



A2 Site Investigation
One Westminster Bridge Road, London SE1 7XW

Client

The Crown Estate

Project

East Hemel – Ground
Water Sampling

Location

D1

Created by

MB

Approved by

FA

Date

30/07/2025





A2 Site Investigation
One Westminster Bridge Road, London SE1 7XW

Client	Project	Location	Created by	Approved by	Date
The Crown Estate	East Hemel – Ground Water Sampling	D3	MB	FA	30/07/2025



Client	Project	Location	Created by	Approved by	Date
The Crown Estate	East Hemel – Ground Water Sampling	D4	MB	FA	30/07/2025



Appendix D: Geoenvironmental Laboratory Testing Results



Unit 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

A2 Site Investigations
Broom House
39 / 43 London Road, Hadleigh, Benfleet
South Bank
Essex
SS7 2QL

Attention: Fernando Afonso

CERTIFICATE OF ANALYSIS

Date of report Generation: 21 August 2025
Customer: A2 Site Investigations
Sample Delivery Group (SDG): 250725-20
Your Reference: 64225
Location: East Hemel
Report No: 774826
Order Number: PO5504-ALS-01

This report has been revised and directly supersedes 774821 in its entirety.

We received 16 samples on Friday July 25, 2025 and 16 of these samples were scheduled for analysis which was completed on Thursday August 21, 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.

The customer is not permitted to reproduce this report except in full without the approval of the laboratory.

Approved By:



Justin Keeton
Business Unit Leader - Land





CERTIFICATE OF ANALYSIS

Validated

SDG: 250725-20
Client Ref.: 64225

Report Number: 774826
Location: East Hemel

Superseded Report: 774821

Received Sample Overview

Lab Sample No(s)	Customer Sample Ref.	AGS Ref.	Depth (m)	Sampled Date
31880359	A3			22/07/2025
31880360	A6			22/07/2025
31880361	A8			22/07/2025
31880362	B1			22/07/2025
31880363	B2			22/07/2025
31880364	B3			22/07/2025
31880689	C1			23/07/2025
31880690	C3			23/07/2025
31880691	C4			22/07/2025
31880692	C6			23/07/2025
31880693	C8			23/07/2025
31881134	DUP1			23/07/2025
31881135	DUP2			23/07/2025
31880694	EB1			22/07/2025
31881140	FIELD BLANK (FB)			22/07/2025
31881138	TRIP BLANK(TB)			

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



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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
					500ml Plastic (ALE208)	500ml Plastic (ALE208)
					250ml BOD (ALE212)	250ml BOD (ALE212)
					0.5l glass bottle (ALE227)	0.5l glass bottle (ALE227)
	31880359	A3			Digitube for PFAS analysis.	GW
	31880360	A6			Digitube for PFAS analysis.	GW
	31880361	A8			Digitube for PFAS analysis.	GW
Ammoniacal Nitrogen	All	NDPs: 0 Tests: 15			X	GW
Anions by Kone (w)	All	NDPs: 0 Tests: 15			X	GW
BOD True Total	All	NDPs: 0 Tests: 15			X	GW
Chromium III	All	NDPs: 0 Tests: 15			X	GW
Dissolved Metals by ICP-MS	All	NDPs: 0 Tests: 15			X	GW
Dissolved Organic/Inorganic Carbon	All	NDPs: 0 Tests: 15			X	GW
EPH and CWG by FID	All	NDPs: 0 Tests: 15			X	GW
GRO by GC-FID (W)	All	NDPs: 0 Tests: 15			X	GW
Hexavalent Chromium (w)	All	NDPs: 0 Tests: 15			X	GW
Mercury Dissolved	All	NDPs: 0 Tests: 15			X	GW
Nitrite by Kone (w)	All	NDPs: 0 Tests: 15			X	GW
PAH Spec MS - Aqueous (W)	All	NDPs: 0 Tests: 15			X	GW
Pesticides (Suite I) by GCMS	All	NDPs: 0 Tests: 15			X	GW
PFAS Liquids (Full Suite)	All	NDPs: 0 Tests: 17			X	GW
pH Value	All	NDPs: 0 Tests: 15			X	GW



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Results Legend	Lab Sample No(s)																						
	Customer Sample Reference																						
	AGS Reference																						
	Depth (m)																						
	Container																						
	Sample Type																						
			0.5l glass bottle (ALE227)	250ml BOD (ALE212)	500ml Plastic (ALE208)	Digitube for PFAS analysis.	H2SO4 (ALE244)	HNO3 Filtered (ALE204)	NaOH (ALE245)	Vial (ALE297)	0.5l glass bottle (ALE227)	250ml BOD (ALE212)	500ml Plastic (ALE208)	Digitube for PFAS analysis.	H2SO4 (ALE244)	HNO3 Filtered (ALE204)	NaOH (ALE245)	Vial (ALE297)	0.5l glass bottle (ALE227)	250ml BOD (ALE212)	500ml Plastic (ALE208)	GW	
Phosphate by Kone (w)	All	NDPs: 0 Tests: 15			X								X										X
Suspended Solids	All	NDPs: 0 Tests: 15			X								X										X
SVOC MS (W) - Aqueous	All	NDPs: 0 Tests: 15	X								X									X			
Total Metals by ICP-MS	All	NDPs: 0 Tests: 15			X								X										X
Total Nitrogen	All	NDPs: 0 Tests: 15			X								X										X
Total Organic and Inorganic Carbon	All	NDPs: 0 Tests: 15						X									X						
TPH CWG (W)	All	NDPs: 0 Tests: 15	X								X									X			
VOC MS (W)	All	NDPs: 0 Tests: 15								X									X				



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Results Legend	Lab Sample No(s)		31880693		31881134		31881135	
	Customer Sample Reference		C8		DUP1		DUP2	
AGS Reference								
Depth (m)								
Container		0.5l glass bottle (ALE227)	250ml BOD (ALE212)	500ml Plastic (ALE208)	Digitube for PFAS analysis.	0.5l glass bottle (ALE227)	250ml BOD (ALE212)	500ml Plastic (ALE208)
Sample Type		GW	GW	GW	GW	GW	GW	GW
Phosphate by Kone (w)	All	NDPs: 0 Tests: 15		X			X	X
Suspended Solids	All	NDPs: 0 Tests: 15		X			X	X
SVOC MS (W) - Aqueous	All	NDPs: 0 Tests: 15	X			X		X
Total Metals by ICP-MS	All	NDPs: 0 Tests: 15		X			X	X
Total Nitrogen	All	NDPs: 0 Tests: 15		X			X	X
Total Organic and Inorganic Carbon	All	NDPs: 0 Tests: 15			X		X	
TPH CWG (W)	All	NDPs: 0 Tests: 15	X			X		X
VOC MS (W)	All	NDPs: 0 Tests: 15				X		X



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Results Legend			Customer Sample Ref.	A3	A6	A8	B1	B2	B3
# 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)			Depth (m) Sample Type Date Sampled Sample Time Date Received SDG Ref Lab Sample No.(s) AGS Reference	Ground Water (GW) 22/07/2025 25/07/2025 250725-20 31880359	Ground Water (GW) 22/07/2025 25/07/2025 250725-20 31880360	Ground Water (GW) 22/07/2025 25/07/2025 250725-20 31880361	Ground Water (GW) 22/07/2025 25/07/2025 250725-20 31880362	Ground Water (GW) 22/07/2025 25/07/2025 250725-20 31880363	Ground Water (GW) 22/07/2025 25/07/2025 250725-20 31880364
Component	LOD/Units	Method							
Suspended solids, Total	<2 mg/l	TM022	445	129	807	8.15	1120	1330	
BOD, unfiltered	<1 mg/l	TM045	<10	<10	<10	<1	<10	<10	
Carbon, Organic (diss.filt)	<3 mg/l	TM090	<3	<3	<3	<3	<3	<3	
Organic Carbon, Total	<3 mg/l	TM090	<3	<3	<3	<3	5.13	<3	
Ammoniacal Nitrogen as N	<0.2 mg/l	TM099	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	
Chromium, Trivalent	<0.03 mg/l	TM152	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	
Arsenic (diss.filt)	<0.5 µg/l	TM152	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	
Barium (diss.filt)	<0.2 µg/l	TM152	26.7	32.4	50.7	36.5	30	35.4	
Beryllium (diss.filt)	<0.1 µg/l	TM152	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	
Boron (diss.filt)	<10 µg/l	TM152	32	29.2	15.6	<10	<10	<10	
Cadmium (diss.filt)	<0.08 µg/l	TM152	<0.08	<0.08	<0.08	<0.08	<0.08	<0.08	
Chromium (diss.filt)	<1 µg/l	TM152	<1	<1	<1	<1	<1	<1	
Copper (diss.filt)	<0.3 µg/l	TM152	<0.3	0.713	0.641	0.32	0.492	0.458	
Lead (diss.filt)	<0.2 µg/l	TM152	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	
Molybdenum (diss.filt)	<3 µg/l	TM152	<3	<3	<3	<3	<3	<3	
Nickel (diss.filt)	<0.4 µg/l	TM152	0.403	1.62	2.59	1.77	0.644	0.42	
Selenium (diss.filt)	<1 µg/l	TM152	<1	<1	<1	1.17	<1	<1	
Vanadium (diss.filt)	<1 µg/l	TM152	<1	<1	<1	<1	<1	<1	
Zinc (diss.filt)	<1 µg/l	TM152	2.29	7.03	2.7	3.14	1.78	3.74	
Hardness, Total as CaCO3 unfiltered	<0.35 mg/l	TM152	595	456	1740	352	1170	1650	
Mercury (diss.filt)	<0.01 µg/l	TM183	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	
Nitrite as NO2	<0.05 mg/l	TM184	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	
Sulphate	<2 mg/l	TM184	35	35.5	32	29.5	27.2	15.2	
Chloride	<2 mg/l	TM184	20.2	28.9	40.8	30.2	19.7	28.1	
Phosphate (Ortho as P)	<0.02 mg/l	TM184	<0.02	0.0372	0.0427	0.0346	0.0343	0.0206	
Nitrate as NO3	<0.3 mg/l	TM184	58.6	23.1	23	48.5	46.5	36.3	
Nitrogen, Total	<1 mg/l	TM212	16.2	5.64	5.73	12.3	11.8	8.99	
Chromium, Hexavalent	<0.03 mg/l	TM241	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	
pH	<1 pH Units	TM256	7.41	7.57	7.39	7.41	7.37	7.38	
Trifluralin	<0.01 µg/l	TM343	<0.1	<0.05	<0.02	<0.015	<0.015	<0.1	
alpha-HCH	<0.01 µg/l	TM343	<0.1	<0.05	<0.02	<0.015	<0.015	<0.1	
gamma-HCH (Lindane)	<0.01 µg/l	TM343	<0.1	<0.05	<0.02	<0.015	<0.015	<0.1	
Heptachlor	<0.01 µg/l	TM343	<0.1	<0.05	<0.02	<0.015	<0.015	<0.1	



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#	ISO17025 accredited.		Depth (m) Sample Type Date Sampled Sample Time Date Received SDG Ref Lab Sample No.(s) AGS Reference	Ground Water (GW)	Ground Water (GW)	Ground Water (GW)	Ground Water (GW)	Ground Water (GW)	Ground Water (GW)
M	mCERTS accredited.			22/07/2025	22/07/2025	22/07/2025	22/07/2025	22/07/2025	22/07/2025
aq	Aqueous / settled sample.			25/07/2025	25/07/2025	25/07/2025	25/07/2025	25/07/2025	25/07/2025
diss.filt	Dissolved / filtered sample.			250725-20	250725-20	250725-20	250725-20	250725-20	250725-20
tot.unfilt	Total / unfiltered sample.		31880359	31880360	31880361	31880362	31880363	31880364	
* 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							
Aldrin	<0.01 µg/l	TM343		<0.1	<0.05	<0.02	<0.015	<0.015	<0.1
beta-HCH	<0.01 µg/l	TM343		<0.1	<0.05	<0.02	<0.015	<0.015	<0.1
Isodrin	<0.01 µg/l	TM343		<0.1	<0.05	<0.02	<0.015	<0.015	<0.1
delta-HCH	<0.01 µg/l	TM343		<0.1	<0.05	<0.02	<0.015	<0.015	<0.1
Heptachlor epoxide	<0.01 µg/l	TM343		<0.1	<0.05	<0.02	<0.015	<0.015	<0.1
o,p'-DDE	<0.01 µg/l	TM343		<0.1	<0.05	<0.02	<0.015	<0.015	<0.1
Endosulphan I	<0.01 µg/l	TM343		<0.1	<0.05	<0.02	<0.015	<0.015	<0.1
trans-Chlordane	<0.01 µg/l	TM343		<0.1	<0.05	<0.02	<0.015	<0.015	<0.1
cis-Chlordane	<0.01 µg/l	TM343		<0.1	<0.05	<0.02	<0.015	<0.015	<0.1
p,p'-DDE	<0.01 µg/l	TM343		<0.1	<0.05	<0.02	<0.015	<0.015	<0.1
Dieldrin	<0.01 µg/l	TM343		<0.1	<0.05	<0.02	<0.015	<0.015	<0.1
o,p'-DDD (TDE)	<0.01 µg/l	TM343		<0.1	<0.05	<0.02	<0.015	<0.015	<0.1
Endrin	<0.01 µg/l	TM343		<0.1	<0.05	<0.02	<0.015	<2	<2
o,p'-DDT	<0.01 µg/l	TM343		<0.1	<0.05	<0.02	<0.015	<0.015	<0.1
p,p'-DDD (TDE)	<0.01 µg/l	TM343		<0.1	<0.05	<0.02	<0.015	<0.015	<0.1
Endosulphan II	<0.02 µg/l	TM343		<0.2	<0.1	<0.04	<0.03	<0.03	<0.2
p,p'-DDT	<0.01 µg/l	TM343		<0.2	<2	<0.04	<2		
o,p'-Methoxychlor	<0.01 µg/l	TM343		<0.1	<0.05	<0.02	<0.015	<2	<2
p,p'-Methoxychlor	<0.01 µg/l	TM343		<0.2	<2	<0.04	<2	<2	<2
Endosulphan Sulphate	<0.02 µg/l	TM343		<0.2	<0.1	<0.04	<0.03	<0.03	<0.2
Permethrin I	<0.01 µg/l	TM343		<0.1	<0.05	<0.02	<0.015	<0.015	<0.1
Permethrin II	<0.01 µg/l	TM343		<0.1	<0.05	<0.02	<0.015	<0.015	<0.1
PFBA (375-22-4)	<2 ng/l	TM434		<20	<10	42.8	57.6	<20	<20
PFMOPrA (377-73-1)	<1 ng/l	TM434		<10	<5	<10	<1	<10	<10
3:3 FTCA (356-02-5)	<5 ng/l	TM434		<20	<10	<20	<2	<20	<20
PFPA (2706-90-3)	<1 ng/l	TM434		<10	18.8	143	307	18.5	<10
PFMOBA (863090-89-5)	<1 ng/l	TM434		<10	<5	<10	<1	<10	<10
4:2 FTS (757124-72-4)	<1 ng/l	TM434		<10	<5	<10	<1	<10	<10
NFDHA (151772-58-6)	<3 ng/l	TM434		<30	<15	<30	<3	<30	<30
PFBS (375-73-5)	<1 ng/l	TM434		<10	<5	93.1	58	<10	<10
PFHxA (307-24-4)	<1 ng/l	TM434		<10	11.5	165	197	<10	<10
HFPO-DA (13252-13-6)	<2 ng/l	TM434		<20	<10	<20	<2	<20	<20
PFEESA (113507-82-7)	<1 ng/l	TM434		<10	<5	<10	<1	<10	<10



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Results Legend			Customer Sample Ref.	A3	A6	A8	B1	B2	B3
#	ISO17025 accredited.		Depth (m) Sample Type Date Sampled Sample Time Date Received SDG Ref Lab Sample No.(s) AGS Reference	Ground Water (GW)	Ground Water (GW)	Ground Water (GW)	Ground Water (GW)	Ground Water (GW)	Ground Water (GW)
m	mCERTS accredited.			22/07/2025	22/07/2025	22/07/2025	22/07/2025	22/07/2025	22/07/2025
aq	Aqueous / settled sample.			25/07/2025	25/07/2025	25/07/2025	25/07/2025	25/07/2025	25/07/2025
diss.filt	Dissolved / filtered sample.			250725-20	250725-20	250725-20	250725-20	250725-20	250725-20
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							
PFHpA (375-85-9)	<1 ng/l	TM434		<10	8.33	51.5	65.1	<10	<10
				#	#	#	#	#	#
PFPeS (2706-91-4)	<1 ng/l	TM434		<10	5.82	68.9	60.6	<10	<10
				#	#	#	#	#	#
5:3 FTCA (914637-49-3)	<5 ng/l	TM434		<50	<25	<50	<5	<50	<50
				#	#	#	#	#	#
ADONA (919005-14-4)	<1 ng/l	TM434		<10	<5	<10	<1	<10	<10
				#	#	#	#	#	#
6:2 FTS (27619-97-2)	<1 ng/l	TM434		<10	<5	731	102	<10	<10
				#	#	#	#	#	#
FBSA (30334-69-1)	<1 ng/l	TM434		<10	<5	42.1	52	<10	<10
				#	#	#	#	#	#
PFOA (335-67-1)	<0.65 ng/l	TM434		<6.5	6.49	93.2	60.5	<6.5	<6.5
				#	#	#	#	#	#
PFHxS (355-46-4)	<1 ng/l	TM434		<10	38.9	427	289	<10	<10
				#	#	#	#	#	#
PFNA (375-95-1)	<1 ng/l	TM434		<10	<5	<10	3.03	<10	<10
				#	#	#	#	#	#
PFHpS (375-92-8)	<1 ng/l	TM434		<10	<5	20.3	19.1	<10	<10
				#	#	#	#	#	#
8:2 FTS (39108-34-4)	<2 ng/l	TM434		<20	<10	34.4	2.4	<20	<20
				#	#	#	#	#	#
HFPO-TA (13252-14-7)	<5 ng/l	TM434		<50	<25	<50	<5	<50	<50
				#	#	#	#	#	#
PFDA (335-76-2)	<2 ng/l	TM434		<20	<10	<20	<2	<20	<20
				#	#	#	#	#	#
MeFOSAA (2355-31-9)	<2 ng/l	TM434		<20	<10	<20	<2	<20	<20
				#	#	#	#	#	#
7:3 FTCA (812-70-4)	<5 ng/l	TM434		<50	<25	<50	<5	<50	<50
				#	#	#	#	#	#
Linear PFOS (1763-23-1)	<0.65 ng/l	TM434		<6.5	43.9	436	392	<6.5	<6.5
				#	#	#	#	#	#
Branched PFOS	<0.65 ng/l	TM434		<6.5	35.3	478	355	<6.5	<6.5
				#	#	#	#	#	#
EtFOSAA (2991-50-6)	<2 ng/l	TM434		<20	<10	<20	<2	<20	<20
				#	#	#	#	#	#
PFUnA (2058-94-8)	<2 ng/l	TM434		<20	<10	<20	<2	<20	<20
				#	#	#	#	#	#
9Cl-PF3ONS (756426-58-1)	<1 ng/l	TM434		<10	<5	<10	<1	<10	<10
				#	#	#	#	#	#
PFNS (68259-12-1)	<1 ng/l	TM434		<10	<5	<10	<1	<10	<10
				#	#	#	#	#	#
FHxSA (41997-13-1)	<1 ng/l	TM434		<10	<5	111	97.2	<10	<10
				#	#	#	#	#	#
PFDoA (307-55-1)	<2 ng/l	TM434		<20	<10	<20	<2	<20	<20
				#	#	#	#	#	#
PFDS (335-77-3)	<2 ng/l	TM434		<20	<10	<20	<2	<20	<20
				#	#	#	#	#	#
PFTrDA (72629-94-8)	<3 ng/l	TM434		<30	<15	<30	<3	<30	<30
				#	#	#	#	#	#
11Cl-PF3OUdS (763051-92-9)	<2 ng/l	TM434		<20	<10	<20	<2	<20	<20
				#	#	#	#	#	#
PFUnDs (749786-16-1)	<2 ng/l	TM434		<20	<10	<20	<2	<20	<20
				#	#	#	#	#	#
PFTeA (376-06-7)	<1 ng/l	TM434		<10	<5	<10	<1	<10	<10
				#	#	#	#	#	#
PFOSA (754-91-6)	<2 ng/l	TM434		<20	<10	<20	<2	<20	<20
				#	#	#	#	#	#
PFDoS (79780-39-5)	<2 ng/l	TM434		<20	<10	<20	<2	<20	<20
				#	#	#	#	#	#
PFHxDA (67905-19-5)	<1 ng/l	TM434		<10	<5	<10	<1	<10	<10
				#	#	#	#	#	#
MeFOSE (24448-09-7)	<10 ng/l	TM434		<100	<50	<100	<10	<100	<100
				#	#	#	#	#	#
N-MeFOSA (31506-32-8)	<1 ng/l	TM434		<10	<5	<10	<1	<10	<10
				#	#	#	#	#	#



CERTIFICATE OF ANALYSIS

Validated

SDG: 250725-20
Client Ref.: 64225

Report Number: 774826
Location: East Hemel

Superseded Report: 774821

Results Legend			Customer Sample Ref.	A3	A6	A8	B1	B2	B3
# 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)			Depth (m) Sample Type Date Sampled Sample Time Date Received SDG Ref Lab Sample No.(s) AGS Reference	Ground Water (GW) 22/07/2025 25/07/2025 250725-20 31880359	Ground Water (GW) 22/07/2025 25/07/2025 250725-20 31880360	Ground Water (GW) 22/07/2025 25/07/2025 250725-20 31880361	Ground Water (GW) 22/07/2025 25/07/2025 250725-20 31880362	Ground Water (GW) 22/07/2025 25/07/2025 250725-20 31880363	Ground Water (GW) 22/07/2025 25/07/2025 250725-20 31880364
Component	LOD/Units	Method							
EiFOSE (1691-99-2)	<10 ng/l	TM434	<100	<50	<100	<10	<100	<100	<100
			#	#	#	#	#	#	#
PFODA (16517-11-6)	<1 ng/l	TM434	<10	<5	<10	<1	<10	<10	<10
			#	#	#	#	#	#	#
N-EiFOSA (4151-50-2)	<1 ng/l	TM434	<10	<5	<10	<1	<10	<10	<10
			#	#	#	#	#	#	#
6:2 FTAB (34455-29-3)	<10 ng/l	TM434	<100	<50	744	369	<100	<100	<100
Total PFOS	<0.65 ng/l	TM434	<6.5	79.2	914	746	<6.5	<6.5	<6.5
			#	#	#	#	#	#	#
Total PFAS DWI 47	<90 ng/l	TM434	<900	<450	2940	2120	<900	<900	<900
PFecHS (133201-07-7)	<1 ng/l	TM434	<10	<5	<10	<1	<10	<10	<10
			#	#	#	#	#	#	#
PFTrDS (174675-49-1)	<1 ng/l	TM434	<10	<5	<10	<1	<10	<10	<10
			#	#	#	#	#	#	#



CERTIFICATE OF ANALYSIS

Validated

SDG: 250725-20
Client Ref.: 64225

Report Number: 774826
Location: East Hemel

Superseded Report: 774821

Results Legend			Customer Sample Ref.	C1	C3	C4	C6	C8	DUP1
#	ISO17025 accredited.		Depth (m) Sample Type Date Sampled Sample Time Date Received SDG Ref Lab Sample No.(s) AGS Reference	Ground Water (GW)	Ground Water (GW)	Ground Water (GW)	Ground Water (GW)	Ground Water (GW)	Ground Water (GW)
M	mCERTS accredited.			23/07/2025	23/07/2025	22/07/2025	23/07/2025	23/07/2025	23/07/2025
aq	Aqueous / settled sample.			25/07/2025	25/07/2025	25/07/2025	25/07/2025	25/07/2025	25/07/2025
diss.filt	Dissolved / filtered sample.			250725-20	250725-20	250725-20	250725-20	250725-20	250725-20
tot.unfilt	Total / unfiltered sample.			31880689	31880690	31880691	31880692	31880693	31881134
* 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							
Suspended solids, Total	<2 mg/l	TM022	685	672	<2	772	934	<2	
BOD, unfiltered	<1 mg/l	TM045	<10	2.99	<1	<10	<10	<1	
Carbon, Organic (diss.filt)	<3 mg/l	TM090	5.35	<3	3.53	<3	<3	<3	
Organic Carbon, Total	<3 mg/l	TM090	<3	11.5	5.03	<3	21.9	<3	
Ammoniacal Nitrogen as N	<0.2 mg/l	TM099	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	
Chromium, Trivalent	<0.03 mg/l	TM152	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	
Arsenic (diss.filt)	<0.5 µg/l	TM152	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	
Barium (diss.filt)	<0.2 µg/l	TM152	37.6	41.6	52.1	38.3	25	49.3	
Beryllium (diss.filt)	<0.1 µg/l	TM152	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	
Boron (diss.filt)	<10 µg/l	TM152	18.8	13.2	23.9	<10	<10	18.9	
Cadmium (diss.filt)	<0.08 µg/l	TM152	<0.08	<0.08	<0.08	<0.08	<0.08	<0.08	
Chromium (diss.filt)	<1 µg/l	TM152	<1	3.69	<1	2.56	2.17	<1	
Copper (diss.filt)	<0.3 µg/l	TM152	0.533	0.413	1.73	0.651	<0.3	0.73	
Lead (diss.filt)	<0.2 µg/l	TM152	0.295	0.484	<0.2	<0.2	<0.2	<0.2	
Molybdenum (diss.filt)	<3 µg/l	TM152	<3	<3	<3	<3	<3	<3	
Nickel (diss.filt)	<0.4 µg/l	TM152	1.06	0.876	1.1	0.762	0.98	1.18	
Selenium (diss.filt)	<1 µg/l	TM152	<1	1.02	1.04	<1	<1	<1	
Vanadium (diss.filt)	<1 µg/l	TM152	<1	<1	<1	<1	<1	<1	
Zinc (diss.filt)	<1 µg/l	TM152	4.59	1.86	18.3	2.07	1.86	7.43	
Hardness, Total as CaCO3 unfiltered	<0.35 mg/l	TM152	583	894	271	903	570	299	
Mercury (diss.filt)	<0.01 µg/l	TM183	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	
Nitrite as NO2	<0.05 mg/l	TM184	<0.05	0.156	<0.05	<0.05	<0.05	<0.05	
Sulphate	<2 mg/l	TM184	30.3	26.8	47	22.1	<2	35.1	
Chloride	<2 mg/l	TM184	23	25.8	14.2	15.8	10.8	26.8	
Phosphate (Ortho as P)	<0.02 mg/l	TM184	0.033	0.0235	0.0496	0.0379	0.0215	0.0392	
Nitrate as NO3	<0.3 mg/l	TM184	47.2	63.4	48	67.7	15.8	44.4	
Nitrogen, Total	<1 mg/l	TM212	12.4	16.6	12.2	17.8	3.85	11.4	
Chromium, Hexavalent	<0.03 mg/l	TM241	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	
pH	<1 pH Units	TM256	7.42	7.43	7.34	7.41	7.57	7.32	
Trifluralin	<0.01 µg/l	TM343	<0.1	<0.05	<0.01	<0.1	<0.1	<0.01	
alpha-HCH	<0.01 µg/l	TM343	<0.1	<0.05	<0.01	<0.1	<0.1	<0.01	
gamma-HCH (Lindane)	<0.01 µg/l	TM343	<0.1	<0.05	<0.01	<0.1	<0.1	<0.01	
Heptachlor	<0.01 µg/l	TM343	<0.1	<0.05	<0.01	<0.1	<0.1	<0.01	



