



Photograph 9
WS05 inspection pit arisings.



Photograph 10
WS05 drilling arisings (top to bottom, left to right).



Photograph 11
WS06 inspection pit arisings.



Photograph 12
WS02 drilling arisings (top to bottom, left to right).

APPENDIX 03

Exploratory Hole Records

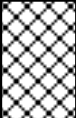
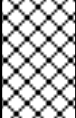
WML CONSULTING		Project Title: UoM Decant Project				WS03																																																																																			
		Project Number: 11357G		Client: The University of Manchester																																																																																					
		GL (mAOD):		N Coord: 0		E Coord: 0																																																																																			
Date: 02/02/2024		Method: Window Sample		Driller: K Evans		Logged By: TJS																																																																																			
Depth (m)	Type	Test Result	Level	Legend	Depth (m)	Description	Water	Standpipe																																																																																	
1.00 - 1.20	ES	N=7			0.10	Grass over dark brown slightly clayey silty sand.																																																																																			
				0.30	(MADE GROUND)																																																																																				
2.30 - 2.40	ES	N=14			0.40	Dark brown slightly clayey silty slightly gravelly sand.																																																																																			
				0.60	(MADE GROUND)																																																																																				
				1.00	Dark brown mottled light grey slightly silty gravelly slightly cobbly sand. Gravel and cobble sized fragments are subangular to subrounded fine to coarse of mixed lithologies including brick, concrete and rare ash.																																																																																				
				1.20	(MADE GROUND)																																																																																				
					Grey sandy cobbly gravel. Gravel and cobble sized fragments are subangular of concrete and brick.																																																																																				
					(MADE GROUND)																																																																																				
				2.00	Dark brown mottled light grey slightly silty gravelly slightly cobbly sand. Gravel and cobble sized fragments are subangular to subrounded fine to coarse of mixed lithologies including brick, concrete and rare ash.																																																																																				
					(MADE GROUND)																																																																																				
				2.60	No recovery.																																																																																				
				2.80	Firm light brown mottled grey slightly silty sandy CLAY.																																																																																				
		(GLACIOFLUVIAL DEPOSITS)																																																																																							
	N=48			3.00	Firm light brown mottled grey slightly silty very sandy very gravelly CLAY. Gravel is subrounded to rounded fine to coarse.																																																																																				
			(GLACIOFLUVIAL DEPOSITS)																																																																																						
			Very dense brown slightly clayey silty gravelly fine to coarse SAND. Gravel is subrounded fine to coarse of mixed lithologies.																																																																																						
				3.90	(GLACIOFLUVIAL DEPOSITS)																																																																																				
		pp 50/115mm		4.00	Very dense reddish brown fine to medium SAND. Completely weathered fine to medium SANDSTONE.																																																																																				
						(CHESTER FORMATION)																																																																																			
						End Of Borehole At 3.90 m																																																																																			
KEY D - Disturbed Sample B - Bulk Sample U - Undisturbed W - Water Sample S - Standard Penetration Test C - Cone Penetration Test N - Penetration Test 'N' Value V - Hand Shear Vane kPa - Groundwater Strike - Groundwater Level			REMARKS No Groundwater Encountered Terminated on refusal at 3.90mbgl. Scale: 1:30			Water Strikes <table><tr><th>Date</th><th>Strike</th><th>Level</th><th>Minutes</th><th>Casing</th><th>Sealed</th></tr><tr><td></td><td></td><td></td><td></td><td></td><td></td></tr><tr><td></td><td></td><td></td><td></td><td></td><td></td></tr><tr><td></td><td></td><td></td><td></td><td></td><td></td></tr><tr><td></td><td></td><td></td><td></td><td></td><td></td></tr></table> Daily Log Of Depths <table><tr><th>Date</th><th>Casing</th><th>Water</th><th>From</th><th>To</th><th>Hours</th></tr><tr><td></td><td></td><td></td><td></td><td></td><td></td></tr><tr><td></td><td></td><td></td><td></td><td></td><td></td></tr><tr><td></td><td></td><td></td><td></td><td></td><td></td></tr></table> Chiselling <table><tr><th>Date</th><th>Casing</th><th>Water</th><th>From</th><th>To</th><th>Hours</th></tr><tr><td></td><td></td><td></td><td></td><td></td><td></td></tr><tr><td></td><td></td><td></td><td></td><td></td><td></td></tr><tr><td></td><td></td><td></td><td></td><td></td><td></td></tr></table>						Date	Strike	Level	Minutes	Casing	Sealed																									Date	Casing	Water	From	To	Hours																			Date	Casing	Water	From	To	Hours																		
						Date	Strike	Level	Minutes	Casing	Sealed																																																																														
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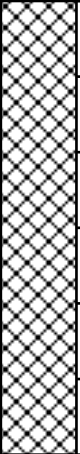
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			Project Number: 11357G		Client: The University of Manchester																																																												
			GL (mAOD):		N Coord: 0		E Coord: 0																																																										
Date: 02/02/2024			Method: Window Sample		Driller: K Evans		Logged By: TJS																																																										
Depth (m)	Type	Test Result	Level	Legend	Depth (m)	Description	Water	Standpipe																																																									
2.20 - 2.40	ES	N=12			0.12	Grass over slightly clayey slightly silty sand. (MADE GROUND)																																																											
					0.50	Dark brown slightly silty slightly gravelly sand. Gravel sized fragments are fine to coarse of mixed lithologies including brick. (MADE GROUND)																																																											
					0.65	Dark brown slightly silty gravelly slightly cobbly sand. Gravel and cobble sized fragments are fine to coarse of mixed lithologies including concrete and brick. (MADE GROUND)																																																											
					1.00	Light brown slightly sandy gravel. Gravel is subangular to subrounded fine to coarse of mixed lithologies including brick and concrete. (MADE GROUND)																																																											
					2.00	Greyish brown gravelly cobbly sand. Gravel is fine to coarse of mixed lithology including brick, cobble is rounded of grey sandstone. (MADE GROUND)																																																											
					2.80	1.00 - 2.00 10% recovery. Loose orangeish brown very clayey slightly silty slightly gravelly SAND. Gravel is subangular to subrounded fine to coarse of mixed lithologies. (GLACIOFLUVIAL DEPOSITS)																																																											
					3.00	Very dense reddish brown fine to medium SAND. Completely weathered fine to medium SANDSTONE. (CHESTER FORMATION)																																																											
					3.60	End Of Borehole At 3.60 m																																																											
					4.00																																																												
					KEY D - Disturbed Sample B - Bulk Sample U - Undisturbed W - Water Sample S - Standard Penetration Test C - Cone Penetration Test N - Penetration Test 'N' Value V - Hand Shear Vane kPa ▽ - Groundwater Strike ▼ - Groundwater Level				REMARKS No Groundwater Encountered Interface between made and natural ground could not be determined due to partial sample recovery. Scale: 1:30			Water Strikes <table><tr><th>Date</th><th>Strike</th><th>Level</th><th>Minutes</th><th>Casing</th><th>Sealed</th></tr><tr><td></td><td></td><td></td><td></td><td></td><td></td></tr><tr><td></td><td></td><td></td><td></td><td></td><td></td></tr><tr><td></td><td></td><td></td><td></td><td></td><td></td></tr><tr><td></td><td></td><td></td><td></td><td></td><td></td></tr></table> Daily Log Of Depths <table><tr><th>Date</th><th>Casing</th><th>Water</th><th>From</th><th>To</th><th>Hours</th></tr><tr><td></td><td></td><td></td><td></td><td></td><td></td></tr><tr><td></td><td></td><td></td><td></td><td></td><td></td></tr><tr><td></td><td></td><td></td><td></td><td></td><td></td></tr></table>						Date	Strike	Level	Minutes	Casing	Sealed																									Date	Casing	Water	From	To	Hours												
Date	Strike	Level	Minutes	Casing				Sealed																																																									
Date	Casing	Water	From	To	Hours																																																												

