

Appendix C



Project Name 54 Shirlock Road				Project No. 3209		Co-ords: -		Hole Type WLS	
Location: London						Level: -		Scale 1:50	
Client: Mr & Mrs Kay						Dates: 14/05/2015		Logged By T Bennett	

Well	Water Strikes	Samples & In Situ Testing			Depth (m)	Level (m AOD)	Legend	Stratum Description	
		Depth (m)	Type	Results					
		0.10	ES		0.08		CONCRETE		
		0.35	ES		0.15		MADE GROUND - Red brick gravel with concrete and topsoil and coal		
		0.70	D		0.45		MADE GROUND - Brown clay with red brick and coal gravel		
		0.90	ES				Brown orange mottled silty CLAY	1	
		1.00	SPT	N=4 (1,0,1,1,1,1)	1.10				
		1.30	ES				Brown silty CLAY (with selenite at 1.5 -2.0m)		
		1.20-1.60	D						
		1.70-2.00	D						
		2.00	SPT	N=4 (1,1,1,1,1,1)	2.00		Brown very silty CLAY with selenite	2	
		2.20	ES						
		2.50-3.00	D		2.60		Brown gre very silty CLAY with blue veins		
		3.00	SPT	N=4 (1,2,1,1,1,1)				3	
		3.00-4.00							
		4.00	SPT	N=4 (1,2,1,1,1,1)	4.45			4	
							End of Borehole at 5.45 m	5	
							6		
							7		
							8		
							9		

Remarks: Monitoring Point installed. Drilling through wooden decking 18m above ground level.		
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Project Name
54 Shirlock Road

Project No.
3209

Co-ords: -

Hole Type
WLS

Location: London

Level: -

Scale
1:50

Client: Mr & Mrs Kay

Dates: 14/05/2015

Logged By
T Bennett

Well	Water Strikes	Samples & In Situ Testing			Depth (m)	Level (m AOD)	Legend	Stratum Description							
		Depth (m)	Type	Results											
		0.15	ES		0.45		MADE GROUND - Topsoil with coal and pottery and glass and red brick gravel.	1							
		0.30	D												
		0.50	ES												
		0.90	D	N=3 (1,0,1,1,0,1)	1.00		MADE GROUND - Brown clay with red brick and coal and roots (GC)								
		1.00	SPT												
		1.60-1.90	D	N=3 (1,1,1,1,0,1)	2.30		Brown orange very silty CLAY								
		2.00	SPT												
		2.60	ES												
		2.50-3.00	D	N=4 (1,1,1,1,1,1)	4.45		Brown very silty CLAY with blue veins								
		3.00	SPT												
		3.00-3.50	D												
		3.60-4.00	D	N=4 (1,2,1,1,1,1)											
		4.00	SPT												
End of Borehole at 4.45 m															
									5						
									6						
									7						
									8						
									9						

Remarks: Drilling through wooden decking 32cm above ground level.



STRUCTURAL SOILS LTD
TEST REPORT



Report No. 781707 - R1

1774

Date 12-June-2015 Contract

Client Ashton Bennett Consultancy
Address Unit K
Bridge Mills
Huddersfield Road
Holmfirth HD9 3TW

For the Attention of Frances Bennett

Samples submitted by client 27/05/2015
Testing Started 28/05/2015
Testing Completed 12/06/2015

Client Reference
Client Order No.
Instruction Type Written

UKAS Accredited Tests Undertaken

Moisture Content (oven drying method) BS1377:Part 2:1990,clause 3.2
Liquid Limit (definitive method) BS1377:Part 2:1990,clause 4.3
Plastic Limit BS1377:Part 2:1990,clause 5.3
Plasticity Index Derivation BS1377:Part 2:1990,clause 5.4

Please Note: Remaining samples will be retained for a period of one month from today and will then be disposed of

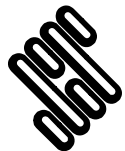
Approved signatories: Mark Athorne (Laboratory Manager) Steven Athorne (Senior Technician)

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SUMMARY OF SOIL CLASSIFICATION TESTS

In accordance with clauses 3.2,4.3,4.4,5.3,5.4,7.2,8.2,8.3 of BS1377:Part 2:1990

Exploratory Position ID	Sample Ref	Sample Type	Depth (m)	Moisture Content %	Liquid Limit %	Plastic Limit %	Plasticity Index %	% <425um	Description of Sample
WS1	1	D	1.70	28	70	23	47	91	Brown slightly sandy slightly gravelly CLAY
WS2	1	D	2.50	32	74	26	48	100	Brown slightly sandy slightly gravelly CLAY



STRUCTURAL
SOILS LTD

Contract:

.

