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

WSP UK Limited
8 First Street
Main
Manchester
M15 4RP

Attention: Niall Richards

CERTIFICATE OF ANALYSIS

Date of report Generation:	22 July 2025
Customer:	WSP UK Limited
Sample Delivery Group (SDG):	250704-21
Your Reference:	Penrhos substation and cable route ground investig
Location:	Penrhos, Anglesey
Report No:	771952
Order Number:	UK0028112.4883 100

This report has been revised and directly supersedes 771951 in its entirety.

We received 7 samples on Wednesday July 02, 2025 and 7 of these samples were scheduled for analysis which was completed on Tuesday July 22, 2025. 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:

Justin Keeton
Business Unit Leader - Land

1291

CERTIFICATE OF ANALYSIS

SDG: 250704-21 **Report Number:** 771952 **Superseded Report:** 771951
Client Ref.: Penrhos substation anc **Location:** Penrhos, Anglesey

Received Sample Overview

Lab Sample No(s)	Customer Sample Ref.	AGS Ref.	Depth (m)	Sampled Date
31774198	BH104	EW20250701	1.50 - 4.00	01/07/2025
31774218	BH107	EW20250702	1.00 - 2.00	02/07/2025
31774228	BH201	EW20250702	2.50 - 8.10	02/07/2025
31774208	BH106C	EW20250702	4.20 - 7.00	02/07/2025
31774248	DUP1	EW20250702	4.20 - 7.00	02/07/2025
31774258	Trip Blank	EW	0.00 - 0.00	30/06/2025
31774238	WS110	EW20250701	0.80 - 2.00	01/07/2025

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

CERTIFICATE OF ANALYSIS

SDG: 250704-21 **Report Number:** 771952 **Superseded Report:** 771951
Client Ref.: Penrhos substation anc **Location:** Penrhos, Anglesey

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
			31774198	BH104	EW202507 01	1.50 - 4.00	0.5l glass bottle (ALE227)	GW
							500ml Plastic (ALE208)	GW
							H2SO4 (ALE244)	GW
							HNO3 Filtered (ALE204)	GW
							NaOH (ALE245)	GW
							Vial (ALE297)	GW
			31774218	BH107	EW202507 02	1.00 - 2.00	0.5l glass bottle (ALE227)	GW
							500ml Plastic (ALE208)	GW
							H2SO4 (ALE244)	GW
							HNO3 Filtered (ALE204)	GW
							NaOH (ALE245)	GW
							Vial (ALE297)	GW
			31774228	BH201	EW202507 02	2.50 - 8.10	0.5l glass bottle (ALE227)	GW
							500ml Plastic (ALE208)	GW
							H2SO4 (ALE244)	GW
							HNO3 Filtered (ALE204)	GW
							NaOH (ALE245)	GW
							Vial (ALE297)	GW
			31774208	BH106C	EW202507 02	4.20 - 7.00	0.5l glass bottle (ALE227)	GW
							500ml Plastic (ALE208)	GW
							H2SO4 (ALE244)	GW
Anions by Kone (w)	All	NDPs: 0 Tests: 7		X				X						X				X			
Cyanide Comp/Free/Total/Thiocyanate	All	NDPs: 0 Tests: 7					X						X						X			
Dissolved Metals by ICP-MS	All	NDPs: 0 Tests: 7				X						X						X				
EPH and CWG by FID	All	NDPs: 1 Tests: 6	X						N						X						X	
GRO by GC-FID (W)	All	NDPs: 0 Tests: 7						X						X						X		
Mercury Dissolved	All	NDPs: 0 Tests: 7				X						X						X				
PAH Spec MS - Aqueous (W)	All	NDPs: 0 Tests: 7	X						X						X						X	
pH Value	All	NDPs: 0 Tests: 7		X						X						X						X
Phenols by HPLC (W)	All	NDPs: 0 Tests: 7			X						X						X					X
TPH CWG (W)	All	NDPs: 0 Tests: 7	X						X						X						X	
VOC MS (W)	All	NDPs: 0 Tests: 7						X						X						X		

31774238	WS110	EW202507 01	0.80 - 2.00	Vial (ALE297)	GW					X								X
				NaOH (ALE245)	GW		X											
				HNO3 Filtered (ALE204)	GW			X			X							
				H2SO4 (ALE244)	GW										X			
				500ml Plastic (ALE208)	GW	X								X				
				0.5l glass bottle (ALE227)	GW				X			X				X		
31774258	Trip Blank	EW	0.00 - 0.00	Vial (ALE297)	PW					X								X
				HNO3 Filtered (ALE204)	PW			X			X							
				500ml Plastic (ALE208)	PW	X	X							X	X			
				0.5l glass bottle (ALE227)	PW				X			X				X		
31774248	DUP1	EW202507 02	4.20 - 7.00	Vial (ALE297)	GW					X								X
				NaOH (ALE245)	GW		X											
				HNO3 Filtered (ALE204)	GW			X			X							
				H2SO4 (ALE244)	GW										X			
				500ml Plastic (ALE208)	GW	X								X				
				0.5l glass bottle (ALE227)	GW				X			X				X		
31774208	BH106C	EW202507 02	4.20 - 7.00	Vial (ALE297)	GW					X								X
				NaOH (ALE245)	GW		X											
				HNO3 Filtered (ALE204)	GW			X			X							

CERTIFICATE OF ANALYSIS

SDG: 250704-21 **Report Number:** 771952 **Superseded Report:** 771951
Client Ref.: Penrhos substation anc **Location:** Penrhos, Anglesey

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
***	6:2 FTAB (see appendix)
1-4◆§@	Sample deviation (see appendix)

Component	LOD/Units	Method	Customer Sample Ref.	BH104	BH107	BH201	BH106C	DUP1	Trip Blank
			Depth (m)	1.50 - 4.00	1.00 - 2.00	2.50 - 8.10	4.20 - 7.00	4.20 - 7.00	0.00 - 0.00
			Sample Type	Ground Water (GW)	Ground Water (GW)	Ground Water (GW)	Ground Water (GW)	Ground Water (GW)	Process Water (PR)
			Date Sampled	01/07/2025	02/07/2025	02/07/2025	02/07/2025	02/07/2025	30/06/2025
			Sampled Time	-	-	-	-	-	-
			Date Received	02/07/2025	02/07/2025	02/07/2025	02/07/2025	02/07/2025	02/07/2025
			SDG Ref	250704-21	250704-21	250704-21	250704-21	250704-21	250704-21
			Lab Sample No.(s)	31774198	31774218	31774228	31774208	31774248	31774258
			AGS Reference	EW20250701	EW20250702	EW20250702	EW20250702	EW20250702	EW
Arsenic (diss.filt)	<0.5 µg/l	TM152		0.628 #	5.04 #	0.995 #	<0.5 #	<0.5 #	
Boron (diss.filt)	<10 µg/l	TM152		56.6 #	235 #	33.3 #	44 #	43.4 #	
Cadmium (diss.filt)	<0.08 µg/l	TM152		<0.08 #	<0.08 #	<0.08 #	<0.08 #	<0.08 #	
Chromium (diss.filt)	<1 µg/l	TM152		<1 #	3.41 #	<1 #	<1 #	<1 #	
Copper (diss.filt)	<0.3 µg/l	TM152		3.98 #	2.68 #	1.73 #	0.824 #	0.883 #	
Lead (diss.filt)	<0.2 µg/l	TM152		<0.2 #	<0.2 #	<0.2 #	<0.2 #	<0.2 #	
Nickel (diss.filt)	<0.4 µg/l	TM152		2.21 #	12.6 #	2.47 #	1.14 #	1.02 #	
Selenium (diss.filt)	<1 µg/l	TM152		1.73 #	1.71 #	<1 #	<1 #	<1 #	
Zinc (diss.filt)	<1 µg/l	TM152		2.6 #	4.65 #	3.16 #	1.3 #	1.43 #	
Calcium (Dis.Filt)	<200 µg/l	TM152		66100 #	45200 #	14300 #	38900 #	37800 #	
Hardness, Total as CaCO3	<650 µg/l	TM152		215000	198000	53500	162000	157000	
Mercury (diss.filt)	<0.01 µg/l	TM183		<0.01 #	<0.01 #	<0.01 #	<0.01 #	<0.01 #	
Sulphate	<2000 µg/l	TM184		64900 #	445000 #	19700 #	47100 #	46500 #	
Cyanide, Total	<50 µg/l	TM227		<50 #	<50 #	<50 #	<50 #	<50 #	
pH	<1 pH Units	TM256		7.67 #	7.77 #	7.35 #	7.19 #	7.17 #	
Resorcinol	<10 µg/l	TM259		<10	<10	<10	<10	<10	
Catechol	<10 µg/l	TM259		<10	<10	<10	<10	<10	
Phenol	<2 µg/l	TM259		<2 #	<2 #	<2 #	<2 #	<2 #	
Cresols	<6 µg/l	TM259		<6 #	<6 #	<6 #	<6 #	<6 #	
Xylenols	<8 µg/l	TM259		<8 #	<8 #	<8 #	<8 #	<8 #	
1-Naphthol	<10 µg/l	TM259		<10	<10	<10	<10	<10	
2,3,5-Trimethylphenol	<3 µg/l	TM259		<3 #	<3 #	<3 #	<3 #	<3 #	
2-Isopropylphenol	<6 µg/l	TM259		<6 #	<6 #	<6 #	<6 #	<6 #	
Phenols, Total Detected 8 Speciated	<45 µg/l	TM259		<45	<45	<45	<45	<45	
Arsenic (diss.filt)	<0.5 µg/l	TM152							<0.5 2
Boron (diss.filt)	<10 µg/l	TM152							15.2 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
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

CERTIFICATE OF ANALYSIS

SDG: 250704-21 **Report Number:** 771952 **Superseded Report:** 771951
Client Ref.: Penrhos substation anc **Location:** Penrhos, Anglesey

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
***	6:2 FTAB (see appendix)
1-4+§@	Sample deviation (see appendix)

Component	LOD/Units	Method	Customer Sample Ref.	BH104	BH107	BH201	BH106C	DUP1	Trip Blank
			Depth (m)	1.50 - 4.00	1.00 - 2.00	2.50 - 8.10	4.20 - 7.00	4.20 - 7.00	0.00 - 0.00
			Sample Type	Ground Water (GW)	Ground Water (GW)	Ground Water (GW)	Ground Water (GW)	Ground Water (GW)	Process Water (PR)
			Date Sampled	01/07/2025	02/07/2025	02/07/2025	02/07/2025	02/07/2025	30/06/2025
			Sampled Time	.	.	.	.	.	.
			Date Received	02/07/2025	02/07/2025	02/07/2025	02/07/2025	02/07/2025	02/07/2025
			SDG Ref	250704-21	250704-21	250704-21	250704-21	250704-21	250704-21
			Lab Sample No.(s)	31774198	31774218	31774228	31774208	31774248	31774258
			AGS Reference	EW20250701	EW20250702	EW20250702	EW20250702	EW20250702	EW
Zinc (diss.filt)	<1 µg/l	TM152							1.6 2
Calcium (Dis.Filt)	<200 µg/l	TM152							<200 2
Hardness, Total as CaCO3	<650 µg/l	TM152							<650 2
Mercury (diss.filt)	<0.01 µg/l	TM183							<0.01 2
Sulphate	<2000 µg/l	TM184							<2000
Cyanide, Total	<50 µg/l	TM227							<50 2
pH	<1 pH Units	TM256							6.07
Resorcinol	<10 µg/l	TM259							<10 2
Catechol	<10 µg/l	TM259							<10 2
Phenol	<2 µg/l	TM259							<2 2
Cresols	<6 µg/l	TM259							<6 2
Xylenols	<8 µg/l	TM259							<8 2
1-Naphthol	<10 µg/l	TM259							<10 2
2,3,5-Trimethylphenol	<3 µg/l	TM259							<3 2
2-Isopropylphenol	<6 µg/l	TM259							<6 2
Phenols, Total Detected 8 Speciated	<45 µg/l	TM259							<45 2

CERTIFICATE OF ANALYSIS

SDG: 250704-21 **Report Number:** 771952 **Superseded Report:** 771951
Client Ref.: Penrhos substation anc **Location:** Penrhos, Anglesey

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
***	6:2 FTAB (see appendix)
1-4♦§@	Sample deviation (see appendix)

Component	LOD/Units	Method	Customer Sample Ref.	Depth (m)	Sample Type	Date Sampled	Sampled Time	Date Received	SDG Ref	Lab Sample No.(s)	AGS Reference
			WS110	0.80 - 2.00	Ground Water (GW)	01/07/2025	-	02/07/2025	250704-21	31774238	EW20250701
Arsenic (diss.filt)	<0.5 µg/l	TM152	25.8 #								
Boron (diss.filt)	<10 µg/l	TM152	93.4 #								
Cadmium (diss.filt)	<0.08 µg/l	TM152	<0.08 #								
Chromium (diss.filt)	<1 µg/l	TM152	<1 #								
Copper (diss.filt)	<0.3 µg/l	TM152	<0.3 #								
Lead (diss.filt)	<0.2 µg/l	TM152	<0.2 #								
Nickel (diss.filt)	<0.4 µg/l	TM152	3.15 #								
Selenium (diss.filt)	<1 µg/l	TM152	<1 #								
Zinc (diss.filt)	<1 µg/l	TM152	6.52 #								
Calcium (Dis.Filt)	<200 µg/l	TM152	95600 #								
Hardness, Total as CaCO3	<650 µg/l	TM152	270000								
Mercury (diss.filt)	<0.01 µg/l	TM183	<0.01 #								
Sulphate	<2000 µg/l	TM184	28000 #								
Cyanide, Total	<50 µg/l	TM227	<50 #								
pH	<1 pH Units	TM256	6.91 #								
Resorcinol	<10 µg/l	TM259	<10								
Catechol	<10 µg/l	TM259	<10								
Phenol	<2 µg/l	TM259	<2 #								
Cresols	<6 µg/l	TM259	<6 #								
Xylenols	<8 µg/l	TM259	<8 #								
1-Naphthol	<10 µg/l	TM259	<10								
2,3,5-Trimethylphenol	<3 µg/l	TM259	<3 #								
2-Isopropylphenol	<6 µg/l	TM259	<6 #								
Phenols, Total Detected 8 Speciated	<45 µg/l	TM259	<45								

PAH Spec MS - Aqueous (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
***	6:2 FTAB (see appendix)
1-4⇔§@	Sample deviation (see appendix)