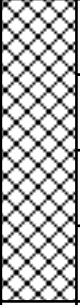
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			Project Number: 11357G		Client: The University of Manchester						
			GL (mAOD):		N Coord: 0		E Coord: 0				
Date: 02/02/2024			Method: Window Sample		Driller: K Evans		Logged By: TJS				
Depth (m)	Type	Test Result	Level	Legend	Depth (m)	Description	Water	Standpipe			
0.30 - 0.80	ES	N=9			0.15	Grass over dark brow slightly clayey silty sand. (MADE GROUND)					
					0.45	Dark brown slightly silty slightly gravelly sand. Gravel sized fragments are fine to coarse of mixed lithologies including brick and rare ceramic. (MADE GROUND)					
1.30 - 1.40	ES	N=26			0.75	Subangular gravel and cobbles of brick. (MADE GROUND)					
					1.00	Brown mottled dark brown slightly silty sandy slightly gravelly clay. (MADE GROUND)					
2.30 - 2.40	ES	pp 50/145mm sb 50/145mm			1.10	Stiff greyish brown slightly silty very sandy CLAY. (GLACIOFLUVIAL DEPOSITS)					
					2.00						
					2.20	Medium dense brown slightly clayey slightly silty gravelly SAND. (GLACIOFLUVIAL DEPOSITS)					
					2.80	Very dense brown slightly gravelly fine to coarse SAND. (GLACIOFLUVIAL DEPOSITS)					
					3.00	Very dense reddish brown fine to medium SAND. Completely weathered fine to medium SANDSTONE. (CHESTER FORMATION)					
					3.10	End Of Borehole At 3.30 m					
					3.30						
					4.00						
KEY D - Disturbed Sample B - Bulk Sample U - Undisturbed W - Water Sample S - Standard Penetration Test C - Cone Penetration Test N - Penetration Test 'N' Value V - Hand Shear Vane kPa - Groundwater Strike - Groundwater Level			REMARKS No Groundwater Encountered Terminated at refusal at 3.30mbgl. Scale: 1:30			Water Strikes					
						Date	Strike	Level	Minutes	Casing	Sealed
						Daily Log Of Depths			Chiselling		
						Date	Casing	Water	From	To	Hours

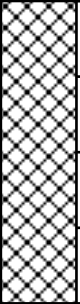
WML CONSULTING			Project Title: UoM Decant Project				WS06				
			Project Number: 11357G		Client: The University of Manchester						
			GL (mAOD):		N Coord: 0		E Coord: 0				
Date: 02/02/2024			Method: Window Sample		Driller: K Evans		Logged By: TJS				
Depth (m)	Type	Test Result	Level	Legend	Depth (m)	Description	Water	Standpipe			
1.50 - 1.70	ES	N=6			0.40	Grass over dark brown slightly clayey silty sand. (MADE GROUND)					
				0.60	Dark brown slightly silty slightly gravelly sand. Gravel sized fragments are fine to coarse of mixed lithologies including brick, ash, slate and ceramic. (MADE GROUND)						
				1.00	Dark brown slightly silty very gravelly cobbly sand. (MADE GROUND)						
				1.50	Dark brown slightly silty slightly gravelly sand. Gravel sized fragments are fine to coarse of mixed lithologies including brick and ash. (MADE GROUND)						
				1.70	Light brown slightly silty slightly sandy gravelly clay. Gravel sized fragments are fine to coarse of mixed lithologies including brick. (MADE GROUND)						
				2.00	Dark brown sandy gravelly clay. Gravel sized fragments are subangular to subrounded fine to medium of mixed lithologies including ash and brick. (MADE GROUND)						
		N=3		2.50	Very soft light greyish brown slightly silty sandy slightly gravelly clay. Gravel sized fragments are fine to medium of mixed lithologies including brick. (MADE GROUND)						
				3.00	Very soft light greyish brown silty slightly sandy slightly gravelly CLAY. (GLACIOFLUVIAL DEPOSITS)						
				3.45	Very dense light greyish brown slightly clayey silty gravelly slightly cobbly SAND. Gravel and cobbles are subrounded to rounded fine to coarse. (GLACIOFLUVIAL DEPOSITS)						
				3.70	Very dense reddish brown fine to medium SAND. Completely weathered fine to medium SANDSTONE. (CHESTER FORMATION)						
				4.00	End Of Borehole At 3.70 m						
KEY D - Disturbed Sample B - Bulk Sample U - Undisturbed W - Water Sample S - Standard Penetration Test C - Cone Penetration Test N - Penetration Test 'N' Value V - Hand Shear Vane kPa - Groundwater Strike - Groundwater Level			REMARKS No Groundwater Encountered Terminated following refusal at 3.70mbgl. Scale: 1:30			Water Strikes					
						Date	Strike	Level	Minutes	Casing	Sealed
Daily Log Of Depths						Chiselling					
Date	Casing	Water	From	To	Hours						

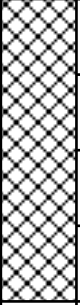
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			Project Number: 11357G		Client: The University of Manchester					Sheet 1 Of 1	
			GL (mAOD):		N Coord: 0		E Coord: 0				
Date: 25/04/2024			Method: Window Sample		Driller: LOT Geotechnics Ltd		Logged By: TPB				
Depth (m)	Type	Test Result	Level	Legend	Depth (m)	Description	Water	Standpipe			
0.60	D				0.40	Turf over dark brown, slightly clayey, slightly gravelly SAND. Gravel is subangular, fine to coarse, including brick. (MADE GROUND)					
1.40	D				1.00	Dark brownish grey, slightly silty SAND and angular to subangular, fine to coarse GRAVEL including brick, sandstone, slate and metal. (MADE GROUND)					
					1.60	No recovery. (MADE GROUND)					
					2.00	Brown, slightly gravelly, fine to coarse SAND. Gravel is subangular to subrounded, fine to coarse, of mixed lithologies. (GLACIOFLUVIAL DEPOSITS)					
					3.00	End Of Borehole At 3.00 m					
					4.00						
KEY D - Disturbed Sample B - Bulk Sample U - Undisturbed W - Water Sample S - Standard Penetration Test C - Cone Penetration Test N - Penetration Test 'N' Value V - Hand Shear Vane kPa ▽ - Groundwater Strike ▼ - Groundwater Level Scale: 1:30			REMARKS No Groundwater Encountered			Water Strikes					
						Date	Strike	Level	Minutes	Casing	Sealed
						Daily Log Of Depths			Chiselling		
						Date	Casing	Water	From	To	Hours

