

Appendix 5
Laboratory Geotechnical Results



TEST CERTIFICATE

DETERMINATION OF LIQUID AND PLASTIC LIMITS

Tested in Accordance with: BS 1377-2:1990: Clause 4.4 and 5

i2 Analytical Ltd
Unit 8 Harrowden Road
Brackmills Industrial Estate
Northampton NN4 7EB



Environmental Science

4041

Client: Travis Baker Geo-Environmental Limited

Client Address: Trinity Point, New Road,
Halesowen, West Midlands,
B63 3HY

Contact: Daniel Potts

Site Address: Burroughs Road Ratby

Testing carried out at i2 Analytical Limited, ul. Pionierow, 41-711 Ruda Slaska, Poland

Client Reference: 22069

Job Number: 23-48829-1

Date Sampled: Not Given

Date Received: 02/08/2023

Date Tested: 16/08/2023

Sampled By: Not Given

Test Results:

Laboratory Reference: 2769660

Hole No.: TP01

Sample Reference: Not Given

Sample Description: Reddish brown mottled light grey sandy clayey SILT

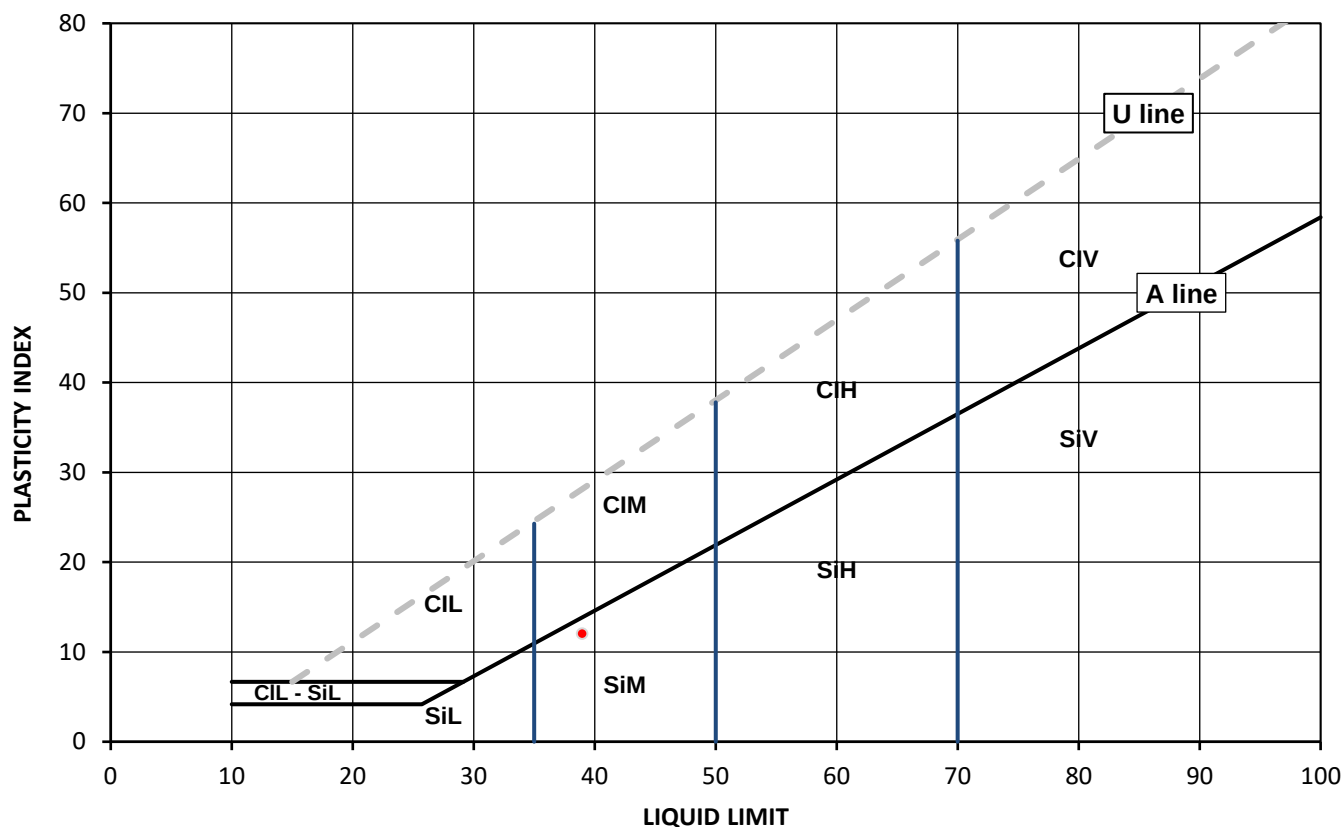
Depth Top [m]: 1.70

Depth Base [m]: Not Given

Sample Type: B

Sample Preparation: Tested in natural condition

As Received Water Content [W] %	Liquid Limit [WL] %	Plastic Limit [Wp] %	Plasticity Index [Ip] %	% Passing 425µm BS Test Sieve
33	39	27	12	100



Legend, based on BS EN ISO 14688 2:2018 Geotechnical investigation and testing – Identification and classification of soil

