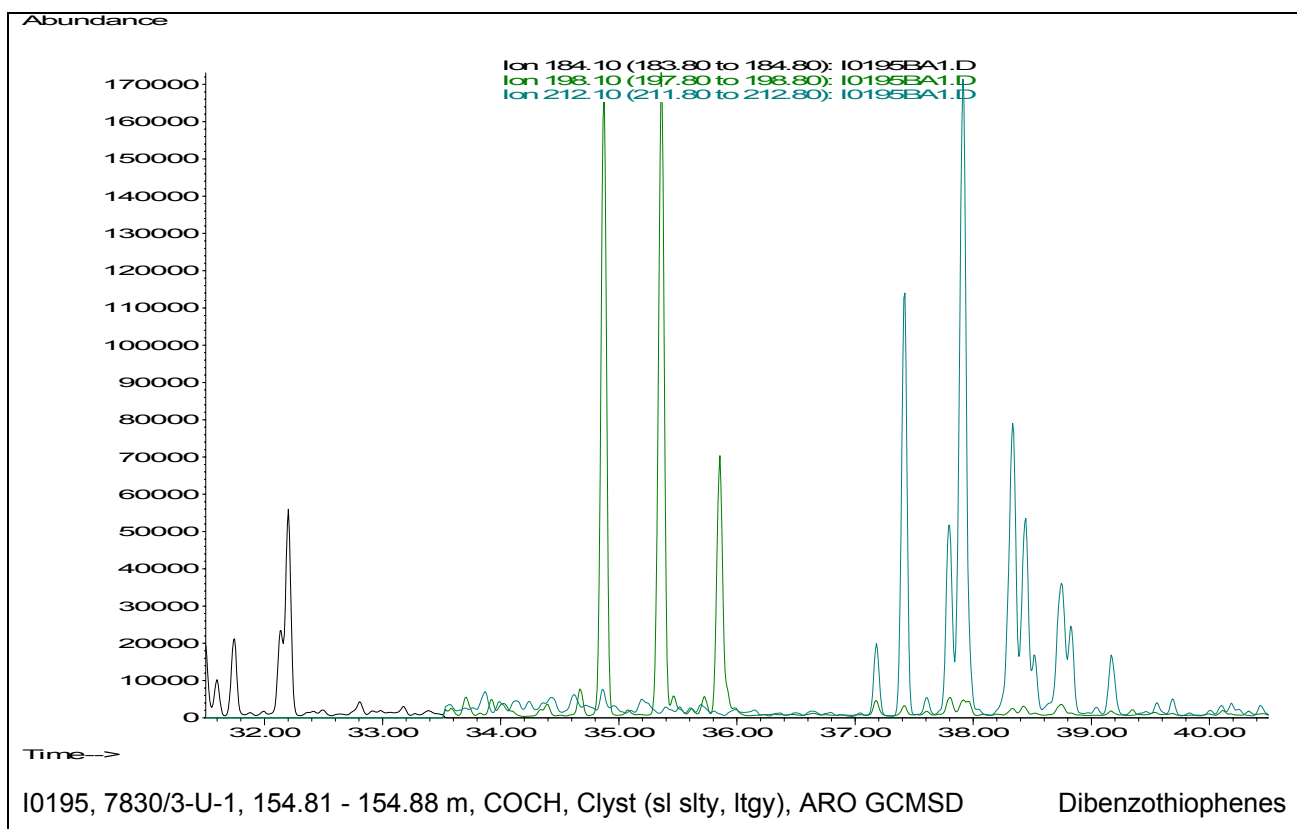


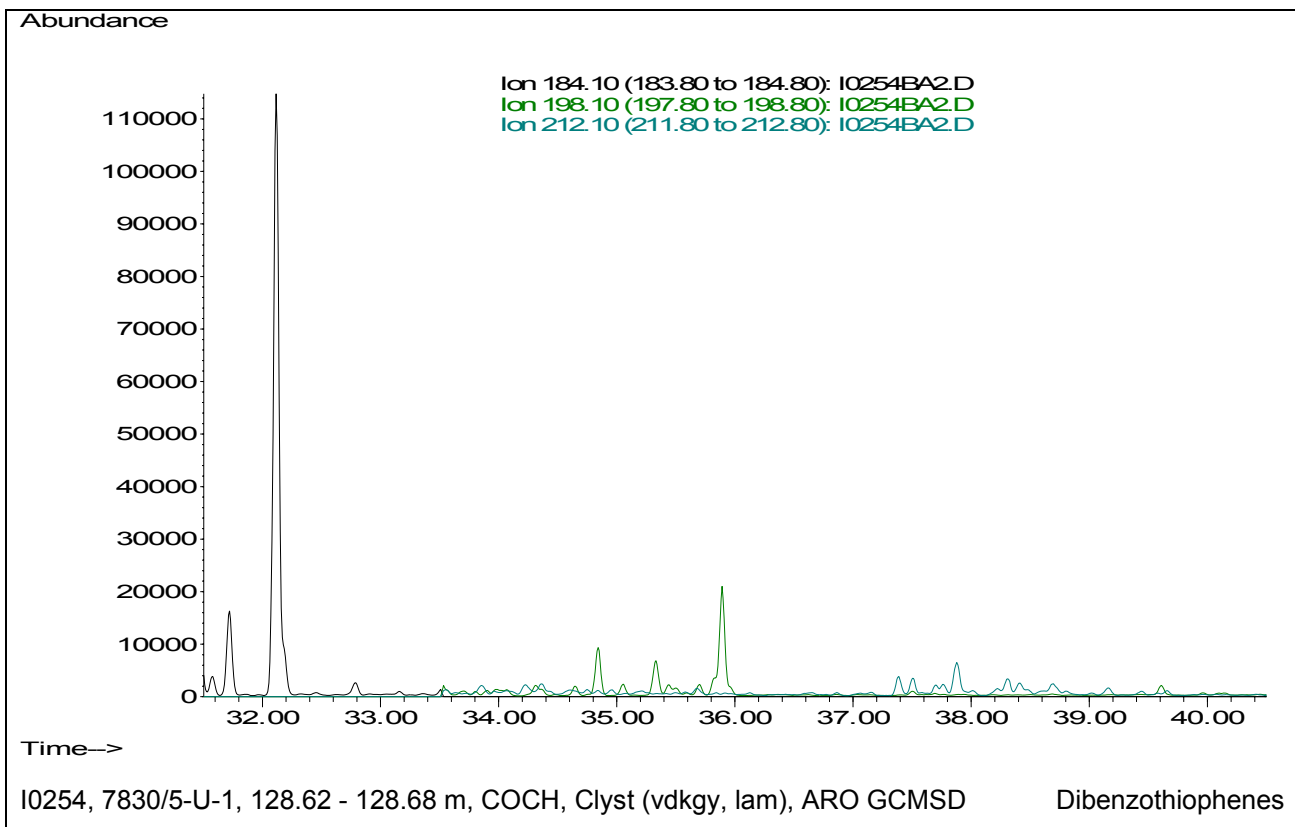
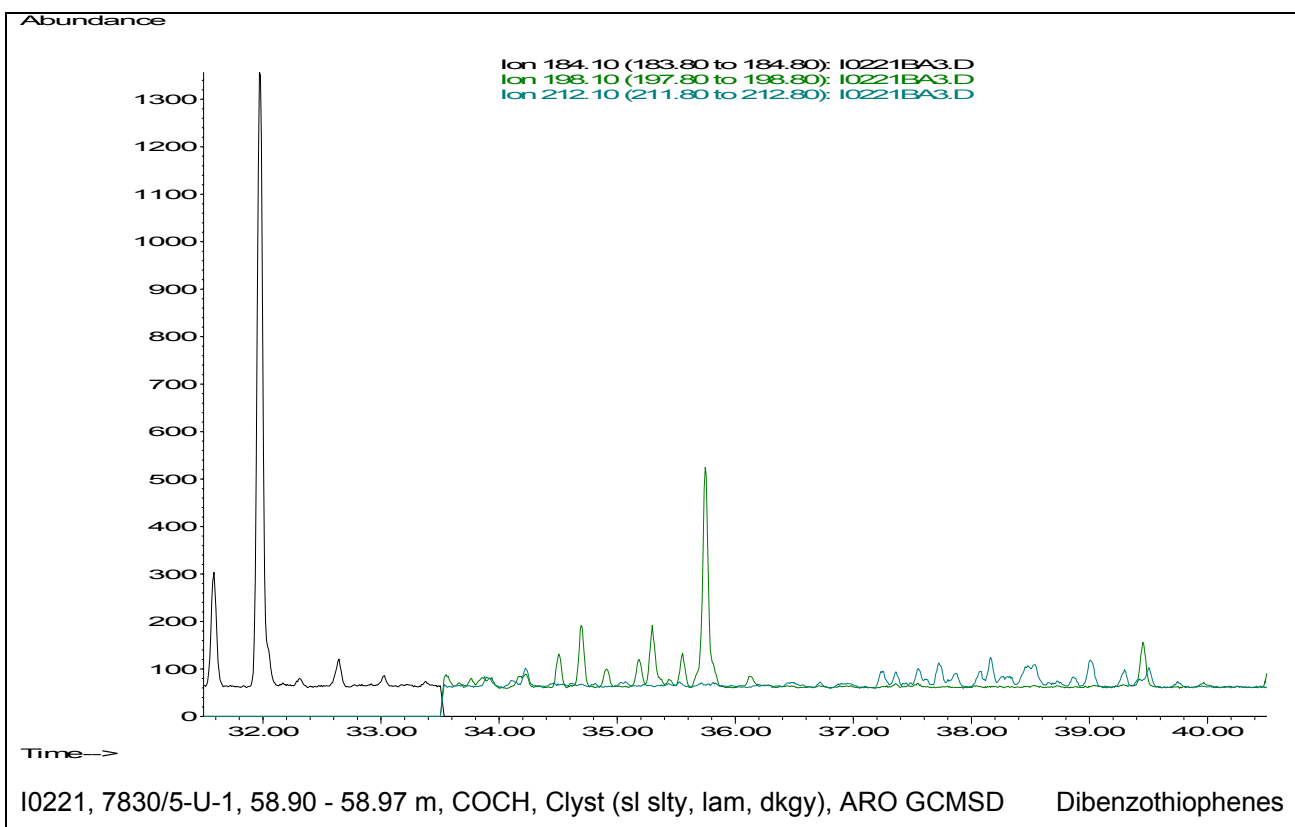


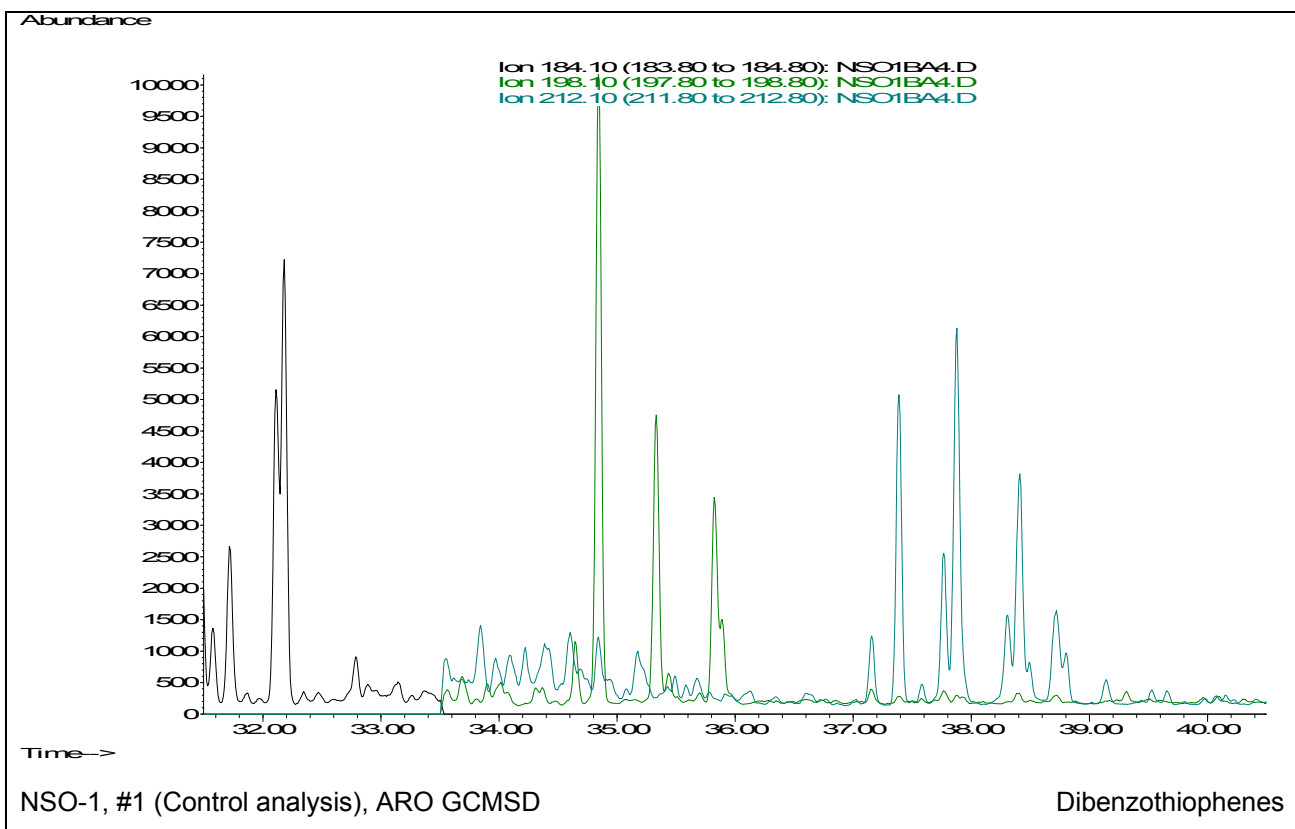
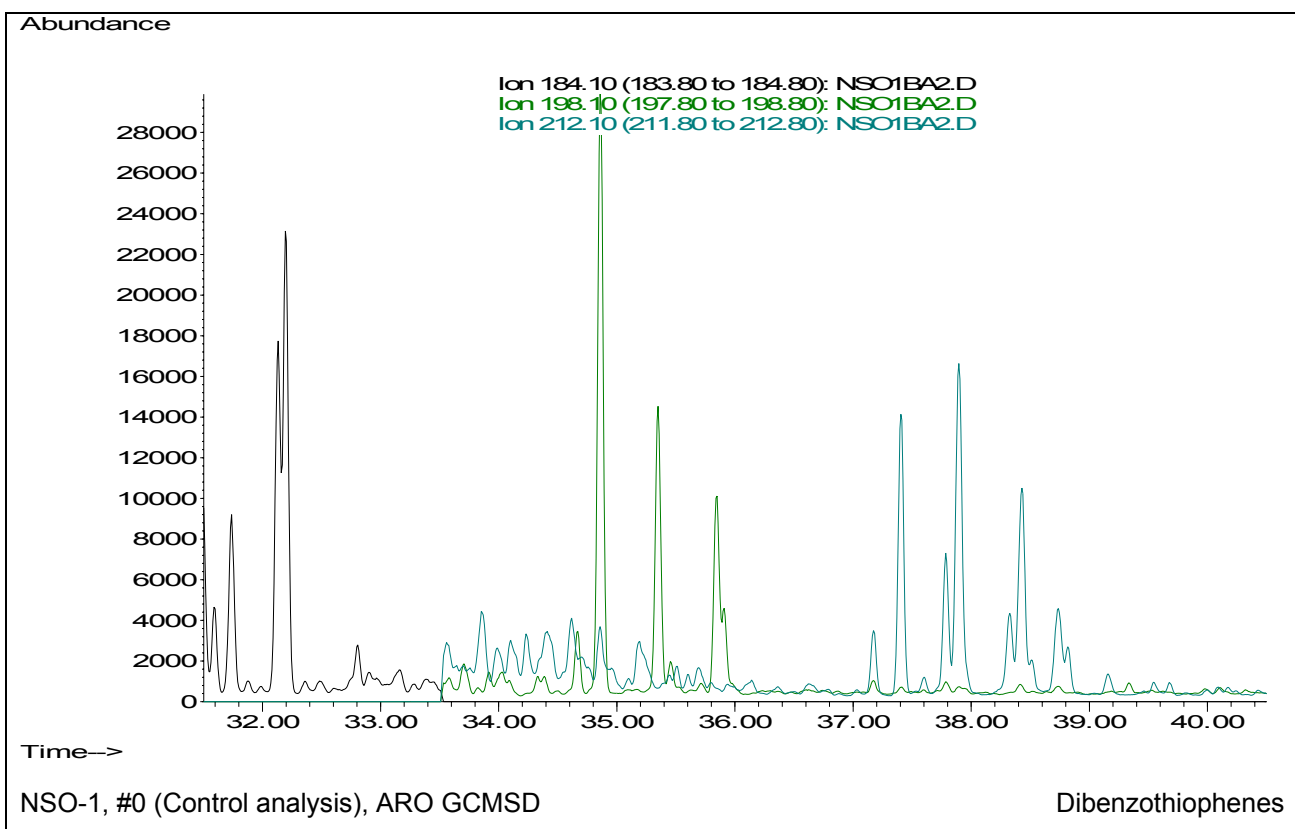


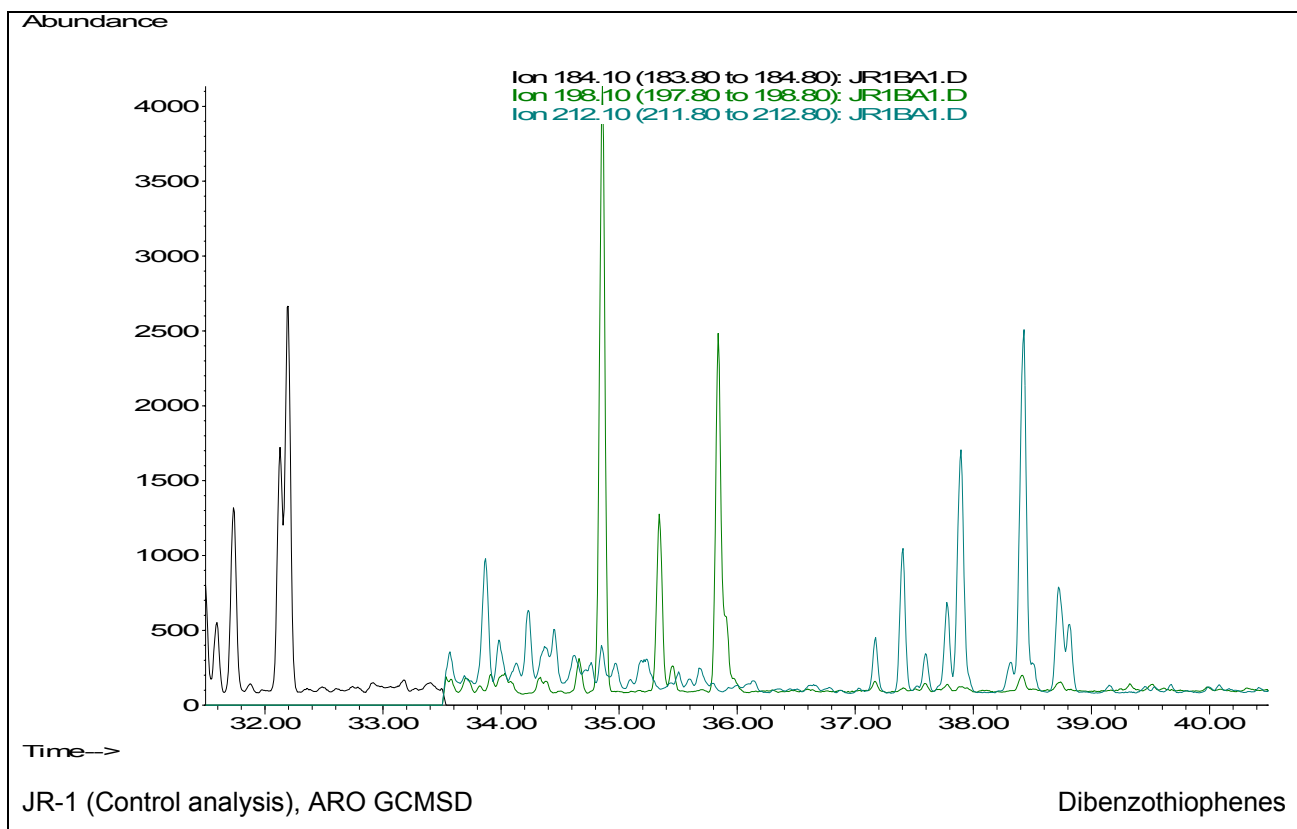
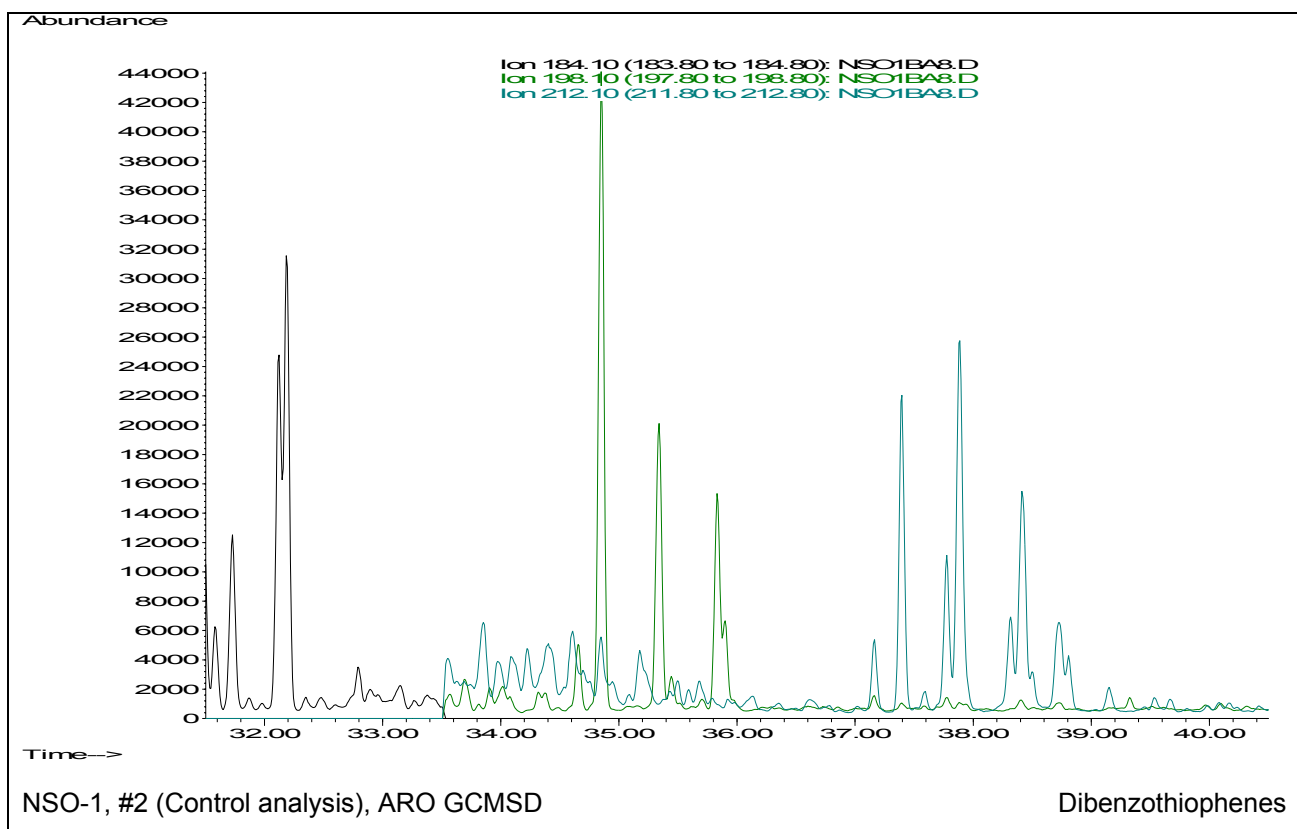