WML CONSULTING			Project Title: UoM Decant Project				WS103																																														
			Project Number: 11357G		Client: The University of Manchester					Sheet 1 Of 1																																											
			GL (mAOD):		N Coord: 0		E Coord: 0																																														
Date: 25/04/2024			Method: Window Sample		Driller: LOT Geotechnics Ltd		Logged By: TPB																																														
Depth (m)	Type	Test Result	Level	Legend	Depth (m)	Description	Water	Standpipe																																													
0.70	D				0.45	Turf over dark brownish grey, gravelly SAND. Gravel is angular to subangular, fine to coarse, including brick, slate, sandstone and ash. (MADE GROUND)																																															
					1.00	Grey, sandy, angular to subangular, fine to coarse GRAVEL and COBBLES including brick and sandstone. (MADE GROUND)																																															
					2.00																																																
					2.20																																																
					2.80	Brown, slightly silty, gravelly, fine to coarse SAND. Gravel is subangular to subrounded, fine to coarse, of mixed lithologies. (GLACIOFLUVIAL DEPOSITS)																																															
					3.00	End Of Borehole At 2.80 m																																															
					4.00																																																
KEY D - Disturbed Sample B - Bulk Sample U - Undisturbed W - Water Sample S - Standard Penetration Test C - Cone Penetration Test N - Penetration Test 'N' Value V - Hand Shear Vane kPa  - Groundwater Strike  - Groundwater Level 			REMARKS No Groundwater Encountered Scale: 1:30			Water Strikes <table><tr><th>Date</th><th>Strike</th><th>Level</th><th>Minutes</th><th>Casing</th><th>Sealed</th></tr><tr><td></td><td></td><td></td><td></td><td></td><td></td></tr><tr><td></td><td></td><td></td><td></td><td></td><td></td></tr><tr><td></td><td></td><td></td><td></td><td></td><td></td></tr></table> Daily Log Of Depths <table><tr><th>Date</th><th>Casing</th><th>Water</th><th>From</th><th>To</th><th>Hours</th></tr><tr><td></td><td></td><td></td><td></td><td></td><td></td></tr><tr><td></td><td></td><td></td><td></td><td></td><td></td></tr></table>						Date	Strike	Level	Minutes	Casing	Sealed																			Date	Casing	Water	From	To	Hours												
						Date	Strike	Level	Minutes	Casing	Sealed																																										
						Date	Casing	Water	From	To	Hours																																										

WML CONSULTING			Project Title: UoM Decant Project				HP101	
			Project Number: 11357G		Client: The University of Manchester			
			GL (mAOD):		N Coord: 0		E Coord: 0	
Date: 25/04/2024			Method: Window Sample		Logged By: TPB		Scale: 1:10	
Depth (m)	Type	Test Result	Level	Legend	Depth (m)	Description	Water	
0.50	D				0.60	Turf over dark brownish grey SAND and angular to subangular, fine to coarse GRAVEL including brick, sandstone, ash and slate. (MADE GROUND)		
					1.00	End Of Trial Pit At 0.60 m		
					2.00			
KEY						REMARKS		
D - Disturbed Sample						No Groundwater Encountered Brick obstruction at 0.60mbgl.		
B - Bulk Sample								
W - Water Sample								
V - Hand Shear Vane kPa								
 - Groundwater Strike								
 - Groundwater Level								
								

WML CONSULTING			Project Title: UoM Decant Project				HP102	
			Project Number: 11357G		Client: The University of Manchester			
			GL (mAOD):		N Coord: 0		E Coord: 0	
Date: 25/04/2024			Method: Window Sample		Logged By: TPB		Scale: 1:10	
Depth (m)	Type	Test Result	Level	Legend	Depth (m)	Description	Water	
0.40	D				0.40	Turf over dark brownish grey SAND and angular to subangular, fine to coarse GRAVEL including brick, sandstone, ash and slate. (MADE GROUND)		
						End Of Trial Pit At 0.40 m		
					1.00			
					2.00			
KEY D - Disturbed Sample B - Bulk Sample W - Water Sample V - Hand Shear Vane kPa  - Groundwater Strike  - Groundwater Level 						REMARKS No Groundwater Encountered		

WML CONSULTING			Project Title: UoM Decant Project				HP103	
			Project Number: 11357G		Client: The University of Manchester		Sheet 1 Of 1	
			GL (mAOD):		N Coord: 0		E Coord: 0	
Date: 25/04/2024			Method: Window Sample		Logged By: TPB		Scale: 1:10	
Depth (m)	Type	Test Result	Level	Legend	Depth (m)	Description	Water	
0.20	D				0.40	Turf over dark brownish grey SAND and angular to subangular, fine to coarse GRAVEL including brick, sandstone, ash and slate. (MADE GROUND)		
						End Of Trial Pit At 0.40 m		
					1.00			
					2.00			
KEY D - Disturbed Sample B - Bulk Sample W - Water Sample V - Hand Shear Vane kPa  - Groundwater Strike  - Groundwater Level 						REMARKS No Groundwater Encountered		

WML CONSULTING			Project Title: UoM Decant Project				HP104	
			Project Number: 11357G		Client: The University of Manchester			
			GL (mAOD):		N Coord: 0		E Coord: 0	
Date: 25/04/2024			Method: Window Sample		Logged By: TPB		Scale: 1:10	
Depth (m)	Type	Test Result	Level	Legend	Depth (m)	Description	Water	
0.40	D				0.40	Turf over dark brownish grey, slightly gravelly SAND. Gravel is angular to subangular, fine to coarse, including brick and ash. (MADE GROUND)		
						End Of Trial Pit At 0.40 m		
					1.00			
					2.00			
KEY D - Disturbed Sample B - Bulk Sample W - Water Sample V - Hand Shear Vane kPa  - Groundwater Strike  - Groundwater Level 						REMARKS No Groundwater Encountered		

WML CONSULTING			Project Title: UoM Decant Project				HP105	
			Project Number: 11357G		Client: The University of Manchester			
			GL (mAOD):		N Coord: 0		E Coord: 0	
Date: 25/04/2024			Method: Window Sample		Logged By: TPB		Scale: 1:10	
Depth (m)	Type	Test Result	Level	Legend	Depth (m)	Description	Water	
0.20	D				0.30	Turf over dark brownish grey, slightly gravelly SAND. Gravel is angular to subangular, fine to coarse, including brick and ash. (MADE GROUND)		
						End Of Trial Pit At 0.30 m		
					1.00			
					2.00			
KEY						REMARKS		
D - Disturbed Sample B - Bulk Sample W - Water Sample V - Hand Shear Vane kPa						No Groundwater Encountered		
 - Groundwater Strike  - Groundwater Level								

APPENDIX 04

Geotechnical Testing Results

TEST REPORT

Client WML Consulting Ltd

Address Third Floor South
Metropolitan House
Station Road
Cheadle Hulme
Cheshire
SK8 7AZ

