

ALIPHATIC / AROMATIC FRACTION BY GC/FID

Customer and Site Details:

Job Number:

QC Batch Number:

Directory:

Method:

Ground Investigation Ltd : Afon Way, Council Yard

S07_4452

72951

E:\GC\TES\DATA\Y2007\0930TPH_GC4\081B3701.D

Ultra Sonic

Separation:

Eluents:

Silica gel

Hexane, DCM

Matrix:

Date Booked in

Date Extracted

Date Analysed:

Soil

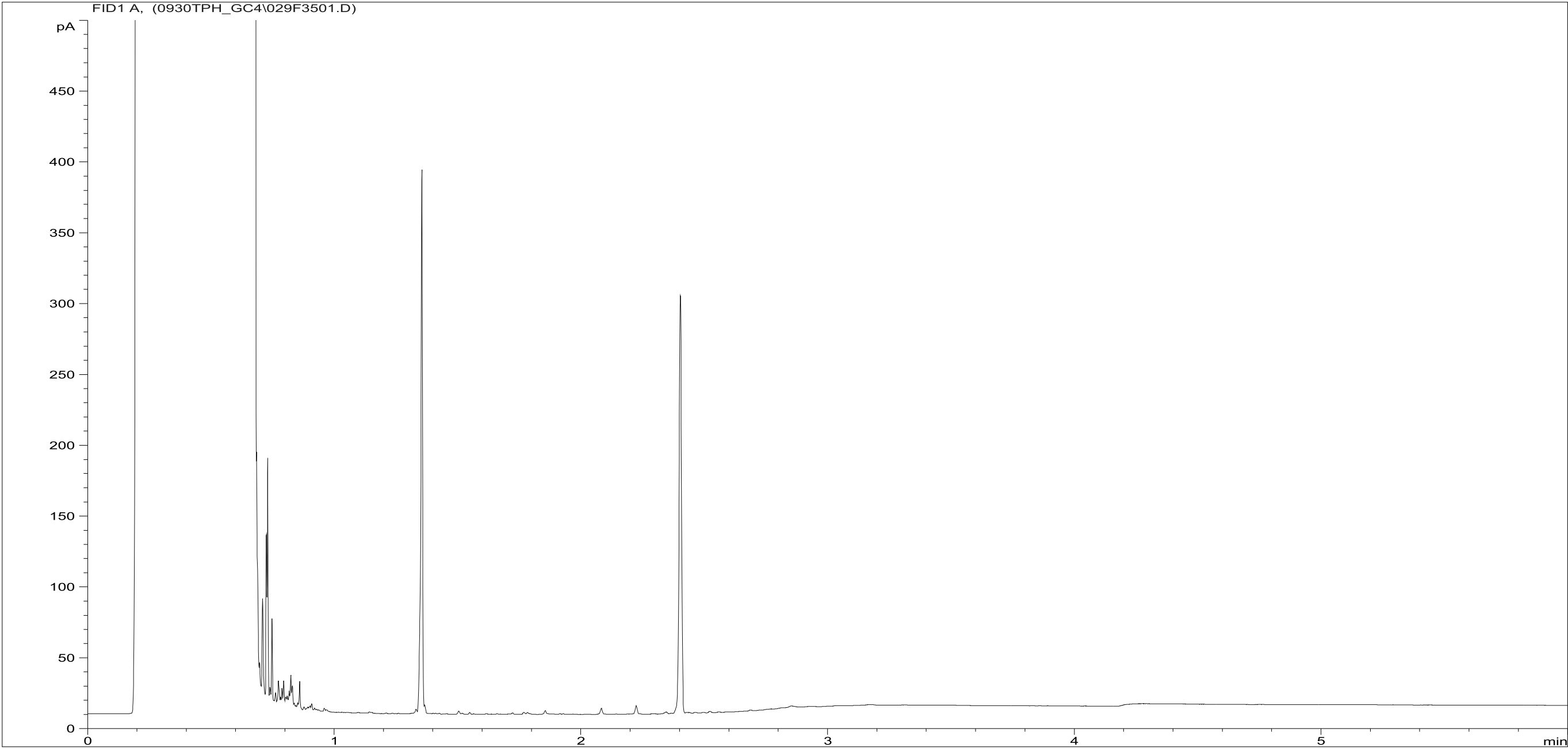
21-Sep-07

27-Sep-07

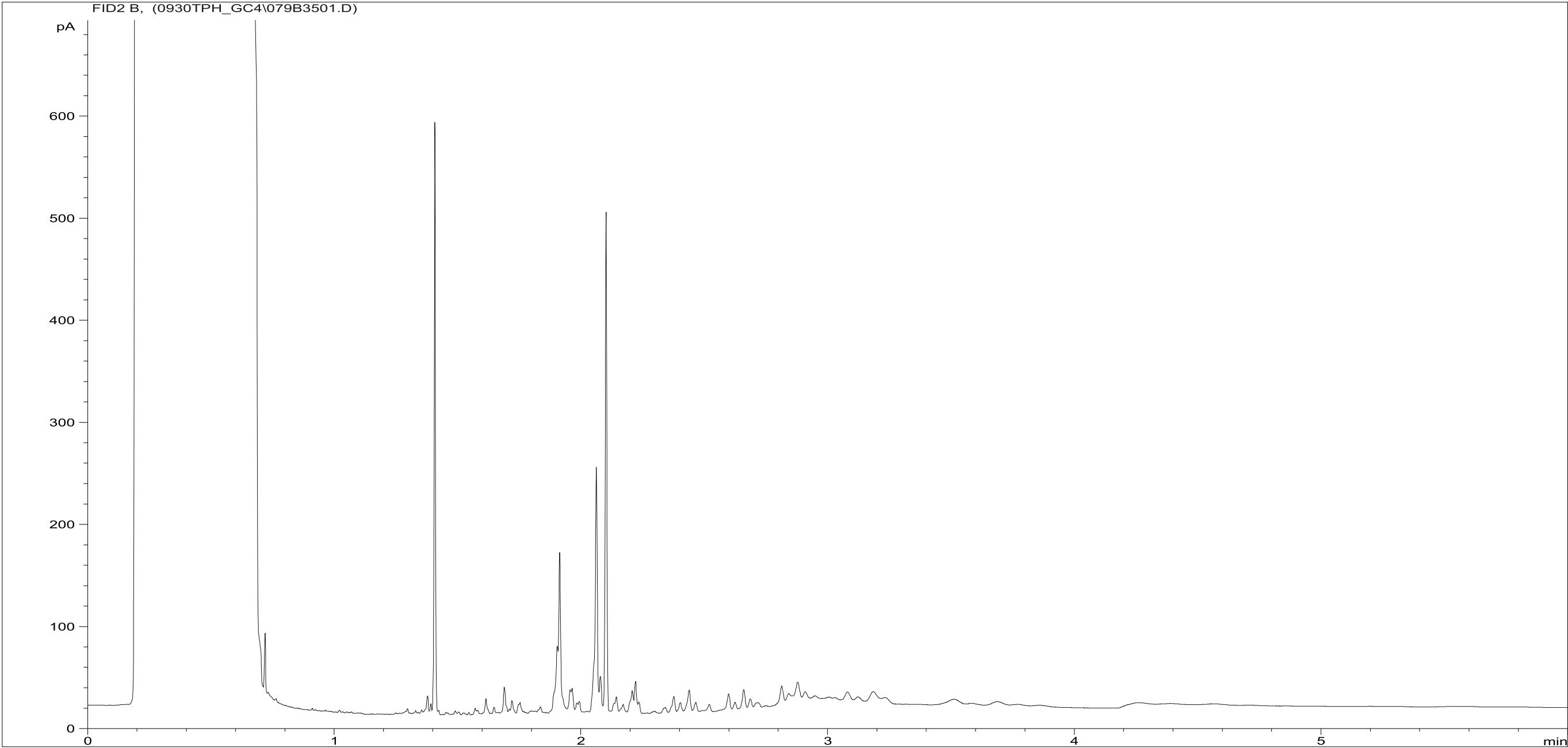
30-Sep-07

This sample data is not UKAS accredited.		Concentration, (mg/kg) - as wet weight									
		>C8 - C10		>C10 - C12		>C12 - C16		>C16 - C21		>C21 - C35	
Sample ID	Client ID	Aliphatics	Aromatics	Aliphatics	Aromatics	Aliphatics	Aromatics	Aliphatics	Aromatics	Aliphatics	Aromatics
CL0726659	Tank 1	<4	<4	<4	<4	<4	5.33	<4	33.6	<8.76	33.7
CL0726660	Tank 2	<4	<4	<4	<4	<4	<4	138	25.3	286	98.5
CL0726661	Tank 2	<4	<4	<4	<4	<4	<4	<4	<4	<8.76	19.2

Petroleum Hydrocarbons (C8 to C40) by GC/FID Aliphatics Fraction.

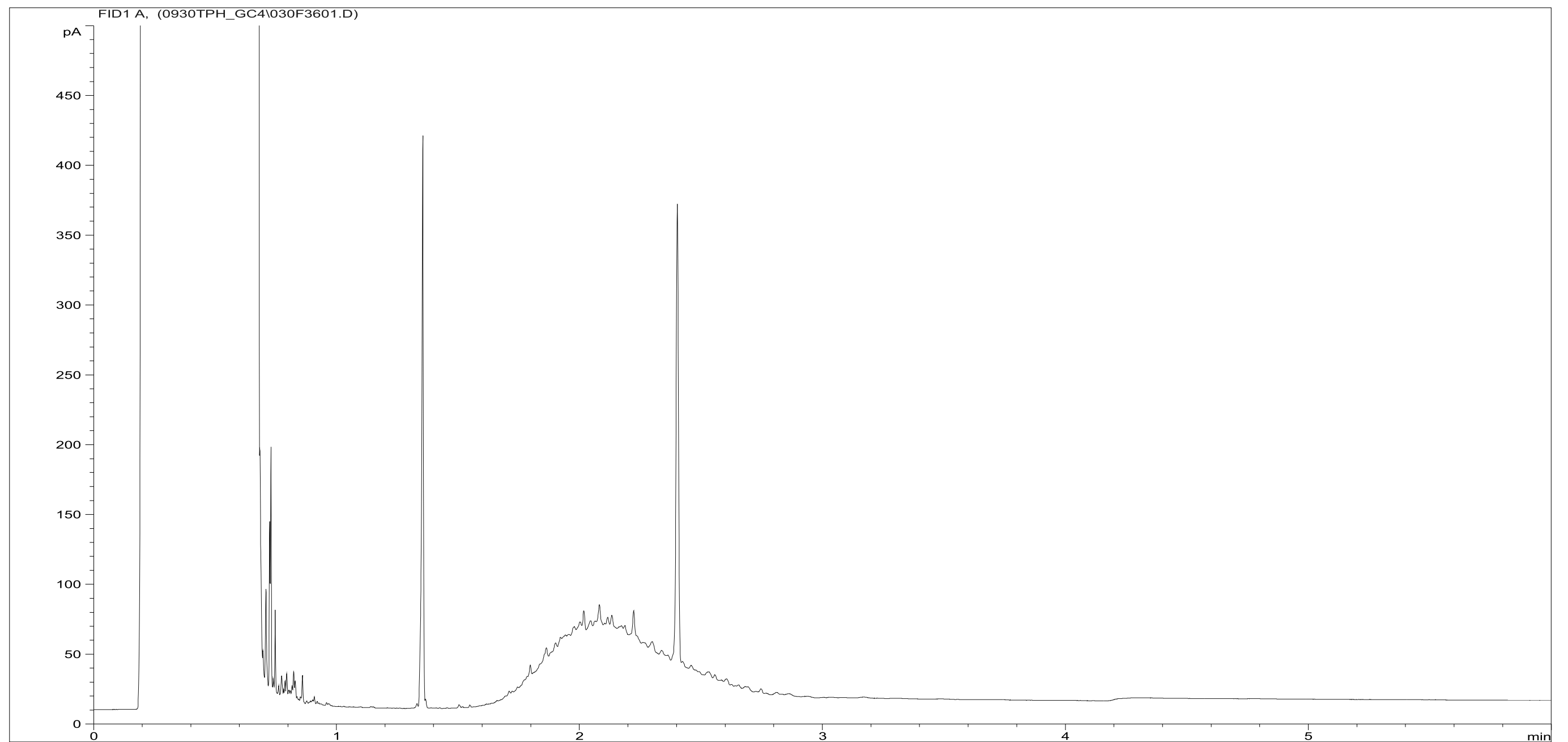


Petroleum Hydrocarbons (C8 to C40) by GC/FID Aromatics Fraction.



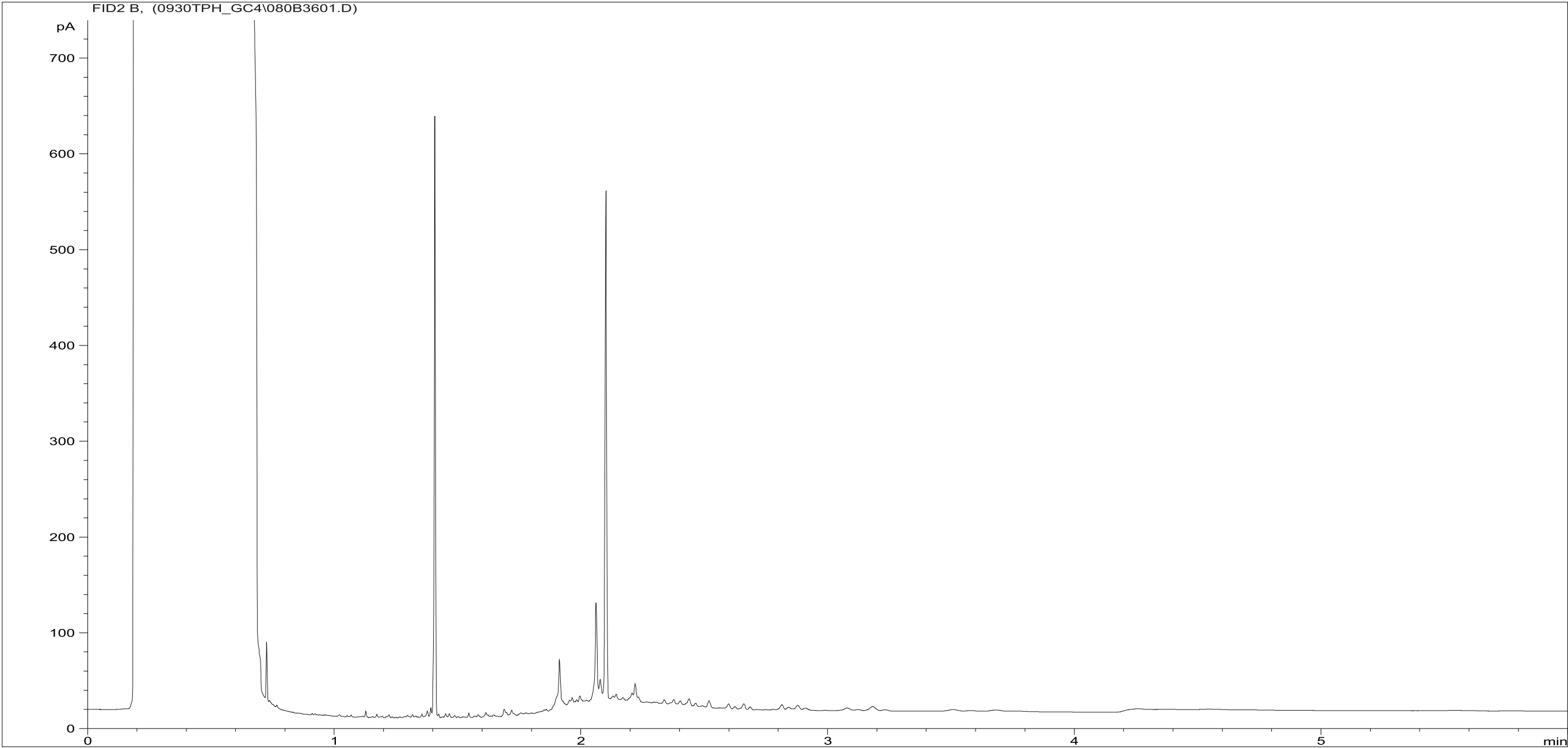
Sample ID:	CL0726659ARO	Job Number:	S07_4452
Multiplier:	9.86	Client:	Ground Investigation Ltd
Dilution:	1	Site:	Afon Way, Council Yard
Acquisition Method:	MACH_RUNF.M	Client Sample Ref:	Tank 1
Acquisition Date/Time:	30-Sep-07		
Datafile:	E:\GC\TES\DATA\Y2007\0930TPH_GC4\079B3501.D		

Petroleum Hydrocarbons (C8 to C40) by GC/FID Aliphatics Fraction.



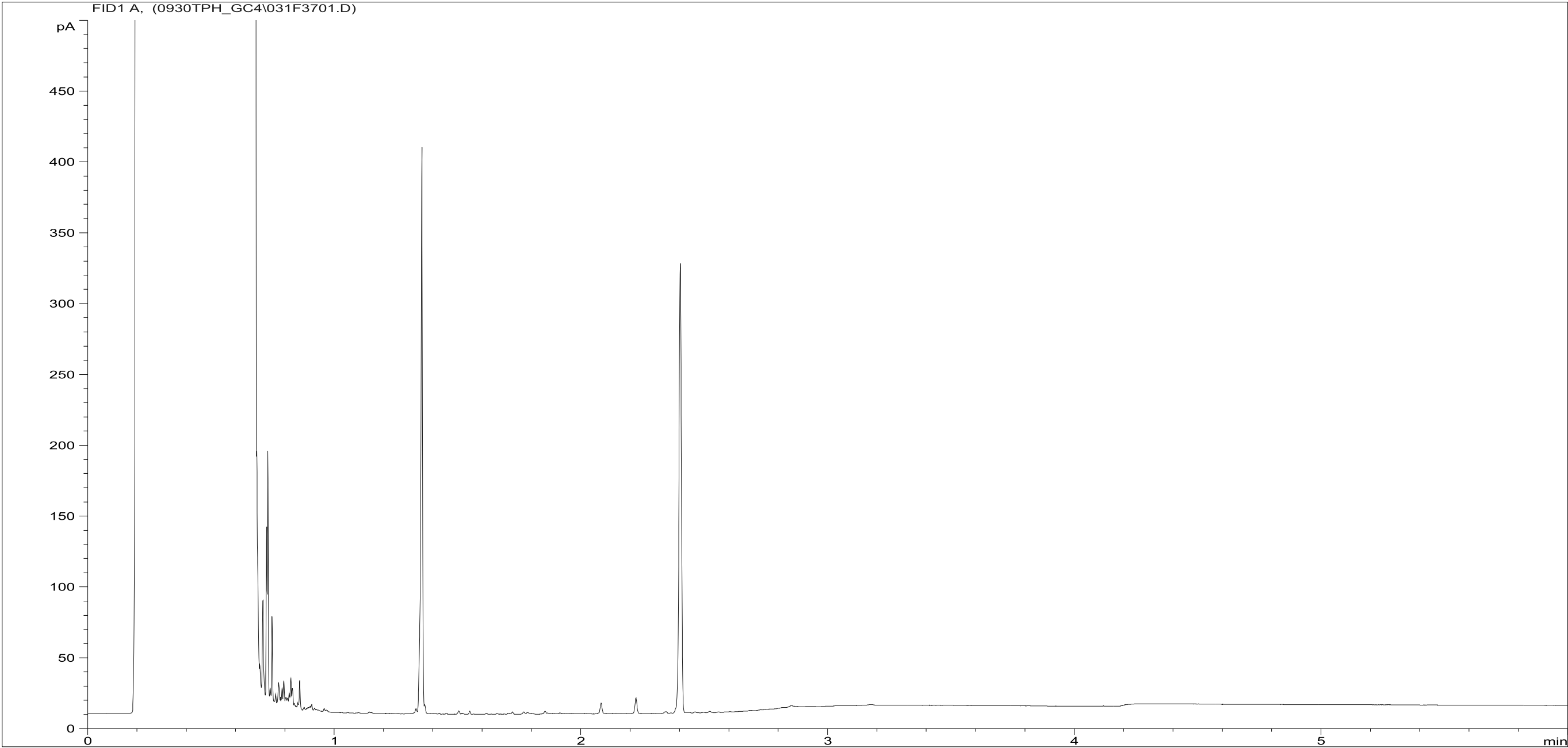
Sample ID:	CL0726660ALI	Job Number:	S07_4452
Multiplier:	12.58	Client:	Ground Investigation Ltd
Dilution:	1	Site:	Afon Way, Council Yard
Acquisition Method:	MACH_RUNF.M	Client Sample Ref:	Tank 2
Acquisition Date/Time:	30-Sep-07		
Datafile:	E:\GC\TES\DATA\Y2007\0930TPH_GC4\030F3601.D		

Petroleum Hydrocarbons (C8 to C40) by GC/FID Aromatics Fraction.



