



Certificate of Analysis

Certificate Number 24-22203

Issued: 22-Oct-24

Client Coopers (Chester) Ltd
Park House
Sandpiper Court
Chester Business Park
Chester
CH4 9QU

Our Reference 24-22203

Client Reference ~ 8353

Order No ~ 10203-LP

Contract Title ~ LAND ADJACENT TO BEALEY INDUSTRIAL

Description 1 Soil sample, 3 Leachate prepared by DETS samples.

Date Received 03-Oct-24

Date Started 16-Oct-24

Date Completed 22-Oct-24

Test Procedures Identified by prefix DETSn (details on request).

Notes Opinions and interpretations are outside the laboratory's scope of ISO 17025 accreditation. 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 By

Kirk Bridgewood
General Manager



2139

Normec DETS Limited

Unit 2, Park Road Industrial Estate South, Consett, Co Durham, DH8 5PY

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Summary of Chemical Analysis

Leachate Samples

Our Ref 24-22203

Client Ref ~ 8353

Contract Title ~ LAND ADJACENT TO BEALEY INDUSTRIAL

Lab No	2409995	2409996	2409998
Sample ID ~	WS101	WS101	WS102
Depth ~	0.40	3.00-4.00	0.70
Other ID ~			
Sample Type ~	LEACHATE	LEACHATE	LEACHATE
Sampling Date ~	30/09/2024	30/09/2024	30/09/2024
Sampling Time ~	n/s	n/s	n/s

Test	Method	LOD	Units			
Preparation						
BS EN 12457 10:1	DETSC 1009*			Y	Y	Y
Metals						
Arsenic, Dissolved	DETSC 2306	0.16	ug/l	< 0.16		
Copper, Dissolved	DETSC 2306	0.4	ug/l			2.0
Lead, Dissolved	DETSC 2306	0.09	ug/l	0.22		1.3
PAHs						
Naphthalene	DETSC 3304	0.05	ug/l		0.08	< 0.05
Acenaphthylene	DETSC 3304	0.01	ug/l		0.66	< 0.01
Acenaphthene	DETSC 3304	0.01	ug/l		16	0.02
Fluorene	DETSC 3304	0.01	ug/l		3.6	< 0.01
Phenanthrene	DETSC 3304	0.01	ug/l		0.39	0.02
Anthracene	DETSC 3304	0.01	ug/l		0.51	0.01
Fluoranthene	DETSC 3304	0.01	ug/l		3.5	0.04
Pyrene	DETSC 3304	0.01	ug/l		2.5	0.05
Benzo(a)anthracene	DETSC 3304*	0.01	ug/l		0.32	0.03
Chrysene	DETSC 3304	0.01	ug/l		0.23	0.03
Benzo(b)fluoranthene	DETSC 3304	0.01	ug/l		0.26	0.06
Benzo(k)fluoranthene	DETSC 3304	0.01	ug/l		0.12	0.02
Benzo(a)pyrene	DETSC 3304	0.01	ug/l		0.25	0.05
Indeno(1,2,3-c,d)pyrene	DETSC 3304	0.01	ug/l		0.11	0.04
Dibenzo(a,h)anthracene	DETSC 3304	0.01	ug/l		< 0.01	< 0.01
Benzo(g,h,i)perylene	DETSC 3304	0.01	ug/l		0.12	0.05
PAH Total	DETSC 3304	0.2	ug/l		29	0.41

Summary of Asbestos Analysis Samples

Our Ref 24-22203

Client Ref ~ 8353

Contract Title ~ LAND ADJACENT TO BEALEY INDUSTRIAL

Lab No	Sample ID	Sample Location	Material Type	Result	Comment*	Analyst
Crocidolite = Blue Asbestos, Amosite = Brown Asbestos, Chrysotile = White Asbestos. Anthophyllite, Actinolite and Tremolite are other forms of Asbestos. Samples are analysed by DETSC 1101 using polarised light microscopy in accordance with HSG248 and documented in-house methods. NAD = No Asbestos Detected. Where a sample is NAD, the result is based on analysis of at least 2 sub-samples and should be taken to mean 'no asbestos detected in sample'. Key: * -not included in laboratory scope of accreditation.						

Summary of Asbestos Quantification Analysis

Soil Samples

Our Ref 24-22203

Client Ref ~ 8353

Contract Title ~ LAND ADJACENT TO BEALEY INDUSTRIAL

Lab No	2409997
Sample ID ~	WS102
Depth ~	0.70
Other ID ~	
Sample Type ~	
Sampling Date ~	30/09/2024
Sampling Time ~	

Test	Method	Units		
Total Mass% Asbestos (a+b+c)	DETSC 1102	Mass %		0.035
Gravimetric Quantification (a)	DETSC 1102	Mass %		0.035
Detailed Gravimetric Quantification (b)	DETSC 1102	Mass %		na
Quantification by PCOM (c)	DETSC 1102	Mass %		na
Potentially Respirable Fibres (d)	DETSC 1102	Fibres/g		na

Breakdown of Gravimetric Analysis (a)

Mass of Sample		g		13.26
ACMs present*		type		Cement
Mass of ACM in sample		g		0.0309
% ACM by mass		%		0.233
% asbestos in ACM		%		15
% asbestos in sample		%		0.035

Breakdown of Detailed Gravimetric Analysis (b)

% Amphibole bundles in sample		Mass %		na
% Chrysotile bundles in sample		Mass %		na

Breakdown of PCOM Analysis (c)

% Amphibole fibres in sample		Mass %		na
% Chrysotile fibres in sample		Mass %		na

Breakdown of Potentially Respirable Fibre Analysis (d)

Amphibole fibres		Fibres/g		na
Chrysotile fibres		Fibres/g		na

* Denotes test or material description outside of UKAS accreditation.
 % asbestos in Asbestos Containing Materials (ACMs) is determined by
 by reference to HSG 264.
 Recommended sample size for quantification is approximately 1kg
 # denotes deviating sample

Information in Support of the Analytical Results

Our Ref 24-22203

Client Ref ~ 8353

Contract ~ LAND ADJACENT TO BEALEY INDUSTRIAL

Containers Received & Deviating Samples

Lab No	Sample ID ~	Date Sampled ~	Containers Received	Holding time exceeded for tests	Inappropriate container for tests
2409995	WS101 0.40 LEACHATE	30/09/24	GJ 250ml x2, GJ 60ml		
2409996	WS101 3.00-4.00 LEACHATE	30/09/24	GJ 250ml x2, GJ 60ml		
2409997	WS102 0.70 SOIL	30/09/24	GJ 250ml x2, GJ 60ml		
2409998	WS102 0.70 LEACHATE	30/09/24	GJ 250ml x2, GJ 60ml		

Key: G-Glass J-Jar

DETS cannot be held responsible for the integrity of samples received whereby the laboratory did not undertake the sampling. In this instance samples received may be deviating. Deviating Sample criteria are based on British and International standards and laboratory trials in conjunction with the UKAS note 'Guidance on Deviating Samples'. All samples received are listed above. However, those samples that have additional comments in relation to hold time, inappropriate containers etc are deviating due to the reasons stated. This means that the analysis is accredited where applicable, but results may be compromised due to sample deviations. If no sampled date (soils) or date+time (waters) has been supplied then samples are deviating. However, if you are able to supply a sampled date (and time for waters) this will prevent samples being reported as deviating where specific hold times are not exceeded and where the container supplied is suitable.

Disposal

From the issue date of this test certificate, samples will be held for the following times prior to disposal :-

Soils - 1 month, Liquids - 2 weeks, Asbestos (test portion) - 6 months

Key:

~ Sample details are provided by the client and can affect the validity of the results

* -not accredited.

-MCERTS (accreditation only applies if report carries the MCERTS logo).

\$ -subcontracted.

n/s -not supplied.

I/S -insufficient sample.

U/S -unsuitable sample.

t/f -to follow.

nd -not detected.

End of Report

Certificate of Analysis

Certificate Number 26-01654

Issued: 16-Feb-26

Client Coopers (Chester) Ltd
Park House
Sandpiper Court
Chester Business Park
Chester
CH4 9QU

Our Reference 26-01654

Client Reference ~ 8353

Order No ~ 10619-ST

Contract Title ~ Land Adjacent to Bealey Industrial Estate, Radcliffe

Description 19 Soil samples.

Date Received 26-Jan-26

Date Started 26-Jan-26

Date Completed 16-Feb-26

Test Procedures Identified by prefix DETSn (details on request).

Notes Opinions and interpretations are outside the laboratory's scope of ISO 17025 accreditation. 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 By



Reyhan Irfan
Operations Manager



Normec DETS Limited

Summary of Chemical Analysis

Matrix Descriptions

Our Ref 26-01654

Client Ref ~ 8353

Contract Title ~ Land Adjacent to Bealey Industrial Estate, Radcliffe

Sample ID	Depth	Lab No	Completed	Matrix Description
WS201	0.1	2630872	16/02/2026	Brown gravelly, sandy CLAY
WS202	0.6	2630874	16/02/2026	Brown gravelly, sandy CLAY
WS203	0.4	2630875	16/02/2026	Brown gravelly, sandy CLAY
WS204	0.3	2630878	16/02/2026	Brown gravelly, sandy CLAY
WS205A	0.1	2630880	16/02/2026	Brown gravelly, sandy CLAY
WS206	0.4	2630883	16/02/2026	Brown sandy CLAY
WS207	0.25	2630884	16/02/2026	Brown gravelly, clayey SAND
WS208	0.3	2630887	16/02/2026	Brown very gravelly, clayey SAND
HDP01	0.1	2630889	16/02/2026	Brown gravelly, sandy CLAY

Summary of Chemical Analysis

Soil Samples

Our Ref 26-01654

Client Ref ~ 8353

Contract Title ~ Land Adjacent to Bealey Industrial Estate, Radcliffe

Lab No	2630872	2630873	2630874	2630875	2630876	2630877
Sample ID ~	WS201	WS201	WS202	WS203	WS203	WS204
Depth ~	0.10	0.40	0.60	0.40	0.60	0.10
Other ID ~						
Sample Type ~	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL
Sampling Date ~	19/01/2026	19/01/2026	19/01/2026	19/01/2026	19/01/2026	19/01/2026
Sampling Time ~	n/s	n/s	n/s	n/s	n/s	n/s

Test	Method	LOD	Units						
Metals									
Arsenic	DETSC 2301#	0.2	mg/kg	7.6		12	31		
Beryllium	DETSC 2301#	0.2	mg/kg	0.3		0.4	0.9		
Boron, Water Soluble (2.5:1)	DETSC 2311#	0.2	mg/kg	0.5		0.4	1.4		
Cadmium	DETSC 2301#	0.1	mg/kg	0.6		0.5	0.8		
Chromium	DETSC 2301#	0.15	mg/kg	31		19	35		
Chromium, Hexavalent	DETSC 2204*	1	mg/kg	< 1.0		< 1.0	< 1.0		
Copper	DETSC 2301#	0.2	mg/kg	170		62	210		
Lead	DETSC 2301#	0.3	mg/kg	120		60	150		
Mercury	DETSC 2325#	0.05	mg/kg	0.12		0.27	0.25		
Nickel	DETSC 2301#	1	mg/kg	21		17	22		
Selenium	DETSC 2301#	0.5	mg/kg	< 0.5		< 0.5	< 0.5		
Vanadium	DETSC 2301#	0.8	mg/kg	24		18	28		
Zinc	DETSC 2301#	1	mg/kg	180		110	200		
Inorganics									
pH	DETSC 2008#		pH	9.8		9.0	8.1		
Cyanide, Total	DETSC 2130#	0.1	mg/kg	< 0.1		< 0.1	< 0.1		
FOC	DETSC 2002	0.001		0.011		0.009	0.043		
Total Organic Carbon	DETSC 2002	0.1	%	1.1		0.9	4.3		
Sulphate Aqueous Extract as SO4 (2:1)	DETSC 2076#	10	mg/l	160		70	75		
Sulphate as SO4, Total	DETSC 2321#	0.01	%	0.19		0.07	0.09		
Petroleum Hydrocarbons									
Aliphatic C5-C6	DETSC 3321*	0.01	mg/kg		< 0.01			< 0.01	< 0.01
Aliphatic C6-C8	DETSC 3321*	0.01	mg/kg		< 0.01			< 0.01	< 0.01
Aliphatic C8-C10	DETSC 3321*	0.01	mg/kg		< 0.01			< 0.01	< 0.01
Aliphatic >EC10-EC12 Cleanup	DETSC 3521*	1.5	mg/kg		< 1.50			< 1.50	< 1.50
Aliphatic >EC12-EC16 Cleanup	DETSC 3521*	1.2	mg/kg		< 1.20			< 1.20	< 1.20
Aliphatic >EC16-EC21 Cleanup	DETSC 3521*	1.5	mg/kg		< 1.50			< 1.50	< 1.50
Aliphatic >EC21-EC24 Cleanup	DETSC 3521*	3.4	mg/kg		< 3.40			< 3.40	< 3.40
Aliphatic >EC21-EC35 Cleanup	DETSC 3521*	3.4	mg/kg		< 3.40			< 3.40	< 3.40
Aliphatic >EC24-EC35 Cleanup	DETSC 3521*	3.4	mg/kg		< 3.40			< 3.40	< 3.40
Aliphatic >EC10-EC35 Cleanup	DETSC 3521*	10	mg/kg		< 10.00			< 10.00	< 10.00
Aliphatic >EC10-EC40 Cleanup	DETSC 3521*	10	mg/kg		< 10.00			< 10.00	< 10.00
Aliphatic C5-C35 Cleanup	DETSC 3521*	10	mg/kg		< 10.00			< 10.00	< 10.00
Aromatic C5-C7	DETSC 3321*	0.01	mg/kg		< 0.01			< 0.01	< 0.01
Aromatic C7-C8	DETSC 3321*	0.01	mg/kg		< 0.01			< 0.01	< 0.01
Aromatic C8-C10	DETSC 3321*	0.01	mg/kg		< 0.01			< 0.01	< 0.01
Aromatic >EC10-EC12 Cleanup	DETSC 3521*	0.9	mg/kg		< 0.90			< 0.90	< 0.90
Aromatic >EC12-EC16 Cleanup	DETSC 3521*	0.5	mg/kg		< 0.50			< 0.50	5.35
Aromatic >EC16-EC21 Cleanup	DETSC 3521*	0.6	mg/kg		2.83			3.68	8.73
Aromatic >EC21-EC24 Cleanup	DETSC 3521*	1.4	mg/kg		2.10			2.70	10.51
Aromatic >EC21-EC35 Cleanup	DETSC 3521*	1.4	mg/kg		2.10			2.70	88.99

Summary of Chemical Analysis

Soil Samples

Our Ref 26-01654

Client Ref ~ 8353

Contract Title ~ Land Adjacent to Bealey Industrial Estate, Radcliffe

Lab No	2630872	2630873	2630874	2630875	2630876	2630877
Sample ID ~	WS201	WS201	WS202	WS203	WS203	WS204
Depth ~	0.10	0.40	0.60	0.40	0.60	0.10
Other ID ~						
Sample Type ~	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL
Sampling Date ~	19/01/2026	19/01/2026	19/01/2026	19/01/2026	19/01/2026	19/01/2026
Sampling Time ~	n/s	n/s	n/s	n/s	n/s	n/s

Test	Method	LOD	Units						
Aromatic >EC24-EC35 Cleanup	DETSC 3521*	1.4	mg/kg		< 1.40			< 1.40	78.48
Aromatic C5-C35 Cleanup	DETSC 3521*	10	mg/kg		< 10.00			< 10.00	103.1
Aromatic >EC10-EC35 Cleanup	DETSC 3521*	10	mg/kg		< 10.00			< 10.00	103.1
Aromatic >EC10-EC40 Cleanup	DETSC 3521*	10	mg/kg		< 10.00			< 10.00	118.4
TPH Ali/Aro Total C5-C35 Cleanup	DETSC 3521*	10	mg/kg		< 10.00			< 10.00	103.1
Benzene	DETSC 3321#	0.01	mg/kg		< 0.01			< 0.01	< 0.01
Ethylbenzene	DETSC 3321#	0.01	mg/kg		< 0.01			< 0.01	< 0.01
Toluene	DETSC 3321#	0.01	mg/kg		< 0.01			< 0.01	< 0.01
Xylene	DETSC 3321#	0.01	mg/kg		< 0.01			< 0.01	< 0.01
PAHs									
Naphthalene	DETSC 3303#	0.03	mg/kg	0.07		< 0.03	< 0.03		
Acenaphthylene	DETSC 3303#	0.03	mg/kg	< 0.03		< 0.03	< 0.03		
Acenaphthene	DETSC 3303#	0.03	mg/kg	0.09		< 0.03	0.04		
Fluorene	DETSC 3303	0.03	mg/kg	0.04		< 0.03	< 0.03		
Phenanthrene	DETSC 3303#	0.03	mg/kg	0.22		0.11	0.34		
Anthracene	DETSC 3303	0.03	mg/kg	0.05		< 0.03	0.08		
Fluoranthene	DETSC 3303#	0.03	mg/kg	0.40		0.22	0.79		
Pyrene	DETSC 3303#	0.03	mg/kg	0.36		0.21	0.73		
Benzo(a)anthracene	DETSC 3303#	0.03	mg/kg	0.15		0.10	0.31		
Chrysene	DETSC 3303	0.03	mg/kg	0.17		0.11	0.32		
Benzo(b)fluoranthene	DETSC 3303#	0.03	mg/kg	0.16		0.12	0.50		
Benzo(k)fluoranthene	DETSC 3303#	0.03	mg/kg	0.07		0.04	0.16		
Benzo(a)pyrene	DETSC 3303#	0.03	mg/kg	0.13		0.09	0.38		
Indeno(1,2,3-c,d)pyrene	DETSC 3303#	0.03	mg/kg	0.07		0.05	0.20		
Dibenzo(a,h)anthracene	DETSC 3303#	0.03	mg/kg	< 0.03		< 0.03	0.05		
Benzo(g,h,i)perylene	DETSC 3303#	0.03	mg/kg	0.09		0.07	0.25		
PAH - USEPA 16, Total	DETSC 3303	0.1	mg/kg	2.1		1.1	4.2		
PCBs									
PCB 77	DETSC 3401*	0.01	mg/kg						
PCB 81	DETSC 3401*	0.01	mg/kg						
PCB 105	DETSC 3401*	0.01	mg/kg						
PCB 114	DETSC 3401*	0.01	mg/kg						
PCB 118	DETSC 3401#	0.01	mg/kg						
PCB 123	DETSC 3401*	0.01	mg/kg						
PCB 126	DETSC 3401*	0.01	mg/kg						
PCB 156	DETSC 3401*	0.01	mg/kg						
PCB 157	DETSC 3401*	0.01	mg/kg						
PCB 167	DETSC 3401*	0.01	mg/kg						
PCB 169	DETSC 3401*	0.01	mg/kg						
PCB 189	DETSC 3401*	0.01	mg/kg						
Phenols									
Phenol - Monohydric	DETSC 2130#	0.3	mg/kg	0.3		< 0.3	0.9		

Summary of Chemical Analysis

Soil Samples

Our Ref 26-01654

Client Ref ~ 8353

Contract Title ~ Land Adjacent to Bealey Industrial Estate, Radcliffe

Lab No	2630872	2630873	2630874	2630875	2630876	2630877
Sample ID ~	WS201	WS201	WS202	WS203	WS203	WS204
Depth ~	0.10	0.40	0.60	0.40	0.60	0.10
Other ID ~						
Sample Type ~	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL
Sampling Date ~	19/01/2026	19/01/2026	19/01/2026	19/01/2026	19/01/2026	19/01/2026
Sampling Time ~	n/s	n/s	n/s	n/s	n/s	n/s

Test	Method	LOD	Units						
Per- and Polyfluoroalkyl substances (I									
Perfluoro-n-butanoic acid (PFBA)	DETSC 3443*	0.7	ug/kg						
Perfluoro-n-pentanoic acid (PFPeA)	DETSC 3443*	0.2	ug/kg						
Perfluoro-1-butanefulfonate (PFBS)	DETSC 3443*	0.3	ug/kg						
1H,1H,2H,2H-perfluoro-1-hexanesulfonate (4-2 FTSA)	DETSC 3443*	0.7	ug/kg						
Perfluoro-n-hexanoic acid (PFHxA)	DETSC 3443*	0.4	ug/kg						
Perfluoro-1-pentanesulfonate (PFPeS)	DETSC 3443*	0.3	ug/kg						
Tetrafluoro-2-(heptafluoropropoxy)-propanoic acid (HFPO-DA)	DETSC 3443*	0.7	ug/kg						
Perfluoro-n-heptanoic acid (PFHpA)	DETSC 3443*	0.2	ug/kg						
Perfluorohexanesulfonate (PFHxS) (Linear+Branched)	DETSC 3443*	0.2	ug/kg						
Dodecafluoro-3H-4,8-dioxanonanoate (DONA)	DETSC 3443*	0.6	ug/kg						
1H,1H,2H,2H-perfluoro-1-octanesulfonate (6-2 FTS)	DETSC 3443*	1	ug/kg						
Perfluoro-n-octanoic acid (PFOA)	DETSC 3443*	0.3	ug/kg						
Perfluoro-1-heptanesulfonate (PFHpS)	DETSC 3443*	0.3	ug/kg						
Perfluoro-n-nonanoic acid (PFNA)	DETSC 3443*	0.2	ug/kg						
Perfluorooctanesulfonate (PFOS) (Linear+Branched)	DETSC 3443*	0.8	ug/kg						
9-chlorohexadecafluoro-3-oxanonane-1-sulfonate (9Cl-PF3ONS)	DETSC 3443*	0.6	ug/kg						
1H,1H,2H,2H-perfluoro-1-decanesulfonate (8-2 FTSA)	DETSC 3443*	1.1	ug/kg						
Perfluoro-1-nonanesulfonate (PFNS)	DETSC 3443*	0.3	ug/kg						
Perfluoro-n-decanoic acid (PFDA)	DETSC 3443*	0.3	ug/kg						
N-methylperfluoro-1-octanesulfonamidoacetic acid (N-MeFOSAA)	DETSC 3443*	0.5	ug/kg						
Perfluoro-1-decanesulfonate (PFDS)	DETSC 3443*	0.3	ug/kg						
Perfluoro-n-undecanoic acid (PFUDA)	DETSC 3443*	0.3	ug/kg						
N-ethylperfluoro-1-octanesulfonamidoacetic acid (N-EtFOSAA)	DETSC 3443*	0.4	ug/kg						
Perfluoro-1-octanesulfonamide (PFOSA)	DETSC 3443*	0.4	ug/kg						
11-chloroeicosafluoro-3-oxaundecane-1-sulfonate (11Cl-PF3OUdS)	DETSC 3443*	0.5	ug/kg						
Perfluoro-1-undecanesulfonate (L-PFUDS)	DETSC 3443*	0.2	ug/kg						
Perfluoro-n-dodecanoic acid (PFDoA)	DETSC 3443*	0.3	ug/kg						
Perfluoro-1-dodecanesulfonate (L-PFDoS)	DETSC 3443*	0.3	ug/kg						
Perfluoro-n-tridecanoic acid (PFTrDA)	DETSC 3443*	0.3	ug/kg						
Perfluoro-1-tridecanesulfonate (L-PFTrDS)	DETSC 3443*	0.3	ug/kg						
Perfluoro-n-tetradecanoic acid (PFTDA)	DETSC 3443*	0.3	ug/kg						

Summary of Chemical Analysis Soil Samples

Our Ref 26-01654

Client Ref ~ 8353

Contract Title ~ Land Adjacent to Bealey Industrial Estate, Radcliffe

Lab No	2630872	2630873	2630874	2630875	2630876	2630877
Sample ID ~	WS201	WS201	WS202	WS203	WS203	WS204
Depth ~	0.10	0.40	0.60	0.40	0.60	0.10
Other ID ~						
Sample Type ~	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL
Sampling Date ~	19/01/2026	19/01/2026	19/01/2026	19/01/2026	19/01/2026	19/01/2026
Sampling Time ~	n/s	n/s	n/s	n/s	n/s	n/s

Test	Method	LOD	Units						
Perfluorohexanesulfonate (PFHxS) (Branched)	DETSC 3443*	0.1	ug/kg						
Perfluorohexanesulfonate (PFHxS) (Linear)	DETSC 3443*	0.2	ug/kg						
Perfluorooctanesulfonate (PFOS) (Branched)	DETSC 3443*	0.3	ug/kg						
Perfluorooctanesulfonate (PFOS) (Linear)	DETSC 3443*	0.6	ug/kg						
N-methylperfluoro-1-octanesulfonamidoacetic acid (N-MeFOSAA)	DETSC 3443*	0.2	ug/kg						
N-methylperfluoro-1-octanesulfonamidoacetic acid (N-MeFOSAA)	DETSC 3443*	0.4	ug/kg						
N-ethylperfluoro-1-octanesulfonamidoacetic acid (N-EtFOSAA)	DETSC 3443*	0.2	ug/kg						
N-ethylperfluoro-1-octanesulfonamidoacetic acid (N-EtFOSAA)	DETSC 3443*	0.4	ug/kg						
Perfluoro-1-undecanesulfonic acid (L-PFUDS)	DETSC 3443*	0.1936	ug/kg						

Summary of Chemical Analysis

Soil Samples

Our Ref 26-01654

Client Ref ~ 8353

Contract Title ~ Land Adjacent to Bealey Industrial Estate, Radcliffe

Lab No

Sample ID ~

Depth ~

Other ID ~

Sample Type ~

Sampling Date ~

Sampling Time ~

2630878	2630880	2630881	2630882	2630883	2630884
WS204	WS205A	WS205A	WS206	WS206	WS207
0.30	0.10	0.50	0.30	0.40	0.25
SOIL	SOIL	SOIL	SOIL	SOIL	SOIL
19/01/2026	21/01/2026	21/01/2026	21/01/2026	21/01/2026	21/01/2026
n/s	n/s	n/s	n/s	n/s	n/s

Test	Method	LOD	Units						
Metals									
Arsenic	DETSC 2301#	0.2	mg/kg	120	11			42	8.4
Beryllium	DETSC 2301#	0.2	mg/kg	1.2	0.5			1.3	1.0
Boron, Water Soluble (2.5:1)	DETSC 2311#	0.2	mg/kg	0.3	0.3			0.6	0.3
Cadmium	DETSC 2301#	0.1	mg/kg	0.7	0.4			0.5	0.3
Chromium	DETSC 2301#	0.15	mg/kg	20	14			39	17
Chromium, Hexavalent	DETSC 2204*	1	mg/kg	< 1.0	< 1.0			< 1.0	< 1.0
Copper	DETSC 2301#	0.2	mg/kg	320	68			100	50
Lead	DETSC 2301#	0.3	mg/kg	290	93			150	470
Mercury	DETSC 2325#	0.05	mg/kg	0.56	0.49			0.71	0.10
Nickel	DETSC 2301#	1	mg/kg	26	18			28	22
Selenium	DETSC 2301#	0.5	mg/kg	1.2	< 0.5			< 0.5	< 0.5
Vanadium	DETSC 2301#	0.8	mg/kg	37	20			45	30
Zinc	DETSC 2301#	1	mg/kg	150	120			280	150
Inorganics									
pH	DETSC 2008#		pH	7.5	8.6			8.1	8.6
Cyanide, Total	DETSC 2130#	0.1	mg/kg	< 0.1	0.7			0.6	0.7
FOC	DETSC 2002	0.001		0.038	0.021			0.040	0.011
Total Organic Carbon	DETSC 2002	0.1	%	3.8	2.1			4.0	1.1
Sulphate Aqueous Extract as SO4 (2:1)	DETSC 2076#	10	mg/l	43	61			33	34
Sulphate as SO4, Total	DETSC 2321#	0.01	%	0.07	0.07			0.16	0.26
Petroleum Hydrocarbons									
Aliphatic C5-C6	DETSC 3321*	0.01	mg/kg		< 0.01				
Aliphatic C6-C8	DETSC 3321*	0.01	mg/kg		< 0.01				
Aliphatic C8-C10	DETSC 3321*	0.01	mg/kg		< 0.01				
Aliphatic >EC10-EC12 Cleanup	DETSC 3521*	1.5	mg/kg		< 1.50				
Aliphatic >EC12-EC16 Cleanup	DETSC 3521*	1.2	mg/kg		< 1.20				
Aliphatic >EC16-EC21 Cleanup	DETSC 3521*	1.5	mg/kg		< 1.50				
Aliphatic >EC21-EC24 Cleanup	DETSC 3521*	3.4	mg/kg		< 3.40				
Aliphatic >EC21-EC35 Cleanup	DETSC 3521*	3.4	mg/kg		< 3.40				
Aliphatic >EC24-EC35 Cleanup	DETSC 3521*	3.4	mg/kg		< 3.40				
Aliphatic >EC10-EC35 Cleanup	DETSC 3521*	10	mg/kg		< 10.00				
Aliphatic >EC10-EC40 Cleanup	DETSC 3521*	10	mg/kg		< 10.00				
Aliphatic C5-C35 Cleanup	DETSC 3521*	10	mg/kg		< 10.00				
Aromatic C5-C7	DETSC 3321*	0.01	mg/kg		< 0.01				
Aromatic C7-C8	DETSC 3321*	0.01	mg/kg		< 0.01				
Aromatic C8-C10	DETSC 3321*	0.01	mg/kg		< 0.01				
Aromatic >EC10-EC12 Cleanup	DETSC 3521*	0.9	mg/kg		< 0.90				
Aromatic >EC12-EC16 Cleanup	DETSC 3521*	0.5	mg/kg		2.52				
Aromatic >EC16-EC21 Cleanup	DETSC 3521*	0.6	mg/kg		3.73				
Aromatic >EC21-EC24 Cleanup	DETSC 3521*	1.4	mg/kg		< 1.40				
Aromatic >EC21-EC35 Cleanup	DETSC 3521*	1.4	mg/kg		< 1.40				

Summary of Chemical Analysis

Soil Samples

Our Ref 26-01654

Client Ref ~ 8353

Contract Title ~ Land Adjacent to Bealey Industrial Estate, Radcliffe

Lab No	2630878	2630880	2630881	2630882	2630883	2630884
Sample ID ~	WS204	WS205A	WS205A	WS206	WS206	WS207
Depth ~	0.30	0.10	0.50	0.30	0.40	0.25
Other ID ~						
Sample Type ~	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL
Sampling Date ~	19/01/2026	21/01/2026	21/01/2026	21/01/2026	21/01/2026	21/01/2026
Sampling Time ~	n/s	n/s	n/s	n/s	n/s	n/s

Test	Method	LOD	Units						
Aromatic >EC24-EC35 Cleanup	DETSC 3521*	1.4	mg/kg			< 1.40			
Aromatic C5-C35 Cleanup	DETSC 3521*	10	mg/kg			< 10.00			
Aromatic >EC10-EC35 Cleanup	DETSC 3521*	10	mg/kg			< 10.00			
Aromatic >EC10-EC40 Cleanup	DETSC 3521*	10	mg/kg			< 10.00			
TPH Ali/Aro Total C5-C35 Cleanup	DETSC 3521*	10	mg/kg			< 10.00			
Benzene	DETSC 3321#	0.01	mg/kg			< 0.01			
Ethylbenzene	DETSC 3321#	0.01	mg/kg			< 0.01			
Toluene	DETSC 3321#	0.01	mg/kg			< 0.01			
Xylene	DETSC 3321#	0.01	mg/kg			< 0.01			
PAHs									
Naphthalene	DETSC 3303#	0.03	mg/kg	0.04	0.06			< 0.03	< 0.03
Acenaphthylene	DETSC 3303#	0.03	mg/kg	< 0.03	< 0.03			< 0.03	< 0.03
Acenaphthene	DETSC 3303#	0.03	mg/kg	0.04	< 0.03			< 0.03	< 0.03
Fluorene	DETSC 3303	0.03	mg/kg	< 0.03	< 0.03			< 0.03	< 0.03
Phenanthrene	DETSC 3303#	0.03	mg/kg	0.25	0.20			0.22	< 0.03
Anthracene	DETSC 3303	0.03	mg/kg	0.04	0.05			0.05	< 0.03
Fluoranthene	DETSC 3303#	0.03	mg/kg	0.36	0.25			0.69	0.06
Pyrene	DETSC 3303#	0.03	mg/kg	0.31	0.25			0.68	0.06
Benzo(a)anthracene	DETSC 3303#	0.03	mg/kg	0.10	0.09			0.37	0.04
Chrysene	DETSC 3303	0.03	mg/kg	0.12	0.09			0.35	0.05
Benzo(b)fluoranthene	DETSC 3303#	0.03	mg/kg	0.11	0.14			0.60	0.06
Benzo(k)fluoranthene	DETSC 3303#	0.03	mg/kg	0.04	0.05			0.20	< 0.03
Benzo(a)pyrene	DETSC 3303#	0.03	mg/kg	0.07	0.10			0.47	0.05
Indeno(1,2,3-c,d)pyrene	DETSC 3303#	0.03	mg/kg	0.03	0.05			0.22	0.03
Dibenzo(a,h)anthracene	DETSC 3303#	0.03	mg/kg	< 0.03	< 0.03			0.06	< 0.03
Benzo(g,h,i)perylene	DETSC 3303#	0.03	mg/kg	0.04	0.07			0.27	0.04
PAH - USEPA 16, Total	DETSC 3303	0.1	mg/kg	1.5	1.4			4.2	0.32
PCBs									
PCB 77	DETSC 3401*	0.01	mg/kg						
PCB 81	DETSC 3401*	0.01	mg/kg						
PCB 105	DETSC 3401*	0.01	mg/kg						
PCB 114	DETSC 3401*	0.01	mg/kg						
PCB 118	DETSC 3401#	0.01	mg/kg						
PCB 123	DETSC 3401*	0.01	mg/kg						
PCB 126	DETSC 3401*	0.01	mg/kg						
PCB 156	DETSC 3401*	0.01	mg/kg						
PCB 157	DETSC 3401*	0.01	mg/kg						
PCB 167	DETSC 3401*	0.01	mg/kg						
PCB 169	DETSC 3401*	0.01	mg/kg						
PCB 189	DETSC 3401*	0.01	mg/kg						
Phenols									
Phenol - Monohydric	DETSC 2130#	0.3	mg/kg	0.6	0.7			< 0.3	< 0.3

Summary of Chemical Analysis

Soil Samples

Our Ref 26-01654

Client Ref ~ 8353

Contract Title ~ Land Adjacent to Bealey Industrial Estate, Radcliffe

Lab No

Sample ID ~

Depth ~

Other ID ~

Sample Type ~

Sampling Date ~

Sampling Time ~

2630878	2630880	2630881	2630882	2630883	2630884
WS204	WS205A	WS205A	WS206	WS206	WS207
0.30	0.10	0.50	0.30	0.40	0.25
SOIL	SOIL	SOIL	SOIL	SOIL	SOIL
19/01/2026	21/01/2026	21/01/2026	21/01/2026	21/01/2026	21/01/2026
n/s	n/s	n/s	n/s	n/s	n/s

Test	Method	LOD	Units						
Per- and Polyfluoroalkyl substances (I									
Perfluoro-n-butanoic acid (PFBA)	DETSC 3443*	0.7	ug/kg				< 0.70		
Perfluoro-n-pentanoic acid (PFPeA)	DETSC 3443*	0.2	ug/kg				0.43		
Perfluoro-1-butanefulfonate (PFBS)	DETSC 3443*	0.3	ug/kg				< 0.30		
1H,1H,2H,2H-perfluoro-1-hexanesulfonate (4-2 FTSA)	DETSC 3443*	0.7	ug/kg				< 0.70		
Perfluoro-n-hexanoic acid (PFHxA)	DETSC 3443*	0.4	ug/kg				< 0.40		
Perfluoro-1-pentanesulfonate (PFPeS)	DETSC 3443*	0.3	ug/kg				< 0.30		
Tetrafluoro-2-(heptafluoropropoxy)-propanoic acid (HFPO-DA)	DETSC 3443*	0.7	ug/kg				< 0.70		
Perfluoro-n-heptanoic acid (PFHpA)	DETSC 3443*	0.2	ug/kg				< 0.20		
Perfluorohexanesulfonate (PFHxS) (Linear+Branched)	DETSC 3443*	0.2	ug/kg				< 0.20		
Dodecafluoro-3H-4,8-dioxanonanoate (DONA)	DETSC 3443*	0.6	ug/kg				< 0.60		
1H,1H,2H,2H-perfluoro-1-octanesulfonate (6-2 FTS)	DETSC 3443*	1	ug/kg				< 1.0		
Perfluoro-n-octanoic acid (PFOA)	DETSC 3443*	0.3	ug/kg				< 0.30		
Perfluoro-1-heptanesulfonate (PFHpS)	DETSC 3443*	0.3	ug/kg				< 0.30		
Perfluoro-n-nonanoic acid (PFNA)	DETSC 3443*	0.2	ug/kg				< 0.20		
Perfluorooctanesulfonate (PFOS) (Linear+Branched)	DETSC 3443*	0.8	ug/kg				33		
9-chlorohexadecafluoro-3-oxanonane-1-sulfonate (9Cl-PF3ONS)	DETSC 3443*	0.6	ug/kg				< 0.60		
1H,1H,2H,2H-perfluoro-1-decanesulfonate (8-2 FTSA)	DETSC 3443*	1.1	ug/kg				< 1.1		
Perfluoro-1-nonanesulfonate (PFNS)	DETSC 3443*	0.3	ug/kg				< 0.30		
Perfluoro-n-decanoic acid (PFDA)	DETSC 3443*	0.3	ug/kg				< 0.30		
N-methylperfluoro-1-octanesulfonamidoacetic acid (N-MeFOSAA)	DETSC 3443*	0.5	ug/kg				< 0.50		
Perfluoro-1-decanesulfonate (PFDS)	DETSC 3443*	0.3	ug/kg				< 0.30		
Perfluoro-n-undecanoic acid (PFUdA)	DETSC 3443*	0.3	ug/kg				< 0.30		
N-ethylperfluoro-1-octanesulfonamidoacetic acid (N-EtFOSAA)	DETSC 3443*	0.4	ug/kg				< 0.40		
Perfluoro-1-octanesulfonamide (PFOSA)	DETSC 3443*	0.4	ug/kg				0.87		
11-chloroeicosafluoro-3-oxaundecane-1-sulfonate (11Cl-PF3OUdS)	DETSC 3443*	0.5	ug/kg				< 0.50		
Perfluoro-1-undecanesulfonate (L-PFUdS)	DETSC 3443*	0.2	ug/kg				< 0.20		
Perfluoro-n-dodecanoic acid (PFDoA)	DETSC 3443*	0.3	ug/kg				< 0.30		
Perfluoro-1-dodecanesulfonate (L-PFDoS)	DETSC 3443*	0.3	ug/kg				< 0.30		
Perfluoro-n-tridecanoic acid (PFTrDA)	DETSC 3443*	0.3	ug/kg				< 0.30		
Perfluoro-1-tridecanesulfonate (L-PFTrDS)	DETSC 3443*	0.3	ug/kg				< 0.30		
Perfluoro-n-tetradecanoic acid (PFTDA)	DETSC 3443*	0.3	ug/kg				< 0.30		

Summary of Chemical Analysis Soil Samples

Our Ref 26-01654

Client Ref ~ 8353

Contract Title ~ Land Adjacent to Bealey Industrial Estate, Radcliffe

Lab No	2630878	2630880	2630881	2630882	2630883	2630884
Sample ID ~	WS204	WS205A	WS205A	WS206	WS206	WS207
Depth ~	0.30	0.10	0.50	0.30	0.40	0.25
Other ID ~						
Sample Type ~	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL
Sampling Date ~	19/01/2026	21/01/2026	21/01/2026	21/01/2026	21/01/2026	21/01/2026
Sampling Time ~	n/s	n/s	n/s	n/s	n/s	n/s

Test	Method	LOD	Units						
Perfluorohexanesulfonate (PFHxS) (Branched)	DETSC 3443*	0.1	ug/kg				< 0.10		
Perfluorohexanesulfonate (PFHxS) (Linear)	DETSC 3443*	0.2	ug/kg				< 0.20		
Perfluorooctanesulfonate (PFOS) (Branched)	DETSC 3443*	0.3	ug/kg				3.6		
Perfluorooctanesulfonate (PFOS) (Linear)	DETSC 3443*	0.6	ug/kg				29		
N-methylperfluoro-1-octanesulfonamidoacetic acid (N-MeFOSAA)	DETSC 3443*	0.2	ug/kg				< 0.20		
N-methylperfluoro-1-octanesulfonamidoacetic acid (N-MeFOSAA)	DETSC 3443*	0.4	ug/kg				< 0.40		
N-ethylperfluoro-1-octanesulfonamidoacetic acid (N-EtFOSAA)	DETSC 3443*	0.2	ug/kg				< 0.20		
N-ethylperfluoro-1-octanesulfonamidoacetic acid (N-EtFOSAA)	DETSC 3443*	0.4	ug/kg				< 0.40		
Perfluoro-1-undecanesulfonic acid (L-PFUDS)	DETSC 3443*	0.1936	ug/kg				< 0.19		

Summary of Chemical Analysis

Soil Samples

Our Ref 26-01654

Client Ref ~ 8353

Contract Title ~ Land Adjacent to Bealey Industrial Estate, Radcliffe

Lab No	2630885	2630886	2630887	2630888	2630889	2630890
Sample ID ~	WS207	WS207	WS208	WS208	HDP01	HDP01
Depth ~	0.80	0.85	0.30	0.60	0.10	0.55
Other ID ~						
Sample Type ~	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL
Sampling Date ~	21/01/2026	21/01/2026	21/01/2026	21/01/2026	21/01/2026	21/01/2026
Sampling Time ~	n/s	n/s	n/s	n/s	n/s	n/s

Test	Method	LOD	Units						
Metals									
Arsenic	DETSC 2301#	0.2	mg/kg			21		7.7	
Beryllium	DETSC 2301#	0.2	mg/kg			1.8		0.5	
Boron, Water Soluble (2.5:1)	DETSC 2311#	0.2	mg/kg			0.5		0.7	
Cadmium	DETSC 2301#	0.1	mg/kg			0.4		0.9	
Chromium	DETSC 2301#	0.15	mg/kg			18		11	
Chromium, Hexavalent	DETSC 2204*	1	mg/kg			< 1.0		< 1.0	
Copper	DETSC 2301#	0.2	mg/kg			91		41	
Lead	DETSC 2301#	0.3	mg/kg			42		80	
Mercury	DETSC 2325#	0.05	mg/kg			< 0.05		0.99	
Nickel	DETSC 2301#	1	mg/kg			40		11	
Selenium	DETSC 2301#	0.5	mg/kg			< 0.5		< 0.5	
Vanadium	DETSC 2301#	0.8	mg/kg			61		15	
Zinc	DETSC 2301#	1	mg/kg			77		110	
Inorganics									
pH	DETSC 2008#		pH			8.3		10.8	
Cyanide, Total	DETSC 2130#	0.1	mg/kg			< 0.1		< 0.1	
FOC	DETSC 2002	0.001				0.027		0.007	
Total Organic Carbon	DETSC 2002	0.1	%			2.7		0.7	
Sulphate Aqueous Extract as SO4 (2:1)	DETSC 2076#	10	mg/l			33		75	
Sulphate as SO4, Total	DETSC 2321#	0.01	%			0.07		< 0.01	
Petroleum Hydrocarbons									
Aliphatic C5-C6	DETSC 3321*	0.01	mg/kg		< 0.01				
Aliphatic C6-C8	DETSC 3321*	0.01	mg/kg		< 0.01				
Aliphatic C8-C10	DETSC 3321*	0.01	mg/kg		< 0.01				
Aliphatic >EC10-EC12 Cleanup	DETSC 3521*	1.5	mg/kg		< 1.50				
Aliphatic >EC12-EC16 Cleanup	DETSC 3521*	1.2	mg/kg		< 1.20				
Aliphatic >EC16-EC21 Cleanup	DETSC 3521*	1.5	mg/kg		< 1.50				
Aliphatic >EC21-EC24 Cleanup	DETSC 3521*	3.4	mg/kg		< 3.40				
Aliphatic >EC21-EC35 Cleanup	DETSC 3521*	3.4	mg/kg		< 3.40				
Aliphatic >EC24-EC35 Cleanup	DETSC 3521*	3.4	mg/kg		< 3.40				
Aliphatic >EC10-EC35 Cleanup	DETSC 3521*	10	mg/kg		< 10.00				
Aliphatic >EC10-EC40 Cleanup	DETSC 3521*	10	mg/kg		< 10.00				
Aliphatic C5-C35 Cleanup	DETSC 3521*	10	mg/kg		< 10.00				
Aromatic C5-C7	DETSC 3321*	0.01	mg/kg		< 0.01				
Aromatic C7-C8	DETSC 3321*	0.01	mg/kg		< 0.01				
Aromatic C8-C10	DETSC 3321*	0.01	mg/kg		< 0.01				
Aromatic >EC10-EC12 Cleanup	DETSC 3521*	0.9	mg/kg		< 0.90				
Aromatic >EC12-EC16 Cleanup	DETSC 3521*	0.5	mg/kg		< 0.50				
Aromatic >EC16-EC21 Cleanup	DETSC 3521*	0.6	mg/kg		2.46				
Aromatic >EC21-EC24 Cleanup	DETSC 3521*	1.4	mg/kg		< 1.40				
Aromatic >EC21-EC35 Cleanup	DETSC 3521*	1.4	mg/kg		< 1.40				

Summary of Chemical Analysis

Soil Samples

Our Ref 26-01654

Client Ref ~ 8353

Contract Title ~ Land Adjacent to Bealey Industrial Estate, Radcliffe

Lab No	2630885	2630886	2630887	2630888	2630889	2630890
Sample ID ~	WS207	WS207	WS208	WS208	HDP01	HDP01
Depth ~	0.80	0.85	0.30	0.60	0.10	0.55
Other ID ~						
Sample Type ~	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL
Sampling Date ~	21/01/2026	21/01/2026	21/01/2026	21/01/2026	21/01/2026	21/01/2026
Sampling Time ~	n/s	n/s	n/s	n/s	n/s	n/s

Test	Method	LOD	Units						
Aromatic >EC24-EC35 Cleanup	DETSC 3521*	1.4	mg/kg		< 1.40				
Aromatic C5-C35 Cleanup	DETSC 3521*	10	mg/kg		< 10.00				
Aromatic >EC10-EC35 Cleanup	DETSC 3521*	10	mg/kg		< 10.00				
Aromatic >EC10-EC40 Cleanup	DETSC 3521*	10	mg/kg		< 10.00				
TPH Ali/Aro Total C5-C35 Cleanup	DETSC 3521*	10	mg/kg		< 10.00				
Benzene	DETSC 3321#	0.01	mg/kg		< 0.01				
Ethylbenzene	DETSC 3321#	0.01	mg/kg		< 0.01				
Toluene	DETSC 3321#	0.01	mg/kg		< 0.01				
Xylene	DETSC 3321#	0.01	mg/kg		< 0.01				
PAHs									
Naphthalene	DETSC 3303#	0.03	mg/kg			0.70		< 0.03	
Acenaphthylene	DETSC 3303#	0.03	mg/kg			< 0.03		< 0.03	
Acenaphthene	DETSC 3303#	0.03	mg/kg			0.88		0.03	
Fluorene	DETSC 3303	0.03	mg/kg			0.76		0.03	
Phenanthrene	DETSC 3303#	0.03	mg/kg			5.6		0.35	
Anthracene	DETSC 3303	0.03	mg/kg			1.1		0.09	
Fluoranthene	DETSC 3303#	0.03	mg/kg			3.9		0.78	
Pyrene	DETSC 3303#	0.03	mg/kg			3.2		0.84	
Benzo(a)anthracene	DETSC 3303#	0.03	mg/kg			1.2		0.43	
Chrysene	DETSC 3303	0.03	mg/kg			1.3		0.40	
Benzo(b)fluoranthene	DETSC 3303#	0.03	mg/kg			1.2		0.60	
Benzo(k)fluoranthene	DETSC 3303#	0.03	mg/kg			0.41		0.22	
Benzo(a)pyrene	DETSC 3303#	0.03	mg/kg			0.85		0.46	
Indeno(1,2,3-c,d)pyrene	DETSC 3303#	0.03	mg/kg			0.38		0.27	
Dibenzo(a,h)anthracene	DETSC 3303#	0.03	mg/kg			0.12		0.07	
Benzo(g,h,i)perylene	DETSC 3303#	0.03	mg/kg			0.48		0.33	
PAH - USEPA 16, Total	DETSC 3303	0.1	mg/kg			22		4.9	
PCBs									
PCB 77	DETSC 3401*	0.01	mg/kg				< 0.01		< 0.01
PCB 81	DETSC 3401*	0.01	mg/kg				< 0.01		< 0.01
PCB 105	DETSC 3401*	0.01	mg/kg				< 0.01		< 0.01
PCB 114	DETSC 3401*	0.01	mg/kg				< 0.01		< 0.01
PCB 118	DETSC 3401#	0.01	mg/kg				< 0.01		< 0.01
PCB 123	DETSC 3401*	0.01	mg/kg				< 0.01		< 0.01
PCB 126	DETSC 3401*	0.01	mg/kg				< 0.01		< 0.01
PCB 156	DETSC 3401*	0.01	mg/kg				< 0.01		< 0.01
PCB 157	DETSC 3401*	0.01	mg/kg				< 0.01		< 0.01
PCB 167	DETSC 3401*	0.01	mg/kg				< 0.01		< 0.01
PCB 169	DETSC 3401*	0.01	mg/kg				< 0.01		< 0.01
PCB 189	DETSC 3401*	0.01	mg/kg				< 0.01		< 0.01
Phenols									
Phenol - Monohydric	DETSC 2130#	0.3	mg/kg			< 0.3		< 0.3	

Summary of Chemical Analysis

Soil Samples

Our Ref 26-01654

Client Ref ~ 8353

Contract Title ~ Land Adjacent to Bealey Industrial Estate, Radcliffe

Lab No

Sample ID ~

Depth ~

Other ID ~

Sample Type ~

Sampling Date ~

Sampling Time ~

2630885	2630886	2630887	2630888	2630889	2630890
WS207	WS207	WS208	WS208	HDP01	HDP01
0.80	0.85	0.30	0.60	0.10	0.55
SOIL	SOIL	SOIL	SOIL	SOIL	SOIL
21/01/2026	21/01/2026	21/01/2026	21/01/2026	21/01/2026	21/01/2026
n/s	n/s	n/s	n/s	n/s	n/s

Test	Method	LOD	Units						
Per- and Polyfluoroalkyl substances (I									
Perfluoro-n-butanoic acid (PFBA)	DETSC 3443*	0.7	ug/kg	< 0.70					
Perfluoro-n-pentanoic acid (PFPeA)	DETSC 3443*	0.2	ug/kg	< 0.20					
Perfluoro-1-butanefulfonate (PFBS)	DETSC 3443*	0.3	ug/kg	< 0.30					
1H,1H,2H,2H-perfluoro-1-hexanesulfonate (4-2 FTSA)	DETSC 3443*	0.7	ug/kg	< 0.70					
Perfluoro-n-hexanoic acid (PFHxA)	DETSC 3443*	0.4	ug/kg	< 0.40					
Perfluoro-1-pentanesulfonate (PFPeS)	DETSC 3443*	0.3	ug/kg	< 0.30					
Tetrafluoro-2-(heptafluoropropoxy)-propanoic acid (HFPO-DA)	DETSC 3443*	0.7	ug/kg	< 0.70					
Perfluoro-n-heptanoic acid (PFHpA)	DETSC 3443*	0.2	ug/kg	< 0.20					
Perfluorohexanesulfonate (PFHxS) (Linear+Branched)	DETSC 3443*	0.2	ug/kg	< 0.20					
Dodecafluoro-3H-4,8-dioxanonanoate (DONA)	DETSC 3443*	0.6	ug/kg	< 0.60					
1H,1H,2H,2H-perfluoro-1-octanesulfonate (6-2 FTS)	DETSC 3443*	1	ug/kg	< 1.0					
Perfluoro-n-octanoic acid (PFOA)	DETSC 3443*	0.3	ug/kg	< 0.30					
Perfluoro-1-heptanesulfonate (PFHpS)	DETSC 3443*	0.3	ug/kg	< 0.30					
Perfluoro-n-nonanoic acid (PFNA)	DETSC 3443*	0.2	ug/kg	< 0.20					
Perfluorooctanesulfonate (PFOS) (Linear+Branched)	DETSC 3443*	0.8	ug/kg	< 0.80					
9-chlorohexadecafluoro-3-oxanonane-1-sulfonate (9Cl-PF3ONS)	DETSC 3443*	0.6	ug/kg	< 0.60					
1H,1H,2H,2H-perfluoro-1-decanesulfonate (8-2 FTSA)	DETSC 3443*	1.1	ug/kg	< 1.1					
Perfluoro-1-nonanesulfonate (PFNS)	DETSC 3443*	0.3	ug/kg	< 0.30					
Perfluoro-n-decanoic acid (PFDA)	DETSC 3443*	0.3	ug/kg	< 0.30					
N-methylperfluoro-1-octanesulfonamidoacetic acid (N-MeFOSAA)	DETSC 3443*	0.5	ug/kg	< 0.50					
Perfluoro-1-decanesulfonate (PFDS)	DETSC 3443*	0.3	ug/kg	< 0.30					
Perfluoro-n-undecanoic acid (PFUdA)	DETSC 3443*	0.3	ug/kg	< 0.30					
N-ethylperfluoro-1-octanesulfonamidoacetic acid (N-EtFOSAA)	DETSC 3443*	0.4	ug/kg	< 0.40					
Perfluoro-1-octanesulfonamide (PFOSA)	DETSC 3443*	0.4	ug/kg	< 0.40					
11-chloroeicosafluoro-3-oxaundecane-1-sulfonate (11Cl-PF3OUdS)	DETSC 3443*	0.5	ug/kg	< 0.50					
Perfluoro-1-undecanesulfonate (L-PFUdS)	DETSC 3443*	0.2	ug/kg	< 0.20					
Perfluoro-n-dodecanoic acid (PFDoA)	DETSC 3443*	0.3	ug/kg	< 0.30					
Perfluoro-1-dodecanesulfonate (L-PFDoS)	DETSC 3443*	0.3	ug/kg	< 0.30					
Perfluoro-n-tridecanoic acid (PFTrDA)	DETSC 3443*	0.3	ug/kg	< 0.30					
Perfluoro-1-tridecanesulfonate (L-PFTrDS)	DETSC 3443*	0.3	ug/kg	< 0.30					
Perfluoro-n-tetradecanoic acid (PFTDA)	DETSC 3443*	0.3	ug/kg	< 0.30					

Summary of Chemical Analysis Soil Samples

Our Ref 26-01654

Client Ref ~ 8353

Contract Title ~ Land Adjacent to Bealey Industrial Estate, Radcliffe

Lab No	2630885	2630886	2630887	2630888	2630889	2630890
Sample ID ~	WS207	WS207	WS208	WS208	HDP01	HDP01
Depth ~	0.80	0.85	0.30	0.60	0.10	0.55
Other ID ~						
Sample Type ~	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL
Sampling Date ~	21/01/2026	21/01/2026	21/01/2026	21/01/2026	21/01/2026	21/01/2026
Sampling Time ~	n/s	n/s	n/s	n/s	n/s	n/s

Test	Method	LOD	Units						
Perfluorohexanesulfonate (PFHxS) (Branched)	DETSC 3443*	0.1	ug/kg	< 0.10					
Perfluorohexanesulfonate (PFHxS) (Linear)	DETSC 3443*	0.2	ug/kg	< 0.20					
Perfluorooctanesulfonate (PFOS) (Branched)	DETSC 3443*	0.3	ug/kg	< 0.30					
Perfluorooctanesulfonate (PFOS) (Linear)	DETSC 3443*	0.6	ug/kg	< 0.60					
N-methylperfluoro-1-octanesulfonamidoacetic acid (N-MeFOSAA)	DETSC 3443*	0.2	ug/kg	< 0.20					
N-methylperfluoro-1-octanesulfonamidoacetic acid (N-MeFOSAA)	DETSC 3443*	0.4	ug/kg	< 0.40					
N-ethylperfluoro-1-octanesulfonamidoacetic acid (N-EtFOSAA)	DETSC 3443*	0.2	ug/kg	< 0.20					
N-ethylperfluoro-1-octanesulfonamidoacetic acid (N-EtFOSAA)	DETSC 3443*	0.4	ug/kg	< 0.40					
Perfluoro-1-undecanesulfonic acid (L-PFUDS)	DETSC 3443*	0.1936	ug/kg	< 0.19					

Summary of Chemical Analysis

Soil VOC/SVOC Samples

Our Ref 26-01654

Client Ref ~ 8353

Contract Title ~ Land Adjacent to Bealey Industrial Estate, Radcliffe

Lab No	2630873	2630876	2630877	2630881	2630886
Sample ID ~	WS201	WS203	WS204	WS205A	WS207
Depth ~	0.40	0.60	0.10	0.50	0.85
Other ID ~					
Sample Type ~	SOIL	SOIL	SOIL	SOIL	SOIL
Sampling Date ~	19/01/2026	19/01/2026	19/01/2026	21/01/2026	21/01/2026
Sampling Time ~	n/s	n/s	n/s	n/s	n/s

Test	Method	LOD	Units					
VOCs								
Vinyl Chloride	DETSC 3431*	0.01	mg/kg	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01
1,1 Dichloroethylene	DETSC 3431	0.01	mg/kg	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01
Trans-1,2-dichloroethylene	DETSC 3431	0.01	mg/kg	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01
1,1-dichloroethane	DETSC 3431	0.01	mg/kg	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01
Cis-1,2-dichloroethylene	DETSC 3431	0.01	mg/kg	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01
2,2-dichloropropane	DETSC 3431	0.01	mg/kg	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01
Bromochloromethane	DETSC 3431	0.01	mg/kg	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01
Chloroform	DETSC 3431	0.01	mg/kg	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01
1,1,1-trichloroethane	DETSC 3431	0.01	mg/kg	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01
1,1-dichloropropene	DETSC 3431	0.01	mg/kg	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01
Carbon tetrachloride	DETSC 3431	0.01	mg/kg	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01
Benzene	DETSC 3431	0.01	mg/kg	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01
1,2-dichloroethane	DETSC 3431	0.01	mg/kg	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01
Trichloroethylene	DETSC 3431	0.01	mg/kg	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01
1,2-dichloropropane	DETSC 3431	0.01	mg/kg	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01
Dibromomethane	DETSC 3431	0.01	mg/kg	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01
Bromodichloromethane	DETSC 3431	0.01	mg/kg	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01
cis-1,3-dichloropropene	DETSC 3431	0.01	mg/kg	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01
Toluene	DETSC 3431	0.01	mg/kg	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01
trans-1,3-dichloropropene	DETSC 3431	0.01	mg/kg	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01
1,1,2-trichloroethane	DETSC 3431	0.01	mg/kg	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01
Tetrachloroethylene	DETSC 3431	0.01	mg/kg	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01
1,3-dichloropropane	DETSC 3431	0.01	mg/kg	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01
Dibromochloromethane	DETSC 3431	0.01	mg/kg	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01
1,2-dibromoethane	DETSC 3431	0.01	mg/kg	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01
Chlorobenzene	DETSC 3431	0.01	mg/kg	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01
1,1,1,2-tetrachloroethane	DETSC 3431	0.01	mg/kg	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01
Ethylbenzene	DETSC 3431	0.01	mg/kg	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01
m+p-Xylene	DETSC 3431	0.01	mg/kg	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01
o-Xylene	DETSC 3431	0.01	mg/kg	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01
Styrene	DETSC 3431*	0.01	mg/kg	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01
Bromoform	DETSC 3431	0.01	mg/kg	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01
Isopropylbenzene	DETSC 3431	0.01	mg/kg	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01
Bromobenzene	DETSC 3431	0.01	mg/kg	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01
1,2,3-trichloropropane	DETSC 3431	0.01	mg/kg	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01
n-propylbenzene	DETSC 3431	0.01	mg/kg	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01
2-chlorotoluene	DETSC 3431	0.01	mg/kg	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01
1,3,5-trimethylbenzene	DETSC 3431	0.01	mg/kg	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01
4-chlorotoluene	DETSC 3431	0.01	mg/kg	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01
Tert-butylbenzene	DETSC 3431	0.01	mg/kg	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01
1,2,4-trimethylbenzene	DETSC 3431	0.01	mg/kg	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01

