



WSP UK Limited
8 First Street
Manchester
Lancashire
M15 4RP

Attention: Neil Balderstone

Unit 7-8 Hawarden Business Park
Manor Road (off Manor Lane)
Hawarden
Deeside
CH5 3US
Tel: (01244) 528700
Fax: (01244) 528701
email: hawardencustomerservices@alsglobal.com
Website: www.alsenvironmental.co.uk

CERTIFICATE OF ANALYSIS

Date of report Generation:	10 December 2021
Customer:	WSP UK Limited
Sample Delivery Group (SDG):	211203-122
Your Reference:	70057126
Location:	Windy Arbor
Report No:	625350
Order Number:	70057126-G20

We received 5 samples on Friday December 03, 2021 and 5 of these samples were scheduled for analysis which was completed on Friday December 10, 2021. 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.

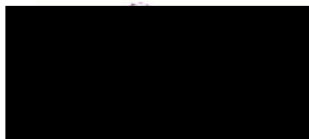
Chemical testing (unless subcontracted) performed at ALS Environmental Hawarden.

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





CERTIFICATE OF ANALYSIS

Validated

SDG: 211203-122
Client Ref.: 70057126

Report Number: 625350
Location: Windy Arbor

Superseded Report:

Received Sample Overview

Lab Sample No(s)	Customer Sample Ref.	AGS Ref.	Depth (m)	Sampled Date
25455615	WS01s	ES	0.50 - 0.55	01/12/2021
25455620	WS02s	ES	0.30 - 0.40	01/12/2021
25455625	WS03s	ES	0.80 - 0.90	01/12/2021
25455630	WS04s	ES	0.40 - 0.50	01/12/2021
25455635	WS05s	ES	0.30 - 0.40	01/12/2021

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



CERTIFICATE OF ANALYSIS

Validated

SDG: 211203-122
Client Ref.: 70057126

Report Number: 625350
Location: Windy Arbor

Superseded Report:

Results Legend



Test



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

Results Legend	Lab Sample No(s)		Customer Sample Reference		AGS Reference		Depth (m)		Container		Sample Type	
	25455615	WS01s	ES	0.50 - 0.55	60g VOC (ALE215)	S	25455620	WS02s	ES	0.30 - 0.40	60g VOC (ALE215)	S
	25455625	WS03s	ES	0.80 - 0.90	1kg TUB with Handle (ALE260)	S	25455630	WS04s	ES	0.40 - 0.50	1kg TUB with Handle (ALE260)	S
	25455635	WS05s	ES	0.30 - 0.40	250g Amber Jar (ALE210)	S						
					60g VOC (ALE215)	S						
					1kg TUB with Handle (ALE260)	S						
					250g Amber Jar (ALE210)	S						
Asbestos ID in Solid Samples	All	NDPs: 0 Tests: 5	X		X		X		X		X	
Cyanide Comp/Free/Total/Thiocyanate	All	NDPs: 0 Tests: 5		X		X		X		X		X
EPH CWG GC (S)	All	NDPs: 0 Tests: 5		X		X		X		X		X
GRO by GC-FID (S)	All	NDPs: 0 Tests: 5			X		X		X		X	
Hexavalent Chromium (s)	All	NDPs: 0 Tests: 5		X		X		X		X		X
Metals in solid samples by OES	All	NDPs: 0 Tests: 5		X		X		X		X		X
PAH by GCMS	All	NDPs: 0 Tests: 5		X		X		X		X		X
PCBs by GCMS	All	NDPs: 0 Tests: 5		X		X		X		X		X
pH	All	NDPs: 0 Tests: 5		X		X		X		X		X
Phenols by HPLC (S)	All	NDPs: 0 Tests: 5		X		X		X		X		X
Sample description	All	NDPs: 0 Tests: 5		X		X		X		X		X
Semi Volatile Organic Compounds	All	NDPs: 0 Tests: 5		X		X		X		X		X
Total Organic Carbon	All	NDPs: 0 Tests: 5		X		X		X		X		X
TPH CWG GC (S)	All	NDPs: 0 Tests: 5		X		X		X		X		X
VOC MS (S)	All	NDPs: 0 Tests: 5			X		X		X		X	



CERTIFICATE OF ANALYSIS

Validated

SDG: 211203-122
Client Ref.: 70057126

Report Number: 625350
Location: Windy Arbor

Superseded Report:

Sample Descriptions

Grain Sizes

very fine	<0.063mm	fine	0.063mm - 0.1mm	medium	0.1mm - 2mm	coarse	2mm - 10mm	very coarse	>10mm
-----------	----------	------	-----------------	--------	-------------	--------	------------	-------------	-------

Lab Sample No(s)	Customer Sample Ref.	Depth (m)	Colour	Description	Inclusions	Inclusions 2
25455615	WS01s	0.50 - 0.55	Light Brown	Sandy Clay Loam	Stones	Vegetation
25455620	WS02s	0.30 - 0.40	Dark Brown	Sandy Loam	Stones	Vegetation
25455625	WS03s	0.80 - 0.90	Light Brown	Sandy Clay	Stones	None
25455630	WS04s	0.40 - 0.50	Light Brown	Sandy Clay Loam	Stones	None
25455635	WS05s	0.30 - 0.40	Dark Brown	Sandy Clay Loam	Stones	None

These descriptions are only intended to act as a cross check if sample identities are questioned, and to provide a log of sample matrices with respect to MCERTS validation. They are not intended as full geological descriptions.

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 materials such as concrete, gravel and brick are not accredited if they comprise the major part of the sample.



CERTIFICATE OF ANALYSIS

Validated

SDG: 211203-122
Client Ref.: 70057126

Report Number: 625350
Location: Windy Arbor

Superseded Report:

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)		Customer Sample Ref.	Depth (m) Sample Type Date Sampled Sampled Time Date Received SDG Ref Lab Sample No.(s) AGS Reference	WS01s	WS02s	WS03s	WS04s	WS05s	
				0.50 - 0.55 Soil/Solid (S) 01/12/2021 03/12/2021 211203-122 25455615 ES	0.30 - 0.40 Soil/Solid (S) 01/12/2021 03/12/2021 211203-122 25455620 ES	0.80 - 0.90 Soil/Solid (S) 01/12/2021 03/12/2021 211203-122 25455625 ES	0.40 - 0.50 Soil/Solid (S) 01/12/2021 03/12/2021 211203-122 25455630 ES	0.30 - 0.40 Soil/Solid (S) 01/12/2021 03/12/2021 211203-122 25455635 ES	
Component		LOD/Units	Method						
Moisture Content Ratio (% of as received sample)		%	PM024	21	17	21	20	17	
Phenol		<0.01 mg/kg	TM062 (S)	<0.01 M	<0.01 M	<0.01 M	<0.01 M	<0.01 M	
Cresols		<0.01 mg/kg	TM062 (S)	<0.01 M	0.012 M	<0.01 M	<0.01 M	<0.01 M	
Xylenols		<0.015 mg/kg	TM062 (S)	<0.015 M	<0.015 M	<0.015 M	<0.015 M	<0.015 M	
Phenols, Total Detected monohydric		<0.035 mg/kg	TM062 (S)	<0.035 M	<0.035 M	<0.035 M	<0.035 M	<0.035 M	
Soil Organic Matter (SOM)		<0.35 %	TM132	17.6 #	22.6 #	2.19 #	20.9 #	13.8 #	
pH		1 pH Units	TM133	6.96 M	7.96 M	7 M	7.83 M	8.17 M	
Chromium, Hexavalent		<0.6 mg/kg	TM151	<0.6 #	<0.6 #	<0.6 #	<0.6 #	<0.6 #	
Cyanide, Total		<1 mg/kg	TM153	<1 M	<1 M	<1 M	<1 M	<1 M	
Cyanide, Free		<1 mg/kg	TM153	<1 M	<1 M	<1 M	<1 M	<1 M	
Cyanide, Complex		<1 mg/kg	TM153	<1	<1	<1	<1	<1	
PCB congener 118		<0.003 mg/kg	TM168	<0.015 M	<0.06 M	<0.003 M	<0.03 M	<0.003 M	
PCB congener 81		<0.003 mg/kg	TM168	<0.015 M	<0.06 M	<0.003 M	<0.03 M	<0.003 M	
PCB congener 77		<0.003 mg/kg	TM168	<0.015 M	<0.06 M	<0.003 M	<0.03 M	<0.003 M	
PCB congener 123		<0.003 mg/kg	TM168	<0.015 M	<0.06 M	<0.003 M	<0.03 M	<0.003 M	
PCB congener 114		<0.003 mg/kg	TM168	<0.015 M	<0.06 M	<0.003 M	<0.03 M	<0.003 M	
PCB congener 105		<0.003 mg/kg	TM168	<0.015 M	<0.06 M	<0.003 M	<0.03 M	<0.003 M	
PCB congener 126		<0.003 mg/kg	TM168	<0.015 M	<0.06 M	<0.003 M	<0.03 M	<0.003 M	
PCB congener 167		<0.003 mg/kg	TM168	<0.015 M	<0.06 M	<0.003 M	<0.03 M	<0.003 M	
PCB congener 156		<0.003 mg/kg	TM168	<0.015 M	<0.06 M	<0.003 M	<0.03 M	<0.003 M	
PCB congener 157		<0.003 mg/kg	TM168	<0.015 M	<0.06 M	<0.003 M	<0.03 M	<0.003 M	
PCB congener 169		<0.003 mg/kg	TM168	<0.015 M	<0.06 M	<0.003 M	<0.03 M	<0.003 M	
PCB congener 189		<0.003 mg/kg	TM168	<0.015 M	<0.06 M	<0.003 M	<0.03 M	<0.003 M	
Sum of detected WHO 12 PCBs		<0.036 mg/kg	TM168	<0.18	<0.72	<0.036	<0.36	<0.036	
Arsenic		<0.6 mg/kg	TM181	19.8 M	169 M	10 M	28.3 M	30.9 M	
Cadmium		<0.02 mg/kg	TM181	0.393 M	1.6 M	0.158 M	0.352 M	0.806 M	
Chromium		<0.9 mg/kg	TM181	5.36 M	10.9 M	10.5 M	6.26 M	11.1 M	
Copper		<1.4 mg/kg	TM181	104 M	154 M	22.5 M	53.9 M	128 M	
Lead		<0.7 mg/kg	TM181	86.1 M	875 M	12.6 M	108 M	150 M	
Mercury		<0.1 mg/kg	TM181	<0.1 M	4.85 M	<0.1 M	0.579 M	0.153 M	
Nickel		<0.2 mg/kg	TM181	16 M	33.1 M	7.72 M	30.5 M	37.8 M	
Selenium		<1 mg/kg	TM181	<1 #	5.54 #	<1 #	<1 #	<1 #	