CERTIFICATE OF ANALYSIS

Validated

SDG: 250725-20
Client Ref.: 64225

Report Number: 774826
Location: East Hemel

Superseded Report: 774821

Results Legend			Customer Sample Ref.	C1	C3	C4	C6	C8	DUP1
#	ISO17025 accredited.		Depth (m) Sample Type Date Sampled Sample Time Date Received SDG Ref Lab Sample No.(s) AGS Reference	Ground Water (GW)	Ground Water (GW)	Ground Water (GW)	Ground Water (GW)	Ground Water (GW)	Ground Water (GW)
M	mCERTS accredited.			23/07/2025	23/07/2025	22/07/2025	23/07/2025	23/07/2025	23/07/2025
AQ	Aqueous / settled sample.			25/07/2025	25/07/2025	25/07/2025	25/07/2025	25/07/2025	25/07/2025
DIS	diss.filt Dissolved / filtered sample.			250725-20	250725-20	250725-20	250725-20	250725-20	250725-20
TOT	tot.unfilt Total / unfiltered sample.		31880689	31880690	31880691	31880692	31880693	31881134	
* 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							
Aldrin	<0.01 µg/l	TM343		<0.1	<0.05	<0.01	<0.1	<0.1	<0.01
beta-HCH	<0.01 µg/l	TM343		<0.1	<0.05	<0.01	<0.1	<0.1	<0.01
Isodrin	<0.01 µg/l	TM343		<0.1	<0.05	<0.01	<0.1	<0.1	<0.01
delta-HCH	<0.01 µg/l	TM343		<0.1	<0.05	<0.01	<0.1	<0.1	<0.01
Heptachlor epoxide	<0.01 µg/l	TM343		<0.1	<0.05	<0.01	<0.1	<0.1	<0.01
o,p'-DDE	<0.01 µg/l	TM343		<0.1	<0.05	<0.01	<0.1	<0.1	<0.01
Endosulphan I	<0.01 µg/l	TM343		<0.1	<0.05	<0.01	<0.1	<0.1	<0.01
trans-Chlordane	<0.01 µg/l	TM343		<0.1	<0.05	<0.01	<0.1	<0.1	<0.01
cis-Chlordane	<0.01 µg/l	TM343		<0.1	<0.05	<0.01	<0.1	<0.1	<0.01
p,p'-DDE	<0.01 µg/l	TM343		<0.1	<0.05	<0.01	<0.1	<0.1	<0.01
Dieldrin	<0.01 µg/l	TM343		<0.1	<0.05	<0.01	<0.1	<0.1	<0.01
o,p'-DDD (TDE)	<0.01 µg/l	TM343		<0.1	<0.05	<0.01	<0.1	<0.1	<0.01
Endrin	<0.01 µg/l	TM343		<2	<2	<2	<2	<2	<2
o,p'-DDT	<0.01 µg/l	TM343		<0.1	<0.05	<0.01	<0.1	<0.1	<0.01
p,p'-DDD (TDE)	<0.01 µg/l	TM343		<0.1	<0.05	<0.01	<0.1	<0.1	<0.01
Endosulphan II	<0.02 µg/l	TM343		<0.2	<0.1	<0.02	<0.2	<0.2	<0.02
o,p'-Methoxychlor	<0.01 µg/l	TM343		<2	<2	<2	<2	<2	<2
p,p'-Methoxychlor	<0.01 µg/l	TM343		<2	<2	<2	<2	<2	<2
Endosulphan Sulphate	<0.02 µg/l	TM343		<0.2	<0.1	<0.02	<0.2	<0.2	<0.02
Permethrin I	<0.01 µg/l	TM343		<0.1	<0.05	<0.01	<0.1	<0.1	<0.01
Permethrin II	<0.01 µg/l	TM343		<0.1	<0.05	<0.01	<0.1	<0.1	<0.01
PFBA (375-22-4)	<2 ng/l	TM434		<100	<20	26.9	<20	<20	18
PFMOPRA (377-73-1)	<1 ng/l	TM434		<50	<10	<1	<10	<10	<1
3:3 FTCA (356-02-5)	<5 ng/l	TM434		<250	<20	6.86	<20	<20	<2
PFPA (2706-90-3)	<1 ng/l	TM434		<50	12	42.5	<10	<10	31.5
PFMOBA (863090-89-5)	<1 ng/l	TM434		<50	<10	<1	<10	<10	<1
4:2 FTS (757124-72-4)	<1 ng/l	TM434		<50	<10	<1	<10	<10	<1
NFDHA (151772-58-6)	<3 ng/l	TM434		<150	<30	<3	<30	<30	<3
PFBS (375-73-5)	<1 ng/l	TM434		<50	<10	9.63	<10	<10	7.1
PFHxA (307-24-4)	<1 ng/l	TM434		<50	<10	26.9	<10	<10	19.2
HFPO-DA (13252-13-6)	<2 ng/l	TM434		<100	<20	<2	<20	<20	<2
PFEESA (113507-82-7)	<1 ng/l	TM434		<50	<10	<1	<10	<10	<1
PFHpA (375-85-9)	<1 ng/l	TM434		<50	<10	18.7	<10	<10	13.7



CERTIFICATE OF ANALYSIS

Validated

SDG: 250725-20
Client Ref.: 64225

Report Number: 774826
Location: East Hemel

Superseded Report: 774821

Results Legend			Customer Sample Ref.	C1	C3	C4	C6	C8	DUP1
# 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)			Depth (m) Sample Type Date Sampled Sample Time Date Received SDG Ref Lab Sample No.(s) AGS Reference	Ground Water (GW) 23/07/2025 25/07/2025 250725-20 31880689	Ground Water (GW) 23/07/2025 25/07/2025 250725-20 31880690	Ground Water (GW) 22/07/2025 25/07/2025 250725-20 31880691	Ground Water (GW) 23/07/2025 25/07/2025 250725-20 31880692	Ground Water (GW) 23/07/2025 25/07/2025 250725-20 31880693	Ground Water (GW) 23/07/2025 25/07/2025 250725-20 31881134
Component	LOD/Units	Method							
PFPeS (2706-91-4)	<1 ng/l	TM434	<50	<10	2.1	<10	<10	2.17	
5:3 FTCA (914637-49-3)	<5 ng/l	TM434	<250	<50	<5	<50	<50	<5	
ADONA (919005-14-4)	<1 ng/l	TM434	<50	<10	<1	<10	<10	<1	
6:2 FTS (27619-97-2)	<1 ng/l	TM434	<50	<10	<1	<10	<10	<1	
FBSA (30334-69-1)	<1 ng/l	TM434	<50	<10	4.22	<10	<10	3.78	
PFOA (335-67-1)	<0.65 ng/l	TM434	<32.5	8.67	15	<6.5	<6.5	10.7	
PFHxS (355-46-4)	<1 ng/l	TM434	<50	13.4	10.2	<10	<10	3.28	
PFNA (375-95-1)	<1 ng/l	TM434	<50	<10	2.96	<10	<10	1.9	
PFHpS (375-92-8)	<1 ng/l	TM434	<50	<10	<1	<10	<10	<1	
8:2 FTS (39108-34-4)	<2 ng/l	TM434	<100	<20	<2	<20	<20	<2	
HFPO-TA (13252-14-7)	<5 ng/l	TM434	<250	<50	<5	<50	<50	<5	
PFDA (335-76-2)	<2 ng/l	TM434	<100	<20	<2	<20	<20	<2	
MeFOSAA (2355-31-9)	<2 ng/l	TM434	<100	<20	<2	<20	<20	<2	
7:3 FTCA (812-70-4)	<5 ng/l	TM434	<250	<50	<5	<50	<50	<5	
Linear PFOS (1763-23-1)	<0.65 ng/l	TM434	<32.5	17.3	5.71	<6.5	<6.5	9.32	
Branched PFOS	<0.65 ng/l	TM434	<32.5	9.04	9.16	<6.5	<6.5	11.7	
EtFOSAA (2991-50-6)	<2 ng/l	TM434	<100	<20	<2	<20	<20	<2	
PFUnA (2058-94-8)	<2 ng/l	TM434	<100	<20	<2	<20	<20	<2	
9Cl-PF3ONS (756426-58-1)	<1 ng/l	TM434	<50	<10	<1	<10	<10	<1	
PFNS (68259-12-1)	<1 ng/l	TM434	<50	<10	<1	<10	<10	<1	
FHxSA (41997-13-1)	<1 ng/l	TM434	<50	<10	<1	<10	<10	<1	
PFDoA (307-55-1)	<2 ng/l	TM434	<100	<20	<2	<20	<20	<2	
PFDS (335-77-3)	<2 ng/l	TM434	<100	<20	<2	<20	<20	<2	
PFTriDA (72629-94-8)	<3 ng/l	TM434	<150	<30	<3	<30	<30	<3	
11Cl-PF3OUdS (763051-92-9)	<2 ng/l	TM434	<100	<20	<2	<20	<20	<2	
PFUnDS (749786-16-1)	<2 ng/l	TM434	<100	<20	<2	<20	<20	<2	
PFTeA (376-06-7)	<1 ng/l	TM434	<50	<10	<1	<10	<10	<1	
PFOSA (754-91-6)	<2 ng/l	TM434	<100	<20	<2	<20	<20	<2	
PFDoS (79780-39-5)	<2 ng/l	TM434	<100	<20	<2	<20	<20	<2	
PFHxDA (67905-19-5)	<1 ng/l	TM434	<50	<10	<1	<10	<10	<1	
MeFOSE (24448-09-7)	<10 ng/l	TM434	<500	<100	<10	<100	<100	<10	
N-MeFOSA (31506-32-8)	<1 ng/l	TM434	<50	<10	<1	<10	<10	<1	
EtFOSE (1691-99-2)	<10 ng/l	TM434	<500	<100	<10	<100	<100	<10	



CERTIFICATE OF ANALYSIS

Validated

SDG: 250725-20
Client Ref.: 64225

Report Number: 774826
Location: East Hemel

Superseded Report: 774821

Results Legend			Customer Sample Ref.			
# 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)	Depth (m) Sample Type Date Sampled Sample Time Date Received SDG Ref Lab Sample No.(s) AGS Reference	DUP2	EB1	FIELD BLANK (FB)	TRIP BLANK(TB)	
		Ground Water (GW) 23/07/2025	Ground Water (GW) 22/07/2025	Ground Water (GW) 22/07/2025	Ground Water (GW) 22/07/2025	
		25/07/2025 250725-20 31881135	25/07/2025 250725-20 31880694	25/07/2025 250725-20 31881140	25/07/2025 250725-20 31881138	
Component	LOD/Units	Method				
Suspended solids, Total	<2 mg/l	TM022	1340		<2	<2
BOD, unfiltered	<1 mg/l	TM045	<10		<1	<1
Carbon, Organic (diss.filt)	<3 mg/l	TM090	<3		<3	<3
Organic Carbon, Total	<3 mg/l	TM090	<3		<3	<3
Ammoniacal Nitrogen as N	<0.2 mg/l	TM099	<0.2		<0.2	<0.2
Chromium, Trivalent	<0.03 mg/l	TM152	<0.03		<0.03	<0.03
Arsenic (diss.filt)	<0.5 µg/l	TM152	<0.5		<0.5	<0.5
Barium (diss.filt)	<0.2 µg/l	TM152	42.5		14	14.1
Beryllium (diss.filt)	<0.1 µg/l	TM152	<0.1		<0.1	<0.1
Boron (diss.filt)	<10 µg/l	TM152	<10		<10	<10
Cadmium (diss.filt)	<0.08 µg/l	TM152	<0.08		<0.08	<0.08
Chromium (diss.filt)	<1 µg/l	TM152	3.72		<1	<1
Copper (diss.filt)	<0.3 µg/l	TM152	0.366		<0.3	0.418
Lead (diss.filt)	<0.2 µg/l	TM152	<0.2		<0.2	<0.2
Molybdenum (diss.filt)	<3 µg/l	TM152	<3		<3	<3
Nickel (diss.filt)	<0.4 µg/l	TM152	<0.4		<0.4	<0.4
Selenium (diss.filt)	<1 µg/l	TM152	<1		<1	<1
Vanadium (diss.filt)	<1 µg/l	TM152	<1		<1	<1
Zinc (diss.filt)	<1 µg/l	TM152	2.85		<1	4.83
Hardness, Total as CaCO3 unfiltered	<0.35 mg/l	TM152	1620		196	<0.35
Mercury (diss.filt)	<0.01 µg/l	TM183	<0.01		<0.01	<0.01
Nitrite as NO2	<0.05 mg/l	TM184	0.134		<0.05	<0.05
Sulphate	<2 mg/l	TM184	27.4		7.4	<2
Chloride	<2 mg/l	TM184	26.1		8.5	<2
Phosphate (Ortho as P)	<0.02 mg/l	TM184	0.0343		<0.02	<0.02
Nitrate as NO3	<0.3 mg/l	TM184	62.2		2.25	<0.3
Nitrogen, Total	<1 mg/l	TM212	16.2		<1	<1
Chromium, Hexavalent	<0.03 mg/l	TM241	<0.03		<0.03	<0.03
pH	<1 pH Units	TM256	7.32		7.87	6.04
Trifluralin	<0.01 µg/l	TM343	<0.1		<0.015	<0.01
alpha-HCH	<0.01 µg/l	TM343	<0.1		<0.015	<0.01
gamma-HCH (Lindane)	<0.01 µg/l	TM343	<0.1		<0.015	<0.01
Heptachlor	<0.01 µg/l	TM343	<0.1		<0.015	<0.01



CERTIFICATE OF ANALYSIS

Validated

SDG: 250725-20
Client Ref.: 64225

Report Number: 774826
Location: East Hemel

Superseded Report: 774821

Results Legend			Customer Sample Ref.	DUP2	EB1	FIELD BLANK (FB)	TRIP BLANK(TB)		
# 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)			Depth (m) Sample Type Date Sampled Sample Time Date Received SDG Ref Lab Sample No.(s) AGS Reference	Ground Water (GW) 23/07/2025	Ground Water (GW) 22/07/2025	Ground Water (GW) 22/07/2025	Ground Water (GW) -		
Component	LOD/Units	Method							
Aldrin	<0.01 µg/l	TM343	<0.1		<0.015	<0.01			
beta-HCH	<0.01 µg/l	TM343	<0.1		<0.015	<0.01			
Isodrin	<0.01 µg/l	TM343	<0.1		<0.015	<0.01			
delta-HCH	<0.01 µg/l	TM343	<0.1		<0.015	<0.01			
Heptachlor epoxide	<0.01 µg/l	TM343	<0.1		<0.015	<0.01			
o,p'-DDE	<0.01 µg/l	TM343	<0.1		<0.015	<0.01			
Endosulphan I	<0.01 µg/l	TM343	<0.1		<0.015	<0.01			
trans-Chlordane	<0.01 µg/l	TM343	<0.1		<0.015	<0.01			
cis-Chlordane	<0.01 µg/l	TM343	<0.1		<0.015	<0.01			
p,p'-DDE	<0.01 µg/l	TM343	<0.1		<0.015	<0.01			
Dieldrin	<0.01 µg/l	TM343	<0.1		<0.015	<0.01			
o,p'-DDD (TDE)	<0.01 µg/l	TM343	<0.1		<0.015	<0.01			
Endrin	<0.01 µg/l	TM343	<2		<2	<2			
o,p'-DDT	<0.01 µg/l	TM343	<0.1		<0.015	<0.01			
p,p'-DDD (TDE)	<0.01 µg/l	TM343	<0.1		<0.015	<0.01			
Endosulphan II	<0.02 µg/l	TM343	<0.2		<0.03	<0.02			
p,p'-DDT	<0.01 µg/l	TM343	<2		<2				
o,p'-Methoxychlor	<0.01 µg/l	TM343	<2		<2	<2			
p,p'-Methoxychlor	<0.01 µg/l	TM343	<2		<2	<2			
Endosulphan Sulphate	<0.02 µg/l	TM343	<0.2		<0.03	<0.02			
Permethrin I	<0.01 µg/l	TM343	<0.1		<0.015	<0.01			
Permethrin II	<0.01 µg/l	TM343	<0.1		<0.015	<0.01			
PFBA (375-22-4)	<2 ng/l	TM434	<20	#	<2	<2	#	#	#
PFMOPRA (377-73-1)	<1 ng/l	TM434	<10	#	<1	<1	#	#	#
3:3 FTCA (356-02-5)	<5 ng/l	TM434	<20	#	<2	<2	#	#	#
PFPA (2706-90-3)	<1 ng/l	TM434	11.8	#	<1	<1	#	#	#
PFMOBA (863090-89-5)	<1 ng/l	TM434	<10	#	<1	<1	#	#	#
4:2 FTS (751124-72-4)	<1 ng/l	TM434	<10	#	<1	<1	#	#	#
NFDHA (151772-58-6)	<3 ng/l	TM434	<30	#	<3	<3	#	#	#
PFBS (375-73-5)	<1 ng/l	TM434	<10	#	<1	<1	#	#	#
PFHxA (307-24-4)	<1 ng/l	TM434	<10	#	<1	<1	#	#	#
HFPO-DA (13252-13-6)	<2 ng/l	TM434	<20	#	<2	<2	#	#	#
PFEESA (113507-82-7)	<1 ng/l	TM434	<10	#	<1	<1	#	#	#



CERTIFICATE OF ANALYSIS

Validated

SDG: 250725-20
Client Ref.: 64225

Report Number: 774826
Location: East Hemel

Superseded Report: 774821

Results Legend			Customer Sample Ref.	DUP2	EB1	FIELD BLANK (FB)	TRIP BLANK(TB)		
# 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)			Depth (m) Sample Type Date Sampled Sample Time Date Received SDG Ref Lab Sample No.(s) AGS Reference	Ground Water (GW) 23/07/2025	Ground Water (GW) 22/07/2025	Ground Water (GW) 22/07/2025	Ground Water (GW) -		
Component	LOD/Units	Method							
PFHpA (375-85-9)	<1 ng/l	TM434	<10	<1	<1	<1	<1	#	§ #
PFPeS (2706-91-4)	<1 ng/l	TM434	<10	<1	<1	<1	<1	#	§ #
5:3 FTCA (914637-49-3)	<5 ng/l	TM434	<50	<5	<5	<5	<5	#	§ #
ADONA (919005-14-4)	<1 ng/l	TM434	<10	<1	<1	<1	<1	#	§ #
6:2 FTS (27619-97-2)	<1 ng/l	TM434	<10	<1	<1	<1	<1	#	§ #
FBSA (30334-69-1)	<1 ng/l	TM434	<10	<1	<1	<1	<1	#	§ #
PFOA (335-67-1)	<0.65 ng/l	TM434	7	<0.65	<0.65	<0.65	<0.65	#	§ #
PFHxS (355-46-4)	<1 ng/l	TM434	<10	<1	<1	<1	<1	#	§ #
PFNA (375-95-1)	<1 ng/l	TM434	<10	<1	<1	<1	<1	#	§ #
PFHpS (375-92-8)	<1 ng/l	TM434	<10	<1	<1	<1	<1	#	§ #
8:2 FTS (39108-34-4)	<2 ng/l	TM434	<20	<2	<2	<2	<2	#	§ #
HFPO-TA (13252-14-7)	<5 ng/l	TM434	<50	<5	<5	<5	<5	#	§ #
PFDA (335-76-2)	<2 ng/l	TM434	<20	<2	<2	<2	<2	#	§ #
MeFOSAA (2355-31-9)	<2 ng/l	TM434	<20	<2	<2	<2	<2	#	§ #
7:3 FTCA (812-70-4)	<5 ng/l	TM434	<50	<5	<5	<5	<5	#	§ #
Linear PFOS (1763-23-1)	<0.65 ng/l	TM434	18.6	<0.65	<0.65	<0.65	<0.65	#	§ #
Branched PFOS	<0.65 ng/l	TM434	14.6	<0.65	<0.65	<0.65	<0.65	#	§ #
EtFOSAA (2991-50-6)	<2 ng/l	TM434	<20	<2	<2	<2	<2	#	§ #
PFUnA (2058-94-8)	<2 ng/l	TM434	<20	<2	<2	<2	<2	#	§ #
9Cl-PF3ONS (756426-58-1)	<1 ng/l	TM434	<10	<1	<1	<1	<1	#	§ #
PFNS (68259-12-1)	<1 ng/l	TM434	<10	<1	<1	<1	<1	#	§ #
FHxSA (41997-13-1)	<1 ng/l	TM434	<10	<1	<1	<1	<1	#	§ #
PFDoA (307-55-1)	<2 ng/l	TM434	<20	<2	<2	<2	<2	#	§ #
PFDS (335-77-3)	<2 ng/l	TM434	<20	<2	<2	<2	<2	#	§ #
PFTrDA (72629-94-8)	<3 ng/l	TM434	<30	<3	<3	<3	<3	#	§ #
11Cl-PF3OUdS (763051-92-9)	<2 ng/l	TM434	<20	<2	<2	<2	<2	#	§ #
PFUnDS (749786-16-1)	<2 ng/l	TM434	<20	<2	<2	<2	<2	#	§ #
PFTeA (376-06-7)	<1 ng/l	TM434	<10	<1	<1	<1	<1	#	§ #
PFOSA (754-91-6)	<2 ng/l	TM434	<20	<2	<2	<2	<2	#	§ #
PFDoS (79780-39-5)	<2 ng/l	TM434	<20	<2	<2	<2	<2	#	§ #
PFHxDA (67905-19-5)	<1 ng/l	TM434	<10	<1	<1	<1	<1	#	§ #
MeFOSE (24448-09-7)	<10 ng/l	TM434	<100	<10	<10	<10	<10	#	§ #
N-MeFOA (31506-32-8)	<1 ng/l	TM434	<10	<1	<1	<1	<1	#	§ #



CERTIFICATE OF ANALYSIS

Validated

SDG: 250725-20
Client Ref.: 64225

Report Number: 774826
Location: East Hemel

Superseded Report: 774821

PAH Spec MS - Aqueous (W)

Results Legend			Customer Sample Ref.		A3	A6	A8	B1	B2	B3
# 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)			Depth (m) Sample Type Date Sampled Sample Time Date Received SDG Ref Lab Sample No.(s) AGS Reference		Ground Water (GW) 22/07/2025 25/07/2025 250725-20 31880359	Ground Water (GW) 22/07/2025 25/07/2025 250725-20 31880360	Ground Water (GW) 22/07/2025 25/07/2025 250725-20 31880361	Ground Water (GW) 22/07/2025 25/07/2025 250725-20 31880362	Ground Water (GW) 22/07/2025 25/07/2025 250725-20 31880363	Ground Water (GW) 22/07/2025 25/07/2025 250725-20 31880364
Component	LOD/Units	Method								
Naphthalene (aq)	<0.01 µg/l	TM178	<0.01 #	<0.01 #	<0.01 #	<0.01 #	<0.01 #	<0.01 #	<0.01 #	<0.01 #
Acenaphthene (aq)	<0.005 µg/l	TM178	<0.005 #	<0.005 #	<0.005 #	<0.005 #	<0.005 #	<0.005 #	<0.005 #	<0.005 #
Acenaphthylene (aq)	<0.005 µg/l	TM178	<0.005 #	<0.005 #	<0.005 #	<0.005 #	<0.005 #	<0.005 #	<0.005 #	<0.005 #
Fluoranthene (aq)	<0.005 µg/l	TM178	0.0194 #	0.00943 #	<0.005 #	<0.005 #	<0.005 #	<0.005 #	0.0065 #	0.0065 #
Anthracene (aq)	<0.005 µg/l	TM178	<0.005 #	<0.005 #	<0.005 #	<0.005 #	<0.005 #	<0.005 #	<0.005 #	<0.005 #
Phenanthrene (aq)	<0.005 µg/l	TM178	<0.005 #	<0.005 #	<0.005 #	<0.005 #	<0.005 #	<0.005 #	<0.005 #	<0.005 #
Fluorene (aq)	<0.005 µg/l	TM178	<0.005 #	<0.005 #	<0.005 #	<0.005 #	<0.005 #	<0.005 #	<0.005 #	<0.005 #
Chrysene (aq)	<0.005 µg/l	TM178	0.00938 #	0.00576 #	<0.005 #	<0.005 #	<0.005 #	<0.005 #	<0.005 #	<0.005 #
Pyrene (aq)	<0.005 µg/l	TM178	0.0176 #	0.00964 #	<0.005 #	<0.005 #	<0.005 #	<0.005 #	0.00757 #	0.00757 #
Benzo(a)anthracene (aq)	<0.005 µg/l	TM178	<0.005 #	<0.005 #	<0.005 #	<0.005 #	<0.005 #	<0.005 #	<0.005 #	<0.005 #
Benzo(b)fluoranthene (aq)	<0.005 µg/l	TM178	0.013 #	0.00601 #	<0.005 #	<0.005 #	<0.005 #	<0.005 #	<0.005 #	<0.005 #
Benzo(k)fluoranthene (aq)	<0.005 µg/l	TM178	0.00565 #	<0.005 #	<0.005 #	<0.005 #	<0.005 #	<0.005 #	<0.005 #	<0.005 #
Benzo(a)pyrene (aq)	<0.002 µg/l	TM178	0.00737 #	0.00305 #	<0.002 #	<0.002 #	<0.002 #	<0.002 #	<0.002 #	<0.002 #
Dibenzo(a,h)anthracene (aq)	<0.005 µg/l	TM178	<0.005 #	<0.005 #	<0.005 #	<0.005 #	<0.005 #	<0.005 #	<0.005 #	<0.005 #
Benzo(g,h,i)perylene (aq)	<0.005 µg/l	TM178	<0.005 #	<0.005 #	<0.005 #	<0.005 #	<0.005 #	<0.005 #	<0.005 #	<0.005 #
Indeno(1,2,3-cd)pyrene (aq)	<0.005 µg/l	TM178	0.00567 #	0.00504 #	<0.005 #	<0.005 #	<0.005 #	<0.005 #	<0.005 #	<0.005 #
PAH, Total Detected USEPA 16 (aq)	<0.082 µg/l	TM178	<0.082 #	<0.082 #	<0.082 #	<0.082 #	<0.082 #	<0.082 #	<0.082 #	<0.082 #



