



# GC/MS Aromatics Report

**Well: 211/14-01S2**

**Field: Penguin D**

**Country: United Kingdom**



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# GC/MS aromatics data report

## FPC\_317734

### Sample information

Sample ID	<b>FPC_317734</b>	Depth (ft)	<b>11183.0 - 11279.0</b>
Sample type	<b>Oil</b>	Formation	<b>ETIVE/RANNOCH</b>
Country	<b>United Kingdom</b>	Age	-
Basin	<b>Viking Graben Province</b>	Reservoir	-
Prospect	-	Sample date	-
Block	<b>211/14 Rest incl. Penguin</b>	Sample origin	<b>DST</b>
Field	<b>Penguin D</b>	Operator	<b>SHELL</b>
Well name	<b>211/14-01S2</b>	Int. std. D10-Phenanthrene (ppm)	<b>201</b>
Well code	<b>FPCW_55354</b>		
Latitude	<b>61.540821</b>		
Longitude	<b>1.633515</b>		

# Peak Data Table

## FPC\_317734

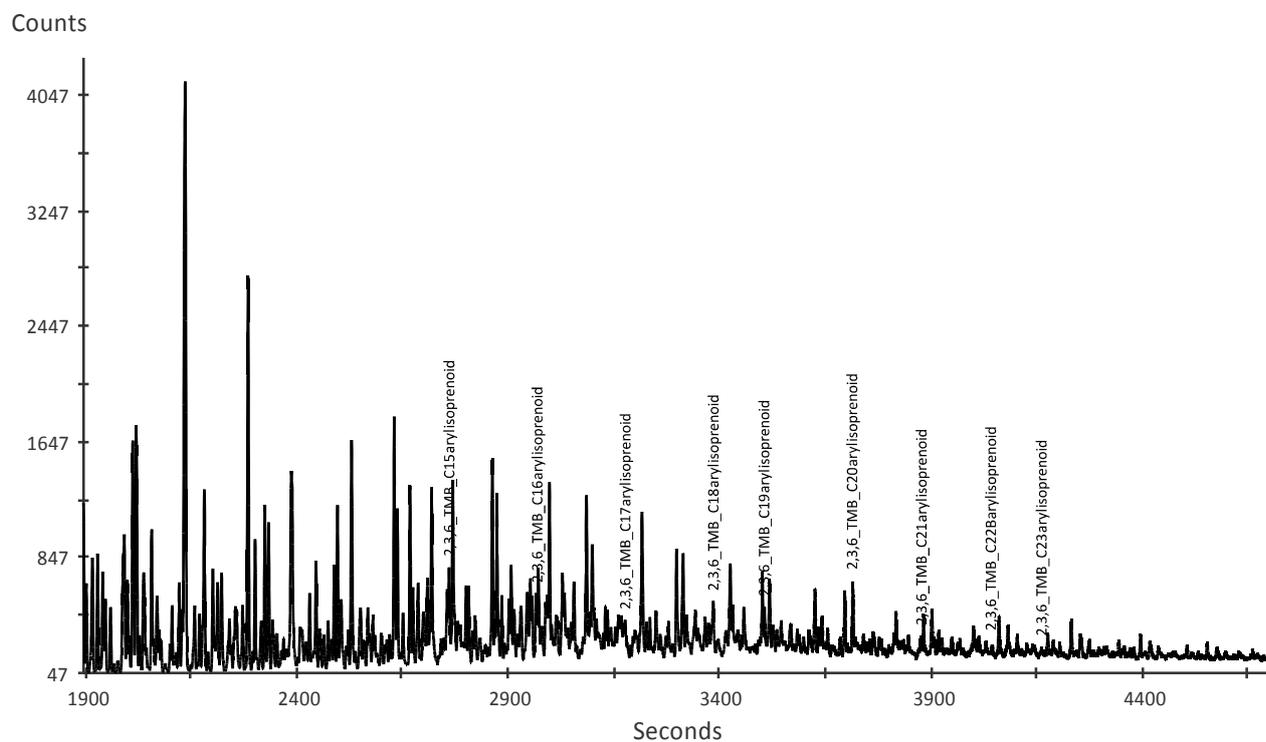
Peak name	Ion	Area
2,3,6_TMB_C15arylisprenoid	134.10	2752.94
2,3,6_TMB_C16arylisprenoid	134.10	1746.47
2,3,6_TMB_C17arylisprenoid	134.10	847.83
2,3,6_TMB_C18arylisprenoid	134.10	1814.07
2,3,6_TMB_C19arylisprenoid	134.10	1215.14
2,3,6_TMB_C20arylisprenoid	134.10	2057.41
2,3,6_TMB_C21arylisprenoid	134.10	570.21
2,3,6_TMB_C22Barylisprenoid	134.10	347.39
2,3,6_TMB_C23arylisprenoid	134.10	303.72
2-methylnaphthalene	142.10	1001738.25
1-methylnaphthalene	142.10	748951.00
2,6-dimethylnaphthalene	156.10	253666.45
2,7-dimethylnaphthalene	156.10	268904.22
1,3+1,7-dimethylnaphthalene	156.10	633523.00
1,6-dimethylnaphthalene	156.10	487640.16
1,5-dimethylnaphthalene	156.10	193042.11
2,3-dimethylnaphthalene	156.10	130318.36
1,2-dimethylnaphthalene	156.10	74329.55
1,3,7-trimethylnaphthalene	170.10	166115.23
1,3,6-trimethylnaphthalene	170.10	218145.80
1,3,5+1,4,6-trimethylnaphthalene	170.10	204484.44
2,3,6-trimethylnaphthalene	170.10	132259.05
1,2,7-trimethylnaphthalene	170.10	34246.66
1,6,7-trimethylnaphthalene	170.10	166118.25
1,2,6-trimethylnaphthalene	170.10	7082.86
1,2,4-trimethylnaphthalene	170.10	16525.38
1,2,5-trimethylnaphthalene	170.10	56684.32
Phenanthrene	178.10	210977.56
1,3,5,7-tetramethylnaphthalene	184.10	45069.54
1,3,6,7-tetramethylnaphthalene	184.10	52181.03
1,2,4,7-tetramethylnaphthalene	184.10	35138.03
1,2,5,7-tetramethylnaphthalene	184.10	20561.08
2,3,6,7-tetramethylnaphthalene	184.10	14319.51
1,2,6,7-tetramethylnaphthalene	184.10	8631.99
1,2,5,6-tetramethylnaphthalene	184.10	17738.16
Dibenzothiophene	184.10	49435.81
D10-Phenanthrene (Intern. Std.)	188.10	138557.84
3-methylphenanthrene	192.10	76463.68
2-methylphenanthrene	192.10	84525.40
9-methylphenanthrene	192.10	120673.59
1-methylphenanthrene	192.10	97980.15
Cadalene	198.00	-
4-methyldibenzothiophene	198.10	66485.70
3+2-methyldibenzothiophene	198.10	31487.17
1-methyldibenzothiophene	198.10	14243.17
4,5-dimethylphenanthrene	206.20	3689.45
2,6+3,6-dimethylphenanthrene	206.20	20585.26
3,5-dimethylphenanthrene	206.20	19725.33
2,7-dimethylphenanthrene	206.20	11550.91
3,9-dimethylphenanthrene	206.20	102807.27
1,6+2,5+2,9-dimethylphenanthrene	206.20	51380.74
1,7-dimethylphenanthrene	206.20	39831.79
1,9+4,9-dimethylphenanthrene	206.20	39393.81
1,8-dimethylphenanthrene	206.20	10777.77
1,2-dimethylphenanthrene	206.20	5135.67