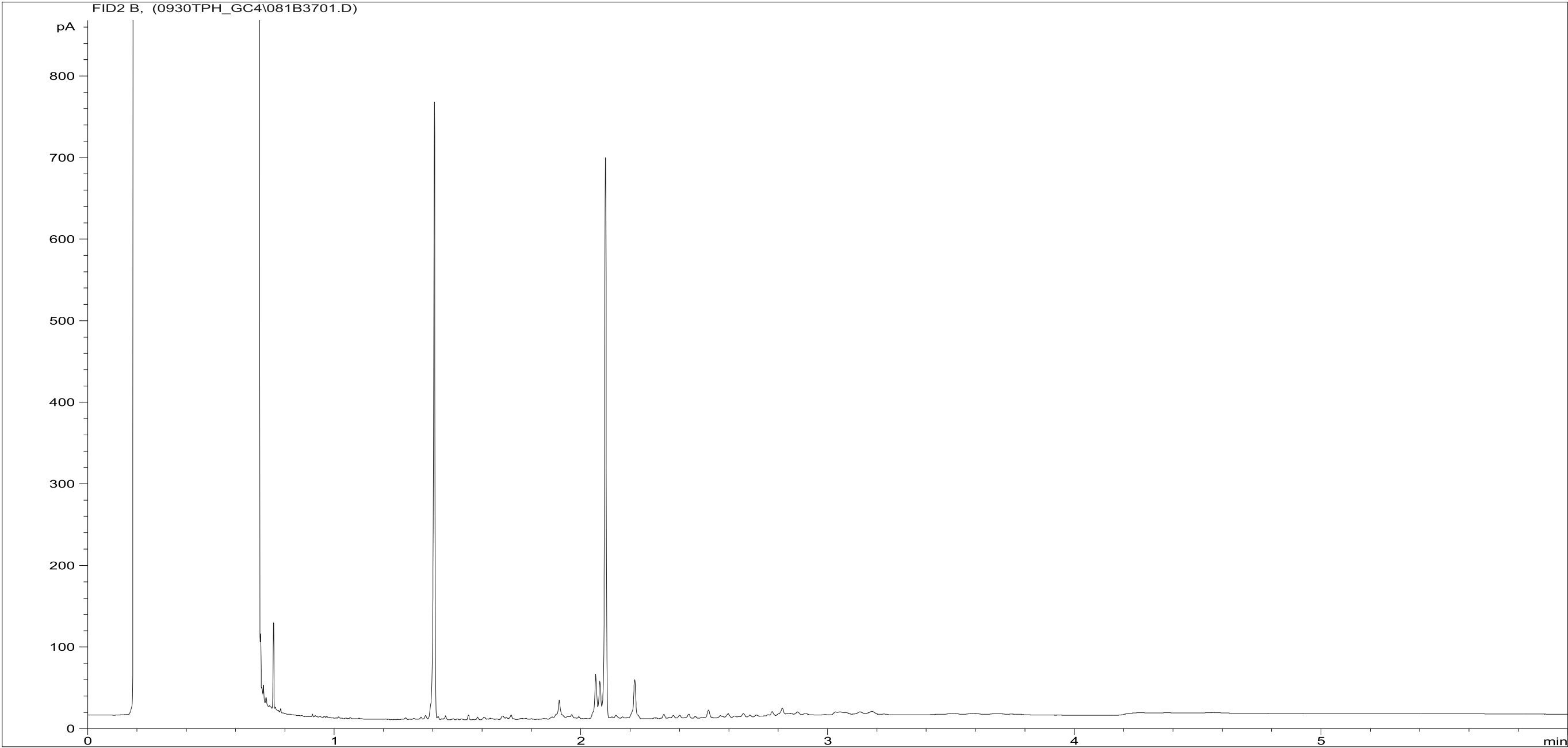
Sample ID:	CL0726660ARO	Job Number:	S07_4452
Multiplier:	9.52	Client:	Ground Investigation Ltd
Dilution:	1	Site:	Afon Way, Council Yard
Acquisition Method:	MACH_RUNF.M	Client Sample Ref:	Tank 2
Acquisition Date/Time:	30-Sep-07		
Datafile:	E:\GC\TES\DATA\Y2007\0930TPH_GC4\080B3601.D		

Petroleum Hydrocarbons (C8 to C40) by GC/FID Aliphatics Fraction.



Sample ID:	CL0726661ALI	Job Number:	S07_4452
Multiplier:	13.26	Client:	Ground Investigation Ltd
Dilution:	1	Site:	Afon Way, Council Yard
Acquisition Method:	MACH_RUNF.M	Client Sample Ref:	Tank 2
Acquisition Date/Time:	30-Sep-07		
Datafile:	E:\GC\TES\DATA\Y2007\0930TPH_GC4\031F3701.D		

Petroleum Hydrocarbons (C8 to C40) by GC/FID Aromatics Fraction.



Sample ID:	CL0726661ARO	Job Number:	S07_4452
Multiplier:	9.86	Client:	Ground Investigation Ltd
Dilution:	1	Site:	Afon Way, Council Yard
Acquisition Method:	MACH_RUNF.M	Client Sample Ref:	Tank 2
Acquisition Date/Time:	30-Sep-07		
Datafile:	E:\GC\TES\DATA\Y2007\0930TPH_GC4\081B3701.D		

Report Notes

Soil/Solid analysis specific:

Results expressed as mg/kg on an air dried basis unless stated otherwise
S04 analysis not conducted in accordance with BS1377 unless otherwise stated
Water Soluble Sulphate on 2:1 water:soil extract
AR denotes analysis conducted on the As Received sample

Water analysis specific:

Results expressed as mg/l unless stated otherwise

Oil analysis specific:

Results expressed as mg/kg unless stated otherwise
S.G. expressed as g/cm³@ 15°C

Filter analysis specific:

Results expressed as mg on filter unless stated otherwise

VOC analysis specific:

Explanatory notes for data flagging
U = undetected above reporting limit
J = concentration at instrument was below lowest calibration standard
E = concentration at instrument was above top calibration standard
B = compound was detected in method blank

Gas (Tedlar bag) analysis specific:

Results expressed as ug/l unless stated otherwise

Air (Carbon tube) analysis specific:

Results expressed as ug on tube unless stated otherwise

Asbestos analysis specific:

CH denotes Chrysotile
CR denotes Crocidolite
AM denotes Amosite
NADIS denotes No Asbestos Detected in Sample
NBFO denotes No Bulk fibres Observed

General notes:

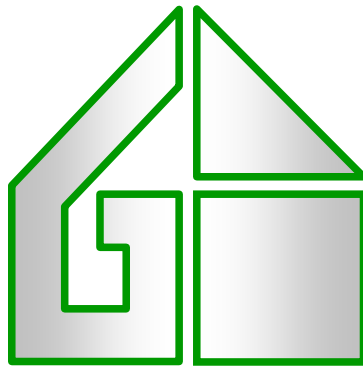
^ this analysis was subcontracted to another laboratory
\$ Within laboratory tolerances
\$\$ unable to analyse due to nature of sample
¥ Results for guidance only, possible interference
& Blank corrected
I.S insufficient sample for analysis
Intf Unable to analyse due to interferences
N.D Not determined
N.R Not recorded
N.Det Not detected
Req Analysis Requested, see attached sheets for results
P Raised detection limit due to nature of sample
***** denotes that all accreditation has been removed by the laboratory for this result.
‡ denotes that Mcerts accreditation has been removed by the laboratory for this result.
Note: The Laboratory may only claim that data is accredited when all of the requirements of our Quality System have been met. Where these requirements have not been met the laboratory may elect to include the data in its final report and remove the accreditation from individual data items if it believes that the validity of the data has not been affected.

If you require further details of the circumstances leading to the removal of the accreditation from any data item please do not hesitate to contact the laboratory

END OF REPORT



APPENDIX 4 - Tar Tank Investigation Letter



Our Ref. p220.05 lt3.report.doc

27 November 2007

Mr Mike Baroth
Dovey Estates
Suffolk House
Trade Street
Cardiff CF10 5DT

By post & e-mail

Dear Mike

**AFAN WAY, PORT TALBOT
GEO-ENVIRONMENTAL ASSESSMENT OF OLD TAR TANK BENEATH UNIT D**

We are pleased to provide our final report on the investigation and assessment undertaken on the tar tank identified at the above site.

1.0 Background

We understand that, whilst undertaking site clearance on the morning of 25th August 2007, the Contractor on site (Mark Foley) identified a small hole of around 1m diameter that had opened up in the site surface in the northern area. Ground Investigation Limited were asked to visit the site on the morning of 28th August to inspect the hole.

At that time, the hole appeared to lie above an old tank or pit which contained a tar- or pitch-like substance. The base of the tank was estimated to be some 6.2m below the adjacent ground level, with around a 4m depth of a tar-like liquid within it. A sample of tar was collected for laboratory analysis at this time to allow an evaluation of the hydrocarbons present, and the results of the analysis are presented as Enclosure B.

The tank lies in the middle of the proposed footprint of Unit D of the development (see Figure 1).

Subsequently, the majority of the tar was pumped from the tank by a specialist contractor arranged by Mark Foley, and we understand it has been recycled. We have been advised that approximately 3,000 gallons (around 660 litres) of tar have been removed from the tank and, following pumping, the liquid levels within the tank returned to pre-pumping levels in a relatively short time period, suggesting ingress of the adjacent groundwater into the tank.

The full extent of the tank was then exposed by careful excavation of the surrounding and overlying soils. The exposed tank is shown on Plates 1 and 2, and was found to be brick-lined and approximately semi-circular in shape, some 3m in diameter. The northern side of the tank was covered by a mass concrete foundation. The tank was apparently full of water, with a thin, remnant layer of tar floating on the surface.

As part of our desk study appraisal (GIL, 2004), we found no records of such a tank being present on site and consider that it is likely to date from the days of the tin-plate works rather than the Council yard, i.e. more than 40 years ago. With a base at 6.2m below ground level, the tank appears to be founded within the Fluvio-glacial Gravels beneath the site, and below the groundwater level. This would explain the groundwater ingress into the tank following pumping of the tar from it. Therefore, as there is a hydraulic connection between the contents of the tank and the groundwater, it is possible that the tar could have contaminated the groundwater in the area.

Ground Investigation Limited visited site on 18th September 2007 to excavate pits around the tank and to identify any contamination in the adjacent soils and whether any further tanks were located in the immediate vicinity.

A series of excavations around the tank found the adjacent soils to be visually clean and uncontaminated.

2.0 Monitoring Wells

The original investigation of the site (GIL, 2004) had been undertaken whilst the Council yard had been operational. Due to access restrictions at that time, no groundwater monitoring wells had been installed in the area on the anticipated down-hydraulic gradient (southern) side of the tar tank. Therefore, in order to assess the impact that the tar tank may have had on the groundwater in the area, six monitoring wells were constructed on 20th and 21st September 2007 using rotary drilling techniques. The monitoring well positions are shown on Figure 1 and their records are presented in Enclosure C.

Five wells were installed on the anticipated down-hydraulic gradient (south) side of the tank, with one well (BH5) located to the north to allow the derivation of a hydraulic gradient in the area. All wells were constructed with the response zone within the Fluvio-glacial Gravels underlying fine-grained alluvial soils.

Samples of the groundwater within the wells were collected on 25th September 2007 and sent to the laboratory for analysis. During sampling, monitoring with an interface probe failed to identify any evidence of phase-separated product associated with the groundwater in any of the wells. The results of the laboratory analysis on the recovered samples of groundwater are presented in Enclosure D.

3.0 Assessment of Results

3.1 Contents of Tar Tank

The results of the analysis undertaken on a sample of the tar recovered from the tank prior to the majority being pumped are presented in Enclosure B. The results indicate the tank contents to have comprised higher carbon band petroleum hydrocarbons, predominantly from C₂₁ to C₃₅ (around 29%) with some C₁₆ to C₂₁ hydrocarbons (around 1%). The concentrations of BTEX compounds and PCBs were all below their detection limits. Concentrations of semi-volatile and volatile organic compounds were also below detection limits, although these detection limits were elevated due to the high proportion of petroleum hydrocarbons present.

The laboratory test results are consistent with the materials being a tar- or pitch-like substance. Although the precise origin of the tank is not known, the presence of the mass concrete foundation and the nature of the contents may indicate that it was a tank used for the preservation of timbers.

3.2 Groundwater Flow

The results of the monitoring of the wells on 25 September 2007 have been used to plot groundwater contours in the area of the tank, and these are presented on Figure 2. The contours relate to Ordnance Datum and are based on well elevations provided by Jehu Projects Services.

The contours show groundwater is apparently flowing towards the south/south-west with a hydraulic gradient of around 0.002 (i.e. similar to that determined for the site as a whole – see GIL, 2004). Groundwater flow is towards the River Afan which lies some 200m to the south.

3.3 Impact on Groundwater Quality

The results of the analysis undertaken on samples of groundwater recovered from the down-hydraulic gradient side of the tar tank are presented in Enclosure D.

The results have been compared to target concentrations for the River Afan on Table 2. Where available, the Environmental Quality Standards (EQS) have been adopted as target concentrations. However, no EQS values have been published for many of the petroleum hydrocarbons and, in these instances, the World Health Organisation guidelines or the Environment Agency stipulated guideline of 10µg/l have been adopted. Full details of the target concentrations adopted are presented on Table 2.

The analysis has indicated no detectable concentrations of BTEX compounds, PCBs or volatile/semi-volatile organic compounds within the groundwater in any of the wells. Petroleum hydrocarbons between C₈ and C₁₂ were also below detection limits in all wells. C₁₂₋₁₆ aromatic hydrocarbons were identified within the groundwater in DH2 (on the western site boundary) and between C₁₆₋₂₁ aromatic compounds were present in DH2, DH4 and DH6. C₁₆₋₂₁ aliphatic hydrocarbons were identified in DH6 on the south-western boundary, and aliphatic and aromatic hydrocarbons between C₂₁ and C₃₅ were identified in the groundwater in all wells.

Although aliphatic and aromatic petroleum hydrocarbons have been identified within the groundwater on the down-hydraulic gradient side of the tar tank, the concentrations of each carbon band are only marginally above the Environment Agency stipulated guideline value of 10µg/l, and generally between 10 and 20µg/l. The concentrations of C₂₁₋₃₅ aliphatic hydrocarbons were slightly more elevated in the wells (generally between 20 and 30µg/l). The C₂₁₋₃₅ aliphatic and aromatic hydrocarbons were significantly more elevated in DH6, located on the south-western boundary at the further point down-hydraulic gradient.

The organic compounds identified within the groundwater on the down-hydraulic gradient side of the tank are similar to those identified within the tar materials that formerly filled the tank, i.e. predominantly C₂₁ to C₃₅ petroleum hydrocarbons. However, generally the concentrations of these compounds were less than 50µg/l, and in excess of the aqueous solubility of the compounds. As the aqueous solubility was exceeded and no free phase product was identified in the wells, the compounds are likely to be present sorbed to fine-grained particles rather than dissolved within the groundwater. In addition, the wells closest to the tar tank indicated the lowest concentrations, with the only significant concentrations identified at the further point down-hydraulic gradient.

4.0 Conclusions and Recommendations

The investigation has indicated that the contents of old tar tank appear to have impacted on the groundwater down-hydraulic gradient of the tank. However, the concentrations of petroleum hydrocarbons present within the groundwater are generally low with the maximum concentrations recorded at the further point down-hydraulic gradient. Therefore, it is possible that the majority of the contamination plume passed through the site some time ago, with the remnant, low solubility and, hence, low mobility contaminants left.

However, the contaminant source (the contents of the tank) has now been substantially removed and, hence, the concentrations of the hydrocarbons identified in the groundwater should reduce with time as degradation processes take place.

We understand that the proposed Unit D is to be founded on vibro-stone columns. The foundation layout requires that a foundation is constructed in the area of the tar tank, and the proposals are for the structure to be infilled with stone, before being vibro-compacted. This stone infill could maintain the existing pathway for the migration of remnant contaminants from the tar tank to the groundwater. However, the majority of the tank contents have been removed and we recommend that the remnant

tar/pitch materials within the tar tank are also removed prior to development. This could be best achieved by skimming the remnant tar from the top of the water, but may require further pumping until the pumped water is clean. Provided that this is done, the contamination source would be wholly removed and we consider that the old tar tank would no longer pose an unacceptable threat to groundwater and, hence, to water quality within the River Afan.

We hope that the above and enclosed is clear and satisfies your present requirements. However, should you have any queries, or require any further assistance, please do not hesitate to contact me.

Yours sincerely

Jeremy Hucker

DIRECTOR

Encl.

Table 1- Laboratory Testing

Table 2 – Assessment of Groundwater Quality

Figure 1 – Monitoring Well Positions

Figure 2 – Groundwater Contours

Enclosure A – Limitations and Exceptions

Enclosure B – Laboratory Test Results - Tar Tank Contents

Enclosure C – Monitoring Well Records

Enclosure D - Laboratory Test Results – Groundwater
Plates

Reference: Ground Investigation Limited (GIL). November 2004. Afan Way, Port Talbot. Phase Two
Geo-environmental Site Assessment Report. Report No. 220.01.

cc. Roger North.

**PROPOSED RETAIL DEVELOPMENT,
AFAN WAY, PORT TALBOT**

TABLE 1 – Schedule of Geo-environmental Laboratory Testing

Determinand	Tank Contents	Groundwater
Petroleum Hydrocarbons		
aliphatic and aromatic C ₈ and C ₃₅ (TPH CWG)	√	√
BTEX	√	√
MTBE		√
Other Organic Compounds		
Total phenols		√
Volatile organic compounds (VOCs)	√	√
Semi-volatile organic compounds (SVOCs)	√	√
PCBs (7 congeners)	√	√
Dissolved Oxygen		√

**PROPOSED RETAIL DEVELOPMENT,
AFAN WAY, PORT TALBOT**

**TABLE 2 – Assessment of Groundwater Quality
from contents of old Tar Tank**

	Units	Target Concentration (C _T)	Source of C _T (see notes below)	Sample Concentrations				
				DH1 3.07m	DH2 2.95m	DH3 2.87m	DH4 2.88m	DH6 2.92m
Determinands								
<i>Aromatic hydrocarbons</i>								
Benzene	ug/l	30	EQS	<5	<5	<5	<5	<5
Toluene	ug/l	50	EQS	<5	<5	<5	<5	<5
Ethylbenzene	ug/l	300	WHO ⁵	<5	<5	<5	<5	<5
Xylene	ug/l	30	EQS	<10	<10	<10	<10	<10
C8 – C10	ug/l	10	EA ³	<10	<10	<10	<10	<10
C10 – C12	ug/l	10	EA ³	<10	<10	<10	<10	<10
C12 – C16	ug/l	10	EA ³	<10	19.1	<10	<10	<10
C16 – C21	ug/l	10	EA ³	<10	12.8	<10	16.1	18.8
C21 – C35	ug/l	10	EA ³	13.3	16.6	10.1	21.7	183
<i>Aliphatic hydrocarbons</i>								
C5- C6	ug/l	10	EA ³	<100	<100	<100	<100	<100
C6 – C7	ug/l	10	EA ³	<100	<100	<100	<100	<100
C7 – C8	ug/l	10	EA ³	<100	<100	<100	<100	<100
C8 – C10	ug/l	10	EA ³	<10	<10	<10	<10	<10
C10 – C12	ug/l	10	EA ³	<10	<10	<10	<10	<10
C12 – C16	ug/l	10	EA ³	<10	<10	<10	<10	<10
C16 – C21	ug/l	10	EA ³	<10	<10	<10	<10	55.8
C21 – C35	ug/l	10	EA ³	24.4	52.3	28.9	29.7	1,160

Notes on Target Concentrations used:

- (1) EQS: Environmental Quality Standards for freshwaters.
- (2) WHO: World Health Organisation - in the absence of an EQS, the WHO guidelines for potable water have been used as the Target Concentration.
- (3) EA: there are currently no EQS for carbon banded petroleum hydrocarbons. The Environment Agency stipulated target concentration of 10ug/l has been adopted for this assessment.
- (4) PCBs, volatile and semi-volatile organic compounds below detection limits.
- (5) Yellow shading indicates samples in which contaminants exceed Target Concentration.
- (6) Sampling undertaken on 25 September 2007.
- (7) Full test results presented in Enclosure D.