Summary of Chemical Analysis

Soil VOC/SVOC Samples

Our Ref 26-01654

Client Ref ~ 8353

Contract Title ~ Land Adjacent to Bealey Industrial Estate, Radcliffe

Lab No	2630873	2630876	2630877	2630881	2630886
Sample ID ~	WS201	WS203	WS204	WS205A	WS207
Depth ~	0.40	0.60	0.10	0.50	0.85
Other ID ~					
Sample Type ~	SOIL	SOIL	SOIL	SOIL	SOIL
Sampling Date ~	19/01/2026	19/01/2026	19/01/2026	21/01/2026	21/01/2026
Sampling Time ~	n/s	n/s	n/s	n/s	n/s

Test	Method	LOD	Units					
sec-butylbenzene	DETSC 3431*	0.01	mg/kg	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01
p-isopropyltoluene	DETSC 3431	0.01	mg/kg	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01
1,3-dichlorobenzene	DETSC 3431	0.01	mg/kg	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01
1,4-dichlorobenzene	DETSC 3431	0.01	mg/kg	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01
n-butylbenzene	DETSC 3431	0.01	mg/kg	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01
1,2-dichlorobenzene	DETSC 3431	0.01	mg/kg	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01
1,2-dibromo-3-chloropropane	DETSC 3431	0.01	mg/kg	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01
1,2,4-trichlorobenzene	DETSC 3431	0.01	mg/kg	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01
Hexachlorobutadiene	DETSC 3431*	0.01	mg/kg	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01
Naphthalene	DETSC 3431	0.01	mg/kg	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01
1,2,3-trichlorobenzene	DETSC 3431	0.01	mg/kg	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01
MTBE	DETSC 3431*	0.01	mg/kg	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01
TAME	DETSC 3431*	0.01	mg/kg	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01
SVOCs								
Phenol	DETSC 3433	0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1
Aniline	DETSC 3433*	0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1
2-Chlorophenol	DETSC 3433	0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1
Benzyl Alcohol	DETSC 3433	0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1
2-Methylphenol	DETSC 3433	0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 0.1	0.1
Bis(2-chloroisopropyl)ether	DETSC 3433	0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1
3&4-Methylphenol	DETSC 3433	0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1
2,4-Dimethylphenol	DETSC 3433	0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1
Bis-(dichloroethoxy)methane	DETSC 3433	0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1
2,4-Dichlorophenol	DETSC 3433	0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1
1,2,4-Trichlorobenzene	DETSC 3433	0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1
4-Chloro-3-methylphenol	DETSC 3433	0.1	mg/kg	< 0.1	0.1	< 0.1	< 0.1	< 0.1
2-Methylnaphthalene	DETSC 3433	0.1	mg/kg	< 0.1	< 0.1	0.2	< 0.1	< 0.1
Hexachlorocyclopentadiene	DETSC 3433*	0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1
2,4,6-Trichlorophenol	DETSC 3433	0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1
2,4,5-Trichlorophenol	DETSC 3433*	0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1
2-Chloronaphthalene	DETSC 3433	0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1
2-Nitroaniline	DETSC 3433*	0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1
2,4-Dinitrotoluene	DETSC 3433*	0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1
Acenaphthylene	DETSC 3433	0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1
3-Nitroaniline	DETSC 3433*	0.1	mg/kg	< 0.1	< 0.1	0.1	< 0.1	< 0.1
Acenaphthene	DETSC 3433	0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1
4-Nitrophenol	DETSC 3433*	0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1
Dibenzofuran	DETSC 3433	0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1
2,6-Dinitrotoluene	DETSC 3433	0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1
2,3,4,6-Tetrachlorophenol	DETSC 3433*	0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1
Diethylphthalate	DETSC 3433	0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1
4-Chlorophenylphenylether	DETSC 3433*	0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1

Summary of Chemical Analysis

Soil VOC/SVOC Samples

Our Ref 26-01654

Client Ref ~ 8353

Contract Title ~ Land Adjacent to Bealey Industrial Estate, Radcliffe

Lab No	2630873	2630876	2630877	2630881	2630886
Sample ID ~	WS201	WS203	WS204	WS205A	WS207
Depth ~	0.40	0.60	0.10	0.50	0.85
Other ID ~					
Sample Type ~	SOIL	SOIL	SOIL	SOIL	SOIL
Sampling Date ~	19/01/2026	19/01/2026	19/01/2026	21/01/2026	21/01/2026
Sampling Time ~	n/s	n/s	n/s	n/s	n/s

Test	Method	LOD	Units					
Fluorene	DETSC 3433	0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1
4-Nitroaniline	DETSC 3433*	0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1
2-Methyl-4,6-Dinitrophenol	DETSC 3433*	0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1
Diphenylamine	DETSC 3433	0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1
4-Bromophenylphenylether	DETSC 3433	0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1
Hexachlorobenzene	DETSC 3433	0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1
Pentachlorophenol	DETSC 3433*	0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1
Phenanthrene	DETSC 3433	0.1	mg/kg	0.1	0.4	0.2	0.2	< 0.1
Anthracene	DETSC 3433	0.1	mg/kg	< 0.1	0.1	< 0.1	< 0.1	< 0.1
Di-n-butylphthalate	DETSC 3433	0.1	mg/kg	0.1	0.2	< 0.1	< 0.1	< 0.1
Fluoranthene	DETSC 3433	0.1	mg/kg	0.3	0.9	0.3	0.5	0.2
Pyrene	DETSC 3433	0.1	mg/kg	0.3	0.8	0.3	0.4	< 0.1
Butylbenzylphthalate	DETSC 3433*	0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1
Benzo(a)anthracene	DETSC 3433	0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 0.1	0.1
Chrysene	DETSC 3433	0.1	mg/kg	0.2	0.5	0.2	0.3	0.2
Bis(2-ethylhexyl)phthalate	DETSC 3433	0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1
Di-n-octylphthalate	DETSC 3433*	0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1
Benzo(b)fluoranthene	DETSC 3433	0.1	mg/kg	< 0.1	0.3	0.2	0.2	0.1
Benzo(k)fluoranthene	DETSC 3433	0.1	mg/kg	< 0.1	0.2	0.1	0.1	< 0.1
Benzo(a)pyrene	DETSC 3433	0.1	mg/kg	< 0.1	0.3	0.2	0.2	< 0.1
Indeno(123cd)pyrene	DETSC 3433	0.1	mg/kg	< 0.1	0.1	< 0.1	0.1	< 0.1
Dibenzo(ah)anthracene	DETSC 3433	0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1
Benzo(ghi)perylene	DETSC 3433	0.1	mg/kg	< 0.1	0.3	< 0.1	0.1	< 0.1
1,4-Dinitrobenzene	DETSC 3433*	0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1
Dimethylphthalate	DETSC 3433	0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1
1,3-Dinitrobenzene	DETSC 3433*	0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1
1,2-Dinitrobenzene	DETSC 3433*	0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1
2,3,5,6-Tetrachlorophenol	DETSC 3433*	0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1
Azobenzene	DETSC 3433	0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1
Carbazole	DETSC 3433*	0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1

Summary of Asbestos Analysis Soil Samples

Our Ref 26-01654

Client Ref ~ 8353

Contract Title ~ Land Adjacent to Bealey Industrial Estate, Radcliffe

Lab No	Sample ID	Material Type	Result	Comment*	Analyst
2630872	WS201 0.10	SOIL	Chrysotile	Chrysotile present as fibre bundles	Jason Barsby
2630874	WS202 0.60	SOIL	NAD	none	Jason Barsby
2630875	WS203 0.40	SOIL	Amosite Chrysotile	Amosite Chrysotile present as fibre bundles	Jason Barsby
2630878	WS204 0.30	SOIL	NAD	none	Jason Barsby
2630879	WS205 0.10	SOIL	NAD	none	Jason Barsby
2630880	WS205A 0.10	SOIL	Chrysotile	Chrysotile present as fibre bundles	Jason Barsby
2630883	WS206 0.40	SOIL	NAD	none	Jason Barsby
2630884	WS207 0.25	SOIL	NAD	none	Jason Barsby
2630887	WS208 0.30	SOIL	NAD	none	Jason Barsby
2630889	HDP01 0.10	SOIL	Chrysotile	Chrysotile present as fibre bundles	Jason Barsby

Crocidolite = Blue Asbestos, Amosite = Brown Asbestos, Chrysotile = White Asbestos. Anthophyllite, Actinolite and Tremolite are other forms of Asbestos. Samples are analysed by DETSC 1101 using polarised light microscopy in accordance with HSG248 and documented in-house methods. NAD = No Asbestos Detected. Where a sample is NAD, the result is based on analysis of at least 2 sub-samples and should be taken to mean 'no asbestos detected in sample'. Key: * -not included in laboratory scope of accreditation.

Information in Support of the Analytical Results

Our Ref 26-01654
 Client Ref ~ 8353
 Contract ~ Land Adjacent to Bealey Industrial Estate, Radcliffe

Containers Received & Deviating Samples

Lab No	Sample ID ~	Date Sampled ~	Containers Received	Holding time exceeded for tests	Incorrect container for tests
2630872	WS201 0.10 SOIL	19/01/26	GJ 250ml x2, GJ 30ml x2		
2630873	WS201 0.40 SOIL	19/01/26	GJ 250ml x2, GJ 30ml x2		
2630874	WS202 0.60 SOIL	19/01/26	GJ 250ml x2, GJ 30ml x2		
2630875	WS203 0.40 SOIL	19/01/26	GJ 250ml x2, GJ 30ml x2		
2630876	WS203 0.60 SOIL	19/01/26	GJ 250ml x2, GJ 30ml x2		
2630877	WS204 0.10 SOIL	19/01/26	GJ 250ml x2, GJ 30ml x2		
2630878	WS204 0.30 SOIL	19/01/26	GJ 250ml x2, GJ 30ml x2		
2630879	WS205 0.10 SOIL	21/01/26	PG		
2630880	WS205A 0.10 SOIL	21/01/26	GJ 250ml x2, GJ 30ml x2		
2630881	WS205A 0.50 SOIL	21/01/26	GJ 250ml x2, GJ 30ml x2		
2630882	WS206 0.30 SOIL	21/01/26	P(other) x2		
2630883	WS206 0.40 SOIL	21/01/26	GJ 250ml x2, GJ 30ml x2		
2630884	WS207 0.25 SOIL	21/01/26	GJ 250ml x2, GJ 30ml x2		
2630885	WS207 0.80 SOIL	21/01/26	P(other) x2		
2630886	WS207 0.85 SOIL	21/01/26	GJ 250ml x2, GJ 30ml x2		
2630887	WS208 0.30 SOIL	21/01/26	GJ 250ml x2, GJ 30ml x2		
2630888	WS208 0.60 SOIL	21/01/26	GJ 250ml x2, GJ 30ml x2		
2630889	HDP01 0.10 SOIL	21/01/26	GJ 250ml x2, GJ 30ml x2		
2630890	HDP01 0.55 SOIL	21/01/26	GJ 250ml x2, GJ 30ml x2		

Key: G-Glass J-Jar P-Plastic G-Bag

Normec DETS cannot be held responsible for the integrity of samples received whereby the laboratory did not undertake the sampling. In this instance samples received may be deviating. Deviating Sample criteria are based on British and International standards and laboratory trials in conjunction with the UKAS note 'Guidance on Deviating Samples'. All samples received are listed above. However, those samples that have additional comments in relation to hold time, inappropriate containers etc are deviating due to the reasons stated. This means that the analysis is accredited where applicable, but results may be compromised due to sample deviations. If no sampled date (soils) or date+time (waters) has been supplied then samples are deviating. However, if you are able to supply a sampled date (and time for waters) this will prevent samples being reported as deviating where specific hold times are not exceeded and where the container supplied is suitable.

Information in Support of the Analytical Results

Our Ref 26-01654

Client Ref ~ 8353

Contract ~ Land Adjacent to Bealey Industrial Estate, Radcliffe

Soil Analysis Notes

Inorganic soil analysis was carried out on a dried sample, crushed to pass a 250µm sieve

Organic soil analysis was carried out on an 'as received' sample. Organics results are corrected for moisture and expressed on a dry weight basis.

The Loss on Drying, used to express organics analysis on an air dried basis, is carried out at a temperature of 28°C +/-2°C.

Disposal

From the issue date of this test certificate, samples will be held for the following times prior to disposal :-

Soils - 1 month, Liquids - 2 weeks, Asbestos (test portion) - 6 months

Appendix A - Details of Analysis

Method	Parameter	Units	Limit of Detection	Sample Preparation	Sub-Contracted	UKAS	MCERTS
DETS 2002	Organic matter	%	0.1	Air Dried	No	Yes	Yes
DETS 2003	Loss on ignition	%	0.01	Air Dried	No	Yes	Yes
DETS 2008	pH	pH Units	1	Air Dried	No	Yes	Yes
DETS 2076	Sulphate Aqueous Extract as SO ₄	mg/l	10	Air Dried	No	Yes	Yes
DETS 2084	Total Organic Carbon	%	0.5	Air Dried	No	Yes	Yes
DETS 2119	Ammoniacal Nitrogen as N	mg/kg	0.5	Air Dried	No	Yes	Yes
DETS 2130	Cyanide free	mg/kg	0.1	Air Dried	No	Yes	Yes
DETS 2130	Cyanide total	mg/kg	0.1	Air Dried	No	Yes	Yes
DETS 2130	Phenol - Monohydric	mg/kg	0.3	Air Dried	No	Yes	Yes
DETS 2130	Thiocyanate	mg/kg	0.6	Air Dried	No	Yes	Yes
DETS 2301	Arsenic	mg/kg	0.2	Air Dried	No	Yes	Yes
DETS 2301	Barium	mg/kg	1.5	Air Dried	No	Yes	Yes
DETS 2301	Beryllium	mg/kg	0.2	Air Dried	No	Yes	Yes
DETS 2301	Cadmium Available	mg/kg	0.1	Air Dried	No	Yes	Yes
DETS 2301	Cadmium	mg/kg	0.1	Air Dried	No	Yes	Yes
DETS 2301	Cobalt	mg/kg	0.7	Air Dried	No	Yes	Yes
DETS 2301	Chromium	mg/kg	0.15	Air Dried	No	Yes	Yes
DETS 2301	Copper	mg/kg	0.2	Air Dried	No	Yes	Yes
DETS 2301	Manganese	mg/kg	20	Air Dried	No	Yes	Yes
DETS 2301	Molybdenum	mg/kg	0.4	Air Dried	No	Yes	Yes
DETS 2301	Nickel	mg/kg	1	Air Dried	No	Yes	Yes
DETS 2301	Lead	mg/kg	0.3	Air Dried	No	Yes	Yes
DETS 2301	Selenium	mg/kg	0.5	Air Dried	No	Yes	Yes
DETS 2301	Zinc	mg/kg	1	Air Dried	No	Yes	Yes
DETS 2311	Boron (water soluble)	mg/kg	0.2	Air Dried	No	Yes	Yes
DETS 2321	Total Sulphate as SO ₄	%	0.01	Air Dried	No	Yes	Yes
DETS 2325	Mercury	mg/kg	0.05	Air Dried	No	Yes	Yes
DETS 3049	Sulphur (free)	mg/kg	0.75	As Received	No	Yes	Yes
DETS 3072	Ali/Aro C10-C35	mg/kg	10	As Received	No	Yes	Yes
DETS 3072	Aliphatic C10-C12	mg/kg	1.5	As Received	No	Yes	Yes
DETS 3072	Aliphatic C10-C35	mg/kg	10	As Received	No	Yes	Yes
DETS 3072	Aliphatic C12-C16	mg/kg	1.2	As Received	No	Yes	Yes
DETS 3072	Aliphatic C16-C21	mg/kg	1.5	As Received	No	Yes	Yes
DETS 3072	Aliphatic C21-C35	mg/kg	3.4	As Received	No	Yes	Yes
DETS 3072	Aromatic C10-C12	mg/kg	0.9	As Received	No	Yes	Yes
DETS 3072	Aromatic C10-C35	mg/kg	10	As Received	No	Yes	Yes
DETS 3072	Aromatic C12-C16	mg/kg	0.5	As Received	No	Yes	Yes
DETS 3072	Aromatic C16-C21	mg/kg	0.6	As Received	No	Yes	Yes
DETS 3072	Aromatic C21-C35	mg/kg	1.4	As Received	No	Yes	Yes
DETS 3303	Acenaphthene	mg/kg	0.03	As Received	No	Yes	Yes
DETS 3303	Acenaphthylene	mg/kg	0.03	As Received	No	Yes	Yes
DETS 3303	Benzo(a)pyrene	mg/kg	0.03	As Received	No	Yes	Yes
DETS 3303	Benzo(a)anthracene	mg/kg	0.03	As Received	No	Yes	Yes
DETS 3303	Benzo(b)fluoranthene	mg/kg	0.03	As Received	No	Yes	Yes
DETS 3303	Benzo(k)fluoranthene	mg/kg	0.03	As Received	No	Yes	Yes
DETS 3303	Benzo(g,h,i)perylene	mg/kg	0.03	As Received	No	Yes	Yes
DETS 3303	Dibenzo(a,h)anthracene	mg/kg	0.03	As Received	No	Yes	Yes
DETS 3303	Fluoranthene	mg/kg	0.03	As Received	No	Yes	Yes

Appendix A - Details of Analysis

Method	Parameter	Units	Limit of Detection	Sample Preparation	Sub-Contracted	UKAS	MCERTS
DETSC 3303	Indeno(1,2,3-c,d)pyrene	mg/kg	0.03	As Received	No	Yes	Yes
DETSC 3303	Naphthalene	mg/kg	0.03	As Received	No	Yes	Yes
DETSC 3303	Phenanthrene	mg/kg	0.03	As Received	No	Yes	Yes
DETSC 3303	Pyrene	mg/kg	0.03	As Received	No	Yes	Yes
DETSC 3311	C10-C24 Diesel Range Organics (DRO)	mg/kg	10	As Received	No	Yes	Yes
DETSC 3311	C24-C40 Lube Oil Range Organics (LORO)	mg/kg	10	As Received	No	Yes	Yes
DETSC 3311	EPH (C10-C40)	mg/kg	10	As Received	No	Yes	Yes
DETSC 3321	Benzene	mg/kg	0.01	As Received	No	Yes	Yes
DETSC 3321	Ethylbenzene	mg/kg	0.01	As Received	No	Yes	Yes
DETSC 3321	Toluene	mg/kg	0.01	As Received	No	Yes	Yes
DETSC 3321	Xylene	mg/kg	0.01	As Received	No	Yes	Yes
DETSC 3321	m+p Xylene	mg/kg	0.01	As Received	No	Yes	Yes
DETSC 3321	o Xylene	mg/kg	0.01	As Received	No	Yes	Yes
DETSC 3401	PCB 28 + PCB 31	mg/kg	0.01	As Received	No	Yes	Yes
DETSC 3401	PCB 52	mg/kg	0.01	As Received	No	Yes	Yes
DETSC 3401	PCB 101	mg/kg	0.01	As Received	No	Yes	Yes
DETSC 3401	PCB 118	mg/kg	0.01	As Received	No	Yes	Yes
DETSC 3401	PCB 153	mg/kg	0.01	As Received	No	Yes	Yes
DETSC 3401	PCB 138	mg/kg	0.01	As Received	No	Yes	Yes
DETSC 3401	PCB 180	mg/kg	0.01	As Received	No	Yes	Yes
DETSC 3401	PCB Total	mg/kg	0.01	As Received	No	Yes	Yes
DETSC 3521	Ali/Aro C10-C35	mg/kg	10	As Received	No	Yes	Yes
DETSC 3521	Aliphatic C10-C12	mg/kg	1.5	As Received	No	Yes	Yes
DETSC 3521	Aliphatic C10-C35	mg/kg	10	As Received	No	Yes	Yes
DETSC 3521	Aliphatic C12-C16	mg/kg	1.2	As Received	No	Yes	Yes
DETSC 3521	Aliphatic C16-C21	mg/kg	1.5	As Received	No	Yes	Yes
DETSC 3521	Aliphatic C21-C35	mg/kg	3.4	As Received	No	Yes	Yes
DETSC 3521	Aromatic C10-C12	mg/kg	0.9	As Received	No	Yes	Yes
DETSC 3521	Aromatic C10-C35	mg/kg	10	As Received	No	Yes	Yes
DETSC 3521	Aromatic C12-C16	mg/kg	0.5	As Received	No	Yes	Yes
DETSC 3521	Aromatic C16-C21	mg/kg	0.6	As Received	No	Yes	Yes
DETSC 3521	Aromatic C21-C35	mg/kg	1.4	As Received	No	Yes	Yes

Method details are shown only for those determinands listed in Annex A of the MCERTS standard. Anything not included on this list falls outside the scope of MCERTS. No Recovery Factors are used in the determination of results. Results reported assume 100% recovery. Full method statements are available on request.

Appendix A - Details of Analysis

Method	Parameter	Units	Limit of Detection	Sample Preparation	Sub-Contracted	UKAS	MCERTS
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Key:

~ Sample details are provided by the client and can affect the validity of the results

* -not accredited.

-MCERTS (accreditation only applies if report carries the MCERTS logo).

\$ -subcontracted.

n/s -not supplied.

I/S -insufficient sample.

U/S -unsuitable sample.

t/f -to follow.

nd -not detected.

End of Report

Certificate of Analysis

Certificate Number 26-01999

Issued: 16-Feb-26

Client Coopers (Chester) Ltd
Park House
Sandpiper Court
Chester Business Park
Chester
CH4 9QU

Our Reference 26-01999

Client Reference ~ 8353

Order No ~ P/O-10623BH

Contract Title ~ Land Adjacent to Bealey Industrial Estate, Radcliffe

Description 9 Soil samples.

Date Received 29-Jan-26

Date Started 29-Jan-26

Date Completed 16-Feb-26

Test Procedures Identified by prefix DETSn (details on request).

Notes Opinions and interpretations are outside the laboratory's scope of ISO 17025 accreditation. 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 By



Reyhan Irfan
Operations Manager



Sample Deviations present. See Deviation Table Section for details.

Summary of Chemical Analysis

Matrix Descriptions

Our Ref 26-01999

Client Ref ~ 8353

Contract Title ~ Land Adjacent to Bealey Industrial Estate, Radcliffe

Sample ID	Depth	Lab No	Completed	Matrix Description
WS209	0.3	2632904	16/02/2026	Brown very gravelly, clayey SAND
WS210	0.9	2632906	16/02/2026	Brown very gravelly, clayey SAND
WS212	0.5	2632910	16/02/2026	Brown SAND
WS212	0.7	2632911	16/02/2026	Brown SAND
WS212	1.7	2632912	16/02/2026	Brown sandy CLAY

Summary of Chemical Analysis

Soil Samples

Our Ref 26-01999

Client Ref ~ 8353

Contract Title ~ Land Adjacent to Bealey Industrial Estate, Radcliffe

Lab No	2632904	2632905	2632906	2632907	2632908	2632909	2632910
Sample ID ~	WS209	WS209	WS210	WS210	WS210	WS211	WS212
Depth ~	0.30	0.80	0.90	1.60	1.80	0.50	0.50
Other ID ~							
Sample Type ~	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL
Sampling Date ~	23/01/2026	23/01/2026	23/01/2026	23/01/2026	23/01/2026	23/01/2026	23/01/2026
Sampling Time ~	n/s	n/s	n/s	n/s	n/s	n/s	n/s

Test	Method	LOD	Units						
Metals									
Arsenic	DETS 2301#	0.2	mg/kg	13		34			52
Beryllium	DETS 2301#	0.2	mg/kg	0.8		1.8			1.6
Boron, Water Soluble (2.5:1)	DETS 2311#	0.2	mg/kg	0.3		0.5			0.3
Cadmium	DETS 2301#	0.1	mg/kg	< 0.1		1.2			0.3
Chromium	DETS 2301#	0.15	mg/kg	33		30			23
Chromium, Hexavalent	DETS 2204*	1	mg/kg	< 1.0		< 1.0			< 1.0
Copper	DETS 2301#	0.2	mg/kg	20		110			110
Lead	DETS 2301#	0.3	mg/kg	14		370			180
Mercury	DETS 2325#	0.05	mg/kg	< 0.05		0.13			0.20
Nickel	DETS 2301#	1	mg/kg	20		41			36
Selenium	DETS 2301#	0.5	mg/kg	< 0.5		< 0.5			< 0.5
Vanadium	DETS 2301#	0.8	mg/kg	54		52			57
Zinc	DETS 2301#	1	mg/kg	55		240			90
Inorganics									
pH	DETS 2008#		pH	5.6		6.4			5.7
Cyanide, Total	DETS 2130#	0.1	mg/kg	< 0.1		< 0.1			< 0.1
FOC	DETS 2002	0.001		< 0.001		0.024			0.016
Total Organic Carbon	DETS 2002	0.1	%	< 0.1		2.4			1.6
Sulphate Aqueous Extract as SO ₄ (2:1)	DETS 2076#	10	mg/l	30		92			50
Sulphate as SO ₄ , Total	DETS 2321#	0.01	%	0.04		0.05			0.09
Petroleum Hydrocarbons									
Aliphatic C5-C6	DETS 3321*	0.01	mg/kg		< 0.01		< 0.01		
Aliphatic C6-C8	DETS 3321*	0.01	mg/kg		< 0.01		< 0.01		
Aliphatic C8-C10	DETS 3321*	0.01	mg/kg		< 0.01		< 0.01		
Aliphatic >EC10-EC12 Cleanup	DETS 3521*	1.5	mg/kg		< 1.50		< 1.50		
Aliphatic >EC12-EC16 Cleanup	DETS 3521*	1.2	mg/kg		< 1.20		< 1.20		
Aliphatic >EC16-EC21 Cleanup	DETS 3521*	1.5	mg/kg		< 1.50		< 1.50		
Aliphatic >EC21-EC24 Cleanup	DETS 3521*	3.4	mg/kg		< 3.40		< 3.40		
Aliphatic >EC21-EC35 Cleanup	DETS 3521*	3.4	mg/kg		< 3.40		< 3.40		
Aliphatic >EC24-EC35 Cleanup	DETS 3521*	3.4	mg/kg		< 3.40		< 3.40		
Aliphatic >EC10-EC35 Cleanup	DETS 3521*	10	mg/kg		< 10.00		< 10.00		
Aliphatic >EC10-EC40 Cleanup	DETS 3521*	10	mg/kg		< 10.00		< 10.00		
Aliphatic C5-C35 Cleanup	DETS 3521*	10	mg/kg		< 10.00		< 10.00		
Aromatic C5-C7	DETS 3321*	0.01	mg/kg		< 0.01		< 0.01		
Aromatic C7-C8	DETS 3321*	0.01	mg/kg		< 0.01		< 0.01		
Aromatic C8-C10	DETS 3321*	0.01	mg/kg		< 0.01		< 0.01		
Aromatic >EC10-EC12 Cleanup	DETS 3521*	0.9	mg/kg		< 0.90		< 0.90		
Aromatic >EC12-EC16 Cleanup	DETS 3521*	0.5	mg/kg		< 0.50		< 0.50		
Aromatic >EC16-EC21 Cleanup	DETS 3521*	0.6	mg/kg		0.92		0.86		
Aromatic >EC21-EC24 Cleanup	DETS 3521*	1.4	mg/kg		< 1.40		< 1.40		
Aromatic >EC21-EC35 Cleanup	DETS 3521*	1.4	mg/kg		< 1.40		< 1.40		

Summary of Chemical Analysis

Soil Samples

Our Ref 26-01999

Client Ref ~ 8353

Contract Title ~ Land Adjacent to Bealey Industrial Estate, Radcliffe

Lab No	2632904	2632905	2632906	2632907	2632908	2632909	2632910
Sample ID ~	WS209	WS209	WS210	WS210	WS210	WS211	WS212
Depth ~	0.30	0.80	0.90	1.60	1.80	0.50	0.50
Other ID ~							
Sample Type ~	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL
Sampling Date ~	23/01/2026	23/01/2026	23/01/2026	23/01/2026	23/01/2026	23/01/2026	23/01/2026
Sampling Time ~	n/s	n/s	n/s	n/s	n/s	n/s	n/s

Test	Method	LOD	Units						
Aromatic >EC24-EC35 Cleanup	DETC 3521*	1.4	mg/kg		< 1.40			< 1.40	
Aromatic C5-C35 Cleanup	DETC 3521*	10	mg/kg		< 10.00			< 10.00	
Aromatic >EC10-EC35 Cleanup	DETC 3521*	10	mg/kg		< 10.00			< 10.00	
Aromatic >EC10-EC40 Cleanup	DETC 3521*	10	mg/kg		< 10.00			< 10.00	
TPH Ali/Aro Total C5-C35 Cleanup	DETC 3521*	10	mg/kg		< 10.00			< 10.00	
Benzene	DETC 3321#	0.01	mg/kg		< 0.01			< 0.01	
Ethylbenzene	DETC 3321#	0.01	mg/kg		< 0.01			< 0.01	
Toluene	DETC 3321#	0.01	mg/kg		< 0.01			< 0.01	
Xylene	DETC 3321#	0.01	mg/kg		< 0.01			< 0.01	
PAHs									
Naphthalene	DETC 3303#	0.03	mg/kg	< 0.03		< 0.03			0.15
Acenaphthylene	DETC 3303#	0.03	mg/kg	< 0.03		< 0.03			< 0.03
Acenaphthene	DETC 3303#	0.03	mg/kg	0.06		0.05			0.06
Fluorene	DETC 3303	0.03	mg/kg	< 0.03		< 0.03			0.40
Phenanthrene	DETC 3303#	0.03	mg/kg	0.40		0.37			0.17
Anthracene	DETC 3303	0.03	mg/kg	0.06		0.05			< 0.03
Fluoranthene	DETC 3303#	0.03	mg/kg	0.80		0.63			0.06
Pyrene	DETC 3303#	0.03	mg/kg	0.74		0.59			0.18
Benzo(a)anthracene	DETC 3303#	0.03	mg/kg	0.30		0.22			< 0.03
Chrysene	DETC 3303	0.03	mg/kg	0.32		0.24			0.03
Benzo(b)fluoranthene	DETC 3303#	0.03	mg/kg	0.35		0.25			< 0.03
Benzo(k)fluoranthene	DETC 3303#	0.03	mg/kg	0.14		0.09			< 0.03
Benzo(a)pyrene	DETC 3303#	0.03	mg/kg	0.25		0.17			< 0.03
Indeno(1,2,3-c,d)pyrene	DETC 3303#	0.03	mg/kg	0.11		0.07			< 0.03
Dibenzo(a,h)anthracene	DETC 3303#	0.03	mg/kg	< 0.03		< 0.03			< 0.03
Benzo(g,h,i)perylene	DETC 3303#	0.03	mg/kg	0.15		0.10			< 0.03
PAH - USEPA 16, Total	DETC 3303	0.1	mg/kg	3.7		2.8			1.0
Phenols									
Phenol - Monohydric	DETC 2130#	0.3	mg/kg	< 0.3		0.4			< 0.3
Per- and Polyfluoroalkyl subst:									
Perfluoro-n-butanoic acid (PFBA)	DETC 3443*	0.7	ug/kg			< 0.70		< 0.70	
Perfluoro-n-pentanoic acid (PFPeA)	DETC 3443*	0.2	ug/kg			< 0.20		< 0.20	
Perfluoro-1-butanedisulfonate (PFBS)	DETC 3443*	0.3	ug/kg			< 0.30		< 0.30	
1H,1H,2H,2H-perfluoro-1-hexanesulfonate (4-2 FTSA)	DETC 3443*	0.7	ug/kg			< 0.70		< 0.70	
Perfluoro-n-hexanoic acid (PFHxA)	DETC 3443*	0.4	ug/kg			< 0.40		< 0.40	
Perfluoro-1-pentadisulfonate (PFPeS)	DETC 3443*	0.3	ug/kg			< 0.30		< 0.30	
Tetrafluoro-2-(heptafluoropropoxy)-propanoic acid (HFPO-DA)	DETC 3443*	0.7	ug/kg			< 0.70		< 0.70	
Perfluoro-n-heptanoic acid (PFHpA)	DETC 3443*	0.2	ug/kg			< 0.20		< 0.20	
Perfluorohexanesulfonate (PFHxS) (Linear+Branched)	DETC 3443*	0.2	ug/kg			< 0.20		< 0.20	

Summary of Chemical Analysis

Soil Samples

Our Ref 26-01999

Client Ref ~ 8353

Contract Title ~ Land Adjacent to Bealey Industrial Estate, Radcliffe

Lab No	2632904	2632905	2632906	2632907	2632908	2632909	2632910
Sample ID ~	WS209	WS209	WS210	WS210	WS210	WS211	WS212
Depth ~	0.30	0.80	0.90	1.60	1.80	0.50	0.50
Other ID ~							
Sample Type ~	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL
Sampling Date ~	23/01/2026	23/01/2026	23/01/2026	23/01/2026	23/01/2026	23/01/2026	23/01/2026
Sampling Time ~	n/s	n/s	n/s	n/s	n/s	n/s	n/s

Test	Method	LOD	Units							
Dodecafluoro-3H-4,8-dioxanonoate (DONA)	DETS 3443*	0.6	ug/kg				< 0.60		< 0.60	
1H,1H,2H,2H-perfluoro-1-octanesulfonate (6-2 FTS)	DETS 3443*	1	ug/kg				< 1.0		< 1.0	
Perfluoro-n-octanoic acid (PFOA)	DETS 3443*	0.3	ug/kg				< 0.30		< 0.30	
Perfluoro-1-heptanesulfonate (PFHpS)	DETS 3443*	0.3	ug/kg				< 0.30		< 0.30	
Perfluoro-n-nonanoic acid (PFNA)	DETS 3443*	0.2	ug/kg				< 0.20		< 0.20	
Perfluorooctanesulfonate (PFOS) (Linear+Branched)	DETS 3443*	0.8	ug/kg				< 0.80		3.4	
9-chlorohexadecafluoro-3-oxanonane-1-sulfonate (9Cl-PF3ONS)	DETS 3443*	0.6	ug/kg				< 0.60		< 0.60	
1H,1H,2H,2H-perfluoro-1-decanesulfonate (8-2 FTSA)	DETS 3443*	1.1	ug/kg				< 1.1		< 1.1	
Perfluoro-1-nonanesulfonate (PFNS)	DETS 3443*	0.3	ug/kg				< 0.30		< 0.30	
Perfluoro-n-decanoic acid (PFDA)	DETS 3443*	0.3	ug/kg				< 0.30		< 0.30	
N-methylperfluoro-1-octanesulfonamidoacetic acid (N-MeFOSAA)	DETS 3443*	0.5	ug/kg				< 0.50		< 0.50	
Perfluoro-1-decanesulfonate (PFDS)	DETS 3443*	0.3	ug/kg				< 0.30		< 0.30	
Perfluoro-n-undecanoic acid (PFUDA)	DETS 3443*	0.3	ug/kg				< 0.30		< 0.30	
N-ethylperfluoro-1-octanesulfonamidoacetic acid (N-EtFOSAA)	DETS 3443*	0.4	ug/kg				< 0.40		< 0.40	
Perfluoro-1-octanesulfonamide (PFOSA)	DETS 3443*	0.4	ug/kg				< 0.40		< 0.40	
11-chloroeicosafluoro-3-oxaundecane-1-sulfonate (11Cl-PF3OUDS)	DETS 3443*	0.5	ug/kg				< 0.50		< 0.50	
Perfluoro-1-undecanesulfonate (L-PFUDS)	DETS 3443*	0.2	ug/kg				< 0.20		< 0.20	
Perfluoro-n-dodecanoic acid (PFDoA)	DETS 3443*	0.3	ug/kg				< 0.30		< 0.30	
Perfluoro-1-dodecanesulfonate (L-PFDoS)	DETS 3443*	0.3	ug/kg				< 0.30		< 0.30	
Perfluoro-n-tridecanoic acid (PFTTrDA)	DETS 3443*	0.3	ug/kg				< 0.30		< 0.30	
Perfluoro-1-tridecanesulfonate (L-PFTTrDS)	DETS 3443*	0.3	ug/kg				< 0.30		< 0.30	
Perfluoro-n-tetradecanoic acid (PFTDA)	DETS 3443*	0.3	ug/kg				< 0.30		< 0.30	
Perfluorohexanesulfonate (PFHxS) (Branched)	DETS 3443*	0.1	ug/kg				0.17		< 0.10	
Perfluorohexanesulfonate (PFHxS) (Linear)	DETS 3443*	0.2	ug/kg				< 0.20		< 0.20	
Perfluorooctanesulfonate (PFOS) (Branched)	DETS 3443*	0.3	ug/kg				< 0.30		0.67	
Perfluorooctanesulfonate (PFOS) (Linear)	DETS 3443*	0.6	ug/kg				< 0.60		2.8	
N-methylperfluoro-1-octanesulfonamidoacetic acid (N-MeFOSAA)	DETS 3443*	0.2	ug/kg				< 0.20		< 0.20	
N-methylperfluoro-1-octanesulfonamidoacetic acid (N-MeFOSAA)	DETS 3443*	0.4	ug/kg				< 0.40		< 0.40	
N-ethylperfluoro-1-octanesulfonamidoacetic acid (N-EtFOSAA)	DETS 3443*	0.2	ug/kg				< 0.20		< 0.20	

Summary of Chemical Analysis

Soil Samples

Our Ref 26-01999

Client Ref ~ 8353

Contract Title ~ Land Adjacent to Bealey Industrial Estate, Radcliffe

Lab No	2632904	2632905	2632906	2632907	2632908	2632909	2632910
Sample ID ~	WS209	WS209	WS210	WS210	WS210	WS211	WS212
Depth ~	0.30	0.80	0.90	1.60	1.80	0.50	0.50
Other ID ~							
Sample Type ~	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL
Sampling Date ~	23/01/2026	23/01/2026	23/01/2026	23/01/2026	23/01/2026	23/01/2026	23/01/2026
Sampling Time ~	n/s	n/s	n/s	n/s	n/s	n/s	n/s

Test	Method	LOD	Units						
N-ethylperfluoro-1-octanesulfonamidoacetic acid (N-EtFOSAA)	DETSC 3443*	0.4	ug/kg				< 0.40		< 0.40
Perfluoro-1-undecanesulfonic acid (L-PFUDS)	DETSC 3443*	0.1936	ug/kg				< 0.19		< 0.19

Summary of Chemical Analysis

Soil Samples

Our Ref 26-01999

Client Ref ~ 8353

Contract Title ~ Land Adjacent to Bealey Industrial Estate, Ra

Lab No	2632911	2632912
Sample ID ~	WS212	WS212
Depth ~	0.70	1.70
Other ID ~		
Sample Type ~	SOIL	SOIL
Sampling Date ~	23/01/2026	23/01/2026
Sampling Time ~	n/s	n/s

Test	Method	LOD	Units		
Metals					
Arsenic	DETSC 2301#	0.2	mg/kg	63	32
Beryllium	DETSC 2301#	0.2	mg/kg	0.5	0.5
Boron, Water Soluble (2.5:1)	DETSC 2311#	0.2	mg/kg	0.3	0.4
Cadmium	DETSC 2301#	0.1	mg/kg	0.6	0.5
Chromium	DETSC 2301#	0.15	mg/kg	53	29
Chromium, Hexavalent	DETSC 2204*	1	mg/kg	< 1.0	< 1.0
Copper	DETSC 2301#	0.2	mg/kg	69	35
Lead	DETSC 2301#	0.3	mg/kg	270	71
Mercury	DETSC 2325#	0.05	mg/kg	0.14	0.07
Nickel	DETSC 2301#	1	mg/kg	19	18
Selenium	DETSC 2301#	0.5	mg/kg	< 0.5	< 0.5
Vanadium	DETSC 2301#	0.8	mg/kg	17	21
Zinc	DETSC 2301#	1	mg/kg	150	130
Inorganics					
pH	DETSC 2008#		pH	6.7	7.4
Cyanide, Total	DETSC 2130#	0.1	mg/kg	< 0.1	0.2
FOC	DETSC 2002	0.001		0.008	0.009
Total Organic Carbon	DETSC 2002	0.1	%	0.8	0.9
Sulphate Aqueous Extract as SO ₄ (2:1)	DETSC 2076#	10	mg/l	480	57
Sulphate as SO ₄ , Total	DETSC 2321#	0.01	%	0.15	0.05
Petroleum Hydrocarbons					
Aliphatic C5-C6	DETSC 3321*	0.01	mg/kg	< 0.01	
Aliphatic C6-C8	DETSC 3321*	0.01	mg/kg	< 0.01	
Aliphatic C8-C10	DETSC 3321*	0.01	mg/kg	< 0.01	
Aliphatic >EC10-EC12 Cleanup	DETSC 3521*	1.5	mg/kg	18.32	
Aliphatic >EC12-EC16 Cleanup	DETSC 3521*	1.2	mg/kg	132.5	
Aliphatic >EC16-EC21 Cleanup	DETSC 3521*	1.5	mg/kg	354.5	
Aliphatic >EC21-EC24 Cleanup	DETSC 3521*	3.4	mg/kg	109.8	
Aliphatic >EC21-EC35 Cleanup	DETSC 3521*	3.4	mg/kg	172.7	
Aliphatic >EC24-EC35 Cleanup	DETSC 3521*	3.4	mg/kg	62.94	
Aliphatic >EC10-EC35 Cleanup	DETSC 3521*	10	mg/kg	678.0	
Aliphatic >EC10-EC40 Cleanup	DETSC 3521*	10	mg/kg	678.0	
Aliphatic C5-C35 Cleanup	DETSC 3521*	10	mg/kg	678.0	
Aromatic C5-C7	DETSC 3321*	0.01	mg/kg	< 0.01	
Aromatic C7-C8	DETSC 3321*	0.01	mg/kg	< 0.01	
Aromatic C8-C10	DETSC 3321*	0.01	mg/kg	< 0.01	
Aromatic >EC10-EC12 Cleanup	DETSC 3521*	0.9	mg/kg	19.05	
Aromatic >EC12-EC16 Cleanup	DETSC 3521*	0.5	mg/kg	145.8	
Aromatic >EC16-EC21 Cleanup	DETSC 3521*	0.6	mg/kg	110.3	
Aromatic >EC21-EC24 Cleanup	DETSC 3521*	1.4	mg/kg	15.82	
Aromatic >EC21-EC35 Cleanup	DETSC 3521*	1.4	mg/kg	26.75	

Summary of Chemical Analysis

Soil Samples

Our Ref 26-01999

Client Ref ~ 8353

Contract Title ~ Land Adjacent to Bealey Industrial Estate, Ra

Lab No	2632911	2632912
Sample ID ~	WS212	WS212
Depth ~	0.70	1.70
Other ID ~		
Sample Type ~	SOIL	SOIL
Sampling Date ~	23/01/2026	23/01/2026
Sampling Time ~	n/s	n/s

Test	Method	LOD	Units		
Aromatic >EC24-EC35 Cleanup	DETS 3521*	1.4	mg/kg	10.92	
Aromatic C5-C35 Cleanup	DETS 3521*	10	mg/kg	302.0	
Aromatic >EC10-EC35 Cleanup	DETS 3521*	10	mg/kg	302.0	
Aromatic >EC10-EC40 Cleanup	DETS 3521*	10	mg/kg	302.0	
TPH Ali/Aro Total C5-C35 Cleanup	DETS 3521*	10	mg/kg	979.9	
Benzene	DETS 3321#	0.01	mg/kg	< 0.01	
Ethylbenzene	DETS 3321#	0.01	mg/kg	< 0.01	
Toluene	DETS 3321#	0.01	mg/kg	< 0.01	
Xylene	DETS 3321#	0.01	mg/kg	< 0.01	
PAHs					
Naphthalene	DETS 3303#	0.03	mg/kg	< 0.03	< 0.03
Acenaphthylene	DETS 3303#	0.03	mg/kg	< 0.03	< 0.03
Acenaphthene	DETS 3303#	0.03	mg/kg	< 0.03	< 0.03
Fluorene	DETS 3303	0.03	mg/kg	< 0.03	< 0.03
Phenanthrene	DETS 3303#	0.03	mg/kg	< 0.03	< 0.03
Anthracene	DETS 3303	0.03	mg/kg	< 0.03	< 0.03
Fluoranthene	DETS 3303#	0.03	mg/kg	< 0.03	< 0.03
Pyrene	DETS 3303#	0.03	mg/kg	0.03	< 0.03
Benzo(a)anthracene	DETS 3303#	0.03	mg/kg	< 0.03	< 0.03
Chrysene	DETS 3303	0.03	mg/kg	< 0.03	< 0.03
Benzo(b)fluoranthene	DETS 3303#	0.03	mg/kg	< 0.03	< 0.03
Benzo(k)fluoranthene	DETS 3303#	0.03	mg/kg	< 0.03	< 0.03
Benzo(a)pyrene	DETS 3303#	0.03	mg/kg	< 0.03	< 0.03
Indeno(1,2,3-c,d)pyrene	DETS 3303#	0.03	mg/kg	< 0.03	< 0.03
Dibenzo(a,h)anthracene	DETS 3303#	0.03	mg/kg	< 0.03	< 0.03
Benzo(g,h,i)perylene	DETS 3303#	0.03	mg/kg	< 0.03	< 0.03
PAH - USEPA 16, Total	DETS 3303	0.1	mg/kg	< 0.10	< 0.10
Phenols					
Phenol - Monohydric	DETS 2130#	0.3	mg/kg	< 0.3	< 0.3
Per- and Polyfluoroalkyl subst					
Perfluoro-n-butanoic acid (PFBA)	DETS 3443*	0.7	ug/kg		
Perfluoro-n-pentanoic acid (PFPeA)	DETS 3443*	0.2	ug/kg		
Perfluoro-1-butanedisulfonate (PFBS)	DETS 3443*	0.3	ug/kg		
1H,1H,2H,2H-perfluoro-1-hexanesulfonate (4-2 FTSA)	DETS 3443*	0.7	ug/kg		
Perfluoro-n-hexanoic acid (PFHxA)	DETS 3443*	0.4	ug/kg		
Perfluoro-1-pentadisulfonate (PFPeS)	DETS 3443*	0.3	ug/kg		
Tetrafluoro-2-(heptafluoropropoxy)-propanoic acid (HFPO-DA)	DETS 3443*	0.7	ug/kg		
Perfluoro-n-heptanoic acid (PFHpA)	DETS 3443*	0.2	ug/kg		
Perfluorohexanesulfonate (PFHxS) (Linear+Branched)	DETS 3443*	0.2	ug/kg		

Summary of Chemical Analysis

Soil Samples

Our Ref 26-01999

Client Ref ~ 8353

Contract Title ~ Land Adjacent to Bealey Industrial Estate, Ra

Lab No	2632911	2632912
Sample ID ~	WS212	WS212
Depth ~	0.70	1.70
Other ID ~		
Sample Type ~	SOIL	SOIL
Sampling Date ~	23/01/2026	23/01/2026
Sampling Time ~	n/s	n/s

Test	Method	LOD	Units		
Dodecafluoro-3H-4,8-dioxanonoate (DONA)	DETSC 3443*	0.6	ug/kg		
1H,1H,2H,2H-perfluoro-1-octanesulfonate (6-2 FTS)	DETSC 3443*	1	ug/kg		
Perfluoro-n-octanoic acid (PFOA)	DETSC 3443*	0.3	ug/kg		
Perfluoro-1-heptanesulfonate (PFHpS)	DETSC 3443*	0.3	ug/kg		
Perfluoro-n-nonanoic acid (PFNA)	DETSC 3443*	0.2	ug/kg		
Perfluorooctanesulfonate (PFOS) (Linear+Branched)	DETSC 3443*	0.8	ug/kg		
9-chlorohexadecafluoro-3-oxanonane-1-sulfonate (9Cl-PF3ONS)	DETSC 3443*	0.6	ug/kg		
1H,1H,2H,2H-perfluoro-1-decanesulfonate (8-2 FTSA)	DETSC 3443*	1.1	ug/kg		
Perfluoro-1-nonanesulfonate (PFNS)	DETSC 3443*	0.3	ug/kg		
Perfluoro-n-decanoic acid (PFDA)	DETSC 3443*	0.3	ug/kg		
N-methylperfluoro-1-octanesulfonamidoacetic acid (N-MeFOSAA)	DETSC 3443*	0.5	ug/kg		
Perfluoro-1-decanesulfonate (PFDS)	DETSC 3443*	0.3	ug/kg		
Perfluoro-n-undecanoic acid (PFUDA)	DETSC 3443*	0.3	ug/kg		
N-ethylperfluoro-1-octanesulfonamidoacetic acid (N-EtFOSAA)	DETSC 3443*	0.4	ug/kg		
Perfluoro-1-octanesulfonamide (PFOSA)	DETSC 3443*	0.4	ug/kg		
11-chloroeicosafluoro-3-oxaundecane-1-sulfonate (11Cl-PF3OUdS)	DETSC 3443*	0.5	ug/kg		
Perfluoro-1-undecanesulfonate (L-PFUdS)	DETSC 3443*	0.2	ug/kg		
Perfluoro-n-dodecanoic acid (PFDoA)	DETSC 3443*	0.3	ug/kg		
Perfluoro-1-dodecanesulfonate (L-PFDoS)	DETSC 3443*	0.3	ug/kg		
Perfluoro-n-tridecanoic acid (PFTTrDA)	DETSC 3443*	0.3	ug/kg		
Perfluoro-1-tridecanesulfonate (L-PFTTrDS)	DETSC 3443*	0.3	ug/kg		
Perfluoro-n-tetradecanoic acid (PFTDA)	DETSC 3443*	0.3	ug/kg		
Perfluorohexanesulfonate (PFHxS) (Branched)	DETSC 3443*	0.1	ug/kg		
Perfluorohexanesulfonate (PFHxS) (Linear)	DETSC 3443*	0.2	ug/kg		
Perfluorooctanesulfonate (PFOS) (Branched)	DETSC 3443*	0.3	ug/kg		
Perfluorooctanesulfonate (PFOS) (Linear)	DETSC 3443*	0.6	ug/kg		
N-methylperfluoro-1-octanesulfonamidoacetic acid (N-MeFOSAA)	DETSC 3443*	0.2	ug/kg		
N-methylperfluoro-1-octanesulfonamidoacetic acid (N-MeFOSAA)	DETSC 3443*	0.4	ug/kg		
N-ethylperfluoro-1-octanesulfonamidoacetic acid (N-EtFOSAA)	DETSC 3443*	0.2	ug/kg		

Summary of Chemical Analysis

Soil Samples

Our Ref 26-01999

Client Ref ~ 8353

Contract Title ~ Land Adjacent to Bealey Industrial Estate, R

Lab No	2632911	2632912
Sample ID ~	WS212	WS212
Depth ~	0.70	1.70
Other ID ~		
Sample Type ~	SOIL	SOIL
Sampling Date ~	23/01/2026	23/01/2026
Sampling Time ~	n/s	n/s

Test	Method	LOD	Units		
N-ethylperfluoro-1-octanesulfonamidoacetic acid (N-EtFOSAA)	DETSC 3443*	0.4	ug/kg		
Perfluoro-1-undecanesulfonic acid (L-PFUDS)	DETSC 3443*	0.1936	ug/kg		

Summary of Chemical Analysis

Soil VOC/SVOC Samples

Our Ref 26-01999

Client Ref ~ 8353

Contract Title ~ Land Adjacent to Bealey Industrial Estate, Radcliffe

Lab No	2632905	2632908	2632911
Sample ID ~	WS209	WS210	WS212
Depth ~	0.80	1.80	0.70
Other ID ~			
Sample Type ~	SOIL	SOIL	SOIL
Sampling Date ~	23/01/2026	23/01/2026	23/01/2026
Sampling Time ~	n/s	n/s	n/s

Test	Method	LOD	Units			
VOCs						
Vinyl Chloride	DETSC 3431*	0.01	mg/kg	< 0.01	< 0.01	< 0.01
1,1 Dichloroethylene	DETSC 3431	0.01	mg/kg	< 0.01	< 0.01	< 0.01
Trans-1,2-dichloroethylene	DETSC 3431	0.01	mg/kg	< 0.01	< 0.01	< 0.01
1,1-dichloroethane	DETSC 3431	0.01	mg/kg	< 0.01	< 0.01	< 0.01
Cis-1,2-dichloroethylene	DETSC 3431	0.01	mg/kg	< 0.01	< 0.01	< 0.01
2,2-dichloropropane	DETSC 3431	0.01	mg/kg	< 0.01	< 0.01	< 0.01
Bromochloromethane	DETSC 3431	0.01	mg/kg	< 0.01	< 0.01	< 0.01
Chloroform	DETSC 3431	0.01	mg/kg	< 0.01	< 0.01	< 0.01
1,1,1-trichloroethane	DETSC 3431	0.01	mg/kg	< 0.01	< 0.01	< 0.01
1,1-dichloropropene	DETSC 3431	0.01	mg/kg	< 0.01	< 0.01	< 0.01
Carbon tetrachloride	DETSC 3431	0.01	mg/kg	< 0.01	< 0.01	< 0.01
Benzene	DETSC 3431	0.01	mg/kg	< 0.01	< 0.01	< 0.01
1,2-dichloroethane	DETSC 3431	0.01	mg/kg	< 0.01	< 0.01	< 0.01
Trichloroethylene	DETSC 3431	0.01	mg/kg	< 0.01	< 0.01	< 0.01
1,2-dichloropropane	DETSC 3431	0.01	mg/kg	< 0.01	< 0.01	< 0.01
Dibromomethane	DETSC 3431	0.01	mg/kg	< 0.01	< 0.01	< 0.01
Bromodichloromethane	DETSC 3431	0.01	mg/kg	< 0.01	< 0.01	< 0.01
cis-1,3-dichloropropene	DETSC 3431	0.01	mg/kg	< 0.01	< 0.01	< 0.01
Toluene	DETSC 3431	0.01	mg/kg	< 0.01	< 0.01	< 0.01
trans-1,3-dichloropropene	DETSC 3431	0.01	mg/kg	< 0.01	< 0.01	< 0.01
1,1,2-trichloroethane	DETSC 3431	0.01	mg/kg	< 0.01	< 0.01	< 0.01
Tetrachloroethylene	DETSC 3431	0.01	mg/kg	< 0.01	< 0.01	< 0.01
1,3-dichloropropane	DETSC 3431	0.01	mg/kg	< 0.01	< 0.01	< 0.01
Dibromochloromethane	DETSC 3431	0.01	mg/kg	< 0.01	< 0.01	< 0.01
1,2-dibromoethane	DETSC 3431	0.01	mg/kg	< 0.01	< 0.01	< 0.01
Chlorobenzene	DETSC 3431	0.01	mg/kg	< 0.01	< 0.01	< 0.01
1,1,1,2-tetrachloroethane	DETSC 3431	0.01	mg/kg	< 0.01	< 0.01	< 0.01
Ethylbenzene	DETSC 3431	0.01	mg/kg	< 0.01	< 0.01	< 0.01
m+p-Xylene	DETSC 3431	0.01	mg/kg	< 0.01	< 0.01	0.01
o-Xylene	DETSC 3431	0.01	mg/kg	< 0.01	< 0.01	< 0.01
Styrene	DETSC 3431*	0.01	mg/kg	< 0.01	< 0.01	< 0.01
Bromoform	DETSC 3431	0.01	mg/kg	< 0.01	< 0.01	< 0.01
Isopropylbenzene	DETSC 3431	0.01	mg/kg	< 0.01	< 0.01	< 0.01
Bromobenzene	DETSC 3431	0.01	mg/kg	< 0.01	< 0.01	< 0.01
1,2,3-trichloropropane	DETSC 3431	0.01	mg/kg	< 0.01	< 0.01	< 0.01
n-propylbenzene	DETSC 3431	0.01	mg/kg	< 0.01	< 0.01	< 0.01
2-chlorotoluene	DETSC 3431	0.01	mg/kg	< 0.01	< 0.01	< 0.01
1,3,5-trimethylbenzene	DETSC 3431	0.01	mg/kg	< 0.01	< 0.01	< 0.01
4-chlorotoluene	DETSC 3431	0.01	mg/kg	< 0.01	< 0.01	< 0.01
Tert-butylbenzene	DETSC 3431	0.01	mg/kg	< 0.01	< 0.01	< 0.01
1,2,4-trimethylbenzene	DETSC 3431	0.01	mg/kg	< 0.01	< 0.01	< 0.01

Summary of Chemical Analysis

Soil VOC/SVOC Samples

Our Ref 26-01999

Client Ref ~ 8353

Contract Title ~ Land Adjacent to Bealey Industrial Estate, Radcliffe

Lab No	2632905	2632908	2632911
Sample ID ~	WS209	WS210	WS212
Depth ~	0.80	1.80	0.70
Other ID ~			
Sample Type ~	SOIL	SOIL	SOIL
Sampling Date ~	23/01/2026	23/01/2026	23/01/2026
Sampling Time ~	n/s	n/s	n/s

Test	Method	LOD	Units			
sec-butylbenzene	DETSC 3431*	0.01	mg/kg	< 0.01	< 0.01	< 0.01
p-isopropyltoluene	DETSC 3431	0.01	mg/kg	< 0.01	< 0.01	< 0.01
1,3-dichlorobenzene	DETSC 3431	0.01	mg/kg	< 0.01	< 0.01	< 0.01
1,4-dichlorobenzene	DETSC 3431	0.01	mg/kg	< 0.01	< 0.01	< 0.01
n-butylbenzene	DETSC 3431	0.01	mg/kg	< 0.01	< 0.01	< 0.01
1,2-dichlorobenzene	DETSC 3431	0.01	mg/kg	< 0.01	< 0.01	< 0.01
1,2-dibromo-3-chloropropane	DETSC 3431	0.01	mg/kg	< 0.01	< 0.01	< 0.01
1,2,4-trichlorobenzene	DETSC 3431	0.01	mg/kg	< 0.01	< 0.01	< 0.01
Hexachlorobutadiene	DETSC 3431*	0.01	mg/kg	< 0.01	< 0.01	< 0.01
Naphthalene	DETSC 3431	0.01	mg/kg	< 0.01	< 0.01	
1,2,3-trichlorobenzene	DETSC 3431	0.01	mg/kg	< 0.01	< 0.01	< 0.01
MTBE	DETSC 3431*	0.01	mg/kg	< 0.01	< 0.01	< 0.01
TAME	DETSC 3431*	0.01	mg/kg	< 0.01	< 0.01	< 0.01
SVOCs						
Phenol	DETSC 3433	0.1	mg/kg	< 0.1	< 0.1	< 0.1
Aniline	DETSC 3433*	0.1	mg/kg	< 0.1	< 0.1	< 0.1
2-Chlorophenol	DETSC 3433	0.1	mg/kg	< 0.1	< 0.1	< 0.1
Benzyl Alcohol	DETSC 3433	0.1	mg/kg	< 0.1	< 0.1	< 0.1
2-Methylphenol	DETSC 3433	0.1	mg/kg	< 0.1	< 0.1	< 0.1
Bis(2-chloroisopropyl)ether	DETSC 3433	0.1	mg/kg	< 0.1	< 0.1	< 0.1
3&4-Methylphenol	DETSC 3433	0.1	mg/kg	< 0.1	< 0.1	< 0.1
2,4-Dimethylphenol	DETSC 3433	0.1	mg/kg	< 0.1	< 0.1	< 0.1
Bis-(dichloroethoxy)methane	DETSC 3433	0.1	mg/kg	< 0.1	< 0.1	< 0.1
2,4-Dichlorophenol	DETSC 3433	0.1	mg/kg	< 0.1	< 0.1	< 0.1
1,2,4-Trichlorobenzene	DETSC 3433	0.1	mg/kg	< 0.1	< 0.1	< 0.1
4-Chloro-3-methylphenol	DETSC 3433	0.1	mg/kg	< 0.1	< 0.1	< 0.1
2-Methylnaphthalene	DETSC 3433	0.1	mg/kg	< 0.1	< 0.1	< 0.1
Hexachlorocyclopentadiene	DETSC 3433*	0.1	mg/kg	< 0.1	< 0.1	< 0.1
2,4,6-Trichlorophenol	DETSC 3433	0.1	mg/kg	< 0.1	< 0.1	< 0.1
2,4,5-Trichlorophenol	DETSC 3433*	0.1	mg/kg	< 0.1	< 0.1	< 0.1
2-Chloronaphthalene	DETSC 3433	0.1	mg/kg	< 0.1	< 0.1	< 0.1
2-Nitroaniline	DETSC 3433*	0.1	mg/kg	< 0.1	< 0.1	< 0.1
2,4-Dinitrotoluene	DETSC 3433*	0.1	mg/kg	< 0.1	< 0.1	< 0.1
Acenaphthylene	DETSC 3433	0.1	mg/kg	< 0.1	< 0.1	
3-Nitroaniline	DETSC 3433*	0.1	mg/kg	< 0.1	< 0.1	< 0.1
Acenaphthene	DETSC 3433	0.1	mg/kg	0.2	< 0.1	
4-Nitrophenol	DETSC 3433*	0.1	mg/kg	< 0.1	< 0.1	< 0.1
Dibenzofuran	DETSC 3433	0.1	mg/kg	< 0.1	< 0.1	< 0.1
2,6-Dinitrotoluene	DETSC 3433	0.1	mg/kg	< 0.1	< 0.1	< 0.1
2,3,4,6-Tetrachlorophenol	DETSC 3433*	0.1	mg/kg	< 0.1	< 0.1	< 0.1
Diethylphthalate	DETSC 3433	0.1	mg/kg	< 0.1	< 0.1	< 0.1
4-Chlorophenylphenylether	DETSC 3433*	0.1	mg/kg	< 0.1	< 0.1	< 0.1

Summary of Chemical Analysis

Soil VOC/SVOC Samples

Our Ref 26-01999

Client Ref ~ 8353

Contract Title ~ Land Adjacent to Bealey Industrial Estate, Radcliffe

Lab No	2632905	2632908	2632911
Sample ID ~	WS209	WS210	WS212
Depth ~	0.80	1.80	0.70
Other ID ~			
Sample Type ~	SOIL	SOIL	SOIL
Sampling Date ~	23/01/2026	23/01/2026	23/01/2026
Sampling Time ~	n/s	n/s	n/s

Test	Method	LOD	Units			
Fluorene	DETSC 3433	0.1	mg/kg	< 0.1	< 0.1	
4-Nitroaniline	DETSC 3433*	0.1	mg/kg	< 0.1	< 0.1	< 0.1
2-Methyl-4,6-Dinitrophenol	DETSC 3433*	0.1	mg/kg	< 0.1	< 0.1	< 0.1
Diphenylamine	DETSC 3433	0.1	mg/kg	< 0.1	< 0.1	< 0.1
4-Bromophenylphenylether	DETSC 3433	0.1	mg/kg	< 0.1	< 0.1	< 0.1
Hexachlorobenzene	DETSC 3433	0.1	mg/kg	< 0.1	< 0.1	< 0.1
Pentachlorophenol	DETSC 3433*	0.1	mg/kg	< 0.1	< 0.1	< 0.1
Phenanthrene	DETSC 3433	0.1	mg/kg	0.8	0.2	
Anthracene	DETSC 3433	0.1	mg/kg	0.3	< 0.1	
Di-n-butylphthalate	DETSC 3433	0.1	mg/kg	< 0.1	< 0.1	< 0.1
Fluoranthene	DETSC 3433	0.1	mg/kg	1.2	0.2	
Pyrene	DETSC 3433	0.1	mg/kg	1.1	0.2	
Butylbenzylphthalate	DETSC 3433*	0.1	mg/kg	< 0.1	< 0.1	< 0.1
Benzo(a)anthracene	DETSC 3433	0.1	mg/kg	0.4	< 0.1	
Chrysene	DETSC 3433	0.1	mg/kg	0.6	0.1	
Bis(2-ethylhexyl)phthalate	DETSC 3433	0.1	mg/kg	< 0.1	< 0.1	< 0.1
Di-n-octylphthalate	DETSC 3433*	0.1	mg/kg	< 0.1	< 0.1	< 0.1
Benzo(b)fluoranthene	DETSC 3433	0.1	mg/kg	0.3	< 0.1	
Benzo(k)fluoranthene	DETSC 3433	0.1	mg/kg	0.2	< 0.1	
Benzo(a)pyrene	DETSC 3433	0.1	mg/kg	0.3	< 0.1	
Indeno(123cd)pyrene	DETSC 3433	0.1	mg/kg	< 0.1	< 0.1	
Dibenzo(ah)anthracene	DETSC 3433	0.1	mg/kg	< 0.1	< 0.1	
Benzo(ghi)perylene	DETSC 3433	0.1	mg/kg	< 0.1	< 0.1	
1,4-Dinitrobenzene	DETSC 3433*	0.1	mg/kg	< 0.1	< 0.1	< 0.1
Dimethylphthalate	DETSC 3433	0.1	mg/kg	< 0.1	< 0.1	< 0.1
1,3-Dinitrobenzene	DETSC 3433*	0.1	mg/kg	< 0.1	< 0.1	< 0.1
1,2-Dinitrobenzene	DETSC 3433*	0.1	mg/kg	< 0.1	< 0.1	< 0.1
2,3,5,6-Tetrachlorophenol	DETSC 3433*	0.1	mg/kg	< 0.1	< 0.1	< 0.1
Azobenzene	DETSC 3433	0.1	mg/kg	< 0.1	< 0.1	< 0.1
Carbazole	DETSC 3433*	0.1	mg/kg	< 0.1	< 0.1	< 0.1

Summary of Asbestos Analysis Soil Samples

Our Ref 26-01999

Client Ref ~ 8353

Contract Title ~ Land Adjacent to Bealey Industrial Estate, Radcliffe

Lab No	Sample ID	Material Type	Result	Comment*	Analyst
2632904	WS209 0.30	SOIL	NAD	none	Pierce Booth
2632906	WS210 0.90	SOIL	NAD	none	Pierce Booth
2632910	WS212 0.50	SOIL	NAD	none	Pierce Booth
2632911	WS212 0.70	SOIL	NAD	none	Pierce Booth
2632912	WS212 1.70	SOIL	NAD	none	Pierce Booth

Crocidolite = Blue Asbestos, Amosite = Brown Asbestos, Chrysotile = White Asbestos. Anthophyllite, Actinolite and Tremolite are other forms of Asbestos. Samples are analysed by DETSC 1101 using polarised light microscopy in accordance with HSG248 and documented in-house methods. NAD = No Asbestos Detected. Where a sample is NAD, the result is based on analysis of at least 2 sub-samples and should be taken to mean 'no asbestos detected in sample'. Key: * -not included in laboratory scope of accreditation.