Contract Ref:

781701





Ashton Bennett Consultancy
Unit K Bridge Mills
Huddersfield Road
Holmfirth
HD9 3TW
Attention: Frances Bennett

Post Certification Report

Date:	25/06/2015	Location:	17 Sulgrave Rd. and 54 Shirlock Rd.
Customer:	H_ABCON_HMF	No. Of Samples Received:	12
Your Reference:	3207 and 3209	Samples Scheduled:	10
[SDG] and Samples:	11392366,11392367,11392377,113		

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.

All chemical testing (unless subcontracted) is performed at ALcontrol Hawarden Laboratories.



Customer : H_ABCON_HMF

Client Reference : 3207 and 3209

Location : 17 Sulgrave Rd. and 54 Shirlock Rd.

Case :

Received Sample Overview

Lab Sample No(s)	Customer Sample Ref.	AGS Ref.	Depth (m)	Sampled Date
11392386	54SR WS1		0.10	
11392387	54SR WS1		0.35	
11392398	54SR WS1		0.70	14/05/2015
11392388	54SR WS1		0.90	
11392399	54SR WS1		1.20 - 1.60	14/05/2015
11392389	54SR WS1		1.30	
11392390	54SR WS1		2.20	
11392401	54SR WS1		2.50 - 3.00	14/05/2015
11392366	54SR WS2		0.15	
11392377	54SR WS2		0.30	
11392367	54SR WS2		0.50	
11392380	54SR WS2		0.90	14/05/2015

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



Customer : H_ABCON_HMF

Client Reference : 3207 and 3209

Location : 17 Sulgrave Rd. and 54 Shirlock Rd.

Case :

Results Legend	Lab Sample No(s)		11392380	11392377	11392367	11392366	11392401	11392399	11392388	11392387	11392386
	Customer Sample Reference		54SR WS2	54SR WS2	54SR WS2	54SR WS2	54SR WS1	54SR WS1	54SR WS1	54SR WS1	54SR WS1
	AGS Reference										
	Depth (m)		0.90	0.30	0.50	0.15	2.50 - 3.00	1.20 - 1.60	0.70	0.90	0.35
	Container		1kg TUB	1kg TUB	60g VOC (ALE215)	60g VOC (ALE215)	1kg TUB	1kg TUB	60g VOC (ALE215)	60g VOC (ALE215)	60g VOC (ALE215)
Anions by Kone (soil)	All	NDPs: 0 Tests: 2	X								
Anions by Kone (w)	All	NDPs: 0 Tests: 1				X					
Asbestos ID in Solid Samples	All	NDPs: 0 Tests: 2						X			
CEN Readings	All	NDPs: 0 Tests: 1				X					
Dissolved Metals by ICP-MS	All	NDPs: 0 Tests: 1				X					
Dissolved Organic/Inorganic Carbon	All	NDPs: 0 Tests: 1				X					
Fluoride	All	NDPs: 0 Tests: 1				X					
GRO by GC-FID (S)	All	NDPs: 0 Tests: 1				X					
Hexavalent Chromium (s)	All	NDPs: 0 Tests: 2					X				X
Mercury Dissolved	All	NDPs: 0 Tests: 1				X					
Metals in solid samples by OES	All	NDPs: 0 Tests: 2					X				X
Mineral Oil	All	NDPs: 0 Tests: 1				X					
PAH Value of soil	All	NDPs: 0 Tests: 3	X		X	X					
PCBs by GCMS	All	NDPs: 0 Tests: 1				X					
pH	All	NDPs: 0 Tests: 2	X								X
Phenols by HPLC (W)	All	NDPs: 0 Tests: 1				X					
Sample description	All	NDPs: 0 Tests: 10	X	X	X	X	X	X	X	X	X
Total Dissolved Solids	All	NDPs: 0 Tests: 1				X					



Customer : H_ABCON_HMF

Client Reference : 3207 and 3209

Location : 17 Sulgrave Rd. and 54 Shirlock Rd.