CERTIFICATE OF ANALYSIS

Validated

SDG: 250725-20
Client Ref.: 64225

Report Number: 774826
Location: East Hemel

Superseded Report: 774821

SVOC MS (W) - Aqueous

Results Legend			Customer Sample Ref.	A3	A6	A8	B1	B2	B3
# 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)			Depth (m) Sample Type Date Sampled Sample Time Date Received SDG Ref Lab Sample No.(s) AGS Reference	Ground Water (GW) 22/07/2025 25/07/2025 250725-20 31880359	Ground Water (GW) 22/07/2025 25/07/2025 250725-20 31880360	Ground Water (GW) 22/07/2025 25/07/2025 250725-20 31880361	Ground Water (GW) 22/07/2025 25/07/2025 250725-20 31880362	Ground Water (GW) 22/07/2025 25/07/2025 250725-20 31880363	Ground Water (GW) 22/07/2025 25/07/2025 250725-20 31880364
Component	LOD/Units	Method							
1,2,4-Trichlorobenzene (aq)	<1 µg/l	TM176	<4 #	<10 #	<2 #	<1 #	<1 #	<8 #	
1,2-Dichlorobenzene (aq)	<1 µg/l	TM176	<4 #	<10 #	<2 #	<1 #	<1 #	<8 #	
1,3-Dichlorobenzene (aq)	<1 µg/l	TM176	<4 #	<10 #	<2 #	<1 #	<1 #	<8 #	
1,4-Dichlorobenzene (aq)	<1 µg/l	TM176	<4 #	<10 #	<2 #	<1 #	<1 #	<8 #	
2,4,5-Trichlorophenol (aq)	<1 µg/l	TM176	<4 #	<10 #	<2 #	<1 #	<1 #	<8 #	
2,4,6-Trichlorophenol (aq)	<1 µg/l	TM176	<4 #	<10 #	<2 #	<1 #	<1 #	<8 #	
2,4-Dichlorophenol (aq)	<1 µg/l	TM176	<4 #	<10 #	<2 #	<1 #	<1 #	<8 #	
2,4-Dimethylphenol (aq)	<1 µg/l	TM176	<4 #	<10 #	<2 #	<1 #	<1 #	<8 #	
2,4-Dinitrotoluene (aq)	<1 µg/l	TM176	<4 #	<10 #	<2 #	<1 #	<1 #	<8 #	
2,6-Dinitrotoluene (aq)	<1 µg/l	TM176	<4 #	<10 #	<2 #	<1 #	<1 #	<8 #	
2-Chloronaphthalene (aq)	<1 µg/l	TM176	<4 #	<10 #	<2 #	<1 #	<1 #	<8 #	
2-Chlorophenol (aq)	<1 µg/l	TM176	<4 #	<10 #	<2 #	<1 #	<1 #	<8 #	
2-Methylnaphthalene (aq)	<1 µg/l	TM176	<4 #	<10 #	<2 #	<1 #	<1 #	<8 #	
2-Methylphenol (aq)	<1 µg/l	TM176	<4 #	<10 #	<2 #	<1 #	<1 #	<8 #	
2-Nitroaniline (aq)	<1 µg/l	TM176	<4 #	<10 #	<2 #	<1 #	<1 #	<8 #	
2-Nitrophenol (aq)	<1 µg/l	TM176	<4 #	<10 #	<2 #	<1 #	<1 #	<8 #	
3-Nitroaniline (aq)	<1 µg/l	TM176	<4 #	<10 #	<2 #	<1 #	<1 #	<8 #	
4-Bromophenylphenylether (aq)	<1 µg/l	TM176	<4 #	<10 #	<2 #	<1 #	<1 #	<8 #	
4-Chloro-3-methylphenol (aq)	<1 µg/l	TM176	<4 #	<10 #	<2 #	<1 #	<1 #	<8 #	
4-Chloroaniline (aq)	<1 µg/l	TM176	<4 #	<10 #	<2 #	<1 #	<1 #	<8 #	
4-Chlorophenylphenylether (aq)	<1 µg/l	TM176	<4 #	<10 #	<2 #	<1 #	<1 #	<8 #	
4-Methylphenol (aq)	<1 µg/l	TM176	<4 #	<10 #	<2 #	<1 #	<1 #	<8 #	
4-Nitroaniline (aq)	<1 µg/l	TM176	<4 #	<10 #	<2 #	<1 #	<1 #	<8 #	
4-Nitrophenol (aq)	<1 µg/l	TM176	<4 #	<10 #	<2 #	<1 #	<1 #	<8 #	
Azobenzene (aq)	<1 µg/l	TM176	<4 #	<10 #	<2 #	<1 #	<1 #	<8 #	
Acenaphthylene (aq)	<1 µg/l	TM176	<4 #	<10 #	<2 #	<1 #	<1 #	<8 #	
Acenaphthene (aq)	<1 µg/l	TM176	<4 #	<10 #	<2 #	<1 #	<1 #	<8 #	
Anthracene (aq)	<1 µg/l	TM176	<4 #	<10 #	<2 #	<1 #	<1 #	<8 #	
bis(2-Chloroethyl)ether (aq)	<1 µg/l	TM176	<4 #	<10 #	<2 #	<1 #	<1 #	<8 #	
bis(2-Chloroethoxy)methane (aq)	<1 µg/l	TM176	<4 #	<10 #	<2 #	<1 #	<1 #	<8 #	
bis(2-Ethylhexyl) phthalate (aq)	<2 µg/l	TM176	<8 #	<20 #	<4 #	<2 #	<2 #	<16 #	
Butylbenzyl phthalate (aq)	<1 µg/l	TM176	<4 #	<10 #	<2 #	<1 #	<1 #	<8 #	
Benzo(a)anthracene (aq)	<1 µg/l	TM176	<4 #	<10 #	<2 #	<1 #	<1 #	<8 #	



CERTIFICATE OF ANALYSIS

Validated

SDG: 250725-20
Client Ref.: 64225

Report Number: 774826
Location: East Hemel

Superseded Report: 774821

SVOC MS (W) - Aqueous

Results Legend			Customer Sample Ref.	A3	A6	A8	B1	B2	B3
# 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)			Depth (m) Sample Type Date Sampled Sample Time Date Received SDG Ref Lab Sample No.(s) AGS Reference	Ground Water (GW) 22/07/2025	Ground Water (GW) 22/07/2025	Ground Water (GW) 22/07/2025	Ground Water (GW) 22/07/2025	Ground Water (GW) 22/07/2025	Ground Water (GW) 22/07/2025
Component			LOD/Units	Method					
Benzo(b)fluoranthene (aq)	<1 µg/l	TM176	<4 #	<10 #	<2 #	<1 #	<1 #	<8 #	
Benzo(k)fluoranthene (aq)	<1 µg/l	TM176	<4 #	<10 #	<2 #	<1 #	<1 #	<8 #	
Benzo(a)pyrene (aq)	<1 µg/l	TM176	<4 #	<10 #	<2 #	<1 #	<1 #	<8 #	
Benzo(g,h,i)perylene (aq)	<1 µg/l	TM176	<4 #	<10 #	<2 #	<1 #	<1 #	<8 #	
Carbazole (aq)	<1 µg/l	TM176	<4 #	<10 #	<2 #	<1 #	<1 #	<8 #	
Chrysene (aq)	<1 µg/l	TM176	<4 #	<10 #	<2 #	<1 #	<1 #	<8 #	
Dibenzofuran (aq)	<1 µg/l	TM176	<4 #	<10 #	<2 #	<1 #	<1 #	<8 #	
n-Dibutyl phthalate (aq)	<1 µg/l	TM176	<4 #	<10 #	<2 #	<1 #	<1 #	<8 #	
Diethyl phthalate (aq)	<1 µg/l	TM176	<4 #	<10 #	<2 #	<1 #	<1 #	<8 #	
Dibenzo(a,h)anthracene (aq)	<1 µg/l	TM176	<4 #	<10 #	<2 #	<1 #	<1 #	<8 #	
Dimethyl phthalate (aq)	<1 µg/l	TM176	<4 #	<10 #	<2 #	<1 #	<1 #	<8 #	
n-Dioctyl phthalate (aq)	<5 µg/l	TM176	<20 #	<50 #	<10 #	<5 #	<5 #	<40 #	
Fluoranthene (aq)	<1 µg/l	TM176	<4 #	<10 #	<2 #	<1 #	<1 #	<8 #	
Fluorene (aq)	<1 µg/l	TM176	<4 #	<10 #	<2 #	<1 #	<1 #	<8 #	
Hexachlorobenzene (aq)	<1 µg/l	TM176	<4 #	<10 #	<2 #	<1 #	<1 #	<8 #	
Hexachlorobutadiene (aq)	<1 µg/l	TM176	<4 #	<10 #	<2 #	<1 #	<1 #	<8 #	
Pentachlorophenol (aq)	<1 µg/l	TM176	<4 #	<10 #	<2 #	<1 #	<1 #	<8 #	
Phenol (aq)	<1 µg/l	TM176	<4 #	<10 #	<2 #	<1 #	<1 #	<8 #	
n-Nitroso-n-dipropylamine (aq)	<1 µg/l	TM176	<4 #	<10 #	<2 #	<1 #	<1 #	<8 #	
Hexachloroethane (aq)	<1 µg/l	TM176	<4 #	<10 #	<2 #	<1 #	<1 #	<8 #	
Nitrobenzene (aq)	<1 µg/l	TM176	<4 #	<10 #	<2 #	<1 #	<1 #	<8 #	
Naphthalene (aq)	<1 µg/l	TM176	<4 #	<10 #	<2 #	<1 #	<1 #	<8 #	
Isophorone (aq)	<1 µg/l	TM176	<4 #	<10 #	<2 #	<1 #	<1 #	<8 #	
Hexachlorocyclopentadiene (aq)	<1 µg/l	TM176	<4 #	<10 #	<2 #	<1 #	<1 #	<8 #	
Phenanthrene (aq)	<1 µg/l	TM176	<4 #	<10 #	<2 #	<1 #	<1 #	<8 #	
Indeno(1,2,3-cd)pyrene (aq)	<1 µg/l	TM176	<4 #	<10 #	<2 #	<1 #	<1 #	<8 #	
Pyrene (aq)	<1 µg/l	TM176	<4 #	<10 #	<2 #	<1 #	<1 #	<8 #	



CERTIFICATE OF ANALYSIS

Validated

SDG: 250725-20
Client Ref.: 64225

Report Number: 774826
Location: East Hemel

Superseded Report: 774821

SVOC MS (W) - Aqueous

Results Legend			Customer Sample Ref.	C1	C3	C4	C6	C8	DUP1
# 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)			Depth (m) Sample Type Date Sampled Sample Time Date Received SDG Ref Lab Sample No.(s) AGS Reference	Ground Water (GW) 23/07/2025	Ground Water (GW) 23/07/2025	Ground Water (GW) 22/07/2025	Ground Water (GW) 23/07/2025	Ground Water (GW) 23/07/2025	Ground Water (GW) 23/07/2025
Component	LOD/Units	Method							
1,2-Trichlorobenzene (aq)	<1 µg/l	TM176	<10	<8	<1	<10	<20	<1	#
1,2-Dichlorobenzene (aq)	<1 µg/l	TM176	<10	<8	<1	<10	<20	<1	#
1,3-Dichlorobenzene (aq)	<1 µg/l	TM176	<10	<8	<1	<10	<20	<1	#
1,4-Dichlorobenzene (aq)	<1 µg/l	TM176	<10	<8	<1	<10	<20	<1	#
2,4,5-Trichlorophenol (aq)	<1 µg/l	TM176	<10	<8	<1	<10	<20	<1	#
2,4,6-Trichlorophenol (aq)	<1 µg/l	TM176	<10	<8	<1	<10	<20	<1	#
2,4-Dichlorophenol (aq)	<1 µg/l	TM176	<10	<8	<1	<10	<20	<1	#
2,4-Dimethylphenol (aq)	<1 µg/l	TM176	<10	<8	<1	<10	<20	<1	#
2,4-Dinitrotoluene (aq)	<1 µg/l	TM176	<10	<8	<1	<10	<20	<1	#
2,6-Dinitrotoluene (aq)	<1 µg/l	TM176	<10	<8	<1	<10	<20	<1	#
2-Chloronaphthalene (aq)	<1 µg/l	TM176	<10	<8	<1	<10	<20	<1	#
2-Chlorophenol (aq)	<1 µg/l	TM176	<10	<8	<1	<10	<20	<1	#
2-Methylnaphthalene (aq)	<1 µg/l	TM176	<10	<8	<1	<10	<20	<1	#
2-Methylphenol (aq)	<1 µg/l	TM176	<10	<8	<1	<10	<20	<1	#
2-Nitroaniline (aq)	<1 µg/l	TM176	<10	<8	<1	<10	<20	<1	#
2-Nitrophenol (aq)	<1 µg/l	TM176	<10	<8	<1	<10	<20	<1	#
3-Nitroaniline (aq)	<1 µg/l	TM176	<10	<8	<1	<10	<20	<1	#
4-Bromophenylphenylether (aq)	<1 µg/l	TM176	<10	<8	<1	<10	<20	<1	#
4-Chloro-3-methylphenol (aq)	<1 µg/l	TM176	<10	<8	<1	<10	<20	<1	#
4-Chloroaniline (aq)	<1 µg/l	TM176	<10	<8	<1	<10	<20	<1	#
4-Chlorophenylphenylether (aq)	<1 µg/l	TM176	<10	<8	<1	<10	<20	<1	#
4-Methylphenol (aq)	<1 µg/l	TM176	<10	<8	<1	<10	<20	<1	#
4-Nitroaniline (aq)	<1 µg/l	TM176	<10	<8	<1	<10	<20	<1	#
4-Nitrophenol (aq)	<1 µg/l	TM176	<10	<8	<1	<10	<20	<1	#
Azobenzene (aq)	<1 µg/l	TM176	<10	<8	<1	<10	<20	<1	#
Acenaphthylene (aq)	<1 µg/l	TM176	<10	<8	<1	<10	<20	<1	#
Acenaphthene (aq)	<1 µg/l	TM176	<10	<8	<1	<10	<20	<1	#
Anthracene (aq)	<1 µg/l	TM176	<10	<8	<1	<10	<20	<1	#
bis(2-Chloroethyl)ether (aq)	<1 µg/l	TM176	<10	<8	<1	<10	<20	<1	#
bis(2-Chloroethoxy)methane (aq)	<1 µg/l	TM176	<10	<8	<1	<10	<20	<1	#
bis(2-Ethylhexyl) phthalate (aq)	<2 µg/l	TM176	<20	<16	<2	<20	<40	<2	#
Butylbenzyl phthalate (aq)	<1 µg/l	TM176	<10	<8	<1	<10	<20	<1	#
Benzo(a)anthracene (aq)	<1 µg/l	TM176	<10	<8	<1	<10	<20	<1	#



CERTIFICATE OF ANALYSIS

Validated

SDG: 250725-20
Client Ref.: 64225

Report Number: 774826
Location: East Hemel

Superseded Report: 774821

SVOC MS (W) - Aqueous

Results Legend			Customer Sample Ref.	C1	C3	C4	C6	C8	DUP1
# ISO17025 accredited. M mCERTS accredited. aq Aqueous / settled sample. diss.filt Dissolved / filtered sample. tot.unfiltTotal / 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)			Depth (m) Sample Type Date Sampled Sample Time Date Received SDG Ref Lab Sample No.(s) AGS Reference	Ground Water (GW) 23/07/2025 25/07/2025 250725-20 31880689	Ground Water (GW) 23/07/2025 25/07/2025 250725-20 31880690	Ground Water (GW) 22/07/2025 25/07/2025 250725-20 31880691	Ground Water (GW) 23/07/2025 25/07/2025 250725-20 31880692	Ground Water (GW) 23/07/2025 25/07/2025 250725-20 31880693	Ground Water (GW) 23/07/2025 25/07/2025 250725-20 31881134
Component	LOD/Units	Method							
Benzo(b)fluoranthene (aq)	<1 µg/l	TM176	<10	<8	<1	<10	<20	<1	
Benzo(k)fluoranthene (aq)	<1 µg/l	TM176	<10	<8	<1	<10	<20	<1	
Benzo(a)pyrene (aq)	<1 µg/l	TM176	<10	<8	<1	<10	<20	<1	
Benzo(g,h,i)perylene (aq)	<1 µg/l	TM176	<10	<8	<1	<10	<20	<1	
Carbazole (aq)	<1 µg/l	TM176	<10	<8	<1	<10	<20	<1	
Chrysene (aq)	<1 µg/l	TM176	<10	<8	<1	<10	<20	<1	
Dibenzofuran (aq)	<1 µg/l	TM176	<10	<8	<1	<10	<20	<1	
n-Dibutyl phthalate (aq)	<1 µg/l	TM176	<10	<8	<1	<10	<20	<1	
Diethyl phthalate (aq)	<1 µg/l	TM176	<10	<8	<1	<10	<20	<1	
Dibenzo(a,h)anthracene (aq)	<1 µg/l	TM176	<10	<8	<1	<10	<20	<1	
Dimethyl phthalate (aq)	<1 µg/l	TM176	<10	<8	<1	<10	<20	<1	
n-Dioctyl phthalate (aq)	<5 µg/l	TM176	<50	<40	<5	<50	<100	<5	
Fluoranthene (aq)	<1 µg/l	TM176	<10	<8	<1	<10	<20	<1	
Fluorene (aq)	<1 µg/l	TM176	<10	<8	<1	<10	<20	<1	
Hexachlorobenzene (aq)	<1 µg/l	TM176	<10	<8	<1	<10	<20	<1	
Hexachlorobutadiene (aq)	<1 µg/l	TM176	<10	<8	<1	<10	<20	<1	
Pentachlorophenol (aq)	<1 µg/l	TM176	<10	<8	<1	<10	<20	<1	
Phenol (aq)	<1 µg/l	TM176	<10	<8	<1	<10	<20	<1	
n-Nitroso-n-dipropylamine (aq)	<1 µg/l	TM176	<10	<8	<1	<10	<20	<1	
Hexachloroethane (aq)	<1 µg/l	TM176	<10	<8	<1	<10	<20	<1	
Nitrobenzene (aq)	<1 µg/l	TM176	<10	<8	<1	<10	<20	<1	
Naphthalene (aq)	<1 µg/l	TM176	<10	<8	<1	<10	<20	<1	
Isophorone (aq)	<1 µg/l	TM176	<10	<8	<1	<10	<20	<1	
Hexachlorocyclopentadiene (aq)	<1 µg/l	TM176	<10	<8	<1	<10	<20	<1	
Phenanthrene (aq)	<1 µg/l	TM176	<10	<8	<1	<10	<20	<1	
Indeno(1,2,3-cd)pyrene (aq)	<1 µg/l	TM176	<10	<8	<1	<10	<20	<1	
Pyrene (aq)	<1 µg/l	TM176	<10	<8	<1	<10	<20	<1	



CERTIFICATE OF ANALYSIS

Validated

SDG: 250725-20
Client Ref.: 64225

Report Number: 774826
Location: East Hemel

Superseded Report: 774821

SVOC MS (W) - Aqueous

Results Legend			Customer Sample Ref.	DUP2	FIELD BLANK (FB)	TRIP BLANK(TB)		
#	ISO17025 accredited.		Depth (m) Sample Type Date Sampled Sample Time Date Received SDG Ref Lab Sample No.(s) AGS Reference	Ground Water (GW)	Ground Water (GW)	Ground Water (GW)		
M	mCERTS accredited.			23/07/2025	22/07/2025			
aq	Aqueous / settled sample.			25/07/2025	25/07/2025	25/07/2025		
diss.filt	Dissolved / filtered sample.			250725-20	250725-20	250725-20		
tot.unfilt	Total / unfiltered sample.			31881135	31881140	31881138		
* 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						
1,2,4-Trichlorobenzene (aq)	<1 µg/l	TM176	<8	<1	<2	#	#	§#
1,2-Dichlorobenzene (aq)	<1 µg/l	TM176	<8	<1	<2	#	#	§#
1,3-Dichlorobenzene (aq)	<1 µg/l	TM176	<8	<1	<2	#	#	§#
1,4-Dichlorobenzene (aq)	<1 µg/l	TM176	<8	<1	<2	#	#	§#
2,4,5-Trichlorophenol (aq)	<1 µg/l	TM176	<8	<1	<2	#	#	§#
2,4,6-Trichlorophenol (aq)	<1 µg/l	TM176	<8	<1	<2	#	#	§#
2,4-Dichlorophenol (aq)	<1 µg/l	TM176	<8	<1	<2	#	#	§#
2,4-Dimethylphenol (aq)	<1 µg/l	TM176	<8	<1	<2	#	#	§#
2,4-Dinitrotoluene (aq)	<1 µg/l	TM176	<8	<1	<2	#	#	§#
2,6-Dinitrotoluene (aq)	<1 µg/l	TM176	<8	<1	<2	#	#	§#
2-Chloronaphthalene (aq)	<1 µg/l	TM176	<8	<1	<2	#	#	§#
2-Chlorophenol (aq)	<1 µg/l	TM176	<8	<1	<2	#	#	§#
2-Methylnaphthalene (aq)	<1 µg/l	TM176	<8	<1	<2	#	#	§#
2-Methylphenol (aq)	<1 µg/l	TM176	<8	<1	<2	#	#	§#
2-Nitroaniline (aq)	<1 µg/l	TM176	<8	<1	<2	#	#	§#
2-Nitrophenol (aq)	<1 µg/l	TM176	<8	<1	<2	#	#	§#
3-Nitroaniline (aq)	<1 µg/l	TM176	<8	<1	<2	#	#	§
4-Bromophenylphenylether (aq)	<1 µg/l	TM176	<8	<1	<2	#	#	§#
4-Chloro-3-methylphenol (aq)	<1 µg/l	TM176	<8	<1	<2	#	#	§#
4-Chloroaniline (aq)	<1 µg/l	TM176	<8	<1	<2	#	#	§
4-Chlorophenylphenylether (aq)	<1 µg/l	TM176	<8	<1	<2	#	#	§#
4-Methylphenol (aq)	<1 µg/l	TM176	<8	<1	<2	#	#	§#
4-Nitroaniline (aq)	<1 µg/l	TM176	<8	<1	<2	#	#	§#
4-Nitrophenol (aq)	<1 µg/l	TM176	<8	<1	<2	#	#	§
Azobenzene (aq)	<1 µg/l	TM176	<8	<1	<2	#	#	§#
Acenaphthylene (aq)	<1 µg/l	TM176	<8	<1	<2	#	#	§#
Acenaphthene (aq)	<1 µg/l	TM176	<8	<1	<2	#	#	§#
Anthracene (aq)	<1 µg/l	TM176	<8	<1	<2	#	#	§#
bis(2-Chloroethyl)ether (aq)	<1 µg/l	TM176	<8	<1	<2	#	#	§#
bis(2-Chloroethoxy)methane (aq)	<1 µg/l	TM176	<8	<1	<2	#	#	§#
bis(2-Ethylhexyl) phthalate (aq)	<2 µg/l	TM176	<16	<2	<4	#	#	§#
Butylbenzyl phthalate (aq)	<1 µg/l	TM176	<8	<1	<2	#	#	§#
Benzo(a)anthracene (aq)	<1 µg/l	TM176	<8	<1	<2	#	#	§#



CERTIFICATE OF ANALYSIS

Validated

SDG: 250725-20
Client Ref.: 64225

Report Number: 774826
Location: East Hemel

Superseded Report: 774821

SVOC MS (W) - Aqueous

Results Legend			Customer Sample Ref.	DUP2	FIELD BLANK (FB)	TRIP BLANK(TB)			
#	ISO17025 accredited.		Depth (m) Sample Type Date Sampled Sample Time Date Received SDG Ref Lab Sample No.(s) AGS Reference	Ground Water (GW)	Ground Water (GW)	Ground Water (GW)			
M	mCERTS accredited.			23/07/2025	22/07/2025				
aq	Aqueous / settled sample.			25/07/2025	25/07/2025	25/07/2025			
diss.filt	Dissolved / filtered sample.			250725-20	250725-20	250725-20			
tot.unfilt	Total / unfiltered sample.		31881135	31881140	31881138				
* 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							
Benzo(b)fluoranthene (aq)	<1 µg/l	TM176	<8	<1	<2	#	#	\$ #	
Benzo(k)fluoranthene (aq)	<1 µg/l	TM176	<8	<1	<2	#	#	\$ #	
Benzo(a)pyrene (aq)	<1 µg/l	TM176	<8	<1	<2	#	#	\$ #	
Benzo(g,h,i)perylene (aq)	<1 µg/l	TM176	<8	<1	<2	#	#	\$ #	
Carbazole (aq)	<1 µg/l	TM176	<8	<1	<2	#	#	\$ #	
Chrysene (aq)	<1 µg/l	TM176	<8	<1	<2	#	#	\$ #	
Dibenzofuran (aq)	<1 µg/l	TM176	<8	<1	<2	#	#	\$ #	
n-Dibutyl phthalate (aq)	<1 µg/l	TM176	<8	<1	<2	#	#	\$ #	
Diethyl phthalate (aq)	<1 µg/l	TM176	<8	<1	<2	#	#	\$ #	
Dibenzo(a,h)anthracene (aq)	<1 µg/l	TM176	<8	<1	<2	#	#	\$ #	
Dimethyl phthalate (aq)	<1 µg/l	TM176	<8	<1	<2	#	#	\$ #	
n-Dioctyl phthalate (aq)	<5 µg/l	TM176	<40	<5	<10	#	#	\$ #	
Fluoranthene (aq)	<1 µg/l	TM176	<8	<1	<2	#	#	\$ #	
Fluorene (aq)	<1 µg/l	TM176	<8	<1	<2	#	#	\$ #	
Hexachlorobenzene (aq)	<1 µg/l	TM176	<8	<1	<2	#	#	\$ #	
Hexachlorobutadiene (aq)	<1 µg/l	TM176	<8	<1	<2	#	#	\$ #	
Pentachlorophenol (aq)	<1 µg/l	TM176	<8	<1	<2	#	#	\$	
Phenol (aq)	<1 µg/l	TM176	<8	<1	<2	#	#	\$	
n-Nitroso-n-dipropylamine (aq)	<1 µg/l	TM176	<8	<1	<2	#	#	\$ #	
Hexachloroethane (aq)	<1 µg/l	TM176	<8	<1	<2	#	#	\$ #	
Nitrobenzene (aq)	<1 µg/l	TM176	<8	<1	<2	#	#	\$ #	
Naphthalene (aq)	<1 µg/l	TM176	<8	<1	<2	#	#	\$ #	
Isophorone (aq)	<1 µg/l	TM176	<8	<1	<2	#	#	\$ #	
Hexachlorocyclopentadiene (aq)	<1 µg/l	TM176	<8	<1	<2	#	#	\$	
Phenanthrene (aq)	<1 µg/l	TM176	<8	<1	<2	#	#	\$ #	
Indeno(1,2,3-cd)pyrene (aq)	<1 µg/l	TM176	<8	<1	<2	#	#	\$ #	
Pyrene (aq)	<1 µg/l	TM176	<8	<1	<2	#	#	\$ #	



CERTIFICATE OF ANALYSIS

Validated

SDG: 250725-20
Client Ref.: 64225

Report Number: 774826
Location: East Hemel

Superseded Report: 774821

TPH CWG (W)

