



34, HOLLYCROFT AVENUE, LONDON, NW3 7QL







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Production date: 08 February 2022





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geotechnical and environmental consultants

APPENDIX C: Trial Hole Logs

2 The Long Barn, Norton Farm, Selborne Road, Alton, Hampshire GU34 3NB 0333 600 1221 enquiries@groundandwater.co.uk groundandwater.co.uk

Registered Office: Kineton House, 31 Horse Fair, Banbury, Oxfordshire OX16 0AE Registered in England No. 07032001



Percussion Drilling Log

g	ground&water			-						3			
Project Na	ame: 34 Holly	/croft Aven	ue	Client: \	/incent and	Rymill			Date: 11/0	2/2022			
Location: \ 7QL	West Hamps	tead, Lond	lon NW3	Contrac	tor:								
Project No	. : GWPR46	36		Crew N	ame:				Drilling Eq	uipment:			
Borehol W	le Number /S01	Hol	e Type NLS	103	Level 3.50m AoD		Logged	ΙВу	S	cale :50	Pag Sh	ge Numbe leet 1 of 1	er 1
Well Wate	ter Sa kes Denth	mple and	In Situ Testi	ng ts	Depth (m)	Level (m)	Legend		Stratum Description				
	Doptil				0.20	102 20		SLAB V	VITH CONC	RETE			_
					0.30	103.20	× ×	MADE (Sand w coarse,	GROUND: G as fine to co angular to s	Breyish brown arse. Gravel Sub-angular b	n gravelly S was fine to prick (50%) a	AND. and	-
	1.00	SPT	N=8 (2,2/2	,2,2,2)				Orangis	sh brown silt <u>:</u> ds. LONDON	y CLAY with N CLAY FOR	localised sa MATION.	ind and	
	2.00	SPT	N=11 (2,2/3	3,2,3,3)									2
	3.00	SPT	N=13 (3,3/3	3,3,3,4)									3
	4.00) SPT	N=22 (3,3/4	1,4,6,8)	3.80	99.70		Orangis FORMA	sh brown silt <u>:</u> ATION.	Y CLAY. LON	IDON CLAY		4
	5.00	SPT	N=36 (8,9/9	9,9,9,9)									5
	6.00	SPT	N=34 (8,8/8	3,9,8,9)	5.90	97.60		Bluish g	yrey silty CL/ ATION.	ay. London	I CLAY		6
	7.00	SPT	N=39 (8,8/8,	9,11,11)									7
	8.00	SPT	N=33 (10,10	/8,8,8,9)	8.00	95.50	××		End of	Borehole at 8	3.000m		8
													9
													10 -
Hole [Diameter	Casin	g Diameter	Dooth T		Chiselling	tion	Tacl	Donth T	Inclination	and Orientatio	on Orii	otica
Depth Base	Diameter	Uepth Base	Diameter	Depth To	pp Depth Ba	se Dura		1001	Depth Top	Uepth Base		Orienta	ation
Remarks No fresh roo	ots were noted	1 d. No ground	dwater was end	L countered			I		1	1		AGS	



Percussion Drilling Log

	ground	d&water				-									
Projec	t Name:	: 34 Holly	/croft	Avenu	le	Client: \	/incent and	Rymill			Date: 11/0	2/2022			
Locati 7QL	on: Wes	t Hampst	tead,	Londo	on NW3	Contrac	tor:								
Projec	t No. : C	SWPR46	36			Crew N	ame:				Drilling Eq	uipment:			
Bor	ehole N WS02	umber 2		Hole W	e Type /LS	103	Level 8.40m AoD		Logged	Ву	S 1	cale :50	Pag She	e Numbe eet 1 of 1	er
Well	Water	Sar	mple	and Ir	n Situ Testir	ng	Depth	Level	Legend		Strat	um Descrip	tion		
	Strikes	Depth ((m)	Туре	Resul	ts	(m)	(m)							
							0.90	102.50		Sand w coarse, (30%) a	and was tine to coarse. Gravel was fine to parse, angular to sub-rounded flint (40%), brick 10%) and concrete (30%). End of Borehole at 0.900m				
															- -
															2
															-
															-
															3 —
															-
															-
															4 —
															-
															5
															- -
															- -
															-
															6
															-
															-
															7 —
															-
															-
															8 —
															-
															-
															-
															9 —
															-
															10 —
Depth I	Hole Diame Base [eter Diameter	Dept	Casing h Base	Diameter Diameter	Depth To	p Depth Ba	Chiselling se Dura	ation	Tool	Depth Top	Inclination Depth Base	and Orientation	n Orienta	ation
Rema	arks	o noto -l f-	rth-		th (0.00m hel)	No arr	ndwatar	00000-1	arad						
1185111	oois wel		i ule l	un uepi	ur (o.əuni bgi)	. NO GIOU	nuwater was							AGS	



Trial Pit Log

	ground	d&water					11	Iai r		UY				
Projec Locati	t Name:	34 Hollycro	oft Avenu	ie on NW3	Clier	nt: Vincent	and Rym	ill		Date: 11/02/202	22			
7QL					Cont	ractor:								
Projec	t No. : C	WPR4636			Crev	v Name:				Equipment:				
Loc	FE01	umber	Locati	on Type TP		Level 104.40m A	юD	Logg	ed By	Scale 1:25		F	Page Num Sheet 1 o	ber f 1
Well	Water Strikes	Sample	e and In	Situ Testing	9	Depth (m)	Level (m)	Legend		Stratum De	scriptio	n		
Well	Vater Strikes	Sample Depth (m)	e and in Type	Situ Testing Results	9	Depth (m)	Level (m)	Legend	MADE GF Sand was angular to (50%).	Stratum De	escription own grav vel was i (50%) an e at 0.379	n velly S/ fine to id cond	AND. coarse, crete	
											1			5 —
Pit	Dime Length	ensions Pit Widt	th	Pit Stability	Sho	Trencl pring Used	n Support	and Comme	ent Remarks		Date	Pum Rate	ping Data e Rem	narks
Rema	arks													
⊢resh	h roots were noted for the full depth (0.40m bgl). No groundwater was encountered.													



Trial Pit Log

	ground	d&water				Ir		Ίť L	og				
Proje Locat	ct Name: ion: Wes	34 Hollycro	ft Avenu d, Londo	e n NW3	Client: Vincent Contractor:	and Rym	nill		Date: 11/02/202	22			
<u>/QL</u> Proied	ct No. : G	WPR4636			Crew Name:				Equipment:				
Lo	cation Nu FE02	umber	Locatio	on Type P	Level 104.45m A	моD	Logg	ed By	Scale 1:25		Pa Sł	ge Numb neet 1 of	oer 1
Well	Water Strikes	Sample	and In S	Situ Testing	Depth (m)	Level (m)	Legend		Stratum De	scription	cription		
	Dime	ensions			Trencl	h Support	and Comm	ent			Pumpir	ng Data	
Pit	Length	Pit Width	ı F	Pit Stability	Shoring Used			Remarks		Date	Rate	Rema	arks
kema Acces	arks s limited v	vorks and the	trial hole	was terminate	ed.							AG	S



Support Trial Pit Log														
Projec	t Name:	34 Hollycro	oft Avenu	ie	Clier	nt: Vincent	and Rym	ill		Date: 11/02/202	22			
Locati 7QI	on: Wes	t Hampstea	id, Londo	on NW3	Cont	tractor:								
Projec	t No. : G	WPR4636			Crev	v Name:				Equipment:				
Loc	cation Nu	umber	Locati	on Type		Level 104 30m A	٥D	Logg	ed By	Scale Page Number				
Wall	Water	Sample	and In	Situ Testing		Depth Level Legend Stratum Description						`		
vven	Strikes	Depth (m)	Туре	Results		(m)	(m)	Legend		Stratum De	scription	1		
	Dime	ensions				Trenct	Support	and Comme	ent			Pump	bing Data	1 1 2 3 4
Pit	Length	Pit Widt	h	Pit Stability	Sho	pring Used			Remarks		Date	Rate	Remai	rks
A cable	e was not	ed immediate	ely below	the slab and f	urther	excavation	was termii	nated.					AGS	



geotechnical and environmental consultants

APPENDIX D: Geotechnical Laboratory Testing Results

2 The Long Barn, Norton Farm, Selborne Road, Alton, Hampshire GU34 3NB 0333 600 1221 enquiries@groundandwater.co.uk groundandwater.co.uk