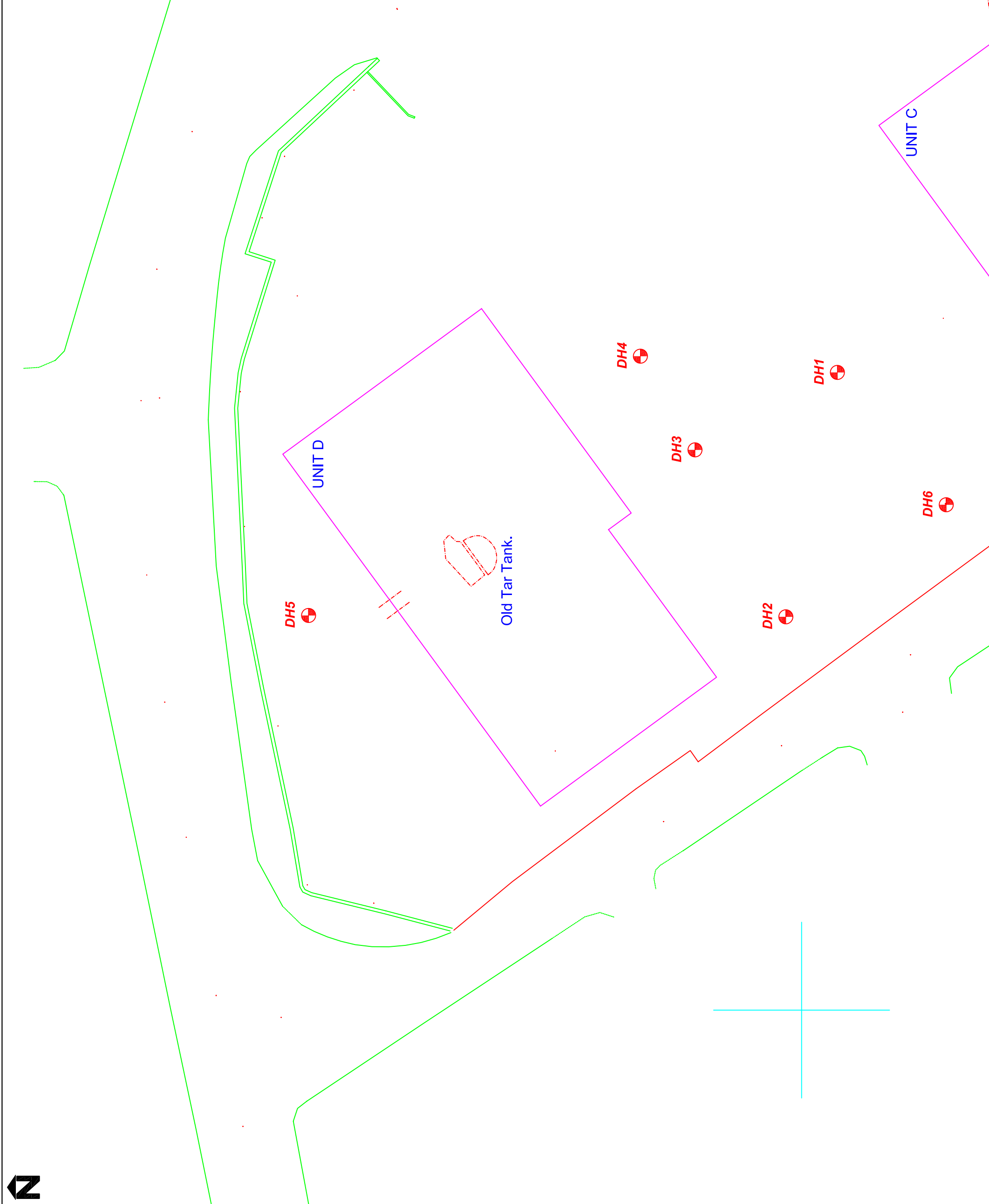


GROUND INVESTIGATION

geotechnical & geo-environmental consultants

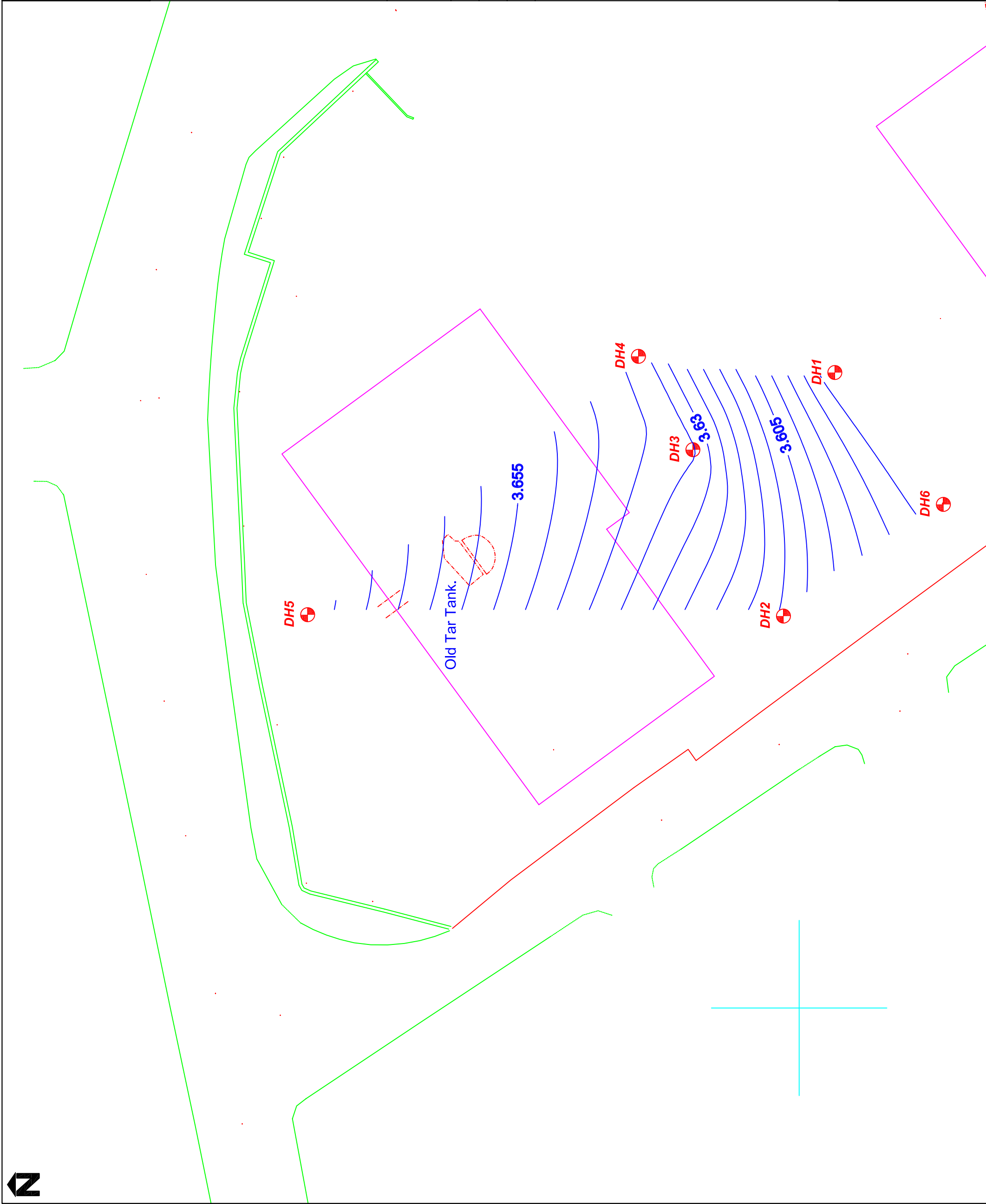
6 New Mill Court, Enterprise Park,
Swansea. SA7 9FG.
Tel: 01792 411013 Fax: 01792 411014
Email: mail@ground-investigation.com

CLIENT: Dovey Group	
SITE:	Proposed Retail Development, Afan Way, Port Talbot
PROJECT ID:	p220.05
SCALE:	1:250@A3
FILE NAME:	220.05.FIG1
NOTES:	DH1 - DH6 Monitoring Wells installed Sept 2007
FIGURE 1 Monitoring Well Positions	





GROUND INVESTIGATION geotechnical & geo-environmental consultants  6 New Mill Court, Enterprise Park, Swansea. SA7 9FG. Tel: 01792 411013 Fax: 01792 411014 Email: mail@ground-investigation.com		CLIENT: Dovey Group	
SITE: Proposed Retail Development, Afan Way, Port Talbot		PROJECT ID: p220.05	
		SCALE: 1:250@A3	
		FILE NAME: 220.05.FIG2	
NOTES: Groundwater Contours in metres OD.			
FIGURE 2		Groundwater Contours - Monitoring of 25th September 2007	



ENCLOSURE A

Limitations and Exceptions

Ground Investigation Limited

Limitations and Exceptions

1. The Client has requested that a geo-environmental assessment be performed in order to evaluate the potential impact of an old tar tank on groundwater quality.
2. The work was conducted and this report has been prepared for the sole internal use and reliance of the Client. This report shall not be relied upon or transferred to any other parties without the express written authorisation of Ground Investigation Limited. If an unauthorised third party comes into possession of this report the authors owe them no duty of care and skill.
3. The findings and opinions conveyed in this report are, in part, based on information obtained from third party sources as detailed within the text, and which Ground Investigation Limited believes are reliable. Nevertheless, Ground Investigation Limited cannot, and does not, guarantee the authenticity or reliability of the information it has relied upon.
4. This report presents the findings and opinions of experienced geo-environmental consultants. Ground Investigation Limited does not provide legal advice and the advice of lawyers may also be required.
5. The opinions presented in this report are based on the findings of a review and assessment of the information described in this report. It is possible that the research and investigations carried out by Ground Investigation Limited, while fully appropriate, has failed to indicate the existence of important information sources. Assuming such sources actually exist, their information could not have been considered in the formulation of the opinions expressed in this report.
6. The fieldworks were undertaken on the date(s) indicated within the text of this report. The Client is advised that the conditions observed by Ground Investigation Limited are subject to change and that not finding indicators of hazardous substances or conditions, does not mean that they do not exist at the site. Certain indicators of the presence of hazardous substances or conditions may have been latent at the time of the fieldworks and may subsequently have become observable.
7. The work carried out for the assessment can only investigate a small portion of the subsurface conditions. Certain strata or conditions may have been outside the limited portion of the subsurface investigated, latent at the time of the work or only partially intercepted by the works, and thus their full significance could not be appreciated. In this regard, groundwater levels are particularly susceptible to variation. Accordingly, it is possible that the investigation failed to identify the presence or significance of strata or conditions. Assuming such strata or conditions exist, their presence could not have been considered in the formulation of the report's findings and opinions.
8. Ground Investigation Limited believes that providing information about the limitations is essential to help the Client identify and therefore manage its risks. The risks can be mitigated, but not eliminated, through additional research/investigation. Ground Investigation Limited will, on request, advise the Client of additional research/investigation opportunities, their impact on risk and their cost.

ENCLOSURE B

Laboratory Test Results Tar Tank Contents

Gasoline Range Organics (BTX and Aliphatic Carbon Ranges)

Customer and Site Details: Ground Investigation Ltd: Afan Way, Port Talbot

Job Number: S07 4259

Directory: 0926HSA.GC6

Method: Headspace GC/FID

Matrix:

Date Booked in:

Date extracted: 26-Sep-07

Date Analysed: 27-Sep-07

[illegible]

Note: Benzene elutes between C6 and C7, toluene elutes between C7 and C8, ethyl benzene and the xylenes elute between C8 and C9.

Xylenes have been deducted from the C8-C10 band to give the aliphatic fraction, however aromatic compounds may still be contributing to this fraction.

Semi-Volatile Organic Compounds

Customer and Site Details:
Sample Details:
LIMS ID Number:
Job Number:

Ground Investigation Ltd: Afan Way, Port Talbot
Tar Sample
CL0725747
S07_4259

Date Booked in: 12-Sep-07
Date Extracted: 08-Oct-07
Date Analysed: 09-Oct-07

Target Compounds	CAS #	R.T. (min)	Concentration mg/kg	% Fit
Phenol	108-95-2	-	< 1995.200	-
bis(2-Chloroethyl)ether	111-44-4	-	< 498.800	-
2-Chlorophenol	95-57-8	-	< 1995.200	-
1,3-Dichlorobenzene	541-73-1	-	< 498.800	-
1,4-Dichlorobenzene	106-46-7	-	< 498.800	-
Benzyl alcohol	100-51-6	-	< 498.800	-
1,2-Dichlorobenzene	95-50-1	-	< 498.800	-
2-Methylphenol	95-48-7	-	< 498.800	-
bis(2-Chloroisopropyl)ether	108-60-1	-	< 498.800	-
Hexachloroethane	67-72-1	-	< 498.800	-
N-Nitroso-di-n-propylamine	621-64-7	-	< 498.800	-
3- & 4-Methylphenol	108-39-4/106-44-5	-	< 1995.200	-
Nitrobenzene	98-95-3	-	< 498.800	-
Isophorone	78-59-1	-	< 498.800	-
2-Nitrophenol	88-75-5	-	< 1995.200	-
2,4-Dimethylphenol	105-67-9	-	< 1995.200	-
Benzoic Acid	65-85-0 *	-	< 9976.000	-
bis(2-Chloroethoxy)methane	111-91-1	-	< 498.800	-
2,4-Dichlorophenol	120-83-2	-	< 1995.200	-
1,2,4-Trichlorobenzene	120-82-1	-	< 498.800	-
Naphthalene	91-20-3	-	< 199.500	-
4-Chlorophenol	106-48-9	-	< 1995.200	-
4-Chloroaniline	106-47-8 *	-	< 498.800	-
Hexachlorobutadiene	87-68-3	-	< 498.800	-
4-Chloro-3-methylphenol	59-50-7	-	< 498.800	-
2-Methylnaphthalene	91-57-6	-	< 199.500	-
1-Methylnaphthalene	90-12-0	-	< 199.500	-
Hexachlorocyclopentadiene	77-47-4 *	-	< 498.800	-
2,4,6-Trichlorophenol	88-06-2	-	< 1995.200	-
2,4,5-Trichlorophenol	95-95-4	-	< 1995.200	-
2-Chloronaphthalene	91-58-7	-	< 199.500	-
Biphenyl	92-52-4	-	< 199.500	-
Diphenyl ether	101-84-8	-	< 199.500	-
2-Nitroaniline	88-74-4	-	< 498.800	-
Acenaphthylene	208-96-8	-	< 199.500	-
Dimethylphthalate	131-11-3	-	< 498.800	-
2,6-Dinitrotoluene	606-20-2	-	< 498.800	-
Acenaphthene	83-32-9	-	< 199.500	-
3-Nitroaniline	99-09-2	-	< 498.800	-

Compounds marked with a * are reported not UKAS.
Concentrations are reported on a wet weight basis.

"M" denotes that % fit has been manually interpreted

Matrix:
Ext Method:
Operator:
Directory/Quant File:

Tar
Soxhlet
AB/AK
1008ABN.MS4\

QC Batch Number: -
Multiplier: 199.52
Dilution Factor: 997.6
GPC (Y/N) N

Target Compounds	CAS #	R.T.	Concentration mg/kg	% Fit
2,4-Dinitrophenol	51-28-5 *	-	< 997.600	-
Dibenzofuran	132-64-9	-	< 498.800	-
4-Nitrophenol	100-02-7	-	< 4988.000	-
2,4-Dinitrotoluene	121-14-2	-	< 498.800	-
Fluorene	86-73-7	-	< 199.500	-
Diethylphthalate	84-66-2	-	< 498.800	-
4-Chlorophenyl-phenylether	7005-72-3	-	< 498.800	-
4,6-Dinitro-2-methylphenol	534-52-1	-	< 4988.000	-
4-Nitroaniline	100-01-6	-	< 498.800	-
N-Nitrosodiphenylamine	86-30-6 *	-	< 498.800	-
4-Bromophenyl-phenylether	101-55-3	-	< 498.800	-
Hexachlorobenzene	118-74-1	-	< 498.800	-
Pentachlorophenol	87-86-5	-	< 4988.000	-
Phenanthrene	85-01-8	-	< 199.500	-
Anthracene	120-12-7	-	< 199.500	-
Di-n-butylphthalate	84-74-2	-	< 498.800	-
Fluoranthene	206-44-0	-	< 199.500	-
Pyrene	129-00-0	-	< 199.500	-
Butylbenzylphthalate	85-68-7	-	< 498.800	-
Benzo[a]anthracene	56-55-3	-	< 199.500	-
Chrysene	218-01-9	-	< 199.500	-
3,3'-Dichlorobenzidine	91-94-1	-	< 1995.200	-
bis(2-Ethylhexyl)phthalate	117-81-7	-	< 498.800	-
Di-n-octylphthalate	117-84-0	-	< 199.500	-
Benzo[b]fluoranthene	205-99-2	-	< 199.500	-
Benzo[k]fluoranthene	207-08-9	-	< 199.500	-
Benzo[a]pyrene	50-32-8	-	< 199.500	-
Indeno[1,2,3-cd]pyrene	193-39-5	-	< 199.500	-
Dibenzo[a,h]anthracene	53-70-3	-	< 199.500	-
Benzo[g,h,i]perylene	191-24-2	-	< 199.500	-

"M" denotes that % fit has been manually interpreted

Internal Standards	% Area
1,4-Dichlorobenzene-d4	65
Naphthalene-d8	74
Acenaphthene-d10	76
Phenanthrene-d10	75
Chrysene-d12	79
Perylene-d12	75

Surrogates	% Rec
2-Fluorophenol	D
Phenol-d5	D
Nitrobenzene-d5	D
2-Fluorobiphenyl	D
2,4,6-Tribromophenol	D
Terphenyl-d14	D

ALIPHATIC / AROMATIC FRACTION BY GC/FID

Customer and Site Details:

Ground Investigation Ltd : Afan Way, Port Talbot

Job Number: S07 4259

Silica gel

Separation:

QC Batch Number:

Hexane, DCM

Eluents:

Directory: E:\GC\TES\DATA\Y2007\0923TPH GC3\033B9301.D

Method: Dilute & Shoot

Matrix: oil

Matrix: oil

Date Booked in 12-Sep-07

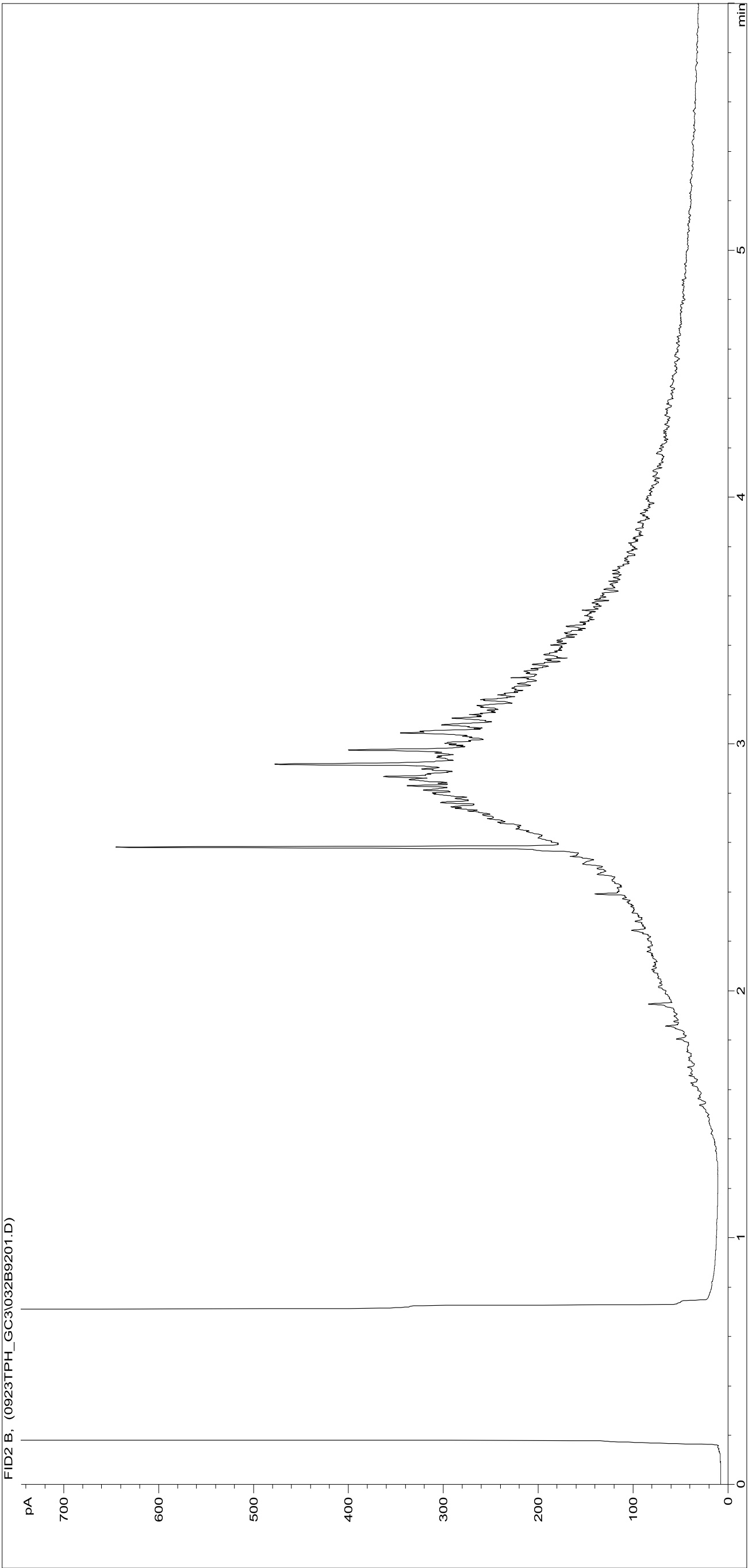
Date Extracted 21-Sep-07

Date Analysed: 24-Sep-07

This sample data is not UKAS accredited.

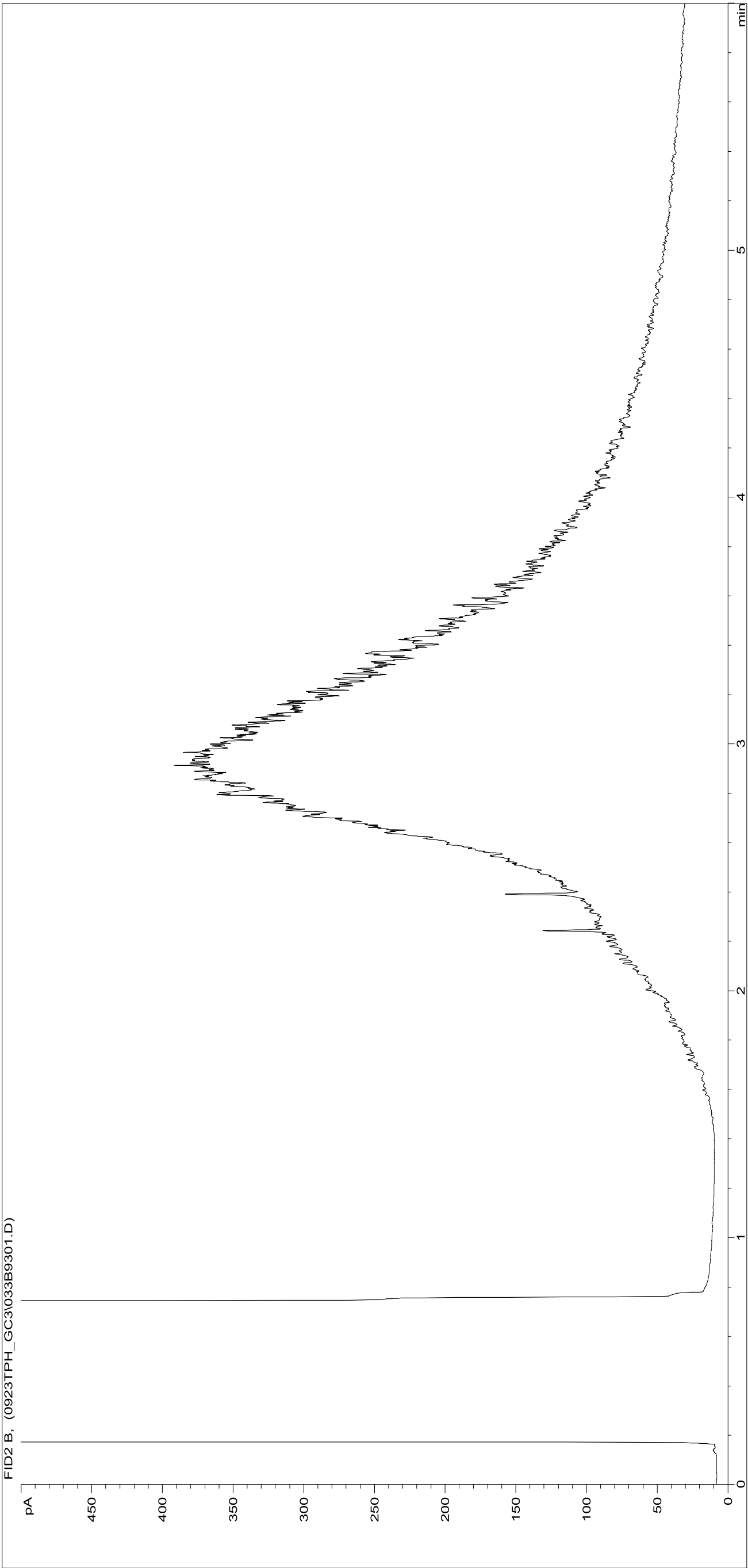
[illegible]

Petroleum Hydrocarbons (C8 to C40) by GC/FID Aliphatics Fraction.



Sample ID:	CL0725747ALI	Job Number:	S07_4259
Multiplier:	780	Client:	Ground Investigation Ltd
Dilution:	1	Site:	Afan Way, Port Talbot
Acquisition Method:	MAX_RUNF.M	Client Sample Ref:	Tar Sample
Acquisition Date/Time:	24-Sep-07		
Datafile:	E:\GC\TES\DATA\Y2007\0923TPH_GC3\032B9201.D		

Petroleum Hydrocarbons (C8 to C40) by GC/FID Aromatics Fraction.



