TECHNICAL NOTE ADDENDUM

DATE:	19 September 2023	**CONFIDENTIALITY:**	Internal
SUBJECT:	Ewenny Road Water Quality Assessment Addendum		
PROJECT:	70090113	**AUTHOR:**	Thomas Vincent

INTRODUCTION

This Technical Note Addendum forms an addendum to the Technical Note previously produced by WSP titled 'Groundwater Inflow Assessment for Ewenny Road, Maesteg', dated 18 July 2023.

In order to locate and describe a historic adit beneath the site, it is proposed that an area of the site will be excavated and dewatered. The findings of the Technical Note were that based on the geometry and hydrogeological properties of the proposed excavation to be dewatered, a rate of dewatering of between 44.0 m^3/day and 121.1 m^3/day was expected with a radius of influence of 17.49 m.

It is proposed that the water pumped from the excavation will be discharged on the site to soakaway in an excavated pit.

Following completion of the Technical Note, additional groundwater and surface water samples have been collected to inform the recommendations outlined, which included:

- Obtaining an upstream, midstream and downgradient surface water sample from the Llynfi River and analysing the samples for heavy metals, hydrocarbons and miscellaneous inorganics (pH, dissolved organic carbon and dissolved calcium). This would allow assessment of the background water quality of the likely ultimate receiving waters. It would also be prudent to obtain sample descriptions and photographs of the river.
- Obtaining a further low-flow groundwater sample from SP-A and analysing the sample for the same chemical suite as previous. In-situ parameters (specifically dissolved oxygen, pH, oxidation reduction potential and suspended solids) and groundwater level data should be collected during sampling.
- A site walkover should be completed to find any other serviceable boreholes. If reasonably practicable, a groundwater sample should be obtained from identified locations and analysed for the same chemical suite as SP-A. In-situ parameters (specifically dissolved oxygen, pH, oxidation reduction potential and suspended solids) and groundwater level data should be collected during sampling.

This Technical Note Addendum has been produced to present the additional data in **Appendix A** and an interpretation of the potential impacts of the proposed dewatering and associated soakaway of groundwater.

SITE WALKOVER

A site walkover was completed in August 2023 to determine the location of other serviceable monitoring borehole locations in addition to the previously sampled SP-A. On visiting the site, BH-4 was located in the south of the site. BH-1 is known to be present on-site but could not be located. The approximate locations of the boreholes are detailed in **Figure *1***.

Figure 1: Site plan detailing known borehole locations.

WATER QUALITY ASSESSMENT

Hydrogeological Conceptual Model

It is currently assumed that groundwater flow across the site is in the direction of the Llynfi River which is located to the eastern site boundary and flows in a north to south direction. This would indicate that currently the Llynfi River is receiving groundwater from beneath the site.

The proposed dewatering to allow for inspection of the adit will involve dewatering of groundwater from the Made ground, superficial deposits and underlying bedrock. The water will then be discharged to soakaway in another excavation in the same deposits.

The hydrogeological conceptual model for the site during dewatering is that the pumping of groundwater from the excavation containing the adit and soakaway to the same hydrogeological unit will be non-consumptive and given that the radius of influence of pumping is smaller than the distance to the Llynfi River that no change to the water balance would occur over the period of works.

However in order to conduct a conservative appraisal of the proposed works the following considerations are made for assessment:

- Consideration of the scenario that dewatering draws water from the adit in addition to the baseline of groundwater flow from the made ground and superficial deposits, with a dilution assessment of the worst-case additional loading of analytes in the Llynfi River without attenuation in groundwater; and
- A consideration of the potential for leaching of analytes from the Made ground that could potentially impact on the baseline of groundwater quality.

CONSIDERATION OF CURRENT IMPACTS FROM THE SITE ON THE LLYNFI RIVER

Additional monitoring has been undertaken to identify whether there is currently an observable impact from the groundwater beneath the site on the Llynfi River at the downstream point compared to the upstream.

The site was revisited on 11/08/2023 with the objective of collecting samples from both groundwater and surface water (Llynfi River) locations to better inform the preliminary water quality assessment previously produced.

Following inspection of the site, only one other serviceable borehole could be located other than SP-A – BH4. Three groundwater samples were obtained from the site, comprising duplicate samples obtained from SP-A, and one sample obtained from BH-4. Additionally, three surface water samples were obtained; these were located upstream, midstream, and downstream.

Laboratory testing of the samples included analysis of petroleum hydrocarbons, polycyclic aromatic hydrocarbons (PAH), volatile organic compounds (VOCs), heavy metals, and several inorganic analytes. Testing was undertaken at an accredited laboratory; ALS UK Ltd. Laboratory certificates are included as **Appendix A**. Screening sheets for ground water and surface water are contained in **Appendix B**.

GROUNDWATER QUALITY

Concentrations of analytes in groundwater exceeding their respective EQS values are detailed in **Table *1***. Additionally, analytes that were previously found in exceedance of guideline concentrations are included.

Table 1: Concentrations of analytes in groundwater either exceeding, or known to have exceeded, EQS.

ANALYTE	EQS (µG/L)	GROUNDWATER CONCENTRATION (µG/L)		
		SP-A	SP-A (D)	BH-4
Aromatic C16-C21	0.1	<10	<10	<10
Aromatic C21-C35	0.0002	<10	<10	<10
Zinc	10.9 (BA)	1.97 (BA)	3.16 (BA)	1.90 (BA)
Fluoranthene	0.006	<0.005	<0.005	<0.005
Manganese	123 (BA)	1,550 (BA)	1,120 (BA)	682 (BA)
Nickel	4 (BA)	3.68 (BA)	3.83 (BA)	1.35 (BA)
Chromium	4.70	2.45	5.29	1.63
Iron	1,000	<19	<19	2,720

**N.B. BA – Bioavailable*

HYDROCARBONS

Aromatics C16-C21 and C21-C35 and fluoranthene were previously recorded in concentrations exceeding the EQS yet are now recorded at lower concentrations than their respective EQS, or below the laboratory limit of detection. It is considered likely that this is a result of the sampling methodology used previously; samples were previously acquired via bailing, whereas in the most recent sampling exercise low-flow techniques were utilised. It is widely understood that samples acquired through bailing do not best characterise the surrounding groundwater conditions and commonly entrain sediment, whilst samples acquired through low-flow techniques are considered the best representative of surrounding groundwater conditions.

The concentrations of aromatics previously recorded are noted to be in excess of their aqueous solubility concentrations (CL:AIRE, 2017), indicating that entrainment of solids is likely responsible for these exceedances and as a result, it is considered unlikely that dissolved hydrocarbons or free product will pose a risk to the Llynfi River as a result of the dewatering.

Hydrocarbons are therefore screened out of the groundwater source term for assessment. During the dewatering if free-product hydrocarbons are observed the dewatering would cease immediately.

METALS

A Metal Bioavailability Assessment (M-BAT) has been undertaken using the data acquired from the second sampling exercise to determine the concentration of bioavailable metals (zinc, manganese, nickel) for comparison with the EQS (also measured in bioavailability).

Concentrations of bioavailable zinc and nickel acquired from the second sampling exercise do not exceed EQS. As a result, these are not considered to be of concern and are screened out from further assessment.

Laboratory analysis of manganese, chromium and iron has reported concentrations in exceedance of their respective EQS. This is likely owed to the history of coal mining at the site. Hence contaminants of concern for further consideration of the potential impact on the Llynfi River are manganese, chromium and iron.

BACKGROUND WATER QUALITY OF THE LLYNFI RIVER

Three surface water samples were obtained from the Llynfi River to provide an assessment of the background water quality of the likely ultimate receiving waters. Samples were taken from upstream, midstream, and downgradient locations and screened against EQS. Concentrations of contaminants exceeding the EQS are displayed in **Table *2***. Upstream and downstream monitoring data results are similar which indicates that the current impact from the site on the Llynfi River is negligible.

Table 2: Concentrations of analytes exceeding the EQS in surface water

ANALYTE	EQS (µG/L)	SURFACE WATER CONCENTRATION (µG/L)		
		SW1 (UP)	SW2 (MID)	SW3 (DOWN)
Chromium	4.70	6.64	6.76	6.61
Copper	1.00	1.16	1.27	1.34
Hexavalent Chromium	3.40	6.77	5.78	6.49

The analytes found to be elevated above the EQS in groundwater are reproduced in **Table *3***. Concentrations of chromium are higher in the Llynfi River than in groundwater, hence there can be no further adverse impact from groundwater on the Llynfi River. Therefore chromium is screened out of the groundwater source term of assessment of the proposed dewatering.

Table 3: Concentrations in surface water of analytes either exceeding, or known to have exceeded the EQS in groundwater

ANALYTE	EQS (µG/L)	SURFACE WATER CONCENTRATION (µG/L)		
		SW1 (UP)	SW2 (MID)	SW3 (DOWN)
Manganese	123 (BA)	25.7	13.9	27.7
Chromium	4.70	6.64	6.76	6.61
Iron	1,000	88.6	72.9	100

On this basis the remaining source term analytes for assessment of the impact from groundwater on the Llynfi River are manganese and iron.

Risks to Controlled Waters

As a worst-case assessment of the potential impacts of the dewatering on the Llynfi River this assessment considers a dilution assessment of the volume dewatered if it was additional to the existing superficial groundwater flow to enter the Llynfi River without the attenuation provided by migration through the aquifer following the soakaway.

The National River Flow Archive indicates that the Llynfi River at Maesteg has a river gauging station for water level only. The upstream catchment at this location has an area of 14.95 km^2. The closed downstream flow gauging station on the Llynfi River is at Coytrahen. Here the catchment area is reported to be 50.5 km^2. The Q95, or worst-case low flow (5^{th} percentile of flows) is considered the most conservative appraisal of dilution flow in the Llynfi River. By prorating the Q95 reported at Coytrahen of 0.369 m^3/s by the proportion of the catchment area at Maesteg, this gives an estimate of the Q95 at Maesteg of 0.110 m^3/s.

The dilution calculation is based on the following methodology:

Calculation of mass of analyte present in upstream surface water:

$$q_{sw} \times c_{sw} = m_{sw}$$

$$q_{gw} \times c_{gw} = m_{gw}$$

$$\frac{[m_{sw} + m_{gw}]}{[q_{sw} + q_{gw}]} = c_{dsw}$$

Where:

q_{sw}: Q95 flow rate of the Llynfi River (l/s)

c_{sw}: Measured upstream concentration (µg/l)

m_{sw}: Mass flux of analyte in Llynfi River (µg/s)

q_{gw}: Volume of pumped groundwater (l/s)

c_{gw}: Maximum groundwater concentration (µg/l)

m_{gw}: Mass flux of analyte in pumped groundwater (µg/s)

c_{dsw}: Estimated downstream concentration (µg/l)

Table 4: Estimated concentrations of analytes in surface water downstream of the site

ANALYTE	EQS (µG/L)	GROUNDWATER SOURCE TERM	UPGRADIENT SURFACE WATER	ESTIMATE OF DOWNSTREAM SURFACE WATER
Manganese	123 (BA)	1,550	25.7	44.9
Iron	1,000	2,720	88.6	121.7

The results of the dilution calculations indicated that the estimated worst-case concentration for manganese and iron in the Llynfi River downstream of the site remains below the EQS. It is noted that this assessment is highly conservative as it assumes flow rate of the Llynfi River at the Q95 and assumes no attenuation in the aquifer between the soakaway and the discharge. The approach also assumes that the volume of groundwater discharged to the soakaway is additional to the water balance which is not the case as it has been dewatered and infiltrated into the same system.

CONSIDERATION OF ADDITIONAL LEACHING OF EXISTING SOILS

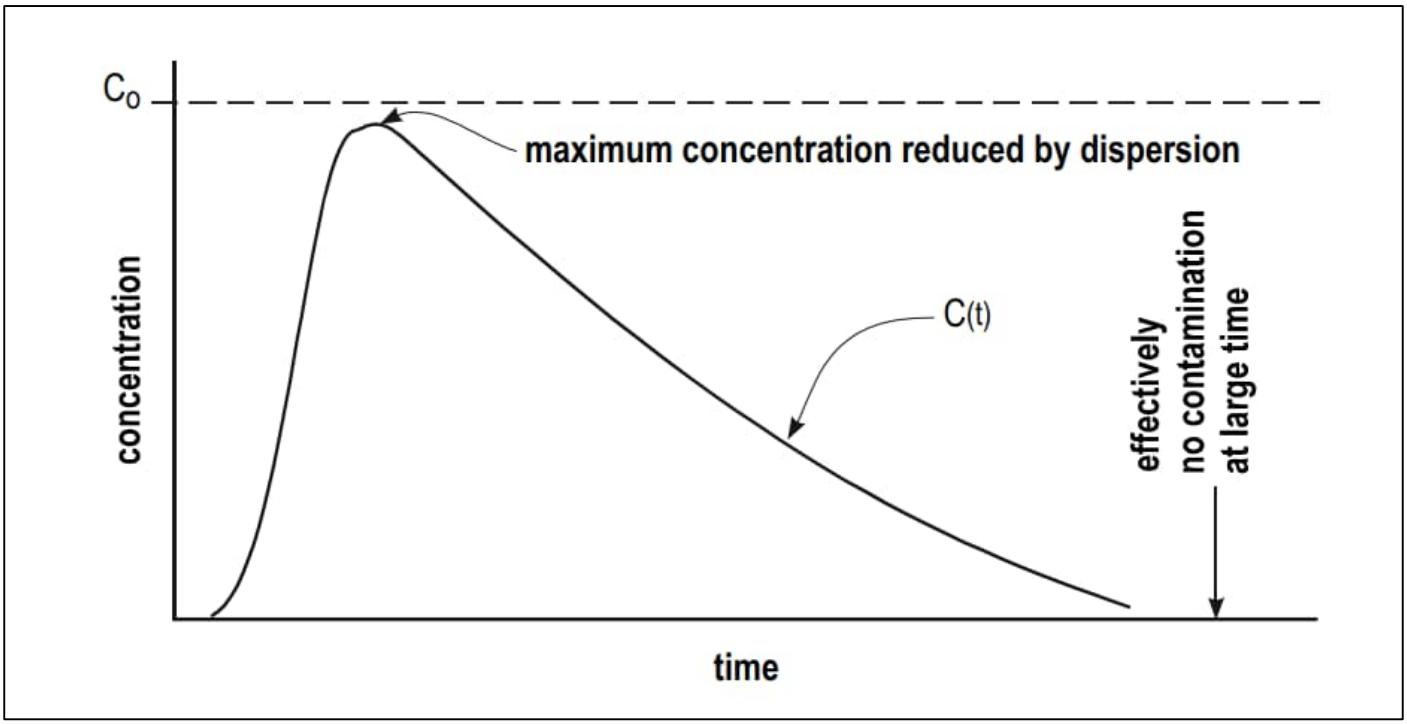
A high-level indication of the potential for leaching is considered in this assessment. The assessment assumes that the source of the concentration of iron and manganese in groundwater is the Made ground rather than mine water which is considered in the previous assessment.

The rate at which contaminants may be leached from soils is dependant on the initial concentration of the contaminant, the contaminant properties and the degree of leaching (known as liquid solids ratio).

This assessment considers the potential decline in concentration as a result of leaching by the soakaway and seeks to quantify based on the decline the mass of contaminant released over the period.

Given that the Made ground has been in place for a significant period of time, it is considered likely that the concentration remaining in the source has declined in line with the source term decline as detailed in Figure 1.

Figure 1: Source term decline



For concentrations of analytes leached from the Made ground in to groundwater, the change in concentration of the leachate from the start to the end of the soakaway period can be calculated.

The methodology considered in ConSim for calculating the concentration in leachate at a given time is:

$$Cl_t = Cs_0 - Cs_0\left[1 - e^{\left(-LS/R_x\right)}\right]$$

Where:

Cl_t: Leach concentration at time t (mg/l)

Cs_0: Initial soil concentration (mg/kg)

LS: Liquid solids ratio (unitless)

R_x: Contaminant specific factors relating to the rate of decline of the source, for these mobile metals this has been approximated using the partition coefficient Kd.

The liquid solid ratio is calculated using the following approach:

$$LS = \frac{inf}{M_s}$$

Where:

t_d: time since the source decline began (years)

inf: total infiltration rate through the source (mm/yr)

M_s: soil mass (kg)

The following assumptions are made so that a high-level calculation of the impact on liquids solid ratio from the soakaway can be made:

- It is assumed that the Made ground has been in place for approximately 50 years.
- The Met Office indicate that the average annual rainfall for the period 1991 to 2020 for the region is 1471 mm. If it is assumed that the Made ground has been in place for 50 years and that at least 50% of precipitation either runs off or evaporates, then the average annual recharge is assumed to be in the order of 735 mm.
- It is assumed that 4 m of Made ground remains beneath the soakaway with a density of 1,700 kg/m^3.

Therefore the current liquid solids ratio for the site is estimated to be:

$$LS = \frac{36700}{6800} = 5.4\ mm/kg$$

It is assumed that the soakaway will comprise a 10 m by 10 m area over which 121.1 m^3 per day will be soaked away. Hence over a 7-week period, 5,934 m^3 of dewatered groundwater will be discharged or the equivalent recharge of 59,339 mm.

$$LS = \frac{(36700 + 59339)}{6800} = 14.1\ mm/kg$$

These liquid to solid ratio can be used to estimate the change in leachate concentration and hence the total mass released from the soil over the period of operation of the soakaway.

Based on a calculation of source term it is estimated that the concentration of iron in groundwater may locally change from in the order of 1,550 µg/l to 1,339 µg/l and manganese from 2,720 µg/l to 2,615 µg/l in response to leaching. The associated average increase in the concentration of iron and manganese in the Llynfi River is estimated to be in the order of 0.7 µg/l for iron and 1.3 µg/l for manganese which would be below the EQS in both cases.

CONCLUSION

The findings of this technical memorandum are that of the identified contaminants of concern in groundwater, the impacts from the proposed soakaway of pumped groundwater will not have an impact above the EQS in the Llynfi River as a result of the dilution of the volumes discharged or as a consequence of the leaching effect of the soakaway on the underlying Made Ground.

APPENDIX A – LABORATORY DATA

Units 7-8 Hawarden Business Park
Manor Road (off Manor Lane)
Hawarden
Deeside
CH5 3US
Tel: (01244) 528777
email: hawardencustomerservices@alsglobal.com
Website: www.alsenvironmental.co.uk

WSP UK Limited
8 First Street
Manchester
Lancashire
M15 4RP

Attention: Jo Lavery-Hoffe

CERTIFICATE OF ANALYSIS

Date of report Generation:	23 August 2023
Customer:	WSP UK Limited
Sample Delivery Group (SDG):	230815-6
Your Reference:	70090113
Location:	ewenny road, maesteg
Report No:	701059
Order Number:	20167458

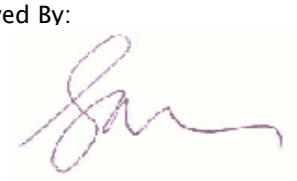
We received 7 samples on Tuesday August 15, 2023 and 7 of these samples were scheduled for analysis which was completed on Wednesday August 23, 2023. Accredited laboratory tests are defined within the report, but opinions, interpretations and on-site data expressed herein are outside the scope of ISO 17025 accreditation.

Should this report require incorporation into client reports, it must be used in its entirety and not simply with the data sections alone.

Chemical testing (unless subcontracted) performed at ALS Laboratories (UK) Limited Hawarden.

All sample data is provided by the customer. The reported results relate to the sample supplied, and on the basis that this data is correct.
Incorrect sampling dates and/or sample information will affect the validity of results.

Approved By:



Sonia McWhan
Operations Manager

1291

CERTIFICATE OF ANALYSIS

SDG: 230815-6 **Report Number:** 701059 **Superseded Report:**
Client Ref.: 70090113 **Location:** ewenny road, maesteg

Received Sample Overview

Lab Sample No(s)	Customer Sample Ref.	AGS Ref.	Depth (m)	Sampled Date
28478222	BH-4	EW20230811	0.00 - 0.00	11/08/2023
28478204	DUP	EW20230811	0.00 - 0.00	11/08/2023
28478195	SP-A	EW20230811	0.00 - 0.00	11/08/2023
28478249	SW3-DOWN	EW20230811	0.00 - 0.00	11/08/2023
28478240	SW2-MID	EW20230811	0.00 - 0.00	11/08/2023
28478231	SW1-UP	EW20230811	0.00 - 0.00	11/08/2023
28478213	Trip Blank	EW20230811	0.00 - 0.00	11/08/2023

Only received samples which have had analysis scheduled will be shown on the following pages.

CERTIFICATE OF ANALYSIS

SDG: 230815-6 **Report Number:** 701059 **Superseded Report:**
Client Ref.: 70090113 **Location:** ewenny road, maesteg

Results Legend
X Test
N No Determination Possible

Sample Types -
S - Soil/Solid
UNS - Unspecified Solid
GW - Ground Water
SW - Surface Water
LE - Land Leachate
PL - Prepared Leachate
PR - Process Water
SA - Saline Water
TE - Trade Effluent
TS - Treated Sewage
US - Untreated Sewage
RE - Recreational Water
DW - Drinking Water
Non-regulatory
UNL - Unspecified Liquid
SL - Sludge
G - Gas
OTH - Other

			Lab Sample No(s)	Customer Sample Reference	AGS Reference	Depth (m)	Container	Sample Type
			28478222	BH-4	EW202308 11	0.00 - 0.00	0.5l glass bottle (ALE227)	GW
							500ml Plastic (ALE208)	GW
							H2SO4 (ALE244)	GW
							HCl Filtered (ALE250)	GW
							HNO3 Filtered (ALE204)	GW
							NaOH (ALE245)	GW
							Vial (ALE297)	GW
			28478204	DUP	EW202308 11	0.00 - 0.00	0.5l glass bottle (ALE227)	GW
							500ml Plastic (ALE208)	GW
							H2SO4 (ALE244)	GW
							HCl Filtered (ALE250)	GW
							HNO3 Filtered (ALE204)	GW
							NaOH (ALE245)	GW
							Vial (ALE297)	GW
			28478195	SP-A	EW202308 11	0.00 - 0.00	0.5l glass bottle (ALE227)	GW
							500ml Plastic (ALE208)	GW
							H2SO4 (ALE244)	GW
							HCl Filtered (ALE250)	GW
							HNO3 Filtered (ALE204)	GW
							NaOH (ALE245)	GW
							Vial (ALE297)	GW
Anions by Kone (w)	All	NDPs: 0 Tests: 7		X				X						X						
Dissolved Metals by ICP-MS	All	NDPs: 0 Tests: 7					X						X						X	
Dissolved Organic/Inorganic Carbon	All	NDPs: 0 Tests: 7	X							X					X					
EPH CWG (Aliphatic) Aqueous GC (W)	All	NDPs: 0 Tests: 7	X							X					X					
EPH CWG (Aromatic) Aqueous GC (W)	All	NDPs: 0 Tests: 7	X							X					X					
Ferric Iron	All	NDPs: 0 Tests: 7				X							X						X	
Ferrous Iron	All	NDPs: 0 Tests: 7				X							X						X	
GRO by GC-FID (W)	All	NDPs: 0 Tests: 7						X						X						X
Low Level Cyanide (W)	All	NDPs: 0 Tests: 7					X							X					X	
Low Level Hexavalent Chromium (w)	All	NDPs: 0 Tests: 7		X							X						X			
Mercury Dissolved	All	NDPs: 0 Tests: 7					X						X						X	
Nitrite by Kone (w)	All	NDPs: 0 Tests: 7					X							X					X	
pH Value	All	NDPs: 0 Tests: 7		X							X						X			
Phenols by HPLC (W)	All	NDPs: 0 Tests: 7			X							X						X		
Total Metals by ICP-MS	All	NDPs: 0 Tests: 7		X							X						X			

28478231	SW1-UP	EW20230811	0.00 - 0.00	HNO3 Filtered (ALE204)	SW		X									X				
				HCl Filtered (ALE250)	SW						X	X								
				H2SO4 (ALE244)	SW														X	
				500ml Plastic (ALE208)	SW	X									X			X		X
				0.5l glass bottle (ALE227)	SW			X	X	X										
28478240	SW2-MID	EW20230811	0.00 - 0.00	Vial (ALE297)	SW								X							
				NaOH (ALE245)	SW									X			X			
				HNO3 Filtered (ALE204)	SW		X									X				
				HCl Filtered (ALE250)	SW						X	X								
				H2SO4 (ALE244)	SW														X	
				500ml Plastic (ALE208)	SW	X									X			X		X
				0.5l glass bottle (ALE227)	SW			X	X	X										
28478249	SW3-DOWN	EW20230811	0.00 - 0.00	Vial (ALE297)	SW								X							
				NaOH (ALE245)	SW									X			X			
				HNO3 Filtered (ALE204)	SW		X									X				
				HCl Filtered (ALE250)	SW						X	X								
				H2SO4 (ALE244)	SW														X	
				500ml Plastic (ALE208)	SW	X									X			X		X
				0.5l glass bottle (ALE227)	SW			X	X	X										

CERTIFICATE OF ANALYSIS

SDG: 230815-6 **Report Number:** 701059 **Superseded Report:**
Client Ref.: 70090113 **Location:** ewenny road, maesteg

Results Legend

- X Test
- N No Determination Possible

Sample Types -

- S - Soil/Solid
- UNS - Unspecified Solid
- GW - Ground Water
- SW - Surface Water
- LE - Land Leachate
- PL - Prepared Leachate
- PR - Process Water
- SA - Saline Water
- TE - Trade Effluent
- TS - Treated Sewage
- US - Untreated Sewage
- RE - Recreational Water
- DW - Drinking Water Non-regulatory
- UNL - Unspecified Liquid
- SL - Sludge
- G - Gas
- OTH - Other

Lab Sample No(s)			28478222							28478204							28478195						
Customer Sample Reference			BH-4							DUP							SP-A						
AGS Reference			EW20230811							EW20230811							EW20230811						
Depth (m)			0.00 - 0.00							0.00 - 0.00							0.00 - 0.00						
Container			0.5l glass bottle (ALE227)	500ml Plastic (ALE208)	H2SO4 (ALE244)	HCl Filtered (ALE250)	HNO3 Filtered (ALE204)	NaOH (ALE245)	Vial (ALE297)	0.5l glass bottle (ALE227)	500ml Plastic (ALE208)	H2SO4 (ALE244)	HCl Filtered (ALE250)	HNO3 Filtered (ALE204)	NaOH (ALE245)	Vial (ALE297)	0.5l glass bottle (ALE227)	500ml Plastic (ALE208)	H2SO4 (ALE244)	HCl Filtered (ALE250)	HNO3 Filtered (ALE204)	NaOH (ALE245)	Vial (ALE297)
Sample Type			GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW
TPH CWG (W)	All	NDPs: 0 Tests: 7	X							X							X						
VOC MS (W)	All	NDPs: 0 Tests: 7							X							X							X

28478231	SW1-UP	EW20230811	0.00 - 0.00	HNO3 Filtered (ALE204)	SW		
				HCl Filtered (ALE250)	SW		
				H2SO4 (ALE244)	SW		
				500ml Plastic (ALE208)	SW		
				0.5l glass bottle (ALE227)	SW	X	
28478240	SW2-MID	EW20230811	0.00 - 0.00	Vial (ALE297)	SW		X
				NaOH (ALE245)	SW		
				HNO3 Filtered (ALE204)	SW		
				HCl Filtered (ALE250)	SW		
				H2SO4 (ALE244)	SW		
				500ml Plastic (ALE208)	SW		
				0.5l glass bottle (ALE227)	SW	X	
28478249	SW3-DOWN	EW20230811	0.00 - 0.00	Vial (ALE297)	SW		X
				NaOH (ALE245)	SW		
				HNO3 Filtered (ALE204)	SW		
				HCl Filtered (ALE250)	SW		
				H2SO4 (ALE244)	SW		
				500ml Plastic (ALE208)	SW		
				0.5l glass bottle (ALE227)	SW	X	

CERTIFICATE OF ANALYSIS

SDG: 230815-6 **Report Number:** 701059 **Superseded Report:**
Client Ref.: 70090113 **Location:** ewenny road, maesteg

Results Legend

X Test

N No Determination Possible

Sample Types -
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Non-regulatory
UNL - Unspecified Liquid
SL - Sludge
G - Gas
OTH - Other

Lab Sample No(s)			28478231			28478213				
Customer Sample Reference			SW1-UP			Trip Blank				
AGS Reference			EW202308 11			EW202308 11				
Depth (m)			0.00 - 0.00			0.00 - 0.00				
Container			NaOH (ALE245)	Vial (ALE297)	0.5l glass bottle (ALE227)	500ml Plastic (ALE208)	H2SO4 (ALE244)	HCl Filtered (ALE250)	NaOH (ALE245)	Vial (ALE297)
Sample Type			SW	SW	GW	GW	GW	GW	GW	GW
Anions by Kone (w)	All	NDPs: 0 Tests: 7				X				
Dissolved Metals by ICP-MS	All	NDPs: 0 Tests: 7				X				
Dissolved Organic/Inorganic Carbon	All	NDPs: 0 Tests: 7			X					
EPH CWG (Aliphatic) Aqueous GC (W)	All	NDPs: 0 Tests: 7			X					
EPH CWG (Aromatic) Aqueous GC (W)	All	NDPs: 0 Tests: 7			X					
Ferric Iron	All	NDPs: 0 Tests: 7						X		
Ferrous Iron	All	NDPs: 0 Tests: 7						X		
GRO by GC-FID (W)	All	NDPs: 0 Tests: 7		X						X
Low Level Cyanide (W)	All	NDPs: 0 Tests: 7	X						X	
Low Level Hexavalent Chromium (w)	All	NDPs: 0 Tests: 7				X				
Mercury Dissolved	All	NDPs: 0 Tests: 7				X				
Nitrite by Kone (w)	All	NDPs: 0 Tests: 7	X						X	
pH Value	All	NDPs: 0 Tests: 7				X				
Phenols by HPLC (W)	All	NDPs: 0 Tests: 7					X			
Total Metals by ICP-MS	All	NDPs: 0 Tests: 7				X				

CERTIFICATE OF ANALYSIS

SDG: 230815-6 **Report Number:** 701059 **Superseded Report:**
Client Ref.: 70090113 **Location:** ewenny road, maesteg

Results Legend

X Test

N No Determination Possible

Sample Types -
S - Soil/Solid
UNS - Unspecified Solid
GW - Ground Water
SW - Surface Water
LE - Land Leachate
PL - Prepared Leachate
PR - Process Water
SA - Saline Water
TE - Trade Effluent
TS - Treated Sewage
US - Untreated Sewage
RE - Recreational Water
DW - Drinking Water
Non-regulatory
UNL - Unspecified Liquid
SL - Sludge
G - Gas
OTH - Other

			Lab Sample No(s)							
			28478231							28478213
			Customer Sample Reference							
			SW1-UP							Trip Blank
			AGS Reference							
			EW202308 11							EW202308 11
			Depth (m)							
			0.00 - 0.00							0.00 - 0.00
			Container	NaOH (ALE245)	Vial (ALE297)	0.5l glass bottle (ALE227)	500ml Plastic (ALE208)	H2SO4 (ALE244)	HCl Filtered (ALE250)	NaOH (ALE245)	Vial (ALE297)
			Sample Type	SW	SW	GW	GW	GW	GW	GW	GW
TPH CWG (W)	All	NDPs: 0 Tests: 7									
					X						
VOC MS (W)	All	NDPs: 0 Tests: 7									
				X							X

CERTIFICATE OF ANALYSIS

SDG: 230815-6 **Report Number:** 701059 **Superseded Report:**
Client Ref.: 70090113 **Location:** ewenny road, maesteg

Results Legend	
#	ISO17025 accredited.
M	mCERTS accredited.
aq	Aqueous / settled sample.
diss.filt	Dissolved / filtered sample.
tot.unfilt	Total / unfiltered sample.
*	Subcontracted - refer to subcontractor report for accreditation status.
**	% recovery of the surrogate standard to check the efficiency of the method. The results of individual compounds within samples aren't corrected for the recovery
(F)	Trigger breach confirmed
1-4+§@	Sample deviation (see appendix)

Component	LOD/Units	Method	Customer Sample Ref.	BH-4	DUP	SP-A	SW3-DOWN	SW2-MID	SW1-UP
			Depth (m)	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00
			Sample Type	Ground Water (GW)	Ground Water (GW)	Ground Water (GW)	Surface Water (SW)	Surface Water (SW)	Surface Water (SW)
			Date Sampled	11/08/2023	11/08/2023	11/08/2023	11/08/2023	11/08/2023	11/08/2023
			Sampled Time	.	.	.	.	.	.
			Date Received	15/08/2023	15/08/2023	15/08/2023	15/08/2023	15/08/2023	15/08/2023
			SDG Ref	230815-6	230815-6	230815-6	230815-6	230815-6	230815-6
			Lab Sample No.(s)	28478222	28478204	28478195	28478249	28478240	28478231
			AGS Reference	EW20230811	EW20230811	EW20230811	EW20230811	EW20230811	EW20230811
Carbon, Organic (diss.filt)	<3000 µg/l	TM090		<3000	<3000	<3000	<3000	<3000	<3000
Iron, Ferric	<50 µg/l	TM125		<50	<50	<50	100	72.9	88.6
Iron, Ferrous	<100 µg/l	TM125		2750 #	<100 #	<100 #	<100 #	<100 #	<100 #
Arsenic (diss.filt)	<0.5 µg/l	TM152		2.15 #	<0.5 #	<0.5 #	<0.5 #	<0.5 #	<0.5 #
Cadmium (diss.filt)	<0.08 µg/l	TM152		<0.08 #	<0.08 #	<0.08 #	<0.08 #	<0.08 #	<0.08 #
Chromium (diss.filt)	<1 µg/l	TM152		1.63 #	5.29 #	2.45 #	6.61 #	6.76 #	6.64 #
Copper (diss.filt)	<0.3 µg/l	TM152		<0.3 #	0.409 #	0.319 #	1.34 #	1.27 #	1.16 #
Manganese (tot.unfilt)	<1 µg/l	TM152		682 2 #	1120 2 #	1550 2 #	27.7 2 #	13.9 2 #	25.7 2 #
Lead (diss.filt)	<0.2 µg/l	TM152		<0.2 #	<0.2 #	<0.2 #	<0.2 #	<0.2 #	<0.2 #
Nickel (diss.filt)	<0.4 µg/l	TM152		1.85 #	5.25 #	5.05 #	0.999 #	1.35 #	1.39 #
Selenium (diss.filt)	<1 µg/l	TM152		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
Zinc (diss.filt)	<1 µg/l	TM152		3.41 #	5.66 #	3.53 #	4.43 #	4.13 #	4.75 #
Iron (Dis.Filt)	<19 µg/l	TM152		2720 #	<19 #	<19 #	100 #	72.9 #	88.6 #
Calcium (Tot. Unfilt.)	<57 µg/l	TM152		53000 2 #	28000 2 #	27800 2 #	17800 2 #	18000 2 #	19100 2 #
Mercury (diss.filt)	<0.01 µg/l	TM183		<0.01 #	<0.01 #	<0.01 #	<0.01	<0.01	<0.01
Nitrite as NO2	<50 µg/l	TM184		<50 #	<50 #	<50 #	<50 #	<50 #	<50 #
Sulphate	<2000 µg/l	TM184		19300 #	24000 #	24300 #	15600 #	15700 #	17500 #
Chloride	<2000 µg/l	TM184		10500 #	13800 #	13800 #	10000 #	10200 #	11400 #
Nitrate as NO3	<300 µg/l	TM184		<300 #	534 #	536 #	1720 #	1810 #	1810 #
pH	<1 pH Units	TM256		7.71 #	6.82 #	7.02 #	8.05 #	8.05 #	8.05 #
Alkalinity, Total as CaCO3	<3000 µg/l	TM256		275000 #	126000 #	127000 #	73000 #	72000 #	80600 #
Phenol	<2 µg/l	TM259		<2 #	<2 #	<2 #	<2	<2	<2
Cresols	<6 µg/l	TM259		<6 #	<6 #	<6 #	<6	<6	<6
Xylenols	<8 µg/l	TM259		<8 #	<8 #	<8 #	<8	<8	<8
Phenols, Total Detected monohydric	<16 µg/l	TM259		<16 #	<16 #	<16 #	<16	<16	<16
Cyanide, Total (low level)	<5 µg/l	TM279		<5 #	<5 #	<5 #	<5 #	<5 #	<5 #
Cyanide, Free (low level)	<2.5 µg/l	TM279		<2.5 #	<2.5 #	<2.5 #	<2.5 #	<2.5 #	<2.5 #
Cyanide, Complex (low level)*	<5 µg/l	TM279		<5	<5	<5	<5	<5	<5
Low Level Hexavalent Chromium	<3 µg/l	TM331		<3 #	<3 #	<3 #	6.49 #	5.78 #	6.77 #

CERTIFICATE OF ANALYSIS

SDG: 230815-6 **Report Number:** 701059 **Superseded Report:**
Client Ref.: 70090113 **Location:** ewenny road, maesteg

Results Legend	
#	ISO17025 accredited.
M	*m*CERTS accredited.
aq	Aqueous / settled sample.
diss.filt	Dissolved / filtered sample.
tot.unfilt	Total / unfiltered sample.
*	Subcontracted - refer to subcontractor report for accreditation status.
**	% recovery of the surrogate standard to check the efficiency of the method. The results of individual compounds within samples aren't corrected for the recovery
(F)	Trigger breach confirmed
1-4+§@	Sample deviation (see appendix)

Customer Sample Ref.	Trip Blank
Depth (m)	0.00 - 0.00
Sample Type	Ground Water (GW)
Date Sampled	11/08/2023
Sampled Time	.
Date Received	15/08/2023
SDG Ref	230815-6
Lab Sample No.(s)	28478213
AGS Reference	EW20230811

Component	LOD/Units	Method	Trip Blank
Carbon, Organic (diss.filt)	<3000 µg/l	TM090	<3000
Iron, Ferric	<50 µg/l	TM125	<50
Iron, Ferrous	<100 µg/l	TM125	<100 #
Arsenic (diss.filt)	<0.5 µg/l	TM152	<0.5 2 #
Cadmium (diss.filt)	<0.08 µg/l	TM152	<0.08 2 #
Chromium (diss.filt)	<1 µg/l	TM152	<1 2 #
Copper (diss.filt)	<0.3 µg/l	TM152	<0.3 2 #
Manganese (tot.unfilt)	<1 µg/l	TM152	<1 2 #
Lead (diss.filt)	<0.2 µg/l	TM152	<0.2 2 #
Nickel (diss.filt)	<0.4 µg/l	TM152	<0.4 2 #
Selenium (diss.filt)	<1 µg/l	TM152	<1 2 #
Zinc (diss.filt)	<1 µg/l	TM152	1.44 2 #
Iron (Dis.Filt)	<19 µg/l	TM152	<19 2 #
Calcium (Tot. Unfilt.)	<57 µg/l	TM152	<57 2 #
Mercury (diss.filt)	<0.01 µg/l	TM183	<0.01 2 #
Nitrite as NO2	<50 µg/l	TM184	<50 #
Sulphate	<2000 µg/l	TM184	<2000 #
Chloride	<2000 µg/l	TM184	<2000 #
Nitrate as NO3	<300 µg/l	TM184	<300 #
pH	<1 pH Units	TM256	5.93 #
Alkalinity, Total as CaCO3	<3000 µg/l	TM256	<3000 #
Phenol	<2 µg/l	TM259	<2 #
Cresols	<6 µg/l	TM259	<6 #
Xylenols	<8 µg/l	TM259	<8 #
Phenols, Total Detected monohydric	<16 µg/l	TM259	<16 #
Cyanide, Total (low level)	<5 µg/l	TM279	<5 #
Cyanide, Free (low level)	<2.5 µg/l	TM279	<2.5 #
Cyanide, Complex (low level)*	<5 µg/l	TM279	<5
Low Level Hexavalent Chromium	<3 µg/l	TM331	<3 #

CERTIFICATE OF ANALYSIS

SDG: 230815-6 **Report Number:** 701059 **Superseded Report:**
Client Ref.: 70090113 **Location:** ewenny road, maesteg