Contract UoM Decant

Job Number MRN 24004/3

Date of Issue 15 February 2024

Page 1 of 3

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.
- 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) 4 POINT METHOD

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

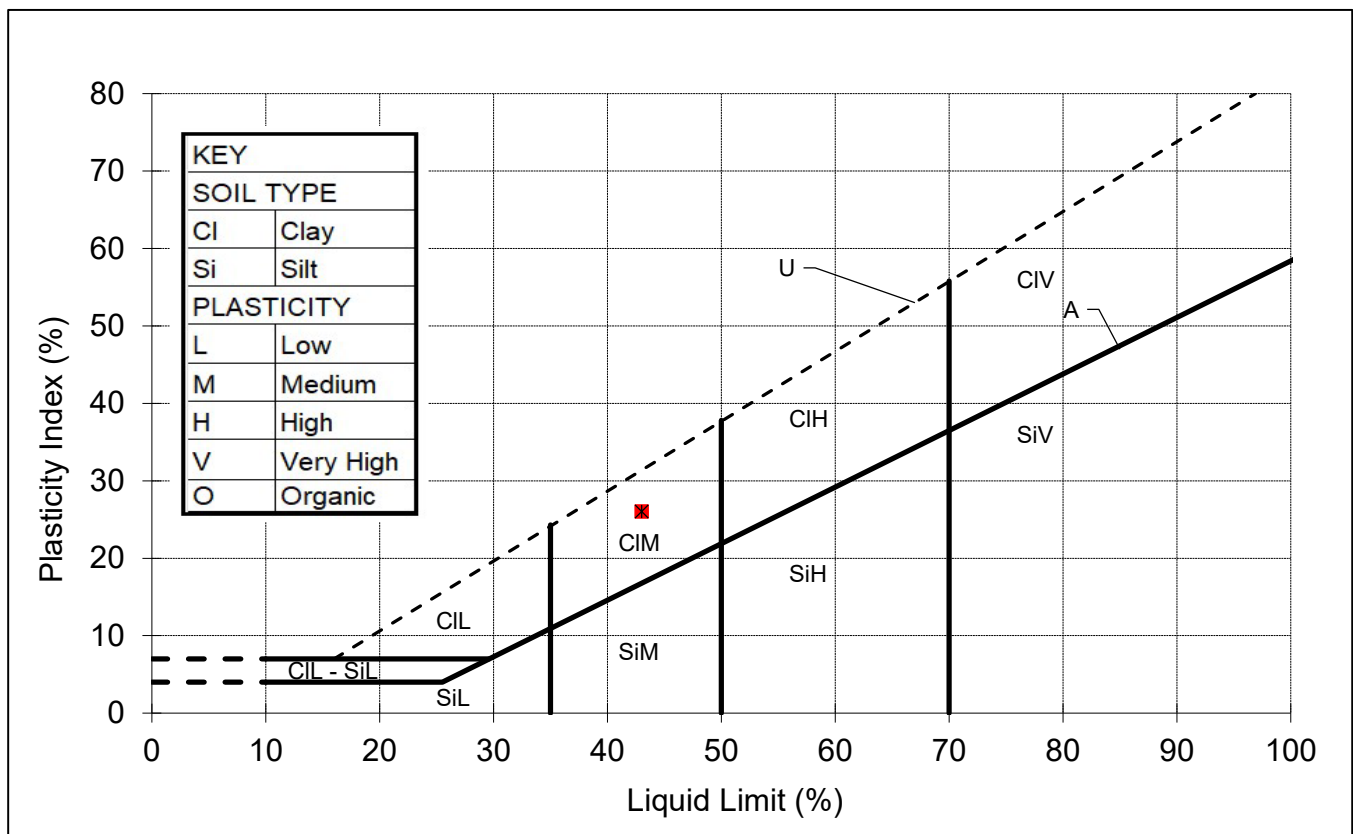
WATER CONTENT METHOD BS EN ISO 17892-1:2014+A1:2022

CLIENT	WML Consulting Ltd
SITE	UoM Decant
JOB NUMBER	MRN 24004/3

SAMPLE LABEL	WS01 ES3 1.20-1.40m	DATE SAMPLED	02-Feb-24
SAMPLE No.	421501	DATE RECEIVED	08-Feb-24
DATE TESTED	09-Feb-24	SAMPLED BY	Client

MATERIAL	Light brown silty slightly sandy slightly gravelly CLAY		
ADVISED SOURCE	Site Investigation Sample	WATER CONTENT	Increasing
SAMPLE HISTORY	Natural State	% RET. 425um BY	Wet Sieved

Natural Moisture Content (%)	Liquid Limit (%)	Plastic Limit (%)	Plasticity Index (%)	Passing 425 micron (%)
17.1	43	17	26	67



REMARKS

SIGNED

NAME

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

DATE

15-Feb-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) 4 POINT METHOD

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

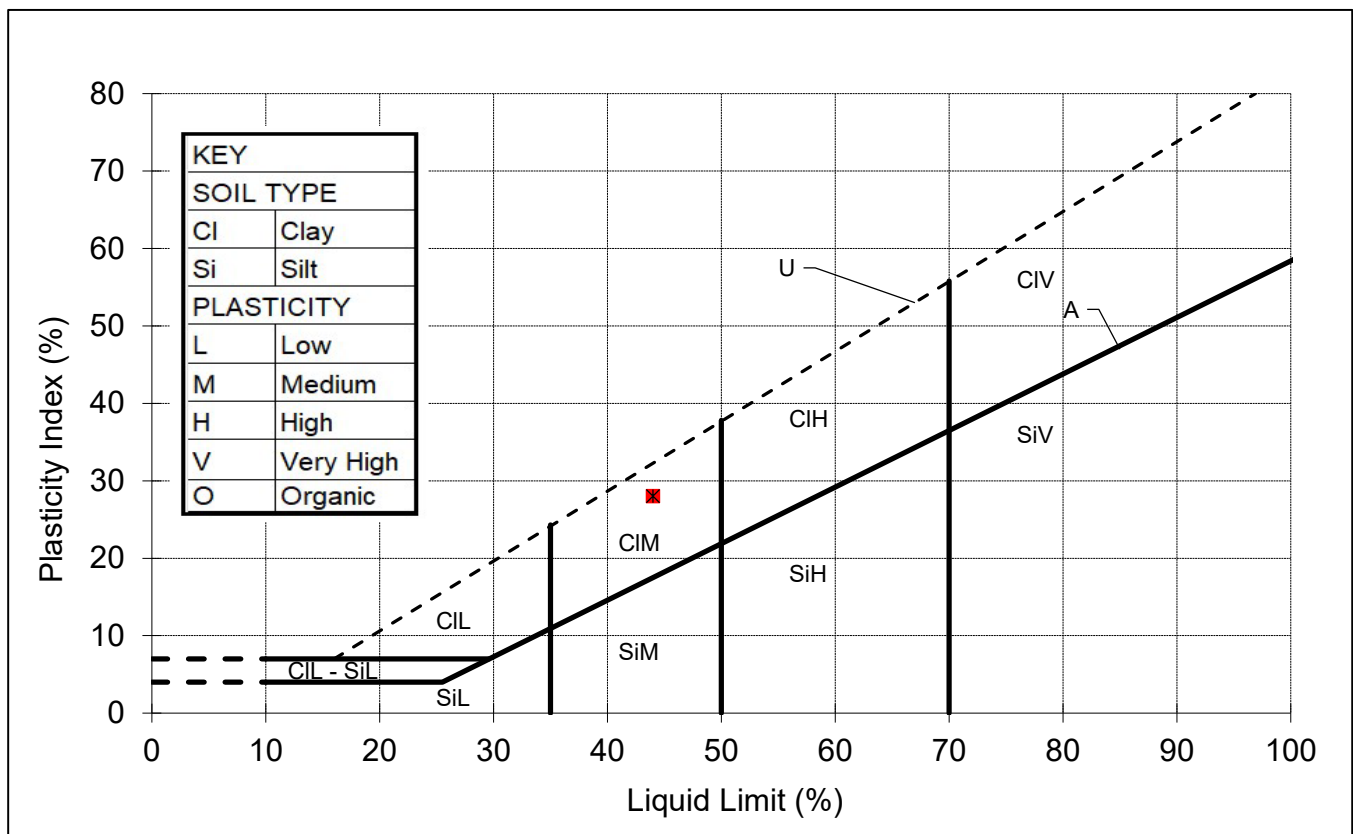
WATER CONTENT METHOD BS EN ISO 17892-1:2014+A1:2022