Registered Office: Kineton House, 31 Horse Fair, Banbury, Oxfordshire OX16 0AE Registered in England No. 07032001





Contract Number: 58132

Client Ref: **GWPR4636** Client PO: **GWPR4636**

Laboratory Report

Report Date: 19-02-2022

Client Ground and Water Limited Unit 2, The Long Barn, Norton Farm, Selbourne Road, Alton, Hampshire GU34 3NB

Contract Title: 34 Hollycroft Avenue, West Hampstead, London NW3 7QL For the attention of: Robert Terrell

Date Received: **16-02-2022** Date Completed: **19-02-2022**

Qty **Test Description Moisture Content** 5 BS 1377:1990 - Part 2 : 3.2 - * UKAS **1 Point Liquid & Plastic Limit** 5 BS 1377:1990 - Part 2 : 4.4 & 5.3 - * UKAS Water Soluble Sulphate 2:1 extract 1 Sub-contracted Test - @ Non Accredited Test pH value of soil 1 Sub-contracted Test - @ Non Accredited Test 5 Samples Received - @ Non Accredited Test Disposal of samples for job 1

Notes: Observations and Interpretations are outside the UKAS Accreditation

- * denotes test included in laboratory scope of accreditation
- # denotes test carried out by approved contractor
- @ denotes non accredited tests

This certificate is issued in accordance with the accreditation requirements of the United Kingdom Accreditation Service. The results reported herein relate only to the material supplied to the laboratory. This certificate shall not be reproduced except in full, without the prior written approval of the laboratory. Approved Signatories:

Emma Sharp (Business Support Manager) - Paul Evans (Director) - Richard John (Quality/Technical Manager) Shaun Jones (Laboratory manager) - Shaun Thomas (Site Manager) - Wayne Honey (Quality Assistant / Administrator / Health and Safety Coordinator)

GEO Site & Testing Services Ltd Unit 3-4, Heol Aur, Dafen Ind Estate, Dafen, Llanelli, Carmarthenshire SA14 8QN Tel: 01554 784040 Fax: 01554 784041 info@gstl.co.uk gstl.co.uk

GSTL	NATURAL MOISTURE, LIQUID LIMIT, PLASTIC LIMIT AND PLASTICITY INDEX (BS 1377:1990 - Part 2 : 4.4 & 5.3)	
Contract Number	58132	
Site Name	34 Hollycroft Avenue, West Hampstead, London NW3 7QL	
Date Tested	17/02/2022	
	DESCRIPTIONS	

Sample/Hole Reference	Sample Number	Sample Type	D	epth (r	n)	Descriptions
WS1			0.50	-		Brown sandy silty CLAY
WS1			1.50	-		Brown sandy silty CLAY
WS1			3.00	-		Brown sandy silty CLAY
WS1			5.00	-		Brown sandy silty CLAY
WS1			7.00	-		Brown sandy silty CLAY
				-		
				-		
				-		
				-		
				-		
				-		
				-		
				-		
				-		
				-		
				-		
				-		
				-		
				-		
				-		
				-		
				-		
				-		
				-		

John (Advanced Testing Manager)	(≯≮)-
vans (Quality/Technical Manager)	UKAS TESTING
	2788

Operators	Checked	19/02/2022	Richard John (Advanced Testing Manage				
Clayton Jenkins	Approved	19/02/2022	Paul Evans (Quality/Technical Manager)				



CCTI	Certificate of Chemical Analysis	Contract Number	58132
GOIL	BS1377 Part 3 1990	Client Reference	GWPR4636
Client	Ground And Water	Date Received	
Site Name	34 Hollycroft Avenue, West Hampstead, London NW3 7QL	Date Started	16/02/2022
		Date Completed	19/02/2022
		No. of Samples	1

Hole Number	Sample Numbe	e Sample r Type		Depth (m)		Acid Soluble Sulphate	Aqueous Extract Sulphate	Water Soluble Chloride	pH Value	Organic Matter Content	Acid Soluble Chloride	Loss On Ignition
WS1			0.50	-			0.04		7.48			
				-								
				-								
				-								
				-								
				-								
				-								
				-								
				-								
				-								
				-								
				-								
				-								
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				-								
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		_		-								
				-								
				-								
				-								
				-								
				-								
				-								
				-								
Kev	1	Repo	rted As	1	Claus	e	1	Rem	l narks	l	1	l
Acid Soluble	Sulphate	%	SO₂		Clause 5.2	& 5.5	N	CP = No Ch	lloride Prese	ent		
Aqueous Extrac	t Sulphat	e a/l	SO3		Clause 5.3	& 5.5				-		
Water Soluble	Chloride		%		Clause	7.2	1					
pH Valı	ue	@	25°		Clause	9.5						
Organi	ic		%		Clause	3	1					
Acid Soluble	Chloride	(%		Clause	7.3	1					
LOI		(%		Clause	4						
Test Operate	or	Checke	ed and Auth	norised	by			(00	0		
Darren Bourr	ne	Date		19/02	2/2022	Paul	Evans	せ	- War	N.		



Ground and Water Ltd Head Office 2 The Long Barn Norton Farm, Selborne Road Alton Hampshire GU34 3NB

Attention: Robert Terrell

CERTIFICATE OF ANALYSIS

Date of report Generation: Customer: Sample Delivery Group (SDG): Your Reference: Location: Report No: Order Number: 24 February 2022 Ground and Water Ltd 220216-154 GWPR4636 34 Hollycroft Avenue, West Hampstead, London NW3 7 634884 GWPR4636

We received 5 samples on Wednesday February 16, 2022 and 5 of these samples were scheduled for analysis which was completed on Thursday February 24, 2022. 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 Life Sciences Ltd Hawarden.

All sample data is provided by the customer. The reported results relate to the sample supplied, and on the basis that this data is correct.

Incorrect sampling dates and/or sample information will affect the validity of results. The customer is not permitted to reproduce this report except in full without the approval of the laboratory.

Approved By:

Sonia McWhan

Operations Manager



ALS Life Sciences Limited. Registered Office: Units 7 & 8 Hawarden Business Park, Manor Road, Hawarden, Deeside, CH5 3US. Registered in England and Wales No. 4057291. Version: 3.1 Version Issued: 24/02/2022



SDG: 220216-154

Client Ref.: GWPR4636

Validated

Superseded Report:

Report Number: 634884 Location: 34 Hollycroft Avenue, West Hampstead, London NW3 7

Received Sample Overview

Lab Sample No(s)	Customer Sample Ref.	AGS Ref.	Depth (m)	Sampled Date
25831660	WS1		0.20 - 0.20	11/02/2022
25831673	WS1		3.50 - 3.50	11/02/2022
25831675	WS1		6.50 - 6.50	11/02/2022
25831664	WS2		0.20 - 0.20	11/02/2022
25831669	WS3		0.30 - 0.30	11/02/2022

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

(ALS)