Results Legend			Customer Sample Ref.	A3	A6	A8	B1	B2	B3	
#	ISO17025 accredited.		Depth (m) Sample Type Date Sampled Sample Time Date Received SDG Ref Lab Sample No.(s) AGS Reference	Ground Water (GW)	Ground Water (GW)	Ground Water (GW)	Ground Water (GW)	Ground Water (GW)	Ground Water (GW)	
M	mCERTS accredited.			22/07/2025	22/07/2025	22/07/2025	22/07/2025	22/07/2025	22/07/2025	22/07/2025
aq	Aqueous / settled sample.			25/07/2025	25/07/2025	25/07/2025	25/07/2025	25/07/2025	25/07/2025	25/07/2025
diss.filt	Dissolved / filtered sample.			250725-20	250725-20	250725-20	250725-20	250725-20	250725-20	250725-20
tot.unfilt	Total / unfiltered sample.			31880359	31880360	31880361	31880362	31880363	31880364	31880364
* 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								
GRO Surrogate % recovery**	%	TM245		91	95	93	87	89	91	
GRO >C5-C12 (HS_1D_TOTAL)	<50 µg/l	TM245		<50 #	<50 #	<50 #	<50 #	<50 #	<50 #	
Aliphatics >C5-C6 (HS_1D_AL)	<10 µg/l	TM245		<10	<10	<10	<10	<10	<10	
Aliphatics >C6-C8 (HS_1D_AL)	<10 µg/l	TM245		<10	<10	<10	<10	<10	<10	
Aliphatics >C8-C10 (HS_1D_AL)	<10 µg/l	TM245		<10	<10	<10	<10	<10	<10	
Aliphatics >C10-C12 (HS_1D_AL)	<10 µg/l	TM245		<10	<10	<10	<10	<10	<10	
Aliphatics >C12-C16 (aq) (EH_2D_AL)	<10 µg/l	TM439		<10	<10	<10	<10	<10	<100	
Aliphatics >C16-C21 (aq) (EH_2D_AL)	<10 µg/l	TM439		<10	<10	<10	<10	<10	<100	
Aliphatics >C21-C35 (aq) (EH_2D_AL)	<10 µg/l	TM439		<10	<10	<10	<10	<10	<100	
Total Aliphatics >C12-C35 (aq) (EH_2D_AL)	<10 µg/l	TM439		<10	<10	<10	<10	<10	<100	
Aromatics >EC5-EC7 (HS_1D_AR)	<10 µg/l	TM245		<10	<10	<10	<10	<10	<10	
Aromatics >EC7-EC8 (HS_1D_AR)	<10 µg/l	TM245		<10	<10	<10	<10	<10	<10	
Aromatics >EC8-EC10	<10 µg/l	TM245		<10	<10	<10	<10	<10	<10	
Aromatics >EC10-EC12	<10 µg/l	TM245		<10	<10	<10	<10	<10	<10	
Aromatics >EC12-EC16 (aq) (EH_2D_AR_#1)	<10 µg/l	TM439		<10	<10	<10	<10	<10	<100	
Aromatics >EC16-EC21 (aq) (EH_2D_AR_#1)	<10 µg/l	TM439		<10	<10	<10	<10	<10	<100	
Aromatics >EC21-EC35 (aq) (EH_2D_AR_#1)	<10 µg/l	TM439		<10	<10	<10	<10	<10	<100	
Total Aromatics >EC12-EC35 (aq) (EH_2D_AR_#1)	<10 µg/l	TM439		<10	<10	<10	<10	<10	<100	
Total Aliphatics & Aromatics >C5-35 (aq)	<10 µg/l	TM439		<10	<10	<10	<10	<10	<10	



CERTIFICATE OF ANALYSIS

Validated

SDG: 250725-20
Client Ref.: 64225

Report Number: 774826
Location: East Hemel

Superseded Report: 774821

TPH CWG (W)

Results Legend			Customer Sample Ref.	C1	C3	C4	C6	C8	DUP1
#	ISO17025 accredited.		Depth (m) Sample Type Date Sampled Sample Time Date Received SDG Ref Lab Sample No.(s) AGS Reference	Ground Water (GW)	Ground Water (GW)	Ground Water (GW)	Ground Water (GW)	Ground Water (GW)	Ground Water (GW)
M	mCERTS accredited.			23/07/2025	23/07/2025	22/07/2025	23/07/2025	23/07/2025	23/07/2025
aq	Aqueous / settled sample.			25/07/2025	25/07/2025	25/07/2025	25/07/2025	25/07/2025	25/07/2025
diss.filt	Dissolved / filtered sample.			250725-20	250725-20	250725-20	250725-20	250725-20	250725-20
tot.unfilt	Total / unfiltered sample.			31880689	31880690	31880691	31880692	31880693	31881134
* 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							
GRO Surrogate % recovery**	%	TM245	82	90	90	93	92	95	
GRO >C5-C12 (HS_1D_TOTAL)	<50 µg/l	TM245	<50 #	<50 #	<50 #	<50 #	<50 #	<50 #	
Aliphatics >C5-C6 (HS_1D_AL)	<10 µg/l	TM245	<10	<10	<10	<10	<10	<10	
Aliphatics >C6-C8 (HS_1D_AL)	<10 µg/l	TM245	<10	<10	<10	<10	<10	<10	
Aliphatics >C8-C10 (HS_1D_AL)	<10 µg/l	TM245	<10	<10	<10	<10	<10	<10	
Aliphatics >C10-C12 (HS_1D_AL)	<10 µg/l	TM245	<10	<10	<10	<10	<10	<10	
Aliphatics >C12-C16 (aq) (EH_2D_AL)	<10 µg/l	TM439	<10	<10	<10	<10	<50	<10	
Aliphatics >C16-C21 (aq) (EH_2D_AL)	<10 µg/l	TM439	<10	<10	<10	<10	<50	<10	
Aliphatics >C21-C35 (aq) (EH_2D_AL)	<10 µg/l	TM439	<10	<10	<10	<10	<50	<10	
Total Aliphatics >C12-C35 (aq) (EH_2D_AL)	<10 µg/l	TM439	<10	<10	<10	<10	<50	<10	
Aromatics >EC5-EC7 (HS_1D_AR)	<10 µg/l	TM245	<10	<10	<10	<10	<10	<10	
Aromatics >EC7-EC8 (HS_1D_AR)	<10 µg/l	TM245	<10	<10	<10	<10	<10	<10	
Aromatics >EC8-EC10	<10 µg/l	TM245	<10	<10	<10	<10	<10	<10	
Aromatics >EC10-EC12	<10 µg/l	TM245	<10	<10	<10	<10	<10	<10	
Aromatics >EC12-EC16 (aq) (EH_2D_AR_#1)	<10 µg/l	TM439	<10	<10	<10	<10	<50	<10	
Aromatics >EC16-EC21 (aq) (EH_2D_AR_#1)	<10 µg/l	TM439	<10	<10	<10	<10	<50	<10	
Aromatics >EC21-EC35 (aq) (EH_2D_AR_#1)	<10 µg/l	TM439	<10	29.1	<10	<10	<50	<10	
Total Aromatics >EC12-EC35 (aq) (EH_2D_AR_#1)	<10 µg/l	TM439	<10	29.1	<10	<10	<50	<10	
Total Aliphatics & Aromatics >C5-35 (aq) (HS_1D_TOTAL_EH_2D_TOTAL_#1)	<10 µg/l	TM439	<10	29.1	<10	<10	<10	<10	



CERTIFICATE OF ANALYSIS

Validated

SDG: 250725-20
Client Ref.: 64225

Report Number: 774826
Location: East Hemel

Superseded Report: 774821

VOC MS (W)

Results Legend			Customer Sample Ref.	C1	C3	C4	C6	C8	DUP1	
#	ISO17025 accredited.		Depth (m) Sample Type Date Sampled Sample Time Date Received SDG Ref Lab Sample No.(s) AGS Reference	Ground Water (GW)	Ground Water (GW)	Ground Water (GW)	Ground Water (GW)	Ground Water (GW)	Ground Water (GW)	
M	mCERTS accredited.			23/07/2025	23/07/2025	22/07/2025	23/07/2025	23/07/2025	23/07/2025	23/07/2025
aq	Aqueous / settled sample.			25/07/2025	25/07/2025	25/07/2025	25/07/2025	25/07/2025	25/07/2025	25/07/2025
diss.filt	Dissolved / filtered sample.			250725-20	250725-20	250725-20	250725-20	250725-20	250725-20	250725-20
tot.unfilt	Total / unfiltered sample.			31880689	31880690	31880691	31880692	31880693	31880693	31881134
*	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								
Methyl tertiary butyl ether (MTBE)	<1 µg/l	TM208	<1	<1	<1	<1	<1	<1	<1	
			#	#	#	#	#	#	#	
Benzene	<1 µg/l	TM208	<1	<1	<1	<1	<1	<1	<1	
			#	#	#	#	#	#	#	
Toluene	<1 µg/l	TM208	<1	<1	<1	<1	<1	<1	<1	
			#	#	#	#	#	#	#	
Ethylbenzene	<1 µg/l	TM208	<1	<1	<1	<1	<1	<1	<1	
			#	#	#	#	#	#	#	
m,p-Xylene	<1 µg/l	TM208	<1	<1	<1	<1	<1	<1	<1	
			#	#	#	#	#	#	#	
o-Xylene	<1 µg/l	TM208	<1	<1	<1	<1	<1	<1	<1	
			#	#	#	#	#	#	#	
Sum of detected Xylenes	<2 µg/l	TM208	<2	<2	<2	<2	<2	<2	<2	
Sum of BTEX	<5 µg/l	TM208	<5	<5	<5	<5	<5	<5	<5	



CERTIFICATE OF ANALYSIS

Validated

SDG: 250725-20
Client Ref.: 64225

Report Number: 774826
Location: East Hemel

Superseded Report: 774821

Table of Results - Appendix

Method No	Description
TM022	Determination of total suspended solids in waters
TM045	Determination of BOD5 (ATU) Filtered by Oxygen Meter on liquids
TM090	Determination of Total Organic Carbon/Total Inorganic Carbon in Water and Waste Water
TM099	Determination of Ammonium in Water Samples using the Kone Analyser
TM152	Analysis of Aqueous Samples by ICP-MS
TM176	Determination of SVOCs in Water by GCMS
TM178	Determination of Polynuclear Aromatic Hydrocarbons (PAH) by GC-MS in Waters
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
TM212	Determination of Total Nitrogen by High Temperature Catalytic Oxidation followed by Chemiluminescence Detection
TM241	The Determination of Hexavalent Chromium in Waters and Leachates using the Kone Analyser
TM245	Determination of GRO by Headspace in waters
TM256	Determination of pH, EC, TDS and Alkalinity in Aqueous samples
TM343	Determination of Selected Pesticides (Suite I) in Liquids by GCMS
TM434	Analysis of PFAS
TM439	Determination of Extractable Petroleum Hydrocarbons (EPH) CWG banding by GC-FID on liquids

NA = not applicable.

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



CERTIFICATE OF ANALYSIS

Validated

SDG: 250725-20
Client Ref.: 64225

Report Number: 774826
Location: East Hemel

Superseded Report: 774821

Test Completion Dates

Lab Sample No(s) Customer Sample Ref.	31880359	31880360	31880361	31880362	31880363	31880364	31880689	31880690	31880691	31880692
	A3	A6	A8	B1	B2	B3	C1	C3	C4	C6
AGS Ref.										
Depth										
Type	Ground Water	Ground Water	Ground Water	Ground Water	Ground Water	Ground Water	Ground Water	Ground Water	Ground Water	Ground Water
Ammoniacal Nitrogen	28-Jul-2025	28-Jul-2025	28-Jul-2025	28-Jul-2025	28-Jul-2025	28-Jul-2025	28-Jul-2025	28-Jul-2025	28-Jul-2025	28-Jul-2025
Anions by Kone (w)	29-Jul-2025	29-Jul-2025	29-Jul-2025	29-Jul-2025	29-Jul-2025	29-Jul-2025	29-Jul-2025	29-Jul-2025	29-Jul-2025	29-Jul-2025
BOD True Total	30-Jul-2025	30-Jul-2025	30-Jul-2025	30-Jul-2025	30-Jul-2025	30-Jul-2025	30-Jul-2025	31-Jul-2025	30-Jul-2025	30-Jul-2025
Chromium III	29-Jul-2025	29-Jul-2025	30-Jul-2025	30-Jul-2025	30-Jul-2025	30-Jul-2025	30-Jul-2025	30-Jul-2025	29-Jul-2025	29-Jul-2025
Dissolved Metals by ICP-MS	29-Jul-2025	29-Jul-2025	29-Jul-2025	29-Jul-2025	29-Jul-2025	29-Jul-2025	30-Jul-2025	30-Jul-2025	30-Jul-2025	30-Jul-2025
Dissolved Organic/Inorganic Carbon	01-Aug-2025	01-Aug-2025	30-Jul-2025	01-Aug-2025	31-Jul-2025	01-Aug-2025	01-Aug-2025	01-Aug-2025	01-Aug-2025	01-Aug-2025
EPH and CWG by FID	31-Jul-2025	30-Jul-2025	30-Jul-2025	30-Jul-2025	30-Jul-2025	30-Jul-2025	30-Jul-2025	30-Jul-2025	30-Jul-2025	30-Jul-2025
GRO by GC-FID (W)	30-Jul-2025	30-Jul-2025	01-Aug-2025	30-Jul-2025	30-Jul-2025	01-Aug-2025	04-Aug-2025	01-Aug-2025	30-Jul-2025	30-Jul-2025
Hexavalent Chromium (w)	28-Jul-2025	25-Jul-2025	30-Jul-2025	30-Jul-2025	30-Jul-2025	30-Jul-2025	30-Jul-2025	30-Jul-2025	28-Jul-2025	28-Jul-2025
Mercury Dissolved	30-Jul-2025	30-Jul-2025	30-Jul-2025	30-Jul-2025	30-Jul-2025	30-Jul-2025	30-Jul-2025	30-Jul-2025	30-Jul-2025	30-Jul-2025
Nitrite by Kone (w)	27-Jul-2025	27-Jul-2025	29-Jul-2025	29-Jul-2025	29-Jul-2025	29-Jul-2025	29-Jul-2025	29-Jul-2025	29-Jul-2025	29-Jul-2025
PAH Spec MS - Aqueous (W)	01-Aug-2025	04-Aug-2025	31-Jul-2025	30-Jul-2025	30-Jul-2025	30-Jul-2025	31-Jul-2025	31-Jul-2025	31-Jul-2025	31-Jul-2025
Pesticides (Suite I) by GCMS	01-Aug-2025	07-Aug-2025	01-Aug-2025	07-Aug-2025	08-Aug-2025	08-Aug-2025	08-Aug-2025	08-Aug-2025	08-Aug-2025	08-Aug-2025
PFAS Liquids (Full Suite)	29-Jul-2025	29-Jul-2025	29-Jul-2025	29-Jul-2025	29-Jul-2025	29-Jul-2025	21-Aug-2025	01-Aug-2025	01-Aug-2025	01-Aug-2025
pH Value	30-Jul-2025	30-Jul-2025	30-Jul-2025	30-Jul-2025	30-Jul-2025	30-Jul-2025	30-Jul-2025	30-Jul-2025	30-Jul-2025	30-Jul-2025
Phosphate by Kone (w)	29-Jul-2025	25-Jul-2025	29-Jul-2025	29-Jul-2025	29-Jul-2025	29-Jul-2025	29-Jul-2025	29-Jul-2025	29-Jul-2025	29-Jul-2025
Suspended Solids	30-Jul-2025	30-Jul-2025	30-Jul-2025	30-Jul-2025	30-Jul-2025	30-Jul-2025	30-Jul-2025	30-Jul-2025	30-Jul-2025	30-Jul-2025
SVOC MS (W) - Aqueous	31-Jul-2025	01-Aug-2025	01-Aug-2025	31-Jul-2025	01-Aug-2025	31-Jul-2025	01-Aug-2025	31-Jul-2025	31-Jul-2025	01-Aug-2025
Total Metals by ICP-MS	29-Jul-2025	29-Jul-2025	29-Jul-2025	29-Jul-2025	29-Jul-2025	29-Jul-2025	29-Jul-2025	29-Jul-2025	29-Jul-2025	30-Jul-2025
Total Nitrogen	30-Jul-2025	28-Jul-2025	30-Jul-2025	30-Jul-2025	30-Jul-2025	31-Jul-2025	31-Jul-2025	31-Jul-2025	31-Jul-2025	31-Jul-2025
Total Organic and Inorganic Carbon	28-Jul-2025	28-Jul-2025	28-Jul-2025	28-Jul-2025	28-Jul-2025	28-Jul-2025	31-Jul-2025	31-Jul-2025	28-Jul-2025	31-Jul-2025
TPH CWG (W)	31-Jul-2025	31-Jul-2025	01-Aug-2025	31-Jul-2025	31-Jul-2025	30-Jul-2025	01-Aug-2025	01-Aug-2025	31-Jul-2025	31-Jul-2025
VOC MS (W)	31-Jul-2025	31-Jul-2025	01-Aug-2025	31-Jul-2025	31-Jul-2025	01-Aug-2025	01-Aug-2025	01-Aug-2025	31-Jul-2025	31-Jul-2025

Lab Sample No(s) Customer Sample Ref.	31880693	31881134	31881135	31880694	31881140	31881138
	C8	DUP1	DUP2	EB1	FIELD BLANK (FB)	TRIP BLANK(TB)
AGS Ref.						
Depth						
Type	Ground Water	Ground Water	Ground Water	Ground Water	Ground Water	Ground Water
Ammoniacal Nitrogen	28-Jul-2025	28-Jul-2025	28-Jul-2025		28-Jul-2025	28-Jul-2025
Anions by Kone (w)	29-Jul-2025	29-Jul-2025	29-Jul-2025		29-Jul-2025	29-Jul-2025
BOD True Total	30-Jul-2025	31-Jul-2025	30-Jul-2025		30-Jul-2025	30-Jul-2025
Chromium III	30-Jul-2025	29-Jul-2025	29-Jul-2025		29-Jul-2025	29-Jul-2025
Dissolved Metals by ICP-MS	30-Jul-2025	29-Jul-2025	29-Jul-2025		29-Jul-2025	29-Jul-2025
Dissolved Organic/Inorganic Carbon	31-Jul-2025	31-Jul-2025	01-Aug-2025		01-Aug-2025	01-Aug-2025
EPH and CWG by FID	30-Jul-2025	30-Jul-2025	30-Jul-2025		30-Jul-2025	30-Jul-2025
GRO by GC-FID (W)	01-Aug-2025	30-Jul-2025	01-Aug-2025		30-Jul-2025	01-Aug-2025
Hexavalent Chromium (w)	30-Jul-2025	28-Jul-2025	28-Jul-2025		28-Jul-2025	28-Jul-2025
Mercury Dissolved	30-Jul-2025	30-Jul-2025	30-Jul-2025		30-Jul-2025	30-Jul-2025
Nitrite by Kone (w)	29-Jul-2025	28-Jul-2025	28-Jul-2025		28-Jul-2025	28-Jul-2025
PAH Spec MS - Aqueous (W)	31-Jul-2025	31-Jul-2025	31-Jul-2025		31-Jul-2025	01-Aug-2025
Pesticides (Suite I) by GCMS	08-Aug-2025	08-Aug-2025	07-Aug-2025		07-Aug-2025	08-Aug-2025
PFAS Liquids (Full Suite)	01-Aug-2025	04-Aug-2025	04-Aug-2025	29-Jul-2025	04-Aug-2025	04-Aug-2025
pH Value	30-Jul-2025	30-Jul-2025	30-Jul-2025		30-Jul-2025	30-Jul-2025
Phosphate by Kone (w)	29-Jul-2025	29-Jul-2025	29-Jul-2025		29-Jul-2025	29-Jul-2025
Suspended Solids	30-Jul-2025	30-Jul-2025	30-Jul-2025		30-Jul-2025	30-Jul-2025
SVOC MS (W) - Aqueous	01-Aug-2025	31-Jul-2025	01-Aug-2025		31-Jul-2025	01-Aug-2025
Total Metals by ICP-MS	29-Jul-2025	29-Jul-2025	29-Jul-2025		29-Jul-2025	29-Jul-2025
Total Nitrogen	31-Jul-2025	30-Jul-2025	30-Jul-2025		30-Jul-2025	30-Jul-2025
Total Organic and Inorganic Carbon	31-Jul-2025	31-Jul-2025	31-Jul-2025		31-Jul-2025	31-Jul-2025
TPH CWG (W)	01-Aug-2025	30-Jul-2025	01-Aug-2025		30-Jul-2025	01-Aug-2025
VOC MS (W)	01-Aug-2025	31-Jul-2025	01-Aug-2025		31-Jul-2025	01-Aug-2025



CERTIFICATE OF ANALYSIS

SDG: 250725-20
Client Ref: 64225

Report Number: 774826
Location: East Hemel

Superseded Report: 774821

Appendix

General

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 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.

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 Anorthophyllite	-
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.



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A2 Site Investigations
Broom House
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South Bank
Essex
SS7 2QL

Attention: Fernando Afonso

CERTIFICATE OF ANALYSIS

Date of report Generation: 15 August 2025
Customer: A2 Site Investigations
Sample Delivery Group (SDG): 250730-47
Your Reference: 64225
Location: East Hemel
Report No: 774274
Order Number: PO5505-ALS-02

This report has been revised and directly supersedes 774273 in its entirety.

We received 4 samples on Wednesday July 30, 2025 and 2 of these samples were scheduled for analysis which was completed on Friday August 15, 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.

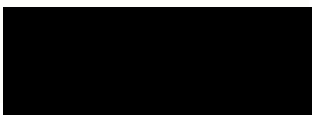
Chemical testing (unless subcontracted) performed at ALS Laboratories (UK) Limited Hawarden.

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.

The customer is not permitted to reproduce this report except in full without the approval of the laboratory.

Approved By:



Business Unit Leader - Land





CERTIFICATE OF ANALYSIS

Validated

SDG: 250730-47
Client Ref.: 64225

Report Number: 774274
Location: East Hemel

Superseded Report: 774273

Received Sample Overview

Lab Sample No(s)	Customer Sample Ref.	AGS Ref.	Depth (m)	Sampled Date
31909007	EB2			23/07/2025
31909009	EB3			24/07/2025
31909010	TB2			
31909011	TB3			

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



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Results Legend	Lab Sample No(s)		31909010										31909011				
	Customer Sample Reference		TB2										TB3				
AGS Reference																	
Depth (m)																	
Container		Vial (ALE297)	HNO3 Filtered (ALE204)	H2SO4 (ALE244)	Digitube for PFAS analysis.	500ml Plastic (ALE208)	250ml BOD (ALE12)	0.5l glass bottle (ALE227)	Vial (ALE297)	NaOH (ALE245)	HNO3 Filtered (ALE204)	H2SO4 (ALE244)	Digitube for PFAS analysis.	500ml Plastic (ALE208)	250ml BOD (ALE12)	0.5l glass bottle (ALE227)	
Sample Type		GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	
Ammoniacal Nitrogen	All	NDPs: 0 Tests: 2									X						X
Anions by Kone (w)	All	NDPs: 0 Tests: 2				X									X		
BOD True Total	All	NDPs: 0 Tests: 2			X									X			
Chromium III	All	NDPs: 0 Tests: 2								X							X
Dissolved Metals by ICP-MS	All	NDPs: 0 Tests: 2								X							X
Dissolved Organic/Inorganic Carbon	All	NDPs: 0 Tests: 2		X										X			
EPH and CWG by FID	All	NDPs: 0 Tests: 2		X										X			
GRO by GC-FID (W)	All	NDPs: 0 Tests: 2								X							X
Hexavalent Chromium (w)	All	NDPs: 0 Tests: 2			X									X			
Mercury Dissolved	All	NDPs: 0 Tests: 2								X							X
Nitrite by Kone (w)	All	NDPs: 0 Tests: 2								X				X			
PAH Spec MS - Aqueous (W)	All	NDPs: 0 Tests: 2		X										X			
Pesticides (Suite I) by GCMS	All	NDPs: 0 Tests: 2		X										X			
PFAS Liquids (Full Suite)	All	NDPs: 0 Tests: 2								X							X
pH Value	All	NDPs: 0 Tests: 2			X									X			



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Results Legend	Lab Sample No(s)		31909010										31909011			
	Customer Sample Reference		TB2										TB3			
AGS Reference																
Depth (m)																
Container		0.5l glass bottle (ALE227)	250ml BOD (ALE212)	500ml Plastic (ALE208)	Digitube for PFAS analysis.	H2SO4 (ALE244)	HNO3 Filtered (ALE204)	NaOH (ALE245)	Vial (ALE297)	0.5l glass bottle (ALE227)	250ml BOD (ALE212)	500ml Plastic (ALE208)	Digitube for PFAS analysis.	H2SO4 (ALE244)	HNO3 Filtered (ALE204)	Vial (ALE297)
Sample Type		GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW
Phosphate by Kone (w)	All	NDPs: 0 Tests: 2			X							X				
Suspended Solids	All	NDPs: 0 Tests: 2		X								X				
SVOC MS (W) - Aqueous	All	NDPs: 0 Tests: 2	X							X						
Total Metals by ICP-MS	All	NDPs: 0 Tests: 2		X								X				
Total Nitrogen	All	NDPs: 0 Tests: 2		X								X				
Total Organic and Inorganic Carbon	All	NDPs: 0 Tests: 2					X								X	
TPH CWG (W)	All	NDPs: 0 Tests: 2	X									X				
VOC MS (W)	All	NDPs: 0 Tests: 2														X



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Results Legend			Customer Sample Ref.		TB2	TB3			
#	ISO17025 accredited.		Depth (m) Sample Type Date Sampled Sample Time Date Received SDG Ref Lab Sample No.(s) AGS Reference	Ground Water (GW)	Ground Water (GW)				
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							
Suspended solids, Total	<2 mg/l	TM022		<2	<2				
				§ #	§ #				
BOD, unfiltered	<1 mg/l	TM045		<1	<1				
				§ #	§ #				
Carbon, Organic (diss.filt)	<3 mg/l	TM090		<3	3.24				
				§	§				
Organic Carbon, Total	<3 mg/l	TM090		<3	<3				
				§ #	§ #				
Ammoniacal Nitrogen as N	<0.2 mg/l	TM099		<0.2	<0.2				
				§ #	§ #				
Chromium, Trivalent	<0.03 mg/l	TM152		<0.03	<0.03				
				§	§				
Arsenic (diss.filt)	<0.5 µg/l	TM152		<0.5	<0.5				
				§ #	§ #				
Barium (diss.filt)	<0.2 µg/l	TM152		13.5	13.7				
				§ #	§ #				
Beryllium (diss.filt)	<0.1 µg/l	TM152		<0.1	<0.1				
				§ #	§ #				
Boron (diss.filt)	<10 µg/l	TM152		<10	<10				
				§ #	§ #				
Cadmium (diss.filt)	<0.08 µg/l	TM152		<0.08	<0.08				
				§ #	§ #				
Chromium (diss.filt)	<1 µg/l	TM152		<1	<1				
				§ #	§ #				
Copper (diss.filt)	<0.3 µg/l	TM152		<0.3	<0.3				
				§ #	§ #				
Lead (diss.filt)	<0.2 µg/l	TM152		<0.2	<0.2				
				§ #	§ #				
Molybdenum (diss.filt)	<3 µg/l	TM152		<3	<3				
				§ #	§ #				
Nickel (diss.filt)	<0.4 µg/l	TM152		<0.4	<0.4				
				§ #	§ #				
Selenium (diss.filt)	<1 µg/l	TM152		<1	<1				
				§ #	§ #				
Vanadium (diss.filt)	<1 µg/l	TM152		<1	<1				
				§ #	§ #				
Zinc (diss.filt)	<1 µg/l	TM152		<1	<1				
				§ #	§ #				
Hardness, Total as CaCO3 unfiltered	<0.35 mg/l	TM152		206	204				
				2 §	2 §				
Mercury (diss.filt)	<0.01 µg/l	TM183		<0.01	<0.01				
				§ #	§ #				
Nitrite as NO2	<0.05 mg/l	TM184		<0.05	<0.05				
				§ #	2 § #				
Sulphate	<2 mg/l	TM184		6.8	7.4				
				§ #	§ #				
Chloride	<2 mg/l	TM184		8.5	8.4				
				§ #	§ #				
Phosphate (Ortho as P)	<0.02 mg/l	TM184		<0.02	<0.02				
				§ #	§ #				
Nitrate as NO3	<0.3 mg/l	TM184		2.02	1.96				
				§ #	§ #				
Nitrogen, Total	<1 mg/l	TM212		<1	<1				
				§ #	§ #				
Chromium, Hexavalent	<0.03 mg/l	TM241		<0.03	<0.03				
				§ #	§ #				
pH	<1 pH Units	TM256		8.05	7.89				
				§ #	§ #				
Trifluralin	<0.01 µg/l	TM343		<0.01	<0.01				
				§	§				
alpha-HCH	<0.01 µg/l	TM343		<0.01	<0.01				
				§	§				
gamma-HCH (Lindane)	<0.01 µg/l	TM343		<0.01	<0.01				
				§	§				
Heptachlor	<0.01 µg/l	TM343		<0.01	<0.01				
				§	§				