CLIENT	WML Consulting Ltd
SITE	UoM Decant
JOB NUMBER	MRN 24004/3

SAMPLE LABEL	WS02 ES4 1.65-1.75m	DATE SAMPLED	02-Feb-24
SAMPLE No.	421502	DATE RECEIVED	08-Feb-24
DATE TESTED	09-Feb-24	SAMPLED BY	Client

MATERIAL	Light brown silty slightly sandy CLAY		
ADVISED SOURCE	Site Investigation Sample	WATER CONTENT	Increasing
SAMPLE HISTORY	Natural State	% RET. 425um BY	Wet Sieved

Natural Moisture Content (%)	Liquid Limit (%)	Plastic Limit (%)	Plasticity Index (%)	Passing 425 micron (%)
21.4	44	16	28	91



REMARKS

SIGNED

NAME

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

DATE

15-Feb-24

APPENDIX 05

Chemical Testing Results

FINAL ANALYTICAL TEST REPORT

Envirolab Job Number: 24/01163
Issue Number: 1

Date: 15 February, 2024

Client: WML Consulting Ltd
Third Floor South
Metropolitan House
Station Rd
Cheadle Hulme
Cheshire
SK8 7AZ

Project Manager: Thomas Sheen
Project Name: UoM Decant
Project Ref: 11357G
Order No: 11357G
Date Samples Received: 06/02/24
Date Instructions Received: 06/02/24
Date Analysis Completed: 15/02/24

Approved by:



Richard Wong
Client Manager

Envirolab Job Number: 24/01163

Client Project Name: UoM Decant

Client Project Ref: 11357G

Lab Sample ID	24/01163/2	24/01163/3	24/01163/4	24/01163/5	24/01163/7	24/01163/8	24/01163/10	Units	Limit of Detection	Method ref
Client Sample No	2	4	1	2	5	1	3			
Client Sample ID	WS01	WS01	WS02	WS02	WS02	WS03	WS03			
Depth to Top	0.60	1.70	0.30	1.00	2.80	0.00	2.30			
Depth To Bottom	0.70	1.80	0.40	1.10	3.00	0.10	2.40			
Date Sampled	02-Feb-24	02-Feb-24	02-Feb-24	02-Feb-24	02-Feb-24	02-Feb-24	02-Feb-24			
Sample Type	SOIL - ES	SOIL - ES	SOIL - ES	SOIL - ES	SOIL - ES	SOIL - ES	SOIL - ES			
Sample Matrix Code	4ABE	1A	4AB	1AB	1A	4AE	5A			
% Stones >10mm _A	2.4	20.6	8.5	16.5	<0.1	7.0	<0.1	% w/w	0.1	A-T-044
pH _D ^{M#}	7.31	6.38	8.00	-	5.57	7.82	7.34	pH	0.01	A-T-031s
Sulphate (water sol 2:1) _D ^{M#}	0.70	0.09	0.08	-	0.02	0.02	<0.01	g/l	0.01	A-T-026s
Sulphate (acid soluble) _D ^{M#}	2600	-	810	-	-	550	-	mg/kg	200	A-T-028s
Sulphur (total) _D	1580	99	956	-	<50	470	<50	mg/kg	50	A-T-024s
Cyanide (total) _A ^{M#}	<1	-	<1	-	-	<1	-	mg/kg	1	A-T-042sTCN
Phenols - Total by HPLC _A	<0.2	-	<0.2	-	-	<0.2	-	mg/kg	0.2	A-T-050s
Organic Matter _D ^{M#}	31.2	-	13.7	11.6	-	7.1	-	% w/w	0.1	A-T-032s
Arsenic _D ^{M#}	114	-	13	-	-	14	-	mg/kg	1	A-T-024s
Boron (water soluble) _D ^{M#}	2.0	-	<1.0	-	-	<1.0	-	mg/kg	1	A-T-027s
Cadmium _D ^{M#}	2.7	-	0.9	-	-	1.0	-	mg/kg	0.5	A-T-024s
Copper _D ^{M#}	193	-	72	-	-	68	-	mg/kg	1	A-T-024s
Chromium (hexavalent) _D	<1	-	<1	-	-	<1	-	mg/kg	1	A-T-040s
Lead _D ^{M#}	440	-	135	-	-	171	-	mg/kg	1	A-T-024s
Mercury _D	1.60	-	0.84	-	-	1.07	-	mg/kg	0.17	A-T-024s
Nickel _D ^{M#}	62	-	24	-	-	21	-	mg/kg	1	A-T-024s
Selenium _D ^{M#}	<1	-	<1	-	-	<1	-	mg/kg	1	A-T-024s
Vanadium _D ^{M#}	135	-	25	-	-	27	-	mg/kg	1	A-T-024s
Zinc _D ^{M#}	107	-	88	-	-	157	-	mg/kg	5	A-T-024s

Envirolab Job Number: 24/01163

Client Project Name: UoM Decant

Client Project Ref: 11357G

Lab Sample ID	24/01163/2	24/01163/3	24/01163/4	24/01163/5	24/01163/7	24/01163/8	24/01163/10	Units	Limit of Detection	Method ref
Client Sample No	2	4	1	2	5	1	3			
Client Sample ID	WS01	WS01	WS02	WS02	WS02	WS03	WS03			
Depth to Top	0.60	1.70	0.30	1.00	2.80	0.00	2.30			
Depth To Bottom	0.70	1.80	0.40	1.10	3.00	0.10	2.40			
Date Sampled	02-Feb-24	02-Feb-24	02-Feb-24	02-Feb-24	02-Feb-24	02-Feb-24	02-Feb-24			
Sample Type	SOIL - ES	SOIL - ES	SOIL - ES	SOIL - ES	SOIL - ES	SOIL - ES	SOIL - ES			
Sample Matrix Code	4ABE	1A	4AB	1AB	1A	4AE	5A			
Asbestos in Soil (inc. matrix)										
Asbestos in soil _D [#]	NAD	-	NAD	-	-	NAD	-			A-T-045
Asbestos Matrix (visual) _D	-	-	-	-	-	-	-			A-T-045
Asbestos Matrix (microscope) _D	-	-	-	-	-	-	-			A-T-045
Asbestos ACM - Suitable for Water Absorption Test? _D	N/A	-	N/A	-	-	N/A	-			A-T-045