Sample ID:	CL0725747ARO	Job Number:	S07_4259
Multiplier:	600	Client:	Ground Investigation Ltd
Dilution:	1	Site:	Afan Way, Port Talbot
Acquisition Method:	MAX_RUNF.M	Client Sample Ref:	Tar Sample
Acquisition Date/Time:	24-Sep-07		
Datafile:	E:\GC\TES\DATA\Y2007\0923TPH_GC3\033B9301.D		

Volatile Organic Compounds by PTGCMS

Customer and Site Details:
Ground Investigation Ltd: Afan Way, Port Talbot

Sample Details:
Tar Sample

LIMS ID Number:
CL0725747

Job Number:
S07_4259

Directory/Quant file:
0918VOC.MS3\

Date Booked in:
12-Sep-07

Date Analysed:
19-Sep-07

Operator:
MJ/AP

Matrix:
Soil

Method:
Purge & trap

Multiplier:
2000

Position:
43

Target Compounds	CAS #	R.T. (min.)	Concentration µg/kg	% Fit
Dichlorodifluoromethane	75-71-8	-	< 2000	-
Chloromethane	74-87-3	-	< 2000	-
Vinyl Chloride	75-01-4 *	-	< 2000	-
Bromomethane	74-83-9 *	-	< 10000	-
Chloroethane	75-00-3	-	< 10000	-
Trichlorofluoromethane	75-69-4	-	< 2000	-
1,1-Dichloroethene	75-35-4	-	< 2000	-
trans 1,2-Dichloroethene	156-60-5	-	< 2000	-
1,1-Dichloroethane	75-34-3	-	< 2000	-
2,2-Dichloropropane	594-20-7	-	< 2000	-
cis 1,2-Dichloroethene	156-59-2	-	< 2000	-
Bromochloromethane	74-97-5	-	< 2000	-
Chloroform	67-66-3	-	< 2000	-
1,1,1-Trichloroethane	71-55-6	-	< 2000	-
Carbon Tetrachloride	56-23-5	-	< 2000	-
1,1-Dichloropropene	563-58-6	-	< 2000	-
Benzene	71-43-2	-	< 2000	-
1,2-Dichloroethane	107-06-2	-	< 2000	-
Trichloroethene	79-01-6	-	< 2000	-
1,2-Dichloropropane	78-87-5	-	< 2000	-
Dibromomethane	74-95-3	-	< 2000	-
Bromodichloromethane	75-27-4	-	< 2000	-
cis 1,3-Dichloropropene	10061-01-5 *	-	< 2000	-
Toluene	108-88-3	-	< 2000	-
trans 1,3-Dichloropropene	10061-02-6 *	-	< 2000	-
1,1,2-Trichloroethane	79-00-5	-	< 2000	-
Tetrachloroethene	127-18-4	-	< 10000	-
1,3-Dichloropropane	142-28-9	-	< 2000	-
Dibromochloromethane	124-48-1	-	< 2000	-
1,2-Dibromoethane	106-93-4	-	< 2000	-
Chlorobenzene	108-90-7	-	< 2000	-
Ethylbenzene	100-41-4	-	< 2000	-
1,1,1,2-Tetrachloroethane	630-20-6	-	< 2000	-
m and p-Xylene	108-38-3/106-42-3	-	< 2000	-
o-Xylene	95-47-6	-	< 2000	-

Target Compounds	CAS #	R.T. (min.)	Concentration µg/kg	% Fit
Styrene	100-42-5	-	< 2000	-
Bromoform	75-25-2	-	< 2000	-
iso-Propylbenzene	98-82-8	-	< 2000	-
1,1,2,2-Tetrachloroethane	79-34-5	-	< 2000	-
Propylbenzene	103-65-1	-	< 2000	-
Bromobenzene	108-86-1	-	< 2000	-
1,2,3-Trichloropropane	96-18-4	-	< 2000	-
2-Chlorotoluene	95-49-8	-	< 2000	-
1,3,5-Trimethylbenzene	108-67-8	-	< 2000	-
4-Chlorotoluene	106-43-4	-	< 2000	-
tert-Butylbenzene	98-06-6	-	< 2000	-
1,2,4-Trimethylbenzene	95-63-6	-	< 2000	-
sec-Butylbenzene	135-98-8	-	< 2000	-
p-Isopropyltoluene	99-87-6	-	< 2000	-
1,3-Dichlorobenzene	541-73-1	-	< 2000	-
1,4-Dichlorobenzene	106-46-7	-	< 2000	-
n-Butylbenzene	104-51-8	-	< 2000	-
1,2-Dichlorobenzene	95-50-1	-	< 2000	-
1,2-Dibromo-3-chloropropane	96-12-8 *	-	< 10000	-
1,2,4-Trichlorobenzene	120-82-1	-	< 10000	-
Hexachlorobutadiene	87-68-3 *	-	< 10000	-
Naphthalene	91-20-3 *	-	< 10000	-
1,2,3-Trichlorobenzene	87-61-6	-	< 10000	-

Concentrations are reported on a wet weight basis
Compounds marked * are not UKAS accredited.

Internal standards	R.T.	Area %	Surrogates	% Rec
Pentafluorobenzene	3.00	73	Dibromofluoromethane	117
1,4-Difluorobenzene	3.27	80	Toluene-d8	99
Chlorobenzene-d5	4.26	79	Bromofluorobenzene	89
1,4-Dichlorobenzene-d4	5.03	69		

Report Notes

Soil/Solid analysis specific:

Results expressed as mg/kg on an air dried basis unless stated otherwise
S04 analysis not conducted in accordance with BS1377 unless otherwise stated
Water Soluble Sulphate on 2:1 water:soil extract
AR denotes analysis conducted on the As Received sample

Water analysis specific:

Results expressed as mg/l unless stated otherwise

Oil analysis specific:

Results expressed as mg/kg unless stated otherwise
S.G. expressed as g/cm³@ 15°C

Filter analysis specific:

Results expressed as mg on filter unless stated otherwise

VOC analysis specific:

Explanatory notes for data flagging
U = undetected above reporting limit
J = concentration at instrument was below lowest calibration standard
E = concentration at instrument was above top calibration standard
B = compound was detected in method blank

Gas (Tedlar bag) analysis specific:

Results expressed as ug/l unless stated otherwise

Air (Carbon tube) analysis specific:

Results expressed as ug on tube unless stated otherwise

Asbestos analysis specific:

CH denotes Chrysotile
CR denotes Crocidolite
AM denotes Amosite
NADIS denotes No Asbestos Detected in Sample
NBFO denotes No Bulk fibres Observed

General notes:

^ this analysis was subcontracted to another laboratory
\$ Within laboratory tolerances
\$\$ unable to analyse due to nature of sample
¥ Results for guidance only, possible interference
& Blank corrected
I.S insufficient sample for analysis
Intf Unable to analyse due to interferences
N.D Not determined
N.R Not recorded
N.Det Not detected
Req Analysis Requested, see attached sheets for results
P Raised detection limit due to nature of sample
***** denotes that all accreditation has been removed by the laboratory for this result.
‡ denotes that Mcerts accreditation has been removed by the laboratory for this result.
Note: The Laboratory may only claim that data is accredited when all of the requirements of our Quality System have been met. Where these requirements have not been met the laboratory may elect to include the data in its final report and remove the accreditation from individual data items if it believes that the validity of the data has not been affected.

If you require further details of the circumstances leading to the removal of the accreditation from any data item please do not hesitate to contact the laboratory

END OF REPORT

ENCLOSURE C

Monitoring Well Records

GROUND INVESTIGATION . . . TEL: . . . FAX: . . . EMAIL: . . .

Ground Investigation

Site: Afan Way, Port Talbot

Client: Dovey Group of Companies

Job No: Afan Way, Port Talbot

Method/Plant Used: Baretta T41

Start date: 20/09/07

Easting:

End Date: 20/09/07

Logged By: JWD

Northing:

Elevation:

Hole ID

DH1

Sheet 1 of 1 (0.00m-10.00m)

All dimensions in metres

Scale 1:50

SAMPLES & IN-SITU TESTS

Depth

Type / No

Result / Remark

Water

STRATA

Legend

Depth (thick.)

Description

(2.00)

2.00

(3.00)

5.00

(2.50)

7.50

Ash fill.

MADE GROUND

CLAY

ESTUARINE ALLUVIUM

SAND and GRAVEL

FLUVIO-GLACIAL GRAVELS

Backfill & Inst

Boring Progress and Water Observations

Water Strikes

Hole Diameter

Casing Diameter

Date

Time

Hole Depth

Casing Depth

Water Depth

Strike Depth

Flow Rate

Post Strike Depth

Elapsed Minutes

Depth Sealed

Depth

Diameter (mm)

Depth

Diameter (mm)

General Remarks

1. All dimensions are in metres unless stated, Coordinates approximate only and interpolated from recent OS maps.

2. All descriptions based on drillers observations of drilling returns.

3. Arisings described as 'wet' from 5.0m depth.

4. **Installation:** 50mm diam. plain pipe from GL to 4.5m depth with bentonite seal and flush cover, 50mm slotted pipe with pea gravel surround from 4.5 to 7.5m.

RO 01 220.4.AFAN WAY.GPJ IW.GDT 28/11/07

GROUND INVESTIGATION . . . TEL : , FAX : , EMAIL :

Ground Investigation

Site: Afan Way, Port Talbot

Client: Dovey Group of Companies

Job No: Afan Way, Port Talbot

Method/Plant Used: Baretta T41

Start date: 20/09/07

End Date: 20/09/07

Logged By: JWD

Easting:

Northing:

Elevation:

Hole ID

DH2

Sheet 1 of 1 (0.00m-10.00m)

All dimensions in metres

Scale 1:50

SAMPLES & IN-SITU TESTS

Depth

Type / No

Result / Remark

W
a
t
e
r

STRATA

Legend

Depth (thick.)

Description

Backfill & Inst

(2.00)

2.00

Ash fill.
MADE GROUND

(3.00)

5.00

CLAY
ESTUARINE ALLUVIUM

(2.50)

7.50

SAND and GRAVEL
FLUVIO-GLACIAL GRAVELS

Boring Progress and Water Observations

Date

Time

Hole Depth

Casing Depth

Water Depth

Water Strikes

Strike Depth

Flow Rate

Post Strike Depth

Elapsed Minutes

Depth Sealed

Hole Diameter

Depth

Diameter (mm)

Casing Diameter

Depth

Diameter (mm)

General Remarks

1. All dimensions are in metres unless stated, Coordinates approximate only and interpolated from recent OS maps.

2. All descriptions based on drillers observations of drilling returns.

3. No groundwater observations noted.

4. **Installation:** 50mm diam. plain pipe from GL to 4.5m depth with bentonite seal and flush cover, 50mm slotted pipe with pea gravel surround from 4.5 to 7.5m.

RO 01 220.4.AFAN WAY.GPJ IW.GDT 28/11/07

GROUND INVESTIGATION . . . TEL : , FAX : , EMAIL :

Ground Investigation

Site: Afan Way, Port Talbot

Client: Dovey Group of Companies

Job No: Afan Way, Port Talbot

Method/Plant Used: Baretta T41

Start date: 20/09/07

End Date: 20/09/07

Logged By: JWD

Easting:

Northing:

Elevation:

Hole ID

DH3

Sheet 1 of 1 (0.00m-10.00m)

All dimensions in metres

Scale 1:50

SAMPLES & IN-SITU TESTS

Depth

Type / No

Result / Remark

W
a
t
e
r

STRATA

Legend

Depth (thick.)

Description

Backfill & Inst

(2.00)

2.00

Ash fill.
MADE GROUND

(2.80)

4.80

CLAY
ESTUARINE ALLUVIUM

(2.70)

7.50

SAND and GRAVEL
FLUVIO-GLACIAL GRAVELS

Boring Progress and Water Observations

Date

Time

Hole Depth

Casing Depth

Water Depth

Water Strikes

Strike Depth

Flow Rate

Post Strike Depth

Elapsed Minutes

Depth Sealed

Hole Diameter

Casing Diameter

Depth

Diameter (mm)

Depth

Diameter (mm)

7.50

115

7.50

115

General Remarks

1. All dimensions are in metres unless stated, Coordinates approximate only and interpolated from recent OS maps.

2. All descriptions based on drillers observations of drilling returns.

3. No groundwater observations noted.

4. **Installation:** 50mm diam. plain pipe from GL to 4.5m depth with bentonite seal and flush cover, 50mm slotted pipe with pea gravel surround from 4.5 to 7.5m.

RO 01 220.4.AFAN WAY.GPJ IW.GDT 28/11/07

GROUND INVESTIGATION . . . TEL: . . . FAX: . . . EMAIL: . . .

Ground Investigation

Site: Afan Way, Port Talbot

Client: Dovey Group of Companies

Job No: Afan Way, Port Talbot

Method/Plant Used: Baretta T41

Start date: 21/09/07

Easting:

End Date: 21/09/07

Logged By: JWD

Northing:

Elevation:

Hole ID

DH5

Sheet 1 of 1 (0.00m-10.00m)

All dimensions in metres

Scale 1:50

SAMPLES & IN-SITU TESTS

Depth

Type / No

Result / Remark

W
a
t
e
r

STRATA

Legend

Depth (thick.)

Description

Backfill & Inst

(2.00)

2.00

Ash fill.
MADE GROUND

(2.50)

4.50

CLAY
ESTUARINE ALLUVIUM

(3.00)

7.50

SAND and GRAVEL
FLUVIO-GLACIAL GRAVELS

Boring Progress and Water Observations

Date

Time

Hole Depth

Casing Depth

Water Depth

Water Strikes

Strike Depth

Flow Rate

Post Strike Depth

Elapsed Minutes

Depth Sealed

Hole Diameter

Depth

Diameter (mm)

Casing Diameter

Depth

Diameter (mm)

7.50

115

7.50

115

General Remarks

1. All dimensions are in metres unless stated, Coordinates approximate only and interpolated from recent OS maps.

2. All descriptions based on drillers observations of drilling returns.

3. No groundwater observations noted.

4. **Installation:** 50mm diam. plain pipe from GL to 4.5m depth with bentonite seal and flush cover, 50mm slotted pipe with pea gravel surround from 4.5 to 7.5m.

RO 01 220.4.AFAN WAY.GPJ IW.GDT 28/11/07

ENCLOSURE D

Laboratory Test Results Groundwater

Gasoline Range Organics (BTX and Aliphatic Carbon Ranges)

Customer and Site Details: Ground Investigation Ltd: Afan Way, Port Talbot
Job Number: W07_5374
Directory: 1002HSA_GC6
Method: Headspace GC/FID

Matrix:	Water
Date Booked in:	26-Sep-07
Date extracted:	02-Oct-07
Date Analysed:	03-Oct-07

* Sample data with an asterisk are not UKAS accredited.

[illegible]

Note: Benzene elutes between C6 and C7, toluene elutes between C7 and C8, ethyl benzene and the xylenes elute between C8 and C9.

Xylenes have been deducted from the C8-C10 band to give the aliphatic fraction, however aromatic compounds may still be contributing to this fraction.

Polychlorinated Biphenyls (congeners)

Customer and Site Details:

Job Number:

QC Batch Number:

Directory:

Method:

Ground Investigation Ltd: Afan Way, Port Talbot

W07 5374

072988

1001PCB.GC1

Separating Funnel

Matrix:

Date Booked in:

Date Extracted:

Date Analysed:

Water

26-Sep-07

28-Sep-07

01-Oct-07

*** This sample data is not UKAS accredited.**

[illegible]

Semi-Volatile Organic Compounds

UKAS accredited?: No

Customer and Site Details:		Ground Investigation Ltd: Afan Way, Port Talbot		Matrix:		Water		QC Batch Number:		2981	
Sample Details:		BH1		Date Booked in:		26-Sep-07		Ext Method:		Sep. Funnel	
LIMS ID Number:		EX0725484		Date Extracted:		27-Sep-07		Operator:		AB/AK	
Job Number:		W07_5374		Date Analysed:		02-Oct-07		Directory/Quant File:		1001ABN.MS4\ 1001CCCC3.D	
								Dilution Factor:		1	
								GPC (Y/N)		N	

Target Compounds	CAS #	R.T. (min)	Concentration mg/l	% Fit
Phenol	108-95-2	-	< 0.020	-
bis(2-Chloroethyl)ether	111-44-4	-	< 0.005	-
2-Chlorophenol	95-57-8	-	< 0.020	-
1,3-Dichlorobenzene	541-73-1	-	< 0.005	-
1,4-Dichlorobenzene	106-46-7	-	< 0.005	-
Benzyl alcohol	100-51-6	-	< 0.005	-
1,2-Dichlorobenzene	95-50-1	-	< 0.005	-
2-Methylphenol	95-48-7	-	< 0.005	-
bis(2-Chloroisopropyl)ether	108-60-1	-	< 0.005	-
Hexachloroethane	67-72-1	-	< 0.005	-
N-Nitroso-di-n-propylamine	621-64-7	-	< 0.005	-
3- & 4-Methylphenol	108-39-4/106-44-5	-	< 0.020	-
Nitrobenzene	98-95-3	-	< 0.005	-
Isophorone	78-59-1	-	< 0.005	-
2-Nitrophenol	88-75-5	-	< 0.020	-
2,4-Dimethylphenol	105-67-9	-	< 0.020	-
Benzoic Acid	65-85-0 *	-	< 0.100	-
bis(2-Chloroethoxy)methane	111-91-1	-	< 0.005	-
2,4-Dichlorophenol	120-83-2	-	< 0.020	-
1,2,4-Trichlorobenzene	120-82-1	-	< 0.005	-
Naphthalene	91-20-3	-	< 0.002	-
4-Chlorophenol	106-48-9	-	< 0.020	-
4-Chloroaniline	106-47-8 *	-	< 0.005	-
Hexachlorobutadiene	87-68-3	-	< 0.005	-
4-Chloro-3-methylphenol	59-50-7	-	< 0.005	-
2-Methylnaphthalene	91-57-6	-	< 0.002	-
1-Methylnaphthalene	90-12-0	-	< 0.002	-
Hexachlorocyclopentadiene	77-47-4 *	-	< 0.005	-
2,4,6-Trichlorophenol	88-06-2	-	< 0.020	-
2,4,5-Trichlorophenol	95-95-4	-	< 0.020	-
2-Chloronaphthalene	91-58-7	-	< 0.002	-
Biphenyl	92-52-4	-	< 0.002	-
Diphenyl ether	101-84-8	-	< 0.002	-
2-Nitroaniline	88-74-4	-	< 0.005	-
Acenaphthylene	208-96-8	-	< 0.002	-
Dimethylphthalate	131-11-3	-	< 0.005	-
2,6-Dinitrotoluene	606-20-2	-	< 0.005	-
Acenaphthene	83-32-9	-	< 0.002	-
3-Nitroaniline	99-09-2	-	< 0.005	-

Compounds marked with a * are reported not UKAS.
Concentrations are reported on a wet weight basis.

"M" denotes that % fit has been manually interpreted

Target Compounds	CAS #	R.T.	Concentration mg/l	% Fit
2,4-Dinitrophenol	51-28-5 *	-	< 0.010	-
Dibenzofuran	132-64-9	-	< 0.005	-
4-Nitrophenol	100-02-7	-	< 0.050	-
2,4-Dinitrotoluene	121-14-2	-	< 0.005	-
Fluorene	86-73-7	-	< 0.002	-
Diethylphthalate	84-66-2	-	< 0.005	-
4-Chlorophenyl-phenylether	7005-72-3	-	< 0.005	-
4,6-Dinitro-2-methylphenol	534-52-1	-	< 0.050	-
4-Nitroaniline	100-01-6	-	< 0.005	-
N-Nitrosodiphenylamine	86-30-6 *	-	< 0.005	-
4-Bromophenyl-phenylether	101-55-3	-	< 0.005	-
Hexachlorobenzene	118-74-1	-	< 0.005	-
Pentachlorophenol	87-86-5	-	< 0.050	-
Phenanthrene	85-01-8	-	< 0.002	-
Anthracene	120-12-7	-	< 0.002	-
Di-n-butylphthalate	84-74-2	-	< 0.005	-
Fluoranthene	206-44-0	-	< 0.002	-
Pyrene	129-00-0	-	< 0.002	-
Butylbenzylphthalate	85-68-7	-	< 0.005	-
Benzo[a]anthracene	56-55-3	-	< 0.002	-
Chrysene	218-01-9	-	< 0.002	-
3,3'-Dichlorobenzidine	91-94-1	-	< 0.020	-
bis(2-Ethylhexyl)phthalate	117-81-7	-	< 0.005	-
Di-n-octylphthalate	117-84-0	-	< 0.002	-
Benzo[b]fluoranthene	205-99-2	-	< 0.002	-
Benzo[k]fluoranthene	207-08-9	-	< 0.002	-
Benzo[a]pyrene	50-32-8	-	< 0.002	-
Indeno[1,2,3-cd]pyrene	193-39-5	-	< 0.002	-
Dibenzo[a,h]anthracene	53-70-3	-	< 0.002	-
Benzo[g,h,i]perylene	191-24-2	-	< 0.002	-

Internal Standards	% Area
1,4-Dichlorobenzene-d4	80
Naphthalene-d8	83
Acenaphthene-d10	85
Phenanthrene-d10	83
Chrysene-d12	79
Perylene-d12	74

Surrogates	% Rec
2-Fluorophenol	N.D
Phenol-d5	15
Nitrobenzene-d5	47
2-Fluorobiphenyl	41
2,4,6-Tribromophenol	31
Terphenyl-d14	57

Semi-Volatile Organic Compounds

UKAS accredited?: No

Customer and Site Details:		Ground Investigation Ltd: Afan Way, Port Talbot		Matrix:		Water		QC Batch Number:		2981	
Sample Details:		BH2		Date Booked in:		26-Sep-07		Ext Method:		Sep. Funnel	
LIMS ID Number:		EX0725485		Date Extracted:		27-Sep-07		Operator:		AB/AK	
Job Number:		W07_5374		Date Analysed:		02-Oct-07		Directory/Quant File:		1001ABN.MS4\ 1001CCCC3.D	
								Dilution Factor:		1	
								GPC (Y/N)		N	

Target Compounds	CAS #	R.T. (min)	Concentration mg/l	% Fit
Phenol	108-95-2	-	< 0.020	-
bis(2-Chloroethyl)ether	111-44-4	-	< 0.005	-
2-Chlorophenol	95-57-8	-	< 0.020	-
1,3-Dichlorobenzene	541-73-1	-	< 0.005	-
1,4-Dichlorobenzene	106-46-7	-	< 0.005	-
Benzyl alcohol	100-51-6	-	< 0.005	-
1,2-Dichlorobenzene	95-50-1	-	< 0.005	-
2-Methylphenol	95-48-7	-	< 0.005	-
bis(2-Chloroisopropyl)ether	108-60-1	-	< 0.005	-
Hexachloroethane	67-72-1	-	< 0.005	-
N-Nitroso-di-n-propylamine	621-64-7	-	< 0.005	-
3- & 4-Methylphenol	108-39-4/106-44-5	-	< 0.020	-
Nitrobenzene	98-95-3	-	< 0.005	-
Isophorone	78-59-1	-	< 0.005	-
2-Nitrophenol	88-75-5	-	< 0.020	-
2,4-Dimethylphenol	105-67-9	-	< 0.020	-
Benzoic Acid	65-85-0 *	-	< 0.100	-
bis(2-Chloroethoxy)methane	111-91-1	-	< 0.005	-
2,4-Dichlorophenol	120-83-2	-	< 0.020	-
1,2,4-Trichlorobenzene	120-82-1	-	< 0.005	-
Naphthalene	91-20-3	-	< 0.002	-
4-Chlorophenol	106-48-9	-	< 0.020	-
4-Chloroaniline	106-47-8 *	-	< 0.005	-
Hexachlorobutadiene	87-68-3	-	< 0.005	-
4-Chloro-3-methylphenol	59-50-7	-	< 0.005	-
2-Methylnaphthalene	91-57-6	-	< 0.002	-
1-Methylnaphthalene	90-12-0	-	< 0.002	-
Hexachlorocyclopentadiene	77-47-4 *	-	< 0.005	-
2,4,6-Trichlorophenol	88-06-2	-	< 0.020	-
2,4,5-Trichlorophenol	95-95-4	-	< 0.020	-
2-Chloronaphthalene	91-58-7	-	< 0.002	-
Biphenyl	92-52-4	-	< 0.002	-
Diphenyl ether	101-84-8	-	< 0.002	-
2-Nitroaniline	88-74-4	-	< 0.005	-
Acenaphthylene	208-96-8	-	< 0.002	-
Dimethylphthalate	131-11-3	-	< 0.005	-
2,6-Dinitrotoluene	606-20-2	-	< 0.005	-
Acenaphthene	83-32-9	-	< 0.002	-
3-Nitroaniline	99-09-2	-	< 0.005	-

Compounds marked with a * are reported not UKAS.
Concentrations are reported on a wet weight basis.