TPH CWG (W)

Results Legend	
#	ISO17025 accredited.
M	mCERTS accredited.
aq	Aqueous / settled sample.
diss.filt	Dissolved / filtered sample.
tot.unfilt	Total / unfiltered sample.
*	Subcontracted - refer to subcontractor report for accreditation status.
**	% recovery of the surrogate standard to check the efficiency of the method. The results of individual compounds within samples aren't corrected for the recovery
(F)	Trigger breach confirmed
1-4+§@	Sample deviation (see appendix)

Component	LOD/Units	Method	Customer Sample Ref.	BH-4	DUP	SP-A	SW3-DOWN	SW2-MID	SW1-UP
			Depth (m)	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00
			Sample Type	Ground Water (GW)	Ground Water (GW)	Ground Water (GW)	Surface Water (SW)	Surface Water (SW)	Surface Water (SW)
			Date Sampled	11/08/2023	11/08/2023	11/08/2023	11/08/2023	11/08/2023	11/08/2023
			Sampled Time	-	-	-	-	-	-
			Date Received	15/08/2023	15/08/2023	15/08/2023	15/08/2023	15/08/2023	15/08/2023
			SDG Ref	230815-6	230815-6	230815-6	230815-6	230815-6	230815-6
			Lab Sample No.(s)	28478222	28478204	28478195	28478249	28478240	28478231
			AGS Reference	EW20230811	EW20230811	EW20230811	EW20230811	EW20230811	EW20230811
GRO Surrogate % recovery**	%	TM245		108	100	115	117	93	119
GRO >C5-C12	<50 µg/l	TM245		<50 #	<50 #	<50 #	<50 #	<50 #	<50 #
Aliphatics >C5-C6	<10 µg/l	TM245		<10	<10	<10	<10	<10	<10
Aliphatics >C6-C8	<10 µg/l	TM245		<10	<10	<10	<10	<10	<10
Aliphatics >C8-C10	<10 µg/l	TM245		<10	<10	<10	<10	<10	<10
Aliphatics >C10-C12	<10 µg/l	TM245		<10	<10	<10	<10	<10	<10
Aliphatics >C12-C16 (aq)	<10 µg/l	TM174		<10	<10	<10	<10	<10	<10
Aliphatics >C16-C21 (aq)	<10 µg/l	TM174		<10	<10	<10	<10	<10	<10
Aliphatics >C21-C35 (aq)	<10 µg/l	TM174		<10	32	54	<10	<10	<10
Total Aliphatics >C12-C35 (aq)	<10 µg/l	TM174		<10	32	54	<10	<10	<10
Aromatics >EC5-EC7	<10 µg/l	TM245		<10	<10	<10	<10	<10	<10
Aromatics >EC7-EC8	<10 µg/l	TM245		<10	<10	<10	<10	<10	<10
Aromatics >EC8-EC10	<10 µg/l	TM245		<10	<10	<10	<10	<10	<10
Aromatics >EC10-EC12	<10 µg/l	TM245		<10	<10	<10	<10	<10	<10
Aromatics >EC12-EC16 (aq)	<10 µg/l	TM174		<10	<10	<10	<10	<10	<10
Aromatics >EC16-EC21 (aq)	<10 µg/l	TM174		<10	<10	<10	<10	<10	<10
Aromatics >EC21-EC35 (aq)	<10 µg/l	TM174		<10	<10	<10	<10	<10	<10
Total Aromatics >EC12-EC35 (aq)	<10 µg/l	TM174		<10	<10	<10	<10	<10	<10
Total Aliphatics & Aromatics >C5-35 (aq)	<10 µg/l	TM174		<10	32	54	<10	<10	<10
Aliphatics >C16-C35 Aqueous	<10 µg/l	TM174		<10	32	54	<10	<10	<10

CERTIFICATE OF ANALYSIS

SDG: 230815-6 **Report Number:** 701059 **Superseded Report:**
Client Ref.: 70090113 **Location:** ewenny road, maesteg

TPH CWG (W)

Results Legend	
#	ISO17025 accredited.
M	*m*CERTS accredited.
aq	Aqueous / settled sample.
diss.filt	Dissolved / filtered sample.
tot.unfilt	Total / unfiltered sample.
*	Subcontracted - refer to subcontractor report for accreditation status.
**	% recovery of the surrogate standard to check the efficiency of the method. The results of individual compounds within samples aren't corrected for the recovery
(F)	Trigger breach confirmed
1-4+§@	Sample deviation (see appendix)

Customer Sample Ref.	Trip Blank
Depth (m)	0.00 - 0.00
Sample Type	Ground Water (GW)
Date Sampled	11/08/2023
Sampled Time	.
Date Received	15/08/2023
SDG Ref	230815-6
Lab Sample No.(s)	28478213
AGS Reference	EW20230811

Component	LOD/Units	Method	
GRO Surrogate % recovery**	%	TM245	116
GRO >C5-C12	<50 µg/l	TM245	<50 #
Aliphatics >C5-C6	<10 µg/l	TM245	<10
Aliphatics >C6-C8	<10 µg/l	TM245	<10
Aliphatics >C8-C10	<10 µg/l	TM245	<10
Aliphatics >C10-C12	<10 µg/l	TM245	<10
Aliphatics >C12-C16 (aq)	<10 µg/l	TM174	<10
Aliphatics >C16-C21 (aq)	<10 µg/l	TM174	<10
Aliphatics >C21-C35 (aq)	<10 µg/l	TM174	<10
Total Aliphatics >C12-C35 (aq)	<10 µg/l	TM174	<10
Aromatics >EC5-EC7	<10 µg/l	TM245	<10
Aromatics >EC7-EC8	<10 µg/l	TM245	<10
Aromatics >EC8-EC10	<10 µg/l	TM245	<10
Aromatics >EC10-EC12	<10 µg/l	TM245	<10
Aromatics >EC12-EC16 (aq)	<10 µg/l	TM174	<10
Aromatics >EC16-EC21 (aq)	<10 µg/l	TM174	<10
Aromatics >EC21-EC35 (aq)	<10 µg/l	TM174	<10
Total Aromatics >EC12-EC35 (aq)	<10 µg/l	TM174	<10
Total Aliphatics & Aromatics >C5-35 (aq)	<10 µg/l	TM174	<10
Aliphatics >C16-C35 Aqueous	<10 µg/l	TM174	<10

VOC MS (W)

Results Legend	
#	ISO17025 accredited.
M	mCERTS accredited.
aq	Aqueous / settled sample.
diss.filt	Dissolved / filtered sample.
tot.unfilt	Total / unfiltered sample.
*	Subcontracted - refer to subcontractor report for accreditation status.
**	% recovery of the surrogate standard to check the efficiency of the method. The results of individual compounds within samples aren't corrected for the recovery
(F)	Trigger breach confirmed
1-4+§@	Sample deviation (see appendix)

Component	LOD/Units	Method	Customer Sample Ref.	BH-4	DUP	SP-A	SW3-DOWN	SW2-MID	SW1-UP
			Depth (m)	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00
			Sample Type	Ground Water (GW)	Ground Water (GW)	Ground Water (GW)	Surface Water (SW)	Surface Water (SW)	Surface Water (SW)
			Date Sampled	11/08/2023	11/08/2023	11/08/2023	11/08/2023	11/08/2023	11/08/2023
			Sampled Time	.	.	.	.	.	.
			Date Received	15/08/2023	15/08/2023	15/08/2023	15/08/2023	15/08/2023	15/08/2023
			SDG Ref	230815-6	230815-6	230815-6	230815-6	230815-6	230815-6
			Lab Sample No.(s)	28478222	28478204	28478195	28478249	28478240	28478231
			AGS Reference	EW20230811	EW20230811	EW20230811	EW20230811	EW20230811	EW20230811
Dibromofluoromethane**	%	TM208		108	98.6	105	105	105	104
Toluene-d8**	%	TM208		99.4	100	99	98.5	99.3	99.8
4-Bromofluorobenzene**	%	TM208		96.9	97.2	99	98.8	98.4	97.5
Dichlorodifluoromethane	µg/l	TM208		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
Chloromethane	µg/l	TM208		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
Vinyl chloride	µg/l	TM208		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
Bromomethane	µg/l	TM208		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
Chloroethane	µg/l	TM208		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
Trichlorofluoromethane	µg/l	TM208		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
1,1-Dichloroethene	µg/l	TM208		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
Carbon disulphide	µg/l	TM208		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
Dichloromethane	µg/l	TM208		<3 #	<3 #	<3 #	<3 #	<3 #	<3 #
Methyl tertiary butyl ether (MTBE)	µg/l	TM208		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
trans-1,2-Dichloroethene	µg/l	TM208		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
1,1-Dichloroethane	µg/l	TM208		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
cis-1,2-Dichloroethene	µg/l	TM208		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
2,2-Dichloropropane	µg/l	TM208		<1	<1	<1	<1	<1	<1
Bromochloromethane	µg/l	TM208		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
Chloroform	µg/l	TM208		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
1,1,1-Trichloroethane	µg/l	TM208		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
1,1-Dichloropropene	µg/l	TM208		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
Carbontetrachloride	µg/l	TM208		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
1,2-Dichloroethane	µg/l	TM208		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
Benzene	µg/l	TM208		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
Trichloroethene	µg/l	TM208		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
1,2-Dichloropropane	µg/l	TM208		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
Dibromomethane	µg/l	TM208		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
Bromodichloromethane	µg/l	TM208		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
cis-1,3-Dichloropropene	µg/l	TM208		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
Toluene	µg/l	TM208		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
trans-1,3-Dichloropropene	µg/l	TM208		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
1,1,2-Trichloroethane	µg/l	TM208		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #

VOC MS (W)

Results Legend	
#	ISO17025 accredited.
M	*m*CERTS accredited.
aq	Aqueous / settled sample.
diss.filt	Dissolved / filtered sample.
tot.unfilt	Total / unfiltered sample.
*	Subcontracted - refer to subcontractor report for accreditation status.
**	% recovery of the surrogate standard to check the efficiency of the method. The results of individual compounds within samples aren't corrected for the recovery
(F)	Trigger breach confirmed
1-4+§@	Sample deviation (see appendix)

Component	LOD/Units	Method	Customer Sample Ref.	BH-4	DUP	SP-A	SW3-DOWN	SW2-MID	SW1-UP
			Depth (m)	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00
			Sample Type	Ground Water (GW)	Ground Water (GW)	Ground Water (GW)	Surface Water (SW)	Surface Water (SW)	Surface Water (SW)
			Date Sampled	11/08/2023	11/08/2023	11/08/2023	11/08/2023	11/08/2023	11/08/2023
			Sampled Time	.	.	.	.	.	.
			Date Received	15/08/2023	15/08/2023	15/08/2023	15/08/2023	15/08/2023	15/08/2023
			SDG Ref	230815-6	230815-6	230815-6	230815-6	230815-6	230815-6
			Lab Sample No.(s)	28478222	28478204	28478195	28478249	28478240	28478231
			AGS Reference	EW20230811	EW20230811	EW20230811	EW20230811	EW20230811	EW20230811
1,3-Dichloropropane	<1 µg/l	TM208		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
Tetrachloroethene	<1 µg/l	TM208		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
Dibromochloromethane	<1 µg/l	TM208		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
1,2-Dibromoethane	<1 µg/l	TM208		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
Chlorobenzene	<1 µg/l	TM208		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
1,1,1,2-Tetrachloroethane	<1 µg/l	TM208		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
Ethylbenzene	<1 µg/l	TM208		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
m,p-Xylene	<1 µg/l	TM208		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
o-Xylene	<1 µg/l	TM208		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
Styrene	<1 µg/l	TM208		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
Bromoform	<1 µg/l	TM208		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
Isopropylbenzene	<1 µg/l	TM208		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
1,1,2,2-Tetrachloroethane	<1 µg/l	TM208		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
1,2,3-Trichloropropane	<1 µg/l	TM208		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
Bromobenzene	<1 µg/l	TM208		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
Propylbenzene	<1 µg/l	TM208		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
2-Chlorotoluene	<1 µg/l	TM208		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
1,3,5-Trimethylbenzene	<1 µg/l	TM208		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
4-Chlorotoluene	<1 µg/l	TM208		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
tert-Butylbenzene	<1 µg/l	TM208		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
1,2,4-Trimethylbenzene	<1 µg/l	TM208		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
sec-Butylbenzene	<1 µg/l	TM208		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
4-iso-Propyltoluene	<1 µg/l	TM208		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
1,3-Dichlorobenzene	<1 µg/l	TM208		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
1,4-Dichlorobenzene	<1 µg/l	TM208		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
n-Butylbenzene	<1 µg/l	TM208		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
1,2-Dichlorobenzene	<1 µg/l	TM208		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
1,2-Dibromo-3-chloropropane	<1 µg/l	TM208		<1	<1	<1	<1	<1	<1
1,2,4-Trichlorobenzene	<1 µg/l	TM208		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
Hexachlorobutadiene	<1 µg/l	TM208		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
tert-Amyl methyl ether (TAME)	<1 µg/l	TM208		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
Naphthalene	<1 µg/l	TM208		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #

CERTIFICATE OF ANALYSIS

SDG: 230815-6 **Report Number:** 701059 **Superseded Report:**
Client Ref.: 70090113 **Location:** ewenny road, maesteg

VOC MS (W)

Results Legend	
#	ISO17025 accredited.
M	mCERTS accredited.
aq	Aqueous / settled sample.
diss.filt	Dissolved / filtered sample.
tot.unfilt	Total / unfiltered sample.
*	Subcontracted - refer to subcontractor report for accreditation status.
**	% recovery of the surrogate standard to check the efficiency of the method. The results of individual compounds within samples aren't corrected for the recovery
(F)	Trigger breach confirmed
1-4+§@	Sample deviation (see appendix)

Component	LOD/Units	Method	Customer Sample Ref.	BH-4	DUP	SP-A	SW3-DOWN	SW2-MID	SW1-UP
			Depth (m)	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00
			Sample Type	Ground Water (GW)	Ground Water (GW)	Ground Water (GW)	Surface Water (SW)	Surface Water (SW)	Surface Water (SW)
			Date Sampled	11/08/2023	11/08/2023	11/08/2023	11/08/2023	11/08/2023	11/08/2023
			Sampled Time	.	.	.	.	.	.
			Date Received	15/08/2023	15/08/2023	15/08/2023	15/08/2023	15/08/2023	15/08/2023
			SDG Ref	230815-6	230815-6	230815-6	230815-6	230815-6	230815-6
			Lab Sample No.(s)	28478222	28478204	28478195	28478249	28478240	28478231
			AGS Reference	EW20230811	EW20230811	EW20230811	EW20230811	EW20230811	EW20230811
1,2,3-Trichlorobenzene	<1 µg/l	TM208		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
1,3,5-Trichlorobenzene	<1 µg/l	TM208		<1	<1	<1	<1	<1	<1
Sum of detected Xylenes	<2 µg/l	TM208		<2	<2	<2	<2	<2	<2
Sum of BTEX	<5 µg/l	TM208		<5	<5	<5	<5	<5	<5

CERTIFICATE OF ANALYSIS

SDG: 230815-6 **Report Number:** 701059 **Superseded Report:**
Client Ref.: 70090113 **Location:** ewenny road, maesteg

VOC MS (W)

Results Legend

#	ISO17025 accredited.
M	*m*CERTS accredited.
aq	Aqueous / settled sample.
diss.filt	Dissolved / filtered sample.
tot.unfilt	Total / unfiltered sample.
*	Subcontracted - refer to subcontractor report for accreditation status.
**	% recovery of the surrogate standard to check the efficiency of the method. The results of individual compounds within samples aren't corrected for the recovery
(F)	Trigger breach confirmed
1-4+§@	Sample deviation (see appendix)

Component	LOD/Units	Method	Customer Sample Ref.	Trip Blank
			Depth (m)	0.00 - 0.00
			Sample Type	Ground Water (GW)
			Date Sampled	11/08/2023
			Sampled Time	.
			Date Received	15/08/2023
			SDG Ref	230815-6
			Lab Sample No.(s)	28478213
			AGS Reference	EW20230811
Dibromofluoromethane**	%	TM208		106
Toluene-d8**	%	TM208		98.9
4-Bromofluorobenzene**	%	TM208		98.1
Dichlorodifluoromethane	<1 µg/l	TM208		<1 #
Chloromethane	<1 µg/l	TM208		<1 #
Vinyl chloride	<1 µg/l	TM208		<1 #
Bromomethane	<1 µg/l	TM208		<1 #
Chloroethane	<1 µg/l	TM208		<1 #
Trichlorofluoromethane	<1 µg/l	TM208		<1 #
1,1-Dichloroethene	<1 µg/l	TM208		<1 #
Carbon disulphide	<1 µg/l	TM208		<1 #
Dichloromethane	<3 µg/l	TM208		<3 #
Methyl tertiary butyl ether (MTBE)	<1 µg/l	TM208		<1 #
trans-1,2-Dichloroethene	<1 µg/l	TM208		<1 #
1,1-Dichloroethane	<1 µg/l	TM208		<1 #
cis-1,2-Dichloroethene	<1 µg/l	TM208		<1 #
2,2-Dichloropropane	<1 µg/l	TM208		<1
Bromochloromethane	<1 µg/l	TM208		<1 #
Chloroform	<1 µg/l	TM208		<1 #
1,1,1-Trichloroethane	<1 µg/l	TM208		<1 #
1,1-Dichloropropene	<1 µg/l	TM208		<1 #
Carbontetrachloride	<1 µg/l	TM208		<1 #
1,2-Dichloroethane	<1 µg/l	TM208		<1 #
Benzene	<1 µg/l	TM208		<1 #
Trichloroethene	<1 µg/l	TM208		<1 #
1,2-Dichloropropane	<1 µg/l	TM208		<1 #
Dibromomethane	<1 µg/l	TM208		<1 #
Bromodichloromethane	<1 µg/l	TM208		<1 #
cis-1,3-Dichloropropene	<1 µg/l	TM208		<1 #
Toluene	<1 µg/l	TM208		<1 #
trans-1,3-Dichloropropene	<1 µg/l	TM208		<1 #
1,1,2-Trichloroethane	<1 µg/l	TM208		<1 #

CERTIFICATE OF ANALYSIS

SDG: 230815-6 **Report Number:** 701059 **Superseded Report:**
Client Ref.: 70090113 **Location:** ewenny road, maesteg

VOC MS (W)

Results Legend	
#	ISO17025 accredited.
M	mCERTS accredited.
aq	Aqueous / settled sample.
diss.filt	Dissolved / filtered sample.
tot.unfilt	Total / unfiltered sample.
*	Subcontracted - refer to subcontractor report for accreditation status.
**	% recovery of the surrogate standard to check the efficiency of the method. The results of individual compounds within samples aren't corrected for the recovery
(F)	Trigger breach confirmed
1-4+§@	Sample deviation (see appendix)

Component	LOD/Units	Method	Customer Sample Ref.					
			Depth (m)	Trip Blank				
			Sample Type	0.00 - 0.00 Ground Water (GW)				
			Date Sampled	11/08/2023				
			Sampled Time	.				
			Date Received	15/08/2023				
			SDG Ref	230815-6				
			Lab Sample No.(s)	28478213				
			AGS Reference	EW20230811				
1,3-Dichloropropane	<1 µg/l	TM208		<1 #				
Tetrachloroethene	<1 µg/l	TM208		<1 #				
Dibromochloromethane	<1 µg/l	TM208		<1 #				
1,2-Dibromoethane	<1 µg/l	TM208		<1 #				
Chlorobenzene	<1 µg/l	TM208		<1 #				
1,1,1,2-Tetrachloroethane	<1 µg/l	TM208		<1 #				
Ethylbenzene	<1 µg/l	TM208		<1 #				
m,p-Xylene	<1 µg/l	TM208		<1 #				
o-Xylene	<1 µg/l	TM208		<1 #				
Styrene	<1 µg/l	TM208		<1 #				
Bromoform	<1 µg/l	TM208		<1 #				
Isopropylbenzene	<1 µg/l	TM208		<1 #				
1,1,2,2-Tetrachloroethane	<1 µg/l	TM208		<1 #				
1,2,3-Trichloropropane	<1 µg/l	TM208		<1 #				
Bromobenzene	<1 µg/l	TM208		<1 #				
Propylbenzene	<1 µg/l	TM208		<1 #				
2-Chlorotoluene	<1 µg/l	TM208		<1 #				
1,3,5-Trimethylbenzene	<1 µg/l	TM208		<1 #				
4-Chlorotoluene	<1 µg/l	TM208		<1 #				
tert-Butylbenzene	<1 µg/l	TM208		<1 #				
1,2,4-Trimethylbenzene	<1 µg/l	TM208		<1 #				
sec-Butylbenzene	<1 µg/l	TM208		<1 #				
4-iso-Propyltoluene	<1 µg/l	TM208		<1 #				
1,3-Dichlorobenzene	<1 µg/l	TM208		<1 #				
1,4-Dichlorobenzene	<1 µg/l	TM208		<1 #				
n-Butylbenzene	<1 µg/l	TM208		<1 #				
1,2-Dichlorobenzene	<1 µg/l	TM208		<1 #				
1,2-Dibromo-3-chloropropane	<1 µg/l	TM208		<1				
1,2,4-Trichlorobenzene	<1 µg/l	TM208		<1 #				
Hexachlorobutadiene	<1 µg/l	TM208		<1 #				
tert-Amyl methyl ether (TAME)	<1 µg/l	TM208		<1 #				
Naphthalene	<1 µg/l	TM208		<1 #				

CERTIFICATE OF ANALYSIS

SDG: 230815-6 **Report Number:** 701059 **Superseded Report:**
Client Ref.: 70090113 **Location:** ewenny road, maesteg

VOC MS (W)

Results Legend		Customer Sample Ref.	Trip Blank
#	ISO17025 accredited.		
M	mCERTS accredited.		
aq	Aqueous / settled sample.	Depth (m)	0.00 - 0.00
diss.filt	Dissolved / filtered sample.	Sample Type	Ground Water (GW)
tot.unfilt	Total / unfiltered sample.	Date Sampled	11/08/2023
*	Subcontracted - refer to subcontractor report for accreditation status.	Sampled Time	.
**	% recovery of the surrogate standard to check the efficiency of the method. The results of individual compounds within samples aren't corrected for the recovery	Date Received	15/08/2023
		SDG Ref	230815-6
(F)	Trigger breach confirmed	Lab Sample No.(s)	28478213
1-4+5@	Sample deviation (see appendix)	AGS Reference	EW20230811

Component	LOD/Units	Method	
1,2,3-Trichlorobenzene	<1 µg/l	TM208	<1 #
1,3,5-Trichlorobenzene	<1 µg/l	TM208	<1
Sum of detected Xylenes	<2 µg/l	TM208	<2
Sum of BTEX	<5 µg/l	TM208	<5

Table of Results - Appendix

Method No	Description
TM090	Determination of Total Organic Carbon/Total Inorganic Carbon in Water and Waste Water
TM259	Determination of Phenols in Waters and Leachates by HPLC
TM125	Determination of Total/Ferrous Iron
TM331	Low Level Hexavalent Chromium
TM174	Determination of Speciated Extractable Petroleum Hydrocarbons in Waters by GC-FID
TM183	Determination of Trace Level Mercury in Waters and Leachates by PSA Cold Vapour Atomic Fluorescence Spectrometry
TM184	The Determination of Anions in Aqueous Matrices using the Kone Spectrophotometric Analysers
TM245	Determination of GRO by Headspace in waters
TM152	Analysis of Aqueous Samples by ICP-MS
TM208	Determination of Volatile Organic Compounds by Headspace / GC-MS in Waters
TM256	Determination of pH, EC, TDS and Alkalinity in Aqueous samples
TM279	Determination of Low Level Easily Liberatable (Free) Cyanides and Total Cyanides in Waters using the Skalar SANS+ System Segmented Flow Analyser

NA = not applicable.

Chemical testing (unless subcontracted) performed at ALS Laboratories (UK) Limited Hawarden (Method codes TM).

CERTIFICATE OF ANALYSIS

SDG: 230815-6 **Report Number:** 701059 **Superseded Report:**
Client Ref.: 70090113 **Location:** ewenny road, maesteg

Test Completion Dates

Lab Sample No(s)	28478222	28478204	28478195	28478249	28478240	28478231	28478213
Customer Sample Ref.	BH-4	DUP	SP-A	SW3-DOWN	SW2-MID	SW1-UP	Trip Blank
AGS Ref.	EW20230811	EW20230811	EW20230811	EW20230811	EW20230811	EW20230811	EW20230811
Depth	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00
Type	Ground Water	Ground Water	Ground Water	Surface Water	Surface Water	Surface Water	Ground Water
Anions by Kone (w)	17-Aug-2023	17-Aug-2023	17-Aug-2023	17-Aug-2023	17-Aug-2023	17-Aug-2023	17-Aug-2023
Dissolved Metals by ICP-MS	18-Aug-2023	17-Aug-2023	17-Aug-2023	17-Aug-2023	17-Aug-2023	18-Aug-2023	17-Aug-2023
Dissolved Organic/Inorganic Carbon	23-Aug-2023	23-Aug-2023	23-Aug-2023	23-Aug-2023	23-Aug-2023	23-Aug-2023	23-Aug-2023
EPH CWG (Aliphatic) Aqueous GC (W)	22-Aug-2023	22-Aug-2023	22-Aug-2023	22-Aug-2023	22-Aug-2023	22-Aug-2023	22-Aug-2023
EPH CWG (Aromatic) Aqueous GC (W)	22-Aug-2023	22-Aug-2023	22-Aug-2023	22-Aug-2023	22-Aug-2023	22-Aug-2023	22-Aug-2023
Ferric Iron	18-Aug-2023	19-Aug-2023	19-Aug-2023	17-Aug-2023	17-Aug-2023	18-Aug-2023	17-Aug-2023
Ferrous Iron	17-Aug-2023	17-Aug-2023	17-Aug-2023	17-Aug-2023	17-Aug-2023	17-Aug-2023	17-Aug-2023
GRO by GC-FID (W)	16-Aug-2023	16-Aug-2023	16-Aug-2023	16-Aug-2023	16-Aug-2023	16-Aug-2023	16-Aug-2023
Low Level Cyanide (W)	21-Aug-2023	21-Aug-2023	21-Aug-2023	21-Aug-2023	21-Aug-2023	21-Aug-2023	21-Aug-2023
Low Level Hexavalent Chromium (w)	19-Aug-2023	19-Aug-2023	19-Aug-2023	19-Aug-2023	19-Aug-2023	19-Aug-2023	19-Aug-2023
Mercury Dissolved	18-Aug-2023	17-Aug-2023	17-Aug-2023	17-Aug-2023	17-Aug-2023	18-Aug-2023	17-Aug-2023
Nitrite by Kone (w)	17-Aug-2023	17-Aug-2023	17-Aug-2023	17-Aug-2023	17-Aug-2023	17-Aug-2023	17-Aug-2023
pH Value	22-Aug-2023	22-Aug-2023	22-Aug-2023	22-Aug-2023	22-Aug-2023	22-Aug-2023	22-Aug-2023
Phenols by HPLC (W)	18-Aug-2023	18-Aug-2023	18-Aug-2023	18-Aug-2023	18-Aug-2023	18-Aug-2023	18-Aug-2023
Total Metals by ICP-MS	17-Aug-2023	17-Aug-2023	17-Aug-2023	17-Aug-2023	17-Aug-2023	17-Aug-2023	17-Aug-2023
TPH CWG (W)	22-Aug-2023	22-Aug-2023	22-Aug-2023	22-Aug-2023	22-Aug-2023	22-Aug-2023	22-Aug-2023
VOC MS (W)	16-Aug-2023	16-Aug-2023	16-Aug-2023	16-Aug-2023	16-Aug-2023	16-Aug-2023	16-Aug-2023

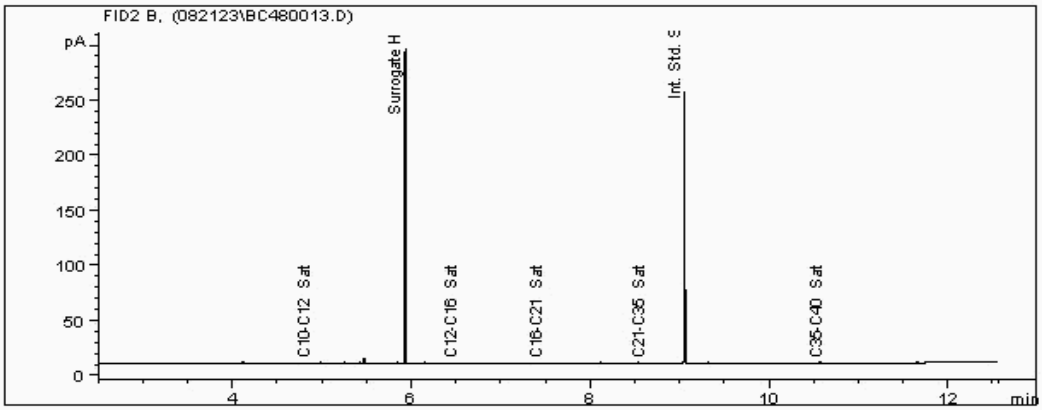
Chromatogram

Analysis: EPH CWG (Aliphatic) Aqueous GC (W) **Sample No :** 28487475 **Depth :** 0.00 - 0.00
Sample ID : SW2-MID

Speciated TPH - SATS (C12 - C40)

Sample Identity: 26486275-
Date Acquired : 21/08/2023 11:13:14 PM
Units : ppb
Dilution :
CF : 1
Multiplier : 0.025

#	Compound Name	Main Peak Area	Amount
1	C10-C12 Sat	0.0	0.000
2	Surrogate H	201.4	0.204
3	C12-C16 Sat	0.0	0.000
4	C16-C21 Sat	0.0	0.000
5	C21-C35 Sat	0.0	0.000
6	Int. Std. S	200.6	0.250
7	C35-C40 Sat	0.0	0.000
	Total Peak Area	402.0	



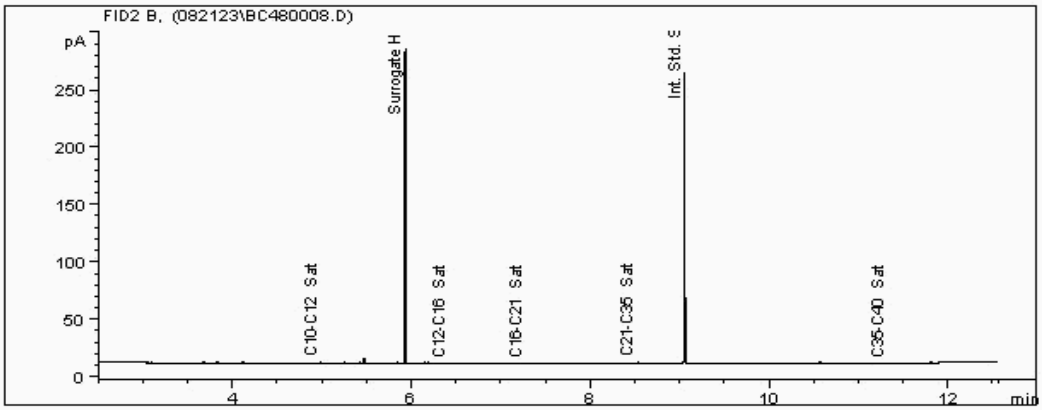
Chromatogram

Analysis: EPH CWG (Aliphatic) Aqueous GC (W) **Sample No :** 28487482 **Depth :** 0.00 - 0.00
Sample ID : SP-A

Speciated TPH - SATS (C12 - C40)

Sample Identity: 26486125-
Date Acquired : 21/08/2023 09:18:34 PM
Units : ppb
Dilution :
CF : 1
Multiplier : 0.025

#	Compound Name	Main Peak Area	Amount
1	C10-C12 Sat	0.0	0.000
2	Surrogate H	201.9	0.214
3	C12-C16 Sat	0.0	0.000
4	C16-C21 Sat	4.8	0.005
5	C21-C35 Sat	42.5	0.054
6	Int. Std. S	191.6	0.250
7	C35-C40 Sat	5.1	0.008
	Total Peak Area	445.9	



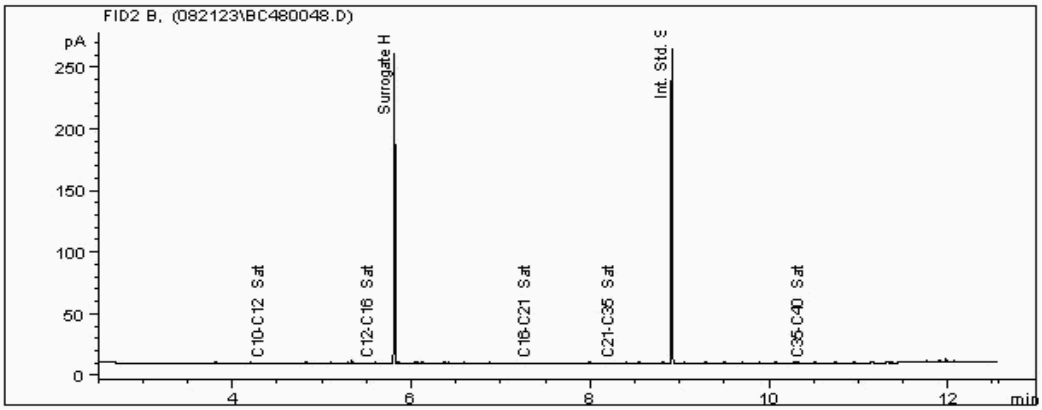
Chromatogram

Analysis: EPH CWG (Aliphatic) Aqueous GC (W) **Sample No :** 28487499 **Depth :** 0.00 - 0.00
Sample ID : Trip Blank

Speciated TPH - SATS (C12 - C40)

Sample Identity: 26486188-
Date Acquired : 22/08/2023 11:10:06 PM
Units : ppb
Dilution : SE TRIP BLANK[0.00 - 0.00]->
CF : 1
Multiplier : 0.025

#	Compound Name	Main Peak Area	Amount
1	C10-C12 Sat	0.0	0.000
2	C12-C16 Sat	0.0	0.000
3	Surrogate H	171.9	0.221
4	C16-C21 Sat	0.0	0.000
5	C21-C35 Sat	0.0	0.000
6	Int. Std. S	201.2	0.250
7	C35-C40 Sat	0.0	0.000
	Total Peak Area	373.1	



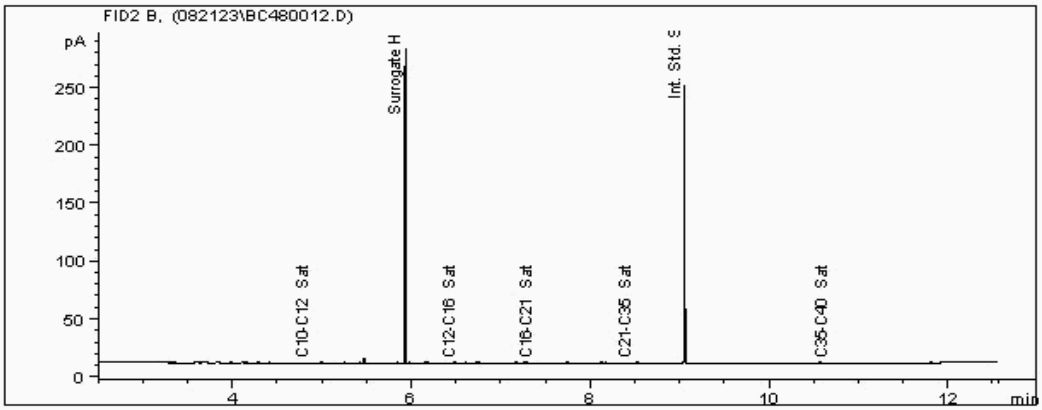
Chromatogram

Analysis: EPH CWG (Aliphatic) Aqueous GC (W) **Sample No :** 28487508 **Depth :** 0.00 - 0.00
Sample ID : SW3-DOWN

Speciated TPH - SATS (C12 - C40)

Sample Identity: 26486304-
Date Acquired : 21/08/2023 10:50:12 PM
Units : ppb
Dilution :
CF : 1
Multiplier : 0.025

#	Compound Name	Main Peak Area	Amount
1	C10-C12 Sat	0.0	0.000
2	Surrogate H	196.7	0.212
3	C12-C16 Sat	0.0	0.000
4	C16-C21 Sat	0.0	0.000
5	C21-C35 Sat	0.0	0.000
6	Int. Std. S	188.7	0.250
7	C35-C40 Sat	0.0	0.000
	Total Peak Area	385.4	



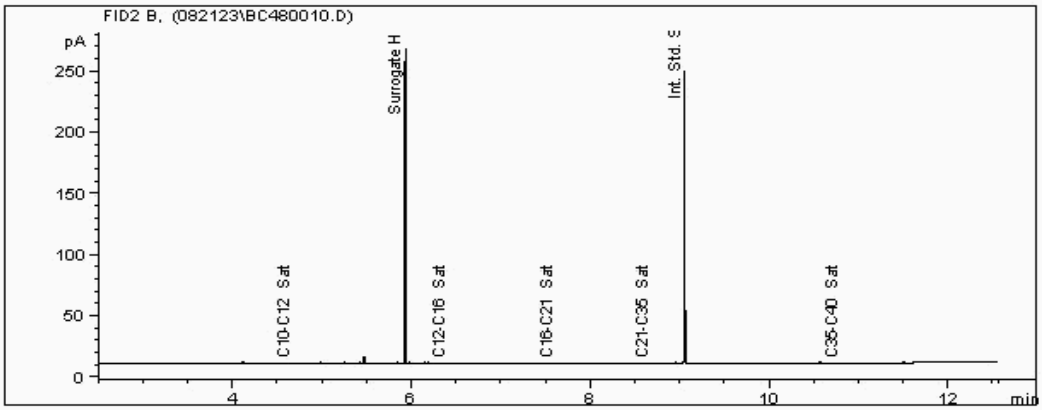
Chromatogram

Analysis: EPH CWG (Aliphatic) Aqueous GC (W) **Sample No :** 28487600 **Depth :** 0.00 - 0.00
Sample ID : DUP

Speciated TPH - SATS (C12 - C40)

Sample Identity: 26486157-
Date Acquired : 21/08/2023 10:04:31 PM
Units : ppb
Dilution :
CF : 1
Multiplier : 0.025

#	Compound Name	Main Peak Area	Amount
1	C10-C12 Sat	0.0	0.000
2	Surrogate H	198.3	0.211
3	C12-C16 Sat	0.0	0.000
4	C16-C21 Sat	4.1	0.005
5	C21-C35 Sat	25.0	0.032
6	Int. Std. S	190.9	0.250
7	C35-C40 Sat	0.0	0.000
	Total Peak Area	418.3	



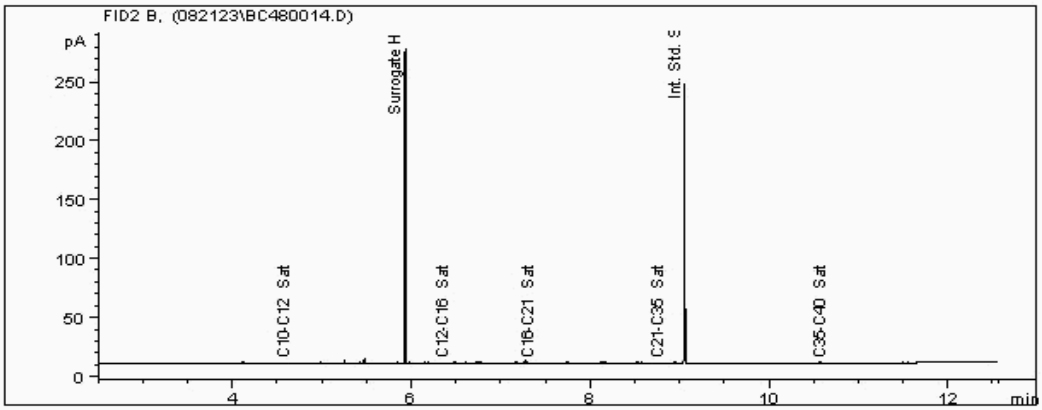
Chromatogram

Analysis: EPH CWG (Aliphatic) Aqueous GC (W) **Sample No :** 28487646 **Depth :** 0.00 - 0.00
Sample ID : SW1-UP