Component	LOD/Units	Method	Customer Sample Ref.	BH104	BH107	BH201	BH106C	DUP1	Trip Blank
			Depth (m)	1.50 - 4.00	1.00 - 2.00	2.50 - 8.10	4.20 - 7.00	4.20 - 7.00	0.00 - 0.00
			Sample Type	Ground Water (GW)	Ground Water (GW)	Ground Water (GW)	Ground Water (GW)	Ground Water (GW)	Process Water (PR)
			Date Sampled	01/07/2025	02/07/2025	02/07/2025	02/07/2025	02/07/2025	30/06/2025
			Sampled Time	-	-	-	-	-	-
			Date Received	02/07/2025	02/07/2025	02/07/2025	02/07/2025	02/07/2025	02/07/2025
			SDG Ref	250704-21	250704-21	250704-21	250704-21	250704-21	250704-21
			Lab Sample No.(s)	31774198	31774218	31774228	31774208	31774248	31774258
			AGS Reference	EW20250701	EW20250702	EW20250702	EW20250702	EW20250702	EW
Naphthalene (aq)	<0.01 µg/l	TM178		<0.01 #	<0.2 #	<0.01 #	0.0125 #	0.0122 #	
Acenaphthene (aq)	<0.005 µg/l	TM178		<0.005 #	<0.1 #	<0.005 #	<0.005 #	<0.005 #	
Acenaphthylene (aq)	<0.005 µg/l	TM178		<0.005 #	<0.1 #	<0.005 #	<0.005 #	<0.005 #	
Fluoranthene (aq)	<0.005 µg/l	TM178		<0.005 #	0.384 #	<0.005 #	0.0112 #	0.0114 #	
Anthracene (aq)	<0.005 µg/l	TM178		<0.005 #	<0.1 #	<0.005 #	<0.005 #	<0.005 #	
Phenanthrene (aq)	<0.005 µg/l	TM178		<0.005 #	0.155 #	<0.005 #	0.0152 #	0.015 #	
Fluorene (aq)	<0.005 µg/l	TM178		<0.005 #	<0.1 #	<0.005 #	<0.005 #	<0.005 #	
Chrysene (aq)	<0.005 µg/l	TM178		<0.005 #	0.11 #	<0.005 #	<0.005 #	<0.005 #	
Pyrene (aq)	<0.005 µg/l	TM178		0.0188 #	0.43 #	<0.005 #	0.00879 #	0.00871 #	
Benzo(a)anthracene (aq)	<0.005 µg/l	TM178		<0.005 #	<0.1 #	<0.005 #	<0.005 #	<0.005 #	
Benzo(b)fluoranthene (aq)	<0.005 µg/l	TM178		<0.005 #	0.163 #	<0.005 #	<0.005 #	<0.005 #	
Benzo(k)fluoranthene (aq)	<0.005 µg/l	TM178		<0.005 #	<0.1 #	<0.005 #	<0.005 #	<0.005 #	
Benzo(a)pyrene (aq)	<0.002 µg/l	TM178		<0.002 #	0.11 #	<0.002 #	<0.002 #	<0.002 #	
Dibenzo(a,h)anthracene (aq)	<0.005 µg/l	TM178		<0.005 #	<0.1 #	<0.005 #	<0.005 #	<0.005 #	
Benzo(g,h,i)perylene (aq)	<0.005 µg/l	TM178		<0.005 #	<0.1 #	<0.005 #	<0.005 #	<0.005 #	
Indeno(1,2,3-cd)pyrene (aq)	<0.005 µg/l	TM178		<0.005 #	<0.1 #	<0.005 #	<0.005 #	<0.005 #	
PAH, Total Detected USEPA 16 (aq)	<0.082 µg/l	TM178		<0.082 #	<1.64 #	<0.082 #	<0.082 #	<0.082 #	
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

CERTIFICATE OF ANALYSIS

SDG: 250704-21 **Report Number:** 771952 **Superseded Report:** 771951
Client Ref.: Penrhos substation anc **Location:** Penrhos, Anglesey

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
***	6:2 FTAB (see appendix)
1-4♦§@	Sample deviation (see appendix)

Component	LOD/Units	Method	Customer Sample Ref.	BH104	BH107	BH201	BH106C	DUP1	Trip Blank
			Depth (m)	1.50 - 4.00	1.00 - 2.00	2.50 - 8.10	4.20 - 7.00	4.20 - 7.00	0.00 - 0.00
			Sample Type	Ground Water (GW)	Ground Water (GW)	Ground Water (GW)	Ground Water (GW)	Ground Water (GW)	Process Water (PR)
			Date Sampled	01/07/2025	02/07/2025	02/07/2025	02/07/2025	02/07/2025	30/06/2025
			Sampled Time	.	.	.	.	.	.
			Date Received	02/07/2025	02/07/2025	02/07/2025	02/07/2025	02/07/2025	02/07/2025
			SDG Ref	250704-21	250704-21	250704-21	250704-21	250704-21	250704-21
			Lab Sample No.(s)	31774198	31774218	31774228	31774208	31774248	31774258
			AGS Reference	EW20250701	EW20250702	EW20250702	EW20250702	EW20250702	EW
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

PAH Spec MS - Aqueous (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
***	6:2 FTAB (see appendix)
1-4♦§@	Sample deviation (see appendix)

Component	LOD/Units	Method	Customer Sample Ref.	Depth (m)	Sample Type	Date Sampled	Sampled Time	Date Received	SDG Ref	Lab Sample No.(s)	AGS Reference
			WS110	0.80 - 2.00	Ground Water (GW)	01/07/2025	.	02/07/2025	250704-21	31774238	EW20250701
Naphthalene (aq)	<0.01 µg/l	TM178	<0.1 #								
Acenaphthene (aq)	<0.005 µg/l	TM178	<0.05 #								
Acenaphthylene (aq)	<0.005 µg/l	TM178	<0.05 #								
Fluoranthene (aq)	<0.005 µg/l	TM178	0.371 #								
Anthracene (aq)	<0.005 µg/l	TM178	<0.05 #								
Phenanthrene (aq)	<0.005 µg/l	TM178	0.0993 #								
Fluorene (aq)	<0.005 µg/l	TM178	<0.05 #								
Chrysene (aq)	<0.005 µg/l	TM178	0.22 #								
Pyrene (aq)	<0.005 µg/l	TM178	0.369 #								
Benzo(a)anthracene (aq)	<0.005 µg/l	TM178	0.157 #								
Benzo(b)fluoranthene (aq)	<0.005 µg/l	TM178	0.43 #								
Benzo(k)fluoranthene (aq)	<0.005 µg/l	TM178	0.189 #								
Benzo(a)pyrene (aq)	<0.002 µg/l	TM178	0.348 #								
Dibenzo(a,h)anthracene (aq)	<0.005 µg/l	TM178	<0.05 #								
Benzo(g,h,i)perylene (aq)	<0.005 µg/l	TM178	0.135 #								
Indeno(1,2,3-cd)pyrene (aq)	<0.005 µg/l	TM178	0.159 #								
PAH, Total Detected USEPA 16 (aq)	<0.082 µg/l	TM178	2.48 #								

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
***	6:2 FTAB (see appendix)
1-4◆§@	Sample deviation (see appendix)

Component	LOD/Units	Method	Customer Sample Ref.	BH104	BH107	BH201	BH106C	DUP1	Trip Blank
			Depth (m)	1.50 - 4.00	1.00 - 2.00	2.50 - 8.10	4.20 - 7.00	4.20 - 7.00	0.00 - 0.00
			Sample Type	Ground Water (GW)	Ground Water (GW)	Ground Water (GW)	Ground Water (GW)	Ground Water (GW)	Process Water (PR)
			Date Sampled	01/07/2025	02/07/2025	02/07/2025	02/07/2025	02/07/2025	30/06/2025
			Sampled Time	-	-	-	-	-	-
			Date Received	02/07/2025	02/07/2025	02/07/2025	02/07/2025	02/07/2025	02/07/2025
			SDG Ref	250704-21	250704-21	250704-21	250704-21	250704-21	250704-21
			Lab Sample No.(s)	31774198	31774218	31774228	31774208	31774248	31774258
			AGS Reference	EW20250701	EW20250702	EW20250702	EW20250702	EW20250702	EW
GRO Surrogate % recovery**	%	TM245		98	97	102	101	99	
GRO >C5-C12 (HS_1D_TOTAL)	<50 µg/l	TM245		<50 #	<50 #	<50 #	<50 #	<50 #	
Aliphatics >C5-C6 (HS_1D_AL)	<10 µg/l	TM245		<10	<10	<10	<10	<10	
Aliphatics >C6-C8 (HS_1D_AL)	<10 µg/l	TM245		<10	<10	<10	<10	<10	
Aliphatics >C8-C10 (HS_1D_AL)	<10 µg/l	TM245		<10	<10	<10	<10	<10	
Aliphatics >C10-C12 (HS_1D_AL)	<10 µg/l	TM245		<10	<10	<10	<10	<10	
Aliphatics >C12-C16 (aq) (SPECD_AL1_W)	<10 µg/l	TM439		<10		<10	<10	<10	
Aliphatics >C16-C21 (aq) (SPECD_AL2_W)	<10 µg/l	TM439		<10		<10	<10	<10	
Aliphatics >C21-C35 (aq) (SPECD_AL3_W)	<10 µg/l	TM439		<10		<10	<10	<10	
Total Aliphatics >C12-C35 (aq) (EPHAL12_35T_GC_W)	<10 µg/l	TM439		<10		<10	<10	<10	
Aromatics >EC5-EC7 (HS_1D_AR)	<10 µg/l	TM245		<10	<10	<10	<10	<10	
Aromatics >EC7-EC8 (HS_1D_AR)	<10 µg/l	TM245		<10	<10	<10	<10	<10	
Aromatics >EC8-EC10	<10 µg/l	TM245		<10	<10	<10	<10	<10	
Aromatics >EC10-EC12	<10 µg/l	TM245		<10	<10	<10	<10	<10	
Aromatics >EC12-EC16 (aq) (SPECD_AROM1_W)	<10 µg/l	TM439		<10		<10	<10	<10	
Aromatics >EC16-EC21 (aq) (SPECD_AROM2_W)	<10 µg/l	TM439		<10		<10	<10	<10	
Aromatics >EC21-EC35 (aq) (SPECD_AROM3_W)	<10 µg/l	TM439		<10		13	<10	<10	
Total Aromatics >EC12-EC35 (aq) (EPHAR12_35T_GC_W)	<10 µg/l	TM439		<10		13	<10	<10	
Total Aliphatics & Aromatics >C5-35 (aq)	<10 µg/l	TM439		<10	2780	13	<10	<10	
GRO Surrogate % recovery**	%	TM245							97
GRO >C5-C12 (HS_1D_TOTAL)	<50 µg/l	TM245							<50
Aliphatics >C5-C6 (HS_1D_AL)	<10 µg/l	TM245							<10
Aliphatics >C6-C8 (HS_1D_AL)	<10 µg/l	TM245							<10
Aliphatics >C8-C10 (HS_1D_AL)	<10 µg/l	TM245							<10
Aliphatics >C10-C12 (HS_1D_AL)	<10 µg/l	TM245							<10
Aliphatics >C12-C16 (aq) (SPECD_AL1_W)	<10 µg/l	TM439							<10
Aliphatics >C16-C21 (aq) (SPECD_AL2_W)	<10 µg/l	TM439							<10
Aliphatics >C21-C35 (aq) (SPECD_AL3_W)	<10 µg/l	TM439							<10
Total Aliphatics >C12-C35 (aq) (EPHAL12_35T_GC_W)	<10 µg/l	TM439							<10
Aromatics >EC5-EC7 (HS_1D_AR)	<10 µg/l	TM245							<10
Aromatics >EC7-EC8 (HS_1D_AR)	<10 µg/l	TM245							<10
Aromatics >EC8-EC10	<10 µg/l	TM245							<10

CERTIFICATE OF ANALYSIS

SDG: 250704-21 **Report Number:** 771952 **Superseded Report:** 771951
Client Ref.: Penrhos substation anc **Location:** Penrhos, Anglesey

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
***	6:2 FTAB (see appendix)
1-4♦§@	Sample deviation (see appendix)

Component	LOD/Units	Method	Customer Sample Ref.	BH104	BH107	BH201	BH106C	DUP1	Trip Blank
			Depth (m)	1.50 - 4.00	1.00 - 2.00	2.50 - 8.10	4.20 - 7.00	4.20 - 7.00	0.00 - 0.00
			Sample Type	Ground Water (GW)	Ground Water (GW)	Ground Water (GW)	Ground Water (GW)	Ground Water (GW)	Process Water (PR)
			Date Sampled	01/07/2025	02/07/2025	02/07/2025	02/07/2025	02/07/2025	30/06/2025
			Sampled Time	.	.	.	.	.	.
			Date Received	02/07/2025	02/07/2025	02/07/2025	02/07/2025	02/07/2025	02/07/2025
			SDG Ref	250704-21	250704-21	250704-21	250704-21	250704-21	250704-21
			Lab Sample No.(s)	31774198	31774218	31774228	31774208	31774248	31774258
			AGS Reference	EW20250701	EW20250702	EW20250702	EW20250702	EW20250702	EW
Aromatics >EC10-EC12	<10 µg/l	TM245							<10
Aromatics >EC12-EC16 (aq) (SPECD_AROM1_W)	<10 µg/l	TM439							<10
Aromatics >EC16-EC21 (aq) (SPECD_AROM2_W)	<10 µg/l	TM439							<10
Aromatics >EC21-EC35 (aq) (SPECD_AROM3_W)	<10 µg/l	TM439							<10
Total Aromatics >EC12-EC35 (aq) (EPHAR12_35T_GC_W)	<10 µg/l	TM439							<10
Total Aliphatics & Aromatics >C5-35 (aq)	<10 µg/l	TM439							<10

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
***	6:2 FTAB (see appendix)
1-4♦§@	Sample deviation (see appendix)

Component	LOD/Units	Method	Customer Sample Ref.	Depth (m)	Sample Type	Date Sampled	Sampled Time	Date Received	SDG Ref	Lab Sample No.(s)	AGS Reference
			WS110	0.80 - 2.00	Ground Water (GW)	01/07/2025	-	02/07/2025	250704-21	31774238	EW20250701
GRO Surrogate % recovery**	%	TM245	100								
GRO >C5-C12 (HS_1D_TOTAL)	<50 µg/l	TM245	<50 #								
Aliphatics >C5-C6 (HS_1D_AL)	<10 µg/l	TM245	<10								
Aliphatics >C6-C8 (HS_1D_AL)	<10 µg/l	TM245	<10								
Aliphatics >C8-C10 (HS_1D_AL)	<10 µg/l	TM245	<10								
Aliphatics >C10-C12 (HS_1D_AL)	<10 µg/l	TM245	<10								
Aliphatics >C12-C16 (aq) (SPECD_AL1_W)	<10 µg/l	TM439	<10								
Aliphatics >C16-C21 (aq) (SPECD_AL2_W)	<10 µg/l	TM439	<10								
Aliphatics >C21-C35 (aq) (SPECD_AL3_W)	<10 µg/l	TM439	<10								
Total Aliphatics >C12-C35 (aq) (EPHAL12_35T_GC_W)	<10 µg/l	TM439	<10								
Aromatics >EC5-EC7 (HS_1D_AR)	<10 µg/l	TM245	<10								
Aromatics >EC7-EC8 (HS_1D_AR)	<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) (SPECD_AROM1_W)	<10 µg/l	TM439	<10								
Aromatics >EC16-EC21 (aq) (SPECD_AROM2_W)	<10 µg/l	TM439	<10								
Aromatics >EC21-EC35 (aq) (SPECD_AROM3_W)	<10 µg/l	TM439	<10								
Total Aromatics >EC12-EC35 (aq) (EPHAR12_35T_GC_W)	<10 µg/l	TM439	<10								
Total Aliphatics & Aromatics >C5-35 (aq)	<10 µg/l	TM439	<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
***	6:2 FTAB (see appendix)
1-4+§@	Sample deviation (see appendix)