Peak name	Ion	Area
TA_C20	231.20	2766.15
TA_C21	231.20	2320.73
TA_C22_20S	231.20	378.28
TA_C22_20R	231.20	388.78
TA_C26_20S	231.20	483.88
TA_C26_20R_C27_20S	231.20	1472.30
TA_C28_20S_A+B	231.20	1338.10
TA_C27_20R	231.20	926.58
TA_C29_20S_A	231.20	402.33
TA_C29_20S_B	231.20	231.81
TA_C28_20R	231.20	1164.67
MA_C21_A	253.20	1628.40
MA_C21_B	253.20	863.11
MA_C22_A	253.20	1365.48
MA_C22_B	253.20	803.77
MA_C27_I_20S	253.20	158.96
MA_C27_V_20S	253.20	936.41
MA_C27_I_20R_C27_V_20R	253.20	793.49
MA_C27_II_20S	253.20	551.26
MA_C28_I_20S	253.20	1473.88
MA_C28_V_20S	253.20	256.61
MA_C27_II_20R	253.20	188.64
MA_C28_II_20S	253.20	266.12
MA_C28_I_20R_C28_V_20R	253.20	937.98
MA_C29_I_20S_C29_V_20S	253.20	1203.24
MA_C29_II_20S	253.20	-
MA_C28_II_20R	253.20	416.97
MA_C29_I_20R_C29_V_20R	253.20	900.49

Sample	FPC_317734	Sample type	Oil	Analysis	GC-MSD in SIM mode
Depth	11183.0-11279.0ft	Fraction	Aromatic	Analysis date	12-SEP-2014