Speciated TPH - SATS (C12 - C40)

Sample Identity: 26486247-
Date Acquired : 21/08/2023 11:36:12 PM
Units : ppb
Dilution :
CF : 1
Multiplier : 0.025

#	Compound Name	Main Peak Area	Amount
1	C10-C12 Sat	0.0	0.000
2	Surrogate H	220.2	0.229
3	C12-C16 Sat	0.0	0.000
4	C16-C21 Sat	0.0	0.000
5	C21-C35 Sat	0.0	0.000
6	Int. Std. S	195.2	0.250
7	C35-C40 Sat	0.0	0.000
	Total Peak Area	415.3	



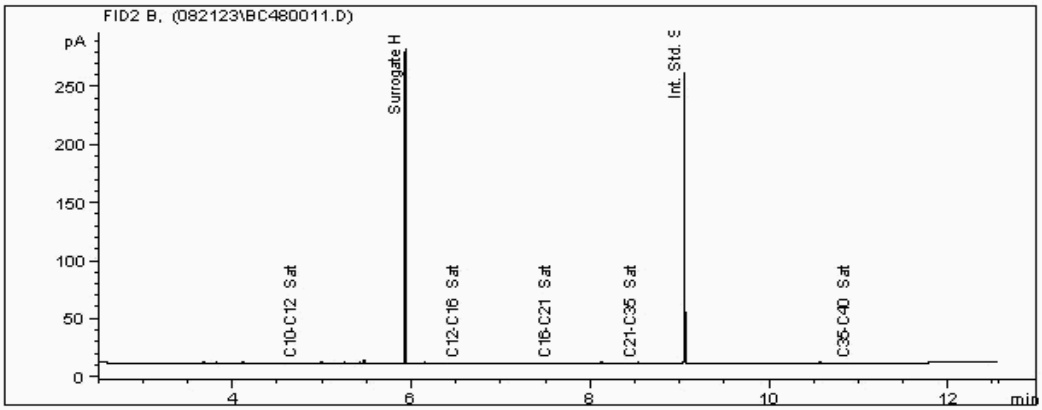
Chromatogram

Analysis: EPH CWG (Aliphatic) Aqueous GC (W) **Sample No :** 28487692 **Depth :** 0.00 - 0.00
Sample ID : BH-4

Speciated TPH - SATS (C12 - C40)

Sample Identity: 26486218-
Date Acquired : 21/08/2023 10:27:23 PM
Units : ppb
Dilution :
CF : 1
Multiplier : 0.025

#	Compound Name	Main Peak Area	Amount
1	C10-C12 Sat	0.0	0.000
2	Surrogate H	200.0	0.209
3	C12-C16 Sat	0.0	0.000
4	C16-C21 Sat	0.0	0.000
5	C21-C35 Sat	0.0	0.000
6	Int. Std. S	194.3	0.250
7	C35-C40 Sat	0.0	0.000
	Total Peak Area	394.3	



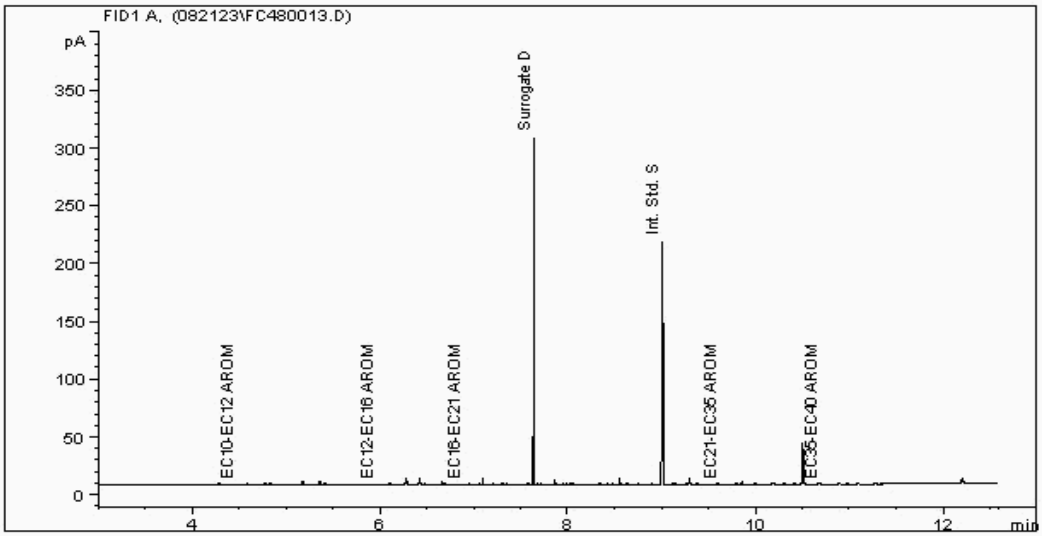
Chromatogram

Analysis: EPH CWG (Aromatic) Aqueous GC (W) **Sample No :** 28487475 **Depth :** 0.00 - 0.00
Sample ID : SW2-MID

Speciated TPH - AROM (C12 - C40)

Sample Identity: 26486276-
Date Acquired : 21/08/2023 11:13:14 PM
Units : ppb
Dilution:

#	Compound Name	Main Peak Area	Amount
1	EC10-EC12 AROM	0.0	0.000
2	EC12-EC16 AROM	0.0	0.000
3	EC16-EC21 AROM	0.0	0.000
4	Surrogate D	205.9	0.259
5	Int. Std. S	184.3	0.250
6	EC21-EC35 AROM	0.0	0.000
7	EC35-EC40 AROM	0.0	0.000
	Total Peak Area	390.2	



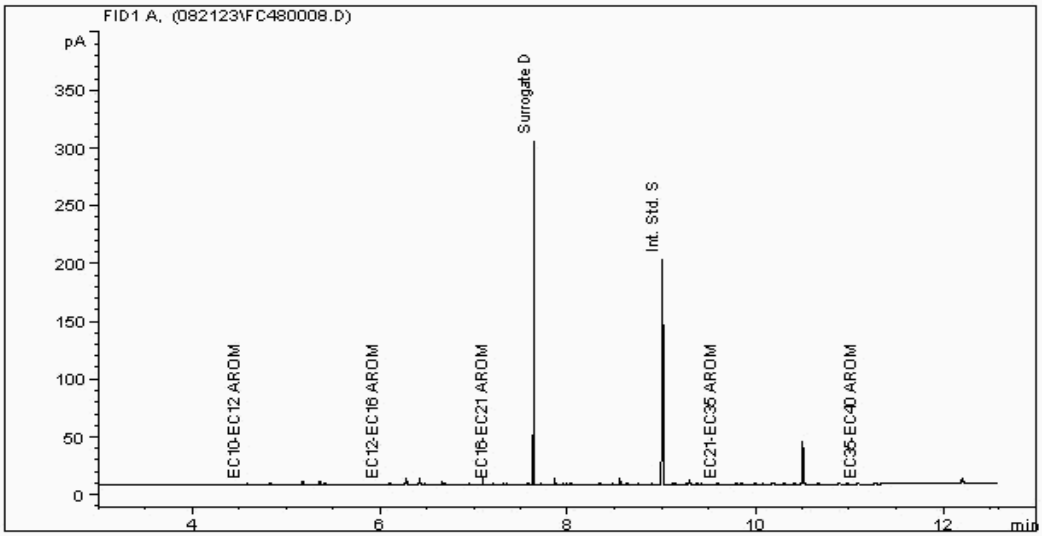
Chromatogram

Analysis: EPH CWG (Aromatic) Aqueous GC (W) **Sample No :** 28487482 **Depth :** 0.00 - 0.00
Sample ID : SP-A

Speciated TPH - AROM (C12 - C40)

Sample Identity: 26486126-
Date Acquired : 21/08/2023 09:18:34 PM
Units : ppb
Dilution:

#	Compound Name	Main Peak Area	Amount
1	EC10-EC12 AROM	0.0	0.000
2	EC12-EC16 AROM	0.0	0.000
3	EC16-EC21 AROM	0.0	0.000
4	Surrogate D	183.3	0.234
5	Int. Std. S	181.2	0.250
6	EC21-EC35 AROM	0.0	0.000
7	EC35-EC40 AROM	0.0	0.000
	Total Peak Area	364.5	



CERTIFICATE OF ANALYSIS

SDG: 230815-6 **Report Number:** 701059 **Superseded Report:**
Client Ref.: 70090113 **Location:** ewenny road, maesteg

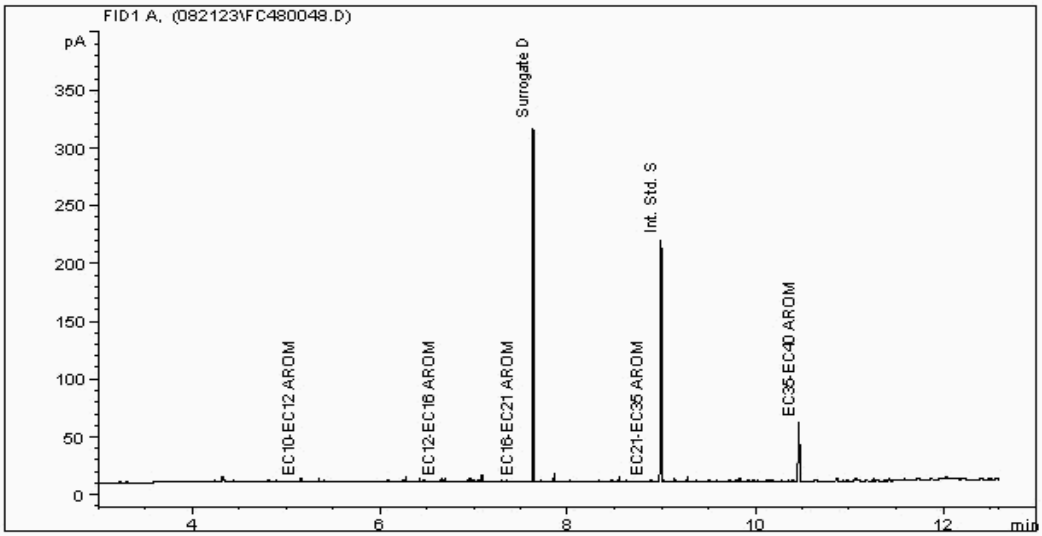
Chromatogram

Analysis: EPH CWG (Aromatic) Aqueous GC (W) **Sample No :** 28487499 **Depth :** 0.00 - 0.00
Sample ID : Trip Blank

Speciated TPH - AROM (C12 - C40)

Sample Identity: 26486189-
Date Acquired : 22/08/2023 11:10:06 PM
Units : ppb
Dilution: SE TRIP BLANK[0.00 - 0.00] ->

#	Compound Name	Main Peak Area	Amount
1	EC10-EC12 AROM	0.0	0.000
2	EC12-EC16 AROM	0.0	0.000
3	EC16-EC21 AROM	0.0	0.000
4	Surrogate D	177.7	0.241
5	EC21-EC35 AROM	0.0	0.000
6	Int. Std. S	165.0	0.250
7	EC35-EC40 AROM	0.0	0.000
	Total Peak Area	342.8	



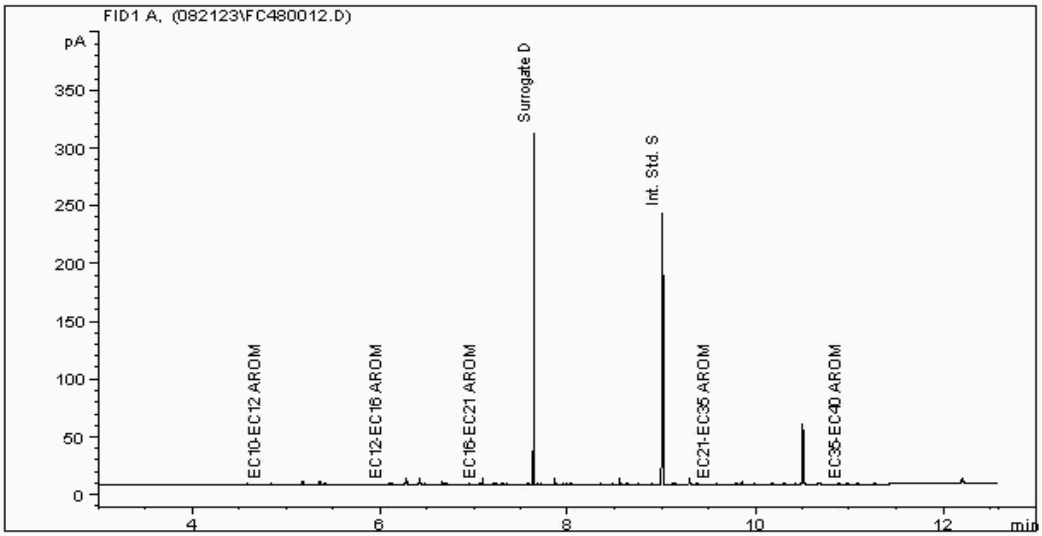
Chromatogram

Analysis: EPH CWG (Aromatic) Aqueous GC (W) **Sample No :** 28487508 **Depth :** 0.00 - 0.00
Sample ID : SW3-DOWN

Speciated TPH - AROM (C12 - C40)

Sample Identity: 26486305-
Date Acquired : 21/08/2023 10:50:12 PM
Units : ppb
Dilution:

#	Compound Name	Main Peak Area	Amount
1	EC10-EC12 AROM	0.0	0.000
2	EC12-EC16 AROM	0.0	0.000
3	EC16-EC21 AROM	0.0	0.000
4	Surrogate D	180.9	0.220
5	Int. Std. S	190.5	0.250
6	EC21-EC35 AROM	0.0	0.000
7	EC35-EC40 AROM	0.0	0.000
	Total Peak Area	371.4	



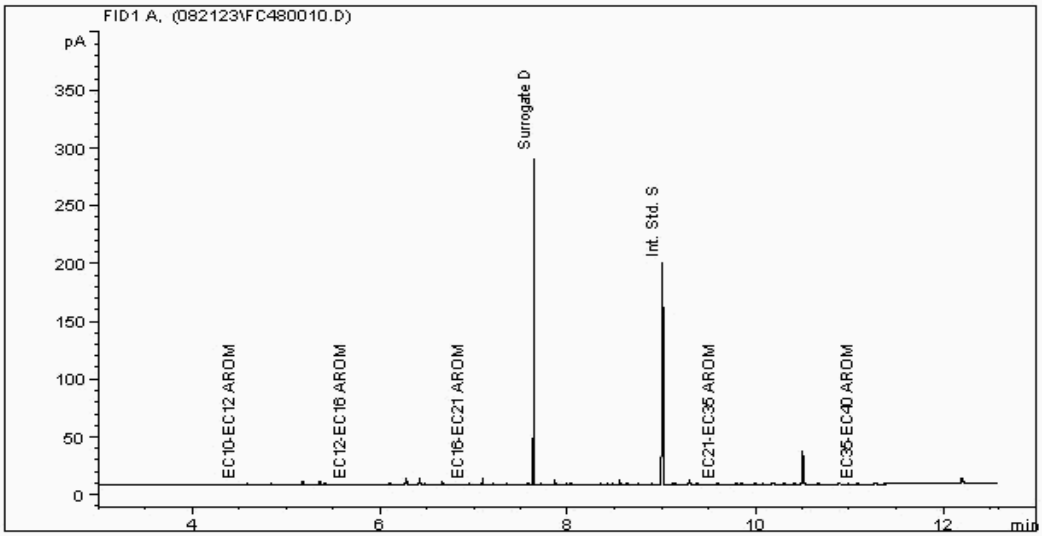
Chromatogram

Analysis: EPH CWG (Aromatic) Aqueous GC (W) **Sample No :** 28487600 **Depth :** 0.00 - 0.00
Sample ID : DUP

Speciated TPH - AROM (C12 - C40)

Sample Identity: 26486158-
Date Acquired : 21/08/2023 10:04:31 PM
Units : ppb
Dilution:

#	Compound Name	Main Peak Area	Amount
1	EC10-EC12 AROM	0.0	0.000
2	EC12-EC16 AROM	0.0	0.000
3	EC16-EC21 AROM	0.0	0.000
4	Surrogate D	185.8	0.247
5	Int. Std. S	174.4	0.250
6	EC21-EC35 AROM	0.0	0.000
7	EC35-EC40 AROM	0.0	0.000
	Total Peak Area	360.2	



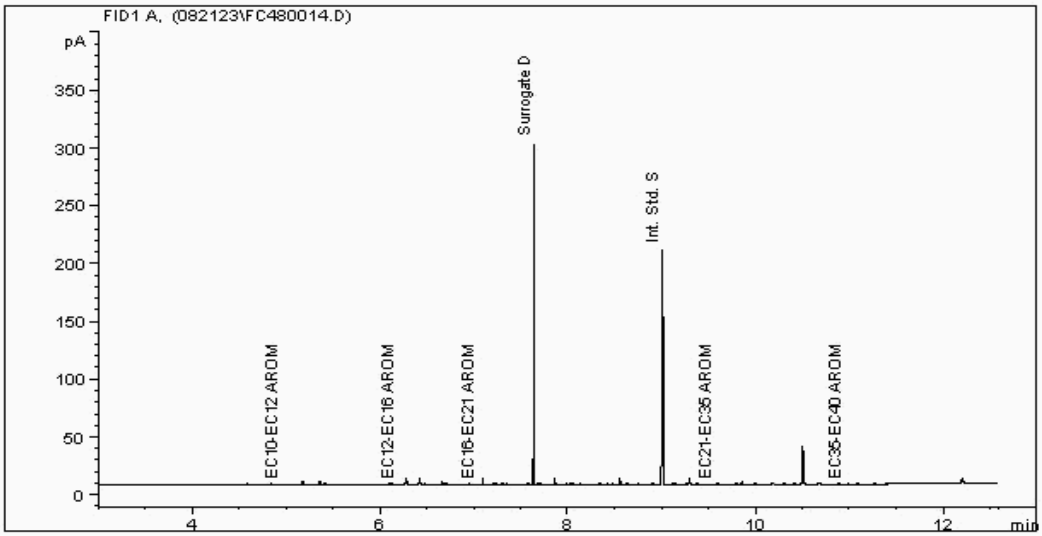
Chromatogram

Analysis: EPH CWG (Aromatic) Aqueous GC (W) **Sample No :** 28487646 **Depth :** 0.00 - 0.00
Sample ID : SW1-UP

Speciated TPH - AROM (C12 - C40)

Sample Identity: 26486248-
Date Acquired : 21/08/2023 11:36:12 PM
Units : ppb
Dilution:

#	Compound Name	Main Peak Area	Amount
1	EC10-EC12 AROM	0.0	0.000
2	EC12-EC16 AROM	0.0	0.000
3	EC16-EC21 AROM	0.0	0.000
4	Surrogate D	177.8	0.230
5	Int. Std. S	178.7	0.250
6	EC21-EC35 AROM	0.0	0.000
7	EC35-EC40 AROM	0.0	0.000
	Total Peak Area	356.5	



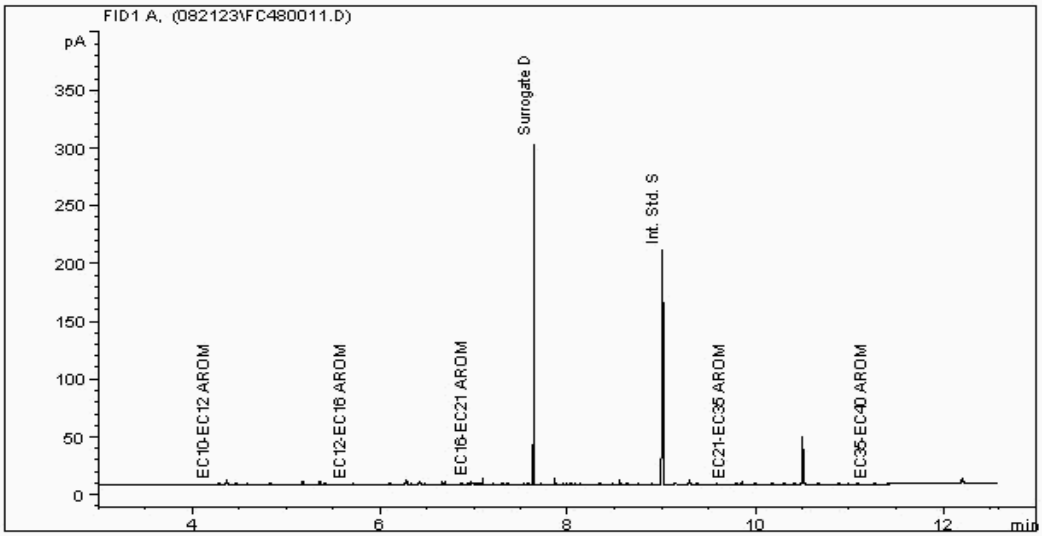
Chromatogram

Analysis: EPH CWG (Aromatic) Aqueous GC (W) **Sample No :** 28487692 **Depth :** 0.00 - 0.00
Sample ID : BH-4

Speciated TPH - AROM (C12 - C40)

Sample Identity: 26486219-
Date Acquired : 21/08/2023 10:27:23 PM
Units : ppb
Dilution:

#	Compound Name	Main Peak Area	Amount
1	EC10-EC12 AROM	0.0	0.000
2	EC12-EC16 AROM	0.0	0.000
3	EC16-EC21 AROM	0.0	0.000
4	Surrogate D	209.4	0.241
5	Int. Std. S	201.3	0.250
6	EC21-EC35 AROM	0.0	0.000
7	EC35-EC40 AROM	0.0	0.000
	Total Peak Area	410.8	

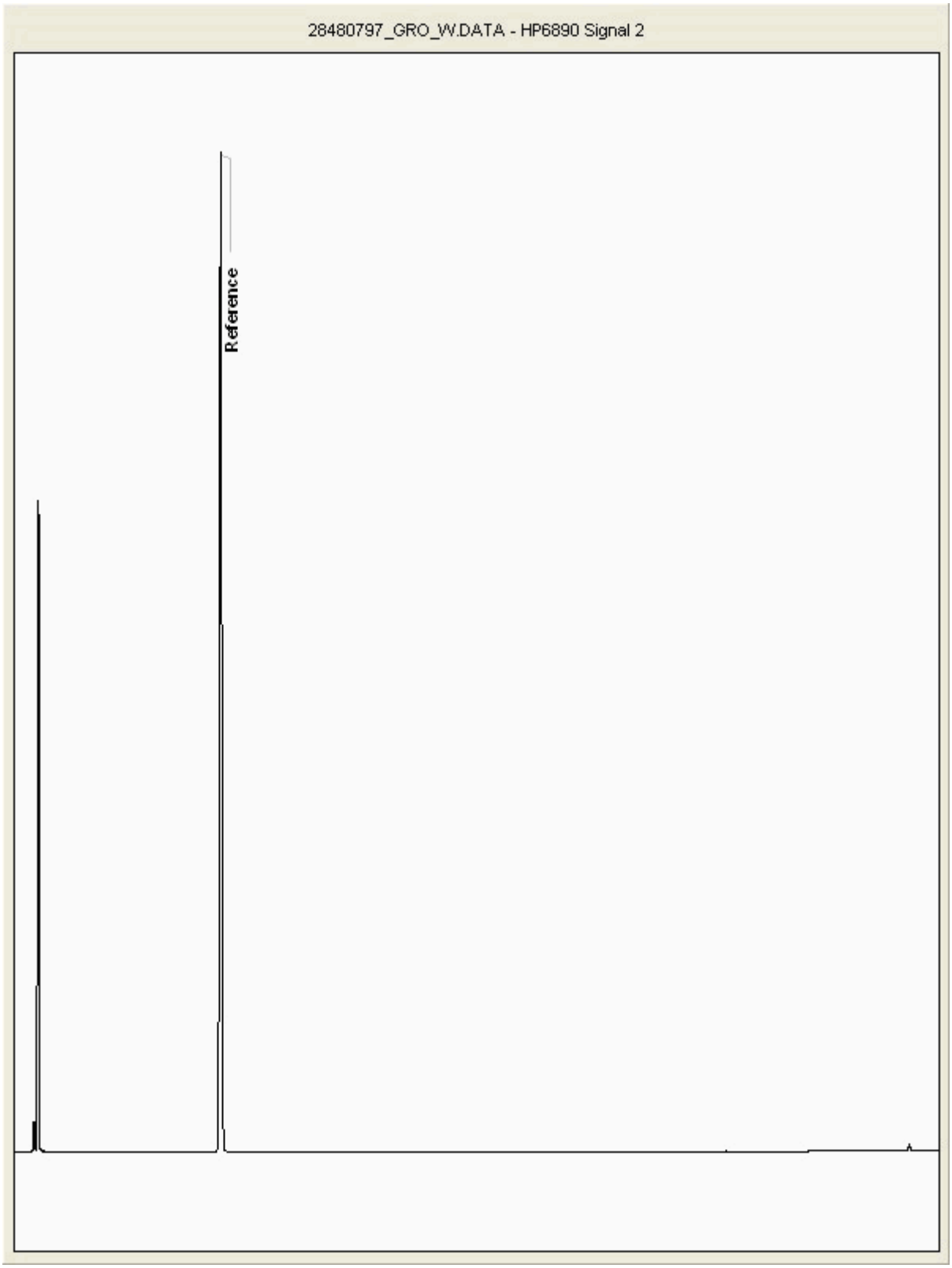


CERTIFICATE OF ANALYSIS

SDG: 230815-6 **Report Number:** 701059 **Superseded Report:**
Client Ref.: 70090113 **Location:** ewenny road, maesteg

Chromatogram

Analysis: GRO by GC-FID (W) **Sample No :** 28480797 **Depth :** 0.00 - 0.00
Sample ID : BH-4

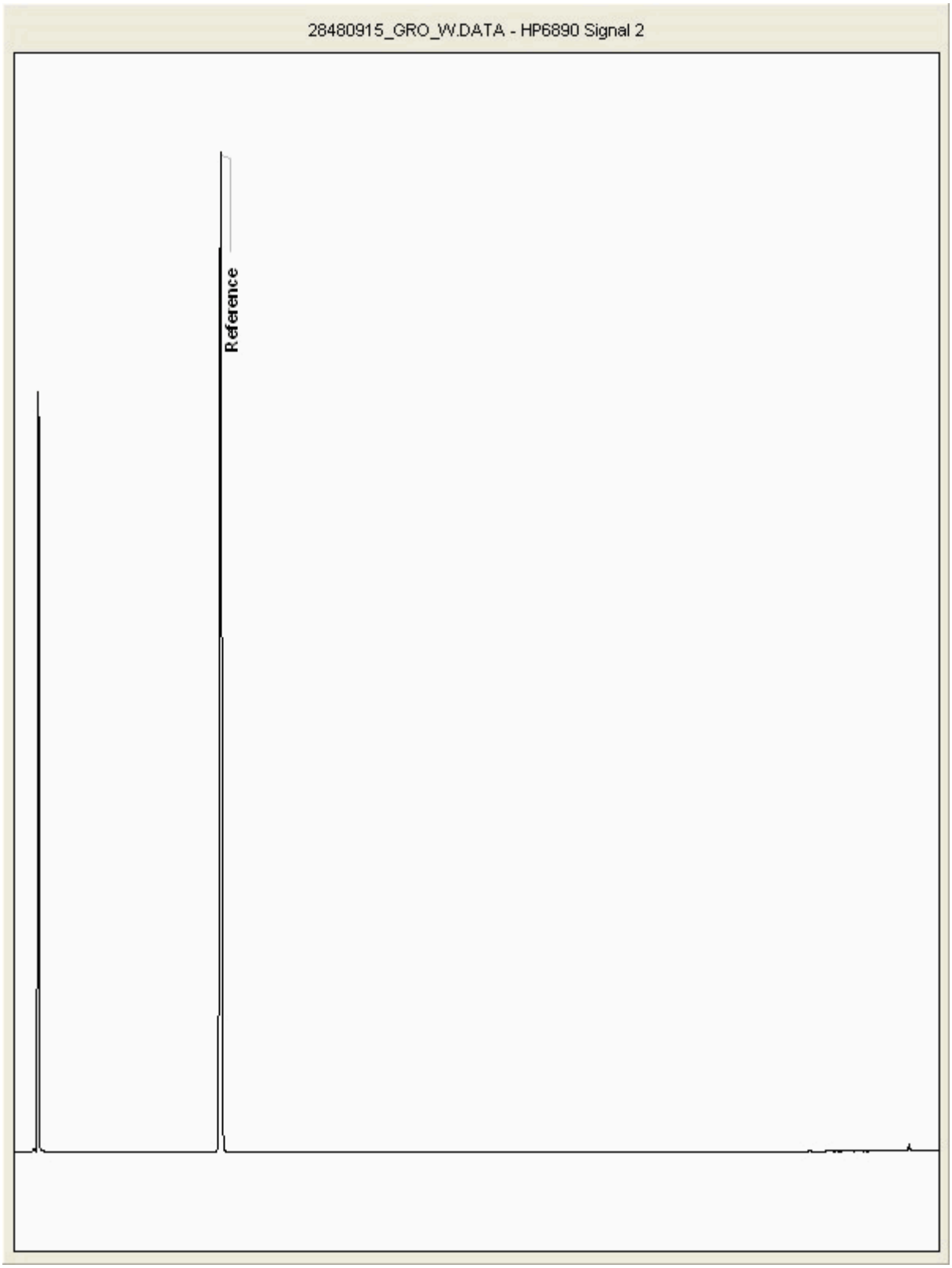


CERTIFICATE OF ANALYSIS

SDG: 230815-6 **Report Number:** 701059 **Superseded Report:**
Client Ref.: 70090113 **Location:** ewenny road, maesteg

Chromatogram

Analysis: GRO by GC-FID (W) **Sample No :** 28480915 **Depth :** 0.00 - 0.00
Sample ID : SW3-DOWN

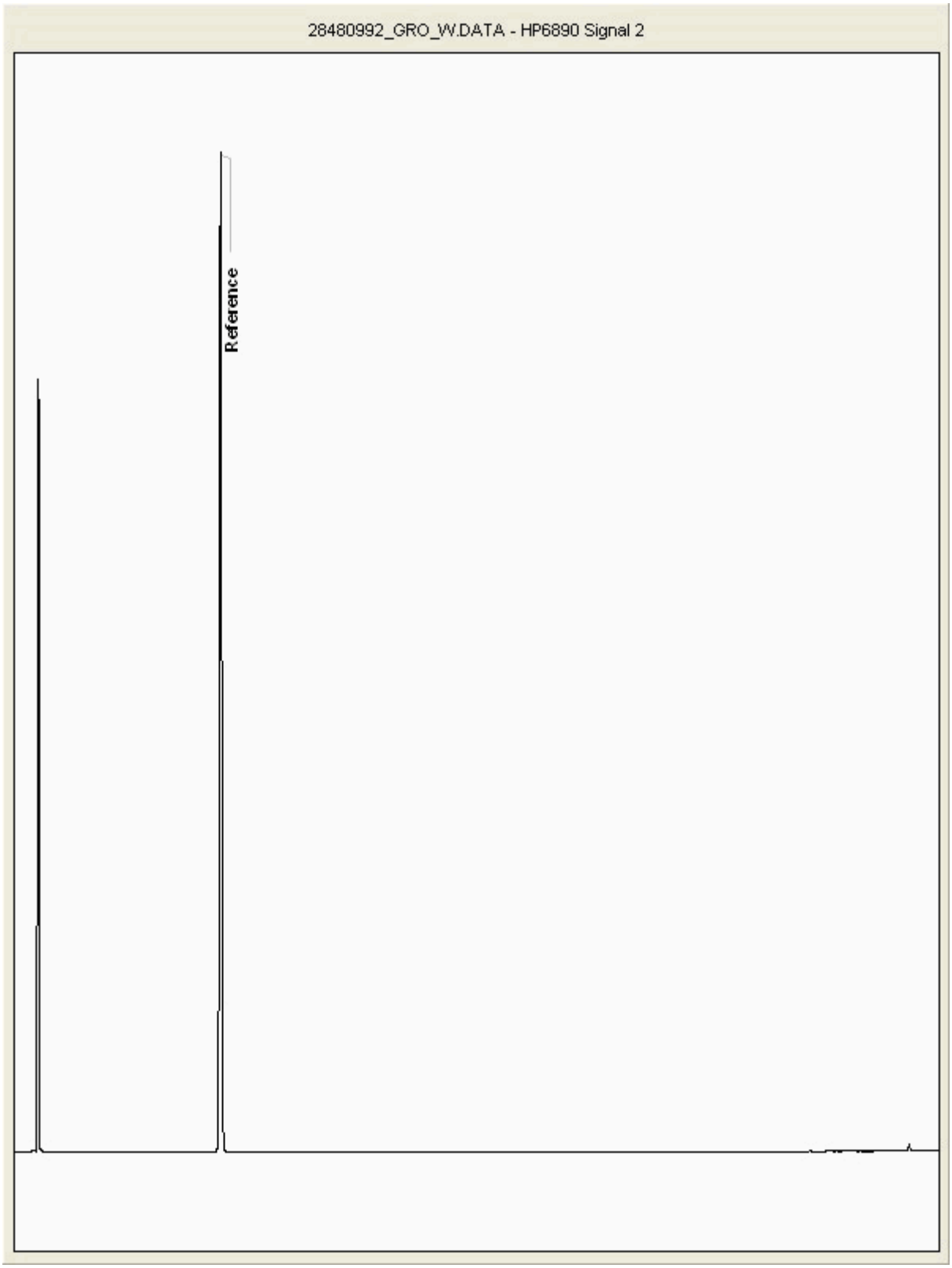


CERTIFICATE OF ANALYSIS

SDG: 230815-6 **Report Number:** 701059 **Superseded Report:**
Client Ref.: 70090113 **Location:** ewenny road, maesteg

Chromatogram

Analysis: GRO by GC-FID (W) **Sample No :** 28480992 **Depth :** 0.00 - 0.00
Sample ID : Trip Blank

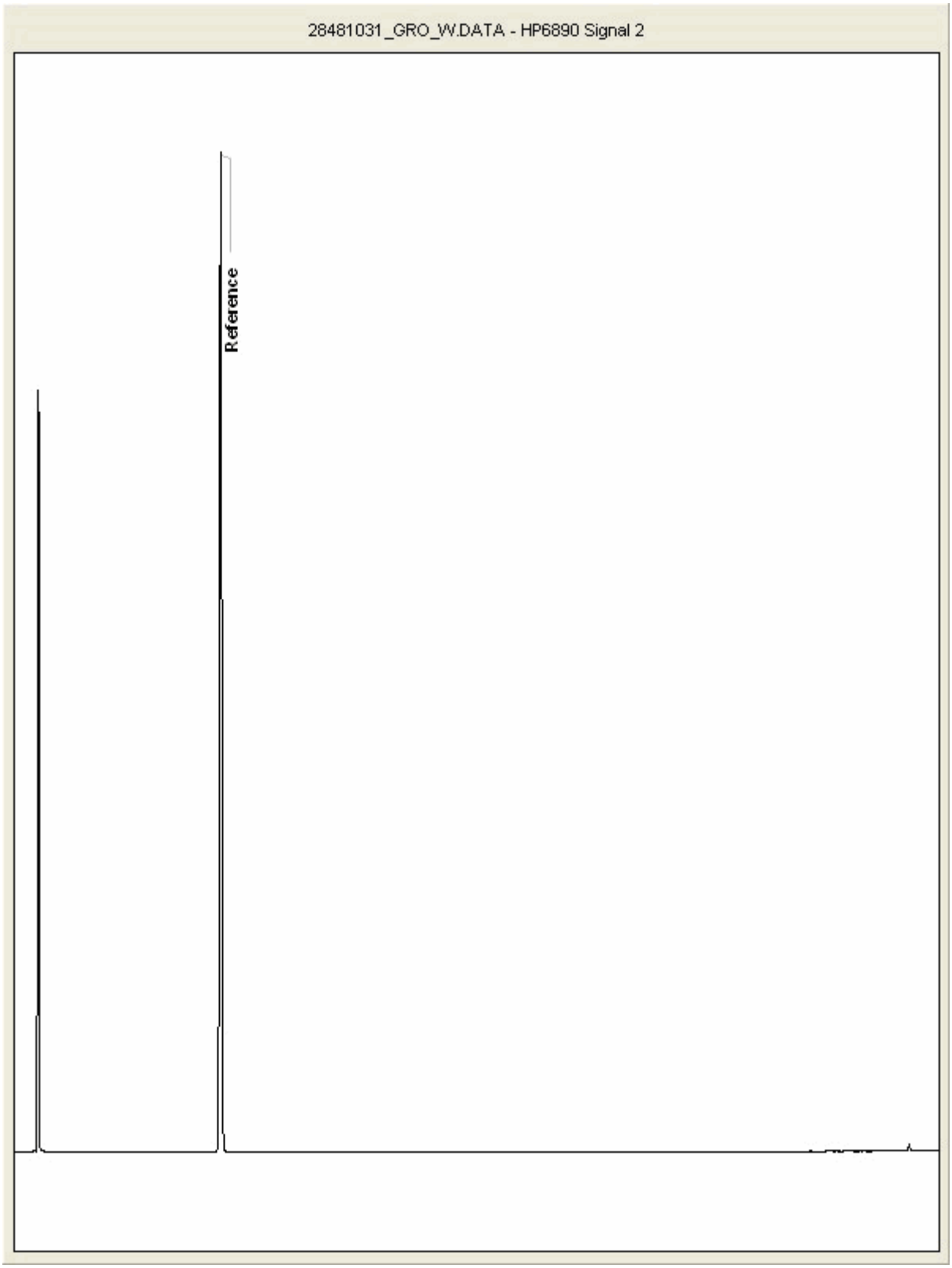


CERTIFICATE OF ANALYSIS

SDG: 230815-6 **Report Number:** 701059 **Superseded Report:**
Client Ref.: 70090113 **Location:** ewenny road, maesteg

Chromatogram

Analysis: GRO by GC-FID (W) **Sample No :** 28481031 **Depth :** 0.00 - 0.00
Sample ID : SW1-UP