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Results Legend		Customer Sample Ref.	TB2	TB3			
# 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)		Depth (m) Sample Type Date Sampled Sample Time Date Received SDG Ref Lab Sample No.(s) AGS Reference	Ground Water (GW) 30/07/2025 250730-47 31909010	Ground Water (GW) 30/07/2025 250730-47 31909011			
Component	LOD/Units	Method					
Aldrin	<0.01 µg/l	TM343	<0.01	<0.01	§	§	
beta-HCH	<0.01 µg/l	TM343	<0.01	<0.01	§	§	
Isodrin	<0.01 µg/l	TM343	<0.01	<0.01	§	§	
delta-HCH	<0.01 µg/l	TM343	<0.01	<0.01	§	§	
Heptachlor epoxide	<0.01 µg/l	TM343	<0.01	<0.01	§	§	
o,p'-DDE	<0.01 µg/l	TM343	<0.01	<0.01	§	§	
Endosulphan I	<0.01 µg/l	TM343	<0.01	<0.01	§	§	
trans-Chlordane	<0.01 µg/l	TM343	<0.01	<0.01	§	§	
cis-Chlordane	<0.01 µg/l	TM343	<0.01	<0.01	§	§	
p,p'-DDE	<0.01 µg/l	TM343	<0.01	<0.01	§	§	
Dieldrin	<0.01 µg/l	TM343	<0.01	<0.01	§	§	
o,p'-DDD (TDE)	<0.01 µg/l	TM343	<0.01	<0.01	§	§	
Endrin	<0.01 µg/l	TM343	<0.01	<0.01	§	§	
o,p'-DDT	<0.01 µg/l	TM343	<0.01	<0.01	§	§	
p,p'-DDD (TDE)	<0.01 µg/l	TM343	<0.01	<0.01	§	§	
Endosulphan II	<0.02 µg/l	TM343	<0.02	<0.02	§	§	
p,p'-DDT	<0.01 µg/l	TM343	<0.01	<0.01	§	§	
o,p'-Methoxychlor	<0.01 µg/l	TM343	<0.01	<0.01	§	§	
p,p'-Methoxychlor	<0.01 µg/l	TM343	<0.01	<0.01	§	§	
Endosulphan Sulphate	<0.02 µg/l	TM343	<0.02	<0.02	§	§	
Permethrin I	<0.01 µg/l	TM343	<0.01	<0.01	§	§	
Permethrin II	<0.01 µg/l	TM343	<0.01	<0.01	§	§	
PFBA (375-22-4)	<2 ng/l	TM434	<2	<2	§ #	§ #	
PFMOPrA (377-73-1)	<1 ng/l	TM434	<1	<1	§ #	§ #	
3:3 FTCA (356-02-5)	<5 ng/l	TM434	<5	<5	§ #	§ #	
PFPA (2706-90-3)	<1 ng/l	TM434	<1	<1	§ #	§ #	
PFMOBA (863090-89-5)	<1 ng/l	TM434	<1	<1	§ #	§ #	
4:2 FTS (757124-72-4)	<1 ng/l	TM434	<1	<1	§ #	§ #	
NFDHA (151772-58-6)	<3 ng/l	TM434	<3	<3	§ #	§ #	
PFBS (375-73-5)	<1 ng/l	TM434	<1	<1	§ #	§ #	
PFHxA (307-24-4)	<1 ng/l	TM434	<1	<1	§ #	§ #	
HFPO-DA (13252-13-6)	<2 ng/l	TM434	<2	<2	§ #	§ #	
PFEESA (113507-82-7)	<1 ng/l	TM434	<1	<1	§ #	§ #	



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Results Legend		Customer Sample Ref.	TB2	TB3			
# 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)		Depth (m) Sample Type Date Sampled Sample Time Date Received SDG Ref Lab Sample No.(s) AGS Reference	Ground Water (GW) . . 30/07/2025 250730-47 31909010	Ground Water (GW) . . 30/07/2025 250730-47 31909011			
Component	LOD/Units	Method					
PFHpA (375-85-9)	<1 ng/l	TM434	<1	<1			
			§ #	§ #			
PFPeS (2706-91-4)	<1 ng/l	TM434	<1	<1			
			§ #	§ #			
5:3 FTCA (914637-49-3)	<5 ng/l	TM434	<5	<5			
			§ #	§ #			
ADONA (919005-14-4)	<1 ng/l	TM434	<1	<1			
			§ #	§ #			
6:2 FTS (27619-97-2)	<1 ng/l	TM434	<1	<1			
			§ #	§ #			
FBSA (30334-69-1)	<1 ng/l	TM434	<1	<1			
			§ #	§ #			
PFOA (335-67-1)	<0.65 ng/l	TM434	<0.65	<0.65			
			§ #	§ #			
PFHxS (355-46-4)	<1 ng/l	TM434	<1	<1			
			§ #	§ #			
PFNA (375-95-1)	<1 ng/l	TM434	<1	<1			
			§ #	§ #			
PFHpS (375-92-8)	<1 ng/l	TM434	<1	<1			
			§ #	§ #			
8:2 FTS (39108-34-4)	<2 ng/l	TM434	<2	<2			
			§ #	§ #			
HFPO-TA (13252-14-7)	<5 ng/l	TM434	<5	<5			
			§ #	§ #			
PFDA (335-76-2)	<2 ng/l	TM434	<2	<2			
			§ #	§ #			
MeFOSAA (2355-31-9)	<2 ng/l	TM434	<2	<2			
			§ #	§ #			
7:3 FTCA (812-70-4)	<5 ng/l	TM434	<5	<5			
			§ #	§ #			
Linear PFOS (1763-23-1)	<0.65 ng/l	TM434	<0.65	<0.65			
			§ #	§ #			
Branched PFOS	<0.65 ng/l	TM434	<0.65	<0.65			
			§ #	§ #			
EtFOSAA (2991-50-6)	<2 ng/l	TM434	<2	<2			
			§ #	§ #			
PFUnA (2058-94-8)	<2 ng/l	TM434	<2	<2			
			§ #	§ #			
9Cl-PF3ONS (756426-58-1)	<1 ng/l	TM434	<1	<1			
			§ #	§ #			
PFNS (68259-12-1)	<1 ng/l	TM434	<1	<1			
			§ #	§ #			
FHxSA (41997-13-1)	<1 ng/l	TM434	<1	<1			
			§ #	§ #			
PFDoA (307-55-1)	<2 ng/l	TM434	<2	<2			
			§ #	§ #			
PFDS (335-77-3)	<2 ng/l	TM434	<2	<2			
			§ #	§ #			
PFTrDA (72629-94-8)	<3 ng/l	TM434	<3	<3			
			§ #	§ #			
11Cl-PF3OUdS (763051-92-9)	<2 ng/l	TM434	<2	<2			
			§ #	§ #			
PFUnDS (749786-16-1)	<2 ng/l	TM434	<2	<2			
			§ #	§ #			
PFTeA (376-06-7)	<1 ng/l	TM434	<1	<1			
			§ #	§ #			
PFOSA (754-91-6)	<2 ng/l	TM434	<2	<2			
			§ #	§ #			
PFDoS (79780-39-5)	<2 ng/l	TM434	<2	<2			
			§ #	§ #			
PFHxDA (67905-19-5)	<1 ng/l	TM434	<1	<1			
			§ #	§ #			
MeFOSE (24448-09-7)	<10 ng/l	TM434	<10	<10			
			§ #	§ #			
N-MeFOSA (31506-32-8)	<1 ng/l	TM434	<1	<1			
			§ #	§ #			



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PAH Spec MS - Aqueous (W)

Results Legend		Customer Sample Ref.	TB2	TB3			
#	ISO17025 accredited.	Depth (m) Sample Type Date Sampled Sample Time Date Received SDG Ref Lab Sample No.(s) AGS Reference	Ground Water (GW)	Ground Water (GW)			
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)						
				30/07/2025 250730-47 31909010	30/07/2025 250730-47 31909011		
Component	LOD/Units	Method					
Naphthalene (aq)	<0.01 µg/l	TM178	<0.01 § #	<0.01 § #			
Acenaphthene (aq)	<0.005 µg/l	TM178	<0.005 § #	<0.005 § #			
Acenaphthylene (aq)	<0.005 µg/l	TM178	<0.005 § #	<0.005 § #			
Fluoranthene (aq)	<0.005 µg/l	TM178	<0.005 § #	<0.005 § #			
Anthracene (aq)	<0.005 µg/l	TM178	<0.005 § #	<0.005 § #			
Phenanthrene (aq)	<0.005 µg/l	TM178	<0.005 § #	<0.005 § #			
Fluorene (aq)	<0.005 µg/l	TM178	<0.005 § #	<0.005 § #			
Chrysene (aq)	<0.005 µg/l	TM178	<0.005 § #	<0.005 § #			
Pyrene (aq)	<0.005 µg/l	TM178	<0.005 § #	<0.005 § #			
Benzo(a)anthracene (aq)	<0.005 µg/l	TM178	<0.005 § #	<0.005 § #			
Benzo(b)fluoranthene (aq)	<0.005 µg/l	TM178	<0.005 § #	<0.005 § #			
Benzo(k)fluoranthene (aq)	<0.005 µg/l	TM178	<0.005 § #	<0.005 § #			
Benzo(a)pyrene (aq)	<0.002 µg/l	TM178	<0.002 § #	<0.002 § #			
Dibenzo(a,h)anthracene (aq)	<0.005 µg/l	TM178	<0.005 § #	<0.005 § #			
Benzo(g,h,i)perylene (aq)	<0.005 µg/l	TM178	<0.005 § #	<0.005 § #			
Indeno(1,2,3-cd)pyrene (aq)	<0.005 µg/l	TM178	<0.005 § #	<0.005 § #			
PAH, Total Detected USEPA 16 (aq)	<0.082 µg/l	TM178	<0.082 § #	<0.082 § #			



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SVOC MS (W) - Aqueous

Results Legend			Customer Sample Ref.		TB2	TB3				
#	ISO17025 accredited.		Customer Sample Ref.	Depth (m) Sample Type Date Sampled Sample Time Date Received SDG Ref Lab Sample No.(s) AGS Reference	Ground Water (GW)	Ground Water (GW)				
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								
1,2,4-Trichlorobenzene (aq)	<1 µg/l	TM176			<1	<1				
					§ #	§ #				
1,2-Dichlorobenzene (aq)	<1 µg/l	TM176			<1	<1				
					§ #	§ #				
1,3-Dichlorobenzene (aq)	<1 µg/l	TM176			<1	<1				
					§ #	§ #				
1,4-Dichlorobenzene (aq)	<1 µg/l	TM176			<1	<1				
					§ #	§ #				
2,4,5-Trichlorophenol (aq)	<1 µg/l	TM176			<1	<1				
					§ #	§ #				
2,4,6-Trichlorophenol (aq)	<1 µg/l	TM176			<1	<1				
					§ #	§ #				
2,4-Dichlorophenol (aq)	<1 µg/l	TM176			<1	<1				
					§ #	§ #				
2,4-Dimethylphenol (aq)	<1 µg/l	TM176			<1	<1				
					§ #	§ #				
2,4-Dinitrotoluene (aq)	<1 µg/l	TM176			<1	<1				
					§ #	§ #				
2,6-Dinitrotoluene (aq)	<1 µg/l	TM176			<1	<1				
					§ #	§ #				
2-Chloronaphthalene (aq)	<1 µg/l	TM176			<1	<1				
					§ #	§ #				
2-Chlorophenol (aq)	<1 µg/l	TM176			<1	<1				
					§ #	§ #				
2-Methylnaphthalene (aq)	<1 µg/l	TM176			<1	<1				
					§ #	§ #				
2-Methylphenol (aq)	<1 µg/l	TM176			<1	<1				
					§ #	§ #				
2-Nitroaniline (aq)	<1 µg/l	TM176			<1	<1				
					§ #	§ #				
2-Nitrophenol (aq)	<1 µg/l	TM176			<1	<1				
					§ #	§ #				
3-Nitroaniline (aq)	<1 µg/l	TM176			<1	<1				
					§	§				
4-Bromophenylphenylether (aq)	<1 µg/l	TM176			<1	<1				
					§ #	§ #				
4-Chloro-3-methylphenol (aq)	<1 µg/l	TM176			<1	<1				
					§ #	§ #				
4-Chloroaniline (aq)	<1 µg/l	TM176			<1	<1				
					§	§				
4-Chlorophenylphenylether (aq)	<1 µg/l	TM176			<1	<1				
					§ #	§ #				
4-Methylphenol (aq)	<1 µg/l	TM176			<1	<1				
					§ #	§ #				
4-Nitroaniline (aq)	<1 µg/l	TM176			<1	<1				
					§ #	§ #				
4-Nitrophenol (aq)	<1 µg/l	TM176			<1	<1				
					§	§				
Azobenzene (aq)	<1 µg/l	TM176			<1	<1				
					§ #	§ #				
Acenaphthylene (aq)	<1 µg/l	TM176			<1	<1				
					§ #	§ #				
Acenaphthene (aq)	<1 µg/l	TM176			<1	<1				
					§ #	§ #				
Anthracene (aq)	<1 µg/l	TM176			<1	<1				
					§ #	§ #				
bis(2-Chloroethyl)ether (aq)	<1 µg/l	TM176			<1	<1				
					§ #	§ #				
bis(2-Chloroethoxy)methane (aq)	<1 µg/l	TM176			<1	<1				
					§ #	§ #				
bis(2-Ethylhexyl) phthalate (aq)	<2 µg/l	TM176			<2	2.59				
					§ #	§ #				
Butylbenzyl phthalate (aq)	<1 µg/l	TM176			<1	<1				
					§ #	§ #				
Benzo(a)anthracene (aq)	<1 µg/l	TM176			<1	<1				
					§ #	§ #				



CERTIFICATE OF ANALYSIS

Validated

SDG: 250730-47
Client Ref.: 64225

Report Number: 774274
Location: East Hemel

Superseded Report: 774273

SVOC MS (W) - Aqueous

Results Legend			Customer Sample Ref.	TB2	TB3				
# 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)			Depth (m) Sample Type Date Sampled Sample Time Date Received SDG Ref Lab Sample No.(s) AGS Reference	Ground Water (GW) - 30/07/2025 250730-47 31909010	Ground Water (GW) - 30/07/2025 250730-47 31909011				
Component	LOD/Units	Method							
Benzo(b)fluoranthene (aq)	<1 µg/l	TM176	<1	<1					
			§ #	§ #					
Benzo(k)fluoranthene (aq)	<1 µg/l	TM176	<1	<1					
			§ #	§ #					
Benzo(a)pyrene (aq)	<1 µg/l	TM176	<1	<1					
			§ #	§ #					
Benzo(g,h,i)perylene (aq)	<1 µg/l	TM176	<1	<1					
			§ #	§ #					
Carbazole (aq)	<1 µg/l	TM176	<1	<1					
			§ #	§ #					
Chrysene (aq)	<1 µg/l	TM176	<1	<1					
			§ #	§ #					
Dibenzofuran (aq)	<1 µg/l	TM176	<1	<1					
			§ #	§ #					
n-Dibutyl phthalate (aq)	<1 µg/l	TM176	<1	<1					
			§ #	§ #					
Diethyl phthalate (aq)	<1 µg/l	TM176	<1	<1					
			§ #	§ #					
Dibenzo(a,h)anthracene (aq)	<1 µg/l	TM176	<1	<1					
			§ #	§ #					
Dimethyl phthalate (aq)	<1 µg/l	TM176	<1	<1					
			§ #	§ #					
n-Dioctyl phthalate (aq)	<5 µg/l	TM176	<5	<5					
			§ #	§ #					
Fluoranthene (aq)	<1 µg/l	TM176	<1	<1					
			§ #	§ #					
Fluorene (aq)	<1 µg/l	TM176	<1	<1					
			§ #	§ #					
Hexachlorobenzene (aq)	<1 µg/l	TM176	<1	<1					
			§ #	§ #					
Hexachlorobutadiene (aq)	<1 µg/l	TM176	<1	<1					
			§ #	§ #					
Pentachlorophenol (aq)	<1 µg/l	TM176	<1	<1					
			§	§					
Phenol (aq)	<1 µg/l	TM176	<1	<1					
			§	§					
n-Nitroso-n-dipropylamine (aq)	<1 µg/l	TM176	<1	<1					
			§ #	§ #					
Hexachloroethane (aq)	<1 µg/l	TM176	<1	<1					
			§ #	§ #					
Nitrobenzene (aq)	<1 µg/l	TM176	<1	<1					
			§ #	§ #					
Naphthalene (aq)	<1 µg/l	TM176	<1	<1					
			§ #	§ #					
Isophorone (aq)	<1 µg/l	TM176	<1	<1					
			§ #	§ #					
Hexachlorocyclopentadiene (aq)	<1 µg/l	TM176	<1	<1					
			§	§					
Phenanthrene (aq)	<1 µg/l	TM176	<1	<1					
			§ #	§ #					
Indeno(1,2,3-cd)pyrene (aq)	<1 µg/l	TM176	<1	<1					
			§ #	§ #					
Pyrene (aq)	<1 µg/l	TM176	<1	<1					
			§ #	§ #					



CERTIFICATE OF ANALYSIS

Validated

SDG: 250730-47
Client Ref.: 64225

Report Number: 774274
Location: East Hemel

Superseded Report: 774273

TPH CWG (W)

Results Legend		Customer Sample Ref.	TB2	TB3			
# 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)		Depth (m) Sample Type Date Sampled Sample Time Date Received SDG Ref Lab Sample No.(s) AGS Reference	Ground Water (GW) 30/07/2025 250730-47 31909010	Ground Water (GW) 30/07/2025 250730-47 31909011			
Component	LOD/Units	Method					
GRO Surrogate % recovery**	%	TM245	99	97			
			\$	\$			
GRO >C5-C12 (HS_1D_TOTAL)	<50 µg/l	TM245	<50	<50			
			\$ #	\$ #			
Aliphatics >C5-C6 (HS_1D_AL)	<10 µg/l	TM245	<10	<10			
			\$	\$			
Aliphatics >C6-C8 (HS_1D_AL)	<10 µg/l	TM245	<10	<10			
			\$	\$			
Aliphatics >C8-C10 (HS_1D_AL)	<10 µg/l	TM245	<10	<10			
			\$	\$			
Aliphatics >C10-C12 (HS_1D_AL)	<10 µg/l	TM245	<10	<10			
			\$	\$			
Aliphatics >C12-C16 (aq) (EH_2D_AL)	<10 µg/l	TM439	<10	<10			
			\$	\$			
Aliphatics >C16-C21 (aq) (EH_2D_AL)	<10 µg/l	TM439	<10	<10			
			\$	\$			
Aliphatics >C21-C35 (aq) (EH_2D_AL)	<10 µg/l	TM439	<10	<10			
			\$	\$			
Total Aliphatics >C12-C35 (aq) (EH_2D_AL)	<10 µg/l	TM439	<10	<10			
			\$	\$			
Aromatics >EC5-EC7 (HS_1D_AR)	<10 µg/l	TM245	<10	<10			
			\$	\$			
Aromatics >EC7-EC8 (HS_1D_AR)	<10 µg/l	TM245	<10	<10			
			\$	\$			
Aromatics >EC8-EC10	<10 µg/l	TM245	<10	<10			
			\$	\$			
Aromatics >EC10-EC12	<10 µg/l	TM245	<10	<10			
			\$	\$			
Aromatics >EC12-EC16 (aq) (EH_2D_AR_#1)	<10 µg/l	TM439	<10	<10			
			\$	\$			
Aromatics >EC16-EC21 (aq) (EH_2D_AR_#1)	<10 µg/l	TM439	<10	<10			
			\$	\$			
Aromatics >EC21-EC35 (aq) (EH_2D_AR_#1)	<10 µg/l	TM439	<10	<10			
			\$	\$			
Total Aromatics >EC12-EC35 (aq) (EH_2D_AR_#1)	<10 µg/l	TM439	<10	<10			
			\$	\$			
Total Aliphatics & Aromatics >C5-35 (aq)	<10 µg/l	TM439	<10	<10			
			\$	\$			



CERTIFICATE OF ANALYSIS

Validated

SDG: 250730-47
Client Ref.: 64225

Report Number: 774274
Location: East Hemel

Superseded Report: 774273

Table of Results - Appendix

Method No	Description
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
TM212	Determination of Total Nitrogen by High Temperature Catalytic Oxidation followed by Chemiluminescence Detection
TM241	The Determination of Hexavalent Chromium in Waters and Leachates using the Kone Analyser
TM245	Determination of GRO by Headspace in waters
TM256	Determination of pH, EC, TDS and Alkalinity in Aqueous samples
TM434	Analysis of PFAS
TM022	Determination of total suspended solids in waters
TM045	Determination of BOD5 (ATU) Filtered by Oxygen Meter on liquids
TM090	Determination of Total Organic Carbon/Total Inorganic Carbon in Water and Waste Water
TM099	Determination of Ammonium in Water Samples using the Kone Analyser
TM176	Determination of SVOCs in Water by GCMS
TM178	Determination of Polynuclear Aromatic Hydrocarbons (PAH) by GC-MS in Waters
TM343	Determination of Selected Pesticides (Suite I) in Liquids by GCMS
TM439	Determination of Extractable Petroleum Hydrocarbons (EPH) CWG banding by GC-FID on liquids

NA = not applicable.

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



CERTIFICATE OF ANALYSIS

Validated

SDG: 250730-47
Client Ref.: 64225

Report Number: 774274
Location: East Hemel

Superseded Report: 774273

Test Completion Dates

Lab Sample No(s)	31909010	31909011
Customer Sample Ref.	TB2	TB3
AGS Ref.		
Depth		
Type	Ground Water	Ground Water
Ammoniacal Nitrogen	06-Aug-2025	06-Aug-2025
Anions by Kone (w)	05-Aug-2025	05-Aug-2025
BOD True Total	06-Aug-2025	06-Aug-2025
Chromium III	12-Aug-2025	12-Aug-2025
Dissolved Metals by ICP-MS	04-Aug-2025	04-Aug-2025
Dissolved Organic/Inorganic Carbon	07-Aug-2025	07-Aug-2025
EPH and CWG by FID	12-Aug-2025	12-Aug-2025
GRO by GC-FID (W)	12-Aug-2025	12-Aug-2025
Hexavalent Chromium (w)	12-Aug-2025	12-Aug-2025
Mercury Dissolved	12-Aug-2025	12-Aug-2025
Nitrite by Kone (w)	02-Aug-2025	02-Aug-2025
PAH Spec MS - Aqueous (W)	12-Aug-2025	12-Aug-2025
Pesticides (Suite I) by GCMS	15-Aug-2025	11-Aug-2025
PFAS Liquids (Full Suite)	12-Aug-2025	12-Aug-2025
pH Value	01-Aug-2025	01-Aug-2025
Phosphate by Kone (w)	02-Aug-2025	02-Aug-2025
Suspended Solids	04-Aug-2025	04-Aug-2025
SVOC MS (W) - Aqueous	11-Aug-2025	11-Aug-2025
Total Metals by ICP-MS	04-Aug-2025	04-Aug-2025
Total Nitrogen	01-Aug-2025	01-Aug-2025
Total Organic and Inorganic Carbon	07-Aug-2025	07-Aug-2025
TPH CWG (W)	12-Aug-2025	12-Aug-2025
VOC MS (W)	12-Aug-2025	12-Aug-2025



CERTIFICATE OF ANALYSIS

SDG: 250730-47
Client Ref: 64225

Report Number: 774274
Location: East Hemel

Superseded Report: 774273

Appendix

General

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 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.

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 Anorthophyllite	-
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.



Unit 7-8 Hawarden Business Park
 Manor Road (off Manor Lane)
 Hawarden
 Deeside
 CH5 3US

Tel: (01244) 528777
 email: hawardencustomerservices@alsglobal.com
 Website: www.alsenvironmental.co.uk

A2 Site Investigations
 Broom House
 39 / 43 London Road, Hadleigh, Benfleet
 South Bank
 Essex
 SS7 2QL

Attention: Fernando Afonso

CERTIFICATE OF ANALYSIS

Date of report Generation: 11 August 2025
Customer: A2 Site Investigations
Sample Delivery Group (SDG): 250726-50
Your Reference: 64225
Location: East Hemel
Report No: 773763
Order Number: PO5504-ALS-03

This report has been revised and directly supersedes 773757 in its entirety.

We received 4 samples on Saturday July 26, 2025 and 4 of these samples were scheduled for analysis which was completed on Monday August 11, 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.

The customer is not permitted to reproduce this report except in full without the approval of the laboratory.