SDG: 211203-122
Client Ref.: 70057126

Report Number: 625350
Location: Windy Arbor

Superseded Report:

Semi Volatile Organic Compounds

Results Legend			Customer Sample Ref.		WS01s	WS02s	WS03s	WS04s	WS05s	
#	ISO17025 accredited.	Depth (m) Sample Type Date Sampled Sampled Time Date Received SDG Ref Lab Sample No.(s) AGS Reference			0.50 - 0.55 Soil/Solid (S) 01/12/2021	0.30 - 0.40 Soil/Solid (S) 01/12/2021	0.80 - 0.90 Soil/Solid (S) 01/12/2021	0.40 - 0.50 Soil/Solid (S) 01/12/2021	0.30 - 0.40 Soil/Solid (S) 01/12/2021	
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									
1-445@	Sample deviation (see appendix)									
Component			LOD/Units	Method						
Phenol		<0.1 mg/kg	TM157	<0.1	<1	<0.1	<0.5	<0.1		
Pentachlorophenol		<0.1 mg/kg	TM157	<0.1	<1	<0.1	<0.5	<0.1		
n-Nitroso-n-dipropylamine		<0.1 mg/kg	TM157	<0.1	<1	<0.1	<0.5	<0.1		
Nitrobenzene		<0.1 mg/kg	TM157	<0.1	<1	<0.1	<0.5	<0.1		
Isophorone		<0.1 mg/kg	TM157	<0.1	<1	<0.1	<0.5	<0.1		
Hexachloroethane		<0.1 mg/kg	TM157	<0.1	<1	<0.1	<0.5	<0.1		
Hexachlorocyclopentadiene		<0.1 mg/kg	TM157	<0.1	<1	<0.1	<0.5	<0.1		
Hexachlorobutadiene		<0.1 mg/kg	TM157	<0.1	<1	<0.1	<0.5	<0.1		
Hexachlorobenzene		<0.1 mg/kg	TM157	<0.1	<1	<0.1	<0.5	<0.1		
n-Dioctyl phthalate		<0.1 mg/kg	TM157	<0.1	<1	<0.1	<0.5	<0.1		
Dimethyl phthalate		<0.1 mg/kg	TM157	<0.1	<1	0.126	<0.5	<0.1		
Diethyl phthalate		<0.1 mg/kg	TM157	<0.1	<1	<0.1	<0.5	<0.1		
n-Dibutyl phthalate		<0.1 mg/kg	TM157	<0.1	<1	<0.1	<0.5	<0.1		
Dibenzofuran		<0.1 mg/kg	TM157	<0.1	<1	<0.1	<0.5	<0.1		
Carbazole		<0.1 mg/kg	TM157	<0.1	<1	<0.1	<0.5	<0.1		
Butylbenzyl phthalate		<0.1 mg/kg	TM157	<0.1	<1	<0.1	<0.5	<0.1		
bis(2-Ethylhexyl) phthalate		<0.1 mg/kg	TM157	<0.1	<1	<0.1	<0.5	<0.1		
bis(2-Chloroethoxy)methane		<0.1 mg/kg	TM157	<0.1	<1	<0.1	<0.5	<0.1		
bis(2-Chloroethyl)ether		<0.1 mg/kg	TM157	<0.1	<1	<0.1	<0.5	<0.1		
Azobenzene		<0.1 mg/kg	TM157	<0.1	<1	<0.1	<0.5	<0.1		
4-Nitrophenol		<0.1 mg/kg	TM157	<0.1	<1	<0.1	<0.5	<0.1		
4-Nitroaniline		<0.1 mg/kg	TM157	<0.1	<1	<0.1	<0.5	<0.1		
4-Methylphenol		<0.1 mg/kg	TM157	<0.1	<1	<0.1	<0.5	<0.1		
4-Chlorophenylphenylether		<0.1 mg/kg	TM157	<0.1	<1	<0.1	<0.5	<0.1		
4-Chloroaniline		<0.1 mg/kg	TM157	<0.1	<1	<0.1	<0.5	<0.1		
4-Chloro-3-methylphenol		<0.1 mg/kg	TM157	<0.1	<1	<0.1	<0.5	<0.1		
4-Bromophenylphenylether		<0.1 mg/kg	TM157	<0.1	<1	<0.1	<0.5	<0.1		
3-Nitroaniline		<0.1 mg/kg	TM157	<0.1	<1	<0.1	<0.5	<0.1		
2-Nitrophenol		<0.1 mg/kg	TM157	<0.1	<1	<0.1	<0.5	<0.1		
2-Nitroaniline		<0.1 mg/kg	TM157	<0.1	<1	<0.1	<0.5	<0.1		
2-Methylphenol		<0.1 mg/kg	TM157	<0.1	<1	<0.1	<0.5	<0.1		
1,2,4-Trichlorobenzene		<0.1 mg/kg	TM157	<0.1	<1	<0.1	<0.5	<0.1		



CERTIFICATE OF ANALYSIS

Validated

SDG: 211203-122
Client Ref.: 70057126

Report Number: 625350
Location: Windy Arbor

Superseded Report:

TPH CWG (S)

Results Legend			Customer Sample Ref.		WS01s	WS02s	WS03s	WS04s	WS05s	
#	ISO17025 accredited.		Depth (m) Sample Type Date Sampled Sampled Time Date Received SDG Ref Lab Sample No.(s) AGS Reference		0.50 - 0.55 Soil/Solid (S)	0.30 - 0.40 Soil/Solid (S)	0.80 - 0.90 Soil/Solid (S)	0.40 - 0.50 Soil/Solid (S)	0.30 - 0.40 Soil/Solid (S)	
M	mCERTS accredited.				01/12/2021	01/12/2021	01/12/2021	01/12/2021	01/12/2021	
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				03/12/2021	03/12/2021	03/12/2021	03/12/2021	03/12/2021	
(F)	Trigger breach confirmed				211203-122	211203-122	211203-122	211203-122	211203-122	
1-4*\$@	Sample deviation (see appendix)				25455615	25455620	25455625	25455630	25455635	
Component	LOD/Units	Method								
GRO Surrogate % recovery**	%	TM089			70.7	69.6	101	83.6	79.2	
Aliphatics >C5-C6 (HS_1D_AL)	<0.01 mg/kg	TM089			<0.01	<0.01	<0.01	<0.01	<0.01	
Aliphatics >C6-C8 (HS_1D_AL)	<0.01 mg/kg	TM089			<0.01	<0.01	<0.01	<0.01	<0.01	
Aliphatics >C8-C10 (HS_1D_AL)	<0.01 mg/kg	TM089			<0.01	<0.01	<0.01	<0.01	<0.01	
Aliphatics >C10-C12 (EH_2D_AL_#1)	<1 mg/kg	TM414			<1	<1	<1	5.55	<1	
Aliphatics >C12-C16 (EH_2D_AL_#1)	<1 mg/kg	TM414			2.24	1.62	<1	8.37	<1	
Aliphatics >C16-C21 (EH_2D_AL_#1)	<1 mg/kg	TM414			2.78	1.63	<1	3.35	1.82	
Aliphatics >C21-C35 (EH_2D_AL_#1)	<1 mg/kg	TM414			4.86	18.1	2.1	2.47	5.52	
Aliphatics >C35-C44 (EH_2D_AL_#1)	<1 mg/kg	TM414			<1	4.83	<1	<1	2.73	
Total Aliphatics >C10-C44 (EH_2D_AR_#1)	<5 mg/kg	TM414			10.1	26.2	<5	19.7	10.7	
Total Aliphatics & Aromatics >C10-C44 (EH_2D_Total_#1)	<10 mg/kg	TM414			14.6	373	<10	35.8	44	
Aromatics >EC5-EC7 (HS_1D_AR)	<0.01 mg/kg	TM089			<0.01	<0.01	<0.01	<0.01	<0.01	
Aromatics >EC7-EC8 (HS_1D_AR)	<0.01 mg/kg	TM089			<0.01	<0.01	<0.01	<0.01	<0.01	
Aromatics >EC8-EC10 (HS_1D_AR)	<0.01 mg/kg	TM089			<0.01	<0.01	<0.01	<0.01	<0.01	
Aromatics > EC10-EC12 (EH_2D_AR_#1)	<1 mg/kg	TM414			<1	<1	<1	<1	<1	
Aromatics > EC12-EC16 (EH_2D_AR_#1)	<1 mg/kg	TM414			<1	2.96	<1	3.3	<1	
Aromatics > EC16-EC21 (EH_2D_AR_#1)	<1 mg/kg	TM414			<1	33.6	<1	1.31	4.18	
Aromatics > EC21-EC35 (EH_2D_AR_#1)	<1 mg/kg	TM414			2.94	195	1.75	6.74	24.8	
Aromatics >EC35-EC44 (EH_2D_AR_#1)	<1 mg/kg	TM414			<1	115	<1	4.68	4.29	
Aromatics > EC40-EC44 (EH_2D_AR_#1)	<1 mg/kg	TM414			<1	20.7	<1	<1	<1	
Total Aromatics > EC10-EC44 (EH_2D_AR_#1)	<5 mg/kg	TM414			<5	347	<5	16	33.3	
Total Aliphatics & Aromatics >C5-C44 (EH_2D_Total_#1+HS_1D_Total)	<10 mg/kg	TM414			10.1	373	<10	35.8	44	
Total Aliphatics >C5-C10 (HS_1D_AL_TOTAL)	<0.05 mg/kg	TM089			<0.05	<0.05	<0.05	<0.05	<0.05	
Total Aromatics >EC5-EC10 (HS_1D_AR_TOTAL)	<0.05 mg/kg	TM089			<0.05	<0.05	<0.05	<0.05	<0.05	
GRO >C5-C10 (HS_1D_TOTAL)	<0.02 mg/kg	TM089			<0.02	<0.02	<0.02	<0.02	<0.02	