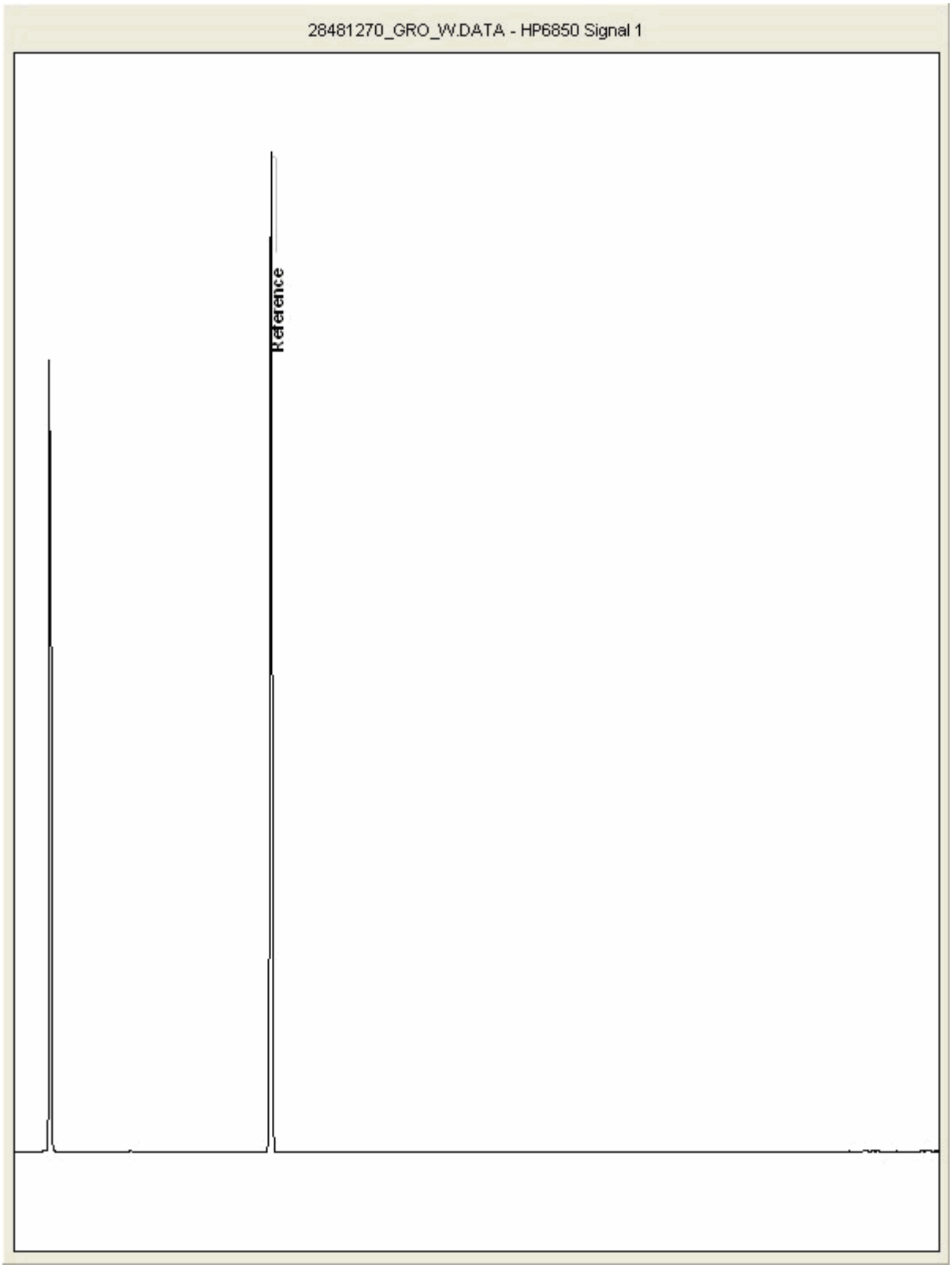


CERTIFICATE OF ANALYSIS

SDG: 230815-6 **Report Number:** 701059 **Superseded Report:**
Client Ref.: 70090113 **Location:** ewenny road, maesteg

Chromatogram

Analysis: GRO by GC-FID (W) **Sample No :** 28481270 **Depth :** 0.00 - 0.00
Sample ID : SP-A

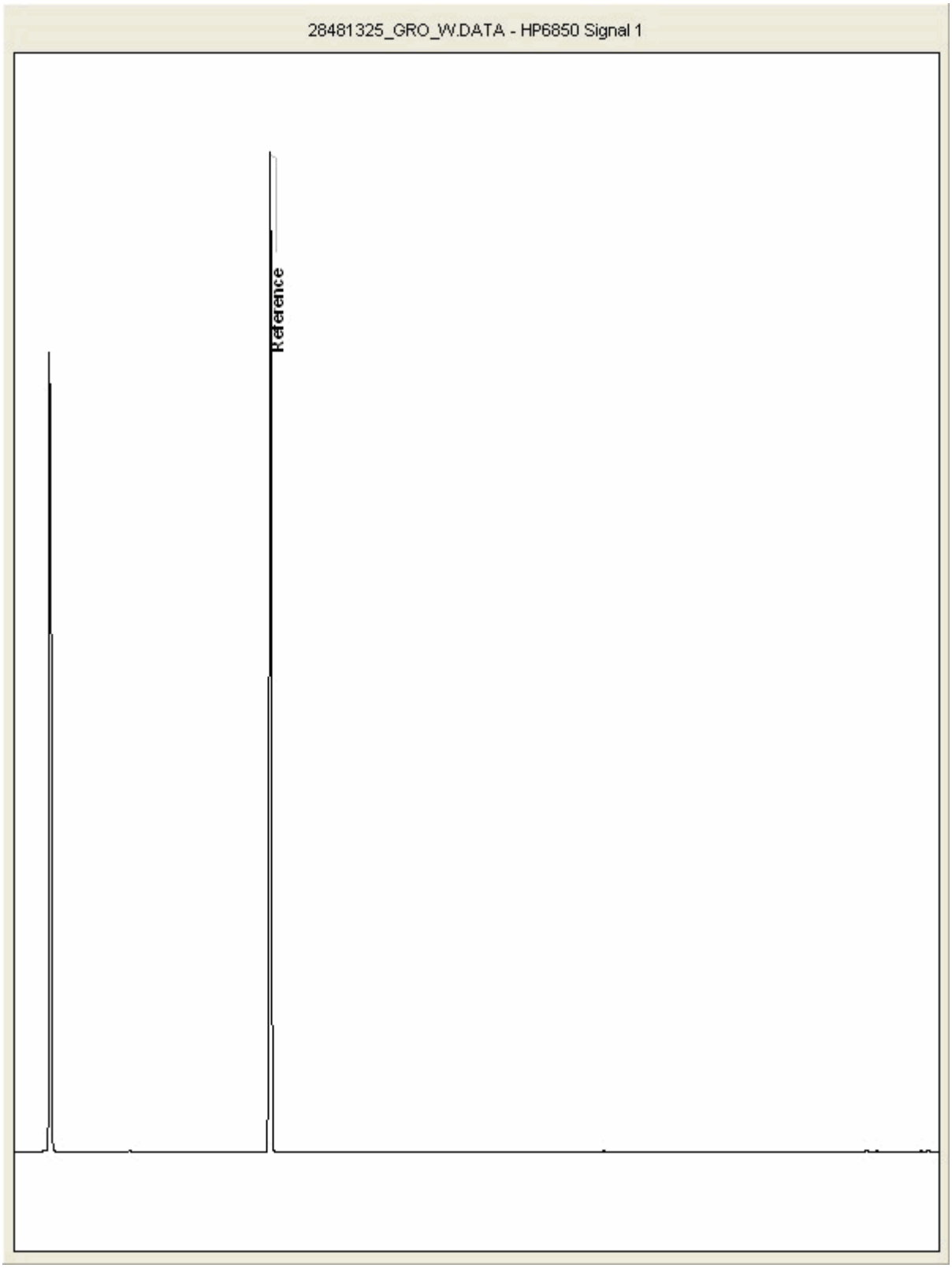


CERTIFICATE OF ANALYSIS

SDG: 230815-6 **Report Number:** 701059 **Superseded Report:**
Client Ref.: 70090113 **Location:** ewenny road, maesteg

Chromatogram

Analysis: GRO by GC-FID (W) **Sample No :** 28481325 **Depth :** 0.00 - 0.00
Sample ID : SW2-MID

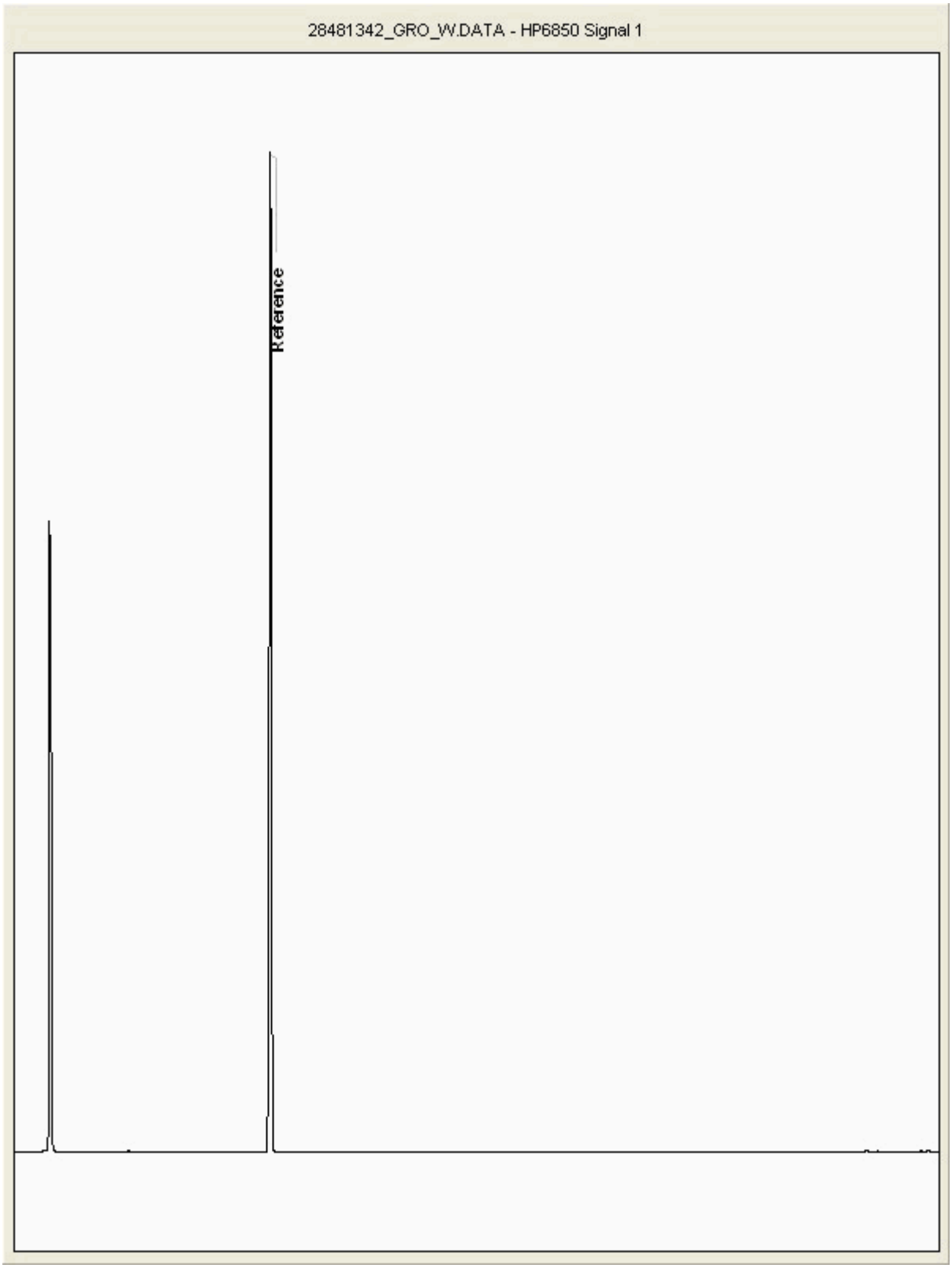


CERTIFICATE OF ANALYSIS

SDG: 230815-6 **Report Number:** 701059 **Superseded Report:**
Client Ref.: 70090113 **Location:** ewenny road, maesteg

Chromatogram

Analysis: GRO by GC-FID (W) **Sample No :** 28481342 **Depth :** 0.00 - 0.00
Sample ID : DUP



Appendix

General

1. Results are expressed on a dry weight basis (dried at 35ºC) for all soil analyses except for the following: NRA and CEN Leach tests, flash point LOI, pH, ammonium as NH4 by the BRE method, VOC TICs and SVOC TICs.

2. If sufficient sample is received a sub sample will be retained free of charge for 15 days after analysis is completed (e-mailed) for all sample types unless the sample is destroyed on testing. The prepared soil sub sample that is analysed for asbestos will be retained for a period of 6 months after the analysis date. All bulk samples will be retained for a period of 6 months after the analysis date. All samples received and not scheduled will be disposed of one month after the date of receipt unless we are instructed to the contrary. Once the initial period has expired, a storage charge will be applied for each month or part thereof until the client cancels the request for sample storage. ALS reserve the right to charge for samples received and stored but not analysed.

3. With respect to turnaround, we will always endeavour to meet client requirements wherever possible, but turnaround times cannot be absolutely guaranteed due to so many variables beyond our control.

4. We take responsibility for any test performed by sub-contractors (marked with an asterisk). We endeavour to use UKAS/MCERTS Accredited Laboratories, who either complete a quality questionnaire or are audited by ourselves. For some determinands there are no UKAS/MCERTS Accredited Laboratories, in this instance a laboratory with a known track record will be utilised.

5. If no separate volatile sample is supplied by the client, or if a headspace or sediment is present in the volatile sample, the integrity of the data may be compromised. This will be flagged up as an invalid VOC on the test schedule and the result marked as deviating on the test certificate.

6. NDP - No determination possible due to insufficient/unsuitable sample.

7. Results relate only to the items tested.

8. LoDs (Limit of Detection) for wet tests reported on a dry weight basis are not corrected for moisture content.

9. **Surrogate recoveries** - Surrogates are added to your sample to monitor recovery of the test requested. A % recovery is reported, results are not corrected for the recovery measured. Typical recoveries for organics tests are 70-130%. Recoveries in soils are affected by organic rich or clay rich matrices. Waters can be affected by remediation fluids or high amounts of sediment. Test results are only ever reported if all of the associated quality checks pass; it is assumed that all recoveries outside of the values above are due to matrix affect.

10. Stones/debris are not routinely removed. We always endeavour to take a representative sub sample from the received sample.

11. In certain circumstances the method detection limit may be elevated due to the sample being outside the calibration range. Other factors that may contribute to this include possible interferences. In both cases the sample would be diluted which would cause the method detection limit to be raised.

12. For dried and crushed preparations of soils volatile loss may occur e.g volatile mercury

13. For leachate preparations other than Zero Headspace Extraction (ZHE) volatile loss may occur.

14. For the BSEN 12457-3 two batch process to allow the cumulative release to be calculated, the volume of the leachate produced is measured and filtered for all tests. We therefore cannot carry out any unfiltered analysis. The tests affected include volatiles GCFID/GCMS and all subcontracted analysis.

15. Analysis and identification of specific compounds using GCFID is by retention time only, and we routinely calibrate and quantify for benzene, toluene, ethylbenzenes and xylenes (BTEX). For total volatiles in the C5-C12 range, the total area of the chromatogram is integrated and expressed as ug/kg or ug/l. Although this analysis is commonly used for the quantification of gasoline range organics (GRO), the system will also detect other compounds such as chlorinated solvents, and this may lead to a falsely high result with respect to hydrocarbons only. It is not possible to specifically identify these non-hydrocarbons, as standards are not routinely run for any other compounds, and for more definitive identification, volatiles by GCMS should be utilised.

16. We are accredited to MCERTS for sand, clay and loam/topsoil, or any of these materials - whether these are derived from naturally occurring soil profiles, or from fill/made ground, as long as these materials constitute the major part of the sample. Other coarse granular material such as concrete, gravel and brick are not accredited if they comprise the major part of the sample.

17 Data retention. All records, communications and reports pertaining to the analysis are archived for seven years from the date of issue of the final report.

18. **Tentatively Identified Compounds (TICs)** are non-target peaks in VOC and SVOC analysis. All non-target peaks detected with a concentration above the LoD are subjected to a mass spectral library search. Non-target peaks with a library search confidence of >75% are reported based on the best mass spectral library match. When a non-target peak with a library search confidence of <75% is detected it is reported as “mixed hydrocarbons”. Non-target compounds identified from the scan data are semi-quantified relative to one of the deuterated internal standards, under the same chromatographic conditions as the target compounds. This result is reported as a semi-quantitative value and reported as Tentatively Identified Compounds (TICs). TICs are outside the scope of UKAS accreditation and are not moisture corrected.

19. **Sample Deviations**

If a sample is classed as deviated then the associated results may be compromised.

1	**Container with Headspace provided for volatiles analysis**
2	**Incorrect container received**
3	**Deviation from method**
4	**Matrix interference**
♦	**Sample holding time exceeded in laboratory**
@	**Sample holding time exceeded due to late arrival of instructions or samples**
§	**Sampled on date not provided**

20. **Asbestos**

When requested, the individual sub sample scheduled will be analysed in house for the presence of asbestos fibres and asbestos containing material by our documented in house method TM048 based on HSG 248 (2021), which is accredited to ISO17025. If a specific asbestos fibre type is not found this will be reported as “Not detected”. If no asbestos fibre types are found all will be reported as “Not detected” and the sub sample analysed deemed to be clear of asbestos. If an asbestos fibre type is found it will be reported as detected (for each fibre type found). Testing can be carried out on asbestos positive samples, but, due to Health and Safety considerations, may be replaced by alternative tests or reported as No Determination Possible (NDP). The quantity of asbestos present is not determined unless specifically requested.

Identification of Asbestos in Bulk Materials & Soils

The results for identification of asbestos in bulk materials and soils are obtained from supplied bulk materials andd soils which have been examined to determine the presence of asbestos fibres using ALS (Hawarden) in-house method of transmitted/polarised light microscopy and central stop dispersion staining, based on HSG 248 (2021).

The results for identification of asbestos in soils are obtained from a homogenised sub sample which has been examined to determine the presence of asbestos fibres using ALS (Hawarden) in-house method of transmitted/polarised light microscopy and central stop dispersion staining.

Asbestos Type	Common Name
Chrysotile	White Asbestos
Amosite	Brown Asbestos
Crocidolite	Blue Asbestos
Fibrous Actinolite	-
Fibrous Anthophyllite	-
Fibrous Tremolite	-

Visual Estimation Of Fibre Content

Estimation of fibre content is not permitted as part of our UKAS accredited test other than: - Trace - Where only one or two asbestos fibres were identified.

Respirable Fibres

Respirable fibres are defined as fibres of <3 µm diameter, longer than 5 µm and with aspect ratios of at least 3:1 that can be inhaled into the lower regions of the lung and are generally acknowledged to be most important predictor of hazard and risk for cancers of the lung.

Further guidance on typical asbestos fibre content of manufactured products can be found in HSG 264.

The identification of asbestos containing materials and soils falls within our schedule of tests for which we hold UKAS accreditation, however opinions, interpretations and all other information contained in the report are outside the scope of UKAS accreditation.

Units 7-8 Hawarden Business Park
Manor Road (off Manor Lane)
Hawarden
Deeside
CH5 3US
Tel: (01244) 528777
email: hawardencustomerservices@alsglobal.com
Website: www.alsenvironmental.co.uk

WSP UK Limited
8 First Street
Manchester
Lancashire
M15 4RP

Attention: Jo Lavery-Hoffe

CERTIFICATE OF ANALYSIS

Date of report Generation:	29 August 2023
Customer:	WSP UK Limited
Sample Delivery Group (SDG):	230815-6
Your Reference:	70090113
Location:	ewenny road, maesteg
Report No:	701579
Order Number:	20167458

This report has been revised and directly supersedes 701059 in its entirety.

We received 7 samples on Tuesday August 15, 2023 and 7 of these samples were scheduled for analysis which was completed on Tuesday August 29, 2023. Accredited laboratory tests are defined within the report, but opinions, interpretations and on-site data expressed herein are outside the scope of ISO 17025 accreditation.

Should this report require incorporation into client reports, it must be used in its entirety and not simply with the data sections alone.

Chemical testing (unless subcontracted) performed at ALS Laboratories (UK) Limited Hawarden.

All sample data is provided by the customer. The reported results relate to the sample supplied, and on the basis that this data is correct.
Incorrect sampling dates and/or sample information will affect the validity of results.
The customer is not permitted to reproduce this report except in full without the approval of the laboratory.

Approved By:

Sonia McWhan
Operations Manager

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CERTIFICATE OF ANALYSIS

SDG: 230815-6 **Report Number:** 701579 **Superseded Report:** 701059
Client Ref.: 70090113 **Location:** ewenny road, maesteg

Received Sample Overview

Lab Sample No(s)	Customer Sample Ref.	AGS Ref.	Depth (m)	Sampled Date
28478222	BH-4	EW20230811	0.00 - 0.00	11/08/2023
28478204	DUP	EW20230811	0.00 - 0.00	11/08/2023
28478195	SP-A	EW20230811	0.00 - 0.00	11/08/2023
28478249	SW3-DOWN	EW20230811	0.00 - 0.00	11/08/2023
28478240	SW2-MID	EW20230811	0.00 - 0.00	11/08/2023
28478231	SW1-UP	EW20230811	0.00 - 0.00	11/08/2023
28478213	Trip Blank	EW20230811	0.00 - 0.00	11/08/2023

Only received samples which have had analysis scheduled will be shown on the following pages.

CERTIFICATE OF ANALYSIS

SDG: 230815-6 **Report Number:** 701579 **Superseded Report:** 701059
Client Ref.: 70090113 **Location:** ewenny road, maesteg

Results Legend
X Test
N No Determination Possible

Sample Types -
S - Soil/Solid
UNS - Unspecified Solid
GW - Ground Water
SW - Surface Water
LE - Land Leachate
PL - Prepared Leachate
PR - Process Water
SA - Saline Water
TE - Trade Effluent
TS - Treated Sewage
US - Untreated Sewage
RE - Recreational Water
DW - Drinking Water
Non-regulatory
UNL - Unspecified Liquid
SL - Sludge
G - Gas
OTH - Other

			Lab Sample No(s)	Customer Sample Reference	AGS Reference	Depth (m)	Container	Sample Type
			28478222	BH-4	EW202308 11	0.00 - 0.00	0.5l glass bottle (ALE227)	GW
							500ml Plastic (ALE208)	GW
							H2SO4 (ALE244)	GW
							HCl Filtered (ALE250)	GW
							HNO3 Filtered (ALE204)	GW
							NaOH (ALE245)	GW
							Vial (ALE297)	GW
			28478204	DUP	EW202308 11	0.00 - 0.00	0.5l glass bottle (ALE227)	GW
							500ml Plastic (ALE208)	GW
							H2SO4 (ALE244)	GW
							HCl Filtered (ALE250)	GW
							HNO3 Filtered (ALE204)	GW
							NaOH (ALE245)	GW
							Vial (ALE297)	GW
			28478195	SP-A	EW202308 11	0.00 - 0.00	0.5l glass bottle (ALE227)	GW
							500ml Plastic (ALE208)	GW
							H2SO4 (ALE244)	GW
							HCl Filtered (ALE250)	GW
							HNO3 Filtered (ALE204)	GW
							NaOH (ALE245)	GW
							Vial (ALE297)	GW
Anions by Kone (w)	All	NDPs: 0 Tests: 7		X				X						X						
Dissolved Metals by ICP-MS	All	NDPs: 0 Tests: 7					X						X						X	
Dissolved Organic/Inorganic Carbon	All	NDPs: 0 Tests: 7	X							X					X					
EPH CWG (Aliphatic) Aqueous GC (W)	All	NDPs: 0 Tests: 7	X							X					X					
EPH CWG (Aromatic) Aqueous GC (W)	All	NDPs: 0 Tests: 7	X							X					X					
Ferric Iron	All	NDPs: 0 Tests: 7				X							X						X	
Ferrous Iron	All	NDPs: 0 Tests: 7				X							X						X	
GRO by GC-FID (W)	All	NDPs: 0 Tests: 7						X						X						X
Low Level Cyanide (W)	All	NDPs: 0 Tests: 7					X						X						X	
Low Level Hexavalent Chromium (w)	All	NDPs: 0 Tests: 7		X						X					X					
Mercury Dissolved	All	NDPs: 0 Tests: 7					X						X						X	
Nitrite by Kone (w)	All	NDPs: 0 Tests: 7					X						X						X	
PAH Spec MS - Aqueous (W)	All	NDPs: 0 Tests: 7	X							X					X					
pH Value	All	NDPs: 0 Tests: 7		X						X					X					
Phenols by HPLC (W)	All	NDPs: 0 Tests: 7			X						X					X				

28478231	SW1-UP	EW202308 11	0.00 - 0.00	HNO3 Filtered (ALE204)	SW		X									X				
				HCl Filtered (ALE250)	SW						X	X								
				H2SO4 (ALE244)	SW															X
				500ml Plastic (ALE208)	SW	X									X				X	
				0.5l glass bottle (ALE227)	SW			X	X	X								X		
28478240	SW2-MID	EW202308 11	0.00 - 0.00	Vial (ALE297)	SW								X							
				NaOH (ALE245)	SW									X			X			
				HNO3 Filtered (ALE204)	SW		X									X				
				HCl Filtered (ALE250)	SW						X	X								
				H2SO4 (ALE244)	SW															X
				500ml Plastic (ALE208)	SW	X									X				X	
				0.5l glass bottle (ALE227)	SW			X	X	X								X		
28478249	SW3-DOWN	EW202308 11	0.00 - 0.00	Vial (ALE297)	SW								X							
				NaOH (ALE245)	SW									X			X			
				HNO3 Filtered (ALE204)	SW		X									X				
				HCl Filtered (ALE250)	SW						X	X								
				H2SO4 (ALE244)	SW															X
				500ml Plastic (ALE208)	SW	X									X				X	
				0.5l glass bottle (ALE227)	SW			X	X	X								X		

CERTIFICATE OF ANALYSIS

SDG: 230815-6 **Report Number:** 701579 **Superseded Report:** 701059
Client Ref.: 70090113 **Location:** ewenny road, maesteg

Results Legend

X Test

N No Determination Possible

Sample Types -
S - Soil/Solid
UNS - Unspecified Solid
GW - Ground Water
SW - Surface Water
LE - Land Leachate
PL - Prepared Leachate
PR - Process Water
SA - Saline Water
TE - Trade Effluent
TS - Treated Sewage
US - Untreated Sewage
RE - Recreational Water
DW - Drinking Water
Non-regulatory
UNL - Unspecified Liquid
SL - Sludge
G - Gas
OTH - Other

			Lab Sample No(s)	Customer Sample Reference	AGS Reference	Depth (m)	Container	Sample Type
			28478222	BH-4	EW202308 11	0.00 - 0.00	0.5l glass bottle (ALE227)	GW
							500ml Plastic (ALE208)	GW
							H2SO4 (ALE244)	GW
							HCl Filtered (ALE250)	GW
							HNO3 Filtered (ALE204)	GW
							NaOH (ALE245)	GW
							Vial (ALE297)	GW
			28478204	DUP	EW202308 11	0.00 - 0.00	0.5l glass bottle (ALE227)	GW
							500ml Plastic (ALE208)	GW
							H2SO4 (ALE244)	GW
							HCl Filtered (ALE250)	GW
							HNO3 Filtered (ALE204)	GW
							NaOH (ALE245)	GW
							Vial (ALE297)	GW
			28478195	SP-A	EW202308 11	0.00 - 0.00	0.5l glass bottle (ALE227)	GW
							500ml Plastic (ALE208)	GW
							H2SO4 (ALE244)	GW
							HCl Filtered (ALE250)	GW
							HNO3 Filtered (ALE204)	GW
							NaOH (ALE245)	GW
							Vial (ALE297)	GW
Total Metals by ICP-MS	All	NDPs: 0 Tests: 7		X				
				X				
				X				
TPH CWG (W)	All	NDPs: 0 Tests: 7						
								X
VOC MS (W)	All	NDPs: 0 Tests: 7						
			X					

28478231	SW1-UP	EW2023081 1	0.00 - 0.00	HNO3 Filtered (ALE204)	SW				
				HCl Filtered (ALE250)	SW				
				H2SO4 (ALE244)	SW				
				500ml Plastic (ALE208)	SW		X		
				0.5l glass bottle (ALE227)	SW			X	
28478240	SW2-MID	EW2023081 1	0.00 - 0.00	Vial (ALE297)	SW				X
				NaOH (ALE245)	SW				
				HNO3 Filtered (ALE204)	SW				
				HCl Filtered (ALE250)	SW				
				H2SO4 (ALE244)	SW				
				500ml Plastic (ALE208)	SW	X			
				0.5l glass bottle (ALE227)	SW			X	
28478249	SW3-DOWN	EW2023081 1	0.00 - 0.00	Vial (ALE297)	SW				X
				NaOH (ALE245)	SW				
				HNO3 Filtered (ALE204)	SW				
				HCl Filtered (ALE250)	SW				
				H2SO4 (ALE244)	SW				
				500ml Plastic (ALE208)	SW		X		
				0.5l glass bottle (ALE227)	SW			X	

CERTIFICATE OF ANALYSIS

SDG: 230815-6 **Report Number:** 701579 **Superseded Report:** 701059
Client Ref.: 70090113 **Location:** ewenny road, maesteg

Results Legend
X Test
N No Determination Possible

Sample Types -
S - Soil/Solid
UNS - Unspecified Solid
GW - Ground Water
SW - Surface Water
LE - Land Leachate
PL - Prepared Leachate
PR - Process Water
SA - Saline Water
TE - Trade Effluent
TS - Treated Sewage
US - Untreated Sewage
RE - Recreational Water
DW - Drinking Water
Non-regulatory
UNL - Unspecified Liquid
SL - Sludge
G - Gas
OTH - Other

			Lab Sample No(s)	28478231	28478213
			Customer Sample Reference	SW1-UP	Trip Blank
			AGS Reference	EW202308 11	EW202308 11
			Depth (m)	0.00 - 0.00	0.00 - 0.00
			Container	NaOH (ALE245)	Vial (ALE297)	0.5l glass bottle (ALE227)	500ml Plastic (ALE208)	H2SO4 (ALE244)	HCl Filtered (ALE250)	NaOH (ALE245)	Vial (ALE297)
			Sample Type	SW	SW	GW	GW	GW	GW	GW	GW
Anions by Kone (w)	All	NDPs: 0 Tests: 7				X				
Dissolved Metals by ICP-MS	All	NDPs: 0 Tests: 7				X				
Dissolved Organic/Inorganic Carbon	All	NDPs: 0 Tests: 7			X					
EPH CWG (Aliphatic) Aqueous GC (W)	All	NDPs: 0 Tests: 7			X					
EPH CWG (Aromatic) Aqueous GC (W)	All	NDPs: 0 Tests: 7			X					
Ferric Iron	All	NDPs: 0 Tests: 7						X		
Ferrous Iron	All	NDPs: 0 Tests: 7						X		
GRO by GC-FID (W)	All	NDPs: 0 Tests: 7		X						X
Low Level Cyanide (W)	All	NDPs: 0 Tests: 7	X						X	
Low Level Hexavalent Chromium (w)	All	NDPs: 0 Tests: 7				X				
Mercury Dissolved	All	NDPs: 0 Tests: 7				X				
Nitrite by Kone (w)	All	NDPs: 0 Tests: 7	X						X	
PAH Spec MS - Aqueous (W)	All	NDPs: 0 Tests: 7			X					
pH Value	All	NDPs: 0 Tests: 7				X				
Phenols by HPLC (W)	All	NDPs: 0 Tests: 7					X			

CERTIFICATE OF ANALYSIS

SDG: 230815-6 **Report Number:** 701579 **Superseded Report:** 701059
Client Ref.: 70090113 **Location:** ewenny road, maesteg

Results Legend

X Test

N No Determination Possible

Sample Types -
S - Soil/Solid
UNS - Unspecified Solid
GW - Ground Water
SW - Surface Water
LE - Land Leachate
PL - Prepared Leachate
PR - Process Water
SA - Saline Water
TE - Trade Effluent
TS - Treated Sewage
US - Untreated Sewage
RE - Recreational Water
DW - Drinking Water
Non-regulatory
UNL - Unspecified Liquid
SL - Sludge
G - Gas
OTH - Other

Lab Sample No(s)			28478231							28478213
Customer Sample Reference			SW1-UP							Trip Blank
AGS Reference			EW202308 11							EW202308 11
Depth (m)			0.00 - 0.00							0.00 - 0.00
Container			NaOH (ALE245)	Vial (ALE297)	0.5l glass bottle (ALE227)	500ml Plastic (ALE208)	H2SO4 (ALE244)	HCl Filtered (ALE250)	NaOH (ALE245)	Vial (ALE297)
Sample Type			SW	SW	GW	GW	GW	GW	GW	GW
Total Metals by ICP-MS	All	NDPs: 0 Tests: 7				X				
TPH CWG (W)	All	NDPs: 0 Tests: 7			X					
VOC MS (W)	All	NDPs: 0 Tests: 7		X						X

CERTIFICATE OF ANALYSIS

SDG: 230815-6 **Report Number:** 701579 **Superseded Report:** 701059
Client Ref.: 70090113 **Location:** ewenny road, maesteg

Results Legend
ISO17025 accredited.
M *m*CERTS accredited.
aq Aqueous / settled sample.
diss.filt Dissolved / filtered sample.
tot.unfilt Total / unfiltered sample.
* Subcontracted - refer to subcontractor report for accreditation status.
** % recovery of the surrogate standard to check the efficiency of the method. The results of individual compounds within samples aren't corrected for the recovery
(F) Trigger breach confirmed
1-4+§@ Sample deviation (see appendix)

Component	LOD/Units	Method	Customer Sample Ref.	BH-4	DUP	SP-A	SW3-DOWN	SW2-MID	SW1-UP
			Depth (m)	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00
			Sample Type	Ground Water (GW)	Ground Water (GW)	Ground Water (GW)	Surface Water (SW)	Surface Water (SW)	Surface Water (SW)
			Date Sampled	11/08/2023	11/08/2023	11/08/2023	11/08/2023	11/08/2023	11/08/2023
			Sampled Time	-	-	-	-	-	-
			Date Received	15/08/2023	15/08/2023	15/08/2023	15/08/2023	15/08/2023	15/08/2023
			SDG Ref	230815-6	230815-6	230815-6	230815-6	230815-6	230815-6
			Lab Sample No.(s)	28478222	28478204	28478195	28478249	28478240	28478231
			AGS Reference	EW20230811	EW20230811	EW20230811	EW20230811	EW20230811	EW20230811
Carbon, Organic (diss.filt)	<3000 µg/l	TM090		<3000	<3000	<3000	<3000	<3000	<3000
Iron, Ferric	<50 µg/l	TM125		<50	<50	<50	100	72.9	88.6
Iron, Ferrous	<100 µg/l	TM125		2750 #	<100 #	<100 #	<100 #	<100 #	<100 #
Arsenic (diss.filt)	<0.5 µg/l	TM152		2.15 #	<0.5 #	<0.5 #	<0.5 #	<0.5 #	<0.5 #
Cadmium (diss.filt)	<0.08 µg/l	TM152		<0.08 #	<0.08 #	<0.08 #	<0.08 #	<0.08 #	<0.08 #
Chromium (diss.filt)	<1 µg/l	TM152		1.63 #	5.29 #	2.45 #	6.61 #	6.76 #	6.64 #
Copper (diss.filt)	<0.3 µg/l	TM152		<0.3 #	0.409 #	0.319 #	1.34 #	1.27 #	1.16 #
Manganese (tot.unfilt)	<1 µg/l	TM152		682 2 #	1120 2 #	1550 2 #	27.7 2 #	13.9 2 #	25.7 2 #
Lead (diss.filt)	<0.2 µg/l	TM152		<0.2 #	<0.2 #	<0.2 #	<0.2 #	<0.2 #	<0.2 #
Nickel (diss.filt)	<0.4 µg/l	TM152		1.85 #	5.25 #	5.05 #	0.999 #	1.35 #	1.39 #
Selenium (diss.filt)	<1 µg/l	TM152		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
Zinc (diss.filt)	<1 µg/l	TM152		3.41 #	5.66 #	3.53 #	4.43 #	4.13 #	4.75 #
Iron (Dis.Filt)	<19 µg/l	TM152		2720 #	<19 #	<19 #	100 #	72.9 #	88.6 #
Calcium (Tot. Unfilt.)	<57 µg/l	TM152		53000 2 #	28000 2 #	27800 2 #	17800 2 #	18000 2 #	19100 2 #
Mercury (diss.filt)	<0.01 µg/l	TM183		<0.01 #	<0.01 #	<0.01 #	<0.01	<0.01	<0.01
Nitrite as NO2	<50 µg/l	TM184		<50 #	<50 #	<50 #	<50 #	<50 #	<50 #
Sulphate	<2000 µg/l	TM184		19300 #	24000 #	24300 #	15600 #	15700 #	17500 #
Chloride	<2000 µg/l	TM184		10500 #	13800 #	13800 #	10000 #	10200 #	11400 #
Nitrate as NO3	<300 µg/l	TM184		<300 #	534 #	536 #	1720 #	1810 #	1810 #
pH	<1 pH Units	TM256		7.71 #	6.82 #	7.02 #	8.05 #	8.05 #	8.05 #
Alkalinity, Total as CaCO3	<3000 µg/l	TM256		275000 #	126000 #	127000 #	73000 #	72000 #	80600 #
Phenol	<2 µg/l	TM259		<2 #	<2 #	<2 #	<2	<2	<2
Cresols	<6 µg/l	TM259		<6 #	<6 #	<6 #	<6	<6	<6
Xylenols	<8 µg/l	TM259		<8 #	<8 #	<8 #	<8	<8	<8
Phenols, Total Detected monohydric	<16 µg/l	TM259		<16 #	<16 #	<16 #	<16	<16	<16
Cyanide, Total (low level)	<5 µg/l	TM279		<5 #	<5 #	<5 #	<5 #	<5 #	<5 #
Cyanide, Free (low level)	<2.5 µg/l	TM279		<2.5 #	<2.5 #	<2.5 #	<2.5 #	<2.5 #	<2.5 #
Cyanide, Complex (low level)*	<5 µg/l	TM279		<5	<5	<5	<5	<5	<5
Low Level Hexavalent Chromium	<3 µg/l	TM331		<3 #	<3 #	<3 #	6.49 #	5.78 #	6.77 #

CERTIFICATE OF ANALYSIS

SDG: 230815-6 **Report Number:** 701579 **Superseded Report:** 701059
Client Ref.: 70090113 **Location:** ewenny road, maesteg

Results Legend	
#	ISO17025 accredited.
M	*m*CERTS accredited.
aq	Aqueous / settled sample.
diss.filt	Dissolved / filtered sample.
tot.unfilt	Total / unfiltered sample.
*	Subcontracted - refer to subcontractor report for accreditation status.
**	% recovery of the surrogate standard to check the efficiency of the method. The results of individual compounds within samples aren't corrected for the recovery
(F)	Trigger breach confirmed
1-4+§@	Sample deviation (see appendix)

Component	LOD/Units	Method	Customer Sample Ref.					
			Trip Blank					
Depth (m)			0.00 - 0.00					
Sample Type			Ground Water (GW)					
Date Sampled			11/08/2023					
Sampled Time			.					
Date Received			15/08/2023					
SDG Ref			230815-6					
Lab Sample No.(s)			28478213					
AGS Reference			EW20230811					
Carbon, Organic (diss.filt)	<3000 µg/l	TM090	<3000					
Iron, Ferric	<50 µg/l	TM125	<50					
Iron, Ferrous	<100 µg/l	TM125	<100 #					
Arsenic (diss.filt)	<0.5 µg/l	TM152	<0.5 2 #					
Cadmium (diss.filt)	<0.08 µg/l	TM152	<0.08 2 #					
Chromium (diss.filt)	<1 µg/l	TM152	<1 2 #					
Copper (diss.filt)	<0.3 µg/l	TM152	<0.3 2 #					
Manganese (tot.unfilt)	<1 µg/l	TM152	<1 2 #					
Lead (diss.filt)	<0.2 µg/l	TM152	<0.2 2 #					
Nickel (diss.filt)	<0.4 µg/l	TM152	<0.4 2 #					
Selenium (diss.filt)	<1 µg/l	TM152	<1 2 #					
Zinc (diss.filt)	<1 µg/l	TM152	1.44 2 #					
Iron (Dis.Filt)	<19 µg/l	TM152	<19 2 #					
Calcium (Tot. Unfilt.)	<57 µg/l	TM152	<57 2 #					
Mercury (diss.filt)	<0.01 µg/l	TM183	<0.01 2 #					
Nitrite as NO2	<50 µg/l	TM184	<50 #					
Sulphate	<2000 µg/l	TM184	<2000 #					
Chloride	<2000 µg/l	TM184	<2000 #					
Nitrate as NO3	<300 µg/l	TM184	<300 #					
pH	<1 pH Units	TM256	5.93 #					
Alkalinity, Total as CaCO3	<3000 µg/l	TM256	<3000 #					
Phenol	<2 µg/l	TM259	<2 #					
Cresols	<6 µg/l	TM259	<6 #					
Xylenols	<8 µg/l	TM259	<8 #					
Phenols, Total Detected monohydric	<16 µg/l	TM259	<16 #					
Cyanide, Total (low level)	<5 µg/l	TM279	<5 #					
Cyanide, Free (low level)	<2.5 µg/l	TM279	<2.5 #					
Cyanide, Complex (low level)*	<5 µg/l	TM279	<5					
Low Level Hexavalent Chromium	<3 µg/l	TM331	<3 #					