Case :

Results Legend	Lab Sample No(s)		Customer Sample Reference	AGS Reference	Depth (m)	Container
	11392380	54SR WS2		0.90	1kg TUB	
	11392377	54SR WS2		0.30	1kg TUB	
	11392367	54SR WS2		0.50	60g VOC (ALE215)	
	11392366	54SR WS2		0.15	60g VOC (ALE215)	
	11392401	54SR WS1		2.50 - 3.00	1kg TUB	
	11392399	54SR WS1		1.20 - 1.60	1kg TUB	
	11392398	54SR WS1		0.70	1kg TUB	
	11392388	54SR WS1		0.90	60g VOC (ALE215)	
	11392387	54SR WS1		0.35	60g VOC (ALE215)	
	11392386	54SR WS1		0.10	60g VOC (ALE215)	
Total Organic Carbon	All	NDPs: 0 Tests: 1				
TPH c6-40 Value of soil	All	NDPs: 0 Tests: 2				

Customer : H_ABCON_HMF

Client Reference : 3207 and 3209

Location : 17 Sulgrave Rd. and 54 Shirlock Rd.

Case :

[illegible]

Customer : H_ABCON_HMF

Client Reference : 3207 and 3209

Location : 17 Sulgrave Rd. and 54 Shirlock Rd.

Case :

[illegible]

Customer : H ABCON HMF

Client Reference : 3207 and 3209

Location : 17 Sulgrave Rd. and 54 Shirlock Rd.

Case :

[illegible]



Customer : H_ABCON_HMF

Client Reference : 3207 and 3209

Location : 17 Sulgrave Rd. and 54 Shirlock Rd.

Case :

Asbestos Identification

Asbestos Identification - Soil

		Date of Analysis	Analysed By	Comments	Amosite (Brown) Asbestos	Chrysotile (White) Asbestos	Crocidolite (Blue) Asbestos	Fibrous Actinolite	Fibrous Anthrophyllite	Fibrous Tremolite	Non-Asbestos Fibre
Customer Sample Ref. Depth (m) Sample Type Date Sampled Date Received SDG Original Sample Method Number	54SR WS1 NS Z 0.70 SOLID 14/05/2015 00:00:00 27/05/2015 12:26:20 150520-14 11,392,398 TM048	28/5/15	Rebecca Rawlings	-	Not Detected	Not Detected	Not Detected	Not Detected	Not Detected	Not Detected	Not Detected
Customer Sample Ref. Depth (m) Sample Type Date Sampled Date Received SDG Original Sample Method Number	54SR WS2 NS Z 0.30 SOLID 28/05/2015 08:45:02 150520-14 11,392,377 TM048	1/6/15	Kevin Gill	-	Not Detected	Not Detected	Not Detected	Not Detected	Not Detected	Not Detected	Not Detected



Customer : H_ABCON_HMF

Client Reference : 3207 and 3209

Location : 17 Sulgrave Rd. and 54 Shirlock Rd.

Case :

CEN 10:1 SINGLE STAGE LEACHATE TEST

WAC ANALYTICAL RESULTS

REF : BS EN 12457/2

Client Reference

Mass Sample taken (kg) 0.117

Mass of dry sample (kg) 0.090

Particle Size <4mm >95%

Site Location

17 Sulgrave Rd. and 54 Shirlock

Natural Moisture Content (%) 30.2

Dry Matter Content (%) 76.8

Case

SDG 150520-14

Lab Sample Number(s) 11392401

Sampled Date 14-May-2015

Customer Sample Ref. 54SR WS1

Depth (m) 2.50 - 3.00

Landfill Waste Acceptance
Criteria Limits

Inert Waste Landfill	Stable Non-reactive Hazardous Waste in Non- Hazardous Landfill	Hazardous Waste Landfill
3	5	6
-	-	-
6	-	-
1	-	-
500	-	-
100	-	-
-	-	-
-	-	-
-	-	-

Solid Waste Analysis

Result

Total Organic Carbon (%) <0.200

Loss on Ignition (%) -

Sum of BTEX (mg/kg) <0.024

Sum of 7 PCBs (mg/kg) <0.021

Mineral Oil (mg/kg) 14.8

PAH Sum of 17 (mg/kg) <10.0

pH (pH Units) -

ANC to pH 6 (mol/kg) -

ANC to pH 4 (mol/kg) -

Eluate Analysis

C₂Concⁿ in 10:1 eluate (mg/l)A₂10:1 concⁿ leached (mg/kg)Limit values for compliance leaching test
using BS EN 12457-3 at L/S 10 l/kg