Component	LOD/Units	Method	Customer Sample Ref.	BH104	BH107	BH201	BH106C	DUP1	Trip Blank
			Depth (m)	1.50 - 4.00	1.00 - 2.00	2.50 - 8.10	4.20 - 7.00	4.20 - 7.00	0.00 - 0.00
			Sample Type	Ground Water (GW)	Ground Water (GW)	Ground Water (GW)	Ground Water (GW)	Ground Water (GW)	Process Water (PR)
			Date Sampled	01/07/2025	02/07/2025	02/07/2025	02/07/2025	02/07/2025	30/06/2025
			Sampled Time	-	-	-	-	-	-
			Date Received	02/07/2025	02/07/2025	02/07/2025	02/07/2025	02/07/2025	02/07/2025
			SDG Ref	250704-21	250704-21	250704-21	250704-21	250704-21	250704-21
			Lab Sample No.(s)	31774198	31774218	31774228	31774208	31774248	31774258
			AGS Reference	EW20250701	EW20250702	EW20250702	EW20250702	EW20250702	EW
Dibromofluoromethane**	%	TM208		108	109	105	105	105	
Toluene-d8**	%	TM208		97.2	97	98.2	97.2	97.5	
4-Bromofluorobenzene**	%	TM208		92.8	93.3	93.6	96.2	94.7	
Dichlorodifluoromethane	<1 µg/l	TM208		<1	<1	<1	<1	<1	
Chloromethane	<1 µg/l	TM208		<1 #	<1 #	<1 #	<1 #	<1 #	
Vinyl chloride	<1 µg/l	TM208		<1 #	<1 #	<1 #	<1 #	<1 #	
Bromomethane	<1 µg/l	TM208		<1 #	<1 #	<1 #	<1 #	<1 #	
Chloroethane	<1 µg/l	TM208		<1 #	<1 #	<1 #	<1 #	<1 #	
Trichlorofluoromethane	<1 µg/l	TM208		<1 #	<1 #	<1 #	<1 #	<1 #	
1,1-Dichloroethene	<1 µg/l	TM208		<1 #	<1 #	<1 #	<1 #	<1 #	
Carbon disulphide	<1 µg/l	TM208		<1 #	<1 #	<1 #	<1 #	<1 #	
Dichloromethane	<3 µg/l	TM208		<3 #	<3 #	<3 #	<3 #	<3 #	
Methyl tertiary butyl ether (MTBE)	<1 µg/l	TM208		<1 #	<1 #	<1 #	<1 #	<1 #	
trans-1,2-Dichloroethene	<1 µg/l	TM208		<1 #	<1 #	<1 #	<1 #	<1 #	
1,1-Dichloroethane	<1 µg/l	TM208		<1 #	<1 #	<1 #	<1 #	<1 #	
cis-1,2-Dichloroethene	<1 µg/l	TM208		<1 #	<1 #	<1 #	<1 #	<1 #	
2,2-Dichloropropane	<1 µg/l	TM208		<1	<1	<1	<1	<1	
Bromochloromethane	<1 µg/l	TM208		<1 #	<1 #	<1 #	<1 #	<1 #	
Chloroform	<1 µg/l	TM208		<1 #	<1 #	<1 #	<1 #	<1 #	
1,1,1-Trichloroethane	<1 µg/l	TM208		<1 #	<1 #	<1 #	<1 #	<1 #	
1,1-Dichloropropene	<1 µg/l	TM208		<1 #	<1 #	<1 #	<1 #	<1 #	
Carbontetrachloride	<1 µg/l	TM208		<1 #	<1 #	<1 #	<1 #	<1 #	
1,2-Dichloroethane	<1 µg/l	TM208		<1 #	<1 #	<1 #	<1 #	<1 #	
Benzene	<1 µg/l	TM208		<1 #	<1 #	<1 #	<1 #	<1 #	
Trichloroethene	<1 µg/l	TM208		<1 #	<1 #	<1 #	<1 #	<1 #	
1,2-Dichloropropane	<1 µg/l	TM208		<1 #	<1 #	<1 #	<1 #	<1 #	
Dibromomethane	<1 µg/l	TM208		<1 #	<1 #	<1 #	<1 #	<1 #	
Bromodichloromethane	<1 µg/l	TM208		<1 #	<1 #	<1 #	<1 #	<1 #	
cis-1,3-Dichloropropene	<1 µg/l	TM208		<1 #	<1 #	<1 #	<1 #	<1 #	
Toluene	<1 µg/l	TM208		<1 #	<1 #	<1 #	<1 #	<1 #	
trans-1,3-Dichloropropene	<1 µg/l	TM208		<1 #	<1 #	<1 #	<1 #	<1 #	
1,1,2-Trichloroethane	<1 µg/l	TM208		<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
***	6:2 FTAB (see appendix)
1-4+§@	Sample deviation (see appendix)

Component	LOD/Units	Method	Customer Sample Ref.	BH104	BH107	BH201	BH106C	DUP1	Trip Blank
			Depth (m)	1.50 - 4.00	1.00 - 2.00	2.50 - 8.10	4.20 - 7.00	4.20 - 7.00	0.00 - 0.00
			Sample Type	Ground Water (GW)	Ground Water (GW)	Ground Water (GW)	Ground Water (GW)	Ground Water (GW)	Process Water (PR)
			Date Sampled	01/07/2025	02/07/2025	02/07/2025	02/07/2025	02/07/2025	30/06/2025
			Sampled Time	.	.	.	.	.	.
			Date Received	02/07/2025	02/07/2025	02/07/2025	02/07/2025	02/07/2025	02/07/2025
			SDG Ref	250704-21	250704-21	250704-21	250704-21	250704-21	250704-21
			Lab Sample No.(s)	31774198	31774218	31774228	31774208	31774248	31774258
			AGS Reference	EW20250701	EW20250702	EW20250702	EW20250702	EW20250702	EW
1,3-Dichloropropane	<1 µg/l	TM208		<1 #	<1 #	<1 #	<1 #	<1 #	
Tetrachloroethene	<1 µg/l	TM208		<1 #	<1 #	<1 #	<1 #	<1 #	
Dibromochloromethane	<1 µg/l	TM208		<1 #	<1 #	<1 #	<1 #	<1 #	
1,2-Dibromoethane	<1 µg/l	TM208		<1 #	<1 #	<1 #	<1 #	<1 #	
Chlorobenzene	<1 µg/l	TM208		<1 #	<1 #	<1 #	<1 #	<1 #	
1,1,1,2-Tetrachloroethane	<1 µg/l	TM208		<1 #	<1 #	<1 #	<1 #	<1 #	
Ethylbenzene	<1 µg/l	TM208		<1 #	<1 #	<1 #	<1 #	<1 #	
m,p-Xylene	<1 µg/l	TM208		<1 #	<1 #	<1 #	<1 #	<1 #	
o-Xylene	<1 µg/l	TM208		<1 #	<1 #	<1 #	<1 #	<1 #	
Styrene	<1 µg/l	TM208		<1 #	<1 #	<1 #	<1 #	<1 #	
Bromoform	<1 µg/l	TM208		<1 #	<1 #	<1 #	<1 #	<1 #	
Isopropylbenzene	<1 µg/l	TM208		<1 #	<1 #	<1 #	<1 #	<1 #	
1,1,2,2-Tetrachloroethane	<1 µg/l	TM208		<1 #	<1 #	<1 #	<1 #	<1 #	
1,2,3-Trichloropropane	<1 µg/l	TM208		<1 #	<1 #	<1 #	<1 #	<1 #	
Bromobenzene	<1 µg/l	TM208		<1 #	<1 #	<1 #	<1 #	<1 #	
Propylbenzene	<1 µg/l	TM208		<1 #	<1 #	<1 #	<1 #	<1 #	
2-Chlorotoluene	<1 µg/l	TM208		<1 #	<1 #	<1 #	<1 #	<1 #	
1,3,5-Trimethylbenzene	<1 µg/l	TM208		<1 #	<1 #	<1 #	<1 #	<1 #	
4-Chlorotoluene	<1 µg/l	TM208		<1 #	<1 #	<1 #	<1 #	<1 #	
tert-Butylbenzene	<1 µg/l	TM208		<1 #	<1 #	<1 #	<1 #	<1 #	
1,2,4-Trimethylbenzene	<1 µg/l	TM208		<1 #	<1 #	<1 #	<1 #	<1 #	
sec-Butylbenzene	<1 µg/l	TM208		<1 #	<1 #	<1 #	<1 #	<1 #	
4-iso-Propyltoluene	<1 µg/l	TM208		<1 #	<1 #	<1 #	<1 #	<1 #	
1,3-Dichlorobenzene	<1 µg/l	TM208		<1 #	<1 #	<1 #	<1 #	<1 #	
1,4-Dichlorobenzene	<1 µg/l	TM208		<1 #	<1 #	<1 #	<1 #	<1 #	
n-Butylbenzene	<1 µg/l	TM208		<1 #	<1 #	<1 #	<1 #	<1 #	
1,2-Dichlorobenzene	<1 µg/l	TM208		<1 #	<1 #	<1 #	<1 #	<1 #	
1,2-Dibromo-3-chloropropane	<1 µg/l	TM208		<1	<1	<1	<1	<1	
1,2,4-Trichlorobenzene	<1 µg/l	TM208		<1 #	<1 #	<1 #	<1 #	<1 #	
Hexachlorobutadiene	<1 µg/l	TM208		<1 #	<1 #	<1 #	<1 #	<1 #	
tert-Amyl methyl ether (TAME)	<1 µg/l	TM208		<1 #	<1 #	<1 #	<1 #	<1 #	
Naphthalene	<1 µg/l	TM208		<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
***	6:2 FTAB (see appendix)
1-4♦5@	Sample deviation (see appendix)

Component	LOD/Units	Method	Customer Sample Ref.	BH104	BH107	BH201	BH106C	DUP1	Trip Blank
			Depth (m)	1.50 - 4.00	1.00 - 2.00	2.50 - 8.10	4.20 - 7.00	4.20 - 7.00	0.00 - 0.00
			Sample Type	Ground Water (GW)	Ground Water (GW)	Ground Water (GW)	Ground Water (GW)	Ground Water (GW)	Process Water (PR)
			Date Sampled	01/07/2025	02/07/2025	02/07/2025	02/07/2025	02/07/2025	30/06/2025
			Sampled Time	.	.	.	.	.	.
			Date Received	02/07/2025	02/07/2025	02/07/2025	02/07/2025	02/07/2025	02/07/2025
			SDG Ref	250704-21	250704-21	250704-21	250704-21	250704-21	250704-21
			Lab Sample No.(s)	31774198	31774218	31774228	31774208	31774248	31774258
			AGS Reference	EW20250701	EW20250702	EW20250702	EW20250702	EW20250702	EW
1,2,3-Trichlorobenzene	<1 µg/l	TM208		<1 #	<1 #	<1 #	<1 #	<1 #	
1,3,5-Trichlorobenzene	<1 µg/l	TM208		<1	<1	<1	<1	<1	
Sum of detected Xylenes	<2 µg/l	TM208		<2	<2	<2	<2	<2	
Sum of BTEX	<5 µg/l	TM208		<5	<5	<5	<5	<5	
Dibromofluoromethane**	%	TM208							107
Toluene-d8**	%	TM208							96.3
4-Bromofluorobenzene**	%	TM208							95.9
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

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
***	6:2 FTAB (see appendix)
1-4♦5@	Sample deviation (see appendix)

Component	LOD/Units	Method	Customer Sample Ref.	BH104	BH107	BH201	BH106C	DUP1	Trip Blank
			Depth (m)	1.50 - 4.00	1.00 - 2.00	2.50 - 8.10	4.20 - 7.00	4.20 - 7.00	0.00 - 0.00
			Sample Type	Ground Water (GW)	Ground Water (GW)	Ground Water (GW)	Ground Water (GW)	Ground Water (GW)	Process Water (PR)
			Date Sampled	01/07/2025	02/07/2025	02/07/2025	02/07/2025	02/07/2025	30/06/2025
			Sampled Time	.	.	.	.	.	.
			Date Received	02/07/2025	02/07/2025	02/07/2025	02/07/2025	02/07/2025	02/07/2025
			SDG Ref	250704-21	250704-21	250704-21	250704-21	250704-21	250704-21
			Lab Sample No.(s)	31774198	31774218	31774228	31774208	31774248	31774258
			AGS Reference	EW20250701	EW20250702	EW20250702	EW20250702	EW20250702	EW
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
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

CERTIFICATE OF ANALYSIS

SDG: 250704-21 **Report Number:** 771952 **Superseded Report:** 771951
Client Ref.: Penrhos substation anc **Location:** Penrhos, Anglesey

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
***	6:2 FTAB (see appendix)
1-4♦§@	Sample deviation (see appendix)

Component	LOD/Units	Method	Customer Sample Ref.	BH104	BH107	BH201	BH106C	DUP1	Trip Blank
			Depth (m)	1.50 - 4.00	1.00 - 2.00	2.50 - 8.10	4.20 - 7.00	4.20 - 7.00	0.00 - 0.00
			Sample Type	Ground Water (GW)	Ground Water (GW)	Ground Water (GW)	Ground Water (GW)	Ground Water (GW)	Process Water (PR)
			Date Sampled	01/07/2025	02/07/2025	02/07/2025	02/07/2025	02/07/2025	30/06/2025
			Sampled Time	.	.	.	.	.	.
			Date Received	02/07/2025	02/07/2025	02/07/2025	02/07/2025	02/07/2025	02/07/2025
			SDG Ref	250704-21	250704-21	250704-21	250704-21	250704-21	250704-21
			Lab Sample No.(s)	31774198	31774218	31774228	31774208	31774248	31774258
			AGS Reference	EW20250701	EW20250702	EW20250702	EW20250702	EW20250702	EW
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
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

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
***	6:2 FTAB (see appendix)
1-4♦§@	Sample deviation (see appendix)

Component	LOD/Units	Method	Customer Sample Ref. WS110				
			Depth (m) 0.80 - 2.00				
			Sample Type Ground Water (GW)				
			Date Sampled 01/07/2025				
			Sampled Time -				
			Date Received 02/07/2025				
			SDG Ref 250704-21				
			Lab Sample No.(s) 31774238				
			AGS Reference EW20250701				
Dibromofluoromethane**	%	TM208	109				
Toluene-d8**	%	TM208	97				
4-Bromofluorobenzene**	%	TM208	93.4				
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: 250704-21 **Report Number:** 771952 **Superseded Report:** 771951
Client Ref.: Penrhos substation anc **Location:** Penrhos, Anglesey

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
***	6:2 FTAB (see appendix)
1-4♦§@	Sample deviation (see appendix)

Component	LOD/Units	Method	Customer Sample Ref. WS110				
			Depth (m)	0.80 - 2.00			
			Sample Type	Ground Water (GW)			
			Date Sampled	01/07/2025			
			Sampled Time	.			
			Date Received	02/07/2025			
			SDG Ref	250704-21			
			Lab Sample No.(s)	31774238			
			AGS Reference	EW20250701			
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 #				

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
***	6:2 FTAB (see appendix)
1-4♦§@	Sample deviation (see appendix)

Component	LOD/Units	Method	Customer Sample Ref.	
			Depth (m)	0.80 - 2.00
			Sample Type	Ground Water (GW)
			Date Sampled	01/07/2025
			Sampled Time	.
			Date Received	02/07/2025
			SDG Ref	250704-21
			Lab Sample No.(s)	31774238
			AGS Reference	EW20250701
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	

Notification of NDPs (No determination possible)

Date Received : 04/07/2025 05:40:22

Sample No	Customer Sample Ref.	Depth (m)	Test	Comment
31774218	BH107 EW20250702	1.00 - 2.00	EPH and CWG by FID	Conflicting results from dilutions

Table of Results - Appendix

Method No	Description
TM178	Determination of Polynuclear Aromatic Hydrocarbons (PAH) by GC-MS in Waters
TM259	Determination of Phenols in Waters and Leachates by HPLC
TM439	Determination of Extractable Petroleum Hydrocarbons (EPH) CWG banding by GC-FID on liquids
TM152	Analysis of Aqueous Samples by ICP-MS
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
TM208	Determination of Volatile Organic Compounds by Headspace / GC-MS in Waters
TM227	Determination of Total Cyanide, Free (Easily Liberatable) Cyanide and Thiocyanate
TM245	Determination of GRO by Headspace in waters
TM256	Determination of pH, EC, TDS and Alkalinity in Aqueous samples

NA = not applicable.