Validated

	SDG:	220216-154			Rep	ort N	umbe	r: 63	34884					Superseded Report:
(ALS) Clien	it Ref.:	GWPR4636				Lo	cation	1: 34	I HOIIY	crott	Aven	ue, we	est Ha	ampstead, London NVV3 7
Results Legend X Test No Determination Rescible	1	Lab Sample N	lo(s)			25831660	25831673	25831675		25831664			25831669	
Sample Types -		Custome Sample Refer	r ence			WS1	WS1	WS1		WS2			WS3	
S - Soil/Solid UNS - Unspecified Solid GW - Ground Water SW - Surface Water LE - Land Leachate PL - Prepared Leachate		AGS Refere	nce											
PR - Process Water SA - Saline Water TE - Trade Effluent TS - Treated Sewage US - Untreated Sewage		Depth (m)			0.20 - 0.20	3.50 - 3.50	6.50 - 6.50		0.20 - 0.20			0.30 - 0.30	
VM - Drinking Water Non-regulatory JNL - Unspecified Liquid 3L - Sludge 3 - Gas DTH - Other	ry	Containe	r	1kg TUB with Handle (ALE260)	250g Amber Jar (ALE210)	60g VOC (ALE215)	BAG	BAG	1kg TUB with Handle (ALE260)	250g Amber Jar (ALE210)	1kg TUB with Handle (ALE260)	250g Amber Jar (ALE210)	60g VOC (ALE215)	
		Sample Ty	ре	ა	ა	s	ა	s	ა	ა	S	ა	S	
Ammoniacal N as NH4 in 2:1 extract		All	NDPs: 0 Tests: 2				x	x						
ANC at pH4 and ANC at pH 6		All	NDPs: 0 Tests: 1		x									
Anions by Kone (soil)		All	NDPs: 0 Tests: 5		x		x	x		x		x		
Anions by Kone (w)		All	NDPs: 0 Tests: 1	x										
Asbestos ID in Solid Samples		All	NDPs: 0 Tests: 3	x					x		x			
Boron Water Soluble		All	NDPs: 0 Tests: 3		x					x		x		
CEN Readings		All	NDPs: 0 Tests: 1	x										
Coronene		All	NDPs: 0 Tests: 1		x									
Cyanide Comp/Free/Total/Thiocyanate		All	NDPs: 0 Tests: 3		x					x		x		
Dissolved Metals by ICP-MS		All	NDPs: 0 Tests: 1	x										
Dissolved Organic/Inorganic Carbon		All	NDPs: 0 Tests: 1	x										
		All	NDPs: 0 Tests: 1		x									
EPH UWG GU (S)		All	NDPs: 0 Tests: 2		x							x		
Fluoride		All	NDPs: 0 Tests: 1	x										
GRU by GC-FID (S)		All	NDPs: 0 Tests: 2			X							x	

Validated

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CERTIFICATE OF ANALYSIS

SDG: Client Ref.:			Rep	ort N Lo	umbe catio	r: 63 n: 34	34884 4 Holly	<u>vcroft</u>	Aven	ue, W	/ <u>est</u> H	Superseded Report: ampstead, London NW3	
Results Legend X Test N No Determination	Lab Sample	No(s)			25831660	25831673	25831675		25831664			25831669	
Possible	Custome Sample Refe	er rence			WS1	WS1	WS1		WS2			WS3	
Sample Types - S - Soil/Solid UNS - Unspecified Solid GW - Ground Water SW - Surface Water LE - Land Leachate	AGS Refere	ence											
PL - Prepared Leachate PR - Process Water SA - Saline Water TE - Trade Effluent TS - Treated Sewage US - Untreated Sewage	Depth (m	1)			0.20 - 0.20	3.50 - 3.50	6.50 - 6.50		0.20 - 0.20			0.30 - 0.30	
 Officeated Sewage RE - Recreational Water DW - Drinking Water Non-regulatory UNL - Unspecified Liquid SL - Sludge G - Gas OTH - Other 	Containe	er	1kg TUB with Handle (ALE260)	250g Amber Jar (ALE210) 1kg TUB with Handle (ALE260) 250g Amber Jar (ALE210) 1kg TUB with Handle (ALE260) BAG 60g VOC (ALE215) 250g Amber Jar (ALE210) 1kg TUB with Handle (ALE260)							60g VOC (ALE215)		
	Sample Ty	pe	S	S	ა	ა	S	S	S	S	S	S	
Hexavalent Chromium (s)	All	NDPs: 0 Tests: 3		v					v		v		
Loss on Ignition in soils	All	NDPs: 0 Tests: 1		×					^		^		
Magnesium (BRE)	All	NDPs: 0 Tests: 2				X	X						
Mercury Dissolved	All	NDPs: 0 Tests: 1	x										
Metals in solid samples by OES	All	NDPs: 0 Tests: 3		X					X		x		
NO3, NO2 and TON by KONE (s)	All	NDPs: 0 Tests: 2				X	X						
PAH 16 & 17 Calc	All	NDPs: 0 Tests: 1		X									
PAH by GCMS	All	NDPs: 0 Tests: 3		x					X		X		
PCBs by GCMS	All	NDPs: 0 Tests: 1		x									
рН	All	NDPs: 0 Tests: 5		x		X	X		X		x		
Phenols by HPLC (S)	All	NDPs: 0 Tests: 3		x					X		x		
Phenols by HPLC (W)	All	NDPs: 0 Tests: 1	x										
Sample description	All	NDPs: 0 Tests: 5		x		X	X		X		x		
Total Dissolved Solids	All	NDPs: 0 Tests: 1	v										

07:39:27 24/02/2022

Total Organic Carbon

Х

NDPs: 0 Tests: 3

All

		С	ERT	IFIC	CAT	E OI	FA	NAL	_YS	IS							
SDG: Client Ref.:	220216-154 GWPR4636			Rep	ort N Lo	umber cation	: 63 : 34	34884 1 Hollv	vcroft	Aven	ue. W	est H	Supersed ampstead	ed Repo	rt: on NW3 7		
Results Legend X Test N No Determination	Lab Sample I	No(s)			25831660	25831673	25831675		25831664			25831669					
Possible Sample Types -	Custome Sample Refer	Customer Sample Reference			WS1	WS1	WS1		WS2			WS3					
S - Soil/Solid UNS - Unspecified Solid GW - Ground Water SW - Surface Water LE - Land Leachate	AGS Refere																
PR - Process Water SA - Saline Water TE - Trade Effluent TS - Treated Sewage US - Untreated Sewage	Depth (m			0.20 - 0.20	3.50 - 3.50	6.50 - 6.50		0.20 - 0.20			0.30 - 0.30						
RE - Recreational Water DW - Drinking Water Non-regulatory UNL - Unspecified Liquid SL - Sludge G - Gas OTH - Other	Containe	r	1kg TUB with Handle (ALE260)	250g Amber Jar (ALE210)	60g VOC (ALE215)	BAG	BAG	1kg TUB with Handle (ALE260)	250g Amber Jar (ALE210)	1kg TUB with Handle (ALE260)	250g Amber Jar (ALE210)	60g VOC (ALE215)	60g VOC (ALE215)				
	Sample Ty	ре	ა	ა	ა	ა	ა	S	ა	ა	S	S					
Total Sulphate	All	NDPs: 0 Tests: 2				x	х										
Total Sulphur	All	NDPs: 0 Tests: 2				x	х										
TPH CWG GC (S)	All	NDPs: 0 Tests: 2		X							x						
VOC MS (S)	All	NDPs: 0 Tests: 2			x							x					



SDG: 220216-154 Client Ref.: GWPR4636 Report Number: 634884 Location: 34 Hollycroft Avenue, West Hampstead, London NW3 7

Superseded Report:

Validated

Grain Sizes

Sample Descriptions

very fine	<0.063mm	fine	0.063mm - 0.1mm	medium	0.1mm	n - 2mm	coarse	2mm - 1	.0mm	very coar	se >	>10mm
Lab Sample	e No(s) Cu	istomer Sample Re	f. Depth (m)	Co	lour	Descripti	on	Inclusions	Inclu	sions 2		
258316	60	WS1	0.20 - 0.20	Light	t Brown	Sand		Stones	М	letal		
258316	73	WS1	3.50 - 3.50	Light	t Brown	Sandy Cla	ау	None	N	one		
258316	75	WS1	6.50 - 6.50	Light	t Brown	Sandy Clay L	.oam	None	N	one		
258316	64	WS2	0.20 - 0.20	В	lack	Silt Loam	ı	Stones	Crush	ed Brick		
258316	69	WS3	0.30 - 0.30	В	lack	Silt Loam	ı	Stones	Crush	ed Brick		

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

We are accredited to MCERTS for sand, clay and loam/topsoil, or any of these materials - whether these are derived from naturally ocurring soil profiles, or from fill/made ground, as long as these materials constitute the major part of the sample.