	Result	Limit of Detection	Result	Limit of Detection			
Arsenic	0.000161	<0.00012	0.00161	<0.0012	0.5	2	25
Barium	0.0453	<0.00003	0.453	<0.0003	20	100	300
Cadmium	<0.0001	<0.0001	<0.001	<0.001	0.04	1	5
Chromium	0.000386	<0.00022	0.00386	<0.0022	0.5	10	70
Copper	0.00342	<0.00085	0.0342	<0.0085	2	50	100
Mercury Dissolved (CVAf)	<0.00001	<0.00001	<0.0001	<0.0001	0.01	0.2	2
Molybdenum	0.000458	<0.00024	0.00458	<0.0024	0.5	10	30
Nickel	0.00314	<0.00015	0.0314	<0.0015	0.4	10	40
Lead	0.000174	<0.00002	0.00174	<0.0002	0.5	10	50
Antimony	<0.00016	<0.00016	<0.0016	<0.0016	0.06	0.7	5
Selenium	0.000407	<0.00039	0.00407	<0.0039	0.1	0.5	7
Zinc	0.00229	<0.00041	0.0229	<0.0041	4	50	200
Chloride	4.9	<2	49	<20	800	15000	25000
Fluoride	0.505	<0.5	5.05	<5	10	150	500
Sulphate (soluble)	907	<10	9070	<100	1000	20000	50000
Total Dissolved Solids	982	<5	9820	<50	4000	60000	100000
Total Monohydric Phenols (W)	<0.016	<0.016	<0.16	<0.16	1	-	-
Dissolved Organic Carbon	<3	<3	<30	<30	500	800	1000

Leach Test Information

Date Prepared	26-May-2015
pH (pH Units)	7.87
Conductivity (µS/cm)	1490
Temperature (°C)	20.00
Volume Leachant (Litres)	0.873

Solid Results are expressed on a dry weight basis, after correction for moisture content where applicable

Stated limits are for guidance only and ALcontrol cannot be held responsible for any discrepancies with current legislation

Mcerts Certification does not apply to leachates

25/06/2015 16:21:23

Customer : H ABCON HMF

Client Reference : 3207 and 3209

Location : 17 Sulgrave Rd. and 54 Shirlock Rd.

Case :

CEN 10:1 SINGLE STAGE LEACHATE TEST

WAC ANALYTICAL RESULTS

REF : BS EN 12457/2

Client Reference	
Mass Sample taken (kg)	0.117
Mass of dry sample (kg)	0.090
Particle Size <4mm	>95%

Site Location	17 Sulgrave Rd. and 54 Shirlock
Natural Moisture Content (%)	30.2
Dry Matter Content (%)	76.8

Case	
SDG	150520-14
Lab Sample Number(s)	11392401
Sampled Date	14-May-2015
Customer Sample Ref.	54SR WS1
Depth (m)	2.50 - 3.00

Landfill Waste Acceptance Criteria Limits

Inert Waste Landfill	Stable Non-reactive Hazardous Waste in Non-Hazardous Landfill	Hazardous Waste Landfill
3	5	6
-	-	-
6	-	-
1	-	-
500	-	-
100	-	-
-	-	-
-	-	-
-	-	-

Solid Waste Analysis	Result
Total Organic Carbon (%)	<0.200
Loss on Ignition (%)	-
Sum of BTEX (mg/kg)	<0.024
Sum of 7 PCBs (mg/kg)	<0.021
Mineral Oil (mg/kg)	14.8
PAH Sum of 17 (mg/kg)	<10.0
pH (pH Units)	-
ANC to pH 6 (mol/kg)	-
ANC to pH 4 (mol/kg)	-

Eluate Analysis	C2 Conc ⁿ in 10:1 eluate (mg/l)		A2 10:1 conc ⁿ leached (mg/kg)		Limit values for compliance leaching test using BS EN 12457-3 at L/S 10 l/kg
	Result	Limit of Detection	Result	Limit of Detection	
Metal Prep	0	<0	0	<0	- - -

Leach Test Information

Date Prepared	26-May-2015
pH (pH Units)	7.87
Conductivity (µS/cm)	1490
Temperature (°C)	20.00
Volume Leachant (Litres)	0.873

Solid Results are expressed on a dry weight basis, after correction for moisture content where applicable
Stated limits are for guidance only and ALcontrol cannot be held responsible for any discrepancies with current legislation
Mcerts Certification does not apply to leachates
25/06/2015 16:21:23



Customer : H_ABCON_HMF
Case :

Client Reference : 3207 and 3209

Location : 17 Sulgrave Rd. and 54 Shirlock Rd.