Envirolab Job Number: 24/01163

Client Project Name: UoM Decant

Client Project Ref: 11357G

Lab Sample ID	24/01163/2	24/01163/3	24/01163/4	24/01163/5	24/01163/7	24/01163/8	24/01163/10	Units	Limit of Detection	Method ref
Client Sample No	2	4	1	2	5	1	3			
Client Sample ID	WS01	WS01	WS02	WS02	WS02	WS03	WS03			
Depth to Top	0.60	1.70	0.30	1.00	2.80	0.00	2.30			
Depth To Bottom	0.70	1.80	0.40	1.10	3.00	0.10	2.40			
Date Sampled	02-Feb-24	02-Feb-24	02-Feb-24	02-Feb-24	02-Feb-24	02-Feb-24	02-Feb-24			
Sample Type	SOIL - ES	SOIL - ES	SOIL - ES	SOIL - ES	SOIL - ES	SOIL - ES	SOIL - ES			
Sample Matrix Code	4ABE	1A	4AB	1AB	1A	4AE	5A			
PAH-16MS										
Acenaphthene _A ^{M#}	<0.01	-	4.93	-	-	0.39	-	mg/kg	0.01	A-T-019s
Acenaphthylene _A ^{M#}	<0.01	-	1.65	-	-	0.06	-	mg/kg	0.01	A-T-019s
Anthracene _A ^{M#}	<0.02	-	13.9	-	-	0.66	-	mg/kg	0.02	A-T-019s
Benzo(a)anthracene _A ^{M#}	<0.04	-	17.9	-	-	1.80	-	mg/kg	0.04	A-T-019s
Benzo(a)pyrene _A ^{M#}	<0.04	-	12.2	-	-	1.60	-	mg/kg	0.04	A-T-019s
Benzo(b)fluoranthene _A ^{M#}	<0.05	-	13.4	-	-	1.87	-	mg/kg	0.05	A-T-019s
Benzo(ghi)perylene _A ^{M#}	<0.05	-	4.30	-	-	0.66	-	mg/kg	0.05	A-T-019s
Benzo(k)fluoranthene _A ^{M#}	<0.07	-	5.55	-	-	0.65	-	mg/kg	0.07	A-T-019s
Chrysene _A ^{M#}	<0.06	-	24	-	-	2.06	-	mg/kg	0.06	A-T-019s
Dibenzo(ah)anthracene _A	<0.04	-	1.19	-	-	0.14	-	mg/kg	0.04	A-T-019s
Fluoranthene _A ^{M#}	<0.08	-	45.1	-	-	4.95	-	mg/kg	0.08	A-T-019s
Fluorene _A ^{M#}	<0.01	-	9.79	-	-	0.33	-	mg/kg	0.01	A-T-019s
Indeno(123-cd)pyrene _A ^{M#}	<0.03	-	4.77	-	-	0.71	-	mg/kg	0.03	A-T-019s
Naphthalene _A ^{M#}	<0.03	-	11.8	-	-	0.27	-	mg/kg	0.03	A-T-019s
Phenanthrene _A ^{M#}	0.04	-	66.8	-	-	3.15	-	mg/kg	0.03	A-T-019s
Pyrene _A ^{M#}	<0.07	-	43.3	-	-	4.78	-	mg/kg	0.07	A-T-019s
Total PAH-16MS _A	<0.08	-	281	-	-	24.1	-	mg/kg	0.01	A-T-019s

Envirolab Job Number: 24/01163

Client Project Name: UoM Decant

Client Project Ref: 11357G

Lab Sample ID	24/01163/11	24/01163/12	24/01163/13	24/01163/14				Units	Limit of Detection	Method ref
Client Sample No	1	1	2	3						
Client Sample ID	WS04	WS05	WS05	WS05						
Depth to Top	2.20	0.30	1.30	2.30						
Depth To Bottom	2.40	0.40	1.40	2.40						
Date Sampled	02-Feb-24	02-Feb-24	02-Feb-24	02-Feb-24						
Sample Type	SOIL - ES	SOIL - ES	SOIL - ES	SOIL - ES						
Sample Matrix Code	4A	4ABE	4A	4A						
% Stones >10mm _A	12.8	<0.1	<0.1	14.5				% w/w	0.1	A-T-044
pH _D ^{M#}	7.75	7.81	6.11	7.27				pH	0.01	A-T-031s
Sulphate (water sol 2:1) _D ^{M#}	0.02	0.26	0.19	0.03				g/l	0.01	A-T-026s
Sulphate (acid soluble) _D ^{M#}	-	1100	-	-				mg/kg	200	A-T-028s
Sulphur (total) _D	<50	760	185	50				mg/kg	50	A-T-024s
Cyanide (total) _A ^{M#}	-	<1	-	-				mg/kg	1	A-T-042sTCN
Phenols - Total by HPLC _A	-	<0.2	-	-				mg/kg	0.2	A-T-050s
Organic Matter _D ^{M#}	-	8.5	-	-				% w/w	0.1	A-T-032s
Arsenic _D ^{M#}	-	20	-	-				mg/kg	1	A-T-024s
Boron (water soluble) _D ^{M#}	-	1.2	-	-				mg/kg	1	A-T-027s
Cadmium _D ^{M#}	-	1.0	-	-				mg/kg	0.5	A-T-024s
Copper _D ^{M#}	-	80	-	-				mg/kg	1	A-T-024s
Chromium (hexavalent) _D	-	<1	-	-				mg/kg	1	A-T-040s
Lead _D ^{M#}	-	187	-	-				mg/kg	1	A-T-024s
Mercury _D	-	1.10	-	-				mg/kg	0.17	A-T-024s
Nickel _D ^{M#}	-	22	-	-				mg/kg	1	A-T-024s
Selenium _D ^{M#}	-	<1	-	-				mg/kg	1	A-T-024s
Vanadium _D ^{M#}	-	25	-	-				mg/kg	1	A-T-024s
Zinc _D ^{M#}	-	207	-	-				mg/kg	5	A-T-024s