	Plasticity	Liquid Limit
Cl	Clay	below 35
Si	Silt	35 to 50
		50 to 70
		exceeding 70
		append to classification for organic material (eg CIHO)

Note: Water Content by BS 1377-2: 1990: Clause 3.2

Remarks:

Signed:

Katarzyna Koziel

Katarzyna Koziel
Reporting Specialist
for and on behalf of i2 Analytical Ltd

Opinions and interpretations expressed herein are outside of the scope of the UKAS Accreditation. This report may not be reproduced other than in full without the prior written approval of the issuing laboratory. The results included within the report relate only to the sample(s) submitted for testing.



TEST CERTIFICATE

DETERMINATION OF LIQUID AND PLASTIC LIMITS

Tested in Accordance with: BS 1377-2:1990: Clause 4.4 and 5

i2 Analytical Ltd
Unit 8 Harrowden Road
Brackmills Industrial Estate
Northampton NN4 7EB



Environmental Science

4041

Client: Travis Baker Geo-Environmental Limited

Client Address: Trinity Point, New Road,
Halesowen, West Midlands,
B63 3HY

Contact: Daniel Potts

Site Address: Burroughs Road Ratby

Testing carried out at i2 Analytical Limited, ul. Pionierow, 41-711 Ruda Slaska, Poland

Client Reference: 22069

Job Number: 23-48829-1

Date Sampled: Not Given

Date Received: 02/08/2023

Date Tested: 16/08/2023

Sampled By: Not Given

Test Results:

Laboratory Reference: 2769662

Hole No.: TP03

Sample Reference: Not Given

Sample Description: Grey slightly gravelly very sandy CLAY

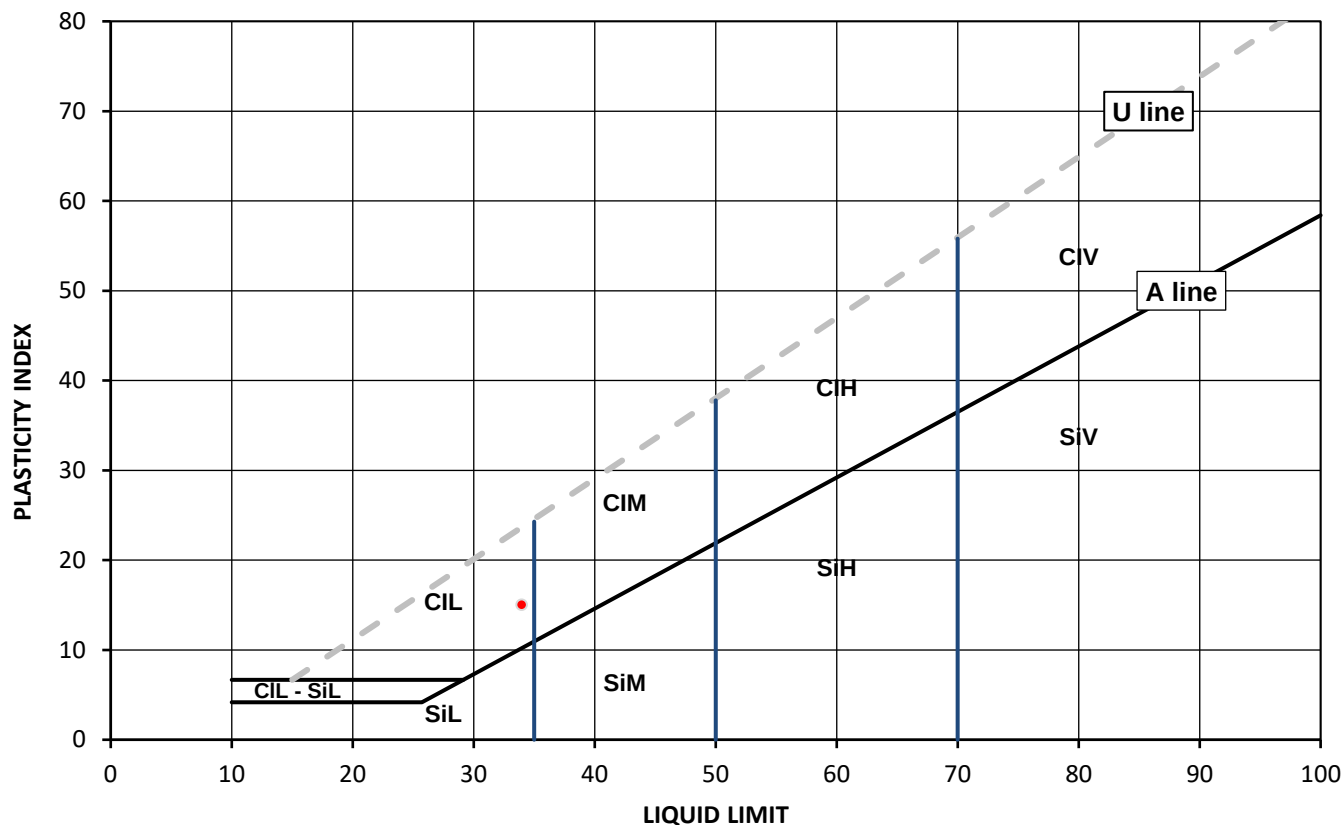
Depth Top [m]: 2.20

Depth Base [m]: Not Given

Sample Type: B

Sample Preparation: Tested after washing to remove >425 µm

As Received Water Content [W] %	Liquid Limit [WL] %	Plastic Limit [Wp] %	Plasticity Index [Ip] %	% Passing 425µm BS Test Sieve
24	34	19	15	87



Legend, based on BS EN ISO 14688 2:2018 Geotechnical investigation and testing – Identification and classification of soil

	Plasticity	Liquid Limit
Cl	Clay	below 35
Si	Silt	35 to 50
	L Low	50 to 70
	M Medium	exceeding 70
	H High	
	V Very high	
	O Organic	append to classification for organic material (eg CIHO)

Note: Water Content by BS 1377-2: 1990: Clause 3.2

Remarks:

Signed:

Katarzyna Koziel

Katarzyna Koziel
Reporting Specialist
for and on behalf of i2 Analytical Ltd

Opinions and interpretations expressed herein are outside of the scope of the UKAS Accreditation. This report may not be reproduced other than in full without the prior written approval of the issuing laboratory. The results included within the report relate only to the sample(s) submitted for testing.