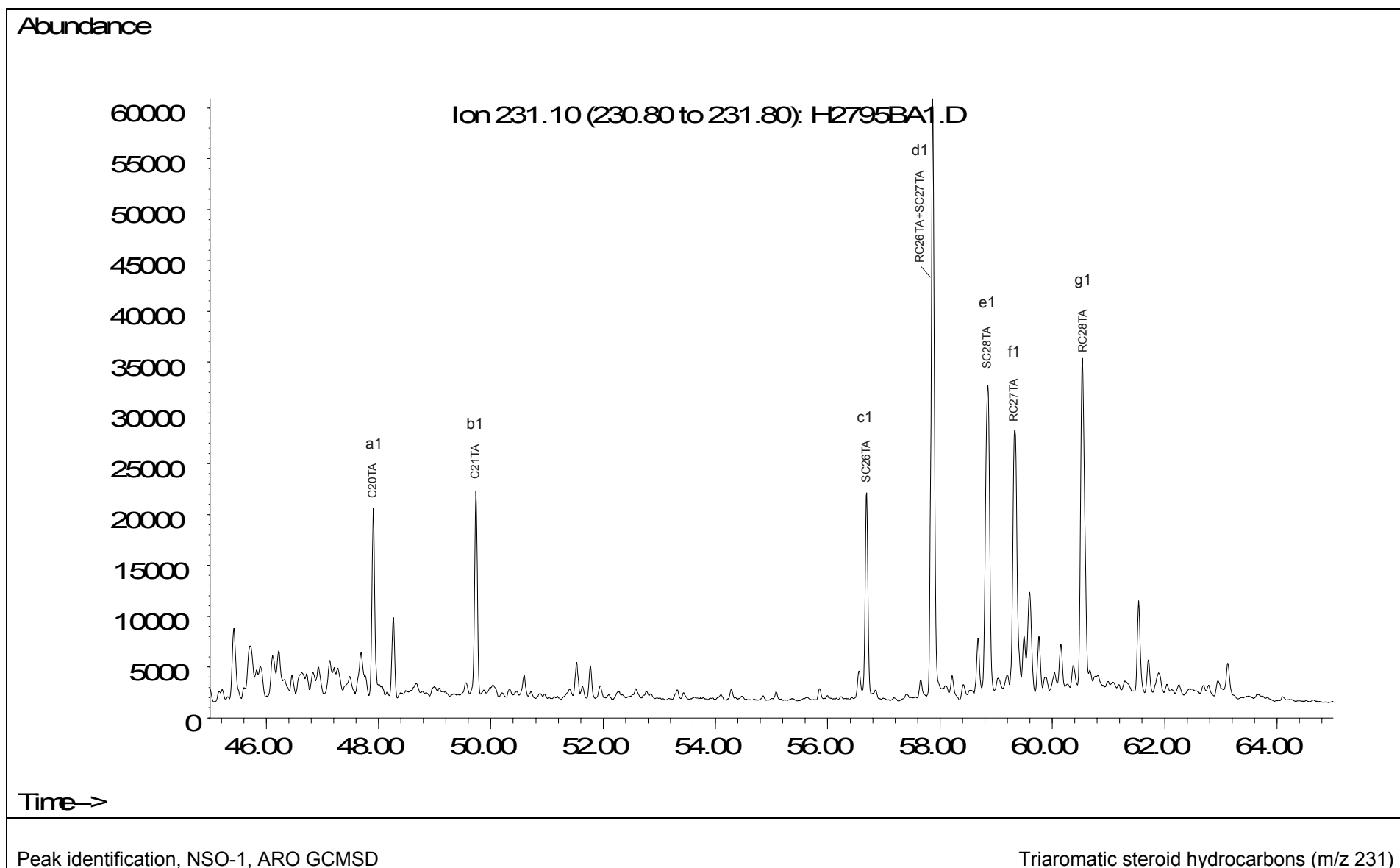








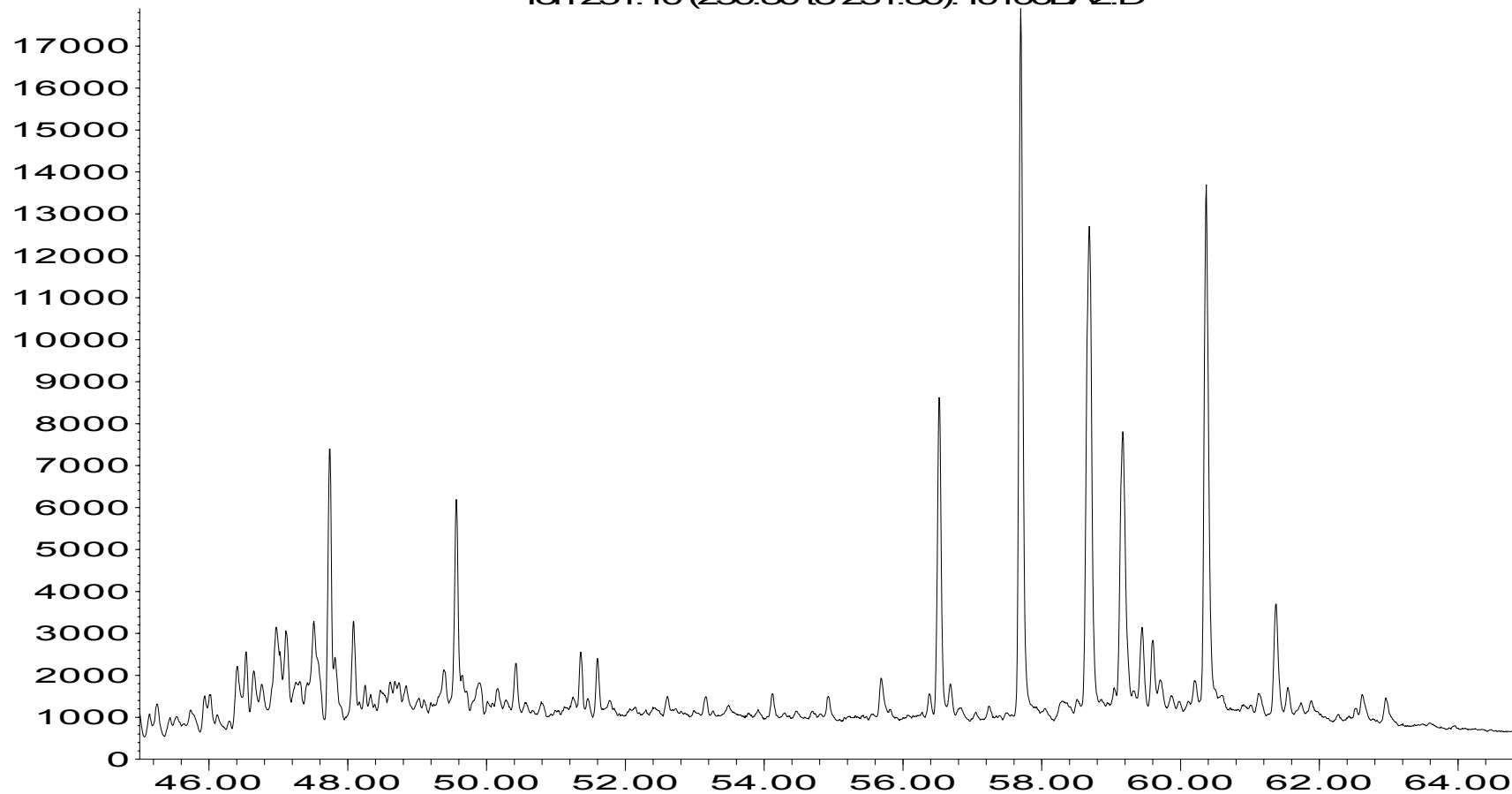




- 498 -

Abundance

Ion 231.10 (230.80 to 231.80): I0106BA2.D



Time-->

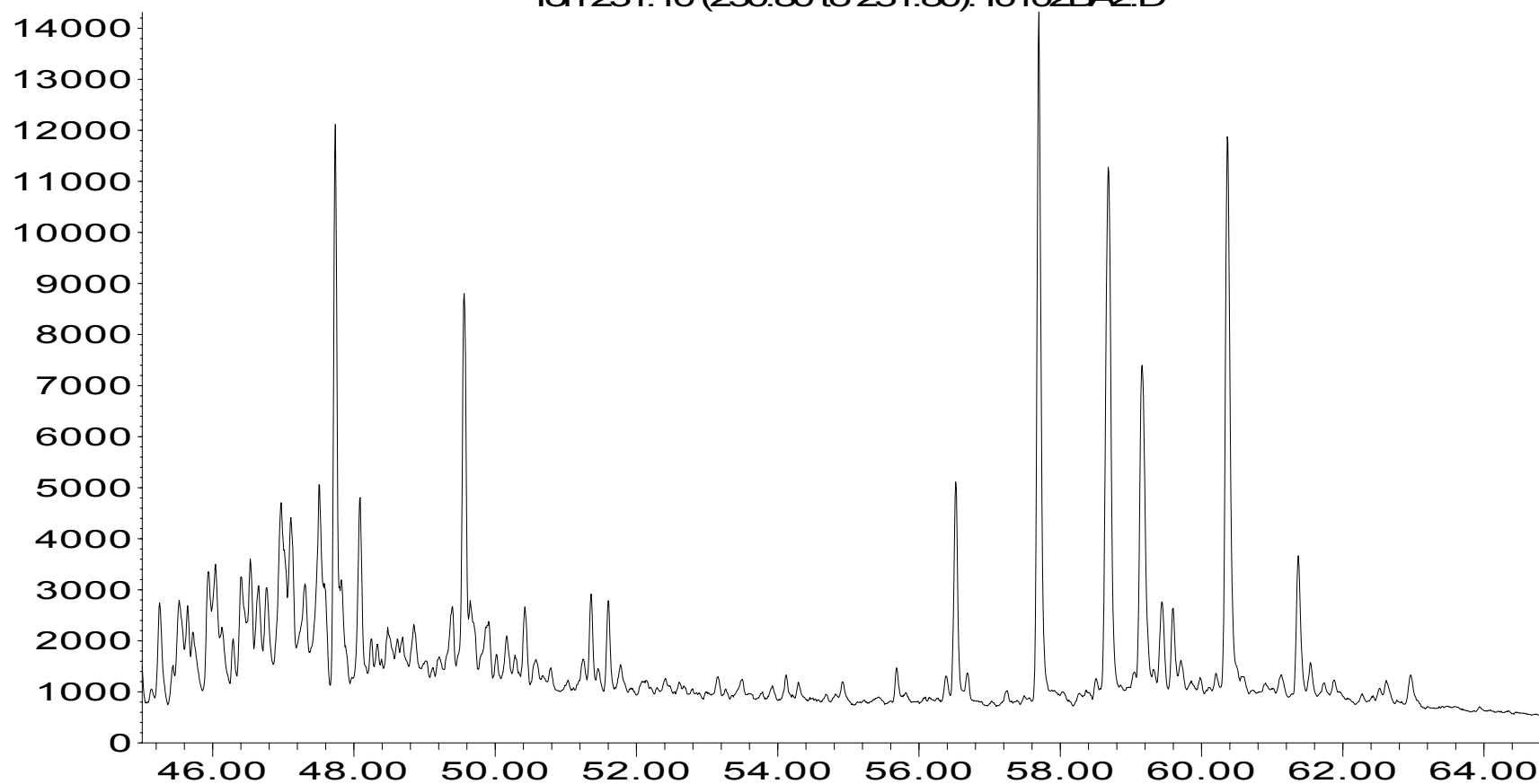
I0106, 7831/2-U-2, 6.78 - 6.83 m, COCH, Clyst (slty, dkgy), ARO GCMSD

Triaromatic steroid hydrocarbons (m/z 231)

- 499 -

Abundance

Ion 231.10 (230.80 to 231.80): I0102BA2.D



Time-->

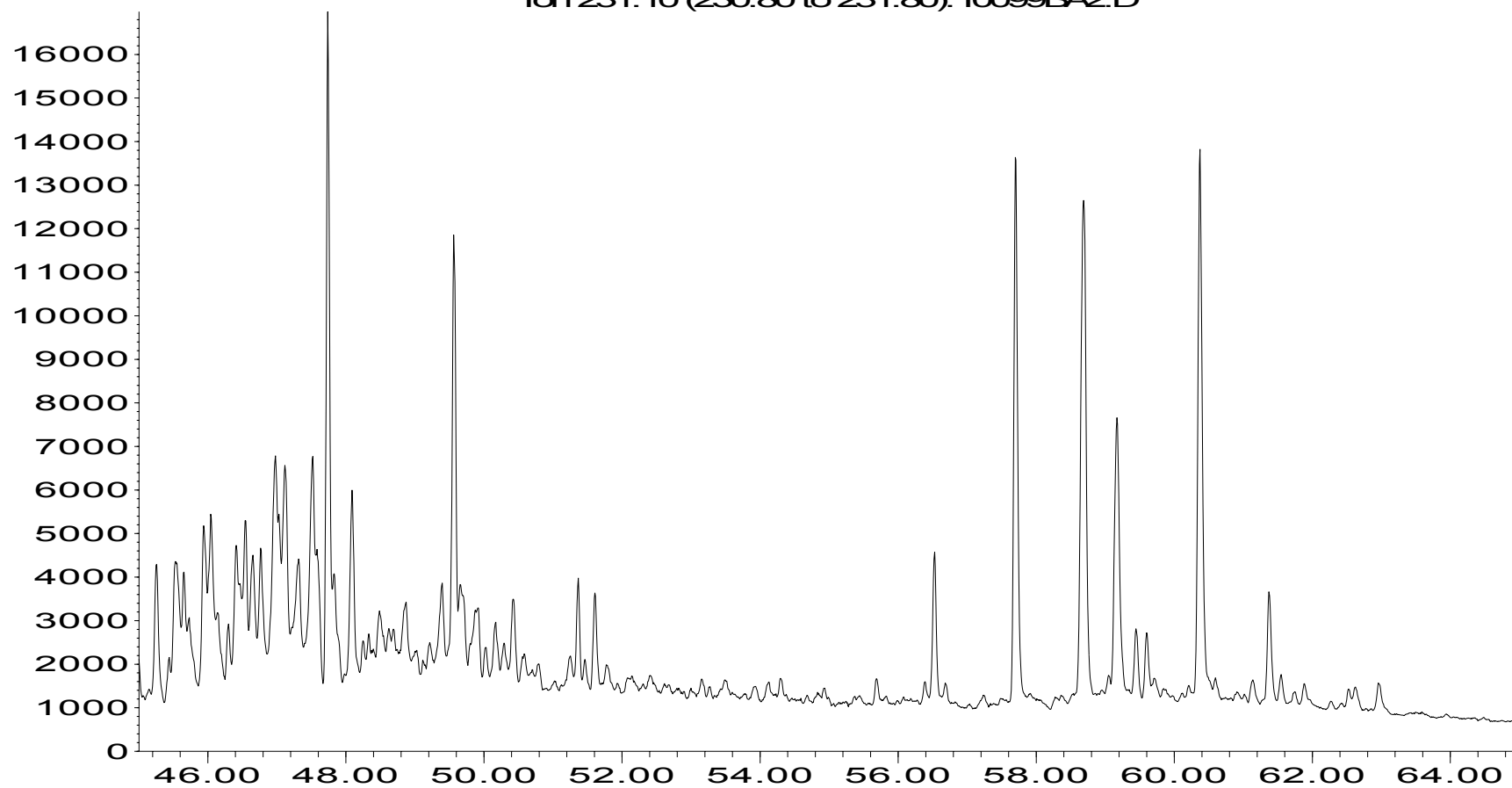
I0102, 7831/2-U-2, 10.23 - 10.28 m, COCH, Clyst (slty, mgy), ARO GCMSD

Triaromatic steroid hydrocarbons (m/z 231)

- 500 -

Abundance

Ion 231.10 (230.80 to 231.80): I0099BA2.D



Time-->

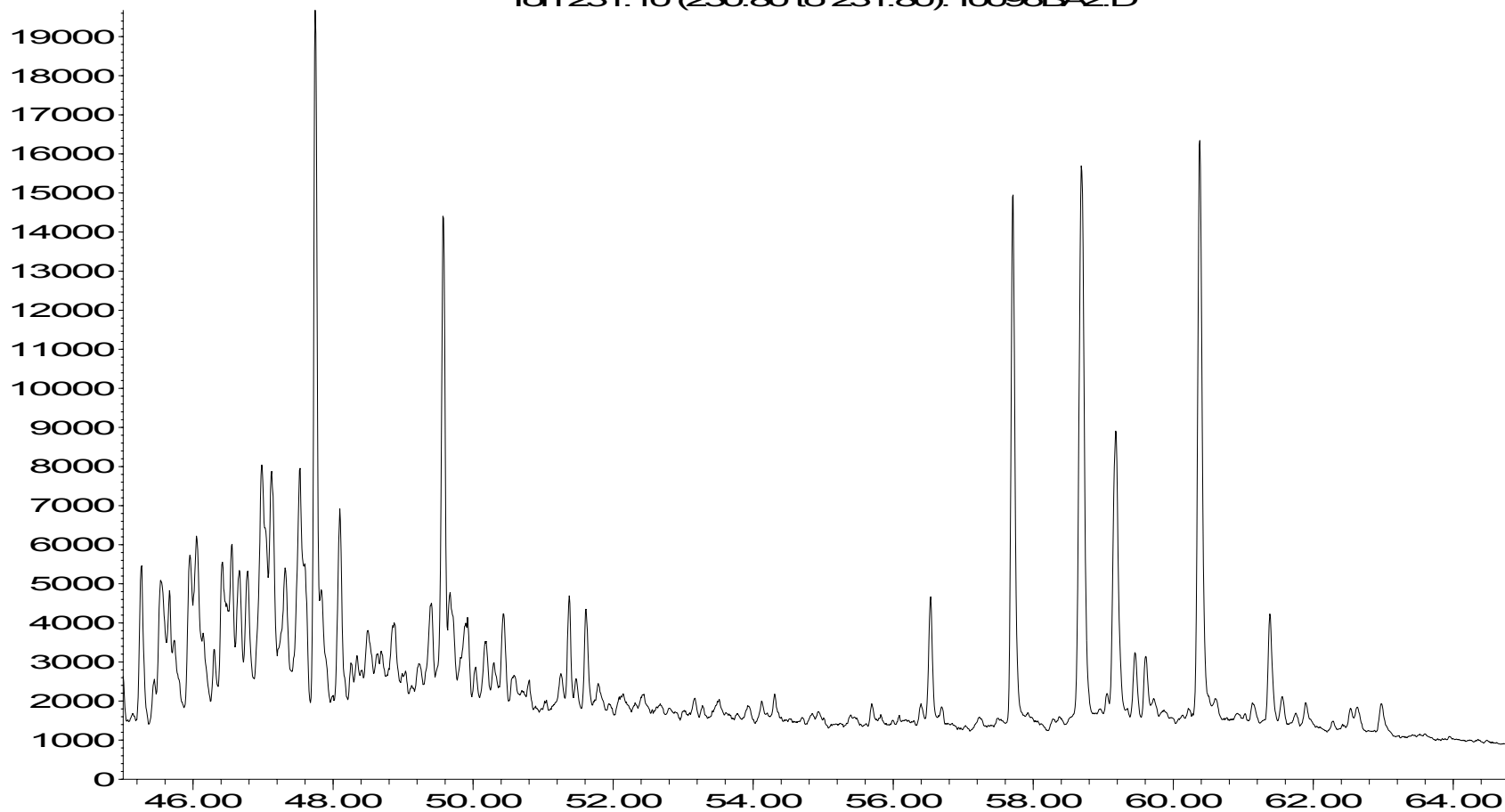
I0099, 7831/2-U-2, 14.48 - 14.53 m, COCH, Clyst (slty, dkgy), ARO GCMSD

Triaromatic steroid hydrocarbons (m/z 231)

- 501 -

Abundance

Ion 231.10 (230.80 to 231.80): I0096BA2.D



Time-->

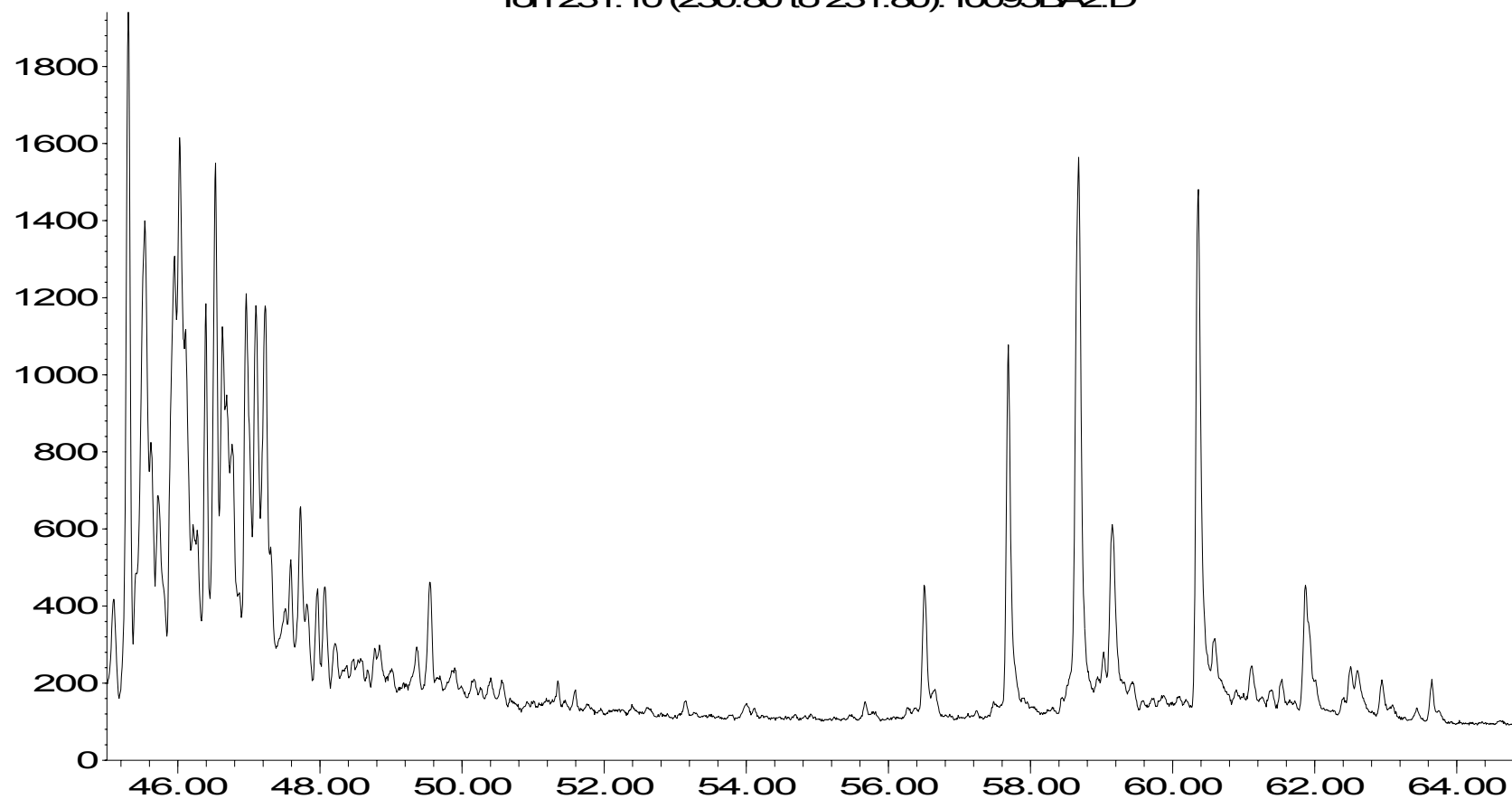
I0096, 7831/2-U-2, 17.83 - 17.87 m, COCH, Clyst (slty, dkgy), ARO GCMSD

Triaromatic steroid hydrocarbons (m/z 231)

- 502 -

Abundance

Ion 231.10 (230.80 to 231.80): I0095BA2.D



Time-->

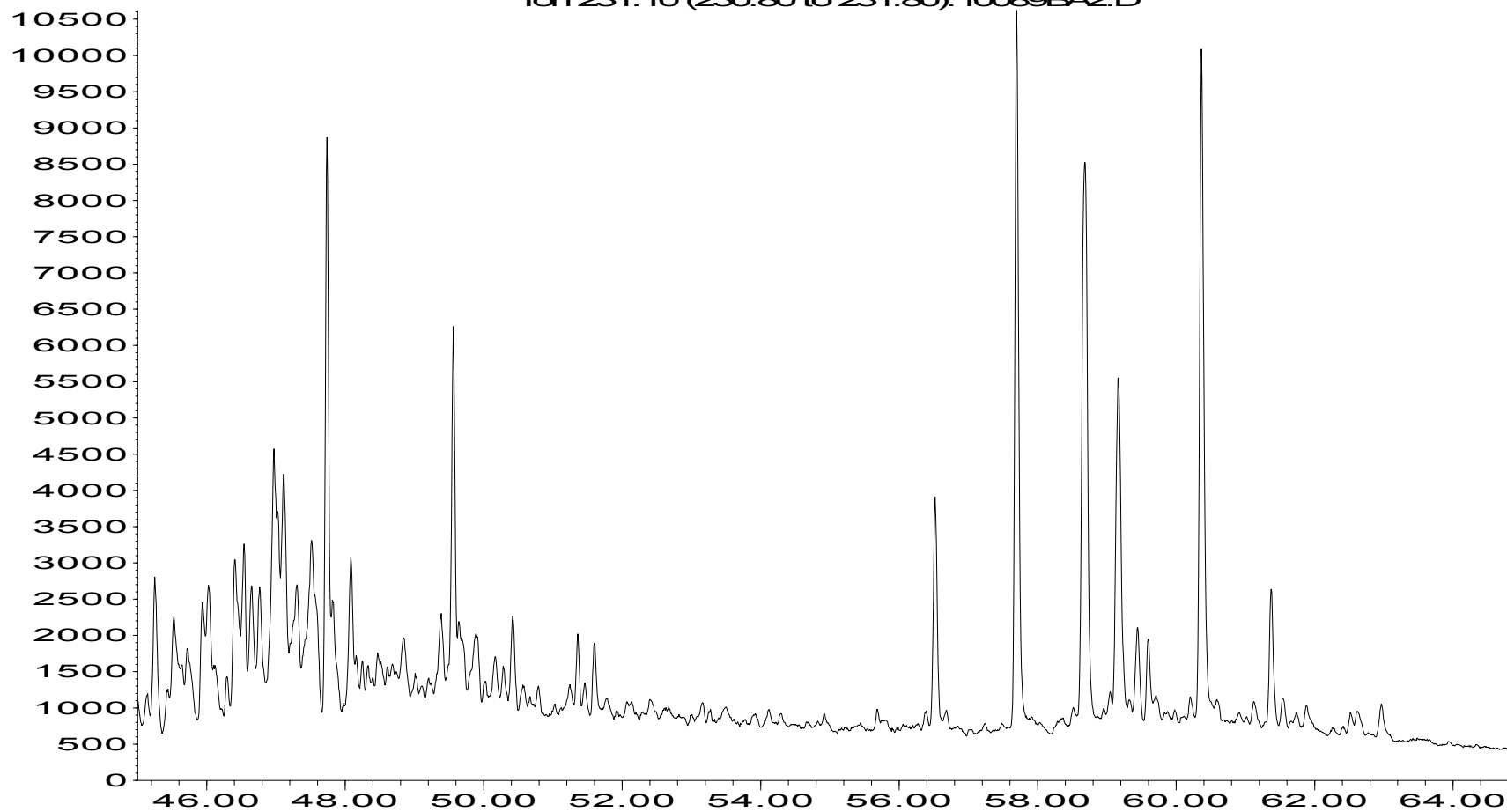
I0095, 7831/2-U-2, 18.72 - 18.85 m, COCH, Clyst (slty, dkgy), ARO GCMSD

Triaromatic steroid hydrocarbons (m/z 231)

- 503 -

Abundance

Ion 231.10 (230.80 to 231.80): I0089BA2.D



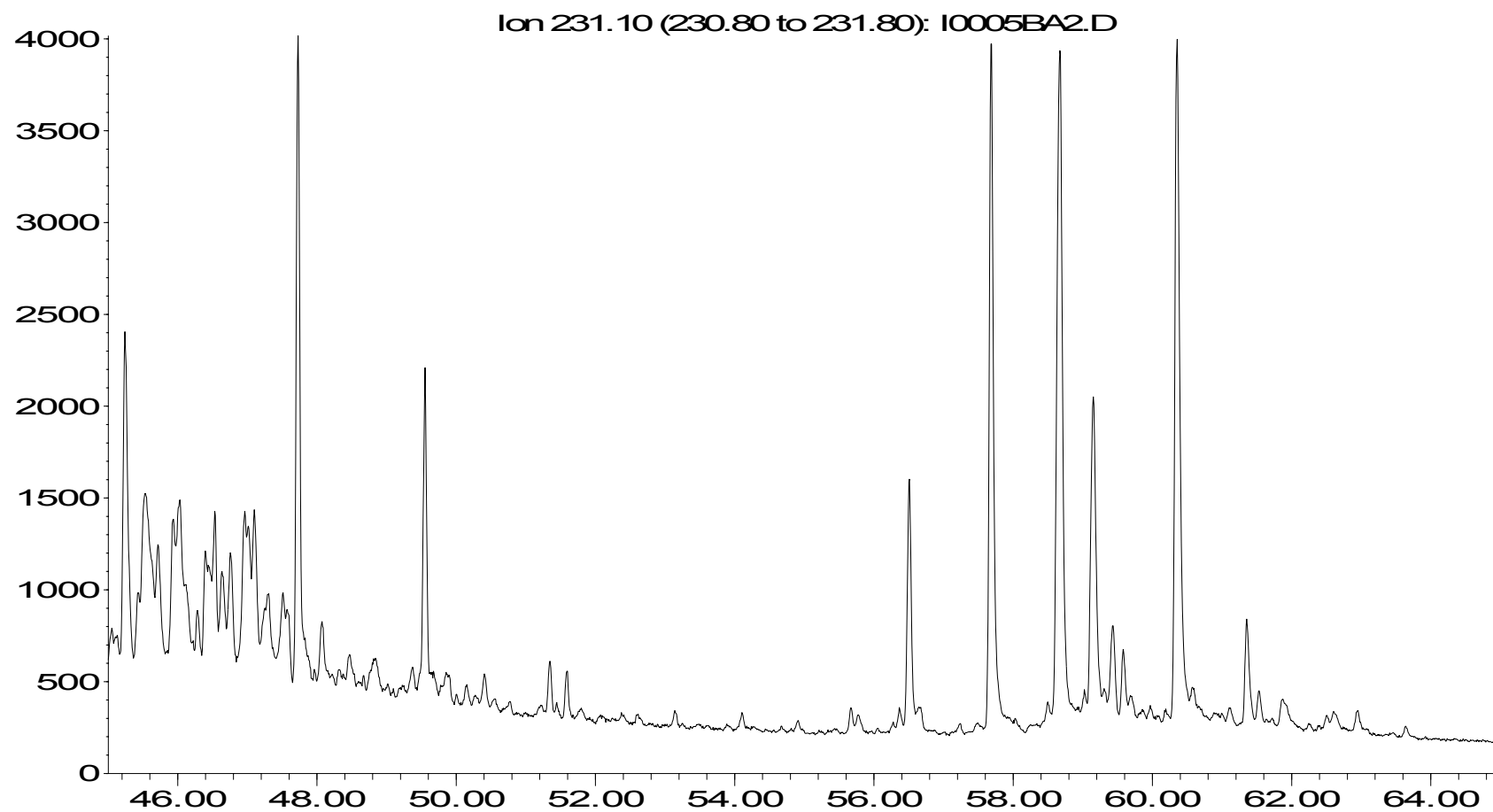
Time-->

I0089, 7831/2-U-1, 21.72 - 21.76 m, COCH, Clyst (dkgy), ARO GCMSD

Triaromatic steroid hydrocarbons (m/z 231)

- 504 -

Abundance



Time-->

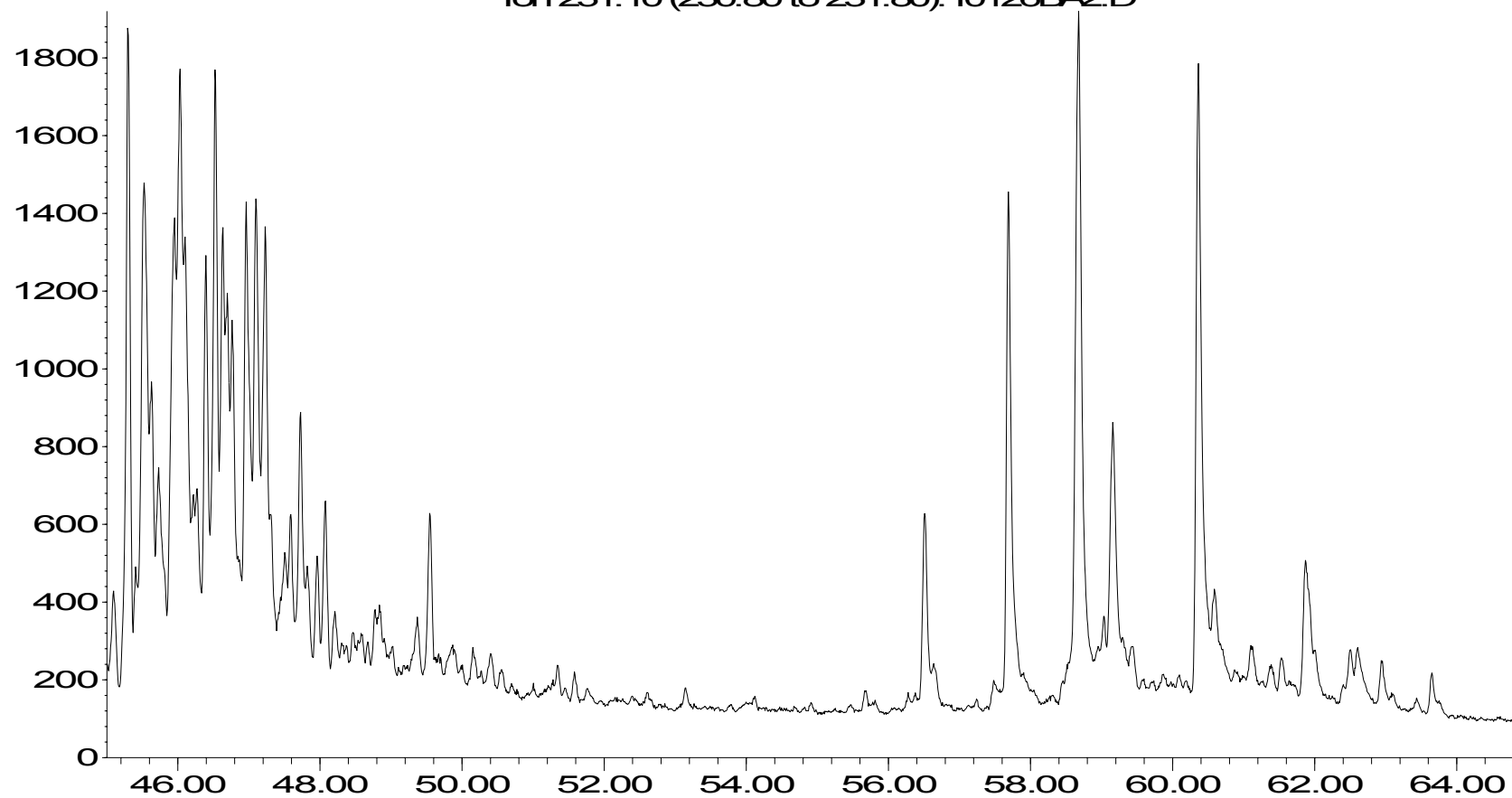
I0005, 7830/6-U-1, 12.85 - 12.88 m, COCH, Slst, ARO GCMSD