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

CERTIFICATE OF ANALYSIS

SDG: 250704-21 **Report Number:** 771952 **Superseded Report:** 771951
Client Ref.: Penrhos substation anc **Location:** Penrhos, Anglesey

Test Completion Dates

Lab Sample No(s)	31774198	31774218	31774228	31774208	31774248	31774258	31774238
Customer Sample Ref.	BH104	BH107	BH201	BH106C	DUP1	Trip Blank	WS110
AGS Ref.	EW20250701	EW20250702	EW20250702	EW20250702	EW20250702	EW	EW20250701
Depth	1.50 - 4.00	1.00 - 2.00	2.50 - 8.10	4.20 - 7.00	4.20 - 7.00	0.00 - 0.00	0.80 - 2.00
Type	Ground Water	Ground Water	Ground Water	Ground Water	Ground Water	Process	Ground Water
Anions by Kone (w)	04-Jul-2025	04-Jul-2025	04-Jul-2025	04-Jul-2025	04-Jul-2025	04-Jul-2025	04-Jul-2025
Cyanide Comp/Free/Total/Thiocyanate	08-Jul-2025	10-Jul-2025	10-Jul-2025	10-Jul-2025	08-Jul-2025	08-Jul-2025	08-Jul-2025
Dissolved Metals by ICP-MS	08-Jul-2025	08-Jul-2025	08-Jul-2025	08-Jul-2025	08-Jul-2025	08-Jul-2025	08-Jul-2025
EPH and CWG by FID	14-Jul-2025		14-Jul-2025	14-Jul-2025	14-Jul-2025	14-Jul-2025	14-Jul-2025
GRO by GC-FID (W)	11-Jul-2025	11-Jul-2025	15-Jul-2025	15-Jul-2025	15-Jul-2025	11-Jul-2025	11-Jul-2025
Mercury Dissolved	14-Jul-2025	14-Jul-2025	14-Jul-2025	14-Jul-2025	14-Jul-2025	14-Jul-2025	14-Jul-2025
PAH Spec MS - Aqueous (W)	14-Jul-2025	14-Jul-2025	14-Jul-2025	14-Jul-2025	14-Jul-2025	14-Jul-2025	15-Jul-2025
pH Value	09-Jul-2025	09-Jul-2025	09-Jul-2025	09-Jul-2025	09-Jul-2025	09-Jul-2025	09-Jul-2025
Phenols by HPLC (W)	07-Jul-2025	07-Jul-2025	07-Jul-2025	07-Jul-2025	07-Jul-2025	07-Jul-2025	07-Jul-2025
TPH CWG (W)	14-Jul-2025	14-Jul-2025	15-Jul-2025	15-Jul-2025	15-Jul-2025	14-Jul-2025	14-Jul-2025
VOC MS (W)	13-Jul-2025	13-Jul-2025	13-Jul-2025	13-Jul-2025	13-Jul-2025	13-Jul-2025	13-Jul-2025

ASSOCIATED AQC DATA

Anions by Kone (w)

Component	Method Code	QC 3113
Sulphate (soluble)	TM184	**103.64** 96.79 : 106.94

Cyanide Comp/Free/Total/Thiocyanate

Component	Method Code	QC 3159	QC 3169
Free Cyanide (W)	TM227	**111.33** 99.33 : 121.33	**114.33** 99.33 : 121.33
Thiocyanate (W)	TM227	**101.25** 96.00 : 117.00	**104.75** 96.00 : 117.00
Total Cyanide (W)	TM227	**113.5** 93.00 : 120.00	**111.0** 93.00 : 120.00

Dissolved Metals by ICP-MS

Component	Method Code	QC 3186	QC 3176	QC 3143
Aluminium	TM152	**106.81** 95.67 : 113.25	**106.7** 95.24 : 111.40	**108.07** 95.24 : 111.40
Antimony	TM152	**105.44** 96.18 : 111.18	**103.98** 94.33 : 112.23	**107.59** 94.33 : 112.23
Arsenic	TM152	**104.2** 94.27 : 111.07	**105.51** 94.83 : 110.43	**106.89** 94.83 : 110.43
Barium	TM152	**110.97** 91.84 : 114.42	**104.83** 93.82 : 113.06	**100.6** 93.82 : 113.06
Beryllium	TM152	**116.76** 94.83 : 116.93	**106.47** 94.87 : 113.47	**106.77** 94.87 : 113.47
Bismuth	TM152	**107.65** 95.88 : 111.08	**106.7** 95.28 : 111.68	**108.6** 95.28 : 111.68
Borate	TM152		**109.13** 88.00 : 112.00	**109.24** 88.00 : 112.00
Boron	TM152	**120.03** 92.42 : 121.06	**109.13** 91.82 : 118.71	**109.24** 91.82 : 118.71
Cadmium	TM152	**105.71** 95.98 : 111.88	**104.32** 93.90 : 112.50	**106.71** 93.90 : 112.50
Calcium	TM152	**105.33** 96.22 : 109.10	**105.71** 94.54 : 110.75	**105.82** 94.54 : 110.75
Chromium	TM152	**102.53** 95.22 : 109.76	**105.78** 94.18 : 109.80	**107.81** 94.18 : 109.80
Cobalt	TM152	**103.66** 94.47 : 110.94	**105.66** 93.95 : 109.53	**108.48** 93.95 : 109.53
Copper	TM152	**102.43** 94.81 : 112.13	**107.8** 93.88 : 110.94	**109.11** 93.88 : 110.94
Iron	TM152	**103.12** 95.43 : 109.98	**106.51** 95.31 : 109.92	**108.49** 95.31 : 109.92
Lead	TM152	**106.17** 95.87 : 112.11	**105.32** 94.24 : 111.99	**106.51** 94.24 : 111.99
Lithium	TM152	**115.72** 93.93 : 115.73	**104.88** 94.28 : 113.28	**105.61** 94.28 : 113.28

Dissolved Metals by ICP-MS

		QC 3186	QC 3176	QC 3143
Magnesium	TM152	**101.82** 93.91 : 108.37	**104.94** 93.45 : 108.63	**106.04** 93.45 : 108.63
Manganese	TM152	**105.5** 95.66 : 110.12	**106.95** 95.81 : 110.44	**107.74** 95.81 : 110.44
Molybdenum	TM152	**102.96** 93.76 : 109.43	**104.54** 93.46 : 109.15	**107.65** 93.46 : 109.15
Nickel	TM152	**102.34** 95.01 : 111.19	**106.44** 92.80 : 111.23	**108.12** 92.80 : 111.23
Phosphorus	TM152	**105.04** 93.82 : 109.72	**107.3** 93.78 : 110.72	**105.96** 93.78 : 110.72
Potassium	TM152	**103.95** 95.38 : 108.95	**105.86** 95.43 : 111.23	**105.57** 95.43 : 111.23
Selenium	TM152	**108.72** 94.20 : 113.10	**106.06** 94.10 : 113.00	**109.97** 94.10 : 113.00
Silver	TM152	**104.94** 94.95 : 112.75	**107.57** 91.22 : 112.22	**109.96** 91.22 : 112.22
Sodium	TM152	**103.14** 92.99 : 108.70	**104.59** 93.17 : 108.57	**106.12** 93.17 : 108.57
Strontium	TM152	**105.53** 95.55 : 111.45	**98.43** 95.28 : 111.33	**101.33** 95.28 : 111.33
Tellurium	TM152	**109.71** 95.38 : 114.78	**108.68** 95.60 : 115.20	**108.92** 95.60 : 115.20
Thallium	TM152	**105.58** 75.83 : 123.93	**101.67** 73.68 : 123.18	**102.04** 73.68 : 123.18
Tin	TM152	**107.19** 96.86 : 110.37	**104.19** 93.06 : 109.94	**107.19** 93.06 : 109.94
Titanium	TM152	**107.93** 95.88 : 112.88	**103.57** 94.67 : 110.97	**107.12** 94.67 : 110.97
Tungsten	TM152	**105.25** 95.38 : 109.38	**106.25** 93.55 : 109.35	**108.31** 93.55 : 109.35
Uranium	TM152	**107.58** 95.05 : 110.65	**104.79** 93.98 : 110.48	**107.68** 93.98 : 110.48
Vanadium	TM152	**101.98** 93.43 : 110.79	**107.63** 92.88 : 110.53	**107.59** 92.88 : 110.53
Zinc	TM152	**105.08** 95.71 : 112.92	**107.15** 96.14 : 111.23	**109.6** 96.14 : 111.23

EPH and CWG by FID

Component	Method Code	QC 3103
Total Aliphatics >C12-C35 (a)	TM439	**106.19** 84.08 : 123.71
Total Aromatics >C12-C35 (a)	TM439	**114.12** 75.67 : 130.86
Total EPH >C10-C40	TM439	**94.39** 69.70 : 107.77

GRO by GC-FID (W)

GRO by GC-FID (W)

Component	Method Code	QC 3139	QC 3186
Benzene by GC	TM245	**101.75** 79.13 : 118.84	**99.4** 81.54 : 119.70
Ethylbenzene by GC	TM245	**99.45** 79.54 : 115.99	**99.7** 86.02 : 113.28
m & p Xylene by GC	TM245	**99.85** 78.44 : 116.32	**98.65** 85.75 : 113.40
MTBE GC-FID	TM245	**100.25** 78.79 : 117.79	**96.35** 72.18 : 121.73
o Xylene by GC	TM245	**100.15** 76.85 : 120.29	**98.1** 86.30 : 112.93
QC	TM245	**101.66** 74.52 : 122.16	**103.21** 74.52 : 122.16
Toluene by GC	TM245	**98.25** 79.00 : 121.96	**96.8** 86.72 : 111.39

Mercury Dissolved

Component	Method Code	QC 3103	QC 3191
Mercury Dissolved (CVAF)	TM183	**87.48** 74.00 : 116.00	**91.0** 74.00 : 116.00

PAH Spec MS - Aqueous (W)

Component	Method Code	QC 3198	QC 3154	QC 3142
Acenaphthene by GCMS	TM178	**99.83** 92.40 : 118.80	**99.87** 92.40 : 118.80	**100.33** 92.40 : 118.80
Acenaphthylene by GCMS	TM178	**96.99** 88.40 : 114.80	**98.12** 88.40 : 114.80	**98.41** 88.40 : 114.80
Anthracene by GCMS	TM178	**95.73** 89.60 : 116.00	**98.95** 89.60 : 116.00	**99.44** 89.60 : 116.00
Benz(a)anthracene by GCMS	TM178	**94.45** 85.60 : 114.40	**96.5** 85.60 : 114.40	**96.08** 85.60 : 114.40
Benzo(a)pyrene by GCMS	TM178	**97.1** 86.80 : 115.60	**97.48** 86.80 : 115.60	**94.74** 86.80 : 115.60
Benzo(b)fluoranthene by GCMS	TM178	**95.39** 84.80 : 118.40	**98.88** 84.80 : 118.40	**96.15** 84.80 : 118.40
Benzo(ghi)perylene by GCMS	TM178	**101.97** 89.20 : 113.20	**101.22** 89.20 : 113.20	**96.41** 89.20 : 113.20
Benzo(k)fluoranthene by GCMS	TM178	**101.91** 91.60 : 125.20	**102.58** 91.60 : 125.20	**105.44** 91.60 : 125.20
Chrysene by GCMS	TM178	**97.5** 90.80 : 114.80	**96.82** 90.80 : 114.80	**98.84** 90.80 : 114.80
Dibenzo(ah)anthracene by GCMS	TM178	**95.57** 87.20 : 116.00	**97.03** 87.20 : 116.00	**97.25** 87.20 : 116.00
Fluoranthene by GCMS	TM178	**99.0** 88.00 : 124.00	**103.24** 88.00 : 124.00	**101.4** 88.00 : 124.00
Fluorene by GCMS	TM178	**99.89** 89.20 : 120.40	**100.34** 89.20 : 120.40	**100.37** 89.20 : 120.40
Indeno(123cd)pyrene by GCMS	TM178	**92.15** 83.60 : 114.80	**103.45** 83.60 : 114.80	**99.16** 83.60 : 114.80

PAH Spec MS - Aqueous (W)

		QC 3198	QC 3154	QC 3142
Naphthalene by GCMS	TM178	**98.27** 88.80 : 122.40	**101.32** 88.80 : 122.40	**100.95** 88.80 : 122.40
Phenanthrene by GCMS	TM178	**99.17** 89.60 : 116.00	**100.12** 89.60 : 116.00	**100.33** 89.60 : 116.00
Pyrene by GCMS	TM178	**100.8** 85.20 : 130.80	**106.13** 85.20 : 130.80	**104.02** 85.20 : 130.80

pH Value

Component	Method Code	QC 3169	QC 3172
pH	TM256	**100.0** 98.13 : 102.94	**100.2** 98.13 : 102.94

Phenols by HPLC (W)

Component	Method Code	QC 3143
2.3.5 Trimethyl-Phenol by HPLC (W)	TM259	**96.0** 88.00 : 112.00
2-Isopropyl Phenol by HPLC (W)	TM259	**92.0** 86.00 : 110.00
Cresols by HPLC (W)	TM259	**96.0** 90.00 : 110.00
Napthol by HPLC (W)	TM259	**76.0** 74.00 : 110.00
Phenol by HPLC (W)	TM259	**98.0** 88.00 : 112.00
Xylenols by HPLC (W)	TM259	**96.33** 90.00 : 112.00

VOC MS (W)

Component	Method Code	QC 3174	QC 3159
1,1,1,2-Tetrachloroethane	TM208	**110.66** 87.71 : 111.59	**105.53** 87.71 : 111.59
1,1,1-Trichloroethane	TM208	**99.94** 85.14 : 112.83	**98.5** 85.14 : 112.83
1,1,2,2-Tetrachloroethane	TM208	**107.48** 80.56 : 121.81	**106.43** 80.56 : 121.81
1,1,2-Trichloroethane	TM208	**110.06** 85.97 : 117.98	**102.52** 85.97 : 117.98
1,1-Dichloroethane	TM208	**97.32** 79.99 : 118.57	**99.42** 79.99 : 118.57
1,1-Dichloroethene	TM208	**96.73** 81.89 : 114.29	**96.81** 81.89 : 114.29
1,1-Dichloropropene	TM208	**96.49** 81.02 : 114.56	**98.44** 81.02 : 114.56
1,2,3-Trichlorobenzene	TM208	**104.24** 83.21 : 114.98	**103.72** 83.21 : 114.98
1,2,3-Trichloropropane	TM208	**119.07** 81.37 : 123.55	**109.82** 81.37 : 123.55
1,2,4-Trichlorobenzene	TM208	**95.89** 77.32 : 107.26	**97.02** 77.32 : 107.26