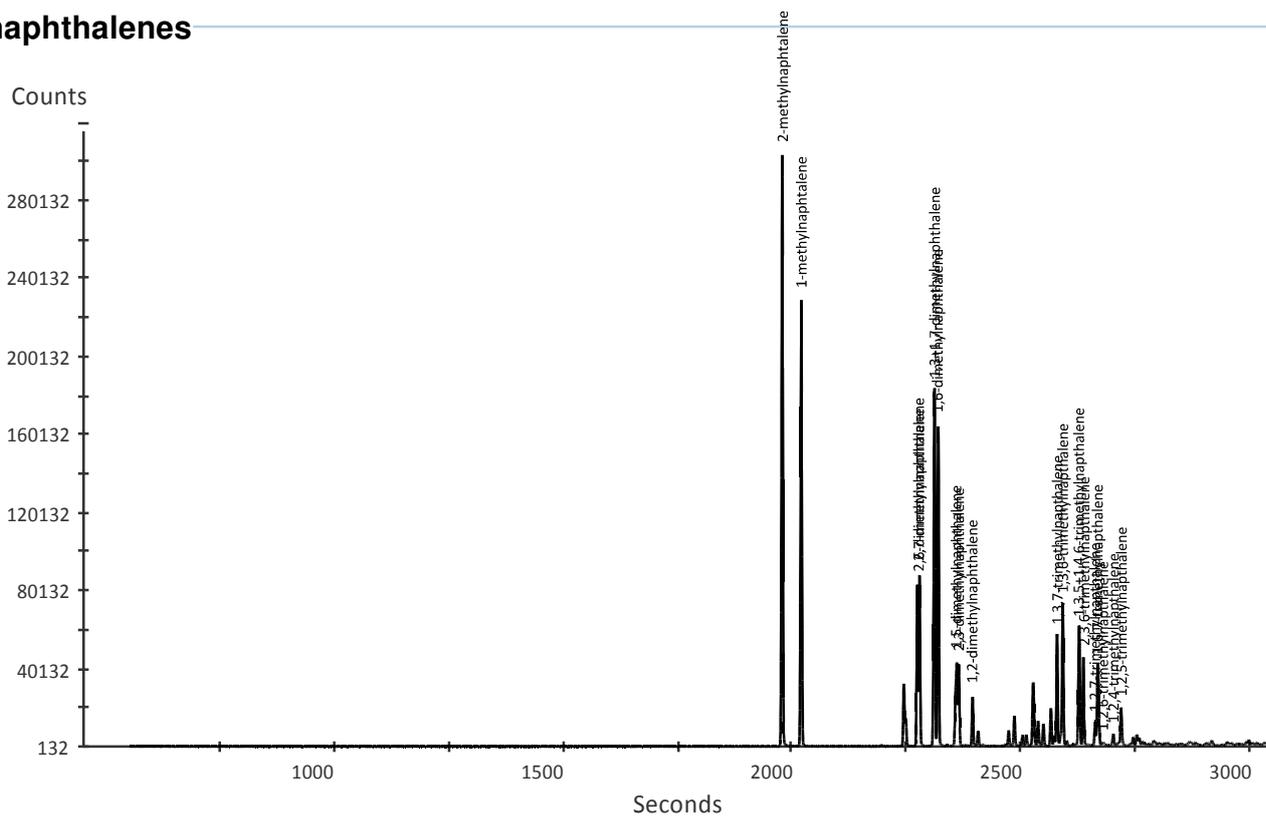
m/z	signal intensity
134.1	4,303.72

### Alkyl-trimethylbenzenes



m/z	signal intensity
142.1+156.1+170.1	315,534.88

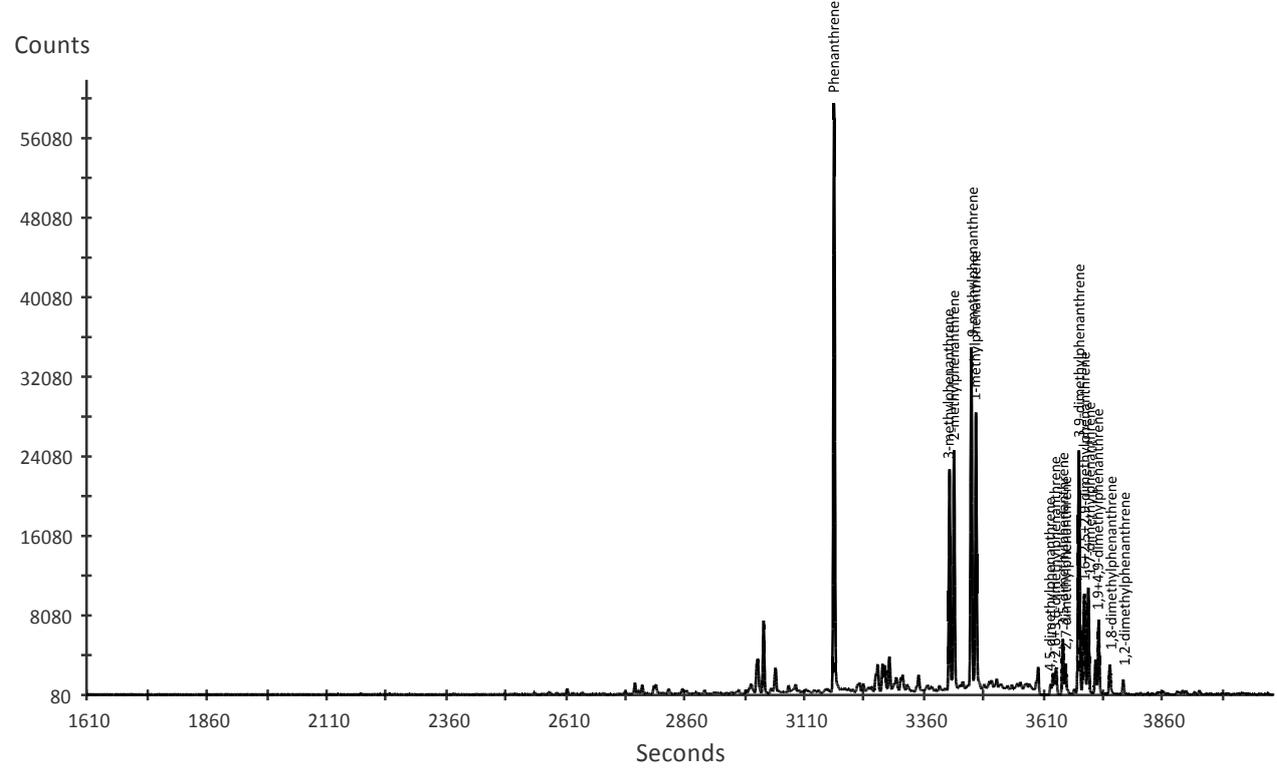
### Methylnaphthalenes



Sample	FPC_317734	Sample type	Oil	Analysis	GC-MSD in SIM mode
Depth	11183.0-11279.0ft	Fraction	Aromatic	Analysis date	12-SEP-2014

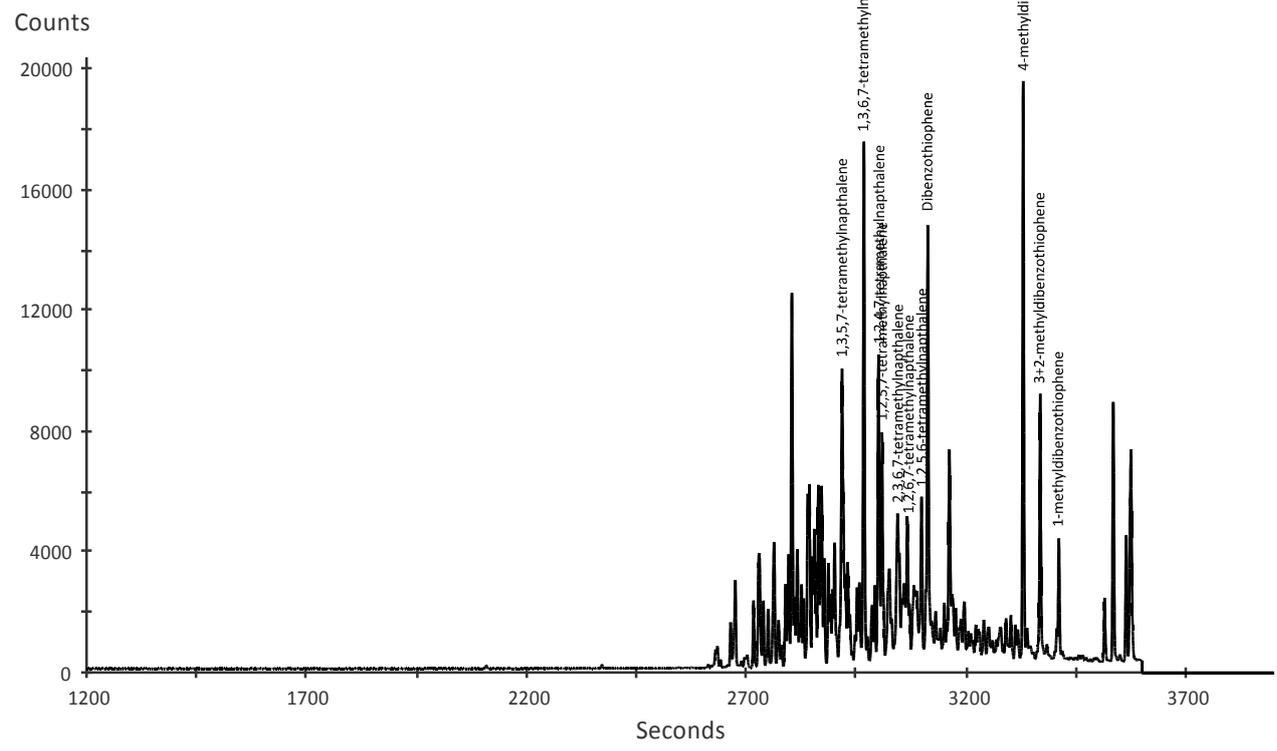
m/z	signal intensity
178.1+192.1+206.1	61,950.64