Triaromatic steroid hydrocarbons (m/z 231)

- 505 -

Abundance

Ion 231.10 (230.80 to 231.80): I0126BA2.D



Time-->

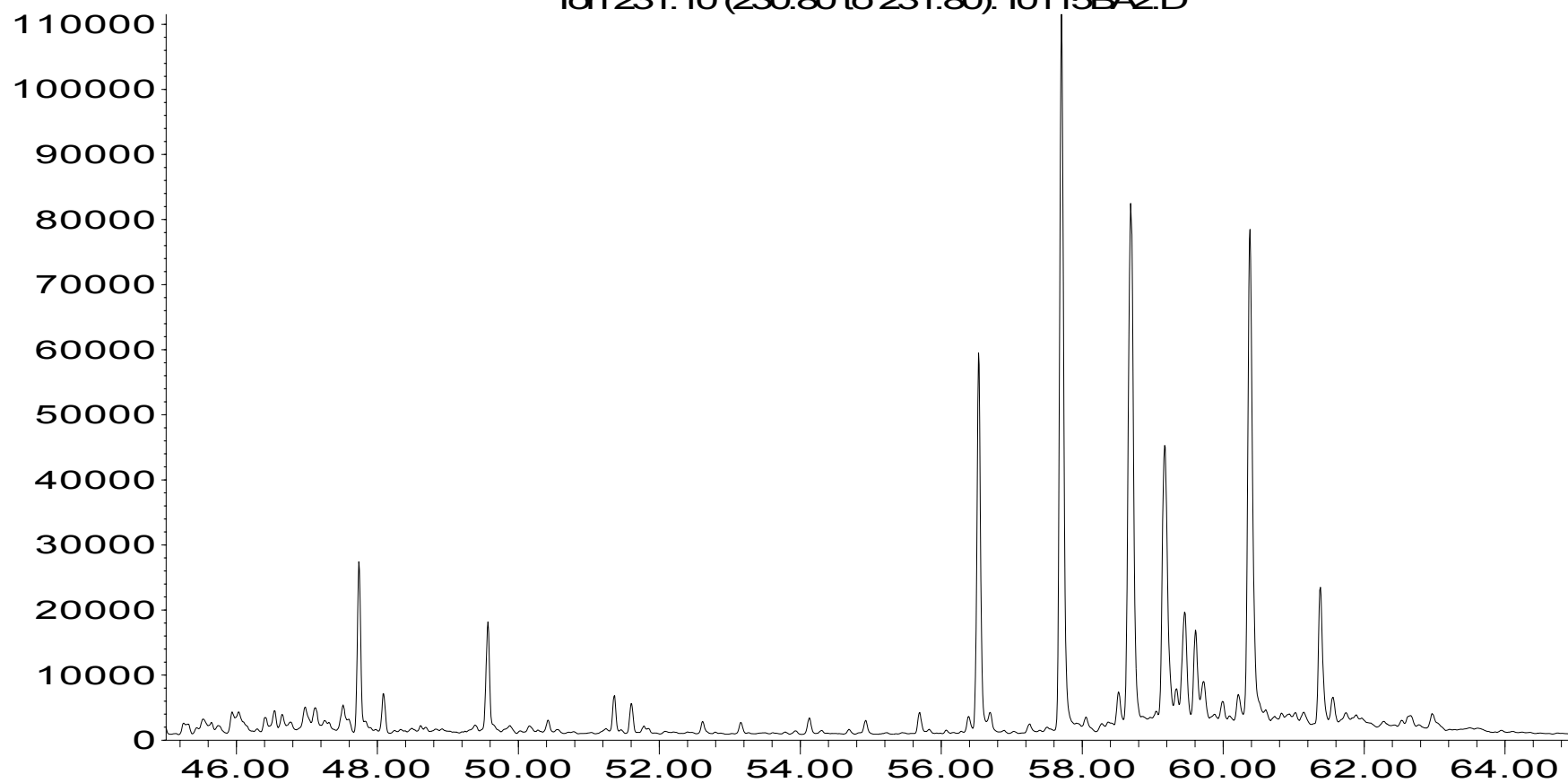
I0126, 7830/6-U-1, 20.03 - 20.10 m, COCH, Clyst (slty, lam, dkgy), ARO GCMSD

Triaromatic steroid hydrocarbons (m/z 231)

- 506 -

Abundance

Ion 231.10 (230.80 to 231.80): I0115BA2.D



Time-->

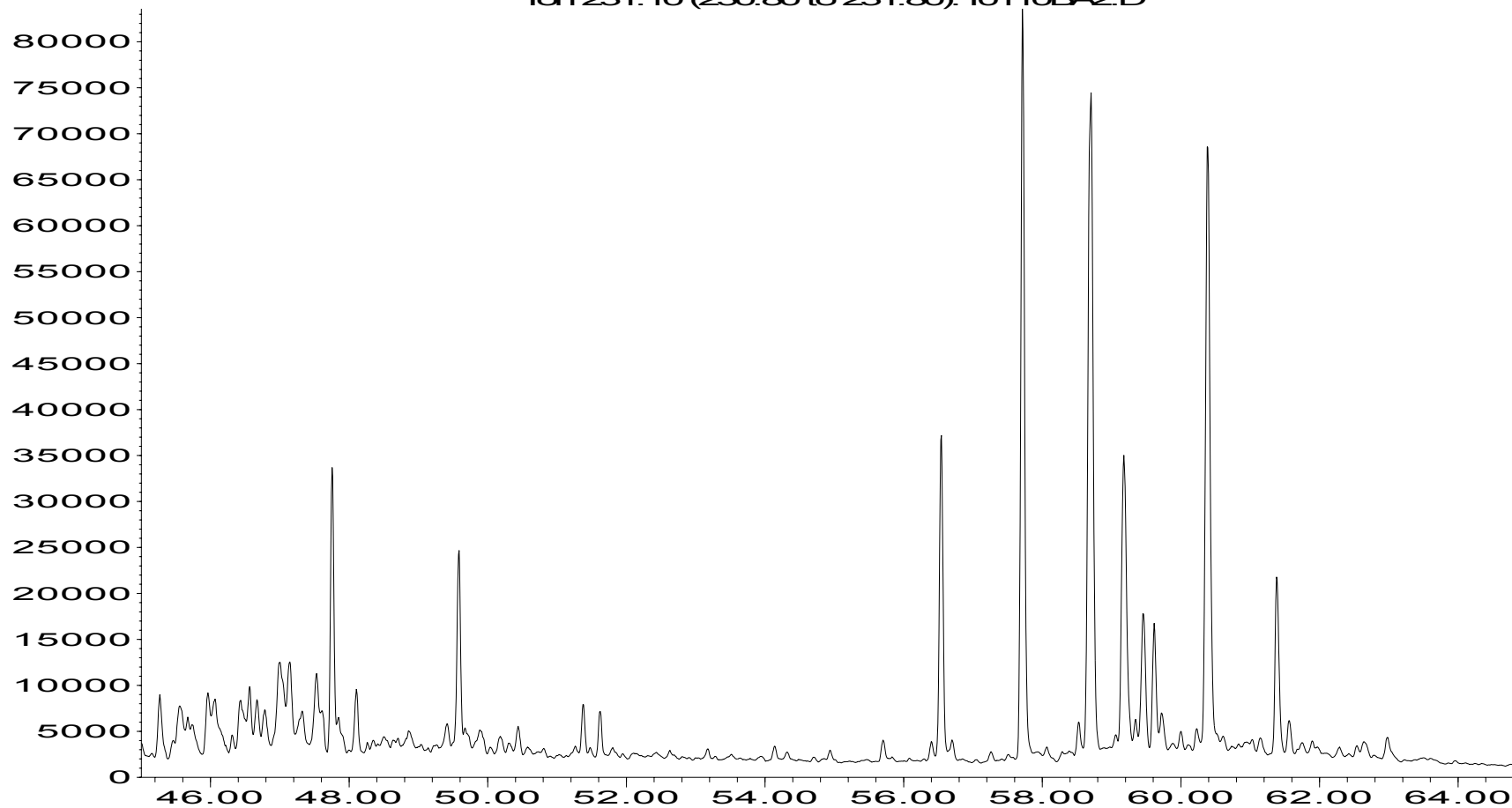
I0115, 7830/6-U-1, 41.85 - 41.89 m, COCH, Clyst (dkgy, lam), ARO GCMSD

Triaromatic steroid hydrocarbons (m/z 231)

- 507 -

Abundance

Ion 231.10 (230.80 to 231.80): I0110BA2.D



Time—>

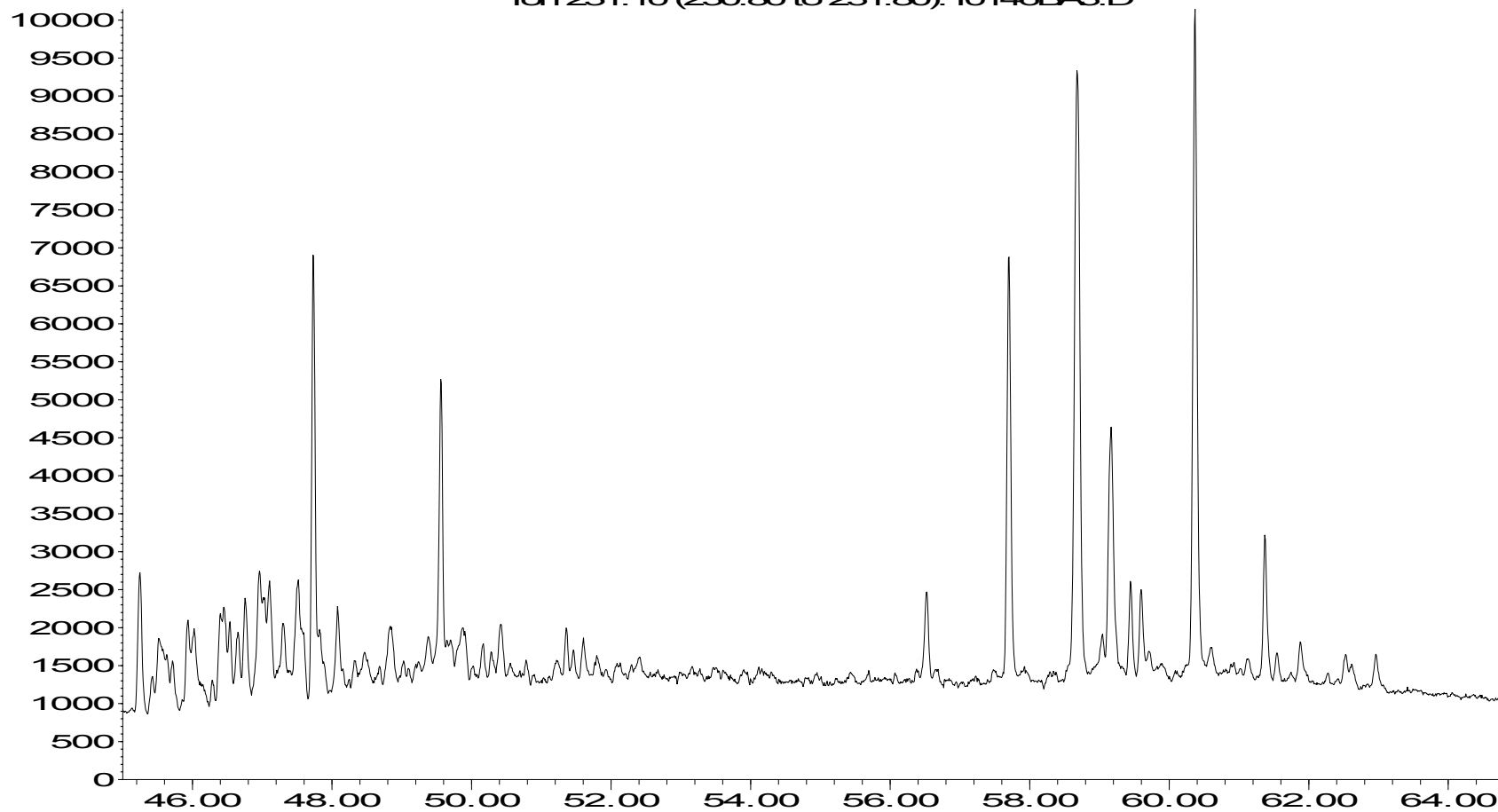
I0110, 7830/6-U-1, 50.90 - 50.93 m, COCH, Clyst (dkgy, lam), ARO GCMSD

Triaromatic steroid hydrocarbons (m/z 231)

- 508 -

Abundance

Ion 231.10 (230.80 to 231.80): I0146BA3.D



Time-->

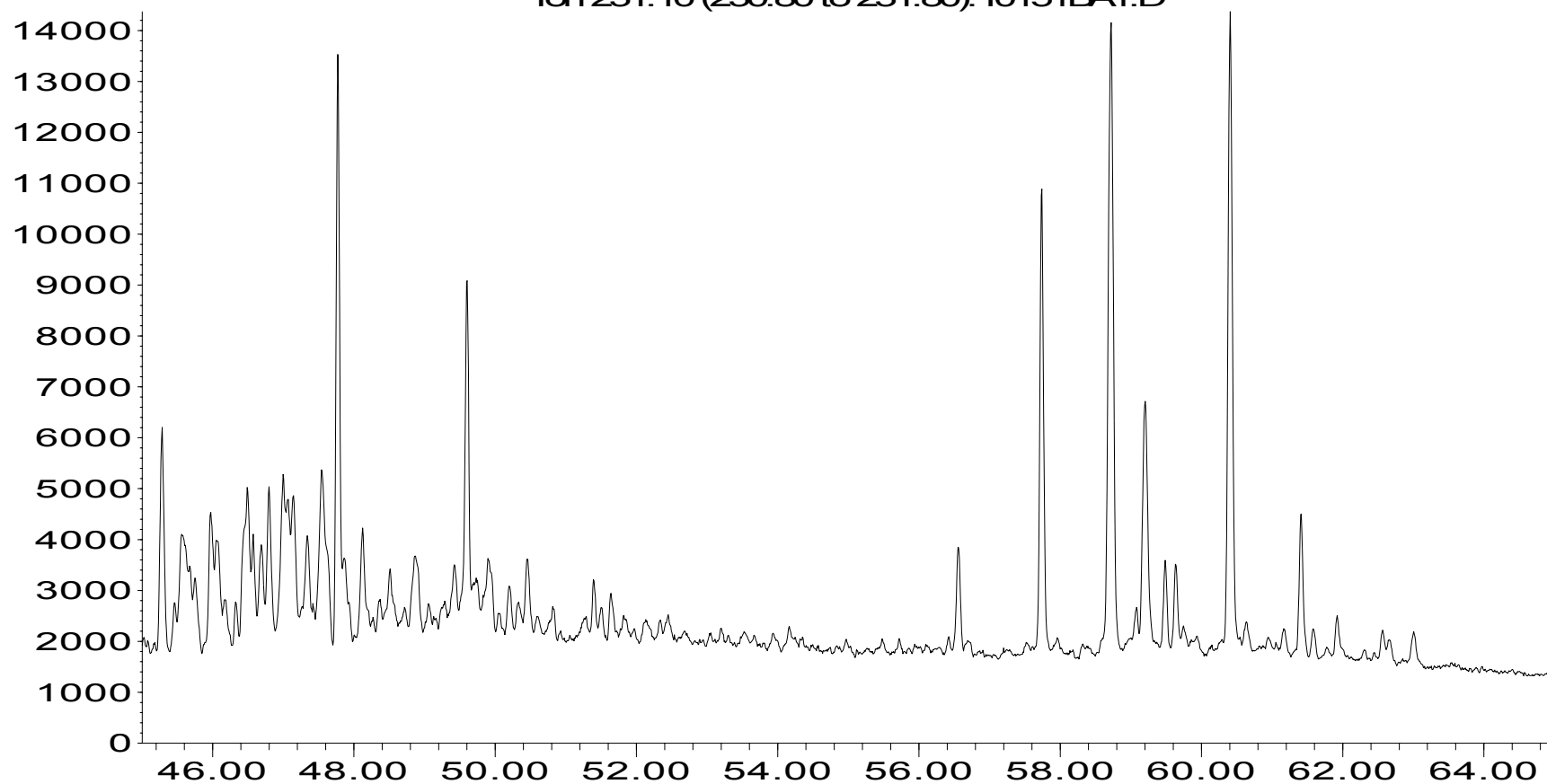
I0146, 7830/3-U-1, 39.94 - 39.99 m, COCH, Sst (mgr, mgy), ARO GCMSD

Triaromatic steroid hydrocarbons (m/z 231)

- 509 -

Abundance

Ion 231.10 (230.80 to 231.80): I0151BA1.D



Time-->

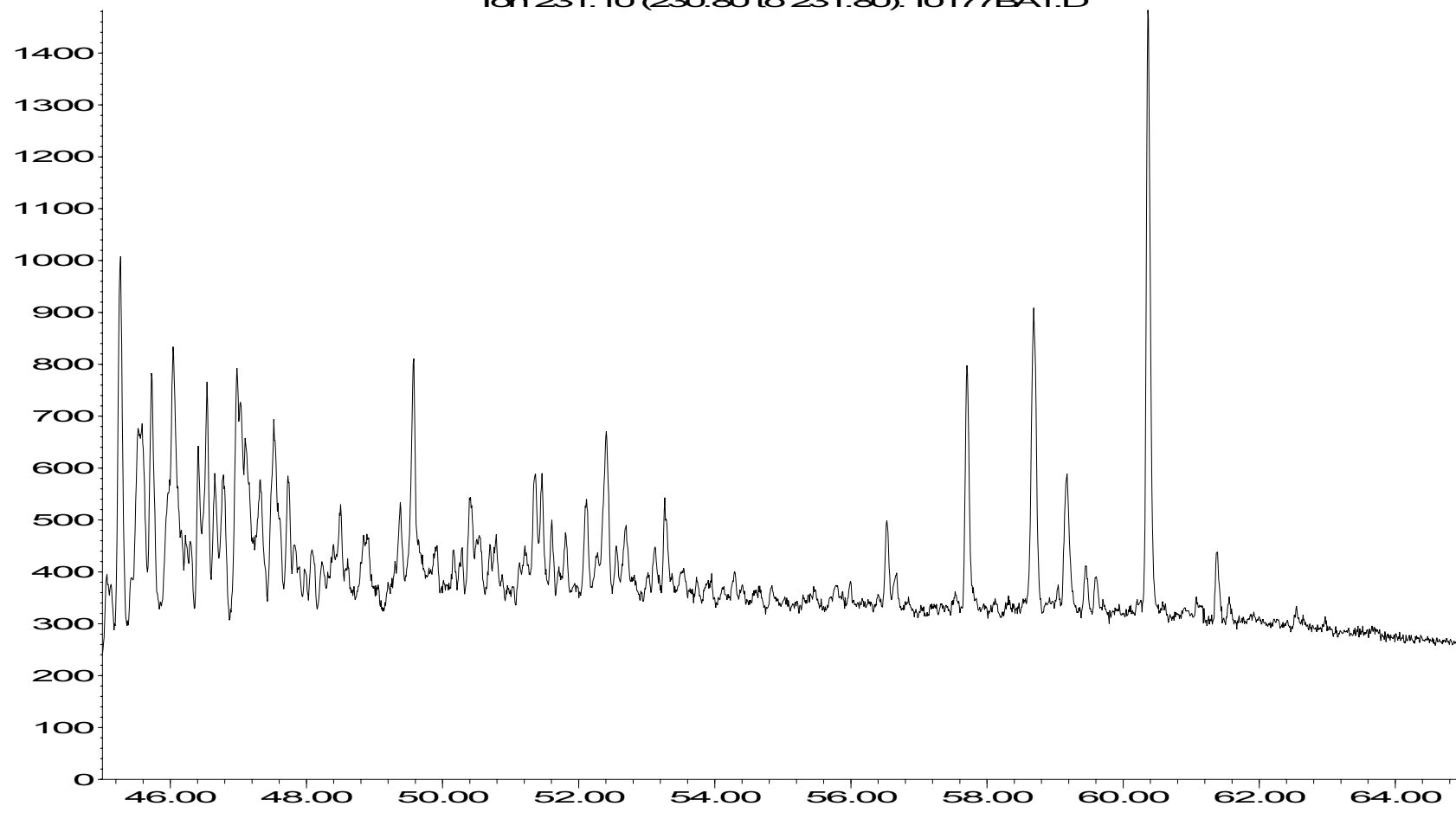
I0151, 7830/3-U-1, 51.24 m, COPL, Sst (fgr, mgy), ARO GCMSD

Triaromatic steroid hydrocarbons (m/z 231)

- 510 -

Abundance

Ion 231.10 (230.80 to 231.80): I0177BA1.D



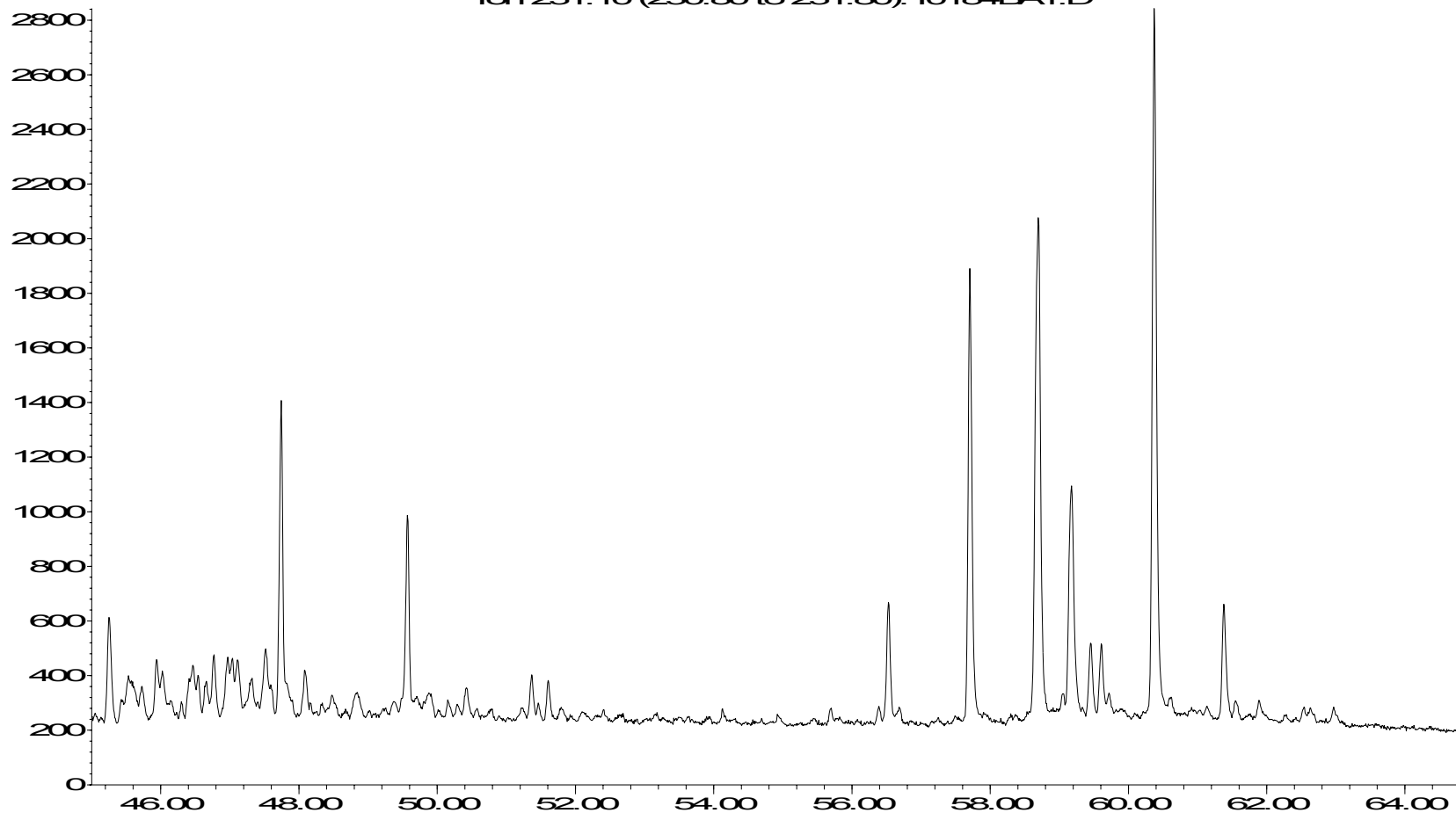
I0177, 7830/3-U-1, 111.69 - 111.75 m, COCH, Sst (fgr, dkgy), ARO GCMSD

Triaromatic steroid hydrocarbons (m/z 231)

- 511 -

Abundance

Ion 231.10 (230.80 to 231.80): I0184BA1.D



Time→

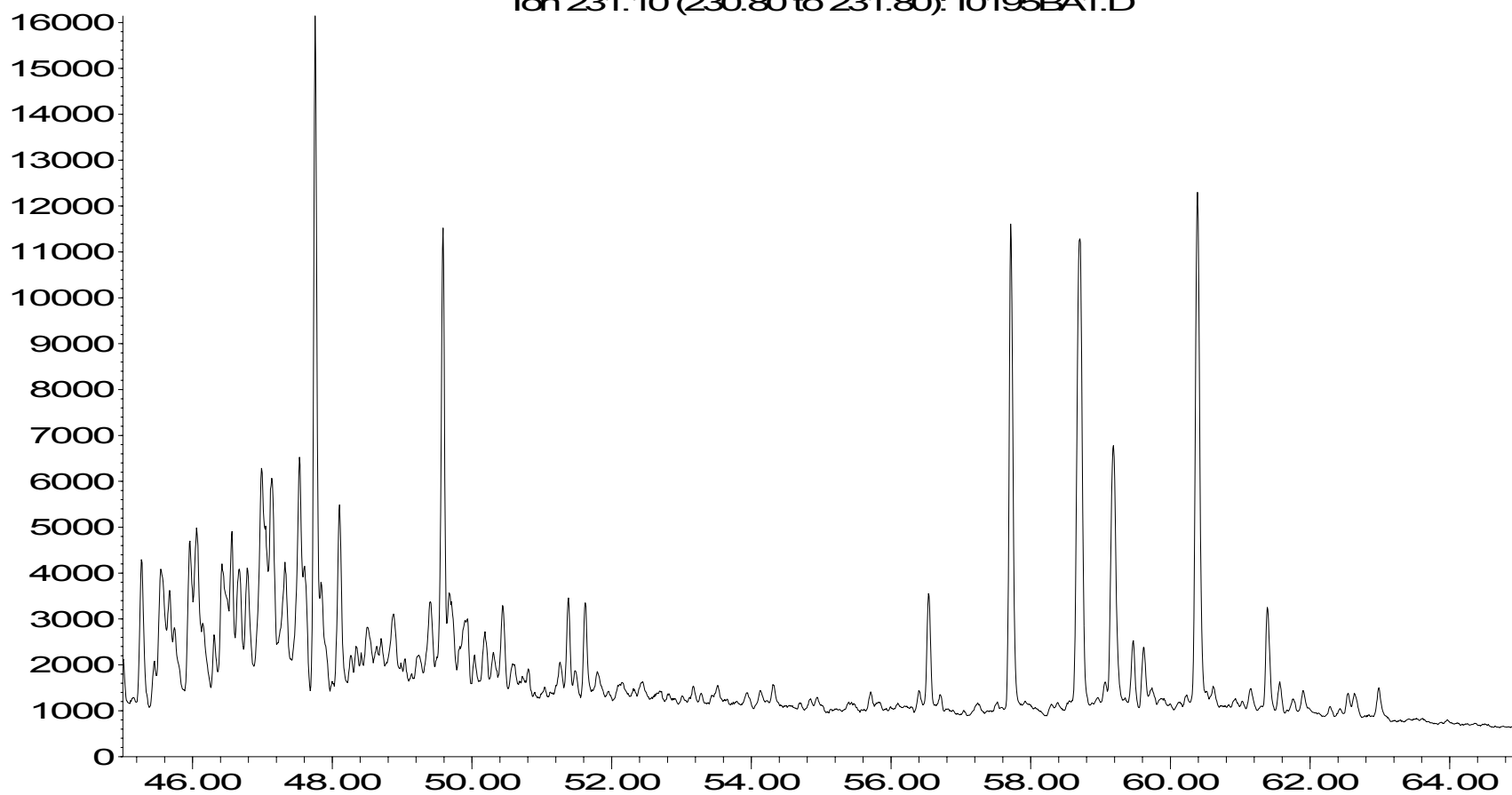
I0184, 7830/3-U-1, 124.63 m, COPL, Sst (fgr, ltgy), ARO GCMSD