VOC MS (W)

		QC 3174	QC 3159
1,2,4-Trimethylbenzene	TM208	**99.81** 82.62 : 110.58	**99.27** 82.62 : 110.58
1,2-Dibromoethane	TM208	**112.89** 85.06 : 119.11	**105.58** 85.06 : 119.11
1,2-Dichlorobenzene	TM208	**108.41** 86.40 : 117.30	**105.38** 86.40 : 117.30
1,2-Dichloroethane	TM208	**103.39** 79.35 : 124.02	**102.13** 79.35 : 124.02
1,2-Dichloropropane	TM208	**98.48** 82.54 : 115.78	**100.99** 82.54 : 115.78
1,3,5-Trimethylbenzene	TM208	**99.91** 83.07 : 111.39	**98.68** 83.07 : 111.39
1,3-Dichlorobenzene	TM208	**106.33** 85.41 : 117.06	**103.42** 85.41 : 117.06
1,3-Dichloropropane	TM208	**105.6** 86.50 : 115.72	**103.0** 86.50 : 115.72
1,4-Dichlorobenzene	TM208	**108.06** 85.68 : 118.32	**103.54** 85.68 : 118.32
2-Chlorotoluene	TM208	**104.97** 85.10 : 113.21	**102.4** 85.10 : 113.21
4-Chlorotoluene	TM208	**106.12** 84.98 : 114.32	**102.44** 84.98 : 114.32
4-Isopropyltoluene	TM208	**102.04** 84.46 : 116.71	**102.27** 84.46 : 116.71
Benzene	TM208	**98.0** 82.83 : 120.87	**99.64** 82.83 : 120.87
Bromobenzene	TM208	**110.36** 87.67 : 117.37	**103.0** 87.67 : 117.37
Bromochloromethane	TM208	**113.78** 84.25 : 119.65	**105.14** 84.25 : 119.65
Bromodichloromethane	TM208	**107.78** 89.43 : 117.36	**104.13** 89.43 : 117.36
Bromoform	TM208	**124.87** 80.80 : 129.10	**112.58** 80.80 : 129.10
Bromomethane	TM208	**99.0** 78.77 : 123.20	**98.18** 78.77 : 123.20
Carbon Disulphide	TM208	**92.91** 75.05 : 120.92	**95.66** 75.05 : 120.92
Carbontetrachloride	TM208	**106.0** 85.94 : 115.37	**101.09** 85.94 : 115.37
Chlorobenzene	TM208	**105.2** 88.28 : 110.81	**102.53** 88.28 : 110.81
Chloroethane	TM208	**92.56** 74.79 : 127.71	**96.06** 74.79 : 127.71
Chloroform	TM208	**101.73** 82.31 : 120.71	**100.5** 82.31 : 120.71
Chloromethane	TM208	**92.0** 64.89 : 129.36	**94.83** 64.89 : 129.36
Cis-1,2-Dichloroethene	TM208	**101.89** 83.75 : 118.91	**100.29** 83.75 : 118.91
Cis-1,3-Dichloropropene	TM208	**97.55** 64.52 : 116.21	**103.25** 64.52 : 116.21
Dibromochloromethane	TM208	**114.24** 87.30 : 118.77	**104.18** 87.30 : 118.77

VOC MS (W)

		QC 3174	QC 3159
Dibromomethane	TM208	**112.22** 85.15 : 120.70	**105.01** 85.15 : 120.70
Dichloromethane	TM208	**104.72** 81.20 : 120.83	**101.72** 81.20 : 120.83
Ethylbenzene	TM208	**98.33** 80.54 : 112.31	**98.31** 80.54 : 112.31
Hexachlorobutadiene	TM208	**89.95** 69.97 : 112.81	**92.58** 69.97 : 112.81
Isopropylbenzene	TM208	**97.59** 82.88 : 108.77	**97.47** 82.88 : 108.77
Naphthalene	TM208	**104.09** 82.10 : 115.64	**105.14** 82.10 : 115.64
n-Butylbenzene	TM208	**95.66** 77.73 : 109.53	**98.56** 77.73 : 109.53
o-Xylene	TM208	**103.0** 85.23 : 109.86	**99.45** 85.23 : 109.86
p/m-Xylene	TM208	**101.17** 84.35 : 108.80	**100.79** 84.35 : 108.80
Propylbenzene	TM208	**96.94** 82.31 : 110.12	**96.84** 82.31 : 110.12
Sec-Butylbenzene	TM208	**100.67** 85.17 : 116.61	**99.82** 85.17 : 116.61
Styrene	TM208	**103.48** 85.12 : 111.55	**101.99** 85.12 : 111.55
Tert-amyl methyl ether	TM208	**92.16** 65.39 : 121.76	**97.6** 65.39 : 121.76
Tert-butyl methyl ether	TM208	**94.62** 72.07 : 122.11	**97.83** 72.07 : 122.11
Tert-Butylbenzene	TM208	**100.52** 83.25 : 110.46	**98.67** 83.25 : 110.46
Tetrachloroethene	TM208	**105.51** 83.87 : 115.22	**100.59** 83.87 : 115.22
Toluene	TM208	**99.45** 85.59 : 110.19	**98.31** 85.59 : 110.19
Trans-1,2-Dichloroethene	TM208	**101.8** 82.77 : 119.04	**101.25** 82.77 : 119.04
Trans-1,3-Dichloropropene	TM208	**100.87** 61.41 : 120.96	**106.22** 61.41 : 120.96
Trichloroethene	TM208	**101.58** 87.31 : 112.54	**100.39** 87.31 : 112.54
Trichlorofluoromethane	TM208	**100.13** 81.11 : 119.21	**97.51** 81.11 : 119.21
Vinyl Chloride	TM208	**89.47** 70.24 : 123.07	**93.0** 70.24 : 123.07

The above information details the reference name of the analytical quality control sample (AQC) that has been run with the samples contained in this report for the different methods of analysis.
The figure detailed is the percentage recovery result for the AQC.
The subscript numbers below are the percentage recovery lower control limit (LCL) and the upper control limit (UCL). The percentage recovery result for the AQC should be between these limits to be statistically in control.

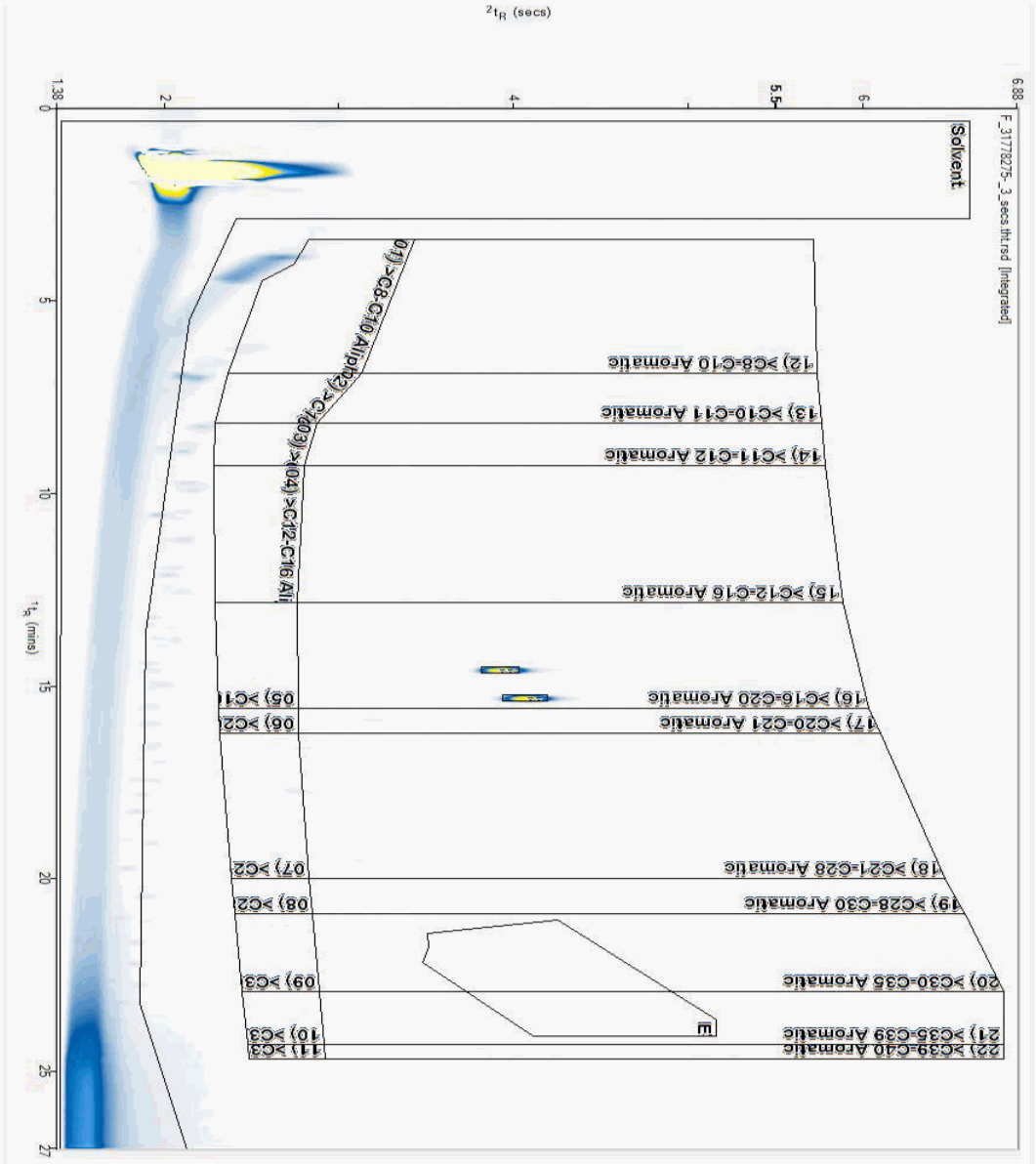
CERTIFICATE OF ANALYSIS

SDG: 250704-21 **Report Number:** 771952 **Superseded Report:** 771951
Client Ref.: Penrhos substation anc **Location:** Penrhos, Anglesey

Chromatogram

Analysis: EPH and CWG by FID **Sample No :** 31778275 **Depth :** 4.20 - 7.00
Sample ID : DUP1

```
   ChromSpace LIMS export
  Current batch
Sample Identity:  F_31778275-_3_secs.tht
Date Acquired   :  11/07/25 09:22:49
Units           :  ppm
Dilution        :  0
CF              :
Multiplier      :
```

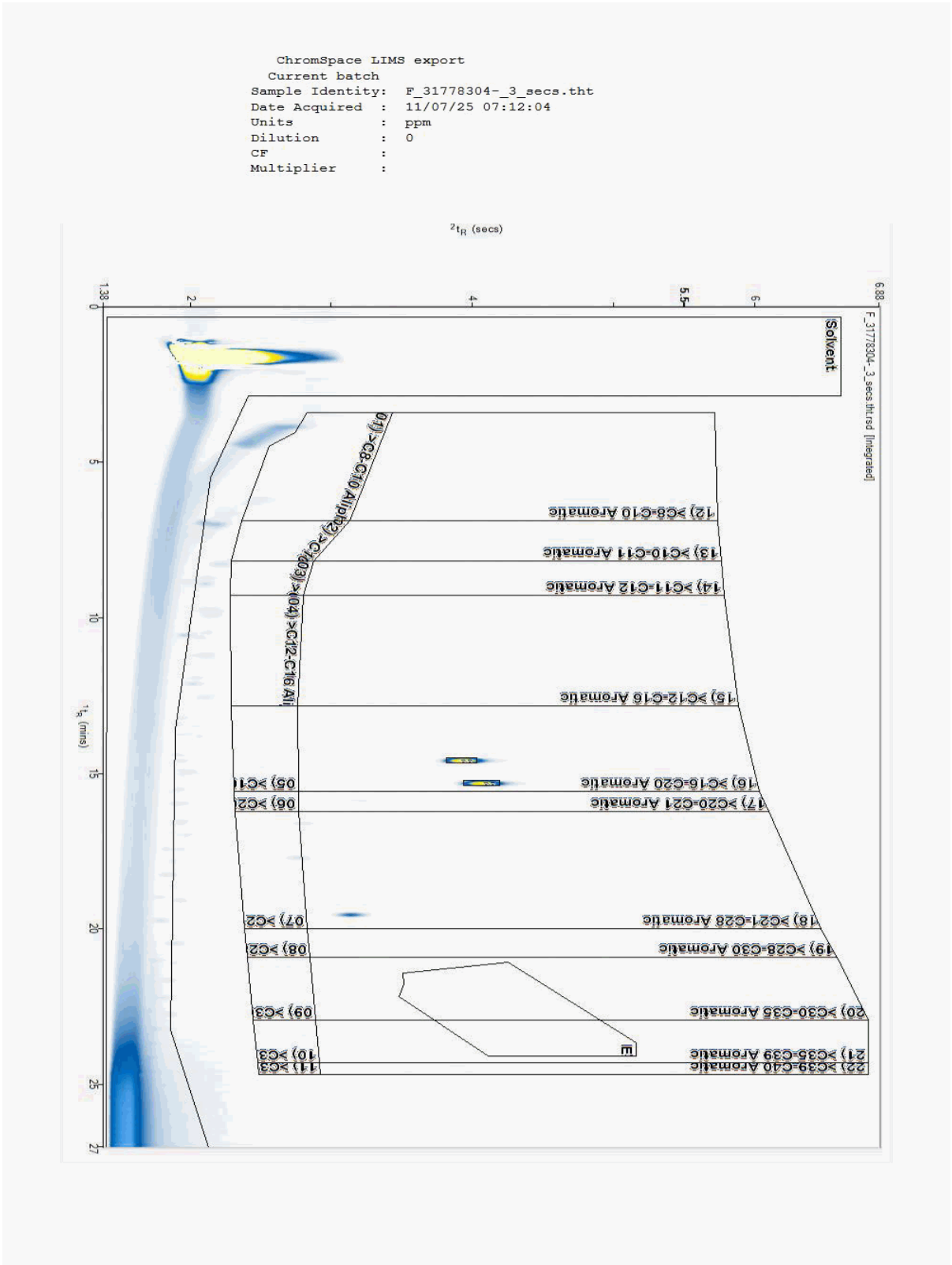


CERTIFICATE OF ANALYSIS

SDG: 250704-21 **Report Number:** 771952 **Superseded Report:** 771951
Client Ref.: Penrhos substation anc **Location:** Penrhos, Anglesey