"M" denotes that % fit has been manually interpreted

Target Compounds	CAS #	R.T.	Concentration mg/l	% Fit
2,4-Dinitrophenol	51-28-5 *	-	< 0.010	-
Dibenzofuran	132-64-9	-	< 0.005	-
4-Nitrophenol	100-02-7	-	< 0.050	-
2,4-Dinitrotoluene	121-14-2	-	< 0.005	-
Fluorene	86-73-7	-	< 0.002	-
Diethylphthalate	84-66-2	-	< 0.005	-
4-Chlorophenyl-phenylether	7005-72-3	-	< 0.005	-
4,6-Dinitro-2-methylphenol	534-52-1	-	< 0.050	-
4-Nitroaniline	100-01-6	-	< 0.005	-
N-Nitrosodiphenylamine	86-30-6 *	-	< 0.005	-
4-Bromophenyl-phenylether	101-55-3	-	< 0.005	-
Hexachlorobenzene	118-74-1	-	< 0.005	-
Pentachlorophenol	87-86-5	-	< 0.050	-
Phenanthrene	85-01-8	-	< 0.002	-
Anthracene	120-12-7	-	< 0.002	-
Di-n-butylphthalate	84-74-2	-	< 0.005	-
Fluoranthene	206-44-0	-	< 0.002	-
Pyrene	129-00-0	-	< 0.002	-
Butylbenzylphthalate	85-68-7	-	< 0.005	-
Benzo[a]anthracene	56-55-3	-	< 0.002	-
Chrysene	218-01-9	-	< 0.002	-
3,3'-Dichlorobenzidine	91-94-1	-	< 0.020	-
bis(2-Ethylhexyl)phthalate	117-81-7	-	< 0.005	-
Di-n-octylphthalate	117-84-0	-	< 0.002	-
Benzo[b]fluoranthene	205-99-2	-	< 0.002	-
Benzo[k]fluoranthene	207-08-9	-	< 0.002	-
Benzo[a]pyrene	50-32-8	-	< 0.002	-
Indeno[1,2,3-cd]pyrene	193-39-5	-	< 0.002	-
Dibenzo[a,h]anthracene	53-70-3	-	< 0.002	-
Benzo[g,h,i]perylene	191-24-2	-	< 0.002	-

Internal Standards	% Area
1,4-Dichlorobenzene-d4	83
Naphthalene-d8	85
Acenaphthene-d10	84
Phenanthrene-d10	83
Chrysene-d12	82
Perylene-d12	75

Surrogates	% Rec
2-Fluorophenol	N.D
Phenol-d5	38
Nitrobenzene-d5	81
2-Fluorobiphenyl	83
2,4,6-Tribromophenol	59
Terphenyl-d14	89

Semi-Volatile Organic Compounds

UKAS accredited?: No

Customer and Site Details:		Ground Investigation Ltd: Afan Way, Port Talbot		Matrix:		Water		QC Batch Number:		2981	
Sample Details:		BH3		Date Booked in:		26-Sep-07		Ext Method:		Sep. Funnel	
LIMS ID Number:		EX0725486		Date Extracted:		27-Sep-07		Operator:		AB/AK	
Job Number:		W07_5374		Date Analysed:		02-Oct-07		Directory/Quant File:		1001ABN.MS4\ 1001CCCC3.D	
								Dilution Factor:		1	
								GPC (Y/N)		N	

Target Compounds	CAS #	R.T. (min)	Concentration mg/l	% Fit
Phenol	108-95-2	-	< 0.020	-
bis(2-Chloroethyl)ether	111-44-4	-	< 0.005	-
2-Chlorophenol	95-57-8	-	< 0.020	-
1,3-Dichlorobenzene	541-73-1	-	< 0.005	-
1,4-Dichlorobenzene	106-46-7	-	< 0.005	-
Benzyl alcohol	100-51-6	-	< 0.005	-
1,2-Dichlorobenzene	95-50-1	-	< 0.005	-
2-Methylphenol	95-48-7	-	< 0.005	-
bis(2-Chloroisopropyl)ether	108-60-1	-	< 0.005	-
Hexachloroethane	67-72-1	-	< 0.005	-
N-Nitroso-di-n-propylamine	621-64-7	-	< 0.005	-
3- & 4-Methylphenol	108-39-4/106-44-5	-	< 0.020	-
Nitrobenzene	98-95-3	-	< 0.005	-
Isophorone	78-59-1	-	< 0.005	-
2-Nitrophenol	88-75-5	-	< 0.020	-
2,4-Dimethylphenol	105-67-9	-	< 0.020	-
Benzoic Acid	65-85-0 *	-	< 0.100	-
bis(2-Chloroethoxy)methane	111-91-1	-	< 0.005	-
2,4-Dichlorophenol	120-83-2	-	< 0.020	-
1,2,4-Trichlorobenzene	120-82-1	-	< 0.005	-
Naphthalene	91-20-3	-	< 0.002	-
4-Chlorophenol	106-48-9	-	< 0.020	-
4-Chloroaniline	106-47-8 *	-	< 0.005	-
Hexachlorobutadiene	87-68-3	-	< 0.005	-
4-Chloro-3-methylphenol	59-50-7	-	< 0.005	-
2-Methylnaphthalene	91-57-6	-	< 0.002	-
1-Methylnaphthalene	90-12-0	-	< 0.002	-
Hexachlorocyclopentadiene	77-47-4 *	-	< 0.005	-
2,4,6-Trichlorophenol	88-06-2	-	< 0.020	-
2,4,5-Trichlorophenol	95-95-4	-	< 0.020	-
2-Chloronaphthalene	91-58-7	-	< 0.002	-
Biphenyl	92-52-4	-	< 0.002	-
Diphenyl ether	101-84-8	-	< 0.002	-
2-Nitroaniline	88-74-4	-	< 0.005	-
Acenaphthylene	208-96-8	-	< 0.002	-
Dimethylphthalate	131-11-3	-	< 0.005	-
2,6-Dinitrotoluene	606-20-2	-	< 0.005	-
Acenaphthene	83-32-9	-	< 0.002	-
3-Nitroaniline	99-09-2	-	< 0.005	-

Compounds marked with a * are reported not UKAS.
Concentrations are reported on a wet weight basis.

"M" denotes that % fit has been manually interpreted

Target Compounds	CAS #	R.T.	Concentration mg/l	% Fit
2,4-Dinitrophenol	51-28-5 *	-	< 0.010	-
Dibenzofuran	132-64-9	-	< 0.005	-
4-Nitrophenol	100-02-7	-	< 0.050	-
2,4-Dinitrotoluene	121-14-2	-	< 0.005	-
Fluorene	86-73-7	-	< 0.002	-
Diethylphthalate	84-66-2	-	< 0.005	-
4-Chlorophenyl-phenylether	7005-72-3	-	< 0.005	-
4,6-Dinitro-2-methylphenol	534-52-1	-	< 0.050	-
4-Nitroaniline	100-01-6	-	< 0.005	-
N-Nitrosodiphenylamine	86-30-6 *	-	< 0.005	-
4-Bromophenyl-phenylether	101-55-3	-	< 0.005	-
Hexachlorobenzene	118-74-1	-	< 0.005	-
Pentachlorophenol	87-86-5	-	< 0.050	-
Phenanthrene	85-01-8	-	< 0.002	-
Anthracene	120-12-7	-	< 0.002	-
Di-n-butylphthalate	84-74-2	-	< 0.005	-
Fluoranthene	206-44-0	-	< 0.002	-
Pyrene	129-00-0	-	< 0.002	-
Butylbenzylphthalate	85-68-7	-	< 0.005	-
Benzo[a]anthracene	56-55-3	-	< 0.002	-
Chrysene	218-01-9	-	< 0.002	-
3,3'-Dichlorobenzidine	91-94-1	-	< 0.020	-
bis(2-Ethylhexyl)phthalate	117-81-7	-	< 0.005	-
Di-n-octylphthalate	117-84-0	-	< 0.002	-
Benzo[b]fluoranthene	205-99-2	-	< 0.002	-
Benzo[k]fluoranthene	207-08-9	-	< 0.002	-
Benzo[a]pyrene	50-32-8	-	< 0.002	-
Indeno[1,2,3-cd]pyrene	193-39-5	-	< 0.002	-
Dibenzo[a,h]anthracene	53-70-3	-	< 0.002	-
Benzo[g,h,i]perylene	191-24-2	-	< 0.002	-

Internal Standards	% Area
1,4-Dichlorobenzene-d4	79
Naphthalene-d8	84
Acenaphthene-d10	82
Phenanthrene-d10	84
Chrysene-d12	86
Perylene-d12	75

Surrogates	% Rec
2-Fluorophenol	N.D
Phenol-d5	27
Nitrobenzene-d5	64
2-Fluorobiphenyl	66
2,4,6-Tribromophenol	58
Terphenyl-d14	78

Semi-Volatile Organic Compounds

UKAS accredited?: No

Customer and Site Details:		Ground Investigation Ltd: Afan Way, Port Talbot		Matrix:		Water		QC Batch Number:		2981	
Sample Details:		BH4		Date Booked in:		26-Sep-07		Ext Method:		Sep. Funnel	
LIMS ID Number:		EX0725487		Date Extracted:		27-Sep-07		Operator:		AB/AK	
Job Number:		W07_5374		Date Analysed:		02-Oct-07		Directory/Quant File:		1001ABN.MS4\ 1001CCCC3.D	
								Dilution Factor:		1	
								GPC (Y/N)		N	

Target Compounds	CAS #	R.T. (min)	Concentration mg/l	% Fit
Phenol	108-95-2	-	< 0.020	-
bis(2-Chloroethyl)ether	111-44-4	-	< 0.005	-
2-Chlorophenol	95-57-8	-	< 0.020	-
1,3-Dichlorobenzene	541-73-1	-	< 0.005	-
1,4-Dichlorobenzene	106-46-7	-	< 0.005	-
Benzyl alcohol	100-51-6	-	< 0.005	-
1,2-Dichlorobenzene	95-50-1	-	< 0.005	-
2-Methylphenol	95-48-7	-	< 0.005	-
bis(2-Chloroisopropyl)ether	108-60-1	-	< 0.005	-
Hexachloroethane	67-72-1	-	< 0.005	-
N-Nitroso-di-n-propylamine	621-64-7	-	< 0.005	-
3- & 4-Methylphenol	108-39-4/106-44-5	-	< 0.020	-
Nitrobenzene	98-95-3	-	< 0.005	-
Isophorone	78-59-1	-	< 0.005	-
2-Nitrophenol	88-75-5	-	< 0.020	-
2,4-Dimethylphenol	105-67-9	-	< 0.020	-
Benzoic Acid	65-85-0 *	-	< 0.100	-
bis(2-Chloroethoxy)methane	111-91-1	-	< 0.005	-
2,4-Dichlorophenol	120-83-2	-	< 0.020	-
1,2,4-Trichlorobenzene	120-82-1	-	< 0.005	-
Naphthalene	91-20-3	-	< 0.002	-
4-Chlorophenol	106-48-9	-	< 0.020	-
4-Chloroaniline	106-47-8 *	-	< 0.005	-
Hexachlorobutadiene	87-68-3	-	< 0.005	-
4-Chloro-3-methylphenol	59-50-7	-	< 0.005	-
2-Methylnaphthalene	91-57-6	-	< 0.002	-
1-Methylnaphthalene	90-12-0	-	< 0.002	-
Hexachlorocyclopentadiene	77-47-4 *	-	< 0.005	-
2,4,6-Trichlorophenol	88-06-2	-	< 0.020	-
2,4,5-Trichlorophenol	95-95-4	-	< 0.020	-
2-Chloronaphthalene	91-58-7	-	< 0.002	-
Biphenyl	92-52-4	-	< 0.002	-
Diphenyl ether	101-84-8	-	< 0.002	-
2-Nitroaniline	88-74-4	-	< 0.005	-
Acenaphthylene	208-96-8	-	< 0.002	-
Dimethylphthalate	131-11-3	-	< 0.005	-
2,6-Dinitrotoluene	606-20-2	-	< 0.005	-
Acenaphthene	83-32-9	-	< 0.002	-
3-Nitroaniline	99-09-2	-	< 0.005	-

Compounds marked with a * are reported not UKAS.
Concentrations are reported on a wet weight basis.

"M" denotes that % fit has been manually interpreted

Target Compounds	CAS #	R.T.	Concentration mg/l	% Fit
2,4-Dinitrophenol	51-28-5 *	-	< 0.010	-
Dibenzofuran	132-64-9	-	< 0.005	-
4-Nitrophenol	100-02-7	-	< 0.050	-
2,4-Dinitrotoluene	121-14-2	-	< 0.005	-
Fluorene	86-73-7	-	< 0.002	-
Diethylphthalate	84-66-2	-	< 0.005	-
4-Chlorophenyl-phenylether	7005-72-3	-	< 0.005	-
4,6-Dinitro-2-methylphenol	534-52-1	-	< 0.050	-
4-Nitroaniline	100-01-6	-	< 0.005	-
N-Nitrosodiphenylamine	86-30-6 *	-	< 0.005	-
4-Bromophenyl-phenylether	101-55-3	-	< 0.005	-
Hexachlorobenzene	118-74-1	-	< 0.005	-
Pentachlorophenol	87-86-5	-	< 0.050	-
Phenanthrene	85-01-8	-	< 0.002	-
Anthracene	120-12-7	-	< 0.002	-
Di-n-butylphthalate	84-74-2	-	< 0.005	-
Fluoranthene	206-44-0	-	< 0.002	-
Pyrene	129-00-0	-	< 0.002	-
Butylbenzylphthalate	85-68-7	-	< 0.005	-
Benzo[a]anthracene	56-55-3	-	< 0.002	-
Chrysene	218-01-9	-	< 0.002	-
3,3'-Dichlorobenzidine	91-94-1	-	< 0.020	-
bis(2-Ethylhexyl)phthalate	117-81-7	-	< 0.005	-
Di-n-octylphthalate	117-84-0	-	< 0.002	-
Benzo[b]fluoranthene	205-99-2	-	< 0.002	-
Benzo[k]fluoranthene	207-08-9	-	< 0.002	-
Benzo[a]pyrene	50-32-8	-	< 0.002	-
Indeno[1,2,3-cd]pyrene	193-39-5	-	< 0.002	-
Dibenzo[a,h]anthracene	53-70-3	-	< 0.002	-
Benzo[g,h,i]perylene	191-24-2	-	< 0.002	-

Internal Standards	% Area
1,4-Dichlorobenzene-d4	80
Naphthalene-d8	82
Acenaphthene-d10	83
Phenanthrene-d10	83
Chrysene-d12	77
Perylene-d12	72

Surrogates	% Rec
2-Fluorophenol	N.D
Phenol-d5	33
Nitrobenzene-d5	59
2-Fluorobiphenyl	55
2,4,6-Tribromophenol	57
Terphenyl-d14	73

Semi-Volatile Organic Compounds

UKAS accredited?: No

Customer and Site Details:		Ground Investigation Ltd: Afan Way, Port Talbot		Matrix:		Water		QC Batch Number:		2981	
Sample Details:		BH6		Date Booked in:		26-Sep-07		Ext Method:		Sep. Funnel	
LIMS ID Number:		EX0725488		Date Extracted:		04-Oct-07		Operator:		AB/AK	
Job Number:		W07_5374		Date Analysed:		02-Oct-07		Directory/Quant File:		1001ABN.MS4\ 1001CCCC3.D	
								Dilution Factor:		1	
								GPC (Y/N)		N	

Target Compounds	CAS #	R.T. (min)	Concentration mg/l	% Fit
Phenol	108-95-2	-	< 0.020	-
bis(2-Chloroethyl)ether	111-44-4	-	< 0.005	-
2-Chlorophenol	95-57-8	-	< 0.020	-
1,3-Dichlorobenzene	541-73-1	-	< 0.005	-
1,4-Dichlorobenzene	106-46-7	-	< 0.005	-
Benzyl alcohol	100-51-6	-	< 0.005	-
1,2-Dichlorobenzene	95-50-1	-	< 0.005	-
2-Methylphenol	95-48-7	-	< 0.005	-
bis(2-Chloroisopropyl)ether	108-60-1	-	< 0.005	-
Hexachloroethane	67-72-1	-	< 0.005	-
N-Nitroso-di-n-propylamine	621-64-7	-	< 0.005	-
3- & 4-Methylphenol	108-39-4/106-44-5	-	< 0.020	-
Nitrobenzene	98-95-3	-	< 0.005	-
Isophorone	78-59-1	-	< 0.005	-
2-Nitrophenol	88-75-5	-	< 0.020	-
2,4-Dimethylphenol	105-67-9	-	< 0.020	-
Benzoic Acid	65-85-0 *	-	< 0.100	-
bis(2-Chloroethoxy)methane	111-91-1	-	< 0.005	-
2,4-Dichlorophenol	120-83-2	-	< 0.020	-
1,2,4-Trichlorobenzene	120-82-1	-	< 0.005	-
Naphthalene	91-20-3	-	< 0.002	-
4-Chlorophenol	106-48-9	-	< 0.020	-
4-Chloroaniline	106-47-8 *	-	< 0.005	-
Hexachlorobutadiene	87-68-3	-	< 0.005	-
4-Chloro-3-methylphenol	59-50-7	-	< 0.005	-
2-Methylnaphthalene	91-57-6	-	< 0.002	-
1-Methylnaphthalene	90-12-0	-	< 0.002	-
Hexachlorocyclopentadiene	77-47-4 *	-	< 0.005	-
2,4,6-Trichlorophenol	88-06-2	-	< 0.020	-
2,4,5-Trichlorophenol	95-95-4	-	< 0.020	-
2-Chloronaphthalene	91-58-7	-	< 0.002	-
Biphenyl	92-52-4	-	< 0.002	-
Diphenyl ether	101-84-8	-	< 0.002	-
2-Nitroaniline	88-74-4	-	< 0.005	-
Acenaphthylene	208-96-8	-	< 0.002	-
Dimethylphthalate	131-11-3	-	< 0.005	-
2,6-Dinitrotoluene	606-20-2	-	< 0.005	-
Acenaphthene	83-32-9	-	< 0.002	-
3-Nitroaniline	99-09-2	-	< 0.005	-

Compounds marked with a * are reported not UKAS.
Concentrations are reported on a wet weight basis.