Approved By:



Justin Keeton
 Business Unit Leader - Land





CERTIFICATE OF ANALYSIS

Validated

SDG: 250726-50
Client Ref.: 64225

Report Number: 773763
Location: East Hemel

Superseded Report: 773757

Received Sample Overview

Lab Sample No(s)	Customer Sample Ref.	AGS Ref.	Depth (m)	Sampled Date
31888784	D2			24/07/2025
31888786	D3			24/07/2025
31888787	D4			24/07/2025
31888788	DUP3			

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



CERTIFICATE OF ANALYSIS

Validated

SDG: 250726-50
Client Ref.: 64225

Report Number: 773763
Location: East Hemel

Superseded Report: 773757

Results Legend <div style="display: flex; flex-direction: column; gap: 5px;"> <div style="display: flex; align-items: center;">X Test</div> <div style="display: flex; align-items: center;">N No Determination Possible</div> </div> 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	
		31 888784	D2			500ml Plastic (ALE208) 250ml BOD (ALE212) 0.5l glass bottle (ALE227) Vial (ALE297) NaOH (ALE245) HNO3 Filtered (ALE204) H2SO4 (ALE244) Digitube for PFAS analysis. 500ml Plastic (ALE208) 250ml BOD (ALE212) 0.5l glass bottle (ALE227) Vial (ALE297)	
		31 888786	D3			500ml Plastic (ALE208) 250ml BOD (ALE212) 0.5l glass bottle (ALE227) Vial (ALE297) NaOH (ALE245) HNO3 Filtered (ALE204) H2SO4 (ALE244) Digitube for PFAS analysis. 500ml Plastic (ALE208) 250ml BOD (ALE212) 0.5l glass bottle (ALE227) Vial (ALE297)	
		31 888787	D4			500ml Plastic (ALE208) 250ml BOD (ALE212) 0.5l glass bottle (ALE227) Vial (ALE297) NaOH (ALE245) HNO3 Filtered (ALE204) H2SO4 (ALE244) Digitube for PFAS analysis. 500ml Plastic (ALE208) 250ml BOD (ALE212) 0.5l glass bottle (ALE227) Vial (ALE297)	
						500ml Plastic (ALE208) 250ml BOD (ALE212) 0.5l glass bottle (ALE227) Vial (ALE297) NaOH (ALE245) HNO3 Filtered (ALE204) H2SO4 (ALE244) Digitube for PFAS analysis. 500ml Plastic (ALE208) 250ml BOD (ALE212) 0.5l glass bottle (ALE227) Vial (ALE297)	
						500ml Plastic (ALE208) 250ml BOD (ALE212) 0.5l glass bottle (ALE227) Vial (ALE297) NaOH (ALE245) HNO3 Filtered (ALE204) H2SO4 (ALE244) Digitube for PFAS analysis. 500ml Plastic (ALE208) 250ml BOD (ALE212) 0.5l glass bottle (ALE227) Vial (ALE297)	
Ammoniacal Nitrogen	All	NDPs: 0 Tests: 4			X	X	
Anions by Kone (w)	All	NDPs: 0 Tests: 4			X	X	
BOD True Total	All	NDPs: 0 Tests: 4			X	X	
Chromium III	All	NDPs: 0 Tests: 4			X	X	
Dissolved Metals by ICP-MS	All	NDPs: 0 Tests: 4			X	X	
Dissolved Organic/Inorganic Carbon	All	NDPs: 0 Tests: 4			X	X	
EPH and CWG by FID	All	NDPs: 0 Tests: 4			X	X	
GRO by GC-FID (W)	All	NDPs: 0 Tests: 4			X	X	
Hexavalent Chromium (w)	All	NDPs: 0 Tests: 4			X	X	
Mercury Dissolved	All	NDPs: 0 Tests: 4			X	X	
Nitrite by Kone (w)	All	NDPs: 0 Tests: 4			X	X	
PAH Spec MS - Aqueous (W)	All	NDPs: 0 Tests: 4			X	X	
Pesticides (Suite I) by GCMS	All	NDPs: 0 Tests: 4			X	X	
PFAS Liquids (Full Suite)	All	NDPs: 0 Tests: 4			X	X	
pH Value	All	NDPs: 0 Tests: 4			X	X	



CERTIFICATE OF ANALYSIS

Validated

SDG: 250726-50
Client Ref.: 64225

Report Number: 773763
Location: East Hemel

Superseded Report: 773757

Results Legend	Lab Sample No(s)		31 888784		31 888786		31 888787	
	Customer Sample Reference		D2		D3		D4	
	AGS Reference							
Depth (m)								
Container		500ml Plastic (ALE208)	250ml BOD (ALE212)	0.5l glass bottle (ALE227)	500ml Plastic (ALE208)	250ml BOD (ALE212)	0.5l glass bottle (ALE227)	500ml Plastic (ALE208)
Sample Type		GW	GW	GW	GW	GW	GW	GW
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	Phosphate by Kone (w)	All	NDPs: 0 Tests: 4		X			X
	Suspended Solids	All	NDPs: 0 Tests: 4		X			X
	SVOC MS (W) - Aqueous	All	NDPs: 0 Tests: 4	X			X	
	Total Metals by ICP-MS	All	NDPs: 0 Tests: 4		X			X
	Total Nitrogen	All	NDPs: 0 Tests: 4		X			X
	Total Organic and Inorganic Carbon	All	NDPs: 0 Tests: 4			X		X
	TPH CWG (W)	All	NDPs: 0 Tests: 4				X	
	VOC MS (W)	All	NDPs: 0 Tests: 4	X			X	
						X		X
								X



CERTIFICATE OF ANALYSIS

Validated

SDG: 250726-50
Client Ref.: 64225

Report Number: 773763
Location: East Hemel

Superseded Report: 773757

Results Legend			Customer Sample Ref.			
# ISO17025 accredited.			D2	D3	D4	DUP3
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)						
			Depth (m)			
			Sample Type			
			Date Sampled			
			Sample Time			
			Date Received			
			SDG Ref			
			Lab Sample No.(s)			
			AGS Reference			
Component	LOD/Units	Method	Ground Water (GW) 24/07/2025	Ground Water (GW) 24/07/2025	Ground Water (GW) 24/07/2025	Ground Water (GW) 26/07/2025 250726-50 31888788
Suspended solids, Total	<2 mg/l	TM022	3180	433	2550	4.6
BOD, unfiltered	<1 mg/l	TM045	<3	<1	<3	<3
Carbon, Organic (diss.filt)	<3 mg/l	TM090	<3	<3	<3	4.17
Organic Carbon, Total	<3 mg/l	TM090	<3	<3	<3	<3
Ammoniacal Nitrogen as N	<0.2 mg/l	TM099	<0.2	<0.2	<0.2	<0.2
Chromium, Trivalent	<0.03 mg/l	TM152	<0.03	<0.03	<0.03	<0.03
Arsenic (diss.filt)	<0.5 µg/l	TM152	<0.5	<0.5	<0.5	<0.5
Barium (diss.filt)	<0.2 µg/l	TM152	43.3	24.9	36.7	43.7
Beryllium (diss.filt)	<0.1 µg/l	TM152	<0.1	<0.1	<0.1	<0.1
Boron (diss.filt)	<10 µg/l	TM152	<10	<10	<10	<10
Cadmium (diss.filt)	<0.08 µg/l	TM152	<0.08	<0.08	<0.08	<0.08
Chromium (diss.filt)	<1 µg/l	TM152	5.12	3.19	2.17	3.49
Copper (diss.filt)	<0.3 µg/l	TM152	1.08	<0.3	<0.3	0.762
Lead (diss.filt)	<0.2 µg/l	TM152	<0.2	<0.2	<0.2	<0.2
Molybdenum (diss.filt)	<3 µg/l	TM152	<3	<3	<3	<3
Nickel (diss.filt)	<0.4 µg/l	TM152	0.417	<0.4	0.526	<0.4
Selenium (diss.filt)	<1 µg/l	TM152	<1	<1	<1	<1
Vanadium (diss.filt)	<1 µg/l	TM152	<1	<1	<1	<1
Zinc (diss.filt)	<1 µg/l	TM152	4.68	2.03	2.44	10.7
Hardness, Total as CaCO3 unfiltered	<0.35 mg/l	TM152	2910	600	2310	282
Mercury (diss.filt)	<0.01 µg/l	TM183	<0.01	<0.01	<0.01	<0.01
Nitrite as NO2	<0.05 mg/l	TM184	<0.05	<0.05	<0.05	<0.05
Sulphate	<2 mg/l	TM184	2.5	23.4	7.9	3.3
Chloride	<2 mg/l	TM184	10.6	20.2	18.2	11.1
Phosphate (Ortho as P)	<0.02 mg/l	TM184	<0.02	0.0431	0.0268	0.0235
Nitrate as NO3	<0.3 mg/l	TM184	16	33.8	23.8	16.7
Nitrogen, Total	<1 mg/l	TM212	4.02	8.47	5.98	3.95
Chromium, Hexavalent	<0.03 mg/l	TM241	<0.03	<0.03	<0.03	<0.03
pH	<1 pH Units	TM256	7.44	7.49	7.46	7.45
Trifluralin	<0.01 µg/l	TM343	<0.2	<0.1	<0.2	<0.1
alpha-HCH	<0.01 µg/l	TM343	<0.2	<0.1	<0.2	<0.1
gamma-HCH (Lindane)	<0.01 µg/l	TM343	<0.2	<0.1	<0.2	<0.1
Heptachlor	<0.01 µg/l	TM343	<2	<2	<2	<2



CERTIFICATE OF ANALYSIS

Validated

SDG: 250726-50
Client Ref.: 64225

Report Number: 773763
Location: East Hemel

Superseded Report: 773757

Results Legend			Customer Sample Ref.	D2	D3	D4	DUP3			
# 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)			Depth (m) Sample Type Date Sampled Sample Time Date Received SDG Ref Lab Sample No.(s) AGS Reference	Ground Water (GW) 24/07/2025	Ground Water (GW) 24/07/2025	Ground Water (GW) 24/07/2025	Ground Water (GW) 26/07/2025 250726-50 31888784	Ground Water (GW) 26/07/2025 250726-50 31888788		
Component	LOD/Units	Method								
Aldrin	<0.01 µg/l	TM343	<0.2	<0.1	<0.2	<0.1				
beta-HCH	<0.01 µg/l	TM343	<0.2	<0.1	<0.2	<0.1				
Isodrin	<0.01 µg/l	TM343	<0.2	<0.1	<0.2	<0.1				
delta-HCH	<0.01 µg/l	TM343	<0.2	<0.1	<0.2	<0.1				
Heptachlor epoxide	<0.01 µg/l	TM343	<0.2	<0.1	<0.2	<0.1				
o,p'-DDE	<0.01 µg/l	TM343	<0.2	<0.1	<0.2	<0.1				
Endosulphan I	<0.01 µg/l	TM343	<0.2	<0.1	<0.2	<0.1				
trans-Chlordane	<0.01 µg/l	TM343	<0.2	<0.1	<0.2	<0.1				
cis-Chlordane	<0.01 µg/l	TM343	<0.2	<0.1	<0.2	<0.1				
p,p'-DDE	<0.01 µg/l	TM343	<0.2	<0.1	<0.2	<0.1				
Dieldrin	<0.01 µg/l	TM343	<0.2	<0.1	<0.2	<0.1				
o,p'-DDD (TDE)	<0.01 µg/l	TM343	<0.2	<0.1	<0.2	<0.1				
Endrin	<0.01 µg/l	TM343	<0.2	<2	<2	<2				
o,p'-DDT	<0.01 µg/l	TM343	<2	<2	<2	<2				
p,p'-DDD (TDE)	<0.01 µg/l	TM343	<0.2	<0.1	<0.2	<0.1				
Endosulphan II	<0.02 µg/l	TM343	<0.4	<0.2	<0.4	<0.2				
p,p'-DDT	<0.01 µg/l	TM343	<2	<2	<2	<2				
o,p'-Methoxychlor	<0.01 µg/l	TM343	<2	<2	<2	<2				
p,p'-Methoxychlor	<0.01 µg/l	TM343	<2	<2	<2	<2				
Endosulphan Sulphate	<0.02 µg/l	TM343	<0.4	<0.2	<0.4	<0.2				
Permethrin I	<0.01 µg/l	TM343	<0.2	<0.1	<0.2	<0.1				
Permethrin II	<0.01 µg/l	TM343	<0.2	<0.1	<0.2	<0.1				
PFBA (375-22-4)	<2 ng/l	TM434	<20	<20	<20	<20	#	#	#	
PFMOPRA (377-73-1)	<1 ng/l	TM434	<10	<10	<10	<10	#	#	#	
3:3 FTCA (356-02-5)	<5 ng/l	TM434	<50	<50	<50	<50	#	#	#	
PFPA (2706-90-3)	<1 ng/l	TM434	<10	<10	<10	<10	#	#	#	
PFMOBA (863090-89-5)	<1 ng/l	TM434	<10	<10	<10	<10	#	#	#	
4:2 FTS (757124-72-4)	<1 ng/l	TM434	<10	<10	<10	<10	#	#	#	
NFDHA (151772-58-6)	<3 ng/l	TM434	<30	<30	<30	<30	#	#	#	
PFBS (375-73-5)	<1 ng/l	TM434	<10	<10	<10	<10	#	#	#	
PFHxA (307-24-4)	<1 ng/l	TM434	<10	<10	<10	<10	#	#	#	
HFPO-DA (13252-13-6)	<2 ng/l	TM434	<20	<20	<20	<20	#	#	#	
PFEESA (113507-82-7)	<1 ng/l	TM434	<10	<10	<10	<10	#	#	#	



CERTIFICATE OF ANALYSIS

Validated

SDG: 250726-50
Client Ref.: 64225

Report Number: 773763
Location: East Hemel

Superseded Report: 773757

Results Legend			Customer Sample Ref.	D2	D3	D4	DUP3		
# 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)			Depth (m) Sample Type Date Sampled Sample Time Date Received SDG Ref Lab Sample No.(s) AGS Reference	Ground Water (GW) 24/07/2025 26/07/2025 250726-50 31888784	Ground Water (GW) 24/07/2025 26/07/2025 250726-50 31888786	Ground Water (GW) 24/07/2025 26/07/2025 250726-50 31888787	Ground Water (GW) - 26/07/2025 250726-50 31888788		
Component	LOD/Units	Method							
PFHpA (375-85-9)	<1 ng/l	TM434	<10	<10	<10	<10	#	#	#
PFPeS (2706-91-4)	<1 ng/l	TM434	<10	<10	<10	<10	#	#	#
5:3 FTCA (914637-49-3)	<5 ng/l	TM434	<50	<50	<50	<50	#	#	#
ADONA (919005-14-4)	<1 ng/l	TM434	<10	<10	<10	<10	#	#	#
6:2 FTS (27619-97-2)	<1 ng/l	TM434	<10	<10	<10	<10	#	#	#
FBSA (30334-69-1)	<1 ng/l	TM434	<10	<10	<10	<10	#	#	#
PFOA (335-67-1)	<0.65 ng/l	TM434	32.9	<6.5	<6.5	<6.5	#	#	#
PFHxS (355-46-4)	<1 ng/l	TM434	<10	<10	<10	<10	#	#	#
PFNA (375-95-1)	<1 ng/l	TM434	<10	<10	<10	<10	#	#	#
PFHpS (375-92-8)	<1 ng/l	TM434	<10	<10	<10	<10	#	#	#
8:2 FTS (39108-34-4)	<2 ng/l	TM434	<20	<20	<20	<20	#	#	#
HFPO-TA (13252-14-7)	<5 ng/l	TM434	<50	<50	<50	<50	#	#	#
PFDA (335-76-2)	<2 ng/l	TM434	<20	<20	<20	<20	#	#	#
MeFOSAA (2355-31-9)	<2 ng/l	TM434	<20	<20	<20	<20	@ #	@ #	@ #
7:3 FTCA (812-70-4)	<5 ng/l	TM434	<50	<50	<50	<50	#	#	#
Linear PFOS (1763-23-1)	<0.65 ng/l	TM434	<6.5	<6.5	<6.5	<6.5	#	#	#
Branched PFOS	<0.65 ng/l	TM434	<6.5	<6.5	<6.5	<6.5	#	#	#
EtFOSAA (2991-50-6)	<2 ng/l	TM434	<20	<20	<20	<20	@ #	@ #	@ #
PFUnA (2058-94-8)	<2 ng/l	TM434	<20	<20	<20	<20	#	#	#
9Cl-PF3ONS (756426-58-1)	<1 ng/l	TM434	<10	<10	<10	<10	#	#	#
PFNS (68259-12-1)	<1 ng/l	TM434	<10	<10	<10	<10	#	#	#
FHxSA (41997-13-1)	<1 ng/l	TM434	<10	<10	<10	<10	#	#	#
PFDoA (307-55-1)	<2 ng/l	TM434	<20	<20	<20	<20	#	#	#
PFDS (335-77-3)	<2 ng/l	TM434	<20	<20	<20	<20	#	#	#
PFTrDA (72629-94-8)	<3 ng/l	TM434	<30	<30	<30	<30	#	#	#
11Cl-PF3OUdS (763051-92-9)	<2 ng/l	TM434	<20	<20	<20	<20	#	#	#
PFUnDS (749786-16-1)	<2 ng/l	TM434	<20	<20	<20	<20	#	#	#
PFTeA (376-06-7)	<1 ng/l	TM434	<10	<10	<10	<10	#	#	#
PFOSA (754-91-6)	<2 ng/l	TM434	<20	<20	<20	<20	#	#	#
PFDoS (79780-39-5)	<2 ng/l	TM434	<20	<20	<20	<20	#	#	#
PFHxDA (67905-19-5)	<1 ng/l	TM434	<10	<10	<10	<10	#	#	#
MeFOSE (24448-09-7)	<10 ng/l	TM434	<100	<100	<100	<100	@ #	@ #	@ #
N-MeFOSA (31506-32-8)	<1 ng/l	TM434	<10	<10	<10	<10	#	#	#



CERTIFICATE OF ANALYSIS

Validated

SDG: 250726-50
Client Ref.: 64225

Report Number: 773763
Location: East Hemel

Superseded Report: 773757

PAH Spec MS - Aqueous (W)

Results Legend			Customer Sample Ref.	D2	D3	D4	DUP3		
#	ISO17025 accredited.		Depth (m) Sample Type Date Sampled Sample Time Date Received SDG Ref Lab Sample No.(s) AGS Reference	Ground Water (GW)	Ground Water (GW)	Ground Water (GW)	Ground Water (GW)		
M	mCERTS accredited.			24/07/2025	24/07/2025	24/07/2025	24/07/2025		
aq	Aqueous / settled sample.			26/07/2025	26/07/2025	26/07/2025	26/07/2025		
diss.filt	Dissolved / filtered sample.			250726-50	250726-50	250726-50	250726-50		
tot.unfilt	Total / unfiltered sample.		31888784	31888786	31888787	31888788			
* 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							
Naphthalene (aq)	<0.01 µg/l	TM178		<0.1 #	<0.01 #	<0.1 #	<0.1 § #		
Acenaphthene (aq)	<0.005 µg/l	TM178		<0.05 #	<0.005 #	<0.05 #	<0.05 § #		
Acenaphthylene (aq)	<0.005 µg/l	TM178		<0.05 #	<0.005 #	<0.05 #	<0.05 § #		
Fluoranthene (aq)	<0.005 µg/l	TM178		<0.05 #	<0.005 #	<0.05 #	<0.05 § #		
Anthracene (aq)	<0.005 µg/l	TM178		<0.05 #	<0.005 #	<0.05 #	<0.05 § #		
Phenanthrene (aq)	<0.005 µg/l	TM178		<0.05 #	<0.005 #	<0.05 #	<0.05 § #		
Fluorene (aq)	<0.005 µg/l	TM178		<0.05 #	<0.005 #	<0.05 #	<0.05 § #		
Chrysene (aq)	<0.005 µg/l	TM178		<0.05 #	<0.005 #	<0.05 #	<0.05 § #		
Pyrene (aq)	<0.005 µg/l	TM178		<0.05 #	<0.005 #	<0.05 #	<0.05 § #		
Benzo(a)anthracene (aq)	<0.005 µg/l	TM178		<0.05 #	<0.005 #	<0.05 #	<0.05 § #		
Benzo(b)fluoranthene (aq)	<0.005 µg/l	TM178		<0.05 #	<0.005 #	<0.05 #	<0.05 § #		
Benzo(k)fluoranthene (aq)	<0.005 µg/l	TM178		<0.05 #	<0.005 #	<0.05 #	<0.05 § #		
Benzo(a)pyrene (aq)	<0.002 µg/l	TM178		<0.02 #	<0.002 #	<0.02 #	<0.02 § #		
Dibenzo(a,h)anthracene (aq)	<0.005 µg/l	TM178		<0.05 #	<0.005 #	<0.05 #	<0.05 § #		
Benzo(g,h,i)perylene (aq)	<0.005 µg/l	TM178		<0.05 #	<0.005 #	<0.05 #	<0.05 § #		
Indeno(1,2,3-cd)pyrene (aq)	<0.005 µg/l	TM178		<0.05 #	<0.005 #	<0.05 #	<0.05 § #		
PAH, Total Detected USEPA 16 (aq)	<0.082 µg/l	TM178		<0.82 #	<0.082 #	<0.82 #	<0.82 § #		



CERTIFICATE OF ANALYSIS

Validated

SDG: 250726-50
Client Ref.: 64225

Report Number: 773763
Location: East Hemel

Superseded Report: 773757

SVOC MS (W) - Aqueous

Results Legend			Customer Sample Ref.	D2	D3	D4	DUP3		
#	ISO17025 accredited.		Depth (m) Sample Type Date Sampled Sample Time Date Received SDG Ref Lab Sample No.(s) AGS Reference	Ground Water (GW)	Ground Water (GW)	Ground Water (GW)	Ground Water (GW)		
M	mCERTS accredited.			24/07/2025	24/07/2025	24/07/2025	24/07/2025		
aq	Aqueous / settled sample.			26/07/2025	26/07/2025	26/07/2025	26/07/2025		
diss.filt	Dissolved / filtered sample.			250726-50	250726-50	250726-50	250726-50		
tot.unfilt	Total / unfiltered sample.			31888784	31888786	31888787	31888788		
* 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							
1,2-Trichlorobenzene (aq)	<1 µg/l	TM176		<200 #	<2 #	<10 #	<2 § #		
1,2-Dichlorobenzene (aq)	<1 µg/l	TM176		<200 #	<2 #	<10 #	<2 § #		
1,3-Dichlorobenzene (aq)	<1 µg/l	TM176		<200 #	<2 #	<10 #	<2 § #		
1,4-Dichlorobenzene (aq)	<1 µg/l	TM176		<200 #	<2 #	<10 #	<2 § #		
2,4,5-Trichlorophenol (aq)	<1 µg/l	TM176		<200 #	<2 #	<10 #	<2 § #		
2,4,6-Trichlorophenol (aq)	<1 µg/l	TM176		<200 #	<2 #	<10 #	<2 § #		
2,4-Dichlorophenol (aq)	<1 µg/l	TM176		<200 #	<2 #	<10 #	<2 § #		
2,4-Dimethylphenol (aq)	<1 µg/l	TM176		<200 #	<2 #	<10 #	<2 § #		
2,4-Dinitrotoluene (aq)	<1 µg/l	TM176		<200 #	<2 #	<10 #	<2 § #		
2,6-Dinitrotoluene (aq)	<1 µg/l	TM176		<200 #	<2 #	<10 #	<2 § #		
2-Chloronaphthalene (aq)	<1 µg/l	TM176		<200 #	<2 #	<10 #	<2 § #		
2-Chlorophenol (aq)	<1 µg/l	TM176		<200 #	<2 #	<10 #	<2 § #		
2-Methylnaphthalene (aq)	<1 µg/l	TM176		<200 #	<2 #	<10 #	<2 § #		
2-Methylphenol (aq)	<1 µg/l	TM176		<200 #	<2 #	<10 #	<2 § #		
2-Nitroaniline (aq)	<1 µg/l	TM176		<200 #	<2 #	<10 #	<2 § #		
2-Nitrophenol (aq)	<1 µg/l	TM176		<200 #	<2 #	<10 #	<2 § #		
3-Nitroaniline (aq)	<1 µg/l	TM176		<200 #	<2 #	<10 #	<2 §		
4-Bromophenylphenylether (aq)	<1 µg/l	TM176		<200 #	<2 #	<10 #	<2 § #		
4-Chloro-3-methylphenol (aq)	<1 µg/l	TM176		<200 #	<2 #	<10 #	<2 § #		
4-Chloroaniline (aq)	<1 µg/l	TM176		<200 #	<2 #	<10 #	<2 §		
4-Chlorophenylphenylether (aq)	<1 µg/l	TM176		<200 #	<2 #	<10 #	<2 § #		
4-Methylphenol (aq)	<1 µg/l	TM176		<200 #	<2 #	<10 #	<2 § #		
4-Nitroaniline (aq)	<1 µg/l	TM176		<200 #	<2 #	<10 #	<2 § #		
4-Nitrophenol (aq)	<1 µg/l	TM176		<200 #	<2 #	<10 #	<2 §		
Azobenzene (aq)	<1 µg/l	TM176		<200 #	<2 #	<10 #	<2 § #		
Acenaphthylene (aq)	<1 µg/l	TM176		<200 #	<2 #	<10 #	<2 § #		
Acenaphthene (aq)	<1 µg/l	TM176		<200 #	<2 #	<10 #	<2 § #		
Anthracene (aq)	<1 µg/l	TM176		<200 #	<2 #	<10 #	<2 § #		
bis(2-Chloroethyl)ether (aq)	<1 µg/l	TM176		<200 #	<2 #	<10 #	<2 § #		
bis(2-Chloroethoxy)methane (aq)	<1 µg/l	TM176		<200 #	<2 #	<10 #	<2 § #		
bis(2-Ethylhexyl) phthalate (aq)	<2 µg/l	TM176		<400 #	<4 #	<20 #	<4 § #		
Butylbenzyl phthalate (aq)	<1 µg/l	TM176		<200 #	<2 #	<10 #	<2 § #		
Benzo(a)anthracene (aq)	<1 µg/l	TM176		<200 #	<2 #	<10 #	<2 § #		



CERTIFICATE OF ANALYSIS

Validated

SDG: 250726-50
Client Ref.: 64225

Report Number: 773763
Location: East Hemel

Superseded Report: 773757

TPH CWG (W)

Results Legend			Customer Sample Ref.	D2	D3	D4	DUP3		
# 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)			Depth (m) Sample Type Date Sampled Sample Time Date Received SDG Ref Lab Sample No.(s) AGS Reference	Ground Water (GW) 24/07/2025 26/07/2025 250726-50 31888784	Ground Water (GW) 24/07/2025 26/07/2025 250726-50 31888786	Ground Water (GW) 24/07/2025 26/07/2025 250726-50 31888787	Ground Water (GW) 26/07/2025 250726-50 31888788		
Component	LOD/Units	Method							
GRO Surrogate % recovery**	%	TM245	88	89	90	84			
GRO >C5-C12 (HS_1D_TOTAL)	<50 µg/l	TM245	<50 #	<50 #	<50 #	<50			
Aliphatics >C5-C6 (HS_1D_AL)	<10 µg/l	TM245	<10	<10	<10	<10			
Aliphatics >C6-C8 (HS_1D_AL)	<10 µg/l	TM245	<10	<10	<10	<10			
Aliphatics >C8-C10 (HS_1D_AL)	<10 µg/l	TM245	<10	<10	<10	<10			
Aliphatics >C10-C12 (HS_1D_AL)	<10 µg/l	TM245	<10	<10	<10	<10			
Aliphatics >C12-C16 (aq) (EH_2D_AL)	<10 µg/l	TM439	<10	<10	<10	<50			
Aliphatics >C16-C21 (aq) (EH_2D_AL)	<10 µg/l	TM439	<10	<10	<10	<50			
Aliphatics >C21-C35 (aq) (EH_2D_AL)	<10 µg/l	TM439	<10	<10	<10	<50			
Total Aliphatics >C12-C35 (aq) (EH_2D_AL)	<10 µg/l	TM439	<10	<10	<10	<50			
Aromatics >EC5-EC7 (HS_1D_AR)	<10 µg/l	TM245	<10	<10	<10	<10			
Aromatics >EC7-EC8 (HS_1D_AR)	<10 µg/l	TM245	<10	<10	<10	<10			
Aromatics >EC8-EC10	<10 µg/l	TM245	<10	<10	<10	<10			
Aromatics >EC10-EC12	<10 µg/l	TM245	<10	<10	<10	<10			
Aromatics >EC12-EC16 (aq) (EH_2D_AR_#1)	<10 µg/l	TM439	<10	<10	<10	<50			
Aromatics >EC16-EC21 (aq) (EH_2D_AR_#1)	<10 µg/l	TM439	<10	<10	<10	<50			
Aromatics >EC21-EC35 (aq) (EH_2D_AR_#1)	<10 µg/l	TM439	291	<10	<10	<50			
Total Aromatics >EC12-EC35 (aq) (EH_2D_AR_#1)	<10 µg/l	TM439	291	<10	<10	<50			
Total Aliphatics & Aromatics >C5-35 (aq) (HS_1D_TOTAL_EH_2D_TOTAL_#1)	<10 µg/l	TM439	291	<10	<10	<10			



CERTIFICATE OF ANALYSIS

Validated

SDG: 250726-50
Client Ref.: 64225

Report Number: 773763
Location: East Hemel

Superseded Report: 773757

VOC MS (W)

Results Legend			Customer Sample Ref.				
# ISO17025 accredited.	M mCERTS accredited.	aq Aqueous / settled sample.	Depth (m)	D2	D3	D4	DUP3
diss.filt Dissolved / filtered sample.	tot.unfilt Total / unfiltered sample.	Subcontracted - refer to subcontractor report for accreditation status.	Sample Type	Ground Water (GW)	Ground Water (GW)	Ground Water (GW)	Ground Water (GW)
% 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)	Date Sampled	24/07/2025	24/07/2025	24/07/2025	24/07/2025
			Date Received	26/07/2025	26/07/2025	26/07/2025	26/07/2025
			SDG Ref	250726-50	250726-50	250726-50	250726-50
			Lab Sample No.(s)	31888784	31888786	31888787	31888788
			AGS Reference				
Component	LOD/Units	Method					
Methyl tertiary butyl ether (MTBE)	<1 µg/l	TM208	<1	<1	<1	<1	
			#	#	#	#	§ #
Benzene	<1 µg/l	TM208	<1	<1	<1	<1	
			#	#	#	#	§ #
Toluene	<1 µg/l	TM208	<1	<1	<1	<1	
			#	#	#	#	§ #
Ethylbenzene	<1 µg/l	TM208	<1	<1	<1	<1	
			#	#	#	#	§ #
m,p-Xylene	<1 µg/l	TM208	<1	<1	<1	<1	
			#	#	#	#	§ #
o-Xylene	<1 µg/l	TM208	<1	<1	<1	<1	
			#	#	#	#	§ #
Sum of detected Xylenes	<2 µg/l	TM208	<2	<2	<2	<2	
							§
Sum of BTEX	<5 µg/l	TM208	<5	<5	<5	<5	
							§



CERTIFICATE OF ANALYSIS

Validated

SDG: 250726-50
Client Ref.: 64225

Report Number: 773763
Location: East Hemel

Superseded Report: 773757

Table of Results - Appendix

Method No	Description
TM022	Determination of total suspended solids in waters
TM045	Determination of BOD5 (ATU) Filtered by Oxygen Meter on liquids
TM090	Determination of Total Organic Carbon/Total Inorganic Carbon in Water and Waste Water
TM099	Determination of Ammonium in Water Samples using the Kone Analyser
TM152	Analysis of Aqueous Samples by ICP-MS
TM176	Determination of SVOCs in Water by GCMS
TM178	Determination of Polynuclear Aromatic Hydrocarbons (PAH) by GC-MS in Waters
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
TM212	Determination of Total Nitrogen by High Temperature Catalytic Oxidation followed by Chemiluminescence Detection
TM241	The Determination of Hexavalent Chromium in Waters and Leachates using the Kone Analyser
TM245	Determination of GRO by Headspace in waters
TM256	Determination of pH, EC, TDS and Alkalinity in Aqueous samples
TM343	Determination of Selected Pesticides (Suite I) in Liquids by GCMS
TM434	Analysis of PFAS
TM439	Determination of Extractable Petroleum Hydrocarbons (EPH) CWG banding by GC-FID on liquids

NA = not applicable.