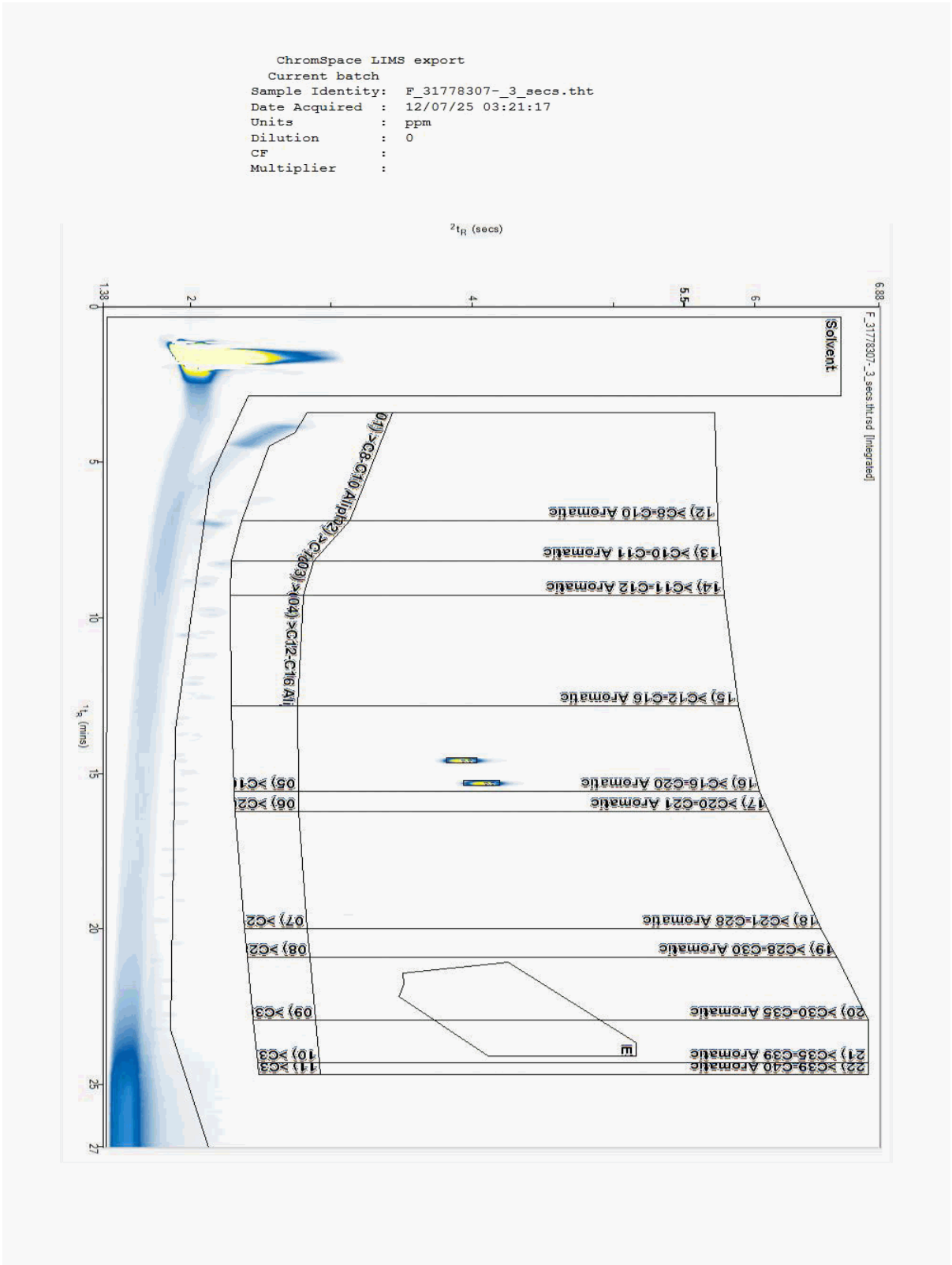
Chromatogram

Analysis: EPH and CWG by FID **Sample No :** 31778304 **Depth :** 2.50 - 8.10
Sample ID : BH201



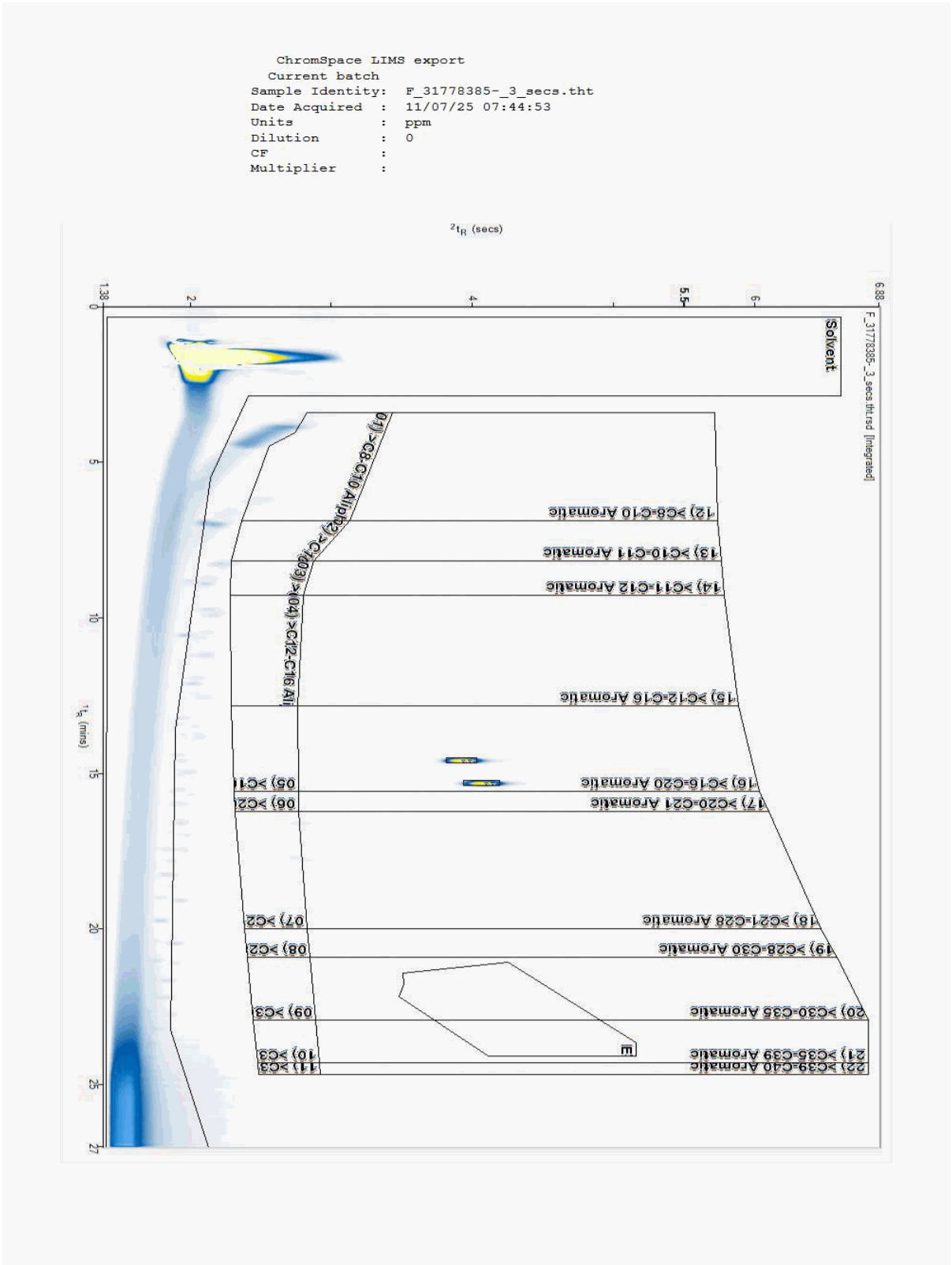
Chromatogram

Analysis: EPH and CWG by FID **Sample No :** 31778307 **Depth :** 0.80 - 2.00
Sample ID : WS110



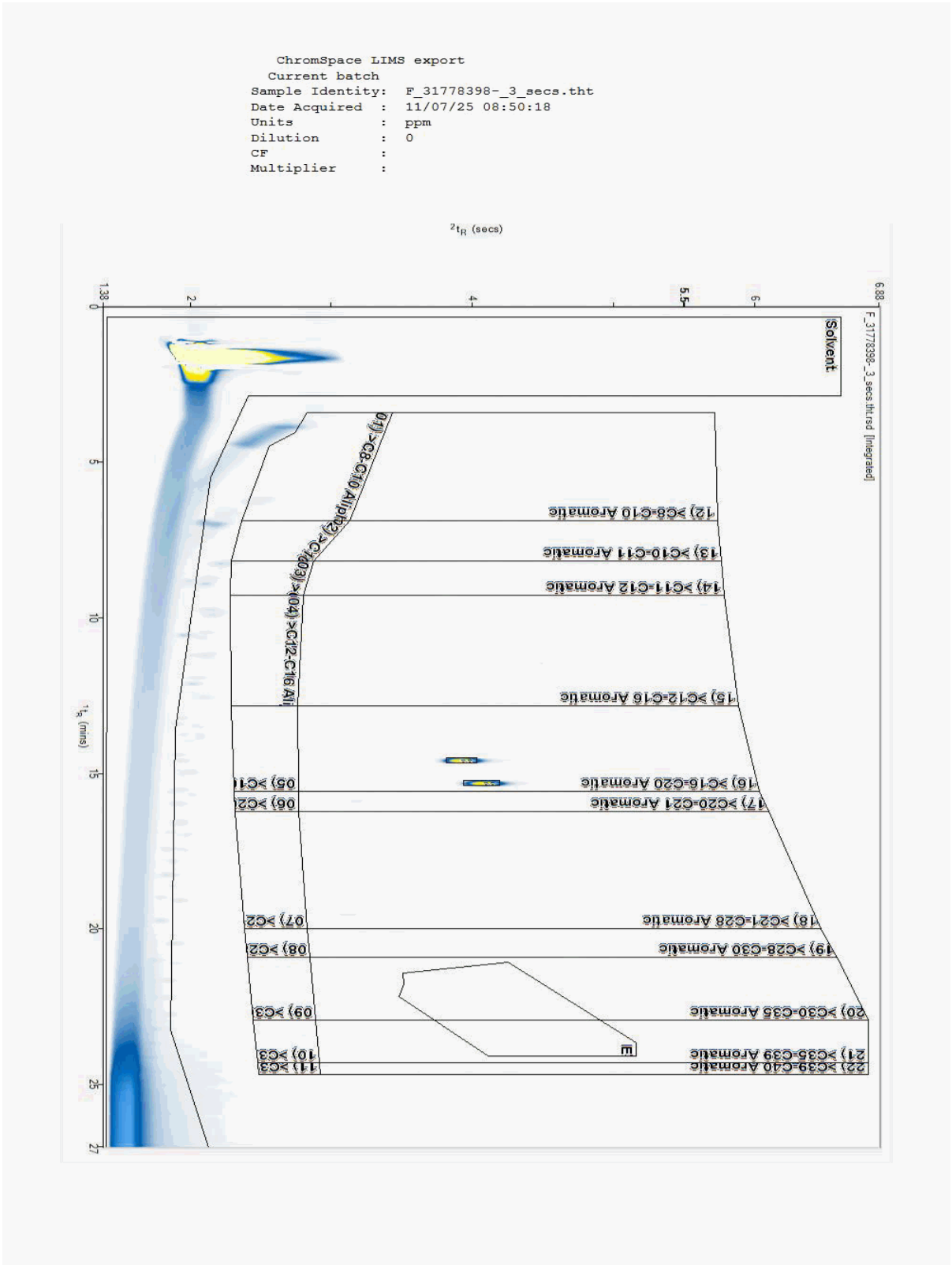
Chromatogram

Analysis: EPH and CWG by FID **Sample No :** 31778385 **Depth :** 1.50 - 4.00
Sample ID : BH104



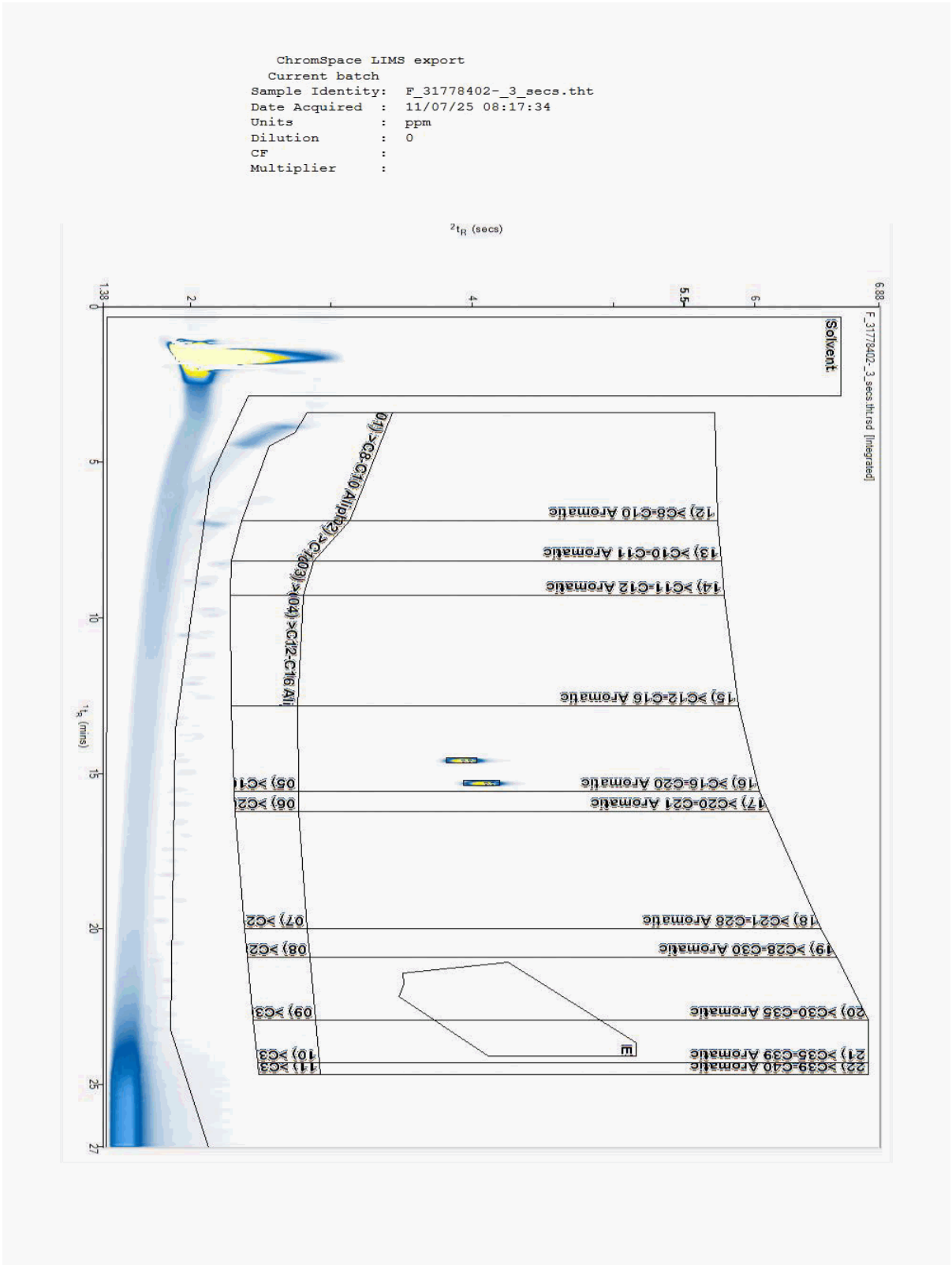
Chromatogram

Analysis: EPH and CWG by FID **Sample No :** 31778398 **Depth :** 4.20 - 7.00
Sample ID : BH106C