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

Phenols, Total Detected monohydric

Organic Carbon, Total

Soil Organic Matter (SOM)

Chromium, Hexavalent

Cvanide. Total

PCB congener 28

PCB congener 52

PCB congener 101

PCB congener 118

PCB congener 138

PCB congener 153

PCB congener 180

Arsenic

Cadmium

Chromium

Copper

Lead

Mercury

Nickel

Selenium

Vanadium

ANC @ pH 4

ANC @ pH 6

Zinc

Sum of detected PCB 7 Congeners

Sulphur, Total

pН

Phenol Cresols

Xvlenols

< 0.015

mg/kg

< 0.035

mg/kg

<0.2 %

<0.02 %

<0.35 %

1 pH Units

<0.6 mg/kg

<1 mg/kg

< 0.003

mg/kg

< 0.003

mg/kg

< 0.003

mg/kg

<0.003

mg/kg

<0.003

mg/kg

< 0.003

mg/kg

< 0.003

mg/kg

<0.021 mg/kg

<0.6 mg/kg

<0.02 mg/kg

<0.9 mg/kg

<1.4 mg/kg

<0.7 mg/kg

<0.1 mg/kg

<0.2 mg/kg

<1 mg/kg

<0.2 mg/kg

<1.9 mg/kg

< 0.03

mol/kg

< 0.03

mol/kg

<0.02 %

TM062 (S)

TM062 (S)

TM132

TM132

TM132

TM133

TM151

TM153

TM168

TM168

TM168

TM168

TM168

TM168

TM168

TM168

TM181

TM182

TM182

TM221

<0.015

< 0.035

0.488

0.841

11.5

<0.6

<1

< 0.003

< 0.003

< 0.003

< 0.003

< 0.003

< 0.003

< 0.003

<0.021

7.14

0.566

8.16

14.1

30

<0.1

8.24

1.07

15.5

80.1

0.281

0.107

М

М

М

#

М

#

М

М

Μ

М

Μ

М

Μ

Μ

М

М

М

М

Μ

Μ

Μ

#

#

М

0.0373

5.69

Μ

0.674

6.45

Μ

CERTIFICATE OF ANALYSIS

< 0.015

< 0.035

3.21

5.53

8.14

<0.6

<1

12.9

0.346

22.6

37.8

240

<0.1

12.3

<1

38

143

М

Μ

Μ

М

Μ

Μ

М

#

#

М

Μ

М

М

#

Μ

#

Μ

< 0.015

< 0.035

2.99

5.15

8.14

<0.6

<1

13.8

0.412

24.6

32.3

226

<0.1

13.2

<1

41.1

134

М

М

М

М

М

М

М

#

#

М

М

М

М

#

М

#

М

Validated

										_
SD SD	G : 2202	216-1	54			Report Number:	634884	Superseded	Report:	
Client Re	f.: GWI	PR46	36			Location:	34 Hollycroft Avenue	West Hampstead,	London NW3 7	
Results Legend		Cu	stomer Sample Ref.	WS1		WS1	WS1	WS2	WS3	
Hor In 223 activities. M mCERTS accredited. aq Aqueous / settled sample. diss.filt Dissolved / filtered sample. totunfilt Total / unfiltered sample.			Depth (m) Sample Type	0.20 - 0.20 Soil/Solid (S)		3.50 - 3.50 Soil/Solid (S)	6.50 - 6.50 Sail/Salid (S)	0.20 - 0.20 Soil/Solid (S)	0.30 - 0.30 Sail(Salid (S)	
* Subcontracted - refer to subcontractor report for			Date Sampled	11/02/2022		11/02/2022	11/02/2022	11/02/2022	11/02/2022	
accreditation status. ** % recovery of the surrogate standard to check the			Sample Time	THOLIEOLL		100212022	11/02/2022	11/02/2022	1110212022	
efficiency of the method. The results of individual compounds within samples aren't corrected for the			Date Received	16/02/2022		16/02/2022	16/02/2022	16/02/2022	16/02/2022	
recovery			SDG Ref	220216-154		220216-154	220216-154	220216-154	220216-154	
(F) Trigger breach confirmed 1-4+§@ Sample deviation (see appendix)			Lab Sample No.(s) AGS Reference	25831660		25831673	25831675	25831664	25831669	
Component	LOD/U	nits	Method							
Noisture Content Ratio (% of as eceived sample)	%		PM024	1.4		22	19	22	21	
oss on ignition	<0.7	%	TM018	3.52						Т
					М					
Phenol	<0.01 m	ng/kg	TM062 (S)	<0.01				<0.01	<0.01	Т
					М			М	N	Л
Cresols	<0.01 m	ng/kg	TM062 (S)	<0.01				0.0129	0.0254	Т
		-			М			М	N	Λ

07:39:27 24/02/2022

Sulphate, acid soluble (total)

0.0848

0.0994



SDG: 220216-154 Client Ref.: GWPR4636

CERTIFICATE OF ANALYSIS

Superseded Report:

Validated

Report Number: 634884 Location: 34 Hollycroft Avenue, West Hampstead, London NW3 7

Results Legend		Cu	stomer Sample Ref	WC4		WC4	WC4	14/00	10/02	
# ISO17025 accredited.		Cu	stomer Sample Rei.	W51		WS1	W51	W52	W53	
M mCERTS accredited. ag Agueous / settled sample.										
diss.filt Dissolved / filtered sample.			Depth (m)	0.20 - 0.20		3.50 - 3.50	6.50 - 6.50	0.20 - 0.20	0.30 - 0.30	
tot.unfilt Total / unfiltered sample. * Subcontracted - refer to subcontractor report for			Sample Type	Soil/Solid (S)		Soil/Solid (S)	Soil/Solid (S)	Soil/Solid (S)	Soil/Solid (S)	
accreditation status.			Date Sampled	11/02/2022		11/02/2022	11/02/2022	11/02/2022	11/02/2022	
** % recovery of the surrogate standard to check the efficiency of the method. The results of individual			Sample Time				16/02/2022	16/02/2022	16/02/2022	
compounds within samples aren't corrected for the			SDG Ref	220216-154		220216-154	220216-154	220216-154	220216-154	
recovery (F) Trigger breach confirmed			Lab Sample No.(s)	25831660		25831673	25831675	25831664	25831669	
1-4+§@ Sample deviation (see appendix)			AGS Reference							
Component	LOD/U	Inits	Method							
Boron, water soluble	<1 m	g/kg	TM222	<1				1.19	1.53	
					Μ			М	М	
Water Soluble Sulphate as SO4 2:1	<0.00	4 a/l	TM243	0.0283				0.0503	0.0464	
Extract		5			м			М	М	
Soluble Sulphate 2:1 extract as SO4	<0.00	4 ~/	TM242		141	0.0551	0.456	ini		
BRE	<0.00	4 g/i	11/1243			0.0001	0.100			
DIL						M	M			
Chloride 2:1 water/soil extract BRE	<0.002	25 g/l	TM243			0.0088	0.0079			
						М	M			
Nitrate as NO3, 2:1 water soluble	<0.000)3 g/l	TM243			0.000611	0.000351			
(BRE)		•								
Ammoniacal N as NH4 in 2·1 extract	<0.000)3 a/l	TM248			0.00261	0.00197			
BRE	-0.000	JJ 9/1	111/240			0.00201	0.00137			
		0 "	T1 1005		_	0.000	0.0105			
wagnesium (BKE)	<0.00	8 g/l	I M282			<0.008	0.0168			
PAH Total 17 (inc Coronene) Moisture	<10 m	ig/kg	TM410	<10						
Corrected		-								
Coronene	<0.2 m	na/ka	TM410	<0.2						
	·0.2 II	·9/··9	111110	-0.2						
EDH Surrogata % receiver #*			TAAAC	05						
LETT SUTTOYALE % recovery	%)	11/1415	95						
				-						
Mineral Oil >C10-C40	<5 mg	g/kg	TM415	21.2						
(EH_2D_AL)										