### Methylphenanthrenes



m/z	signal intensity
184.0+198.1+212.1	20,366.32

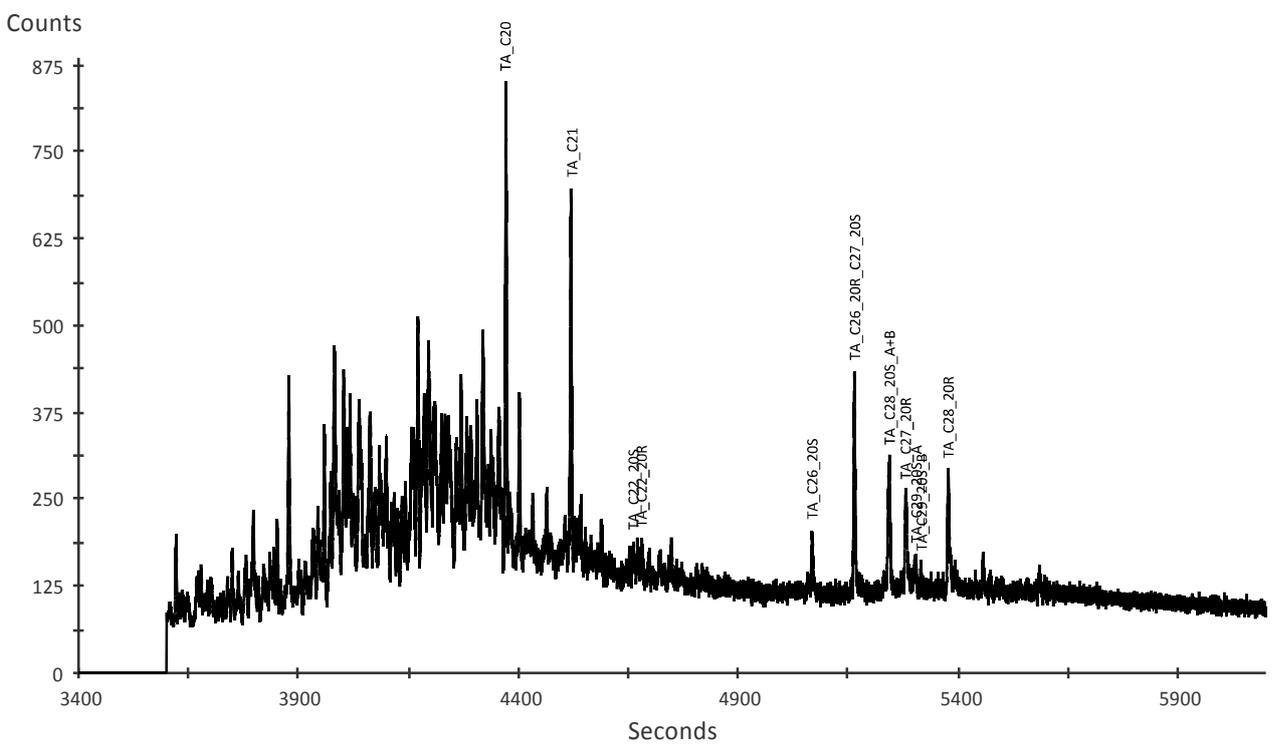
### Dibenzothiophenes



Sample	FPC_317734	Sample type	Oil	Analysis	GC-MSD in SIM mode
Depth	11183.0-11279.0ft	Fraction	Aromatic	Analysis date	12-SEP-2014