Triaromatic steroid hydrocarbons (m/z 231)

- 512 -

Abundance

Ion 231.10 (230.80 to 231.80): I0195BA1.D



Time-->

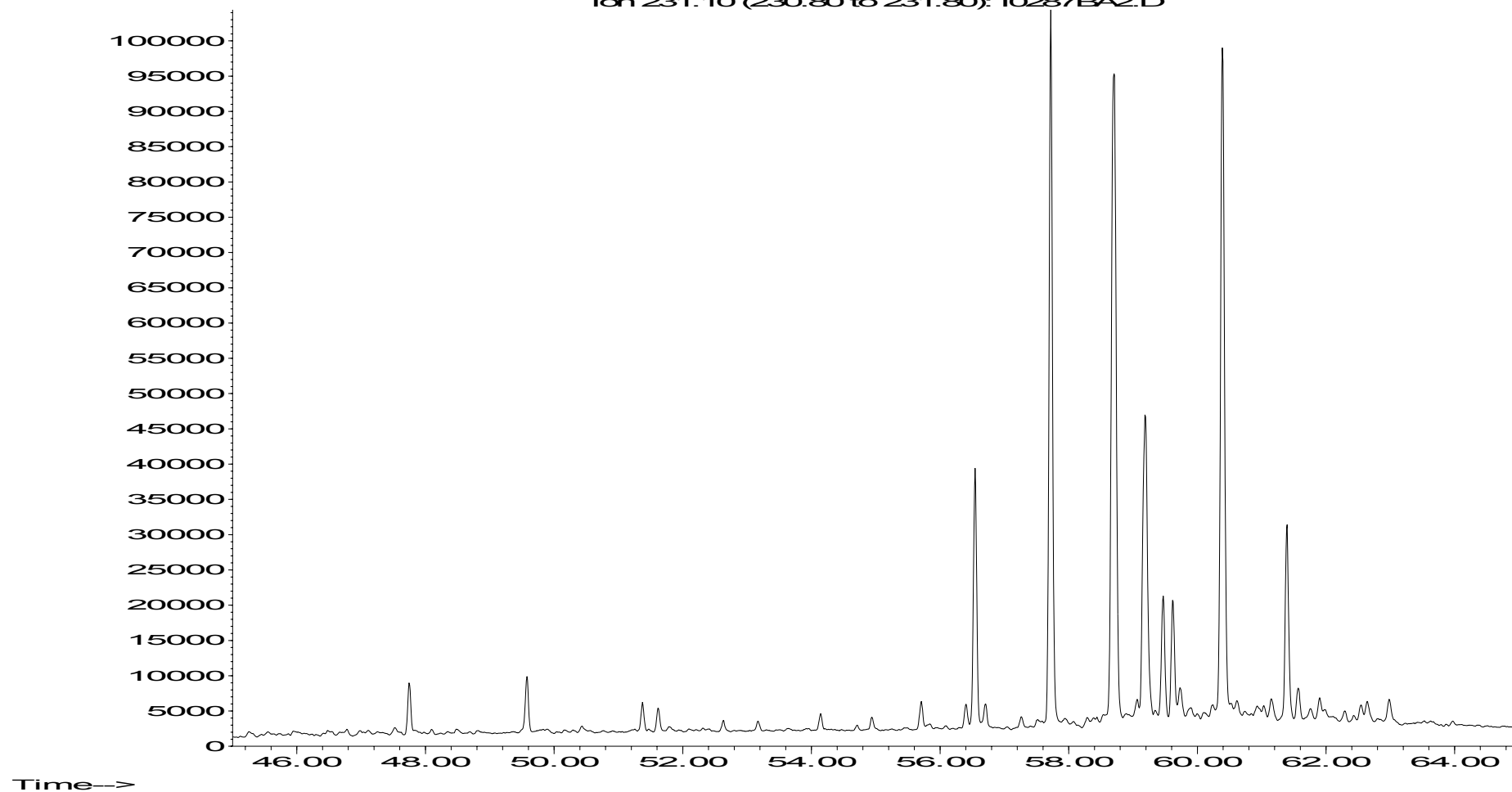
I0195, 7830/3-U-1, 154.81 - 154.88 m, COCH, Clyst (sl slty, ltgy), ARO GCMSD

Triaromatic steroid hydrocarbons (m/z 231)

- 513 -

Abundance

Ion 231.10 (230.80 to 231.80): I0287BA2.D



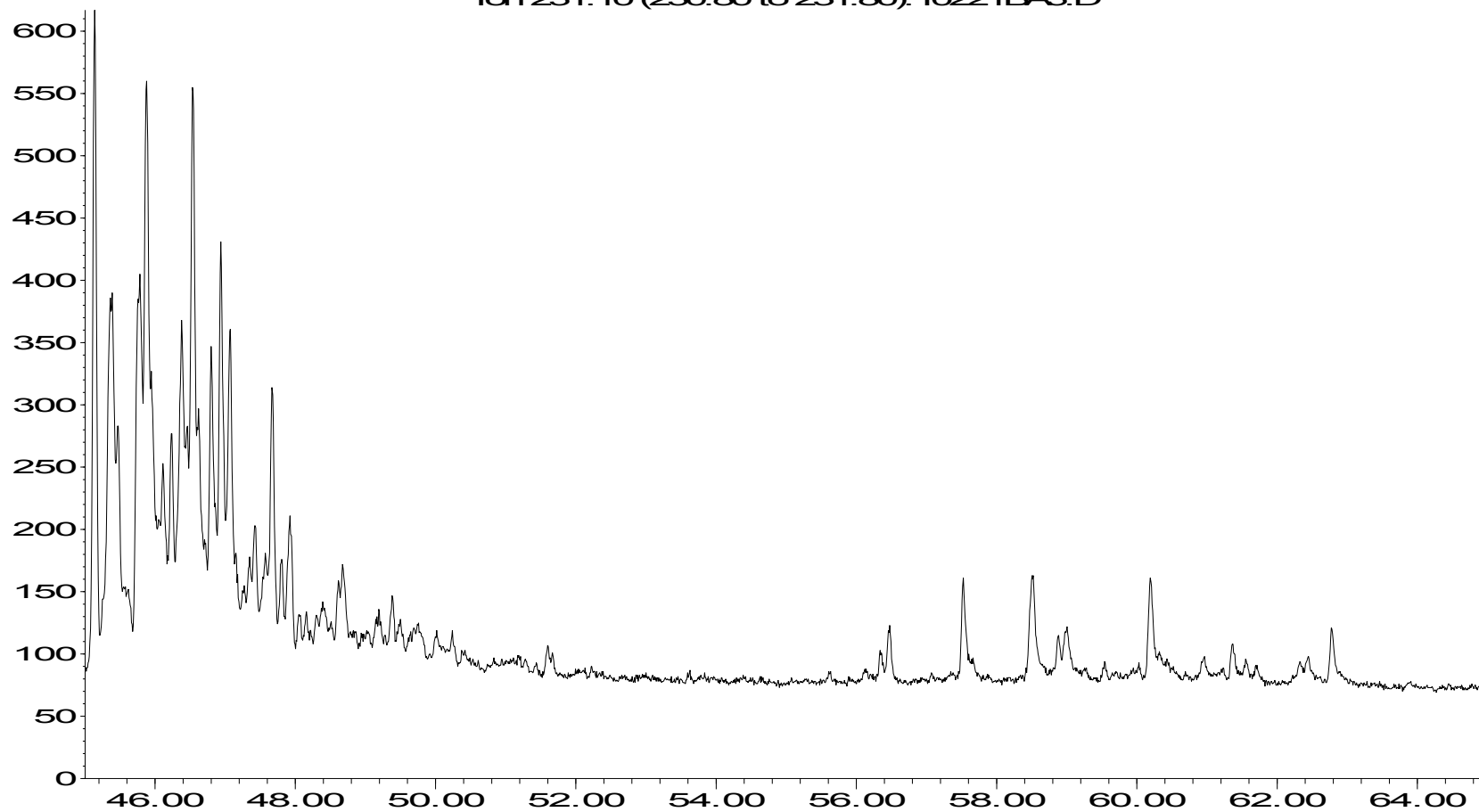
I0287, 7830/3-U-1, 174.13 - 174.15 m, COCH, Sst (fgr, mgy), ARO GCMSD

Triaromatic steroid hydrocarbons (m/z 231)

- 514 -

Abundance

Ion 231.10 (230.80 to 231.80): I0221BA3.D



Time-->

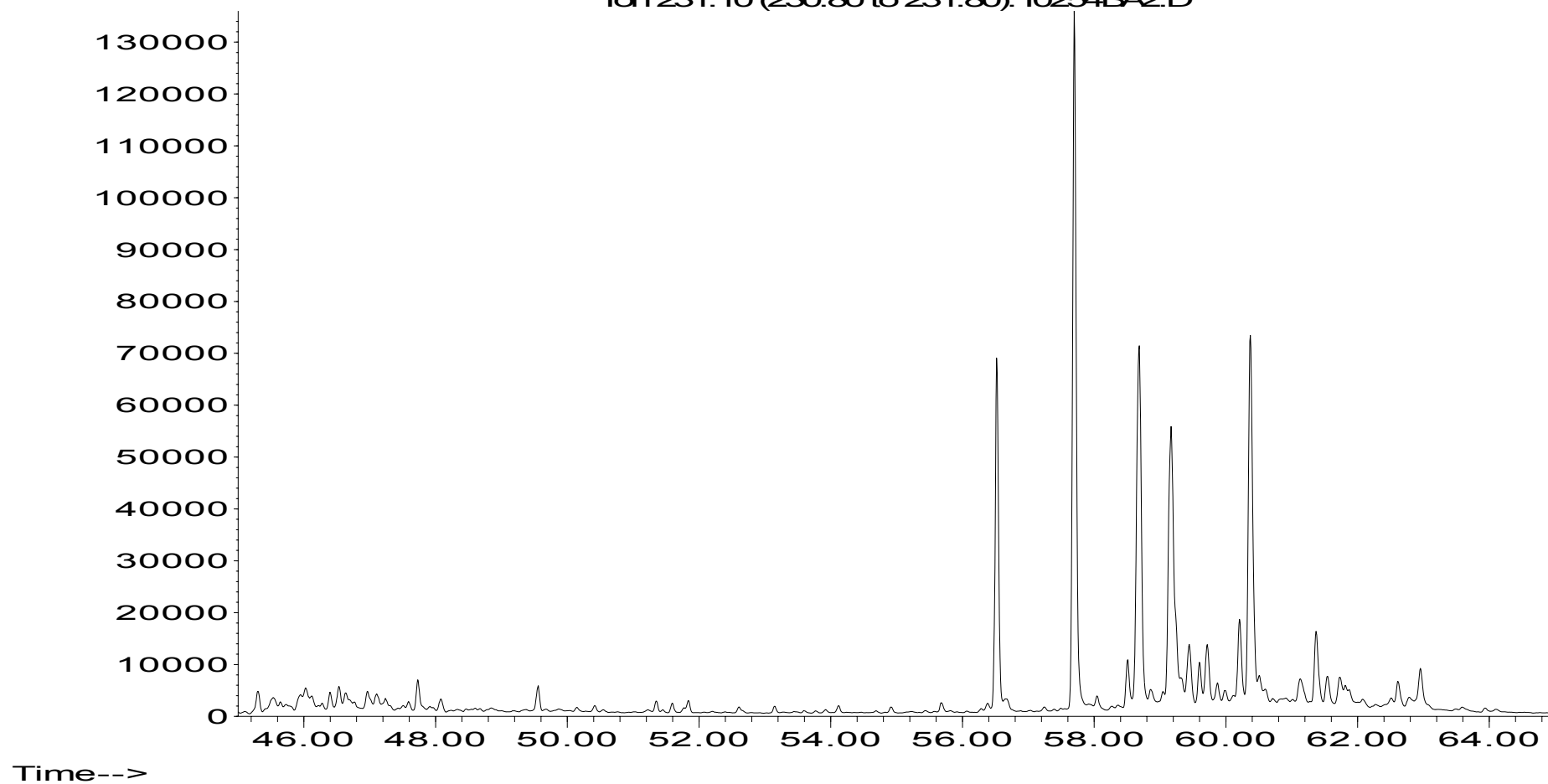
I0221, 7830/5-U-1, 58.90 - 58.97 m, COCH, Clyst (sl slty, lam, dkgy), ARO GCMSD

Triaromatic steroid hydrocarbons (m/z 231)

- 515 -

Abundance

Ion 231.10 (230.80 to 231.80): I0254BA2.D



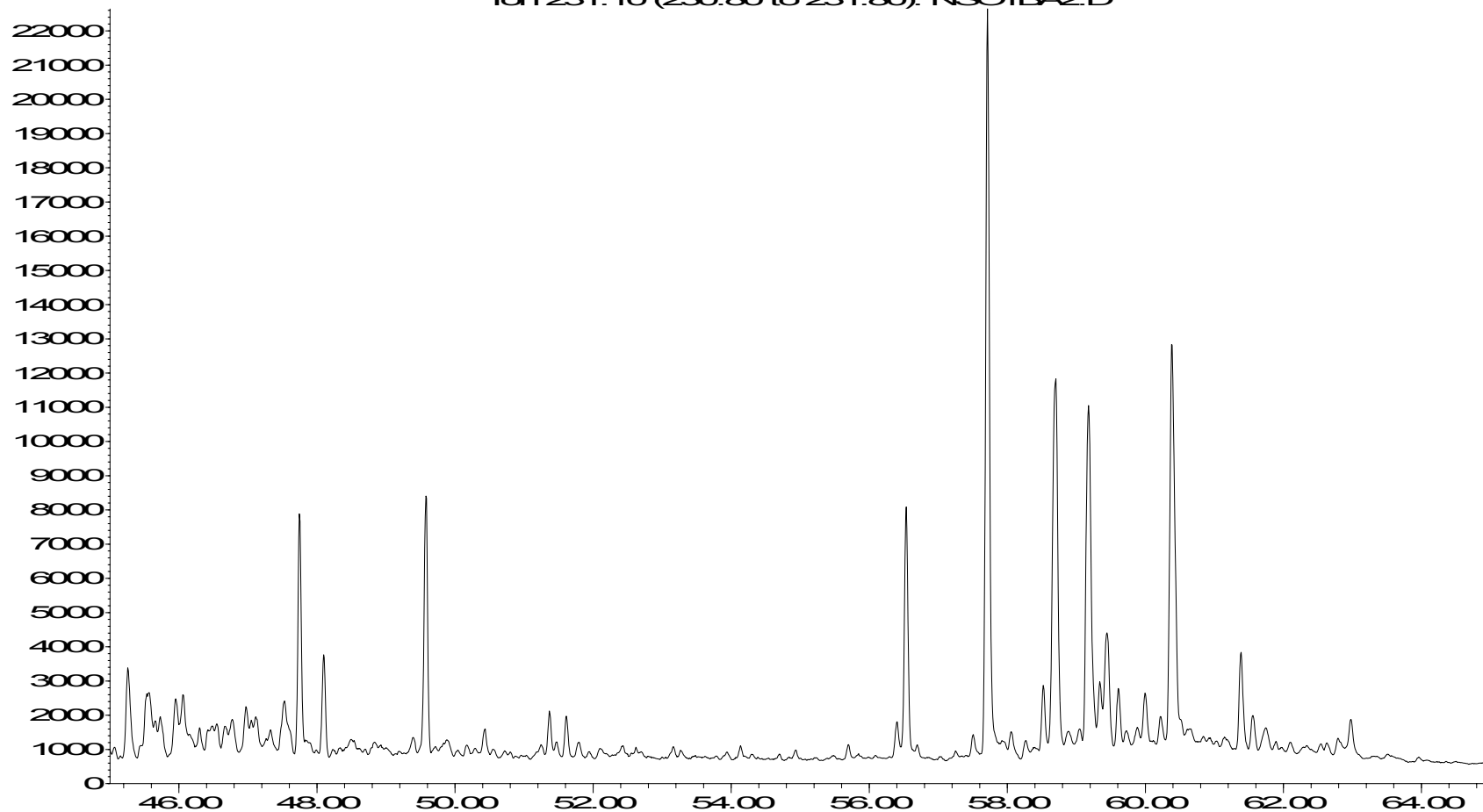
I0254, 7830/5-U-1, 128.62 - 128.68 m, COCH, Clyst (vdkgy, lam), ARO GCMSD

Triaromatic steroid hydrocarbons (m/z 231)

- 516 -

Abundance

Ion 231.10 (230.80 to 231.80): NSO1BA2.D



Time→

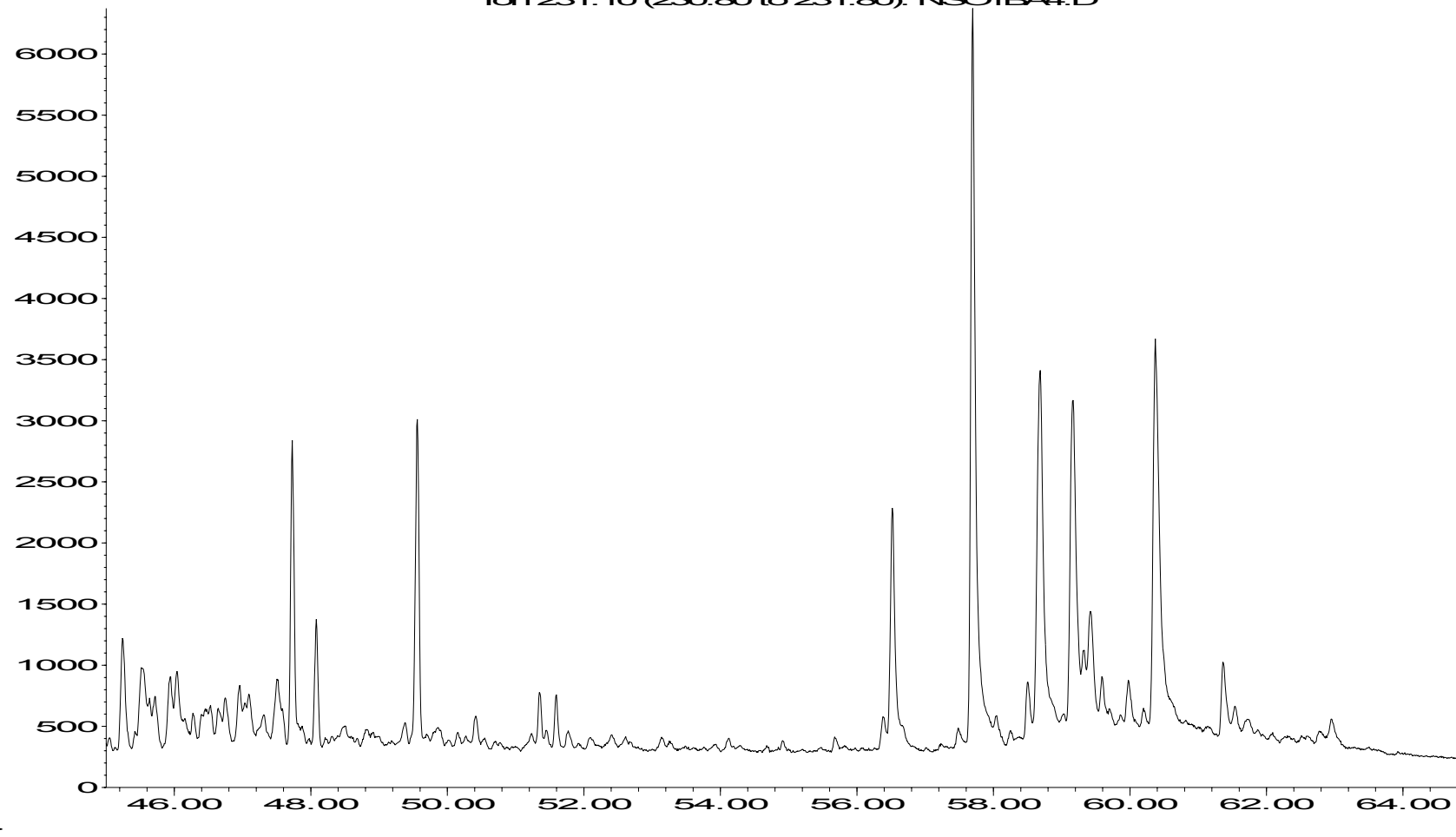
NSO-1, #0 (Control analysis), ARO GCMSD

Triaromatic steroid hydrocarbons (m/z 231)

- 517 -

Abundance

Ion 231.10 (230.80 to 231.80): NSO1BA4.D



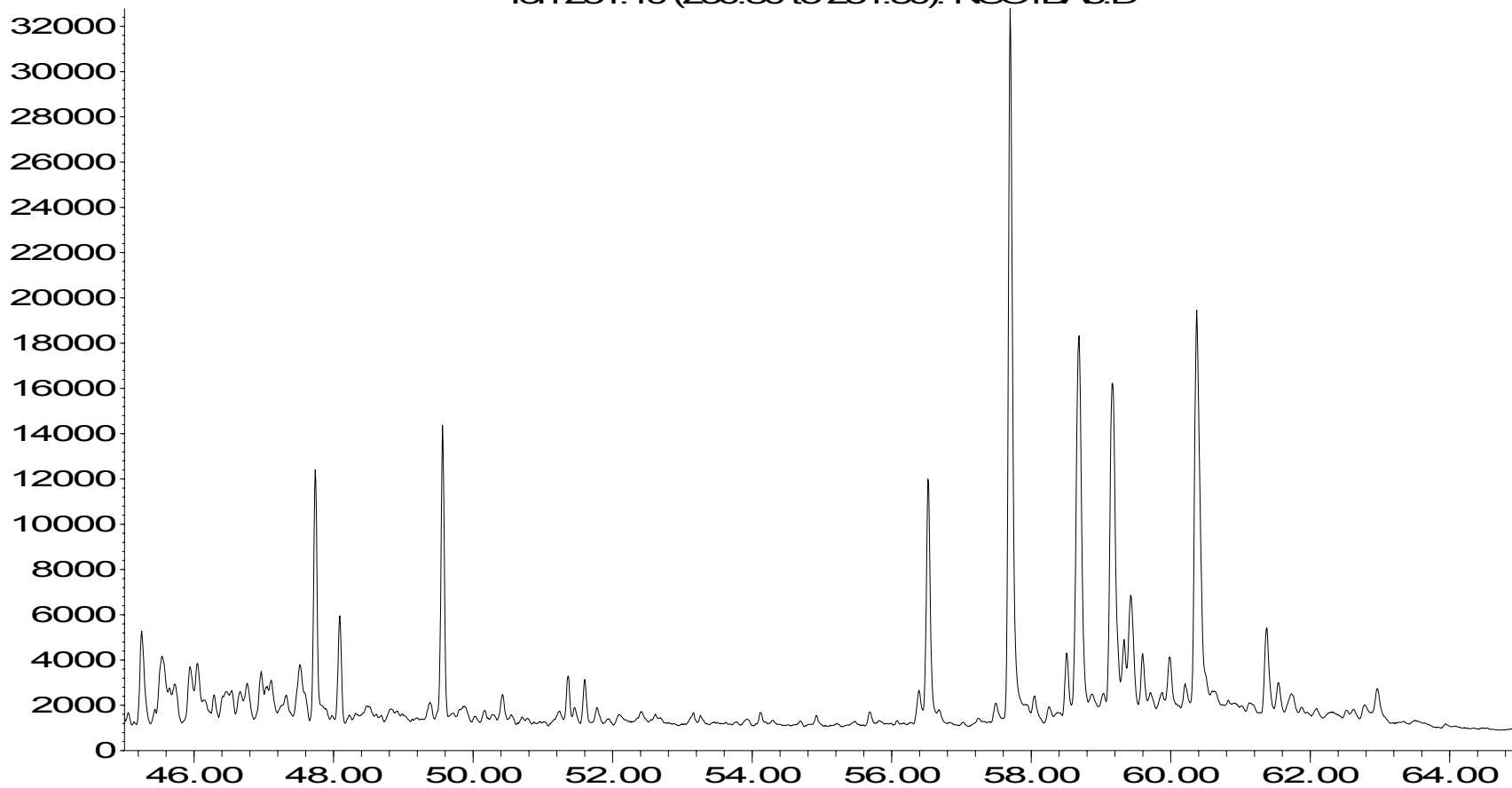
NSO-1, #1 (Control analysis), ARO GCMSD

Triaromatic steroid hydrocarbons (m/z 231)

- 518 -

Abundance

Ion 231.10 (230.80 to 231.80): NSO1BA8.D



Time-->

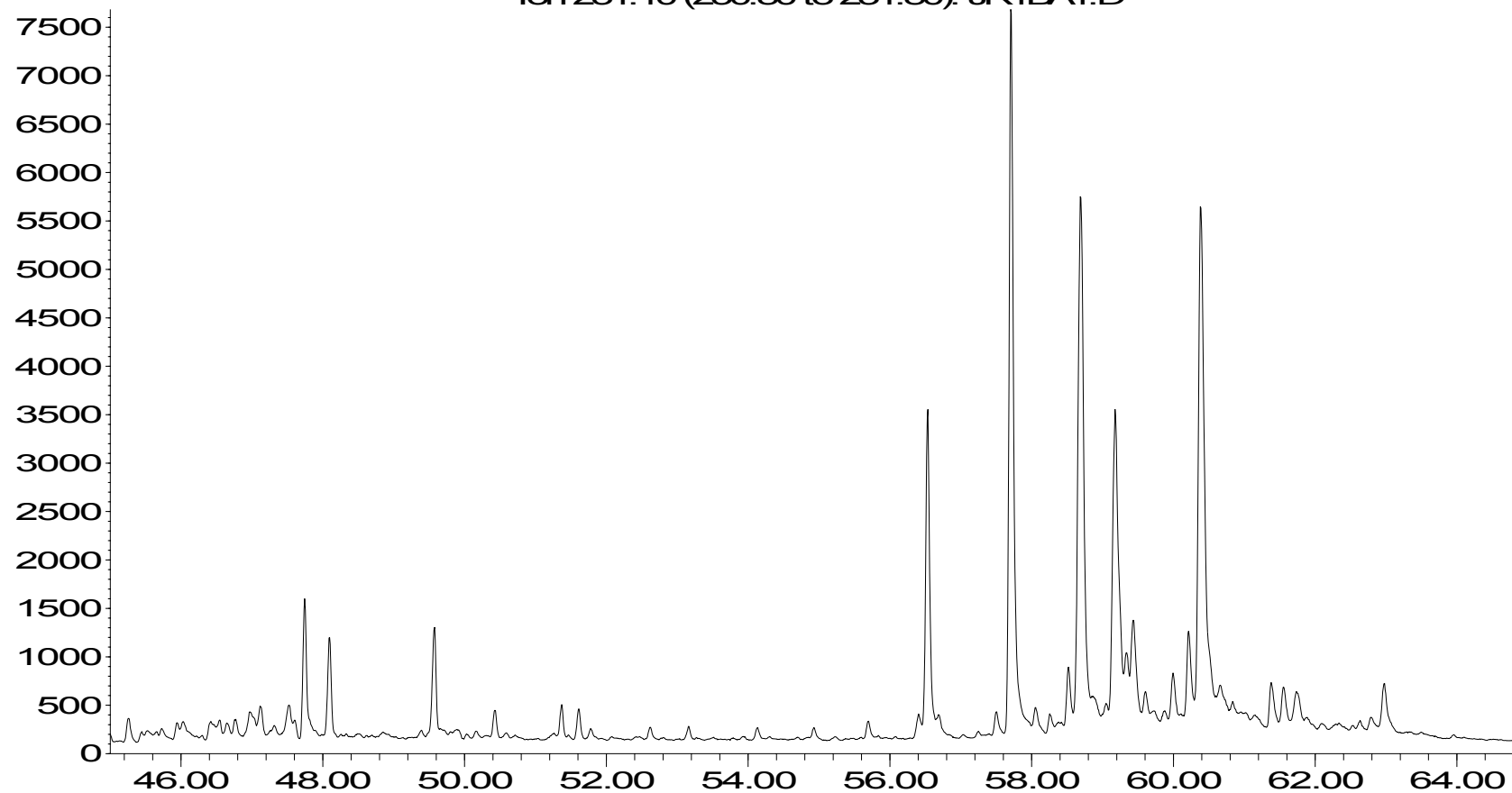
NSO-1, #2 (Control analysis), ARO GCMSD

Triaromatic steroid hydrocarbons (m/z 231)