Information in Support of the Analytical Results

Our Ref 26-01999
 Client Ref ~ 8353
 Contract ~ Land Adjacent to Bealey Industrial Estate, Radcliffe

Containers Received & Deviating Samples

Lab No	Sample ID ~	Date Sampled ~	Containers Received	Holding time exceeded for tests	Incorrect container for tests
2632904	WS209 0.30 SOIL	23/01/26	GJ 250ml x2, GJ 30ml x2		
2632905	WS209 0.80 SOIL	23/01/26	GJ 250ml x2, GJ 30ml x2		
2632906	WS210 0.90 SOIL	23/01/26	GJ 250ml x2, GJ 30ml x2		
2632907	WS210 1.60 SOIL	23/01/26	P(other) x2		PFAS Over temperature
2632908	WS210 1.80 SOIL	23/01/26	GJ 250ml x2, GJ 30ml x2		
2632909	WS211 0.50 SOIL	23/01/26	P(other) x2		PFAS Over temperature
2632910	WS212 0.50 SOIL	23/01/26	GJ 250ml x2, GJ 30ml x2		
2632911	WS212 0.70 SOIL	23/01/26	GJ 250ml x2, GJ 30ml x2		
2632912	WS212 1.70 SOIL	23/01/26	GJ 250ml x2, GJ 30ml x2		

Key: G-Glass J-Jar P-Plastic

Normec DETS cannot be held responsible for the integrity of samples received whereby the laboratory did not undertake the sampling. In this instance samples received may be deviating. Deviating Sample criteria are based on British and International standards and laboratory trials in conjunction with the UKAS note 'Guidance on Deviating Samples'. All samples received are listed above. However, those samples that have additional comments in relation to hold time, inappropriate containers etc are deviating due to the reasons stated. This means that the analysis is accredited where applicable, but results may be compromised due to sample deviations. If no sampled date (soils) or date+time (waters) has been supplied then samples are deviating. However, if you are able to supply a sampled date (and time for waters) this will prevent samples being reported as deviating where specific hold times are not exceeded and where the container supplied is suitable.

Soil Analysis Notes

Inorganic soil analysis was carried out on a dried sample, crushed to pass a 250µm sieve

Organic soil analysis was carried out on an 'as received' sample. Organics results are corrected for moisture and expressed on a dry weight basis.

The Loss on Drying, used to express organics analysis on an air dried basis, is carried out at a temperature of 28°C +/-2°C.

Disposal

From the issue date of this test certificate, samples will be held for the following times prior to disposal :-

Soils - 1 month, Liquids - 2 weeks, Asbestos (test portion) - 6 months

Appendix A - Details of Analysis

Method	Parameter	Units	Limit of Detection	Sample Preparation	Sub-Contracted	UKAS	MCERTS
DETSC 2002	Organic matter	%	0.1	Air Dried	No	Yes	Yes
DETSC 2003	Loss on ignition	%	0.01	Air Dried	No	Yes	Yes
DETSC 2008	pH	pH Units	1	Air Dried	No	Yes	Yes
DETSC 2076	Sulphate Aqueous Extract as SO ₄	mg/l	10	Air Dried	No	Yes	Yes
DETSC 2084	Total Organic Carbon	%	0.5	Air Dried	No	Yes	Yes
DETSC 2119	Ammoniacal Nitrogen as N	mg/kg	0.5	Air Dried	No	Yes	Yes
DETSC 2130	Cyanide free	mg/kg	0.1	Air Dried	No	Yes	Yes
DETSC 2130	Cyanide total	mg/kg	0.1	Air Dried	No	Yes	Yes
DETSC 2130	Phenol - Monohydric	mg/kg	0.3	Air Dried	No	Yes	Yes
DETSC 2130	Thiocyanate	mg/kg	0.6	Air Dried	No	Yes	Yes
DETSC 2301	Arsenic	mg/kg	0.2	Air Dried	No	Yes	Yes
DETSC 2301	Barium	mg/kg	1.5	Air Dried	No	Yes	Yes
DETSC 2301	Beryllium	mg/kg	0.2	Air Dried	No	Yes	Yes
DETSC 2301	Cadmium Available	mg/kg	0.1	Air Dried	No	Yes	Yes
DETSC 2301	Cadmium	mg/kg	0.1	Air Dried	No	Yes	Yes
DETSC 2301	Cobalt	mg/kg	0.7	Air Dried	No	Yes	Yes
DETSC 2301	Chromium	mg/kg	0.15	Air Dried	No	Yes	Yes
DETSC 2301	Copper	mg/kg	0.2	Air Dried	No	Yes	Yes
DETSC 2301	Manganese	mg/kg	20	Air Dried	No	Yes	Yes
DETSC 2301	Molybdenum	mg/kg	0.4	Air Dried	No	Yes	Yes
DETSC 2301	Nickel	mg/kg	1	Air Dried	No	Yes	Yes
DETSC 2301	Lead	mg/kg	0.3	Air Dried	No	Yes	Yes
DETSC 2301	Selenium	mg/kg	0.5	Air Dried	No	Yes	Yes
DETSC 2301	Zinc	mg/kg	1	Air Dried	No	Yes	Yes
DETSC 2311	Boron (water soluble)	mg/kg	0.2	Air Dried	No	Yes	Yes
DETSC 2321	Total Sulphate as SO ₄	%	0.01	Air Dried	No	Yes	Yes
DETSC 2325	Mercury	mg/kg	0.05	Air Dried	No	Yes	Yes
DETSC 3049	Sulphur (free)	mg/kg	0.75	As Received	No	Yes	Yes
DETSC 3072	Ali/Aro C10-C35	mg/kg	10	As Received	No	Yes	Yes
DETSC 3072	Aliphatic C10-C12	mg/kg	1.5	As Received	No	Yes	Yes
DETSC 3072	Aliphatic C10-C35	mg/kg	10	As Received	No	Yes	Yes
DETSC 3072	Aliphatic C12-C16	mg/kg	1.2	As Received	No	Yes	Yes
DETSC 3072	Aliphatic C16-C21	mg/kg	1.5	As Received	No	Yes	Yes
DETSC 3072	Aliphatic C21-C35	mg/kg	3.4	As Received	No	Yes	Yes
DETSC 3072	Aromatic C10-C12	mg/kg	0.9	As Received	No	Yes	Yes
DETSC 3072	Aromatic C10-C35	mg/kg	10	As Received	No	Yes	Yes
DETSC 3072	Aromatic C12-C16	mg/kg	0.5	As Received	No	Yes	Yes
DETSC 3072	Aromatic C16-C21	mg/kg	0.6	As Received	No	Yes	Yes
DETSC 3072	Aromatic C21-C35	mg/kg	1.4	As Received	No	Yes	Yes
DETSC 3303	Acenaphthene	mg/kg	0.03	As Received	No	Yes	Yes
DETSC 3303	Acenaphthylene	mg/kg	0.03	As Received	No	Yes	Yes
DETSC 3303	Benzo(a)pyrene	mg/kg	0.03	As Received	No	Yes	Yes
DETSC 3303	Benzo(a)anthracene	mg/kg	0.03	As Received	No	Yes	Yes
DETSC 3303	Benzo(b)fluoranthene	mg/kg	0.03	As Received	No	Yes	Yes
DETSC 3303	Benzo(k)fluoranthene	mg/kg	0.03	As Received	No	Yes	Yes
DETSC 3303	Benzo(g,h,i)perylene	mg/kg	0.03	As Received	No	Yes	Yes
DETSC 3303	Dibenzo(a,h)anthracene	mg/kg	0.03	As Received	No	Yes	Yes
DETSC 3303	Fluoranthene	mg/kg	0.03	As Received	No	Yes	Yes

Appendix A - Details of Analysis

Method	Parameter	Units	Limit of Detection	Sample Preparation	Sub-Contracted	UKAS	MCERTS
DETSC 3303	Indeno(1,2,3-c,d)pyrene	mg/kg	0.03	As Received	No	Yes	Yes
DETSC 3303	Naphthalene	mg/kg	0.03	As Received	No	Yes	Yes
DETSC 3303	Phenanthrene	mg/kg	0.03	As Received	No	Yes	Yes
DETSC 3303	Pyrene	mg/kg	0.03	As Received	No	Yes	Yes
DETSC 3311	C10-C24 Diesel Range Organics (DRO)	mg/kg	10	As Received	No	Yes	Yes
DETSC 3311	C24-C40 Lube Oil Range Organics (LORO)	mg/kg	10	As Received	No	Yes	Yes
DETSC 3311	EPH (C10-C40)	mg/kg	10	As Received	No	Yes	Yes
DETSC 3321	Benzene	mg/kg	0.01	As Received	No	Yes	Yes
DETSC 3321	Ethylbenzene	mg/kg	0.01	As Received	No	Yes	Yes
DETSC 3321	Toluene	mg/kg	0.01	As Received	No	Yes	Yes
DETSC 3321	Xylene	mg/kg	0.01	As Received	No	Yes	Yes
DETSC 3321	m+p Xylene	mg/kg	0.01	As Received	No	Yes	Yes
DETSC 3321	o Xylene	mg/kg	0.01	As Received	No	Yes	Yes
DETSC 3401	PCB 28 + PCB 31	mg/kg	0.01	As Received	No	Yes	Yes
DETSC 3401	PCB 52	mg/kg	0.01	As Received	No	Yes	Yes
DETSC 3401	PCB 101	mg/kg	0.01	As Received	No	Yes	Yes
DETSC 3401	PCB 118	mg/kg	0.01	As Received	No	Yes	Yes
DETSC 3401	PCB 153	mg/kg	0.01	As Received	No	Yes	Yes
DETSC 3401	PCB 138	mg/kg	0.01	As Received	No	Yes	Yes
DETSC 3401	PCB 180	mg/kg	0.01	As Received	No	Yes	Yes
DETSC 3401	PCB Total	mg/kg	0.01	As Received	No	Yes	Yes
DETSC 3521	Ali/Aro C10-C35	mg/kg	10	As Received	No	Yes	Yes
DETSC 3521	Aliphatic C10-C12	mg/kg	1.5	As Received	No	Yes	Yes
DETSC 3521	Aliphatic C10-C35	mg/kg	10	As Received	No	Yes	Yes
DETSC 3521	Aliphatic C12-C16	mg/kg	1.2	As Received	No	Yes	Yes
DETSC 3521	Aliphatic C16-C21	mg/kg	1.5	As Received	No	Yes	Yes
DETSC 3521	Aliphatic C21-C35	mg/kg	3.4	As Received	No	Yes	Yes
DETSC 3521	Aromatic C10-C12	mg/kg	0.9	As Received	No	Yes	Yes
DETSC 3521	Aromatic C10-C35	mg/kg	10	As Received	No	Yes	Yes
DETSC 3521	Aromatic C12-C16	mg/kg	0.5	As Received	No	Yes	Yes
DETSC 3521	Aromatic C16-C21	mg/kg	0.6	As Received	No	Yes	Yes
DETSC 3521	Aromatic C21-C35	mg/kg	1.4	As Received	No	Yes	Yes

Method details are shown only for those determinands listed in Annex A of the MCERTS standard. Anything not included on this list falls outside the scope of MCERTS. No Recovery Factors are used in the determination of results. Results reported assume 100% recovery. Full method statements are available on request.

Appendix A - Details of Analysis

Method	Parameter	Units	Limit of Detection	Sample Preparation	Sub-Contracted	UKAS	MCERTS
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Key:

~ Sample details are provided by the client and can affect the validity of the results

* -not accredited.

-MCERTS (accreditation only applies if report carries the MCERTS logo).

\$ -subcontracted.

n/s -not supplied.

I/S -insufficient sample.

U/S -unsuitable sample.

t/f -to follow.

nd -not detected.

End of Report

FINAL ANALYTICAL TEST REPORT

Envirolab Job Number: 26/02897

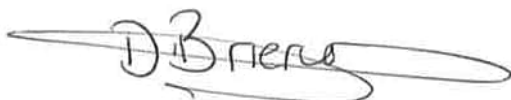
Issue Number: 1

Date: 13 March, 2026

Client: Murray Rix (Northern) Ltd
Andrew House
Hadfield Street
Dukinfield
SK16 4QX

Project Manager: Enquires/Owain Davies
Project Name: Land Adjacent to Bealey Industrial Estate
Project Ref: 8353
Order No: 26/107
Date Samples Received: 06/03/26
Date Instructions Received: 11/03/26
Date Analysis Completed: 13/03/26

Approved by:



Danielle Brierley
Client Services Supervisor

Envirolab Job Number: 26/02897

Client Project Name: Land Adjacent to Bealey Industrial Estate

Client Project Ref: 8353

Lab Sample ID	26/02897/1	26/02897/2	26/02897/3	26/02897/4	26/02897/5			Units	Limit of Detection	Method ref
Client Sample No	6044101	6044102	6044103	6044104	6044105					
Client Sample ID	BH1	BH2	BH2	BH3	BH3					
Depth to Top	0.0	0.0	3.0	0.0	3.0					
Depth To Bottom	4.45	1.65	5.45	2.45	4.45					
Date Sampled										
Sample Type	SOIL - B	SOIL - B	SOIL - B	SOIL - B	SOIL - B					
Sample Matrix Code	4A	4AE	4AE	4AE	4A					
Asbestos in Soil (inc. matrix) ^										
Asbestos in soil [#]	Chrysotile	NAD	Chrysotile	Chrysotile	NAD					A-T-045
Asbestos Matrix (visual) ₀	-	-	-	-	-					A-T-045
Asbestos Matrix (microscope) ₀	Loose Insulation & Loose Fibres	-	Loose Fibres	Loose Fibres	-					A-T-045
Asbestos ACM - Suitable for Water Absorption Test? ₀	N/A	N/A	N/A	N/A	N/A					A-T-045
Asbestos in Soil Quantification % (Hand Picking & Weighing)										
Asbestos in soil % composition (hand picking and weighing) ₀	0.003	-	0.003	<0.001	-			% w/w	0.001	A-T-054

Report Notes

General

- This report shall not be reproduced, except in full, without written approval from Envirolab.
- The client Sample No, Client Sample ID, Depth to top, Depth to Bottom and Date Sampled are all provided by the client and can affect the validity of results.
- The results reported herein relate only to the material supplied to the laboratory.
- The residue of any samples contained within this report, and any received within the same delivery, will be disposed of **four weeks** after the initial scheduling. For samples tested for Asbestos we will retain a portion of the dried sample for a minimum of **six months** after the initial Asbestos testing is completed.
- Analytical results reflect the quality of the sample at the time of analysis only.
- Opinions and Interpretations expressed are outside our scope of accreditation.
- A deviating sample report is appended and will indicate if samples or tests have been found to be deviating. Any test results affected may not be an accurate record of the concentration at the time of sampling and, as a result, may be invalid.
- If a sample is outside of the calibration range or affected by interferences then it may need diluting. This will result in the limit of detection (LOD) being raised.
- Subcontracted Analysis: Please see the appended report for any deviations, current LODs and accreditation status of the test.

Key

Superscript “#”	Accredited to ISO 17025
Superscript “M”	Accredited to MCertS
Superscript “U”	Individual result not accredited
None of the above symbols	Analysis unaccredited
Subscript “A”	Analysis performed on as-received Sample
Subscript “D”	Analysis performed on the dried sample, crushed to pass 2mm sieve.
Subscript “D” on Asbestos	Analysis performed on a dried aliquot of sample provided.
Subscript “A”	Analysis has dependant options against results. Details appear in the comments of your Sample receipt
IS	Insufficient Sample for analysis
US	Unsuitable Sample for analysis
NDP	No Determination Possible
NAD	No Asbestos Detected
Trace	Asbestos found not suitable for Gravimetric Quantification – not enough to accurately weigh.
N/A	Not applicable

Asbestos

Identification: Asbestos in soil analysis is performed on a dried aliquot of the submitted sample and cannot guarantee to identify asbestos if only present in small numbers as discrete fibres/fragments in the original sample.

Stones etc. are not removed from the sample prior to analysis

“Trace Asbestos Identified” will be reported if there is not enough present to verify the type.

Assigned Matrix Codes

1	SAND	6	CLAY/LOAM	A	Contains Stones
2	LOAM	7	OTHER	B	Contains Construction Rubble
3	CLAY	8	Asbestos Bulk (Only Asbestos ID accredited)	C	Contains visible hydrocarbons
4	LOAM/SAND	9	Incinerator Ash (some Metals accredited)	D	Contains glass / metal
5	SAND/CLAY			E	Contains roots / twigs
Note: 7,8,9 matrices are not covered by our ISO 17025 or MCertS accreditation, unless stated above.					

Soil Chemical Analysis:

All results are reported as dry weight (<40°C).

For samples with Matrix Codes 1 - 6 natural stones, brick and concrete fragments >10mm and any extraneous material (visible glass, metal or twigs) are removed and excluded from the sample prior to analysis and reported results corrected to a whole sample basis. This is reported as “% stones >10mm”.

For samples with Matrix Code 7 the whole sample is dried and crushed prior to analysis and this supersedes any “A” subscripts

All analysis is performed on the sample as received for soil samples which are positive for asbestos or the client has informed asbestos may be present and/or if they are from outside the European Union and this supersedes any “D” subscripts.

TPH by method A-T-007:

For waters, free and visible oils are excluded from the sample used for analysis, so the reported result represents the dissolved phase only.

Results “with Clean up” indicates samples cleaned up with Silica during extraction.

EPH CWG (method A-T-055) from TPH CWG:

EPH CWG results have humics mathematically subtracted through instrument calculation.

Where these humic substances have been identified in any IDs from “TPH CWG with clean up” please note that the concentration is **NOT** included in the quantified results but present in the ID for information.

Electrical Conductivity of water by method A-T-037:

Results greater than 12900µS/cm @ 25°C / 11550µS/cm @ 20°C fall outside the calibration range and as such are unaccredited.

Please contact your client manager if you require any further information.

Envirolab Deviating Samples Report

Hattersley Science & Technology Park, Stockport Road, Hattersley, SK14 3QU
Tel. 0161 368 4921 email. ask@envlab.co.uk

Client: Murray Rix (Northern) Ltd, Andrew House , Hadfield Street, Dukinfield, SK16 4QX

Project: Land Adjacent to Bealey Industrial Estate
Clients Project No: 8353

Project No: 26/02897
Date Received: 11/03/2026 (am)
Cool Box Temperatures (°C): 11.3

Lab Sample ID	26/02897/1	26/02897/2	26/02897/3	26/02897/4	26/02897/5
Client Sample No	6044101	6044102	6044103	6044104	6044105
Client Sample ID/Depth	BH1 0.0-4.45	BH2 0.0-1.65	BH2 3.0-5.45	BH3 0.0-2.45	BH3 3.0-4.45
Date Sampled					
Deviation Code					
E (no date)	✓	✓	✓	✓	✓

Key
E (no date) No sampling date provided (all results affected if not provided)

If, at any point before reaching the laboratory, the temperature of the samples has breached those set in published standards, e.g. BS-EN 5667-3, ISO 18400-102:2017, then the concentration of any affected analytes may differ from that at the time of sampling.

Envirolab Analysis Dates

Lab Sample ID	26/02897/1	26/02897/2	26/02897/3	26/02897/4	26/02897/5
Client Sample No	6044101	6044102	6044103	6044104	6044105
Client Sample ID/Depth	BH1 0.0-4.45	BH2 0.0-1.65	BH2 3.0-5.45	BH3 0.0-2.45	BH3 3.0-4.45
Date Sampled					
A-T-045	12/03/2026	12/03/2026	12/03/2026	12/03/2026	12/03/2026
A-T-054	13/03/2026		13/03/2026	13/03/2026	

The above dates are the analysis completion dates, please note that these are not necessarily the date that the analysis was weighed/extracted.

End of Report

Certificate of Analysis

Certificate Number 26-03725-1

Issued: 05-Mar-26

Client Coopers (Chester) Ltd
Park House
Sandpiper Court
Chester Business Park
Chester
CH4 9QU

Our Reference 26-03725-1

Client Reference ~ 8353

Order No ~ 10623-BH

Contract Title ~ Land Adjacent to Bealey Industrial Estate, Radcliffe

Description 7 Soil samples.

Date Received 17-Feb-26

Date Started 17-Feb-26

Date Completed 05-Mar-26

Test Procedures Identified by prefix DETSn (details on request).

Notes This report supersedes 26-03725; Sample info updated at client request

Opinions and interpretations are outside the laboratory's scope of ISO 17025 accreditation. 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 By




Louise Cook
Contracts Manager



Sample Deviations present. See Deviation Table Section for details.

Normec DETS Limited

Unit 2, Park Road Industrial Estate South, Consett, Co Durham, DH8 5PY
Tel: 01207 582333 • email: info-dets@normecgroup.com • normecdets.com

Summary of Chemical Analysis

Matrix Descriptions

Our Ref 26-03725-1

Client Ref ~ 8353

Contract Title ~ Land Adjacent to Bealey Industrial Estate, Radcliffe

Sample ID	Depth	Lab No	Completed	Matrix Description
TP101	0.2	2642980	04/03/2026	Dark brown very gravelly, sandy CLAY including odd rootlets (Possible made ground - brick)
TP101	0.8	2642981	04/03/2026	Dark brown very gravelly, sandy CLAY including odd rootlets (Possible made ground - brick)
BH03	0.3	2642985	04/03/2026	Dark brown very gravelly, sandy CLAY including odd rootlets (Possible made ground - brick)

Summary of Chemical Analysis

Soil Samples

Our Ref 26-03725-1

Client Ref ~ 8353

Contract Title ~ Land Adjacent to Bealey Industrial Estate, Radcliffe

Lab No	2642980	2642981	2642982	2642983	2642984	2642985	2642987
Sample ID ~	TP101	TP101	BH01	BH02	BH02	BH03	BH03
Depth ~	0.20	0.80	2.20	3.40	4.50	0.30	5.10
Other ID ~							
Sample Type ~	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL
Sampling Date ~	09/02/2026	09/02/2026	09/02/2026	10/02/2026	10/02/2026	10/02/2026	10/02/2026
Sampling Time ~	n/s	n/s	n/s	n/s	n/s	n/s	n/s

Test	Method	LOD	Units						
Metals									
Arsenic	DETSC 2301#	0.2	mg/kg	14	22			13	
Beryllium	DETSC 2301#	0.2	mg/kg	1.0	0.8			0.8	
Boron, Water Soluble (2.5:1)	DETSC 2311#	0.2	mg/kg	0.7	0.7			0.3	
Cadmium	DETSC 2301#	0.1	mg/kg	0.6	0.8			1.1	
Chromium	DETSC 2301#	0.15	mg/kg	30	37			26	
Chromium, Hexavalent	DETSC 2204*	1	mg/kg	< 1.0	< 1.0			< 1.0	
Copper	DETSC 2301#	0.2	mg/kg	73	65			80	
Lead	DETSC 2301#	0.3	mg/kg	130	210			170	
Mercury	DETSC 2325#	0.05	mg/kg	0.20	0.40			0.22	
Nickel	DETSC 2301#	1	mg/kg	23	27			22	
Selenium	DETSC 2301#	0.5	mg/kg	0.9	< 0.5			0.5	
Vanadium	DETSC 2301#	0.8	mg/kg	36	28			30	
Zinc	DETSC 2301#	1	mg/kg	160	160			170	
Inorganics									
pH	DETSC 2008#		pH	8.2	9.6			11.5	
Cyanide, Total	DETSC 2130#	0.1	mg/kg	0.4	0.3			0.5	
FOC	DETSC 2002	0.001		0.027	0.020			0.022	
Total Organic Carbon	DETSC 2002	0.1	%	2.7	2.0			2.1	
Sulphate Aqueous Extract as SO4 (2:1)	DETSC 2076#	10	mg/l	95	440			82	
Sulphate as SO4, Total	DETSC 2321#	0.01	%	0.10	0.23			0.19	
Petroleum Hydrocarbons									
Aliphatic C5-C6	DETSC 3321*	0.01	mg/kg		< 0.01		< 0.01		< 0.01
Aliphatic C6-C8	DETSC 3321*	0.01	mg/kg		< 0.01		< 0.01		< 0.01
Aliphatic C8-C10	DETSC 3321*	0.01	mg/kg		< 0.01		< 0.01		< 0.01
Aliphatic >EC10-EC12 Cleanup	DETSC 3521*	1.5	mg/kg		< 1.50		< 1.50		< 1.50
Aliphatic >EC12-EC16 Cleanup	DETSC 3521*	1.2	mg/kg		< 1.20		< 1.20		< 1.20
Aliphatic >EC16-EC21 Cleanup	DETSC 3521*	1.5	mg/kg		< 1.50		< 1.50		< 1.50
Aliphatic >EC21-EC24 Cleanup	DETSC 3521*	3.4	mg/kg		< 3.40		< 3.40		< 3.40
Aliphatic >EC21-EC35 Cleanup	DETSC 3521*	3.4	mg/kg		< 3.40		< 3.40		< 3.40
Aliphatic >EC24-EC35 Cleanup	DETSC 3521*	3.4	mg/kg		< 3.40		< 3.40		< 3.40
Aliphatic >EC10-EC35 Cleanup	DETSC 3521*	10	mg/kg		< 10.00		< 10.00		< 10.00
Aliphatic >EC10-EC40 Cleanup	DETSC 3521*	10	mg/kg		< 10.00		< 10.00		< 10.00
Aliphatic C5-C35 Cleanup	DETSC 3521*	10	mg/kg		< 10.00		< 10.00		< 10.00
Aromatic C5-C7	DETSC 3321*	0.01	mg/kg		< 0.01		< 0.01		< 0.01
Aromatic C7-C8	DETSC 3321*	0.01	mg/kg		< 0.01		< 0.01		< 0.01
Aromatic C8-C10	DETSC 3321*	0.01	mg/kg		< 0.01		< 0.01		< 0.01
Aromatic >EC10-EC12 Cleanup	DETSC 3521*	0.9	mg/kg		< 0.90		< 0.90		< 0.90
Aromatic >EC12-EC16 Cleanup	DETSC 3521*	0.5	mg/kg		5.79		< 0.50		< 0.50
Aromatic >EC16-EC21 Cleanup	DETSC 3521*	0.6	mg/kg		33.20		3.58		< 0.60
Aromatic >EC21-EC24 Cleanup	DETSC 3521*	1.4	mg/kg		29.57		< 1.40		< 1.40
Aromatic >EC21-EC35 Cleanup	DETSC 3521*	1.4	mg/kg		216.3		< 1.40		< 1.40

Summary of Chemical Analysis

Soil Samples

Our Ref 26-03725-1

Client Ref ~ 8353

Contract Title ~ Land Adjacent to Bealey Industrial Estate, Radcliffe

Lab No	2642980	2642981	2642982	2642983	2642984	2642985	2642987
Sample ID ~	TP101	TP101	BH01	BH02	BH02	BH03	BH03
Depth ~	0.20	0.80	2.20	3.40	4.50	0.30	5.10
Other ID ~							
Sample Type ~	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL
Sampling Date ~	09/02/2026	09/02/2026	09/02/2026	10/02/2026	10/02/2026	10/02/2026	10/02/2026
Sampling Time ~	n/s	n/s	n/s	n/s	n/s	n/s	n/s

Test	Method	LOD	Units						
Aromatic >EC24-EC35 Cleanup	DETS 3521*	1.4	mg/kg		186.8		< 1.40		< 1.40
Aromatic C5-C35 Cleanup	DETS 3521*	10	mg/kg		255.3		< 10.00		< 10.00
Aromatic >EC10-EC35 Cleanup	DETS 3521*	10	mg/kg		255.3		< 10.00		< 10.00
Aromatic >EC10-EC40 Cleanup	DETS 3521*	10	mg/kg		326.8		< 10.00		< 10.00
TPH Ali/Aro Total C5-C35 Cleanup	DETS 3521*	10	mg/kg		255.3		< 10.00		< 10.00
Benzene	DETS 3321#	0.01	mg/kg		< 0.01		< 0.01		< 0.01
Ethylbenzene	DETS 3321#	0.01	mg/kg		< 0.01		< 0.01		< 0.01
Toluene	DETS 3321#	0.01	mg/kg		< 0.01		< 0.01		< 0.01
Xylene	DETS 3321#	0.01	mg/kg		< 0.01		< 0.01		< 0.01
PAHs									
Naphthalene	DETS 3303#	0.03	mg/kg	< 0.03	< 0.03				0.39
Acenaphthylene	DETS 3303#	0.03	mg/kg	< 0.03	< 0.03				< 0.03
Acenaphthene	DETS 3303#	0.03	mg/kg	0.03	< 0.03				0.82
Fluorene	DETS 3303	0.03	mg/kg	< 0.03	< 0.03				0.54
Phenanthrene	DETS 3303#	0.03	mg/kg	0.24	0.24				3.6
Anthracene	DETS 3303	0.03	mg/kg	0.05	0.08				0.84
Fluoranthene	DETS 3303#	0.03	mg/kg	0.46	0.81				5.1
Pyrene	DETS 3303#	0.03	mg/kg	0.44	0.87				5.2
Benzo(a)anthracene	DETS 3303#	0.03	mg/kg	0.18	0.42				2.2
Chrysene	DETS 3303	0.03	mg/kg	0.18	0.25				1.8
Benzo(b)fluoranthene	DETS 3303#	0.03	mg/kg	0.21	0.48				2.3
Benzo(k)fluoranthene	DETS 3303#	0.03	mg/kg	0.07	0.16				0.75
Benzo(a)pyrene	DETS 3303#	0.03	mg/kg	0.16	0.38				1.7
Indeno(1,2,3-c,d)pyrene	DETS 3303#	0.03	mg/kg	0.08	0.19				0.68
Dibenzo(a,h)anthracene	DETS 3303#	0.03	mg/kg	< 0.03	0.05				0.20
Benzo(g,h,i)perylene	DETS 3303#	0.03	mg/kg	0.09	0.23				0.78
PAH - USEPA 16, Total	DETS 3303	0.1	mg/kg	2.2	4.2				27
Phenols									
Phenol - Monohydric	DETS 2130#	0.3	mg/kg	1.0	1.8				1.4
Per- and Polyfluoroalkyl subst									
Perfluoro-n-butanoic acid (PFBA)	DETS 3443*	0.7	ug/kg		< 0.70		< 0.70		
Perfluoro-n-pentanoic acid (PFPeA)	DETS 3443*	0.2	ug/kg		< 0.20		< 0.20		
Perfluoro-1-butanedisulfonate (PFBS)	DETS 3443*	0.3	ug/kg		< 0.30		< 0.30		
1H,1H,2H,2H-perfluoro-1-hexanesulfonate (4-2 FTSA)	DETS 3443*	0.7	ug/kg		< 0.70		< 0.70		
Perfluoro-n-hexanoic acid (PFHxA)	DETS 3443*	0.4	ug/kg		< 0.40		< 0.40		
Perfluoro-1-pentadisulfonate (PFPeS)	DETS 3443*	0.3	ug/kg		< 0.30		< 0.30		
Tetrafluoro-2-(heptafluoropropoxy)-propanoic acid (HFPO-DA)	DETS 3443*	0.7	ug/kg		< 0.70		< 0.70		
Perfluoro-n-heptanoic acid (PFHpA)	DETS 3443*	0.2	ug/kg		< 0.20		< 0.20		
Perfluorohexanesulfonate (PFHxS) (Linear+Branched)	DETS 3443*	0.2	ug/kg		< 0.20		< 0.20		

Summary of Chemical Analysis

Soil Samples

Our Ref 26-03725-1

Client Ref ~ 8353

Contract Title ~ Land Adjacent to Bealey Industrial Estate, Radcliffe

Lab No	2642980	2642981	2642982	2642983	2642984	2642985	2642987
Sample ID ~	TP101	TP101	BH01	BH02	BH02	BH03	BH03
Depth ~	0.20	0.80	2.20	3.40	4.50	0.30	5.10
Other ID ~							
Sample Type ~	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL
Sampling Date ~	09/02/2026	09/02/2026	09/02/2026	10/02/2026	10/02/2026	10/02/2026	10/02/2026
Sampling Time ~	n/s	n/s	n/s	n/s	n/s	n/s	n/s

Test	Method	LOD	Units						
Dodecafluoro-3H-4,8-dioxanonoate (DONA)	DETSC 3443*	0.6	ug/kg			< 0.60		< 0.60	
1H,1H,2H,2H-perfluoro-1-octanesulfonate (6-2 FTS)	DETSC 3443*	1	ug/kg			< 1.0		< 1.0	
Perfluoro-n-octanoic acid (PFOA)	DETSC 3443*	0.3	ug/kg			< 0.30		< 0.30	
Perfluoro-1-heptanesulfonate (PFHpS)	DETSC 3443*	0.3	ug/kg			< 0.30		< 0.30	
Perfluoro-n-nonanoic acid (PFNA)	DETSC 3443*	0.2	ug/kg			< 0.20		< 0.20	
Perfluorooctanesulfonate (PFOS) (Linear+Branched)	DETSC 3443*	0.8	ug/kg			< 0.80		< 0.80	
9-chlorohexadecafluoro-3-oxanonane-1-sulfonate (9Cl-PF3ONS)	DETSC 3443*	0.6	ug/kg			< 0.60		< 0.60	
1H,1H,2H,2H-perfluoro-1-decanesulfonate (8-2 FTSA)	DETSC 3443*	1.1	ug/kg			< 1.1		< 1.1	
Perfluoro-1-nonanesulfonate (PFNS)	DETSC 3443*	0.3	ug/kg			< 0.30		< 0.30	
Perfluoro-n-decanoic acid (PFDA)	DETSC 3443*	0.3	ug/kg			< 0.30		< 0.30	
N-methylperfluoro-1-octanesulfonamidoacetic acid (N-MeFOSAA)	DETSC 3443*	0.5	ug/kg			< 0.50		< 0.50	
Perfluoro-1-decanesulfonate (PFDS)	DETSC 3443*	0.3	ug/kg			< 0.30		< 0.30	
Perfluoro-n-undecanoic acid (PFUdA)	DETSC 3443*	0.3	ug/kg			< 0.30		< 0.30	
N-ethylperfluoro-1-octanesulfonamidoacetic acid (N-EtFOSAA total)	DETSC 3443*	0.4	ug/kg			< 0.40		0.56	
Perfluoro-1-octanesulfonamide (PFOSA)	DETSC 3443*	0.4	ug/kg			< 0.40		< 0.40	
11-chloroeicosafluoro-3-oxaundecane-1-sulfonate (11Cl-PF3OUdS)	DETSC 3443*	0.5	ug/kg			< 0.50		< 0.50	
Perfluoro-1-undecanesulfonate (L-PFUdS)	DETSC 3443*	0.2	ug/kg			< 0.20		< 0.20	
Perfluoro-n-dodecanoic acid (PFDoA)	DETSC 3443*	0.3	ug/kg			< 0.30		< 0.30	
Perfluoro-1-dodecanesulfonate (L-PFDoS)	DETSC 3443*	0.3	ug/kg			< 0.30		< 0.30	
Perfluoro-n-tridecanoic acid (PFTTrDA)	DETSC 3443*	0.3	ug/kg			< 0.30		< 0.30	
Perfluoro-1-tridecanesulfonate (L-PFTTrDS)	DETSC 3443*	0.3	ug/kg			< 0.30		< 0.30	
Perfluoro-n-tetradecanoic acid (PFTDA)	DETSC 3443*	0.3	ug/kg			< 0.30		< 0.30	
Perfluorohexanesulfonate (PFHxS) (Branched)	DETSC 3443*	0.1	ug/kg			0.18		< 0.10	
Perfluorohexanesulfonate (PFHxS) (Linear)	DETSC 3443*	0.2	ug/kg			< 0.20		< 0.20	
Perfluorooctanesulfonate (PFOS) (Branched)	DETSC 3443*	0.3	ug/kg			< 0.30		< 0.30	
Perfluorooctanesulfonate (PFOS) (Linear)	DETSC 3443*	0.6	ug/kg			< 0.60		< 0.60	
N-methylperfluoro-1-octanesulfonamidoacetic acid (N-MeFOSAA)	DETSC 3443*	0.2	ug/kg			< 0.20		< 0.20	
N-methylperfluoro-1-octanesulfonamidoacetic acid (N-MeFOSAA)	DETSC 3443*	0.4	ug/kg			< 0.40		< 0.40	
N-ethylperfluoro-1-octanesulfonamidoacetic acid (N-EtFOSAA branch)	DETSC 3443*	0.2	ug/kg			< 0.20		< 0.20	

Summary of Chemical Analysis

Soil Samples

Our Ref 26-03725-1

Client Ref ~ 8353

Contract Title ~ Land Adjacent to Bealey Industrial Estate, Radcliffe

Lab No	2642980	2642981	2642982	2642983	2642984	2642985	2642987
Sample ID ~	TP101	TP101	BH01	BH02	BH02	BH03	BH03
Depth ~	0.20	0.80	2.20	3.40	4.50	0.30	5.10
Other ID ~							
Sample Type ~	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL
Sampling Date ~	09/02/2026	09/02/2026	09/02/2026	10/02/2026	10/02/2026	10/02/2026	10/02/2026
Sampling Time ~	n/s	n/s	n/s	n/s	n/s	n/s	n/s

Test	Method	LOD	Units						
N-ethylperfluoro-1-octanesulfonamidoacetic acid (N-EtFOSAA Linear)	DETSC 3443*	0.4	ug/kg			< 0.40		0.47	
Perfluoro-1-undecanesulfonic acid (L-PFUDS)	DETSC 3443*	0.1936	ug/kg			< 0.19		< 0.19	

Summary of Asbestos Analysis Soil Samples

Our Ref 26-03725-1

Client Ref ~ 8353

Contract Title ~ Land Adjacent to Bealey Industrial Estate, Radcliffe

Lab No	Sample ID	Material Type	Result	Comment*	Analyst
2642980	TP101 0.20	SOIL	NAD	none	Lee Kerridge
2642981	TP101 0.80	SOIL	NAD	none	Lee Kerridge
2642985	BH03 0.30	SOIL	Chrysotile	Chrysotile bundles present	Lee Kerridge

Crocidolite = Blue Asbestos, Amosite = Brown Asbestos, Chrysotile = White Asbestos. Anthophyllite, Actinolite and Tremolite are other forms of Asbestos. Samples are analysed by DETSC 1101 using polarised light microscopy in accordance with HSG248 and documented in-house methods. NAD = No Asbestos Detected. Where a sample is NAD, the result is based on analysis of at least 2 sub-samples and should be taken to mean 'no asbestos detected in sample'. Key: * -not included in laboratory scope of accreditation.

Information in Support of the Analytical Results

Our Ref 26-03725-1

Client Ref ~ 8353

Contract ~ Land Adjacent to Bealey Industrial Estate, Radcliffe

Containers Received & Deviating Samples

Lab No	Sample ID ~	Date		Containers Received	Holding time exceeded for tests	Incorrect container for tests
		Sampled ~				
2642980	TP101 0.20 SOIL	09/02/26		GJ 250ml x2, GJ 60ml x2	pH + Conductivity (7 days)	
2642981	TP101 0.80 SOIL	09/02/26		GJ 250ml x2, GJ 60ml x2	pH + Conductivity (7 days)	
2642982	BH01 2.20 SOIL	09/02/26		P(other) x2		PFAS Over temperature
2642983	BH02 3.40 SOIL	10/02/26		GJ 250ml x2, GJ 60ml x2		
2642984	BH02 4.50 SOIL	10/02/26		P(other) x2		PFAS Over temperature
2642985	BH03 0.30 SOIL	10/02/26		GJ 250ml x2, GJ 60ml x2		
2642987	BH03 5.10 SOIL	10/02/26		GJ 250ml x2, GJ 60ml x2		

Key: G-Glass J-Jar P-Plastic

Normec DETS cannot be held responsible for the integrity of samples received whereby the laboratory did not undertake the sampling. In this instance samples received may be deviating. Deviating Sample criteria are based on British and International standards and laboratory trials in conjunction with the UKAS note 'Guidance on Deviating Samples'. All samples received are listed above. However, those samples that have additional comments in relation to hold time, inappropriate containers etc are deviating due to the reasons stated. This means that the analysis is accredited where applicable, but results may be compromised due to sample deviations. If no sampled date (soils) or date+time (waters) has been supplied then samples are deviating. However, if you are able to supply a sampled date (and time for waters) this will prevent samples being reported as deviating where specific hold times are not exceeded and where the container supplied is suitable.

Soil Analysis Notes

Inorganic soil analysis was carried out on a dried sample, crushed to pass a 250µm sieve

Organic soil analysis was carried out on an 'as received' sample. Organics results are corrected for moisture and expressed on a dry weight basis.

The Loss on Drying, used to express organics analysis on an air dried basis, is carried out at a temperature of 28°C +/-2°C.

Disposal

From the issue date of this test certificate, samples will be held for the following times prior to disposal :-

Soils - 1 month, Liquids - 2 weeks, Asbestos (test portion) - 6 months

Appendix A - Details of Analysis

Method	Parameter	Units	Limit of Detection	Sample Preparation	Sub-Contracted	UKAS	MCERTS
DETS 2002	Organic matter	%	0.1	Air Dried	No	Yes	Yes
DETS 2003	Loss on ignition	%	0.01	Air Dried	No	Yes	Yes
DETS 2008	pH	pH Units	1	Air Dried	No	Yes	Yes
DETS 2076	Sulphate Aqueous Extract as SO ₄	mg/l	10	Air Dried	No	Yes	Yes
DETS 2084	Total Organic Carbon	%	0.5	Air Dried	No	Yes	Yes
DETS 2119	Ammoniacal Nitrogen as N	mg/kg	0.5	Air Dried	No	Yes	Yes
DETS 2130	Cyanide free	mg/kg	0.1	Air Dried	No	Yes	Yes
DETS 2130	Cyanide total	mg/kg	0.1	Air Dried	No	Yes	Yes
DETS 2130	Phenol - Monohydric	mg/kg	0.3	Air Dried	No	Yes	Yes
DETS 2130	Thiocyanate	mg/kg	0.6	Air Dried	No	Yes	Yes
DETS 2301	Arsenic	mg/kg	0.2	Air Dried	No	Yes	Yes
DETS 2301	Barium	mg/kg	1.5	Air Dried	No	Yes	Yes
DETS 2301	Beryllium	mg/kg	0.2	Air Dried	No	Yes	Yes
DETS 2301	Cadmium Available	mg/kg	0.1	Air Dried	No	Yes	Yes
DETS 2301	Cadmium	mg/kg	0.1	Air Dried	No	Yes	Yes
DETS 2301	Cobalt	mg/kg	0.7	Air Dried	No	Yes	Yes
DETS 2301	Chromium	mg/kg	0.15	Air Dried	No	Yes	Yes
DETS 2301	Copper	mg/kg	0.2	Air Dried	No	Yes	Yes
DETS 2301	Manganese	mg/kg	20	Air Dried	No	Yes	Yes
DETS 2301	Molybdenum	mg/kg	0.4	Air Dried	No	Yes	Yes
DETS 2301	Nickel	mg/kg	1	Air Dried	No	Yes	Yes
DETS 2301	Lead	mg/kg	0.3	Air Dried	No	Yes	Yes
DETS 2301	Selenium	mg/kg	0.5	Air Dried	No	Yes	Yes
DETS 2301	Zinc	mg/kg	1	Air Dried	No	Yes	Yes
DETS 2311	Boron (water soluble)	mg/kg	0.2	Air Dried	No	Yes	Yes
DETS 2321	Total Sulphate as SO ₄	%	0.01	Air Dried	No	Yes	Yes
DETS 2325	Mercury	mg/kg	0.05	Air Dried	No	Yes	Yes
DETS 3049	Sulphur (free)	mg/kg	0.75	As Received	No	Yes	Yes
DETS 3072	Ali/Aro C10-C35	mg/kg	10	As Received	No	Yes	Yes
DETS 3072	Aliphatic C10-C12	mg/kg	1.5	As Received	No	Yes	Yes
DETS 3072	Aliphatic C10-C35	mg/kg	10	As Received	No	Yes	Yes
DETS 3072	Aliphatic C12-C16	mg/kg	1.2	As Received	No	Yes	Yes
DETS 3072	Aliphatic C16-C21	mg/kg	1.5	As Received	No	Yes	Yes
DETS 3072	Aliphatic C21-C35	mg/kg	3.4	As Received	No	Yes	Yes
DETS 3072	Aromatic C10-C12	mg/kg	0.9	As Received	No	Yes	Yes
DETS 3072	Aromatic C10-C35	mg/kg	10	As Received	No	Yes	Yes
DETS 3072	Aromatic C12-C16	mg/kg	0.5	As Received	No	Yes	Yes
DETS 3072	Aromatic C16-C21	mg/kg	0.6	As Received	No	Yes	Yes
DETS 3072	Aromatic C21-C35	mg/kg	1.4	As Received	No	Yes	Yes
DETS 3303	Acenaphthene	mg/kg	0.03	As Received	No	Yes	Yes
DETS 3303	Acenaphthylene	mg/kg	0.03	As Received	No	Yes	Yes
DETS 3303	Benzo(a)pyrene	mg/kg	0.03	As Received	No	Yes	Yes
DETS 3303	Benzo(a)anthracene	mg/kg	0.03	As Received	No	Yes	Yes
DETS 3303	Benzo(b)fluoranthene	mg/kg	0.03	As Received	No	Yes	Yes
DETS 3303	Benzo(k)fluoranthene	mg/kg	0.03	As Received	No	Yes	Yes
DETS 3303	Benzo(g,h,i)perylene	mg/kg	0.03	As Received	No	Yes	Yes
DETS 3303	Dibenzo(a,h)anthracene	mg/kg	0.03	As Received	No	Yes	Yes
DETS 3303	Fluoranthene	mg/kg	0.03	As Received	No	Yes	Yes

Appendix A - Details of Analysis

Method	Parameter	Units	Limit of Detection	Sample Preparation	Sub-Contracted	UKAS	MCERTS
DETSC 3303	Indeno(1,2,3-c,d)pyrene	mg/kg	0.03	As Received	No	Yes	Yes
DETSC 3303	Naphthalene	mg/kg	0.03	As Received	No	Yes	Yes
DETSC 3303	Phenanthrene	mg/kg	0.03	As Received	No	Yes	Yes
DETSC 3303	Pyrene	mg/kg	0.03	As Received	No	Yes	Yes
DETSC 3311	C10-C24 Diesel Range Organics (DRO)	mg/kg	10	As Received	No	Yes	Yes
DETSC 3311	C24-C40 Lube Oil Range Organics (LORO)	mg/kg	10	As Received	No	Yes	Yes
DETSC 3311	EPH (C10-C40)	mg/kg	10	As Received	No	Yes	Yes
DETSC 3321	Benzene	mg/kg	0.01	As Received	No	Yes	Yes
DETSC 3321	Ethylbenzene	mg/kg	0.01	As Received	No	Yes	Yes
DETSC 3321	Toluene	mg/kg	0.01	As Received	No	Yes	Yes
DETSC 3321	Xylene	mg/kg	0.01	As Received	No	Yes	Yes
DETSC 3321	m+p Xylene	mg/kg	0.01	As Received	No	Yes	Yes
DETSC 3321	o Xylene	mg/kg	0.01	As Received	No	Yes	Yes
DETSC 3401	PCB 28 + PCB 31	mg/kg	0.01	As Received	No	Yes	Yes
DETSC 3401	PCB 52	mg/kg	0.01	As Received	No	Yes	Yes
DETSC 3401	PCB 101	mg/kg	0.01	As Received	No	Yes	Yes
DETSC 3401	PCB 118	mg/kg	0.01	As Received	No	Yes	Yes
DETSC 3401	PCB 153	mg/kg	0.01	As Received	No	Yes	Yes
DETSC 3401	PCB 138	mg/kg	0.01	As Received	No	Yes	Yes
DETSC 3401	PCB 180	mg/kg	0.01	As Received	No	Yes	Yes
DETSC 3401	PCB Total	mg/kg	0.01	As Received	No	Yes	Yes
DETSC 3521	Ali/Aro C10-C35	mg/kg	10	As Received	No	Yes	Yes
DETSC 3521	Aliphatic C10-C12	mg/kg	1.5	As Received	No	Yes	Yes
DETSC 3521	Aliphatic C10-C35	mg/kg	10	As Received	No	Yes	Yes
DETSC 3521	Aliphatic C12-C16	mg/kg	1.2	As Received	No	Yes	Yes
DETSC 3521	Aliphatic C16-C21	mg/kg	1.5	As Received	No	Yes	Yes
DETSC 3521	Aliphatic C21-C35	mg/kg	3.4	As Received	No	Yes	Yes
DETSC 3521	Aromatic C10-C12	mg/kg	0.9	As Received	No	Yes	Yes
DETSC 3521	Aromatic C10-C35	mg/kg	10	As Received	No	Yes	Yes
DETSC 3521	Aromatic C12-C16	mg/kg	0.5	As Received	No	Yes	Yes
DETSC 3521	Aromatic C16-C21	mg/kg	0.6	As Received	No	Yes	Yes
DETSC 3521	Aromatic C21-C35	mg/kg	1.4	As Received	No	Yes	Yes

Method details are shown only for those determinands listed in Annex A of the MCERTS standard. Anything not included on this list falls outside the scope of MCERTS. No Recovery Factors are used in the determination of results. Results reported assume 100% recovery. Full method statements are available on request.

Appendix A - Details of Analysis

Method	Parameter	Units	Limit of Detection	Sample Preparation	Sub-Contracted	UKAS	MCERTS
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Key:

~ Sample details are provided by the client and can affect the validity of the results

* -not accredited.

-MCERTS (accreditation only applies if report carries the MCERTS logo).

\$ -subcontracted.

n/s -not supplied.

I/S -insufficient sample.

U/S -unsuitable sample.

t/f -to follow.

nd -not detected.

End of Report

Certificate of Analysis

Certificate Number 26-05668

Issued: 25-Mar-26

Client Coopers (Chester) Ltd
Park House
Sandpiper Court
Chester Business Park
Chester
CH4 9QU

Our Reference 26-05668

Client Reference ~ 8353

Order No ~ 10670-ST

Contract Title ~ Land Adjacent to Bealey Industrial Estate, Radcliffe

Description 1 Soil sample.

Date Received 10-Mar-26

Date Started 10-Mar-26

Date Completed 25-Mar-26

Test Procedures Identified by prefix DETSn (details on request).

Notes Opinions and interpretations are outside the laboratory's scope of ISO 17025 accreditation. 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 By

A handwritten signature in black ink, appearing to read "R. Irfan".

Reyhan Irfan
Operations Manager



Sample Deviations present. See Deviation Table Section for details.