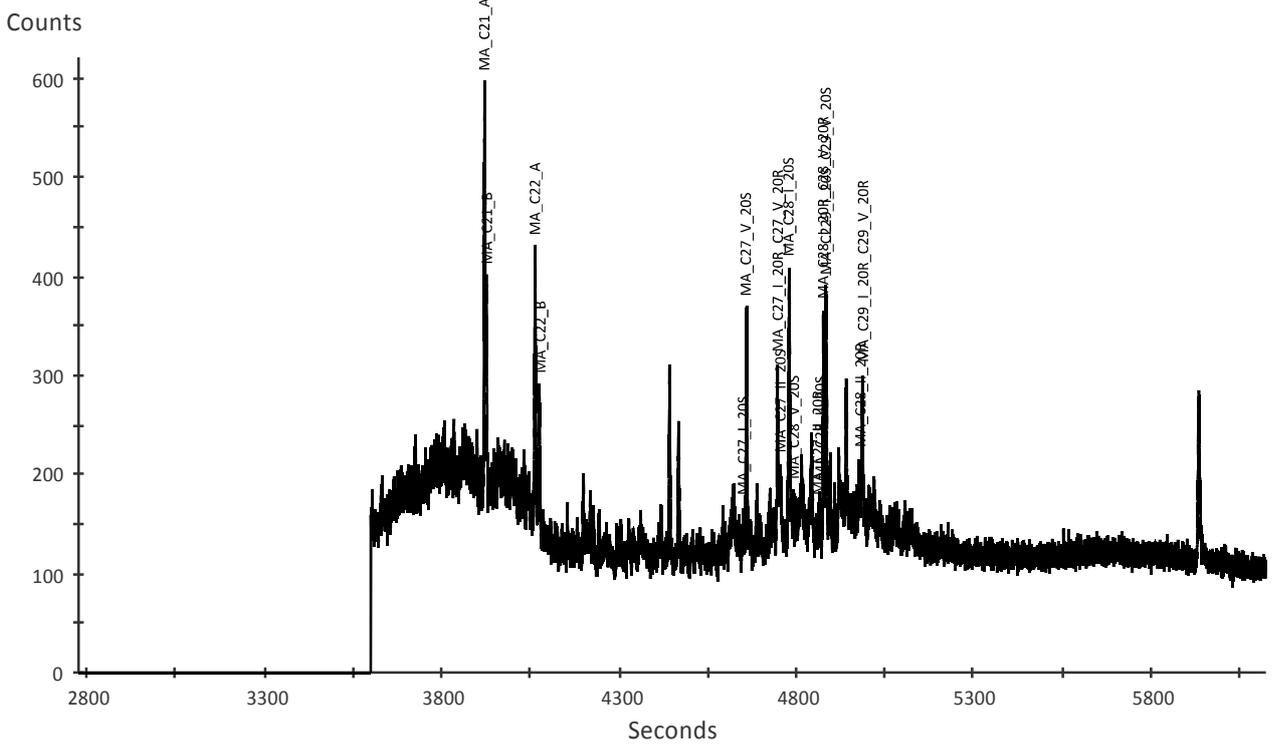
m/z	signal intensity
231.1	885.04

**Triaromatic steroids**



m/z	signal intensity
253.2	620.88

**Monoaromatic steroids**



# GC/MS aromatics data report

## FPC\_317736

### Sample information

Sample ID	<b>FPC_317736</b>	Depth (ft)	<b>11621.0 - 11860.0</b>
Sample type	<b>Oil</b>	Formation	
Country	<b>United Kingdom</b>	Age	-
Basin	<b>Viking Graben Province</b>	Reservoir	-
Prospect	-	Sample date	-
Block	<b>211/14 Rest incl. Penguin</b>	Sample origin	<b>DST</b>
Field	<b>Penguin D</b>	Operator	<b>SHELL</b>
Well name	<b>211/14-01S2</b>	Int. std. D10-Phenanthrene (ppm)	<b>205</b>
Well code	<b>FPCW_55354</b>		
Latitude	<b>61.540821</b>		
Longitude	<b>1.633515</b>		

# Peak Data Table

## FPC\_317736

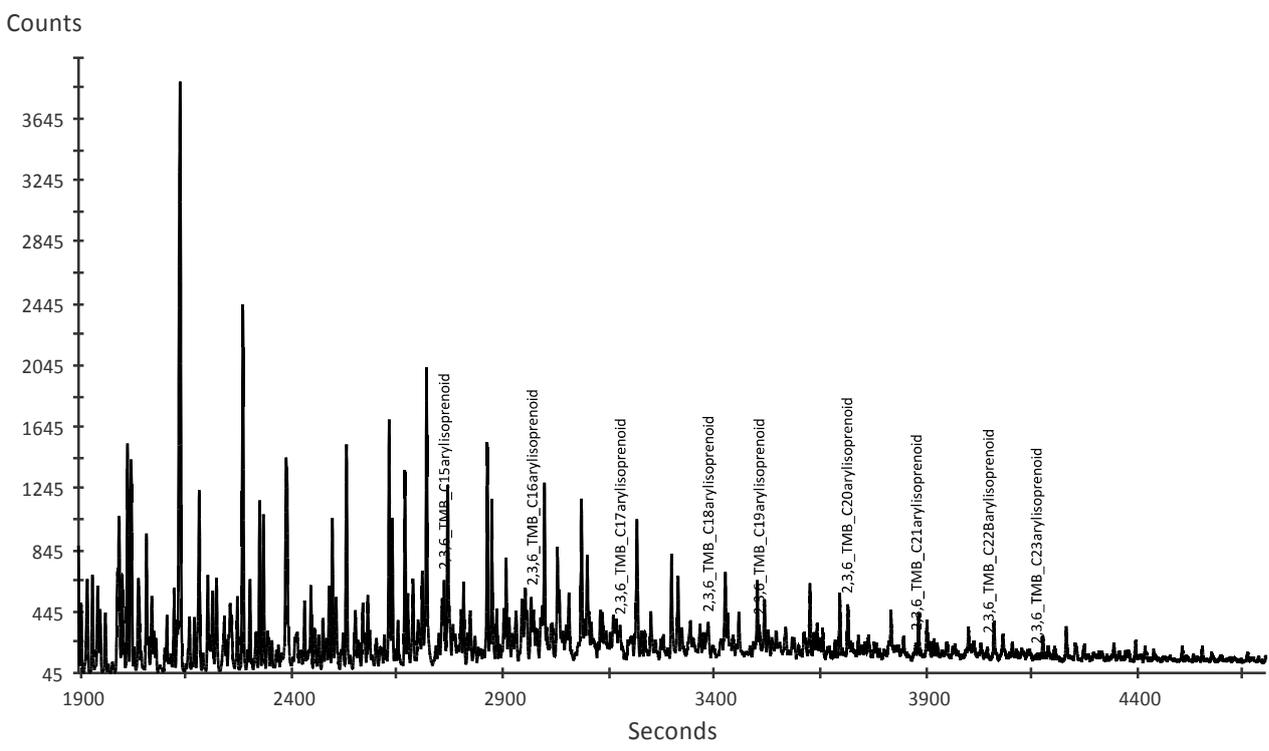
Peak name	Ion	Area
2,3,6_TMB_C15arylisprenoid	134.10	2020.10
2,3,6_TMB_C16arylisprenoid	134.10	1749.98
2,3,6_TMB_C17arylisprenoid	134.10	729.50
2,3,6_TMB_C18arylisprenoid	134.10	1115.71
2,3,6_TMB_C19arylisprenoid	134.10	747.96
2,3,6_TMB_C20arylisprenoid	134.10	1495.76
2,3,6_TMB_C21arylisprenoid	134.10	500.35
2,3,6_TMB_C22Barylisprenoid	134.10	335.11
2,3,6_TMB_C23arylisprenoid	134.10	271.50
2-methylnaphtalene	142.10	127055.13
1-methylnaphtalene	142.10	216543.92
2,6-dimethylnaphtalene	156.10	24907.80
2,7-dimethylnaphtalene	156.10	30959.95
1,3+1,7-dimethylnaphtalene	156.10	117372.64
1,6-dimethylnaphtalene	156.10	85357.71
1,5-dimethylnaphtalene	156.10	46977.54
2,3-dimethylnaphtalene	156.10	32974.29
1,2-dimethylnaphtalene	156.10	22813.61
1,3,7-trimethylnaphtalene	170.10	49572.74
1,3,6-trimethylnaphtalene	170.10	62769.66
1,3,5+1,4,6-trimethylnaphtalene	170.10	67695.71
2,3,6-trimethylnaphtalene	170.10	29965.63
1,2,7-trimethylnaphtalene	170.10	10631.18
1,6,7-trimethylnaphtalene	170.10	58262.08
1,2,6-trimethylnaphtalene	170.10	2717.34
1,2,4-trimethylnaphtalene	170.10	6771.78
1,2,5-trimethylnaphtalene	170.10	31276.46
Phenanthrene	178.10	72214.80
1,3,5,7-tetramethylnaphtalene	184.10	22291.98
1,3,6,7-tetramethylnaphtalene	184.10	26262.33
1,2,4,7-tetramethylnaphtalene	184.10	20040.92
1,2,5,7-tetramethylnaphtalene	184.10	13540.77
2,3,6,7-tetramethylnaphtalene	184.10	8575.98
1,2,6,7-tetramethylnaphtalene	184.10	6125.18
1,2,5,6-tetramethylnaphtalene	184.10	21159.74
Dibenzothiophene	184.10	33439.03
D10-Phenanthrene (Intern. Std.)	188.10	128386.82
3-methylphenanthrene	192.10	11552.22
2-methylphenanthrene	192.10	13978.91
9-methylphenanthrene	192.10	33408.84
1-methylphenanthrene	192.10	31811.62
Cadalene	198.00	-
4-methyldibenzothiophene	198.10	14999.97
3+2-methyldibenzothiophene	198.10	4767.60
1-methyldibenzothiophene	198.10	5106.15
4,5-dimethylphenanthrene	206.20	2052.44
2,6+3,6-dimethylphenanthrene	206.20	7260.50
3,5-dimethylphenanthrene	206.20	4790.20
2,7-dimethylphenanthrene	206.20	2856.26
3,9-dimethylphenanthrene	206.20	32235.47
1,6+2,5+2,9-dimethylphenanthrene	206.20	16339.08
1,7-dimethylphenanthrene	206.20	12791.89
1,9+4,9-dimethylphenanthrene	206.20	16772.54
1,8-dimethylphenanthrene	206.20	4683.92
1,2-dimethylphenanthrene	206.20	2031.43