- 519 -

Abundance

Ion 231.10 (230.80 to 231.80): JR1BA1.D



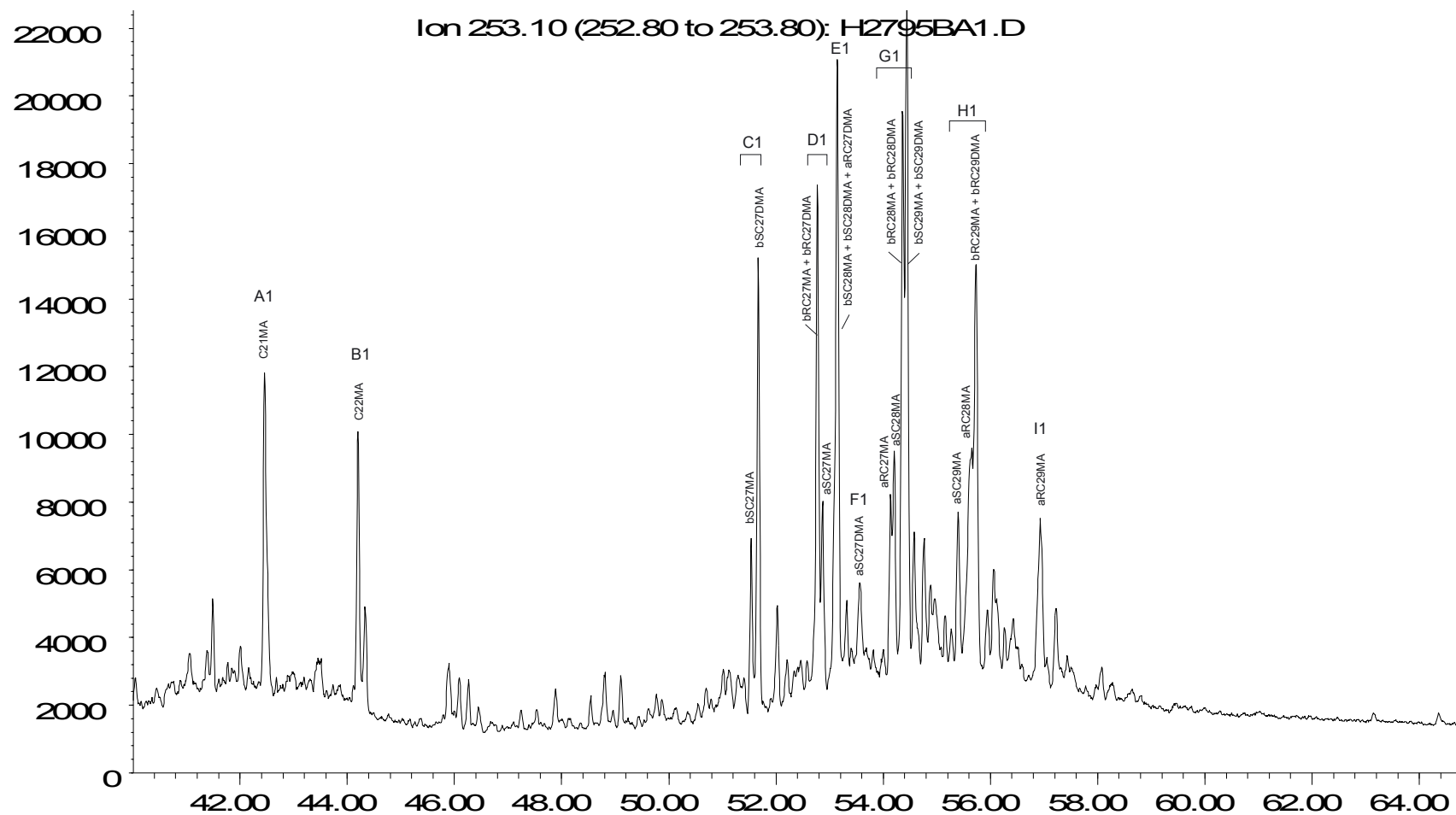
Time-->

JR-1 (control analysis), ARO GCMSD

Triaromatic steroid hydrocarbons (m/z 231)

- 520 -

Abundance



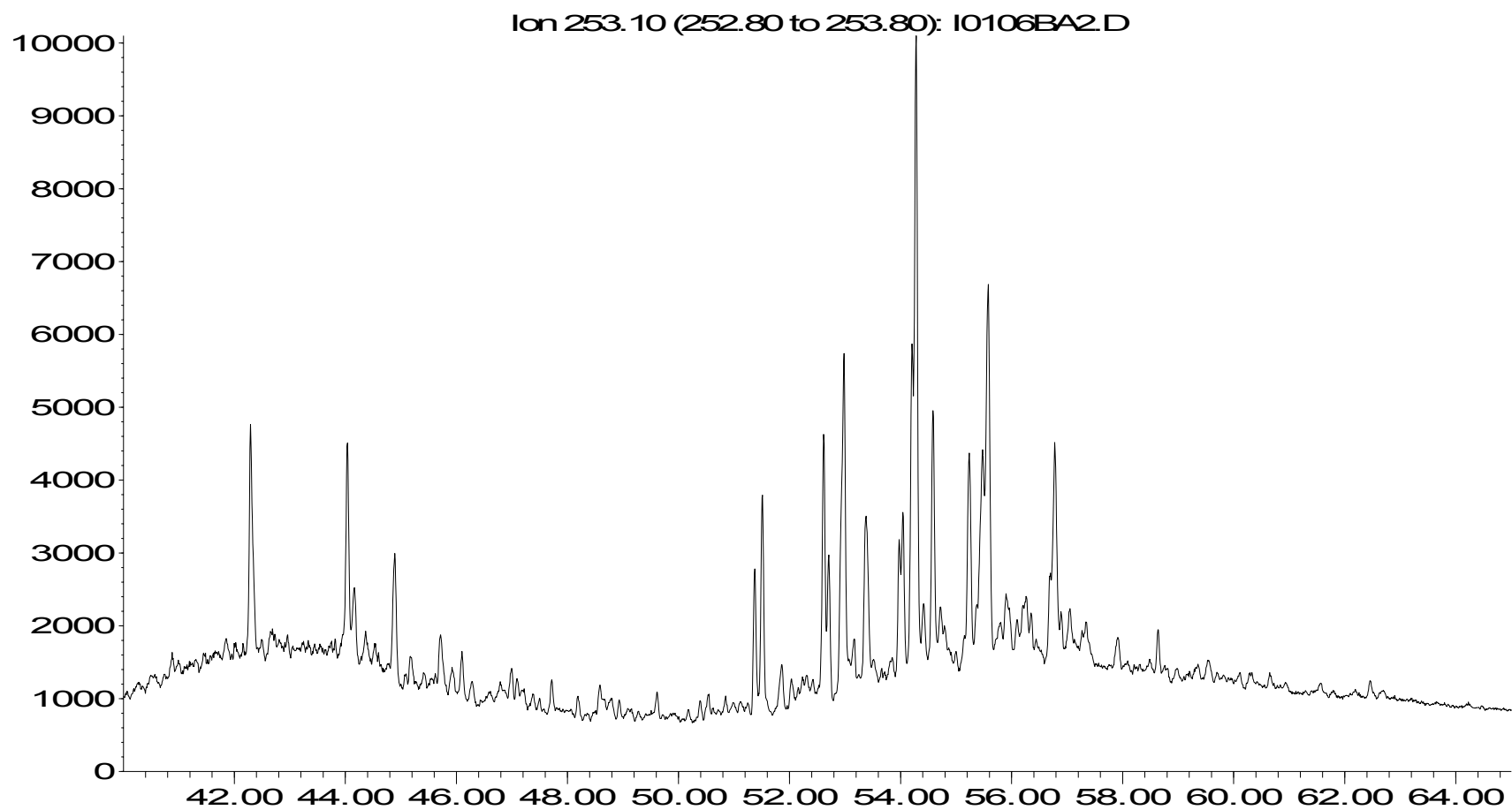
Time→

Peak identification, NSO-1, ARO GCMSD

Monoaromatic steroid hydrocarbons (m/z 253)

- 521 -

Abundance

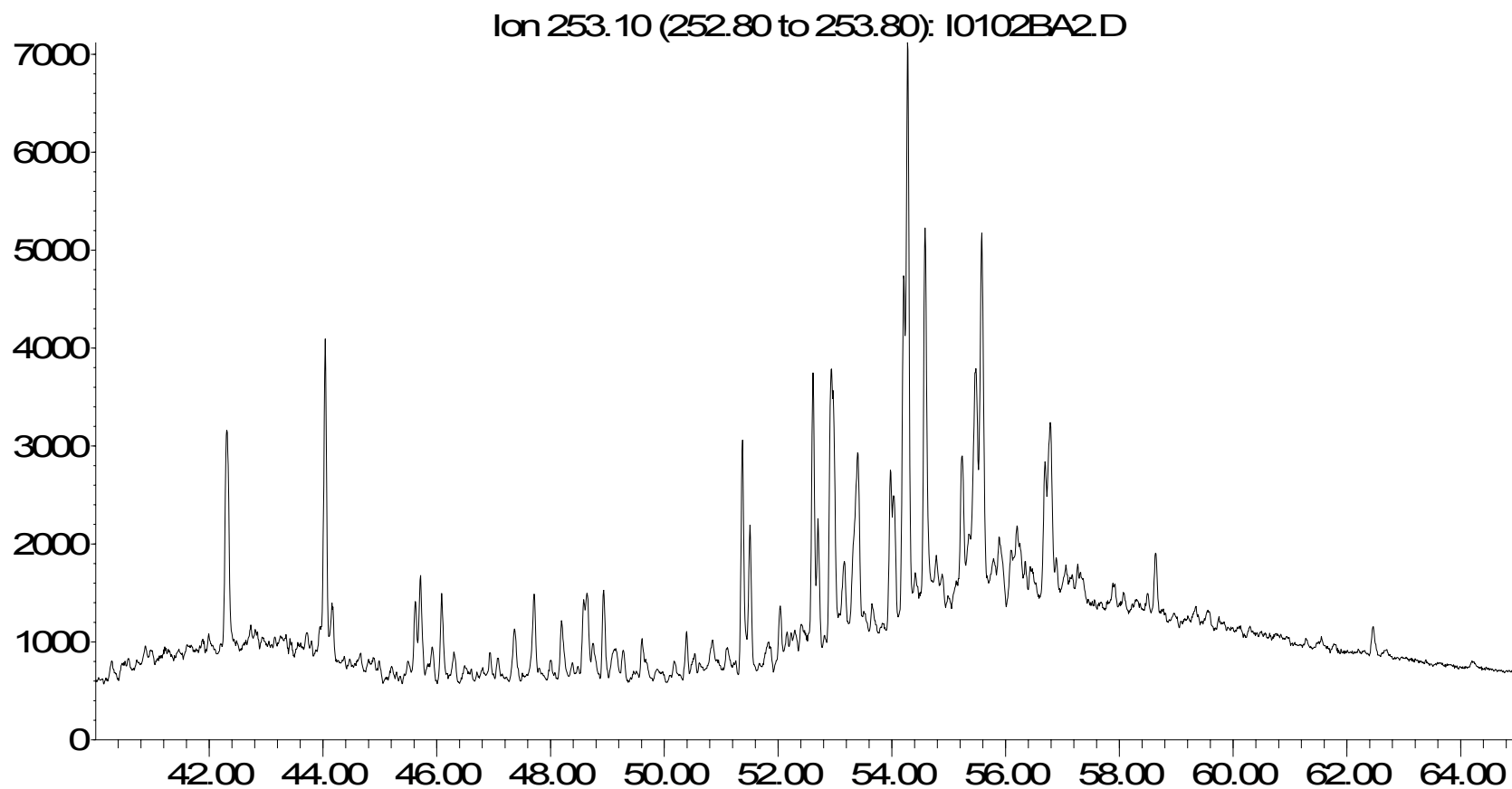


I0106, 7831/2-U-2, 6.78 - 6.83 m, COCH, Clyst (silty, dkgy), ARO GCMSD

Monoaromatic steroid hydrocarbons (m/z 253)

- 522 -

Abundance

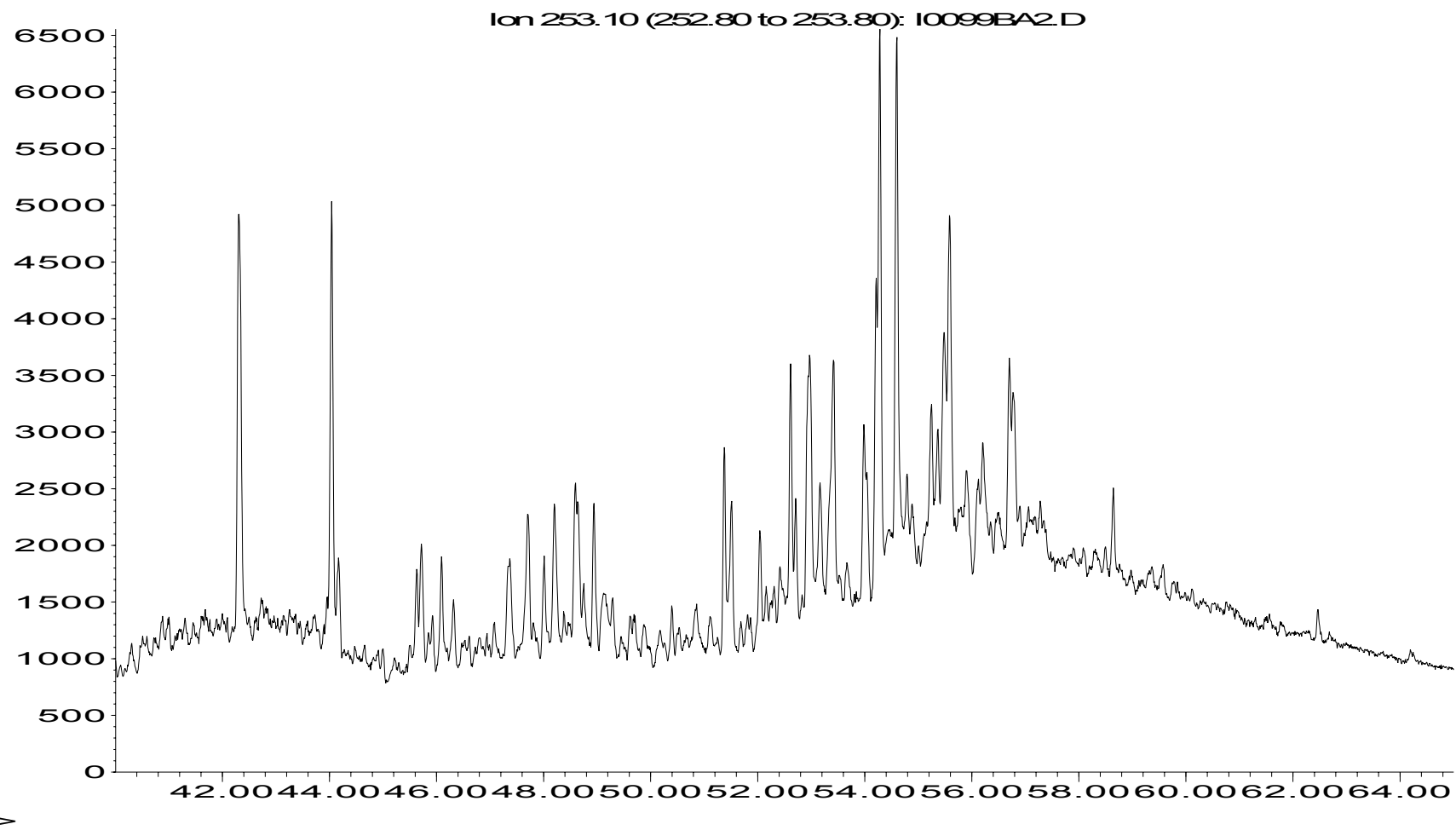


I0102, 7831/2-U-2, 10.23 - 10.28 m, COCH, Clyst (slty, mgy), ARO GCMSD

Monoaromatic steroid hydrocarbons (m/z 253)

- 523 -

Abundance

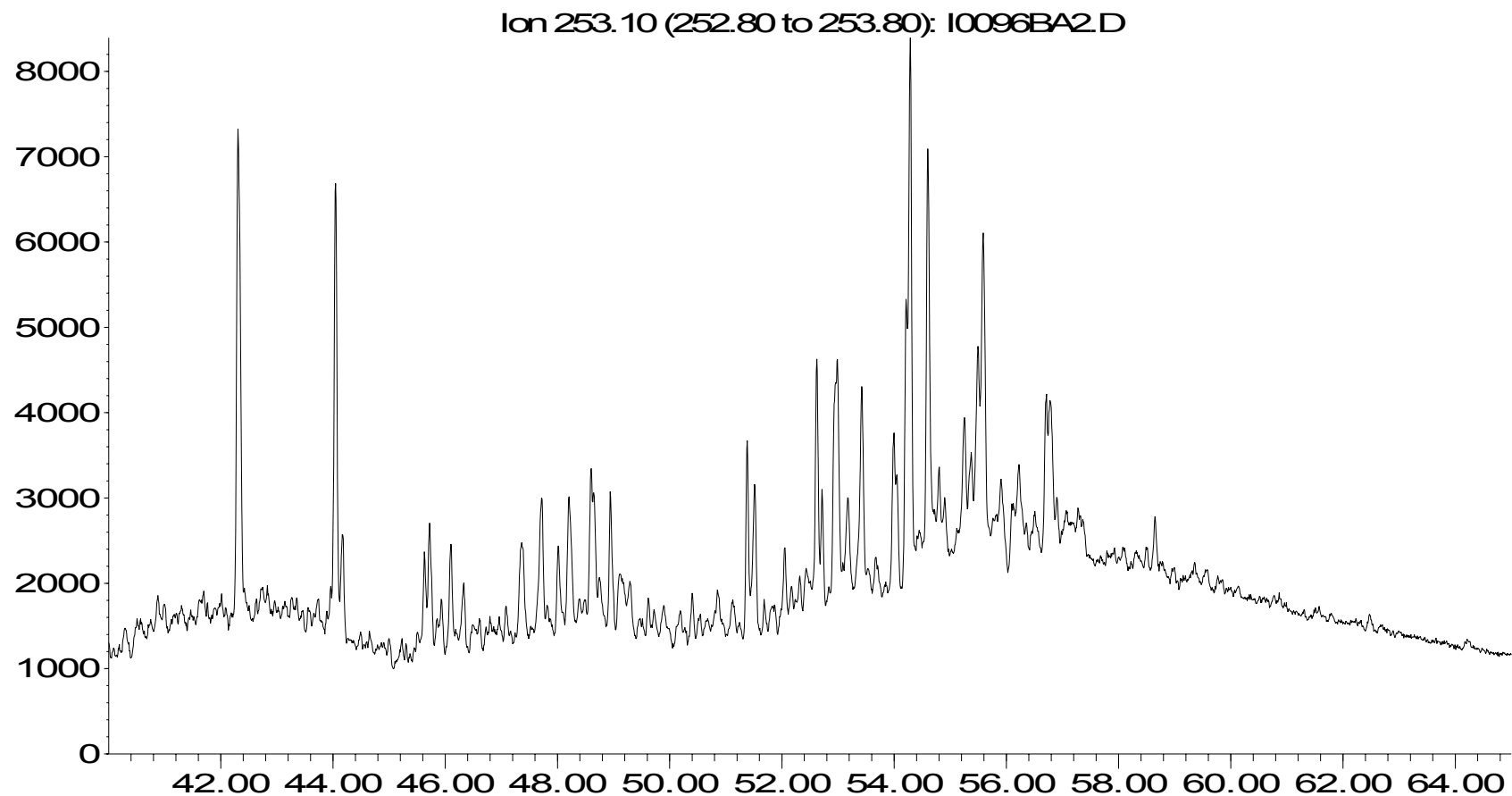


I0099, 7831/2-U-2, 14.48 - 14.53 m, COCH, Clyst (slty, dkgy), ARO GCMSD

Monoaromatic steroid hydrocarbons (m/z 253)

- 524 -

Abundance

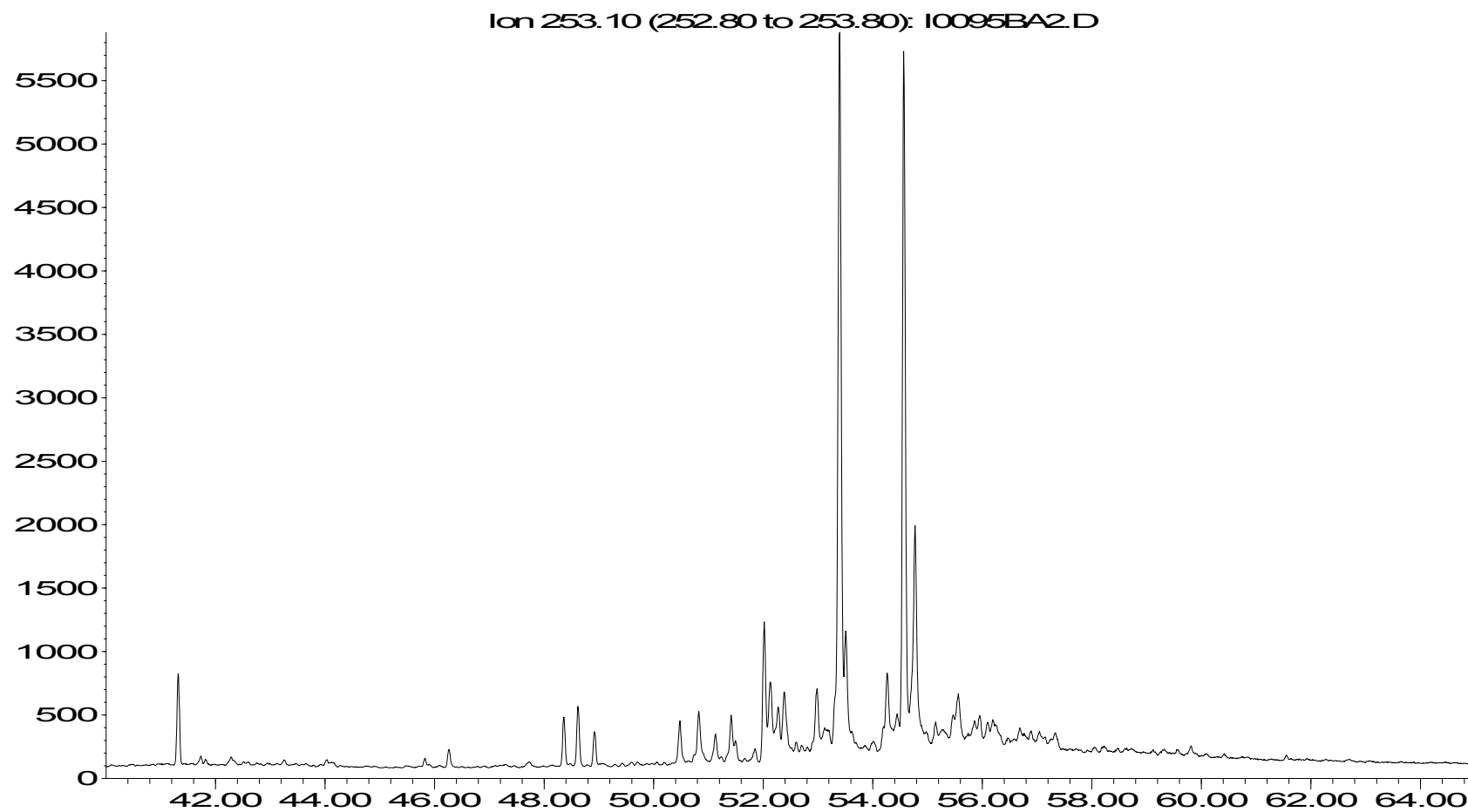


I0096, 7831/2-U-2, 17.83 - 17.87 m, COCH, Clyst (slty, dkgy), ARO GCMSD

Monoaromatic steroid hydrocarbons (m/z 253)

- 525 -

Abundance



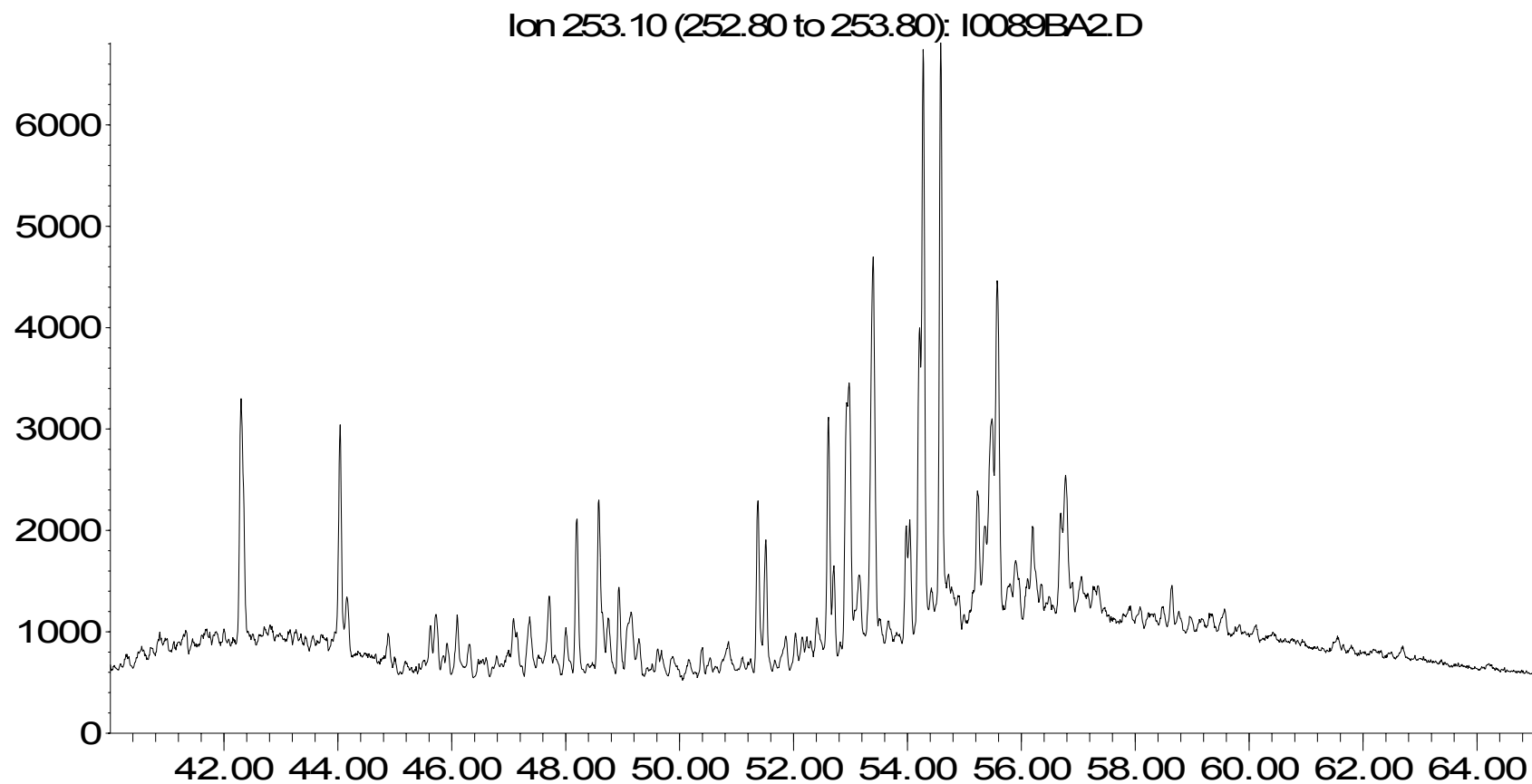
Time-->

I0095, 7831/2-U-2, 18.72 - 18.85 m, COCH, Clyst (slty, dkgy), ARO GCMSD

Monoaromatic steroid hydrocarbons (m/z 253)