Table of Results - Appendix

REPORT KEY

Results expressed as (e.g.) 1.03E-07 is equivalent to 1.03x10⁻⁷

NDP	No Determination Possible	#	ISO 17025 Accredited	*	Subcontracted Test	M	MCERTS Accredited
NFD	No Fibres Detected	PFD	Possible Fibres Detected	»	Result previously reported (Incremental reports only)	EC	Equivalent Carbon (Aromatics C8-C35)

Note: Method detection limits are not always achievable due to various circumstances beyond our control

Method No	Reference	Description	Wet/Dry Sample ¹	Surrogate Corrected
ASB_PREP				
PM001		Preparation of Samples for Metals Analysis		
PM024	Modified BS 1377	Soil preparation including homogenisation, moisture screens of soils for Asbestos Containing Material		
PM115		Leaching Procedure for CEN One Stage Leach Test 2:1 & 10:1 1 Step		
TM048	HSG 248, Asbestos: The analysts' guide for sampling, analysis and clearance procedures	Identification of Asbestos in Bulk Material		
TM061	Method for the Determination of EPH,Massachusetts Dept.of EP, 1998	Determination of Extractable Petroleum Hydrocarbons by GC-FID (C10-C40)		
TM089	Modified: US EPA Methods 8020 & 602	Determination of Gasoline Range Hydrocarbons (GRO) and BTEX (MTBE) compounds by Headspace GC-FID (C4-C12)		
TM090	Method 5310, AWWA/APHA, 20th Ed., 1999 / Modified: US EPA Method 415.1 & 9060	Determination of Total Organic Carbon/Total Inorganic Carbon in Water and Waste Water		
TM104	Method 4500F, AWWA/APHA, 20th Ed., 1999	Determination of Fluoride using the Kone Analyser		
TM123	BS 2690: Part 121:1981	The Determination of Total Dissolved Solids in Water		
TM132	In - house Method	ELTRA CS800 Operators Guide		
TM133	BS 1377: Part 3 1990;BS 6068-2.5	Determination of pH in Soil and Water using the GLpH pH Meter		
TM151	Method 3500D, AWWA/APHA, 20th Ed., 1999	Determination of Hexavalent Chromium using Kone analyser		
TM152	Method 3125B, AWWA/APHA, 20th Ed., 1999	Analysis of Aqueous Samples by ICP-MS		
TM154	In - house Method	Determination of Petroleum Hydrocarbons by EZ Flash GC-FID in the Carbon range C6- C40		
TM168	EPA Method 8082, Polychlorinated Biphenyls by Gas Chromatography	Determination of WHO12 and EC7 Polychlorinated Biphenyl Congeners by GC-MS in Soils		
TM181	US EPA Method 6010B	Determination of Routine Metals in Soil by iCap 6500 Duo ICP-OES		
TM183	BS EN 23506:2002, (BS 6068-2.74:2002) ISBN 0 580 38924 3	Determination of Trace Level Mercury in Waters and Leachates by PSA Cold Vapour Atomic Fluorescence Spectrometry		
TM184	EPA Methods 325.1 & 325.2,	The Determination of Anions in Aqueous Matrices using the Kone Spectrophotometric Analysers		
TM213	In-house Method	Rapid Determination of PAHs by GC-FID		
TM243		Mixed Anions In Soils By Kone		
TM259	by HPLC	Determination of Phenols in Waters and Leachates by HPLC		

¹ Applies to Solid samples only. DRY indicates samples have been dried at 35°C. NA = not applicable.



Customer : H_ABCON_HMF

Client Reference : 3207 and 3209

Location : 17 Sulgrave Rd. and 54 Shirlock Rd.