SDG: 220216-154

CERTIFICATE OF ANALYSIS

Validated

SE	DG: 220216-1	154		Report Number:	634884	Superseded Report:	
(ALS) Client R	ef.: GWPR46	36		Location:	34 Hollycroft Avenue	, West Hampstead, London NW3 /	
PAH by GCMS Results Legend	Cu	istomer Sample Ref.	WS1	WS2	W\$3		
# ISO17025 accredited. M mCERTS accredited.			W31	WGZ	W35		
aq Aqueous / settled sample. diss.filt Dissolved / filtered sample.		Depth (m)	0.20 - 0.20	0.20 - 0.20	0.30 - 0.30		
tot.unfilt Total / unfiltered sample.		Sample Type	Soil/Solid (S)	Soil/Solid (S)	Soil/Solid (S)		
accreditation status.		Date Sampled	11/02/2022	11/02/2022	11/02/2022		
** % recovery of the surrogate standard to check the efficiency of the method. The results of individual	,	Date Received	16/02/2022	16/02/2022	16/02/2022		
compounds within samples aren't corrected for th	e	SDG Ref	220216-154	220216-154	220216-154		
(F) Trigger breach confirmed		Lab Sample No.(s)	25831660	25831664	25831669		
1-4+§@ Sample deviation (see appendix)		AGS Reference					
Component	LOD/Units	Method	00.4	04.0	00.0		
Naphthalene-d8 % recovery**	%	TM218	93.4	94.2	92.8		
Acenaphthene-d10 % recovery**	%	TM218	102	101	98.9		
Phenanthrene-d10 % recovery**	%	TM218	93.8	91.4	89.9		
Chrysene-d12 % recovery**	%	TM218	93.8	91.5	89		
Perylene-d12 % recovery**	%	TM218	105	89.9	90.3		
Naphthalene	<0.009	TM218	0.0288	<0.009	<0.009		
Acenaphthylene	< 0.012	TM218	0.0141	0.0361	0.0391		1
	mg/kg		M	М	М		
Acenaphthene	<0.008 mg/kg	TM218	<0.008 M	<0.008	0.0102 M		
Fluorene	<0.01 mg/kg	TM218	<0.01 M	<0.01	<0.01		
Phenanthrene	<0.015 mg/kg	TM218	0.109 M	0.16 M	0.18 M		
Anthracene	<0.016 mg/kg	TM218	0.0315 M	0.0564 M	0.0606 M		
Fluoranthene	<0.017 mg/kg	TM218	0.222 M	0.558 M	0.624 M		
Pyrene	<0.015 mg/kg	TM218	0.202 M	0.487 M	0.537 M		
Benz(a)anthracene	<0.014 mg/kg	TM218	0.116 M	0.275 M	0.295 M		
Chrysene	<0.01 mg/kg	TM218	0.123 M	0.336 M	0.376 M		
Benzo(b)fluoranthene	<0.015 mg/kg	TM218	0.193 M	0.504 M	0.536 M		
Benzo(k)fluoranthene	<0.014 mg/kg	TM218	0.0655 M	0.176 M	0.186 M		
Benzo(a)pyrene	<0.015 mg/kg	TM218	0.143 M	0.283 M	0.295 M		
Indeno(1,2,3-cd)pyrene	<0.018 ma/ka	TM218	0.143 M	0.222 M	0.23 M		
Dibonzo(a h)anthracono	<0.022	TM210	<0.022	0.0414	0.0425		
Discrizo(a,r)anarracene	<0.023 ma/ka	11112 10	<0.023 M	0.0414 M	0.0433 M		
Benzo(g,h,i)perylene	<0.024	TM218	0.143	0.209	0.231		
	mg/kg		М	М	М		
PAH, Total Detected USEPA 16	<0.118 mg/kg	TM218	1.53	3.34	3.64		

SDG: 220216-154

CERTIFICATE OF ANALYSIS

	SDG: 220216	6-154		Report Number:	634884	Supersedeo	Report:	
	Ref.: GWPR	4636		Location:	34 Hollycroft Avenue	e, West Hampstead,	London NW3 7	
IPH CWG (S) Results Legend		Customer Sample Ref.	WS1	WS3				
M mCERTS accredited. aq Aqueous / settled sample.								
diss.filt Dissolved / filtered sample. tot.unfilt Total / unfiltered sample. * Subcontracted - refer to subcontractor report fr	or	Depth (m) Sample Type	0.20 - 0.20 Soil/Solid (S)	0.30 - 0.30 Soil/Solid (S)				
accreditation status. ** % recovery of the surrogate standard to check	the	Date Sampled Sample Time	11/02/2022	11/02/2022				
efficiency of the method. The results of individu compounds within samples aren't corrected for recovery	ual r the	Date Received SDG Ref	16/02/2022 220216-154	16/02/2022 220216-154				
(F) Trigger breach confirmed 1-4+§@ Sample deviation (see appendix)		Lab Sample No.(s) AGS Reference	25831660	25831669				
Component	LOD/Units	Method	101	05.1				
Give Sunogale // recovery	70	110009	101	95.1				
Aliphatics >C5-C6 (HS_1D_AL)	<0.01 mg/k	g TM089	<0.01	<0.01				
Aliphatics >C6-C8 (HS_1D_AL)	<0.01 mg/k	g TM089	<0.01	<0.01				
Aliphatics >C8-C10 (HS_1D_AL)	<0.01 mg/k	g TM089	<0.01	<0.01				
Aliphatics >C10-C12 (EH_2D_AL_#1)	<1 mg/kg	TM414	<1 #	<1 #				
Aliphatics >C12-C16 (EH_2D_AL_#1)	<1 mg/kg	TM414	<1 #	<1 #				
Aliphatics >C16-C21 (EH_2D_AL_#1)	<1 mg/kg	TM414	1.14 #	<1 #				
Aliphatics >C21-C35 (EH_2D_AL_#1)	<1 mg/kg	TM414	14.1	14.5				
Aliphatics >C35-C44 (EH_2D_AL_#1)	<1 mg/kg	TM414	2.43	1.3				
Total Aliphatics >C10-C44 (EH_2D_AR_#1)	<5 mg/kg	TM414	17.6	16.6				
Total Aliphatics & Aromatics >C10-C44 (EH_2D_Total_#1)	<10 mg/kg	g TM414	34.2	58.1				
Aromatics >EC5-EC7 (HS_1D_AR)	<0.01 mg/k	g TM089	<0.01	<0.01				
Aromatics >EC7-EC8 (HS_1D_AR)	<0.01 mg/k	g TM089	<0.01	<0.01				
Aromatics >EC8-EC10 (HS_1D_AR)	<0.01 mg/k	g TM089	<0.01	<0.01				
Aromatics > EC10-EC12 (EH_2D_AR_#1)	<1 mg/kg	TM414	<1 #	<1 #				
Aromatics > EC12-EC16 (EH_2D_AR_#1)	<1 mg/kg	TM414	<1 #	<1 #				
Aromatics > EC16-EC21 (EH_2D_AR_#1)	<1 mg/kg	TM414	<1 #	2.2 #				
Aromatics > EC21-EC35 (EH_2D_AR_#1)	<1 mg/kg	TM414	14.2 #	33.8				
Aromatics >EC35-EC44 (EH_2D_AR_#1)	<1 mg/kg	TM414	2.04	5.57				
Aromatics > EC40-EC44 (EH_2D_AR_#1)	<1 mg/kg	TM414	<1	<1				
Total Aromatics > EC10-EC44 (EH_2D_AR_#1)	<5 mg/kg	TM414	16.6	41.5				
Total Aliphatics & Aromatics >C5-C44 (EH_2D_Total_#1+HS_1D_Total)	<10 mg/kg	g TM414	34.2	58.1				
Total Aliphatics >C5-C10 (HS_1D_AL_TOTAL)	<0.05 mg/k	g TM089	<0.05	<0.05				
Total Aromatics >EC5-EC10 (HS_1D_AR_TOTAL)	<0.05 mg/k	g TM089	<0.05	<0.05				
GRO >C5-C10 (HS_1D_TOTAL)	<0.02 mg/k	g TM089	<0.02	<0.02				