Summary of Chemical Analysis

Soil Samples

Our Ref 26-05668

Client Ref ~ 8353

Contract Title ~ Land Adjacent to Bealey Industrial Estate, Radcliffe

Lab No	2653609
Sample ID ~	BH03
Depth ~	2.20
Other ID ~	
Sample Type ~	SOIL
Sampling Date ~	11/02/2026
Sampling Time ~	n/s

Test	Method	LOD	Units	
Per- and Polyfluoroalkyl substances (I				
Perfluoro-n-butanoic acid (PFBA)	DETSC 3443	0.7	ug/kg	< 0.70
Perfluoro-n-pentanoic acid (PFPeA)	DETSC 3443	0.2	ug/kg	< 0.20
Perfluoro-1-butanedisulfonate (PFBS)	DETSC 3443	0.3	ug/kg	< 0.30
1H,1H,2H,2H-perfluoro-1-hexanesulfonate (4-2 FTSA)	DETSC 3443*	0.7	ug/kg	< 0.70
Perfluoro-n-hexanoic acid (PFHxA)	DETSC 3443	0.4	ug/kg	< 0.40
Perfluoro-1-pentanesulfonate (PFPeS)	DETSC 3443	0.3	ug/kg	< 0.30
Tetrafluoro-2-(heptafluoropropoxy)-propanoic acid (HFPO-DA)	DETSC 3443	0.7	ug/kg	< 0.70
Perfluoro-n-heptanoic acid (PFHpA)	DETSC 3443	0.2	ug/kg	< 0.20
Perfluorohexanesulfonate (PFHxS) (Linear+Branched)	DETSC 3443	0.2	ug/kg	< 0.20
Dodecafluoro-3H-4,8-dioxanonanoate (DONA)	DETSC 3443	0.6	ug/kg	< 0.60
1H,1H,2H,2H-perfluoro-1-octanesulfonate (6-2 FTS)	DETSC 3443*	1	ug/kg	< 1.0
Perfluoro-n-octanoic acid (PFOA)	DETSC 3443	0.3	ug/kg	0.36
Perfluoro-1-heptanesulfonate (PFHpS)	DETSC 3443	0.3	ug/kg	< 0.30
Perfluoro-n-nonanoic acid (PFNA)	DETSC 3443	0.2	ug/kg	< 0.20
Perfluorooctanesulfonate (PFOS) (Linear+Branched)	DETSC 3443	0.8	ug/kg	3.1
9-chlorohexadecafluoro-3-oxanonane-1-sulfonate (9Cl-PF3ONS)	DETSC 3443*	0.6	ug/kg	< 0.60
1H,1H,2H,2H-perfluoro-1-decanesulfonate (8-2 FTSA)	DETSC 3443*	1.1	ug/kg	< 1.1
Perfluoro-1-nonanesulfonate (PFNS)	DETSC 3443	0.3	ug/kg	< 0.30
Perfluoro-n-decanoic acid (PFDA)	DETSC 3443	0.3	ug/kg	< 0.30
N-methylperfluoro-1-octanesulfonamidoacetic acid (N-MeFOSAA)	DETSC 3443	0.5	ug/kg	< 0.50
Perfluoro-1-decanesulfonate (PFDS)	DETSC 3443	0.3	ug/kg	< 0.30
Perfluoro-n-undecanoic acid (PFUdA)	DETSC 3443	0.3	ug/kg	< 0.30
N-ethylperfluoro-1-octanesulfonamidoacetic acid (N-EtFOSAA total)	DETSC 3443	0.4	ug/kg	< 0.40
Perfluoro-1-octanesulfonamide (PFOSA)	DETSC 3443	0.4	ug/kg	< 0.40
11-chlorooctadecafluoro-3-oxaundecane-1-sulfonate (11Cl-PF3OUdS)	DETSC 3443*	0.5	ug/kg	< 0.50
Perfluoro-1-undecanesulfonate (L-PFUdS)	DETSC 3443	0.2	ug/kg	< 0.20
Perfluoro-n-dodecanoic acid (PFDoA)	DETSC 3443	0.3	ug/kg	< 0.30
Perfluoro-1-dodecanesulfonate (L-PFDoS)	DETSC 3443	0.3	ug/kg	< 0.30
Perfluoro-n-tridecanoic acid (PFTrDA)	DETSC 3443*	0.3	ug/kg	< 0.30
Perfluoro-1-tridecanesulfonate (L-PFTrDS)	DETSC 3443	0.3	ug/kg	< 0.30
Perfluoro-n-tetradecanoic acid (PFTDA)	DETSC 3443*	0.3	ug/kg	< 0.30

Summary of Chemical Analysis Soil Samples

Our Ref 26-05668

Client Ref ~ 8353

Contract Title ~ Land Adjacent to Bealey Industrial Estate, Radcliffe

Lab No	2653609
Sample ID ~	BH03
Depth ~	2.20
Other ID ~	
Sample Type ~	SOIL
Sampling Date ~	11/02/2026
Sampling Time ~	n/s

Test	Method	LOD	Units	
Perfluorohexanesulfonate (PFHxS) (Branched)	DETSC 3443	0.1	ug/kg	< 0.10
Perfluorohexanesulfonate (PFHxS) (Linear)	DETSC 3443	0.2	ug/kg	< 0.20
Perfluorooctanesulfonate (PFOS) (Branched)	DETSC 3443	0.3	ug/kg	0.40
Perfluorooctanesulfonate (PFOS) (Linear)	DETSC 3443	0.6	ug/kg	2.7
N-methylperfluoro-1-octanesulfonamidoacetic acid (N-MeFOSAA)	DETSC 3443	0.2	ug/kg	< 0.20
N-methylperfluoro-1-octanesulfonamidoacetic acid (N-MeFOSAA)	DETSC 3443	0.4	ug/kg	< 0.40
N-ethylperfluoro-1-octanesulfonamidoacetic acid (N-EtFOSAA branch)	DETSC 3443	0.2	ug/kg	< 0.20
N-ethylperfluoro-1-octanesulfonamidoacetic acid (N-EtFOSAA Linear)	DETSC 3443	0.4	ug/kg	< 0.40
Perfluoro-1-undecanesulfonic acid (L-PFUDS)	DETSC 3443*	0.1936	ug/kg	< 0.19

Information in Support of the Analytical Results

Our Ref 26-05668

Client Ref ~ 8353

Contract ~ Land Adjacent to Bealey Industrial Estate, Radcliffe

Containers Received & Deviating Samples

Lab No	Sample ID ~	Date		Containers Received	Holding time exceeded for tests	Incorrect container for tests
		Sampled ~				
2653609	BH03 2.20 SOIL	11/02/26		P(other) x2	PFAS Soil (14 days)	PFAS Over temperature

Key: P-Plastic

Normec DETS cannot be held responsible for the integrity of samples received whereby the laboratory did not undertake the sampling. In this instance samples received may be deviating. Deviating Sample criteria are based on British and International standards and laboratory trials in conjunction with the UKAS note 'Guidance on Deviating Samples'. All samples received are listed above. However, those samples that have additional comments in relation to hold time, inappropriate containers etc are deviating due to the reasons stated. This means that the analysis is accredited where applicable, but results may be compromised due to sample deviations. If no sampled date (soils) or date+time (waters) has been supplied then samples are deviating. However, if you are able to supply a sampled date (and time for waters) this will prevent samples being reported as deviating where specific hold times are not exceeded and where the container supplied is suitable.

Soil Analysis Notes

Inorganic soil analysis was carried out on a dried sample, crushed to pass a 250µm sieve

Organic soil analysis was carried out on an 'as received' sample. Organics results are corrected for moisture and expressed on a dry weight basis.

The Loss on Drying, used to express organics analysis on an air dried basis, is carried out at a temperature of 28°C +/-2°C.

Disposal

From the issue date of this test certificate, samples will be held for the following times prior to disposal :-

Soils - 1 month, Liquids - 2 weeks, Asbestos (test portion) - 6 months

Key:

~ Sample details are provided by the client and can affect the validity of the results

* -not accredited.

-MCERTS (accreditation only applies if report carries the MCERTS logo).

\$ -subcontracted.

n/s -not supplied.

I/S -insufficient sample.

U/S -unsuitable sample.

t/f -to follow.

nd -not detected.

End of Report Ver 26.03.15

Certificate of Analysis

Certificate Number 26-05674

Issued: 24-Mar-26

Client Coopers (Chester) Ltd
Park House
Sandpiper Court
Chester Business Park
Chester
CH4 9QU

Our Reference 26-05674

Client Reference ~ 8353

Order No ~ 10666-ST

Contract Title ~ Land Adjacent to Bealey Industrial Estate, Radcliffe

Description 12 Water No Information Supplied samples.

Date Received 10-Mar-26

Date Started 10-Mar-26

Date Completed 24-Mar-26

Test Procedures Identified by prefix DETSn (details on request).

Notes 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 By

A handwritten signature in black ink, appearing to read "R Irfan".

Reyhan Irfan
Operations Manager

Sample Deviations present. See Deviation Table Section for details.

Normec DETS Limited

Summary of Chemical Analysis

Water Samples

Our Ref 26-05674

Client Ref ~ 8353

Contract Title ~ Land Adjacent to Bealey Industrial Estate, Radcliffe

Lab No

Sample ID ~

Depth ~

Other ID ~

Sample Type ~

Sampling Date ~

Sampling Time ~

2653614	2653615	2653616	2653617	2653618	2653619
BH01 PFAS	BH01 LF2	BH02 PFAS	BH02 LF2	BH03 PFAS	BH03 LF2
1.32	1.32	3.54	3.54	3.20	3.20
WATER UNKNOWN	WATER UNKNOWN	WATER UNKNOWN	WATER UNKNOWN	WATER UNKNOWN	WATER UNKNOWN
05/03/2026	05/03/2026	05/03/2026	05/03/2026	05/03/2026	05/03/2026
n/s	n/s	n/s	n/s	n/s	n/s

Test	Method	LOD	Units						
Metals									
Arsenic, Dissolved	DETSC 2306	0.16	ug/l		1.13		1.48		2.49
Beryllium, Dissolved	DETSC 2306*	0.1	ug/l		< 0.10		< 0.10		< 0.10
Boron, Dissolved	DETSC 2306*	12	ug/l		128.2		171.5		117.9
Cadmium, Dissolved	DETSC 2306	0.03	ug/l		0.05		< 0.03		< 0.03
Chromium, Dissolved	DETSC 2306	0.25	ug/l		< 0.25		0.29		0.31
Copper, Dissolved	DETSC 2306	0.4	ug/l		1.68		< 0.40		0.42
Lead, Dissolved	DETSC 2306	0.09	ug/l		0.32		1.96		0.79
Mercury, Dissolved	DETSC 2306	0.01	ug/l		< 0.01		< 0.01		0.02
Nickel, Dissolved	DETSC 2306	0.5	ug/l		3.41		2.28		4.23
Selenium, Dissolved	DETSC 2306	0.25	ug/l		0.40		< 0.25		1.64
Vanadium, Dissolved	DETSC 2306	0.6	ug/l		0.63		< 0.60		< 0.60
Zinc, Dissolved	DETSC 2306	1.3	ug/l		126.6		69.54		76.88
Inorganics									
pH	DETSC 2008		pH		7.4		7.4		7.1
Alkalinity as CaCO3 (Automated)	DETSC 2030	10	mg/l		410		650		410
Alkalinity as CaCO3 (Manual)	DETSC 2030	10	mg/l		410		650		410
Cyanide, Total	DETSC 2130	40	ug/l		< 40		< 40		< 40
Dissolved Organic Carbon	DETSC 2085	2	mg/l		3.7		7.7		4.7
Sulphate as SO4	DETSC 2055	0.1	mg/l		170		270		25
Petroleum Hydrocarbons									
Aliphatic C5-C6	DETSC 3322	0.1	ug/l		< 0.1		< 0.1		< 0.1
Aliphatic C6-C8	DETSC 3322	0.1	ug/l		< 0.1		< 0.1		< 0.1
Aliphatic C8-C10	DETSC 3322	0.1	ug/l		< 0.1		< 0.1		< 0.1
Aliphatic C10-C12	DETSC 3072*	1	ug/l		< 1.0		< 1.0		< 1.0
Aliphatic C12-C16	DETSC 3072*	1	ug/l		< 1.0		< 1.0		< 1.0
Aliphatic C16-C21	DETSC 3072*	1	ug/l		< 1.0		< 1.0		< 1.0
Aliphatic C21-C35	DETSC 3072*	1	ug/l		< 1.0		< 1.0		< 1.0
Aliphatic C5-C35	DETSC 3072*	10	ug/l		< 10		< 10		< 10
Aromatic C5-C7	DETSC 3322	0.1	ug/l		< 0.1		< 0.1		< 0.1
Aromatic C7-C8	DETSC 3322	0.1	ug/l		< 0.1		< 0.1		< 0.1
Aromatic C8-C10	DETSC 3322	0.1	ug/l		< 0.1		< 0.1		< 0.1
Aromatic C10-C12	DETSC 3072*	1	ug/l		< 1.0		< 1.0		< 1.0
Aromatic C12-C16	DETSC 3072*	1	ug/l		< 1.0		< 1.0		< 1.0
Aromatic C16-C21	DETSC 3072*	1	ug/l		< 1.0		< 1.0		< 1.0
Aromatic C21-C35	DETSC 3072*	1	ug/l		< 1.0		< 1.0		< 1.0
Aromatic C5-C35	DETSC 3072*	10	ug/l		< 10		< 10		< 10
TPH Ali/Aro Total C5-C35	DETSC 3072*	10	ug/l		< 10		< 10		< 10
PAHs									
Naphthalene	DETSC 3304	0.05	ug/l		< 0.05		< 0.25		0.16
Acenaphthylene	DETSC 3304	0.01	ug/l		< 0.01		0.19		0.02

Summary of Chemical Analysis

Water Samples

Our Ref 26-05674

Client Ref ~ 8353

Contract Title ~ Land Adjacent to Bealey Industrial Estate, Radcliffe

Lab No

Sample ID ~

Depth ~

Other ID ~

Sample Type ~

Sampling Date ~

Sampling Time ~

2653614	2653615	2653616	2653617	2653618	2653619
BH01 PFAS	BH01 LF2	BH02 PFAS	BH02 LF2	BH03 PFAS	BH03 LF2
1.32	1.32	3.54	3.54	3.20	3.20
WATER UNKNOWN	WATER UNKNOWN	WATER UNKNOWN	WATER UNKNOWN	WATER UNKNOWN	WATER UNKNOWN
05/03/2026	05/03/2026	05/03/2026	05/03/2026	05/03/2026	05/03/2026
n/s	n/s	n/s	n/s	n/s	n/s

Test	Method	LOD	Units						
Acenaphthene	DETC 3304	0.01	ug/l		< 0.01		3.1		0.22
Fluorene	DETC 3304	0.01	ug/l		< 0.01		2.0		0.10
Phenanthrene	DETC 3304	0.01	ug/l		0.04		2.3		0.54
Anthracene	DETC 3304	0.01	ug/l		0.02		0.71		0.13
Fluoranthene	DETC 3304	0.01	ug/l		0.06		5.0		0.99
Pyrene	DETC 3304	0.01	ug/l		0.07		3.9		0.95
Benzo(a)anthracene	DETC 3304	0.01	ug/l		0.03		0.29		0.52
Chrysene	DETC 3304	0.01	ug/l		0.04		1.4		0.57
Benzo(b)fluoranthene	DETC 3304	0.01	ug/l		0.05		1.7		0.86
Benzo(k)fluoranthene	DETC 3304	0.01	ug/l		0.02		0.67		0.31
Benzo(a)pyrene	DETC 3304	0.01	ug/l		0.04		1.5		0.70
Indeno(1,2,3-c,d)pyrene	DETC 3304	0.01	ug/l		0.03		1.0		0.54
Dibenzo(a,h)anthracene	DETC 3304	0.01	ug/l		< 0.01		0.15		0.09
Benzo(g,h,i)perylene	DETC 3304	0.01	ug/l		0.05		1.1		0.52
PAH Total	DETC 3304	0.2	ug/l		0.46		25		7.2
Phenols									
Phenol - Monohydric	DETC 2130	100	ug/l		< 100		< 100		< 100
Per- and Polyfluoroalkyl substances (l)									
Perfluoro-n-butanoic acid (PFBA)	DETC 3444*	10	ng/l		< 10		< 10		< 10
Perfluoro-n-pentanoic acid (PFPeA)	DETC 3444*	3	ng/l		9.2		< 3.0		< 3.0
Perfluoro-1-butanefulfonate (PFBS)	DETC 3444*	3	ng/l		3.9		< 3.0		< 3.0
1H,1H,2H,2H-perfluoro-1-hexanesulfonate (4-2 FTSA)	DETC 3444*	3	ng/l		< 3.0		< 3.0		< 3.0
Perfluoro-n-hexanoic acid (PFHxA)	DETC 3444*	3	ng/l		8.0		< 3.0		< 3.0
Perfluoro-1-pentanesulfonate (PFPeS)	DETC 3444*	3	ng/l		< 3.0		< 3.0		< 3.0
Tetrafluoro-2-(heptafluoropropoxy)-propanoic acid (HFPO-DA)	DETC 3444*	3	ng/l		< 3.0		< 3.0		< 3.0
Perfluoro-1-butanefulfonamide (FBSA)	DETC 3444*	3	ng/l		< 3.0		< 3.0		< 3.0
Perfluoro-n-heptanoic acid (PFHpA)	DETC 3444*	3	ng/l		6.7		3.1		< 3.0
Perfluorohexanesulfonate (PFHxS) (Linear+Branched)	DETC 3444*	3	ng/l		< 3.0		< 3.0		< 3.0
Dodecafluoro-3H-4,8-dioxanonanoate (DONA)	DETC 3444*	3	ng/l		< 3.0		< 3.0		< 3.0
1H,1H,2H,2H-perfluoro-1-octanesulfonate (6-2 FTS)	DETC 3444*	3	ng/l		< 3.0		< 3.0		< 3.0
Perfluoro-n-octanoic acid (PFOA)	DETC 3444*	3	ng/l		43		43		32
Perfluoro-1-heptanesulfonate (PFHpS)	DETC 3444*	3	ng/l		< 3.0		< 3.0		< 3.0
Perfluoro-1-hexanesulfonamide (FHxSA)	DETC 3444*	3	ng/l		< 3.0		< 3.0		< 3.0
Perfluoro-n-nonanoic acid (PFNA)	DETC 3444*	3	ng/l		< 3.0		< 3.0		< 3.0
Perfluorooctanesulfonate (PFOS) (Linear+Branched)	DETC 3444*	3	ng/l		< 3.0		< 3.0		< 3.0
9-chlorohexadecafluoro-3-oxanonane-1-sulfonate (9CI-PF3ONS)	DETC 3444*	3	ng/l		< 3.0		< 3.0		< 3.0

Summary of Chemical Analysis

Water Samples

Our Ref 26-05674

Client Ref ~ 8353

Contract Title ~ Land Adjacent to Bealey Industrial Estate, Radcliffe

Lab No

Sample ID ~

Depth ~

Other ID ~

Sample Type ~

Sampling Date ~

Sampling Time ~

2653614	2653615	2653616	2653617	2653618	2653619
BH01 PFAS	BH01 LF2	BH02 PFAS	BH02 LF2	BH03 PFAS	BH03 LF2
1.32	1.32	3.54	3.54	3.20	3.20
WATER UNKNOWN	WATER UNKNOWN	WATER UNKNOWN	WATER UNKNOWN	WATER UNKNOWN	WATER UNKNOWN
05/03/2026	05/03/2026	05/03/2026	05/03/2026	05/03/2026	05/03/2026
n/s	n/s	n/s	n/s	n/s	n/s

Test	Method	LOD	Units						
1H,1H,2H,2H-perfluoro-1-decanesulfonate (8-2 FTSA)	DETSC 3444*	10	ng/l	< 10		< 10		< 10	
Perfluoro-1-nonanesulfonate (PFNS)	DETSC 3444*	10	ng/l	< 10		< 10		< 10	
Perfluoro-n-decanoic acid (PFDA)	DETSC 3444*	3	ng/l	< 3.0		< 3.0		< 3.0	
N-methylperfluoro-1-octanesulfonamidoacetic acid (N-MeFOSAA)	DETSC 3444*	10	ng/l	< 10		< 10		< 10	
Perfluoro-1-decanesulfonate (PFDS)	DETSC 3444*	10	ng/l	< 10		< 10		< 10	
Perfluoro-n-undecanoic acid (PFUDA)	DETSC 3444*	10	ng/l	< 10		< 10		< 10	
N-ethylperfluoro-1-octanesulfonamidoacetic acid (N-EtFOSAA)	DETSC 3444*	10	ng/l	< 10		< 10		< 10	
Perfluoro-1-octanesulfonamide (PFOSA)	DETSC 3444*	10	ng/l	< 10		< 10		< 10	
11-chloroicosafuoro-3-oxaundecane-1-sulfonate (11Cl-PF3OUdS)	DETSC 3444*	10	ng/l	< 10		< 10		< 10	
Perfluoro-1-undecanesulfonate (L-PFUdS)	DETSC 3444*	10	ng/l	< 10		< 10		< 10	
Perfluoro-n-dodecanoic acid (PFDoA)	DETSC 3444*	10	ng/l	< 10		< 10		< 10	
Perfluoro-1-dodecanesulfonate (L-PFDoS)	DETSC 3444*	10	ng/l	< 10		< 10		< 10	
Perfluoro-n-tridecanoic acid (PFTrDA)	DETSC 3444*	10	ng/l	< 10		< 10		< 10	
Perfluoro-1-tridecanesulfonate (L-PFTrDS)	DETSC 3444*	10	ng/l	< 10		< 10		< 10	
Perfluoro-n-tetradecanoic acid (PFTDA)	DETSC 3444*	10	ng/l	< 10		< 10		< 10	
Perfluorohexanesulfonate (PFHxS) (Branched)	DETSC 3444*	3	ng/l	< 3.0		< 3.0		< 3.0	
Perfluorohexanesulfonate (PFHxS) (Linear)	DETSC 3444*	3	ng/l	< 3.0		< 3.0		< 3.0	
Perfluorooctanesulfonate (PFOS) (Branched)	DETSC 3444*	3	ng/l	< 3.0		< 3.0		< 3.0	
Perfluorooctanesulfonate (PFOS) (Linear)	DETSC 3444*	3	ng/l	< 3.0		< 3.0		< 3.0	
N-methylperfluoro-1-octanesulfonamidoacetic acid (N-MeFOSAA)	DETSC 3444*	10	ng/l	< 10		< 10		< 10	
N-methylperfluoro-1-octanesulfonamidoacetic acid (N-MeFOSAA)	DETSC 3444*	10	ng/l	< 10		< 10		< 10	
N-ethylperfluoro-1-octanesulfonamidoacetic acid (N-EtFOSAA)	DETSC 3444*	10	ng/l	< 10		< 10		< 10	
N-ethylperfluoro-1-octanesulfonamidoacetic acid (N-EtFOSAA)	DETSC 3444*	10	ng/l	< 10		< 10		< 10	
Perfluoro-1-undecanesulfonic acid (L-PFUdS)	DETSC 3444*	9.68	ng/l	< 9.7		< 9.7		< 9.7	

Summary of Chemical Analysis

Water Samples

Our Ref 26-05674

Client Ref ~ 8353

Contract Title ~ Land Adjacent to Bealey Industrial Estate, Radcliffe

Lab No

Sample ID ~

Depth ~

Other ID ~

Sample Type ~

Sampling Date ~

Sampling Time ~

2653620	2653621	2653622	2653623	2653624	2653625
WS212 PFAS	WS212 LF2	SWSNE PFAS	SWSNE 1	SWSSW PFAS	SWSSW 1
1.39	1.50				
WATER UNKNOWN	WATER UNKNOWN	WATER UNKNOWN	WATER UNKNOWN	WATER UNKNOWN	WATER UNKNOWN
05/03/2026	05/03/2026	05/03/2026	05/03/2026	05/03/2026	05/03/2026
n/s	n/s	n/s	n/s	n/s	n/s

Test	Method	LOD	Units						
Metals									
Arsenic, Dissolved	DETSC 2306	0.16	ug/l		1.58		3.34		2.70
Beryllium, Dissolved	DETSC 2306*	0.1	ug/l		< 0.10		< 0.10		< 0.10
Boron, Dissolved	DETSC 2306*	12	ug/l		98.01		54.62		56.61
Cadmium, Dissolved	DETSC 2306	0.03	ug/l		< 0.03		< 0.03		< 0.03
Chromium, Dissolved	DETSC 2306	0.25	ug/l		0.74		0.90		0.55
Copper, Dissolved	DETSC 2306	0.4	ug/l		0.59		1.69		1.33
Lead, Dissolved	DETSC 2306	0.09	ug/l		0.12		0.84		0.20
Mercury, Dissolved	DETSC 2306	0.01	ug/l		< 0.01		< 0.01		< 0.01
Nickel, Dissolved	DETSC 2306	0.5	ug/l		7.07		2.10		2.05
Selenium, Dissolved	DETSC 2306	0.25	ug/l		0.85		0.49		0.41
Vanadium, Dissolved	DETSC 2306	0.6	ug/l		< 0.60		< 0.60		< 0.60
Zinc, Dissolved	DETSC 2306	1.3	ug/l		87.92		69.54		59.38
Inorganics									
pH	DETSC 2008		pH		6.9		7.2		7.1
Alkalinity as CaCO3 (Automated)	DETSC 2030	10	mg/l		270		110		110
Alkalinity as CaCO3 (Manual)	DETSC 2030	10	mg/l		270		110		17
Cyanide, Total	DETSC 2130	40	ug/l		< 40		< 40		< 40
Dissolved Organic Carbon	DETSC 2085	2	mg/l		4.4		< 2.0		4.3
Sulphate as SO4	DETSC 2055	0.1	mg/l		16		23		22
Petroleum Hydrocarbons									
Aliphatic C5-C6	DETSC 3322	0.1	ug/l		< 0.1		< 0.1		< 0.1
Aliphatic C6-C8	DETSC 3322	0.1	ug/l		< 0.1		< 0.1		< 0.1
Aliphatic C8-C10	DETSC 3322	0.1	ug/l		< 0.1		< 0.1		< 0.1
Aliphatic C10-C12	DETSC 3072*	1	ug/l		< 1.0		< 1.0		< 1.0
Aliphatic C12-C16	DETSC 3072*	1	ug/l		< 1.0		< 1.0		< 1.0
Aliphatic C16-C21	DETSC 3072*	1	ug/l		< 1.0		< 1.0		< 1.0
Aliphatic C21-C35	DETSC 3072*	1	ug/l		< 1.0		< 1.0		< 1.0
Aliphatic C5-C35	DETSC 3072*	10	ug/l		< 10		< 10		< 10
Aromatic C5-C7	DETSC 3322	0.1	ug/l		< 0.1		< 0.1		< 0.1
Aromatic C7-C8	DETSC 3322	0.1	ug/l		< 0.1		< 0.1		< 0.1
Aromatic C8-C10	DETSC 3322	0.1	ug/l		< 0.1		< 0.1		< 0.1
Aromatic C10-C12	DETSC 3072*	1	ug/l		< 1.0		< 1.0		< 1.0
Aromatic C12-C16	DETSC 3072*	1	ug/l		< 1.0		< 1.0		< 1.0
Aromatic C16-C21	DETSC 3072*	1	ug/l		< 1.0		< 1.0		< 1.0
Aromatic C21-C35	DETSC 3072*	1	ug/l		< 1.0		< 1.0		< 1.0
Aromatic C5-C35	DETSC 3072*	10	ug/l		< 10		< 10		< 10
TPH Ali/Aro Total C5-C35	DETSC 3072*	10	ug/l		< 10		< 10		< 10
PAHs									
Naphthalene	DETSC 3304	0.05	ug/l		1.6		< 0.05		< 0.05
Acenaphthylene	DETSC 3304	0.01	ug/l		0.74		< 0.01		< 0.01

Summary of Chemical Analysis

Water Samples

Our Ref 26-05674

Client Ref ~ 8353

Contract Title ~ Land Adjacent to Bealey Industrial Estate, Radcliffe

Lab No

Sample ID ~

Depth ~

Other ID ~

Sample Type ~

Sampling Date ~

Sampling Time ~

2653620	2653621	2653622	2653623	2653624	2653625
WS212 PFAS	WS212 LF2	SWSNE PFAS	SWSNE 1	SWSSW PFAS	SWSSW 1
1.39	1.50				
WATER UNKNOWN	WATER UNKNOWN	WATER UNKNOWN	WATER UNKNOWN	WATER UNKNOWN	WATER UNKNOWN
05/03/2026	05/03/2026	05/03/2026	05/03/2026	05/03/2026	05/03/2026
n/s	n/s	n/s	n/s	n/s	n/s

Test	Method	LOD	Units						
Acenaphthene	DETSC 3304	0.01	ug/l		1.7		< 0.01		< 0.01
Fluorene	DETSC 3304	0.01	ug/l		4.4		< 0.01		< 0.01
Phenanthrene	DETSC 3304	0.01	ug/l		5.4		0.01		< 0.01
Anthracene	DETSC 3304	0.01	ug/l		< 0.05		< 0.01		< 0.01
Fluoranthene	DETSC 3304	0.01	ug/l		3.7		0.01		< 0.01
Pyrene	DETSC 3304	0.01	ug/l		5.2		0.01		< 0.01
Benzo(a)anthracene	DETSC 3304	0.01	ug/l		2.2		< 0.01		< 0.01
Chrysene	DETSC 3304	0.01	ug/l		1.8		< 0.01		< 0.01
Benzo(b)fluoranthene	DETSC 3304	0.01	ug/l		3.2		< 0.01		< 0.01
Benzo(k)fluoranthene	DETSC 3304	0.01	ug/l		1.2		< 0.01		< 0.01
Benzo(a)pyrene	DETSC 3304	0.01	ug/l		2.8		< 0.01		< 0.01
Indeno(1,2,3-c,d)pyrene	DETSC 3304	0.01	ug/l		2.2		< 0.01		< 0.01
Dibenzo(a,h)anthracene	DETSC 3304	0.01	ug/l		0.50		< 0.01		< 0.01
Benzo(g,h,i)perylene	DETSC 3304	0.01	ug/l		2.1		0.01		< 0.01
PAH Total	DETSC 3304	0.2	ug/l		39		< 0.20		< 0.20
Phenols									
Phenol - Monohydric	DETSC 2130	100	ug/l		< 100		< 100		< 100
Per- and Polyfluoroalkyl substances (l)									
Perfluoro-n-butanoic acid (PFBA)	DETSC 3444*	10	ng/l	< 10		< 10		< 10	
Perfluoro-n-pentanoic acid (PFPeA)	DETSC 3444*	3	ng/l	< 3.0		< 3.0		< 3.0	
Perfluoro-1-butanefulfonate (PFBS)	DETSC 3444*	3	ng/l	< 3.0		< 3.0		< 3.0	
1H,1H,2H,2H-perfluoro-1-hexanesulfonate (4-2 FTSA)	DETSC 3444*	3	ng/l	< 3.0		< 3.0		< 3.0	
Perfluoro-n-hexanoic acid (PFHxA)	DETSC 3444*	3	ng/l	3.4		< 3.0		< 3.0	
Perfluoro-1-pentanesulfonate (PFPeS)	DETSC 3444*	3	ng/l	< 3.0		< 3.0		< 3.0	
Tetrafluoro-2-(heptafluoropropoxy)-propanoic acid (HFPO-DA)	DETSC 3444*	3	ng/l	< 3.0		< 3.0		< 3.0	
Perfluoro-1-butanefulfonamide (FBSA)	DETSC 3444*	3	ng/l	< 3.0		< 3.0		< 3.0	
Perfluoro-n-heptanoic acid (PFHpA)	DETSC 3444*	3	ng/l	3.1		< 3.0		< 3.0	
Perfluorohexanesulfonate (PFHxS) (Linear+Branched)	DETSC 3444*	3	ng/l	< 3.0		< 3.0		< 3.0	
Dodecafluoro-3H-4,8-dioxanonanoate (DONA)	DETSC 3444*	3	ng/l	< 3.0		< 3.0		< 3.0	
1H,1H,2H,2H-perfluoro-1-octanesulfonate (6-2 FTS)	DETSC 3444*	3	ng/l	< 3.0		< 3.0		< 3.0	
Perfluoro-n-octanoic acid (PFOA)	DETSC 3444*	3	ng/l	53		32		31	
Perfluoro-1-heptanesulfonate (PFHpS)	DETSC 3444*	3	ng/l	< 3.0		< 3.0		< 3.0	
Perfluoro-1-hexanesulfonamide (FHxSA)	DETSC 3444*	3	ng/l	< 3.0		< 3.0		< 3.0	
Perfluoro-n-nonanoic acid (PFNA)	DETSC 3444*	3	ng/l	< 3.0		< 3.0		< 3.0	
Perfluorooctanesulfonate (PFOS) (Linear+Branched)	DETSC 3444*	3	ng/l	< 3.0		< 3.0		< 3.0	
9-chlorohexadecafluoro-3-oxanonane-1-sulfonate (9CI-PF3ONS)	DETSC 3444*	3	ng/l	< 3.0		< 3.0		< 3.0	

Summary of Chemical Analysis

Water Samples

Our Ref 26-05674

Client Ref ~ 8353

Contract Title ~ Land Adjacent to Bealey Industrial Estate, Radcliffe

Lab No

Sample ID ~

Depth ~

Other ID ~

Sample Type ~

Sampling Date ~

Sampling Time ~

2653620	2653621	2653622	2653623	2653624	2653625
WS212 PFAS	WS212 LF2	SWSNE PFAS	SWSNE 1	SWSSW PFAS	SWSSW 1
1.39	1.50				
WATER UNKNOWN	WATER UNKNOWN	WATER UNKNOWN	WATER UNKNOWN	WATER UNKNOWN	WATER UNKNOWN
05/03/2026	05/03/2026	05/03/2026	05/03/2026	05/03/2026	05/03/2026
n/s	n/s	n/s	n/s	n/s	n/s

Test	Method	LOD	Units						
1H,1H,2H,2H-perfluoro-1-decanesulfonate (8-2 FTSA)	DETSC 3444*	10	ng/l	< 10		< 10		< 10	
Perfluoro-1-nonanesulfonate (PFNS)	DETSC 3444*	10	ng/l	< 10		< 10		< 10	
Perfluoro-n-decanoic acid (PFDA)	DETSC 3444*	3	ng/l	< 3.0		< 3.0		< 3.0	
N-methylperfluoro-1-octanesulfonamidoacetic acid (N-MeFOSAA)	DETSC 3444*	10	ng/l	< 10		< 10		< 10	
Perfluoro-1-decanesulfonate (PFDS)	DETSC 3444*	10	ng/l	< 10		< 10		< 10	
Perfluoro-n-undecanoic acid (PFUDA)	DETSC 3444*	10	ng/l	< 10		< 10		< 10	
N-ethylperfluoro-1-octanesulfonamidoacetic acid (N-EtFOSAA)	DETSC 3444*	10	ng/l	< 10		< 10		< 10	
Perfluoro-1-octanesulfonamide (PFOSA)	DETSC 3444*	10	ng/l	< 10		< 10		< 10	
11-chloroeicosafluoro-3-oxaundecane-1-sulfonate (11Cl-PF3OUdS)	DETSC 3444*	10	ng/l	< 10		< 10		< 10	
Perfluoro-1-undecanesulfonate (L-PFUdS)	DETSC 3444*	10	ng/l	< 10		< 10		< 10	
Perfluoro-n-dodecanoic acid (PFDoA)	DETSC 3444*	10	ng/l	< 10		< 10		< 10	
Perfluoro-1-dodecanesulfonate (L-PFDoS)	DETSC 3444*	10	ng/l	< 10		< 10		< 10	
Perfluoro-n-tridecanoic acid (PFTrDA)	DETSC 3444*	10	ng/l	< 10		< 10		< 10	
Perfluoro-1-tridecanesulfonate (L-PFTrDS)	DETSC 3444*	10	ng/l	< 10		< 10		< 10	
Perfluoro-n-tetradecanoic acid (PFTDA)	DETSC 3444*	10	ng/l	< 10		< 10		< 10	
Perfluorohexanesulfonate (PFHxS) (Branched)	DETSC 3444*	3	ng/l	< 3.0		< 3.0		< 3.0	
Perfluorohexanesulfonate (PFHxS) (Linear)	DETSC 3444*	3	ng/l	< 3.0		< 3.0		< 3.0	
Perfluorooctanesulfonate (PFOS) (Branched)	DETSC 3444*	3	ng/l	< 3.0		< 3.0		< 3.0	
Perfluorooctanesulfonate (PFOS) (Linear)	DETSC 3444*	3	ng/l	< 3.0		< 3.0		< 3.0	
N-methylperfluoro-1-octanesulfonamidoacetic acid (N-MeFOSAA)	DETSC 3444*	10	ng/l	< 10		< 10		< 10	
N-methylperfluoro-1-octanesulfonamidoacetic acid (N-MeFOSAA)	DETSC 3444*	10	ng/l	< 10		< 10		< 10	
N-ethylperfluoro-1-octanesulfonamidoacetic acid (N-EtFOSAA)	DETSC 3444*	10	ng/l	< 10		< 10		< 10	
N-ethylperfluoro-1-octanesulfonamidoacetic acid (N-EtFOSAA)	DETSC 3444*	10	ng/l	< 10		< 10		< 10	
Perfluoro-1-undecanesulfonic acid (L-PFUdS)	DETSC 3444*	9.68	ng/l	< 9.7		< 9.7		< 9.7	

Summary of Chemical Analysis

Water VOC Samples

Our Ref 26-05674

Client Ref ~ 8353

Contract Title ~ Land Adjacent to Bealey Industrial Estate, Radcliffe

Lab No	2653615	2653617	2653619	2653621	2653623	2653625
Sample ID ~	BH01 LF2	BH02 LF2	BH03 LF2	WS212 LF2	SWSNE 1	SWSSW 1
Depth ~	1.32	3.54	3.20	1.50		
Other ID ~						
Sample Type ~	WATER UNKNOWN	WATER UNKNOWN	WATER UNKNOWN	WATER UNKNOWN	WATER UNKNOWN	WATER UNKNOWN
Sampling Date ~	05/03/2026	05/03/2026	05/03/2026	05/03/2026	05/03/2026	05/03/2026
Sampling Time ~	n/s	n/s	n/s	n/s	n/s	n/s

Test	Method	LOD	Units						
VOCs									
Dichlorodifluoromethane	DETSC 3432	1	ug/l	< 1	< 1	< 1	< 1	< 1	< 1
Chloromethane	DETSC 3432	1	ug/l	< 1	< 1	< 1	< 1	< 1	< 1
Vinyl Chloride	DETSC 3432	1	ug/l	< 1	< 1	< 1	< 1	< 1	< 1
Bromomethane	DETSC 3432	1	ug/l	< 1	< 1	< 1	< 1	< 1	< 1
Chloroethane	DETSC 3432	1	ug/l	< 1	< 1	< 1	< 1	< 1	< 1
Trichlorofluoromethane	DETSC 3432*	1	ug/l	< 1	< 1	< 1	< 1	< 1	< 1
1,1-dichloroethylene	DETSC 3432	1	ug/l	< 1	< 1	< 1	< 1	< 1	< 1
Methylene Chloride	DETSC 3432*	27	ug/l	< 27	< 27	< 27	< 27	< 27	< 27
Trans-1,2-dichloroethylene	DETSC 3432	1	ug/l	< 1	< 1	< 1	< 1	< 1	< 1
1,1-dichloroethane	DETSC 3432	1	ug/l	< 1	< 1	< 1	< 1	< 1	< 1
Cis-1,2-dichloroethylene	DETSC 3432	1	ug/l	< 1	< 1	< 1	< 1	< 1	< 1
2,2-dichloropropane	DETSC 3432*	2	ug/l	< 2	< 2	< 2	< 2	< 2	< 2
Bromochloromethane	DETSC 3432	4	ug/l	< 4	< 4	< 4	< 4	< 4	< 4
Chloroform	DETSC 3432	1	ug/l	< 1	< 1	< 1	< 1	< 1	< 1
1,1,1-trichloroethane	DETSC 3432	1	ug/l	< 1	< 1	< 1	< 1	< 1	< 1
1,1-dichloropropene	DETSC 3432	1	ug/l	< 1	< 1	< 1	< 1	< 1	< 1
Carbon tetrachloride	DETSC 3432	1	ug/l	< 1	< 1	< 1	< 1	< 1	< 1
Benzene	DETSC 3432	1	ug/l	< 1	< 1	< 1	< 1	< 1	< 1
1,2-dichloroethane	DETSC 3432	1	ug/l	< 1	< 1	< 1	< 1	< 1	< 1
Trichloroethylene	DETSC 3432*	1	ug/l	< 1	< 1	< 1	< 1	< 1	< 1
1,2-dichloropropane	DETSC 3432	1	ug/l	< 1	< 1	< 1	< 1	< 1	< 1
Dibromomethane	DETSC 3432	1	ug/l	< 1	< 1	< 1	< 1	< 1	< 1
Bromodichloromethane	DETSC 3432	4	ug/l	< 4	< 4	< 4	< 4	< 4	< 4
cis-1,3-dichloropropene	DETSC 3432	1	ug/l	< 1	< 1	< 1	< 1	< 1	< 1
Toluene	DETSC 3432	1	ug/l	< 1	< 1	< 1	< 1	< 1	< 1
trans-1,3-dichloropropene	DETSC 3432	1	ug/l	< 1	< 1	< 1	< 1	< 1	< 1
1,1,2-trichloroethane	DETSC 3432	1	ug/l	< 1	< 1	< 1	< 1	< 1	< 1
Tetrachloroethylene	DETSC 3432	1	ug/l	< 1	< 1	< 1	< 1	< 1	< 1
1,3-dichloropropane	DETSC 3432	1	ug/l	< 1	< 1	< 1	< 1	< 1	< 1
Dibromochloromethane	DETSC 3432	1	ug/l	< 1	< 1	< 1	< 1	< 1	< 1
1,2-dibromoethane	DETSC 3432	1	ug/l	< 1	< 1	< 1	< 1	< 1	< 1
Chlorobenzene	DETSC 3432	1	ug/l	< 1	< 1	< 1	< 1	< 1	< 1
1,1,1,2-tetrachloroethane	DETSC 3432	1	ug/l	< 1	< 1	< 1	< 1	< 1	< 1
Ethylbenzene	DETSC 3432	1	ug/l	< 1	< 1	< 1	< 1	< 1	< 1
m+p-Xylene	DETSC 3432	2	ug/l	< 2	< 2	< 2	< 2	< 2	< 2
o-Xylene	DETSC 3432	1	ug/l	< 1	< 1	< 1	< 1	< 1	< 1
Styrene	DETSC 3432	1	ug/l	< 1	< 1	< 1	< 1	< 1	< 1
Bromoform	DETSC 3432	1	ug/l	< 1	< 1	< 1	< 1	< 1	< 1
Isopropylbenzene	DETSC 3432	1	ug/l	< 1	< 1	< 1	< 1	< 1	< 1
1,1,2,2-tetrachloroethane	DETSC 3432	1	ug/l	< 1	< 1	< 1	< 1	< 1	< 1
Bromobenzene	DETSC 3432	1	ug/l	< 1	< 1	< 1	< 1	< 1	< 1

Summary of Chemical Analysis

Water VOC Samples

Our Ref 26-05674

Client Ref ~ 8353

Contract Title ~ Land Adjacent to Bealey Industrial Estate, Radcliffe

Lab No	2653615	2653617	2653619	2653621	2653623	2653625
Sample ID ~	BH01 LF2	BH02 LF2	BH03 LF2	WS212 LF2	SWSNE 1	SWSSW 1
Depth ~	1.32	3.54	3.20	1.50		
Other ID ~						
Sample Type ~	WATER UNKNOWN	WATER UNKNOWN	WATER UNKNOWN	WATER UNKNOWN	WATER UNKNOWN	WATER UNKNOWN
Sampling Date ~	05/03/2026	05/03/2026	05/03/2026	05/03/2026	05/03/2026	05/03/2026
Sampling Time ~	n/s	n/s	n/s	n/s	n/s	n/s

Test	Method	LOD	Units						
1,2,3-trichloropropane	DETSC 3432	1	ug/l	< 1	< 1	< 1	< 1	< 1	< 1
n-propylbenzene	DETSC 3432	1	ug/l	< 1	< 1	< 1	< 1	< 1	< 1
2-chlorotoluene	DETSC 3432	1	ug/l	< 1	< 1	< 1	< 1	< 1	< 1
1,3,5-trimethylbenzene	DETSC 3432	1	ug/l	< 1	< 1	< 1	< 1	< 1	< 1
4-chlorotoluene	DETSC 3432	1	ug/l	< 1	< 1	< 1	< 1	< 1	< 1
Tert-butylbenzene	DETSC 3432	1	ug/l	< 1	< 1	< 1	< 1	< 1	< 1
1,2,4-trimethylbenzene	DETSC 3432	1	ug/l	< 1	< 1	< 1	< 1	< 1	< 1
sec-butylbenzene	DETSC 3432	1	ug/l	< 1	< 1	< 1	< 1	< 1	< 1
p-isopropyltoluene	DETSC 3432	1	ug/l	< 1	< 1	< 1	< 1	< 1	< 1
1,3-dichlorobenzene	DETSC 3432	2	ug/l	< 2	< 2	< 2	< 2	< 2	< 2
1,4-dichlorobenzene	DETSC 3432	1	ug/l	< 1	< 1	< 1	< 1	< 1	< 1
n-butylbenzene	DETSC 3432	1	ug/l	< 1	< 1	< 1	< 1	< 1	< 1
1,2-dichlorobenzene	DETSC 3432	1	ug/l	< 1	< 1	< 1	< 1	< 1	< 1
1,2-dibromo-3-chloropropane	DETSC 3432	1	ug/l	< 1	< 1	< 1	< 1	< 1	< 1
1,2,4-trichlorobenzene	DETSC 3432	1	ug/l	< 1	< 1	< 1	< 1	< 1	< 1
Hexachlorobutadiene	DETSC 3432	1	ug/l	< 1	< 1	< 1	< 1	< 1	< 1
1,2,3-trichlorobenzene	DETSC 3432	1	ug/l	< 1	< 1	< 1	< 1	< 1	< 1
MTBE	DETSC 3432*	1	ug/l	< 1	< 1	< 1	< 1	< 1	< 1
TAME	DETSC 3432*	1	ug/l	< 1	< 1	< 1	< 1	< 1	< 1

Information in Support of the Analytical Results

Our Ref 26-05674

Client Ref ~ 8353

Contract ~ Land Adjacent to Bealey Industrial Estate, Radcliffe

Containers Received & Deviating Samples

Lab No	Sample ID ~	Date Sampled ~	Containers Received	Holding time exceeded for tests	Incorrect container for tests
2653614	BH01 PFAS 1.32 WATER UNKNOWN	05/03/26	P(other) x2		PFAS Over temperature
2653615	BH01 LF2 1.32 WATER UNKNOWN	05/03/26	GB 1L, GV, PB 1L	pH/Cond (1 days)	
2653616	BH02 PFAS 3.54 WATER UNKNOWN	05/03/26	P(other) x2		PFAS Over temperature
2653617	BH02 LF2 3.54 WATER UNKNOWN	05/03/26	GB 1L, GV, PB 1L	pH/Cond (1 days)	
2653618	BH03 PFAS 3.20 WATER UNKNOWN	05/03/26	P(other) x2		PFAS Over temperature
2653619	BH03 LF2 3.20 WATER UNKNOWN	05/03/26	GB 1L, GV, PB 1L	pH/Cond (1 days)	
2653620	WS212 PFAS 1.39 WATER UNKNOWN	05/03/26	P(other) x2		PFAS Over temperature
2653621	WS212 LF2 1.50 WATER UNKNOWN	05/03/26	GB 1L, GV, PB 1L	pH/Cond (1 days)	
2653622	SWSNE PFAS WATER UNKNOWN	05/03/26	P(other) x2		PFAS Over temperature
2653623	SWSNE 1 WATER UNKNOWN	05/03/26	GB 1L, GV, PB 1L	pH/Cond (1 days)	
2653624	SWSSW PFAS WATER UNKNOWN	05/03/26	P(other) x2		PFAS Over temperature
2653625	SWSSW 1 WATER UNKNOWN	05/03/26	GB 1L, GV, PB 1L	pH/Cond (1 days)	

Key: P-Plastic G-Glass B-Bottle V-Vial

Normec DETS cannot be held responsible for the integrity of samples received whereby the laboratory did not undertake the sampling. In this instance samples received may be deviating. Deviating Sample criteria are based on British and International standards and laboratory trials in conjunction with the UKAS note 'Guidance on Deviating Samples'. All samples received are listed above. However, those samples that have additional comments in relation to hold time, inappropriate containers etc are deviating due to the reasons stated. This means that the analysis is accredited where applicable, but results may be compromised due to sample deviations. If no sampled date (soils) or date+time (waters) has been supplied then samples are deviating. However, if you are able to supply a sampled date (and time for waters) this will prevent samples being reported as deviating where specific hold times are not exceeded and where the container supplied is suitable.

Disposal

From the issue date of this test certificate, samples will be held for the following times prior to disposal :-

Soils - 1 month, Liquids - 2 weeks, Asbestos (test portion) - 6 months

Key:

~ Sample details are provided by the client and can affect the validity of the results

* -not accredited.

-MCERTS (accreditation only applies if report carries the MCERTS logo).

Symbol key at end of report

Information in Support of the Analytical Results

Our Ref 26-05674

Client Ref ~ 8353

Contract ~ Land Adjacent to Bealey Industrial Estate, Radcliffe

\$ -subcontracted.

n/s -not supplied.

I/S -insufficient sample.

U/S -unsuitable sample.

t/f -to follow.

nd -not detected.

End of Report Ver 26.03.15

Certificate of Analysis

Certificate Number 26-06843

Issued: 08-Apr-26

Client Coopers (Chester) Ltd
Park House
Sandpiper Court
Chester Business Park
Chester
CH4 9QU

Our Reference 26-06843

Client Reference ~ 8353

Order No ~ 10690-ST

Contract Title ~ Land Adjacent to Bealey Industrial Estate, Radcliffe

Description 12 Water No Information Supplied samples.

Date Received 23-Mar-26

Date Started 23-Mar-26

Date Completed 08-Apr-26

Test Procedures Identified by prefix DETSn (details on request).

Notes 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 By



Reyhan Irfan
Operations Manager

Sample Deviations present. See Deviation Table Section for details.

Normec DETS Limited

Summary of Chemical Analysis

Water Samples

Our Ref 26-06843

Client Ref ~ 8353

Contract Title ~ Land Adjacent to Bealey Industrial Estate, Radcliffe

Lab No	2659895	2659896	2659897	2659898	2659899	2659900
Sample ID ~	BH01 PFAS	BH01 LF2	BH02 PFAS	BH02LF2	BH03 PFAS	BH03LF2
Depth ~	1.40	1.40	3.56	3.56	3.17	3.17
Other ID ~						
Sample Type ~	WATER UNKNOWN	WATER UNKNOWN	WATER UNKNOWN	WATER UNKNOWN	WATER UNKNOWN	WATER UNKNOWN
Sampling Date ~	18/03/2026	18/03/2026	18/03/2026	18/03/2026	18/03/2026	18/03/2026
Sampling Time ~	n/s	n/s	n/s	n/s	n/s	n/s

Test	Method	LOD	Units					
Metals								
Arsenic, Dissolved	DETSC 2306	0.16	ug/l		0.59		0.61	1.33
Beryllium, Dissolved	DETSC 2306*	0.1	ug/l		< 0.10		< 0.10	< 0.10
Boron, Dissolved	DETSC 2306*	12	ug/l		140.3		174.0	119.1
Cadmium, Dissolved	DETSC 2306	0.03	ug/l		0.07		< 0.03	< 0.03
Chromium, Dissolved	DETSC 2306	0.25	ug/l		< 0.25		0.27	0.85
Copper, Dissolved	DETSC 2306	0.4	ug/l		1.08		< 0.40	< 0.40
Lead, Dissolved	DETSC 2306	0.09	ug/l		0.13		0.10	0.10
Mercury, Dissolved	DETSC 2306	0.01	ug/l		< 0.01		< 0.01	< 0.01
Nickel, Dissolved	DETSC 2306	0.5	ug/l		3.43		1.39	2.53
Selenium, Dissolved	DETSC 2306	0.25	ug/l		< 0.25		< 0.25	< 0.25
Vanadium, Dissolved	DETSC 2306	0.6	ug/l		< 0.60		< 0.60	< 0.60
Zinc, Dissolved	DETSC 2306	1.3	ug/l		135.6		73.30	93.47
Inorganics								
pH	DETSC 2008		pH		6.9		7.0	6.8
Alkalinity as CaCO3 (Automated)	DETSC 2030	10	mg/l		430		560	410
Cyanide, Total	DETSC 2130	40	ug/l		< 40		< 40	< 40
Dissolved Organic Carbon	DETSC 2085	2	mg/l		4.2		6.3	4.3
Total Hardness as CaCO3	DETSC 2303	0.1	mg/l		481		672	388
Sulphate as SO4	DETSC 2055	0.1	mg/l		200		270	150
Petroleum Hydrocarbons								
Aliphatic C5-C6	DETSC 3322	0.1	ug/l		< 0.1		< 0.1	< 0.1
Aliphatic C6-C8	DETSC 3322	0.1	ug/l		< 0.1		< 0.1	< 0.1
Aliphatic C8-C10	DETSC 3322	0.1	ug/l		< 0.1		< 0.1	< 0.1
Aliphatic C10-C12	DETSC 3072*	1	ug/l		< 10.0		68	< 10.0
Aliphatic C12-C16	DETSC 3072*	1	ug/l		< 10.0		870	< 10.0
Aliphatic C16-C21	DETSC 3072*	1	ug/l		< 10.0		14	< 10.0
Aliphatic C21-C35	DETSC 3072*	1	ug/l		< 10.0		< 10.0	< 10.0
Aliphatic C5-C35	DETSC 3072*	10	ug/l		< 40.3		< 966.6	< 40.3
Aromatic C5-C7	DETSC 3322	0.1	ug/l		< 0.1		< 0.1	< 0.1
Aromatic C7-C8	DETSC 3322	0.1	ug/l		< 0.1		< 0.1	< 0.1
Aromatic C8-C10	DETSC 3322	0.1	ug/l		< 0.1		< 0.1	< 0.1
Aromatic C10-C12	DETSC 3072*	1	ug/l		< 10.0		< 10.0	< 10.0
Aromatic C12-C16	DETSC 3072*	1	ug/l		< 10.0		< 10.0	< 10.0
Aromatic C16-C21	DETSC 3072*	1	ug/l		< 10.0		< 10.0	< 10.0
Aromatic C21-C35	DETSC 3072*	1	ug/l		< 10.0		< 10.0	< 10.0
Aromatic C5-C35	DETSC 3072*	10	ug/l		< 40.3		< 40.3	< 40.3
TPH Ali/Aro Total C5-C35	DETSC 3072*	10	ug/l		< 80.6		< 1006.9	< 80.6
PAHs								
Naphthalene	DETSC 3304	0.05	ug/l		< 0.05		< 0.05	2.1
Acenaphthylene	DETSC 3304	0.01	ug/l		< 0.01		< 0.01	0.65
Acenaphthene	DETSC 3304	0.01	ug/l		< 0.01		< 0.01	3.1

Summary of Chemical Analysis

Water Samples

Our Ref 26-06843

Client Ref ~ 8353

Contract Title ~ Land Adjacent to Bealey Industrial Estate, Radcliffe

Lab No	2659895	2659896	2659897	2659898	2659899	2659900
Sample ID ~	BH01 PFAS	BH01 LF2	BH02 PFAS	BH02LF2	BH03 PFAS	BH03LF2
Depth ~	1.40	1.40	3.56	3.56	3.17	3.17
Other ID ~						
Sample Type ~	WATER UNKNOWN	WATER UNKNOWN	WATER UNKNOWN	WATER UNKNOWN	WATER UNKNOWN	WATER UNKNOWN
Sampling Date ~	18/03/2026	18/03/2026	18/03/2026	18/03/2026	18/03/2026	18/03/2026
Sampling Time ~	n/s	n/s	n/s	n/s	n/s	n/s

Test	Method	LOD	Units						
Fluorene	DETSC 3304	0.01	ug/l		< 0.01		< 0.01		2.0
Phenanthrene	DETSC 3304	0.01	ug/l		< 0.01		< 0.01		43
Anthracene	DETSC 3304	0.01	ug/l		< 0.01		< 0.01		3.5
Fluoranthene	DETSC 3304	0.01	ug/l		< 0.01		< 0.01		70
Pyrene	DETSC 3304	0.01	ug/l		0.01		< 0.01		64
Benzo(a)anthracene	DETSC 3304	0.01	ug/l		< 0.01		< 0.01		45
Chrysene	DETSC 3304	0.01	ug/l		< 0.01		< 0.01		41
Benzo(b)fluoranthene	DETSC 3304	0.01	ug/l		< 0.01		< 0.01		51
Benzo(k)fluoranthene	DETSC 3304	0.01	ug/l		< 0.01		< 0.01		34
Benzo(a)pyrene	DETSC 3304	0.01	ug/l		< 0.01		< 0.01		44
Indeno(1,2,3-c,d)pyrene	DETSC 3304	0.01	ug/l		< 0.01		< 0.01		32
Dibenzo(a,h)anthracene	DETSC 3304	0.01	ug/l		< 0.01		< 0.01		2.9
Benzo(g,h,i)perylene	DETSC 3304	0.01	ug/l		< 0.01		< 0.01		32
PAH Total	DETSC 3304	0.2	ug/l		< 0.20		< 0.20		470
Phenols									
Phenol - Monohydric	DETSC 2130	100	ug/l		< 100		< 100		< 100
Per- and Polyfluoroalkyl substances (I									
Perfluoro-n-butanoic acid (PFBA)	DETSC 3444*	10	ng/l		< 10		51		< 10
Perfluoro-n-pentanoic acid (PFPeA)	DETSC 3444*	3	ng/l		17		4.7		< 3.0
Perfluoro-1-butanefulfonate (PFBS)	DETSC 3444*	3	ng/l		< 3.0		< 3.0		< 3.0
1H,1H,2H,2H-perfluoro-1-hexanesulfonate (4-2 FTSA)	DETSC 3444*	3	ng/l		< 3.0		< 3.0		< 3.0
Perfluoro-n-hexanoic acid (PFHxA)	DETSC 3444*	3	ng/l		8.5		3.2		< 3.0
Perfluoro-1-pentanesulfonate (PFPeS)	DETSC 3444*	3	ng/l		< 3.0		< 3.0		< 3.0
Tetrafluoro-2-(heptafluoropropoxy)-propanoic acid (HFPO-DA)	DETSC 3444*	3	ng/l		< 3.0		< 3.0		< 3.0
Perfluoro-1-butanefulfonamide (FBSA)	DETSC 3444*	3	ng/l		< 3.0		< 3.0		< 3.0
Perfluoro-n-heptanoic acid (PFHpA)	DETSC 3444*	3	ng/l		5.0		3.0		< 3.0
Perfluorohexanesulfonate (PFHxS) (Linear+Branched)	DETSC 3444*	3	ng/l		< 3.0		< 3.0		< 3.0
Dodecafluoro-3H-4,8-dioxanoneate (DONA)	DETSC 3444*	3	ng/l		< 3.0		< 3.0		< 3.0
1H,1H,2H,2H-perfluoro-1-octanesulfonate (6-2 FTS)	DETSC 3444*	3	ng/l		< 3.0		< 3.0		< 3.0
Perfluoro-n-octanoic acid (PFOA)	DETSC 3444*	3	ng/l		4.4		6.9		5.1
Perfluoro-1-heptanesulfonate (PFHpS)	DETSC 3444*	3	ng/l		< 3.0		< 3.0		< 3.0
Perfluoro-1-hexanesulfonamide (FHxSA)	DETSC 3444*	3	ng/l		< 3.0		< 3.0		< 3.0
Perfluoro-n-nonanoic acid (PFNA)	DETSC 3444*	3	ng/l		< 3.0		< 3.0		< 3.0
Perfluorooctanesulfonate (PFOS) (Linear+Branched)	DETSC 3444*	3	ng/l		< 3.0		< 3.0		< 3.0
9-chlorohexadecafluoro-3-oxanonane-1-sulfonate (9Cl-PF3ONS)	DETSC 3444*	3	ng/l		< 3.0		< 3.0		< 3.0