CERTIFICATE OF ANALYSIS

Validated

SDG: 211203-122
Client Ref.: 70057126

Report Number: 625350
Location: Windy Arbor

Superseded Report:

VOC MS (S)

Results Legend			Customer Sample Ref.	WS01s	WS02s	WS03s	WS04s	WS05s	
#	ISO17025 accredited.	mCERTS accredited.							
M	aq	aq	Depth (m)	0.50 - 0.55	0.30 - 0.40	0.80 - 0.90	0.40 - 0.50	0.30 - 0.40	
diss.filt	Total / filtered sample.	Total / filtered sample.	Sample Type	Soil/Solid (S)	Soil/Solid (S)	Soil/Solid (S)	Soil/Solid (S)	Soil/Solid (S)	
tot.unfilt	Subcontracted - refer to subcontractor report for accreditation status.	Subcontracted - refer to subcontractor report for accreditation status.	Date Sampled	01/12/2021	01/12/2021	01/12/2021	01/12/2021	01/12/2021	
*	% 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	% 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	Sampled Time	03/12/2021	03/12/2021	03/12/2021	03/12/2021	03/12/2021	
**	Trigger breach confirmed	Trigger breach confirmed	Date Received	211203-122	211203-122	211203-122	211203-122	211203-122	
(F)	Sample deviation (see appendix)	Sample deviation (see appendix)	SDG Ref	25455615	25455620	25455625	25455630	25455635	
1-4	ES	ES	Lab Sample No.(s)	ES	ES	ES	ES	ES	
4	ES	ES	AGS Reference	ES	ES	ES	ES	ES	
Component	LOD/Units	Method							
Dibromofluoromethane**	%	TM116		105	109	108	112	109	
Toluene-d8**	%	TM116		93.6	100	100	96.9	97.6	
4-Bromofluorobenzene**	%	TM116		82.3	84.9	97.3	87.1	83.8	
Dichlorodifluoromethane	<0.006 mg/kg	TM116		<0.06 M	<0.06 M	<0.06 M	<0.12 M	<0.06 M	
Chloromethane	<0.007 mg/kg	TM116		<0.07 #	<0.07 #	<0.07 #	<0.14 #	<0.07 #	
Vinyl Chloride	<0.006 mg/kg	TM116		<0.06 M	<0.06 M	<0.06 M	<0.12 M	<0.06 M	
Bromomethane	<0.01 mg/kg	TM116		<0.1 M	<0.1 M	<0.1 M	<0.2 M	<0.1 M	
Chloroethane	<0.01 mg/kg	TM116		<0.1 M	<0.1 M	<0.1 M	<0.2 M	<0.1 M	
Trichlorofluoromethane	<0.006 mg/kg	TM116		<0.06 M	<0.06 M	<0.06 M	<0.12 M	<0.06 M	
1,1-Dichloroethene	<0.01 mg/kg	TM116		<0.1 #	<0.1 #	<0.1 #	<0.2 #	<0.1 #	
Carbon Disulphide	<0.007 mg/kg	TM116		<0.07 M	<0.07 M	<0.07 M	<0.14 M	<0.07 M	
Dichloromethane	<0.01 mg/kg	TM116		<0.1 #	<0.1 #	<0.1 #	<0.2 #	<0.1 #	
Methyl Tertiary Butyl Ether	<0.01 mg/kg	TM116		<0.1 M	<0.1 M	<0.1 M	<0.2 M	<0.1 M	
trans-1,2-Dichloroethene	<0.01 mg/kg	TM116		<0.1 M	<0.1 M	<0.1 M	<0.2 M	<0.1 M	
1,1-Dichloroethane	<0.008 mg/kg	TM116		<0.08 M	<0.08 M	<0.08 M	<0.16 M	<0.08 M	
cis-1,2-Dichloroethene	<0.006 mg/kg	TM116		<0.06 M	<0.06 M	<0.06 M	<0.12 M	<0.06 M	
2,2-Dichloropropane	<0.01 mg/kg	TM116		<0.1	<0.1	<0.1	<0.2	<0.1	
Bromochloromethane	<0.01 mg/kg	TM116		<0.1 M	<0.1 M	<0.1 M	<0.2 M	<0.1 M	
Chloroform	<0.008 mg/kg	TM116		<0.08 M	<0.08 M	<0.08 M	<0.16 M	<0.08 M	
1,1,1-Trichloroethane	<0.007 mg/kg	TM116		<0.07 M	<0.07 M	<0.07 M	<0.14 M	<0.07 M	
1,1-Dichloropropene	<0.01 mg/kg	TM116		<0.1 M	<0.1 M	<0.1 M	<0.2 M	<0.1 M	
Carbontetrachloride	<0.01 mg/kg	TM116		<0.1 M	<0.1 M	<0.1 M	<0.2 M	<0.1 M	
1,2-Dichloroethane	<0.005 mg/kg	TM116		<0.05 M	<0.05 M	<0.05 M	<0.1 M	<0.05 M	
Benzene	<0.009 mg/kg	TM116		<0.09 M	<0.09 M	<0.09 M	<0.18 M	<0.09 M	
Trichloroethene	<0.009 mg/kg	TM116		<0.09 #	<0.09 #	<0.09 #	<0.18 #	<0.09 #	
1,2-Dichloropropane	<0.01 mg/kg	TM116		<0.1 M	<0.1 M	<0.1 M	<0.2 M	<0.1 M	
Dibromomethane	<0.009 mg/kg	TM116		<0.09 M	<0.09 M	<0.09 M	<0.18 M	<0.09 M	
Bromodichloromethane	<0.007 mg/kg	TM116		<0.07 M	<0.07 M	<0.07 M	<0.14 M	<0.07 M	
cis-1,3-Dichloropropene	<0.01 mg/kg	TM116		<0.1 M	<0.1 M	<0.1 M	<0.2 M	<0.1 M	
Toluene	<0.007 mg/kg	TM116		<0.07 M	<0.07 M	<0.07 M	<0.14 M	<0.07 M	
trans-1,3-Dichloropropene	<0.01 mg/kg	TM116		<0.1	<0.1	<0.1	<0.2	<0.1	
1,1,2-Trichloroethane	<0.01 mg/kg	TM116		<0.1 M	<0.1 M	<0.1 M	<0.2 M	<0.1 M	



CERTIFICATE OF ANALYSIS

Validated

SDG: 211203-122
Client Ref.: 70057126

Report Number: 625350
Location: Windy Arbor

Superseded Report:

VOC MS (S)

Results Legend			Customer Sample Ref.		WS01s	WS02s	WS03s	WS04s	WS05s	
#	ISO17025 accredited.		Depth (m) Sample Type Date Sampled Sampled Time Date Received SDG Ref Lab Sample No.(s) AGS Reference		0.50 - 0.55 Soil/Solid (S) 01/12/2021	0.30 - 0.40 Soil/Solid (S) 01/12/2021	0.80 - 0.90 Soil/Solid (S) 01/12/2021	0.40 - 0.50 Soil/Solid (S) 01/12/2021	0.30 - 0.40 Soil/Solid (S) 01/12/2021	
M	mCERTS accredited.									
sq	Aqueous / settled sample.									
dis.filt	Dissolved / filtered sample.									
tot.unfilt	Total / unfiltered sample.									
*	Subcontracted - refer to subcontractor report for accreditation status.				03/12/2021	03/12/2021	03/12/2021	03/12/2021	03/12/2021	
**	% 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				211203-122	211203-122	211203-122	211203-122	211203-122	
(F)	Trigger breach confirmed				25455615	25455620	25455625	25455630	25455635	
1-4.5@	Sample deviation (see appendix)				ES	ES	ES	ES	ES	
Component	LOD/Units	Method								
1,3-Dichloropropane	<0.007 mg/kg	TM116			<0.07 M	<0.07 M	<0.07 M	<0.14 M	<0.07 M	
Tetrachloroethene	<0.005 mg/kg	TM116			<0.05 M	<0.05 M	<0.05 M	<0.1 M	<0.05 M	
Dibromochloromethane	<0.01 mg/kg	TM116			<0.1 M	<0.1 M	<0.1 M	<0.2 M	<0.1 M	
1,2-Dibromoethane	<0.01 mg/kg	TM116			<0.1 M	<0.1 M	<0.1 M	<0.2 M	<0.1 M	
Chlorobenzene	<0.005 mg/kg	TM116			<0.05 M	<0.05 M	<0.05 M	<0.1 M	<0.05 M	
1,1,1,2-Tetrachloroethane	<0.01 mg/kg	TM116			<0.1 M	<0.1 M	<0.1 M	<0.2 M	<0.1 M	
Ethylbenzene	<0.004 mg/kg	TM116			<0.04 M	<0.04 M	<0.04 M	<0.08 M	<0.04 M	
p/m-Xylene	<0.01 mg/kg	TM116			<0.1 #	<0.1 #	<0.1 #	<0.2 #	<0.1 #	
o-Xylene	<0.01 mg/kg	TM116			<0.1 M	<0.1 M	<0.1 M	<0.2 M	<0.1 M	
Styrene	<0.01 mg/kg	TM116			<0.1 ◆ #	<0.1 ◆ #	<0.1 ◆ #	<0.2 ◆ #	<0.1 ◆ #	
Bromoform	<0.01 mg/kg	TM116			<0.1 M	<0.1 M	<0.1 M	<0.2 M	<0.1 M	
Isopropylbenzene	<0.005 mg/kg	TM116			<0.05 #	<0.05 #	<0.05 #	<0.1 #	<0.05 #	
1,1,2,2-Tetrachloroethane	<0.01 mg/kg	TM116			<0.1 #	<0.1 #	<0.1 #	<0.2 #	<0.1 #	
1,2,3-Trichloropropane	<0.016 mg/kg	TM116			<0.16 M	<0.16 M	<0.16 M	<0.32 M	<0.16 M	
Bromobenzene	<0.01 mg/kg	TM116			<0.1 M	<0.1 M	<0.1 M	<0.2 M	<0.1 M	
Propylbenzene	<0.01 mg/kg	TM116			<0.1 M	<0.1 M	<0.1 M	<0.2 M	<0.1 M	
2-Chlorotoluene	<0.009 mg/kg	TM116			<0.09 M	<0.09 M	<0.09 M	<0.18 M	<0.09 M	
1,3,5-Trimethylbenzene	<0.008 mg/kg	TM116			<0.08 M	<0.08 M	<0.08 M	<0.16 M	<0.08 M	
4-Chlorotoluene	<0.01 mg/kg	TM116			<0.1 M	<0.1 M	<0.1 M	<0.2 M	<0.1 M	
tert-Butylbenzene	<0.014 mg/kg	TM116			<0.14 M	<0.14 M	<0.14 M	<0.28 M	<0.14 M	
1,2,4-Trimethylbenzene	<0.009 mg/kg	TM116			<0.09 #	<0.09 #	<0.09 #	<0.18 #	<0.09 #	
sec-Butylbenzene	<0.01 mg/kg	TM116			<0.1	<0.1	<0.1	<0.2	<0.1	
4-Isopropyltoluene	<0.01 mg/kg	TM116			<0.1	<0.1	<0.1	<0.2	<0.1	
1,3-Dichlorobenzene	<0.008 mg/kg	TM116			<0.08 M	<0.08 M	<0.08 M	<0.16 M	<0.08 M	
1,4-Dichlorobenzene	<0.005 mg/kg	TM116			<0.05 M	<0.05 M	<0.05 M	<0.1 M	<0.05 M	
n-Butylbenzene	<0.011 mg/kg	TM116			<0.11	<0.11	<0.11	<0.22	<0.11	
1,2-Dichlorobenzene	<0.01 mg/kg	TM116			<0.1 M	<0.1 M	<0.1 M	<0.2 M	<0.1 M	
1,2-Dibromo-3-chloropropane	<0.014 mg/kg	TM116			<0.14 M	<0.14 M	<0.14 M	<0.28 M	<0.14 M	
Tert-amyl methyl ether	<0.01 mg/kg	TM116			<0.1 #	<0.1 #	<0.1 #	<0.2 #	<0.1 #	
1,2,4-Trichlorobenzene	<0.02 mg/kg	TM116			<0.2	<0.2	<0.2	<0.4	<0.2	
Hexachlorobutadiene	<0.02 mg/kg	TM116			<0.2	<0.2	<0.2	<0.4	<0.2	
Naphthalene	<0.013 mg/kg	TM116			<0.13 M	<0.13 M	<0.13 M	<0.26 M	<0.13 M	