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



CERTIFICATE OF ANALYSIS

Validated

SDG: 250726-50
Client Ref.: 64225

Report Number: 773763
Location: East Hemel

Superseded Report: 773757

Test Completion Dates

Lab Sample No(s) Customer Sample Ref.	31888784	31888786	31888787	31888788
	D2	D3	D4	DUP3
AGS Ref.				
Depth				
Type	Ground Water	Ground Water	Ground Water	Ground Water
Ammoniacal Nitrogen	29-Jul-2025	29-Jul-2025	29-Jul-2025	29-Jul-2025
Anions by Kone (w)	01-Aug-2025	01-Aug-2025	01-Aug-2025	01-Aug-2025
BOD True Total	02-Aug-2025	02-Aug-2025	02-Aug-2025	02-Aug-2025
Chromium III	01-Aug-2025	01-Aug-2025	01-Aug-2025	01-Aug-2025
Dissolved Metals by ICP-MS	31-Jul-2025	31-Jul-2025	31-Jul-2025	31-Jul-2025
Dissolved Organic/Inorganic Carbon	02-Aug-2025	02-Aug-2025	02-Aug-2025	02-Aug-2025
EPH and CWG by FID	31-Jul-2025	04-Aug-2025	31-Jul-2025	04-Aug-2025
GRO by GC-FID (W)	05-Aug-2025	05-Aug-2025	05-Aug-2025	05-Aug-2025
Hexavalent Chromium (w)	01-Aug-2025	01-Aug-2025	01-Aug-2025	01-Aug-2025
Mercury Dissolved	04-Aug-2025	04-Aug-2025	04-Aug-2025	04-Aug-2025
Nitrite by Kone (w)	30-Jul-2025	30-Jul-2025	30-Jul-2025	30-Jul-2025
PAH Spec MS - Aqueous (W)	04-Aug-2025	04-Aug-2025	04-Aug-2025	04-Aug-2025
Pesticides (Suite I) by GCMS	11-Aug-2025	11-Aug-2025	11-Aug-2025	11-Aug-2025
PFAS Liquids (Full Suite)	06-Aug-2025	10-Aug-2025	06-Aug-2025	06-Aug-2025
pH Value	31-Jul-2025	31-Jul-2025	31-Jul-2025	31-Jul-2025
Phosphate by Kone (w)	31-Jul-2025	31-Jul-2025	30-Jul-2025	30-Jul-2025
Suspended Solids	01-Aug-2025	01-Aug-2025	01-Aug-2025	01-Aug-2025
SVOC MS (W) - Aqueous	01-Aug-2025	01-Aug-2025	04-Aug-2025	01-Aug-2025
Total Metals by ICP-MS	31-Jul-2025	31-Jul-2025	31-Jul-2025	31-Jul-2025
Total Nitrogen	31-Jul-2025	31-Jul-2025	31-Jul-2025	31-Jul-2025
Total Organic and Inorganic Carbon	31-Jul-2025	31-Jul-2025	02-Aug-2025	02-Aug-2025
TPH CWG (W)	05-Aug-2025	05-Aug-2025	05-Aug-2025	05-Aug-2025
VOC MS (W)	04-Aug-2025	04-Aug-2025	04-Aug-2025	04-Aug-2025



CERTIFICATE OF ANALYSIS

SDG: 250726-50
Client Ref: 64225

Report Number: 773763
Location: East Hemel

Superseded Report: 773757

Appendix

General

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 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.

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 Anorthophyllite	-
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.



Appendix E: Groundwater Sampling Record

Project Name:	East Hemel
Project Number:	64225
Date of Sampling:	22/07/2025
Engineer Name:	Marcos Biava/Ollie Archer
Weather:	Cloudy
Atmospheric Pressure:	-



A2 Site Investigation

A3							
Water Level (m)	Well Depth (m)	Water Column (m)	Free Phase	Sampling Depth (m)	Start sampling	09:20	Comments
10.97	18.8	7.83	No	13	End sampling	10:00	
Purging time	Temp (°C)	Pressure (mmHg)	Dissolved Oxygen (mg/L)	Conductivity (µs/cm)	ORP (mV)	pH (pH Units)	-
01:00	17.7	749.7	3.59	637	22.8	9.81	
02:00	17.8	749.8	3.61	638	22.8	9.80	
03:00	18.0	749.8	3.39	640	19.6	9.84	
04:00	18.0	749.9	3.36	641	18.2	9.89	

A6							
Water Level (m)	Well Depth (m)	Water Column (m)	Free Phase	Sampling Depth (m)	Start sampling	11:15	Comments
34.5	55.5	21	No	42	End sampling	11:55	
Purging time	Temp (°C)	Pressure (mmHg)	Dissolved Oxygen (mg/L)	Conductivity (µs/cm)	ORP (mV)	pH (pH Units)	-
01:00	14.7	748.5	6.80	572	31.5	8.22	
02:00	14.8	748.5	2.33	573	-19.8	8.69	
03:00	15.5	748.4	2.14	595	-30.7	8.72	
04:00	15.5	748.4	2.15	596	-29.7	8.75	

A8							
Water Level (m)	Well Depth (m)	Water Column (m)	Free Phase	Sampling Depth (m)	Start sampling	12:00	Comments
39.5	46.2	6.7	No	43	End sampling	12:40	
Purging time	Temp (°C)	Pressure (mmHg)	Dissolved Oxygen (mg/L)	Conductivity (µs/cm)	ORP (mV)	pH (pH Units)	-
01:00	15.7	747.5	9.84	582	85.0	8.85	
02:00	16.0	747.5	4.15	393	60.5	9.86	
03:00	16.5	747.6	3.59	340	57.6	9.91	
04:00	16.6	747.6	3.33	336.9	51.0	9.94	

B1							
Water Level (m)	Well Depth (m)	Water Column (m)	Free Phase	Sampling Depth (m)	Start sampling	13:45	Comments
30.91	44.23	13.32	No	35	End sampling	14:25	
Purging time	Temp (°C)	Pressure (mmHg)	Dissolved Oxygen (mg/L)	Conductivity (µs/cm)	ORP (mV)	pH (pH Units)	-
01:00	21.2	748.5	6.78	651	151.4	9.35	
02:00	21.5	748.4	4.43	660	99.6	9.84	
03:00	21.7	748.4	3.95	664	90.3	9.90	
04:00	22.0	748.4	3.61	667	85.5	9.93	

B2							
Water Level (m)	Well Depth (m)	Water Column (m)	Free Phase	Sampling Depth (m)	Start sampling	14:40	Comments
37.07	47.06	9.99	No	42	End sampling	15:20	
Purging time	Temp (°C)	Pressure (mmHg)	Dissolved Oxygen (mg/L)	Conductivity (µs/cm)	ORP (mV)	pH (pH Units)	-
01:00	16.3	747.5	10.59	567	2.7	9.81	
02:00	17.4	747.5	4.09	575	-22.3	9.84	
03:00	18.5	747.3	4.05	588	-28.2	9.85	
04:00	18.9	747.4	3.98	594	-26.8	9.94	

Project Name:	East Hemel
Project Number:	64225
Date of Sampling:	22/07/2025
Engineer Name:	Marcos Biava/Ollie Archer
Weather:	Cloudy
Atmospheric Pressure:	-



A2 Site Investigation

B3							
Water Level (m)	Well Depth (m)	Water Column (m)	Free Phase	Sampling Depth (m)	Start sampling	15:55	Comments
40.43	46.88	6.45	No	43	End sampling	16:30	
Purging time	Temp (°C)	Pressure (mmHg)	Dissolved Oxygen (mg/L)	Conductivity (µs/cm)	ORP (mV)	pH (pH Units)	
01:00	18.4	747.7	3.13	367.3	-61.6	10.10	-
02:00	18.6	747.7	2.90	372.2	-60.0	10.18	
03:00	18.8	747.7	2.82	373.8	-58.6	10.20	
04:00	18.9	747.6	2.71	375.0	-57.6	10.23	

Project Name:	East Hemel
Project Number:	64225
Date of Sampling:	23/07/2025
Engineer Name:	Marcos Biava/Ollie Archer
Weather:	Cloudy
Atmospheric Pressure:	-



A2 Site Investigation

C4							
Water Level (m)	Well Depth (m)	Water Column (m)	Free Phase	Sampling Depth (m)	Start sampling	09:20	Comments
26.91	53.65	26.74	No	30	End sampling	10:00	
Purging time	Temp (°C)	Pressure (mmHg)	Dissolved Oxygen (mg/L)	Conductivity (µs/cm)	ORP (mV)	pH (pH Units)	Duplicate 1
01:00	16.3	752.3	9.23	514	118.2	8.19	
02:00	16.4	752.3	4.39	516	27.9	9.77	
03:00	16.6	752.3	4.21	521	25.8	9.77	
04:00	16.8	752.2	4.18	523	17.9	9.80	

C3							
Water Level (m)	Well Depth (m)	Water Column (m)	Free Phase	Sampling Depth (m)	Start sampling	10:50	Comments
32.79	48.61	15.82	No	38	End sampling	11:30	
Purging time	Temp (°C)	Pressure (mmHg)	Dissolved Oxygen (mg/L)	Conductivity (µs/cm)	ORP (mV)	pH (pH Units)	Duplicate 2
01:00	16.7	751.3	7.68	632	182.2	10.17	
02:00	17.4	751	3.99	641	100.1	10.21	
03:00	17.8	750.9	3.65	646	94.7	10.18	
04:00	18.1	750.9	3.51	650	90.4	10.15	

C8							
Water Level (m)	Well Depth (m)	Water Column (m)	Free Phase	Sampling Depth (m)	Start sampling	12:20	Comments
30.53	48.05	17.52	No	35	End sampling	13:00	
Purging time	Temp (°C)	Pressure (mmHg)	Dissolved Oxygen (mg/L)	Conductivity (µs/cm)	ORP (mV)	pH (pH Units)	-
01:00	18.8	751.3	4.55	48.6	38.6	9.34	
02:00	19.1	751.2	3.21	49.1	-10.1	9.95	
03:00	19.5	751.0	3.16	38.2	-17.2	9.97	
04:00	20.0	751.0	3.02	50.7	-18.7	10.05	

C1							
Water Level (m)	Well Depth (m)	Water Column (m)	Free Phase	Sampling Depth (m)	Start sampling	14:40	Comments
37.05	52.75	15.7	No	42	End sampling	15:20	
Purging time	Temp (°C)	Pressure (mmHg)	Dissolved Oxygen (mg/L)	Conductivity (µs/cm)	ORP (mV)	pH (pH Units)	-
01:00	17.3	749.4	8.67	657	67.4	9.89	
02:00	18.1	749.3	5.08	667	34.4	10.00	
03:00	18.4	749.3	4.92	673	25.6	10.08	
04:00	19.1	749.1	4.89	686	24.8	10.00	

C6							
Water Level (m)	Well Depth (m)	Water Column (m)	Free Phase	Sampling Depth (m)	Start sampling	16:45	Comments
52.98	60	7.02	No	60	End sampling	17:25	
Purging time	Temp (°C)	Pressure (mmHg)	Dissolved Oxygen (mg/L)	Conductivity (µs/cm)	ORP (mV)	pH (pH Units)	-
01:00	21.8	748.7	7.48	664	9.49	9.54	
02:00	22.1	748.6	4.58	667	5.78	10.07	
03:00	22.5	748.6	4.51	670	5.29	10.17	
04:00	22.6	748.7	4.37	698	5.92	10.30	

Project Name:	East Hemel
Project Number:	64225
Date of Sampling:	24/07/2025
Engineer Name:	Marcos Biava/Ollie Archer
Weather:	Cloudy
Atmospheric Pressure:	-



A2 Site Investigation

D2							Comments
Water Level (m)	Well Depth (m)	Water Column (m)	Free Phase	Sampling Depth (m)	Start sampling	11:30	
45.32	52.03	6.71	No	50	End sampling	12:10	Duplicate 3
Purging time	Temp (°C)	Pressure (mmHg)	Dissolved Oxygen (mg/L)	Conductivity (µs/cm)	ORP (mV)	pH (pH Units)	
01:00	14.5	752.5	11.2	440.7	158.8	7.59	
02:00	14.6	752.5	6.95	441.5	127.8	9.86	
03:00	14.7	752.6	6.87	441.3	120.0	9.91	
04:00	14.9	752.5	6.78	443.2	118.7	9.96	

D3							Comments
Water Level (m)	Well Depth (m)	Water Column (m)	Free Phase	Sampling Depth (m)	Start sampling	13:00	
43.73	47.6	3.87	No	46.5	End sampling	13:40	-
Purging time	Temp (°C)	Pressure (mmHg)	Dissolved Oxygen (mg/L)	Conductivity (µs/cm)	ORP (mV)	pH (pH Units)	
01:00	15.5	753.2	6.98	467.4	48.3	9.28	
02:00	16.1	753.1	4.59	421.6	10.9	9.63	
03:00	16.4	753.1	4.48	436.5	4.3	9.76	
04:00	16.9	753.1	4.41	441.2	1.0	9.89	

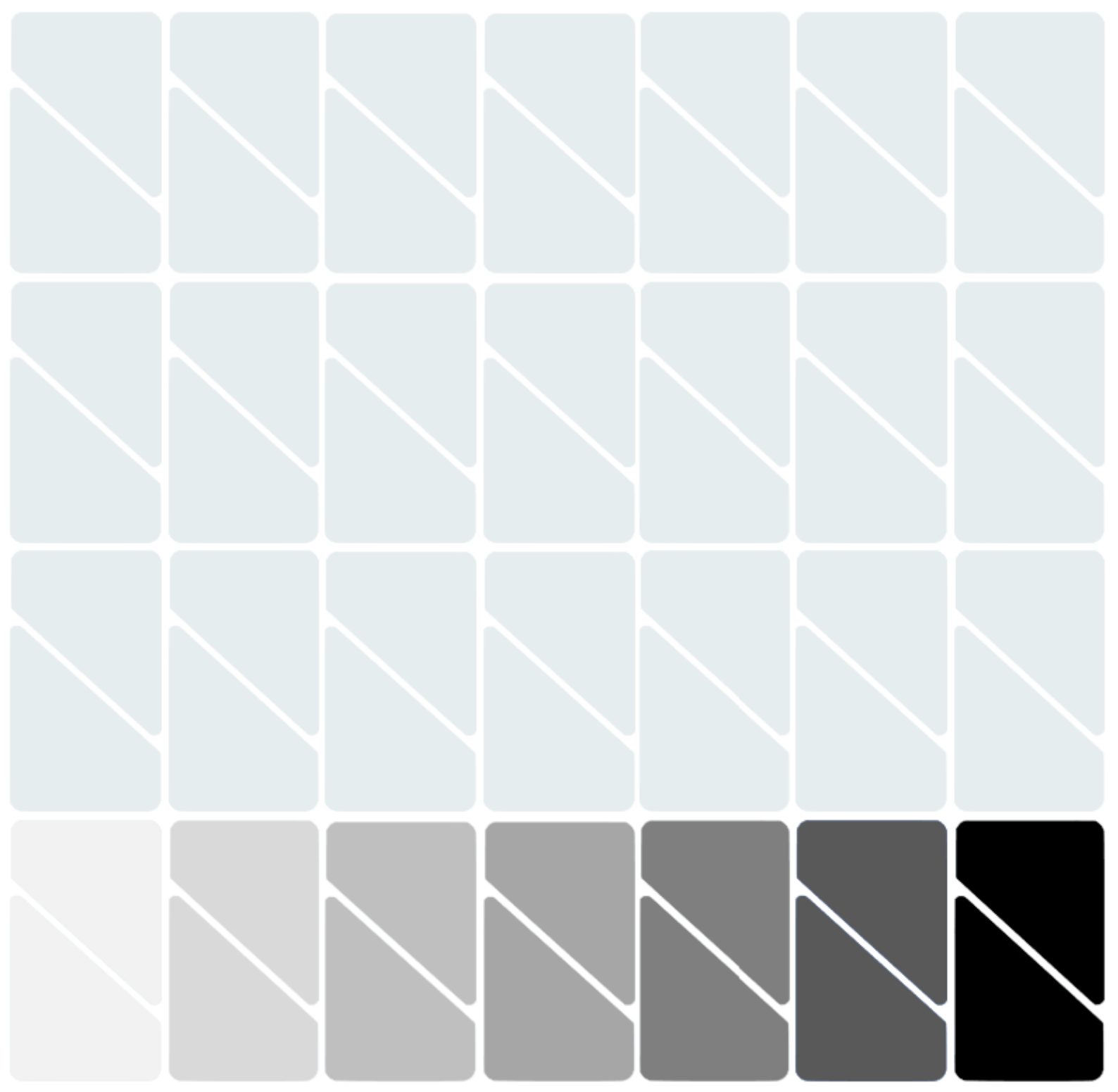
D4							Comments
Water Level (m)	Well Depth (m)	Water Column (m)	Free Phase	Sampling Depth (m)	Start sampling	14:00	
41.83	43.7	1.87	No	43	End sampling	14:40	-
Purging time	Temp (°C)	Pressure (mmHg)	Dissolved Oxygen (mg/L)	Conductivity (µs/cm)	ORP (mV)	pH (pH Units)	
01:00	15.5	754.1	8.33	257.2	61.4	8.63	
02:00	15.7	754.2	4.85	253.1	23	10.1	
03:00	15.8	754.1	4.75	253.9	20.2	10.15	
04:00	15.9	754.1	4.70	253.6	18.3	10.2	



A2 Site Investigation

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Appendix D: ALS PFAS Specification



To ensure that ALS continue to offer industry leading PFAS analytical suites ALS Environmental have been busy developing a new extended PFAS suite offering both the PFAS-50 and European Union (EU) Drinking Water Directive 20 PFAS compounds. We are pleased to announce that the validation work has been completed, and we will now be offering full accreditation for both surface waters and groundwaters on this new method (TM434). To allow us to improve analytical performance across all methods we are making some small adjustments to the suites on offer to help standardise our approach and make it easier for our clients to select the most appropriate PFAS compounds.

PFAS Broad Suite Information

The new PFAS Broad Suite will include a comprehensive offering of over 50 PFAS compounds (Table 1) with full accreditation on Groundwaters and Surface Waters. This will replace all previous extended suites which may have included PFAS compounds outside of the routine PFAS Standard Suite (which is summarized in Table 2). These tables include all new detection limit and accreditation information. Any current quotations which include the previous PFAS Extended options will be re-issued in due course.

To note that a new PFAS specific digitube will be used to analyse any samples processed under the new method (TM434) which offers the benefits of a direct extraction to improve analytical recovery of PFAS and reduces single-use plastic consumption. Whilst we transition all methods to the new containers, ALS will ensure that both a 330ml bottle (ALE 503) and x2 digitubes are provided to ultimately phase out the larger 330ml containers.

References

[1] Drinking Water Inspectorate. DWI Information Letter 05/2021 Requirements for Poly and Perfluorinated Alkyl Substances (PFAS) monitoring by water companies in England and Wales.

[2] European Union (EU) 2020/2184 of the European Parliament and of the Council of 16 December 2020 on the quality of water intended for human consumption (recast) (Text with EEA relevance).

Note: The detection limits below are subject to change.



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Table 1: PFAS Broad Suite Analytical Information

New PFAS Broad Suite	CAS No.	LoD (ng/l)	Accreditation	Method Code	Holding time
PFBA	375-22-4	<2	GW, SW	TM434	14
PFPA	2706-90-3	<1	GW, SW	TM434	14
PFHxA	307-24-4	<1	GW, SW	TM434	14
PFHpA	375-85-9	<1	GW, SW	TM434	14
PFOA	335-67-1	<0.65	GW, SW	TM434	14
PFNA	375-95-1	<1	GW, SW	TM434	14
PFDA	335-76-2	<1	GW, SW	TM434	14
PFUnA	2058-94-8	<2	GW, SW	TM434	14
PFDoA	307-55-1	<1	GW, SW	TM434	14
PFTTrDA	72629-94-8	<3	GW, SW	TM434	14
PFTeA	376-06-7	<1	GW, SW	TM434	14
PFHxDA	67905-19-5	<1	GW, SW	TM434	14
PFODA	16517-11-6	<1	GW, SW	TM434	14
PFBS	375-73-5	<1	GW, SW	TM434	14
PFPeS	2706-91-4	<1	GW, SW	TM434	14
PFHxS	355-46-4	<1	GW, SW	TM434	14
PFHpS	375-92-8	<1	GW, SW	TM434	14
Linear PFOS	1763-23-1	<0.65	GW, SW	TM434	14
Branched PFOS	N/A	<0.65	GW, SW	TM434	14
Total PFOS	N/A	<0.65	GW, SW	TM434	14
PFNS	68259-12-1	<1	GW, SW	TM434	14
PFDS	335-77-3	<2	GW, SW	TM434	14
PFUnDS	749786-16-1	<2	GW, SW	TM434	14
PFDoS	79780-39-5	<2	GW, SW	TM434	14
PFTTrDS	174675-49-1	<1	GW, SW	TM434	14
HFPO-DA (GenX chemicals)	13252-13-6	<2	GW, SW	TM434	14
HFPO-TA	13252-14-7	<5	GW, SW	TM434	14
ADONA	919005-14-4	<1	GW, SW	TM434	14
PFMOPrA	377-73-1	<1	GW, SW	TM434	14
NFDHA	151772-58-6	<3	GW, SW	TM434	14
PFMOBA	863090-89-5	<1	GW, SW	TM434	14
PFecHS	133201-07-7	<1	GW, SW	TM434	14
3:3 FTCA	356-02-5	<2	GW, SW	TM434	14
5:3 FTCA	914637-49-3	<5	GW, SW	TM434	14
7:3 FTCA	812-70-4	<5	GW, SW	TM434	14
PFEESA	113507-82-7	<1	GW, SW	TM434	14
9Cl-PF3ONS (F-53B Major)	756426-58-1	<1	GW, SW	TM434	14
11Cl-PF3OUdS (F-53B Minor)	763051-92-9	<2	GW, SW	TM434	14

GW - Groundwater, SW - Surface Water



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Table 1: New PFAS Broad Suite; Accredited for Groundwaters, Surface Waters (continued)

New PFAS Broad Suite	CAS No.	LoD (ng/l)	Accreditation	Method Code	Holding time
4:2 FTS	757124-72-4	<1	GW, SW	TM434	14
6:2 FTS	27619-97-2	<1	GW, SW	TM434	14
8:2 FTS	39108-34-4	<2	GW, SW	TM434	14
FBSA	30334-69-1	<1	GW, SW	TM434	14
FHxSA	41997-13-1	<1	GW, SW	TM434	14
PFOSA	754-91-6	<2	GW, SW	TM434	14
N-MeFOSA	31506-32-8	<1	GW, SW	TM434	14
N-EtFOSA	4151-50-2	<1	GW, SW	TM434	14
MeFOSE	24448-09-7	<10	GW, SW	TM434	14
EtFOSE	1691-99-2	<10	GW, SW	TM434	14
MeFOSAA	2355-31-9	<2	GW, SW	TM434	14
EtFOSAA	2991-50-6	<2	GW, SW	TM434	14

GW - Groundwater, SW - Surface Water

Table 2: PFAS Standard Suite Analytical Information

PFAS Standard Suite	CAS No.	LoD (ng/l)	Accreditation	Method Code	Holding time
6:2 FTS	(27619-97-2)	<1	GW, SW, FE	TM337	27
Branched PFOS		<0.65	GW, SW, FE	TM337	27
Linear PFOS		<0.6	GW, SW, FE	TM337	27
PFBA	(375-22-4)	<2	GW, SW, FE	TM337	27
PFBS	(375-73-5)	<1	GW, SW, FE	TM337	27
PFDA	(335-76-2)	<1	GW, SW, FE	TM337	27
PFDoA	(307-55-1)	<1	GW, SW, FE	TM337	27
PFDS	(335-77-3)	<1		TM337	182
PFHpA	(375-85-9)	<1	GW, SW, FE	TM337	27
PFHpS	(375-92-8)	<1	GW, SW, FE	TM337	27
PFHxA	(307-24-4)	<1	GW, SW, FE	TM337	27
PFHxS	(355-46-4)	<1	GW, SW, FE	TM337	27
PFNA	(375-95-1)	<1	GW, SW, FE	TM337	27
PFOA	(335-67-1)	<0.65	GW, SW, FE	TM337	27
PFOSA	(754-91-6)	<2	GW, SW, FE	TM337	27
PFPA	(2706-90-3)	<1	GW, SW, FE	TM337	27
PFPeS	(2706-91-4)	<1	GW, SW, FE	TM337	27
PFUnA	(2058-94-8)	<1	GW, SW, FE	TM337	27
Total PFOS		<0.65	GW, SW, FE	TM337	27



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We are always happy to help and run through any PFAS related queries you may have. A designated PFAS technical team can be contacted on the details below to discuss these options or any other PFAS-related sampling or technical queries you may have.