Summary of Chemical Analysis

Water Samples

Our Ref 26-06843

Client Ref ~ 8353

Contract Title ~ Land Adjacent to Bealey Industrial Estate, Radcliffe

Lab No	2659895	2659896	2659897	2659898	2659899	2659900
Sample ID ~	BH01 PFAS	BH01 LF2	BH02 PFAS	BH02LF2	BH03 PFAS	BH03LF2
Depth ~	1.40	1.40	3.56	3.56	3.17	3.17
Other ID ~						
Sample Type ~	WATER UNKNOWN	WATER UNKNOWN	WATER UNKNOWN	WATER UNKNOWN	WATER UNKNOWN	WATER UNKNOWN
Sampling Date ~	18/03/2026	18/03/2026	18/03/2026	18/03/2026	18/03/2026	18/03/2026
Sampling Time ~	n/s	n/s	n/s	n/s	n/s	n/s

Test	Method	LOD	Units						
1H,1H,2H,2H-perfluoro-1-decanesulfonate (8-2 FTSA)	DETSC 3444*	10	ng/l	< 10		< 10		< 10	
Perfluoro-1-nonanesulfonate (PFNS)	DETSC 3444*	10	ng/l	< 10		< 10		< 10	
Perfluoro-n-decanoic acid (PFDA)	DETSC 3444*	3	ng/l	< 3.0		< 3.0		< 3.0	
N-methylperfluoro-1-octanesulfonamidoacetic acid (N-MeFOSAA)	DETSC 3444*	10	ng/l	< 10		< 10		< 10	
Perfluoro-1-decanesulfonate (PFDS)	DETSC 3444*	10	ng/l	< 10		< 10		< 10	
Perfluoro-n-undecanoic acid (PFUdA)	DETSC 3444*	10	ng/l	< 10		< 10		< 10	
N-ethylperfluoro-1-octanesulfonamidoacetic acid (N-EtFOSAA)	DETSC 3444*	10	ng/l	< 10		< 10		< 10	
Perfluoro-1-octanesulfonamide (PFOSA)	DETSC 3444*	10	ng/l	< 10		< 10		< 10	
11-chlorooctadecafluoro-3-oxaundecane-1-sulfonate (11Cl-PF3OUdS)	DETSC 3444*	10	ng/l	< 10		< 10		< 10	
Perfluoro-1-undecanesulfonate (L-PFUdS)	DETSC 3444*	10	ng/l	< 10		< 10		< 10	
Perfluoro-n-dodecanoic acid (PFDoA)	DETSC 3444*	10	ng/l	< 10		< 10		< 10	
Perfluoro-1-dodecanesulfonate (L-PFDoS)	DETSC 3444*	10	ng/l	< 10		< 10		< 10	
Perfluoro-n-tridecanoic acid (PFTrDA)	DETSC 3444*	10	ng/l	< 10		< 10		< 10	
Perfluoro-1-tridecanesulfonate (L-PFTrDS)	DETSC 3444*	10	ng/l	< 10		< 10		< 10	
Perfluoro-n-tetradecanoic acid (PFTDA)	DETSC 3444*	10	ng/l	< 10		< 10		< 10	
Perfluorohexanesulfonate (PFHxS) (Branched)	DETSC 3444*	3	ng/l	< 3.0		< 3.0		< 3.0	
Perfluorohexanesulfonate (PFHxS) (Linear)	DETSC 3444*	3	ng/l	< 3.0		< 3.0		< 3.0	
Perfluorooctanesulfonate (PFOS) (Branched)	DETSC 3444*	3	ng/l	< 3.0		< 3.0		< 3.0	
Perfluorooctanesulfonate (PFOS) (Linear)	DETSC 3444*	3	ng/l	< 3.0		< 3.0		< 3.0	
N-methylperfluoro-1-octanesulfonamidoacetic acid (N-MeFOSAA)	DETSC 3444*	10	ng/l	< 10		< 10		< 10	
N-methylperfluoro-1-octanesulfonamidoacetic acid (N-MeFOSAA)	DETSC 3444*	10	ng/l	< 10		< 10		< 10	
N-ethylperfluoro-1-octanesulfonamidoacetic acid (N-EtFOSAA)	DETSC 3444*	10	ng/l	< 10		< 10		< 10	
N-ethylperfluoro-1-octanesulfonamidoacetic acid (N-EtFOSAA)	DETSC 3444*	10	ng/l	< 10		< 10		< 10	
Perfluoro-1-undecanesulfonic acid (L-PFUdS)	DETSC 3444*	9.68	ng/l	< 9.7		< 9.7		< 9.7	

Summary of Chemical Analysis

Water Samples

Our Ref 26-06843

Client Ref ~ 8353

Contract Title ~ Land Adjacent to Bealey Industrial Estate, Radcliffe

Lab No	2659901	2659902	2659903	2659904	2659905	2659906
Sample ID ~	WS212PFAS	WS212LF2	SWSNE	SWSNE1	SWSSWPFA	SWSSW1
Depth ~	1.52	1.54				
Other ID ~						
Sample Type ~	WATER UNKNOWN	WATER UNKNOWN	WATER UNKNOWN	WATER UNKNOWN	WATER UNKNOWN	WATER UNKNOWN
Sampling Date ~	18/03/2026	18/03/2026	18/03/2026	18/03/2026	18/03/2026	18/03/2026
Sampling Time ~	n/s	n/s	n/s	n/s	n/s	n/s

Test	Method	LOD	Units					
Metals								
Arsenic, Dissolved	DETSC 2306	0.16	ug/l		2.90		2.02	1.92
Beryllium, Dissolved	DETSC 2306*	0.1	ug/l		< 0.10		< 0.10	< 0.10
Boron, Dissolved	DETSC 2306*	12	ug/l		132.5		44.20	47.28
Cadmium, Dissolved	DETSC 2306	0.03	ug/l		0.13		< 0.03	< 0.03
Chromium, Dissolved	DETSC 2306	0.25	ug/l		0.44		0.97	0.73
Copper, Dissolved	DETSC 2306	0.4	ug/l		1.65		1.91	1.46
Lead, Dissolved	DETSC 2306	0.09	ug/l		0.13		1.24	0.48
Mercury, Dissolved	DETSC 2306	0.01	ug/l		< 0.01		< 0.01	< 0.01
Nickel, Dissolved	DETSC 2306	0.5	ug/l		3.57		1.72	1.71
Selenium, Dissolved	DETSC 2306	0.25	ug/l		0.30		< 0.25	< 0.25
Vanadium, Dissolved	DETSC 2306	0.6	ug/l		< 0.60		< 0.60	< 0.60
Zinc, Dissolved	DETSC 2306	1.3	ug/l		74.34		62.67	75.50
Inorganics								
pH	DETSC 2008		pH		6.8		7.1	7.0
Alkalinity as CaCO3 (Automated)	DETSC 2030	10	mg/l		290		94	94
Cyanide, Total	DETSC 2130	40	ug/l		< 40		< 40	< 40
Dissolved Organic Carbon	DETSC 2085	2	mg/l		4.6		4.0	4.2
Total Hardness as CaCO3	DETSC 2303	0.1	mg/l		298		81.6	87.9
Sulphate as SO4	DETSC 2055	0.1	mg/l		140		26	23
Petroleum Hydrocarbons								
Aliphatic C5-C6	DETSC 3322	0.1	ug/l		< 0.1		< 0.1	< 0.1
Aliphatic C6-C8	DETSC 3322	0.1	ug/l		< 0.1		< 0.1	< 0.1
Aliphatic C8-C10	DETSC 3322	0.1	ug/l		< 0.1		< 0.1	< 0.1
Aliphatic C10-C12	DETSC 3072*	1	ug/l		< 10.0		< 10.0	< 10.0
Aliphatic C12-C16	DETSC 3072*	1	ug/l		< 10.0		< 10.0	< 10.0
Aliphatic C16-C21	DETSC 3072*	1	ug/l		< 10.0		< 10.0	< 10.0
Aliphatic C21-C35	DETSC 3072*	1	ug/l		< 10.0		< 10.0	< 10.0
Aliphatic C5-C35	DETSC 3072*	10	ug/l		< 40.3		< 40.3	< 40.3
Aromatic C5-C7	DETSC 3322	0.1	ug/l		< 0.1		< 0.1	< 0.1
Aromatic C7-C8	DETSC 3322	0.1	ug/l		< 0.1		< 0.1	< 0.1
Aromatic C8-C10	DETSC 3322	0.1	ug/l		< 0.1		< 0.1	< 0.1
Aromatic C10-C12	DETSC 3072*	1	ug/l		< 10.0		< 10.0	< 10.0
Aromatic C12-C16	DETSC 3072*	1	ug/l		< 10.0		< 10.0	< 10.0
Aromatic C16-C21	DETSC 3072*	1	ug/l		< 10.0		< 10.0	< 10.0
Aromatic C21-C35	DETSC 3072*	1	ug/l		< 10.0		< 10.0	< 10.0
Aromatic C5-C35	DETSC 3072*	10	ug/l		< 40.3		< 40.3	< 40.3
TPH Ali/Aro Total C5-C35	DETSC 3072*	10	ug/l		< 80.6		< 80.6	< 80.6
PAHs								
Naphthalene	DETSC 3304	0.05	ug/l		0.27		< 0.05	< 0.05
Acenaphthylene	DETSC 3304	0.01	ug/l		0.34		< 0.01	< 0.01
Acenaphthene	DETSC 3304	0.01	ug/l		0.23		< 0.01	< 0.01

Summary of Chemical Analysis

Water Samples

Our Ref 26-06843

Client Ref ~ 8353

Contract Title ~ Land Adjacent to Bealey Industrial Estate, Radcliffe

Lab No	2659901	2659902	2659903	2659904	2659905	2659906
Sample ID ~	WS212PFAS	WS212LF2	SWSNE	SWSNE1	SWSSWPFA	SWSSW1
Depth ~	1.52	1.54				
Other ID ~						
Sample Type ~	WATER UNKNOWN	WATER UNKNOWN	WATER UNKNOWN	WATER UNKNOWN	WATER UNKNOWN	WATER UNKNOWN
Sampling Date ~	18/03/2026	18/03/2026	18/03/2026	18/03/2026	18/03/2026	18/03/2026
Sampling Time ~	n/s	n/s	n/s	n/s	n/s	n/s

Test	Method	LOD	Units						
Fluorene	DETSC 3304	0.01	ug/l		0.38		< 0.01		< 0.01
Phenanthrene	DETSC 3304	0.01	ug/l		0.44		< 0.01		< 0.01
Anthracene	DETSC 3304	0.01	ug/l		< 0.05		< 0.01		< 0.01
Fluoranthene	DETSC 3304	0.01	ug/l		0.64		< 0.01		< 0.01
Pyrene	DETSC 3304	0.01	ug/l		0.75		< 0.01		< 0.01
Benzo(a)anthracene	DETSC 3304	0.01	ug/l		0.38		< 0.01		< 0.01
Chrysene	DETSC 3304	0.01	ug/l		0.27		< 0.01		< 0.01
Benzo(b)fluoranthene	DETSC 3304	0.01	ug/l		0.68		< 0.01		< 0.01
Benzo(k)fluoranthene	DETSC 3304	0.01	ug/l		0.32		< 0.01		< 0.01
Benzo(a)pyrene	DETSC 3304	0.01	ug/l		0.54		< 0.01		< 0.01
Indeno(1,2,3-c,d)pyrene	DETSC 3304	0.01	ug/l		0.43		< 0.01		< 0.01
Dibenzo(a,h)anthracene	DETSC 3304	0.01	ug/l		0.13		0.01		< 0.01
Benzo(g,h,i)perylene	DETSC 3304	0.01	ug/l		0.43		< 0.01		< 0.01
PAH Total	DETSC 3304	0.2	ug/l		6.3		< 0.20		< 0.20
Phenols									
Phenol - Monohydric	DETSC 2130	100	ug/l		< 100		< 100		< 100
Per- and Polyfluoroalkyl substances (I									
Perfluoro-n-butanoic acid (PFBA)	DETSC 3444*	10	ng/l		< 10		< 10		< 10
Perfluoro-n-pentanoic acid (PFPeA)	DETSC 3444*	3	ng/l		< 3.0		< 3.0		< 3.0
Perfluoro-1-butanefluorobutanoate (PFBS)	DETSC 3444*	3	ng/l		6.6		< 3.0		< 3.0
1H,1H,2H,2H-perfluoro-1-hexanesulfonate (4-2 FTSA)	DETSC 3444*	3	ng/l		< 3.0		< 3.0		< 3.0
Perfluoro-n-hexanoic acid (PFHxA)	DETSC 3444*	3	ng/l		3.2		< 3.0		< 3.0
Perfluoro-1-pentanesulfonate (PFPeS)	DETSC 3444*	3	ng/l		< 3.0		< 3.0		< 3.0
Tetrafluoro-2-(heptafluoropropoxy)-propanoic acid (HFPO-DA)	DETSC 3444*	3	ng/l		< 3.0		< 3.0		< 3.0
Perfluoro-1-butanefluorobutanoate (FBFA)	DETSC 3444*	3	ng/l		< 3.0		< 3.0		< 3.0
Perfluoro-n-heptanoic acid (PFHpA)	DETSC 3444*	3	ng/l		3.5		< 3.0		< 3.0
Perfluorohexanesulfonate (PFHxS) (Linear+Branched)	DETSC 3444*	3	ng/l		< 3.0		< 3.0		< 3.0
Dodecafluoro-3H-4,8-dioxanone-1-one (DONA)	DETSC 3444*	3	ng/l		< 3.0		< 3.0		< 3.0
1H,1H,2H,2H-perfluoro-1-octanesulfonate (6-2 FTS)	DETSC 3444*	3	ng/l		< 3.0		< 3.0		< 3.0
Perfluoro-n-octanoic acid (PFOA)	DETSC 3444*	3	ng/l		7.6		3.2		< 3.0
Perfluoro-1-heptanesulfonate (PFHpS)	DETSC 3444*	3	ng/l		< 3.0		< 3.0		< 3.0
Perfluoro-1-hexanesulfonamide (FHxSA)	DETSC 3444*	3	ng/l		< 3.0		< 3.0		< 3.0
Perfluoro-n-nonanoic acid (PFNA)	DETSC 3444*	3	ng/l		< 3.0		< 3.0		< 3.0
Perfluorooctanesulfonate (PFOS) (Linear+Branched)	DETSC 3444*	3	ng/l		< 3.0		< 3.0		< 3.0
9-chlorohexadecafluoro-3-oxanonane-1-sulfonate (9Cl-PF3ONS)	DETSC 3444*	3	ng/l		< 3.0		< 3.0		< 3.0

Summary of Chemical Analysis

Water Samples

Our Ref 26-06843

Client Ref ~ 8353

Contract Title ~ Land Adjacent to Bealey Industrial Estate, Radcliffe

Lab No	2659901	2659902	2659903	2659904	2659905	2659906
Sample ID ~	WS212PFAS	WS212LF2	SWSNE	SWSNE1	SWSSWPFA	SWSSW1
Depth ~	1.52	1.54				
Other ID ~						
Sample Type ~	WATER UNKNOWN	WATER UNKNOWN	WATER UNKNOWN	WATER UNKNOWN	WATER UNKNOWN	WATER UNKNOWN
Sampling Date ~	18/03/2026	18/03/2026	18/03/2026	18/03/2026	18/03/2026	18/03/2026
Sampling Time ~	n/s	n/s	n/s	n/s	n/s	n/s

Test	Method	LOD	Units						
1H,1H,2H,2H-perfluoro-1-decanesulfonate (8-2 FTSA)	DETSC 3444*	10	ng/l	< 10		< 10		< 10	
Perfluoro-1-nonanesulfonate (PFNS)	DETSC 3444*	10	ng/l	< 10		< 10		< 10	
Perfluoro-n-decanoic acid (PFDA)	DETSC 3444*	3	ng/l	< 3.0		< 3.0		< 3.0	
N-methylperfluoro-1-octanesulfonamidoacetic acid (N-MeFOSAA)	DETSC 3444*	10	ng/l	< 10		< 10		< 10	
Perfluoro-1-decanesulfonate (PFDS)	DETSC 3444*	10	ng/l	< 10		< 10		< 10	
Perfluoro-n-undecanoic acid (PFUdA)	DETSC 3444*	10	ng/l	< 10		< 10		< 10	
N-ethylperfluoro-1-octanesulfonamidoacetic acid (N-EtFOSAA)	DETSC 3444*	10	ng/l	< 10		< 10		< 10	
Perfluoro-1-octanesulfonamide (PFOSA)	DETSC 3444*	10	ng/l	< 10		< 10		< 10	
11-chlorooctadecafluoro-3-oxaundecane-1-sulfonate (11Cl-PF3OUdS)	DETSC 3444*	10	ng/l	< 10		< 10		< 10	
Perfluoro-1-undecanesulfonate (L-PFUdS)	DETSC 3444*	10	ng/l	< 10		< 10		< 10	
Perfluoro-n-dodecanoic acid (PFDoA)	DETSC 3444*	10	ng/l	< 10		< 10		< 10	
Perfluoro-1-dodecanesulfonate (L-PFDoS)	DETSC 3444*	10	ng/l	< 10		< 10		< 10	
Perfluoro-n-tridecanoic acid (PFTrDA)	DETSC 3444*	10	ng/l	< 10		< 10		< 10	
Perfluoro-1-tridecanesulfonate (L-PFTrDS)	DETSC 3444*	10	ng/l	< 10		< 10		< 10	
Perfluoro-n-tetradecanoic acid (PFTDA)	DETSC 3444*	10	ng/l	< 10		< 10		< 10	
Perfluorohexanesulfonate (PFHxS) (Branched)	DETSC 3444*	3	ng/l	< 3.0		< 3.0		< 3.0	
Perfluorohexanesulfonate (PFHxS) (Linear)	DETSC 3444*	3	ng/l	< 3.0		< 3.0		< 3.0	
Perfluorooctanesulfonate (PFOS) (Branched)	DETSC 3444*	3	ng/l	< 3.0		< 3.0		< 3.0	
Perfluorooctanesulfonate (PFOS) (Linear)	DETSC 3444*	3	ng/l	< 3.0		< 3.0		< 3.0	
N-methylperfluoro-1-octanesulfonamidoacetic acid (N-MeFOSAA)	DETSC 3444*	10	ng/l	< 10		< 10		< 10	
N-methylperfluoro-1-octanesulfonamidoacetic acid (N-MeFOSAA)	DETSC 3444*	10	ng/l	< 10		< 10		< 10	
N-ethylperfluoro-1-octanesulfonamidoacetic acid (N-EtFOSAA)	DETSC 3444*	10	ng/l	< 10		< 10		< 10	
N-ethylperfluoro-1-octanesulfonamidoacetic acid (N-EtFOSAA)	DETSC 3444*	10	ng/l	< 10		< 10		< 10	
Perfluoro-1-undecanesulfonic acid (L-PFUdS)	DETSC 3444*	9.68	ng/l	< 9.7		< 9.7		< 9.7	

Summary of Chemical Analysis

Water VOC Samples

Our Ref 26-06843

Client Ref ~ 8353

Contract Title ~ Land Adjacent to Bealey Industrial Estate, Radcliffe

Lab No	2659896	2659898	2659900	2659902	2659904	2659906
Sample ID ~	BH01 LF2	BH02LF2	BH03LF2	WS212LF2	SWSNE1	SWSSW1
Depth ~	1.40	3.56	3.17	1.54		
Other ID ~						
Sample Type ~	WATER UNKNOWN	WATER UNKNOWN	WATER UNKNOWN	WATER UNKNOWN	WATER UNKNOWN	WATER UNKNOWN
Sampling Date ~	18/03/2026	18/03/2026	18/03/2026	18/03/2026	18/03/2026	18/03/2026
Sampling Time ~	n/s	n/s	n/s	n/s	n/s	n/s

Test	Method	LOD	Units						
VOCs									
Dichlorodifluoromethane	DETSC 3432	1	ug/l	< 1	< 1	< 1	< 1	< 1	< 1
Chloromethane	DETSC 3432	1	ug/l	< 1	< 1	< 1	< 1	< 1	< 1
Vinyl Chloride	DETSC 3432	1	ug/l	< 1	< 1	< 1	< 1	< 1	< 1
Bromomethane	DETSC 3432	1	ug/l	< 1	< 1	< 1	< 1	< 1	< 1
Chloroethane	DETSC 3432	1	ug/l	< 1	< 1	< 1	< 1	< 1	< 1
Trichlorofluoromethane	DETSC 3432*	1	ug/l	< 1	< 1	< 1	< 1	< 1	< 1
1,1-dichloroethylene	DETSC 3432	1	ug/l	< 1	< 1	< 1	< 1	< 1	< 1
Methylene Chloride	DETSC 3432*	27	ug/l	< 27	< 27	< 27	< 27	< 27	< 27
Trans-1,2-dichloroethylene	DETSC 3432	1	ug/l	< 1	< 1	< 1	< 1	< 1	< 1
1,1-dichloroethane	DETSC 3432	1	ug/l	< 1	< 1	< 1	< 1	< 1	< 1
Cis-1,2-dichloroethylene	DETSC 3432	1	ug/l	< 1	< 1	< 1	< 1	< 1	< 1
2,2-dichloropropane	DETSC 3432*	2	ug/l	< 2	< 2	< 2	< 2	< 2	< 2
Bromochloromethane	DETSC 3432	4	ug/l	< 4	< 4	< 4	< 4	< 4	< 4
Chloroform	DETSC 3432	1	ug/l	< 1	< 1	< 1	< 1	< 1	< 1
1,1,1-trichloroethane	DETSC 3432	1	ug/l	< 1	< 1	< 1	< 1	< 1	< 1
1,1-dichloropropene	DETSC 3432	1	ug/l	< 1	< 1	< 1	< 1	< 1	< 1
Carbon tetrachloride	DETSC 3432	1	ug/l	< 1	< 1	< 1	< 1	< 1	< 1
Benzene	DETSC 3432	1	ug/l	< 1	< 1	< 1	< 1	< 1	< 1
1,2-dichloroethane	DETSC 3432	1	ug/l	< 1	< 1	< 1	< 1	< 1	< 1
Trichloroethylene	DETSC 3432*	1	ug/l	< 1	< 1	< 1	< 1	< 1	< 1
1,2-dichloropropane	DETSC 3432	1	ug/l	< 1	< 1	< 1	< 1	< 1	< 1
Dibromomethane	DETSC 3432	1	ug/l	< 1	< 1	< 1	< 1	< 1	< 1
Bromodichloromethane	DETSC 3432	4	ug/l	< 4	< 4	< 4	< 4	< 4	< 4
cis-1,3-dichloropropene	DETSC 3432	1	ug/l	< 1	< 1	< 1	< 1	< 1	< 1
Toluene	DETSC 3432	1	ug/l	< 1	< 1	< 1	< 1	< 1	< 1
trans-1,3-dichloropropene	DETSC 3432	1	ug/l	< 1	< 1	< 1	< 1	< 1	< 1
1,1,2-trichloroethane	DETSC 3432	1	ug/l	< 1	< 1	< 1	< 1	< 1	< 1
Tetrachloroethylene	DETSC 3432	1	ug/l	< 1	< 1	< 1	< 1	< 1	< 1
1,3-dichloropropane	DETSC 3432	1	ug/l	< 1	< 1	< 1	< 1	< 1	< 1
Dibromochloromethane	DETSC 3432	1	ug/l	< 1	< 1	< 1	< 1	< 1	< 1
1,2-dibromoethane	DETSC 3432	1	ug/l	< 1	< 1	< 1	< 1	< 1	< 1
Chlorobenzene	DETSC 3432	1	ug/l	< 1	< 1	< 1	< 1	< 1	< 1
1,1,1,2-tetrachloroethane	DETSC 3432	1	ug/l	< 1	< 1	< 1	< 1	< 1	< 1
Ethylbenzene	DETSC 3432	1	ug/l	< 1	< 1	< 1	< 1	< 1	< 1
m+p-Xylene	DETSC 3432	2	ug/l	< 2	< 2	< 2	< 2	< 2	< 2
o-Xylene	DETSC 3432	1	ug/l	< 1	< 1	< 1	< 1	< 1	< 1
Styrene	DETSC 3432	1	ug/l	< 1	< 1	< 1	< 1	< 1	< 1
Bromoform	DETSC 3432	1	ug/l	< 1	< 1	< 1	< 1	< 1	< 1
Isopropylbenzene	DETSC 3432	1	ug/l	< 1	< 1	< 1	< 1	< 1	< 1
1,1,2,2-tetrachloroethane	DETSC 3432	1	ug/l	< 1	< 1	< 1	< 1	< 1	< 1
Bromobenzene	DETSC 3432	1	ug/l	< 1	< 1	< 1	< 1	< 1	< 1

Summary of Chemical Analysis

Water VOC Samples

Our Ref 26-06843

Client Ref ~ 8353

Contract Title ~ Land Adjacent to Bealey Industrial Estate, Radcliffe

Lab No	2659896	2659898	2659900	2659902	2659904	2659906
Sample ID ~	BH01 LF2	BH02LF2	BH03LF2	WS212LF2	SWSNE1	SWSSW1
Depth ~	1.40	3.56	3.17	1.54		
Other ID ~						
Sample Type ~	WATER UNKNOWN	WATER UNKNOWN	WATER UNKNOWN	WATER UNKNOWN	WATER UNKNOWN	WATER UNKNOWN
Sampling Date ~	18/03/2026	18/03/2026	18/03/2026	18/03/2026	18/03/2026	18/03/2026
Sampling Time ~	n/s	n/s	n/s	n/s	n/s	n/s

Test	Method	LOD	Units						
1,2,3-trichloropropane	DETSC 3432	1	ug/l	< 1	< 1	< 1	< 1	< 1	< 1
n-propylbenzene	DETSC 3432	1	ug/l	< 1	< 1	< 1	< 1	< 1	< 1
2-chlorotoluene	DETSC 3432	1	ug/l	< 1	< 1	< 1	< 1	< 1	< 1
1,3,5-trimethylbenzene	DETSC 3432	1	ug/l	< 1	< 1	< 1	< 1	< 1	< 1
4-chlorotoluene	DETSC 3432	1	ug/l	< 1	< 1	< 1	< 1	< 1	< 1
Tert-butylbenzene	DETSC 3432	1	ug/l	< 1	< 1	< 1	< 1	< 1	< 1
1,2,4-trimethylbenzene	DETSC 3432	1	ug/l	< 1	< 1	< 1	< 1	< 1	< 1
sec-butylbenzene	DETSC 3432	1	ug/l	< 1	< 1	< 1	< 1	< 1	< 1
p-isopropyltoluene	DETSC 3432	1	ug/l	< 1	< 1	< 1	< 1	< 1	< 1
1,3-dichlorobenzene	DETSC 3432	2	ug/l	< 2	< 2	< 2	< 2	< 2	< 2
1,4-dichlorobenzene	DETSC 3432	1	ug/l	< 1	< 1	< 1	< 1	< 1	< 1
n-butylbenzene	DETSC 3432	1	ug/l	< 1	< 1	< 1	< 1	< 1	< 1
1,2-dichlorobenzene	DETSC 3432	1	ug/l	< 1	< 1	< 1	< 1	< 1	< 1
1,2-dibromo-3-chloropropane	DETSC 3432	1	ug/l	< 1	< 1	< 1	< 1	< 1	< 1
1,2,4-trichlorobenzene	DETSC 3432	1	ug/l	< 1	< 1	< 1	< 1	< 1	< 1
Hexachlorobutadiene	DETSC 3432	1	ug/l	< 1	< 1	< 1	< 1	< 1	< 1
1,2,3-trichlorobenzene	DETSC 3432	1	ug/l	< 1	< 1	< 1	< 1	< 1	< 1
MTBE	DETSC 3432*	1	ug/l	< 1	< 1	< 1	< 1	< 1	< 1
TAME	DETSC 3432*	1	ug/l	< 1	< 1	< 1	< 1	< 1	< 1

Information in Support of the Analytical Results

Our Ref 26-06843
 Client Ref ~ 8353
 Contract ~ Land Adjacent to Bealey Industrial Estate, Radcliffe

Containers Received & Deviating Samples

Lab No	Sample ID ~	Date Sampled ~	Containers Received	Holding time exceeded for tests	Incorrect container for tests
2659895	BH01 PFAS 1.40 WATER UNKNOWN	18/03/26	P(other)		PFAS Over temperature
2659896	BH01 LF2 1.40 WATER UNKNOWN	18/03/26	GB 1L, GV, PB 1L	pH/Cond (1 days)	
2659897	BH02 PFAS 3.56 WATER UNKNOWN	18/03/26	P(other)		PFAS Over temperature
2659898	BH02LF2 3.56 WATER UNKNOWN	18/03/26	GB 1L, GV, PB 1L	pH/Cond (1 days)	
2659899	BH03 PFAS 3.17 WATER UNKNOWN	18/03/26	P(other)		PFAS Over temperature
2659900	BH03LF2 3.17 WATER UNKNOWN	18/03/26	GB 1L, GV, PB 1L	pH/Cond (1 days)	
2659901	WS212PFAS 1.52 WATER UNKNOWN	18/03/26	P(other)		PFAS Over temperature
2659902	WS212LF2 1.54 WATER UNKNOWN	18/03/26	GB 1L, GV, PB 1L	pH/Cond (1 days)	
2659903	SWSNE PFAS WATER UNKNOWN	18/03/26	P(other)		PFAS Over temperature
2659904	SWSNE1 WATER UNKNOWN	18/03/26	GB 1L, GV, PB 1L	pH/Cond (1 days)	
2659905	SWSSWPFAS WATER UNKNOWN	18/03/26	P(other)		PFAS Over temperature
2659906	SWSSW1 WATER UNKNOWN	18/03/26	GB 1L, GV, PB 1L	pH/Cond (1 days)	

Key: P-Plastic G-Glass B-Bottle V-Vial

Normec DETS cannot be held responsible for the integrity of samples received whereby the laboratory did not undertake the sampling. In this instance samples received may be deviating. Deviating Sample criteria are based on British and International standards and laboratory trials in conjunction with the UKAS note 'Guidance on Deviating Samples'. All samples received are listed above. However, those samples that have additional comments in relation to hold time, inappropriate containers etc are deviating due to the reasons stated. This means that the analysis is accredited where applicable, but results may be compromised due to sample deviations. If no sampled date (soils) or date+time (waters) has been supplied then samples are deviating. However, if you are able to supply a sampled date (and time for waters) this will prevent samples being reported as deviating where specific hold times are not exceeded and where the container supplied is suitable.

Disposal

From the issue date of this test certificate, samples will be held for the following times prior to disposal :-
 Soils - 1 month, Liquids - 2 weeks, Asbestos (test portion) - 6 months

Key:

~ Sample details are provided by the client and can affect the validity of the results

* -not accredited.

-MCERTS (accreditation only applies if report carries the MCERTS logo).

Symbol key at end of report

Information in Support of the Analytical Results

Our Ref 26-06843

Client Ref ~ 8353

Contract ~ Land Adjacent to Bealey Industrial Estate, Radcliffe

\$ -subcontracted.

n/s -not supplied.

I/S -insufficient sample.

U/S -unsuitable sample.

t/f -to follow.

nd -not detected.

End of Report Ver 26.03.15

Certificate of Analysis

Certificate Number 26-07988

Issued: 20-Apr-26

Client Coopers (Chester) Ltd
Park House
Sandpiper Court
Chester Business Park
Chester
CH4 9QU

Our Reference 26-07988

Client Reference ~ 8353

Order No ~ 10708-ST

Contract Title ~ Land Adjacent to Bealey Industrial Estate, Radcliffe

Description 12 Water No Information Supplied samples.

Date Received 02-Apr-26

Date Started 02-Apr-26

Date Completed 20-Apr-26

Test Procedures Identified by prefix DETSn (details on request).

Notes 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 By



Reyhan Irfan
Operations Manager

Sample Deviations present. See Deviation Table Section for details.

Normec DETS Limited

Summary of Chemical Analysis

Water Samples

Our Ref 26-07988

Client Ref ~ 8353

Contract Title ~ Land Adjacent to Bealey Industrial Estate, Radcliffe

Lab No	2666056	2666057	2666058	2666059	2666060	2666061
Sample ID ~	BH01 PFAS	BH01 LF2	WS212 PFAS	WS212 LF2	BH02 PFAS	BH02 LF2
Depth ~	1.30	1.30	1.48	1.48	3.54	3.54
Other ID ~						
Sample Type ~	WATER UNKNOWN	WATER UNKNOWN	WATER UNKNOWN	WATER UNKNOWN	WATER UNKNOWN	WATER UNKNOWN
Sampling Date ~	31/03/2026	31/03/2026	31/03/2026	31/03/2026	31/03/2026	31/03/2026
Sampling Time ~	n/s	n/s	n/s	n/s	n/s	n/s

Test	Method	LOD	Units					
Metals								
Arsenic, Dissolved	DETSC 2306	0.16	ug/l		0.92		1.95	0.92
Beryllium, Dissolved	DETSC 2306*	0.1	ug/l		< 0.10		< 0.10	< 0.10
Boron, Dissolved	DETSC 2306*	12	ug/l		115.8		113.1	147.4
Cadmium, Dissolved	DETSC 2306	0.03	ug/l		0.06		0.14	< 0.03
Chromium, Dissolved	DETSC 2306	0.25	ug/l		0.28		0.33	0.42
Copper, Dissolved	DETSC 2306	0.4	ug/l		3.29		1.33	0.48
Lead, Dissolved	DETSC 2306	0.09	ug/l		0.19		0.10	0.43
Mercury, Dissolved	DETSC 2306	0.01	ug/l		< 0.01		< 0.01	< 0.01
Nickel, Dissolved	DETSC 2306	0.5	ug/l		3.21		3.94	2.55
Selenium, Dissolved	DETSC 2306	0.25	ug/l		0.37		0.39	0.29
Vanadium, Dissolved	DETSC 2306	0.6	ug/l		1.12		< 0.60	< 0.60
Zinc, Dissolved	DETSC 2306	1.3	ug/l		163.1		100.3	94.71
Inorganics								
pH	DETSC 2008		pH		7.2		7.0	7.2
Alkalinity as CaCO3 (Automated)	DETSC 2030	10	mg/l		280		630	350
Cyanide, Total	DETSC 2130	40	ug/l		< 40		< 40	< 40
Dissolved Organic Carbon	DETSC 2085	2	mg/l		5.9		5.1	14
Total Hardness as CaCO3	DETSC 2303	0.1	mg/l		407		290	620
Sulphate as SO4	DETSC 2055	0.1	mg/l		160		140	240
Petroleum Hydrocarbons								
Aliphatic C5-C6	DETSC 3322	0.1	ug/l		< 0.1		< 0.1	< 0.1
Aliphatic C6-C8	DETSC 3322	0.1	ug/l		< 0.1		< 0.1	< 0.1
Aliphatic C8-C10	DETSC 3322	0.1	ug/l		< 0.1		< 0.1	< 0.1
Aliphatic C10-C12	DETSC 3072*	1	ug/l		< 1.0		< 1.0	< 1.0
Aliphatic C12-C16	DETSC 3072*	1	ug/l		< 1.0		< 1.0	< 1.0
Aliphatic C16-C21	DETSC 3072*	1	ug/l		< 1.0		< 1.0	< 1.0
Aliphatic C21-C35	DETSC 3072*	1	ug/l		< 1.0		< 1.0	< 1.0
Aliphatic C5-C35	DETSC 3072*	10	ug/l		< 10		< 10	< 10
Aromatic C5-C7	DETSC 3322	0.1	ug/l		< 0.1		< 0.1	< 0.1
Aromatic C7-C8	DETSC 3322	0.1	ug/l		< 0.1		< 0.1	< 0.1
Aromatic C8-C10	DETSC 3322	0.1	ug/l		< 0.1		< 0.1	< 0.1
Aromatic C10-C12	DETSC 3072*	1	ug/l		< 1.0		< 1.0	< 1.0
Aromatic C12-C16	DETSC 3072*	1	ug/l		< 1.0		< 1.0	< 1.0
Aromatic C16-C21	DETSC 3072*	1	ug/l		< 1.0		< 1.0	< 1.0
Aromatic C21-C35	DETSC 3072*	1	ug/l		< 1.0		< 1.0	< 1.0
Aromatic C5-C35	DETSC 3072*	10	ug/l		< 10		< 10	< 10
TPH Ali/Aro Total C5-C35	DETSC 3072*	10	ug/l		< 10		< 10	< 10
PAHs								
Naphthalene	DETSC 3304	0.05	ug/l		0.18		< 0.05	0.07
Acenaphthylene	DETSC 3304	0.01	ug/l		0.08		< 0.01	< 0.01

Summary of Chemical Analysis

Water Samples

Our Ref 26-07988

Client Ref ~ 8353

Contract Title ~ Land Adjacent to Bealey Industrial Estate, Radcliffe

Lab No

Sample ID ~

Depth ~

Other ID ~

Sample Type ~

Sampling Date ~

Sampling Time ~

2666056	2666057	2666058	2666059	2666060	2666061
BH01 PFAS	BH01 LF2	WS212 PFAS	WS212 LF2	BH02 PFAS	BH02 LF2
1.30	1.30	1.48	1.48	3.54	3.54
WATER UNKNOWN	WATER UNKNOWN	WATER UNKNOWN	WATER UNKNOWN	WATER UNKNOWN	WATER UNKNOWN
31/03/2026	31/03/2026	31/03/2026	31/03/2026	31/03/2026	31/03/2026
n/s	n/s	n/s	n/s	n/s	n/s

Test	Method	LOD	Units						
Acenaphthene	DETS 3304	0.01	ug/l		0.07		0.02		26
Fluorene	DETS 3304	0.01	ug/l		0.06		0.01		3.1
Phenanthrene	DETS 3304	0.01	ug/l		0.56		0.03		0.38
Anthracene	DETS 3304	0.01	ug/l		0.19		< 0.01		0.18
Fluoranthene	DETS 3304	0.01	ug/l		2.2		< 0.01		0.97
Pyrene	DETS 3304	0.01	ug/l		2.2		< 0.01		0.72
Benzo(a)anthracene	DETS 3304	0.01	ug/l		0.77		< 0.01		0.13
Chrysene	DETS 3304	0.01	ug/l		0.89		< 0.01		0.16
Benzo(b)fluoranthene	DETS 3304	0.01	ug/l		2.2		0.01		0.19
Benzo(k)fluoranthene	DETS 3304	0.01	ug/l		0.51		< 0.01		0.06
Benzo(a)pyrene	DETS 3304	0.01	ug/l		1.0		< 0.01		0.13
Indeno(1,2,3-c,d)pyrene	DETS 3304	0.01	ug/l		0.93		< 0.01		0.11
Dibenzo(a,h)anthracene	DETS 3304	0.01	ug/l		0.17		< 0.01		0.02
Benzo(g,h,i)perylene	DETS 3304	0.01	ug/l		1.0		< 0.01		0.12
PAH Total	DETS 3304	0.2	ug/l		13		< 0.20		33
Phenols									
Phenol - Monohydric	DETS 2130	100	ug/l		< 100		< 100		< 100
Per- and Polyfluoroalkyl substances (I)									
Perfluoro-n-butanoic acid (PFBA)	DETS 3444*	10	ng/l	< 10		< 10		< 10	
Perfluoro-n-pentanoic acid (PFPeA)	DETS 3444*	3	ng/l	4.4		< 3.0		3.5	
Perfluoro-1-butanefulfonate (PFBS)	DETS 3444*	3	ng/l	< 3.0		4.1		< 3.0	
1H,1H,2H,2H-perfluoro-1-hexanesulfonate (4-2 FTSA)	DETS 3444*	3	ng/l	< 3.0		< 3.0		< 3.0	
Perfluoro-n-hexanoic acid (PFHxA)	DETS 3444*	3	ng/l	4.6		3.1		< 3.0	
Perfluoro-1-pentanesulfonate (PFPeS)	DETS 3444*	3	ng/l	< 3.0		< 3.0		< 3.0	
Tetrafluoro-2-(heptafluoropropoxy)-propanoic acid (HFPO-DA)	DETS 3444*	3	ng/l	< 3.0		< 3.0		< 3.0	
Perfluoro-1-butanefulfonamide (FBSA)	DETS 3444*	3	ng/l	< 3.0		< 3.0		< 3.0	
Perfluoro-n-heptanoic acid (PFHpA)	DETS 3444*	3	ng/l	3.7		3.3		< 3.0	
Perfluorohexanesulfonate (PFHxS) (Linear+Branched)	DETS 3444*	3	ng/l	< 3.0		< 3.0		< 3.0	
Dodecafluoro-3H-4,8-dioxanonanoate (DONA)	DETS 3444*	3	ng/l	< 3.0		< 3.0		< 3.0	
1H,1H,2H,2H-perfluoro-1-octanesulfonate (6-2 FTS)	DETS 3444*	3	ng/l	< 3.0		< 3.0		< 3.0	
Perfluoro-n-octanoic acid (PFOA)	DETS 3444*	3	ng/l	32		30		35	
Perfluoro-1-heptanesulfonate (PFHpS)	DETS 3444*	3	ng/l	< 3.0		< 3.0		< 3.0	
Perfluoro-1-hexanesulfonamide (FHxSA)	DETS 3444*	3	ng/l	< 3.0		< 3.0		< 3.0	
Perfluoro-n-nonanoic acid (PFNA)	DETS 3444*	3	ng/l	< 3.0		< 3.0		< 3.0	
Perfluorooctanesulfonate (PFOS) (Linear+Branched)	DETS 3444*	3	ng/l	< 3.0		< 3.0		< 3.0	
9-chlorohexadecafluoro-3-oxanonane-1-sulfonate (9CI-PF3ONS)	DETS 3444*	3	ng/l	< 3.0		< 3.0		< 3.0	

Summary of Chemical Analysis

Water Samples

Our Ref 26-07988

Client Ref ~ 8353

Contract Title ~ Land Adjacent to Bealey Industrial Estate, Radcliffe

Lab No

Sample ID ~

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Sampling Time ~

2666056	2666057	2666058	2666059	2666060	2666061
BH01 PFAS	BH01 LF2	WS212 PFAS	WS212 LF2	BH02 PFAS	BH02 LF2
1.30	1.30	1.48	1.48	3.54	3.54
WATER UNKNOWN	WATER UNKNOWN	WATER UNKNOWN	WATER UNKNOWN	WATER UNKNOWN	WATER UNKNOWN
31/03/2026	31/03/2026	31/03/2026	31/03/2026	31/03/2026	31/03/2026
n/s	n/s	n/s	n/s	n/s	n/s

Test	Method	LOD	Units						
1H,1H,2H,2H-perfluoro-1-decanesulfonate (8-2 FTSA)	DETSC 3444*	10	ng/l	< 10		< 10		< 10	
Perfluoro-1-nonanesulfonate (PFNS)	DETSC 3444*	10	ng/l	< 10		< 10		< 10	
Perfluoro-n-decanoic acid (PFDA)	DETSC 3444*	3	ng/l	< 3.0		< 3.0		< 3.0	
N-methylperfluoro-1-octanesulfonamidoacetic acid (N-MeFOSAA)	DETSC 3444*	10	ng/l	< 10		< 10		< 10	
Perfluoro-1-decanesulfonate (PFDS)	DETSC 3444*	10	ng/l	< 10		< 10		< 10	
Perfluoro-n-undecanoic acid (PFUDA)	DETSC 3444*	10	ng/l	< 10		< 10		< 10	
N-ethylperfluoro-1-octanesulfonamidoacetic acid (N-EtFOSAA)	DETSC 3444*	10	ng/l	< 10		< 10		< 10	
Perfluoro-1-octanesulfonamide (PFOSA)	DETSC 3444*	10	ng/l	< 10		< 10		< 10	
11-chlorooctadecafluoro-3-oxaundecane-1-sulfonate (11Cl-PF3OUdS)	DETSC 3444*	10	ng/l	< 10		< 10		< 10	
Perfluoro-1-undecanesulfonate (L-PFUdS)	DETSC 3444*	10	ng/l	< 10		< 10		< 10	
Perfluoro-n-dodecanoic acid (PFDoA)	DETSC 3444*	10	ng/l	< 10		< 10		< 10	
Perfluoro-1-dodecanesulfonate (L-PFDoS)	DETSC 3444*	10	ng/l	< 10		< 10		< 10	
Perfluoro-n-tridecanoic acid (PFTrDA)	DETSC 3444*	10	ng/l	< 10		< 10		< 10	
Perfluoro-1-tridecanesulfonate (L-PFTrDS)	DETSC 3444*	10	ng/l	< 10		< 10		< 10	
Perfluoro-n-tetradecanoic acid (PFTDA)	DETSC 3444*	10	ng/l	< 10		< 10		< 10	
Perfluorohexanesulfonate (PFHxS) (Branched)	DETSC 3444*	3	ng/l	< 3.0		< 3.0		< 3.0	
Perfluorohexanesulfonate (PFHxS) (Linear)	DETSC 3444*	3	ng/l	< 3.0		< 3.0		< 3.0	
Perfluorooctanesulfonate (PFOS) (Branched)	DETSC 3444*	3	ng/l	< 3.0		< 3.0		< 3.0	
Perfluorooctanesulfonate (PFOS) (Linear)	DETSC 3444*	3	ng/l	< 3.0		< 3.0		< 3.0	
N-methylperfluoro-1-octanesulfonamidoacetic acid (N-MeFOSAA)	DETSC 3444*	10	ng/l	< 10		< 10		< 10	
N-methylperfluoro-1-octanesulfonamidoacetic acid (N-MeFOSAA)	DETSC 3444*	10	ng/l	< 10		< 10		< 10	
N-ethylperfluoro-1-octanesulfonamidoacetic acid (N-EtFOSAA)	DETSC 3444*	10	ng/l	< 10		< 10		< 10	
N-ethylperfluoro-1-octanesulfonamidoacetic acid (N-EtFOSAA)	DETSC 3444*	10	ng/l	< 10		< 10		< 10	
Perfluoro-1-undecanesulfonic acid (L-PFUdS)	DETSC 3444*	9.68	ng/l	< 9.7		< 9.7		< 9.7	

Summary of Chemical Analysis

Water Samples

Our Ref 26-07988

Client Ref ~ 8353

Contract Title ~ Land Adjacent to Bealey Industrial Estate, Radcliffe

Lab No

Sample ID ~

Depth ~

Other ID ~

Sample Type ~

Sampling Date ~

Sampling Time ~

2666062	2666063	2666064	2666065	2666066	2666067
BH03 PFAS	BH03 LF2	SWSNE PFAS	SWSNE LF2	SWSSW PFAS	SWSSW LF2
3.18	3.18				
WATER UNKNOWN	WATER UNKNOWN	WATER UNKNOWN	WATER UNKNOWN	WATER UNKNOWN	WATER UNKNOWN
31/03/2026	31/03/2026	31/03/2026	31/03/2026	31/03/2026	31/03/2026
n/s	n/s	n/s	n/s	n/s	n/s

Test	Method	LOD	Units						
Metals									
Arsenic, Dissolved	DETSC 2306	0.16	ug/l		0.67		1.80		1.58
Beryllium, Dissolved	DETSC 2306*	0.1	ug/l		< 0.10		< 0.10		< 0.10
Boron, Dissolved	DETSC 2306*	12	ug/l		89.23		49.60		72.26
Cadmium, Dissolved	DETSC 2306	0.03	ug/l		< 0.03		< 0.03		< 0.03
Chromium, Dissolved	DETSC 2306	0.25	ug/l		< 0.25		1.20		0.75
Copper, Dissolved	DETSC 2306	0.4	ug/l		0.70		2.35		1.69
Lead, Dissolved	DETSC 2306	0.09	ug/l		0.12		1.08		0.45
Mercury, Dissolved	DETSC 2306	0.01	ug/l		< 0.01		< 0.01		< 0.01
Nickel, Dissolved	DETSC 2306	0.5	ug/l		2.65		1.95		1.91
Selenium, Dissolved	DETSC 2306	0.25	ug/l		< 0.25		< 0.25		< 0.25
Vanadium, Dissolved	DETSC 2306	0.6	ug/l		< 0.60		0.66		0.70
Zinc, Dissolved	DETSC 2306	1.3	ug/l		105.1		76.72		69.60
Inorganics									
pH	DETSC 2008		pH		7.1		7.4		7.3
Alkalinity as CaCO3 (Automated)	DETSC 2030	10	mg/l		88		88		200
Cyanide, Total	DETSC 2130	40	ug/l		< 40		< 40		< 40
Dissolved Organic Carbon	DETSC 2085	2	mg/l		3.9		5.5		6.3
Total Hardness as CaCO3	DETSC 2303	0.1	mg/l		310		84.3		104
Sulphate as SO4	DETSC 2055	0.1	mg/l		120		25		21
Petroleum Hydrocarbons									
Aliphatic C5-C6	DETSC 3322	0.1	ug/l		< 0.1		< 0.1		< 0.1
Aliphatic C6-C8	DETSC 3322	0.1	ug/l		< 0.1		< 0.1		< 0.1
Aliphatic C8-C10	DETSC 3322	0.1	ug/l		< 0.1		< 0.1		< 0.1
Aliphatic C10-C12	DETSC 3072*	1	ug/l		< 1.0		6.5		< 1.0
Aliphatic C12-C16	DETSC 3072*	1	ug/l		< 1.0		16		< 1.0
Aliphatic C16-C21	DETSC 3072*	1	ug/l		< 1.0		37		< 1.0
Aliphatic C21-C35	DETSC 3072*	1	ug/l		< 1.0		12		< 1.0
Aliphatic C5-C35	DETSC 3072*	10	ug/l		< 10		< 71.4		< 10
Aromatic C5-C7	DETSC 3322	0.1	ug/l		< 0.1		< 0.1		< 0.1
Aromatic C7-C8	DETSC 3322	0.1	ug/l		< 0.1		< 0.1		< 0.1
Aromatic C8-C10	DETSC 3322	0.1	ug/l		< 0.1		< 0.1		< 0.1
Aromatic C10-C12	DETSC 3072*	1	ug/l		< 1.0		< 1.0		< 1.0
Aromatic C12-C16	DETSC 3072*	1	ug/l		< 1.0		< 1.0		< 1.0
Aromatic C16-C21	DETSC 3072*	1	ug/l		< 1.0		< 1.0		< 1.0
Aromatic C21-C35	DETSC 3072*	1	ug/l		< 1.0		< 1.0		< 1.0
Aromatic C5-C35	DETSC 3072*	10	ug/l		< 10		< 10		< 10
TPH Ali/Aro Total C5-C35	DETSC 3072*	10	ug/l		< 10		< 71.7		< 10
PAHs									
Naphthalene	DETSC 3304	0.05	ug/l		< 0.05		< 0.05		< 0.05
Acenaphthylene	DETSC 3304	0.01	ug/l		< 0.01		< 0.01		< 0.01

Summary of Chemical Analysis

Water Samples

Our Ref 26-07988

Client Ref ~ 8353

Contract Title ~ Land Adjacent to Bealey Industrial Estate, Radcliffe

Lab No

Sample ID ~

Depth ~

Other ID ~

Sample Type ~

Sampling Date ~

Sampling Time ~

2666062	2666063	2666064	2666065	2666066	2666067
BH03 PFAS	BH03 LF2	SWSNE PFAS	SWSNE LF2	SWSSW PFAS	SWSSW LF2
3.18	3.18				
WATER UNKNOWN	WATER UNKNOWN	WATER UNKNOWN	WATER UNKNOWN	WATER UNKNOWN	WATER UNKNOWN
31/03/2026	31/03/2026	31/03/2026	31/03/2026	31/03/2026	31/03/2026
n/s	n/s	n/s	n/s	n/s	n/s

Test	Method	LOD	Units						
Acenaphthene	DETS 3304	0.01	ug/l		0.13		< 0.01		< 0.01
Fluorene	DETS 3304	0.01	ug/l		0.02		< 0.01		< 0.01
Phenanthrene	DETS 3304	0.01	ug/l		0.10		0.02		0.02
Anthracene	DETS 3304	0.01	ug/l		0.03		< 0.01		< 0.01
Fluoranthene	DETS 3304	0.01	ug/l		0.20		< 0.01		< 0.01
Pyrene	DETS 3304	0.01	ug/l		0.20		< 0.01		< 0.01
Benzo(a)anthracene	DETS 3304	0.01	ug/l		0.09		< 0.01		< 0.01
Chrysene	DETS 3304	0.01	ug/l		0.12		< 0.01		< 0.01
Benzo(b)fluoranthene	DETS 3304	0.01	ug/l		0.17		< 0.01		0.01
Benzo(k)fluoranthene	DETS 3304	0.01	ug/l		0.06		< 0.01		< 0.01
Benzo(a)pyrene	DETS 3304	0.01	ug/l		0.11		< 0.01		< 0.01
Indeno(1,2,3-c,d)pyrene	DETS 3304	0.01	ug/l		0.11		< 0.01		< 0.01
Dibenzo(a,h)anthracene	DETS 3304	0.01	ug/l		0.02		< 0.01		< 0.01
Benzo(g,h,i)perylene	DETS 3304	0.01	ug/l		0.11		< 0.01		< 0.01
PAH Total	DETS 3304	0.2	ug/l		1.5		< 0.20		< 0.20
Phenols									
Phenol - Monohydric	DETS 2130	100	ug/l		< 100		< 100		< 100
Per- and Polyfluoroalkyl substances (I)									
Perfluoro-n-butanoic acid (PFBA)	DETS 3444*	10	ng/l	< 10		< 10		< 10	
Perfluoro-n-pentanoic acid (PFPeA)	DETS 3444*	3	ng/l	< 3.0		< 3.0		< 3.0	
Perfluoro-1-butanefulfonate (PFBS)	DETS 3444*	3	ng/l	< 3.0		< 3.0		< 3.0	
1H,1H,2H,2H-perfluoro-1-hexanesulfonate (4-2 FTSA)	DETS 3444*	3	ng/l	< 3.0		< 3.0		< 3.0	
Perfluoro-n-hexanoic acid (PFHxA)	DETS 3444*	3	ng/l	< 3.0		< 3.0		< 3.0	
Perfluoro-1-pentanesulfonate (PFPeS)	DETS 3444*	3	ng/l	< 3.0		< 3.0		< 3.0	
Tetrafluoro-2-(heptafluoropropoxy)-propanoic acid (HFPO-DA)	DETS 3444*	3	ng/l	< 3.0		< 3.0		< 3.0	
Perfluoro-1-butanefulfonamide (FBSA)	DETS 3444*	3	ng/l	< 3.0		< 3.0		< 3.0	
Perfluoro-n-heptanoic acid (PFHpA)	DETS 3444*	3	ng/l	< 3.0		< 3.0		< 3.0	
Perfluorohexanesulfonate (PFHxS) (Linear+Branched)	DETS 3444*	3	ng/l	< 3.0		< 3.0		< 3.0	
Dodecafluoro-3H-4,8-dioxanonanoate (DONA)	DETS 3444*	3	ng/l	< 3.0		< 3.0		< 3.0	
1H,1H,2H,2H-perfluoro-1-octanesulfonate (6-2 FTS)	DETS 3444*	3	ng/l	< 3.0		< 3.0		< 3.0	
Perfluoro-n-octanoic acid (PFOA)	DETS 3444*	3	ng/l	30		27		24	
Perfluoro-1-heptanesulfonate (PFHpS)	DETS 3444*	3	ng/l	< 3.0		< 3.0		< 3.0	
Perfluoro-1-hexanesulfonamide (FHxSA)	DETS 3444*	3	ng/l	< 3.0		< 3.0		< 3.0	
Perfluoro-n-nonanoic acid (PFNA)	DETS 3444*	3	ng/l	< 3.0		< 3.0		< 3.0	
Perfluorooctanesulfonate (PFOS) (Linear+Branched)	DETS 3444*	3	ng/l	< 3.0		< 3.0		< 3.0	
9-chlorohexadecafluoro-3-oxanonane-1-sulfonate (9CI-PF3ONS)	DETS 3444*	3	ng/l	< 3.0		< 3.0		< 3.0	

Summary of Chemical Analysis

Water Samples

Our Ref 26-07988

Client Ref ~ 8353

Contract Title ~ Land Adjacent to Bealey Industrial Estate, Radcliffe

Lab No

Sample ID ~

Depth ~

Other ID ~

Sample Type ~

Sampling Date ~

Sampling Time ~

2666062	2666063	2666064	2666065	2666066	2666067
BH03 PFAS	BH03 LF2	SWSNE PFAS	SWSNE LF2	SWSSW PFAS	SWSSW LF2
3.18	3.18				
WATER UNKNOWN	WATER UNKNOWN	WATER UNKNOWN	WATER UNKNOWN	WATER UNKNOWN	WATER UNKNOWN
31/03/2026	31/03/2026	31/03/2026	31/03/2026	31/03/2026	31/03/2026
n/s	n/s	n/s	n/s	n/s	n/s

Test	Method	LOD	Units						
1H,1H,2H,2H-perfluoro-1-decanesulfonate (8-2 FTSA)	DETSC 3444*	10	ng/l	< 10		< 10		< 10	
Perfluoro-1-nonanesulfonate (PFNS)	DETSC 3444*	10	ng/l	< 10		< 10		< 10	
Perfluoro-n-decanoic acid (PFDA)	DETSC 3444*	3	ng/l	< 3.0		< 3.0		< 3.0	
N-methylperfluoro-1-octanesulfonamidoacetic acid (N-MeFOSAA)	DETSC 3444*	10	ng/l	< 10		< 10		< 10	
Perfluoro-1-decanesulfonate (PFDS)	DETSC 3444*	10	ng/l	< 10		< 10		< 10	
Perfluoro-n-undecanoic acid (PFUDA)	DETSC 3444*	10	ng/l	< 10		< 10		< 10	
N-ethylperfluoro-1-octanesulfonamidoacetic acid (N-EtFOSAA)	DETSC 3444*	10	ng/l	< 10		< 10		< 10	
Perfluoro-1-octanesulfonamide (PFOSA)	DETSC 3444*	10	ng/l	< 10		< 10		< 10	
11-chlorooctadecafluoro-3-oxaundecane-1-sulfonate (11Cl-PF3OUdS)	DETSC 3444*	10	ng/l	< 10		< 10		< 10	
Perfluoro-1-undecanesulfonate (L-PFUdS)	DETSC 3444*	10	ng/l	< 10		< 10		< 10	
Perfluoro-n-dodecanoic acid (PFDoA)	DETSC 3444*	10	ng/l	< 10		< 10		< 10	
Perfluoro-1-dodecanesulfonate (L-PFDoS)	DETSC 3444*	10	ng/l	< 10		< 10		< 10	
Perfluoro-n-tridecanoic acid (PFTrDA)	DETSC 3444*	10	ng/l	< 10		< 10		< 10	
Perfluoro-1-tridecanesulfonate (L-PFTrDS)	DETSC 3444*	10	ng/l	< 10		< 10		< 10	
Perfluoro-n-tetradecanoic acid (PFTDA)	DETSC 3444*	10	ng/l	< 10		< 10		< 10	
Perfluorohexanesulfonate (PFHxS) (Branched)	DETSC 3444*	3	ng/l	< 3.0		< 3.0		< 3.0	
Perfluorohexanesulfonate (PFHxS) (Linear)	DETSC 3444*	3	ng/l	< 3.0		< 3.0		< 3.0	
Perfluorooctanesulfonate (PFOS) (Branched)	DETSC 3444*	3	ng/l	< 3.0		< 3.0		< 3.0	
Perfluorooctanesulfonate (PFOS) (Linear)	DETSC 3444*	3	ng/l	< 3.0		< 3.0		< 3.0	
N-methylperfluoro-1-octanesulfonamidoacetic acid (N-MeFOSAA)	DETSC 3444*	10	ng/l	< 10		< 10		< 10	
N-methylperfluoro-1-octanesulfonamidoacetic acid (N-MeFOSAA)	DETSC 3444*	10	ng/l	< 10		< 10		< 10	
N-ethylperfluoro-1-octanesulfonamidoacetic acid (N-EtFOSAA)	DETSC 3444*	10	ng/l	< 10		< 10		< 10	
N-ethylperfluoro-1-octanesulfonamidoacetic acid (N-EtFOSAA)	DETSC 3444*	10	ng/l	< 10		< 10		< 10	
Perfluoro-1-undecanesulfonic acid (L-PFUdS)	DETSC 3444*	9.68	ng/l	< 9.7		< 9.7		< 9.7	