Envirolab Job Number: 24/01163

Client Project Name: UoM Decant

Client Project Ref: 11357G

Lab Sample ID	24/01163/11	24/01163/12	24/01163/13	24/01163/14				Units	Limit of Detection	Method ref
Client Sample No	1	1	2	3						
Client Sample ID	WS04	WS05	WS05	WS05						
Depth to Top	2.20	0.30	1.30	2.30						
Depth To Bottom	2.40	0.40	1.40	2.40						
Date Sampled	02-Feb-24	02-Feb-24	02-Feb-24	02-Feb-24						
Sample Type	SOIL - ES	SOIL - ES	SOIL - ES	SOIL - ES						
Sample Matrix Code	4A	4ABE	4A	4A						
Asbestos in Soil (inc. matrix)										
Asbestos in soil _D [#]	-	Chrysotile & Crocidolite	-	-						A-T-045
Asbestos Matrix (visual) _D	-	-	-	-						A-T-045
Asbestos Matrix (microscope) _D	-	Loose Fibres	-	-						A-T-045
Asbestos ACM - Suitable for Water Absorption Test? _D	-	N/A	-	-						A-T-045
Asbestos in Soil Quantification % (Hand Picking & Weighing)										
Asbestos in soil % composition (hand picking and weighing) _D	-	<0.001	-	-				% w/w	0.001	A-T-054

Envirolab Job Number: 24/01163

Client Project Name: UoM Decant

Client Project Ref: 11357G

Lab Sample ID	24/01163/11	24/01163/12	24/01163/13	24/01163/14				Units	Limit of Detection	Method ref
Client Sample No	1	1	2	3						
Client Sample ID	WS04	WS05	WS05	WS05						
Depth to Top	2.20	0.30	1.30	2.30						
Depth To Bottom	2.40	0.40	1.40	2.40						
Date Sampled	02-Feb-24	02-Feb-24	02-Feb-24	02-Feb-24						
Sample Type	SOIL - ES	SOIL - ES	SOIL - ES	SOIL - ES						
Sample Matrix Code	4A	4ABE	4A	4A						
PAH-16MS										
Acenaphthene _A ^{M#}	-	0.68	-	-				mg/kg	0.01	A-T-019s
Acenaphthylene _A ^{M#}	-	0.08	-	-				mg/kg	0.01	A-T-019s
Anthracene _A ^{M#}	-	1.36	-	-				mg/kg	0.02	A-T-019s
Benzo(a)anthracene _A ^{M#}	-	3.66	-	-				mg/kg	0.04	A-T-019s
Benzo(a)pyrene _A ^{M#}	-	3.36	-	-				mg/kg	0.04	A-T-019s
Benzo(b)fluoranthene _A ^{M#}	-	3.95	-	-				mg/kg	0.05	A-T-019s
Benzo(ghi)perylene _A ^{M#}	-	1.45	-	-				mg/kg	0.05	A-T-019s
Benzo(k)fluoranthene _A ^{M#}	-	1.42	-	-				mg/kg	0.07	A-T-019s
Chrysene _A ^{M#}	-	3.94	-	-				mg/kg	0.06	A-T-019s
Dibenzo(ah)anthracene _A	-	0.30	-	-				mg/kg	0.04	A-T-019s
Fluoranthene _A ^{M#}	-	8.50	-	-				mg/kg	0.08	A-T-019s
Fluorene _A ^{M#}	-	0.58	-	-				mg/kg	0.01	A-T-019s
Indeno(123-cd)pyrene _A ^{M#}	-	1.55	-	-				mg/kg	0.03	A-T-019s
Naphthalene _A ^{M#}	-	0.36	-	-				mg/kg	0.03	A-T-019s
Phenanthrene _A ^{M#}	-	6.00	-	-				mg/kg	0.03	A-T-019s
Pyrene _A ^{M#}	-	8.12	-	-				mg/kg	0.07	A-T-019s
Total PAH-16MS _A	-	45.3	-	-				mg/kg	0.01	A-T-019s

Report Notes

General

This report shall not be reproduced, except in full, without written approval from Envirolab.
 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.
 The client Sample No, Client Sample ID, Depth to top, Depth to Bottom and Date Sampled are all provided by the client.
 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.

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 "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
N/A	Not applicable

Asbestos

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
 Quantification of asbestos is a 3 stage process including visual identification, hand picking and weighing, and fibre counting by sedimentation/phase contrast optical microscopy if required. If asbestos is identified as being present but is not in a form that is suitable for analysis by hand picking and weighing (normally if the asbestos is present as free fibres) quantification by sedimentation is performed. Where ACMs are found a percentage asbestos is assigned to each with reference to 'HSG264, Asbestos: The survey guide' and the calculated asbestos content is expressed as a percentage of the dried soil sample aliquot used.

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 accreditation 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: WML Consulting Ltd, Third Floor South, Metropolitan House, Station Rd,
Cheadle Hulme, Cheshire, SK8 7AZ

Project: UoM Decant

Clients Project No: 11357G

Project No: 24/01163

Date Received: 06/02/2024 (am)

Cool Box Temperatures (°C): 10.6, 9.8

NO DEVIATIONS IDENTIFIED

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	24/01163/2	24/01163/3	24/01163/4	24/01163/5	24/01163/7	24/01163/8	24/01163/10	24/01163/11	24/01163/12	24/01163/13	24/01163/14
Client Sample No	2	4	1	2	5	1	3	1	1	2	3
Client Sample ID/Depth	WS01 0.60-0.70m	WS01 1.70-1.80m	WS02 0.30-0.40m	WS02 1.00-1.10m	WS02 2.80-3.00m	WS03 0.00-0.10m	WS03 2.30-2.40m	WS04 2.20-2.40m	WS05 0.30-0.40m	WS05 1.30-1.40m	WS05 2.30-2.40m
Date Sampled	02/02/24	02/02/24	02/02/24	02/02/24	02/02/24	02/02/24	02/02/24	02/02/24	02/02/24	02/02/24	02/02/24
A-T-019s	09/02/2024		09/02/2024			09/02/2024			09/02/2024		
A-T-024s	15/02/2024	15/02/2024	15/02/2024		15/02/2024	15/02/2024	15/02/2024	15/02/2024	15/02/2024	15/02/2024	15/02/2024
A-T-026s	13/02/2024	13/02/2024	13/02/2024		13/02/2024	13/02/2024	13/02/2024	13/02/2024	13/02/2024	13/02/2024	13/02/2024
A-T-027s	14/02/2024		14/02/2024			14/02/2024			14/02/2024		
A-T-028s	15/02/2024		15/02/2024			15/02/2024			15/02/2024		
A-T-031s	13/02/2024	13/02/2024	13/02/2024		13/02/2024	13/02/2024	13/02/2024	13/02/2024	13/02/2024	13/02/2024	13/02/2024
A-T-032s	14/02/2024		14/02/2024	14/02/2024		14/02/2024			12/02/2024		
A-T-040s	13/02/2024		13/02/2024			13/02/2024			13/02/2024		
A-T-042sTCN	09/02/2024		09/02/2024			09/02/2024			09/02/2024		
A-T-044	12/02/2024	12/02/2024	12/02/2024	12/02/2024	12/02/2024	12/02/2024	12/02/2024	12/02/2024	12/02/2024	12/02/2024	12/02/2024
A-T-045	08/02/2024		08/02/2024			08/02/2024			08/02/2024		
A-T-050s	15/02/2024		15/02/2024			15/02/2024			15/02/2024		
A-T-054									12/02/2024		

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

FINAL ANALYTICAL TEST REPORT

Envirolab Job Number: 24/04197
Issue Number: 1

Date: 02 May, 2024

Client: WML Consulting Ltd
Third Floor South
Metropolitan House
Station Rd
Cheadle Hulme
Cheshire
SK8 7AZ