For further information please contact:

PFAS Technical Support

e: pfas.hawarden@alsglobal.com

Client Services

e: hawardencustomerservices@alsglobal.com



Appendix E: Duplicate RPD Comparison



Contaminant	Units	Sample Concentration		
		Dup1	C4	RPD
Contaminant	Units	Dup1	C4	RPD
FFPA	ng/l	<1	<1	35.64285
PFMOPA	ng/l	<2	6.86	109.7
S-3 FTCA	ng/l	31.5	42.5	29.72973
PFPA	ng/l	<1	<1	
PFMOBA	ng/l	<1	<1	
4,2 FTs	ng/l	<1	<1	
NFDHA	ng/l	<3	<3	
PFES	ng/l	7.1	9.63	30.24907
PFHA	ng/l	19.2	26.9	33.45664
HFPO-DA	ng/l	<2	<2	
PFESA	ng/l	<1	<1	
PFHPA	ng/l	13.7	18.7	30.8642
PFPS	ng/l	2.17	2.1	3.27989
S-3 FTCA	ng/l	<5	<5	
ADONA	ng/l	<1	<1	
6,2 FTs	ng/l	<1	<1	
FBA	ng/l	3.78	4.22	11
PFDA	ng/l	10.7	15	33.46204
PFHS	ng/l	3.28	10.2	102.6706
PFNA	ng/l	1.9	2.96	43.6214
PFECIS	ng/l	<1	<1	
PFHs	ng/l	<1	<1	
8,2 FTs	ng/l	<2	<2	
HFPO-TA	ng/l	<5	<5	
PFDA	ng/l	<2	<2	
MFOOSA	ng/l	<2	<2	
7,3 FTCA	ng/l	<5	<5	
Linear PFOS	ng/l	9.32	5.71	48.03726
Branched PFOS	ng/l	11.7	9.16	24.35283
EFOSA	ng/l	<2	<2	
PFUa	ng/l	<2	<2	
9CI-PF3ONS	ng/l	<1	<1	
PFNS	ng/l	<1	<1	
PFSA	ng/l	<1	<1	
PFDA	ng/l	<2	<2	
PFDS	ng/l	<2	<2	
PFDA	ng/l	<3	<3	
11CI-PF3OAS	ng/l	<2	<2	
PFHDS	ng/l	<2	<2	
PFa	ng/l	<1	<1	
PFOSA	ng/l	<2	<2	
PFDS	ng/l	<2	<2	
PFIOS	ng/l	<1	<1	
PFHGA	ng/l	<1	<1	
MFOSE	ng/l	<10	<10	
N-MFOA	ng/l	<1	<1	
EFOS	ng/l	<10	<10	
PFODA	ng/l	<1	<1	
N-EOFSA	ng/l	<1	<1	
6,2 FTAB	ng/l	<10	<10	
Total PFOS	ng/l	21	14.9	33.96229
Total PFAS DW47	ng/l	132	181	31.3099
Toluene	ug/l	<0.01	<0.01	
alpha-HCH	ug/l	<0.01	<0.01	
gamma-HCH (Lindane)	ug/l	<0.01	<0.01	
Heptachlor	ug/l	<0.01	<0.01	
Aldrin	ug/l	<0.01	<0.01	
beta-HCH	ug/l	<0.01	<0.01	
Isodrin	ug/l	<0.01	<0.01	
delta-HCH	ug/l	<0.01	<0.01	
Heptachlor epoxide	ug/l	<0.01	<0.01	
o,p'-DDE	ug/l	<0.01	<0.01	
Endosulphan I	ug/l	<0.01	<0.01	
trans-Chlordane	ug/l	<0.01	<0.01	
cis-Chlordane	ug/l	<0.01	<0.01	
p,p'-DDE	ug/l	<0.01	<0.01	
Dieldrin	ug/l	<0.01	<0.01	
o,p'-DDD (TDE)	ug/l	<2	<2	
Endrin	ug/l	<2	<2	
o,p'-DDT	ug/l	<0.01	<0.01	
p,p'-DDD (TDE)	ug/l	<0.01	<0.01	
Endosulphan II	ug/l	<0.02	<0.02	
o,p'-Methoxychlor	ug/l	<2	<2	
p,p'-Methoxychlor	ug/l	<2	<2	
Endosulphan Sulphate	ug/l	<0.02	<0.02	
Permethrin I	ug/l	<0.01	<0.01	
Permethrin II	ug/l	<0.01	<0.01	
Nitrogen, Total	mg/l	11.4	12.2	6.77961
Naphthalene	ug/l	<0.005	<0.005	
Acenaphthene	ug/l	<0.005	<0.005	
Acenaphthylene	ug/l	<0.005	<0.005	
Fluoranthene	ug/l	<0.005	<0.005	
Anthracene	ug/l	<0.005	<0.005	
Phenanthrene	ug/l	<0.005	<0.005	
Fluorene	ug/l	<0.005	<0.005	
Chrysene	ug/l	<0.005	<0.005	
Pyrene	ug/l	<0.005	<0.005	
Benzo[a]anthracene	ug/l	<0.005	<0.005	
Benzo[b]fluoranthene	ug/l	<0.005	<0.005	
Benzo[k]fluoranthene	ug/l	<0.005	<0.005	
Benzo[a]pyrene	ug/l	<0.002	<0.002	
Dibenz[a,h]anthracene	ug/l	<0.005	<0.005	
Benzo[g,h,i]perylene	ug/l	<0.005	<0.005	
Indeno[1,2,3-cd]pyrene	ug/l	<0.005	<0.005	
PAH, Total Detected (SPPA 16)	ug/l	<0.082	<0.082	
1,2,4-Trichlorobenzene	ug/l	<1	<1	
1,2-Dichlorobenzene	ug/l	<1	<1	
1,3-Dichlorobenzene	ug/l	<1	<1	
1,4-Dichlorobenzene	ug/l	<1	<1	
2,4,6-Trichlorophenol	ug/l	<1	<1	
2,4-Dichlorophenol	ug/l	<1	<1	
2,4-Dimethylphenol	ug/l	<1	<1	
2,4-Dinitrophenol	ug/l	<1	<1	
2,6-Dinitrophenol	ug/l	<1	<1	
2-Chloronaphthalene	ug/l	<1	<1	
2-Methylphenol	ug/l	<1	<1	
2-Nitrophenol	ug/l	<1	<1	
3-Nitrophenol	ug/l	<1	<1	
4-Bromophenylether	ug/l	<1	<1	
4-Chloro-3-methylphenol	ug/l	<1	<1	
4-Chlorophenylether	ug/l	<1	<1	
4-Methylphenol	ug/l	<1	<1	
4-Nitrophenol	ug/l	<1	<1	
Azobenzene	ug/l	<1	<1	
Acenaphthene	ug/l	<1	<1	
Anthracene	ug/l	<1	<1	
bsiz-Chloroethyl ether	ug/l	<1	<1	
bsiz-Chloroethylmethane	ug/l	<2	<2	
Butylbenzyl phthalate	ug/l	<1	<1	
Benzo[a]anthracene	ug/l	<1	<1	
Benzo[b]fluoranthene	ug/l	<1	<1	
Benzo[k]fluoranthene	ug/l	<1	<1	
Benzo[a]pyrene	ug/l	<1	<1	
Carbazole	ug/l	<1	<1	
Chrysene	ug/l	<1	<1	
Dibenzofuran	ug/l	<1	<1	
n-Butyl phthalate	ug/l	<1	<1	
Diethyl phthalate	ug/l	<1	<1	
Dimethyl phthalate	ug/l	<1	<1	
Fluoranthene	ug/l	<1	<1	
Fluorene	ug/l	<1	<1	
Hexachlorobutadiene	ug/l	<1	<1	
Hexachlorobenzene	ug/l	<1	<1	
Hexachlorocyclopentadiene	ug/l	<1	<1	
Phenol	ug/l	<1	<1	
n-Nitroso-N-dipropylamine	ug/l	<1	<1	
Hexachloroethane	ug/l	<1	<1	
Nitrobenzene	ug/l	<1	<1	
Naphthalene	ug/l	<1	<1	
Isothiazole	ug/l	<1	<1	
Hexachlorocyclopentadiene	ug/l	<1	<1	
Phenanthrene	ug/l	<1	<1	
Indeno[1,2,3-cd]pyrene	ug/l	<1	<1	
Pyrene	ug/l	<1	<1	
GRO Sample % recovery**	ug/l	95	90	5.405405
Aliphatics >C5-C6	ug/l	<10	<10	
Aliphatics >C6-C8	ug/l	<10	<10	
Aliphatics >C8-C10	ug/l	<10	<10	
Aliphatics >C10-C12	ug/l	<10	<10	
Aromatics >EC5-EC7	ug/l	<10	<10	
Aromatics >EC7-EC9	ug/l	<10	<10	
Aromatics >EC9-EC10	ug/l	<10	<10	
Aromatics >EC10-EC12	ug/l	<10	<10	
GRO >C5-C12	ug/l	<10	<10	
Methyl tertiary butyl ether (MTBE)	ug/l	<1	<1	
Benzene	ug/l	<1	<1	
Toluene	ug/l	<1	<1	
Ethylbenzene	ug/l	<1	<1	
m,p-Xylene	ug/l	<1	<1	
o-Xylene	ug/l	<1	<1	
Sum of detected Xylenes	ug/l	<5	<5	
Sum of BTEX	ug/l	<5	<5	
Aliphatics >C12-C18	ug/l	<10	<10	
Aliphatics >C18-C21	ug/l	<10	<10	
Aliphatics >C21-C35	ug/l	<10	<10	
Total Aliphatics >C12-C35	ug/l	<10	<10	
Aromatics >EC12-EC16	ug/l	<10	<10	
Aromatics >EC16-EC21	ug/l	<10	<10	
Aromatics >EC21-EC35	ug/l	<10	<10	
Total Aromatics >EC12-EC35	ug/l	<10	<10	
Total Aliphatics & Aromatics >C5-C35	ug/l	<10	<10	
Mercury	ug/l	<0.01	<0.01	
Arsenic	ug/l	<0.5	<0.5	
Barium	ug/l	49.3	52.1	5.522882
Beryllium	ug/l	<0.1	<0.1	
Boron	ug/l	18.9	23.9	23.36449
Calcium	ug/l	<0.08	<0.08	
Chromium	ug/l	<1	<1	
Copper	ug/l	0.73	1.73	81.30081
Lead	ug/l	<0.2	<0.2	
Molybdenum	ug/l	<3	<3	
Nickel	ug/l	1.18	1.1	7.017544
Selenium	ug/l	<1	1.04	3.9
Vanadium	ug/l	<1	<1	
Zinc	ug/l	7.43	18.3	84.49281
BOD, unfiltered	mg/l	<1	<1	
Chromam, Hexavalent	ug/l	<0.03	<0.03	
Chromam, Trivalent	ug/l	<0.03	<0.03	
Phosphate (Ortho as P)	mg/l	0.0392	0.0496	23.42342
Carbon, Organic	ug/l	35.1	47	28.98804
Sulphate	mg/l	26.8	14.2	61.48241
Nitrate as NO3	mg/l	44.4	48	7.782298
Nitrite as NO2	mg/l	<0.5	<0.5	
pH	pH unit	7.32	7.34	0.272851
Organic Carbon, Total	mg/l	<0.2	5.03	50.6
Ammoniacal Nitrogen as N	mg/l	<0.2	<0.2	
Suspended solids, Total	mg/l	<2	<2	
Hardness, Total as CaCO3 unfiltered	mg/l	299	271	9.824561

Contaminant	Units	Sample Concentration		
		Dup2	C3	RPD
Contaminant	Units	Dup2	C3	RPD
FFPA	ng/l	<20	<20	
PFMOPA	ng/l	<10	<10	
S-3 FTCA	ng/l	<20	<20	
PFPA	ng/l	11.8	12	1.680672
PFMOBA	ng/l	<100	<100	
4,2 FTs	ng/l	<10	<10	
NFDHA	ng/l	<30	<30	
PFES	ng/l	7	8.67	21.31461
PFHA	ng/l	<10	<10	
HFPO-DA	ng/l	<20	<20	
PFESA	ng/l	<10	<10	
PFHPA	ng/l	<10	<10	
PFPS	ng/l	<10	<10	
S-3 FTCA	ng/l	<50	<50	
ADONA	ng/l	<10	<10	
6,2 FTs	ng/l	<10	<10	
FBA	ng/l	<10	<10	
PFDA	ng/l	7	13.4	29
PFHS	ng/l	<10	<10	
PFNA	ng/l	<10	<10	
PFECIS	ng/l	<10	<10	
PFHs	ng/l	<10	<10	
8,2 FTs	ng/l	<20	<20	
HFPO-TA	ng/l	<50	<50	
PFDA	ng/l	<20	<20	
MFOOSA	ng/l	<20	<20	
7,3 FTCA	ng/l	<50	<50	
Linear PFOS	ng/l	18.6	17.3	7.24234
Branched PFOS	ng/l	14.6	9.04	47.93892
EFOSA	ng/l	<20	<20	
PFUa	ng/l	<20	<20	
9CI-PF3ONS	ng/l	<10	<10	
PFNS	ng/l	<10	<10	
PFSA	ng/l	<10	<10	
PFDA	ng/l	<20	<20	
PFDS	ng/l	<20	<20	
PFDA	ng/l	<30	<30	
11CI-PF3OAS	ng/l	<20	<20	
PFHDS	ng/l	<20	<20	
PFa	ng/l	<10	<10	
PFOSA	ng/l	<20	<20	
PFDS	ng/l	<20	<20	
PFIOS	ng/l	<10	<10	
PFHGA	ng/l	<10	<10	
MFOSE	ng/l	<100	<100	
N-MFOA	ng/l	<10	<10	
EFOS	ng/l	<100	<100	
PFODA	ng/l	<10	<10	
N-EOFSA	ng/l	<10	<10	
6,2 FTAB	ng/l	<100	<100	
Total PFOS	ng/l	33.2	26.4	22.81879
Total PFAS DW47	ng/l	<900	<900	
Toluene	ug/l	<0.1	<0.1	
alpha-HCH	ug/l	<0.1	<0.1	
gamma-HCH (Lindane)	ug/l	<0.1	<0.1	
Heptachlor	ug/l	<0.1	<0.1	
Aldrin	ug/l	<0.1	<0.1	
beta-HCH	ug/l	<0.1	<0.1	
Isodrin	ug/l	<0.1	<0.1	
delta-HCH	ug/l	<0.1	<0.1	
Heptachlor epoxide	ug/l	<0.1	<0.1	
o,p'-DDE	ug/l	<0.1	<0.1	
Endosulphan I	ug/l	<0.1	<0.1	
trans-Chlordane	ug/l	<0.1	<0.1	
cis-Chlordane	ug/l	<0.1	<0.1	
p,p'-DDE	ug/l	<0.1	<0.1	
Dieldrin	ug/l	<0.1	<0.1	
o,p'-DDD (TDE)	ug/l	<0.1	<0.1	
Endrin	ug/l	<2	<2	
o,p'-DDT	ug/l	<0.1	<0.1	



Appendix F: Wardell Armstrong Data Screen



Appendix G: A2SI 2025 Groundwater Data Screen



A-squared Studio

Averaging area	n/a
Chemical group	All analysed
Chemical subgroup	All analysed
Assessment criteria	Drinking Water
pH	6 to 8.1 (7.4)
Hardness	196 to 2910 (891)

Screen

Contaminant	GAC Source	GAC (ug/l)	Min recorded (ug/l)	Max recorded (ug/l)	No. Samples analysed	No. Samples <LOD	No. Samples exceeding GAC
Arsenic	EU DWS	10	0	0	0	21	0
Barium	WHO GV	700	13.5	52.1	21	0	0
Beryllium	WHO GV	12	0	0	0	21	0
Boron	EU DWS	1000	13.2	32	7	14	0
Cadmium	EU DWS	5	0	0	0	21	0
Chromium (III)	EU DWS	50	0	0	0	21	0
Copper	EU DWS	2000	0.32	1.73	14	7	0
Lead	EU DWS	10	0.295	0.484	2	19	0
Nickel	EU DWS	20	0.403	2.59	14	7	0
Selenium	EU DWS	10	1.02	1.17	3	18	0
Zinc	WHO T&O Threshold	3000	1.78	18.3	18	3	0
Ammoniacal Nitrogen as N	UK DWS	500	0	0	0	21	0
Chloride	UK DWS	250000	8400	40800	20	1	0
Benzo(a)pyrene	EU DWS (Max. is 0.27)	0.01	0.00305	0.00737	3	39	0
Benzo(b)fluoranthene	EU DWS	0.1	0.00601	0.013	2	40	0
TPH Aliphatics >C5-6	Ali. 8-10 WHO GV used as surrogate	300	0	0	0	21	0
TPH Aliphatics >C6-8	Ali. 8-10 WHO GV used as surrogate	300	0	0	0	21	0
TPH Aliphatics >C8-10	WHO GV	300	0	0	0	21	0
TPH Aliphatics >C10-12	WHO GV	300	0	0	0	21	0
TPH Aliphatics >C12-16	WHO GV	300	0	0	0	21	0
TPH Aromatics >C5-7	Benzene UK DWS used as surrogate	1	0	0	0	21	0
TPH Aromatics >C7-8	Toluene WHO GV used as surrogate	700	0	0	0	21	0
TPH Aromatics >C8-10	Ethylbenzene WHO GV used as surrogate	300	0	0	0	21	0
TPH Aromatics >C10-12	WHO GV	90	0	0	0	21	0
TPH Aromatics >C12-16	WHO GV	90	0	0	0	21	0
TPH Aromatics >C16-21	WHO GV	90	0	0	0	21	0
TPH Aromatics >C21-35	WHO GV	90	29.1	291	3	18	1
Benzene	UK DWS	1	0	0	0	21	0
Toluene	WHO GV	700	0	0	0	21	0
Ethylbenzene	WHO GV	300	0	0	0	21	0
Methyl tert-butyl ether (MTBE)	WHO T&O Threshold	15	0	0	0	21	0
Xylene	WHO GV	500	0	0	0	21	0
Hexachlorobutadiene (HCBD)	WHO GV	0.6	0	0	0	21	0
Bis(2-ethylhexyl)phthalate	WHO GAC	8	2.59	2.59	1	20	0
1,2-Dichlorobenzene	WHO GV	1000	0	0	0	21	0
1,4-Dichlorobenzene	WHO GV	300	0	0	0	21	0
1,2,4-Trichlorobenzene	US EPA*	70	0	0	0	21	0
Hexachlorobenzene (HCB)	WHO GV Supporting Text	0.05	0	0	0	21	0
2,4,6-Trichlorophenol	WHO GV	300	0	0	0	21	0
Pentachlorophenol (PCP)	WHO GV	9	0	0	0	21	0
PFOA Perfluorooctanoic acid	DWI Criteria	0.1	6.49	93.2	8	14	8
PFOS Linear Perfluoro-1-octanesulfonate	DWI Criteria	0.1	5.71	436	7	15	7

Averaging area	n/a
Chemical group	All analysed
Chemical subgroup	All analysed
Assessment criteria	Environmental Quality - Fresh Water
pH	6 to 8.1 (7.4)
Hardness	196 to 2910 (891)

Screen

Contaminant	GAC Source	GAC (ug/l)	Min recorded (ug/l)	Max recorded (ug/l)	No. Samples analysed	No. Samples <LOD	No. Samples exceeding GAC
Arsenic	UK EQS	50	0	0	0	21	0
Boron	EA operational target	2000	13.2	32	7	14	0
Cadmium	EU EQS (Class 1)	0.08	0	0	0	21	0
Chromium (III)	UK EQS	4.7	0	0	0	21	0
Chromium (VI)	UK EQS	3.4	0	0	0	21	0
Copper	UK EQS (bioavailable)	1	0.32	1.73	14	7	2
Phenol	UK EQS	7.7	0	0	0	21	0
Nickel	EU EQS	4	0.403	2.59	14	7	0
Vanadium	EA operational target (bioavailable)	20	0	0	0	21	0
Zinc	UK EQS	10.9	1.78	18.3	18	3	1
Ammoniacal Nitrogen as N	UK EQS (^-WFD Directions, hardness dependant) (NH3)	300	0	0	0	21	0
Chloride	EA operational target	250000	8400	40800	20	1	0
Anthracene	EU EQS	0.1	0	0	0	42	0
Benzo(a)pyrene	EU EQS (Max. is 0.27)	0.0002	0.00305	0.00737	3	39	3
Benzo(b)fluoranthene	EU EQS (or 0.017 - Max. not AA)	0.0002	0.00601	0.013	2	40	2
Benzo(g,h,i)perylene	EU EQS (or 0.0082 - Max. not AA)	0.0002	0	0	0	42	0
Benzo(k)fluoranthene	EU EQS (or 0.017 - Max. not AA)	0.0002	0.00565	0.00565	1	41	1
Fluoranthene	EU EQS	0.0063	0.00648	0.0194	5	37	3
Indeno(1,2,3-cd)pyrene	EU EQS (Max. not AA)	0.0002	0.00504	0.00567	2	40	2
Naphthalene	EU EQS	2	0	0	0	42	0
TPH Aliphatics >C5-6	Ethylbenzene EQS used as surrogate	20	0	0	0	21	0
TPH Aliphatics >C6-8	Ethylbenzene EQS used as surrogate	20	0	0	0	21	0
TPH Aliphatics >C8-10	Ethylbenzene EQS used as surrogate	20	0	0	0	21	0
TPH Aliphatics >C10-12	Ethylbenzene EQS used as surrogate	20	0	0	0	21	0
TPH Aliphatics >C12-16	Ethylbenzene EQS used as surrogate	20	0	0	0	21	0
TPH Aromatics >C5-7	Benzene EU EQS used as surrogate	10	0	0	0	21	0
TPH Aromatics >C7-8	Toluene EU EQS used as surrogate	74	0	0	0	21	0
TPH Aromatics >C8-10	Ethylbenzene EQS used as surrogate	20	0	0	0	21	0
TPH Aromatics >C10-12	Naphthalene EU EQS used as surrogate	2	0	0	0	21	0
TPH Aromatics >C12-16	Naphthalene EU EQS used as surrogate	2	0	0	0	21	0
TPH Aromatics >C16-21	Anthracene EU EQS used as surrogate	0.1	0	0	0	21	0
TPH Aromatics >C21-35	Benzo(a)pyrene EU EQS used as surrogate	0.0002	29.1	291	3	18	3
Benzene	EU EQS	10	0	0	0	21	0
Toluene	UK EQS	74	0	0	0	21	0
Ethylbenzene	Proposed EQS (Dangerous Substances Directive)	20	0	0	0	21	0
Xylene	EA operational target	30	0	0	0	21	0
Hexachlorobutadiene (HCBd)	EU EQS (Max. not AA)**	0.6	0	0	0	21	0
Diethylphthalate	EA operational target	200	0	0	0	21	0
Bis(2-ethylhexyl)phthalate	Priority Hazardous Substance	1.3	2.59	2.59	1	20	1
Butylbenzylphthalate	UK EQS	7.5	0	0	0	21	0
Di-N-Butyl Phthalate	EA operational target	8	0	0	0	21	0
Di-N-Octyl Phthalate	EA operational target	20	0	0	0	21	0
1,4-Dichlorobenzene	EA operational target	20	0	0	0	21	0
1,2,4-Trichlorobenzene	EU EQS	0.4	0	0	0	21	0
Hexachlorobenzene (HCB)	EU EQS (Max. not AA)**	0.05	0	0	0	21	0
2-Chlorophenol	EA operational target	50	0	0	0	21	0
2,4-Dichlorophenol	UK EQS	4.2	0	0	0	21	0
4-Chloro-3-Methylphenol	EA operational target	40	0	0	0	21	0
Dimethylphthalate	EA operational target	800	0	0	0	21	0
Lead	EU EQS	1.2	0.295	0.484	2	19	0
Pentachlorophenol (PCP)	EU EQS	0.4	0	0	0	21	0
PFOS Linear Perfluoro-1-octanesulfonate	EU EQS	0.00065	5.71	436	7	15	7
Perfluorononanesulfonic acid (PFNS)	EU EQS	0.00065	0	0	0	22	0



Appendix H: Qualitative Risk Assessment Matrix

A-squared Studio Engineers Ltd. qualitative risk assessment for geo-environmental purposes is undertaken in accordance with *CIRIA C552: Contaminated Land Risk Assessment, A Guide to Good Practice (Rudland et al., 2001)*. The CIRIA C552 risk categories and the assessment methodology are summarised below in Table H.1, Table H.2 and Table H.3. Potential magnitude and potential likelihood are both classified to enable a risk rating to be assessed.

Potential magnitude takes into account the potential consequences should a complete source–pathway–receptor linkage be present. Potential magnitude is classified as per Table H.1.

Table H.1 Definition of potential magnitude of consequence

Category	Definition
Severe	Acute risks to human health, catastrophic damage to buildings / property, major pollution to controlled waters.
Medium	Chronic risk to human health, pollution of sensitive controlled waters, significant effects on sensitive ecosystems or species, significant damage to buildings or structures.
Mild	Pollution of non-sensitive waters, minor damage to buildings or structures.
Minor	Damage to non-sensitive ecosystems or species.

Potential likelihood takes into account the presence of the hazard and receptor as well as the integrity of the pathway for exposure, i.e., whether a source-pathway-receptor linkage is present or not. Potential likelihood is classified as per Table H.2.

Table H.2 Definition of potential likelihood of exposure

Category	Definition
High Likelihood	Pollutant linkage may be present and is almost certain to occur in the long-term. Or there is evidence of harm to the receptor.
Likely	Pollutant linkage may be present, and it is probable that it will occur over the long-term.
Low Likelihood	Pollutant linkage may be present, and there is a possibility that it will occur, although there is no certainty that it will do so.
Unlikely	Pollutant linkage may be present, but it is improbable that it will occur.

The potential magnitude of consequence and the potential likelihood of exposure are assessed in accordance with the risk matrix presented in Table H.3.



Table H.3 Geo-environmental risk assessment matrix

		Potential Magnitude of Consequence			
		Severe	Medium	Mild	Minor
Potential Likelihood of Exposure	High Likelihood	Very High	High	Moderate	Low to Moderate
	Likely	High	Moderate	Low to Moderate	Low
	Low Likelihood	Moderate	Low to Moderate	Low	Very Low
	Unlikely	Low to Moderate	Low	Very Low	Very Low



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