Case :

Test Completion Dates

Lab Sample No(s)	11392386	11392387	11392388	11392398	11392399	11392401	11392366	11392367	11392377	11392380
Customer Sample Ref.	54SR WS1	54SR WS1	54SR WS1	54SR WS1	54SR WS1	54SR WS1	54SR WS2	54SR WS2	54SR WS2	54SR WS2
AGS Ref.										
Depth	0.10	0.35	0.90	0.70	1.20 - 1.60	2.50 - 3.00	0.15	0.50	0.30	0.90
Type	SOLID	SOLID	SOLID	SOLID	SOLID	SOLID	SOLID	SOLID	SOLID	SOLID
Anions by Kone (soil)	04-Jun-2015								04-Jun-2015	
Anions by Kone (w)						28-May-2015				
Asbestos ID in Solid Samples				29-May-2015					02-Jun-2015	
CEN 10:1 Leachate (1 Stage)						26-May-2015				
CEN Readings						29-May-2015				
Dissolved Metals by ICP-MS						29-May-2015				
Dissolved Organic/Inorganic Carbon						01-Jun-2015				
Fluoride						29-May-2015				
GRO by GC-FID (S)						07-Jun-2015				
Hexavalent Chromium (s)					03-Jun-2015					03-Jun-2015
Mercury Dissolved						29-May-2015				
Metals in solid samples by OES					01-Jun-2015					01-Jun-2015
Mineral Oil						02-Jun-2015				
PAH Value of soil		02-Jun-2015				29-May-2015		02-Jun-2015		
PCBs by GCMS						30-May-2015				
pH	03-Jun-2015								04-Jun-2015	
Phenols by HPLC (W)						01-Jun-2015				
Sample description	28-May-2015	28-May-2015	28-May-2015	27-May-2015	28-May-2015	26-May-2015	28-May-2015	28-May-2015	28-May-2015	27-May-2015
Total Dissolved Solids						29-May-2015				
Total Organic Carbon						01-Jun-2015				
TPH c6-40 Value of soil			04-Jun-2015				04-Jun-2015			



Customer : H_ABCON_HMF

Client Reference : 3207 and 3209

Location : 17 Sulgrave Rd. and 54 Shirlock Rd.

Case :

Appendix General

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

2. Samples will be run in duplicate upon request, but an additional charge may be incurred

3. If sufficient sample is received a sub sample will be retained free of charge for 30 days after analysis is completed (e-mailed) for all sample types unless the sample is destroyed on testing. The prepared soil sub sample that is analysed for asbestos will be retained for a period of 2 months after the analysis date. All bulk samples will be retained for a period of 6 months after the analysis date. All samples received and not scheduled will be disposed of one month after the date of receipt unless we are instructed to the contrary. Once the initial period has expired, a storage charge will be applied for each month or part thereof until the client cancels the request for sample storage. ALcontrol Laboratories reserve the right to charge for samples received and stored but not analysed.

4. 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.

5. 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.

6. When requested, the individual sub sample scheduled will be analysed in house for the presence of asbestos fibres and asbestos containing material by our documented in house method TM048 based on HSG 248 (2005), which is accredited to ISO17025. If a specific asbestos fibre type is not found this will be reported as "Not detected". If no asbestos fibre types are found all will be reported as "Not detected" and the sub sample analysed deemed to be clear of asbestos. If an asbestos fibre type is found it will be reported as detected (for each fibre type found). Testing can be carried out on asbestos positive samples, but, due to Health and Safety considerations, may be replaced by alternative tests or reported as No Determination Possible. The quantity of asbestos present is not determined unless specifically requested.

7. 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.

8. If appropriate preserved bottles are not received preservation will take place on receipt. However, the integrity of the data may be compromised.

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

10. Metals in water are performed on a filtered sample, and therefore represent dissolved metals -total metals must be requested separately.

11. Results relate only to the items tested.

12. LODs for wet tests reported on a dry weight basis are not corrected for moisture content.

13. **Surrogate recoveries** -Most of our organic methods include surrogates, the recovery of which is monitored and reported. For EPH, MO, PAH, GRO and VOCs on soils the result is not surrogate corrected, but a percentage recovery is quoted. Acceptable limits for most organic methods are 70 -130 %.

14. **Product analyses** -Organic analyses on products can only be semi-quantitative due to the matrix effects and high dilution factors employed.