- 526 -

Abundance



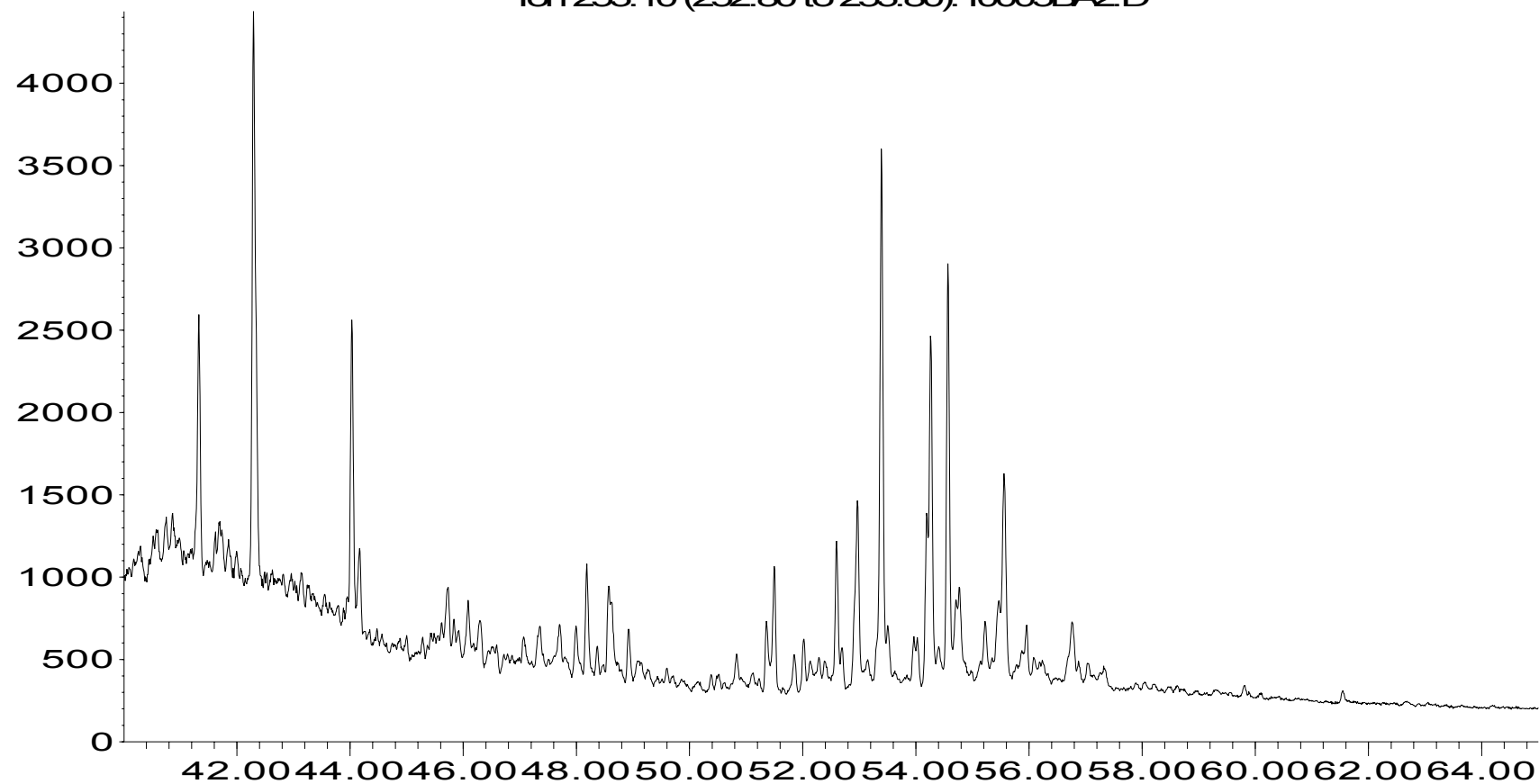
I0089, 7831/2-U-1, 21.72 - 21.76 m, COCH, Clyst (dkgy), ARO GCMSD

Monoaromatic steroid hydrocarbons (m/z 253)

- 527 -

Abundance

Ion 253.10 (252.80 to 253.80): I0005BA2.D



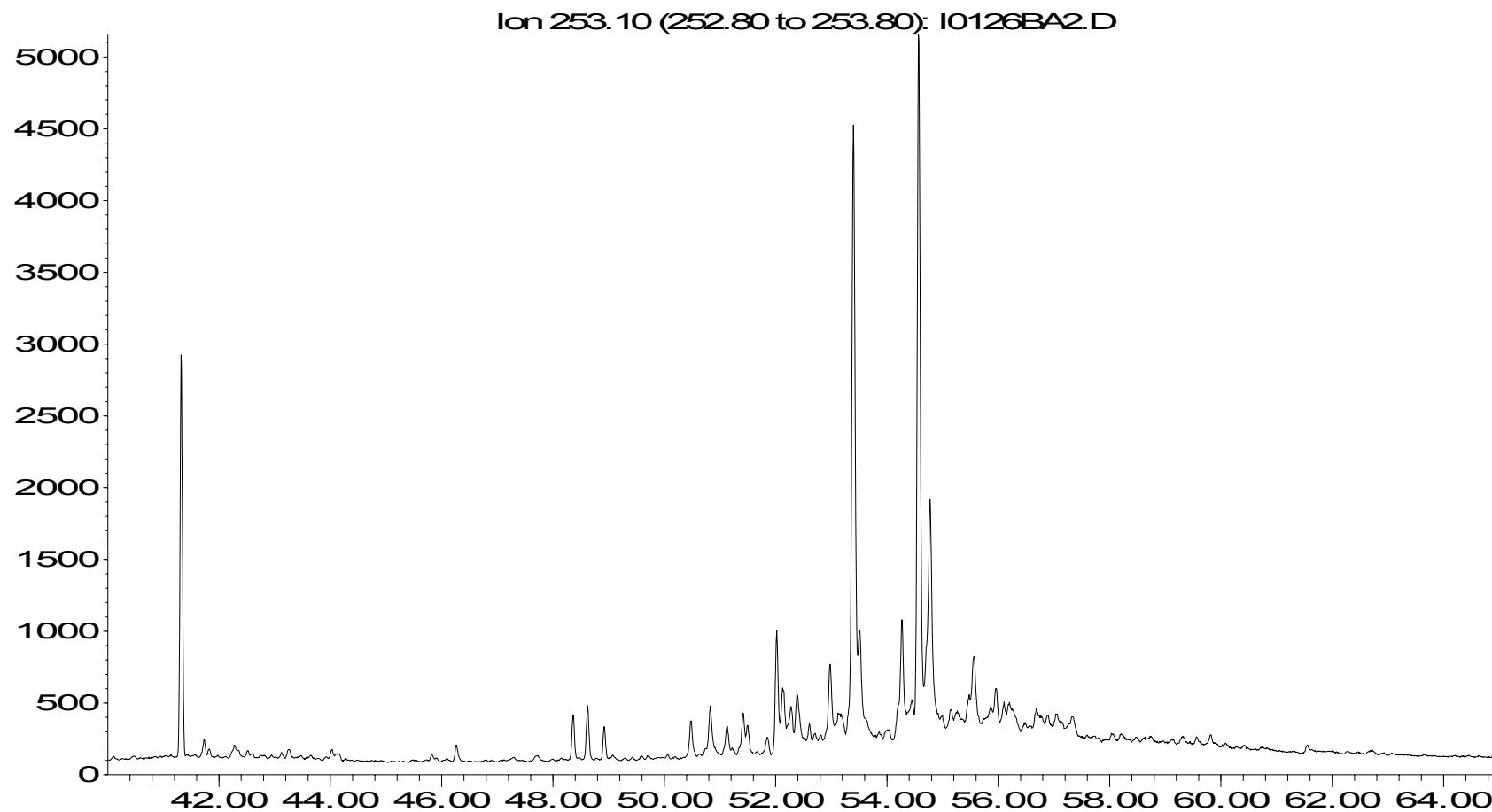
Time-->

I0005, 7830/6-U-1, 12.85 - 12.88 m, COCH, Slst, ARO GCMSD

Monoaromatic steroid hydrocarbons (m/z 253)

- 528 -

Abundance



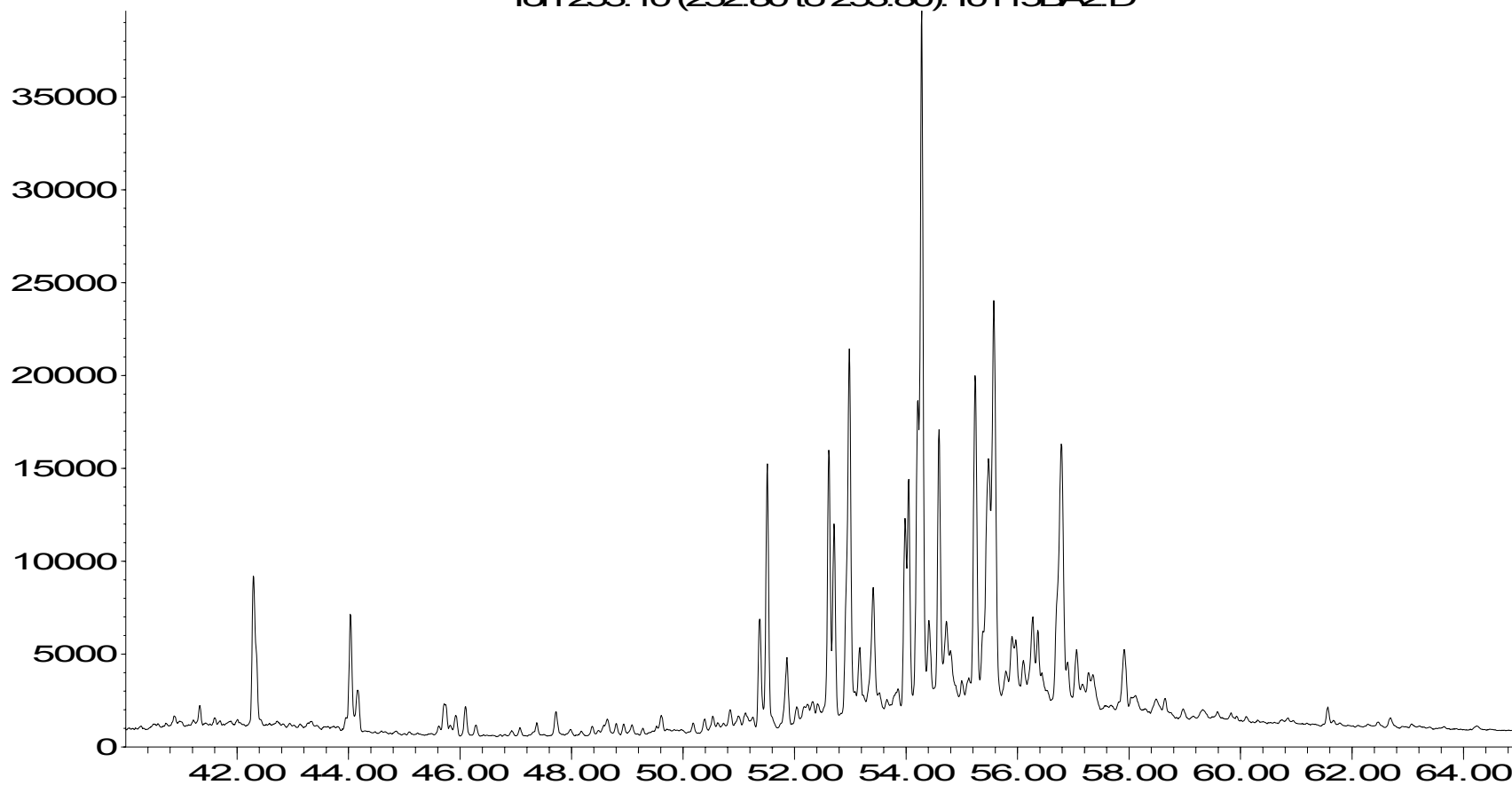
I0126, 7830/6-U-1, 20.03 - 20.10 m, COCH, Clyst (slty, lam, dkgy), ARO GCMSD

Monoaromatic steroid hydrocarbons (m/z 253)

- 529 -

Abundance

Ion 253.10 (252.80 to 253.80): I0115BA2.D



Time-->

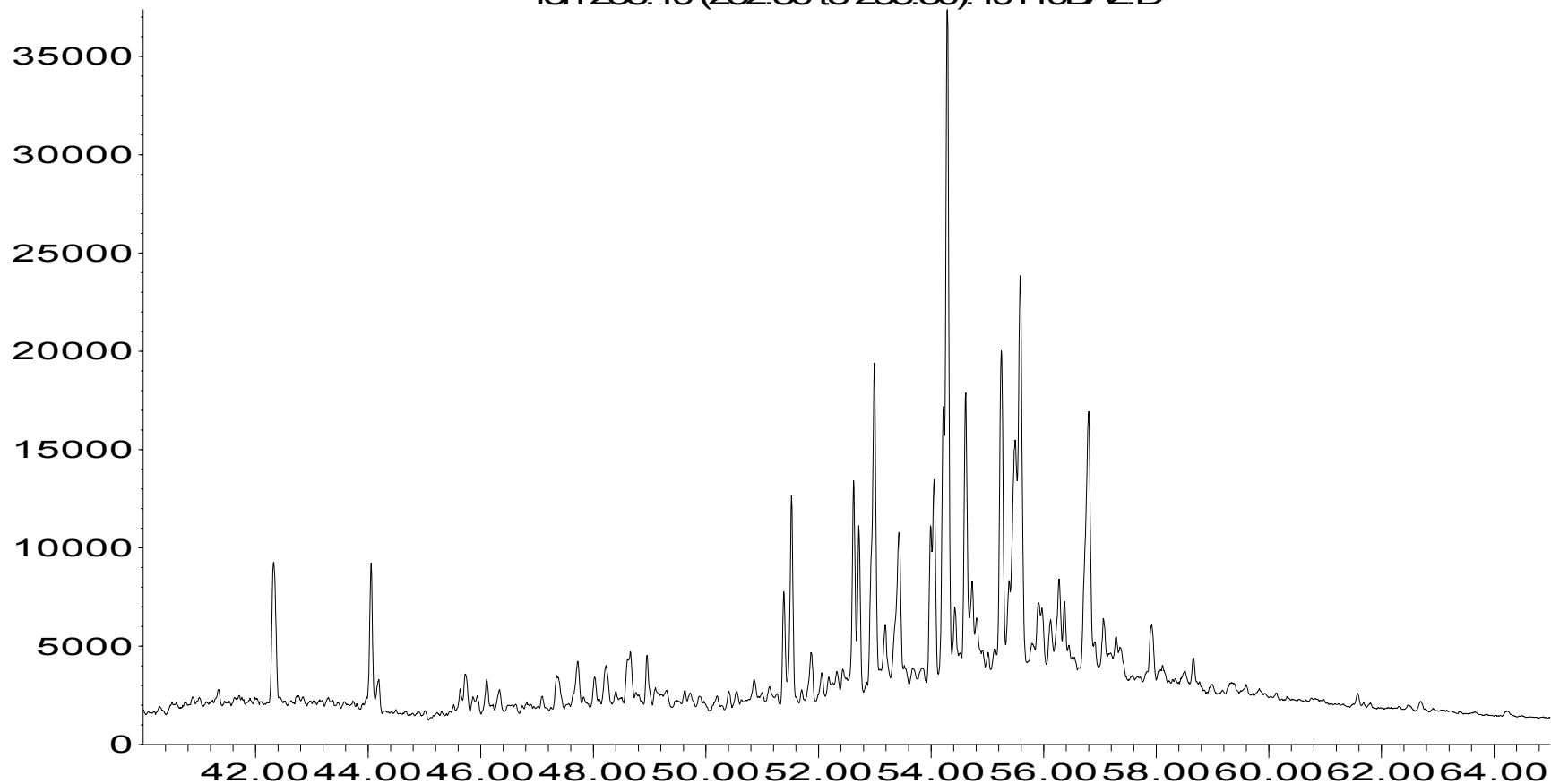
I0115, 7830/6-U-1, 41.85 - 41.89 m, COCH, Clyst (dkgy, lam), ARO GCMSD

Monoaromatic steroid hydrocarbons (m/z 253)

- 530 -

Abundance

Ion 253.10 (252.80 to 253.80): I0110BA2.D



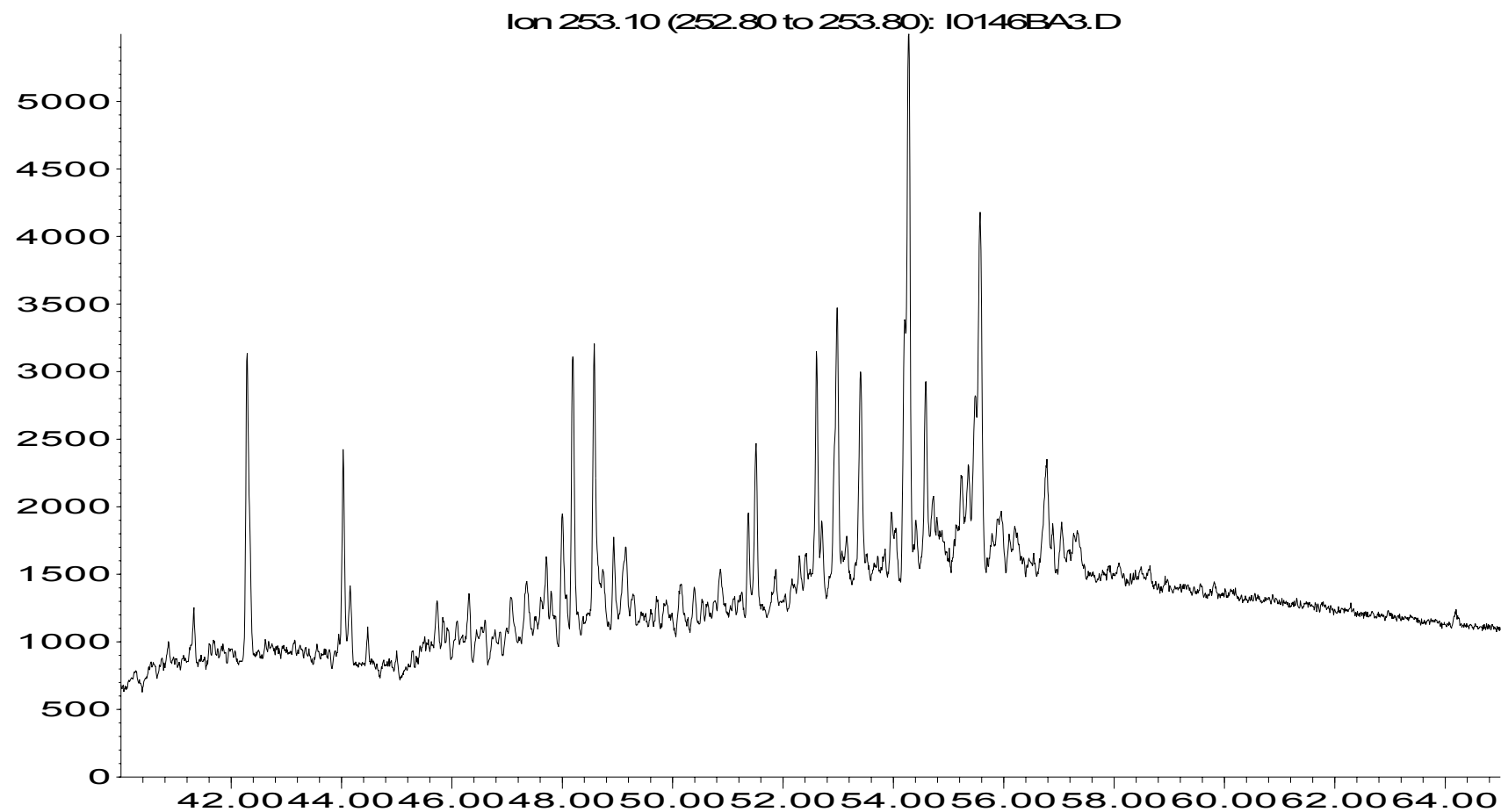
Time-->

I0110, 7830/6-U-1, 50.90 - 50.93 m, COCH, Clyst (dkgy, lam), ARO GCMSD

Monoaromatic steroid hydrocarbons (m/z 253)

- 531 -

Abundance

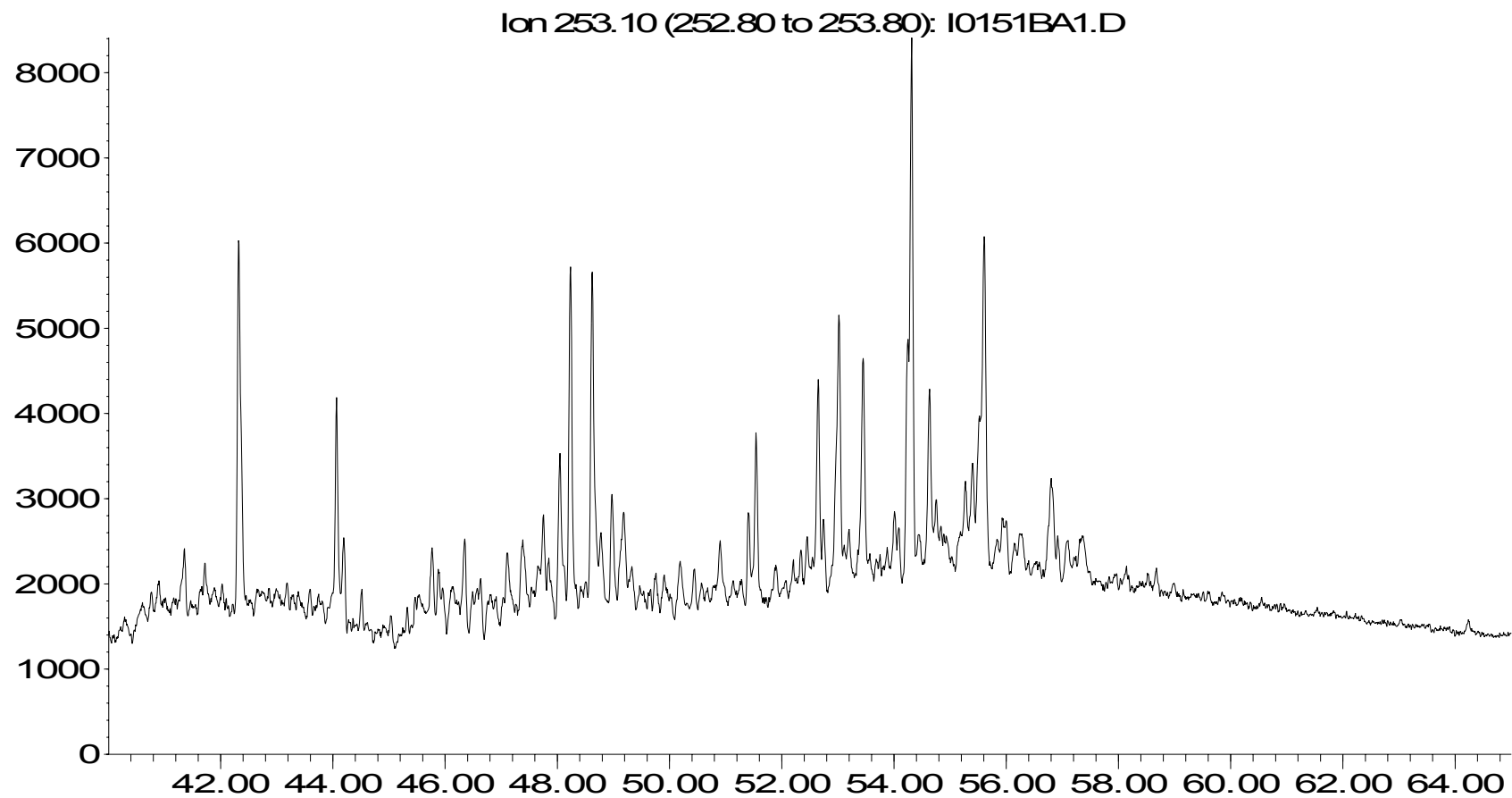


I0146, 7830/3-U-1, 39.94 - 39.99 m, COCH, Sst (mgr, mgy), ARO GCMSD

Monoaromatic steroid hydrocarbons (m/z 253)

- 532 -

Abundance



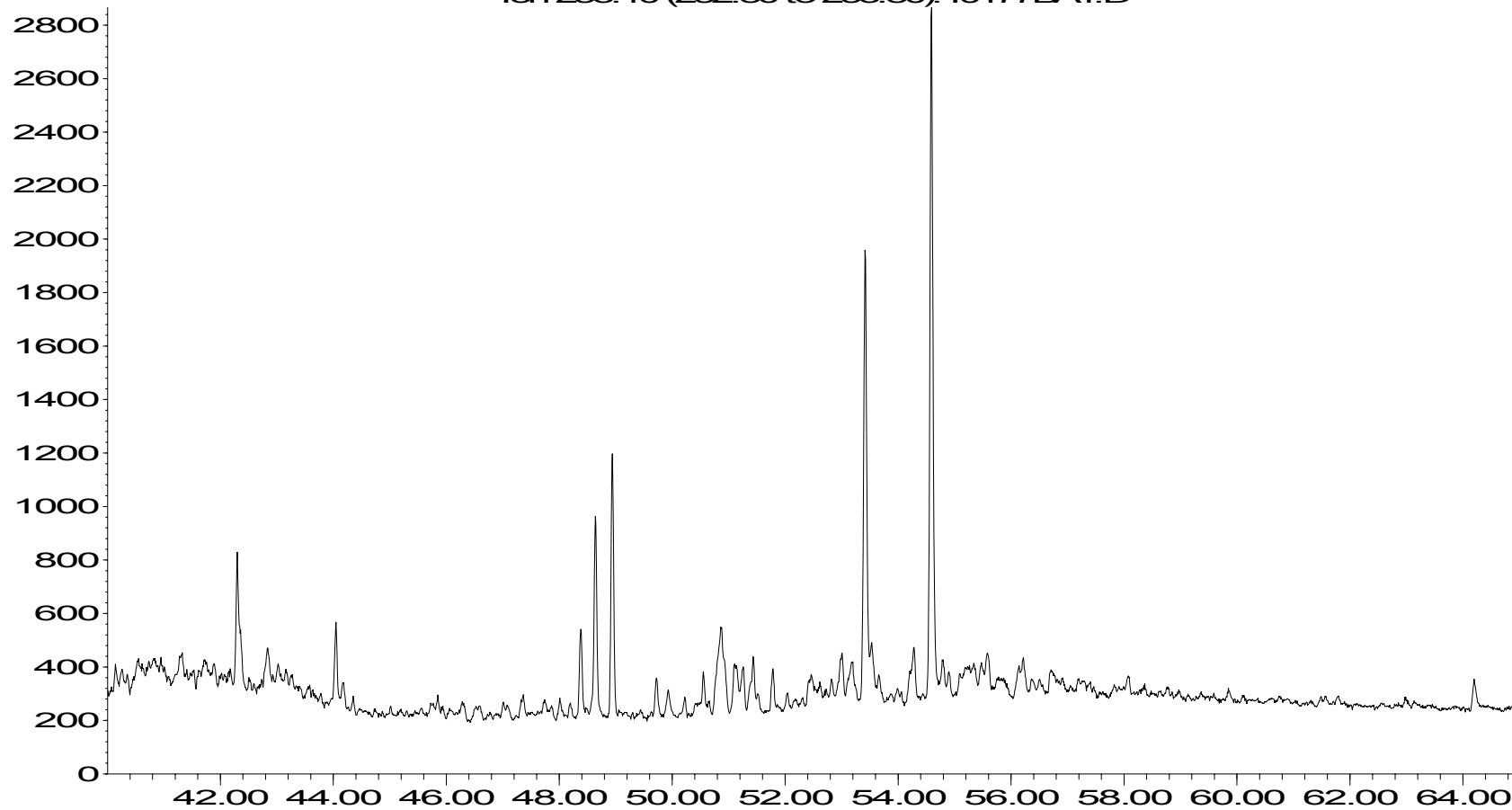
I0151, 7830/3-U-1, 51.24 m, COPL, Sst (fgr, mgy), ARO GCMSD

Monoaromatic steroid hydrocarbons (m/z 253)