CERTIFICATE OF ANALYSIS

Validated

SDG: 211203-122
Client Ref.: 70057126

Report Number: 625350
Location: Windy Arbor

Superseded Report:

Asbestos Identification - Solid Samples

Results Legend

ISO17025 accredited.
M mCERTS accredited.
* Subcontracted test.
(F) Trigger breach confirmed
1-5&\$@ Sample deviation (see appendix)

Date of Analysis	Analysed By	Comments	Amosite (Brown) Asbestos	Asbestos Actinolite	Asbestos Anthophyllite	Asbestos Tremolite	Chrysotile (White) Asbestos	Crocidolite (Blue) Asbestos	Non-Asbestos Fibre
10/12/2021	Agnieszka Chelmowska	-	Not Detected (#)	Not Detected (#)	Not Detected (#)	Not Detected (#)	Not Detected (#)	Not Detected (#)	Not Detected
09/12/2021	James Richards	-	Not Detected (#)	Not Detected (#)	Not Detected (#)	Not Detected (#)	Not Detected (#)	Not Detected (#)	Not Detected
10/12/2021	Agnieszka Chelmowska	-	Not Detected (#)	Not Detected (#)	Not Detected (#)	Not Detected (#)	Not Detected (#)	Not Detected (#)	Not Detected
09/12/2021	James Richards	-	Not Detected (#)	Not Detected (#)	Not Detected (#)	Not Detected (#)	Not Detected (#)	Not Detected (#)	Not Detected
10/12/2021	Agnieszka Chelmowska	-	Not Detected (#)	Not Detected (#)	Not Detected (#)	Not Detected (#)	Not Detected (#)	Not Detected (#)	Not Detected



CERTIFICATE OF ANALYSIS

Validated

SDG: 211203-122
Client Ref.: 70057126

Report Number: 625350
Location: Windy Arbor

Superseded Report:

Table of Results - Appendix

Method No	Reference	Description
PM024	Modified BS 1377	Soil preparation including homogenisation, moisture screens of soils for Asbestos Containing Material
TM048	HSG 248, Asbestos: The analysts' guide for sampling, analysis and clearance procedures	Identification of Asbestos in Bulk Material
TM062 (S)	National Grid Property Holdings Methods for the Collection & Analysis of Samples from National Grid Sites version 1 Sec 3.9	Determination of Phenols in Soils by HPLC
TM089	Modified: US EPA Methods 8020 & 602	Determination of Gasoline Range Hydrocarbons (GRO) by Headspace GC-FID (C4-C12)
TM116	Modified: US EPA Method 8260, 8120, 8020, 624, 610 & 602	Determination of Volatile Organic Compounds by Headspace / GC-MS
TM132	In - house Method	ELTRA CS800 Operators Guide
TM133	BS 1377: Part 3 1990;BS 6068-2.5	Determination of pH in Soil and Water using the GLpH pH Meter
TM151	Method 3500D, AWWA/APHA, 20th Ed., 1999	Determination of Hexavalent Chromium using Kone analyser
TM153	Method 4500A,B,C, I, M AWWA/APHA, 20th Ed., 1999	Determination of Total Cyanide, Free (Easily Liberatable) Cyanide and Thiocyanate using the Skalar SANS+ System Segmented Flow Analyser
TM157	HP 6890 Gas Chromatograph (GC) system and HP 5973 Mass Selective Detector (MSD).	Determination of SVOC in Soils by GC-MS extracted by sonication in DCM/Acetone
TM168	EPA Method 8082, Polychlorinated Biphenyls by Gas Chromatography	Determination of WHO12 and EC7 Polychlorinated Biphenyl Congeners by GC-MS in Soils
TM181	US EPA Method 6010B	Determination of Routine Metals in Soil by iCap 6500 Duo ICP-OES
TM218	Shaker extraction - EPA method 3546.	The determination of PAH in soil samples by GC-MS
TM414	Analysis of Petroleum Hydrocarbons in Environmental Media – Total Petroleum Hydrocarbon Criteria	Determination of Speciated Extractable Petroleum Hydrocarbons in Soils by GCxGC-FID

NA = not applicable.

Chemical testing (unless subcontracted) performed at ALS Environmental Hawarden (Method codes TM) or ALS Environmental Aberdeen (Method codes S).



CERTIFICATE OF ANALYSIS

Validated

SDG: 211203-122
Client Ref.: 70057126

Report Number: 625350
Location: Windy Arbor

Superseded Report:

Test Completion Dates

Lab Sample No(s)	25455615	25455620	25455625	25455630	25455635
Customer Sample Ref.	WS01s	WS02s	WS03s	WS04s	WS05s
AGS Ref.	ES	ES	ES	ES	ES
Depth	0.50 - 0.55	0.30 - 0.40	0.80 - 0.90	0.40 - 0.50	0.30 - 0.40
Type	Soil/Solid (S)	Soil/Solid (S)	Soil/Solid (S)	Soil/Solid (S)	Soil/Solid (S)

Asbestos ID in Solid Samples	10-Dec-2021	09-Dec-2021	10-Dec-2021	09-Dec-2021	10-Dec-2021
Cyanide Comp/Free/Total/Thiocyanate	10-Dec-2021	07-Dec-2021	07-Dec-2021	07-Dec-2021	09-Dec-2021
EPH CWG GC (S)	08-Dec-2021	08-Dec-2021	08-Dec-2021	08-Dec-2021	08-Dec-2021
GRO by GC-FID (S)	10-Dec-2021	10-Dec-2021	10-Dec-2021	10-Dec-2021	10-Dec-2021
Hexavalent Chromium (s)	09-Dec-2021	09-Dec-2021	09-Dec-2021	09-Dec-2021	09-Dec-2021
Metals in solid samples by OES	10-Dec-2021	09-Dec-2021	10-Dec-2021	10-Dec-2021	10-Dec-2021
PAH by GCMS	08-Dec-2021	07-Dec-2021	07-Dec-2021	07-Dec-2021	07-Dec-2021
PCBs by GCMS	08-Dec-2021	07-Dec-2021	07-Dec-2021	07-Dec-2021	07-Dec-2021
pH	07-Dec-2021	07-Dec-2021	07-Dec-2021	07-Dec-2021	07-Dec-2021
Phenols by HPLC (S)	08-Dec-2021	08-Dec-2021	08-Dec-2021	08-Dec-2021	08-Dec-2021
Sample description	06-Dec-2021	06-Dec-2021	06-Dec-2021	06-Dec-2021	06-Dec-2021
Semi Volatile Organic Compounds	08-Dec-2021	08-Dec-2021	08-Dec-2021	08-Dec-2021	08-Dec-2021
Total Organic Carbon	10-Dec-2021	10-Dec-2021	10-Dec-2021	10-Dec-2021	10-Dec-2021
TPH CWG GC (S)	10-Dec-2021	10-Dec-2021	10-Dec-2021	10-Dec-2021	10-Dec-2021
VOC MS (S)	10-Dec-2021	10-Dec-2021	10-Dec-2021	10-Dec-2021	10-Dec-2021