Summary of Chemical Analysis

Water VOC Samples

Our Ref 26-07988

Client Ref ~ 8353

Contract Title ~ Land Adjacent to Bealey Industrial Estate, Radcliffe

Lab No

Sample ID ~

Depth ~

Other ID ~

Sample Type ~

Sampling Date ~

Sampling Time ~

2666057	2666059	2666061	2666063	2666065	2666067
BH01 LF2	WS212 LF2	BH02 LF2	BH03 LF2	SWSNE LF2	SWSSW LF2
1.30	1.48	3.54	3.18		
WATER UNKNOWN	WATER UNKNOWN	WATER UNKNOWN	WATER UNKNOWN	WATER UNKNOWN	WATER UNKNOWN
31/03/2026	31/03/2026	31/03/2026	31/03/2026	31/03/2026	31/03/2026
n/s	n/s	n/s	n/s	n/s	n/s

Test	Method	LOD	Units						
VOCs									
Dichlorodifluoromethane	DETSC 3432	1	ug/l	< 1	< 1	< 1	< 1	< 1	< 1
Chloromethane	DETSC 3432	1	ug/l	< 1	< 1	< 1	< 1	< 1	< 1
Vinyl Chloride	DETSC 3432	1	ug/l	< 1	< 1	< 1	< 1	< 1	< 1
Bromomethane	DETSC 3432	1	ug/l	< 1	< 1	< 1	< 1	< 1	< 1
Chloroethane	DETSC 3432	1	ug/l	< 1	< 1	< 1	< 1	< 1	< 1
Trichlorofluoromethane	DETSC 3432*	1	ug/l	< 1	< 1	< 1	< 1	< 1	< 1
1,1-dichloroethylene	DETSC 3432	1	ug/l	< 1	< 1	< 1	< 1	< 1	< 1
Methylene Chloride	DETSC 3432*	27	ug/l	< 27	< 27	< 27	< 27	< 27	< 27
Trans-1,2-dichloroethylene	DETSC 3432	1	ug/l	< 1	< 1	< 1	< 1	< 1	< 1
1,1-dichloroethane	DETSC 3432	1	ug/l	< 1	< 1	< 1	< 1	< 1	< 1
Cis-1,2-dichloroethylene	DETSC 3432	1	ug/l	< 1	< 1	< 1	< 1	< 1	< 1
2,2-dichloropropane	DETSC 3432*	2	ug/l	< 2	< 2	< 2	< 2	< 2	< 2
Bromochloromethane	DETSC 3432	4	ug/l	< 4	< 4	< 4	< 4	< 4	< 4
Chloroform	DETSC 3432	1	ug/l	< 1	1	< 1	4	< 1	< 1
1,1,1-trichloroethane	DETSC 3432	1	ug/l	< 1	< 1	< 1	< 1	< 1	< 1
1,1-dichloropropene	DETSC 3432	1	ug/l	< 1	< 1	< 1	< 1	< 1	< 1
Carbon tetrachloride	DETSC 3432	1	ug/l	< 1	< 1	< 1	< 1	< 1	< 1
Benzene	DETSC 3432	1	ug/l	< 1	< 1	< 1	< 1	< 1	< 1
1,2-dichloroethane	DETSC 3432	1	ug/l	< 1	< 1	< 1	< 1	< 1	< 1
Trichloroethylene	DETSC 3432*	1	ug/l	< 1	< 1	< 1	< 1	< 1	< 1
1,2-dichloropropane	DETSC 3432	1	ug/l	< 1	< 1	< 1	< 1	< 1	< 1
Dibromomethane	DETSC 3432	1	ug/l	< 1	< 1	< 1	< 1	< 1	< 1
Bromodichloromethane	DETSC 3432	4	ug/l	< 4	< 4	< 4	< 4	< 4	< 4
cis-1,3-dichloropropene	DETSC 3432	1	ug/l	< 1	< 1	< 1	< 1	< 1	< 1
Toluene	DETSC 3432	1	ug/l	< 1	< 1	< 1	< 1	< 1	< 1
trans-1,3-dichloropropene	DETSC 3432	1	ug/l	< 1	< 1	< 1	< 1	< 1	< 1
1,1,2-trichloroethane	DETSC 3432	1	ug/l	< 1	< 1	< 1	< 1	< 1	< 1
Tetrachloroethylene	DETSC 3432	1	ug/l	< 1	< 1	< 1	< 1	< 1	< 1
1,3-dichloropropane	DETSC 3432	1	ug/l	< 1	< 1	< 1	< 1	< 1	< 1
Dibromochloromethane	DETSC 3432	1	ug/l	< 1	< 1	< 1	< 1	< 1	< 1
1,2-dibromoethane	DETSC 3432	1	ug/l	< 1	< 1	< 1	< 1	< 1	< 1
Chlorobenzene	DETSC 3432	1	ug/l	< 1	< 1	< 1	< 1	< 1	< 1
1,1,1,2-tetrachloroethane	DETSC 3432	1	ug/l	< 1	< 1	< 1	< 1	< 1	< 1
Ethylbenzene	DETSC 3432	1	ug/l	< 1	< 1	< 1	< 1	< 1	< 1
m+p-Xylene	DETSC 3432	2	ug/l	< 2	< 2	< 2	< 2	< 2	< 2
o-Xylene	DETSC 3432	1	ug/l	< 1	< 1	< 1	< 1	< 1	< 1
Styrene	DETSC 3432	1	ug/l	< 1	< 1	< 1	< 1	< 1	< 1
Bromoform	DETSC 3432	1	ug/l	< 1	< 1	< 1	< 1	< 1	< 1
Isopropylbenzene	DETSC 3432	1	ug/l	< 1	< 1	< 1	< 1	< 1	< 1
1,1,2,2-tetrachloroethane	DETSC 3432	1	ug/l	< 1	< 1	< 1	< 1	< 1	< 1

Summary of Chemical Analysis

Water VOC Samples

Our Ref 26-07988

Client Ref ~ 8353

Contract Title ~ Land Adjacent to Bealey Industrial Estate, Radcliffe

Lab No

Sample ID ~

Depth ~

Other ID ~

Sample Type ~

Sampling Date ~

Sampling Time ~

2666057	2666059	2666061	2666063	2666065	2666067
BH01 LF2	WS212 LF2	BH02 LF2	BH03 LF2	SWSNE LF2	SWSSW LF2
1.30	1.48	3.54	3.18		
WATER UNKNOWN	WATER UNKNOWN	WATER UNKNOWN	WATER UNKNOWN	WATER UNKNOWN	WATER UNKNOWN
31/03/2026	31/03/2026	31/03/2026	31/03/2026	31/03/2026	31/03/2026
n/s	n/s	n/s	n/s	n/s	n/s

Test	Method	LOD	Units						
Bromobenzene	DETSC 3432	1	ug/l	< 1	< 1	< 1	< 1	< 1	< 1
1,2,3-trichloropropane	DETSC 3432	1	ug/l	< 1	< 1	< 1	< 1	< 1	< 1
n-propylbenzene	DETSC 3432	1	ug/l	< 1	< 1	< 1	< 1	< 1	< 1
2-chlorotoluene	DETSC 3432	1	ug/l	< 1	< 1	< 1	< 1	< 1	< 1
1,3,5-trimethylbenzene	DETSC 3432	1	ug/l	< 1	< 1	< 1	< 1	< 1	< 1
4-chlorotoluene	DETSC 3432	1	ug/l	< 1	< 1	< 1	< 1	< 1	< 1
Tert-butylbenzene	DETSC 3432	1	ug/l	< 1	< 1	< 1	< 1	< 1	< 1
1,2,4-trimethylbenzene	DETSC 3432	1	ug/l	< 1	< 1	< 1	< 1	< 1	< 1
sec-butylbenzene	DETSC 3432	1	ug/l	< 1	< 1	< 1	< 1	< 1	< 1
p-isopropyltoluene	DETSC 3432	1	ug/l	< 1	< 1	< 1	< 1	< 1	< 1
1,3-dichlorobenzene	DETSC 3432	2	ug/l	< 2	< 2	< 2	< 2	< 2	< 2
1,4-dichlorobenzene	DETSC 3432	1	ug/l	< 1	< 1	< 1	< 1	< 1	< 1
n-butylbenzene	DETSC 3432	1	ug/l	< 1	< 1	< 1	< 1	< 1	< 1
1,2-dichlorobenzene	DETSC 3432	1	ug/l	< 1	< 1	< 1	< 1	< 1	< 1
1,2-dibromo-3-chloropropane	DETSC 3432	1	ug/l	< 1	< 1	< 1	< 1	< 1	< 1
1,2,4-trichlorobenzene	DETSC 3432	1	ug/l	< 1	< 1	< 1	< 1	< 1	< 1
Hexachlorobutadiene	DETSC 3432	1	ug/l	< 1	< 1	< 1	< 1	< 1	< 1
1,2,3-trichlorobenzene	DETSC 3432	1	ug/l	< 1	< 1	< 1	< 1	< 1	< 1
MTBE	DETSC 3432*	1	ug/l	< 1	< 1	< 1	< 1	< 1	< 1
TAME	DETSC 3432*	1	ug/l	< 1	< 1	< 1	< 1	< 1	< 1

Information in Support of the Analytical Results

Our Ref 26-07988
 Client Ref ~ 8353
 Contract ~ Land Adjacent to Bealey Industrial Estate, Radcliffe

Containers Received & Deviating Samples

Lab No	Sample ID ~	Date Sampled ~	Containers Received	Holding time exceeded for tests	Incorrect container for tests
2666056	BH01 PFAS 1.30 WATER UNKNOWN	31/03/26	P(other) x2		
2666057	BH01 LF2 1.30 WATER UNKNOWN	31/03/26	GB 1L, GV, PB 1L	pH/Cond (1 days)	
2666058	WS212 PFAS 1.48 WATER UNKNOWN	31/03/26	P(other) x2		
2666059	WS212 LF2 1.48 WATER UNKNOWN	31/03/26	GB 1L, GV, PB 1L	pH/Cond (1 days)	
2666060	BH02 PFAS 3.54 WATER UNKNOWN	31/03/26	P(other) x2		
2666061	BH02 LF2 3.54 WATER UNKNOWN	31/03/26	GB 1L, GV, PB 1L	pH/Cond (1 days)	
2666062	BH03 PFAS 3.18 WATER UNKNOWN	31/03/26	P(other) x2		
2666063	BH03 LF2 3.18 WATER UNKNOWN	31/03/26	GB 1L, GV, PB 1L	pH/Cond (1 days)	
2666064	SWSNE PFAS WATER UNKNOWN	31/03/26	P(other) x2		
2666065	SWSNE LF2 WATER UNKNOWN	31/03/26	GB 1L, GV, PB 1L	pH/Cond (1 days)	
2666066	SWSSW PFAS WATER UNKNOWN	31/03/26	P(other) x2		
2666067	SWSSW LF2 WATER UNKNOWN	31/03/26	GB 1L, GV, PB 1L	pH/Cond (1 days)	

Key: P-Plastic G-Glass B-Bottle V-Vial

Normec DETS cannot be held responsible for the integrity of samples received whereby the laboratory did not undertake the sampling. In this instance samples received may be deviating. Deviating Sample criteria are based on British and International standards and laboratory trials in conjunction with the UKAS note 'Guidance on Deviating Samples'. All samples received are listed above. However, those samples that have additional comments in relation to hold time, inappropriate containers etc are deviating due to the reasons stated. This means that the analysis is accredited where applicable, but results may be compromised due to sample deviations. If no sampled date (soils) or date+time (waters) has been supplied then samples are deviating. However, if you are able to supply a sampled date (and time for waters) this will prevent samples being reported as deviating where specific hold times are not exceeded and where the container supplied is suitable.

Disposal

From the issue date of this test certificate, samples will be held for the following times prior to disposal :-
 Soils - 1 month, Liquids - 2 weeks, Asbestos (test portion) - 6 months

Key:

~ Sample details are provided by the client and can affect the validity of the results

* -not accredited.

-MCERTS (accreditation only applies if report carries the MCERTS logo).

Symbol key at end of report

Information in Support of the Analytical Results

Our Ref 26-07988

Client Ref ~ 8353

Contract ~ Land Adjacent to Bealey Industrial Estate, Radcliffe

\$ -subcontracted.

n/s -not supplied.

I/S -insufficient sample.

U/S -unsuitable sample.

t/f -to follow.

nd -not detected.

End of Report Ver 26.03.15

TEST REPORT

Client Coopers (Chester) Ltd

Address Park House
Sandpiper Court
Chester Business Park
Chester
CH4 9QU

Contract 8353 -
Land Adjacent to Bealey Industrial Estate, Radcliffe

Order Number 8353 (10007-LP)

Job Number MRN 24064/8

Date of Issue 03 May 2024

Page 1 of 6

Approved Signatories

Notes

- 1 All remaining samples and remnants from this contract will be disposed 28 days from the date of this report unless you notify us to the contrary.
- 2 Result certificates, in this report, not bearing a UKAS mark, are not included in our UKAS accreditation schedule.
- 3 Opinions and interpretations expressed herein are outside the scope of our UKAS accreditation.
- 4 Certified that the samples have been examined and tested in accordance with the terms of the contract/order and unless otherwise stated conform to the standards/specifications quoted.
- 5 The results included within the report are representative of the samples submitted for analysis.
- 6 This certificate should not be reproduced, except in full, without the express permission of the laboratory.



Andrew House, Hadfield Street, Dukinfield, Cheshire SK16 4QX Tel: 0161 475 0870
Email: enquiries@murrayrix.com Website: www.murrayrix.com

Also at: London: 020 8523 1999

Murray Rix is the trading name of Murray Rix (Northern) Limited. Registered in England 2878361

MURRAY RIX

ANDREW HOUSE, HADFIELD STREET,
DUKINFIELD, CHESHIRE SK16 4QX
TEL 0161 475 0870



TEST CERTIFICATE

LIQUID LIMIT BS EN ISO 17892-12:2018+A2:2022 Clause 5.3 (30° FALL CONE) 1 POINT METHOD

PLASTIC LIMIT BS EN ISO 17892-12:2018+A2:2022 Clause 5.5

WATER CONTENT METHOD BS EN ISO 17892-1:2014+A1:2022

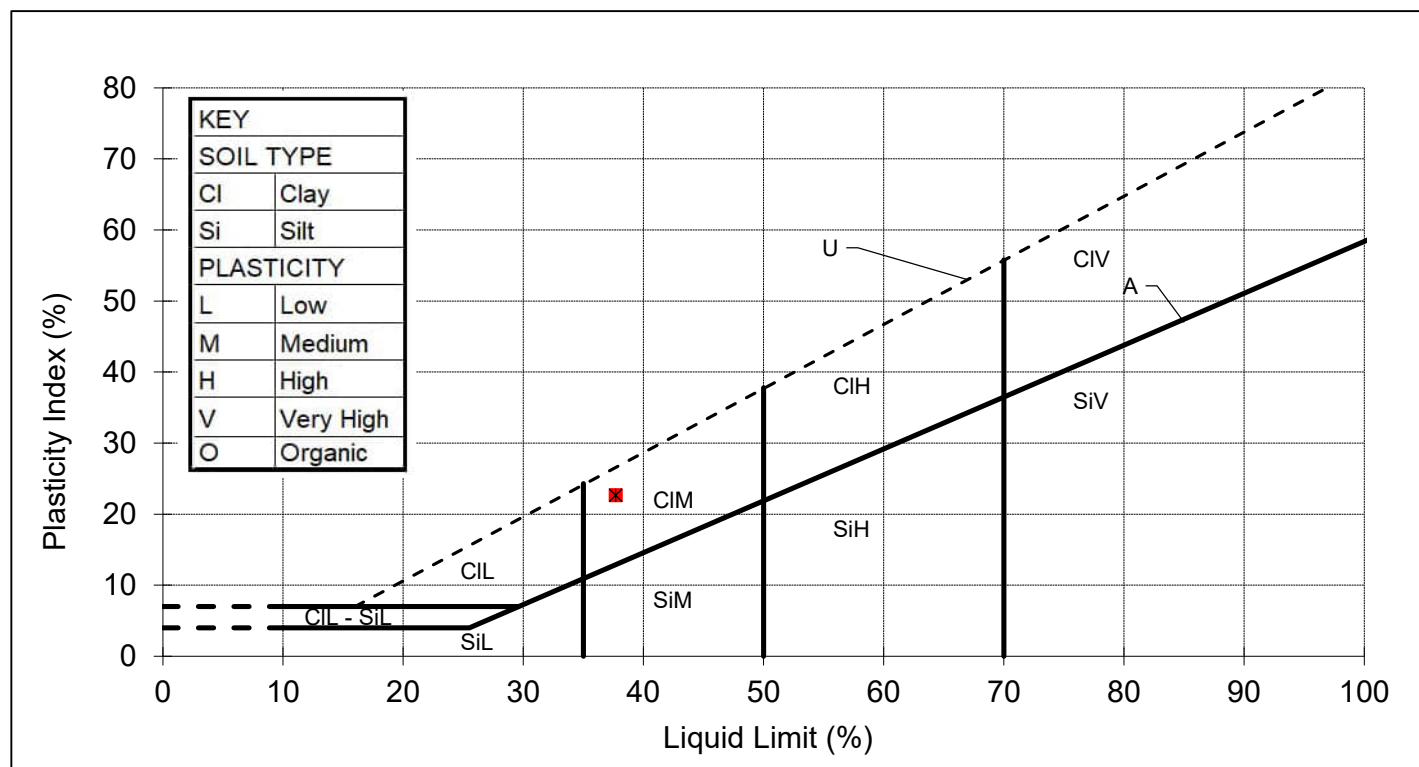
CLIENT	Coopers (Chester) Ltd
SITE	8353 - Land Adjacent to Bealey Industrial Estate, Radcliffe
JOB NUMBER	MRN 24064/8

SAMPLE LABEL	WS01 1.6-2.2m (B)	DATE SAMPLED	21-Mar-24
SAMPLE No.	450601	DATE RECEIVED	08-Apr-24
DATE TESTED	16-Apr-24	SAMPLED BY	Client

MATERIAL	Brown silty slightly sandy CLAY.		
ADVISED SOURCE	Site Investigation Sample	WATER CONTENT	Increasing
SAMPLE HISTORY	Natural State	% RET. 425um BY	Hand Picked

Test Readings mm (average)		Moisture Content %	Correction Factor	Correction factor from Clayton and Jukes 1978
Determination 1 (avg)	18.3	36.8	1.027	
Determination 2 (avg)	18.7	36.6		

Natural Moisture Content (%)	Liquid Limit (%)	Plastic Limit (%)	Plasticity Index (%)	Passing 425 micron (%)
26.0	38	15	23	98



REMARKS

SIGNED

NAME

O.P. Davies BA (Hons)
(Laboratory Manager)

DATE

03-May-24

MURRAY RIX

ANDREW HOUSE, HADFIELD STREET,
DUKINFIELD, CHESHIRE SK16 4QX
TEL 0161 475 0870



TEST CERTIFICATE

LIQUID LIMIT BS EN ISO 17892-12:2018+A2:2022 Clause 5.3 (30° FALL CONE) 1 POINT METHOD

PLASTIC LIMIT BS EN ISO 17892-12:2018+A2:2022 Clause 5.5

WATER CONTENT METHOD BS EN ISO 17892-1:2014+A1:2022

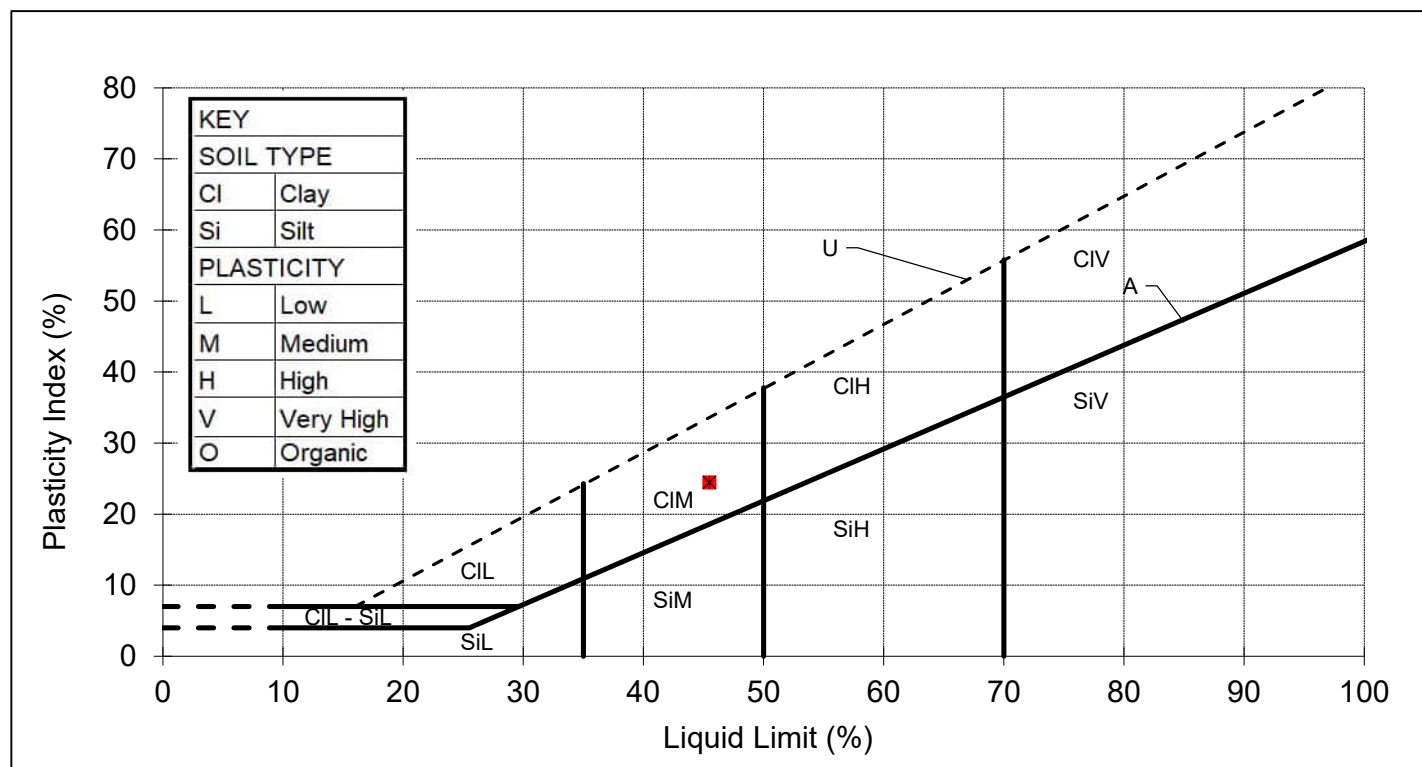
CLIENT	Coopers (Chester) Ltd
SITE	8353 - Land Adjacent to Bealey Industrial Estate, Radcliffe
JOB NUMBER	MRN 24064/8

SAMPLE LABEL	WS02 0.8-1.70m (B)	DATE SAMPLED	21-Mar-24
SAMPLE No.	450602	DATE RECEIVED	08-Apr-24
DATE TESTED	16-Apr-24	SAMPLED BY	Client

MATERIAL	Brown silty slightly sandy slightly gravelly CLAY.		
ADVISED SOURCE	Site Investigation Sample	WATER CONTENT	Increasing
SAMPLE HISTORY	Natural State	% RET. 425um BY	Hand Picked

Test Readings mm (average)		Moisture Content %	Correction Factor	Correction factor from Clayton and Jukes 1978
Determination 1 (avg)	18.5	44.6	1.025	
Determination 2 (avg)	18.7	44.2		

Natural Moisture Content (%)	Liquid Limit (%)	Plastic Limit (%)	Plasticity Index (%)	Passing 425 micron (%)
34.6	45	21	24	89



REMARKS

SIGNED

NAME

O.P. Davies BA (Hons)
(Laboratory Manager)

DATE

03-May-24

MURRAY RIX

ANDREW HOUSE, HADFIELD STREET,
DUKINFIELD, CHESHIRE SK16 4QX
TEL 0161 475 0870



TEST CERTIFICATE

LIQUID LIMIT BS EN ISO 17892-12:2018+A2:2022 Clause 5.3 (30° FALL CONE) 1 POINT METHOD

PLASTIC LIMIT BS EN ISO 17892-12:2018+A2:2022 Clause 5.5

WATER CONTENT METHOD BS EN ISO 17892-1:2014+A1:2022

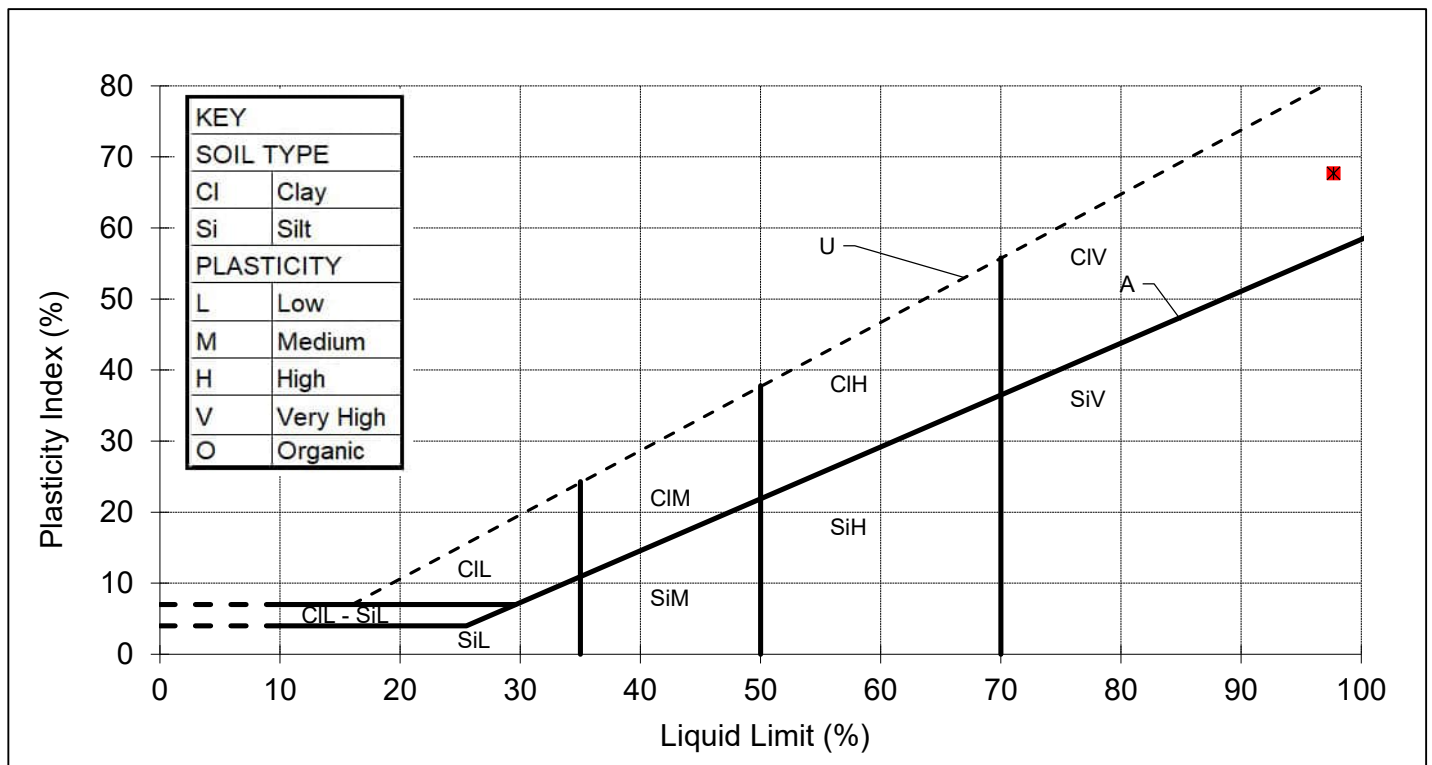
CLIENT	Coopers (Chester) Ltd
SITE	8353 - Land Adjacent to Bealey Industrial Estate, Radcliffe
JOB NUMBER	MRN 24064/8

SAMPLE LABEL	WS06 1.1-1.60m (B)	DATE SAMPLED	22-Mar-24
SAMPLE No.	450603	DATE RECEIVED	08-Apr-24
DATE TESTED	16-Apr-24	SAMPLED BY	Client

MATERIAL	Brown silty slightly sandy slightly gravelly organic CLAY.		
ADVISED SOURCE	Site Investigation Sample	WATER CONTENT	Increasing
SAMPLE HISTORY	Natural State	% RET. 425um BY	Hand Picked

Test Readings mm (average)		Moisture Content %	Correction Factor	Correction factor from Clayton and Jukes 1978
Determination 1 (avg)	24.2	105.6	0.926	
Determination 2 (avg)	24.1	105.4		

Natural Moisture Content (%)	Liquid Limit (%)	Plastic Limit (%)	Plasticity Index (%)	Passing 425 micron (%)
63.2	98	30	68	99



REMARKS

SIGNED

NAME

O.P. Davies BA (Hons)
(Laboratory Manager)

DATE

03-May-24

MURRAY RIX

ANDREW HOUSE, HADFIELD STREET,
DUKINFIELD, CHESHIRE SK16 4QX
TEL 0161 475 0870

TEST CERTIFICATE

PARTICLE SIZE DISTRIBUTION

BS EN ISO 17892-4:2016

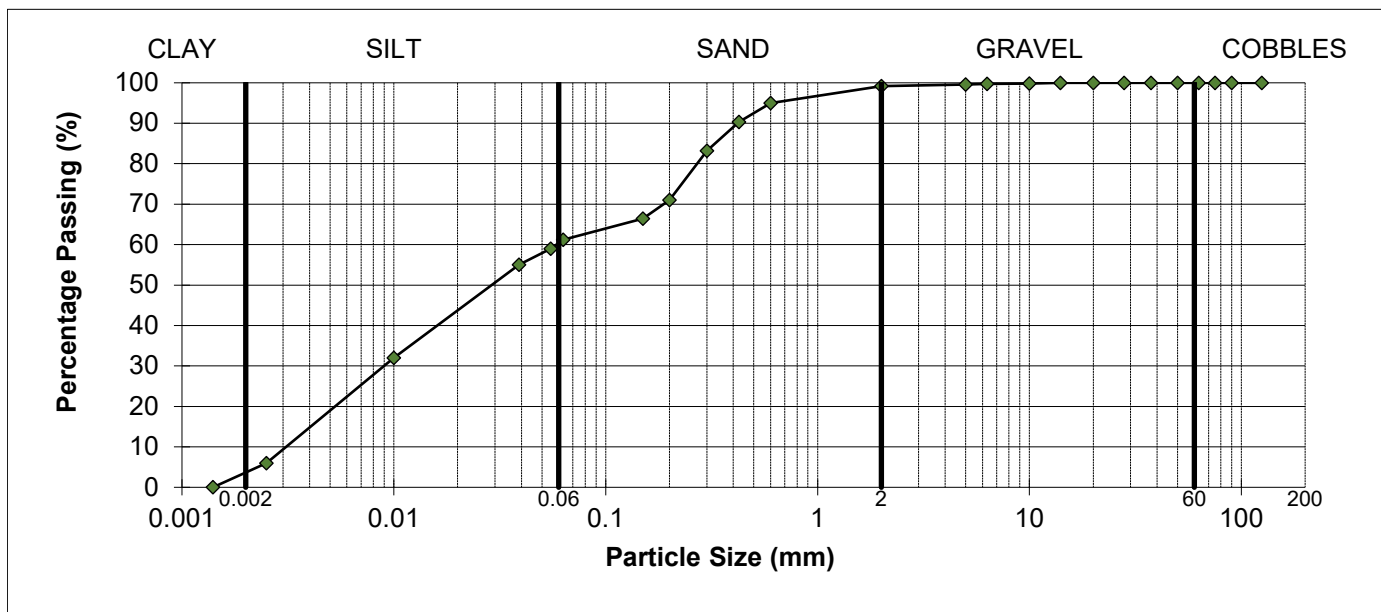
Determination of Water Content in accordance with BS EN ISO 17892-1:2014+A1:2022 (Oven Dry)

CLIENT	Coopers (Chester) Ltd
SITE	8353 - Land Adjacent to Bealey Industrial Estate, Radcliffe
JOB NUMBER	MRN 24064/8

SAMPLE LABEL	WS06 2.00-2.30m (B)	DATE SAMPLED	22-Mar-24
LAB SAMPLE No	450604	DATE RECEIVED	08-Apr-24
DATE TESTED	18-Apr-24	SAMPLED BY	Client

MATERIAL	Brown clayey sandy slightly gravelly SILT.
ADVISED SOURCE	Site Investigation Sample

Sieve Size (mm)	% Passing (%)	Specification (%)	Sieve Size (mm)	% Passing (%)	Specification (%)
125	100		2	99	
90	100		0.6	95	
75	100		0.425	90	
63	100		0.3	83	
50	100		0.2	71	
37.5	100		0.15	66	
28	100		0.063	61	
20	100		0.055	59	
14	100		0.039	55	
10	100		0.01	32	
6.3	100		0.0025	6	
5	100		0.0014	0	



REMARKS

As received water content = 73.4%

SIGNED

NAME

O.P. Davies BA (Hons)
(Laboratory Manager)

DATE

03-May-24

MURRAY RIX
ANDREW HOUSE, HADFIELD STREET,
DUKINFIELD, CHESHIRE SK16 4QX
TEL 0161 475 0870

TEST CERTIFICATE
PARTICLE SIZE DISTRIBUTION

BS EN ISO 17892-4:2016

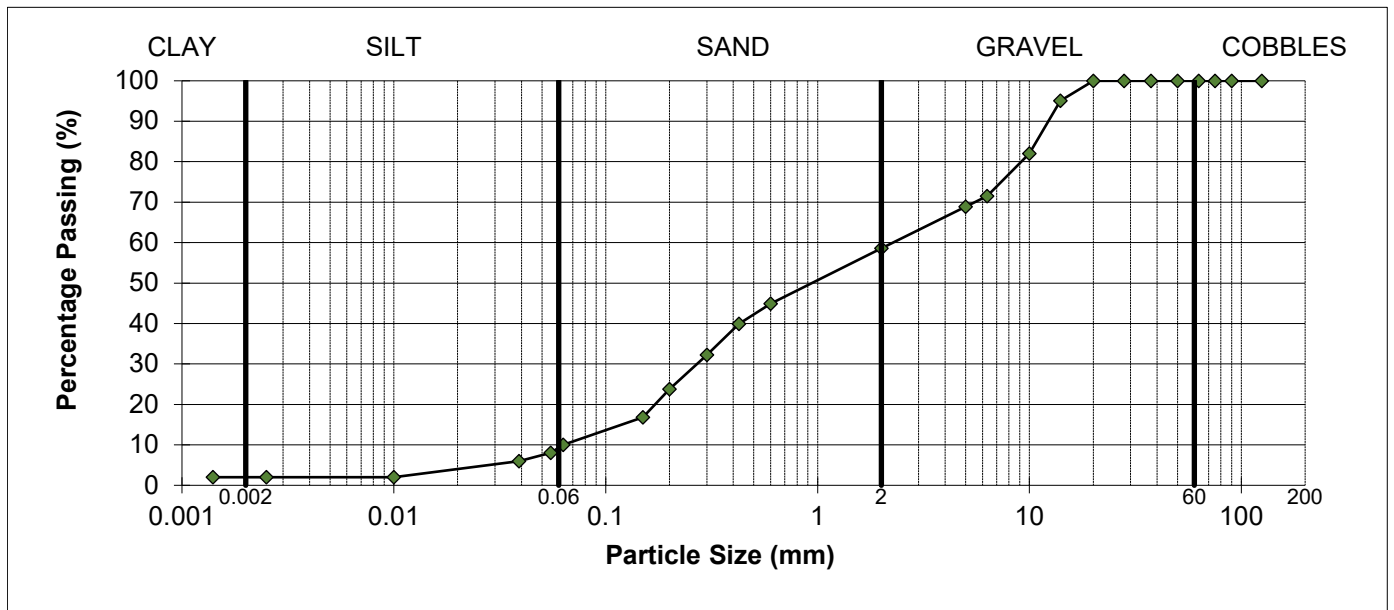
Determination of Water Content in accordance with BS EN ISO 17892-1:2014+A1:2022 (Oven Dry)

CLIENT	Coopers (Chester) Ltd
SITE	8353 - Land Adjacent to Bealey Industrial Estate, Radcliffe
JOB NUMBER	MRN 24064/8

SAMPLE LABEL	WS09 0.6-1.9m (B)	DATE SAMPLED	22-Mar-24
LAB SAMPLE No	450605	DATE RECEIVED	08-Apr-24
DATE TESTED	18-Apr-24	SAMPLED BY	Client

MATERIAL	Brown silty gravelly SAND.
ADVISED SOURCE	Site Investigation Sample

Sieve Size (mm)	% Passing (%)	Specification (%)	Sieve Size (mm)	% Passing (%)	Specification (%)
125	100		2	59	
90	100		0.6	45	
75	100		0.425	40	
63	100		0.3	32	
50	100		0.2	24	
37.5	100		0.15	17	
28	100		0.063	10	
20	100		0.055	8	
14	95		0.039	6	
10	82		0.01	2	
6.3	72		0.0025	2	
5	69		0.0014	2	



REMARKS

As received water content = 24.8%

SIGNED

NAME

O.P. Davies BA (Hons)
(Laboratory Manager)

DATE

03-May-24

TEST REPORT

Client Coopers (Chester) Ltd

Address Park House
Sandpiper Court
Chester Business Park
Chester
CH4 9QU

Contract 8353 -
Land adjacent to Bealey Industrial Estate, Radcliffe

Order Number 10661-ST

Job Number MRN 26099/7

Date of Issue 26 March 2026

Page 1 of 6

Approved Signatories

S J Hutchings, O P Davies

Notes

- 1 All remaining samples and remnants from this contract will be disposed 28 days from the date of this report unless you notify us to the contrary.
- 2 Result certificates, in this report, not bearing a UKAS mark, are not included in our UKAS accreditation schedule.
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Also at: London: 020 8523 1999

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MURRAY RIX

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DUKINFIELD, CHESHIRE SK16 4QX

TEL 0161 475 0870



TEST CERTIFICATE

DETERMINATION OF CONSTITUENTS OF COARSE RECYCLED AGGREGATE

BS EN 933-11:2009

CLIENT	Coopers (Chester) Ltd
SITE	8353 - Land adjacent to Bealey Industrial Estate, Radcliffe
JOB NUMBER	MRN 26099/7

SAMPLE DETAILS

Laboratory sample number	:	6044101
Site mark	:	BH1 0.0-4.45m
Advised source	:	As Client & Site above
Material	:	MADE GROUND
Certificate of sampling received	:	No
Date and time of sampling	:	Not advised
Date received at Laboratory	:	04-Mar-26
Date of start of test	:	06-Mar-26
Sampling Location	:	Site
Method of sampling	:	BS EN 932-1 : 1997
Sampled by	:	Client
Mass of dry sample tested	:	50 kg
Drying Temperature	:	110 ± 5°C

RESULT

Constituent	Description	Proportion (%)
Rc	Concrete, Concrete products, Mortar, Concrete masonry units	15
Ru	Unbound aggregate, Natural stone, Hydraulically bound aggregate	54
Rb	Clay masonry units (i.e. bricks & tiles), Calcium silicate masonry units, Aerated non-floating concrete	8.7
Ra	Bituminous materials	0.0
Rg	Glass	0.0
X	Other: Cohesive (i.e. clay & soil), Metals (ferrous & non-ferrous), Non-floating wood, plastic & rubber, Gypsum plaster	23
FL	Floating Particles (cm ³ /kg)	0.8

Comment

Class X was mainly seen to be cohesive material.

SIGNED

NAME

O.P. Davies BA (Hons)
(Director / Head of Laboratory)

DATE

26-Mar-26

MURRAY RIX

ANDREW HOUSE, HADFIELD STREET,

DUKINFIELD, CHESHIRE SK16 4QX

TEL 0161 475 0870



TEST CERTIFICATE

DETERMINATION OF CONSTITUENTS OF COARSE RECYCLED AGGREGATE

BS EN 933-11:2009

CLIENT	Coopers (Chester) Ltd
SITE	8353 - Land adjacent to Bealey Industrial Estate, Radcliffe
JOB NUMBER	MRN 26099/7

SAMPLE DETAILS

Laboratory sample number	:	6044102
Site mark	:	BH2 0.0-1.65m
Advised source	:	As Client & Site above
Material	:	MADE GROUND
Certificate of sampling received	:	No
Date and time of sampling	:	Not advised
Date received at Laboratory	:	04-Mar-26
Date of start of test	:	06-Mar-26
Sampling Location	:	Site
Method of sampling	:	BS EN 932-1 : 1997
Sampled by	:	Client
Mass of dry sample tested	:	50 kg
Drying Temperature	:	110 ± 5°C

RESULT

Constituent	Description	Proportion (%)
Rc	Concrete, Concrete products, Mortar, Concrete masonry units	7.2
Ru	Unbound aggregate, Natural stone, Hydraulically bound aggregate	1.8
Rb	Clay masonry units (i.e. bricks & tiles), Calcium silicate masonry units, Aerated non-floating concrete	52
Ra	Bituminous materials	0.0
Rg	Glass	0.0
X	Other: Cohesive (i.e. clay & soil), Metals (ferrous & non-ferrous), Non-floating wood, plastic & rubber, Gypsum plaster	39
FL	Floating Particles (cm ³ /kg)	0.2

Comment

Class X was mainly seen to be cohesive material.

SIGNED

NAME

O.P. Davies BA (Hons)
(Director / Head of Laboratory)

DATE

26-Mar-26

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TEST CERTIFICATE

DETERMINATION OF CONSTITUENTS OF COARSE RECYCLED AGGREGATE

BS EN 933-11:2009

CLIENT	Coopers (Chester) Ltd
SITE	8353 - Land adjacent to Bealey Industrial Estate, Radcliffe
JOB NUMBER	MRN 26099/7

SAMPLE DETAILS

Laboratory sample number	:	6044103
Site mark	:	BH2 3.0-5.45m
Advised source	:	As Client & Site above
Material	:	MADE GROUND
Certificate of sampling received	:	No
Date and time of sampling	:	Not advised
Date received at Laboratory	:	04-Mar-26
Date of start of test	:	06-Mar-26
Sampling Location	:	Site
Method of sampling	:	BS EN 932-1 : 1997
Sampled by	:	Client
Mass of dry sample tested	:	50 kg
Drying Temperature	:	110 ± 5°C

RESULT

Constituent	Description	Proportion (%)
Rc	Concrete, Concrete products, Mortar, Concrete masonry units	32
Ru	Unbound aggregate, Natural stone, Hydraulically bound aggregate	24
Rb	Clay masonry units (i.e. bricks & tiles), Calcium silicate masonry units, Aerated non-floating concrete	1.8
Ra	Bituminous materials	0.0
Rg	Glass	0.0
X	Other: Cohesive (i.e. clay & soil), Metals (ferrous & non-ferrous), Non-floating wood, plastic & rubber, Gypsum plaster	42
FL	Floating Particles (cm ³ /kg)	0.0

Comment

Class X was mainly seen to be cohesive material.

SIGNED

NAME

O.P. Davies BA (Hons)
(Director / Head of Laboratory)

DATE

26-Mar-26

MURRAY RIX

ANDREW HOUSE, HADFIELD STREET,

DUKINFIELD, CHESHIRE SK16 4QX

TEL 0161 475 0870



TEST CERTIFICATE

DETERMINATION OF CONSTITUENTS OF COARSE RECYCLED AGGREGATE

BS EN 933-11:2009

CLIENT	Coopers (Chester) Ltd
SITE	8353 - Land adjacent to Bealey Industrial Estate, Radcliffe
JOB NUMBER	MRN 26099/7

SAMPLE DETAILS

Laboratory sample number	:	6044104
Site mark	:	BH3 0.0-2.45m
Advised source	:	As Client & Site above
Material	:	MADE GROUND
Certificate of sampling received	:	No
Date and time of sampling	:	Not advised
Date received at Laboratory	:	04-Mar-26
Date of start of test	:	06-Mar-26
Sampling Location	:	Site
Method of sampling	:	BS EN 932-1 : 1997
Sampled by	:	Client
Mass of dry sample tested	:	50 kg
Drying Temperature	:	110 ± 5°C

RESULT

Constituent	Description	Proportion (%)
Rc	Concrete, Concrete products, Mortar, Concrete masonry units	16
Ru	Unbound aggregate, Natural stone, Hydraulically bound aggregate	51
Rb	Clay masonry units (i.e. bricks & tiles), Calcium silicate masonry units, Aerated non-floating concrete	9.6
Ra	Bituminous materials	0.0
Rg	Glass	0.0
X	Other: Cohesive (i.e. clay & soil), Metals (ferrous & non-ferrous), Non-floating wood, plastic & rubber, Gypsum plaster	24
FL	Floating Particles (cm ³ /kg)	0.2

Comment

Class X was mainly seen to be cohesive material.

SIGNED

NAME

O.P. Davies BA (Hons)
(Director / Head of Laboratory)

DATE

26-Mar-26

MURRAY RIX

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DUKINFIELD, CHESHIRE SK16 4QX

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TEST CERTIFICATE

DETERMINATION OF CONSTITUENTS OF COARSE RECYCLED AGGREGATE

BS EN 933-11:2009

CLIENT	Coopers (Chester) Ltd
SITE	8353 - Land adjacent to Bealey Industrial Estate, Radcliffe
JOB NUMBER	MRN 26099/7

SAMPLE DETAILS

Laboratory sample number	:	6044103
Site mark	:	BH2 3.0-5.45m
Advised source	:	As Client & Site above
Material	:	MADE GROUND
Certificate of sampling received	:	No
Date and time of sampling	:	Not advised
Date received at Laboratory	:	04-Mar-26
Date of start of test	:	06-Mar-26
Sampling Location	:	Site
Method of sampling	:	BS EN 932-1 : 1997
Sampled by	:	Client
Mass of dry sample tested	:	50 kg
Drying Temperature	:	110 ± 5°C

RESULT

Constituent	Description	Proportion (%)
Rc	Concrete, Concrete products, Mortar, Concrete masonry units	0.0
Ru	Unbound aggregate, Natural stone, Hydraulically bound aggregate	95
Rb	Clay masonry units (i.e. bricks & tiles), Calcium silicate masonry units, Aerated non-floating concrete	0.0
Ra	Bituminous materials	0.0
Rg	Glass	0.0
X	Other: Cohesive (i.e. clay & soil), Metals (ferrous & non-ferrous), Non-floating wood, plastic & rubber, Gypsum plaster	4.6
FL	Floating Particles (cm ³ /kg)	0.0

Comment

Class X was mainly seen to be cohesive material.

SIGNED

NAME

O.P. Davies BA (Hons)
(Director / Head of Laboratory)

DATE

26-Mar-26

Supplemental Ground Investigation and Remediation Strategy for
Land Adjacent to Bealey Industrial Estate, Radcliffe

Appendix 5

Ground Gas Monitoring Results



Gas Monitor Calibration Certificates



Gas Ventilation Calculations



Gas Membrane Product Specification

Project Name: Land Adjacent to Bealey Industrial Estate, Radcliffe
Project No. 8353
Prepared by: LP
Checked by: BH

Date of Production:
03/04/2024

GROUND GAS MONITORING RECORD SUMMARY SHEET

Borehole Reference	Response Depth (m-bgl)	Date	Time	Temp (°c)	Gas Analyser	Weather Conditions	CH ₄ (peak) (%)	CH ₄ (steady) (%)	CO ₂ (peak) (%)	CO ₂ (steady) (%)	O ₂ (min.) (%)	O ₂ (steady) (%)	H ₂ S (peak) (ppm)	CO (peak) (ppm)	Flow (initial) (l/hr)	Flow (steady) (l/hr)	TWL (m - bgl)	Atmos. Pressure (mbar)	Remarks
WS01	0.50-1.6m	02/04/2024	15:03:38	13	GA5000	Sunny/Cloudy	0.0	0.0	2.6	2.6	18.1	18.1	0	1	0.1	0.3	Dry	997	Monitored successfully
		05/04/2024	10:24:35	14	GA5000	Overcast/Rain	0.1	0.1	3.3	3.3	17.0	17.0	0	2	0.2	0.3	Dry	991	Monitored successfully
		10/05/2024	12:23:16	21	GA5000	Sunny	0.1	0.1	5.0	5.0	15.8	15.9	0	2	0.0	0.1	Dry	1020	Monitored successfully
		14/06/2024	13:17:43	17	GA5000	Overcast	0.0	0.0	5.8	5.7	15.0	15.0	0	0	0.1	0.2	Dry	993	Monitored successfully
		21/06/2024	10:01:38	18	GA5000	Sunny	0.0	0.0	6.1	6.0	14.6	14.7	0	0	0.1	0.3	Dry	1007	Monitored successfully
		28/06/2024	10:11:00	16	GA5000	Overcast/rain	0.0	0.0	5.2	5.1	17.6	17.7	0	1	0.1	0.3	Dry	1008	Monitored successfully
WS02	1.00-3.00m	02/04/2024	14:00:29	13	GA5000	Sunny/Cloudy	0.0	0.0	2.1	2.1	19.5	19.5	0	1	0.1	0.3	2.02	998	Monitored successfully
		05/04/2024	12:13:18	14	GA5000	Overcast/Rain	0.1	0.1	2.6	2.6	19.0	19.0	0	1	0.1	0.3	2.02	992	Monitored successfully
		10/05/2024	12:36:49	21	GA5000	Sunny	0.1	0.1	3.3	3.3	17.2	17.3	0	2	0.0	0.0	2.31	1020	Monitored successfully
		14/06/2024	15:05:31	17	GA5000	Overcast	0.0	0.0	3.8	3.8	17.6	17.6	0	1	0.0	0.2	2.35	993	Monitored successfully
		21/06/2024	11:59:19	18	GA5000	Sunny	0.0	0.0	3.8	3.8	18.1	18.1	0	2	0.0	0.2	2.39	1008	Monitored successfully
		28/06/2024	11:49:00	16	GA5000	Overcast/rain	0.0	0.0	3.4	3.1	18.9	19.2	0	1	0.1	0.4	2.37	1009	Monitored successfully
WS03	0.50-1.00m	02/04/2024	13:12:21	13	GA5000	Sunny/Cloudy	0.1	0.1	1.4	1.4	20.5	20.5	0	1	0.1	0.2	Dry	998	Monitored successfully
		05/04/2024	10:37:29	14	GA5000	Overcast/Rain	0.1	0.0	1.7	1.6	19.2	19.3	0	1	0.1	0.3	Dry	991	Monitored successfully
		10/05/2024	12:09:12	21	GA5000	Sunny	0.1	0.1	1.8	1.7	18.6	18.7	1	2	0.1	0.2	Dry	1020	Monitored successfully
		14/06/2024	13:38:10	17	GA5000	Overcast	0.0	0.0	2.6	2.6	18.4	18.4	0	1	0.1	0.2	Dry	993	Monitored successfully
		21/06/2024	10:19:52	18	GA5000	Sunny	0.0	0.0	2.8	2.7	17.8	17.9	0	1	0.1	0.3	Dry	1007	Monitored successfully
		28/06/2024	10:27:00	16	GA5000	Overcast/rain	0.0	0.0	2.9	2.8	19.0	19.1	0	1	0.1	0.3	Dry	1008	Monitored successfully
WS04	1.00-2.00m	02/04/2024	14:13:58	13	GA5000	Sunny/Cloudy	0.0	0.0	1.6	1.5	20.0	20.0	0	1	0.0	0.1	Dry	998	Monitored successfully
		05/04/2024	11:42:07	14	GA5000	Overcast/Rain	0.1	0.1	2.1	2.1	19.3	19.4	0	1	0.1	0.4	Dry	992	Monitored successfully
		10/05/2024	12:48:33	21	GA5000	Sunny	0.1	0.0	2.4	2.4	19.2	19.2	0	2	0.0	0.0	Dry	1020	Monitored successfully
		14/06/2024	15:24:03	17	GA5000	Overcast	0.0	0.0	3.0	3.0	17.9	18.2	0	1	0.1	0.3	Dry	993	Monitored successfully
		21/06/2024	12:34:43	18	GA5000	Sunny	0.0	0.0	0.1	3.0	21.4	18.7	0	1	0.0	0.2	Dry	1008	Monitored successfully
		28/06/2024	12:02:00	16	GA5000	Overcast/rain	0.0	0.0	3.0	2.9	19.5	19.6	0	1	0.1	0.3	Dry	1009	Monitored successfully
WS05	0.50-1.50m	02/04/2024	12:57:51	13	GA5000	Sunny/Cloudy	0.1	0.1	2.2	2.2	18.8	18.8	0	1	0.0	0.0	Dry	998	Monitored successfully
		05/04/2024	11:02:44	14	GA5000	Overcast/Rain	0.0	0.0	3.0	2.9	17.1	17.2	0	1	0.0	0.0	Dry	992	Monitored successfully
		10/05/2024	11:47:01	21	GA5000	Sunny	0.1	0.1	3.3	3.3	16.7	16.8	1	1	0.0	0.0	Dry	1020	Monitored successfully
		14/06/2024	14:18:00	17	GA5000	Overcast	0.0	0.0	3.9	3.9	16.1	16.2	0	1	0.1	0.2	Dry	993	Monitored successfully
		21/06/2024	10:51:51	18	GA5000	Sunny	0.0	0.0	4.0	3.9	15.3	15.4	1	2	0.0	0.1	Dry	1008	Monitored successfully
		28/06/2024	11:03:00	16	GA5000	Overcast/rain	0.0	0.0	4.2	4.0	17.4	17.6	0	1	0.1	0.3	Dry	1009	Monitored successfully
WS06	0.50-1.10m	02/04/2024	12:38:14	13	GA5000	Sunny/Cloudy	0.1	0.1	0.3	0.3	20.9	21.0	0	3	0.1	0.1	0.67	997	Monitored successfully
		05/04/2024	11:56:36	14	GA5000	Overcast/Rain	0.1	0.1	0.4	0.4	21.5	21.5	0	2	0.4	2.1	0.67	991	Monitored successfully
		10/05/2024	11:17:14	21	GA5000	Sunny	0.2	0.1	5.6	5.4	10.7	10.7	1	2	0.0	0.0	0.82	1019	Monitored successfully
		14/06/2024	14:46:32	17	GA5000	Overcast	0.0	0.0	6.4	6.2	13.9	14.1	0	1	0.1	0.3	0.76	993	Monitored successfully
		21/06/2024	11:25:00	18	GA5000	Sunny	0.0	0.0	7.1	6.9	11.6	11.7	0	2	0.0	0.0	0.99	1008	Monitored successfully
		28/06/2024	11:35:00	16	GA5000	Overcast/rain	0.0	0.0	8.3	8.0	11.8	11.8	0	1	0.0	0.0	0.77	1009	Monitored successfully
WS07	1.00-3.00m	02/04/2024	12:16:39	13	GA5000	Sunny/Cloudy	0.1	0.1	2.8	2.7	17.3	17.3	0	1	0.0	0.0	1.33	997	Monitored successfully
		05/04/2024	11:24:03	14	GA5000	Overcast/Rain	0.0	0.0	3.0	3.0	16.6	16.6	0	1	0.1	0.3	1.21	992	Monitored successfully
		10/05/2024	11:32:13	21	GA5000	Sunny	0.1	0.1	4.2	4.1	16.3	16.5	1	1	0.0	0.2	1.55	1020	Monitored successfully
		14/06/2024	14:32:24	17	GA5000	Overcast	0.0	0.0	4.6	4.5	16.8	16.9	0	1	0.1	0.3	1.59	993	Monitored successfully
		21/06/2024	11:05:23	18	GA5000	Sunny	0.0	0.0	4.8	4.6	15.9	16.2	0	2	0.0	0.1	1.55	1008	Monitored successfully
		28/06/2024	11:19:00	16	GA5000	Overcast/rain	0.0	0.0	4.4	4.2	18.7	18.8	0	1	0.0	0.1	1.52	1009	Monitored successfully
WS08	1.00-1.80m	02/04/2024	13:30:26	13	GA5000	Sunny/Cloudy	0.1	0.1	3.0	2.9	17.9	18.0	0	1	0.0	0.1	Dry	998	Monitored successfully
		05/04/2024	10:49:16	14	GA5000	Overcast/Rain	0.0	0.0	3.1	3.0	16.9	17.1	0	1	0.1	0.2	Dry	991	Monitored successfully
		10/05/2024	11:58:25	21	GA5000	Sunny	0.1	0.1	3.6	3.4	16.9	17.1	1	1	0.0	0.0	Dry	1020	Monitored successfully
		14/06/2024	13:57:46	17	GA5000	Overcast	0.0	0.0	4.6	4.3	16.2	16.5	0	1	0.1	0.2	Dry	993	Monitored successfully
		21/06/2024	10:32:10	18	GA5000	Sunny	0.0	0.0	4.6	4.3	15.5	15.6	0	2	0.0	0.0	Dry	1008	Monitored successfully
		28/06/2024	10:44:00	16	GA5000	Overcast/rain	0.0	0.0	4.5	4.3	18.1	18.3	0	1	0.1	0.4	Dry	1009	Monitored successfully
WS09	1.00-2.45m	02/04/2024	14:36:08	13	GA5000	Sunny/Cloudy	0.0	0.0	2.9	2.9	17.2	17.3	0	1	0.1	0.2	Dry	999	Monitored successfully
		05/04/2024	10:09:13	14	GA5000	Overcast/Rain	0.1	0.1	3.0	2.5	17.3	17.9	0	1	0.0	0.0	Dry	990	Monitored successfully
		10/05/2024	13:02:03	21	GA5000	Sunny	0.1	0.1	4.4	4.2	15.8	16	0	2	0	0.1	Dry	1019	Monitored successfully
		14/06/2024	13:00:23	17	GA5000	Overcast	0	0	5.1	4.6	16.4	16.9	0	0	0.1	0.3	Dry	992	Monitored successfully
		21/06/2024	09:47:18	18	GA5000	Sunny	0	0	5.3	5	15.7	15.9	0	1	0.1	0.3	Dry	1008	Monitored successfully
		28/06/2024	09:58:00	16	GA5000	Overcast/rain	0	0	4.8	4.6	17.2	17.4	0	1	0.1	0.3	Dry	1008	Monitored successfully

Visit Conditions Summary

Visit Date	Temperature	Atmos Pressure	Pressure Trend	Weather
02/04/2024	13	997	Rising	Sunny/Cloudy
05/04/2024	14	991	Rising	Overcast/Rain
10/05/2024	21	1020	Steady	Sunny
14/06/2024	17	993	Rising	Overcast
21/06/2024	18	1007	Rising	Sunny
28/06/2024	16	1008	Rising	Overcast/rain

Project Name: Land Adjacent to Bealey Industrial Estate, Radcliffe
Project No. 8353
Prepared by: LP
Checked by: BH

Date of Production:
15/10/2024

GROUND GAS MONITORING RECORD SUMMARY SHEET

Borehole Reference	Response Depth (m-bgl)	Date	Time	Temp (°c)	Gas Analyser	Weather Conditions	CH ₄ (peak) (%)	CH ₄ (steady) (%)	CO ₂ (peak) (%)	CO ₂ (steady) (%)	O ₂ (min.) (%)	O ₂ (steady) (%)	H ₂ S (peak) (ppm)	CO (peak) (ppm)	Flow (initial) (l/hr)	Flow (steady) (l/hr)	TWL (m - bgl)	Atmos. Pressure (mbar)	Remarks
WS101	1.00-3.50m	08/10/2024	15:46:00	15	GA5000	Cloudy/Light Rain	1.4	1.4	4.9	4.8	0.5	0.9	0	4	0.0	0.1	3.20	985	Monitored successfully
		06/11/2024	10:57:00	11	GA5000	Cloudy	0.1	0.1	0.1	0.1	21.3	21.4	0	1	0.0	0.0	3.20	1025	Monitored successfully after replacing gas bung on arrival
		20/11/2024	11:04:29	2	GA5000	Overcast	1.5	1.5	5.4	5.4	0.5	0.5	0	0	0.1	0.2	Dry	1005	Monitored successfully
		04/12/2024	10:56:06	7	GA5000	Overcast	1.8	1.7	5.3	5.2	0.8	0.8	0	4	0.0	0.1	Dry	1014	Monitored successfully
		18/12/2024	11:16:00	11	GA5000	Overcast / Light rain	1.6	1.5	4.9	4.8	0.8	0.8	0	3	0.0	0.2	Dry	994	Monitored successfully
		06/01/2025	10:17:16	2	GA5000	Overcast	2.0	1.9	5.1	5.0	0.7	0.7	0	0	0.0	0.0	3.18	972	Monitored successfully
WS103	1.00-2.50m	08/10/2024	15:30:00	15	GA5000	Cloudy/Light Rain	0.1	0.1	1.7	1.7	19.1	19.1	0	3	0.1	0.3	Dry	986	Monitored successfully
		06/11/2024	10:17:00	11	GA5000	Cloudy	0.1	0.1	2.8	2.7	16.1	16.2	0	1	0.0	0.2	Dry	1025	Monitored successfully
		20/11/2024	11:24:30	2	GA5000	Overcast	0.1	0.1	3.0	3.0	17.5	17.5	0	1	0.0	0.1	Dry	1005	Monitored successfully
		04/12/2024	11:16:28	7	GA5000	Overcast	0.2	0.2	3.0	3.0	16.7	16.7	0	0	0.0	0.1	Dry	1015	Monitored successfully
		18/12/2024	11:31:00	11	GA5000	Overcast / Light rain	0.1	0.1	2.7	2.7	18.7	18.8	0	0	0.0	0.1	Dry	995	Monitored successfully
		06/01/2025	10:39:07	2	GA5000	Overcast	0.3	0.3	2.3	2.3	19.0	19.0	0	0	0.0	0.0	Dry	973	Monitored successfully
WS104	0.50-1.50m	08/10/2024	15:06:00	15	GA5000	Cloudy/Light Rain	0.1	0.1	1.4	1.4	19.5	19.5	0	2	0.1	0.2	Dry	986	Monitored successfully
		06/11/2024	10:33:00	11	GA5000	Cloudy	0.1	0.1	2.2	2.2	19.0	19.0	0	1	0.0	0.1	Dry	1026	Monitored successfully
		20/11/2024	11:42:00	2	GA5000	Overcast	0.2	0.1	1.6	1.6	21.7	21.7	0	0	0.1	0.3	Dry	1005	Monitored successfully
		04/12/2024	11:37:37	7	GA5000	Overcast	0.2	0.1	1.9	1.9	19.1	19.2	0	1	0.0	0.1	Dry	1015	Monitored successfully
		18/12/2024	11:48:00	11	GA5000	Overcast / Light rain	0.1	0.1	2.1	2.1	19.0	19.0	0	0	0.0	0.0	Dry	995	Monitored successfully
		06/01/2025	10:53:38	2	GA5000	Overcast	0.3	0.3	1.9	1.8	19.7	19.7	0	0	0.0	0.0	Dry	973	Monitored successfully

Visit Conditions Summary

Visit Date	Temperature	Atmos Pressure	Pressure Trend	Weather
08/10/2024	15	985	Falling	Cloudy/Light Rain
06/11/2024	11	1025	Rising	Cloudy
20/11/2024	2	1005	Steady	Overcast
04/12/2024	7	1014	Rising	Overcast
18/12/2024	11	994	Rising	Overcast / Light rain
06/01/2025	2	972	Rising	Overcast

CERTIFICATION OF CALIBRATION



Date Of Calibration: 26-Sep-2022

4533

Certificate Number: G501314_2/31282

Issued by: QED Environmental Systems Ltd.