Validated

	SDG: 2202	16-154			Report Number:	63	34884	Supersedeo	Report:	
(ALS) <u>Clien</u>	t Ref.: GWP	R4636		—	Location:	34	Hollycroft Avenue	West Hampstead,	London NW3 7	
VOC MS (S) Results Legend		Customer Sample Ref.	WS1		WS3	-				
# ISO17025 accredited. M mCERTS accredited.			WO1		1105					
aq Aqueous / settled sample. diss.filt Dissolved / filtered sample.		Depth (m)	0.20 - 0.20		0.30 - 0.30					
* Subcontracted - refer to subcontractor repo	ort for	Sample Type Date Sampled	Soil/Solid (S) 11/02/2022		Soil/Solid (S) 11/02/2022					
** % recovery of the surrogate standard to che efficiency of the method. The results of indi	eck the ividual	Sample Time	16/02/2022		16/02/2022					
compounds within samples aren't corrected	d for the	SDG Ref	220216-154		220216-154					
(F) Trigger breach confirmed 1-4+§@ Sample deviation (see appendix)		Lab Sample No.(s) AGS Reference	25831660		25831669					
Component	LOD/Un	its Method								
Dibromofluoromethane**	%	TM116	98		110					
Toluene-d8**	%	TM116	94.2		97.5	╈				
4-Bromofluorobenzene**	%	TM116	78		87.8	↑				
Methyl Tertiary Butyl Ether	<0.01 mg	g/kg TM116	<0.01	м	<0.2	л				
Benzene	<0.009 ma/ka	9 TM116	<0.009	м	<0.18	л				
Toluene	<0.007 mg/kg	7 TM116	<0.007	М	<0.14	<u>л</u>				
Ethylbenzene	< 0.004	4 TM116	<0.004		<0.08					
	mg/kg		0.04	М	N	И				
p/m-Xylene	<0.01 mg	g/кg IM116	<0.01	#	<0.2	#				
o-Xylene	<0.01 mg	g/kg IM116	<0.01	М	<0.2	И				
Sum of Detected Xylenes	<0.02 mį	g/kg TM116	<0.02		<0.4					
Sum of BTEX	<0.04 mg	g/kg TM116	<0.04		<0.8					



Report Number: 634884

Superseded Report:

Validated

Location: 34 Hollycroft Avenue, West Hampstead, London NW3 7

Asbestos Identification - Solid Samples

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

* Subcontrac	ted test.	Date of Analysis	Analysed By	Comments	Amosite	Asbestos	Asbestos	Asbestos	Chrysotile	Crocidolite	Non-Asbestos
(F) Trigger bre;	ach confirmed				(Brown)	Actinolite	Anthophyllite	Tremolite	(White)	(Blue) Asbestos	Fibre
1-5&+§@ Sample dev	iation (see appendix)				Asbestos				Asbestos		
Cust. Sample Ref.	WS1	22/02/2022	Paul Poynton	N/A	Not Detected	Not Detected	Not Detected	Not Detected	Not Detected	Not Detected	Not Detected
Depth (m)	0.20 - 0.20				(#)	(#)	(#)	(#)	(#)	(#)	
Sample Type	SOLID									. ,	
Date Sampled	11/02/2022 00:00:00										
Date Receieved	16/02/2022 05:00:00										
SDG	220216-154										
Original Sample	25831660										
Method Number	TM048										
Cust. Sample Ref.	WS2	22/02/2022	Paul Poynton	N/A	Not Detected	Not Detected	Not Detected	Not Detected	Not Detected	Not Detected	Not Detected
Depth (m)	0.20 - 0.20				(#)	(#)	(#)	(#)	(#)	(#)	
Sample Type	SOLID									()	
Date Sampled	11/02/2022 00:00:00										
Date Receieved	16/02/2022 05:00:00										
SDG	220216-154										
Original Sample	25831664										
Method Number	TM048										
Cust. Sample Ref.	WS3	22/02/2022	Emily	-	Not Detected	Not Detected	Not Detected	Not Detected	Not Detected	Not Detected	Not Detected
Depth (m)	0.30 - 0.30		Anderton		(#)	(#)	(#)	(#)	(#)	(#)	
Sample Type	SOLID									()	
Date Sampled	11/02/2022 00:00:00										
Date Receieved	16/02/2022 05:00:00										
SDG	220216-154										
Original Sample	25831669										
Method Number	TM048										

			CERTIFICA	TE OF ANAL	YSIS			
ALS Client	SDG: 220216-154 Ref.: GWPR4636		Repor	t Number: 634884 Location: 34 Holly	croft Avenue, West H	Superseded Repo lampstead, Londo	rt: on NW3 7	
()		CEN	10:1 SINGLE	STAGE LEAC	HATE TEST			
WAC ANALYTICAL	RESULTS						REF : BS	EN 12457/2
Client Reference				Site Location		34 Ho	ollycroft Avenue,	West Hamps
Mass Sample taken (ko	a) 0.095			Natural Moistur	e Content (%)	5.59	-	
Mass of dry sample (ke	q) 0.090			Dry Matter Cont	ent (%)	94.7		
Particle Size <4mm	>95%							
Case						Land	fill Waste Acce	otance
SDG	220216	-154					Criteria Limits	
Lab Sample Number(s) 258316	60						-
Sampled Date	,	2022					Stable	
Customer Sample Ref	WS1					Inert Waste	Non-reactive Hazardous Waste	Hazardous
Depth (m)	0.20 - 0	.20				Landfill	in Non- Hazardous	Waste Landfill
Solid Waste Analysis	Re	sult					Landfill	
Total Organic Carbon (%)	0.4	188		l		3	5	6
Loss on Ignition (%)	3.	52				-	-	10
Sum of BTEX (mg/kg)	<0	.04				6	-	-
Sum of 7 PCBs (mg/kg)	<0.	021				1	-	-
Mineral Oil (mg/kg) (EH_2D_AL)	2	1.2				500	-	-
pH (pH Units)	1'	1.5				-	>6	-
ANC to pH 6 (mol/kg)	0.1	107				-	-	-
ANC to pH 4 (mol/kg)	0.2	281				-	-	-
Eluate Analysis	C ₂	Conc ⁿ in 1	.0:1 eluate (mg/l)	A2 10:1 conc	ⁿ leached (mg/kg)	Limit valuusing	ues for compliance lea BS EN 12457-3 at L/S	ching test 10 l/kg
Arsenic	Re	esult 0136	<0.0005	Result 0.0136	<0.005	0.5	2	25
Barium	0.0	1771	<0.0003	0.771	<0.003	20	100	300
Cadmium	<0.0	0008	<0.00002	<0.0008	<0.0002	0.04	1	5
Chromium	-0.0	0297	<0.00000	0.0297	<0.01	0.5	10	70
Copper	0.0)133	<0.001	0.133	<0.01	2	50	100
Mercury Dissolved (CVAF)	<0.0	00001	< 0.00001	< 0.0001	< 0.0001	0.01	0.2	2
Molybdenum	<0	.003	<0.003	<0.03	<0.03	0.5	10	30
Nickel	0.0	0078	<0.0004	0.0078	<0.004	0.4	10	40
Lead	<0.	0002	<0.0002	<0.002	<0.002	0.5	10	50
Antimony	0.0	021	<0.001	0.021	<0.01	0.06	0.7	5
Selenium	0.0	0102	<0.001	0.0102	<0.01	0.1	0.5	7
Zinc	<0	.001	<0.001	<0.01	<0.01	4	50	200
Chloride	4	l.6	<2	46	<20	800	15000	25000
Fluoride	<	0.5	<0.5	<5	<5	10	150	500
Sulphate (soluble)	1	8.8	<2	188	<20	1000	20000	50000
Total Dissolved Solids	1	72	<5	1720	<50	4000	60000	100000
Total Monohydric Phenols (W	/) <0	.016	<0.016	<0.16	<0.16	1	-	-
Leach Test Informatio	n							
Date Prepared	18-Fe	b-2022						
pH (pH Units)	9.	84						
οσπαιαστιντικά (μο/στη)	15	9.00						

Solid Results are expressed on a dry weight basis, after correction for moisture content where applicable Stated limits are for guidance only and ALS Environmental cannot be held responsible for any discrepancies with current legislation

19.80

0.895

24/02/2022 07:39:53

Temperature (°C)

Volume Leachant (Litres)



Superseded Report:



Location: 34 Hollycroft Avenue, West Hampstead, London NW3 7

Table of Results - Appendix

Method No	Reference	Description
PM024	Modified BS 1377	Soil preparation including homogenisation, moisture screens of soils for Asbestos Containing Material
PM115		Leaching Procedure for CEN One Stage Leach Test 2:1 & 10:1 1 Step
TM018	BS 1377: Part 3 1990	Determination of Loss on Ignition
TM048	HSG 248, Asbestos: The analysts' guide for sampling, analysis and clearance procedures	Identification of Asbestos in Bulk Material
TM062 (S)	National Grid Property Holdings Methods for the Collection & Analysis of Samples from National Grid Sites version 1 Sec 3.9	Determination of Phenols in Soils by HPLC
TM089	Modified: US EPA Methods 8020 & 602	Determination of Gasoline Range Hydrocarbons (GRO) by Headspace GC-FID (C4-C12)
TM090	Method 5310, AWWA/APHA, 20th Ed., 1999 / Modified: US EPA Method 415.1 & 9060	Determination of Total Organic Carbon/Total Inorganic Carbon in Water and Waste Water
TM104	Method 4500F, AWWA/APHA, 20th Ed., 1999	Determination of Fluoride using the Kone Analyser
TM116	Modified: US EPA Method 8260, 8120, 8020, 624, 610 & 602	Determination of Volatile Organic Compounds by Headspace / GC-MS
TM123	BS 2690: Part 121:1981	The Determination of Total Dissolved Solids in Water
TM132	In - house Method	ELTRA CS800 Operators Guide
TM133	BS 1377: Part 3 1990;BS 6068-2.5	Determination of pH in Soil and Water using the GLpH pH Meter
TM151	Method 3500D, AWWA/APHA, 20th Ed., 1999	Determination of Hexavalent Chromium using Kone analyser
TM152	ISO 17294-2:2016 Water quality - Application of inductively coupled plasma mass spectrometry (ICP-MS)	Analysis of Aqueous Samples by ICP-MS
TM153	Method 4500A,B,C, I, M AWWA/APHA, 20th Ed., 1999	Determination of Total Cyanide, Free (Easily Liberatable) Cyanide and Thiocyanate using the Skalar SANS+ System Segmented Flow Analyser
TM168	EPA Method 8082, Polychlorinated Biphenyls by Gas Chromatography	Determination of WHO12 and EC7 Polychlorinated Biphenyl Congeners by GC-MS in Soils
TM181	US EPA Method 6010B	Determination of Routine Metals in Soil by iCap 6500 Duo ICP-OES
TM182	CEN/TC 292 - WI 292046-chacterization of waste-leaching Behaviour Tests- Acid and Base Neutralization Capacity Test	Determination of Acid Neutralisation Capacity (ANC) Using Autolitration in Soils
TM183	BS EN 23506:2002, (BS 6068-2.74:2002) ISBN 0 580 38924 3	Determination of Trace Level Mercury in Waters and Leachates by PSA Cold Vapour Atomic Fluorescence Spectrometry
TM184	EPA Methods 325.1 & 325.2,	The Determination of Anions in Aqueous Matrices using the Kone Spectrophotometric Analysers
TM218	Shaker extraction - EPA method 3546.	The determination of PAH in soil samples by GC-MS
TM221	Inductively Coupled Plasma - Atomic Emission Spectroscopy. An Atlas of Spectral Information: Winge, Fassel, Peterson and Floyd	Determination of Acid Extractable Sulphate in Soils by ICP OES
TM222	In-House Method	Determination of Hot Water Soluble Boron in Soils (10:1 Water:Soil) by ICP OES.
TM243		Mixed Anions In Soils By Kone
TM248	In-House Method	Determination of Ammonium BRE (2:1 Extract) on solids
TM259	by HPLC	Determination of Phenols in Waters and Leachates by HPLC
TM282		Extraction of Magnesium by BRE Method
TM410	Shaker extraction-In house coronene method	Determination of Coronene in soils by GCMS
TM414	Analysis of Petroleum Hydrocarbons in Environmental Media – Total Petroleum Hydrocarbon Criteria	Determination of Speciated Extractable Petroleum Hydrocarbons in Soils by GCxGC-FID
TM415	Analysis of Petroleum Hydrocarbons in Environmental Media.	Determination of Extractable Petroleum Hydrocarbons in Soils by GCxGC-FID

NA = not applicable.

Chemical testing (unless subcontracted) performed at ALS Life Sciences Ltd Hawarden.



Report Number: 634884

22-Feb-2022

23-Feb-2022

Superseded Report: uue, West Hampstead, London NW3 7 Validated

Client Ref.: GWPR46	36		L	ocation: 34	Hollycroft Ave
		Tes	t Com	pletior	n Dates
Lah Sample No(s)	25831660	25831673	25831675	25831664	25831669
Customer Sample Ref.	WS1	WS1	WS1	WS2	WS3
AGS Ref.					
Depth	0.20 - 0.20	3.50 - 3.50	6.50 - 6.50	0.20 - 0.20	0.30 - 0.30
Туре	Soil/Solid (S)				
Ammoniacal N as NH4 in 2:1 extract		22-Feb-2022	22-Feb-2022		
ANC at pH4 and ANC at pH 6	18-Feb-2022				
Anions by Kone (soil)	21-Feb-2022	22-Feb-2022	22-Feb-2022	21-Feb-2022	21-Feb-2022
Anions by Kone (w)	21-Feb-2022				
Asbestos ID in Solid Samples	22-Feb-2022			22-Feb-2022	22-Feb-2022
Boron Water Soluble	21-Feb-2022			21-Feb-2022	21-Feb-2022
CEN 10:1 Leachate (1 Stage)	18-Feb-2022				
CEN Readings	22-Feb-2022				
Coronene	22-Feb-2022				
Cyanide Comp/Free/Total/Thiocyanate	22-Feb-2022			22-Feb-2022	22-Feb-2022
Dissolved Metals by ICP-MS	21-Feb-2022				
Dissolved Organic/Inorganic Carbon	24-Feb-2022				
EPH by GCxGC-FID	22-Feb-2022				
EPH CWG GC (S)	18-Feb-2022				18-Feb-2022
Fluoride	22-Feb-2022				
GRO by GC-FID (S)	22-Feb-2022				22-Feb-2022
Hexavalent Chromium (s)	19-Feb-2022			19-Feb-2022	19-Feb-2022
Loss on Ignition in soils	21-Feb-2022				
Magnesium (BRE)		22-Feb-2022	22-Feb-2022		
Mercury Dissolved	22-Feb-2022				
Metals in solid samples by OES	21-Feb-2022			21-Feb-2022	22-Feb-2022
Moisture at 105C	18-Feb-2022				
NO3, NO2 and TON by KONE (s)		22-Feb-2022	22-Feb-2022		
PAH 16 & 17 Calc	22-Feb-2022				
PAH by GCMS	18-Feb-2022			18-Feb-2022	18-Feb-2022
PCBs by GCMS	21-Feb-2022				
pH	22-Feb-2022	18-Feb-2022	18-Feb-2022	22-Feb-2022	22-Feb-2022
Phenols by HPLC (S)	21-Feb-2022			21-Feb-2022	21-Feb-2022
Phenols by HPLC (W)	22-Feb-2022				
Sample description	17-Feb-2022	17-Feb-2022	17-Feb-2022	17-Feb-2022	17-Feb-2022
Total Dissolved Solids	23-Feb-2022				
Total Organic Carbon	22-Feb-2022			22-Feb-2022	23-Feb-2022
Total Sulphate		23-Feb-2022	23-Feb-2022		
Total Sulphur		23-Feb-2022	23-Feb-2022		

22-Feb-2022

22-Feb-2022

TPH CWG GC (S)

VOC MS (S)

	SDG: Location:	220216-154 Client Reference: it Avenue, West Hampstead, Lon Order Number:	GWPR4636 GWPR4636	Report Number: Superseded Report:	634884
ALS					

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

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

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

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

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

7. Results relate only to the items tested.

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

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

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

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

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

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

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

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

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

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

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

19. Sample Deviations

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

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

20. Asbestos

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

Identification of Asbestos in Bulk Materials & Soils

The results for identification of asbestos in bulk materials and soils are obtained from supplied bulk materials 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