TEST CERTIFICATE

DETERMINATION OF LIQUID AND PLASTIC LIMITS

Tested in Accordance with: BS 1377-2:1990: Clause 4.4 and 5

i2 Analytical Ltd
Unit 8 Harrowden Road
Brackmills Industrial Estate
Northampton NN4 7EB



Environmental Science

4041

Client: Travis Baker Geo-Environmental Limited

Client Address: Trinity Point, New Road,
Halesowen, West Midlands,
B63 3HY

Contact: Daniel Potts

Site Address: Burroughs Road Ratby

Testing carried out at i2 Analytical Limited, ul. Pionierow, 41-711 Ruda Slaska, Poland

Client Reference: 22069

Job Number: 23-48829-1

Date Sampled: Not Given

Date Received: 02/08/2023

Date Tested: 16/08/2023

Sampled By: Not Given

Test Results:

Laboratory Reference: 2769663

Hole No.: TP04

Sample Reference: Not Given

Sample Description: Reddish brown mottled light grey sandy CLAY

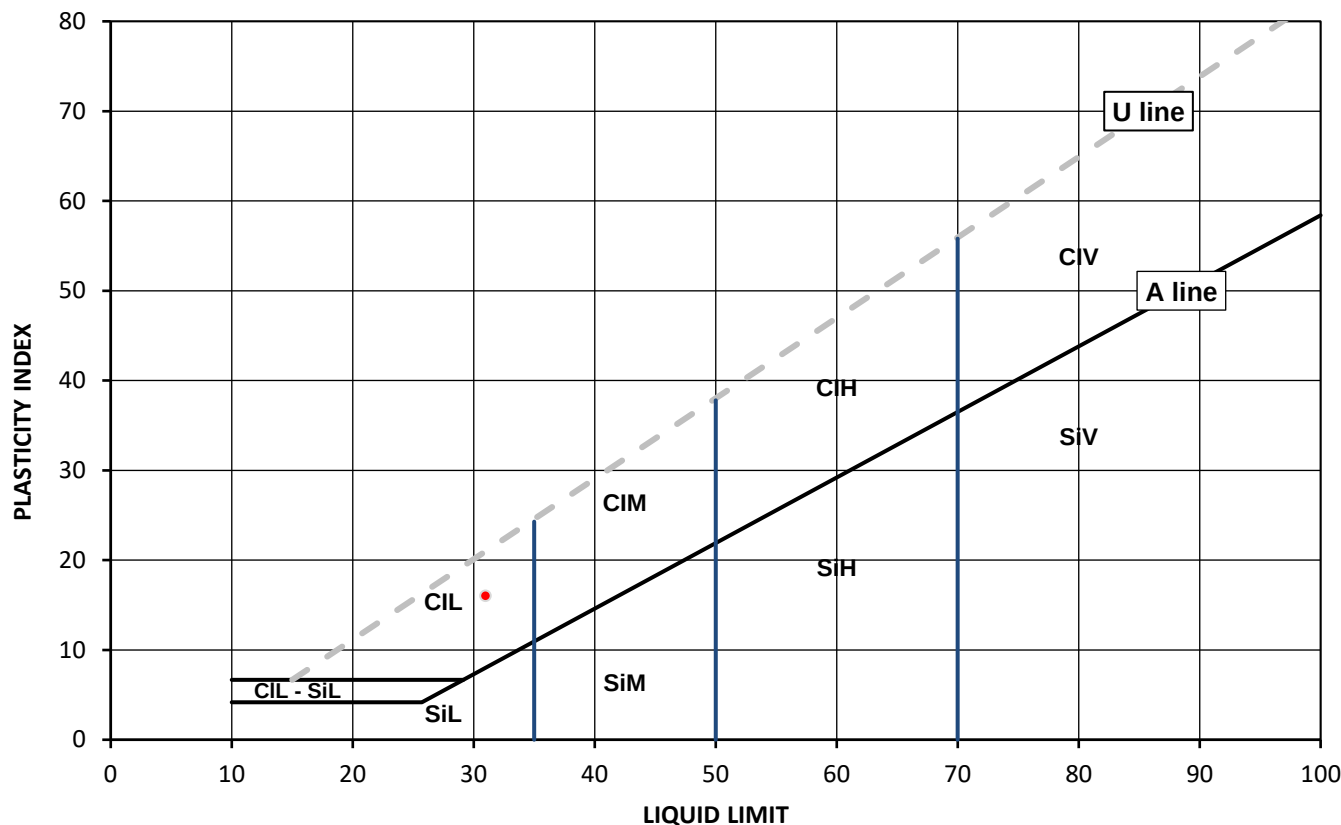
Depth Top [m]: 1.00

Depth Base [m]: Not Given

Sample Type: B

Sample Preparation: Tested after >425 µm removed by hand

As Received Water Content [W] %	Liquid Limit [WL] %	Plastic Limit [Wp] %	Plasticity Index [Ip] %	% Passing 425µm BS Test Sieve
15	31	15	16	96



Legend, based on BS EN ISO 14688 2:2018 Geotechnical investigation and testing – Identification and classification of soil

	Plasticity	Liquid Limit
Cl Clay	L Low	below 35