Project Manager: Tom Booth
Project Name: UoM Decant
Project Ref: 11357G
Order No: 11357G
Date Samples Received: 26/04/24
Date Instructions Received: 29/04/24
Date Analysis Completed: 02/05/24

Approved by:



Richard Wong
Client Manager

Envirolab Job Number: 24/04197

Client Project Name: UoM Decant

Client Project Ref: 11357G

Lab Sample ID	24/04197/1	24/04197/2	24/04197/3	24/04197/4	24/04197/5	24/04197/6	24/04197/7	Units	Limit of Detection	Method ref
Client Sample No										
Client Sample ID	WS101	WS101	WS102	WS102	WS103	HP101	HP102			
Depth to Top	0.60	1.40	0.30	1.00	0.70	0.50	0.40			
Depth To Bottom										
Date Sampled	25-Apr-24	25-Apr-24	25-Apr-24	25-Apr-24	25-Apr-24	25-Apr-24	25-Apr-24			
Sample Type	SOIL - D	SOIL - D	SOIL - D	SOIL - D	SOIL - D	SOIL - D	SOIL - D			
Sample Matrix Code	4AB	4AB	4ABE	4ABE	4AB	4AB	4AB			
Asbestos in Soil (inc. matrix) ^										
Asbestos in soil [#]	NAD	Chrysotile	Chrysotile	NAD	NAD	Amosite	Chrysotile			A-T-045
Asbestos Matrix (visual) ₀	-	-	-	-	-	-	-			A-T-045
Asbestos Matrix (microscope) ₀	-	Loose Fibres	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	N/A	N/A			A-T-045
Asbestos in Soil Quantification % (Hand Picking & Weighing)										
Asbestos in soil % composition (hand picking and weighing) ₀	-	<0.001	<0.001	-	-	<0.001	<0.001	% w/w	0.001	A-T-054

Envirolab Job Number: 24/04197

Client Project Name: UoM Decant

Client Project Ref: 11357G

Lab Sample ID	24/04197/8	24/04197/9	24/04197/10					Units	Limit of Detection	Method ref
Client Sample No										
Client Sample ID	HP103	HP104	HP105							
Depth to Top	0.20	0.40	0.20							
Depth To Bottom										
Date Sampled	25-Apr-24	25-Apr-24	25-Apr-24							
Sample Type	SOIL - D	SOIL - D	SOIL - D							
Sample Matrix Code	4ABE	4ABE	4ABE							
Asbestos in Soil (inc. matrix) ^										
Asbestos in soil _D #	Chrysotile	NAD	Chrysotile							A-T-045
Asbestos Matrix (visual) _D	-	-	-							A-T-045
Asbestos Matrix (microscope) _D	Loose Fibres	-	Loose Fibres							A-T-045
Asbestos ACM - Suitable for Water Absorption Test? _D	N/A	N/A	N/A							A-T-045
Asbestos in Soil Quantification % (Hand Picking & Weighing)										
Asbestos in soil % composition (hand picking and weighing) _D	<0.001	-	<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 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.
 The client Sample No, Client Sample ID, Depth to top, Depth to Bottom and Date Sampled are all provided by the client.
 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.

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 "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
N/A	Not applicable

Asbestos

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
 Quantification of asbestos is a 3 stage process including visual identification, hand picking and weighing, and fibre counting by sedimentation/phase contrast optical microscopy if required. If asbestos is identified as being present but is not in a form that is suitable for analysis by hand picking and weighing (normally if the asbestos is present as free fibres) quantification by sedimentation is performed. Where ACMs are found a percentage asbestos is assigned to each with reference to 'HSG264, Asbestos: The survey guide' and the calculated asbestos content is expressed as a percentage of the dried soil sample aliquot used.

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 accreditation 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: WML Consulting Ltd, Third Floor South, Metropolitan House, Station Rd,
Cheadle Hulme, Cheshire, SK8 7AZ

Project: UoM Decant

Clients Project No: 11357G

Project No: 24/04197

Date Received: 29/04/2024 (am)

Cool Box Temperatures (°C): 12.3

NO DEVIATIONS IDENTIFIED

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	24/04197/1	24/04197/2	24/04197/3	24/04197/4	24/04197/5	24/04197/6	24/04197/7	24/04197/8	24/04197/9	24/04197/10
Client Sample No										
Client Sample ID/Depth	WS101 0.60m	WS101 1.40m	WS102 0.30m	WS102 1.00m	WS103 0.70m	HP101 0.50m	HP102 0.40m	HP103 0.20m	HP104 0.40m	HP105 0.20m
Date Sampled	25/04/24	25/04/24	25/04/24	25/04/24	25/04/24	25/04/24	25/04/24	25/04/24	25/04/24	25/04/24
A-T-045	30/04/2024	30/04/2024	30/04/2024	30/04/2024	30/04/2024	30/04/2024	30/04/2024	30/04/2024	30/04/2024	30/04/2024
A-T-054		02/05/2024	02/05/2024			02/05/2024	02/05/2024	02/05/2024		02/05/2024

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

APPENDIX 06

Soil Screening Levels

Screening Levels for "Commercial" end use assuming a 1% SOM for Hydrocarbons.

Contaminant	Screening Levels for Commercial End Use (mg/kg)
Metals	
Arsenic	640
Boron	240,000
Cadmium	190
Chromium III	8,600
Chromium VI	33
Copper	68,000
Lead*	2300
Mercury	58
Nickel	980
Selenium	12,000
Vanadium	9,000
Zinc	730,000
Non Metals	
Phenol	440
Polyaromatic Hydrocarbons (PAHs)	
Benz[a]anthracene	170
Benzo[a]pyrene	35
Benzo[b]fluoranthene	44
Benzo[ghi]perylene	3,900
Benzo[k]fluoranthene	1,200
Chrysene	350
Dibenz[ah]anthracene	3.5
Fluoranthene	23,000
Indeno[123-cd]pyrene	500
Naphthalene	190
Pyrene	54,000

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* Where not included in the S4UL's criteria for a limited number of contaminants, namely lead, have been derived by DEFRA in their document entitled SP1010: Development of Category 4 Screening Levels for Assessment of Land Affected by Contamination, April 2014.

Contaminant	Screening Levels for Commercial End Use (mg/kg)
Volatile Organic Compounds	
Benzene	27
Ethylbenzene	5,700
Toluene	56,000
M - Xylene	6,200
O - Xylene	6,600
P - Xylene	5,900
Total Petroleum Hydrocarbons	
Aliphatic C5-6	3,200
Aliphatic C6-8	7,800
Aliphatic C8-10	2,000
Aliphatic C10-12	9,700
Aliphatic C12-16	59,000
Aliphatic C16-35	1,600,000
Aliphatic C35 - 44	1,600,000
Aromatic C5 - 7	26,000
Aromatic C7 - 8	56,000
Aromatic C8-10	3,500
Aromatic C10-12	16,000
Aromatic C12-16	36,000
Aromatic C16-21	28,000
Aromatic C21-35	28,000
Aromatic C35 - 44	28,000

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