- 533 -

Abundance

Ion 253.10 (252.80 to 253.80): I0177BA1.D



Time-->

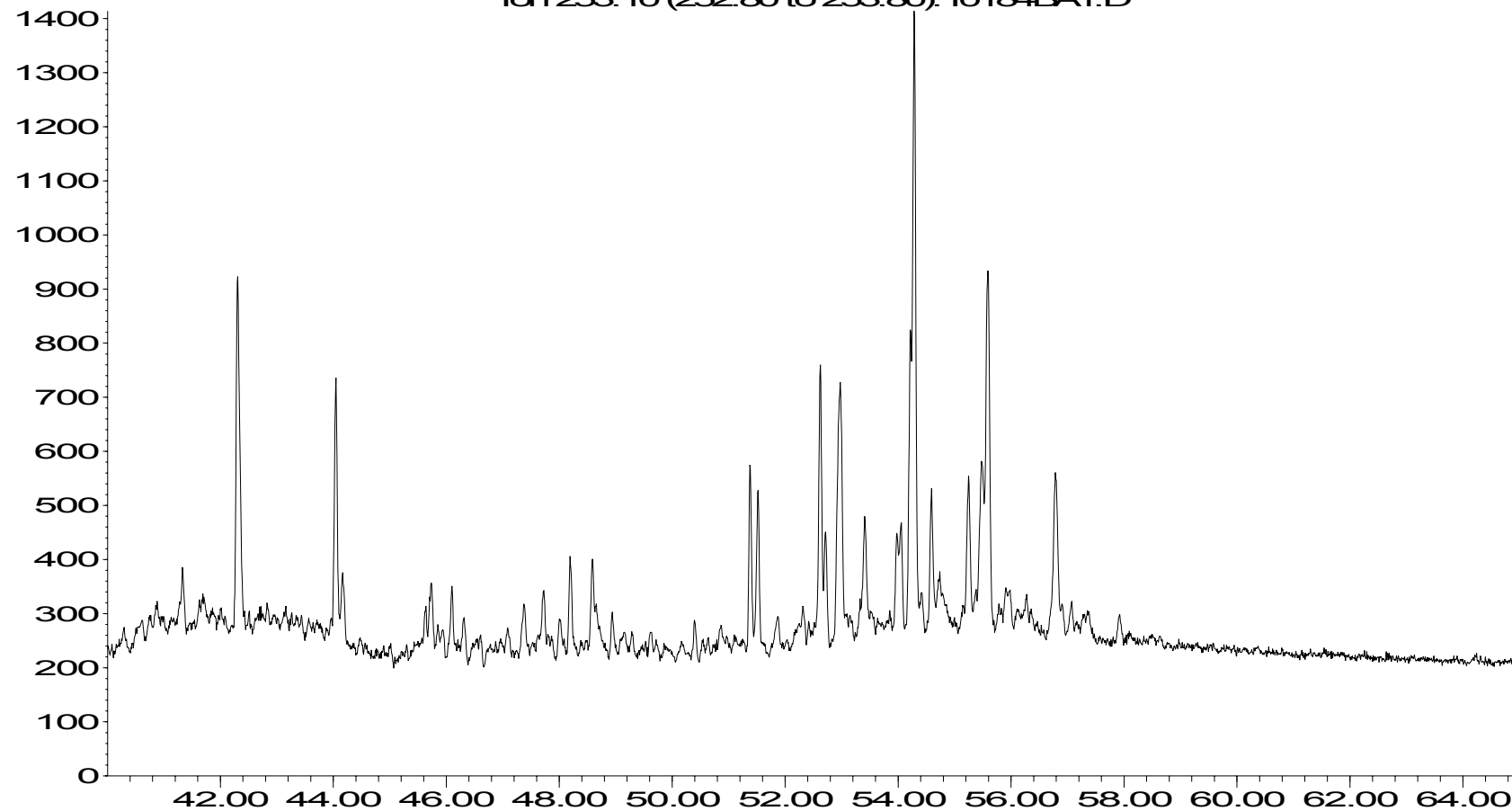
I0177, 7830/3-U-1, 111.69 - 111.75 m, COCH, Sst (fgr, dkgy), ARO GCMSD

Monoaromatic steroid hydrocarbons (m/z 253)

- 534 -

Abundance

Ion 253.10 (252.80 to 253.80): I0184BA1.D



Time-->

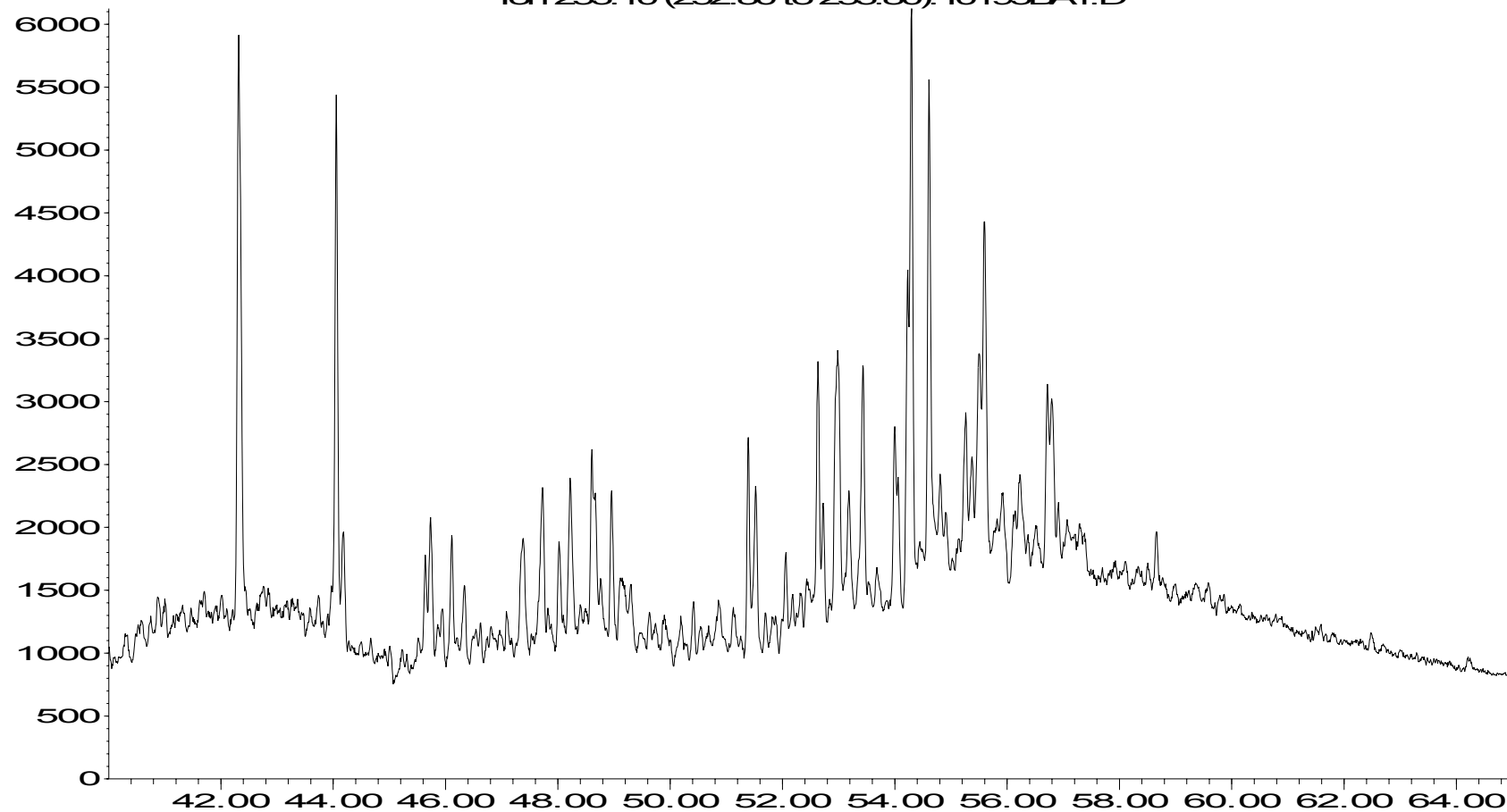
I0184, 7830/3-U-1, 124.63 m, COPL, Sst (fgr, ltgy), ARO GCMSD

Monoaromatic steroid hydrocarbons (m/z 253)

- 535 -

Abundance

Ion 253.10 (252.80 to 253.80): I0195BA1.D



Time-->

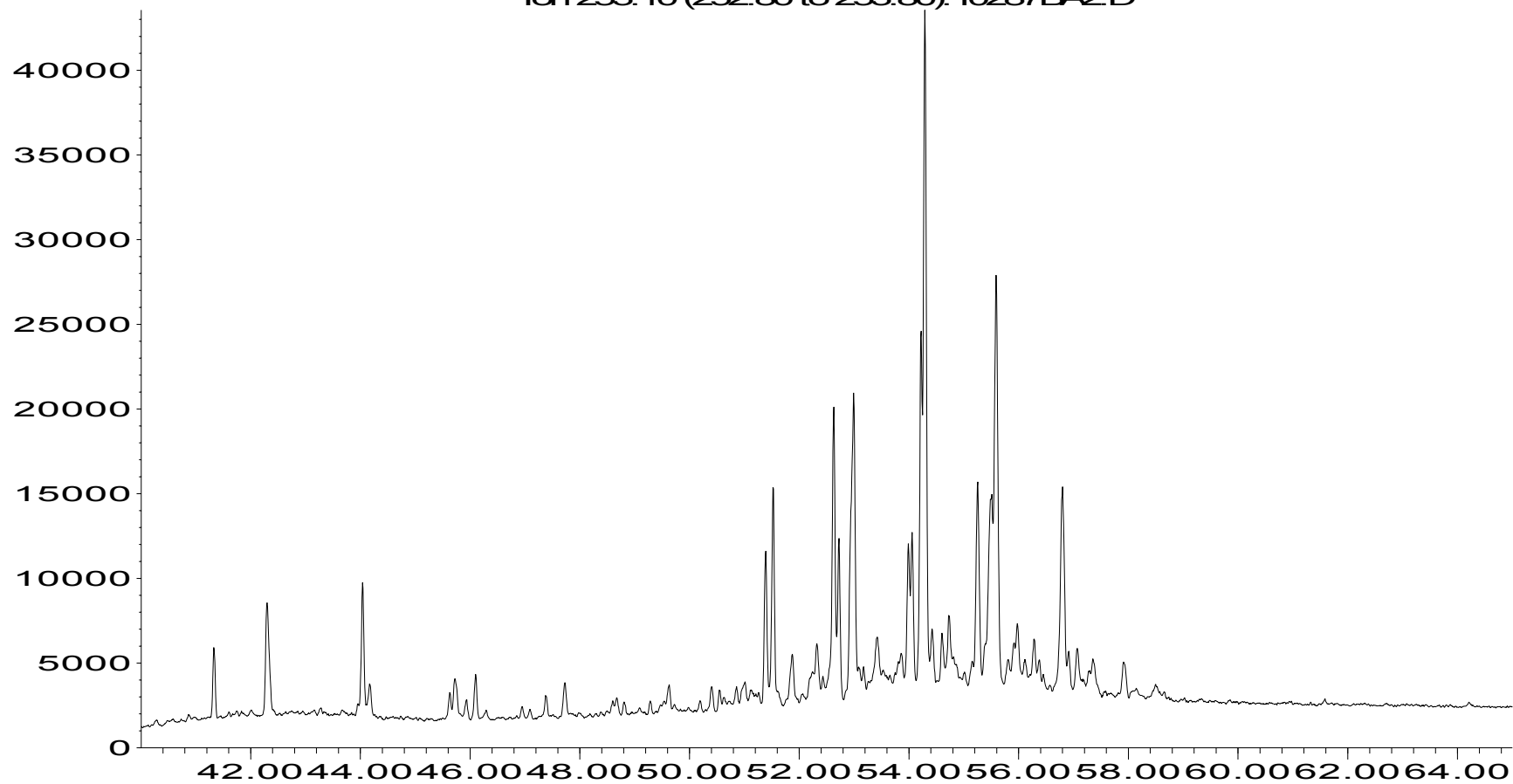
I0195, 7830/3-U-1, 154.81 - 154.88 m, COCH, Clyst (sl slty, ltgy), ARO GCMSD

Monoaromatic steroid hydrocarbons (m/z 253)

- 536 -

Abundance

Ion 253.10 (252.80 to 253.80): I0287BA2.D



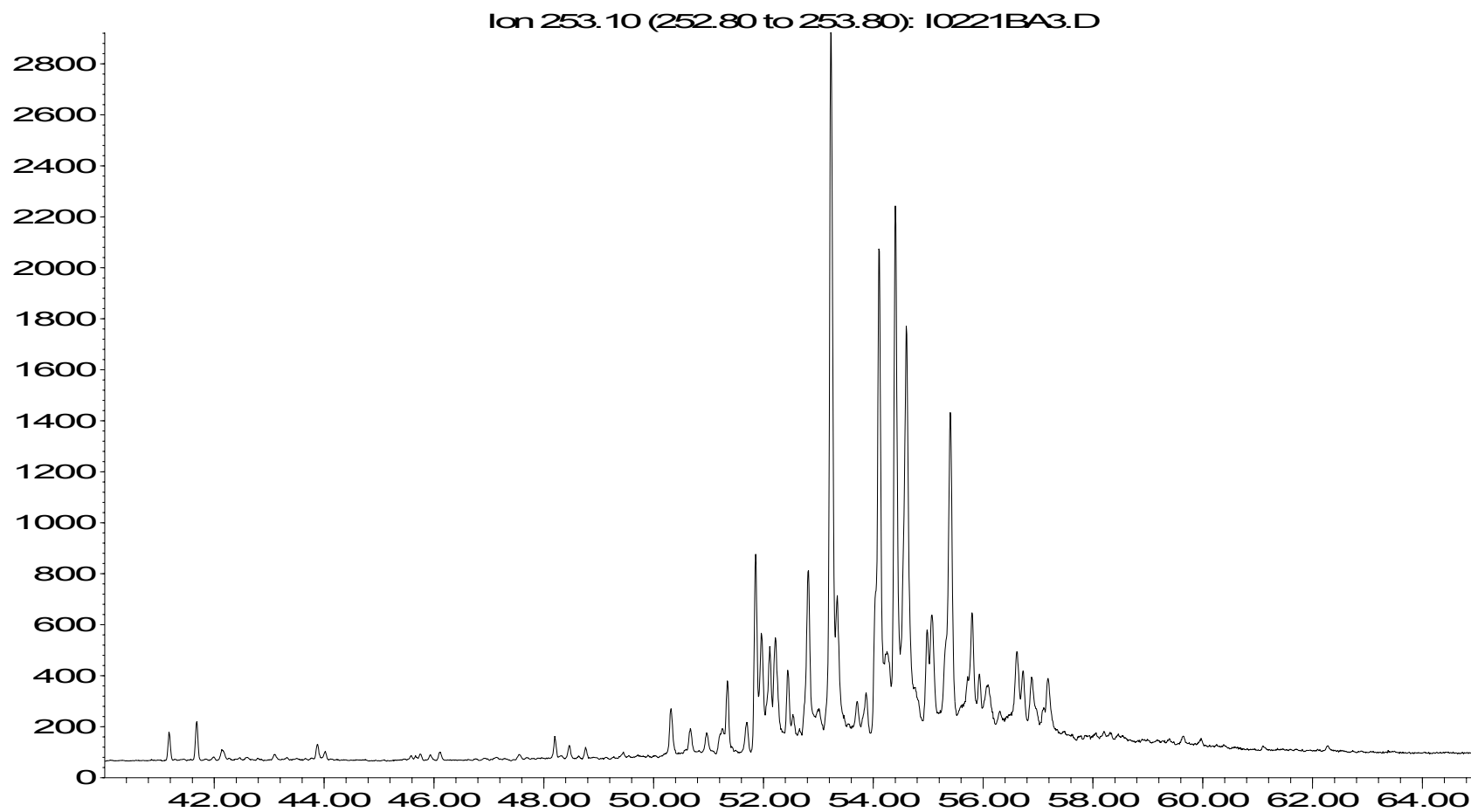
Time-->

I0287, 7830/3-U-1, 174.13 - 174.15 m, COCH, Sst (fgr, mgy), ARO GCMSD

Monoaromatic steroid hydrocarbons (m/z 253)

- 537 -

Abundance

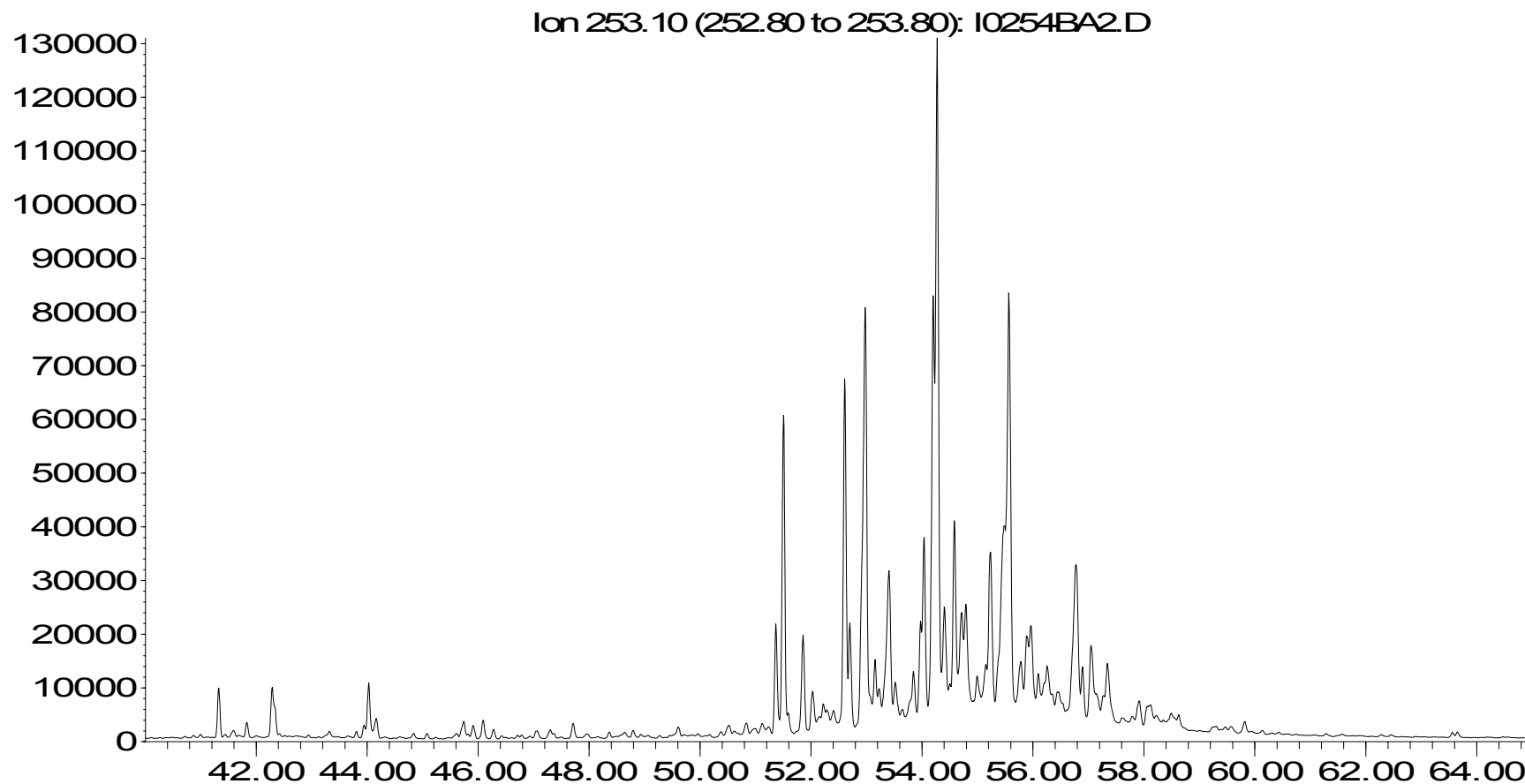


I0221, 7830/5-U-1, 58.90 - 58.97 m, COCH, Clyst (sl slty, lam, dkgy), ARO GCMSD

Monoaromatic steroid hydrocarbons (m/z 253)

- 538 -

Abundance

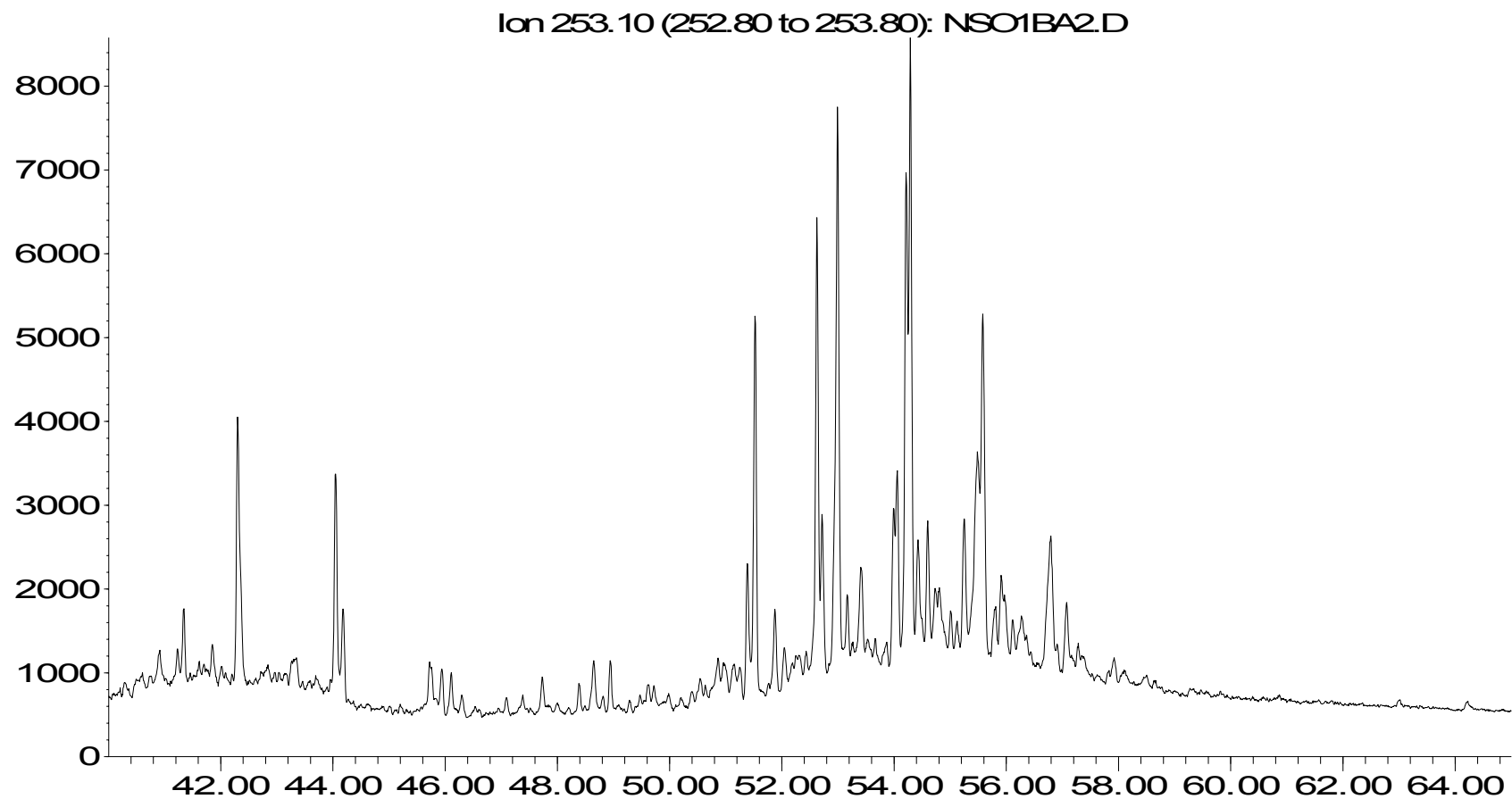


I0254, 7830/5-U-1, 128.62 - 128.68 m, COCH, Clyst (vdkgy, lam), ARO GCMSD

Monoaromatic steroid hydrocarbons (m/z 253)

- 539 -

Abundance



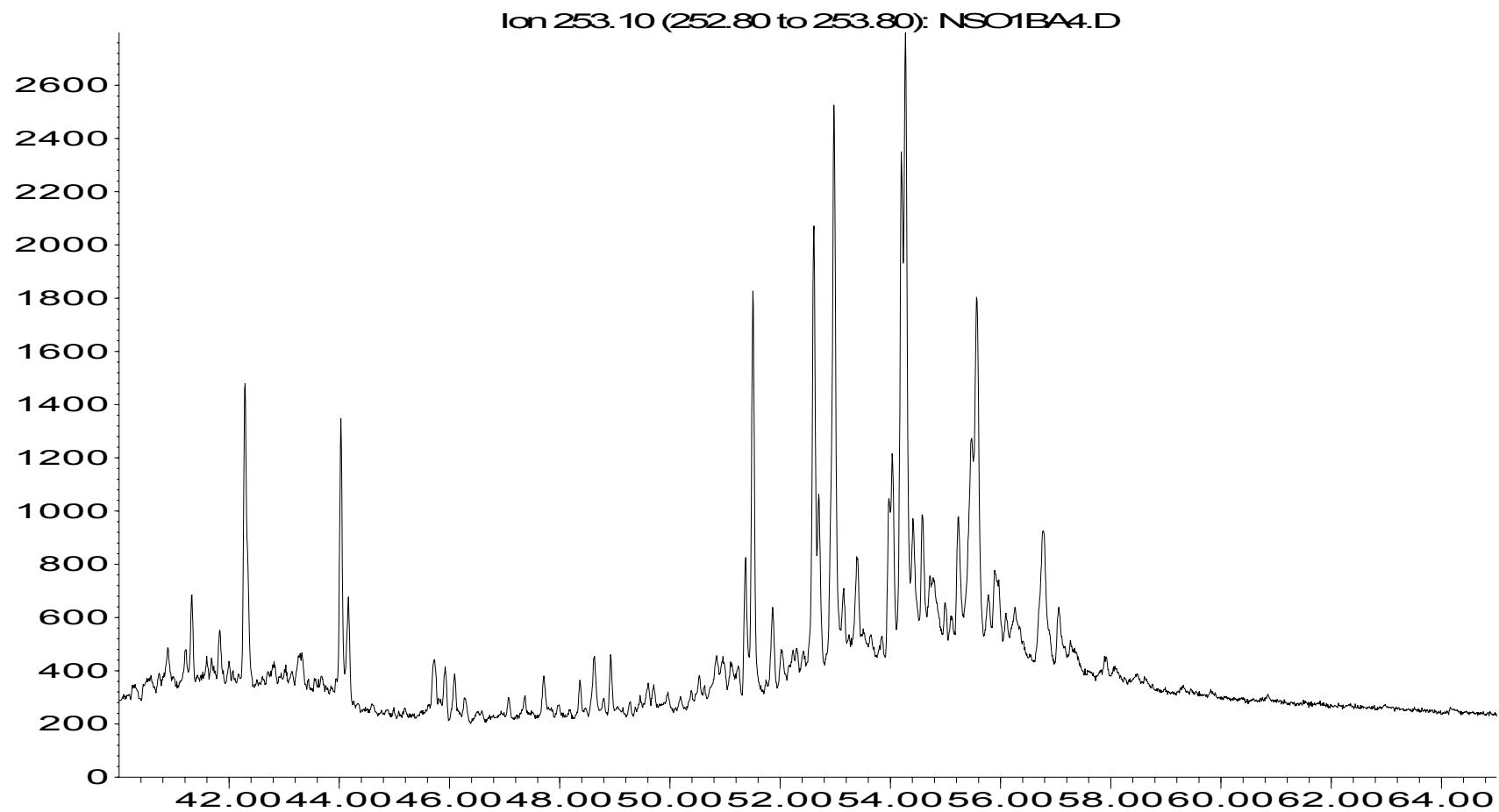
Time-->

NSO-1, #0 (Control analysis), ARO GCMSD

Monoaromatic steroid hydrocarbons (m/z 253)

- 540 -

Abundance



Time-->

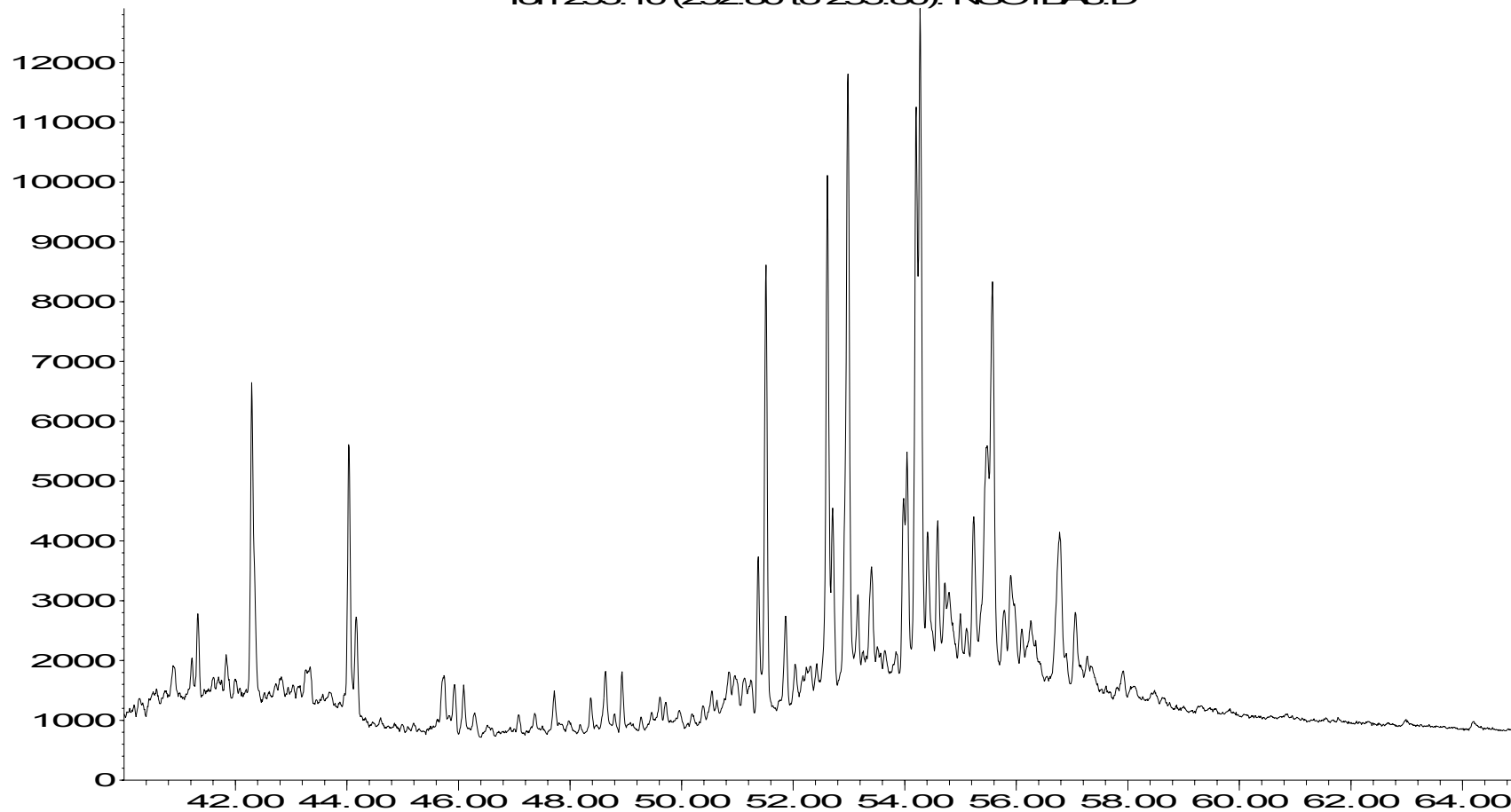
NSO-1, #1 (Control analysis), ARO GCMSD

Monoaromatic steroid hydrocarbons (m/z 253)