CERTIFICATE OF ANALYSIS

SDG: 230815-6 **Report Number:** 701579 **Superseded Report:** 701059
Client Ref.: 70090113 **Location:** ewenny road, maesteg

PAH Spec MS - Aqueous (W)

Results Legend
- # ISO17025 accredited.
- M *m*CERTS accredited.
- aq Aqueous / settled sample.
- diss.filt Dissolved / filtered sample.
- tot.unfilt Total / unfiltered sample.
- * Subcontracted - refer to subcontractor report for accreditation status.
- ** % recovery of the surrogate standard to check the efficiency of the method. The results of individual compounds within samples aren't corrected for the recovery
- (F) Trigger breach confirmed
- 1-4+§@ Sample deviation (see appendix)

Component	LOD/Units	Method	Customer Sample Ref.	BH-4	DUP	SP-A	SW3-DOWN	SW2-MID	SW1-UP
			Depth (m)	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00
			Sample Type	Ground Water (GW)	Ground Water (GW)	Ground Water (GW)	Surface Water (SW)	Surface Water (SW)	Surface Water (SW)
			Date Sampled	11/08/2023	11/08/2023	11/08/2023	11/08/2023	11/08/2023	11/08/2023
			Sampled Time	-	-	-	-	-	-
			Date Received	15/08/2023	15/08/2023	15/08/2023	15/08/2023	15/08/2023	15/08/2023
			SDG Ref	230815-6	230815-6	230815-6	230815-6	230815-6	230815-6
			Lab Sample No.(s)	28478222	28478204	28478195	28478249	28478240	28478231
			AGS Reference	EW20230811	EW20230811	EW20230811	EW20230811	EW20230811	EW20230811
Naphthalene (aq)	<0.01 µg/l	TM178		<0.01 @ #	<0.01 @ #	<0.01 @ #	<0.01 @ #	<0.01 @ #	<0.01 @ #
Acenaphthene (aq)	<0.005 µg/l	TM178		<0.005 @ #	<0.005 @ #	<0.005 @ #	<0.005 @ #	<0.005 @ #	<0.005 @ #
Acenaphthylene (aq)	<0.005 µg/l	TM178		<0.005 @ #	<0.005 @ #	<0.005 @ #	<0.005 @ #	<0.005 @ #	<0.005 @ #
Fluoranthene (aq)	<0.005 µg/l	TM178		<0.005 @ #	<0.005 @ #	<0.005 @ #	<0.005 @ #	<0.005 @ #	<0.005 @ #
Anthracene (aq)	<0.005 µg/l	TM178		<0.005 @ #	<0.005 @ #	<0.005 @ #	<0.005 @ #	<0.005 @ #	<0.005 @ #
Phenanthrene (aq)	<0.005 µg/l	TM178		0.0085 @ #	<0.005 @ #	<0.005 @ #	<0.005 @ #	<0.005 @ #	<0.005 @ #
Fluorene (aq)	<0.005 µg/l	TM178		<0.005 @ #	<0.005 @ #	<0.005 @ #	<0.005 @ #	<0.005 @ #	<0.005 @ #
Chrysene (aq)	<0.005 µg/l	TM178		<0.005 @ #	<0.005 @ #	<0.005 @ #	<0.005 @ #	<0.005 @ #	<0.005 @ #
Pyrene (aq)	<0.005 µg/l	TM178		<0.005 @ #	<0.005 @ #	<0.005 @ #	<0.005 @ #	<0.005 @ #	<0.005 @ #
Benzo(a)anthracene (aq)	<0.005 µg/l	TM178		<0.005 @ #	<0.005 @ #	<0.005 @ #	<0.005 @ #	<0.005 @ #	<0.005 @ #
Benzo(b)fluoranthene (aq)	<0.005 µg/l	TM178		<0.005 @ #	<0.005 @ #	<0.005 @ #	<0.005 @ #	<0.005 @ #	<0.005 @ #
Benzo(k)fluoranthene (aq)	<0.005 µg/l	TM178		<0.005 @ #	<0.005 @ #	<0.005 @ #	<0.005 @ #	<0.005 @ #	<0.005 @ #
Benzo(a)pyrene (aq)	<0.002 µg/l	TM178		<0.002 @ #	<0.002 @ #	<0.002 @ #	<0.002 @ #	<0.002 @ #	<0.002 @ #
Dibenzo(a,h)anthracene (aq)	<0.005 µg/l	TM178		<0.005 @ #	<0.005 @ #	<0.005 @ #	<0.005 @ #	<0.005 @ #	<0.005 @ #
Benzo(g,h,i)perylene (aq)	<0.005 µg/l	TM178		<0.005 @ #	<0.005 @ #	<0.005 @ #	<0.005 @ #	<0.005 @ #	<0.005 @ #
Indeno(1,2,3-cd)pyrene (aq)	<0.005 µg/l	TM178		<0.005 @ #	<0.005 @ #	<0.005 @ #	<0.005 @ #	<0.005 @ #	<0.005 @ #
PAH, Total Detected USEPA 16 (aq)	<0.082 µg/l	TM178		<0.082 @ #	<0.082 @ #	<0.082 @ #	<0.082 @ #	<0.082 @ #	<0.082 @ #

CERTIFICATE OF ANALYSIS

SDG: 230815-6 **Report Number:** 701579 **Superseded Report:** 701059
Client Ref.: 70090113 **Location:** ewenny road, maesteg

PAH Spec MS - Aqueous (W)

Results Legend

#	ISO17025 accredited.
M	*m*CERTS accredited.
aq	Aqueous / settled sample.
diss.filt	Dissolved / filtered sample.
tot.unfilt	Total / unfiltered sample.
*	Subcontracted - refer to subcontractor report for accreditation status.
**	% recovery of the surrogate standard to check the efficiency of the method. The results of individual compounds within samples aren't corrected for the recovery
(F)	Trigger breach confirmed
1-4+§@	Sample deviation (see appendix)

Customer Sample Ref.	Trip Blank
Depth (m)	0.00 - 0.00
Sample Type	Ground Water (GW)
Date Sampled	11/08/2023
Sampled Time	-
Date Received	15/08/2023
SDG Ref	230815-6
Lab Sample No.(s)	28478213
AGS Reference	EW20230811

Component	LOD/Units	Method	
Naphthalene (aq)	<0.01 µg/l	TM178	<0.01 @ #
Acenaphthene (aq)	<0.005 µg/l	TM178	<0.005 @ #
Acenaphthylene (aq)	<0.005 µg/l	TM178	<0.005 @ #
Fluoranthene (aq)	<0.005 µg/l	TM178	<0.005 @ #
Anthracene (aq)	<0.005 µg/l	TM178	<0.005 @ #
Phenanthrene (aq)	<0.005 µg/l	TM178	<0.005 @ #
Fluorene (aq)	<0.005 µg/l	TM178	<0.005 @ #
Chrysene (aq)	<0.005 µg/l	TM178	<0.005 @ #
Pyrene (aq)	<0.005 µg/l	TM178	<0.005 @ #
Benzo(a)anthracene (aq)	<0.005 µg/l	TM178	<0.005 @ #
Benzo(b)fluoranthene (aq)	<0.005 µg/l	TM178	<0.005 @ #
Benzo(k)fluoranthene (aq)	<0.005 µg/l	TM178	<0.005 @ #
Benzo(a)pyrene (aq)	<0.002 µg/l	TM178	<0.002 @ #
Dibenzo(a,h)anthracene (aq)	<0.005 µg/l	TM178	<0.005 @ #
Benzo(g,h,i)perylene (aq)	<0.005 µg/l	TM178	<0.005 @ #
Indeno(1,2,3-cd)pyrene (aq)	<0.005 µg/l	TM178	<0.005 @ #
PAH, Total Detected USEPA 16 (aq)	<0.082 µg/l	TM178	<0.082 @ #

CERTIFICATE OF ANALYSIS

SDG: 230815-6 **Report Number:** 701579 **Superseded Report:** 701059
Client Ref.: 70090113 **Location:** ewenny road, maesteg

TPH CWG (W)

Results Legend	
#	ISO17025 accredited.
M	mCERTS accredited.
aq	Aqueous / settled sample.
diss.filt	Dissolved / filtered sample.
tot.unfilt	Total / unfiltered sample.
*	Subcontracted - refer to subcontractor report for accreditation status.
**	% recovery of the surrogate standard to check the efficiency of the method. The results of individual compounds within samples aren't corrected for the recovery
(F)	Trigger breach confirmed
1-4+§@	Sample deviation (see appendix)

Component	LOD/Units	Method	Customer Sample Ref.	BH-4	DUP	SP-A	SW3-DOWN	SW2-MID	SW1-UP
			Depth (m)	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00
			Sample Type	Ground Water (GW)	Ground Water (GW)	Ground Water (GW)	Surface Water (SW)	Surface Water (SW)	Surface Water (SW)
			Date Sampled	11/08/2023	11/08/2023	11/08/2023	11/08/2023	11/08/2023	11/08/2023
			Sampled Time	-	-	-	-	-	-
			Date Received	15/08/2023	15/08/2023	15/08/2023	15/08/2023	15/08/2023	15/08/2023
			SDG Ref	230815-6	230815-6	230815-6	230815-6	230815-6	230815-6
			Lab Sample No.(s)	28478222	28478204	28478195	28478249	28478240	28478231
			AGS Reference	EW20230811	EW20230811	EW20230811	EW20230811	EW20230811	EW20230811
GRO Surrogate % recovery**	%	TM245		108	100	115	117	93	119
GRO >C5-C12	<50 µg/l	TM245		<50 #	<50 #	<50 #	<50 #	<50 #	<50 #
Aliphatics >C5-C6	<10 µg/l	TM245		<10	<10	<10	<10	<10	<10
Aliphatics >C6-C8	<10 µg/l	TM245		<10	<10	<10	<10	<10	<10
Aliphatics >C8-C10	<10 µg/l	TM245		<10	<10	<10	<10	<10	<10
Aliphatics >C10-C12	<10 µg/l	TM245		<10	<10	<10	<10	<10	<10
Aliphatics >C12-C16 (aq)	<10 µg/l	TM174		<10	<10	<10	<10	<10	<10
Aliphatics >C16-C21 (aq)	<10 µg/l	TM174		<10	<10	<10	<10	<10	<10
Aliphatics >C21-C35 (aq)	<10 µg/l	TM174		<10	32	54	<10	<10	<10
Total Aliphatics >C12-C35 (aq)	<10 µg/l	TM174		<10	32	54	<10	<10	<10
Aromatics >EC5-EC7	<10 µg/l	TM245		<10	<10	<10	<10	<10	<10
Aromatics >EC7-EC8	<10 µg/l	TM245		<10	<10	<10	<10	<10	<10
Aromatics >EC8-EC10	<10 µg/l	TM245		<10	<10	<10	<10	<10	<10
Aromatics >EC10-EC12	<10 µg/l	TM245		<10	<10	<10	<10	<10	<10
Aromatics >EC12-EC16 (aq)	<10 µg/l	TM174		<10	<10	<10	<10	<10	<10
Aromatics >EC16-EC21 (aq)	<10 µg/l	TM174		<10	<10	<10	<10	<10	<10
Aromatics >EC21-EC35 (aq)	<10 µg/l	TM174		<10	<10	<10	<10	<10	<10
Total Aromatics >EC12-EC35 (aq)	<10 µg/l	TM174		<10	<10	<10	<10	<10	<10
Total Aliphatics & Aromatics >C5-35 (aq)	<10 µg/l	TM174		<10	32	54	<10	<10	<10
Aliphatics >C16-C35 Aqueous	<10 µg/l	TM174		<10	32	54	<10	<10	<10

CERTIFICATE OF ANALYSIS

SDG: 230815-6 **Report Number:** 701579 **Superseded Report:** 701059
Client Ref.: 70090113 **Location:** ewenny road, maesteg

TPH CWG (W)

Results Legend	
#	ISO17025 accredited.
M	*m*CERTS accredited.
aq	Aqueous / settled sample.
diss.filt	Dissolved / filtered sample.
tot.unfilt	Total / unfiltered sample.
*	Subcontracted - refer to subcontractor report for accreditation status.
**	% recovery of the surrogate standard to check the efficiency of the method. The results of individual compounds within samples aren't corrected for the recovery
(F)	Trigger breach confirmed
1-4+§@	Sample deviation (see appendix)

Customer Sample Ref.	Trip Blank
Depth (m)	0.00 - 0.00
Sample Type	Ground Water (GW)
Date Sampled	11/08/2023
Sampled Time	.
Date Received	15/08/2023
SDG Ref	230815-6
Lab Sample No.(s)	28478213
AGS Reference	EW20230811

Component	LOD/Units	Method	
GRO Surrogate % recovery**	%	TM245	116
GRO >C5-C12	<50 µg/l	TM245	<50 #
Aliphatics >C5-C6	<10 µg/l	TM245	<10
Aliphatics >C6-C8	<10 µg/l	TM245	<10
Aliphatics >C8-C10	<10 µg/l	TM245	<10
Aliphatics >C10-C12	<10 µg/l	TM245	<10
Aliphatics >C12-C16 (aq)	<10 µg/l	TM174	<10
Aliphatics >C16-C21 (aq)	<10 µg/l	TM174	<10
Aliphatics >C21-C35 (aq)	<10 µg/l	TM174	<10
Total Aliphatics >C12-C35 (aq)	<10 µg/l	TM174	<10
Aromatics >EC5-EC7	<10 µg/l	TM245	<10
Aromatics >EC7-EC8	<10 µg/l	TM245	<10
Aromatics >EC8-EC10	<10 µg/l	TM245	<10
Aromatics >EC10-EC12	<10 µg/l	TM245	<10
Aromatics >EC12-EC16 (aq)	<10 µg/l	TM174	<10
Aromatics >EC16-EC21 (aq)	<10 µg/l	TM174	<10
Aromatics >EC21-EC35 (aq)	<10 µg/l	TM174	<10
Total Aromatics >EC12-EC35 (aq)	<10 µg/l	TM174	<10
Total Aliphatics & Aromatics >C5-35 (aq)	<10 µg/l	TM174	<10
Aliphatics >C16-C35 Aqueous	<10 µg/l	TM174	<10

VOC MS (W)

Results Legend	
#	ISO17025 accredited.
M	mCERTS accredited.
aq	Aqueous / settled sample.
diss.filt	Dissolved / filtered sample.
tot.unfilt	Total / unfiltered sample.
*	Subcontracted - refer to subcontractor report for accreditation status.
**	% recovery of the surrogate standard to check the efficiency of the method. The results of individual compounds within samples aren't corrected for the recovery
(F)	Trigger breach confirmed
1-4+§@	Sample deviation (see appendix)

Component	LOD/Units	Method	Customer Sample Ref.	BH-4	DUP	SP-A	SW3-DOWN	SW2-MID	SW1-UP
			Depth (m)	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00
			Sample Type	Ground Water (GW)	Ground Water (GW)	Ground Water (GW)	Surface Water (SW)	Surface Water (SW)	Surface Water (SW)
			Date Sampled	11/08/2023	11/08/2023	11/08/2023	11/08/2023	11/08/2023	11/08/2023
			Sampled Time	.	.	.	.	.	.
			Date Received	15/08/2023	15/08/2023	15/08/2023	15/08/2023	15/08/2023	15/08/2023
			SDG Ref	230815-6	230815-6	230815-6	230815-6	230815-6	230815-6
			Lab Sample No.(s)	28478222	28478204	28478195	28478249	28478240	28478231
			AGS Reference	EW20230811	EW20230811	EW20230811	EW20230811	EW20230811	EW20230811
Dibromofluoromethane**	%	TM208		108	98.6	105	105	105	104
Toluene-d8**	%	TM208		99.4	100	99	98.5	99.3	99.8
4-Bromofluorobenzene**	%	TM208		96.9	97.2	99	98.8	98.4	97.5
Dichlorodifluoromethane	µg/l	TM208		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
Chloromethane	µg/l	TM208		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
Vinyl chloride	µg/l	TM208		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
Bromomethane	µg/l	TM208		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
Chloroethane	µg/l	TM208		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
Trichlorofluoromethane	µg/l	TM208		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
1,1-Dichloroethene	µg/l	TM208		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
Carbon disulphide	µg/l	TM208		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
Dichloromethane	µg/l	TM208		<3 #	<3 #	<3 #	<3 #	<3 #	<3 #
Methyl tertiary butyl ether (MTBE)	µg/l	TM208		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
trans-1,2-Dichloroethene	µg/l	TM208		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
1,1-Dichloroethane	µg/l	TM208		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
cis-1,2-Dichloroethene	µg/l	TM208		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
2,2-Dichloropropane	µg/l	TM208		<1	<1	<1	<1	<1	<1
Bromochloromethane	µg/l	TM208		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
Chloroform	µg/l	TM208		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
1,1,1-Trichloroethane	µg/l	TM208		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
1,1-Dichloropropene	µg/l	TM208		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
Carbontetrachloride	µg/l	TM208		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
1,2-Dichloroethane	µg/l	TM208		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
Benzene	µg/l	TM208		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
Trichloroethene	µg/l	TM208		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
1,2-Dichloropropane	µg/l	TM208		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
Dibromomethane	µg/l	TM208		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
Bromodichloromethane	µg/l	TM208		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
cis-1,3-Dichloropropene	µg/l	TM208		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
Toluene	µg/l	TM208		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
trans-1,3-Dichloropropene	µg/l	TM208		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
1,1,2-Trichloroethane	µg/l	TM208		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #

VOC MS (W)

Results Legend
- # ISO17025 accredited.
- M *m*CERTS accredited.
- aq Aqueous / settled sample.
- diss.filt Dissolved / filtered sample.
- tot.unfilt Total / unfiltered sample.
- * Subcontracted - refer to subcontractor report for accreditation status.
- ** % recovery of the surrogate standard to check the efficiency of the method. The results of individual compounds within samples aren't corrected for the recovery
- (F) Trigger breach confirmed
- 1-4+§@ Sample deviation (see appendix)

Component	LOD/Units	Method	Customer Sample Ref.	BH-4	DUP	SP-A	SW3-DOWN	SW2-MID	SW1-UP
			Depth (m)	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00
			Sample Type	Ground Water (GW)	Ground Water (GW)	Ground Water (GW)	Surface Water (SW)	Surface Water (SW)	Surface Water (SW)
			Date Sampled	11/08/2023	11/08/2023	11/08/2023	11/08/2023	11/08/2023	11/08/2023
			Sampled Time	.	.	.	.	.	.
			Date Received	15/08/2023	15/08/2023	15/08/2023	15/08/2023	15/08/2023	15/08/2023
			SDG Ref	230815-6	230815-6	230815-6	230815-6	230815-6	230815-6
			Lab Sample No.(s)	28478222	28478204	28478195	28478249	28478240	28478231
			AGS Reference	EW20230811	EW20230811	EW20230811	EW20230811	EW20230811	EW20230811
1,3-Dichloropropane	<1 µg/l	TM208		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
Tetrachloroethene	<1 µg/l	TM208		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
Dibromochloromethane	<1 µg/l	TM208		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
1,2-Dibromoethane	<1 µg/l	TM208		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
Chlorobenzene	<1 µg/l	TM208		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
1,1,1,2-Tetrachloroethane	<1 µg/l	TM208		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
Ethylbenzene	<1 µg/l	TM208		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
m,p-Xylene	<1 µg/l	TM208		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
o-Xylene	<1 µg/l	TM208		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
Styrene	<1 µg/l	TM208		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
Bromoform	<1 µg/l	TM208		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
Isopropylbenzene	<1 µg/l	TM208		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
1,1,2,2-Tetrachloroethane	<1 µg/l	TM208		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
1,2,3-Trichloropropane	<1 µg/l	TM208		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
Bromobenzene	<1 µg/l	TM208		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
Propylbenzene	<1 µg/l	TM208		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
2-Chlorotoluene	<1 µg/l	TM208		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
1,3,5-Trimethylbenzene	<1 µg/l	TM208		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
4-Chlorotoluene	<1 µg/l	TM208		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
tert-Butylbenzene	<1 µg/l	TM208		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
1,2,4-Trimethylbenzene	<1 µg/l	TM208		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
sec-Butylbenzene	<1 µg/l	TM208		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
4-iso-Propyltoluene	<1 µg/l	TM208		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
1,3-Dichlorobenzene	<1 µg/l	TM208		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
1,4-Dichlorobenzene	<1 µg/l	TM208		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
n-Butylbenzene	<1 µg/l	TM208		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
1,2-Dichlorobenzene	<1 µg/l	TM208		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
1,2-Dibromo-3-chloropropane	<1 µg/l	TM208		<1	<1	<1	<1	<1	<1
1,2,4-Trichlorobenzene	<1 µg/l	TM208		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
Hexachlorobutadiene	<1 µg/l	TM208		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
tert-Amyl methyl ether (TAME)	<1 µg/l	TM208		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
Naphthalene	<1 µg/l	TM208		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #

CERTIFICATE OF ANALYSIS

SDG: 230815-6 **Report Number:** 701579 **Superseded Report:** 701059
Client Ref.: 70090113 **Location:** ewenny road, maesteg

VOC MS (W)

Results Legend	
#	ISO17025 accredited.
M	mCERTS accredited.
aq	Aqueous / settled sample.
diss.filt	Dissolved / filtered sample.
tot.unfilt	Total / unfiltered sample.
*	Subcontracted - refer to subcontractor report for accreditation status.
**	% recovery of the surrogate standard to check the efficiency of the method. The results of individual compounds within samples aren't corrected for the recovery
(F)	Trigger breach confirmed
1-4+§@	Sample deviation (see appendix)

Component	LOD/Units	Method	Customer Sample Ref.	BH-4	DUP	SP-A	SW3-DOWN	SW2-MID	SW1-UP
			Depth (m)	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00
			Sample Type	Ground Water (GW)	Ground Water (GW)	Ground Water (GW)	Surface Water (SW)	Surface Water (SW)	Surface Water (SW)
			Date Sampled	11/08/2023	11/08/2023	11/08/2023	11/08/2023	11/08/2023	11/08/2023
			Sampled Time	.	.	.	.	.	.
			Date Received	15/08/2023	15/08/2023	15/08/2023	15/08/2023	15/08/2023	15/08/2023
			SDG Ref	230815-6	230815-6	230815-6	230815-6	230815-6	230815-6
			Lab Sample No.(s)	28478222	28478204	28478195	28478249	28478240	28478231
			AGS Reference	EW20230811	EW20230811	EW20230811	EW20230811	EW20230811	EW20230811
1,2,3-Trichlorobenzene	<1 µg/l	TM208		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
1,3,5-Trichlorobenzene	<1 µg/l	TM208		<1	<1	<1	<1	<1	<1
Sum of detected Xylenes	<2 µg/l	TM208		<2	<2	<2	<2	<2	<2
Sum of BTEX	<5 µg/l	TM208		<5	<5	<5	<5	<5	<5

VOC MS (W)

Results Legend

#	ISO17025 accredited.
M	*m*CERTS accredited.
aq	Aqueous / settled sample.
diss.filt	Dissolved / filtered sample.
tot.unfilt	Total / unfiltered sample.
*	Subcontracted - refer to subcontractor report for accreditation status.
**	% recovery of the surrogate standard to check the efficiency of the method. The results of individual compounds within samples aren't corrected for the recovery
(F)	Trigger breach confirmed
1-4+§@	Sample deviation (see appendix)

Component	LOD/Units	Method	Customer Sample Ref.	Trip Blank
			Depth (m)	0.00 - 0.00
			Sample Type	Ground Water (GW)
			Date Sampled	11/08/2023
			Sampled Time	.
			Date Received	15/08/2023
			SDG Ref	230815-6
			Lab Sample No.(s)	28478213
			AGS Reference	EW20230811
Dibromofluoromethane**	%	TM208		106
Toluene-d8**	%	TM208		98.9
4-Bromofluorobenzene**	%	TM208		98.1
Dichlorodifluoromethane	<1 µg/l	TM208		<1 #
Chloromethane	<1 µg/l	TM208		<1 #
Vinyl chloride	<1 µg/l	TM208		<1 #
Bromomethane	<1 µg/l	TM208		<1 #
Chloroethane	<1 µg/l	TM208		<1 #
Trichlorofluoromethane	<1 µg/l	TM208		<1 #
1,1-Dichloroethene	<1 µg/l	TM208		<1 #
Carbon disulphide	<1 µg/l	TM208		<1 #
Dichloromethane	<3 µg/l	TM208		<3 #
Methyl tertiary butyl ether (MTBE)	<1 µg/l	TM208		<1 #
trans-1,2-Dichloroethene	<1 µg/l	TM208		<1 #
1,1-Dichloroethane	<1 µg/l	TM208		<1 #
cis-1,2-Dichloroethene	<1 µg/l	TM208		<1 #
2,2-Dichloropropane	<1 µg/l	TM208		<1
Bromochloromethane	<1 µg/l	TM208		<1 #
Chloroform	<1 µg/l	TM208		<1 #
1,1,1-Trichloroethane	<1 µg/l	TM208		<1 #
1,1-Dichloropropene	<1 µg/l	TM208		<1 #
Carbontetrachloride	<1 µg/l	TM208		<1 #
1,2-Dichloroethane	<1 µg/l	TM208		<1 #
Benzene	<1 µg/l	TM208		<1 #
Trichloroethene	<1 µg/l	TM208		<1 #
1,2-Dichloropropane	<1 µg/l	TM208		<1 #
Dibromomethane	<1 µg/l	TM208		<1 #
Bromodichloromethane	<1 µg/l	TM208		<1 #
cis-1,3-Dichloropropene	<1 µg/l	TM208		<1 #
Toluene	<1 µg/l	TM208		<1 #
trans-1,3-Dichloropropene	<1 µg/l	TM208		<1 #
1,1,2-Trichloroethane	<1 µg/l	TM208		<1 #

VOC MS (W)

Results Legend	
#	ISO17025 accredited.
M	mCERTS accredited.
aq	Aqueous / settled sample.
diss.filt	Dissolved / filtered sample.
tot.unfilt	Total / unfiltered sample.
*	Subcontracted - refer to subcontractor report for accreditation status.
**	% recovery of the surrogate standard to check the efficiency of the method. The results of individual compounds within samples aren't corrected for the recovery
(F)	Trigger breach confirmed
1-4+§@	Sample deviation (see appendix)

Component	LOD/Units	Method	Customer Sample Ref.					
			Trip Blank					
Depth (m)			0.00 - 0.00					
Sample Type			Ground Water (GW)					
Date Sampled			11/08/2023					
Sampled Time			.					
Date Received			15/08/2023					
SDG Ref			230815-6					
Lab Sample No.(s)			28478213					
AGS Reference			EW20230811					
1,3-Dichloropropane	<1 µg/l	TM208	<1 #					
Tetrachloroethene	<1 µg/l	TM208	<1 #					
Dibromochloromethane	<1 µg/l	TM208	<1 #					
1,2-Dibromoethane	<1 µg/l	TM208	<1 #					
Chlorobenzene	<1 µg/l	TM208	<1 #					
1,1,1,2-Tetrachloroethane	<1 µg/l	TM208	<1 #					
Ethylbenzene	<1 µg/l	TM208	<1 #					
m,p-Xylene	<1 µg/l	TM208	<1 #					
o-Xylene	<1 µg/l	TM208	<1 #					
Styrene	<1 µg/l	TM208	<1 #					
Bromoform	<1 µg/l	TM208	<1 #					
Isopropylbenzene	<1 µg/l	TM208	<1 #					
1,1,2,2-Tetrachloroethane	<1 µg/l	TM208	<1 #					
1,2,3-Trichloropropane	<1 µg/l	TM208	<1 #					
Bromobenzene	<1 µg/l	TM208	<1 #					
Propylbenzene	<1 µg/l	TM208	<1 #					
2-Chlorotoluene	<1 µg/l	TM208	<1 #					
1,3,5-Trimethylbenzene	<1 µg/l	TM208	<1 #					
4-Chlorotoluene	<1 µg/l	TM208	<1 #					
tert-Butylbenzene	<1 µg/l	TM208	<1 #					
1,2,4-Trimethylbenzene	<1 µg/l	TM208	<1 #					
sec-Butylbenzene	<1 µg/l	TM208	<1 #					
4-iso-Propyltoluene	<1 µg/l	TM208	<1 #					
1,3-Dichlorobenzene	<1 µg/l	TM208	<1 #					
1,4-Dichlorobenzene	<1 µg/l	TM208	<1 #					
n-Butylbenzene	<1 µg/l	TM208	<1 #					
1,2-Dichlorobenzene	<1 µg/l	TM208	<1 #					
1,2-Dibromo-3-chloropropane	<1 µg/l	TM208	<1					
1,2,4-Trichlorobenzene	<1 µg/l	TM208	<1 #					
Hexachlorobutadiene	<1 µg/l	TM208	<1 #					
tert-Amyl methyl ether (TAME)	<1 µg/l	TM208	<1 #					
Naphthalene	<1 µg/l	TM208	<1 #					

CERTIFICATE OF ANALYSIS

SDG: 230815-6 **Report Number:** 701579 **Superseded Report:** 701059
Client Ref.: 70090113 **Location:** ewenny road, maesteg

VOC MS (W)

Results Legend

#	ISO17025 accredited.
M	*m*CERTS accredited.
aq	Aqueous / settled sample.
diss.filt	Dissolved / filtered sample.
tot.unfilt	Total / unfiltered sample.
*	Subcontracted - refer to subcontractor report for accreditation status.
**	% recovery of the surrogate standard to check the efficiency of the method. The results of individual compounds within samples aren't corrected for the recovery
(F)	Trigger breach confirmed
1-4+5@	Sample deviation (see appendix)

Component	LOD/Units	Method	Customer Sample Ref.	
			Depth (m)	0.00 - 0.00
			Sample Type	Ground Water (GW)
			Date Sampled	11/08/2023
			Sampled Time	.
			Date Received	15/08/2023
			SDG Ref	230815-6
			Lab Sample No.(s)	28478213
			AGS Reference	EW20230811
1,2,3-Trichlorobenzene	<1 µg/l	TM208	<1	#
1,3,5-Trichlorobenzene	<1 µg/l	TM208	<1	
Sum of detected Xylenes	<2 µg/l	TM208	<2	
Sum of BTEX	<5 µg/l	TM208	<5	

Table of Results - Appendix

Method No	Description
TM090	Determination of Total Organic Carbon/Total Inorganic Carbon in Water and Waste Water
TM259	Determination of Phenols in Waters and Leachates by HPLC
TM174	Determination of Speciated Extractable Petroleum Hydrocarbons in Waters by GC-FID
TM183	Determination of Trace Level Mercury in Waters and Leachates by PSA Cold Vapour Atomic Fluorescence Spectrometry
TM184	The Determination of Anions in Aqueous Matrices using the Kone Spectrophotometric Analysers
TM245	Determination of GRO by Headspace in waters
TM152	Analysis of Aqueous Samples by ICP-MS
TM208	Determination of Volatile Organic Compounds by Headspace / GC-MS in Waters
TM256	Determination of pH, EC, TDS and Alkalinity in Aqueous samples
TM279	Determination of Low Level Easily Liberatable (Free) Cyanides and Total Cyanides in Waters using the Skalar SANS+ System Segmented Flow Analyser
TM125	Determination of Total/Ferrous Iron
TM178	Determination of Polynuclear Aromatic Hydrocarbons (PAH) by GC-MS in Waters
TM331	Low Level Hexavalent Chromium

NA = not applicable.

Chemical testing (unless subcontracted) performed at ALS Laboratories (UK) Limited Hawarden (Method codes TM).

CERTIFICATE OF ANALYSIS

SDG: 230815-6 **Report Number:** 701579 **Superseded Report:** 701059
Client Ref.: 70090113 **Location:** ewenny road, maesteg

Test Completion Dates

Lab Sample No(s)	28478222	28478204	28478195	28478249	28478240	28478231	28478213
Customer Sample Ref.	BH-4	DUP	SP-A	SW3-DOWN	SW2-MID	SW1-UP	Trip Blank
AGS Ref.	EW20230811	EW20230811	EW20230811	EW20230811	EW20230811	EW20230811	EW20230811
Depth	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00
Type	Ground Water	Ground Water	Ground Water	Surface Water	Surface Water	Surface Water	Ground Water
Anions by Kone (w)	17-Aug-2023	17-Aug-2023	17-Aug-2023	17-Aug-2023	17-Aug-2023	17-Aug-2023	17-Aug-2023
Dissolved Metals by ICP-MS	18-Aug-2023	17-Aug-2023	17-Aug-2023	17-Aug-2023	17-Aug-2023	18-Aug-2023	17-Aug-2023
Dissolved Organic/Inorganic Carbon	23-Aug-2023	23-Aug-2023	23-Aug-2023	23-Aug-2023	23-Aug-2023	23-Aug-2023	23-Aug-2023
EPH CWG (Aliphatic) Aqueous GC (W)	22-Aug-2023	22-Aug-2023	22-Aug-2023	22-Aug-2023	22-Aug-2023	22-Aug-2023	22-Aug-2023
EPH CWG (Aromatic) Aqueous GC (W)	22-Aug-2023	22-Aug-2023	22-Aug-2023	22-Aug-2023	22-Aug-2023	22-Aug-2023	22-Aug-2023
Ferric Iron	18-Aug-2023	19-Aug-2023	19-Aug-2023	17-Aug-2023	17-Aug-2023	18-Aug-2023	17-Aug-2023
Ferrous Iron	17-Aug-2023	17-Aug-2023	17-Aug-2023	17-Aug-2023	17-Aug-2023	17-Aug-2023	17-Aug-2023
GRO by GC-FID (W)	16-Aug-2023	16-Aug-2023	16-Aug-2023	16-Aug-2023	16-Aug-2023	16-Aug-2023	16-Aug-2023
Low Level Cyanide (W)	21-Aug-2023	21-Aug-2023	21-Aug-2023	21-Aug-2023	21-Aug-2023	21-Aug-2023	21-Aug-2023
Low Level Hexavalent Chromium (w)	19-Aug-2023	19-Aug-2023	19-Aug-2023	19-Aug-2023	19-Aug-2023	19-Aug-2023	19-Aug-2023
Mercury Dissolved	18-Aug-2023	17-Aug-2023	17-Aug-2023	17-Aug-2023	17-Aug-2023	18-Aug-2023	17-Aug-2023
Nitrite by Kone (w)	17-Aug-2023	17-Aug-2023	17-Aug-2023	17-Aug-2023	17-Aug-2023	17-Aug-2023	17-Aug-2023
PAH Spec MS - Aqueous (W)	29-Aug-2023	29-Aug-2023	29-Aug-2023	29-Aug-2023	29-Aug-2023	29-Aug-2023	29-Aug-2023
pH Value	22-Aug-2023	22-Aug-2023	22-Aug-2023	22-Aug-2023	22-Aug-2023	22-Aug-2023	22-Aug-2023
Phenols by HPLC (W)	18-Aug-2023	18-Aug-2023	18-Aug-2023	18-Aug-2023	18-Aug-2023	18-Aug-2023	18-Aug-2023
Total Metals by ICP-MS	17-Aug-2023	17-Aug-2023	17-Aug-2023	17-Aug-2023	17-Aug-2023	17-Aug-2023	17-Aug-2023
TPH CWG (W)	22-Aug-2023	22-Aug-2023	22-Aug-2023	22-Aug-2023	22-Aug-2023	22-Aug-2023	22-Aug-2023
VOC MS (W)	16-Aug-2023	16-Aug-2023	16-Aug-2023	16-Aug-2023	16-Aug-2023	16-Aug-2023	16-Aug-2023

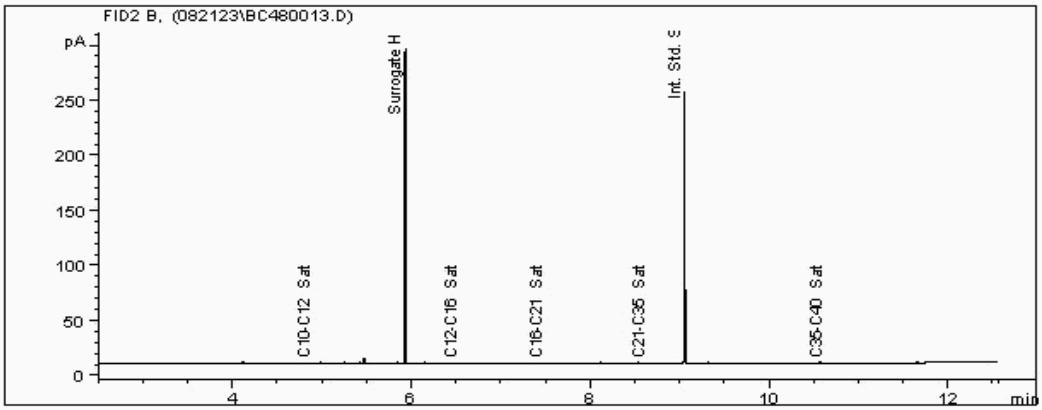
Chromatogram

Analysis: EPH CWG (Aliphatic) Aqueous GC (W) **Sample No :** 28487475 **Depth :** 0.00 - 0.00
Sample ID : SW2-MID

Speciated TPH - SATS (C12 - C40)

Sample Identity: 26486275-
Date Acquired : 21/08/2023 11:13:14 PM
Units : ppb
Dilution :
CF : 1
Multiplier : 0.025

#	Compound Name	Main Peak Area	Amount
1	C10-C12 Sat	0.0	0.000
2	Surrogate H	201.4	0.204
3	C12-C16 Sat	0.0	0.000
4	C16-C21 Sat	0.0	0.000
5	C21-C35 Sat	0.0	0.000
6	Int. Std. S	200.6	0.250
7	C35-C40 Sat	0.0	0.000
	Total Peak Area	402.0	



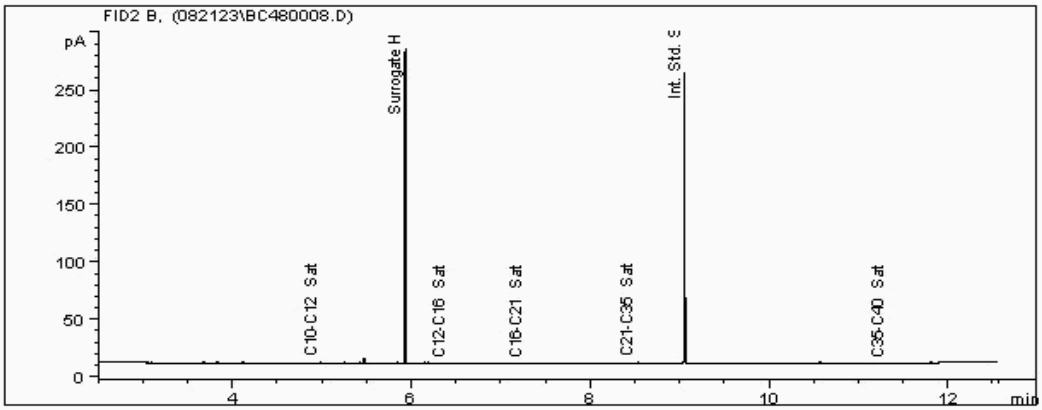
Chromatogram

Analysis: EPH CWG (Aliphatic) Aqueous GC (W) **Sample No :** 28487482 **Depth :** 0.00 - 0.00
Sample ID : SP-A

Speciated TPH - SATS (C12 - C40)

Sample Identity: 26486125-
Date Acquired : 21/08/2023 09:18:34 PM
Units : ppb
Dilution :
CF : 1
Multiplier : 0.025

#	Compound Name	Main Peak Area	Amount
1	C10-C12 Sat	0.0	0.000
2	Surrogate H	201.9	0.214
3	C12-C16 Sat	0.0	0.000
4	C16-C21 Sat	4.8	0.005
5	C21-C35 Sat	42.5	0.054
6	Int. Std. S	191.6	0.250
7	C35-C40 Sat	5.1	0.008
	Total Peak Area	445.9	