Peak name	Ion	Area
TA_C20	231.20	3086.78
TA_C21	231.20	1795.69
TA_C22_20S	231.20	-
TA_C22_20R	231.20	-
TA_C26_20S	231.20	351.67
TA_C26_20R_C27_20S	231.20	677.77
TA_C28_20S_A+B	231.20	646.66
TA_C27_20R	231.20	-
TA_C29_20S_A	231.20	-
TA_C29_20S_B	231.20	-
TA_C28_20R	231.20	370.92
MA_C21_A	253.20	857.61
MA_C21_B	253.20	518.53
MA_C22_A	253.20	1076.63
MA_C22_B	253.20	568.07
MA_C27_I_20S	253.20	340.99
MA_C27_V_20S	253.20	400.83
MA_C27_I_20R_C27_V_20R	253.20	441.38
MA_C27_II_20S	253.20	617.68
MA_C28_I_20S	253.20	329.56
MA_C28_V_20S	253.20	289.24
MA_C27_II_20R	253.20	-
MA_C28_II_20S	253.20	412.42
MA_C28_I_20R_C28_V_20R	253.20	303.24
MA_C29_I_20S_C29_V_20S	253.20	346.95
MA_C29_II_20S	253.20	282.35
MA_C28_II_20R	253.20	-
MA_C29_I_20R_C29_V_20R	253.20	242.67

Sample	FPC_317736	Sample type	Oil	Analysis	GC-MSD in SIM mode
Depth	11621.0-11860.0ft	Fraction	Aromatic	Analysis date	12-SEP-2014