15. Phenols monohydric by HPLC include phenol, cresols (2-Methylphenol, 3-Methylphenol and 4-Methylphenol) and Xylenols (2,3 Dimethylphenol, 2,4 Dimethylphenol, 2,5 Dimethylphenol, 2,6 Dimethylphenol, 3,4 Dimethylphenol, 3,5 Dimethylphenol).

16. Total of 5 speciated phenols by HPLC includes Phenol, 2,3,5-Trimethyl Phenol, 2-Isopropylphenol, Cresols and Xylenols (as detailed in 15).

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

18. 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.

19. Mercury results quoted on soils will not include volatile mercury as the analysis is performed on a dried and crushed sample.

20. 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.

21. For all leachate preparations (NRA, DIN, TCLP, BSEN 12457-1, 2, 3) volatile loss may occur, as we do not employ zero headspace extraction.

22. 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.

23. 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.

Sample Deviations

1	Container with Headspace provided for volatiles analysis
2	Incorrect container received
3	Deviation from method
4	Holding time exceeded before sample received
5	Samples exceeded holding time before preservation was performed
§	Sampled on date not provided
♦	Sample holding time exceeded in laboratory
@	Sample holding time exceeded due to sampled on date
&	Sample Holding Time exceeded - Late arrival of instructions.

Asbestos

Identification of Asbestos in Bulk Materials & Soils

The results for identification of asbestos in bulk materials are obtained from supplied bulk materials which have been examined to determine the presence of asbestos fibres using Alcontrol Laboratories (Hawarden) in-house method of transmitted/polarised light microscopy and central stop dispersion staining, based on HSG 248 (2005).

The results for identification of asbestos in soils are obtained from a homogenised sub sample which has been examined to determine the presence of asbestos fibres using Alcontrol Laboratories (Hawarden) in-house method of transmitted/polarised light microscopy and central stop dispersion staining, based on HSG 248 (2005).

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.

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.



STRUCTURAL SOILS LTD
TEST REPORT



Report No. 781779 R1

1774

Date 01-September-2015 Contract 54SR London

Client Ashton Bennett Consultancy
Address Unit K
Bridge Mills
Huddersfield Road
Holmfirth HD9 3TW

For the Attention of Tristan Bennett

Samples submitted by client 14/08/2015
Testing Started 17/08/2015
Testing Completed 01/09/2015

Client Reference
Client Order No.
Instruction Type Written

UKAS Accredited Tests Undertaken

Moisture Content (oven drying method) BS1377:Part 2:1990,clause 3.2
Liquid Limit (definitive method) BS1377:Part 2:1990,clause 4.3
Plastic Limit BS1377:Part 2:1990,clause 5.3
Plasticity Index Derivation BS1377:Part 2:1990,clause 5.4

Please Note: Remaining samples will be retained for a period of one month from today and will then be disposed of

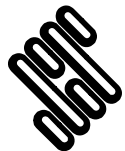
Approved signatories: Mark Athorne (Laboratory Manager) Steven Athorne (Senior Technician)

Page 2 of

SUMMARY OF SOIL CLASSIFICATION TESTS

In accordance with clauses 3.2,4.3,4.4,5.3,5.4,7.2,8.2,8.3 of BS1377:Part 2:1990

Exploratory Position ID	Sample Ref	Sample Type	Depth (m)	Moisture Content %	Liquid Limit %	Plastic Limit %	Plasticity Index %	% <425um	Description of Sample
54SR	1	D	0.45	38	68	24	44	83	Brown slightly sandy slightly gravelly CLAY
54SR	2	D	0.55	34	69	25	44	95	Brown slightly sandy slightly gravelly CLAY



STRUCTURAL
SOILS LTD

Contract:

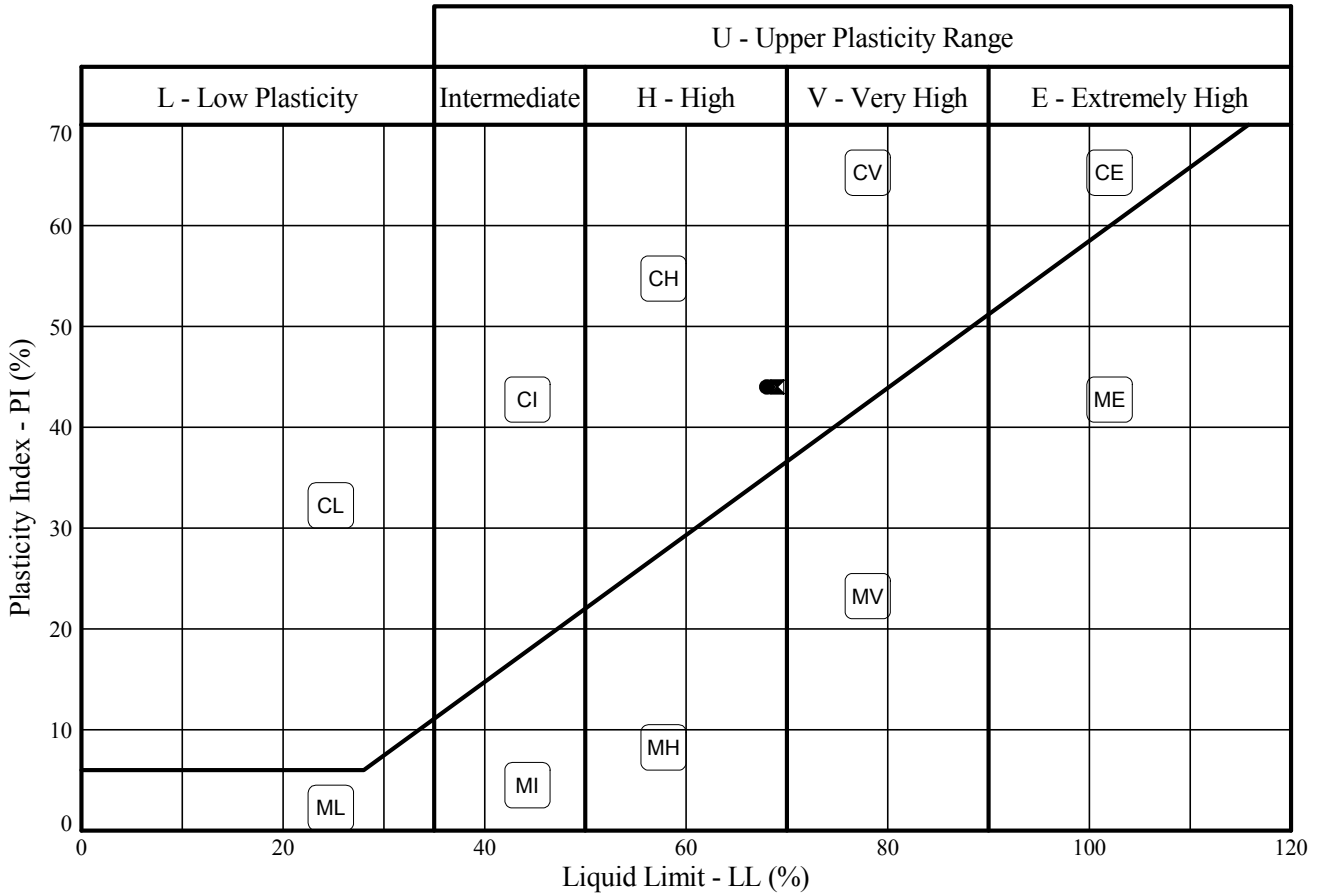
54SR London

Contract Ref:

781779



In accordance with clause 42.3 of BS5930:1999
Testing in accordance with BS1377-2:1990

[illegible]

Tested in accordance with the following clauses of BS1377-2:1990.

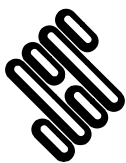
- 3.2 - Moisture Content
- 4.3 - Cone Penetrometer Method
- 4.4 - One Point Cone Penetrometer Method
- 4.6 - One Point Casagrande Method
- 5.3 - Plastic Limit Method
- 5.4 - Plasticity Index

+ Tested in accordance with the following clauses of BS1377-2:1990.

- 4.2.3 - Natural State
4.2.4 - Wet Sieved

Key: * = Non standard test, NP = Non plastic.

Approved Signatories: J.BARRETT M.ATHORNE A.FROST M.RANDERSON R.CLARKSON M.FISHER C.COLE M.STOKES



STRUCTURAL SOILS
The Potteries
Pottery Street
Castleford
W. Yorkshire WF10 1NJ

Compiled By

Date _____

M. Fisher .

MAUREEN FISHER

01/09/15

Contract

54SR London

Contract Ref:

781779