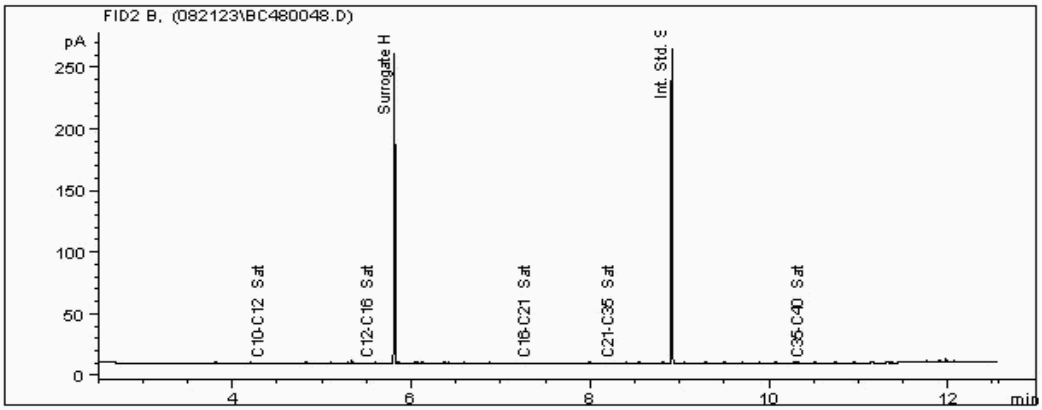
Chromatogram

Analysis: EPH CWG (Aliphatic) Aqueous GC (W) **Sample No :** 28487499 **Depth :** 0.00 - 0.00
Sample ID : Trip Blank

Speciated TPH - SATS (C12 - C40)

Sample Identity: 26486188-
Date Acquired : 22/08/2023 11:10:06 PM
Units : ppb
Dilution : SE TRIP BLANK[0.00 - 0.00]->
CF : 1
Multiplier : 0.025

#	Compound Name	Main Peak Area	Amount
1	C10-C12 Sat	0.0	0.000
2	C12-C16 Sat	0.0	0.000
3	Surrogate H	171.9	0.221
4	C16-C21 Sat	0.0	0.000
5	C21-C35 Sat	0.0	0.000
6	Int. Std. S	201.2	0.250
7	C35-C40 Sat	0.0	0.000
	Total Peak Area	373.1	



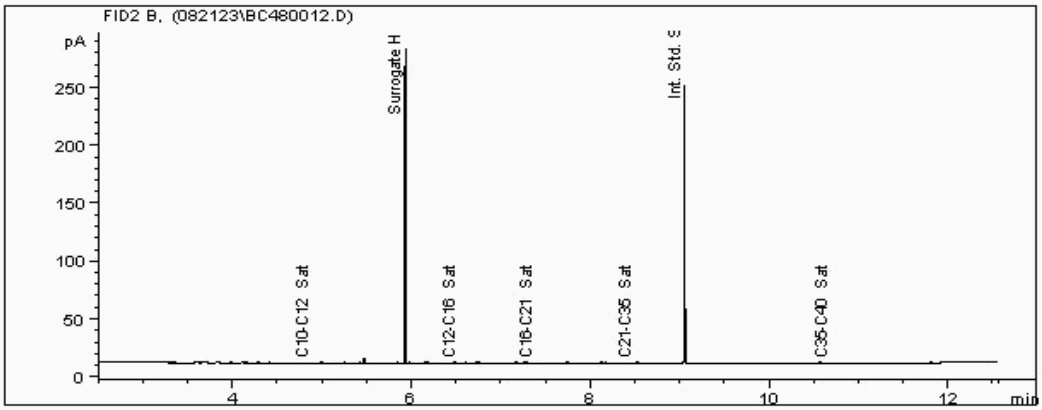
Chromatogram

Analysis: EPH CWG (Aliphatic) Aqueous GC (W) **Sample No :** 28487508 **Depth :** 0.00 - 0.00
Sample ID : SW3-DOWN

Speciated TPH - SATS (C12 - C40)

Sample Identity: 26486304-
Date Acquired : 21/08/2023 10:50:12 PM
Units : ppb
Dilution :
CF : 1
Multiplier : 0.025

#	Compound Name	Main Peak Area	Amount
1	C10-C12 Sat	0.0	0.000
2	Surrogate H	196.7	0.212
3	C12-C16 Sat	0.0	0.000
4	C16-C21 Sat	0.0	0.000
5	C21-C35 Sat	0.0	0.000
6	Int. Std. S	188.7	0.250
7	C35-C40 Sat	0.0	0.000
	Total Peak Area	385.4	



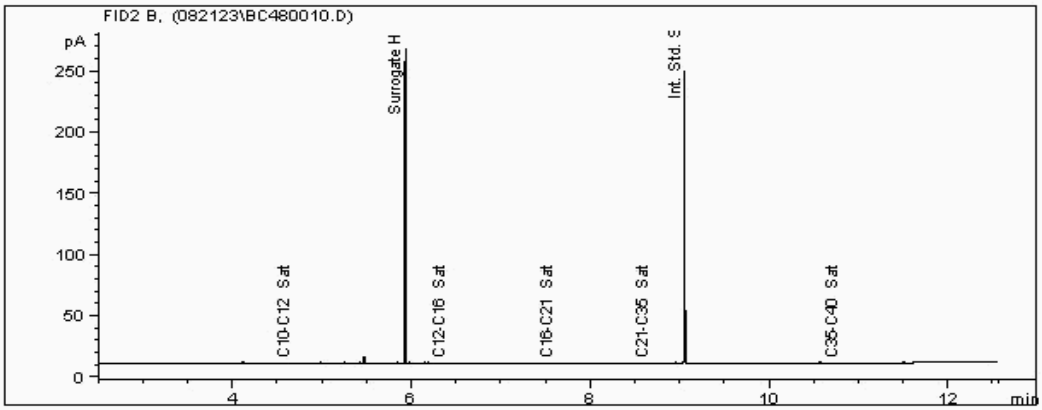
Chromatogram

Analysis: EPH CWG (Aliphatic) Aqueous GC (W) **Sample No :** 28487600 **Depth :** 0.00 - 0.00
Sample ID : DUP

Speciated TPH - SATS (C12 - C40)

Sample Identity: 26486157-
Date Acquired : 21/08/2023 10:04:31 PM
Units : ppb
Dilution :
CF : 1
Multiplier : 0.025

#	Compound Name	Main Peak Area	Amount
1	C10-C12 Sat	0.0	0.000
2	Surrogate H	198.3	0.211
3	C12-C16 Sat	0.0	0.000
4	C16-C21 Sat	4.1	0.005
5	C21-C35 Sat	25.0	0.032
6	Int. Std. S	190.9	0.250
7	C35-C40 Sat	0.0	0.000
	Total Peak Area	418.3	



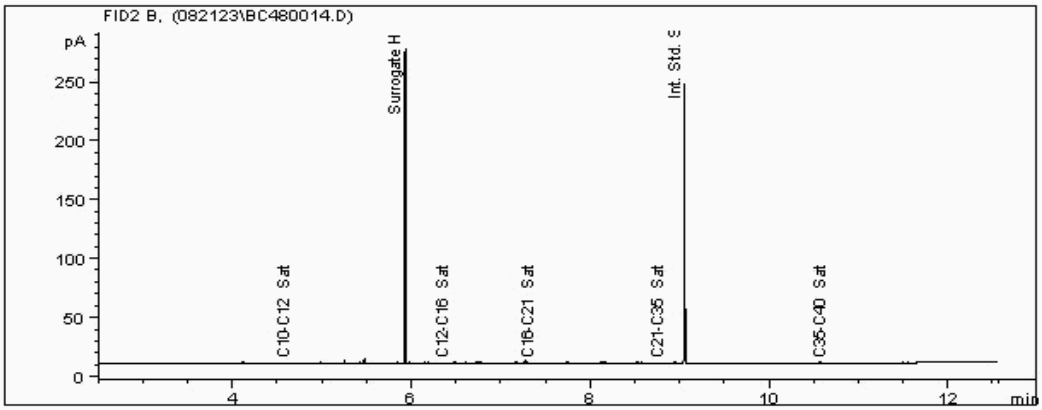
Chromatogram

Analysis: EPH CWG (Aliphatic) Aqueous GC (W) **Sample No :** 28487646 **Depth :** 0.00 - 0.00
Sample ID : SW1-UP

Speciated TPH - SATS (C12 - C40)

Sample Identity: 26486247-
Date Acquired : 21/08/2023 11:36:12 PM
Units : ppb
Dilution :
CF : 1
Multiplier : 0.025

#	Compound Name	Main Peak Area	Amount
1	C10-C12 Sat	0.0	0.000
2	Surrogate H	220.2	0.229
3	C12-C16 Sat	0.0	0.000
4	C16-C21 Sat	0.0	0.000
5	C21-C35 Sat	0.0	0.000
6	Int. Std. S	195.2	0.250
7	C35-C40 Sat	0.0	0.000
	Total Peak Area	415.3	



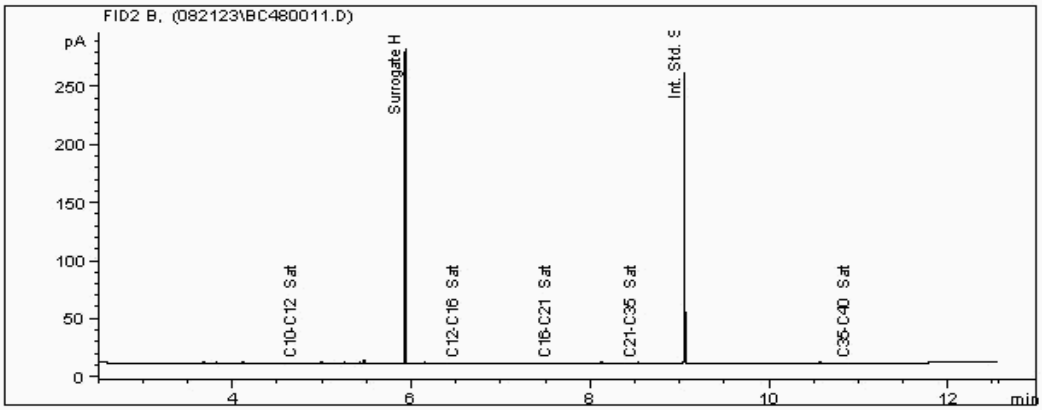
Chromatogram

Analysis: EPH CWG (Aliphatic) Aqueous GC (W) **Sample No :** 28487692 **Depth :** 0.00 - 0.00
Sample ID : BH-4

Speciated TPH - SATS (C12 - C40)

Sample Identity: 26486218-
Date Acquired : 21/08/2023 10:27:23 PM
Units : ppb
Dilution :
CF : 1
Multiplier : 0.025

#	Compound Name	Main Peak Area	Amount
1	C10-C12 Sat	0.0	0.000
2	Surrogate H	200.0	0.209
3	C12-C16 Sat	0.0	0.000
4	C16-C21 Sat	0.0	0.000
5	C21-C35 Sat	0.0	0.000
6	Int. Std. S	194.3	0.250
7	C35-C40 Sat	0.0	0.000
	Total Peak Area	394.3	



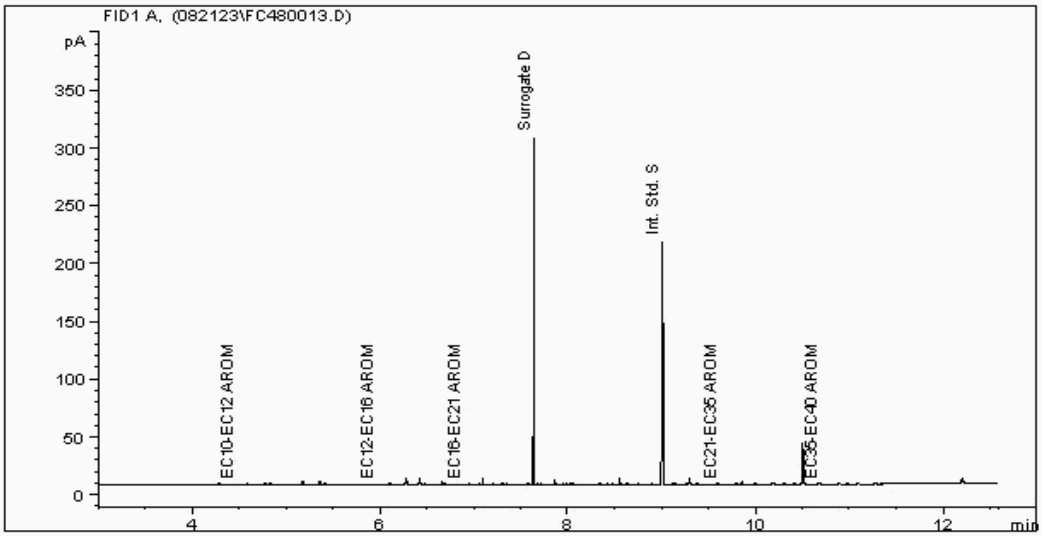
Chromatogram

Analysis: EPH CWG (Aromatic) Aqueous GC (W) **Sample No :** 28487475 **Depth :** 0.00 - 0.00
Sample ID : SW2-MID

Speciated TPH - AROM (C12 - C40)

Sample Identity: 26486276-
Date Acquired : 21/08/2023 11:13:14 PM
Units : ppb
Dilution:

#	Compound Name	Main Peak Area	Amount
1	EC10-EC12 AROM	0.0	0.000
2	EC12-EC16 AROM	0.0	0.000
3	EC16-EC21 AROM	0.0	0.000
4	Surrogate D	205.9	0.259
5	Int. Std. S	184.3	0.250
6	EC21-EC35 AROM	0.0	0.000
7	EC35-EC40 AROM	0.0	0.000
	Total Peak Area	390.2	



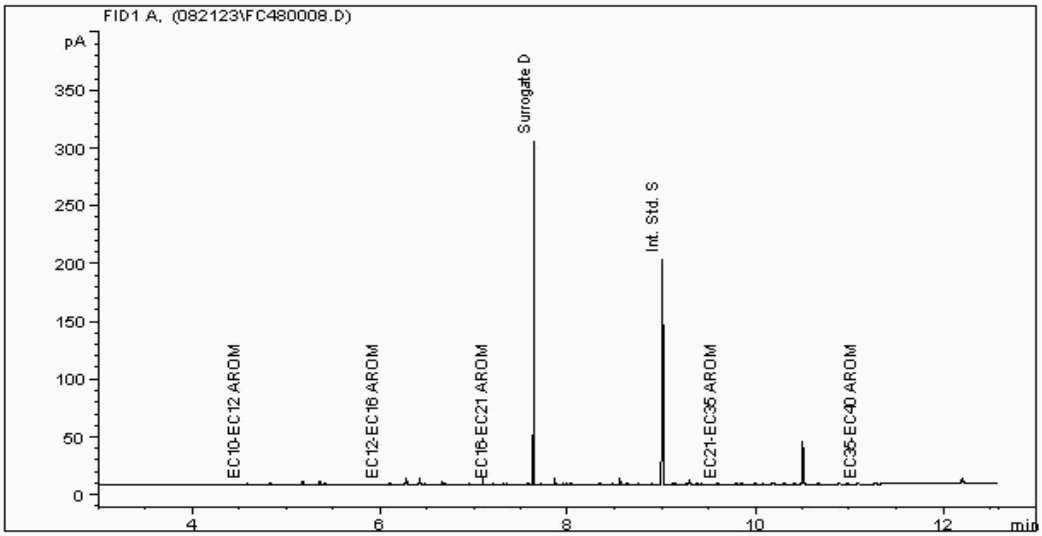
Chromatogram

Analysis: EPH CWG (Aromatic) Aqueous GC (W) **Sample No :** 28487482 **Depth :** 0.00 - 0.00
Sample ID : SP-A

Speciated TPH - AROM (C12 - C40)

Sample Identity: 26486126-
Date Acquired : 21/08/2023 09:18:34 PM
Units : ppb
Dilution:

#	Compound Name	Main Peak Area	Amount
1	EC10-EC12 AROM	0.0	0.000
2	EC12-EC16 AROM	0.0	0.000
3	EC16-EC21 AROM	0.0	0.000
4	Surrogate D	183.3	0.234
5	Int. Std. S	181.2	0.250
6	EC21-EC35 AROM	0.0	0.000
7	EC35-EC40 AROM	0.0	0.000
	Total Peak Area	364.5	



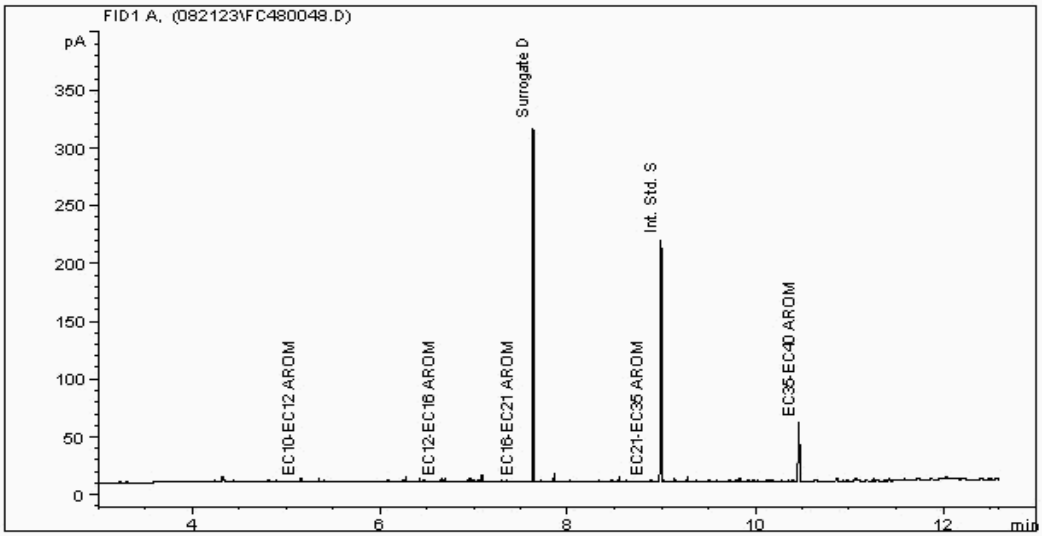
Chromatogram

Analysis: EPH CWG (Aromatic) Aqueous GC (W) **Sample No :** 28487499 **Depth :** 0.00 - 0.00
Sample ID : Trip Blank

Speciated TPH - AROM (C12 - C40)

Sample Identity: 26486189-
Date Acquired : 22/08/2023 11:10:06 PM
Units : ppb
Dilution: SE TRIP BLANK[0.00 - 0.00] ->

#	Compound Name	Main Peak Area	Amount
1	EC10-EC12 AROM	0.0	0.000
2	EC12-EC16 AROM	0.0	0.000
3	EC16-EC21 AROM	0.0	0.000
4	Surrogate D	177.7	0.241
5	EC21-EC35 AROM	0.0	0.000
6	Int. Std. S	165.0	0.250
7	EC35-EC40 AROM	0.0	0.000
	Total Peak Area	342.8	



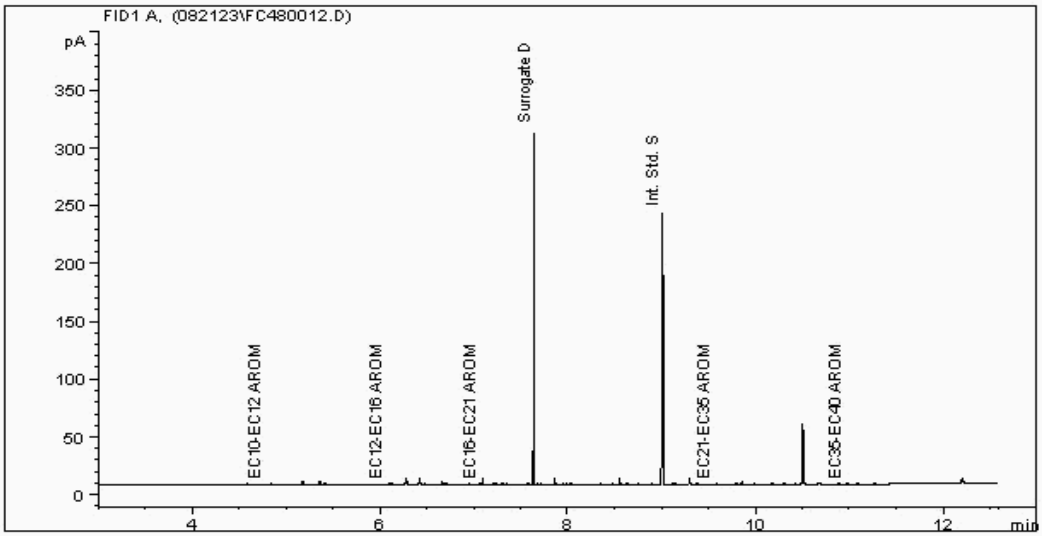
Chromatogram

Analysis: EPH CWG (Aromatic) Aqueous GC (W) **Sample No :** 28487508 **Depth :** 0.00 - 0.00
Sample ID : SW3-DOWN

Speciated TPH - AROM (C12 - C40)

Sample Identity: 26486305-
Date Acquired : 21/08/2023 10:50:12 PM
Units : ppb
Dilution:

#	Compound Name	Main Peak Area	Amount
1	EC10-EC12 AROM	0.0	0.000
2	EC12-EC16 AROM	0.0	0.000
3	EC16-EC21 AROM	0.0	0.000
4	Surrogate D	180.9	0.220
5	Int. Std. S	190.5	0.250
6	EC21-EC35 AROM	0.0	0.000
7	EC35-EC40 AROM	0.0	0.000
	Total Peak Area	371.4	



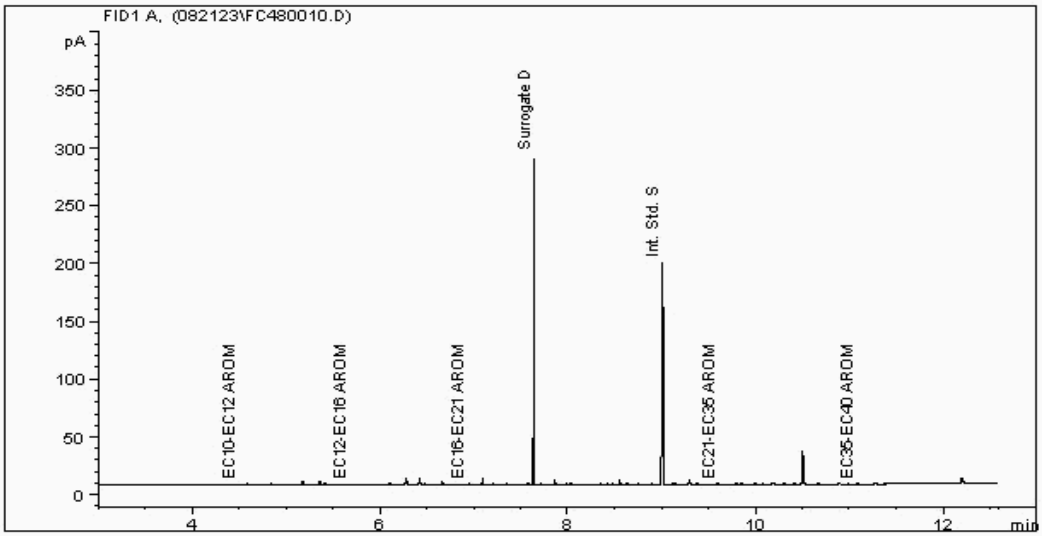
Chromatogram

Analysis: EPH CWG (Aromatic) Aqueous GC (W) **Sample No :** 28487600 **Depth :** 0.00 - 0.00
Sample ID : DUP

Speciated TPH - AROM (C12 - C40)

Sample Identity: 26486158-
Date Acquired : 21/08/2023 10:04:31 PM
Units : ppb
Dilution:

#	Compound Name	Main Peak Area	Amount
1	EC10-EC12 AROM	0.0	0.000
2	EC12-EC16 AROM	0.0	0.000
3	EC16-EC21 AROM	0.0	0.000
4	Surrogate D	185.8	0.247
5	Int. Std. S	174.4	0.250
6	EC21-EC35 AROM	0.0	0.000
7	EC35-EC40 AROM	0.0	0.000
	Total Peak Area	360.2	



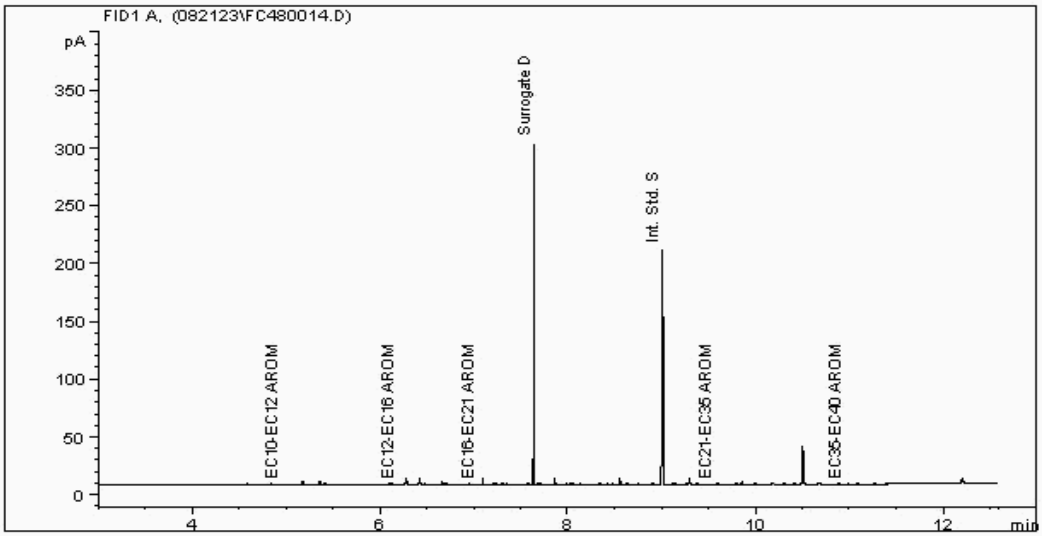
Chromatogram

Analysis: EPH CWG (Aromatic) Aqueous GC (W) **Sample No :** 28487646 **Depth :** 0.00 - 0.00
Sample ID : SW1-UP

Speciated TPH - AROM (C12 - C40)

Sample Identity: 26486248-
Date Acquired : 21/08/2023 11:36:12 PM
Units : ppb
Dilution:

#	Compound Name	Main Peak Area	Amount
1	EC10-EC12 AROM	0.0	0.000
2	EC12-EC16 AROM	0.0	0.000
3	EC16-EC21 AROM	0.0	0.000
4	Surrogate D	177.8	0.230
5	Int. Std. S	178.7	0.250
6	EC21-EC35 AROM	0.0	0.000
7	EC35-EC40 AROM	0.0	0.000
	Total Peak Area	356.5	



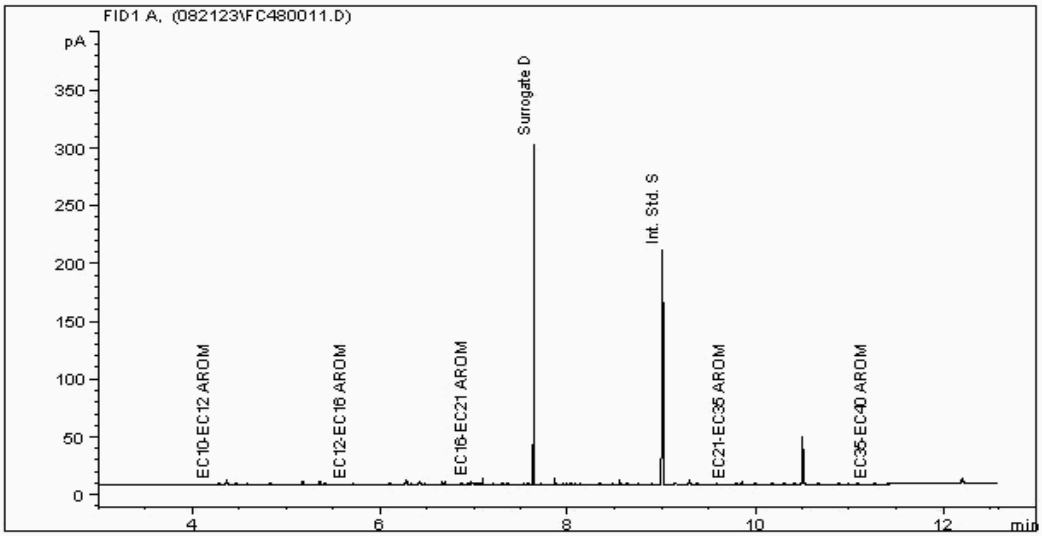
Chromatogram

Analysis: EPH CWG (Aromatic) Aqueous GC (W) **Sample No :** 28487692 **Depth :** 0.00 - 0.00
Sample ID : BH-4

Speciated TPH - AROM (C12 - C40)

Sample Identity: 26486219-
Date Acquired : 21/08/2023 10:27:23 PM
Units : ppb
Dilution:

#	Compound Name	Main Peak Area	Amount
1	EC10-EC12 AROM	0.0	0.000
2	EC12-EC16 AROM	0.0	0.000
3	EC16-EC21 AROM	0.0	0.000
4	Surrogate D	209.4	0.241
5	Int. Std. S	201.3	0.250
6	EC21-EC35 AROM	0.0	0.000
7	EC35-EC40 AROM	0.0	0.000
	Total Peak Area	410.8	

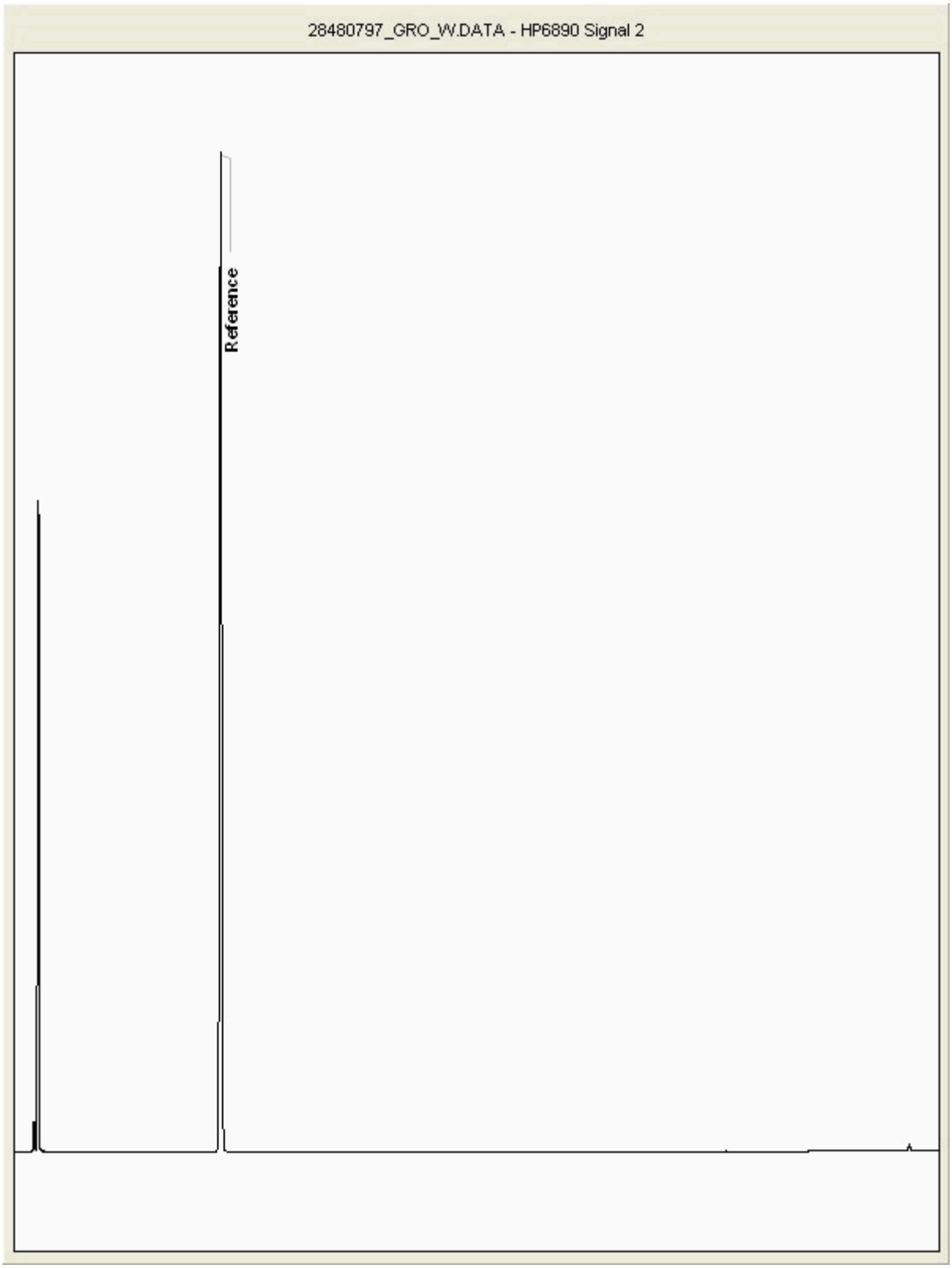


CERTIFICATE OF ANALYSIS

SDG: 230815-6 **Report Number:** 701579 **Superseded Report:** 701059
Client Ref.: 70090113 **Location:** ewenny road, maesteg

Chromatogram

Analysis: GRO by GC-FID (W) **Sample No :** 28480797 **Depth :** 0.00 - 0.00
Sample ID : BH-4

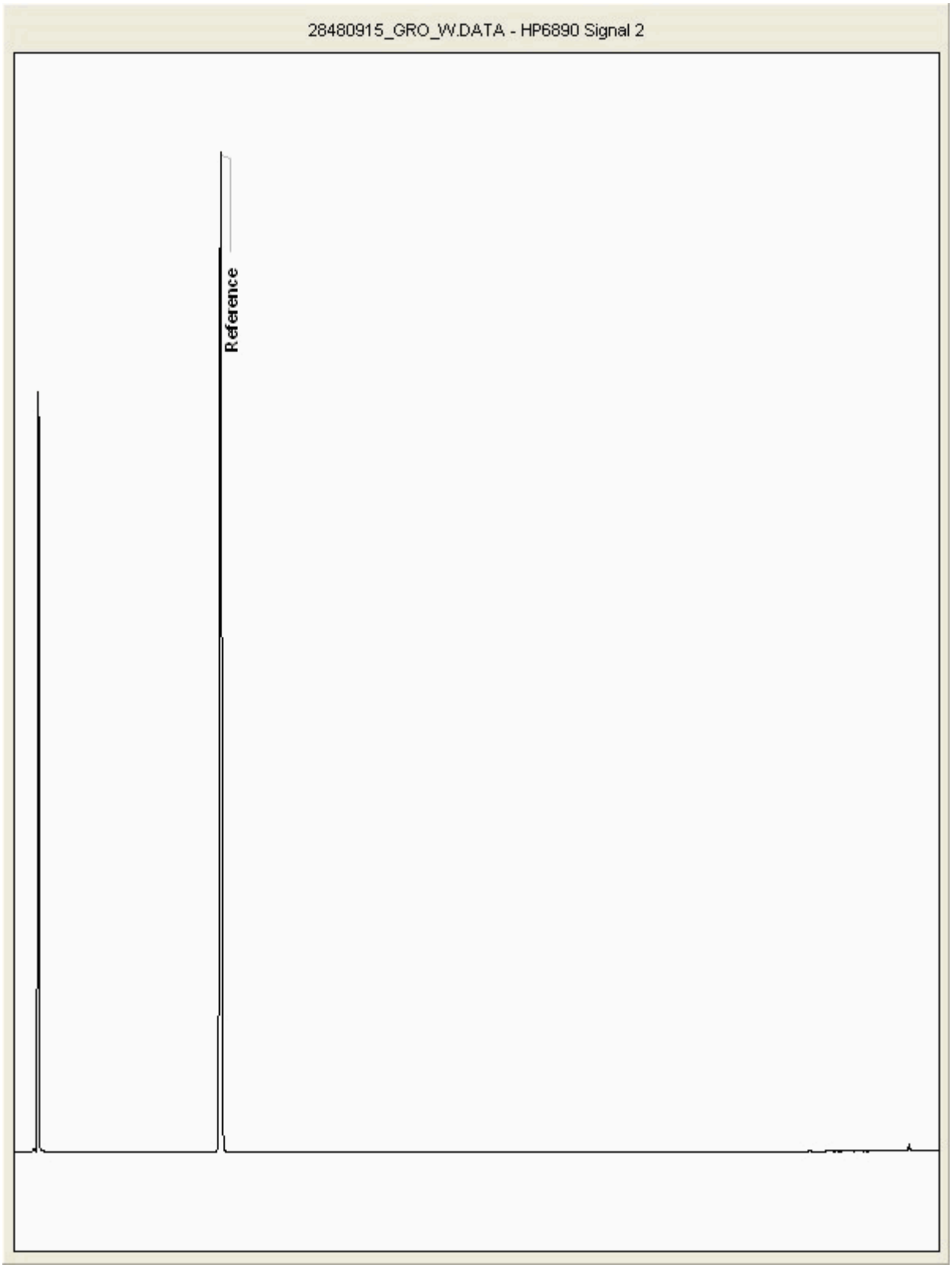


CERTIFICATE OF ANALYSIS

SDG: 230815-6 **Report Number:** 701579 **Superseded Report:** 701059
Client Ref.: 70090113 **Location:** ewenny road, maesteg

Chromatogram

Analysis: GRO by GC-FID (W) **Sample No :** 28480915 **Depth :** 0.00 - 0.00
Sample ID : SW3-DOWN

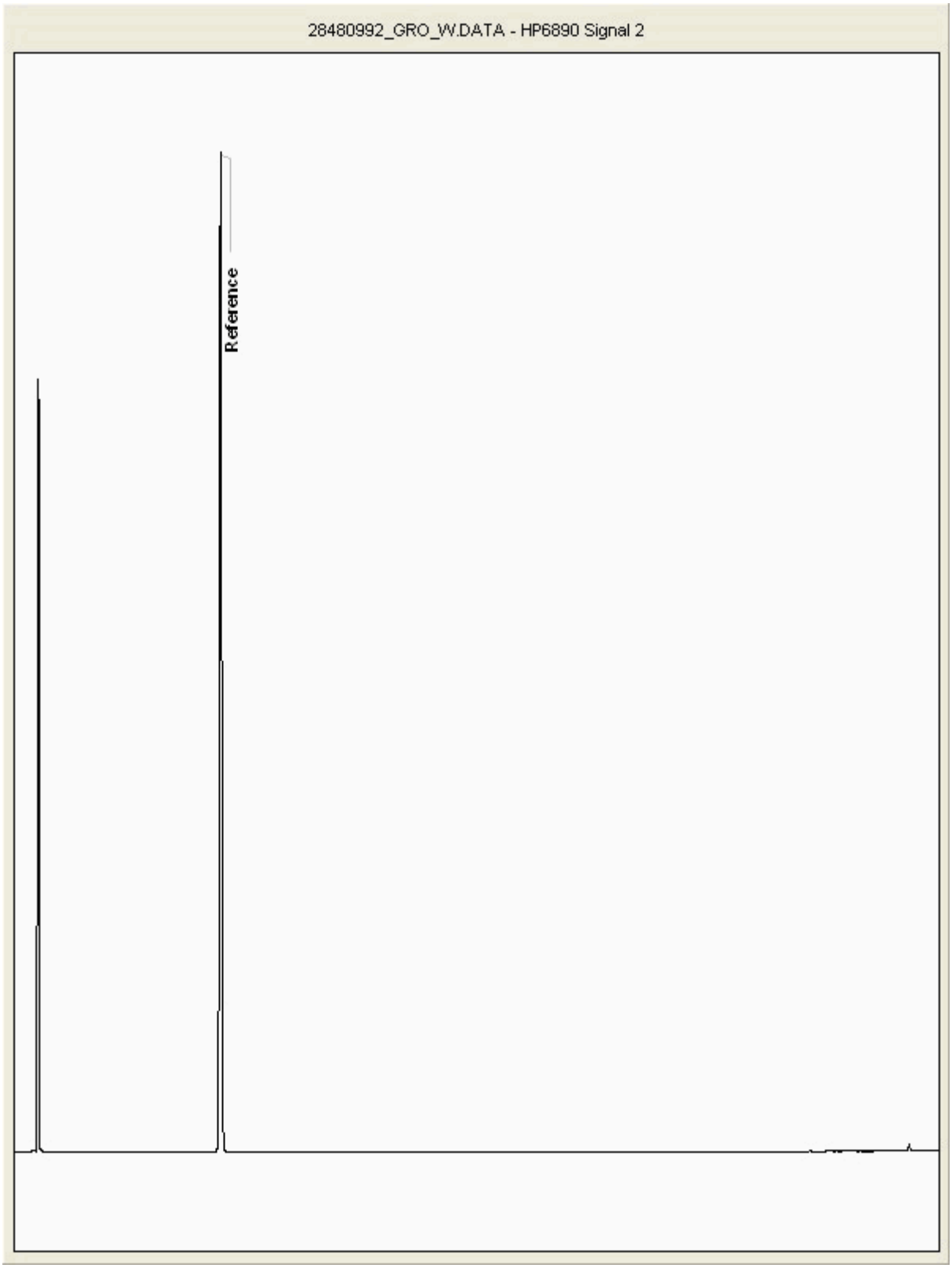


CERTIFICATE OF ANALYSIS

SDG: 230815-6 **Report Number:** 701579 **Superseded Report:** 701059
Client Ref.: 70090113 **Location:** ewenny road, maesteg