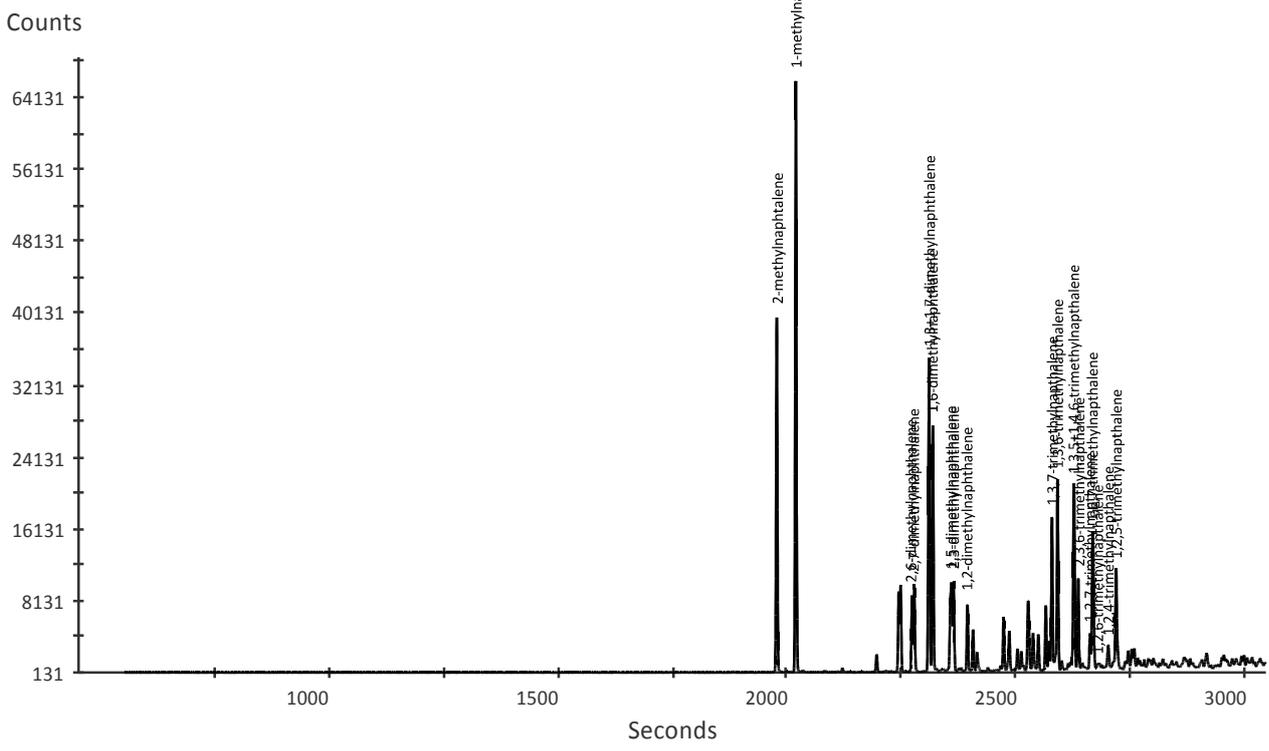
m/z	signal intensity
134.1	4,041.72

### Alkyl-trimethylbenzenes



m/z	signal intensity
142.1+156.1+170.1	68,565.08

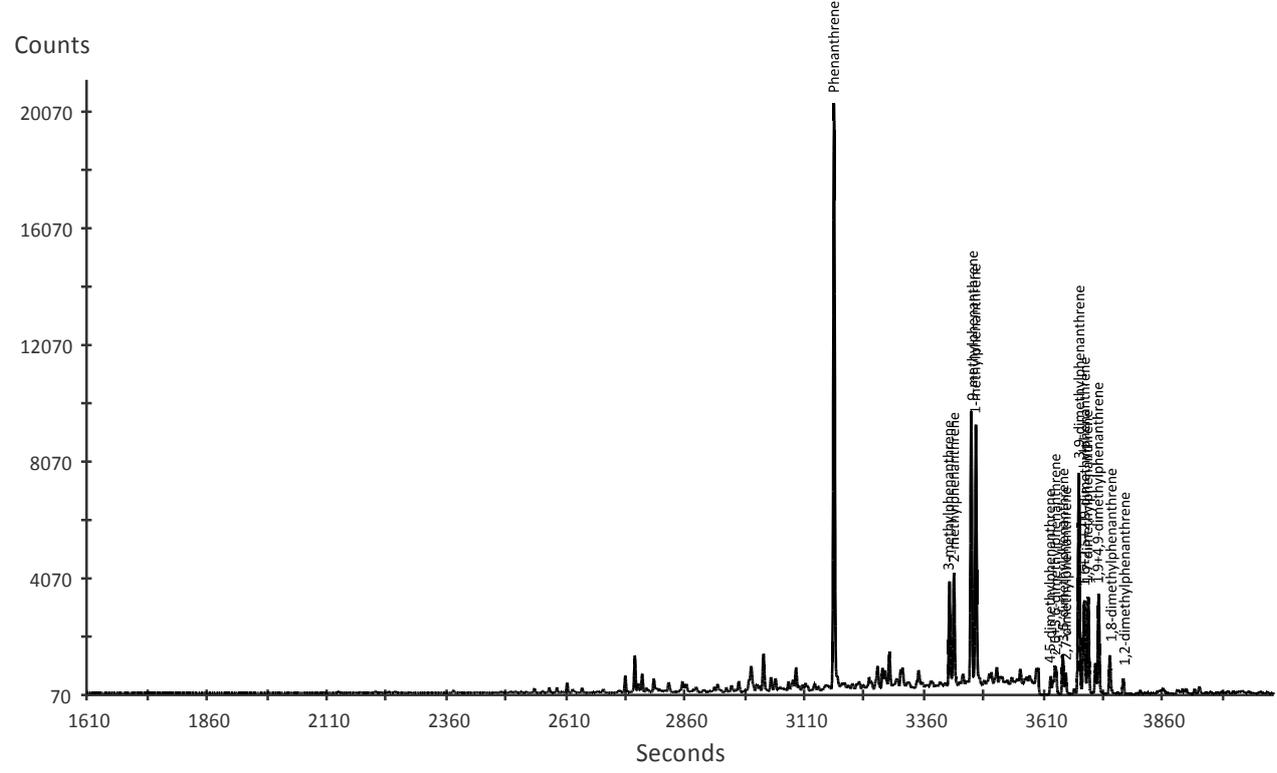
### Methylnaphthalenes



Sample	FPC_317736	Sample type	Oil	Analysis	GC-MSD in SIM mode
Depth	11621.0-11860.0ft	Fraction	Aromatic	Analysis date	12-SEP-2014