Asbestos Type	CommonName
Chrysolile	WhiteAsbestos
Amosite	Brow n Asbestos
Cro d dolite	Blue Asbe stos
Fibrous Act nolite	-
Fibrous Anthophyllite	-
Fibrous Tremol ite	-

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

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

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



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APPENDIX E: Elastic Analysis Using Pdisp Modelling

2 The Long Barn, Norton Farm, Selborne Road, Alton, Hampshire GU34 3NB 0333 600 1221 enquiries@groundandwater.co.uk groundandwater.co.uk

Registered Office: Kineton House, 31 Horse Fair, Banbury, Oxfordshire OX16 0AE Registered in England No. 07032001

Analysis Options

An	alysis Options		џ	×
Pro	operty	Value		
	General			
	Poisson's ratio	0.20000		
	Max E Ratio	1.50000		
	H boundary level	53.50000		
	GSA piled raft data			
	Displacements at Io	V		
	Bastic			
	Elastic	V		
	Analysis Method	Mindlin		
	Legacy			
	Calculate H Displac	V		
	Stiffness	Weighted average		
	Heave	V		
	Effect of soil abo	ove load		
	Vertical loads			
	Horizontal loads	V		
	Consolidation			
	Consolidation			

Short Term Soil Profile

Layer ref.	Name	ame Level intermed at top displacen		Young's m	Poisson's ratio	Colour	
			levels	Тор	Bottom		
		[m]		[kN/m ²]	[kN/m ²]		
Defaults	Layer #	0.000	5	50000	50000	0.200	
1	1	103.500	5	10000	10000	0.450	
2	2	103.200	5	30000	30000	0.450	
3	3	102.500	5	30000	41250	0.450	
4	4	101.500	5	41250	48750	0.450	
5	5	100.500	5	48750	82500	0.450	
6	6	99.500	5	82500	135000	0.450	
7	7	98.500	5	135000	127500	0.450	
8	8	97.500	5	127500	146250	0.450	
9	9	96.500	5	146250	123750	0.450	
10	10	95.500	20	83700	335700	0.450	

Long Term Soil Profile

Layer ref.	Name	Level at top	No of intermediate displacement	Young's n	Poisson's ratio	Colour	
Luyerren			levels	Тор	Bottom		
		[m]		[kN/m ²]	[kN/m ²]		
Defaults	Layer #	0.000	5	50000	50000	0.200	
1	1	103.500	5	10000	10000	0.450	
2	2	103.200	5	22500	22500	0.450	
3	3	102.500	5	22500	30938	0.450	
4	4	101.500	5	30938	36563	0.450	
5	5	100.500	5	36563	61875	0.450	
6	6	99.500	5	61875	101250	0.450	
7	7	98.500	5	101250	95625	0.450	
8	8	97.500	5	95625	109688	0.450	
9	9	96.500	5	109688	92812	0.450	
10	10	95.500	20	62775	251775	0.450	

Pressures Applied

						Load value	
	Nama			Polygon		Number	Normal
Load ref.	Name	Z (level)	Wizard	Coordinates	Rectangle of tolerance rectang		(local z)
		[m]		[m]	[%]		[kN/m ²]
Defaults	Poly Load #	0.000			10.0	5	0.00
1	ExRW	101.000	More	(9,17.7) (0,17.7) (1,16.7) (8,16.7) (9,17.7)	10.0	11	-70.30
2	ExRW	101.000	More	(9,0) (0,0) (1,1) (8,1) (9,0)	10.0	11	-70.30
3	ExRW	101.000	More	(0,0) (1,1) (1,16.7) (0,17.7) (0,0)	10.0	11	-70.30
4	ExRW	101.000	More	(9,0) (8,1) (8,16.7) (9,17.7) (9,0)	10.0	11	-70.30
5	CRW	101.000	More	(9,17.7) (0,17.7) (1,16.7) (8,16.7) (9,17.7)	10.0	11	60.00
6	CRW	101.000	More	(9,0) (0,0) (1,1) (8,1) (9,0)	10.0	11	60.00
7	CRW	101.000	More	(0,0) (1,1) (1,16.7) (0,17.7) (0,0)	10.0	11	60.00
8	CRW	101.000	More	(9,0) (8,1) (8,16.7) (9,17.7) (9,0)	10.0	11	60.00
9	ME	101.000	More	(8,1) (8,16.7) (1,16.7) (1,1) (8,1)	10.0	1	-70.30
10	BS	101.000	More	(8,1) (8,16.7) (1,16.7) (1,1) (8,1)	10.0	1	10.00
44		1	••		1		

Vertical Displacement Contour Plot – Model 1



Vertical Displacement Contour Plot – Model 2











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APPENDIX F: Ground Movement Analysis Using XDisp Modelling

2 The Long Barn, Norton Farm, Selborne Road, Alton, Hampshire GU34 3NB 0333 600 1221 enquiries@groundandwater.co.uk groundandwater.co.uk

Registered Office: Kineton House, 31 Horse Fair, Banbury, Oxfordshire OX16 0AE Registered in England No. 07032001

Excavations and Walls



Ground Movement Curves







Model ST1: Damage Categorisation – Non Combined Segments



Model ST1: Damage Categorisation – Combined Segments (does not show results with no combined segments)



RAW RESULTS

Legend



Building Results Cat. 0 (Negligible) Cat. 1 (Very Slight) Cat. 2 (Slight) Cat. 3 (Moderate) Cat. 4 (Severe)

Model ST1: Horizontal Ground Movement Contour



Model ST1: Vertical Ground Movement Contour





Model ST2: Damage Categorisation – Non Combined Segments





Model ST2: Horizontal Ground Movement Contour



Model ST2: Vertical Ground Movement Contour



Model ST3: Damage Categorisation – Non Combined Segments



Model ST3: Damage Categorisation – Combined Segments (does not show results with no combined segments)



Model ST3: Horizontal Ground Movement Contour



Excavation 🏛 Building Displacement - Horizontal 0 : 1.000 mm 1.000 : 2.000 mm 2.000 : 3.000 mm 3.000 : 4.000 mm 4.000 : 5.000 mm 5.000 : 6.000 mm 6.000 : 7.000 mm

7.000 : 8.000 mm

Model ST3: Vertical Ground Movement Contour



RAW RESULTS

Legend

Excavation 🏛 Building Displacement - Z - Elastic 0:1.000 mm 1.000 : 2.000 mm 2.000 : 3.000 mm

> 3.000 : 4.000 mm 4.000 : 5.000 mm 5.000 : 6.000 mm

6.000 : 7.000 mm

Model ST4: Damage Categorisation – Non Combined Segments



Model ST4: Damage Categorisation – Combined Segments (does not show results with no combined segments)



Model ST4: Horizontal Ground Movement Contour



Model ST4: Vertical Ground Movement Contour



RAW RESULTS



Model ST5: Damage Categorisation – Non Combined Segments



Model ST5: Damage Categorisation – Combined Segments (does not show results with no combined segments)



Model ST5: Horizontal Ground Movement Contour



Model ST5: Vertical Ground Movement Contour



Model LT1: Damage Categorisation – Non Combined Segments



Model LT1: Damage Categorisation – Combined Segments (does not show results with no combined segments)



Model LT1: Horizontal Ground Movement Contour



Model LT1: Vertical Ground Movement Contour



Model LT2: Damage Categorisation – Non Combined Segments



Model LT2: Damage Categorisation – Combined Segments (does not show results with no combined segments)



Model LT2: Horizontal Ground Movement Contour



Model LT2: Vertical Ground Movement Contour



Legend Excavation Excavation Building Displacement - Horizontal 0 : 1.000 mm 1.000 : 2.000 mm 2.000 : 3.000 mm 3.000 : 4.000 mm 4.000 : 5.000 mm 5.000 : 6.000 mm 6.000 : 7.000 mm

RAW RESULTS

RAW RESULTS

Legend

🖨 Excavation

🏛 Building

Displacement - Z - Elastic 0 : 1.000 mm 1.000 : 2.000 mm 2.000 : 3.000 mm 3.000 : 4.000 mm 4.000 : 5.000 mm 5.000 : 6.000 mm 6.000 : 7.000 mm 7.000 : 8.000 mm