CERTIFICATE OF ANALYSIS

Validated

SDG: 211203-122
Client Ref.: 70057126

Report Number: 625350
Location: Windy Arbor

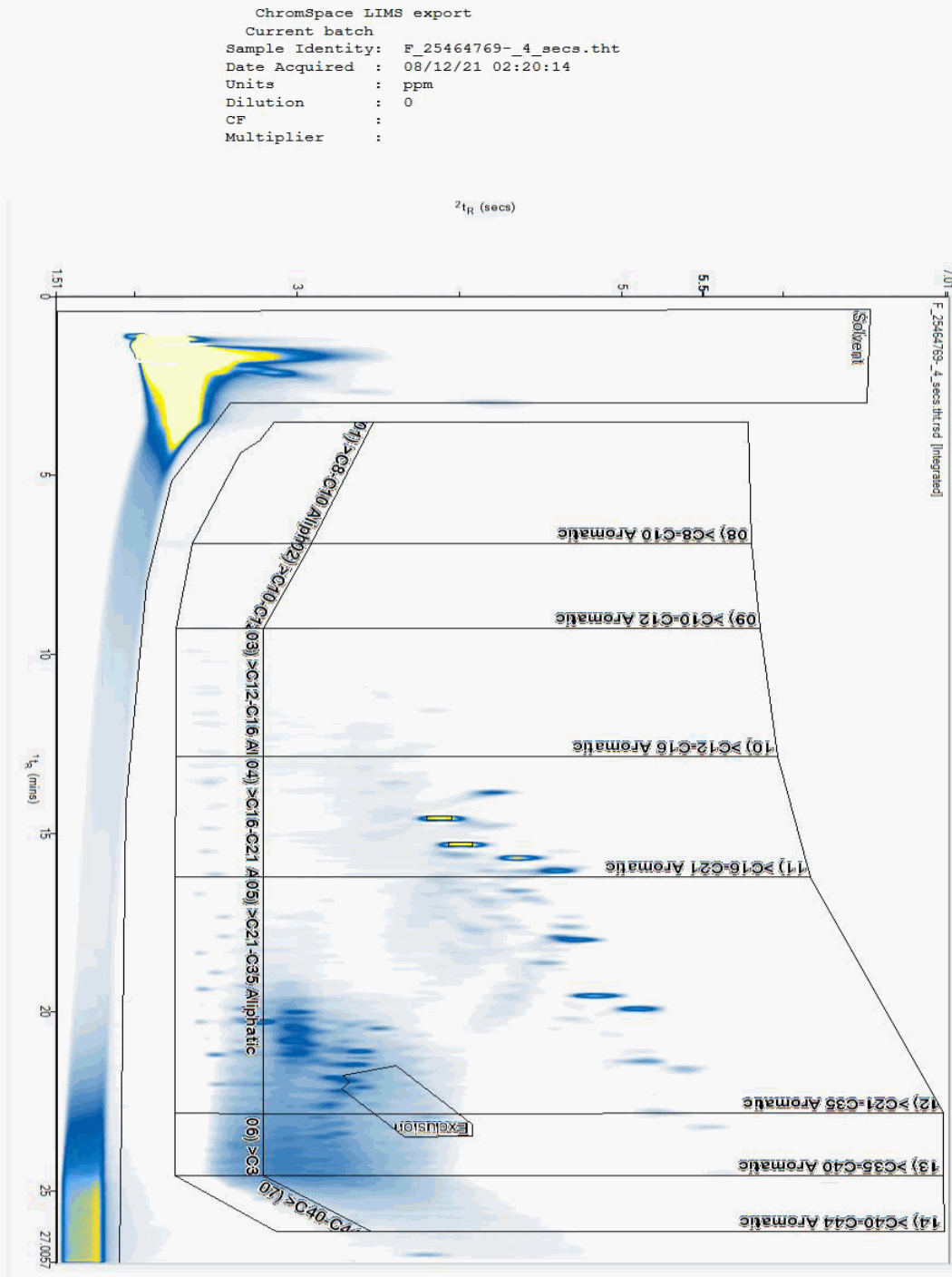
Superseded Report:

Chromatogram

Analysis: EPH CWG GC (S)

Sample No : 25464769
Sample ID : WS02s

Depth : 0.30 - 0.40





CERTIFICATE OF ANALYSIS

Validated

SDG: 211203-122
Client Ref.: 70057126

Report Number: 625350
Location: Windy Arbor

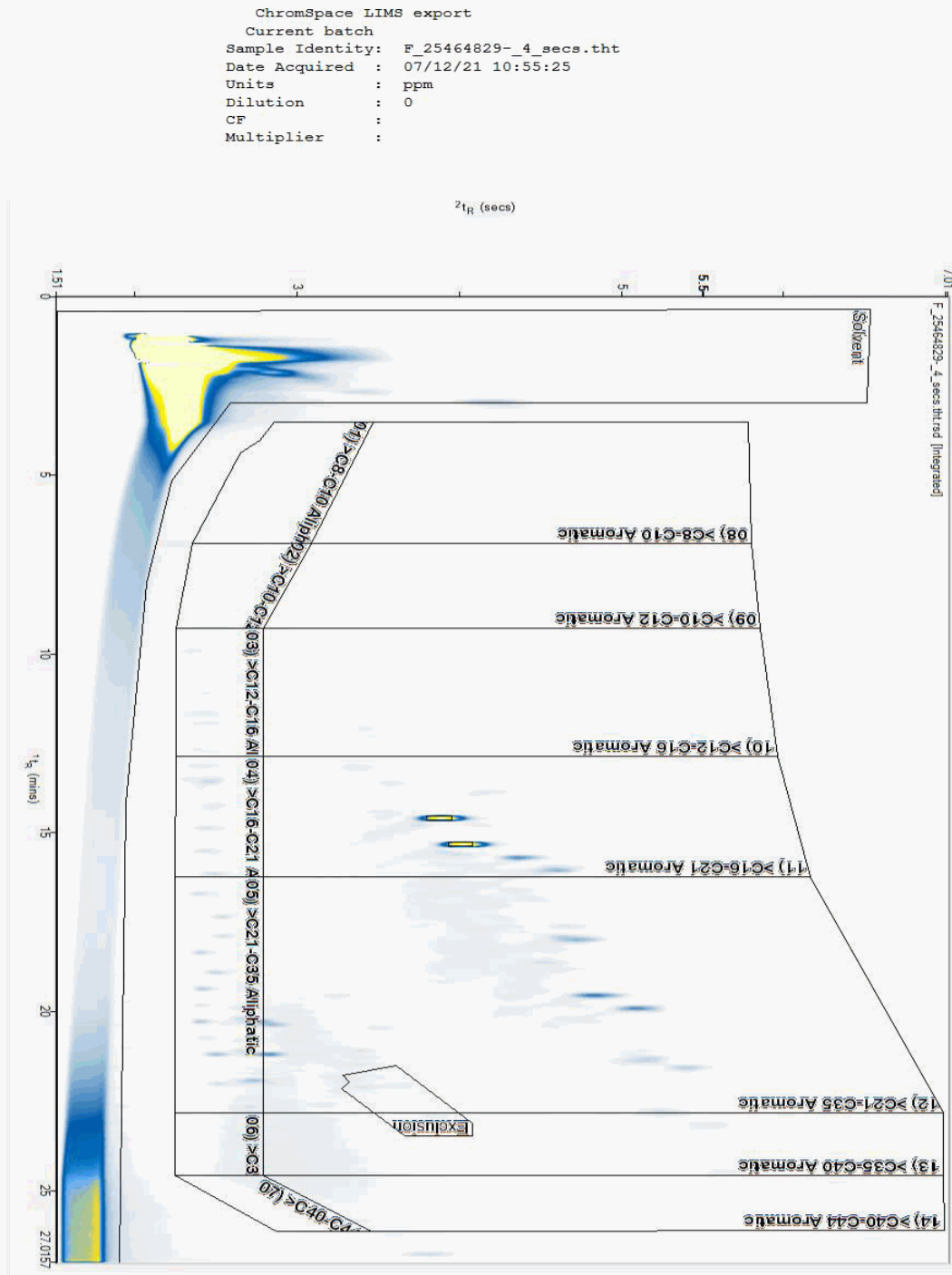
Superseded Report:

Chromatogram

Analysis: EPH CWG GC (S)

Sample No : 25464829
Sample ID : WS05s

Depth : 0.30 - 0.40





CERTIFICATE OF ANALYSIS

Validated

SDG: 211203-122
Client Ref.: 70057126

Report Number: 625350
Location: Windy Arbor

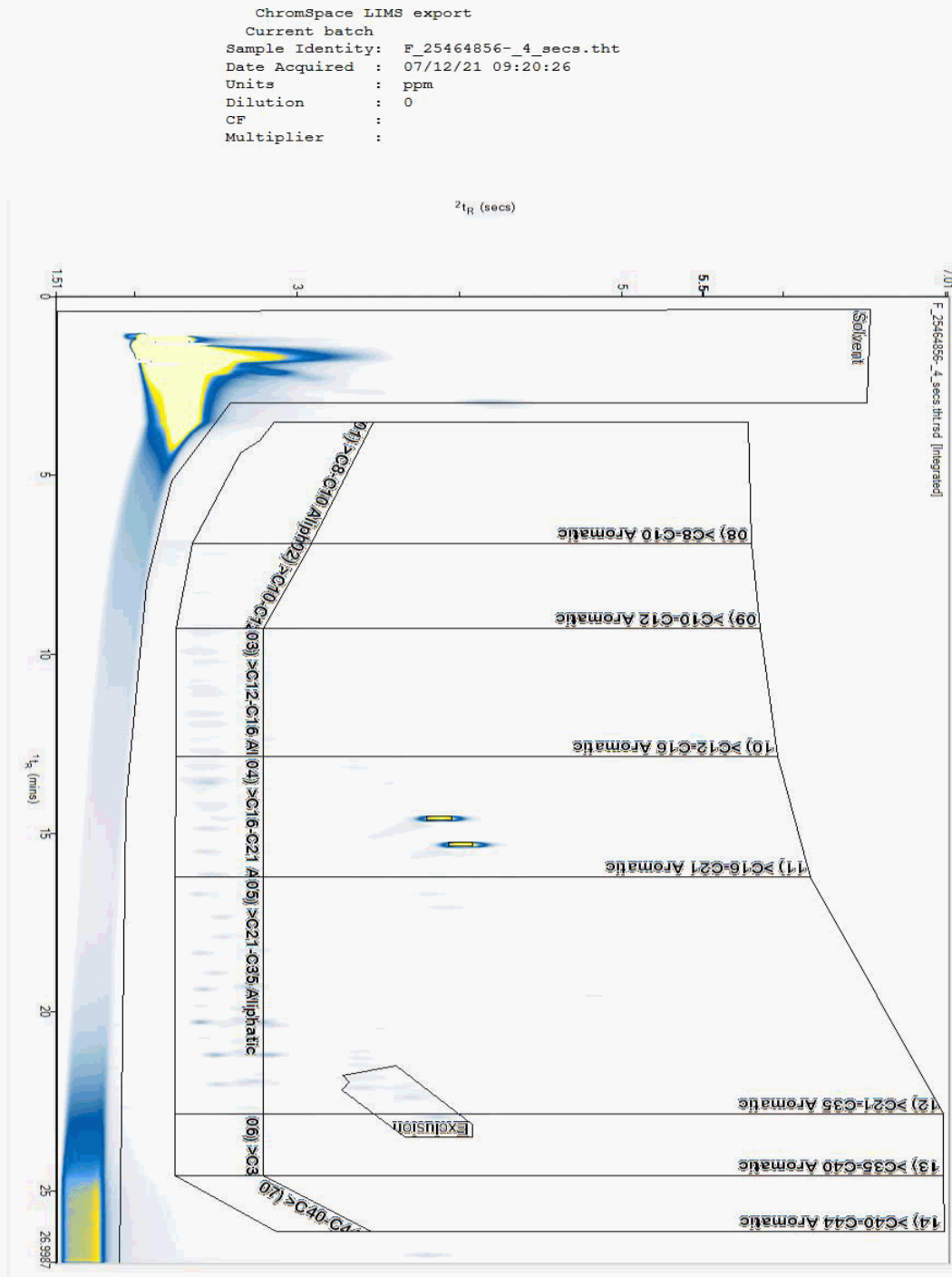
Superseded Report:

Chromatogram

Analysis: EPH CWG GC (S)

Sample No : 25464856
Sample ID : WS01s

Depth : 0.50 - 0.55





CERTIFICATE OF ANALYSIS

Validated

SDG: 211203-122
Client Ref.: 70057126

Report Number: 625350
Location: Windy Arbor

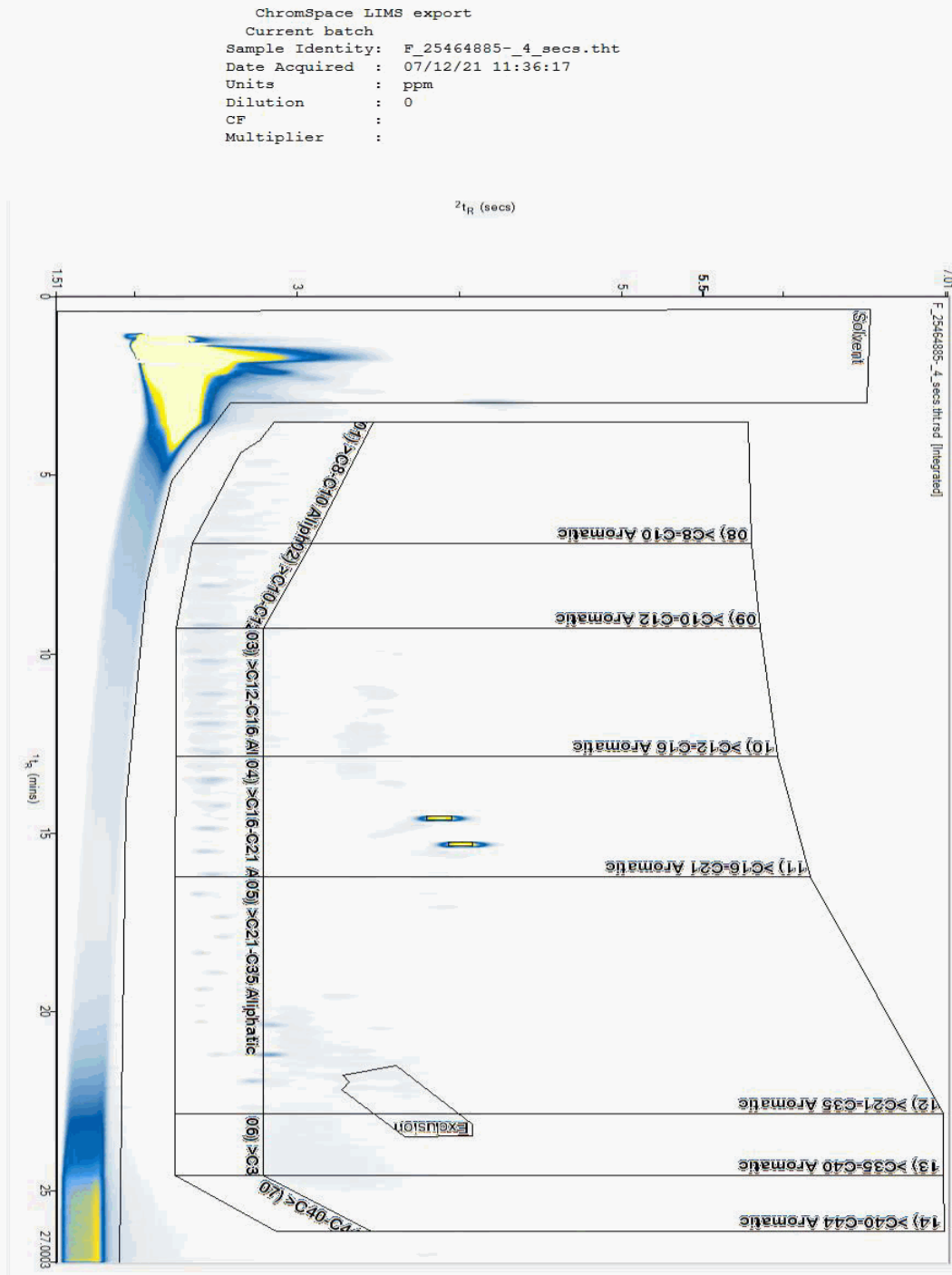
Superseded Report:

Chromatogram

Analysis: EPH CWG GC (S)

Sample No : 25464885
Sample ID : WS04s

Depth : 0.40 - 0.50





CERTIFICATE OF ANALYSIS

Validated

SDG: 211203-122
Client Ref.: 70057126

Report Number: 625350
Location: Windy Arbor

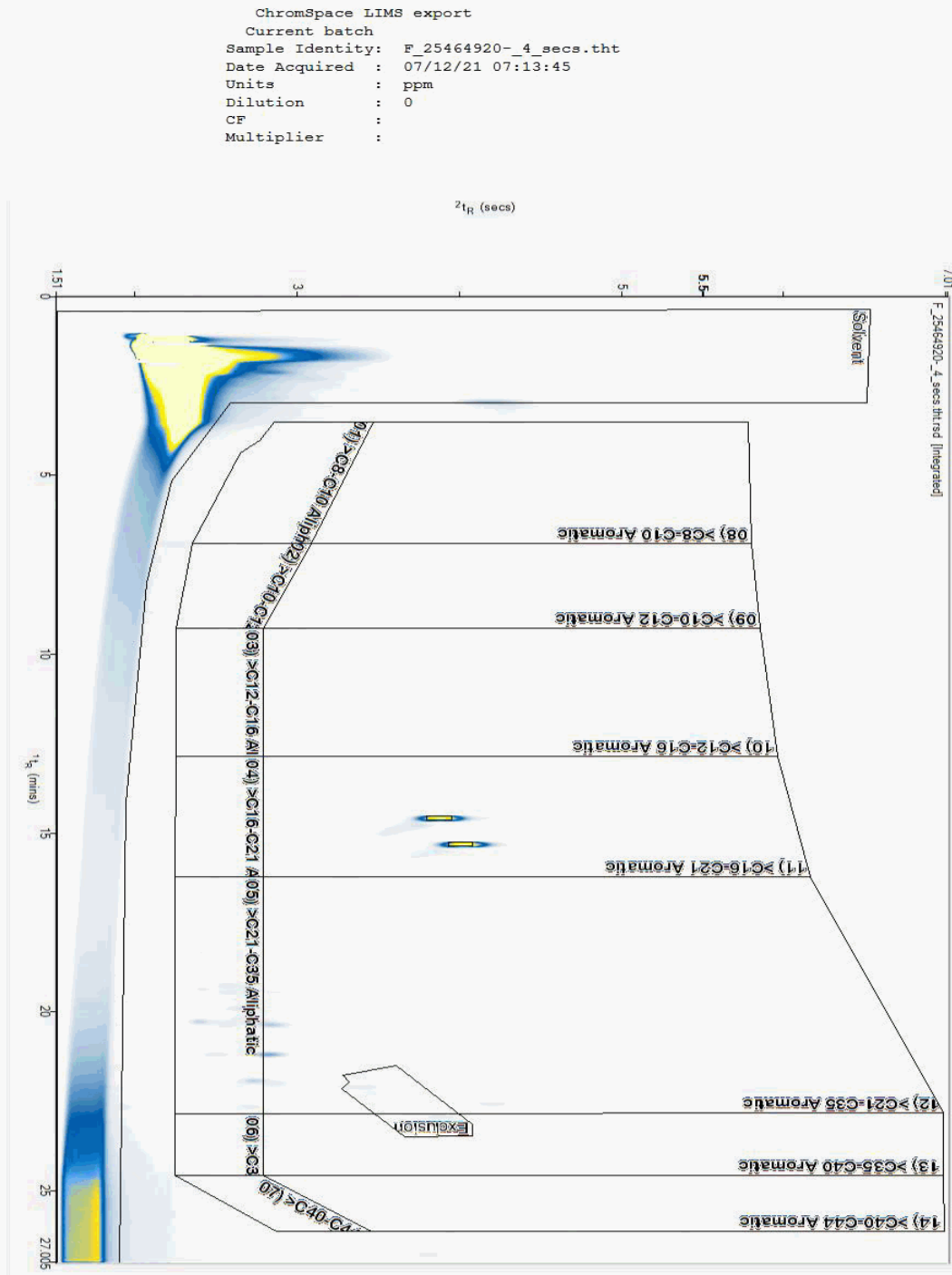
Superseded Report:

Chromatogram

Analysis: EPH CWG GC (S)