Customer: Coopers
Park House Sandpiper Court Chester Business Park
CHESTER CH4 9QU UNITED KINGDOM

Description: Gas Analyser

Model: GA5000

Serial Number: G501314

UKAS Accredited results:

Results after adjustment :

Methane (CH ₄)		
Certified Gas (%)	Instrument Reading (%)	Uncertainty (%)
5.0	4.9	0.072
15.0	14.9	0.13
60.0	59.7	0.42

Carbon Dioxide (CO ₂)		
Certified Gas (%)	Instrument Reading (%)	Uncertainty (%)
5.0	5.0	0.074
15.0	15.0	0.13
40.0	40.0	0.29

Oxygen (O ₂)		
Certified Gas (%)	Instrument Reading (%)	Uncertainty (%)
21.2	21.3	0.25

The inwards assessment was carried out 16-Sep-2022.

The maximum adjustment is larger than the specification limit.

Inwards assessment data is available if requested.

All concentrations are molar.

CH₄, CO₂ readings recorded at : 31.7 °C ± 2.5 °C

O₂ readings recorded at : 22.2 °C ± 2.5 °C

Barometric Pressure : 0991 mbar ± 4 mbar

Method of Test : The analyser is calibrated in a temperature controlled chamber using a series of reference gases, in compliance with procedure LP004.

Instrument has passed calibration as the measurement result is within the specification limit. The specification limit takes into account the measurement uncertainty.

The results relate only to the item calibrated

This certificate is issued in accordance with the laboratory accreditation requirements of the United Kingdom Accreditation Service. It provides traceability of measurement to the SI system of units and/or to units of measurement realised at the National Physical Laboratory or other recognised national metrology institutes. This certificate may not be reproduced other than in full, except with the prior written approval of the issuing laboratory.

Calibration Instance: 114 IGC Instance: 114

Page 1 of 2 | LP015GIUKAS-2.5

www.qedenv.com +44 (0) 333 800 0088 sales@qedenv.co.uk

QED Environmental Systems Ltd. Cyan Park - Unit 3, Jimmy Hill Way, Coventry, CV2 4QP, UNITED KINGDOM

Registered in England and Wales 1898734

CERTIFICATION OF CALIBRATION



Date Of Calibration: 26-Sep-2022

Certificate Number: G501314_2/31282

Issued by: QED Environmental Systems Ltd.

The reported expanded uncertainty is based on a standard uncertainty multiplied by a coverage factor of $k=2$, providing a level of confidence of approximately 95%. The uncertainty evaluation has been carried out in accordance with UKAS requirements.

Calibrations marked 'Non-UKAS Accredited results' on this certificate have been included for completeness.

Non-UKAS accredited results after adjustment:

Barometer (mbar)	
Reference	Instrument Reading
991	991

Additional Gas Cells		
Gas	Certified Gas (ppm)	Instrument Reading (ppm)
CO	499	499
H ₂ S	260	260

Internal Flow	
Applied (l/hr)	Instrument Reading (l/hr)
5.0	5.2
10.0	10.2

Date of Issue : 29-Sep-2022

Approved by Signatory

Laura McBride

Laboratory Inspection

End of Certificate

This certificate is issued in accordance with the laboratory accreditation requirements of the United Kingdom Accreditation Service. It provides traceability of measurement to the SI system of units and/or to units of measurement realised at the National Physical Laboratory or other recognised national metrology institutes. This certificate may not be reproduced other than in full, except with the prior written approval of the issuing laboratory.

Calibration Instance:114 IGC Instance:114

Page 2 of 2 | LP015GIUKAS-2.5

www.qedenv.com +44 (0) 333 800 0088 sales@qedenv.co.uk

QED Environmental Systems Ltd. Cyan Park - Unit 3, Jimmy Hill Way, Coventry, CV2 4QP, UNITED KINGDOM

Registered in England and Wales 1898734

Service Interval Statement

Service scheme for analyser G501314 has been changed from a 12-month service to 24-months.
Next service will be due 26th September 2024.

Signed for and on behalf of:

A handwritten signature in black ink, appearing to read 'Leanne Yates', is written over a horizontal line.

Name: Leanne Yates

Position: Customer Service Manager

Date: 29th February 2024

QED Environmental Systems

USA office

QED Environmental Systems Inc.
2355 Bishop Circle W. Ann Arbor, MI 48108-3726, UNITED STATES

www.qedenv.com

+44 (0)333 800 0088

CERTIFICATION OF CALIBRATION

Date Of Calibration: 12-Nov-2024



Certificate Number: GS10501_1/37077

Issued by: QED Environmental Systems Inc.

Customer: COOPERS
PARK HOUSE SANDPIPER COURT CHESTER BUSINESS PARK CHESTER, CH4 9DU
GB

Description:

Model: GA5000
Serial Number: GS10501

Accredited Results:

Methane (CH4)		
Certified Gas (%)	Instrument Reading (%)	Uncertainty (%)
5.0	4.8	0.42
15.0	14.8	0.66
60.0	59.7	1.03

Carbon Dioxide (CO2)		
Certified Gas (%)	Instrument Reading (%)	Uncertainty (%)
5.0	4.9	0.43
15.0	14.9	0.71
39.9	40.0	1.19

Oxygen (O2)		
Certified Gas (%)	Instrument Reading (%)	Uncertainty (%)
21.6	21.7	0.25

Gas cylinders are traceable and details can be provided if requested.

CH₄, CO₂ readings recorded at: 18.3 °C/62.0 °F
O₂ readings recorded at: 14.6 °C/58.3 °F

Barometric Pressure: 0995 mbar/29.30 "Hg

Method of Test: The analyser is calibrated in a temperature controlled chamber using a series of reference gases, in compliance with procedure ISP17.

Instrument has passed calibration as the measurement result is within the specification limit. The specification limit takes into account the measurement uncertainty.

The reported expanded uncertainty is based on a standard uncertainty multiplied by a coverage factor of k=2, providing a level of confidence of approximately 95%. The uncertainty evaluation has been carried out in accordance with ISO requirements.

The calibration results published in this certificate were obtained using equipment capable of producing results that are traceable through ISO to the International System of Units (SI). Calibration only applies to results shown. This certificate may not be reproduced other than in full, except with the prior written approval of the issuing laboratory.



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

Cooper Associates
Park House
Sandpiper Court
Chester Business Park
Chester
Cheshire
CH4 9QU

Attention: Cooper Geotech

CERTIFICATE OF ANALYSIS

Date of report Generation:	21 October 2024
Customer:	Cooper Associates
Sample Delivery Group (SDG):	241014-53
Your Reference:	8353
Location:	Land Adjacent to Bealey Industrial Estate, Radelif
Report No:	744244
Order Number:	10221-LP

We received 3 samples on Monday October 14, 2024 and 3 of these samples were scheduled for analysis which was completed on Monday October 21, 2024. 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:

Lauren Ellis

General Manager Western Europe Environmental



CERTIFICATE OF ANALYSIS

Validated

SDG: 241014-53 Report Number: 744244 Superseded Report:
Client Ref.: 8353 Location: Land Adjacent to Bealey Industrial Estate, Radelif

Received Sample Overview

Lab Sample No(s)	Customer Sample Ref.	AGS Ref.	Depth (m)	Sampled Date
30514862	GRESHAM TUBE 01 WS04			08/10/2024
30514863	GRESHAM TUBE 02 WS03			08/10/2024
30514864	GRESHAM TUBE 03 WS01			08/10/2024

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



CERTIFICATE OF ANALYSIS

Validated

SDG: 241014-53

Report Number: 744244

Superseded Report:

Client Ref.: 8353

Location: Land Adjacent to Bealey Industrial Estate, Radelif

Results Legend



Test



No Determination Possible

Sample Types -

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

Lab Sample No(s)

Customer
Sample Reference

AGS Reference

Depth (m)

Container

Sample Type

Bulk Gas

All

NDPs: 0
Tests: 3

X

X

X

30514864

30514863

30514862

GRESHAM TUBE 03
WS01

GRESHAM TUBE 02
WS03

GRESHAM TUBE 01
WS04

Gresham Tube

Gresham Tube

Gresham Tube

G

G

G



CERTIFICATE OF ANALYSIS

Validated

SDG: 241014-53 Report Number: 744244 Superseded Report:
Client Ref.: 8353 Location: Land Adjacent to Bealey Industrial Estate, Radelif

Table of Results - Appendix

Method No	Description
TM053	Determination of Bulk Gas Composition

NA = not applicable.
Chemical testing (unless subcontracted) performed at ALS Laboratories (UK) Limited Hawarden (Method codes TM).



CERTIFICATE OF ANALYSIS

Validated

SDG: 241014-53 Report Number: 744244 Superseded Report:
Client Ref.: 8353 Location: Land Adjacent to Bealey Industrial Estate, Radelif

Test Completion Dates

Lab Sample No(s)	30514862	30514863	30514864
Customer Sample Ref.	GRESHAM TUBE 01 WS04	GRESHAM TUBE 02 WS03	GRESHAM TUBE 03 WS01
AGS Ref.			
Depth			
Type	Gas (G)	Gas (G)	Gas (G)
Bulk Gas	21-Oct-2024	21-Oct-2024	21-Oct-2024



CERTIFICATE OF ANALYSIS

SDG: 241014-53
Client Ref: 8353

Report Number: 744244
Location: Land Adjacent to Bealey Industrial Estate, Radelif

Superseded Report:

Appendix

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

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

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

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

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

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

7. Results relate only to the items tested.

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

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

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

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

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

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

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

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

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

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

General

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

19. Sample Deviations

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

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

20. Asbestos

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

Identification of Asbestos in Bulk Materials & Soils

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

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

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

Visual Estimation Of Fibre Content

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

Respirable Fibres

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

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.



Unit 7-8 Hawarden Business Park
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email: hawardencustomerservices@alsglobal.com
Website: www.alsenvironmental.co.uk

Cooper Associates
Park House
Sandpiper Court
Chester Business Park
Chester
Cheshire
CH4 9QU

Attention: Cooper Geotech

CERTIFICATE OF ANALYSIS

Date of report Generation:	21 November 2024
Customer:	Cooper Associates
Sample Delivery Group (SDG):	241113-125
Your Reference:	8353
Location:	Land Adjacent to Bealey Industrial Estate, Radelif
Report No:	747372
Order Number:	8353

We received 3 samples on Wednesday November 13, 2024 and 3 of these samples were scheduled for analysis which was completed on Thursday November 21, 2024. 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:

Lauren Ellis

General Manager Western Europe Environmental



CERTIFICATE OF ANALYSIS

Validated

SDG: 241113-125

Report Number: 747372

Superseded Report:

Client Ref.: 8353

Location: Land Adjacent to Bealey Industrial Estate, Radelif

Received Sample Overview

Lab Sample No(s)	Customer Sample Ref.	AGS Ref.	Depth (m)	Sampled Date
30664610	WS01			06/11/2024
30664611	WS03			06/11/2024
30664612	WS04			06/11/2024

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



CERTIFICATE OF ANALYSIS

Validated

SDG: 241113-125

Report Number: 747372

Superseded Report:

Client Ref.: 8353

Location: Land Adjacent to Bealey Industrial Estate, Radelif

Results Legend



Test



No Determination
Possible

Sample Types -

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

Lab Sample No(s)

30664610
30664611
30664612

Customer
Sample Reference

WS01
WS03
WS04

AGS Reference

Depth (m)

Container

Gresham Tube
Gresham Tube
Gresham Tube

Sample Type

G
G
G

Bulk Gas

All

NDPs: 0
Tests: 3

X X X



CERTIFICATE OF ANALYSIS

Validated

SDG: 241113-125 Report Number: 747372 Superseded Report:
Client Ref.: 8353 Location: Land Adjacent to Bealey Industrial Estate, Radelif

Table of Results - Appendix

Method No	Description
TM053	Determination of Bulk Gas Composition

NA = not applicable.
Chemical testing (unless subcontracted) performed at ALS Laboratories (UK) Limited Hawarden (Method codes TM).



CERTIFICATE OF ANALYSIS

Validated

SDG: 241113-125

Report Number: 747372

Superseded Report:

Client Ref.: 8353

Location: Land Adjacent to Bealey Industrial Estate, Radelif

Test Completion Dates

Lab Sample No(s)	30664610	30664611	30664612
Customer Sample Ref.	WS01	WS03	WS04
AGS Ref.			
Depth			
Type	Gas (G)	Gas (G)	Gas (G)
Bulk Gas	21-Nov-2024	21-Nov-2024	21-Nov-2024



CERTIFICATE OF ANALYSIS

SDG: 241113-125
Client Ref: 8353

Report Number: 747372
Location: Land Adjacent to Bealey Industrial Estate, Radelif

Superseded Report:

Appendix

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

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

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

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

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

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

7. Results relate only to the items tested.

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

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

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

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

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

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

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

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

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

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

General

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

19. Sample Deviations

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

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

20. Asbestos

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

Identification of Asbestos in Bulk Materials & Soils

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

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

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

Visual Estimation Of Fibre Content

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

Respirable Fibres

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

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.



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

Cooper Associates
Park House
Sandpiper Court
Chester Business Park
Chester
Cheshire
CH4 9QU

Attention: Cooper Geotech

CERTIFICATE OF ANALYSIS

Date of report Generation:	28 November 2024
Customer:	Cooper Associates
Sample Delivery Group (SDG):	241121-29
Your Reference:	8353
Location:	Land Adjacent to Bealey Industrial Estate, Radelif
Report No:	748549
Order Number:	10274-HF

We received 3 samples on Wednesday November 20, 2024 and 3 of these samples were scheduled for analysis which was completed on Thursday November 28, 2024. 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:

Lauren Ellis

General Manager Western Europe Environmental



CERTIFICATE OF ANALYSIS

Validated

SDG: 241121-29

Report Number: 748549

Superseded Report:

Client Ref.: 8353

Location: Land Adjacent to Bealey Industrial Estate, Radelif

Received Sample Overview

Lab Sample No(s)	Customer Sample Ref.	AGS Ref.	Depth (m)	Sampled Date
30702685	WS 101			20/11/2024
30702686	WS 103			20/11/2024
30702687	WS 104			20/11/2024

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



CERTIFICATE OF ANALYSIS

Validated

SDG: 241121-29

Report Number: 748549

Superseded Report:

Client Ref.: 8353

Location: Land Adjacent to Bealey Industrial Estate, Radelif

Results Legend



Test



No Determination
Possible

Sample Types -

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

Lab Sample No(s)

30702685

30702686

30702687

Customer
Sample Reference

WS 101

WS 103

WS 104

AGS Reference

Depth (m)

Container

Gresham Tube

Gresham Tube

Gresham Tube

Sample Type

G

G

G

Bulk Gas

All

NDPs: 0
Tests: 3

X

X

X



CERTIFICATE OF ANALYSIS

Validated

SDG: 241121-29 Report Number: 748549 Superseded Report:
Client Ref.: 8353 Location: Land Adjacent to Bealey Industrial Estate, Radelif

Table of Results - Appendix

Method No	Description
TM053	Determination of Bulk Gas Composition

NA = not applicable.
Chemical testing (unless subcontracted) performed at ALS Laboratories (UK) Limited Hawarden (Method codes TM).



CERTIFICATE OF ANALYSIS

Validated

SDG: 241121-29

Report Number: 748549

Superseded Report:

Client Ref.: 8353

Location: Land Adjacent to Bealey Industrial Estate, Radelif

Test Completion Dates

Lab Sample No(s)	30702685	30702686	30702687
Customer Sample Ref.	WS 101	WS 103	WS 104
AGS Ref.			
Depth			
Type	Gas (G)	Gas (G)	Gas (G)
Bulk Gas	28-Nov-2024	28-Nov-2024	28-Nov-2024



CERTIFICATE OF ANALYSIS

SDG: 241121-29
Client Ref: 8353

Report Number: 748549

Superseded Report:
Location: Land Adjacent to Bealey Industrial Estate, Radelif

Appendix

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

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

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

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

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

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

7. Results relate only to the items tested.

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

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

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

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

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

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

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

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

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

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

General

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

19. Sample Deviations

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

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

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Gas Mitigation Ventilation Designs

Key

Selection from Drop Down
Input values
Output Results/ Defaults
Calculation results
Formulas for reference

Site Name:	Land Adjacent to Bealeys Industrial Estate
Project No.:	8353
Date:	27/04/2026
Run By:	BH
Template:	V.1.1 (BH-July 2024)

INPUTS			
Gas Characteristics		Output Results	
Gas Type:	Methane	1.0	C_e = equilibrium gas concentration in the void to achieve very good ventilation
Method:	Gas Regime		
Gas Screening Value (GSV):			GSV
or			
Gas Regime:	CS2	0.7	GSV
Site Characteristics			
Building Width (m):	29.500		
Building Length (m):	10.300		
Subfloor Void (m):	0.15		
Height of vents (m):	0.15		z
Mean wind speed:	4.5		
(BS5925 - Figure 5 - see look ups)			
Site Environment:	Urban	k 0.35	a 0.25 factors for wind speed in calculation
Wind Exposure:	Sheltered Inland	0.46	wind factor

STEP 1 Calculate fresh air flow required to dilute gas to design concentration	
$Q = q \{ (100 - C_e) / C_e \}$	
Where:	
q = surface emission rate of gas from the ground (total under whole building)	
C_e = equilibrium gas concentration in the void (in this case expressed as the % value not the mathematical value ie for 1% use 1 in the equation rather than 0.01).	
q = building width x length x gas emissions in $m^3/h/m^2$	
q calculation:	0.0212695
Q calculation	2.1

STEP 2 Air brick vent area and spacing for an open void	
The approach described in BS5925: 1991 is used to determine the necessary ventilation area and spacing of air bricks.	
STEP 2.1 Reference wind speed	
Hourly mean wind speed (BS5925 - Figure 5):	4.5 U_{50}
Correction ratio for site wind exposure:	0.46
Design wind speed (allow for 80% exceedance):	2.07 U_m
Therefore reference wind speed $U_r = U_m \times K \times z^a$ (Where z = height of vent)	
Reference wind speed (U_r):	0.45
STEP 2.1 Vent area	
Calculate required vent A_w area to give flow of fresh air, Q	
$A_w = \frac{Q}{U_r \times C_d \times \sqrt{\Delta C_p}} \times 10^6$ (note the factor 10^6 is to convert m^2 to mm^2)	
Q (Step 1) is in m^3/h and needs to be converted to $m^3/s = Q/3600$	0.0006 Q
U_r (Step 2.1):	0.45 U_r
Assume the discharge coefficient for a narrow opening, $C_d = 0.61$, which is a typical value for narrow openings from BS 5925: 1991. (This is a factor that correlates theoretical performance to actual performance)	0.61 C_d
Note for simple airbrick vents or similar there is usually some suction or pressure on the wall, regardless of wind direction. This is allowed for by using a very low value of Δ_p , typically 0.4 to 0.6	0.4 Δ_p
$A_w = \frac{0.0006}{0.45 \times 0.61 \times 0.63} \times 1000000$	
Area of ventilation required for whole building, A_w (mm^2)	
3363	
This is the total vent area along one long side of the building (the same area needs to be provided on two opposing sides).	
Venting required if opposite vents on building width in mm^2/m	3363 ÷ 29.5 = 114
Venting required if opposite vents on building length in mm^2/m	3363 ÷ 10.3 = 326
Note: The minimum venting area required in the Building Regulations of $1500mm^2/m$	

STEP 3 - Vent numbers/spacing

Step 3.1 - External Vents

The venting required on the opposite sides of the building is calculated by multiplying the distance (m) by the venting required (mm²/m):

Building Width:	29.5	m
Venting Required on Building Width:	1500	mm ² /m
Total Venting on Building Width	44250	mm ²
or		
Building Length:	10.3	m
Venting Required on Building Length:	2000	mm ² /m
Total Venting on Building Width	20600	mm ²
Ventilation achieved through air bricks (default is 6000mm ²)	6170	mm ²

The number of vents is determined by dividing the total venting required by the venting achieved per vent (round up):

Building Width Vents:	44250	÷	6170	=	7.17179903	=	8
Building Length Vents:	20600	÷	6170	=	3.33873582	=	4

Minimum ventilation required to provide an even flow of air across the building is 1 vent per 2m, the total vents required are therefore:

Building Width Vents:		
Minimum Vents (1 per 2m):	15	No.
Design Vents:	8	No.
Required Vents (max of above):	15	No.
Achieving ventilation	92550	mm ²
Building Length Vents:		
Minimum Vents (1 per 2m):	6	No.
Design Vents:	4	No.
Required Vents (max of above):	6	No.
Achieving ventilation	37020	mm ²

Step 3.1 - Internal Cross Ventilation

To allow cross-ventilation through internal walls, the ventilation should be a minimum of double the required vents

Vent Pipe diameter:	75	mm
No. of pipes per location (stacks)	1	
Achieves vent area:	4418	mm ² (can manual over ride vent area for other vent forms, such as spacers or air vents)

Building Width:	29.5	m							
Number of Vents:	88500		÷	4418	=	20.1	=	21	
Spaced at:	29.5		÷	21	=	1.40	m		
Building Length:	10.3	m							
Number of Vents:	41200		÷	4418	=	9.3	=	10	
Spaced at:	10.3		÷	10	=	1.03	m		

STEP 4 - Time to fill void to explosive limits (methane)

Check the time taken to fill the void to 5% methane if there is no wind.

Time to fill to 5% methane = (Volume of void x 5%)/Surface emission rate of gas below building.

The void volume is:	29.5	x	10.3	x	0.2	=	45.6
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Time to Fill the void is determined by:

$\frac{\text{void vol. x methane (as fraction)}}{\text{surface emission rate (in m}^3\text{ per hr per m) x building area}}$						
0.70	x	45.6	x	0.0001	x	0.05
2.278875						
0.0212695	=	107.1	Hrs to fill void to explosive levels with no wind			

Time for void to fill must be more than 10 hours:

Yes - No Changes Required



Visqueen Gas Barrier NF-400

Features & benefits

- BDA Agreement Certification - third party accreditation
- Complies with NHBC Foundation NF94 guidance for use in Type A membrane locations - non foil system
- Complies with the methane gas transmission rate, mass per unit area and thickness requirements of BS 8485:2015 + A1:2019 - industry standard for methane and carbon dioxide protection
- Transparent - allows a clear view of the substrate during and post installation
- Multi functional - also acts as a radon and damp proof membrane
- Dual jointing methods - depending upon specification, lap joints can be heat welded or taped

Product description

Visqueen Gas Barrier NF-400 is a co-extruded, multi-layer thermoplastic gas membrane, 0.4mm thick (400 micron). The membrane is transparent with a blue tint and supplied 2.4m x 43.5m in a single wound roll.

Approvals and standards

- Third party accreditation (BDA Agreement Certificate BAB-24-339-P-A-UK)
- Complies with the methane gas transmission rate, mass per unit area and thickness requirements of BS 8485:2015 + A1:2019
- Suitable for all Characteristic Gas Situation (CS) ground gas regimes
- Complies with NHBC Foundation NF94 guidance for use in Type A membrane locations (non foil system)
- Conforms to the specification requirements of NHBC Amber 1 and Amber 2 applications
- Conforms to the specification requirements of BR 211:2023
- UKCA UKNI CE to EN 13967:2012
- Visqueen certified with Quality Management System ISO 9001:2015
- Visqueen certified with Occupational Health and Safety System ISO 45001:2018
- Visqueen certified with Environmental Management System ISO 14001:2015

Usage

Visqueen Gas Barrier NF-400 is suitable for use in all types of buildings to prevent the ingress of harmful levels of methane, carbon dioxide and radon.

The barrier can be positioned above or below reinforced cast in situ concrete floor slabs e.g. ground bearing, suspended or raft, or above precast suspended segmental subfloors, e.g. beam and block floor.

The barrier can also be used as a high performance radon membrane and/or damp proof membrane.

NHBC NF94 guidance: Radon, carbon dioxide, and methane protection

Visqueen Gas Barrier NF-400 when installed with either welded or taped joints complies with NHBC Foundation NF94 publication, Hazardous ground gas - an essential guide for housebuilders, in Type A membrane locations in precast suspended segmental subfloors and reinforced cast in situ concrete floor slabs (ground bearing, suspended or raft).

For site or zone characteristic gas situations of CS4 and above, contact Visqueen Technical Office.

The barrier is not intended for use where there is a risk of hydrostatic pressure.

System components

- VisqueenPro Double Sided Jointing Tape, 50mm x 10m
- VisqueenPro Detailing Strip, 300mm x 10m
- Visqueen TreadGUARD 1500, 1m x 2m
- Visqueen TreadGUARD 300, 2m x 75m
- Visqueen Ultimate Top Hat Units
- Visqueen NF-Detailing Strip, 300mm x 10m
- Visqueen NF-60 Lap Tape, 60mm x 45m
- Visqueen NF-150 Lap Tape, 150mm x 10m

Storage and handling

When storing Visqueen Gas Barrier NF-400 care should be taken to:

- store in its original packaging;
- avoid exposure to direct sunlight and high or low temperatures for prolonged periods of time;
- store in a well-ventilated covered area to protect from rain, frost, humidity and mechanical damage;
- store away from possible ignition sources;
- store rolls of the barrier horizontally on a flat surface and not stacked.

Care should be taken to avoid accidental damage to the product when handling on site.

Care should be taken when handling the product in line with current manual handling regulations.



Visqueen Gas Barrier NF-400

Preparation

Visqueen Gas Barrier NF-400 should be installed on a smooth continuous surface e.g. grouted beam and block floor, a compacted blinding layer e.g. 50mm thick sand blinding, or smooth concrete blinding. The substrate should be free from irregularities such as loose aggregates or other sharp protrusions, voids, projections or mortar deposits.

The barrier can be cut with a sharp retractable safety knife or robust scissors.

Hand rollers are required during lap joint formation and sealing membrane detailing. Typical hand rollers include 40mm silicone pressure roller and 6mm brass penny pressure roller.

Consult the project specification to ensure the correct method of lap joint formation for the project is followed (welded or taped).

Rolls of tape should be kept in a warm, dry location prior to use to ensure the tape is workable and can be more easily applied.

Installation

Installation of Visqueen Gas Barrier NF-400 should be carried out by a competent contractor experienced with this type of product e.g. hold an NVQ Level 2 Diploma in substructure work occupations (Installation of Gas Membranes - Construction).

The installation should be subjected to third-party validation in accordance with BS 8485:2015 +A1:2019 and CIRIA C735.

Visqueen Gas Barrier NF-400 should be loose laid on the substrate ensuring that the barrier sheet edges are aligned allowing adequate overlap for jointing between the sheets. The barrier can be laid either side facing upwards.

The barrier lap area should be clean and dry at the time of jointing. The barrier has been designed to exhibit superior welding properties using hot wedge and hot air welding, therefore onsite welding of all lap joints is recommended. When hot air hand welding the lap joints, the joint should be overlapped by approximately 100mm and an approximate 35mm weld is normally achieved. During hand welding, the lap joints should be firmly compressed using a hand roller to ensure an adequate bond is achieved.

When taping the lap joints, the joint should be overlapped by approximately 100mm and bonded with VisqueenPro Double Sided Jointing Tape (positioned approximately 25mm from the edge of the sheet) and sealed with Visqueen NF-60 Lap Tape or Visqueen NF-150 Lap Tape depending on the project specification. The lap joints should be firmly compressed using a hand roller during taping to ensure an adequate bond is achieved.

Creating an effective gas barrier often requires complex three-dimensional detailing, such as around internal and external walls, corners, doorway thresholds, service pipes, party walls, and structural columns. Visqueen Detailing Strip (Pro or NF depending on the project specification) is gas resistant and can be used in place of the gas barrier to maintain continuous protection. The detailing strip lap joints should be firmly compressed using a hand roller to ensure an adequate bond is achieved. Visqueen Ultimate Preformed Units are also available.

If the barrier is punctured or perforated a patch of the same material should be lapped at least 100mm beyond the limits of the puncture and either welded in position, or bonded with VisqueenPro Double Sided Jointing Tape (positioned approximately 25mm from the edge of the sheet) and sealed with Visqueen NF-60 Lap Tape or Visqueen NF-150 Lap Tape depending on the project specification. Alternatively a patch can be formed using Visqueen NF-Detailing Strip lapped at least 150mm beyond the extents of the puncture.

Long periods of exposure to ultraviolet light will reduce the effectiveness of the barrier. The barrier should be covered by a protective layer e.g. Visqueen TreadGuard protection or other approved protection material, immediately after installation to prevent damage from following trades, ultraviolet light, etc. Care should be taken to ensure that the barrier is not punctured, stretched or displaced during or post installation.

VisqueenPro Detailing Strip is also suitable for sealing detailing junctions and patch repairs, however when the gas protection measures are to conform with the requirements of NHBC NF94 guidance, please ensure acceptance by all stakeholders prior to use.

Usable temperature range

When Visqueen Gas Barrier NF-400 is installed with taped lap joints, the air temperature should not be below 5°C or falling to prevent the risk of surface condensation affecting the tape adhesion.

When ambient temperatures are above 25°C or rising, the barrier should be covered immediately after installation.

Additional information

When used in accordance BS8485:2015 + A1:2019 a subfloor ventilation system or pressure relief may also be required.

To assist build sequencing, Visqueen Ultimate Gas DPC is available for gas protection through the wall

Visqueen Gas Barrier NF-400

construction.

For further information contact Visqueen Technical Office on 0333 202 6800.

The information in this datasheet was correct at the time of publication. It is the user's responsibility to obtain the latest version of the datasheet as it is updated on a regular basis. The information contained in the latest datasheet supersedes all previously published editions.

Property	Test method	Units	Compliance criteria	Result
Dimensions	BS EN 1848-2	m	-	2.4 x 43.5
Nominal thickness	BS EN 1849-2	mm	+/-10%	0.4
Mass	BS EN 1849-2	g/m ²	>370	>370
Tensile strength - machine direction	BS EN 12311-2 method B	N/mm ²	MDV	26.3
Tensile strength - cross direction	BS EN 12311-2 method B	N/mm ²	MDV	29.4
Elongation at break - machine direction	BS EN 12311-2 method B	%	MDV	607
Elongation at break - cross direction	BS EN 12311-2 method B	%	MDV	921
Joint strength - taped joint	BS EN 12317-2	N/50mm	MDV	217
Joint strength - welded joint	BS EN 12317-2	N/50mm	MDV	405
Watertightness at 2kPa for 24 hours	BS EN 1928 method A	-	Pass/Fail	Pass
Watertightness at 2kPa for 24 hours after ageing	BS EN 1296 (12 weeks) + BS EN 1928 method A	-	Pass/Fail	Pass
Watertightness at 2kPa for 24 hours after alkali environment	BS EN 1847 (28 days) + BS EN 1928 method A	-	Pass/Fail	Pass
Resistance to impact	BS EN 12691 method A	mm	MDV	400
Low temperature flexibility	BS EN 495-5	°C	MDV	-20
Resistance to tearing (nail shank) - machine direction	BS EN 12310-1	N	MDV	265
Resistance to tearing (nail shank) - cross direction	BS EN 12310-1	N	MDV	240
Water vapour resistance	BS EN 1931 method B	MNs/g	MDV	2,296
Water vapour permeability	BS EN 1931 method B	g/m ² /d	MDV	0.08
Water vapour resistance factor	BS EN 1931 method B	μ	MDV	1,140,000
Water vapour diffusion equivalent air layer thickness	BS EN 1931 method B	SD in m	MDV	459
Methane gas transmission rate - membrane	BS ISO 15105-1	ml/m ² /day/atm	MDV	13.2
Methane gas transmission rate - welded membrane joint	BS ISO 15105-1	ml/m ² /day/atm	MDV	15
Carbon dioxide gas transmission rate	BS ISO 15105-1	ml/m ² /day/atm	MDV	22
Radon gas transmission rate - membrane	SP method	m/s	MDV	<3.0 x 10 ⁻⁹
Puncture CBR	BS EN 12236	N	MDV	1620
Tensile yield strength - machine direction	ASTM D4885-01	kN/m	MDV	8

Visqueen Gas Barrier NF-400

Tensile yield strength - cross direction	ASTM D4885-02	kN/m	MDV	7.3
Resistance to static loading	BS EN 12730 method C	kg	MDV	15
Elongation yield - machine direction	ASTM D4885-01	%	MDV	405.3
Elongation yield - cross direction	ASTM D4885-01	%	MDV	400.2
Tear resistance - trouser method A - machine direction	BS ISO 34-1	kN/m	MDV	128
Tear resistance - trouser method A - cross direction	BS ISO 34-1	kN/m	MDV	109.7
Tear resistance - angle method B - machine direction	BS ISO 34-1	N	MDV	137
Tear resistance - angle method B - cross direction	BS ISO 34-1	N	MDV	139.6

Health and safety information

Refer to the Visqueen Gas Barrier NF-400 safety datasheet (SDS).

About Visqueen

Visqueen is a leading provider of construction membrane technologies and design-based solutions for ground gas, structural waterproofing, damp proofing and fire protection.

We offer complete support at every stage of the specification, including the supply chain process. As the UK's principal technical authority, we are best placed to ensure that the principal designer and contractor specify the most technically suited, durable, and competitive solution to guarantee their project is protected for the lifetime of the building.

Visqueen is at the forefront of advanced membrane technology and innovation in the construction industry, earning the trust and loyalty of specifiers throughout the UK and Europe.

For more information, visit visqueen.com or contact our sales office at [+44 \(0\) 333 202 6800](tel:+44202332026800) or enquiries@visqueen.com

Complete Range, Complete Solution



Passive Fire Protection



Gas Protection



Damp Proof Membrane



Air and Vapor Control



Stormwater



Damp Proof Course



Temporary Protection

Visqueen Technical Support

Visqueen offer a comprehensive full nationwide technical support. Our team of CSSW qualified technical support managers provide on site design-based solutions for specifiers, contractors and builders merchants, and will ensure that from design stage to installation the project is fully risk assessed and the specification is approved by all stakeholders.

Our Technical Office, can design, prepare and manage CAD detailing, together with assisting in quantity take offs, while offering advice on technical installations and product selection.

Competency & Design

Visqueen promotes competency in building design by ensuring that its technical team possesses the necessary skills, knowledge, experience, and ethical practices. The company adopts the "golden thread of information," ensuring all project data is digitally secure and accessible throughout a building's lifecycle. This approach aligns with the Building Safety Act and aims to foster accountability and compliance with evolving regulations, providing clients with confidence in the safety and reliability of their projects.

Visqueen CPD Seminars

Visqueen's CPD Seminars offer insights into Building Regulations, Standards, and industry guidance related to



Visqueen Gas Barrier NF-400

damp proofing, hazardous ground gas protection, and structural waterproofing. These one-hour seminars are tailored for construction design professionals and delivered by our Technical Support Managers. Visit our website to book a free CPD.

Visqueen Contract Design Services

Visqueen Contract Design Services offers a bespoke design service led by our team of Certified Surveyors in Structural Waterproofing (CSSW), providing experienced and specialised waterproofing design expertise for complex projects. We provide comprehensive support throughout the entire project, ensuring that all work meets the requirements of warranty providers and adheres to the highest standards of quality, reliability and current legislation.

Visqueen Training Academy

Based at our Derbyshire facility, the Visqueen Training Academy offers a variety of training programs across the UK. These include one-day product awareness sessions for distributors and builders' merchants, and intensive two-day courses for hands-on product installation training. Contact us for more information.

Supplemental Ground Investigation and Remediation Strategy for
Land Adjacent to Bealey Industrial Estate, Radcliffe

Appendix 6

Risk Assessments



Joint Industry Working Group

Asbestos in Soil and Construction & Demolition Materials

Project Reference	8353
Site Name	Land Adjacent to Bealeys Industrial Estate, Radcliffe
Client	Westchurch Homes
Run by	B Hill
Date	27-Apr-26
Scenario details	Contractors removal of visible ACM debris (cement sheeting)

Decision Support Tool for CAR2012 Work Categories

Stage 1

Hazard Factors

Score

Select ACM type (run model for each type to generate 'Worst Case' output)

Extent of degradation of ACMs at outset of work

Friability and degree of bonding by matrix (ACM matrix, not ground materials)

Distribution of Visible Asbestos Across Affected Area

Amount of asbestos fibre in selected ACM/fibre type as % of host material

Bonded ACMs: cement, vinyl, composites, textured decorative coatings, bitumen products

Weathered (Slight degradation in ACM; material still retains its basic integrity)

Non-friable ACM or ACM with fibres firmly linked in a matrix

Sporadic/random occurrences of visible contamination by ACMs

Low quantities - >0.01 to <0.05 %wt/wt

1

2

0

2

2

Sub-total

7

Note: the asbestos licensing regime is unaffected by the type of asbestos fibre present in ACMs

Hazard ranking

Low

No warranty, expressed or implied, or reliance, is provided in relation to the use of this tool.

It is contingent on users to satisfy themselves that the output from the tool is relevant and appropriate to the assessment being made.

Stage 2

Exposure Factors

Score

Anticipated airborne fibre concentration - Control Limit or SALI?
Anticipated duration of exposure to asbestos
Activity type and effect on deterioration of ACMs during work
Best description of primary host material matrix (soil/made ground)
Respirable fibre index for ACM - RIVM report 711701034 (2003)

<0.001 fibres/ml	0
> 2 hours in a 7 day period and Up to 10 hours in a day (e.g. full time occupational exposure)	4
Low intensity, no or minimal deterioration expected	0
Coarse to Fine Gravel	3
Very low	1

Sub-total

8

Exposure ranking

Low

Combined hazard and exposure ranking

15

Low

Stage 3

Risk Assessment Outputs

Probable Licensing Status	Non-Licensed Work
RPE*	EN149 type FFP3 disposable
Dust Suppression**	Manual/localised dust suppression
Hygiene/Decontamination***	Localised and basic personal decontamination facilities

*Where RPE has to be worn continuously for long periods (e.g. more than 1-hour), then powered RPE may be necessary.

**Reduction in control measures possible if natural mitigation factors are present (e.g. raining, wet ground)

***Guide only; suitability of selected personal hygiene measures may be reviewed on a site/contamination-specific basis



Joint Industry Working Group
Asbestos in Soil and Construction & Demolition Materials

Project Reference	8353
Site Name	Land Adjacent to Bealeys Industrial Estate, Radcliffe
Client	Westchurch Homes
Run by	B Hill
Date	27-Apr-26
Scenario details	Contractors Excavation of Soils with Free Fibres

Decision Support Tool for CAR2012 Work Categories

Stage 1

Hazard Factors

Score

Select ACM type (run model for each type to generate 'Worst Case' output)
Extent of degradation of ACMs at outset of work
Friability and degree of bonding by matrix (ACM matrix, not ground materials)
Distribution of Visible Asbestos Across Affected Area
Amount of asbestos fibre in selected ACM/fibre type as % of host material

Free dispersed fibres/fibre bundles	2
Disaggregated (dominated by loose fibrous material; extreme degradation in ACM and/or free asbestos fibres/fibre bundles)	4
Friable ACM or ACM with fibres not linked in any matrix (free dispersed fibres/fibre bundles)	4
Gross/very frequent occurrences of visible contamination by ACMs	4
Very Low quantities - <0.001 to 0.01 %wt/wt	1

Sub-total

15

Note: the asbestos licensing regime is unaffected by the type of asbestos fibre present in ACMs

Hazard ranking

Medium

No warranty, expressed or implied, or reliance, is provided in relation to the use of this tool.

It is contingent on users to satisfy themselves that the output from the tool is relevant and appropriate to the assessment being made.

Stage 2

Exposure Factors

Score

Anticipated airborne fibre concentration - Control Limit or SALI?

<0.001 fibres/ml

0

Anticipated duration of exposure to asbestos

> 2 hours in a 7 day period and Up to 10 hours in a day (e.g. full time occupational exposure)

4

Activity type and effect on deterioration of ACMs during work

Low intensity, no or minimal deterioration expected

0

Best description of primary host material matrix (soil/made ground)

Coarse to Fine Gravel

3

Respirable fibre index for ACM - RIVM report 711701034 (2003)

Very low

1

Sub-total

8

Exposure ranking

Low

Combined hazard and exposure ranking

23

Medium

Stage 3

Risk Assessment Outputs

Probable Licensing Status	Non-Licensed Work
RPE*	EN149 type FFP3 disposable
Dust Suppression**	Manual/localised dust suppression
Hygiene/Decontamination***	Localised and basic personal decontamination facilities

*Where RPE has to be worn continuously for long periods (e.g. more than 1-hour), then powered RPE may be necessary.

**Reduction in control measures possible if natural mitigation factors are present (e.g. raining, wet ground)

***Guide only; suitability of selected personal hygiene measures may be reviewed on a site/contamination-specific basis

Decision Support Tool for Receptor Risk Ranking

Stage 1		Score
Hazard Identification		
Select ACM type (run model for each type to generate 'Worst Case' output)	Bonded ACMs: cement, vinyl, composites, textured decorative coatings, bitumen products	0
Extent of degradation of ACMs	Degraded (Significant degradation in ACM; material has lost its basic integrity)	3
Friability and degree of bonding by matrix (ACM matrix, not ground materials)	Friable ACM or ACM with fibres not firmly linked in a matrix	2
Distribution of Visible Asbestos Across Affected Area	No visible ACMs/fibre bundles	0
Asbestos fibre type	Mainly chrysotile and trace amphibole (no crocidolite)	1
Sub-total		6
Hazard ranking		Low

Stage 2		Score
Emission Factors		
Amount of asbestos fibre in selected ACM/fibre type as % of host material	Low quantities - >0.01 to <0.05 %wt/wt	2
Respirable fibre index for ACM - RIVM report 711701034 (2003)	Low	2
Activity type and effect on deterioration of ACMs	Moderate disturbance, slight deterioration expected	3
Best description of primary host material matrix	Made Ground - Recycled Aggregate, Track Ballast	4
Sub-total		11
Exposure ranking		Medium

Stage 3		Score
Pathway and Receptor Sensitivity		
Receptor category	Construction	No score required
Age of Receptor	Young adult (>16 and <24)	2
Duration of exposure/site occupancy	> 1hr <10 hr daily exposure (e.g. part-time to full time occupational exposure or extended daily recreational exposure)	3
Receptor ranking		5 Medium
Combined hazard, exposure and receptor ranking		Medium
Pathway: Distance of Receptor from Source	In or within 10m of area of disturbance	4
Pathway: Depth to impacted material	Material visible at the surface, very likely to be disturbed by wind erosion and/or human/animal disturbance of soil	E
Pathway ranking		4E High
Overall ranking	High	

Project Reference	8353
Site Name	Land Adjacent to Bealeys Industrial Estate, Radcliffe
Client	Westchurch Homes
Run by	BH
Date	27-Apr-26
Reviewed by	BH
Characterisation of scenario being evaluated	Contractors exposure to soils with ACMs during earthworks/groundworks without precautions to mitigate dusts
Interpretation of scenario ranking by DST	High risk posed where standard dust suppression measures recommended

Decision Support Tool for Receptor Risk Ranking

Stage 1 Hazard Identification		Score
Select ACM type (run model for each type to generate 'Worst Case' output)	Bonded ACMs: cement, vinyl, composites, textured decorative coatings, bitumen products	0
Extent of degradation of ACMs	Degraded (Significant degradation in ACM; material has lost its basic integrity)	3
Friability and degree of bonding by matrix (ACM matrix, not ground materials)	Friable ACM or ACM with fibres not firmly linked in a matrix	2
Distribution of Visible Asbestos Across Affected Area	No visible ACMs/fibre bundles	0
Asbestos fibre type	Mainly chrysotile and trace amphibole (no crocidolite)	1
Sub-total		6
Hazard ranking		Low

Stage 2

Emission Factors

Score

Amount of asbestos fibre in selected ACM/fibre type as % of host material

Low quantities - >0.01 to <0.05 %wt/wt

2

Respirable fibre index for ACM - RIVM report 711701034 (2003)

Low

2

Activity type and effect on deterioration of ACMs

Low disturbance, minimal deterioration expected

2

Best description of primary host material matrix

Made Ground - Recycled Aggregate, Track Ballast

4

Sub-total

10

Exposure ranking

Medium

Stage 3		Score
Pathway and Receptor Sensitivity		
Receptor category	Residential (Pre-Remediation)	No score required
Age of Receptor	Infant (under 5)	4
Duration of exposure/site occupancy	>> 10 hours per day (e.g. 24 hour residential exposure)	4
Receptor ranking		8 High
Combined hazard, exposure and receptor ranking		High
Pathway: Distance of Receptor from Source	In or within 10m of area of disturbance	4
Pathway: Depth to impacted material	Material present near the surface, potential to be disturbed during non-construction/routine use of land	D
Pathway ranking		4D Medium
Overall ranking		Medium

Project Reference	8353
Site Name	Land Adjacent to Bealeys Industrial Estate, Radcliffe
Client	Westchurch Homes
Run by	BH
Date	27-Apr-26
Reviewed by	BH
Characterisation of scenario being evaluated	Future residents exposure to soils with ACMs if no remedial measures are undertaken
Interpretation of scenario ranking by DST	Medium risks posed, remedial measures are therefore required.

Decision Support Tool for Receptor Risk Ranking

Stage 1		Score
Hazard Identification		
Select ACM type (run model for each type to generate 'Worst Case' output)	Bonded ACMs: cement, vinyl, composites, textured decorative coatings, bitumen products	0
Extent of degradation of ACMs	Degraded (Significant degradation in ACM; material has lost its basic integrity)	3
Friability and degree of bonding by matrix (ACM matrix, not ground materials)	Friable ACM or ACM with fibres not firmly linked in a matrix	2
Distribution of Visible Asbestos Across Affected Area	No visible ACMs/fibre bundles	0
Asbestos fibre type	Mainly chrysotile and trace amphibole (no crocidolite)	1
Sub-total		6
Hazard ranking		Low

Stage 2

Emission Factors

Score

Amount of asbestos fibre in selected ACM/fibre type as % of host material

Low quantities - >0.01 to <0.05 %wt/wt

2

Respirable fibre index for ACM - RIVM report 711701034 (2003)

Low

2

Activity type and effect on deterioration of ACMs

No disturbance activity

0

Best description of primary host material matrix

Made Ground - Recycled Aggregate, Track Ballast

4

Sub-total

8

Exposure ranking

Low

Stage 3		Score
Pathway and Receptor Sensitivity		
Receptor category	Residential (Post Remediation)	No score required
Age of Receptor	Infant (under 5)	4
Duration of exposure/site occupancy	>> 10 hours per day (e.g. 24 hour residential exposure)	4
Receptor ranking		8 High
Combined hazard, exposure and receptor ranking		High
Pathway: Distance of Receptor from Source	In or within 10m of area of disturbance	4
Pathway: Depth to impacted material	Material buried at significant depth, very unlikely to be disturbed.	A
Pathway ranking		4A Negligible
Overall ranking		Negligible

Project Reference	8353
Site Name	Land Adjacent to Bealeys Industrial Estate, Radcliffe
Client	Westchurch Homes
Run by	BH
Date	27-Apr-26
Reviewed by	BH
Characterisation of scenario being evaluated	Future residents exposure to soils with ACMs after placement below inert cover systems
Interpretation of scenario ranking by DST	Negligible risks identified, demonstrates that cover systems are suitable to protect future residents.

Decision Support Tool for Receptor Risk Ranking

Stage 1 Hazard Identification		Score
Select ACM type (run model for each type to generate 'Worst Case' output)	Bonded ACMs: cement, vinyl, composites, textured decorative coatings, bitumen products	0
Extent of degradation of ACMs	Degraded (Significant degradation in ACM; material has lost its basic integrity)	3
Friability and degree of bonding by matrix (ACM matrix, not ground materials)	Friable ACM or ACM with fibres not firmly linked in a matrix	2
Distribution of Visible Asbestos Across Affected Area	No visible ACMs/fibre bundles	0
Asbestos fibre type	Mainly chrysotile and trace amphibole (no crocidolite)	1
Sub-total		6
Hazard ranking		Low

Stage 2		Score
Emission Factors		
Amount of asbestos fibre in selected ACM/fibre type as % of host material	Low quantities - >0.01 to <0.05 %wt/wt	2
Respirable fibre index for ACM - RIVM report 711701034 (2003)	Low	2
Activity type and effect on deterioration of ACMs	Moderate disturbance, slight deterioration expected	3
Best description of primary host material matrix	Made Ground - Recycled Aggregate, Track Ballast	4
Sub-total		11
Exposure ranking		Medium

Stage 3		Score
Pathway and Receptor Sensitivity		
Receptor category	Residential (Adjacent Residents)	No score required
Age of Receptor	Infant (under 5)	4
Duration of exposure/site occupancy	>> 10 hours per day (e.g. 24 hour residential exposure)	4
Receptor ranking		8 High
Combined hazard, exposure and receptor ranking		High
Pathway: Distance of Receptor from Source	>10m of edge of area of disturbance	3
Pathway: Depth to impacted material	Material visible at the surface, very likely to be disturbed by wind erosion and/or human/animal disturbance of soil	E
Pathway ranking		3E Medium
Overall ranking		Medium

Project Reference	8353
Site Name	Land Adjacent to Bealeys Industrial Estate, Radcliffe
Client	Westchurch Homes
Run by	BH
Date	27-Apr-26
Reviewed by	BH
Characterisation of scenario being evaluated	Adjacent residents exposure to soils with ACMs during earthworks/groundworks
Interpretation of scenario ranking by DST	Medium risk posed where standard dust suppression measures recommended

Decision Support Tool for Receptor Risk Ranking

Stage 1		Score
Hazard Identification		
Select ACM type (run model for each type to generate 'Worst Case' output)	Free dispersed fibres/fibre bundles	2
Extent of degradation of ACMs	Disaggregated (dominated by loose fibrous material; extreme degradation in ACM and/or free asbestos fibres/fibre bundles)	4
Friability and degree of bonding by matrix (ACM matrix, not ground materials)	Friable ACM or ACM with fibres not linked in any matrix (free dispersed fibres/fibre bundles)	4
Distribution of Visible Asbestos Across Affected Area	No visible ACMs/fibre bundles	0
Asbestos fibre type	Mainly chrysotile and trace amphibole (no crocidolite)	1
Sub-total		11
Hazard ranking		Medium

Stage 2

Emission Factors

Score

Amount of asbestos fibre in selected ACM/fibre type as % of host material

Very Low quantities - 0.001 to 0.01 %wt/wt

1

Respirable fibre index for ACM - RIVM report 711701034 (2003)

High

4

Activity type and effect on deterioration of ACMs

Low disturbance, minimal deterioration expected

2

Best description of primary host material matrix

Made Ground - Recycled Aggregate, Track Ballast

4

Sub-total

11

Exposure ranking

Medium

Stage 3		Score
Pathway and Receptor Sensitivity		
Receptor category	Construction	No score required
Age of Receptor	Young adult (>16 and <24)	2
Duration of exposure/site occupancy	> 1hr <10 hr daily exposure (e.g. part-time to full time occupational exposure or extended daily recreational exposure)	3
Receptor ranking		5 Medium
Combined hazard, exposure and receptor ranking		High
Pathway: Distance of Receptor from Source	In or within 10m of area of disturbance	4
Pathway: Depth to impacted material	Material visible at the surface, very likely to be disturbed by wind erosion and/or human/animal disturbance of soil	E
Pathway ranking		4E High
Overall ranking	High	

Project Reference	8353
Site Name	Land Adjacent to Bealeys Industrial Estate, Radcliffe
Client	Westchurch Homes
Run by	BH
Date	27-Apr-26
Reviewed by	BH
Characterisation of scenario being evaluated	Contractors exposure to soils with free fibres during earthworks/groundworks without precautions to mitigate dusts
Interpretation of scenario ranking by DST	High risk posed where standard dust suppression measures recommended

Decision Support Tool for Receptor Risk Ranking

Stage 1 Hazard Identification		Score
Select ACM type (run model for each type to generate 'Worst Case' output)	Free dispersed fibres/fibre bundles	2
Extent of degradation of ACMs	Disaggregated (dominated by loose fibrous material; extreme degradation in ACM and/or free asbestos fibres/fibre bundles)	4
Friability and degree of bonding by matrix (ACM matrix, not ground materials)	Friable ACM or ACM with fibres not linked in any matrix (free dispersed fibres/fibre bundles)	4
Distribution of Visible Asbestos Across Affected Area	No visible ACMs/fibre bundles	0
Asbestos fibre type	Mainly chrysotile and trace amphibole (no crocidolite)	1
Sub-total		11
Hazard ranking		Medium

Stage 2

Emission Factors

Score

Amount of asbestos fibre in selected ACM/fibre type as % of host material

Very Low quantities - 0.001 to 0.01 %wt/wt

1

Respirable fibre index for ACM - RIVM report 711701034 (2003)

High

4

Activity type and effect on deterioration of ACMs

Low disturbance, minimal deterioration expected

2

Best description of primary host material matrix

Made Ground - Recycled Aggregate, Track Ballast

4

Sub-total

11

Exposure ranking

Medium

Stage 3 Pathway and Receptor Sensitivity		Score
Receptor category	Residential (Pre-Remediation)	No score required
Age of Receptor	Infant (under 5)	4
Duration of exposure/site occupancy	>> 10 hours per day (e.g. 24 hour residential exposure)	4
Receptor ranking		8 High
Combined hazard, exposure and receptor ranking		High
Pathway: Distance of Receptor from Source	In or within 10m of area of disturbance	4
Pathway: Depth to impacted material	Material present near the surface, potential to be disturbed during non-construction/routine use of land	D
Pathway ranking		4D Medium
Overall ranking		Medium

Project Reference	8353
Site Name	Land Adjacent to Bealeys Industrial Estate, Radcliffe
Client	Westchurch Homes
Run by	BH
Date	27-Apr-26
Reviewed by	BH
Characterisation of scenario being evaluated	Future residents exposure to soils with asbestos free fibres if no remedial measures are undertaken
Interpretation of scenario ranking by DST	Medium risks posed, remedial measures are therefore required.