Chromatogram

Analysis: EPH and CWG by FID **Sample No :** 31778402 **Depth :** 0.00 - 0.00
Sample ID : Trip Blank

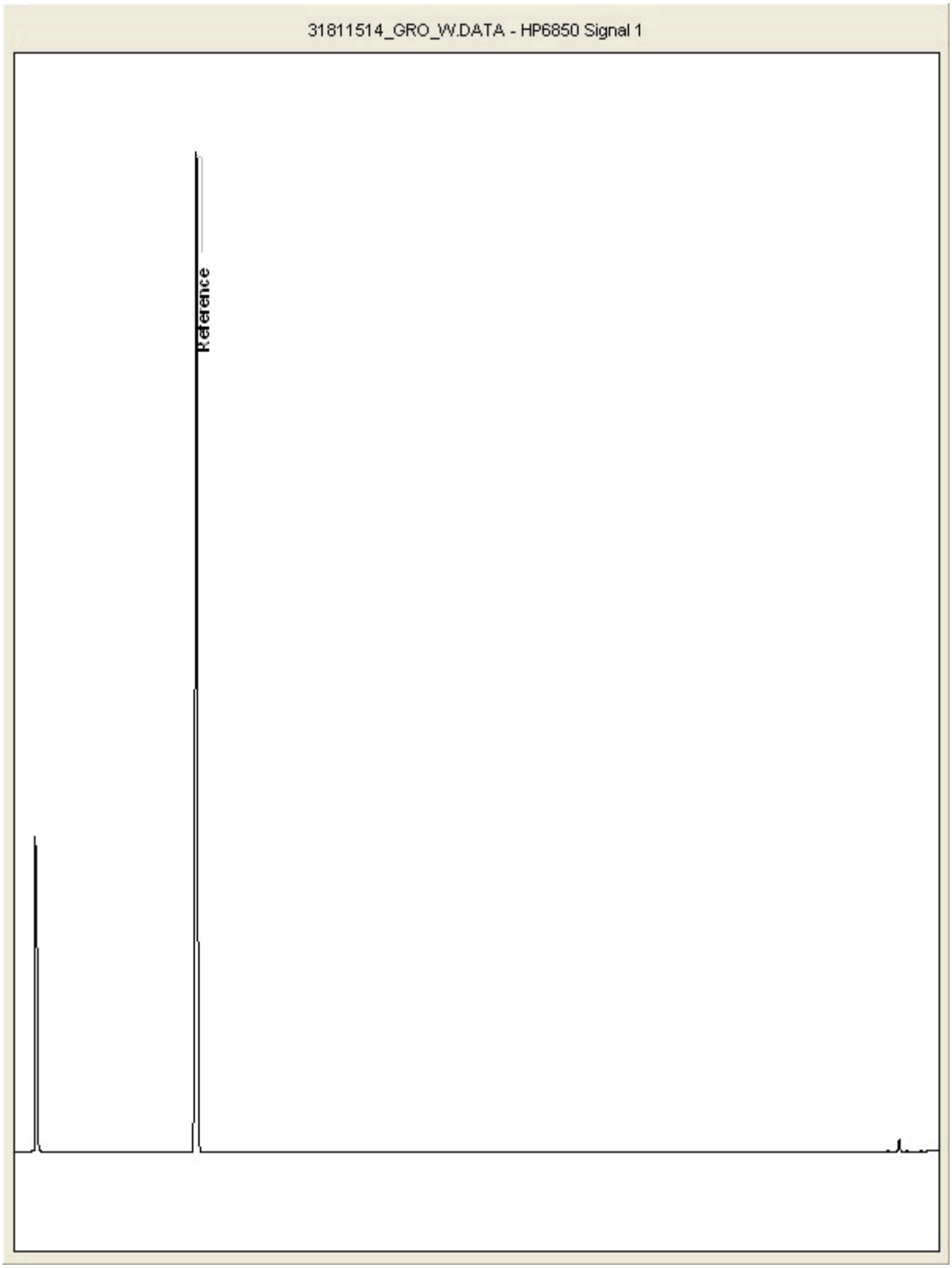


CERTIFICATE OF ANALYSIS

SDG: 250704-21 **Report Number:** 771952 **Superseded Report:** 771951
Client Ref.: Penrhos substation anc **Location:** Penrhos, Anglesey

Chromatogram

Analysis: GRO by GC-FID (W) **Sample No :** 31811514 **Depth :** 0.80 - 2.00
Sample ID : WS110

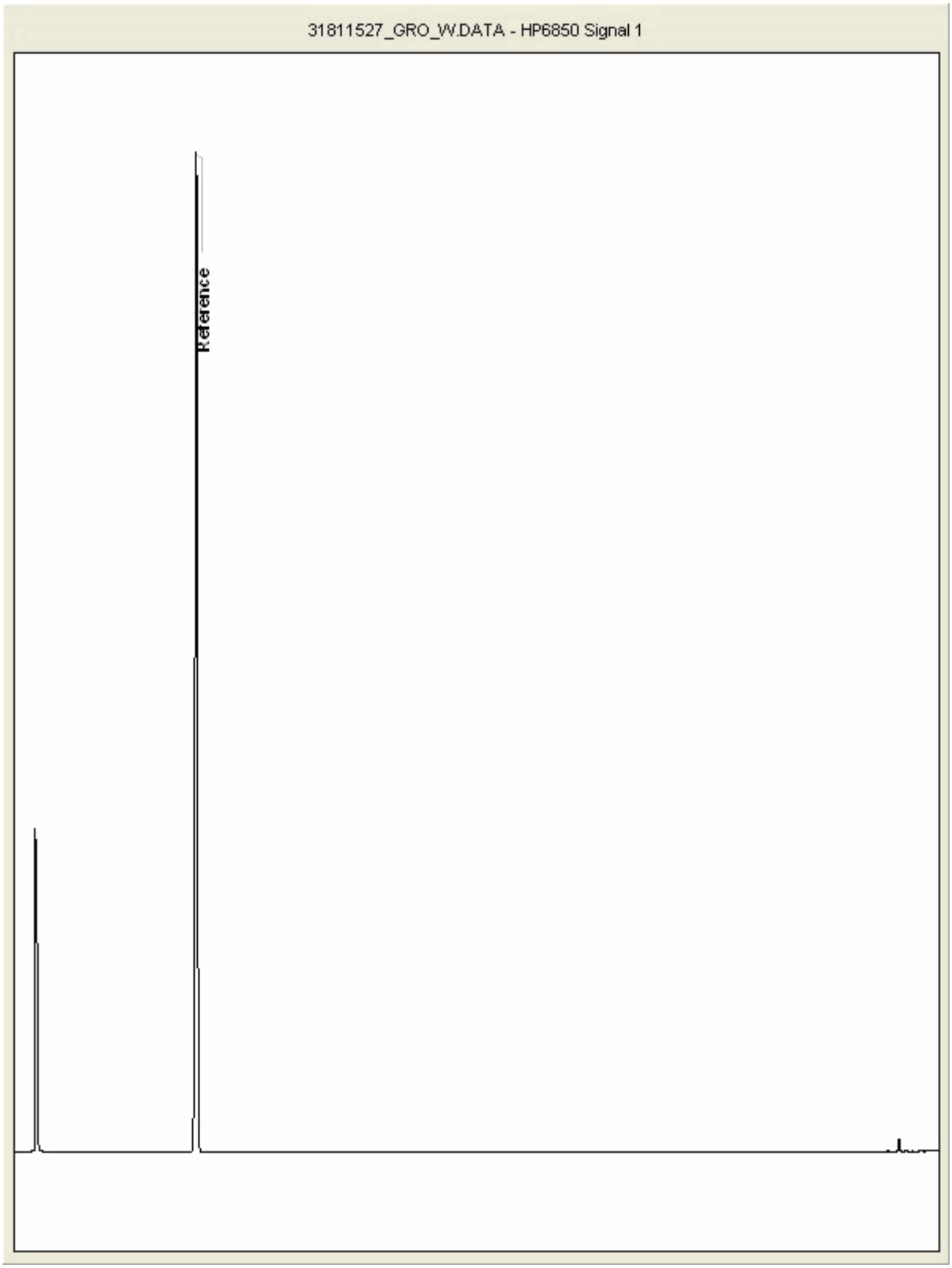


CERTIFICATE OF ANALYSIS

SDG: 250704-21 **Report Number:** 771952 **Superseded Report:** 771951
Client Ref.: Penrhos substation anc **Location:** Penrhos, Anglesey

Chromatogram

Analysis: GRO by GC-FID (W) **Sample No :** 31811527 **Depth :** 0.00 - 0.00
Sample ID : Trip Blank

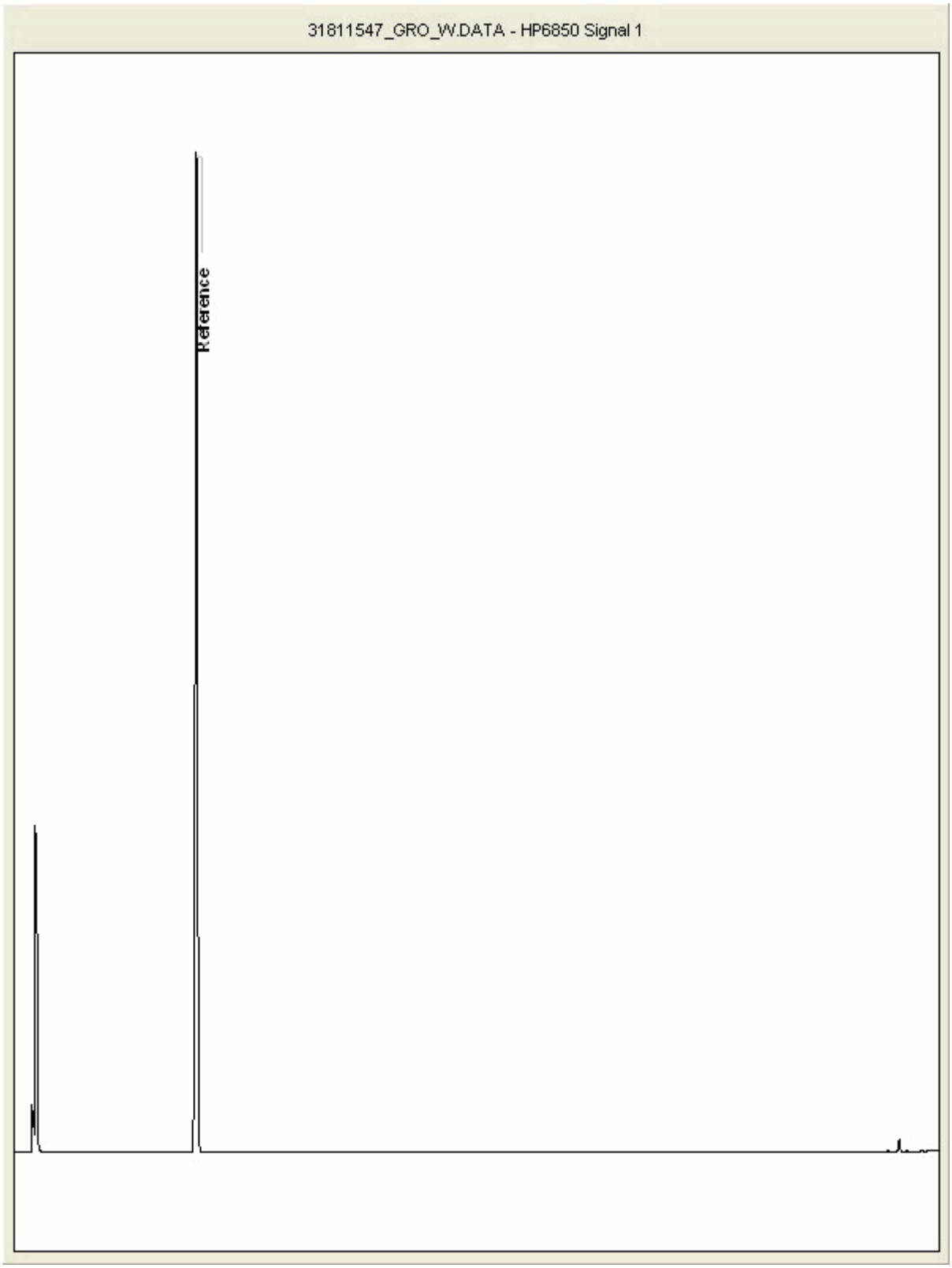


CERTIFICATE OF ANALYSIS

SDG: 250704-21 **Report Number:** 771952 **Superseded Report:** 771951
Client Ref.: Penrhos substation anc **Location:** Penrhos, Anglesey

Chromatogram

Analysis: GRO by GC-FID (W) **Sample No :** 31811547 **Depth :** 1.00 - 2.00
Sample ID : BH107

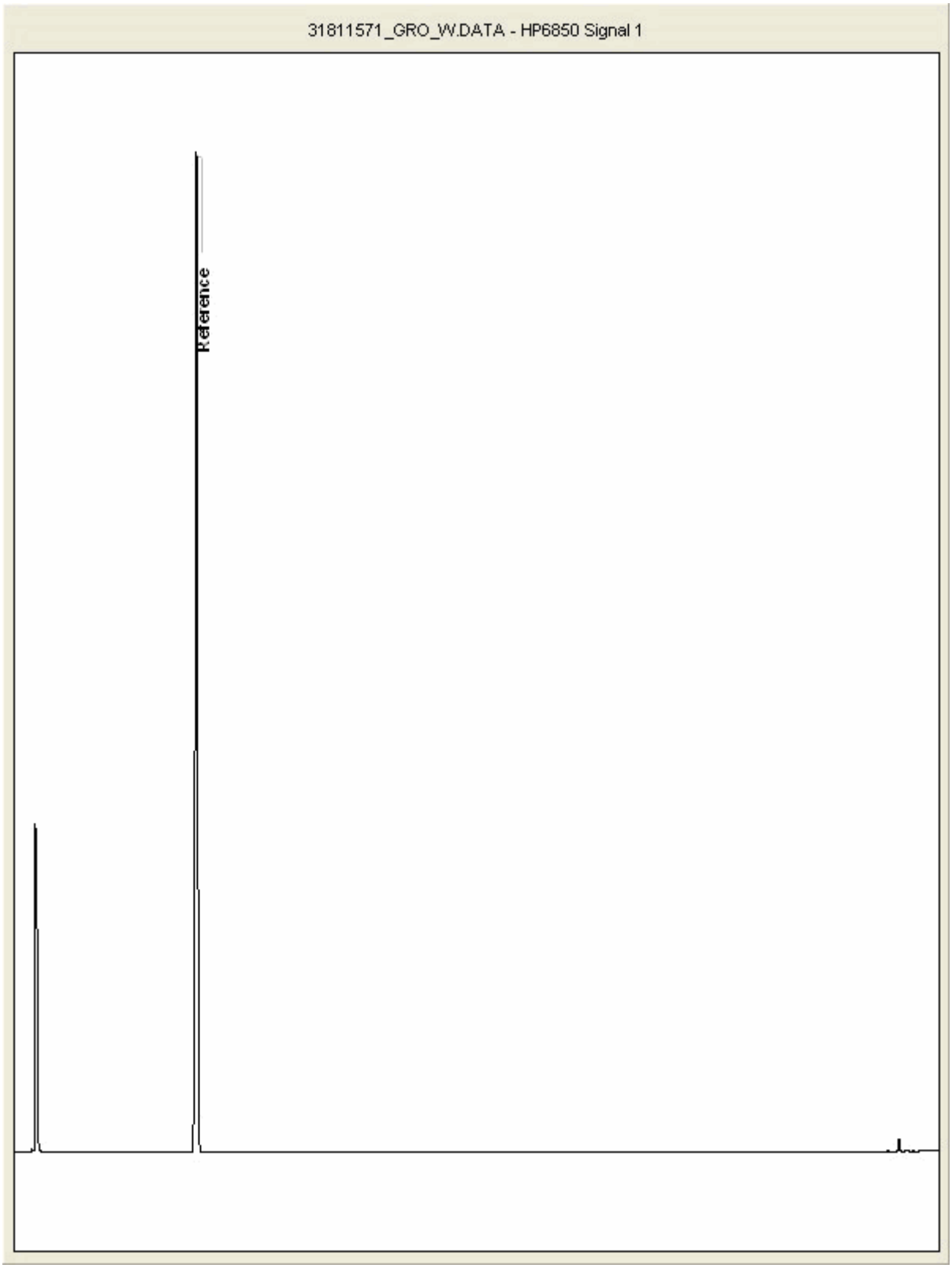


CERTIFICATE OF ANALYSIS

SDG: 250704-21 **Report Number:** 771952 **Superseded Report:** 771951
Client Ref.: Penrhos substation anc **Location:** Penrhos, Anglesey