Si Silt	M Medium	35 to 50
	H High	50 to 70
	V Very high	exceeding 70
	O Organic	append to classification for organic material (eg CIHO)

Note: Water Content by BS 1377-2: 1990: Clause 3.2

Remarks:

Signed:

Katarzyna Koziel

Katarzyna Koziel
Reporting Specialist
for and on behalf of i2 Analytical Ltd

Opinions and interpretations expressed herein are outside of the scope of the UKAS Accreditation. This report may not be reproduced other than in full without the prior written approval of the issuing laboratory. The results included within the report relate only to the sample(s) submitted for testing.



TEST CERTIFICATE

DETERMINATION OF LIQUID AND PLASTIC LIMITS

Tested in Accordance with: BS 1377-2:1990: Clause 4.4 and 5

i2 Analytical Ltd
Unit 8 Harrowden Road
Brackmills Industrial Estate
Northampton NN4 7EB



Environmental Science

4041

Client: Travis Baker Geo-Environmental Limited

Client Address: Trinity Point, New Road,
Halesowen, West Midlands,
B63 3HY

Contact: Daniel Potts

Site Address: Burroughs Road Ratby

Testing carried out at i2 Analytical Limited, ul. Pionierow, 41-711 Ruda Slaska, Poland

Client Reference: 22069

Job Number: 23-48829-1

Date Sampled: Not Given

Date Received: 02/08/2023

Date Tested: 11/08/2023

Sampled By: Not Given

Test Results:

Laboratory Reference: 2769664

Hole No.: TP05

Sample Reference: Not Given

Sample Description: Orangish brown slightly gravelly slightly sandy CLAY

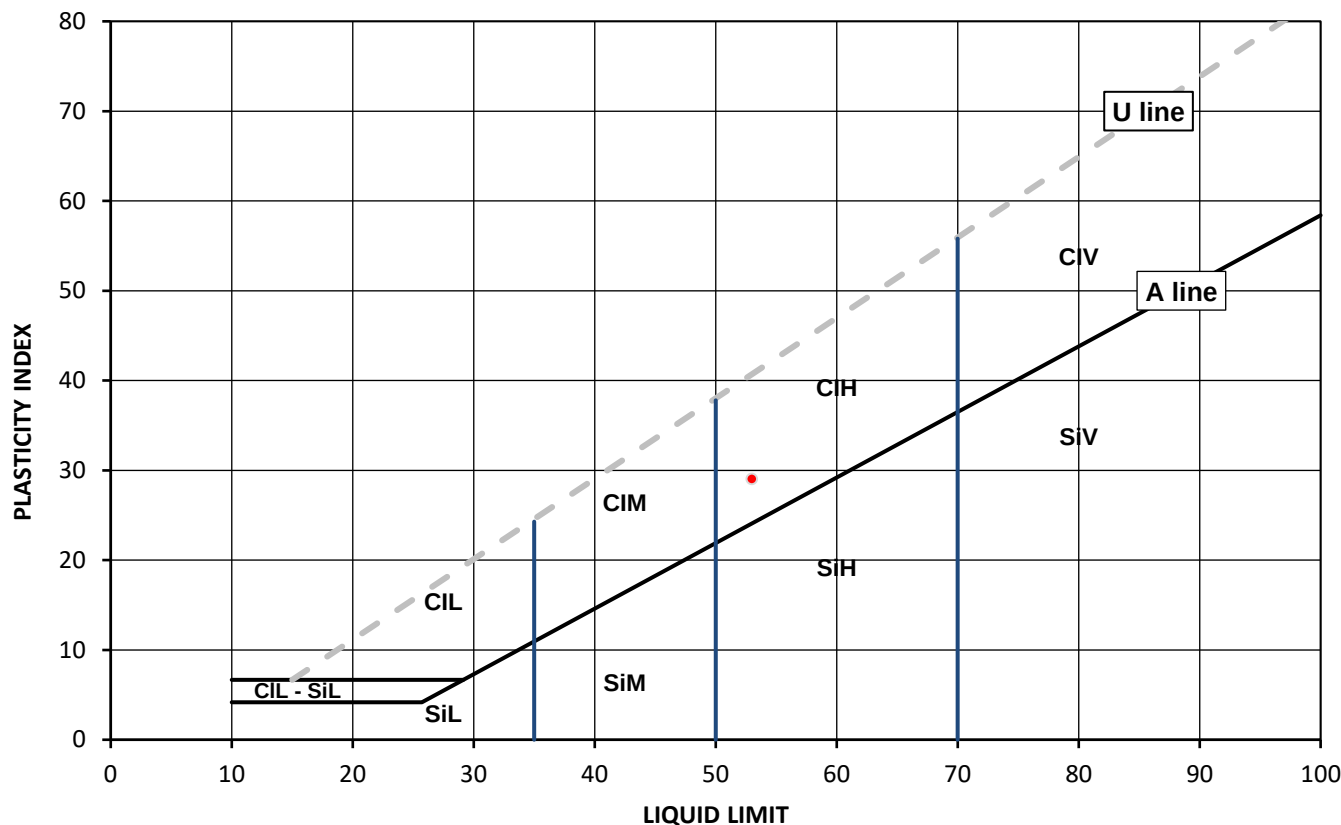
Depth Top [m]: 1.30

Depth Base [m]: Not Given

Sample Type: B

Sample Preparation: Tested after washing to remove >425 µm

As Received Water Content [W] %	Liquid Limit [WL] %	Plastic Limit [Wp] %	Plasticity Index [Ip] %	% Passing 425µm BS Test Sieve
23	53	24	29	73



Legend, based on BS EN ISO 14688 2:2018 Geotechnical investigation and testing – Identification and classification of soil

	Plasticity	Liquid Limit
Cl	Clay	below 35
Si	Silt	35 to 50
	L	Low
	M	Medium
	H	High
	V	Very high
	O	Organic
		append to classification for organic material (eg CIHO)

Note: Water Content by BS 1377-2: 1990: Clause 3.2

Remarks:

Signed:

Katarzyna Koziel

Katarzyna Koziel
Reporting Specialist
for and on behalf of i2 Analytical Ltd

Opinions and interpretations expressed herein are outside of the scope of the UKAS Accreditation. This report may not be reproduced other than in full without the prior written approval of the issuing laboratory. The results included within the report relate only to the sample(s) submitted for testing.