"M" denotes that % fit has been manually interpreted

Target Compounds	CAS #	R.T.	Concentration mg/l	% Fit
2,4-Dinitrophenol	51-28-5 *	-	< 0.010	-
Dibenzofuran	132-64-9	-	< 0.005	-
4-Nitrophenol	100-02-7	-	< 0.050	-
2,4-Dinitrotoluene	121-14-2	-	< 0.005	-
Fluorene	86-73-7	-	< 0.002	-
Diethylphthalate	84-66-2	-	< 0.005	-
4-Chlorophenyl-phenylether	7005-72-3	-	< 0.005	-
4,6-Dinitro-2-methylphenol	534-52-1	-	< 0.050	-
4-Nitroaniline	100-01-6	-	< 0.005	-
N-Nitrosodiphenylamine	86-30-6 *	-	< 0.005	-
4-Bromophenyl-phenylether	101-55-3	-	< 0.005	-
Hexachlorobenzene	118-74-1	-	< 0.005	-
Pentachlorophenol	87-86-5	-	< 0.050	-
Phenanthrene	85-01-8	-	< 0.002	-
Anthracene	120-12-7	-	< 0.002	-
Di-n-butylphthalate	84-74-2	-	< 0.005	-
Fluoranthene	206-44-0	-	< 0.002	-
Pyrene	129-00-0	-	< 0.002	-
Butylbenzylphthalate	85-68-7	-	< 0.005	-
Benzo[a]anthracene	56-55-3	-	< 0.002	-
Chrysene	218-01-9	-	< 0.002	-
3,3'-Dichlorobenzidine	91-94-1	-	< 0.020	-
bis(2-Ethylhexyl)phthalate	117-81-7	13.24	0.005	95
Di-n-octylphthalate	117-84-0	-	< 0.002	-
Benzo[b]fluoranthene	205-99-2	-	< 0.002	-
Benzo[k]fluoranthene	207-08-9	-	< 0.002	-
Benzo[a]pyrene	50-32-8	-	< 0.002	-
Indeno[1,2,3-cd]pyrene	193-39-5	-	< 0.002	-
Dibenzo[a,h]anthracene	53-70-3	-	< 0.002	-
Benzo[g,h,i]perylene	191-24-2	-	< 0.002	-

Internal Standards	% Area
1,4-Dichlorobenzene-d4	83
Naphthalene-d8	83
Acenaphthene-d10	86
Phenanthrene-d10	82
Chrysene-d12	66
Perylene-d12	64

Surrogates	% Rec
2-Fluorophenol	N.D
Phenol-d5	21
Nitrobenzene-d5	67
2-Fluorobiphenyl	66
2,4,6-Tribromophenol	47
Terphenyl-d14	90

ALIPHATIC / AROMATIC FRACTION BY GC/FID

Customer and Site Details:

Ground Investigation Ltd : Afan Way, Port Talbot

Job Number: W07 5374

Separation: Silica gel

QC Batch Number:

Eluents: Hexane, DCM

Directory:
D:\TES\DATA\Y2007\0929TPH GC7\089B4201.D

34201.D

Method: Separating Funnel

Separating Funnel

Matrix: Water

Matrix: Water

Date Booked in 26-Sep-07

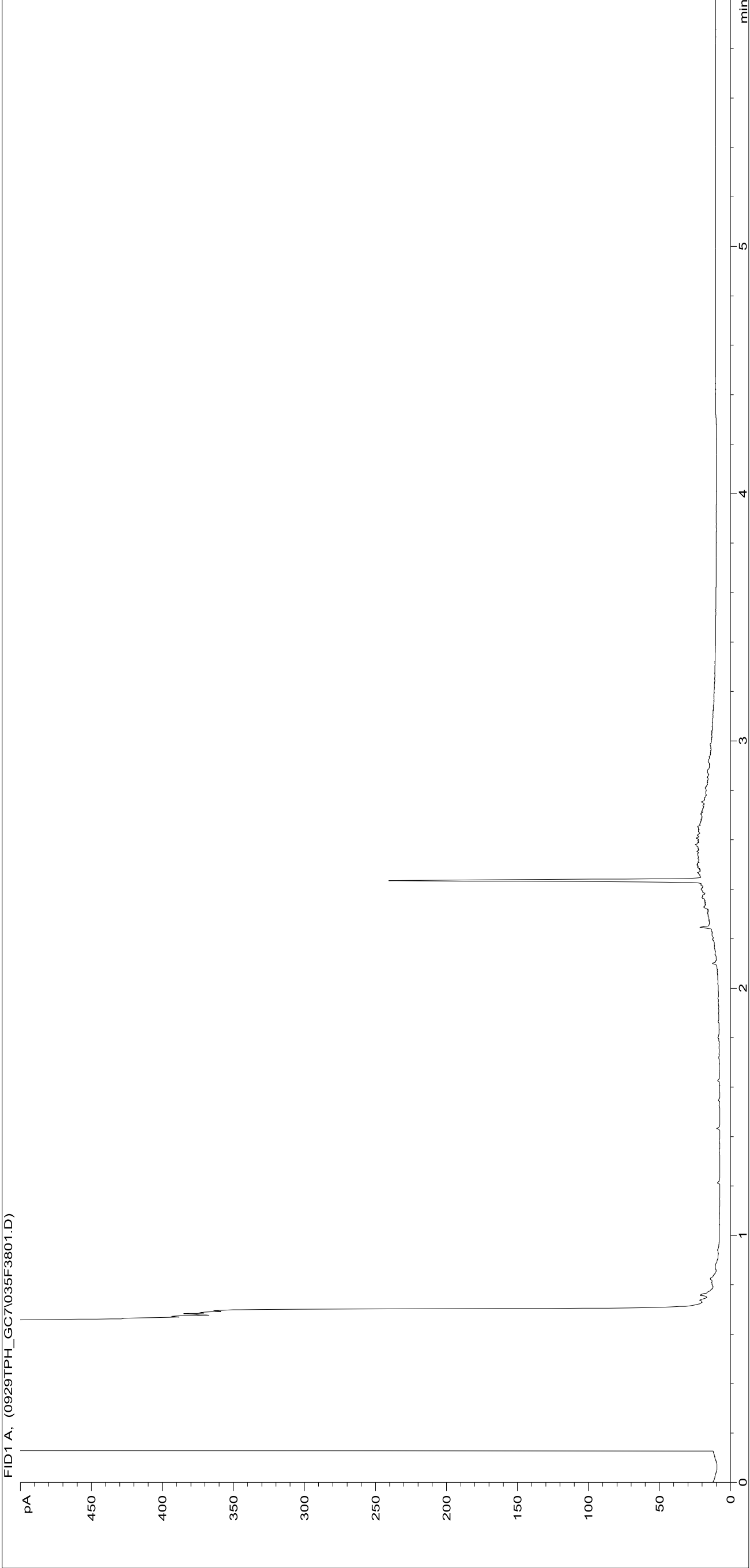
Date Extracted 27-Sep-07

Date Analysed: 29-Sep-07

This sample data is not UKAS accredited.

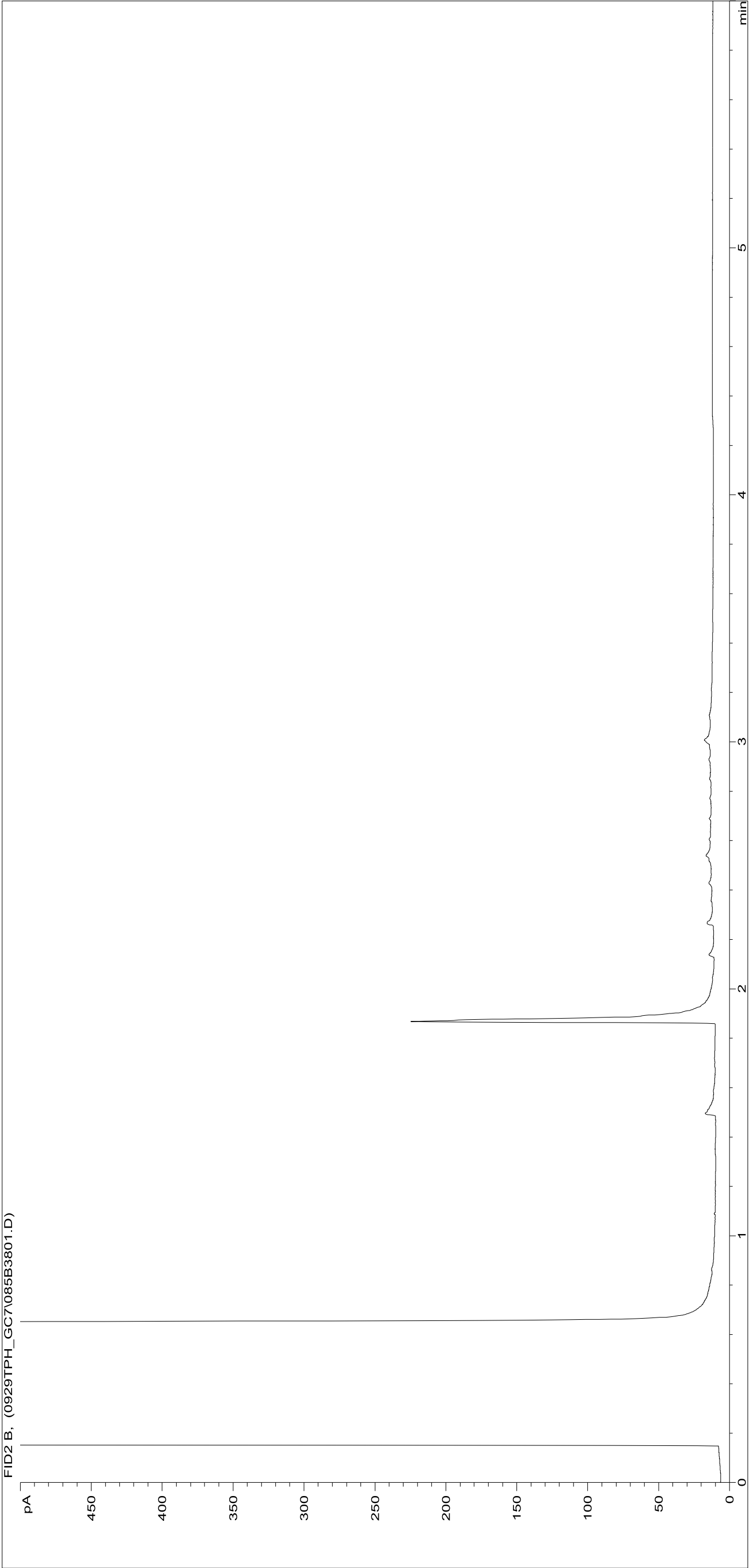
[illegible]

Petroleum Hydrocarbons (C8 to C40) by GC/FID Aliphatics Fraction.



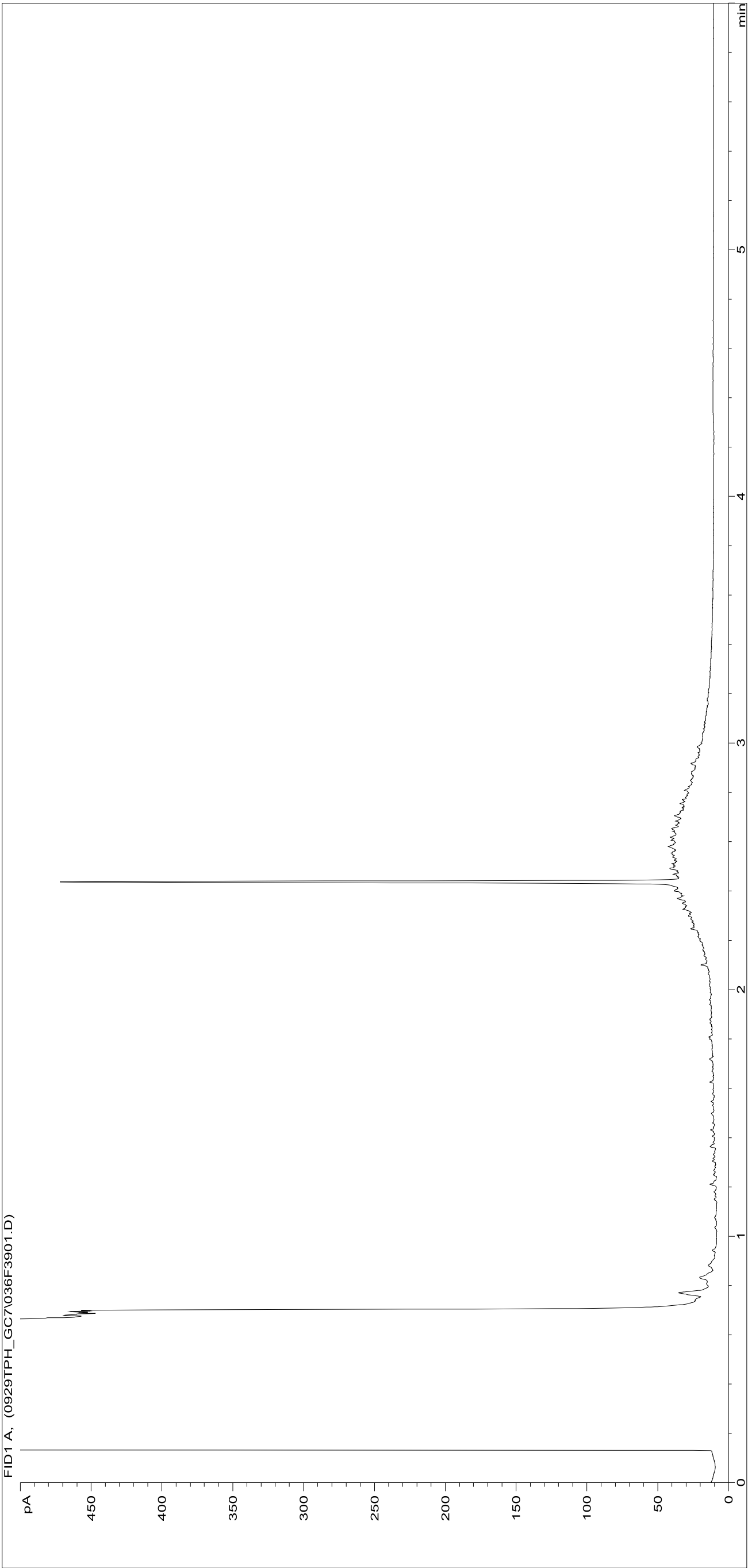
Sample ID:	EX0725484ALI	Job Number:	W07_5374
Multiplier:	0.001	Client:	Ground Investigation Ltd
Dilution:	1	Site:	Afan Way, Port Talbot
Acquisition Method:	MAX_RUNF.M	Client Sample Ref:	BH1
Acquisition Date/Time:	29-Sep-07		
Datafile:	D:\TES\DATA\Y2007\0929TPH_GC7\035F3801.D		

Petroleum Hydrocarbons (C8 to C40) by GC/FID Aromatics Fraction.



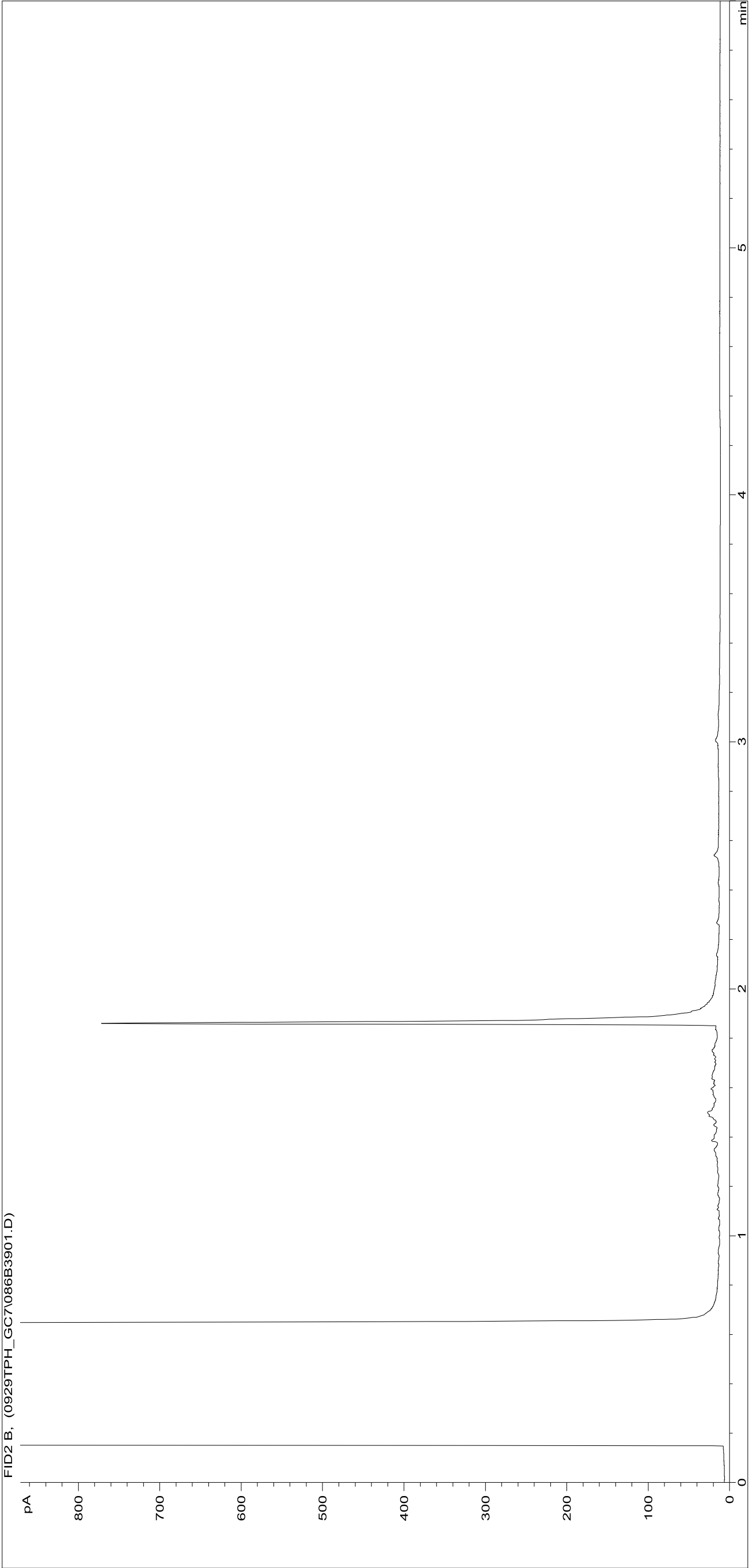
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Multiplier:	0.001	Client:	Ground Investigation Ltd
Dilution:	1	Site:	Afan Way, Port Talbot
Acquisition Method:	MAX_RUNF.M	Client Sample Ref:	BH1
Acquisition Date/Time:	29-Sep-07		
Datafile:	D:\TES\DATA\Y2007\0929TPH_GC7\085B3801.D		

Petroleum Hydrocarbons (C8 to C40) by GC/FID Aliphatics Fraction.



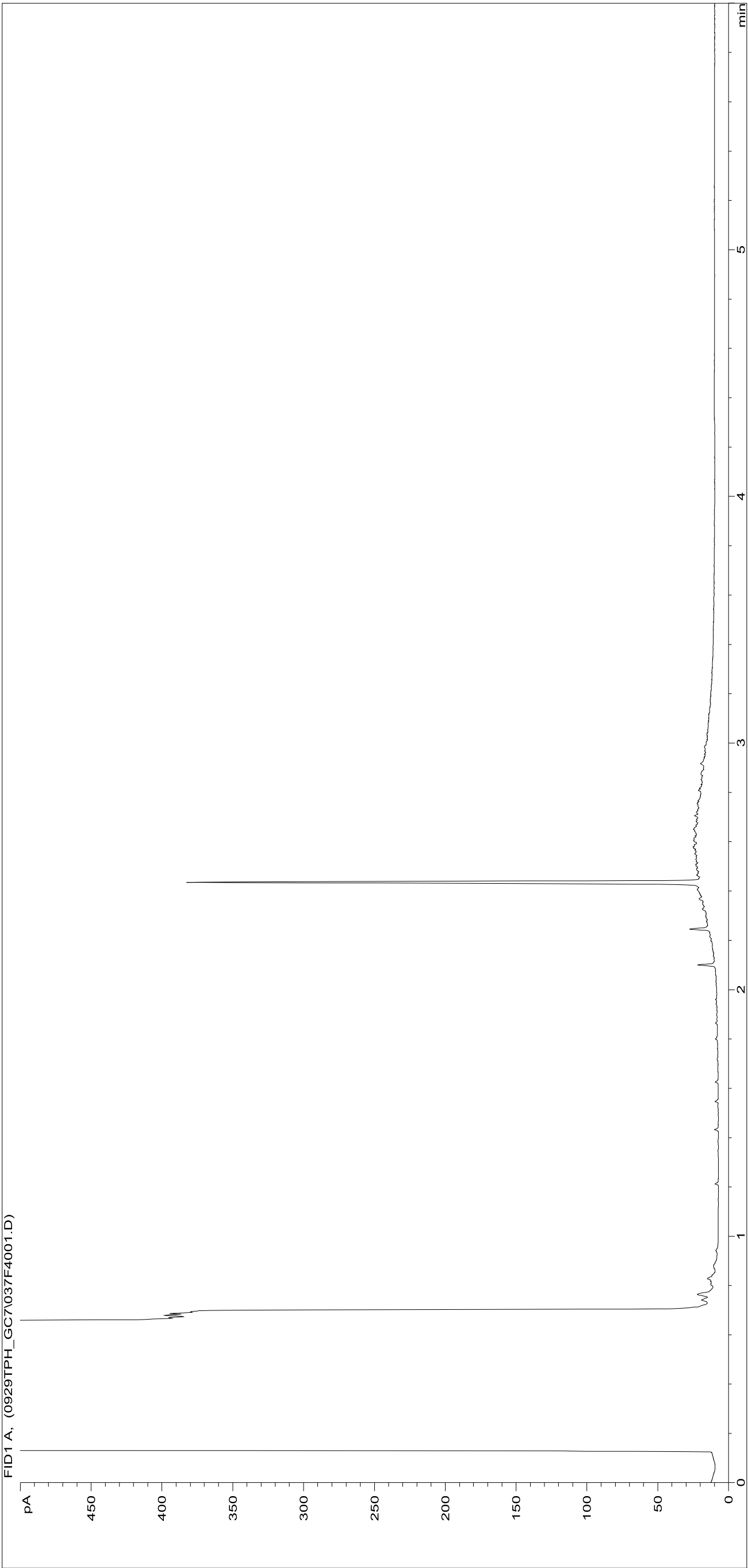
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Multiplier:	0.001	Client:	Ground Investigation Ltd
Dilution:	1	Site:	Afan Way, Port Talbot
Acquisition Method:	MAX_RUNF.M	Client Sample Ref:	BH2
Acquisition Date/Time:	29-Sep-07		
Datafile:	D:\TES\DATA\Y2007\0929TPH_GC7\036F3901.D		

Petroleum Hydrocarbons (C8 to C40) by GC/FID Aromatics Fraction.