Chromatogram

Analysis: GRO by GC-FID (W) **Sample No :** 28480992 **Depth :** 0.00 - 0.00
Sample ID : Trip Blank

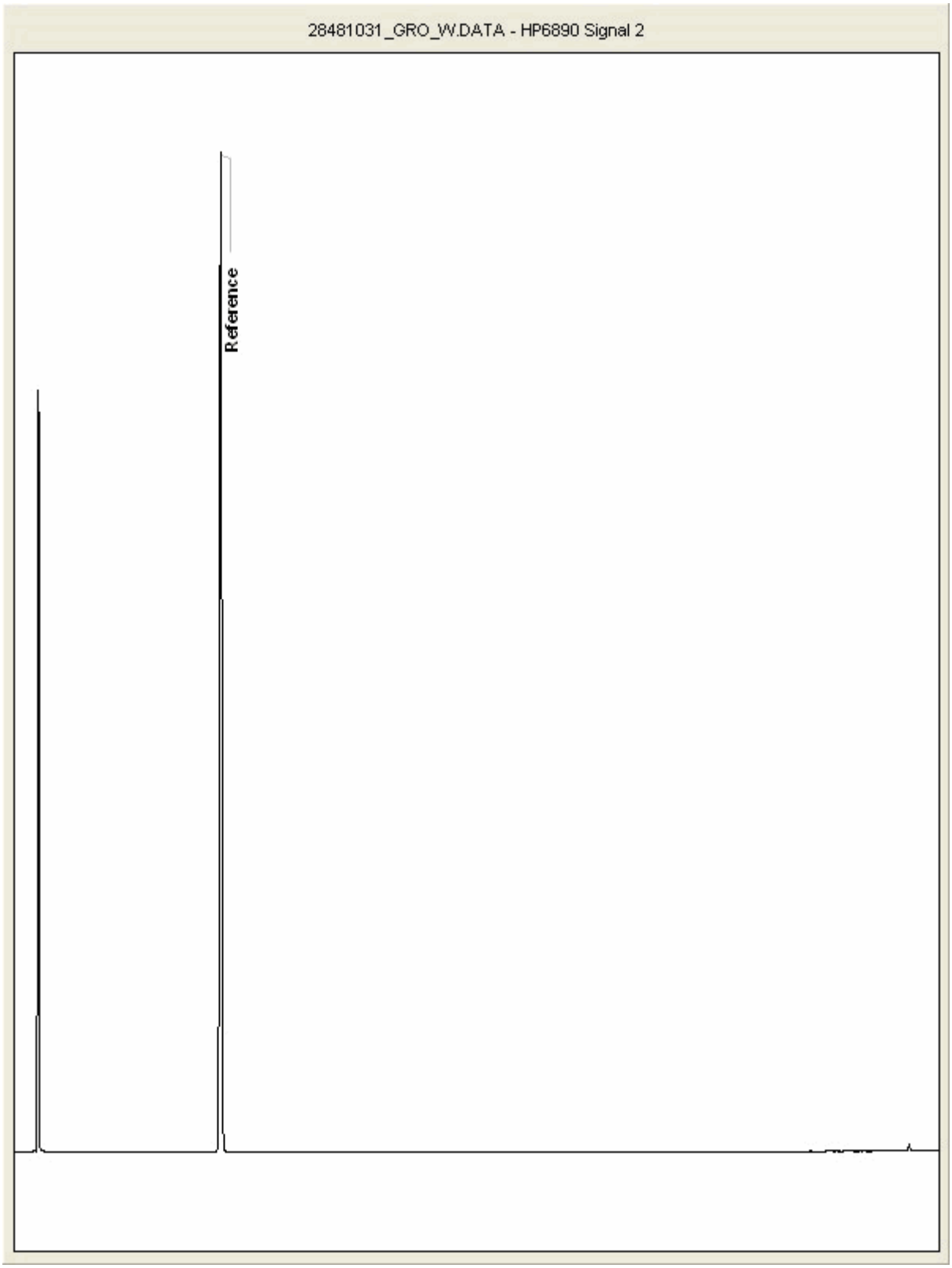


CERTIFICATE OF ANALYSIS

SDG: 230815-6 **Report Number:** 701579 **Superseded Report:** 701059
Client Ref.: 70090113 **Location:** ewenny road, maesteg

Chromatogram

Analysis: GRO by GC-FID (W) **Sample No :** 28481031 **Depth :** 0.00 - 0.00
Sample ID : SW1-UP

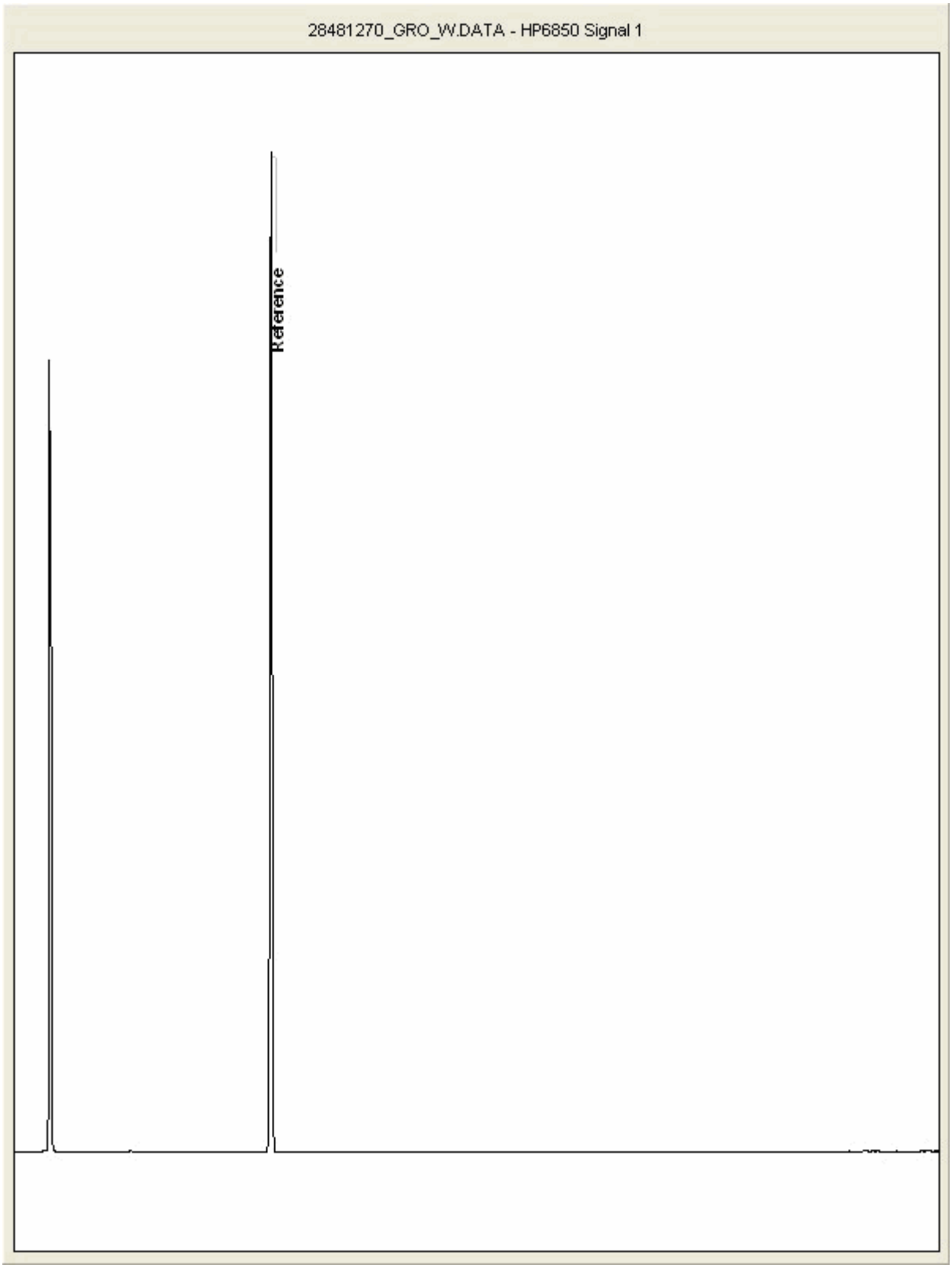


CERTIFICATE OF ANALYSIS

SDG: 230815-6 **Report Number:** 701579 **Superseded Report:** 701059
Client Ref.: 70090113 **Location:** ewenny road, maesteg

Chromatogram

Analysis: GRO by GC-FID (W) **Sample No :** 28481270 **Depth :** 0.00 - 0.00
Sample ID : SP-A

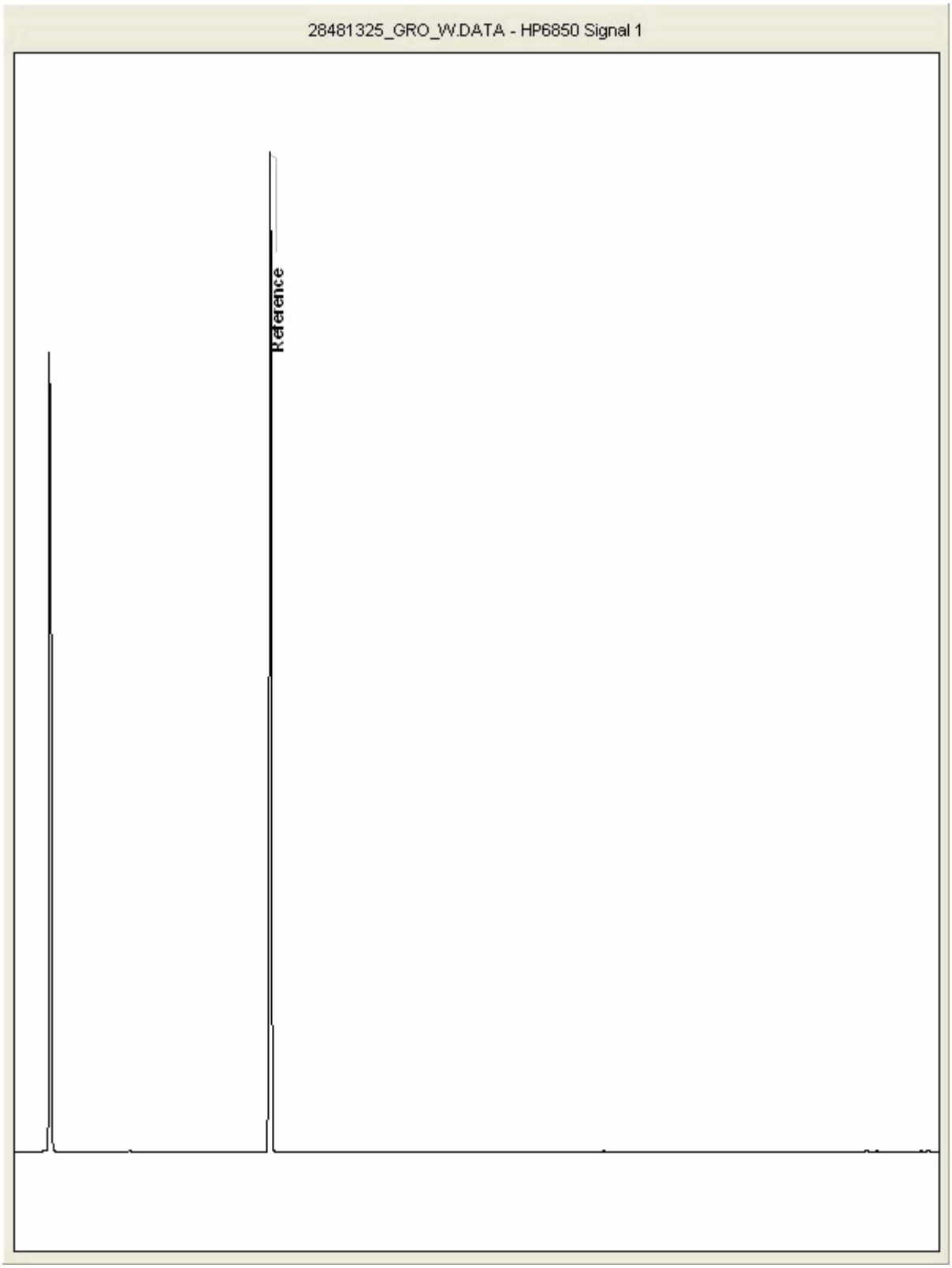


CERTIFICATE OF ANALYSIS

SDG: 230815-6 **Report Number:** 701579 **Superseded Report:** 701059
Client Ref.: 70090113 **Location:** ewenny road, maesteg

Chromatogram

Analysis: GRO by GC-FID (W) **Sample No :** 28481325 **Depth :** 0.00 - 0.00
Sample ID : SW2-MID

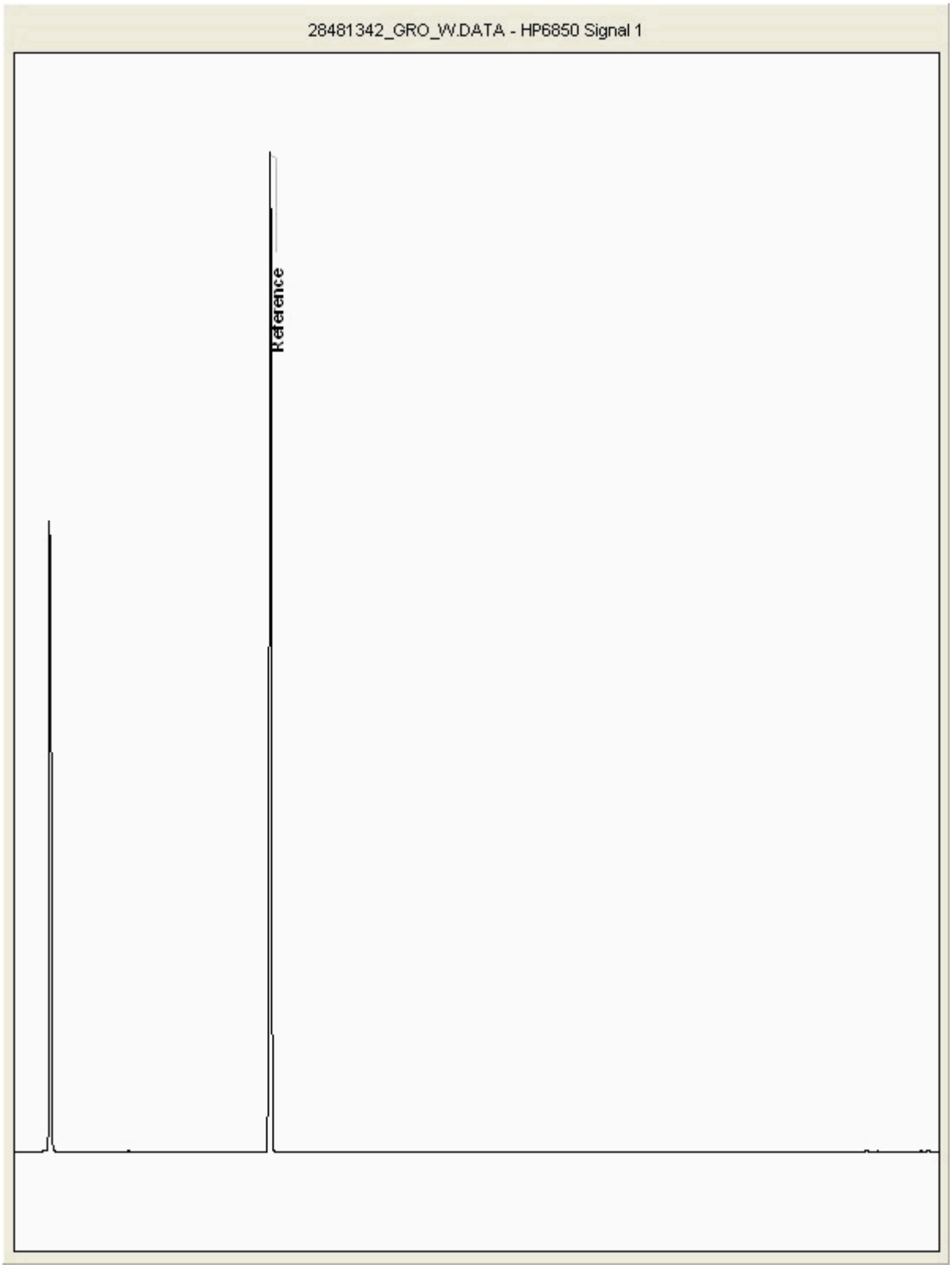


CERTIFICATE OF ANALYSIS

SDG: 230815-6 **Report Number:** 701579 **Superseded Report:** 701059
Client Ref.: 70090113 **Location:** ewenny road, maesteg

Chromatogram

Analysis: GRO by GC-FID (W) **Sample No :** 28481342 **Depth :** 0.00 - 0.00
Sample ID : DUP



Appendix

General

1. Results are expressed on a dry weight basis (dried at 35ºC) for all soil analyses except for the following: NRA and CEN Leach tests, flash point LOI, pH, ammonium as NH4 by the BRE method, VOC TICs and SVOC TICs.

2. If sufficient sample is received a sub sample will be retained free of charge for 15 days after analysis is completed (e-mailed) for all sample types unless the sample is destroyed on testing. The prepared soil sub sample that is analysed for asbestos will be retained for a period of 6 months after the analysis date. All bulk samples will be retained for a period of 6 months after the analysis date. All samples received and not scheduled will be disposed of one month after the date of receipt unless we are instructed to the contrary. Once the initial period has expired, a storage charge will be applied for each month or part thereof until the client cancels the request for sample storage. ALS reserve the right to charge for samples received and stored but not analysed.

3. With respect to turnaround, we will always endeavour to meet client requirements wherever possible, but turnaround times cannot be absolutely guaranteed due to so many variables beyond our control.

4. We take responsibility for any test performed by sub-contractors (marked with an asterisk). We endeavour to use UKAS/MCERTS Accredited Laboratories, who either complete a quality questionnaire or are audited by ourselves. For some determinands there are no UKAS/MCERTS Accredited Laboratories, in this instance a laboratory with a known track record will be utilised.

5. If no separate volatile sample is supplied by the client, or if a headspace or sediment is present in the volatile sample, the integrity of the data may be compromised. This will be flagged up as an invalid VOC on the test schedule and the result marked as deviating on the test certificate.

6. NDP - No determination possible due to insufficient/unsuitable sample.

7. Results relate only to the items tested.

8. LoDs (Limit of Detection) for wet tests reported on a dry weight basis are not corrected for moisture content.

9. **Surrogate recoveries** - Surrogates are added to your sample to monitor recovery of the test requested. A % recovery is reported, results are not corrected for the recovery measured. Typical recoveries for organics tests are 70-130%. Recoveries in soils are affected by organic rich or clay rich matrices. Waters can be affected by remediation fluids or high amounts of sediment. Test results are only ever reported if all of the associated quality checks pass; it is assumed that all recoveries outside of the values above are due to matrix affect.

10. Stones/debris are not routinely removed. We always endeavour to take a representative sub sample from the received sample.

11. In certain circumstances the method detection limit may be elevated due to the sample being outside the calibration range. Other factors that may contribute to this include possible interferences. In both cases the sample would be diluted which would cause the method detection limit to be raised.

12. For dried and crushed preparations of soils volatile loss may occur e.g volatile mercury

13. For leachate preparations other than Zero Headspace Extraction (ZHE) volatile loss may occur.

14. For the BSEN 12457-3 two batch process to allow the cumulative release to be calculated, the volume of the leachate produced is measured and filtered for all tests. We therefore cannot carry out any unfiltered analysis. The tests affected include volatiles GCFID/GCMS and all subcontracted analysis.

15. Analysis and identification of specific compounds using GCFID is by retention time only, and we routinely calibrate and quantify for benzene, toluene, ethylbenzenes and xylenes (BTEX). For total volatiles in the C5-C12 range, the total area of the chromatogram is integrated and expressed as ug/kg or ug/l. Although this analysis is commonly used for the quantification of gasoline range organics (GRO), the system will also detect other compounds such as chlorinated solvents, and this may lead to a falsely high result with respect to hydrocarbons only. It is not possible to specifically identify these non-hydrocarbons, as standards are not routinely run for any other compounds, and for more definitive identification, volatiles by GCMS should be utilised.

16. We are accredited to MCERTS for sand, clay and loam/topsoil, or any of these materials - whether these are derived from naturally occurring soil profiles, or from fill/made ground, as long as these materials constitute the major part of the sample. Other coarse granular material such as concrete, gravel and brick are not accredited if they comprise the major part of the sample.

17 Data retention. All records, communications and reports pertaining to the analysis are archived for seven years from the date of issue of the final report.

18. **Tentatively Identified Compounds (TICs)** are non-target peaks in VOC and SVOC analysis. All non-target peaks detected with a concentration above the LoD are subjected to a mass spectral library search. Non-target peaks with a library search confidence of >75% are reported based on the best mass spectral library match. When a non-target peak with a library search confidence of <75% is detected it is reported as “mixed hydrocarbons”. Non-target compounds identified from the scan data are semi-quantified relative to one of the deuterated internal standards, under the same chromatographic conditions as the target compounds. This result is reported as a semi-quantitative value and reported as Tentatively Identified Compounds (TICs). TICs are outside the scope of UKAS accreditation and are not moisture corrected.

19. **Sample Deviations**

If a sample is classed as deviated then the associated results may be compromised.

1	**Container with Headspace provided for volatiles analysis**
2	**Incorrect container received**
3	**Deviation from method**
4	**Matrix interference**
♦	**Sample holding time exceeded in laboratory**
@	**Sample holding time exceeded due to late arrival of instructions or samples**
§	**Sampled on date not provided**

20. **Asbestos**

When requested, the individual sub sample scheduled will be analysed in house for the presence of asbestos fibres and asbestos containing material by our documented in house method TM048 based on HSG 248 (2021), which is accredited to ISO17025. If a specific asbestos fibre type is not found this will be reported as “Not detected”. If no asbestos fibre types are found all will be reported as “Not detected” and the sub sample analysed deemed to be clear of asbestos. If an asbestos fibre type is found it will be reported as detected (for each fibre type found). Testing can be carried out on asbestos positive samples, but, due to Health and Safety considerations, may be replaced by alternative tests or reported as No Determination Possible (NDP). The quantity of asbestos present is not determined unless specifically requested.

Identification of Asbestos in Bulk Materials & Soils

The results for identification of asbestos in bulk materials and soils are obtained from supplied bulk materials andd soils which have been examined to determine the presence of asbestos fibres using ALS (Hawarden) in-house method of transmitted/polarised light microscopy and central stop dispersion staining, based on HSG 248 (2021).

The results for identification of asbestos in soils are obtained from a homogenised sub sample which has been examined to determine the presence of asbestos fibres using ALS (Hawarden) in-house method of transmitted/polarised light microscopy and central stop dispersion staining.

Asbestos Type	Common Name
Chrysotile	White Asbestos
Amosite	Brown Asbestos
Crocidolite	Blue Asbestos
Fibrous Actinolite	-
Fibrous Anthophyllite	-
Fibrous Tremolite	-

Visual Estimation Of Fibre Content

Estimation of fibre content is not permitted as part of our UKAS accredited test other than: - Trace - Where only one or two asbestos fibres were identified.

Respirable Fibres

Respirable fibres are defined as fibres of <3 µm diameter, longer than 5 µm and with aspect ratios of at least 3:1 that can be inhaled into the lower regions of the lung and are generally acknowledged to be most important predictor of hazard and risk for cancers of the lung.

Further guidance on typical asbestos fibre content of manufactured products can be found in HSG 264.

The identification of asbestos containing materials and soils falls within our schedule of tests for which we hold UKAS accreditation, however opinions, interpretations and all other information contained in the report are outside the scope of UKAS accreditation.

APPENDIX B – GROUND WATER AND SURFACE WATER SCREENING SHEETS

WATER

Site Area(s) selected:Whole site
Event(s) selected:R2

Aliphatics and Aromatics — Aquifer: GW — Current event: R2

Result > Assessment Criteria

Limit of detection > Assessment Criteria

Analyte	Units	LOD	Reference	GAC	PointID	BH-4	DUP	SP-A
					Response Zone Depth (m bgl)	0.0	0.0	2.0
					Sample Date	11/08/23	11/08/23	11/08/23
Aliphatic C05-C06	ug/l	10.0	WHO 2008	15,000		<10	<10	<10
Aliphatic C06-C08	ug/l	10.0	WHO 2008	15,000		<10	<10	<10
Aliphatic C08-C10	ug/l	10.0	WHO 2008	300		<10	<10	<10
Aliphatic C10-C12	ug/l	10.0	WHO 2008	300		<10	<10	<10
Aliphatic C12-C16	ug/l	10.0 - 50.0	WHO 2008	300		<10	<10	<10
Aliphatic C16-C21	ug/l	10.0 - 50.0				<10	<10	<10
Aliphatic C16-C35	ug/l	10.0 - 50.0				<10	32	54
Aliphatic C21-C35	ug/l	10.0 - 50.0				<10	32	54
Aliphatics C12-C35	ug/l	10.0 - 50.0				<10	32	54
Aromatic C06-C07	ug/l	10.0				<10	<10	<10
Aromatic C07-C08	ug/l	10.0				<10	<10	<10
Aromatic C08-C10	ug/l	10.0	WHO 2008	300		<10	<10	<10
Aromatic C10-C12	ug/l	10.0	WHO 2008	90.0		<10	<10	<10
Aromatic C12-C16	ug/l	10.0 - 50.0	WHO 2008	90.0		<10	<10	<10
Aromatic C12-C35	ug/l	10.0 - 50.0				<10	<10	<10
Aromatic C16-C21	ug/l	10.0 - 50.0	WHO 2008	90.0		<10	<10	<10
Aromatic C21-C35	ug/l	10.0 - 50.0	WHO 2008	90.0		<10	<10	<10
Total Aliphatics and Aromatics (C05-C35)	ug/l	10.0 - 50.0				<10	32	54

WATER

Site Area(s) selected:Whole site
Event(s) selected:R2

Alkali and Alkaline Earth Metals — Aquifer: GW — Current event: R2

Result > Assessment Criteria

Limit of detection > Assessment Criteria

Analyte	Units	LOD	Reference	GAC	PointID	BH-4	DUP	SP-A
					Response Zone Depth (m bgl)	0.0	0.0	2.0
					Sample Date	11/08/23	11/08/23	11/08/23
Calcium	ug/l	57.0				53000	28000	27800

WATER

Site Area(s) selected:Whole site
Event(s) selected:R2

BTEX and Fuel Additives — Aquifer: GW — Current event: R2

Result > Assessment Criteria

Limit of detection > Assessment Criteria

Analyte	Units	LOD	Reference	GAC	PointID	BH-4	DUP	SP-A
					Response Zone Depth (m bgl)	0.0	0.0	2.0
					Sample Date	11/08/23	11/08/23	11/08/23
1,2,4-Trimethylbenzene	ug/l	1.00				<1	<1	<1
1,3,5-Trimethylbenzene	ug/l	1.00				<1	<1	<1
Benzene	ug/l	1.00	UK DWS	1.00		<1	<1	<1
BTEX	ug/l	5.00				<5	<5	<5
Ethylbenzene	ug/l	1.00	WHO 2017	300		<1	<1	<1
Methyl t-butylether (MTBE)	ug/l	1.00	WHO 2017	15.0		<1	<1	<1
TAME	ug/l	1.00				<1	<1	<1
Toluene	ug/l	1.00	WHO 2017	700		<1	<1	<1
Xylene	ug/l	2.00	WHO 2017	500		<2	<2	<2
Xylene - Total (Summed)	ug/l	-999				1	1	1
Xylene-m & p	ug/l	1.00				<1	<1	<1
Xylene-o	ug/l	1.00				<1	<1	<1

WATER

Site Area(s) selected:Whole site
Event(s) selected:R2

Chlorinated Aliphatics — Aquifer: GW — Current event: R2

Result > Assessment Criteria

Limit of detection > Assessment Criteria

Analyte	Units	LOD	Reference	GAC	PointID: BH-4	DUP	SP-A
					Response Zone Depth (m bgl): 0.0	0.0	2.0
					Sample Date: 11/08/23	11/08/23	11/08/23
1,1,1,2-Tetrachloroethane	ug/l	1.00			<1	<1	<1
1,1,1-Trichloroethane	ug/l	1.00	WHO 2017	2,000	<1	<1	<1
1,1,2,2-Tetrachloroethane	ug/l	1.00			<1	<1	<1
1,1,2-Trichloroethane	ug/l	1.00			<1	<1	<1
1,1-Dichloroethane	ug/l	1.00			<1	<1	<1
1,1-Dichloroethene	ug/l	1.00	WHO 2017	140	<1	<1	<1
1,1-Dichloropropene	ug/l	1.00	WHO 2017	20.0	<1	<1	<1
1,2,3-Trichloropropane	ug/l	1.00			<1	<1	<1
1,2-Dichloroethane	ug/l	1.00	UK DWS	3.00	<1	<1	<1
1,2-Dichloropropane	ug/l	1.00	WHO 2017	40.0	<1	<1	<1
1,3-Dichloropropane	ug/l	1.00			<1	<1	<1
2,2-Dichloropropane	ug/l	1.00			<1	<1	<1
Carbon tetrachloride	ug/l	1.00	UK DWS	3.00	<1	<1	<1
Chloroethane	ug/l	1.00			<1	<1	<1
Chloroform	ug/l	1.00			<1	<1	<1
Chloromethane	ug/l	1.00			<1	<1	<1
Cis 1,2-Dichloroethene	ug/l	1.00	WHO 2017	50.0	<1	<1	<1
Cis 1,3-Dichloropropene	ug/l	1.00			<1	<1	<1
Dichloromethane	ug/l	3.00	WHO 2017	20.0	<3	<3	<3
Hexachlorobutadiene	ug/l	1.00	WHO 2017	0.60	<1	<1	<1

WATER

Site Area(s) selected:Whole site
Event(s) selected:R2

Chlorinated Aliphatics — Aquifer: GW — Current event: R2

Result > Assessment Criteria

Limit of detection > Assessment Criteria

Analyte	Units	LOD	Reference	GAC	PointID	BH-4	DUP	SP-A
					Response Zone Depth (m bgl)	0.0	0.0	2.0
					Sample Date	11/08/23	11/08/23	11/08/23
PCE	ug/l	1.00				<1	<1	<1
Trans-1,2-Dichloroethene	ug/l	1.00	WHO 2017	50.0		<1	<1	<1
Trans-1,3-Dichloropropene	ug/l	1.00				<1	<1	<1
Trichloroethene (TCE)	ug/l	1.00				<1	<1	<1
Vinyl chloride	ug/l	1.00	UK DWS	0.50		<1	<1	<1

WATER

Site Area(s) selected:Whole site
Event(s) selected:R2

Chlorinated Aromatics — Aquifer: GW — Current event: R2

Result > Assessment Criteria

Limit of detection > Assessment Criteria

Analyte	Units	LOD	Reference	GAC	PointID	BH-4	DUP	SP-A
					Response Zone Depth (m bgl)	0.0	0.0	2.0
					Sample Date	11/08/23	11/08/23	11/08/23
1,2,3-Trichlorobenzene	ug/l	1.00				<1	<1	<1
1,2,4-Trichlorobenzene	ug/l	1.00				<1	<1	<1
1,2-Dichlorobenzene	ug/l	1.00	WHO 2017	1,000		<1	<1	<1
1,3,5-Trichlorobenzene	ug/l	1.00				<1	<1	<1
1,3-Dichlorobenzene	ug/l	1.00				<1	<1	<1
1,4-Dichlorobenzene	ug/l	1.00	WHO 2017	300		<1	<1	<1
2-Chlorotoluene	ug/l	1.00				<1	<1	<1
4-Chlorotoluene	ug/l	1.00				<1	<1	<1
Chlorobenzene	ug/l	1.00	WHO 2017	300		<1	<1	<1

WATER

Site Area(s) selected:Whole site
Event(s) selected:R2

General Chemistry — Aquifer: GW — Current event: R2

Result > Assessment Criteria

Limit of detection > Assessment Criteria

Analyte	Units	LOD	Reference	GAC	PointID	BH-4	DUP	SP-A
					Response Zone Depth (m bgl)	0.0	0.0	2.0
					Sample Date	11/08/23	11/08/23	11/08/23
pH	pH units	1.00	UK DWS	6.50 / 10.0		7.71	6.82	7.02

WATER

Site Area(s) selected:Whole site
Event(s) selected:R2

Halogonated Hydrocarbons — Aquifer: GW — Current event: R2

Result > Assessment Criteria

Limit of detection > Assessment Criteria

Analyte	Units	LOD	Reference	GAC	PointID: BH-4	DUP	SP-A
					Response Zone Depth (m bgl): 0.0	0.0	2.0
					Sample Date: 11/08/23	11/08/23	11/08/23
1,2-Dibromo-3-Chloropropane	ug/l	1.00	WHO 2017	1.00	<1	<1	<1
1,2-Dibromoethane	ug/l	1.00	WHO 2017	0.40	<1	<1	<1
Bromobenzene	ug/l	1.00			<1	<1	<1
Bromochloromethane	ug/l	1.00			<1	<1	<1
Bromodichloromethane	ug/l	1.00			<1	<1	<1
Bromoform	ug/l	1.00			<1	<1	<1
Bromomethane	ug/l	1.00			<1	<1	<1
Dibromochloromethane	ug/l	1.00	WHO 2017	100	<1	<1	<1
Dibromomethane	ug/l	1.00			<1	<1	<1
Dichlorodifluoromethane	ug/l	1.00			<1	<1	<1
Trichlorofluoromethane	ug/l	1.00			<1	<1	<1

WATER

Site Area(s) selected:Whole site
Event(s) selected:R2

Inorganics — Aquifer: GW — Current event: R2

Result > Assessment Criteria

Limit of detection > Assessment Criteria

Analyte	Units	LOD	Reference	GAC	PointID	BH-4	DUP	SP-A
					Response Zone Depth (m bgl)	0.0	0.0	2.0
					Sample Date	11/08/23	11/08/23	11/08/23
Chloride	ug/l	2,000	UK DWS	250,000		10500	13800	13800
Cyanide	ug/l	2.50	UK DWS - Assumes Total	50.0		<2.5	<2.5	<2.5
Cyanide (Complex)	ug/l	5.00	UK DWS - Assumes Total	50.0		<5	<5	<5
Nitrate as NO3	ug/l	300				<300	534	536
Nitrite as NO2	ug/l	50.0				<50	<50	<50
Sulphate as SO4	ug/l	2,000	UK DWS	250,000		19300	24000	24300

WATER

Site Area(s) selected:Whole site
Event(s) selected:R2

Metals — Aquifer: GW — Current event: R2

Result > Assessment Criteria

Limit of detection > Assessment Criteria

Analyte	Units	LOD	Reference	GAC	PointID	BH-4	DUP	SP-A
					Response Zone Depth (m bgl)	0.0	0.0	2.0
					Sample Date	11/08/23	11/08/23	11/08/23
Arsenic	ug/l	0.50	UK DWS	10.0		2.15	<0.5	<0.5
Cadmium	ug/l	0.080	UK DWS	5.00		<0.08	<0.08	<0.08
Chromium	ug/l	1.00	UK DWS	50.0		1.63	5.29	2.45
Copper	ug/l	0.30	UK DWS	2,000		<0.3	0.409	0.319
Ferric Iron	ug/l	50.0				<50	<50	<50
Ferrous Iron	ug/l	100				2750	<100	<100
Hexavalent Chromium	ug/l	3.00				<3	<3	<3
Iron	ug/l	19.0	UK DWS	200		2720	<19	<19
Lead	ug/l	0.20	UK DWS	10.0		<0.2	<0.2	<0.2
Manganese	ug/l	1.00 - 3.00	UK DWS	50.0		682	1120	1550
Mercury	ug/l	0.010	UK DWS	1.00		<0.01	<0.01	<0.01
Nickel	ug/l	0.40	UK DWS	20.0		1.85	5.25	5.05
Selenium	ug/l	1.00	UK DWS	10.0		<1	<1	<1
Zinc	ug/l	1.00				3.41	5.66	3.53

WATER

Site Area(s) selected:Whole site
Event(s) selected:R2

Other | **Aquifer: GW** | **Current event: R2**

Result > Assessment Criteria

Limit of detection > Assessment Criteria

Analyte	Units	LOD	Reference	GAC	PointID	BH-4	DUP	SP-A
					Response Zone Depth (m bgl)	0.0	0.0	2.0
					Sample Date	11/08/23	11/08/23	11/08/23
Carbon Disulphide	ug/l	1.00				<1	<1	<1
DOC	ug/l	3,000				<3000	<3000	<3000
Styrene	ug/l	1.00	WHO 2017	20.0		<1	<1	<1

WATER

Site Area(s) selected:Whole site
Event(s) selected:R2

PAHs — Aquifer: GW — Current event: R2

Result > Assessment Criteria

Limit of detection > Assessment Criteria

Analyte	Units	LOD	Reference	GAC	PointID	BH-4	DUP	SP-A
					Response Zone Depth (m bgl)	0.0	0.0	2.0
					Sample Date	11/08/23	11/08/23	11/08/23
Acenaphthene	ug/l	0.005 - 0.025				<0.005	<0.005	<0.005
Acenaphthylene	ug/l	0.005 - 0.025				<0.005	<0.005	<0.005
Anthracene	ug/l	0.005 - 0.025				<0.005	<0.005	<0.005
Benzo (a) anthracene	ug/l	0.005 - 0.025				<0.005	<0.005	<0.005
Benzo (a) pyrene	ug/l	0.002 - 0.010	UK DWS	0.010		<0.002	<0.002	<0.002
Benzo (b) fluoranthene	ug/l	0.005 - 0.025				<0.005	<0.005	<0.005
Benzo (ghi) perylene	ug/l	0.005 - 0.025				<0.005	<0.005	<0.005
Benzo (k) fluoranthene	ug/l	0.005 - 0.025				<0.005	<0.005	<0.005
Chrysene	ug/l	0.005 - 0.025				<0.005	<0.005	<0.005
Dibenzo (ah) anthracene	ug/l	0.005 - 0.025				<0.005	<0.005	<0.005
Fluoranthene	ug/l	0.005 - 0.025				<0.005	<0.005	<0.005
Fluorene	ug/l	0.005 - 0.025				<0.005	<0.005	<0.005
Indeno (1,2,3-cd) pyrene	ug/l	0.005 - 0.025				<0.005	<0.005	<0.005
Naphthalene	ug/l	0.050 - 1.00				<1	<1	<1
PAH (Total)	ug/l	0.082 - 0.41				<0.082	<0.082	<0.082
Phenanthrene	ug/l	0.005 - 0.025				0.0085	<0.005	<0.005
Pyrene	ug/l	0.005 - 0.025				<0.005	<0.005	<0.005