TEST CERTIFICATE

DETERMINATION OF LIQUID AND PLASTIC LIMITS

Tested in Accordance with: BS 1377-2:1990: Clause 4.4 and 5

i2 Analytical Ltd
Unit 8 Harrowden Road
Brackmills Industrial Estate
Northampton NN4 7EB



Environmental Science

4041

Client: Travis Baker Geo-Environmental Limited

Client Address: Trinity Point, New Road,
Halesowen, West Midlands,
B63 3HY

Contact: Daniel Potts

Site Address: Burroughs Road Ratby

Testing carried out at i2 Analytical Limited, ul. Pionierow, 41-711 Ruda Slaska, Poland

Client Reference: 22069

Job Number: 23-48829-1

Date Sampled: Not Given

Date Received: 02/08/2023

Date Tested: 11/08/2023

Sampled By: Not Given

Test Results:

Laboratory Reference: 2769666

Hole No.: TP08

Sample Reference: Not Given

Sample Description: Orangish brown mottled grey slightly gravelly slightly sandy silty CLAY

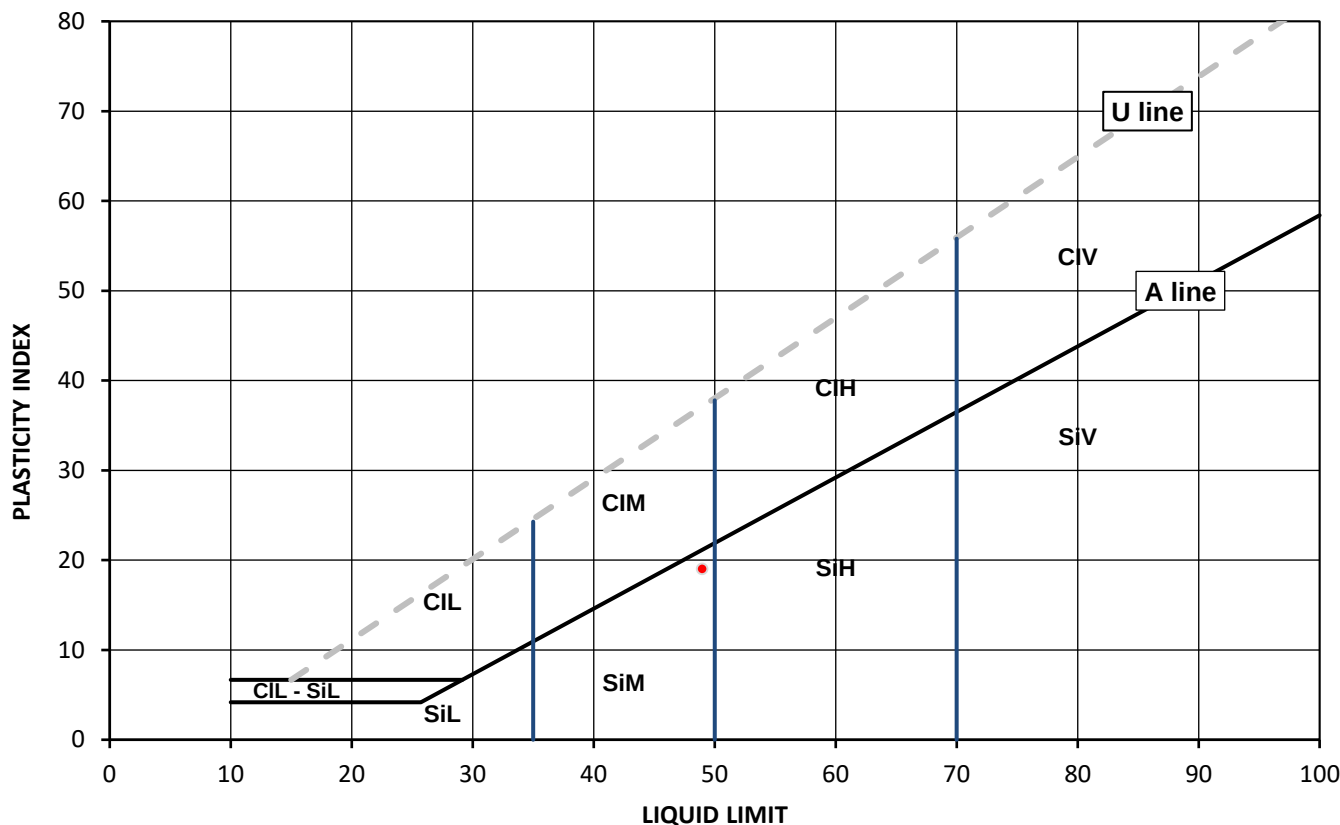
Depth Top [m]: 1.50

Depth Base [m]: Not Given

Sample Type: B

Sample Preparation: Tested after >425 µm removed by hand

As Received Water Content [W] %	Liquid Limit [WL] %	Plastic Limit [Wp] %	Plasticity Index [Ip] %	% Passing 425µm BS Test Sieve
36	49	30	19	98



Legend, based on BS EN ISO 14688 2:2018 Geotechnical investigation and testing – Identification and classification of soil

	Plasticity	Liquid Limit
Cl	Clay	below 35
Si	Silt	35 to 50
		50 to 70
		exceeding 70
		append to classification for organic material (eg CIHO)
	L Low	
	M Medium	
	H High	
	V Very high	
	O Organic	

Note: Water Content by BS 1377-2: 1990: Clause 3.2

Remarks:

Signed:

Katarzyna Koziel

Katarzyna Koziel
Reporting Specialist
for and on behalf of i2 Analytical Ltd