Chromatogram

Analysis: GRO by GC-FID (W) **Sample No :** 31811571 **Depth :** 1.50 - 4.00
Sample ID : BH104

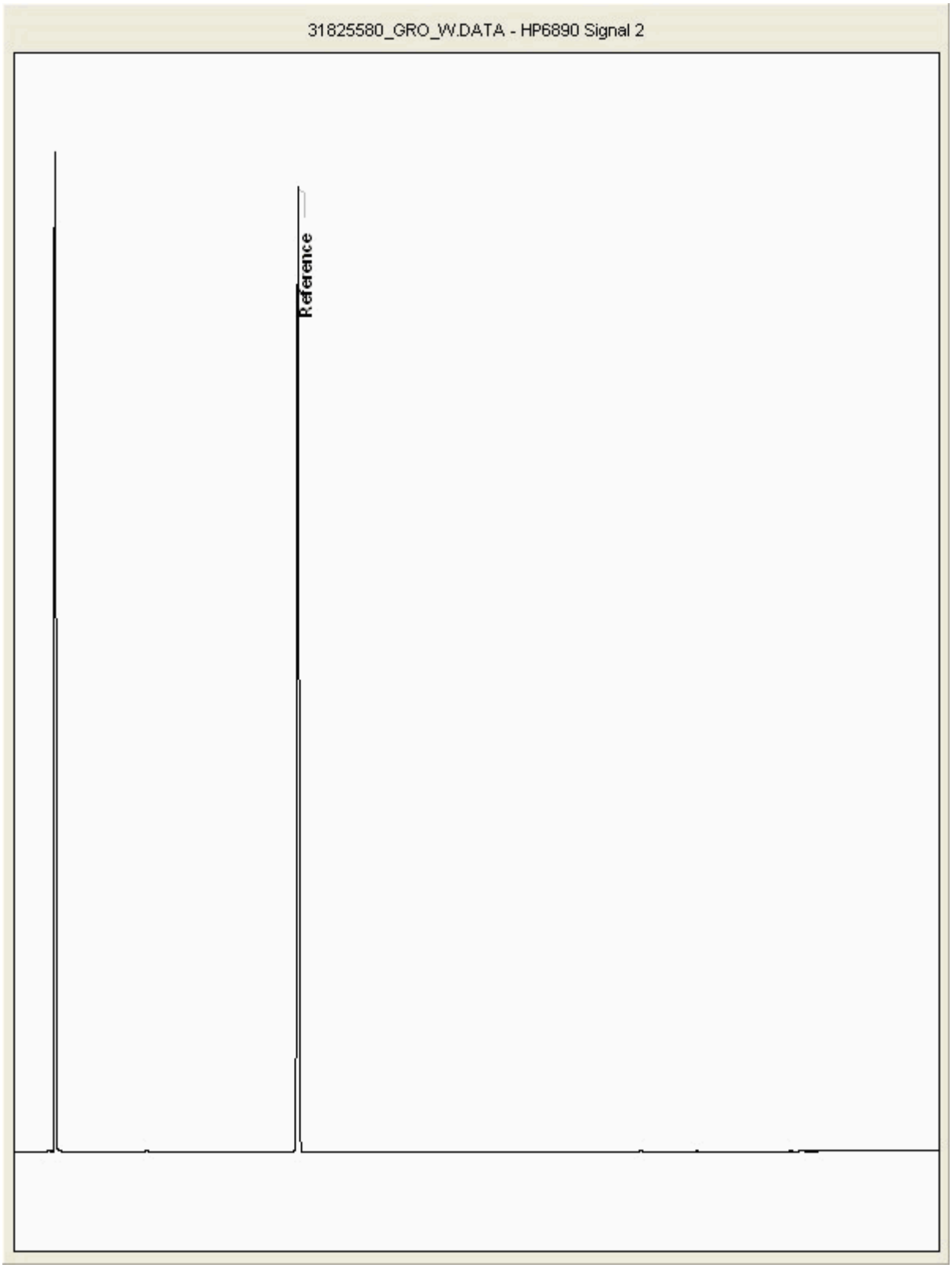


CERTIFICATE OF ANALYSIS

SDG: 250704-21 **Report Number:** 771952 **Superseded Report:** 771951
Client Ref.: Penrhos substation anc **Location:** Penrhos, Anglesey

Chromatogram

Analysis: GRO by GC-FID (W) **Sample No :** 31825580 **Depth :** 4.20 - 7.00
Sample ID : BH106C

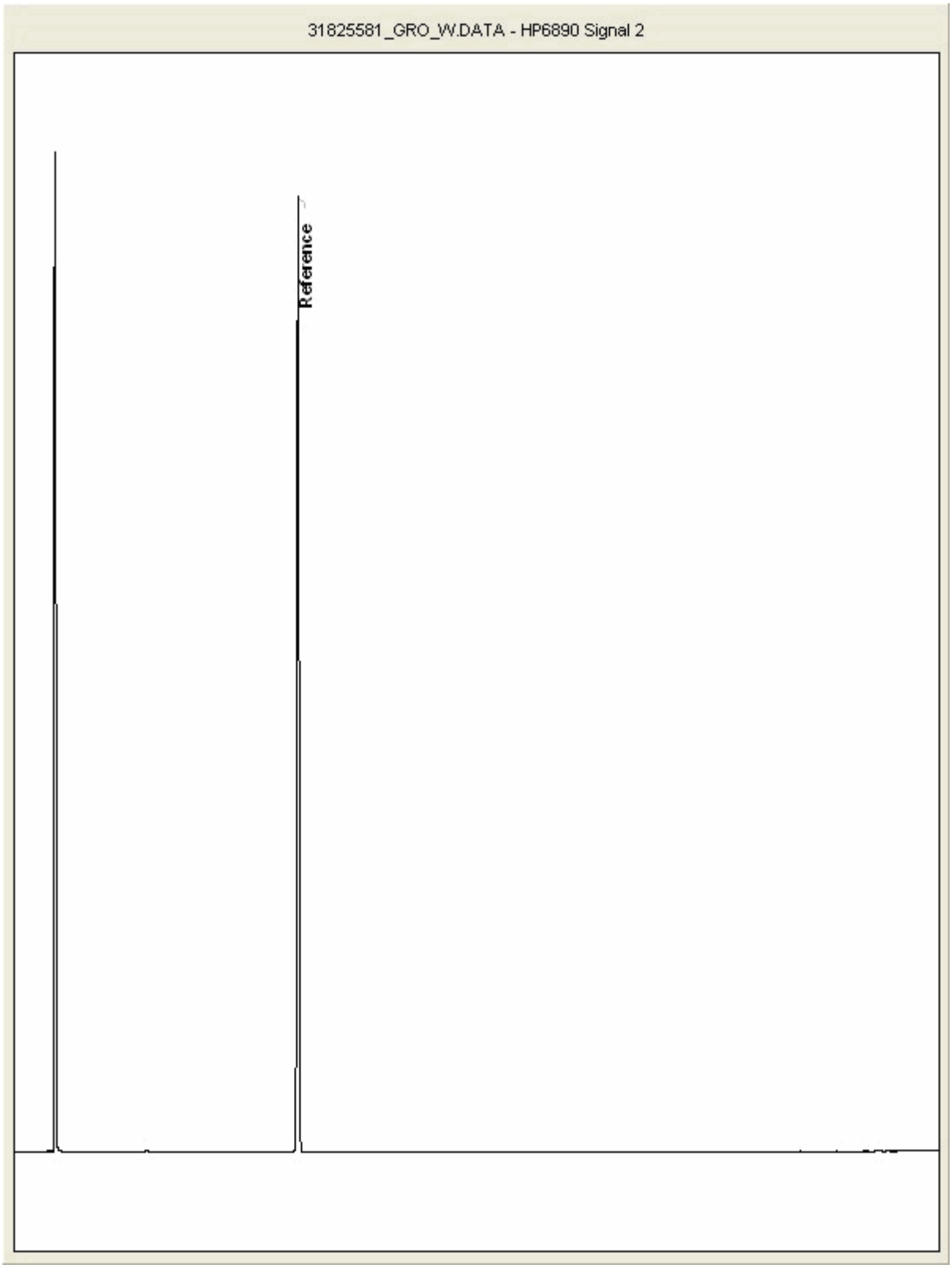


CERTIFICATE OF ANALYSIS

SDG: 250704-21 **Report Number:** 771952 **Superseded Report:** 771951
Client Ref.: Penrhos substation anc **Location:** Penrhos, Anglesey

Chromatogram

Analysis: GRO by GC-FID (W) **Sample No :** 31825581 **Depth :** 4.20 - 7.00
Sample ID : DUP1

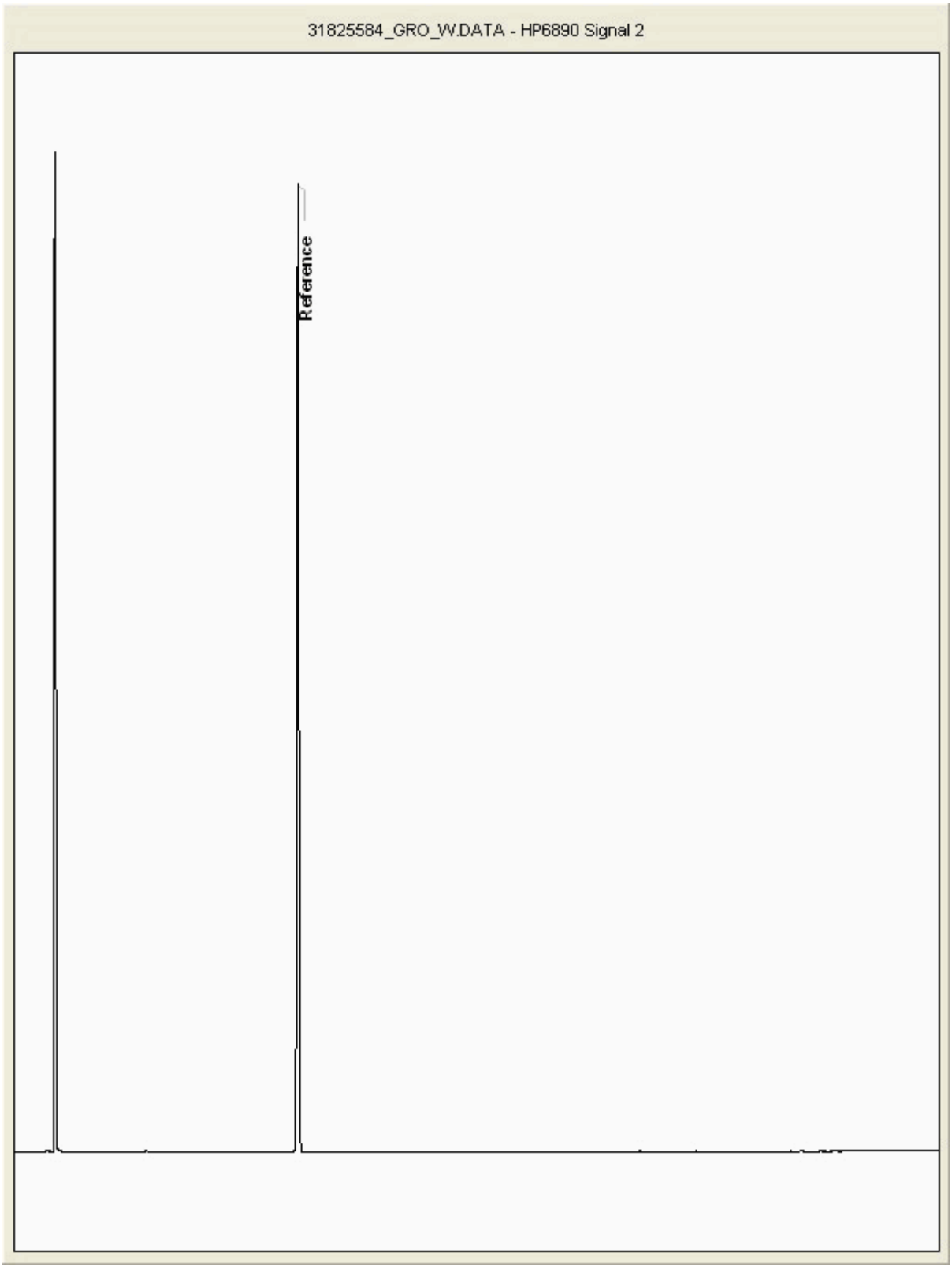


CERTIFICATE OF ANALYSIS

SDG: 250704-21 **Report Number:** 771952 **Superseded Report:** 771951
Client Ref.: Penrhos substation anc **Location:** Penrhos, Anglesey

Chromatogram

Analysis: GRO by GC-FID (W) **Sample No :** 31825584 **Depth :** 2.50 - 8.10
Sample ID : BH201



Appendix

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 15 days 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.

General

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.

If during the search of the two ‘pinch’ samples by PLM only 1 or 2 fibres or fibre bundles are seen and identified as asbestos, the term ‘trace asbestos identified’ is reported.

Identification of Asbestos in Bulk Materials & Soils

The results for identification of asbestos in bulk materials and soils are obtained from supplied bulk materials and 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.
Potentially respirable fibres are identified by using a Phase Contrast Microscope.

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.

21. 6:2 FTAB

Recovery of 6:2 FTAB in the quality control samples has been observed to be <50% of the target value. Please note the 6:2 FTAB result is supplied as indicative only.