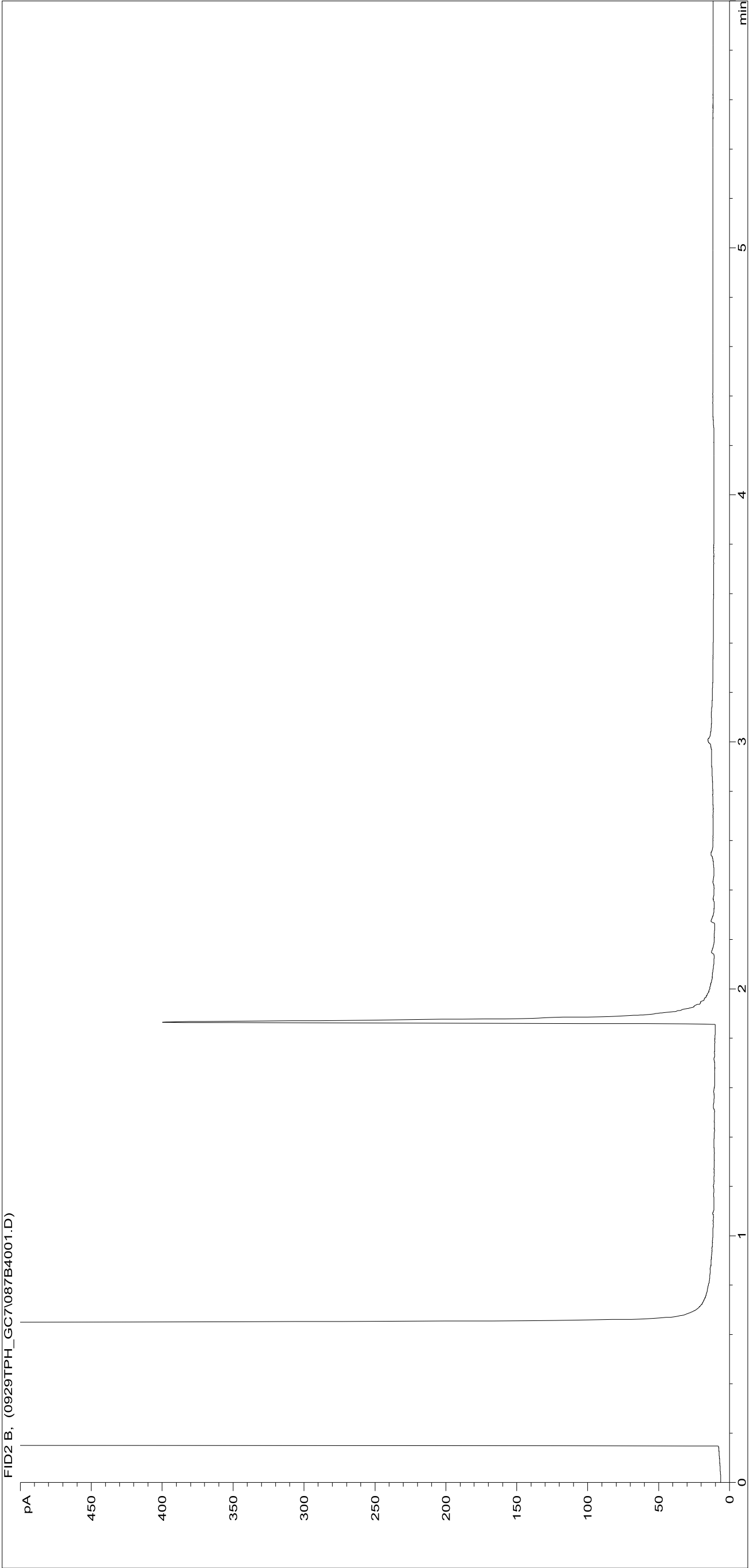
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Multiplier:	0.001	Client:	Ground Investigation Ltd
Dilution:	1	Site:	Afan Way, Port Talbot
Acquisition Method:	MAX_RUNF.M	Client Sample Ref:	BH2
Acquisition Date/Time:	29-Sep-07		
Datafile:	D:\TES\DATA\Y2007\0929TPH_GC7\086B3901.D		

Petroleum Hydrocarbons (C8 to C40) by GC/FID Aliphatics Fraction.



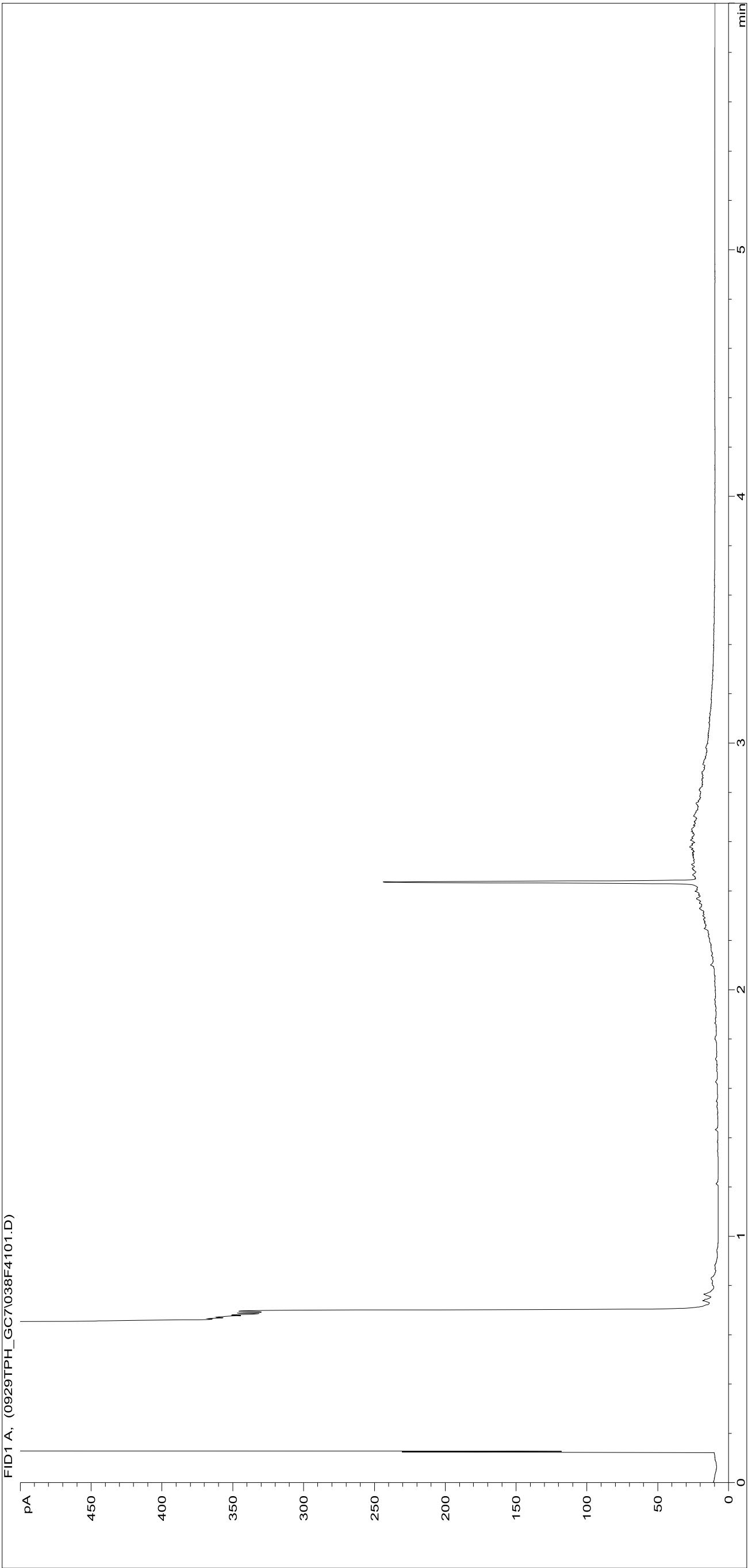
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Multiplier:	0.001	Client:	Ground Investigation Ltd
Dilution:	1	Site:	Afan Way, Port Talbot
Acquisition Method:	MAX_RUNF.M	Client Sample Ref:	BH3
Acquisition Date/Time:	29-Sep-07		
Datafile:	D:\TES\DATA\Y2007\0929TPH_GC7\037F4001.D		

Petroleum Hydrocarbons (C8 to C40) by GC/FID Aromatics Fraction.



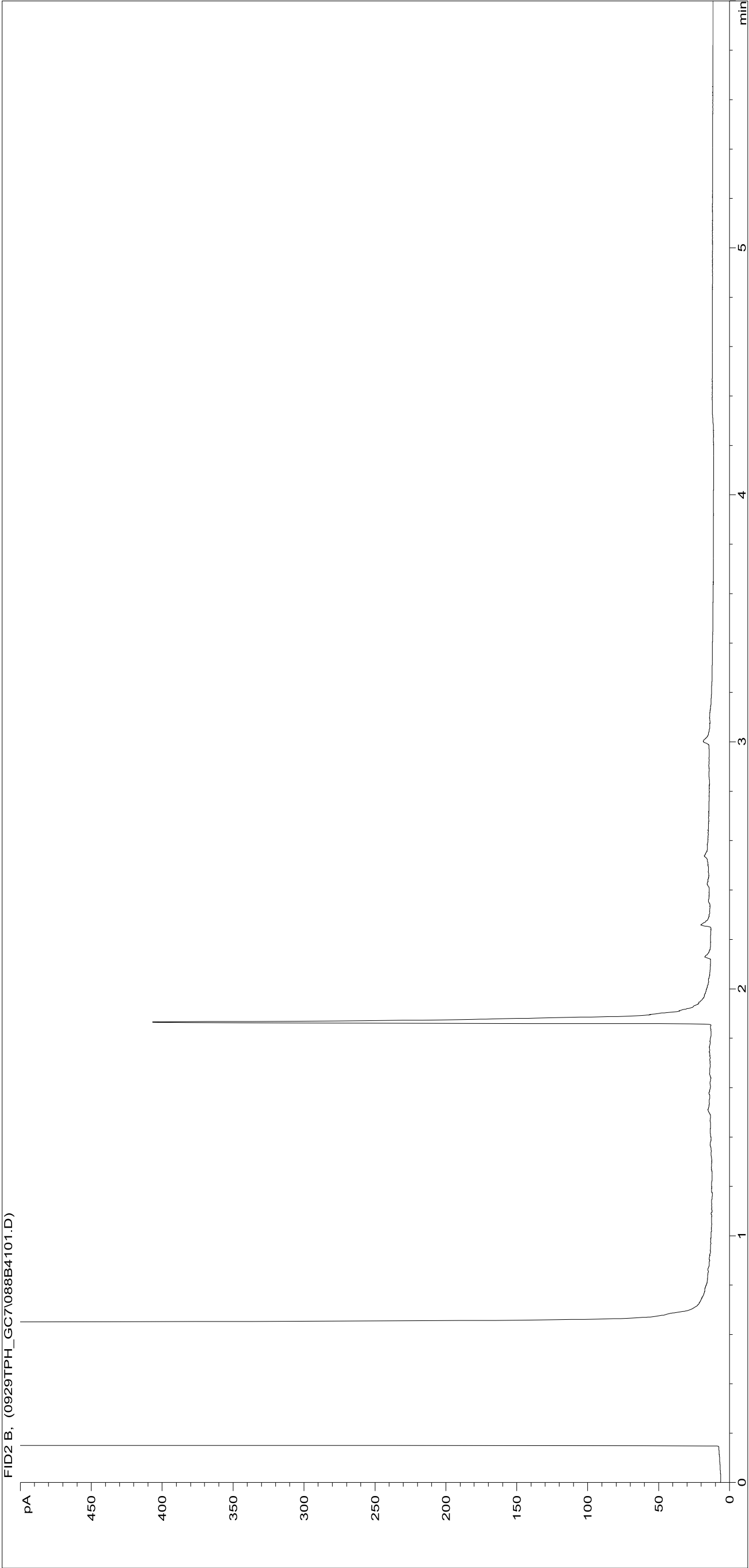
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Multiplier:	0.001	Client:	Ground Investigation Ltd
Dilution:	1	Site:	Afan Way, Port Talbot
Acquisition Method:	MAX_RUNF.M	Client Sample Ref:	BH3
Acquisition Date/Time:	29-Sep-07		
Datafile:	D:\TES\DATA\Y2007\0929TPH_GC7\087B4001.D		

Petroleum Hydrocarbons (C8 to C40) by GC/FID Aliphatics Fraction.



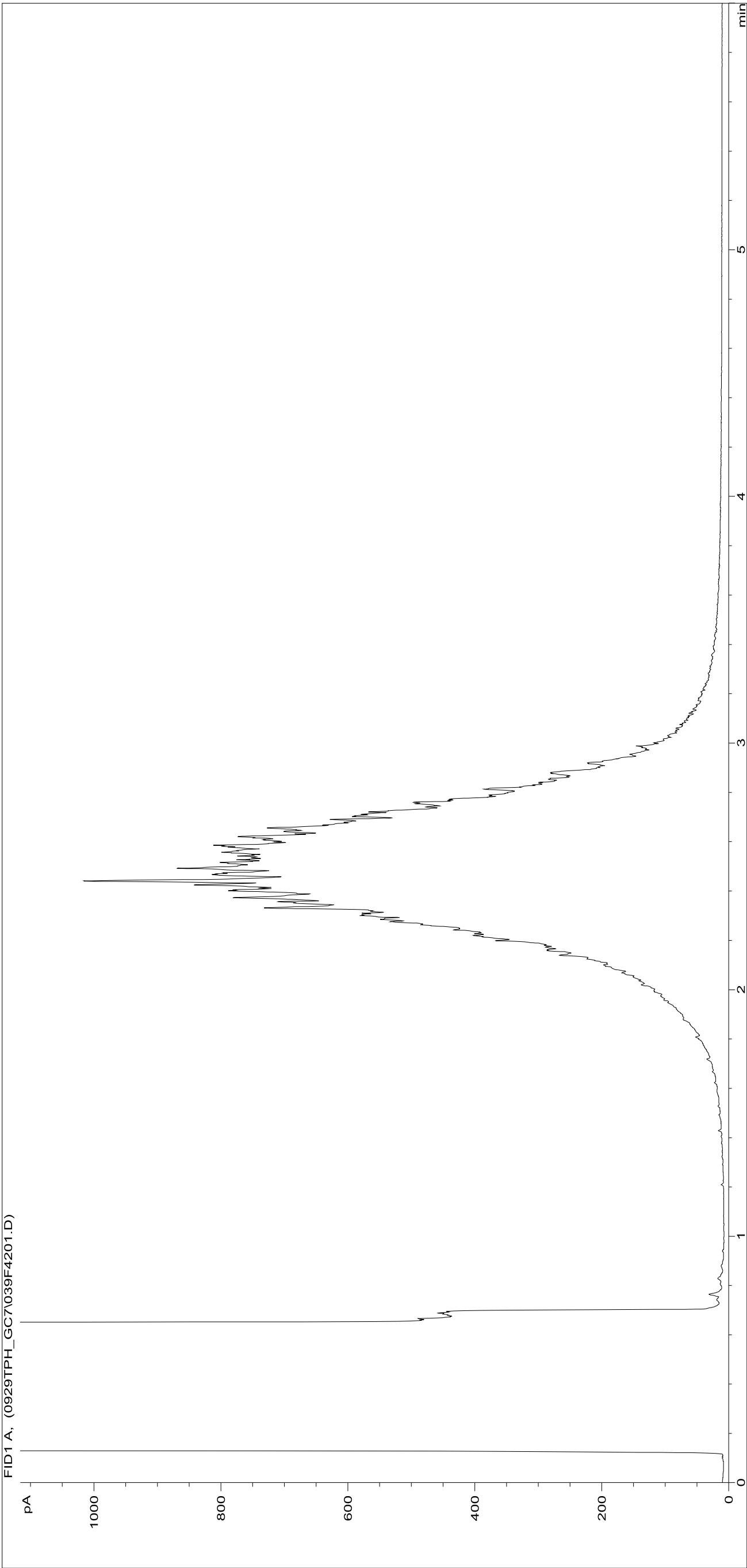
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Multiplier:	0.001	Client:	Ground Investigation Ltd
Dilution:	1	Site:	Afan Way, Port Talbot
Acquisition Method:	MAX_RUNF.M	Client Sample Ref:	BH4
Acquisition Date/Time:	29-Sep-07		
Datafile:	D:\TES\DATA\Y2007\0929TPH_GC7\038F4101.D		

Petroleum Hydrocarbons (C8 to C40) by GC/FID Aromatics Fraction.



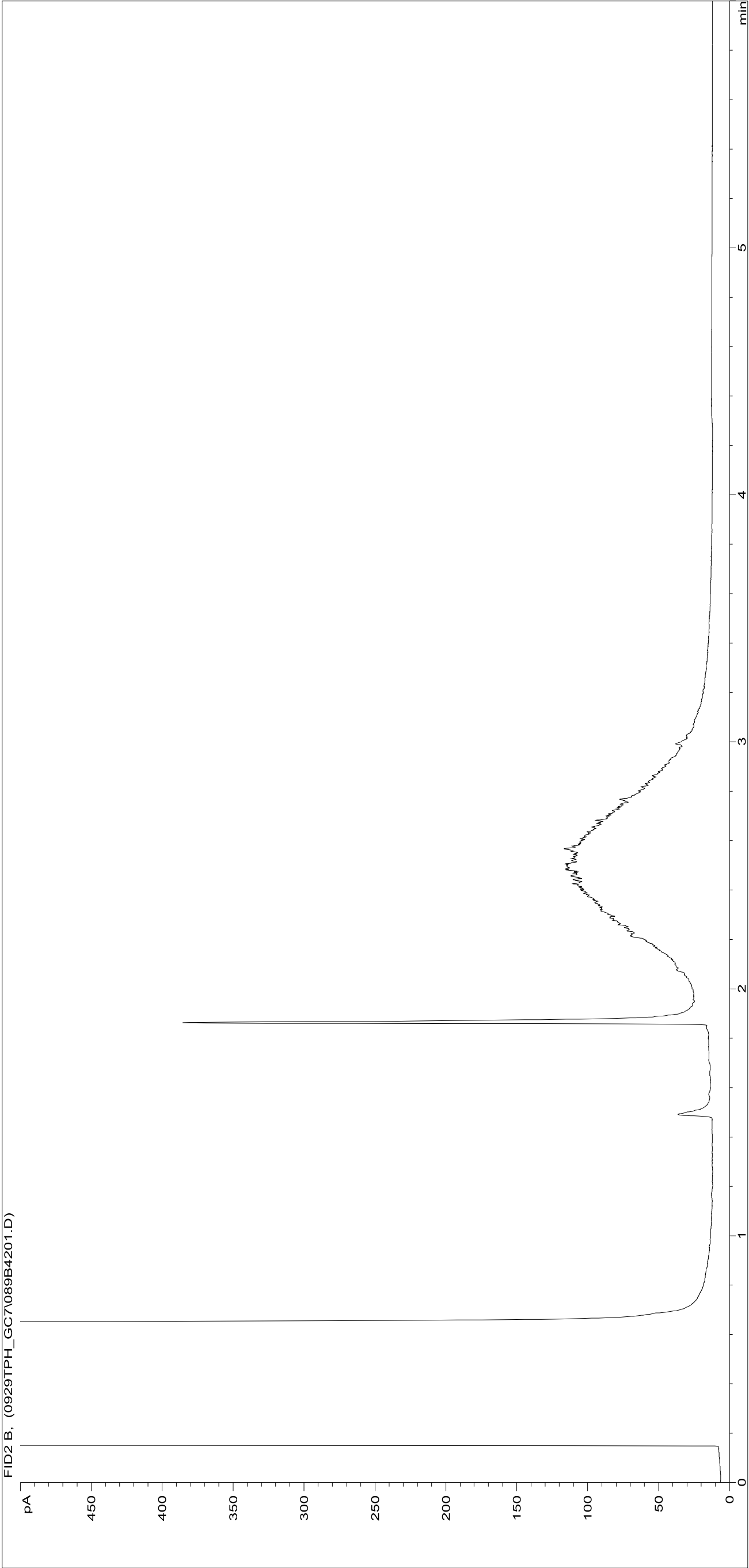
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Multiplier:	0.001	Client:	Ground Investigation Ltd
Dilution:	1	Site:	Afan Way, Port Talbot
Acquisition Method:	MAX_RUNF.M	Client Sample Ref:	BH4
Acquisition Date/Time:	29-Sep-07		
Datafile:	D:\TES\DATA\Y2007\0929TPH_GC7\088B4101.D		

Petroleum Hydrocarbons (C8 to C40) by GC/FID Aliphatics Fraction.



Sample ID:	EX0725488ALI	Job Number:	W07_5374
Multiplier:	0.001	Client:	Ground Investigation Ltd
Dilution:	1	Site:	Afan Way, Port Talbot
Acquisition Method:	MAX_RUNF.M	Client Sample Ref:	BH6
Acquisition Date/Time:	29-Sep-07		
Datafile:	D:\TES\DATA\Y2007\0929TPH_GC7\039F4201.D		

Petroleum Hydrocarbons (C8 to C40) by GC/FID Aromatics Fraction.