Sample No : 25464920
Sample ID : WS03s

Depth : 0.80 - 0.90





CERTIFICATE OF ANALYSIS

Validated

SDG: 211203-122
Client Ref.: 70057126

Report Number: 625350
Location: Windy Arbor

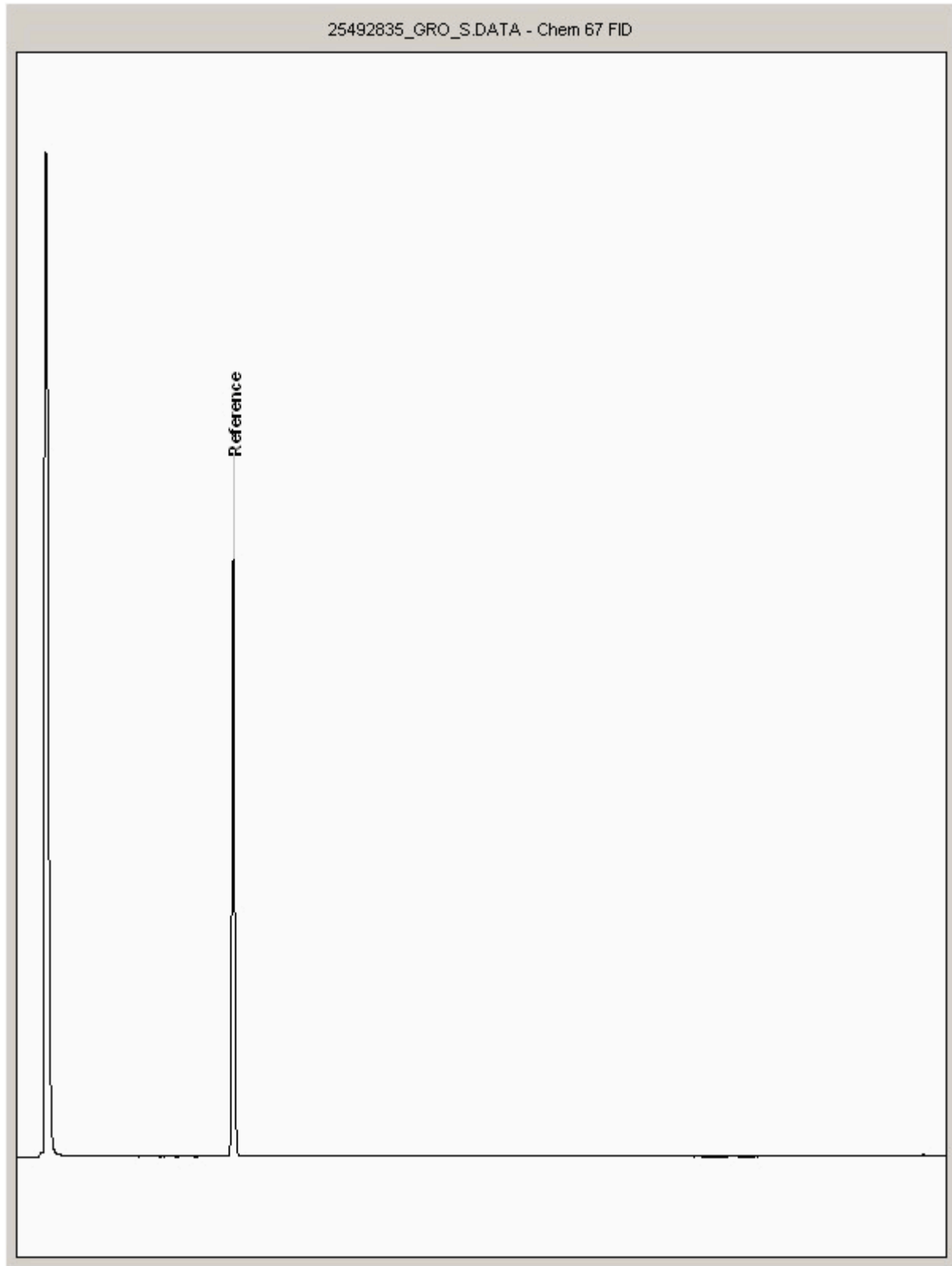
Superseded Report:

Chromatogram

Analysis: GRO by GC-FID (S)

Sample No : 25492835
Sample ID : WS05s

Depth : 0.30 - 0.40





CERTIFICATE OF ANALYSIS

Validated

SDG: 211203-122
Client Ref.: 70057126

Report Number: 625350
Location: Windy Arbor

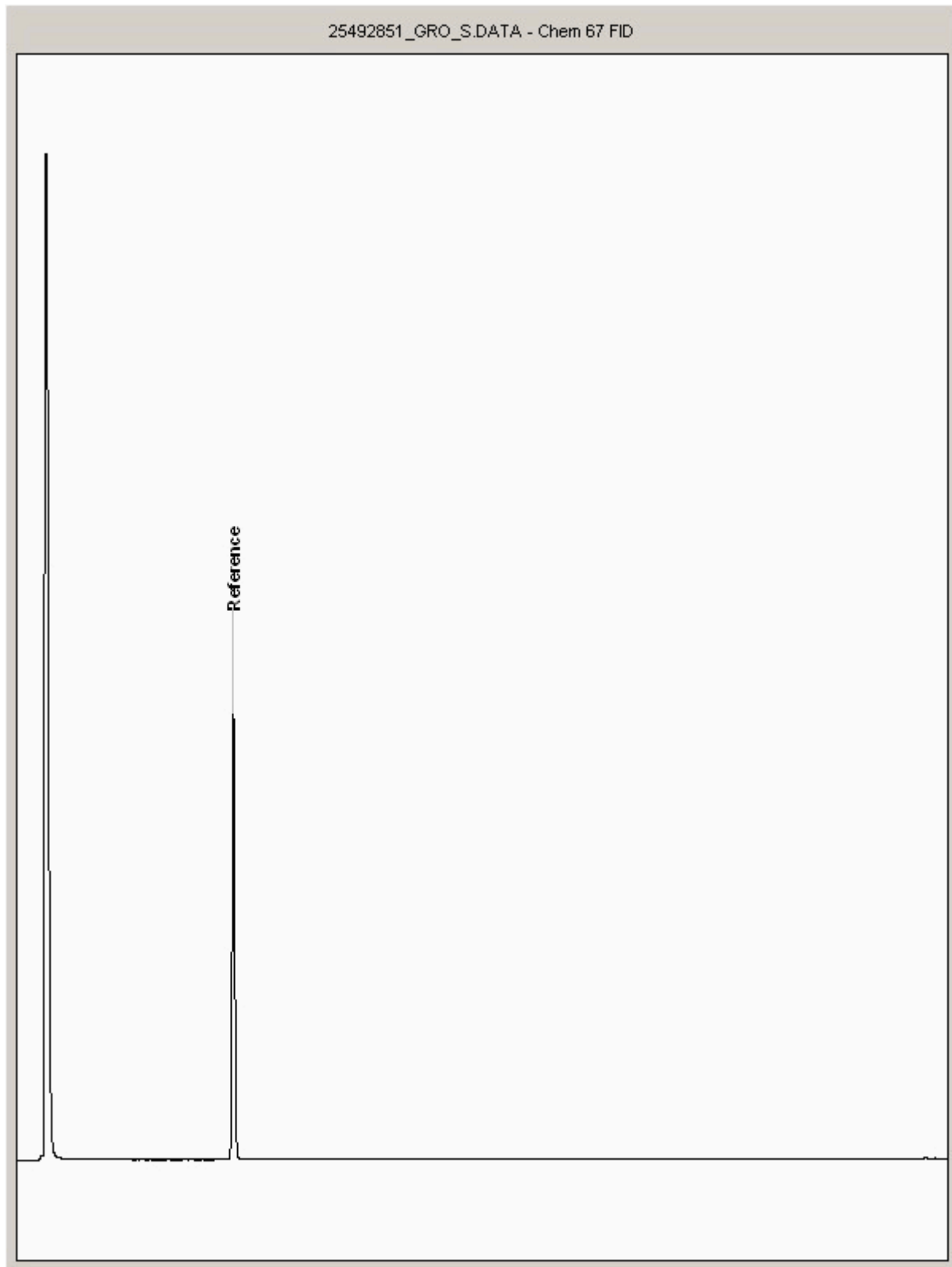
Superseded Report:

Chromatogram

Analysis: GRO by GC-FID (S)

Sample No : 25492851
Sample ID : WS02s

Depth : 0.30 - 0.40





CERTIFICATE OF ANALYSIS

Validated

SDG: 211203-122
Client Ref.: 70057126

Report Number: 625350
Location: Windy Arbor

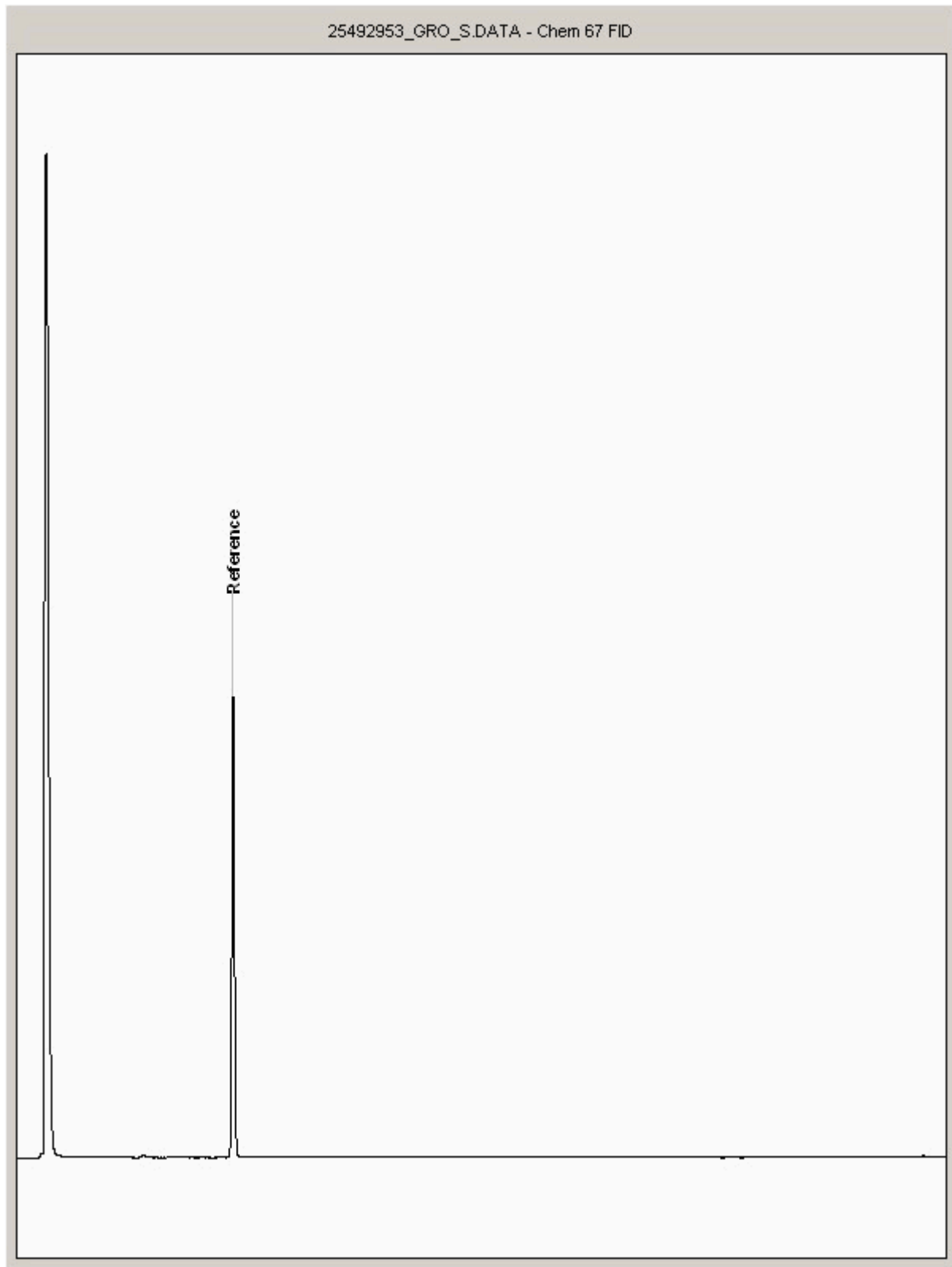
Superseded Report:

Chromatogram

Analysis: GRO by GC-FID (S)

Sample No : 25492953
Sample ID : WS01s

Depth : 0.50 - 0.55





CERTIFICATE OF ANALYSIS

Validated

SDG: 211203-122
Client Ref.: 70057126

Report Number: 625350
Location: Windy Arbor

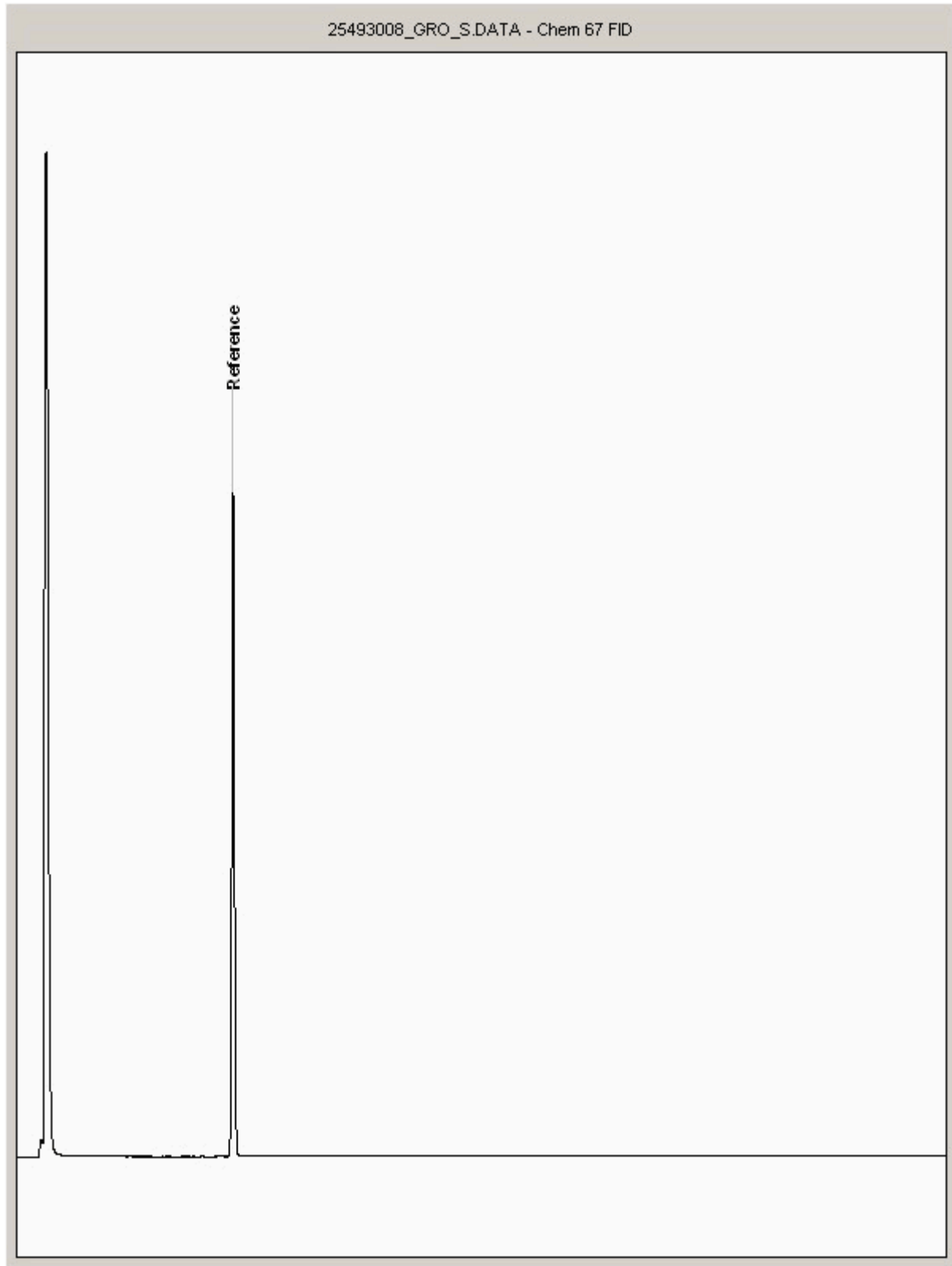
Superseded Report:

Chromatogram

Analysis: GRO by GC-FID (S)

Sample No : 25493008
Sample ID : WS03s

Depth : 0.80 - 0.90





CERTIFICATE OF ANALYSIS

Validated

SDG: 211203-122
Client Ref.: 70057126

Report Number: 625350
Location: Windy Arbor

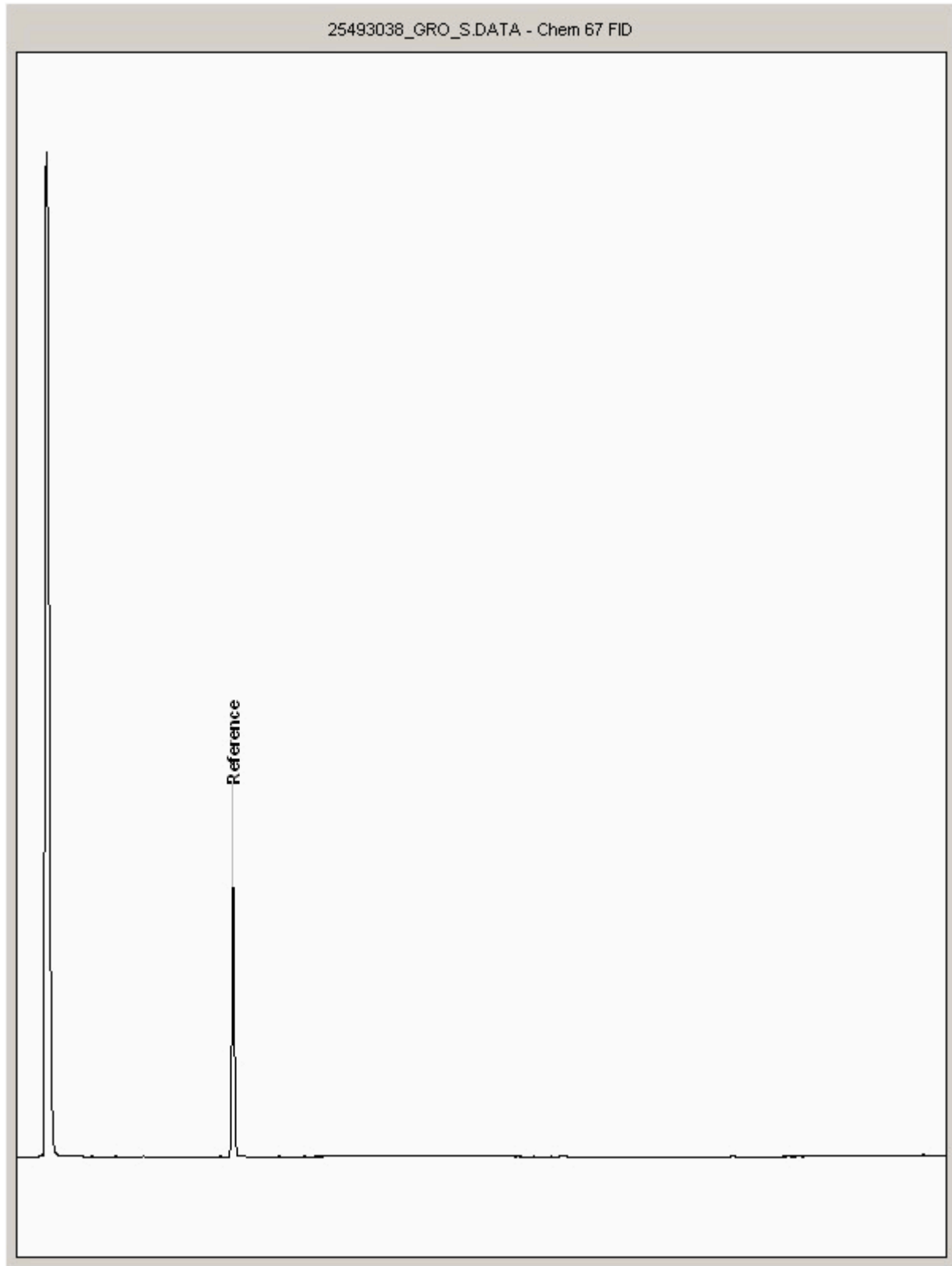
Superseded Report:

Chromatogram

Analysis: GRO by GC-FID (S)

Sample No : 25493038
Sample ID : WS04s

Depth : 0.40 - 0.50





CERTIFICATE OF ANALYSIS

SDG:	211203-122	Client Reference:	70057126	Report Number:	625350
Location:	Windy Arbor	Order Number:	70057126-G20	Superseded Report:	

Appendix

1. Results are expressed on a dry weight basis (dried at 35°C) 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 30 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.

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 (2005), 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 are obtained from supplied bulk materials 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 (2005).

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.