WATER

Site Area(s) selected:Whole site
Event(s) selected:R2

Phenols — Aquifer: GW — Current event: R2

Result > Assessment Criteria

Limit of detection > Assessment Criteria

Analyte	Units	LOD	Reference	GAC	PointID	BH-4	DUP	SP-A
					Response Zone Depth (m bgl)	0.0	0.0	2.0
					Sample Date	11/08/23	11/08/23	11/08/23
Cresols	ug/l	6.00				<6	<6	<6
Phenol	ug/l	2.00				<2	<2	<2
Phenol (Monohydric)	ug/l	16.0				<16	<16	<16
Xylenols	ug/l	8.00				<8	<8	<8

WATER

Site Area(s) selected:Whole site
Event(s) selected:R2

QA Standard | **Aquifer: GW** | **Current event: R2**

Result > Assessment Criteria

Limit of detection > Assessment Criteria

Analyte	Units	LOD	Reference	GAC	PointID	BH-4	DUP	SP-A
					Response Zone Depth (m bgl)	0.0	0.0	2.0
					Sample Date	11/08/23	11/08/23	11/08/23
4-Bromofluorobenzene	%					96.9	97.2	99
Dibromofluoromethane	%					108	98.6	105
Toluene-d8 Surrogate	%					99.4	100	99

WATER

Site Area(s) selected:Whole site
Event(s) selected:R2

TPH/EPH — Aquifer: GW — Current event: R2

Result > Assessment Criteria

Limit of detection > Assessment Criteria

Analyte	Units	LOD	Reference	GAC	PointID	BH-4	DUP	SP-A
					Response Zone Depth (m bgl)	0.0	0.0	2.0
					Sample Date	11/08/23	11/08/23	11/08/23
GRO Surrogate	%					108	100	115
PRO (C5-C12)	ug/l	50.0				<50	<50	<50

WATER

Site Area(s) selected:Whole site
Event(s) selected:R2

VOCs — Aquifer: GW — Current event: R2

Result > Assessment Criteria

Limit of detection > Assessment Criteria

Analyte	Units	LOD	Reference	GAC	PointID	BH-4	DUP	SP-A
					Response Zone Depth (m bgl)	0.0	0.0	2.0
					Sample Date	11/08/23	11/08/23	11/08/23
4-Isopropyltoluene	ug/l	1.00				<1	<1	<1
iso-Propylbenzene	ug/l	1.00				<1	<1	<1
n-Butylbenzene	ug/l	1.00				<1	<1	<1
n-Propylbenzene	ug/l	1.00				<1	<1	<1
Sec-Butylbenzene	ug/l	1.00				<1	<1	<1
Tert-Butylbenzene	ug/l	1.00				<1	<1	<1

WATER

Site Area(s) selected:Whole site
Event(s) selected:R2

Aliphatics and Aromatics — Aquifer: GW — Current event: R2

Result > Assessment Criteria

Limit of detection > Assessment Criteria

Analyte	Units	LOD	Reference	GAC	PointID	BH-4	DUP	SP-A
					Response Zone Depth (m bgl)	0.0	0.0	2.0
					Sample Date	11/08/23	11/08/23	11/08/23
Aliphatic C05-C06	ug/l	10.0				<10	<10	<10
Aliphatic C06-C08	ug/l	10.0				<10	<10	<10
Aliphatic C08-C10	ug/l	10.0				<10	<10	<10
Aliphatic C10-C12	ug/l	10.0				<10	<10	<10
Aliphatic C12-C16	ug/l	10.0 - 50.0				<10	<10	<10
Aliphatic C16-C21	ug/l	10.0 - 50.0				<10	<10	<10
Aliphatic C16-C35	ug/l	10.0 - 50.0				<10	32	54
Aliphatic C21-C35	ug/l	10.0 - 50.0				<10	32	54
Aliphatics C12-C35	ug/l	10.0 - 50.0				<10	32	54
Aromatic C06-C07	ug/l	10.0	CL:AIRE 2017	10.0		<10	<10	<10
Aromatic C07-C08	ug/l	10.0	CL:AIRE 2017	74.0		<10	<10	<10
Aromatic C08-C10	ug/l	10.0	CL:AIRE 2017	20.0		<10	<10	<10
Aromatic C10-C12	ug/l	10.0	CL:AIRE 2017	2.00		<10	<10	<10
Aromatic C12-C16	ug/l	10.0 - 50.0	CL:AIRE 2017	2.00		<10	<10	<10
Aromatic C12-C35	ug/l	10.0 - 50.0				<10	<10	<10
Aromatic C16-C21	ug/l	10.0 - 50.0	CL:AIRE 2017	0.10		<10	<10	<10
Aromatic C21-C35	ug/l	10.0 - 50.0	CL:AIRE 2017	0.0002		<10	<10	<10
Total Aliphatics and Aromatics (C05-C35)	ug/l	10.0 - 50.0				<10	32	54

WATER

Site Area(s) selected:Whole site
Event(s) selected:R2

Alkali and Alkaline Earth Metals — Aquifer: GW — Current event: R2

Result > Assessment Criteria

Limit of detection > Assessment Criteria

Analyte	Units	LOD	Reference	GAC	PointID	BH-4	DUP	SP-A
					Response Zone Depth (m bgl)	0.0	0.0	2.0
					Sample Date	11/08/23	11/08/23	11/08/23
Calcium	ug/l	57.0				53000	28000	27800

WATER

Site Area(s) selected:Whole site
Event(s) selected:R2

BTEX and Fuel Additives — Aquifer: GW — Current event: R2

Result > Assessment Criteria

Limit of detection > Assessment Criteria

Analyte	Units	LOD	Reference	GAC	PointID	BH-4	DUP	SP-A
					Response Zone Depth (m bgl)	0.0	0.0	2.0
					Sample Date	11/08/23	11/08/23	11/08/23
1,2,4-Trimethylbenzene	ug/l	1.00				<1	<1	<1
1,3,5-Trimethylbenzene	ug/l	1.00				<1	<1	<1
Benzene	ug/l	1.00	EQS 2015	10.0		<1	<1	<1
BTEX	ug/l	5.00				<5	<5	<5
Ethylbenzene	ug/l	1.00	Proposed EQS	20.0		<1	<1	<1
Methyl t-butylether (MTBE)	ug/l	1.00				<1	<1	<1
TAME	ug/l	1.00				<1	<1	<1
Toluene	ug/l	1.00	EQS 2015	74.0		<1	<1	<1
Xylene	ug/l	2.00	CL:AIRE 2017	30.0		<2	<2	<2
Xylene - Total (Summed)	ug/l	-999				1	1	1
Xylene-m & p	ug/l	1.00				<1	<1	<1
Xylene-o	ug/l	1.00				<1	<1	<1

WATER

Site Area(s) selected:Whole site
Event(s) selected:R2

Chlorinated Aliphatics — Aquifer: GW — Current event: R2

Result > Assessment Criteria

Limit of detection > Assessment Criteria

Analyte	Units	LOD	Reference	GAC	PointID	BH-4	DUP	SP-A
					Response Zone Depth (m bgl)	0.0	0.0	2.0
					Sample Date	11/08/23	11/08/23	11/08/23
1,1,1,2-Tetrachloroethane	ug/l	1.00				<1	<1	<1
1,1,1-Trichloroethane	ug/l	1.00				<1	<1	<1
1,1,2,2-Tetrachloroethane	ug/l	1.00				<1	<1	<1
1,1,2-Trichloroethane	ug/l	1.00				<1	<1	<1
1,1-Dichloroethane	ug/l	1.00				<1	<1	<1
1,1-Dichloroethene	ug/l	1.00				<1	<1	<1
1,1-Dichloropropene	ug/l	1.00				<1	<1	<1
1,2,3-Trichloropropane	ug/l	1.00				<1	<1	<1
1,2-Dichloroethane	ug/l	1.00	EQS 2015	10.0		<1	<1	<1
1,2-Dichloropropane	ug/l	1.00				<1	<1	<1
1,3-Dichloropropane	ug/l	1.00				<1	<1	<1
2,2-Dichloropropane	ug/l	1.00				<1	<1	<1
Carbon tetrachloride	ug/l	1.00	EQS 2015	12.0		<1	<1	<1
Chloroethane	ug/l	1.00				<1	<1	<1
Chloroform	ug/l	1.00	EQS 2015	2.50		<1	<1	<1
Chloromethane	ug/l	1.00				<1	<1	<1
Cis 1,2-Dichloroethene	ug/l	1.00				<1	<1	<1
Cis 1,3-Dichloropropene	ug/l	1.00				<1	<1	<1
Dichloromethane	ug/l	3.00	EQS 2015	20.0		<3	<3	<3
Hexachlorobutadiene	ug/l	1.00	EQS 2015 MAC	0.60		<1	<1	<1

WATER

Site Area(s) selected:Whole site
Event(s) selected:R2

Chlorinated Aliphatics — Aquifer: GW — Current event: R2

Result > Assessment Criteria

Limit of detection > Assessment Criteria

Analyte	Units	LOD	Reference	GAC	PointID	BH-4	DUP	SP-A
					Response Zone Depth (m bgl)	0.0	0.0	2.0
					Sample Date	11/08/23	11/08/23	11/08/23
PCE	ug/l	1.00	EQS 2015	10.0		<1	<1	<1
Trans-1,2-Dichloroethene	ug/l	1.00				<1	<1	<1
Trans-1,3-Dichloropropene	ug/l	1.00				<1	<1	<1
Trichloroethene (TCE)	ug/l	1.00	EQS 2015	10.0		<1	<1	<1
Vinyl chloride	ug/l	1.00				<1	<1	<1

WATER

Site Area(s) selected:Whole site
Event(s) selected:R2

Chlorinated Aromatics — Aquifer: GW — Current event: R2

Result > Assessment Criteria

Limit of detection > Assessment Criteria

Analyte	Units	LOD	Reference	GAC	PointID	BH-4	DUP	SP-A
					Response Zone Depth (m bgl)	0.0	0.0	2.0
					Sample Date	11/08/23	11/08/23	11/08/23
1,2,3-Trichlorobenzene	ug/l	1.00				<1	<1	<1
1,2,4-Trichlorobenzene	ug/l	1.00				<1	<1	<1
1,2-Dichlorobenzene	ug/l	1.00				<1	<1	<1
1,3,5-Trichlorobenzene	ug/l	1.00				<1	<1	<1
1,3-Dichlorobenzene	ug/l	1.00				<1	<1	<1
1,4-Dichlorobenzene	ug/l	1.00				<1	<1	<1
2-Chlorotoluene	ug/l	1.00				<1	<1	<1
4-Chlorotoluene	ug/l	1.00				<1	<1	<1
Chlorobenzene	ug/l	1.00				<1	<1	<1

WATER

Site Area(s) selected:Whole site
Event(s) selected:R2

General Chemistry — Aquifer: GW — Current event: R2

Result > Assessment Criteria

Limit of detection > Assessment Criteria

Analyte	Units	LOD	Reference	GAC	PointID	BH-4	DUP	SP-A
					Response Zone Depth (m bgl)	0.0	0.0	2.0
					Sample Date	11/08/23	11/08/23	11/08/23
pH	pH units	1.00	EQS 2015	6.00 / 9.00		7.71	6.82	7.02

WATER

Site Area(s) selected:Whole site
Event(s) selected:R2

Halogonated Hydrocarbons — Aquifer: GW — Current event: R2

Result > Assessment Criteria

Limit of detection > Assessment Criteria

Analyte	Units	LOD	Reference	GAC	PointID	BH-4	DUP	SP-A
					Response Zone Depth (m bgl)	0.0	0.0	2.0
					Sample Date	11/08/23	11/08/23	11/08/23
1,2-Dibromo-3-Chloropropane	ug/l	1.00				<1	<1	<1
1,2-Dibromoethane	ug/l	1.00				<1	<1	<1
Bromobenzene	ug/l	1.00				<1	<1	<1
Bromochloromethane	ug/l	1.00				<1	<1	<1
Bromodichloromethane	ug/l	1.00				<1	<1	<1
Bromoform	ug/l	1.00				<1	<1	<1
Bromomethane	ug/l	1.00				<1	<1	<1
Dibromochloromethane	ug/l	1.00				<1	<1	<1
Dibromomethane	ug/l	1.00				<1	<1	<1
Dichlorodifluoromethane	ug/l	1.00				<1	<1	<1
Trichlorofluoromethane	ug/l	1.00				<1	<1	<1

WATER

Site Area(s) selected:Whole site
Event(s) selected:R2

Inorganics — Aquifer: GW — Current event: R2

Result > Assessment Criteria

Limit of detection > Assessment Criteria

Analyte	Units	LOD	Reference	GAC	PointID	BH-4	DUP	SP-A
					Response Zone Depth (m bgl)	0.0	0.0	2.0
					Sample Date	11/08/23	11/08/23	11/08/23
Chloride	ug/l	2,000				10500	13800	13800
Cyanide	ug/l	2.50	EQS 2015 - Assumes Free	1.00		<2.5	<2.5	<2.5
Cyanide (Complex)	ug/l	5.00	EQS 2015 - Assumes Free	1.00		<5	<5	<5
Nitrate as NO3	ug/l	300				<300	534	536
Nitrite as NO2	ug/l	50.0				<50	<50	<50
Sulphate as SO4	ug/l	2,000				19300	24000	24300

WATER

Site Area(s) selected:Whole site
Event(s) selected:R2

Metals — Aquifer: GW — Current event: R2

Result > Assessment Criteria

Limit of detection > Assessment Criteria

Analyte	Units	LOD	Reference	GAC	PointID	BH-4	DUP	SP-A
					Response Zone Depth (m bgl)	0.0	0.0	2.0
					Sample Date	11/08/23	11/08/23	11/08/23
Arsenic	ug/l	0.50	EQS 2015	50.0		2.15	<0.5	<0.5
Cadmium	ug/l	0.080	EQS 2015	0.080		<0.08	<0.08	<0.08
Chromium	ug/l	1.00	EQS 2015	4.70		1.63	5.29	2.45
Copper	ug/l	0.30	EQS 2015 - Bioavailable	1.00		<0.3	0.409	0.319
Ferric Iron	ug/l	50.0				<50	<50	<50
Ferrous Iron	ug/l	100				2750	<100	<100
Hexavalent Chromium	ug/l	3.00	EQS 2015	3.40		<3	<3	<3
Iron	ug/l	19.0	EQS 2015	1,000		2720	<19	<19
Lead	ug/l	0.20	EQS 2015 - Bioavailable	1.20		<0.2	<0.2	<0.2
Manganese	ug/l	1.00 - 3.00	EQS 2015 - Bioavailable	123		682	1120	1550
Mercury	ug/l	0.010	EQS 2015 MAC	0.070		<0.01	<0.01	<0.01
Nickel	ug/l	0.40	EQS 2015 - Bioavailable	4.00		1.85	5.25	5.05
Selenium	ug/l	1.00				<1	<1	<1
Zinc	ug/l	1.00	EQS 2015 - Bioavailable	10.9		3.41	5.66	3.53

WATER

Site Area(s) selected:Whole site
Event(s) selected:R2

Other | **Aquifer: GW** | **Current event: R2**

Result > Assessment Criteria

Limit of detection > Assessment Criteria

Analyte	Units	LOD	Reference	GAC	PointID	BH-4	DUP	SP-A
					Response Zone Depth (m bgl)	0.0	0.0	2.0
					Sample Date	11/08/23	11/08/23	11/08/23
Carbon Disulphide	ug/l	1.00				<1	<1	<1
DOC	ug/l	3,000				<3000	<3000	<3000
Styrene	ug/l	1.00				<1	<1	<1

WATER

Site Area(s) selected:Whole site
Event(s) selected:R2

PAHs — Aquifer: GW — Current event: R2

Result > Assessment Criteria

Limit of detection > Assessment Criteria

Analyte	Units	LOD	Reference	GAC	PointID	BH-4	DUP	SP-A
					Response Zone Depth (m bgl)	0.0	0.0	2.0
					Sample Date	11/08/23	11/08/23	11/08/23
Acenaphthene	ug/l	0.005 - 0.025				<0.005	<0.005	<0.005
Acenaphthylene	ug/l	0.005 - 0.025				<0.005	<0.005	<0.005
Anthracene	ug/l	0.005 - 0.025	EQS 2015	0.10		<0.005	<0.005	<0.005
Benzo (a) anthracene	ug/l	0.005 - 0.025				<0.005	<0.005	<0.005
Benzo (a) pyrene	ug/l	0.002 - 0.010	EQS 2015	0.0002		<0.002	<0.002	<0.002
Benzo (b) fluoranthene	ug/l	0.005 - 0.025				<0.005	<0.005	<0.005
Benzo (ghi) perylene	ug/l	0.005 - 0.025				<0.005	<0.005	<0.005
Benzo (k) fluoranthene	ug/l	0.005 - 0.025				<0.005	<0.005	<0.005
Chrysene	ug/l	0.005 - 0.025				<0.005	<0.005	<0.005
Dibenzo (ah) anthracene	ug/l	0.005 - 0.025				<0.005	<0.005	<0.005
Fluoranthene	ug/l	0.005 - 0.025	EQS 2015	0.006		<0.005	<0.005	<0.005
Fluorene	ug/l	0.005 - 0.025				<0.005	<0.005	<0.005
Indeno (1,2,3-cd) pyrene	ug/l	0.005 - 0.025				<0.005	<0.005	<0.005
Naphthalene	ug/l	0.050 - 1.00	EQS 2015	2.00		<1	<1	<1
PAH (Total)	ug/l	0.082 - 0.41				<0.082	<0.082	<0.082
Phenanthrene	ug/l	0.005 - 0.025				0.0085	<0.005	<0.005
Pyrene	ug/l	0.005 - 0.025				<0.005	<0.005	<0.005

WATER

Site Area(s) selected:Whole site
Event(s) selected:R2

Phenols — Aquifer: GW — Current event: R2

Result > Assessment Criteria

Limit of detection > Assessment Criteria

Analyte	Units	LOD	Reference	GAC	PointID	BH-4	DUP	SP-A
					Response Zone Depth (m bgl)	0.0	0.0	2.0
					Sample Date	11/08/23	11/08/23	11/08/23
Cresols	ug/l	6.00				<6	<6	<6
Phenol	ug/l	2.00	EQS 2015	7.70		<2	<2	<2
Phenol (Monohydric)	ug/l	16.0				<16	<16	<16
Xylenols	ug/l	8.00				<8	<8	<8

WATER

Site Area(s) selected:Whole site
Event(s) selected:R2

QA Standard | **Aquifer: GW** | **Current event: R2**

Result > Assessment Criteria

Limit of detection > Assessment Criteria

Analyte	Units	LOD	Reference	GAC	PointID	BH-4	DUP	SP-A
					Response Zone Depth (m bgl)	0.0	0.0	2.0
					Sample Date	11/08/23	11/08/23	11/08/23
4-Bromofluorobenzene	%					96.9	97.2	99
Dibromofluoromethane	%					108	98.6	105
Toluene-d8 Surrogate	%					99.4	100	99

WATER

Site Area(s) selected:Whole site
Event(s) selected:R2

TPH/EPH — Aquifer: GW — Current event: R2

Result > Assessment Criteria

Limit of detection > Assessment Criteria

Analyte	Units	LOD	Reference	GAC	PointID	BH-4	DUP	SP-A
					Response Zone Depth (m bgl)	0.0	0.0	2.0
					Sample Date	11/08/23	11/08/23	11/08/23
GRO Surrogate	%					108	100	115
PRO (C5-C12)	ug/l	50.0				<50	<50	<50

WATER

Site Area(s) selected:Whole site
Event(s) selected:R2

VOCs — Aquifer: GW — Current event: R2

Result > Assessment Criteria

Limit of detection > Assessment Criteria

Analyte	Units	LOD	Reference	GAC	PointID	BH-4	DUP	SP-A
					Response Zone Depth (m bgl)	0.0	0.0	2.0
					Sample Date	11/08/23	11/08/23	11/08/23
4-Isopropyltoluene	ug/l	1.00				<1	<1	<1
iso-Propylbenzene	ug/l	1.00				<1	<1	<1
n-Butylbenzene	ug/l	1.00				<1	<1	<1
n-Propylbenzene	ug/l	1.00				<1	<1	<1
Sec-Butylbenzene	ug/l	1.00				<1	<1	<1
Tert-Butylbenzene	ug/l	1.00				<1	<1	<1

WATER

Site Area(s) selected:Whole site
Event(s) selected:R2

Aliphatics and Aromatics — Aquifer: SW — Current event: R2

Result > Assessment Criteria

Limit of detection > Assessment Criteria

Analyte	Units	LOD	Reference	GAC	PointID	SW1-UP	SW2-MID	SW3-DOWN	Trip Blank
					Response Zone Depth (m bgl)	0.0	0.0	0.0	0.0
					Sample Date	11/08/23	11/08/23	11/08/23	11/08/23
Aliphatic C05-C06	ug/l	10.0				<10	<10	<10	<10
Aliphatic C06-C08	ug/l	10.0				<10	<10	<10	<10
Aliphatic C08-C10	ug/l	10.0				<10	<10	<10	<10
Aliphatic C10-C12	ug/l	10.0				<10	<10	<10	<10
Aliphatic C12-C16	ug/l	10.0 - 50.0				<10	<10	<10	<10
Aliphatic C16-C21	ug/l	10.0 - 50.0				<10	<10	<10	<10
Aliphatic C16-C35	ug/l	10.0 - 50.0				<10	<10	<10	<10
Aliphatic C21-C35	ug/l	10.0 - 50.0				<10	<10	<10	<10
Aliphatics C12-C35	ug/l	10.0 - 50.0				<10	<10	<10	<10
Aromatic C06-C07	ug/l	10.0	CL:AIRE 2017	10.0		<10	<10	<10	<10
Aromatic C07-C08	ug/l	10.0	CL:AIRE 2017	74.0		<10	<10	<10	<10
Aromatic C08-C10	ug/l	10.0	CL:AIRE 2017	20.0		<10	<10	<10	<10
Aromatic C10-C12	ug/l	10.0	CL:AIRE 2017	2.00		<10	<10	<10	<10
Aromatic C12-C16	ug/l	10.0 - 50.0	CL:AIRE 2017	2.00		<10	<10	<10	<10
Aromatic C12-C35	ug/l	10.0 - 50.0				<10	<10	<10	<10
Aromatic C16-C21	ug/l	10.0 - 50.0	CL:AIRE 2017	0.10		<10	<10	<10	<10
Aromatic C21-C35	ug/l	10.0 - 50.0	CL:AIRE 2017	0.0002		<10	<10	<10	<10
Total Aliphatics and Aromatics (C05-C35)	ug/l	10.0 - 50.0				<10	<10	<10	<10

WATER

Site Area(s) selected:Whole site
Event(s) selected:R2

Alkali and Alkaline Earth Metals — Aquifer: SW — Current event: R2

Result > Assessment Criteria

Limit of detection > Assessment Criteria

Analyte	Units	LOD	Reference	GAC	PointID	SW1-UP	SW2-MID	SW3-DOWN	Trip Blank
					Response Zone Depth (m bgl)	0.0	0.0	0.0	0.0
					Sample Date	11/08/23	11/08/23	11/08/23	11/08/23
Calcium	ug/l	57.0				19100	18000	17800	<57

WATER

Site Area(s) selected:Whole site
Event(s) selected:R2

BTEX and Fuel Additives — Aquifer: SW — Current event: R2

Result > Assessment Criteria

Limit of detection > Assessment Criteria

Analyte	Units	LOD	Reference	GAC	PointID	SW1-UP	SW2-MID	SW3-DOWN	Trip Blank
					Response Zone Depth (m bgl)	0.0	0.0	0.0	0.0
					Sample Date	11/08/23	11/08/23	11/08/23	11/08/23
1,2,4-Trimethylbenzene	ug/l	1.00				<1	<1	<1	<1
1,3,5-Trimethylbenzene	ug/l	1.00				<1	<1	<1	<1
Benzene	ug/l	1.00	EQS 2015	10.0		<1	<1	<1	<1
BTEX	ug/l	5.00				<5	<5	<5	<5
Ethylbenzene	ug/l	1.00	Proposed EQS	20.0		<1	<1	<1	<1
Methyl t-butylether (MTBE)	ug/l	1.00				<1	<1	<1	<1
TAME	ug/l	1.00				<1	<1	<1	<1
Toluene	ug/l	1.00	EQS 2015	74.0		<1	<1	<1	<1
Xylene	ug/l	2.00	CL:AIRE 2017	30.0		<2	<2	<2	<2
Xylene - Total (Summed)	ug/l	-999				1	1	1	1
Xylene-m & p	ug/l	1.00				<1	<1	<1	<1
Xylene-o	ug/l	1.00				<1	<1	<1	<1

WATER

Site Area(s) selected:Whole site
Event(s) selected:R2

Chlorinated Aliphatics — Aquifer: SW — Current event: R2

Result > Assessment Criteria

Limit of detection > Assessment Criteria

Analyte	Units	LOD	Reference	GAC	PointID	SW1-UP	SW2-MID	SW3-DOWN	Trip Blank
					Response Zone Depth (m bgl)	0.0	0.0	0.0	0.0
					Sample Date	11/08/23	11/08/23	11/08/23	11/08/23
1,1,1,2-Tetrachloroethane	ug/l	1.00				<1	<1	<1	<1
1,1,1-Trichloroethane	ug/l	1.00				<1	<1	<1	<1
1,1,2,2-Tetrachloroethane	ug/l	1.00				<1	<1	<1	<1
1,1,2-Trichloroethane	ug/l	1.00				<1	<1	<1	<1
1,1-Dichloroethane	ug/l	1.00				<1	<1	<1	<1
1,1-Dichloroethene	ug/l	1.00				<1	<1	<1	<1
1,1-Dichloropropene	ug/l	1.00				<1	<1	<1	<1
1,2,3-Trichloropropane	ug/l	1.00				<1	<1	<1	<1
1,2-Dichloroethane	ug/l	1.00	EQS 2015	10.0		<1	<1	<1	<1
1,2-Dichloropropane	ug/l	1.00				<1	<1	<1	<1
1,3-Dichloropropane	ug/l	1.00				<1	<1	<1	<1
2,2-Dichloropropane	ug/l	1.00				<1	<1	<1	<1
Carbon tetrachloride	ug/l	1.00	EQS 2015	12.0		<1	<1	<1	<1
Chloroethane	ug/l	1.00				<1	<1	<1	<1
Chloroform	ug/l	1.00	EQS 2015	2.50		<1	<1	<1	<1
Chloromethane	ug/l	1.00				<1	<1	<1	<1
Cis 1,2-Dichloroethene	ug/l	1.00				<1	<1	<1	<1
Cis 1,3-Dichloropropene	ug/l	1.00				<1	<1	<1	<1
Dichloromethane	ug/l	3.00	EQS 2015	20.0		<3	<3	<3	<3
Hexachlorobutadiene	ug/l	1.00	EQS 2015 MAC	0.60		<1	<1	<1	<1

WATER

Site Area(s) selected:Whole site
Event(s) selected:R2

Chlorinated Aliphatics — Aquifer: SW — Current event: R2

Result > Assessment Criteria

Limit of detection > Assessment Criteria

Analyte	Units	LOD	Reference	GAC	PointID	SW1-UP	SW2-MID	SW3-DOWN	Trip Blank
					Response Zone Depth (m bgl)	0.0	0.0	0.0	0.0
					Sample Date	11/08/23	11/08/23	11/08/23	11/08/23
PCE	ug/l	1.00	EQS 2015	10.0		<1	<1	<1	<1
Trans-1,2-Dichloroethene	ug/l	1.00				<1	<1	<1	<1
Trans-1,3-Dichloropropene	ug/l	1.00				<1	<1	<1	<1
Trichloroethene (TCE)	ug/l	1.00	EQS 2015	10.0		<1	<1	<1	<1
Vinyl chloride	ug/l	1.00				<1	<1	<1	<1

WATER

Site Area(s) selected:Whole site
Event(s) selected:R2

Chlorinated Aromatics — Aquifer: SW — Current event: R2

Result > Assessment Criteria

Limit of detection > Assessment Criteria

Analyte	Units	LOD	Reference	GAC	PointID	SW1-UP	SW2-MID	SW3-DOWN	Trip Blank
					Response Zone Depth (m bgl)	0.0	0.0	0.0	0.0
					Sample Date	11/08/23	11/08/23	11/08/23	11/08/23
1,2,3-Trichlorobenzene	ug/l	1.00				<1	<1	<1	<1
1,2,4-Trichlorobenzene	ug/l	1.00				<1	<1	<1	<1
1,2-Dichlorobenzene	ug/l	1.00				<1	<1	<1	<1
1,3,5-Trichlorobenzene	ug/l	1.00				<1	<1	<1	<1
1,3-Dichlorobenzene	ug/l	1.00				<1	<1	<1	<1
1,4-Dichlorobenzene	ug/l	1.00				<1	<1	<1	<1
2-Chlorotoluene	ug/l	1.00				<1	<1	<1	<1
4-Chlorotoluene	ug/l	1.00				<1	<1	<1	<1
Chlorobenzene	ug/l	1.00				<1	<1	<1	<1

WATER

Site Area(s) selected:Whole site
Event(s) selected:R2

General Chemistry — Aquifer: SW — Current event: R2

Result > Assessment Criteria

Limit of detection > Assessment Criteria

Analyte	Units	LOD	Reference	GAC	PointID	SW1-UP	SW2-MID	SW3-DOWN	Trip Blank
					Response Zone Depth (m bgl)	0.0	0.0	0.0	0.0
					Sample Date	11/08/23	11/08/23	11/08/23	11/08/23
pH	pH units	1.00	EQS 2015	6.00 / 9.00		8.05	8.05	8.05	5.93

WATER

Site Area(s) selected:Whole site
Event(s) selected:R2

Halogonated Hydrocarbons — Aquifer: SW — Current event: R2

Result > Assessment Criteria

Limit of detection > Assessment Criteria

Analyte	Units	LOD	Reference	GAC	PointID	SW1-UP	SW2-MID	SW3-DOWN	Trip Blank
					Response Zone Depth (m bgl)	0.0	0.0	0.0	0.0
					Sample Date	11/08/23	11/08/23	11/08/23	11/08/23
1,2-Dibromo-3-Chloropropane	ug/l	1.00				<1	<1	<1	<1
1,2-Dibromoethane	ug/l	1.00				<1	<1	<1	<1
Bromobenzene	ug/l	1.00				<1	<1	<1	<1
Bromochloromethane	ug/l	1.00				<1	<1	<1	<1
Bromodichloromethane	ug/l	1.00				<1	<1	<1	<1
Bromoform	ug/l	1.00				<1	<1	<1	<1
Bromomethane	ug/l	1.00				<1	<1	<1	<1
Dibromochloromethane	ug/l	1.00				<1	<1	<1	<1
Dibromomethane	ug/l	1.00				<1	<1	<1	<1
Dichlorodifluoromethane	ug/l	1.00				<1	<1	<1	<1
Trichlorofluoromethane	ug/l	1.00				<1	<1	<1	<1

WATER

Site Area(s) selected:Whole site
Event(s) selected:R2

Inorganics — Aquifer: SW — Current event: R2

Result > Assessment Criteria

Limit of detection > Assessment Criteria

Analyte	Units	LOD	Reference	GAC	PointID	SW1-UP	SW2-MID	SW3-DOWN	Trip Blank
					Response Zone Depth (m bgl)	0.0	0.0	0.0	0.0
					Sample Date	11/08/23	11/08/23	11/08/23	11/08/23
Chloride	ug/l	2,000				11400	10200	10000	<2000
Cyanide	ug/l	2.50	EQS 2015 - Assumes Free	1.00		<2.5	<2.5	<2.5	<2.5
Cyanide (Complex)	ug/l	5.00	EQS 2015 - Assumes Free	1.00		<5	<5	<5	<5
Nitrate as NO3	ug/l	300				1810	1810	1720	<300
Nitrite as NO2	ug/l	50.0				<50	<50	<50	<50
Sulphate as SO4	ug/l	2,000				17500	15700	15600	<2000

WATER

Site Area(s) selected:Whole site
Event(s) selected:R2

Metals — Aquifer: SW — Current event: R2

Result > Assessment Criteria

Limit of detection > Assessment Criteria

Analyte	Units	LOD	Reference	GAC	PointID	SW1-UP	SW2-MID	SW3-DOWN	Trip Blank
					Response Zone Depth (m bgl)	0.0	0.0	0.0	0.0
					Sample Date	11/08/23	11/08/23	11/08/23	11/08/23
Arsenic	ug/l	0.50	EQS 2015	50.0		<0.5	<0.5	<0.5	<0.5
Cadmium	ug/l	0.080	EQS 2015	0.080		<0.08	<0.08	<0.08	<0.08
Chromium	ug/l	1.00	EQS 2015	4.70		6.64	6.76	6.61	<1
Copper	ug/l	0.30	EQS 2015 - Bioavailable	1.00		1.16	1.27	1.34	<0.3
Ferric Iron	ug/l	50.0				88.6	72.9	100	<50
Ferrous Iron	ug/l	100				<100	<100	<100	<100
Hexavalent Chromium	ug/l	3.00	EQS 2015	3.40		6.77	5.78	6.49	<3
Iron	ug/l	19.0	EQS 2015	1,000		88.6	72.9	100	<19
Lead	ug/l	0.20	EQS 2015 - Bioavailable	1.20		<0.2	<0.2	<0.2	<0.2
Manganese	ug/l	1.00 - 3.00	EQS 2015 - Bioavailable	123		25.7	13.9	27.7	<1
Mercury	ug/l	0.010	EQS 2015 MAC	0.070		<0.01	<0.01	<0.01	<0.01
Nickel	ug/l	0.40	EQS 2015 - Bioavailable	4.00		1.39	1.35	0.999	<0.4
Selenium	ug/l	1.00				<1	<1	<1	<1
Zinc	ug/l	1.00	EQS 2015 - Bioavailable	10.9		4.75	4.13	4.43	1.44

WATER

Site Area(s) selected:Whole site
Event(s) selected:R2

Other | **Aquifer: SW** | **Current event: R2**

Result > Assessment Criteria

Limit of detection > Assessment Criteria

Analyte	Units	LOD	Reference	GAC	PointID	SW1-UP	SW2-MID	SW3-DOWN	Trip Blank
					Response Zone Depth (m bgl)	0.0	0.0	0.0	0.0
					Sample Date	11/08/23	11/08/23	11/08/23	11/08/23
Carbon Disulphide	ug/l	1.00				<1	<1	<1	<1
DOC	ug/l	3,000				<3000	<3000	<3000	<3000
Styrene	ug/l	1.00				<1	<1	<1	<1

WATER

Site Area(s) selected:Whole site
Event(s) selected:R2

PAHs — Aquifer: SW — Current event: R2

Result > Assessment Criteria

Limit of detection > Assessment Criteria

Analyte	Units	LOD	Reference	GAC	PointID	SW1-UP	SW2-MID	SW3-DOWN	Trip Blank
					Response Zone Depth (m bgl)	0.0	0.0	0.0	0.0
					Sample Date	11/08/23	11/08/23	11/08/23	11/08/23
Acenaphthene	ug/l	0.005 - 0.025				<0.005	<0.005	<0.005	<0.005
Acenaphthylene	ug/l	0.005 - 0.025				<0.005	<0.005	<0.005	<0.005
Anthracene	ug/l	0.005 - 0.025	EQS 2015	0.10		<0.005	<0.005	<0.005	<0.005
Benzo (a) anthracene	ug/l	0.005 - 0.025				<0.005	<0.005	<0.005	<0.005
Benzo (a) pyrene	ug/l	0.002 - 0.010	EQS 2015	0.0002		<0.002	<0.002	<0.002	<0.002
Benzo (b) fluoranthene	ug/l	0.005 - 0.025				<0.005	<0.005	<0.005	<0.005
Benzo (ghi) perylene	ug/l	0.005 - 0.025				<0.005	<0.005	<0.005	<0.005
Benzo (k) fluoranthene	ug/l	0.005 - 0.025				<0.005	<0.005	<0.005	<0.005
Chrysene	ug/l	0.005 - 0.025				<0.005	<0.005	<0.005	<0.005
Dibenzo (ah) anthracene	ug/l	0.005 - 0.025				<0.005	<0.005	<0.005	<0.005
Fluoranthene	ug/l	0.005 - 0.025	EQS 2015	0.006		<0.005	<0.005	<0.005	<0.005
Fluorene	ug/l	0.005 - 0.025				<0.005	<0.005	<0.005	<0.005
Indeno (1,2,3-cd) pyrene	ug/l	0.005 - 0.025				<0.005	<0.005	<0.005	<0.005
Naphthalene	ug/l	0.050 - 1.00	EQS 2015	2.00		<1	<1	<1	<1
PAH (Total)	ug/l	0.082 - 0.41				<0.082	<0.082	<0.082	<0.082
Phenanthrene	ug/l	0.005 - 0.025				<0.005	<0.005	<0.005	<0.005
Pyrene	ug/l	0.005 - 0.025				<0.005	<0.005	<0.005	<0.005

WATER

Site Area(s) selected:Whole site
Event(s) selected:R2

Phenols — Aquifer: SW — Current event: R2

Result > Assessment Criteria

Limit of detection > Assessment Criteria

Analyte	Units	LOD	Reference	GAC	PointID	SW1-UP	SW2-MID	SW3-DOWN	Trip Blank
					Response Zone Depth (m bgl)	0.0	0.0	0.0	0.0
					Sample Date	11/08/23	11/08/23	11/08/23	11/08/23
Cresols	ug/l	6.00				<6	<6	<6	<6
Phenol	ug/l	2.00	EQS 2015	7.70		<2	<2	<2	<2
Phenol (Monohydric)	ug/l	16.0				<16	<16	<16	<16
Xylenols	ug/l	8.00				<8	<8	<8	<8

WATER

Site Area(s) selected:Whole site
Event(s) selected:R2

QA Standard | **Aquifer: SW** | **Current event: R2**

Result > Assessment Criteria

Limit of detection > Assessment Criteria

Analyte	Units	LOD	Reference	GAC	PointID	SW1-UP	SW2-MID	SW3-DOWN	Trip Blank
					Response Zone Depth (m bgl)	0.0	0.0	0.0	0.0
					Sample Date	11/08/23	11/08/23	11/08/23	11/08/23
4-Bromofluorobenzene	%					97.5	98.4	98.8	98.1
Dibromofluoromethane	%					104	105	105	106
Toluene-d8 Surrogate	%					99.8	99.3	98.5	98.9

WATER

Site Area(s) selected:Whole site
Event(s) selected:R2

TPH/EPH — Aquifer: SW — Current event: R2

Result > Assessment Criteria

Limit of detection > Assessment Criteria

Analyte	Units	LOD	Reference	GAC	PointID	SW1-UP	SW2-MID	SW3-DOWN	Trip Blank
					Response Zone Depth (m bgl)	0.0	0.0	0.0	0.0
					Sample Date	11/08/23	11/08/23	11/08/23	11/08/23
GRO Surrogate	%					119	93	117	116
PRO (C5-C12)	ug/l	50.0				<50	<50	<50	<50

WATER

Site Area(s) selected:Whole site
Event(s) selected:R2

VOCs — Aquifer: SW — Current event: R2

Result > Assessment Criteria

Limit of detection > Assessment Criteria

Analyte	Units	LOD	Reference	GAC	PointID	SW1-UP	SW2-MID	SW3-DOWN	Trip Blank
					Response Zone Depth (m bgl)	0.0	0.0	0.0	0.0
					Sample Date	11/08/23	11/08/23	11/08/23	11/08/23
4-Isopropyltoluene	ug/l	1.00				<1	<1	<1	<1
iso-Propylbenzene	ug/l	1.00				<1	<1	<1	<1
n-Butylbenzene	ug/l	1.00				<1	<1	<1	<1
n-Propylbenzene	ug/l	1.00				<1	<1	<1	<1
Sec-Butylbenzene	ug/l	1.00				<1	<1	<1	<1
Tert-Butylbenzene	ug/l	1.00				<1	<1	<1	<1