Sample ID:	EX0725488ARO	Job Number:	W07_5374
Multiplier:	0.001	Client:	Ground Investigation Ltd
Dilution:	1	Site:	Afan Way, Port Talbot
Acquisition Method:	MAX_RUNF.M	Client Sample Ref:	BH6
Acquisition Date/Time:	29-Sep-07		
Datafile:	D:\TES\DATA\Y2007\0929TPH_GC7\089B4201.D		

Volatile Organic Compounds by HSA-GCMS

UKAS accredited?: Yes

Customer and Site Details:		Ground Investigation Ltd: Afan Way, Port Talbot	
Sample Details:		BH1	
LIMS ID Number:		EX0725484	
Job Number:		W07_5374	

Directory/Quant file:		1005VOC.MS8\	Initial Calibration	Matrix:	Water
Date Booked in:		26-Sep-07		Method:	Headspace
Date Analysed:		06-Oct-07		Multiplier:	1
Operator:		AH		Position:	30

Target Compounds	CAS #	R.T. (min.)	Concentration µg/l	% Fit
Dichlorodifluoromethane	75-71-8 *	-	< 1	-
Chloromethane	74-87-3	-	< 1	-
Vinyl Chloride	75-01-4	-	< 1	-
Bromomethane	74-83-9 *	-	< 5	-
Chloroethane	75-00-3	-	< 5	-
Trichlorofluoromethane	75-69-4	-	< 1	-
1,1-Dichloroethene	75-35-4	-	< 1	-
trans 1,2-Dichloroethene	156-60-5	-	< 1	-
1,1-Dichloroethane	75-34-3	-	< 1	-
2,2-Dichloropropane	594-20-7 *	-	< 1	-
cis 1,2-Dichloroethene	156-59-2	-	< 1	-
Bromochloromethane	74-97-5	-	< 1	-
Chloroform	67-66-3	-	< 5	-
1,1,1-Trichloroethane	71-55-6	-	< 1	-
Carbon Tetrachloride	56-23-5	-	< 1	-
1,1-Dichloropropene	563-58-6	-	< 1	-
Benzene	71-43-2	-	< 1	-
1,2-Dichloroethane	107-06-2	-	< 1	-
Trichloroethene	79-01-6	-	< 5	-
1,2-Dichloropropane	78-87-5	-	< 1	-
Dibromomethane	74-95-3	-	< 1	-
Bromodichloromethane	75-27-4	-	< 1	-
cis 1,3-Dichloropropene	10061-01-5 *	-	< 1	-
Toluene	108-88-3	-	< 1	-
trans 1,3-Dichloropropene	10061-02-6 *	-	< 1	-
1,1,2-Trichloroethane	79-00-5	-	< 1	-
Tetrachloroethene	127-18-4	-	< 5	-
1,3-Dichloropropane	142-28-9	-	< 1	-
Dibromochloromethane	124-48-1	-	< 1	-
1,2-Dibromoethane	106-93-4	-	< 1	-
Chlorobenzene	108-90-7	-	< 1	-
Ethylbenzene	100-41-4	-	< 1	-
1,1,1,2-Tetrachloroethane	630-20-6	-	< 1	-
m and p-Xylene	108-38-3/106-42-3	-	< 1	-
o-Xylene	95-47-6	-	< 1	-

Target Compounds	CAS #	R.T. (min.)	Concentration µg/l	% Fit
Styrene	100-42-5	-	< 1	-
Bromoform	75-25-2	-	< 1	-
iso-Propylbenzene	98-82-8	-	< 1	-
1,1,2,2-Tetrachloroethane	79-34-5	-	< 1	-
Propylbenzene	103-65-1	-	< 1	-
Bromobenzene	108-86-1	-	< 1	-
1,2,3-Trichloropropane	96-18-4	-	< 1	-
2-Chlorotoluene	95-49-8	-	< 1	-
1,3,5-Trimethylbenzene	108-67-8	-	< 1	-
4-Chlorotoluene	106-43-4	-	< 1	-
tert-Butylbenzene	98-06-6	-	< 1	-
1,2,4-Trimethylbenzene	95-63-6	-	< 1	-
sec-Butylbenzene	135-98-8	-	< 1	-
p-Isopropyltoluene	99-87-6	-	< 1	-
1,3-Dichlorobenzene	541-73-1	-	< 1	-
1,4-Dichlorobenzene	106-46-7	-	< 1	-
n-Butylbenzene	104-51-8	-	< 1	-
1,2-Dichlorobenzene	95-50-1	-	< 5	-
1,2-Dibromo-3-chloropropane	96-12-8 *	-	< 5	-
1,2,4-Trichlorobenzene	120-82-1	-	< 5	-
Hexachlorobutadiene	87-68-3	-	< 5	-
Naphthalene	91-20-3	-	< 5	-
1,2,3-Trichlorobenzene	87-61-6	-	< 5	-

Compounds marked * are not UKAS accredited
"M" denotes that % fit has been manually interpreted

Internal standards	R.T.	Area %	Surrogates	% Rec
Pentafluorobenzene	3.67	116	Dibromofluoromethane	112
1,4-Difluorobenzene	4.01	122	Toluene-d8	100
Chlorobenzene-d5	5.12	119	Bromofluorobenzene	95
1,4-Dichlorobenzene-d4	5.91	106		

Volatile Organic Compounds by HSA-GCMS

UKAS accredited?: Yes

Customer and Site Details:		Ground Investigation Ltd: Afan Way, Port Talbot	
Sample Details:		BH2	
LIMS ID Number:		EX0725485	
Job Number:		W07_5374	

Directory/Quant file:		1005VOC.MS8\	Initial Calibration	Matrix:	Water
Date Booked in:		26-Sep-07		Method:	Headspace
Date Analysed:		06-Oct-07		Multiplier:	1
Operator:		AH		Position:	32

Target Compounds	CAS #	R.T. (min.)	Concentration µg/l	% Fit
Dichlorodifluoromethane	75-71-8 *	-	< 1	-
Chloromethane	74-87-3	-	< 1	-
Vinyl Chloride	75-01-4	-	< 1	-
Bromomethane	74-83-9 *	-	< 5	-
Chloroethane	75-00-3	-	< 5	-
Trichlorofluoromethane	75-69-4	-	< 1	-
1,1-Dichloroethene	75-35-4	-	< 1	-
trans 1,2-Dichloroethene	156-60-5	-	< 1	-
1,1-Dichloroethane	75-34-3	-	< 1	-
2,2-Dichloropropane	594-20-7 *	-	< 1	-
cis 1,2-Dichloroethene	156-59-2	-	< 1	-
Bromochloromethane	74-97-5	-	< 1	-
Chloroform	67-66-3	-	< 5	-
1,1,1-Trichloroethane	71-55-6	-	< 1	-
Carbon Tetrachloride	56-23-5	-	< 1	-
1,1-Dichloropropene	563-58-6	-	< 1	-
Benzene	71-43-2	-	< 1	-
1,2-Dichloroethane	107-06-2	-	< 1	-
Trichloroethene	79-01-6	-	< 5	-
1,2-Dichloropropane	78-87-5	-	< 1	-
Dibromomethane	74-95-3	-	< 1	-
Bromodichloromethane	75-27-4	-	< 1	-
cis 1,3-Dichloropropene	10061-01-5 *	-	< 1	-
Toluene	108-88-3	-	< 1	-
trans 1,3-Dichloropropene	10061-02-6 *	-	< 1	-
1,1,2-Trichloroethane	79-00-5	-	< 1	-
Tetrachloroethene	127-18-4	-	< 5	-
1,3-Dichloropropane	142-28-9	-	< 1	-
Dibromochloromethane	124-48-1	-	< 1	-
1,2-Dibromoethane	106-93-4	-	< 1	-
Chlorobenzene	108-90-7	-	< 1	-
Ethylbenzene	100-41-4	-	< 1	-
1,1,1,2-Tetrachloroethane	630-20-6	-	< 1	-
m and p-Xylene	108-38-3/106-42-3	-	< 1	-
o-Xylene	95-47-6	-	< 1	-

Target Compounds	CAS #	R.T. (min.)	Concentration µg/l	% Fit
Styrene	100-42-5	-	< 1	-
Bromoform	75-25-2	-	< 1	-
iso-Propylbenzene	98-82-8	-	< 1	-
1,1,2,2-Tetrachloroethane	79-34-5	-	< 1	-
Propylbenzene	103-65-1	-	< 1	-
Bromobenzene	108-86-1	-	< 1	-
1,2,3-Trichloropropane	96-18-4	-	< 1	-
2-Chlorotoluene	95-49-8	-	< 1	-
1,3,5-Trimethylbenzene	108-67-8	-	< 1	-
4-Chlorotoluene	106-43-4	-	< 1	-
tert-Butylbenzene	98-06-6	-	< 1	-
1,2,4-Trimethylbenzene	95-63-6	-	< 1	-
sec-Butylbenzene	135-98-8	-	< 1	-
p-Isopropyltoluene	99-87-6	-	< 1	-
1,3-Dichlorobenzene	541-73-1	-	< 1	-
1,4-Dichlorobenzene	106-46-7	-	< 1	-
n-Butylbenzene	104-51-8	-	< 1	-
1,2-Dichlorobenzene	95-50-1	-	< 5	-
1,2-Dibromo-3-chloropropane	96-12-8 *	-	< 5	-
1,2,4-Trichlorobenzene	120-82-1	-	< 5	-
Hexachlorobutadiene	87-68-3	-	< 5	-
Naphthalene	91-20-3	-	< 5	-
1,2,3-Trichlorobenzene	87-61-6	-	< 5	-

Compounds marked * are not UKAS accredited
"M" denotes that % fit has been manually interpreted

Internal standards	R.T.	Area %	Surrogates	% Rec
Pentafluorobenzene	3.67	108	Dibromofluoromethane	116
1,4-Difluorobenzene	4.01	116	Toluene-d8	100
Chlorobenzene-d5	5.12	114	Bromofluorobenzene	94
1,4-Dichlorobenzene-d4	5.90	96		

Volatile Organic Compounds by HSA-GCMS

UKAS accredited?: Yes

Customer and Site Details:		Ground Investigation Ltd: Afan Way, Port Talbot	
Sample Details:		BH3	
LIMS ID Number:		EX0725486	
Job Number:		W07_5374	

Directory/Quant file:		1008VOC.MS8\	Initial Calibration	Matrix:	Water
Date Booked in:		26-Sep-07		Method:	Headspace
Date Analysed:		08-Oct-07		Multiplier:	1
Operator:		AH		Position:	7

Target Compounds	CAS #	R.T. (min.)	Concentration µg/l	% Fit
Dichlorodifluoromethane	75-71-8 *	-	< 1	-
Chloromethane	74-87-3	-	< 1	-
Vinyl Chloride	75-01-4	-	< 1	-
Bromomethane	74-83-9 *	-	< 5	-
Chloroethane	75-00-3	-	< 5	-
Trichlorofluoromethane	75-69-4	-	< 1	-
1,1-Dichloroethene	75-35-4	-	< 1	-
trans 1,2-Dichloroethene	156-60-5	-	< 1	-
1,1-Dichloroethane	75-34-3	-	< 1	-
2,2-Dichloropropane	594-20-7 *	-	< 1	-
cis 1,2-Dichloroethene	156-59-2	-	< 1	-
Bromochloromethane	74-97-5	-	< 1	-
Chloroform	67-66-3	-	< 5	-
1,1,1-Trichloroethane	71-55-6	-	< 1	-
Carbon Tetrachloride	56-23-5	-	< 1	-
1,1-Dichloropropene	563-58-6	-	< 1	-
Benzene	71-43-2	-	< 1	-
1,2-Dichloroethane	107-06-2	-	< 1	-
Trichloroethene	79-01-6	-	< 5	-
1,2-Dichloropropane	78-87-5	-	< 1	-
Dibromomethane	74-95-3	-	< 1	-
Bromodichloromethane	75-27-4	-	< 1	-
cis 1,3-Dichloropropene	10061-01-5 *	-	< 1	-
Toluene	108-88-3	-	< 1	-
trans 1,3-Dichloropropene	10061-02-6 *	-	< 1	-
1,1,2-Trichloroethane	79-00-5	-	< 1	-
Tetrachloroethene	127-18-4	-	< 5	-
1,3-Dichloropropane	142-28-9	-	< 1	-
Dibromochloromethane	124-48-1	-	< 1	-
1,2-Dibromoethane	106-93-4	-	< 1	-
Chlorobenzene	108-90-7	-	< 1	-
Ethylbenzene	100-41-4	-	< 1	-
1,1,1,2-Tetrachloroethane	630-20-6	-	< 1	-
m and p-Xylene	108-38-3/106-42-3	-	< 1	-
o-Xylene	95-47-6	-	< 1	-

Target Compounds	CAS #	R.T. (min.)	Concentration µg/l	% Fit
Styrene	100-42-5	-	< 1	-
Bromoform	75-25-2	-	< 1	-
iso-Propylbenzene	98-82-8	-	< 1	-
1,1,2,2-Tetrachloroethane	79-34-5	-	< 1	-
Propylbenzene	103-65-1	-	< 1	-
Bromobenzene	108-86-1	-	< 1	-
1,2,3-Trichloropropane	96-18-4	-	< 1	-
2-Chlorotoluene	95-49-8	-	< 1	-
1,3,5-Trimethylbenzene	108-67-8	-	< 1	-
4-Chlorotoluene	106-43-4	-	< 1	-
tert-Butylbenzene	98-06-6	-	< 1	-
1,2,4-Trimethylbenzene	95-63-6	-	< 1	-
sec-Butylbenzene	135-98-8	-	< 1	-
p-Isopropyltoluene	99-87-6	-	< 1	-
1,3-Dichlorobenzene	541-73-1	-	< 1	-
1,4-Dichlorobenzene	106-46-7	-	< 1	-
n-Butylbenzene	104-51-8	-	< 1	-
1,2-Dichlorobenzene	95-50-1	-	< 5	-
1,2-Dibromo-3-chloropropane	96-12-8 *	-	< 5	-
1,2,4-Trichlorobenzene	120-82-1	-	< 5	-
Hexachlorobutadiene	87-68-3	-	< 5	-
Naphthalene	91-20-3	-	< 5	-
1,2,3-Trichlorobenzene	87-61-6	-	< 5	-

Compounds marked * are not UKAS accredited
"M" denotes that % fit has been manually interpreted

Internal standards	R.T.	Area %	Surrogates	% Rec
Pentafluorobenzene	3.67	83	Dibromofluoromethane	109
1,4-Difluorobenzene	4.01	84	Toluene-d8	100
Chlorobenzene-d5	5.12	85	Bromofluorobenzene	97
1,4-Dichlorobenzene-d4	5.90	82		

Volatile Organic Compounds by HSA-GCMS

UKAS accredited?: Yes

Customer and Site Details:		Ground Investigation Ltd: Afan Way, Port Talbot
Sample Details:		BH4
LIMS ID Number:		EX0725487
Job Number:		W07_5374

Directory/Quant file:	1008VOC.MS8\	Initial Calibration	Matrix:	Water
Date Booked in:	26-Sep-07		Method:	Headspace
Date Analysed:	08-Oct-07		Multiplier:	1
Operator:	AH		Position:	8

Target Compounds	CAS #	R.T. (min.)	Concentration µg/l	% Fit
Dichlorodifluoromethane	75-71-8 *	-	< 1	-
Chloromethane	74-87-3	-	< 1	-
Vinyl Chloride	75-01-4	-	< 1	-
Bromomethane	74-83-9 *	-	< 5	-
Chloroethane	75-00-3	-	< 5	-
Trichlorofluoromethane	75-69-4	-	< 1	-
1,1-Dichloroethene	75-35-4	-	< 1	-
trans 1,2-Dichloroethene	156-60-5	-	< 1	-
1,1-Dichloroethane	75-34-3	-	< 1	-
2,2-Dichloropropane	594-20-7 *	-	< 1	-
cis 1,2-Dichloroethene	156-59-2	-	< 1	-
Bromochloromethane	74-97-5	-	< 1	-
Chloroform	67-66-3	-	< 5	-
1,1,1-Trichloroethane	71-55-6	-	< 1	-
Carbon Tetrachloride	56-23-5	-	< 1	-
1,1-Dichloropropene	563-58-6	-	< 1	-
Benzene	71-43-2	-	< 1	-
1,2-Dichloroethane	107-06-2	-	< 1	-
Trichloroethene	79-01-6	-	< 5	-
1,2-Dichloropropane	78-87-5	-	< 1	-
Dibromomethane	74-95-3	-	< 1	-
Bromodichloromethane	75-27-4	-	< 1	-
cis 1,3-Dichloropropene	10061-01-5 *	-	< 1	-
Toluene	108-88-3	-	< 1	-
trans 1,3-Dichloropropene	10061-02-6 *	-	< 1	-
1,1,2-Trichloroethane	79-00-5	-	< 1	-
Tetrachloroethene	127-18-4	-	< 5	-
1,3-Dichloropropane	142-28-9	-	< 1	-
Dibromochloromethane	124-48-1	-	< 1	-
1,2-Dibromoethane	106-93-4	-	< 1	-
Chlorobenzene	108-90-7	-	< 1	-
Ethylbenzene	100-41-4	-	< 1	-
1,1,1,2-Tetrachloroethane	630-20-6	-	< 1	-
m and p-Xylene	108-38-3/106-42-3	-	< 1	-
o-Xylene	95-47-6	-	< 1	-

Target Compounds	CAS #	R.T. (min.)	Concentration µg/l	% Fit
Styrene	100-42-5	-	< 1	-
Bromoform	75-25-2	-	< 1	-
iso-Propylbenzene	98-82-8	-	< 1	-
1,1,2,2-Tetrachloroethane	79-34-5	-	< 1	-
Propylbenzene	103-65-1	-	< 1	-
Bromobenzene	108-86-1	-	< 1	-
1,2,3-Trichloropropane	96-18-4	-	< 1	-
2-Chlorotoluene	95-49-8	-	< 1	-
1,3,5-Trimethylbenzene	108-67-8	-	< 1	-
4-Chlorotoluene	106-43-4	-	< 1	-
tert-Butylbenzene	98-06-6	-	< 1	-
1,2,4-Trimethylbenzene	95-63-6	-	< 1	-
sec-Butylbenzene	135-98-8	-	< 1	-
p-Isopropyltoluene	99-87-6	-	< 1	-
1,3-Dichlorobenzene	541-73-1	-	< 1	-
1,4-Dichlorobenzene	106-46-7	-	< 1	-
n-Butylbenzene	104-51-8	-	< 1	-
1,2-Dichlorobenzene	95-50-1	-	< 5	-
1,2-Dibromo-3-chloropropane	96-12-8 *	-	< 5	-
1,2,4-Trichlorobenzene	120-82-1	-	< 5	-
Hexachlorobutadiene	87-68-3	-	< 5	-
Naphthalene	91-20-3	-	< 5	-
1,2,3-Trichlorobenzene	87-61-6	-	< 5	-

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"M" denotes that % fit has been manually interpreted

Internal standards	R.T.	Area %	Surrogates	% Rec
Pentafluorobenzene	3.67	87	Dibromofluoromethane	107
1,4-Difluorobenzene	4.01	87	Toluene-d8	100
Chlorobenzene-d5	5.12	88	Bromofluorobenzene	96
1,4-Dichlorobenzene-d4	5.90	84		

Volatile Organic Compounds by HSA-GCMS

UKAS accredited?: Yes

Customer and Site Details:		Ground Investigation Ltd: Afan Way, Port Talbot	
Sample Details:		BH6	
LIMS ID Number:		EX0725488	
Job Number:		W07_5374	

Directory/Quant file:		1008VOC.MS8\	Initial Calibration	Matrix:	Water
Date Booked in:		26-Sep-07		Method:	Headspace
Date Analysed:		08-Oct-07		Multiplier:	1
Operator:		AH		Position:	10

Target Compounds	CAS #	R.T. (min.)	Concentration µg/l	% Fit
Dichlorodifluoromethane	75-71-8 *	-	< 1	-
Chloromethane	74-87-3	-	< 1	-
Vinyl Chloride	75-01-4	-	< 1	-
Bromomethane	74-83-9 *	-	< 5	-
Chloroethane	75-00-3	-	< 5	-
Trichlorofluoromethane	75-69-4	-	< 1	-
1,1-Dichloroethene	75-35-4	-	< 1	-
trans 1,2-Dichloroethene	156-60-5	-	< 1	-
1,1-Dichloroethane	75-34-3	-	< 1	-
2,2-Dichloropropane	594-20-7 *	-	< 1	-
cis 1,2-Dichloroethene	156-59-2	-	< 1	-
Bromochloromethane	74-97-5	-	< 1	-
Chloroform	67-66-3	-	< 5	-
1,1,1-Trichloroethane	71-55-6	-	< 1	-
Carbon Tetrachloride	56-23-5	-	< 1	-
1,1-Dichloropropene	563-58-6	-	< 1	-
Benzene	71-43-2	-	< 1	-
1,2-Dichloroethane	107-06-2	-	< 1	-
Trichloroethene	79-01-6	-	< 5	-
1,2-Dichloropropane	78-87-5	-	< 1	-
Dibromomethane	74-95-3	-	< 1	-
Bromodichloromethane	75-27-4	-	< 1	-
cis 1,3-Dichloropropene	10061-01-5 *	-	< 1	-
Toluene	108-88-3	-	< 1	-
trans 1,3-Dichloropropene	10061-02-6 *	-	< 1	-
1,1,2-Trichloroethane	79-00-5	-	< 1	-
Tetrachloroethene	127-18-4	-	< 5	-
1,3-Dichloropropane	142-28-9	-	< 1	-
Dibromochloromethane	124-48-1	-	< 1	-
1,2-Dibromoethane	106-93-4	-	< 1	-
Chlorobenzene	108-90-7	-	< 1	-
Ethylbenzene	100-41-4	-	< 1	-
1,1,1,2-Tetrachloroethane	630-20-6	-	< 1	-
m and p-Xylene	108-38-3/106-42-3	-	< 1	-
o-Xylene	95-47-6	-	< 1	-

Target Compounds	CAS #	R.T. (min.)	Concentration µg/l	% Fit
Styrene	100-42-5	-	< 1	-
Bromoform	75-25-2	-	< 1	-
iso-Propylbenzene	98-82-8	-	< 1	-
1,1,2,2-Tetrachloroethane	79-34-5	-	< 1	-
Propylbenzene	103-65-1	-	< 1	-
Bromobenzene	108-86-1	-	< 1	-
1,2,3-Trichloropropane	96-18-4	-	< 1	-
2-Chlorotoluene	95-49-8	-	< 1	-
1,3,5-Trimethylbenzene	108-67-8	-	< 1	-
4-Chlorotoluene	106-43-4	-	< 1	-
tert-Butylbenzene	98-06-6	-	< 1	-
1,2,4-Trimethylbenzene	95-63-6	-	< 1	-
sec-Butylbenzene	135-98-8	-	< 1	-
p-Isopropyltoluene	99-87-6	-	< 1	-
1,3-Dichlorobenzene	541-73-1	-	< 1	-
1,4-Dichlorobenzene	106-46-7	-	< 1	-
n-Butylbenzene	104-51-8	-	< 1	-
1,2-Dichlorobenzene	95-50-1	-	< 5	-
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1,2,4-Trichlorobenzene	120-82-1	-	< 5	-
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Naphthalene	91-20-3	-	< 5	-
1,2,3-Trichlorobenzene	87-61-6	-	< 5	-

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Chlorobenzene-d5	5.12	83	Bromofluorobenzene	97
1,4-Dichlorobenzene-d4	5.90	80		

Report Notes

Soil/Solid analysis specific:

Results expressed as mg/kg on an air dried basis unless stated otherwise
S04 analysis not conducted in accordance with BS1377 unless otherwise stated
Water Soluble Sulphate on 2:1 water:soil extract
AR denotes analysis conducted on the As Received sample

Water analysis specific:

Results expressed as mg/l unless stated otherwise

Oil analysis specific:

Results expressed as mg/kg unless stated otherwise
S.G. expressed as g/cm³@ 15°C

Filter analysis specific:

Results expressed as mg on filter unless stated otherwise

VOC analysis specific:

Explanatory notes for data flagging
U = undetected above reporting limit
J = concentration at instrument was below lowest calibration standard
E = concentration at instrument was above top calibration standard
B = compound was detected in method blank

Gas (Tedlar bag) analysis specific:

Results expressed as ug/l unless stated otherwise

Air (Carbon tube) analysis specific:

Results expressed as ug on tube unless stated otherwise

Asbestos analysis specific:

CH denotes Chrysotile
CR denotes Crocidolite
AM denotes Amosite
NADIS denotes No Asbestos Detected in Sample
NBFO denotes No Bulk fibres Observed

General notes:

^ this analysis was subcontracted to another laboratory
\$ Within laboratory tolerances
\$\$ unable to analyse due to nature of sample
¥ Results for guidance only, possible interference
& Blank corrected
I.S insufficient sample for analysis
Intf Unable to analyse due to interferences
N.D Not determined
N.R Not recorded
N.Det Not detected
Req Analysis Requested, see attached sheets for results
P Raised detection limit due to nature of sample
***** denotes that all accreditation has been removed by the laboratory for this result.
‡ denotes that Mcerts accreditation has been removed by the laboratory for this result.
Note: The Laboratory may only claim that data is accredited when all of the requirements of our Quality System have been met. Where these requirements have not been met the laboratory may elect to include the data in its final report and remove the accreditation from individual data items if it believes that the validity of the data has not been affected.

If you require further details of the circumstances leading to the removal of the accreditation from any data item please do not hesitate to contact the laboratory

END OF REPORT