Decision Support Tool for Receptor Risk Ranking

Stage 1 Hazard Identification		Score
Select ACM type (run model for each type to generate 'Worst Case' output)	Free dispersed fibres/fibre bundles	2
Extent of degradation of ACMs	Disaggregated (dominated by loose fibrous material; extreme degradation in ACM and/or free asbestos fibres/fibre bundles)	4
Friability and degree of bonding by matrix (ACM matrix, not ground materials)	Friable ACM or ACM with fibres not linked in any matrix (free dispersed fibres/fibre bundles)	4
Distribution of Visible Asbestos Across Affected Area	No visible ACMs/fibre bundles	0
Asbestos fibre type	Mainly chrysotile and trace amphibole (no crocidolite)	1
Sub-total		11
Hazard ranking		Medium

Stage 2		Score
Emission Factors		
Amount of asbestos fibre in selected ACM/fibre type as % of host material	Very Low quantities - 0.001 to 0.01 %wt/wt	1
Respirable fibre index for ACM - RIVM report 711701034 (2003)	High	4
Activity type and effect on deterioration of ACMs	No disturbance activity	0
Best description of primary host material matrix	Made Ground - Recycled Aggregate, Track Ballast	4
Sub-total		9
Exposure ranking		Low

Stage 3		Score
Pathway and Receptor Sensitivity		
Receptor category	Residential (Post Remediation)	No score required
Age of Receptor	Infant (under 5)	4
Duration of exposure/site occupancy	>> 10 hours per day (e.g. 24 hour residential exposure)	4
Receptor ranking		8 High
Combined hazard, exposure and receptor ranking		High
Pathway: Distance of Receptor from Source	In or within 10m of area of disturbance	4
Pathway: Depth to impacted material	Material buried at significant depth, very unlikely to be disturbed.	A
Pathway ranking		4A Negligible
Overall ranking		Negligible

Project Reference	8353
Site Name	Land Adjacent to Bealeys Industrial Estate, Radcliffe
Client	Westchurch Homes
Run by	BH
Date	27-Apr-26
Reviewed by	BH
Characterisation of scenario being evaluated	Future residents exposure to asbestos free fibres after placement below inert cover systems
Interpretation of scenario ranking by DST	Negligible risks identified, demonstrates that cover systems are suitable to protect future residents.

Decision Support Tool for Receptor Risk Ranking

Stage 1 Hazard Identification		Score
Select ACM type (run model for each type to generate 'Worst Case' output)	Free dispersed fibres/fibre bundles	2
Extent of degradation of ACMs	Disaggregated (dominated by loose fibrous material; extreme degradation in ACM and/or free asbestos fibres/fibre bundles)	4
Friability and degree of bonding by matrix (ACM matrix, not ground materials)	Friable ACM or ACM with fibres not linked in any matrix (free dispersed fibres/fibre bundles)	4
Distribution of Visible Asbestos Across Affected Area	No visible ACMs/fibre bundles	0
Asbestos fibre type	Mainly chrysotile and trace amphibole (no crocidolite)	1
Sub-total		11
Hazard ranking		Medium

Stage 2

Emission Factors

Score

Amount of asbestos fibre in selected ACM/fibre type as % of host material

Very Low quantities - 0.001 to 0.01 %wt/wt

1

Respirable fibre index for ACM - RIVM report 711701034 (2003)

High

4

Activity type and effect on deterioration of ACMs

Low disturbance, minimal deterioration expected

2

Best description of primary host material matrix

Made Ground - Recycled Aggregate, Track Ballast

4

Sub-total

11

Exposure ranking

Medium

Stage 3

Pathway and Receptor Sensitivity

Score

Receptor category

Residential (Adjacent Residents)

No score required

Age of Receptor

Infant (under 5)

4

Duration of exposure/site occupancy

>> 10 hours per day (e.g. 24 hour residential exposure)

4

Receptor ranking

8

High

Combined hazard, exposure and receptor ranking

High

Pathway: Distance of Receptor from Source

>10m of edge of area of disturbance

3

Pathway: Depth to impacted material

Material visible at the surface, very likely to be disturbed by wind erosion and/or human/animal disturbance of soil

E

Pathway ranking

3E

Medium

Overall ranking

Medium

Project Reference	8353
Site Name	Land Adjacent to Bealeys Industrial Estate, Radcliffe
Client	Westchurch Homes
Run by	BH
Date	27-Apr-26
Reviewed by	BH
Characterisation of scenario being evaluated	Adjacent residents exposure to soils with asbestos free fibres during earthworks/groundworks
Interpretation of scenario ranking by DST	Medium risk posed where standard dust suppression measures recommended

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27-Apr-26

Report title

Land Adjacent to Bealeys Industrial Estate, Radcliffe

Created by

B Hill at Coopers



Environment
Agency

RESULTS

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[illegible]

[illegible]

[illegible]



	Average Daily Exposure ($\text{mg kg}^{-1} \text{ bw day}^{-1}$)	Distribution by Pathway (%)
	Direct soil ingestion Consumption of homegrown produce and attached soil Dermal contact with soil and dust Inhalation of dust Inhalation of vapour Background (oral) Background (inhalation)	Direct soil ingestion Consumption of homegrown produce Dermal contact with soil and dust Inhalation of dust Inhalation of vapour (indoor) Inhalation of vapour (outdoor) Background (oral) Background (inhalation)
21		
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27-Apr-26

Report title

Land adjacent to Bealeys Industrial Estate

Created by

B Hill at Coopers



RESULTS

[illegible]

[illegible]

[illegible]

[illegible]



	Average Daily Exposure ($\text{mg kg}^{-1} \text{ bw day}^{-1}$)	Distribution by Pathway (%)
	Direct soil ingestion Consumption of homegrown produce and attached soil Dermal contact with soil and dust Inhalation of dust Inhalation of vapour Background (oral) Background (inhalation)	Direct soil ingestion Consumption of homegrown produce and attached soil Dermal contact with soil and dust Inhalation of dust Inhalation of vapour (indoor) Inhalation of vapour (outdoor) Background (oral) Background (inhalation)
1 TPH Aromatic >C12-16	0.00E+00 0.00E+00 0.00E+00 0.00E+00 3.00E-02 5.57E+96 6.06E+95	0.00 0.00 0.00 0.00 0.00 50.00 0.00
2 TPH Aromatic >C16-21	0.00E+00 0.00E+00 0.00E+00 0.00E+00 1.50E-02 5.57E+96 0.00E+00	0.00 0.00 0.00 0.00 0.00 50.00 50.00
3 TPH Aromatic >C21-35	0.00E+00 0.00E+00 0.00E+00 0.00E+00 1.50E-02 5.57E+96 0.00E+00	0.00 0.00 0.00 0.00 0.00 50.00 50.00
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	Average Daily Exposure (mg kg^{-1} bw day $^{-1}$)	Distribution by Pathway (%)
	Direct soil ingestion Consumption of homegrown produce and attached soil Dermal contact with soil and dust Inhalation of dust Inhalation of vapour Background (oral) Background (inhalation)	Direct soil ingestion Consumption of homegrown produce Dermal contact with soil and dust Inhalation of dust Inhalation of vapour (indoor) Inhalation of vapour (outdoor) Background (oral) Background (inhalation)
21		
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[illegible]

[illegible]

[illegible]

Supplementary guidance for the selection of water pipes in land potentially affected by contamination

Introduction

In January 2011, UK Water Industry Research (UKWIR) published “Guidance for the Selection of Water Supply Pipes to be used in Brownfield Sites” (Ref 10/WM/03/21; the ‘UKWIR Guidance’). Its aim is to ensure that the correct materials are selected for water pipes and components to be used below ground in brownfield sites to protect the quality of drinking water whilst taking into account the service life of the water distribution system. It supersedes the Water Regulations Advisory Scheme (WRAS) Information and Guidance Note 9-04-03 “Laying Pipes in Contaminated Land” which has been withdrawn.

The UKWIR Guidance is for use by developers, self-lay organisations, water companies and consultants when planning, designing and constructing water mains and/or services in brownfield sites. It defines brownfield sites as “land or premises that have previously been used or developed. They may also be vacant or derelict. However, they are not necessarily contaminated.” The UKWIR Guidance states that it does not apply to greenfield sites; however, we consider this supplementary guidance and the relevant sections of the UKWIR guidance as being equally suitable for application to those greenfield sites considered to be potentially affected by contamination. Where greenfield sites are not affected by contamination a preliminary risk assessment (see below) will suffice.

The UKWIR Guidance also states that there should be no departure from its provisions “*except where formally approved by the Water Company, such departure being technically justifiable or representing advances in knowledge or product development*”.

We have adopted the UKWIR Guidance in principle and produced this company specific supplementary guidance (the ‘UUW Guidance’) which includes the Risk Assessment for Water Pipes (the ‘RA’).

This guidance does not cover operative safety, health exposure modelling or accidental pipe damage.

which the pipes are to be laid may be affected by contamination. The application of the source, pathway, receptor concept will be an integral part of any pipeline risk assessment. For each potential source (the contamination) and each potential receptor (the water pipe), consideration shall be given to whether a potential pathway between source and receptor exists, or may exist in the future, linking the two. There are normally only three pathways by which contamination may come into contact with water pipes. These are direct contact with the soil or backfill, an excessive vapour phase or a contaminated groundwater regime. If none of these conditions exist on site (adopting the source, pathway, receptor concept) then it is likely that extended and/or targeted soil testing will not be required and a simple risk assessment will suffice. For those sites where land may be affected by contamination appropriate testing shall be undertaken on the materials within which the pipes are to be laid, whether that be existing ground materials, remediated materials or imported capping materials. The testing requirements are as described in the following section.

The signatories of the Water Supply Application Form and the RA must ensure that all assessments of land condition have been carried out in accordance with applicable current standards and guidelines by or under the direction of a suitably qualified competent person.

We require the competent person to be a) a chartered member of an appropriate professional body (such as the Institution of Civil Engineers, the Geological Society of London or the Royal Institution of Chartered Surveyors) with relevant experience of investigating contaminated sites or b) a Specialist in Land Condition (SiLC) with appropriate geo-environmental experience.

Risk Assessment for Water Pipes in Land Potentially Affected by Contamination

Any application for new water supplies to a development (construction of new properties, or renovation or conversion of existing buildings) in land potentially affected by contamination shall include a completed RA.

As a minimum a desk study (preliminary risk assessment) shall be provided with the RA in accordance with the framework in Environment Agency publication “Model Procedures for the Management of Land Contamination” (ref: CLR11) that sets out whether the land through

How to contact us about the information in this leaflet



DeveloperServicesWater@uuplc.co.uk



0345 072 6067

Opening hours:
8am-5pm Mon to Thurs
8am-4.30pm Fri

Testing Requirements

The soil, rock and if appropriate groundwater tests that are required on all sites where the potential for organic contamination has been identified in the desk study and where water pipes are proposed to be laid must be accredited by United Kingdom Accreditation Service (UKAS) as a minimum and where commercially available the Environment Agency's Monitoring Certification Service (MCERTS). These accredited tests should be undertaken for:

Banded hydrocarbons EC5-EC10, EC10-EC16, EC16-EC40 (Total aliphatic and aromatic hydrocarbons for each banding may be summed). Aliphatic/aromatic fractionation and subsequent banding may be required should a more detailed site specific risk assessment be undertaken. The bandings have been amended to take into account readily available laboratory tests. The equivalent carbon number (EC) is used to assess petroleum hydrocarbon mixtures rather than the actual number of carbon atoms in the molecule in line with guidance issued by the Environment Agency (2005).

Volatile organic compounds (VOCs) (method by head space or purge & trap GCMS) with tentative identification of compounds greater than 20µg/kg. The method used should be capable of detecting a wide range of compounds listed in US EPA Method 8260C or similar. The method should include analysis of naphthalene.

BTEX (Benzene, toluene, ethyl benzene and xylenes) plus MTBE (Methyl-tertiary butyl ether) (by head space GCMS)

Semi-Volatile Organic Compounds (SVOCs) (method by GCMS) with tentative identification of compounds greater than 20µg/kg The method used should be capable of detecting the compounds listed in US EPA Method 8270D or similar. The total concentration of SVOCs excludes polycyclic aromatic hydrocarbons, ethers, nitrobenzene, ketones, aldehydes, phenols, cresols and chlorinated phenols. Phenols, cresols and chlorinated phenols which are detected by the SVOC analysis are given their own assessment criteria.

We do not consider Table G1 and Table 3.1 of the UKWIR Guidance to be a definitive guide for assessing total concentrations. Table 1 in the RA below replaces Table 3.1 of the UKWIR Guidance.

Where previous site uses include the use, storage, treatment, disposal or manufacture of any of the following, appropriate testing for these substances will be required:

- Ethers, nitrobenzene, ketones, aldehydes and amines. Note that the presence of amines on any site at the proposed pipe depth +/- 1.0m precludes the use of polyethylene. The methods of analysis and method of calculation of total concentrations of these compounds will need to be agreed with UUW.

To comply with the testing requirements, the suites of tests that are required on all brownfield sites where wrapped steel, wrapped ductile iron or copper pipes are to be laid as minimum must include:

- pH, Conductivity and redox potential

Sufficiency of Testing

Water pipes are normally laid at between 0.75 and 1.35m from finished ground level to crown of pipe. Samples taken and tested must represent both a) the soil in which the water pipes are to be laid and b) the soil down to at least 500mm below the underside of the proposed pipe. Where the proposed depth of the pipes is unknown at the time of application, soil samples representative of the ground condition between surface level and 1.5m below finished ground level shall be taken as a minimum. Where appropriate (see UKWIR Guidance) groundwater sampling and groundwater monitoring will also be necessary. Photo-ionisation detection (PID) monitoring along the proposed route of the pipeline may be employed, though this does not provide a definitive guide to the suitability of water pipe materials.

Where required a sufficient number of test results should be obtained from the material in which the pipes are to be laid. CLAIRE/CIEH 2008 "Guidance on comparing soil contamination data with a critical concentration" may be used, where appropriate, to justify the number of soil samples tested; however, this statistical model should not be used on heterogeneous materials or used to average test results from different types of materials.

Further guidance on representative sampling is contained within BS10175:2011 Code of Practice for the Investigation of Potentially Contaminated Sites, the Department of the Environment's Contaminated Land Research Report "Sampling strategies for contaminated land" prepared by The Centre for Research into the Built Environment, Nottingham Trent University (Ref: CLR 4; 1994) and the Environment Agency's "Secondary Model Procedure for the Development of Appropriate Soil Sampling Strategies for Land Contamination" (ref: R&D Technical Report P5-066/TR; 2000).

Where remediation has been carried out on the site, the test results obtained from validation samples will be used in the assessment. Where a horizontal capping system has been or will be employed using materials spread across a site, sufficient samples will need to be taken to characterise the capping material used and the results presented to UUW. However, the sufficiency of sampling on the horizontal capping system, in which the pipeline will be placed, may be assessed on the basis of the source, quantity and type of materials used.

Detection Limits

Only positive concentrations, ie those above the limit of detection should be used in summation of VOC and SVOC (or other test groups of compounds ie phenols, cresols and chlorinated phenols). Laboratory methods shall provide a minimum limit of detection of 10µg/kg for each individual VOC or SVOC (or other test groups of compounds) quantitatively detected in accordance with the methods described above. For tentatively identified compounds (TICs), only those compounds with a concentration of 20µg/kg or greater shall be used in the summation of VOC and SVOC (or other test groups of compounds).

Protective Measures

Where polyethylene, ductile iron, steel or copper pipes are to be laid on a brownfield site or other land potentially affected by contamination (whether or not it has been remediated) and where the concentrations exceed the generic guideline values set out in Table 1 of the RA, the developer shall provide either:

- a) a robust risk assessment to show how any contaminants will not significantly impact on proposed water supplies or buried assets over the lifetime of the assets; or
- b) more suitable pipe materials; or
- c) an engineering solution to protect the pipe work backed up by an adequate assessment of the risk.

Liquid free phase product (e.g. oil or free solvent layers) shall not remain in the ground or groundwater in the vicinity of water pipes, whether barrier pipe or any other pipe materials are used.

When designing pipe routes on land potentially affected by contamination, new preferential contamination pathways along the route of new water pipes shall not be created. Particular measures may be required to prevent the possible migration of contamination through pipe bedding and into controlled waters.

References

BS10175: 2011

"Investigation of Potentially Contaminated Sites Code of Practice"

CLAIRE/CIEH

"Guidance on comparing soil contamination data with a critical concentration" 2008

Department of the Environment Contaminated Land Research Report

"Sampling strategies for contaminated land"
prepared by The Centre for Research into the Built Environment, Nottingham Trent University (Ref: CLR 4) 1994

Environment Agency

"Secondary Model Procedure for the Development of Appropriate Soil Sampling Strategies for Land Contamination"
(ref: R&D Technical Report P5-066/TR) 2000

Environment Agency

"Model Procedures for the Management of Land Contamination" (ref: CLR11), 2004

Environment Agency P5-080/TR3

"The UK Approach for Evaluating Human Health Risks from Petroleum Hydrocarbons in Soils", 2005

UK Water Industry Research (UKWIR)

"Guidance for the Selection of Water Supply Pipes to be used in Brownfield Sites" (Ref 10/WM/03/21)
January 2011

Water Regulations Advisory Scheme (WRAS)

Information and Guidance Note 9-04-03

"Laying Pipes in Contaminated Land" 2002

Frequently asked questions

Why has UUW published supplementary guidance to the 'UKWIR Guidance for the Selection of Water Pipes to be used in Brownfield Sites'?

UUW agrees with the UKWIR Guidance in principle; we have published supplementary guidance to clarify some of the areas in which it will operate.

Does the UKWIR Guidance only apply to 'brownfield sites'?

Yes, the UKWIR Guidance does apply to brownfield sites; in addition United Utilities Water will apply this guidance and the UUW supplementary guidance to any greenfield sites which are potentially affected by contamination.

Who is responsible for completing/ signing the Risk Assessment for Water Pipes (RA)?

This may be the Developer, the Developers representative, or the competent person directing the land assessment. The signatory of the Risk Assessment for Water Pipes (RA) must ensure that all land assessments have been carried out in accordance with current standards and guidelines by or under the direction of a suitably qualified competent person. For water supply applications on land potentially affected by contamination, UUW requires the competent person to be either a chartered member of an appropriate professional body (such as the Institution of Civil Engineers, the Geological Society of London or the Royal Institution of Chartered Surveyors) with relevant experience of investigating contaminated sites or a Specialist in Land Condition (SiLC). This level of competency is intended to promote good practice and high professional standards and is no greater than that required for planning purposes by Local Authorities.

Do we need to agree the number and location of soil samples with the Water Company as indicated by the UKWIR guidance following the Preliminary Risk Assessment (PRA)?

Where a preliminary risk assessment (PRA) highlights the need for a site investigation UUW considers it is a responsibility of the qualified competent person directing the land assessment to determine the location and frequency of sampling. UUW's role would be to confirm that the appropriate

choice of pipe material has been made on the basis of the information provided.

What do we do if the pipe route is not known when the Site Investigation report is commissioned?

Where the route of the pipe is not known at the site investigation stage, then any resultant pipe selection needs to take account of any contamination found on the site. Consideration should be given to identifying the route and depth of the pipeline at the site investigation stage to avoid unnecessary testing.

Is it acceptable not to undertake a site investigation and specify the use of barrier pipe which seems to be suitable for all conditions?

Not all brownfield land is contaminated, and because of that a default to barrier pipe is not an acceptable approach to UUW, due to the possibility of higher installation and future maintenance costs. The approach as to whether a site investigation is needed should be risk based. For those sites where land may be affected by contamination appropriate testing shall be undertaken on the ground materials within which the pipes are to be laid, whether that be existing ground materials, remediated materials or imported capping materials.

Examples where defaulting to barrier pipe would not be acceptable:

- Where a capping layer (non-contaminated) is introduced within which the pipes will be installed.
- Sites with a potential low risk for contamination.
- Where liquid free phase product (e.g. oil or free solvent layers) is in the ground or groundwater in the vicinity of water pipes.
- Where the route of the pipe could be diverted to another suitable location free from contamination.

Are UUW employees who will assess the Design Proposals for contaminated sites suitably qualified?

It is the role of the Developer's suitably qualified competent person to deal with or direct the assessment of land. UUW's role is to assess the Risk Assessment for Water

Pipes and supporting Site Assessment Report (SAR) which is provided with any new water supply application (ie. it has been provided in the correct format, proposals for pipe selection are included, the methodology is in line with the UKWIR Guidance and UUW Supplementary Guidance, it has been directed by a suitably qualified competent person etc.). If UUW do need to provide assistance or information in deciding pipe materials then the assessment would be carried out under the direction of a suitably qualified competent person.

What happens to existing PE that is in the ground under the "old" guidelines?

The latest UKWIR guidance and UUW's supplementary guidance are intended to be used to decide what pipe materials will be used for new water mains and services. It will have no effect for developers with regard to any parts of UUW's existing network.

Will the Developer be required to submit a fully completed Risk Assessment for Water Pipes (RA) and supporting Site Assessment Report (SAR), including pipe material recommendation, for both the option of a mains requisition application and the option of a self-lay application?

Yes, UUW expect the 'Developer', as defined in UUW Supplementary Guidance, to submit a Risk Assessment for Water Pipes (RA) and supporting Site Assessment Report (SAR), including pipe material recommendation, in respect of any water pipes being installed on the development irrespective of who is to install them.

Does Table 1 in UUW's Risk Assessment for Water Pipes (RA) replace any of the tables to be completed in the Site Assessment Report (SAR) as required in the UKWIR Guidance?

UUW does not consider Table G1 and Table 3.1 of the UKWIR Guidance to be a definitive guide for assessing total concentrations. Table 1 in UUW's RA replaces Table 3.1 of the UKWIR Guidance.

Have any other Water Companies adopted the UKWIR Guidance yet?

You will need to contact the water company concerned if you are intending to install water pipes outside UUW's licensed area.

About us

United Utilities is the North West's water company. We keep the taps flowing and toilets flushing for seven million customers every day. From Crewe to Carlisle, we work hard behind the scenes to help your life flow smoothly.

Risk assessment for water pipes (RA)

The risk assessment for water pipes will help you choose appropriate materials for your development. We are happy to deal with a risk assessment for water pipes in advance of any formal application for a new water supply.

If you need any help completing the form please call us on **0345 072 6067**.

Section 1: Development details	
Development name (if it has one)	N/A
Development address	Land adjacent to Bealey Industrial Estate, Radcliffe
OS Grid reference (mid point)	SD 797 082
Developer's name	Westchurch Homes
UUW reference number (for UU use only)	
Please provide details below of the current and historical use of the site and adjacent sites. If your supporting information has details of the current and historical site use, please reference below the relevant sections of your report.	
Onsite: Current: - open ground, dense vegetation, outside units and storage of trading estate. Historical: - part of former Broad Dumers Paper Works, including reservoirs, holding/storage tanks, and filter beds and Bealey's Goit. reservoir/tanks recorded as inert landfill following filling in the 1980's. Offsite: Current: Trading estate to the south west and west, open land to the north, residential to the east and south. Historical: Eaton Hill Cotton Mill (later a dyeing works, then dyeing and finishing), a gasometer, Dumers Paper Works, Radcliffe Bleach and Chemical Works (later bleaching works), a chemical works, engineering works, infilled reservoirs, areas of waste disposal activity and a sewage works.	
Section 2: Preliminary risk assessment	
Has your desk study and site walkover identified any land potentially affected by contamination?	☒ Yes ☐ No
If the site is potentially affected by contamination but you have not completed any intrusive site investigation please provide details below of the rationale behind the intended pipe selection. If your supporting information has details of the rationale behind the intended pipe selection, please reference below the relevant sections of your report.	
N/A - investigations undertaken	

Section 3: Intrusive site investigation																																	
Have you completed any intrusive site investigation?					☒ Yes ☐ No																												
Have you completed any none intrusive site investigation?					☐ Yes ☒ No																												
Date(s) when the site investigation(s) undertaken					<table border="1"> <tr> <td>2</td><td>1</td><td>0</td><td>3</td><td>2</td><td>0</td><td>2</td><td>4</td> </tr> <tr> <td>2</td><td>6</td><td>0</td><td>9</td><td>2</td><td>0</td><td>2</td><td>4</td> </tr> <tr> <td>D</td><td>D</td><td>M</td><td>M</td><td>Y</td><td>Y</td><td>Y</td><td>Y</td> </tr> </table>					2	1	0	3	2	0	2	4	2	6	0	9	2	0	2	4	D	D	M	M	Y	Y	Y	Y
2	1	0	3	2	0	2	4																										
2	6	0	9	2	0	2	4																										
D	D	M	M	Y	Y	Y	Y																										
At what level has groundwater been encountered?					<table border="1"> <tr> <td colspan="2">0.6-3.0</td> <td colspan="6">metres below ground level or</td> </tr> <tr> <td colspan="10">☐ Not encountered</td> </tr> </table>					0.6-3.0		metres below ground level or						☐ Not encountered															
0.6-3.0		metres below ground level or																															
☐ Not encountered																																	
Table 1 (Pipeline Selection Risk Assessment Summary (PSRAS)) below classifies testing required where the preliminary risk assessment has identified land potentially affected by contamination. Please provide details below of any test groups which have not been tested and the rationale for not testing. <i>If your supporting information has details of the rationale behind not testing any particular test groups, please reference below the relevant sections of your report.</i>																																	
Refer to Coopers Letter Report 8353si for rationale of selected suites of testing, based upon conceptual site model. Additional investigation required in areas of the site which were inaccessible.																																	
If the intrusive site investigation has identified concentrations above the PE threshold (see PSRAS) and your intended pipe selection is PE. Please provide details below of the rationale behind the intended pipe selection. <i>If your supporting information has details of the rationale behind the intended pipe selection, please reference below the relevant sections of your report.</i>																																	
Area of petroleum range hydrocarbon contamination proposed for removal.																																	
Section 4: Site remediation																																	
Please provide details below of any site remediation (which may include a change in site levels) already completed. <i>If your supporting information has details of the site remediation already completed, please reference below the relevant sections of your report.</i>																																	
No remediation undertaken at time of assessment (see below for proposals).																																	
Has the PSRAS (Table 1) been completed using appropriate data after remediation?							☐ Yes ☒ No ☐ N/A																										
Please provide details below of any proposed site remediation and an analysis of whether this will affect your intended pipe selection. <i>If your supporting information has details of any proposed site remediation and whether this will affect your intended pipe selection, please reference below the relevant sections of your report.</i>																																	
Subject to additional investigation upon vacant possession of the site, concurrent with demolition works. Areas of petroleum range hydrocarbons from former reservoir to be removed. Cover systems intended for proposed gardens.																																	

Section 5: Final use of site

Please provide details below of any chemicals (including fuel) to be stored on site and any other future contamination risks which may affect your intended pipe selection.

If your supporting information has details of potential contamination risks which may affect your intended pipe selection, please reference below the relevant sections of your report.

None - Proposed residential end use.

What water pipe materials are intended to be used on site?

☒ PE ☐ PE Barrier Pipe Type A ☐ PE Barrier Pipe Type B
Other (please specify):

Section 6: Additional information

Please use the section below to provide any additional details to support your intended pipe selection.

Refer to Coopers Report 8353si.

The investigation has identified an areas of elevated petroleum range hydrocarbons intended for removal.

The proposed pipeline materials are for initial proposals only based upon the information of the areas accessible for investigation and this assessment should be revised upon completion of the additional investigation.

Section 7: Risk assessor

Name and relevant qualifications of person directing the risk assessment for water pipes

B W Hill BSc(Hons), CSci, MEnvSc, FGS (Chartered Scientist)

Name and address of risk assessor's company

Coopers (Chester) Ltd,
Park House, Sandpiper Court, Chester Business Park
Chester
CH4 9QU

Date risk assessment performed

0 8 1 1 2 0 2 4

Section 8: Declaration

I confirm I have completed this form and provided supporting information in accordance with 'UKWIR Guidance for the Selection of Water Supply Pipes to be used in Brownfield Sites' and UUW's Supplementary Guidance. I also confirm that if any further site investigation is needed and carried out, I will be required to submit an additional Risk Assessment for Water Pipes with the relevant supporting information. I understand that failure to supply any of the required information may delay my application being processed.

Name	Ben Hill	Company	Coopers (Chester) Ltd
Telephone	01244 684920	Date	0 8 1 1 2 0 2 4

Please email the completed form and supporting information to DeveloperServicesWater@uuplc.co.uk or post to us at United Utilities Water, Developer Services, Second floor Grasmere House, Lingley Mere, Warrington WA5 3LP.



About us

United Utilities is the North West's water company. We keep the taps flowing and toilets flushing for seven million customers every day. From Crewe to Carlisle, we work hard behind the scenes to help your life flow smoothly.

United Utilities Water Limited, Haweswater House, Lingley Mere Business Park, Lingley Green Avenue, Warrington WA5 3LP.
Registered in England and Wales. Registered Number 2366678.

Table 1 - Pipe selection risk assessment summary (PSRAS)

1. Testing must be undertaken on the materials within which the pipes are to be laid, whether that be existing ground materials, remediated materials or imported capping materials. Please use the appropriate testing data to complete Table 1 below.

2. If more than one pipe selection is being made, for example, for pipes in different areas of a large site, a completed PSRAS is required for each selection.

What materials have been tested to populate Table 1 below? ☒ Existing ground materials ☐ Remediated materials ☐ Imported capping materials

Coopers Note - further investigation needed, including targeting of former tanks and areas of high risk of elevated TPH.

All concentrations in mg/kg								
Test Group	Testing Required?	PE threshold	Metal Pipes/ Barrier Pipe	Laboratory Detection Limit	Testing UKAS accredited Y/N	Maximum concentration at proposed pipeline depth See Note [2]	Maximum site concentration See Note [3]	Locations and depths where concentrations exceed proposed pipeline threshold
Total VOCs	Where Preliminary Risk Assessment (PRA) has identified land potentially affected by contamination	0.5	Pass	0.01	Y	<LOD	<LOD	None
Total BTEX & MTBE		0.1	Pass	0.1	Y	<LOD	<LOD	None
Total SVOCs (excluding PAHs and those substances marked with an *)		2	Pass	0.1	Y	0.1	0.1	None
EC5-EC10 aliphatic and aromatic hydrocarbons		2	Pass	0.01	Y	<LOD	<LOD	None
EC10-EC16 aliphatic and aromatic hydrocarbons		10	Pass	1.5	Y	483.52	483.52	WS101 (3-4m bgl)
EC16-EC40 aliphatic and aromatic hydrocarbons		500	Pass	3.4	Y	3121.9	3121.9	WS101 (3-4m bgl)
Phenols* (from SVOC analysis)		2	Pass	0.1	Y	<LOD	<LOD	None
Cresols and chlorinated phenols* (from SVOC analysis)		2	Pass	0.1	Y	<LOD	<LOD	None
Ethers*	Only where identified	0.5	Pass	N/A	N/A	N/A	N/A	N/A
Nitrobenzene*		0.5	Pass	N/A	N/A	N/A	N/A	N/A
Ketones*		0.5	Pass	N/A	N/A	N/A	N/A	N/A
Aldehydes*		0.5	Pass	N/A	N/A	N/A	N/A	N/A
Amines		Fail	Pass	N/A	N/A	N/A	N/A	N/A
Corrosive	Conductivity, Redox and pH	Pass	See Note [1]	N/A	N/A	N/A	N/A	N/A

Note [1] Threshold: For wrapped steel, corrosive if pH<7 and conductivity > 400µS/cm. For wrapped ductile iron corrosive if pH<5, Eh not neutral and conductivity > 400µS/cm. For copper, corrosive if pH<5 or >8 and Eh positive.

Note [2] Water pipes are normally laid at 0.75-1.35m below finished ground level.

Note [3] Also state if liquid free product is present in soil or groundwater.

NA = not tested based upon conceptual site model - refer to Coopers Report No. 8353si for justification of testing.

Supplemental Ground Investigation and Remediation Strategy for
Land Adjacent to Bealey Industrial Estate, Radcliffe

Appendix 7

Tier 1 Risk Assessment Screening Values



Controlled Water Receptor Threshold Values



**Legislation Framework which Drives the Contamination Assessment of Land in
England and Wales**

Soil Tier 1 Threshold Values (mg/kg) Residential and POS

		Elements and compounds	S4UL	Small Terrace	Med/Large Terrace	Semi-detached	Detached	Residential (without Veg)	POS (Resi)	POS (Park)
				White, yellow & green values are NOAEL with orange values C4SL				C4SL (S4UL) (1% SOM)		
Silty clay	Metals/Semi-metals	Arsenic	37	37 (32.4 CLEA)				40 (40)	79 (79)	168 (170)
		Beryllium	1.7 (inh.)	51 (to be used with caution and superseded)				(1.7)	(2.2)	(63)
		Boron	290	291				(11,000)	(21,000)	(46,000)
		Cadmium	11	22 (11 CLEA)				150 (85)	220 (120)	880 (532)
		Chromium (III)	910	3000				(910)	(1,500)	(33,000)
		Chromium (VI)	6	21 (4.3)				21 (6)	51 (7.7)	250 (220)
		Copper	2,400	2,330 (Phytotoxic pH <6 = 100, pH6-7 = 135, pH >7 = 200)				(7,100)	(12,000)	(44,000)
		Lead	-	200				310	630	1,300
		Mercury (methyl)	11	7.4 (SGV withdrawn)				(15)	(40)	(68)
		Mercury (inorganic)	40	169 (SGV withdrawn)				(56)	(120)	(240)
		Mercury (Hg)	1.2	1.2 (SGV withdrawn)				(1.2)	(16)	(30vap (25.8))
		Nickel	130	(130 S4UL) (Phytotoxic pH <6 = 60, pH6-7 = 75, pH >7 = 110)				(180)	(230)	(800)
		Selenium	250	351				(430)	(1,100)	(1,800)
		Vanadium	410	79				(1,200)	(2,000)	(5,000)
		Zinc	3,700	3,750 (Phytotoxic pH <6 = 200, pH6-7 = 200, pH >7 = 300)				(40,000)	(81,000)	(170,000)
	PAH	Acenaphthene	210	205				(3,000 – 57 s)	(15,000)	(29,000)
		Acenaphthylene	170	168				(2,900 – 86.1 s)	(15,000)	(29,000)
		Anthracene	2,400	2,260				(31,000-1.17 v)	(74,000)	(150,000)
		Benzo(a)anthracene	7.2	3.1				(11)	(29)	(49)
		Benzo(a)pyrene	2.2	5 (6% SOM) (0.83 CLEA)				5.3 (3.2)	10 (5.7)	21 (11)
		Benzo(b)fluoranthene	2.6	5.56				(3.9)	(7.1)	(13)
		Benzo(ghi)perylene	320	10.7				(360)	(640)	(1,400)
		Benzo(k)fluoranthene	7.7	8.5				(110)	(190)	(370)
		Chrysene	15	6.0				(30)	(57)	(93)
		Dibenz(ah)anthracene	0.24	0.76				(0.31)	(0.57)	(1.1)
		Fluoranthene	280	257				(1,500)	(3,100)	(6,300)
		Fluorene	170	163				(2,800 – 30.9 s)	(9,900)	(20,000)
		Indeno(123-cd)pyrene	27	3.18				(45)	(82)	(150)
		Phenanthrene	95	91.8				(1,300 – 36 s)	(3,100)	(6,200)
		Pyrene	620	563				(3,700)	(7,400)	(15,000)
Sandy loam	BTEX	Naphthalene	2.3	1.54	1.71	1.7	1.97	(2.3)	(4,900)	(1,200 – 76.4 s)
		Benzene	0.087	0.2 (1%) (0.079 CLEA)	0.082	0.082	0.085	0.89 (0.38)	140 (72)	190 (90)
		Toluene	130	119	122	122	125	(869)	(56,000)	(87,000 v)
		Ethylbenzene	47	62.5	68	67.9	71.6	(83)	(24,000)	(17,000 v)
		Xylene (based on p)	56	41.7	45.5	45.3	50.9	(70)	(41,000)	(17,000 v)
	Aliphatic	Phenol	120	184	207	206	224	(440 ^{dir} (460))	(440 ^{dir} (10,000))	(440 ^{dir} (7,600))
		5-6	42	30				(42)	(570,000-304 s)	(95,000 – 304 s)
		6-8	100	73				(100)	(600,000)	(150,000-144 s)
		8-10	27	19				(27)	(13,000)	(14,000 – 78 s)
		10-12	130 (48)	93 (48) ^{vap}				(130 – 48 v)	(13,000)	(21,000 – 48 s)
		12-16	1,100 (24)	740 (24) ^{sol}				(1,100 - 24 v)	(13,000)	(25,000 – 24 s)
		16-35	65,000 (8.48)	45,000 (8.48) ^{sol}				(65,000)	(250,000)	(450,000)
		35-44	65,000 (8.48)	45,000 (8.48) ^{sol}				(65,000)	(250,000)	(450,000)
	Aromatic	8-10	34	27				(47)	(5,000)	(7,200 – 613 v)
		10-12	74	69				(250)	(5,000)	(9,200 – 364 s)
		12-16	140	140				(1,800)	(5,100)	(10,000)
		16-21	260	250				(1,900)	(3,800)	(7,600)
		21-35	1,100	890				(1,900)	(3,800)	(7,600)

Notes:

The soil organic matter has been assumed to be 1% as this is the most conservative value for organic compounds. Inorganic compounds unaffected by this parameter.

Silty clay strata appears to prove more conservative threshold values for metals, semi-metals and several PAH compounds. Sandy loam strata appears to prove more conservative threshold values for TPH compounds, phenol and naphthalene.

The assessment of hydrocarbon fractions should be completed additively to determine the total risk of the whole range of compounds present as well as by single TPH fractional units, however this should be undertaken on a sample by sample basis where significant hydrocarbon concentrations have been encountered to derive a compound TPH concentration.

Although benzene has a C4SL value, this has been calculated for small terraced housing and not other housing stock, therefore other housing stock should either adopt the more conservative CLEA thresholds or that of a small terraced property. All thresholds not coloured orange (C4SL) for different housing stock have utilised LQM/CIEH Generic Assessment Criteria for Human Health Risk assessment, 2nd edition, 2009. CLEA values in brackets where C4SL values are available.

Vap denotes where the threshold is exceeded beyond the vapour saturation limit. Sol denotes where the threshold is exceeded beyond the solubility saturation limit.

It should be noted that these threshold values only relate to human health risk assessment and an assessment for potential groundwater risk should be undertaken as a separate risk assessment.

Dir denotes the S4ULs based on a threshold protective of direct skin contact with phenol (guideline in brackets based on health effects following long term exposure provided for illustration only)

CONTROLLED WATER RECEPTOR THRESHOLD VALUES (µg/l)

Compound/element		Groundwater Quality Threshold Values ^{1&16} Maximum value	Environmental Quality Standards (EQS)			
			Long term (mean) for fresh waters ¹³	Short term (95 th percentile) for fresh waters ¹³	Annual average (AA-EQS) for inland surface waters ¹⁴	Maximum allowable concentration (MAC-EQS) ¹⁴ for inland surface waters ¹⁵
Inorganic elements and compounds	Ammonium	500	-	-	-	-
	Arsenic	10	50	-	-	-
	Boron	1000	-	-	-	-
	Cadmium ⁹	5.0	-	-	≤0.08 (Class 1)	≤0.45 (Class 1)
		-	-	-	0.08 (Class 2)	0.45 (Class 2)
		-	-	-	0.09 (Class 3)	0.6 (Class 3)
		-	-	-	0.15 (Class 4)	0.9 (Class 4)
		-	-	-	0.25 (Class 5)	1.5 (Class 5)
	Chromium (III)	50	4.7	32	-	-
	Chromium (VI)	-	3.4	-	-	-
	Chloride	250,000	-	-	-	-
	Chlorine	-	2	5	-	-
	Copper	2000	1 ⁵	-	-	-
	Cyanide	50	1	5	-	-
	Iron	-	1,000	-	-	-
	Lead	10	-	-	1.2 ⁵	14
	Manganese	-	123 ⁵	-	-	-
	Mercury	1.0	-	-	-	0.07
	Nickel	20	-	-	4 ⁵	34
	Nitrate ²	50,000	-	-	-	-
	Nitrite ²	500	-	-	-	-

Compound/element		Groundwater Quality Threshold Values ^{1&16} Maximum value	Environmental Quality Standards (EQS)			
			Long term (mean) for fresh waters ¹³	Short term (95 th percentile) for fresh waters ¹³	Annual average (AA-EQS) for inland surface waters ¹⁴	Maximum allowable concentration (MAC-EQS) ¹⁴ for inland surface waters ¹⁵
	Selenium	10	-	-	-	-
	Sulphate	250,000	-	-	-	-
	Zinc	-	10.9	-	-	-
PAH compounds	Anthracene	-	-	-	0.1	0.1
	Benzo(a)pyrene	0.01	-	-	1.7x10 ⁻⁴	0.27
	Fluoranthene	-	-	-	0.0063	0.12
	Naphthalene	-	-	-	2	130
	PAH compounds (benzo(b)fluoranthene + benzo(k)fluoranthene + benzo(ghi)perylene + indeno(1,2,3-cd)pyrene)	0.1	-	-	1.7x10 ⁻⁴⁽¹²⁾	0.27 ⁽¹²⁾
	Benzo(b)fluoranthene	-	-	-	-	0.017
	Benzo(k)fluoranthene	-	-	-	-	0.017
	Benzo(ghi)perylene	-	-	-	-	8.2x10 ⁻³
	Indeno(1,2,3-cd)pyrene	-	-	-	-	n/a
BTEX compounds	Benzene	1.0	-	-	10	50
	Ethene	-	-	-	-	-
	Toluene	-	74	380	-	-
	Xylene	-	-	-	-	-
VOCs	Carbon tetrachloride	-	-	-	12	n/a
	C10-C13 Chloroalkanes (e.g. chloroethane, bromomethane, chloromethane)	-	-	-	0.4	1.4
	1,2-dichloroethane	3.0	-	-	10	n/a
	Trihalomethanes total (trichloromethane (chloroform) + bromoform +	100	-	-	-	-

Compound/element		Groundwater Quality Threshold Values ^{1&16} Maximum value	Environmental Quality Standards (EQS)			
			Long term (mean) for fresh waters ¹³	Short term (95 th percentile) for fresh waters ¹³	Annual average (AA-EQS) for inland surface waters ¹⁴	Maximum allowable concentration (MAC-EQS) ¹⁴ for inland surface waters ¹⁵
	dibromochloromethane + bromodichloromethane)					
	Vinyl chloride	0.5	-	-	-	-
	1,2 dichloroethane	3.0	-	-	-	-
	Trichlorobenzenes	-	-	-	0.4	n/a
	Tetrachloroethane + trichloroethylene	10	-	-	-	-
	Trichloroethylene	-	-	-	10	n/a
	Tetrachloroethane	-	140	1848		
	Tetrachloroethylene	-	-	-	10	n/a
	Trichloromethane (alternative name chloroform)	-	-	-	2.5	n/a
	Tetrachloromethane	3	-	-	-	-
SVOCs	Benzyl butyl phthalate	-	7.5	51	-	-
	Bis(2-ethylhexyl)phthalate (alternative name: di(2- ethylhexyl)-phthalate	-	-	-	1.3	n/a
	Brominated diphenylethers ⁸	-	-	-	na	0.14
	2,4-dichlorophenol	-	4.2	140	-	-
	Hexa-chlorobenzene	-	-	-	-	0.05
	Hexa-chlorobutadiene	-	-	-	-	0.6
	Pentachlorophenol	-	-	-	0.4	1

Compound/element		Groundwater Quality Threshold Values ^{1&16} Maximum value	Environmental Quality Standards (EQS)			
			Long term (mean) for fresh waters ¹³	Short term (95 th percentile) for fresh waters ¹³	Annual average (AA-EQS) for inland surface waters ¹⁴	Maximum allowable concentration (MAC-EQS) ¹⁴ for inland surface waters ¹⁵
Other organic compounds	Phenol	-	7.7	46	-	-
	Perfluorooctane sulfonic acid and its derivatives (PFOS)	-	-	-	6.5x10 ⁻⁴	36
	Total 48 PFAS ¹⁶	0.1	-	-	-	-
Pesticides in groundwater	Pesticides & related products ³	-	-	-	-	-
	Aldrin	0.03	-	-	-	-
	Dieldrin	0.03	-	-	-	-
	Heptachlor	0.03	-	-	-	-
	Heptachlo epoxide	0.03	-	-	-	-
	Other pesticides	0.1	-	-	-	-
	Pesticides total ⁴	0.5	-	-	-	-
Pesticides in surface waters	Atrazine	-	-	-	0.6	2.0
	Chlorfenvinphos	-	-	-	0.1	0.3
	Chlorpyrifos (Chlorpyrifosethyl)	-	-	-	0.03	0.1
	Cyclodiene pesticides: aldrin, dieldrin, endrin ¹⁰	-	-	-	0.01	n/a
	Cypermethrin	-	0.0001	0.0004	8x10 ⁻⁵	6x10 ⁻⁴
	Diazinon	-	0.01	0.02	-	-
	DDT total ¹¹	-	-	-	0.025	n/a
	2,4 dichlorophenoxyacetic acid (2,4 D)	-	0.3	1.3	-	-
	Dichlorvos	-	-	-	6x10 ⁻⁴	7x10 ⁻⁴
	Dimethoate	-	0.48	4.0	-	-

Compound/element		Groundwater Quality Threshold Values ^{1&16} Maximum value	Environmental Quality Standards (EQS)			
			Long term (mean) for fresh waters ¹³	Short term (95 th percentile) for fresh waters ¹³	Annual average (AA-EQS) for inland surface waters ¹⁴	Maximum allowable concentration (MAC-EQS) ¹⁴ for inland surface waters ¹⁵
	Endosulfan	-	-	-	0.005	0.01
	Heptachlor and heptachlorepoxide	-	-	-	2x10 ⁻⁷	3x10 ⁻⁴
	Mecoprop	-	18	187	-	-
	Permethrin	-	0.001	0.01	-	-
	Simazine	-	-	-	1	4
	Terbutryn	-	-	-	0.065	0.34

NOTES

1. Threshold values based on The Water Supply (Water Quality) Regulations 2018 with the exception of Note 15.
2. The water must satisfy the formula "[nitrate]/50 + [nitrite]/3 ≤ 1", where the square brackets signify the concentrations in mg/l for nitrate (NO₃) and nitrite (NO₂).
3. "pesticides and related products" means any of the following, and includes their relevant metabolites, degradation and reaction products— (a) organic insecticide; (b) organic herbicide; (c) organic fungicide; (d) organic nematocide; (e) organic acaricide; (f) organic algicide; (g) organic rodenticide; (h) organic slimicide; (i) any product related to any of (a) to (h) (including any growth regulator).
4. The sum of the concentrations of the individual compounds detected and quantified in the monitoring process.
5. "Bioavailable" meaning the fraction of the dissolved concentration of the metal likely to result in toxic effects as determined using the UKTAG Metal Bioavailability Assessment Tool (also referred to as a PNEC Estimator) for the relevant metal.
6. The Environment Agency (EA) must define the type of river systems according to their alkalinity and altitude and the acid neutralising capacity for the river due to the dissolved carbon content. The definition due to alkalinity and altitude is in Table 1, as follows:

Site altitude	Table 1 - Alkalinity (as mg/l CaCO ₃)				
	<10	≥10 to <50	≥50 to <100	≥100 to <200	>200
Under 80m	Type 1	Type 2	Type 3	Type 5	Type 7
Over 80m			Type 4	Type 6	

The quality of the rivers or river sections will then be categorised by the EA, according to the dissolved oxygen content, biological oxygen demand and ammonia levels relative to the type denoted in Table 1. The ammonia standards would be classified as follows in Table 2.

Table 2 -Ammonia standards for rivers (rivers categorised by type in accordance with river type in Table 1 above.				
<i>Total ammonia as nitrogen (mg/l) (90 percentile)</i>				
Type	High	Good	Moderate	Poor
1, 2, 4 and 6	0.2	0.3	0.75	1.1
3, 5 and 7	0.3	0.6	1.1	2.5

7. Ambient background concentrations have been presented in the Water Framework Directive (Standards and Classification) Directions (England and Wales) 2015 with regards to the ambient background dissolved zinc concentrations.
8. The EQS refers to the sum of the concentrations of congener numbers 28, 47, 99, 100, 153 and 154.
9. The EQS for cadmium and its compounds is dependent on the water hardness as specified: Class 1: <40mg CaCO₃/l, Class 2: 40 to <50mg CaCO₃/l, Class 3: 50 to <100mg CaCO₃/l, Class 4: 100 to <200mg CaCO₃/l and Class 5: ≥200mg CaCO₃/l.
10. EQS relates to the sum of aldrin, dieldrin and endrin.
11. DDT total comprises the sum of the isomers 1,1,1-trichloro-2,2 bis (p-chlorophenyl) ethane, 1,1,1-trichloro-2 (o-chlorophenyl)-2-(p-chlorophenyl) ethane, 1,1 -dichloro-2,2 bis (p-chlorophenyl) ethylene and 1,1-dichloro-2,2 bis (p-chlorophenyl) ethane.
12. For the group of PAH compounds benzo(b)fluoranthene + benzo(k)fluoranthene + benzo(ghi)perylene + indeno(1,2,3-cd)pyrene, the EQS for benzo(a)pyrene must be applied, this being considered to be a marker for these PAH compounds.
13. Fresh water includes rivers and lakes.
14. Where the MAC-EQS is noted as n/a, the AA-EQS values are considered protective against short-term pollution peaks in continuous discharges as they are significantly lower than the values derived on the basis of acute toxicity.
15. Inland surface waters includes rivers and lakes and related artificial or heavily modified water bodies.
16. Drinking Water Inspectorate Guidance to water companies – “Guidance on the Water Supply (Water Quality) Regulations 2016 (as amended) for England and Water Supply (Water Quality) Regulations 2018 for Wales specific to PFAS (per- and polyfluoroalkyl substances) in drinking water. August 2024

Legislation Framework Which Drives the Contamination Assessment of Land in England and Wales

Foreward

In the UK, historical contaminated land is regulated by the planning and development control system and the contaminated land regime set out in Part IIA of the Environmental Protection Act 1990. The Water Act 2003 amended the Part IIA legislation in respect of controlled waters.

When considering an application for development, the potential for the land to be contaminated is a material consideration, and the planning authority should satisfy itself that any contamination is properly assessed and adequately remediated, based on a suitable for use approach. This is to ensure that the land is made suitable for its proposed new use.

For development sites which introduce new potential sources of pollution on site and these are either suspected of, or known to be causing environmental damage, a remediation notice may be placed on the operator under the Environmental Damages (Prevention and Remediation) Regulations, as applicable to England or Wales. The legislation aims to deter pollution events from occurring. When pollution events do occur, apportionment of the 'blame' for the pollution event follows a specific protocol to assess which party, assuming multiple parties have utilised the site, is responsible. The operator deemed responsible for the pollution will then be expected to clean up the pollution ideally voluntarily, or a remediation notice is served enforcing the polluter to undertake the works, assuming an appeal made is unsuccessful.

As such, developers should give due consideration to the Environmental Damages (Prevention and Remediation) Regulations during management of their site activities, for which they are responsible. Fuel tanks are often on site for the refuelling of plant, providing a potential point source of pollution at one or a number of locations about the site, as they are relocated. In addition, soils (generic term for all non-construction materials) used to raise site levels, form engineering platforms (i.e. piling and roads) and for use in garden areas are imported to site.

The legislation is complex and often is interchangeable and may depend upon the time the contamination was released into the environment and the receptors which have been/may be detrimentally affected by the contamination. A summary of the most relevant legislation and guidance is noted below.

Developers should not take on liability for all previous pollution the vendor and previous owners have left on the site. If some liability has to be taken to progress the sale of the site, a full appreciation of the liabilities of the contamination must be understood. It is common during the course of the ground investigation that all sources of historical contamination are not revealed and hence it is prudent to keep liability for these unknown events with the previous operators.

Interaction of the Planning Regime with the Environmental Protection Act 1990 – Part IIA

Current guidance/legislation applicable to England has been published by the Ministry of Housing, Communities and Local Government, the ‘*National Planning Policy Framework*’, February 2019, and by the Department of Environment, Food and Rural Affairs (DEFRA), the ‘*Environmental Protection Act 1990: Part 2A. Contaminated Land Statutory Guidance*’, April 2012. The Welsh Government has published ‘*Planning Policy Wales, Edition 11*’, February 2021 and ‘*Contaminated Land Statutory Guidance for Wales 2012*’, 2013. Both planning policies continue to promote the ‘suitable for use approach’, with the emphasis related to ensuring that the future use or development being undertaken would not be designated as contaminated land under Part IIA of the Environmental Protection Act 1990. Where remediation is required this should be undertaken in such a manner that it would not have an adverse impact on the environment.

In order for a planning decision to be made, a site investigation carried out by a specialist must be provided, which assesses the potential hazards to future site users and the local environment arising from past activities or natural factors. Where remediation is required to mitigate these impacts, the remediation scheme must show that the land would not be designated as contaminated land under Part IIA of the Environmental Protection Act 1990. If contamination cannot be overcome satisfactorily, the authority may refuse planning permission.

The responsibility for ensuring the development is undertaken in such a manner lies with the developer/land owner.

The definition of contaminated land is presented in the Environmental Protection Act 1990 as follows: ‘*any land which appears to the local authority in whose area it is situated to be in such a condition, by reason of substances in, on or under the land, that—*

(a) significant harm is being caused or there is a significant possibility of such harm being caused; or
(b) significant pollution of controlled waters is being caused, or there is a significant possibility of such pollution being caused;’

Before the local authority can conclude that land appears to be contaminated land, the authority must assess the risk that a significant pollutant linkage exists.

This means that each of the following has to be present:

- (a) a **contaminant**;
- (b) a **receptor**; and
- (c) a **pathway**.

Guidance defines the risk as the combination of:

‘(a) the likelihood that harm, or pollution of water, will occur as a result of contaminants in, on or under the land; and

(b) the scale and seriousness of such harm or pollution if it did occur’.

Legislation Framework Which Drives the Contamination Assessment of Land in England and Wales

The Statutory Guidance under Part IIA of the Environmental Protection Act 1990 both in England and Wales promotes the application of a four category test to assess whether land is contaminated or not. Category 1 sites are sites which have a high likelihood of contamination and would be considered as a significant problem. Category 4 sites are sites which are obviously not contaminated on the basis of either desktop information or a basic intrusive investigation. Categories 2 and 3 lie between the obviously uncontaminated and contaminated sites, with the division between these categories being considered as contaminated land under Part IIA. Risk assessment will be required to assess whether a site lies within Category 2 or 3. The risk assessment will initially be determined by health risks, then by socio-economic factors should health risks be uncertain, with a default decision of contaminated should the tests not be adequately met (refer to Figure 1).

For the purpose of determining whether a site may be classified as contaminated land, soil guideline values (SGV)/generic assessment criteria (GAC) should not be utilised as determining factors. These may be applied to confirm Category 4 sites, these showing categorically that it is considered there is no risk of harm to human health on such sites. However, SGV and GAC threshold values are conservative, indicating that there is no risk at all to human health or very minimal risk. As such, these should not be considered to act as threshold values between Category 3 and Category 4 sites. The Statutory Guidance has made provision for generic screening values to be derived, termed as Category 4 Screening Levels (C4SL), which still provide a cautious assessment but relate the risk associated with normal ambient levels of contaminants, termed the low observed adverse effect level (LOAEL), making for a more pragmatic approach to risk assessment. C4SLs may be applied to site investigations undertaken in support of a planning application. To date C4SLs have been derived arsenic, cadmium, chromium (VI), lead, benzo(a)pyrene and benzene and represent. It has been proposed to derive twenty additional C4SLs including the inorganic and organic contaminants. As C4SLs will result in levels of contaminant concentrations in soils that will still be considered to be acceptable in terms of level of risk in relation to the Part IIA of the Environmental Protection Act 1990.

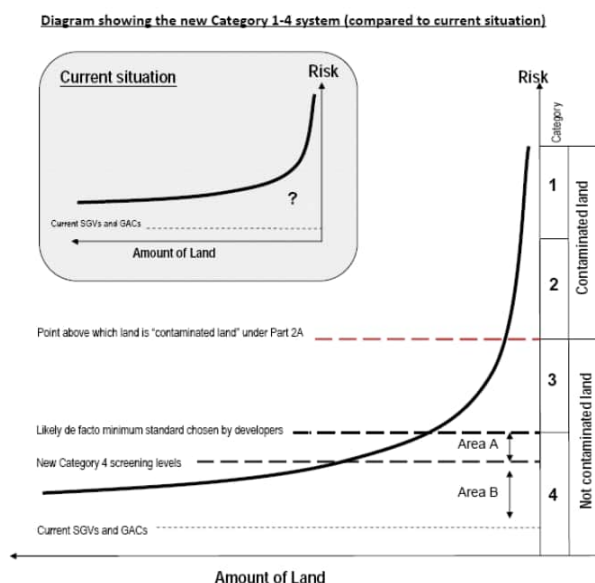


Figure 1: The New Four Category System

Environmental Protection Act 1990 – Part III

It should be noted that under the Environmental Protection Act 1990, the statutory nuisance regime applies to ‘*premises which may be prejudicial to health or a nuisance*’. In this case the term ‘*health*’ does not apply to contaminated land issues. However, nuisance may apply where the effects of deposits of substances on land cause offence to human senses (such as stench).

Environmental Damage (Prevention and Remediation) Regulations

The following legislation made in England and Wales respectively, is designed to control new contamination events.

- *The Environmental Damage (Prevention and Remediation) (England) Regulations 2015* (revoking the 2009 Regulations).
- *The Environmental Damage (Prevention and Remediation) (Wales) Regulations 2009*, as amended by *The Environmental Damage (Prevention and Remediation) (Amendment) (Wales) Regulations 2015*.

The meaning of ‘environmental damage’ has been detailed by DEFRA’s guidance document applicable to these Regulations as shown below:

‘An important point to note is that the Regulations are a ‘backstop’, only applying when something has gone wrong and there is an imminent threat or actual ‘environmental damage’ within the scope of the Regulations. The emphasis should be on proactively putting in place appropriate pollution prevention measures to reduce risks to the environment. Those running businesses and other operations can reduce the likelihood of ever being caught by the Regulations’ requirements by minimising risks to the natural resources covered by the Regulations. This means that businesses should be aware, in particular, where they:

- *Operate within or near areas of high biodiversity value, especially Sites of Special Scientific Interest (SSSIs);*
- *Operate near water bodies; and/or*
- *Carry out activities with potential risks to human health*
- *This is so they can take the necessary steps to manage the relevant risks effectively, including implementing and monitoring appropriate pollution prevention measures.*

The Regulations do not cover all types of damage to the environment. They only cover ‘environmental damage’ which is one or more of damage to:

- *protected species and natural habitats or to a site of special scientific interest (these are referred to collectively in the guidance as **damage to species and habitats**);*
- *surface water or groundwater (these are referred to collectively in the guidance as **damage to water**); and,*
- *land. (Damage to land is contamination of land by substances, preparations, organisms or micro-organisms that results in a significant risk of adverse effects on human health.*

Legislation Framework Which Drives the Contamination Assessment of Land in England and Wales

Both the England and Wales Regulations state they do not apply in relation to:

- damage that occurred before the Regulations originally came into force in 2009, but for marine waters July 2015
- damage that occurs or occurred after these dates, or is or was threatened after these dates, but is caused by an incident, event or emission that took place before these dates; or
- damage caused by an incident, event or emission that takes or took place after these dates, if derived from an activity that took place and finished before these dates.
- environmental damage caused by pollution of a diffuse character if the causal link between the damage and specific activities cannot be defined.

The Regulations state where an operator of an activity has caused environmental damage, or where there is sufficient evidence to indicate that environmental damage will eventually occur, the operator must immediately

- take all practicable steps to prevent further damage; and
- notify all relevant details to the relevant enforcing authority.