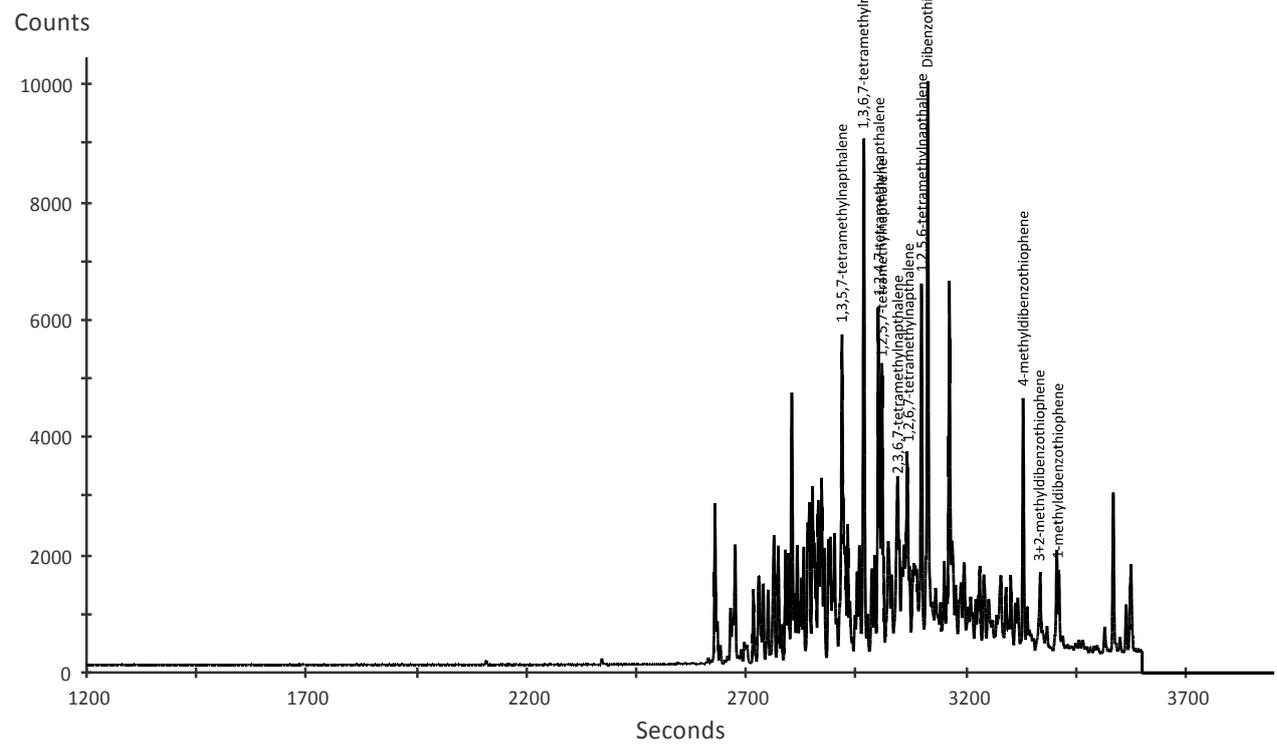
m/z	signal intensity
178.1+192.1+206.1	21,177.84

### Methylphenanthrenes



m/z	signal intensity
184.0+198.1+212.1	10,462.4

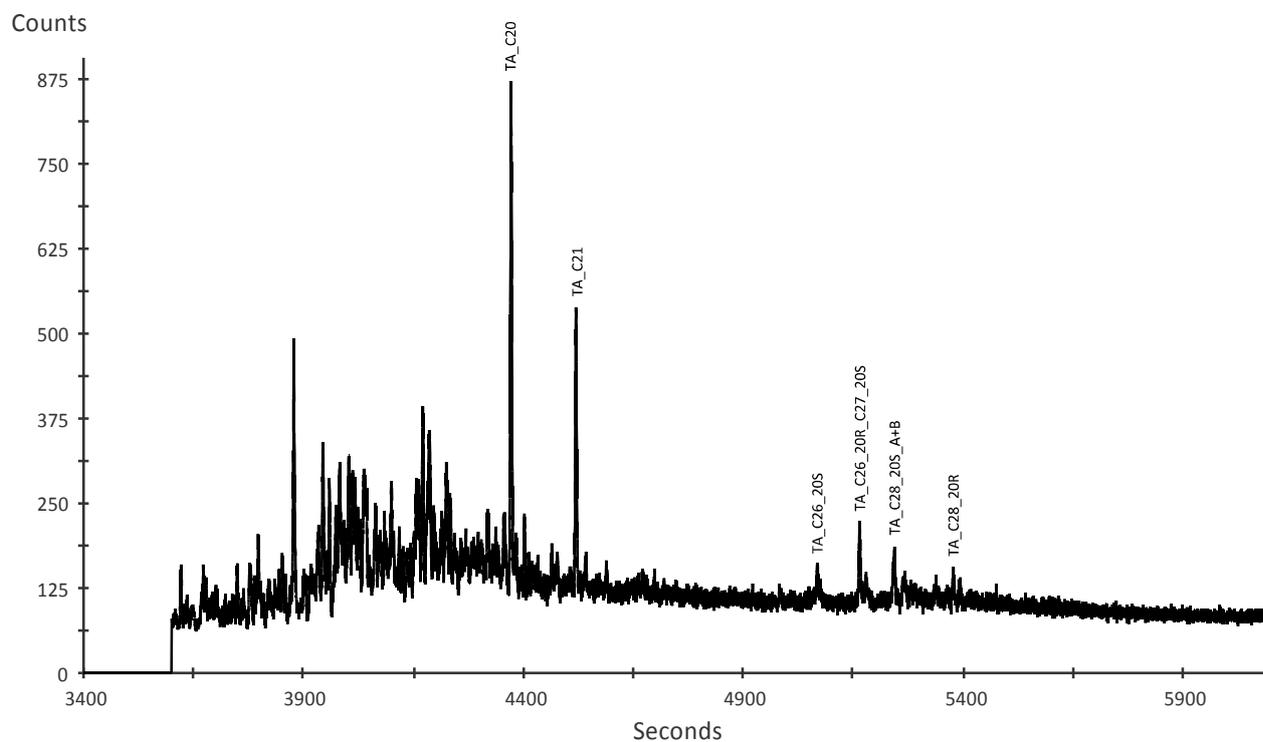
### Dibenzothiophenes



Sample	FPC_317736	Sample type	Oil	Analysis	GC-MSD in SIM mode
Depth	11621.0-11860.0ft	Fraction	Aromatic	Analysis date	12-SEP-2014

m/z	signal intensity
231.1	906.88

### Triaromatic steroids



m/z	signal intensity
253.2	380.64

### Monoaromatic steroids