- 541 -

Abundance

Ion 253.10 (252.80 to 253.80): NSO1BA8.D



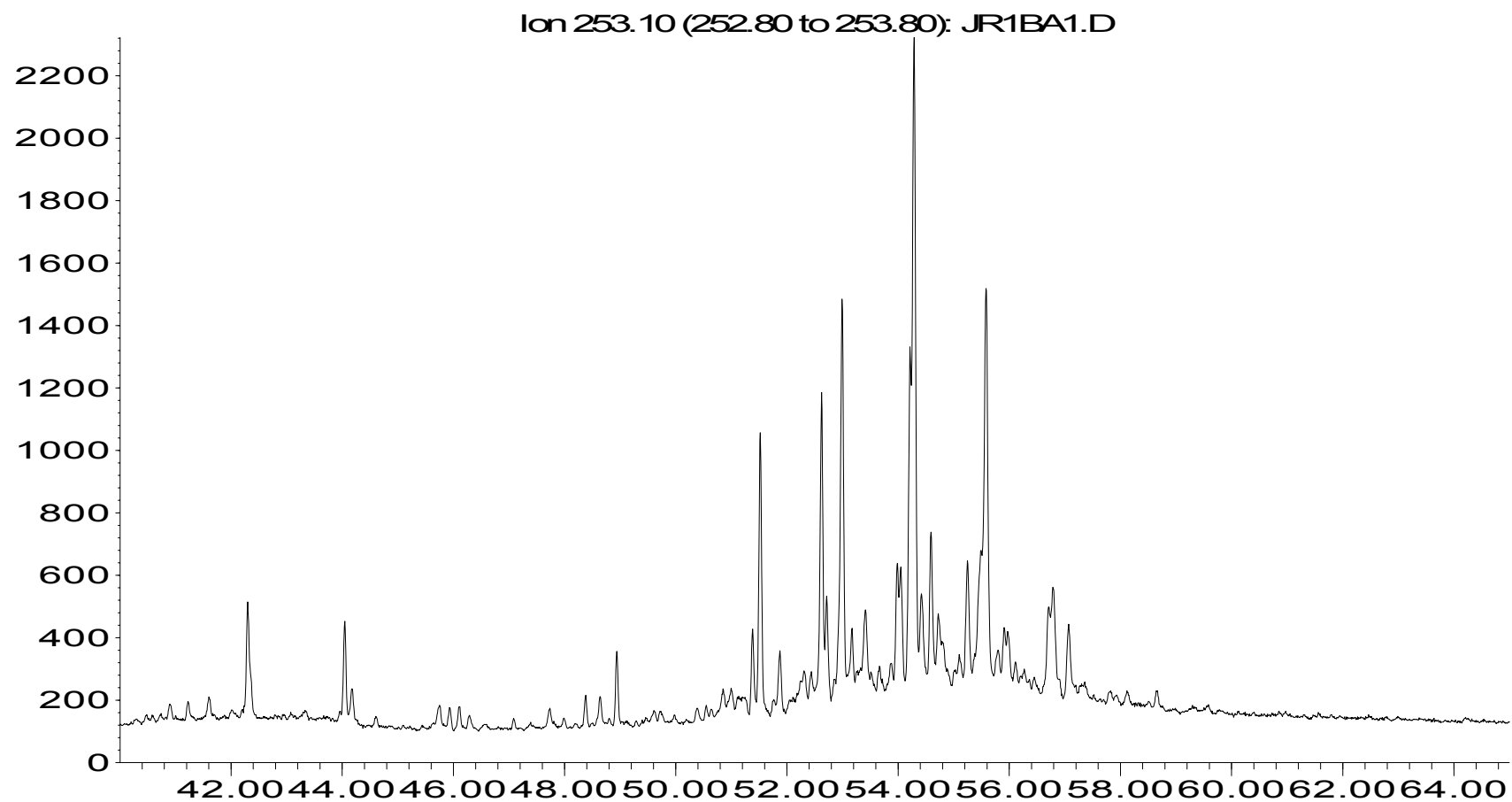
Time-->

NSO-1, #2 (Control analysis), ARO GCMSD

Monoaromatic steroid hydrocarbons (m/z 253)

- 542 -

Abundance



JR-1 (Control analysis), ARO GCMSD

Monoaromatic steroid hydrocarbons (m/z 253)

Analytical methods

Analyses were carried out by Applied Petroleum Technology (APT)/Institute for Energy Technology (IFE) in Kjeller, Geolab Nor (GLN) in Trondheim and SINTEF Petroleum Research (SINTEF) in Trondheim. All procedures follow NIGOGA, 4th Edition (Weiss et al. 2000). Below are brief descriptions of procedures/analytical conditions.

Headspace and occluded gas analysis

Sampling (SINTEF)

Core chip samples were taken aboard the drillship as soon as technically possible, i.e. as soon as the core was extruded from the core barrel. A core piece of 1 – 3 cm thickness was placed in a 1/3 litre can which was filled with water up to about 1 – 2 cm below the top and the then closed with a pressure lid. The cans were kept at approximately -30 °C until one night before the analysis to prevent bacterial activity that could change the chemical and isotopic composition of the gas.

Headspace gas (GLN, SINTEF)

A septum was attached to the sample can and a few ml of headspace gas were removed for gas chromatographic analysis of light hydrocarbons (see below). Another aliquot of the evolved gas was collected in a vacutainer for stable isotope analysis.

The can was opened and the volume of the headspace was determined. The wet core chip was weighed, then dried and weighed again to determine its water content.

Occluded gas (GLN, SINTEF)

Prior to drying, an aliquot of the core chip was crushed in water for 10 minutes using a gas-tight ball mill. An aliquot (few ml) of the evolved gas was removed for gas chromatographic analysis of light hydrocarbons (see below). Another aliquot of the evolved gas was collected in a vacutainer for stable isotope analysis.

Gas chromatographic analysis: Standard method (C₁–C₄, C₅₊; GLN)

The analysis of the C₁–C₇ hydrocarbons was performed using a Varian 3400 gas chromatograph with a 50 m Plot fused silica Al₂O₃/KCl column, loop injector and flame ionization detector. Helium was used as carrier gas and the column was run from 70 °C to 200 °C, at a rate of 12 °C/min. Final hold time was 13 min. The carrier gas stream was reversed after detection of n-butane, and the backflushed C₅–C₇ hydrocarbons were detected as one peak.

Gas chromatographic analysis: Detailed method (C₁–C₉; SINTEF)

The gas was analysed on a gas chromatograph fitted with a gas injector. The GC temperature program started at 35 °C, since separation of alkenes from alkanes was of no interest in this project. The instrument was fitted with a capillary column connected to an FID for hydrocarbon detection. Details of the instrumentation are listed in Table 30.

Table 30 Analytical equipment

Gas chromatograph	Agilent 6890
Injector	Gas injector connected to a 1.0 ml loop
Columns	HP-PONA column: 50 m x 0.20 mm i.d, 0.5 µm film thickness.
Carrier gas	Helium
Detector	FID (250 °C)
Temperature program	35 °C (5 min.) - 8 °C/min. - 180 °C (10 min.)
Chromatographic data system	HP ChemStation Rev. A.10.01

Identification of C₁-C₉ hydrocarbons

Peaks were identified based on three Supelco Reference Standards, guidelines in the NIGOGA (Weiss et al. 2000) and internal procedures. Compounds, retention indices and comments are listed in Table 31. Unidentified but recorded compounds are labelled with “RI=” and the respective Kováts retention index.

Table 31 Identified compounds with retention indices (RI) and comments. For peak labels see explanation below the table.

Peak label	RI (Kováts)	Comments
C1	100	
C2	158 + 200	Includes ethane and ethene
C3	300	Includes propane and propene
iC4	354	
C4ene	385	
nC4	400	
2,2-DMC3	410	
iC5	467	
nC5	500	
RI=529	529	Unknown
2,2-DMC4	531	
CyC5 + 2,3-DMC4	561	Separated in some analyses, but summed up in the tables
2-MC5	565	
3-MC5	581	
nC6	600	
2,2-DMC5	624	
MCyC5	627	
2,4-DMC5	630	
2,2,3-TMC4	637	
Benzene	651	
3,3-DMC5	656	
CyC6	661	
2-MC6	668	
2,3-DMC5	670	
1,1-DMCyC5	674	
3-MC6	676	
c-1,3-DMCyC5	684	
t-1,3-DMCyC5	687	
t-1,2-DMCyC5 + 3-EC5 + 2,2,4-TMC5	690	
nC7	700	
MCyC6 + c-1,2-DMCyC5	725	
2,2-DMC6 + 1,1,3-TMCyC5	727	
2,5-DMC6 + 2,2,3-TMC5	734	May include ECyC5
2,4-DMC6	736	

Table 31 continued

Peak label	RI (Kováts)	Comments
3,3-DMC6 + t-1,c-2,4-TMCyC5	744	May include c-1,t-2,4-TMCyC5
t-1,c-2,3-TMCyC5	751	
2,3,4-TMC5	754	
Toluene + 2,3,3-TMC5	759	
2,3-DMC6	763	May include 1,1,2-TMCyC5
2-MC7	768	
4-MC7 + 3-M,3-EC5	769	May also include an isomer of 3,4-DMC6
3,4-DMC6	773	Isomer
3-MC7 + c-1,t-2,3-TMCyC5	775	May also include c-1,3-DMCyC6
RI=781 (DMCyC6)	780 + 781	Possibly a DMCyC6 isomer, minimum 2 compounds
RI=783 (DMCyC6)	783	Possibly a DMCyC6 isomer
RI=790	790	Possibly a DMCyC6 isomer, minimum 2 compounds
RI=794	794	Possibly a DMCyC6 isomer, minimum 2 compounds
RI=796	797	Possibly CyC7 or a DMCyC6 isomer
nC8	800	Minimum 2 compounds
RI=805	805	Unknown
RI=807	807	Unknown
RI=815	815	Unknown
2,3,5-TMC6 + c,1,2-EMCyC5	819	
RI=821	821	Unknown
RI=825	825	Possibly 2,2-DMC7 or 2,4-DMC7
RI=831	831	Possibly 2,4-DMC7 or ECyC6
RI=834	834	Unknown, minimum 2 compounds
RI=838	838	Possibly ECyC6 and/or 2,6-DMC7, minimum 2 compounds
RI=843	843	Unknown
RI=847	847	Unknown
RI=848	848	Unknown
E-Benzene	855	
RI=859	860	Unknown, minimum 2 compounds
m+p-Xylene	863	
RI=867	867	Unknown
4-MC8 + 2-MC8	874	
RI=883	883	Possibly 3-MC8
o-Xylene	886	
RI=890	890	Unknown
RI=893	893	Unknown
RI=896	896	Unknown
nC9	900	

Explanations:

Structural groups	Parent structures	Numbers of functional groups	Names of functional groups	Steric configurations
n = normal	C1 = methane	D = di	M = methyl	c = cis
i = iso	C2 = ethane	T = tri	E = ethyl	t = trans
Cy = cyclo	etc.		P = propyl	o = ortho
				m = meta
				p = para

Quantification

A 1000 ppm (µl/l) standard gas sample containing methane, ethane, propane, i-butane, n-butane, n-pentane and n-hexane was used for quantification. The variation between the standards analysed was small (Table 32), and the average response factors were

used for quantification of all samples. The response factor for n-C5 was used for all compounds eluting between n-C4 and n-C5 and so on. Response factors for the C6–C7, C7–C8 and C8–C9 component groups were extrapolated based on molecular mass.

A 100 ppm (µl/l) standard gas sample containing methane, ethane, propane, n-butane, n-pentane and n-hexane was used for control of linearity.

Rock-related concentrations (in µl/kg) for compounds having a concentration of less than 0.2 ppm (µl/l) in the analysed gas are not reported, as this corresponds to an area of about 0.08, which is the lowest reliable area in the gas chromatograms.

Table 32 Results from analyses of a 1000 ppm gas standard.

	C1	C2	C3	iC4	nC4	nC5	nC6
Average (ppm)	998	995	995	993	994	993	992
Stdev. (ppm)	17	17	18	18	17	16	20
Stdev. (% of average)	1.7	1.7	1.8	1.8	1.7	1.6	2.0
n	9	9	9	9	9	9	9

Concentrations and ratios

As coelution of 3-EC5 and 2,2,4-TMC5 with t-1,2-DMCyC5 and of c-1,2-DMCyC5 with MCyC6 cannot be avoided at the chosen experimental conditions, only some of the Mango ratios can be calculated (see tables).

Table 33 Definitions of the variables listed in Table 25.

Abbreviation	Definition
Hydrocarbon yields for selected C-number ranges	
CncC1	Concentration of C1 (µl/kg dry rock)
CncC2C4	Concentration of C2 through n-C4 (µl/kg dry rock)
CncC5C9	Concentration of C5 through n-C9, i.e. all peaks eluting after n-C4 (µl/kg dry rock)
CncC1C9	Sum of these concentrations
Hydrocarbon composition for selected C-number ranges	
PctC1	Fraction of C1 (% volume of all C1-C9 HC)
PctC2C4	Fraction of C2 through n-C4 (% volume of all C1-C9 HC)
PctC5C9	Fraction of C5 through n-C9, i.e. all peaks eluting after n-C4 (% volume of all C1-C9 HC).
PctC1C9	Sum of these fractions (= 100 vol %)
Wetness and i-C4/n-C4 ratio	
Wetness	100* (Sum C2 to n-C4) / (Sum C1 to n-C4) (volume %)
Ratic4nc4	Volume ratio i-C4 / n-C4
Composition of C7 hydrocarbons by compound class	
PctnC7	Fraction of n-alkanes in n-C7 range (volume % of all C7 compounds)
PctIsoC7	Fraction of iso-alkanes in n-C7 range (volume % of all C7 compounds)
PctCycC7	Fraction of cycloalkanes in n-C7 range (volume % of all C7 compounds)
PctAroC7	Fraction of aromatics in n-C7 range (volume % of all C7 compounds)
PctSumC7	Sum of these fractions (= 100 vol %)

Table 33 continued

Abbreviation	Definition
Thompson ratios (mass ratios), assessed property in brackets	
Thompson_A	A = Benzene / n-Hexane [Aromaticity (fractionation)]
Thompson_B	B = Toluene / n-Heptane [Aromaticity (fractionation)]
Thompson_X	X = Xylene (m & p) / n-Octane [Aromaticity (fractionation)]
Thompson_C	C = (n-Hexane + n-Heptane) / (Cyclohexane + Methylcyclohexane) [Paraffinicity (maturity)]
Thompson_I	I = Isoheptane value = (Methylhexanes (2- & 3-)) / (Dimethylcyclopentanes (c1,3-, t1,3-, & t1,2-)) [Paraffinicity (maturity)]
Thompson_F	F = n-Heptane / Methylcyclohexane [Paraffinicity (maturity)]
Thompson_H	H = Heptane Value = 100 * n-Heptane / (Sum Cyclohexane through Methylcyclohexane, excluding cis-1,2-Dimethylcyclopentane) [Paraffinicity (maturity)]
Thompson_R	R = n-Heptane / 2-Methylhexane [Normality (branching)]
Thompson_U	U = Cyclohexane / 2-Methylhexane [Normality (branching)]
Mango ratios (mass ratios)	
Mango_P1	P1 = n-C7 (mass% of sum C7 HC) [first parents in SS kinetic scheme], Mango 1994
Mango_P2	P2 = 2-MC6 + 3-MC6 (mass% of sum C7 HC) [second parent in SS kinetic scheme], Mango 1994
Mango_P3	P3 = 3-EC5 + 3,3-DMC5 + 2,3-DMC5 + 2,4-DMC5 + 2,2-DMC5 + 2,2,3-TMC4 (mass% of sum C7 HC) [daughter isoalkane product of P2], Mango 1994 [Remark 1]
Mango_N15	N15 = ECyC5 + c-1,2-DMCyC5 + t-1,2-DMCyC5 (mass% of sum C7 HC) [Daughter cyclopentane products of P2], Mango 1994 [Remark 2]
Mango_N16	N16 = MCyC6 + TOLUENE (mass% of sum C7 HC) [Daughter cyclohexane products of P1], Mango 1994
Mango_N2	N2 = 1,1-DMCyC5 + c-1,3-DMCyC5 + t-1,3-DMCyC5 (mass% of sum C7 HC) [Daughter cyclopentane products of P2], Mango 1994 [Remark 3]
Mango_K1	K1 = (2-MC6 + 2,3-DMC5) / (3-MC6 + 2,4-DMC5), Mango 1987 in Mango 1994
Mango_K2	K2 = P3 / (P2 + N2) = (3-EC5 + 2,3-DMC5 + 2,4-DMC5 + 2,2-DMC5 + 2,2,3-TMC4) / (2-MC6 + 3-MC6 + 1,1-DMCyC5 + c-1,3-DMCyC5 + t-1,3-DMCyC5) (Mango 1990 in Mango 1994)
Mango_N15N16	N15/N16 = k15/k16 [a ratio of P1 daughters], Mango 1994
Mango_P3N2	P3/N2 = k23/k25 [a ratio of P2 daughters], Mango 1994
Remarks on Mango ratios	
Remark 1	The 2,2,3-TMC4 peak is consistently called "2,3,3-TMC4" in the Mango papers, but this is probably a mistyping, as 2,3,3-TMC4 is normally not identified.
Remark 2	Actually N_1^5 , where 1 means the first daughter generation and 5 stands for the parent cyclopentane.
Remark 3	Analog to N15.
Coelution of compounds	
CyC5' contains coeluting 2,3-DMC4.	
t-1,2-DMCyC5' contains coeluting 3-EC5 and 2,2,4-TMC5. The Mango ratios P3, N15, K2, N15N16 and P3N2 can therefore not be calculated. The Thompson ratios I may be slightly affected.	
MCyC6' contains coeluting c-1,2-DMCyC5. The Mango ratios N15 and N16 can therefore not be calculated. The Thompson ratios C, F and H may be slightly affected.	
Toluene coelutes with 2,3,3-TMC5 and 'n-C8' contains an unknown coeluting compound. The Thompson ratios B and X may be slightly affected.	
References	
Mango, F.D. (1987): An invariance in the isoheptanes of petroleum. Science 237, 514-517.	
Mango, F.D. (1990): The origin of light hydrocarbons in petroleum: A kinetic test of the steady-state catalytic hypothesis. Geochimica et Cosmochimica Acta 54, 1315-1323.	
Mango, F.D. (1994): The origin of light hydrocarbons in petroleum: Ring preference in the closure of carbocyclic rings. Geochimica et Cosmochimica Acta 58, 895-901.	
Thompson, K.F.M. (1987): Fractionated aromatic petroleum and the generation of gas-condensates. Organic Geochemistry 11, 573-590.	

Water content

The water content of the core chips was determined by weighing an aliquot of the rock before and after drying at 35 °C for at least 24 hours.

Stable isotope analysis of light hydrocarbons (APT/IFE)

All procedures follow NIGOGA, 4th Edition (Weiss et al. 2000). Below are brief descriptions of procedures/analytical conditions.

Carbon isotope analysis of hydrocarbon compounds and CO₂

The carbon isotopic composition of the hydrocarbon gas components was determined by a GC-C-IRMS system. Aliquots were sampled with a syringe and analysed on a Trace GC2000, equipped with a Poraplot Q column, connected to a Delta plus XP IRMS. The components were burnt to CO₂ and water in a 1000 °C furnace over Cu/Ni/Pt. The water was removed by Nafion membrane separation. Repeated analyses of standards indicate that the reproducibility of $\delta^{13}\text{C}$ values is better than 1 ‰ PDB (2 sigma).

Hydrogen isotope analysis of methane

The hydrogen isotopic composition of methane was determined by a GC-C-IRMS system. Aliquots were sampled with a GCPal and analysed on a Trace GC2000, equipped with a Poraplot Q column, connected to a Delta plus XP IRMS. The components were decomposed to H₂ and coke in a 1400 °C furnace. The international standard NGS-2 and an in-house standard (Std A) were used for testing accuracy and precision. The “true” value of NGS-2 is given to -172.5 ‰ V-SMOW (<http://deuterium.nist.gov/standards.html>). Repeated analyses of standards indicate that the reproducibility of δD values is better than 10 ‰ PDB (2 sigma).

Whole oil analysis (SINTEF)

Frozen core pieces, wrapped in aluminium foil, were taken out of the freezer, and the foil was removed. Oil that had accumulated in the folds of the foil, or had exsuded on the surface of the core, was collected with a syringe as soon as it became liquid, and was immediately injected into a gas chromatograph.

The collectable amounts of oil were far below 0.1 µl. Such small sample volumes are sufficient to obtain gas chromatograms, but affected by substantial losses of low-boiling hydrocarbons. The analytical procedure follows the NIGOGA (technical details in Table 34). Analytical equipment and the reference sample are specified in Table 35 and a gas chromatogram of the reference sample is shown in Figure 6.

Table 34 *Analytical equipment and procedure.*

Gas chromatograph	Hewlett Packard 6890
Injector	Split injection with split flow 100 ml/min.; injector temperature 280°C. Manual injection.
Column	HP-PONA 50 m x 0.2 mm i.d. x 0.5 µm film thickness.
Carrier gas	Helium, flow rate 1.1 ml/min.
Detector	FID (flame ionisation detector); detector temperature 350°C.
Temperature program (GC)	35°C (15 min.) - 5°C/min. - 320°C (38 min.)

Table 35 *Reference sample specification.*

n-alkane standard	n-C10, n-C12 etc. to n-C36, pristane; equal amounts dissolved in n-Hexane.
NGS NSO-1 oil reference sample	Sample-ID H2795, Norwegian Geochemical Standard (NGS) sample NSO-1. Peak area ratios obtained: Benzene / Hexane 0.38; Pristane / n-C17 0.62 (both within the permissible range set in the NIGOGA).

Extraction (APT)

A Soxtec Tecator instrument is used. Thimbles are pre extracted in dichloromethane with 7% (vol/vol) methanol, 10 min boiling and 20 min rinsing. The crushed sample is weighed accurately in the pre extracted thimbles and boiled for 1 hour and rinsed for 2 hours in approximately 80 cc of dichloromethane with 7% (vol/vol) methanol. Copper blades activated in concentrated hydrochloric acid are added to the extraction cups to cause free sulphur to react with the copper. An aliquot of 10% of the extract is transferred to a pre weighed bottle and evaporated to dryness. The amount of extractable organic matter is calculated from the weight of this 10% aliquot.

Deasphalting (APT)

Extracts are evaporated almost to dryness before a small amount of dichloromethane (3 times the amount of EOM) is added. Pentane is added in excess (40 times the volume of EOM and dichloromethane/oil). The solution is stored for at least 12 hours in a dark place before the solution is filtered or centrifuged and the weight of the asphaltenes measured.

TOC and Rock-Eval (APT)

A Rock-Eval 6 instrument is used. The analysis is performed in two steps, pyrolysis and oxidation, when TOC is measured. The separation between organic carbon and mineral carbon in the oxidation cycle is set automatically. As long as the CO signal in the IR-detector is greater than zero, the source of CO₂ is defined as organic. When the signal drops to zero, all remaining CO₂ is defined as coming from a mineral source. Normally this separation point is between 600 and 650°C.

Jet-Rock 1 (NGS JR-1) was run as every tenth sample and checked against the acceptable range given in NIGOGA.

Temperature programme

Pyrolysis: 300 °C (3 min.) - 25 °C/min. - 650 °C (0 min.)

Oxidation: 400 °C (3 min.) - 25 °C/min. - 850 °C (5 min.)

TEGC (APT)

A HP5890 II instrument with an MSSV injector and an FID is used. The column is a HP-1, length 50 m, i.d. 0.32 mm, film thickness 0.52 µm.

Throughout the thermal extraction the oven temperature remains at 300 °C. The sample tube is placed in the injector system and then broken when pressure have stabilised after 4 minutes. The released volatile products are collected in the cold trap for ten minutes

before being released into the GC column, whereupon the following temperature programme is run:

Initial temperature: 40 °C (13 min. from breaking of sample tube)

Ramp 1: 5 °C/min. $\Rightarrow$ 300 °C (25 min.)

Ramp 2: 5 °C/min. $\Rightarrow$ 320 °C (10 min.)

PyGC (APT)

A HP5890 II instrument with an MSSV injector and an FID is used. The column is a HP-1, length 50 m, i.d. 0.32 mm, film thickness 0.52 μ m.

The pyrolysis oven is preheated to 300 °C. The sample tube is placed in the injector system and then broken. The temperature is then increased to 600 °C at a rate of 25 °C/min. The pyrolysis products are collected in the cold trap for fourteen minutes before being released into the GC column, whereupon the following temperature programme is run:

Initial temperature: 40 °C (13 min. from breaking of sample tube)

Ramp 1: 5 °C/min. $\Rightarrow$ 300 °C (25 min.)

Ramp 2: 5 °C/min. $\Rightarrow$ 320 °C (10 min.)

Iatroscan (APT)

An Iatroscan MK-5 (TLC/FID Analyser) instrument is used. 2 μ l of extract or diluted oil is spotted on Chromarod S-III rods before elution in hexane (25 min), toluene (8 min) and dichloromethane with 7 % methanol (vol/vol). The solvent is allowed to evaporate before the rods are placed into the next elution chamber. Before running the rods in the analyser, the rods are heated for 90 sec. in a heating chamber at 60 °C.

Stable carbon isotope analysis of fractions (APT)

The samples are dissolved in a known amount of dichloromethane, and 1-2 mg of the sample (or as much as possible) is then transferred to a glass container. The solvent is evaporated in an oven at 50 °C. CuO and some silver wires are added to the containers, which are then sealed by melting in a vacuum. The samples are then combusted in an oven at 550 °C for 1 hour (Sofer, 1980). The combustion products CO₂ and H₂O are separated at -80°C before the isotopic ratio is determined on a Finnigan MAT 251 mass spectrometer.

A standard (NGS NSO-1, topped oil) is analysed for each 10th sample. The $\delta^{13}\text{C}$ value obtained for this standard is -28.77 ‰ PDB. The variation in the isotopic values for the standard by repeated analysis over a period of five years is $\pm$ 0.13 ‰.

Vitrinite reflectance analysis (APT subcontractor)

The samples are prepared either as "whole rock" or are treated with hydrochloric and hydrofluoric acid prior to further preparation. The aim of the acid treatment is to avoid soft and expanding mineral phases in order to ensure good polishing quality. The whole rock or the kerogen resulting from the acid treatment is embedded in an epoxy resin to make briquettes, ground flat and polished using 0.25 micron diamond paste and magnesium oxide as the two final steps.

The analytical equipment used is a Zeiss MPM 03 photometer microscope equipped with an Epiplan-Neofluar 40/0.90 oil objective. The sensitive measuring spot is kept constant for all measurements at about 2.5 micron in diameter. The measurements are made through a green band pass filter (546 nm) and in oil immersion (refractive index 1.515 at 18 °C). The readings are made without a polarizer and using a stationary stage. This procedure is called measurement of random reflectance (%Rm). The photometer is calibrated daily against a standard of known reflectance (%Rm = 0.588) and routinely (daily) checked against two other standards of significant different reflectances (%Rm = 0.879 and 1.696). A deviation from these values of less than ± 0.01 and ± 0.02 respectively is considered acceptable. The calibration is routinely checked during the course of measurements at least every hour, and a deviation of less than ± 0.005 is considered acceptable.

For each sample at least 20 points are measured if possible, and quality ratings are given to various important aspects, which may affect the measurements. These aspects are abundance of vitrinite, uncertainties in the identification of indigenous vitrinite, type of vitrinite, particle size, particle surface quality and abundance of pyrite.

Visual kerogen analysis (APT subcontractor)

The samples are treated with hydrochloric and hydrofluoric acid to isolate the kerogen. The residual material for kerogen description is embedded on a cover glass, dried and finally mounted on an object glass using the preserving glue Entellan.

Visual kerogen analysis was performed on a Zeiss Standard 14 microscope fitted with blue light excitation (450-490, FT 510, LP 520) and transmitted light (with blue daylight filter) capabilities. TAI, SCI, SFC and percent distributions were made using a Zeiss Ph2 40x/0.75 Neofluar objective.

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