Opinions and interpretations expressed herein are outside of the scope of the UKAS Accreditation. This report may not be reproduced other than in full without the prior written approval of the issuing laboratory. The results included within the report relate only to the sample(s) submitted for testing.



SUMMARY REPORT

SUMMARY OF CLASSIFICATION TEST RESULTS

Tested in Accordance with:

i2 Analytical Ltd
Unit 8 Harrowden Road
Brackmills Industrial Estate
Northampton NN4 7EB



Environmental Science

4041

Client: Travis Baker Geo-Environmental Limited

Water Content by BS 1377-2:1990: Clause 3.2 Atterberg by BS 1377-2: 1990:
Clause 4.3 (4 Point Test), Clause 4.4 (1 Point Test) and 5

Client Reference: 22069

Client Address: Trinity Point, New Road,
Halesowen, West Midlands,
B63 3HY

Job Number: 23-48829-1

Contact: Daniel Potts

Date Sampled: Not Given

Site Address: Burroughs Road Ratby

Date Received: 02/08/2023

Date Tested: 11/08 - 16/08/2023

Sampled By: Not Given

Testing carried out at i2 Analytical Limited, ul. Pionierow, 41-711 Ruda Slaska, Poland

Test results

Laboratory Reference	Hole No.	Sample				Description	Remarks	Water Content BS 1377-2 [W] %	Water Content BS EN ISO 17892-1 [W] %	Atterberg				Density			Total Porosity# %		
		Reference	Depth Top	Depth Base	Type					% Passing 425um	WL	Wp	Ip	bulk	dry	PD			
			m	m															
2769660	TP01	Not Given	1.70	Not Given	B	Reddish brown mottled light grey sandy clayey SILT	Atterberg 1 Point	33		100	39	27	12						
2769662	TP03	Not Given	2.20	Not Given	B	Grey slightly gravelly very sandy CLAY	Atterberg 1 Point	24		87	34	19	15						
2769663	TP04	Not Given	1.00	Not Given	B	Reddish brown mottled light grey sandy CLAY	Atterberg 1 Point	15		96	31	15	16						
2769664	TP05	Not Given	1.30	Not Given	B	Orangish brown slightly gravelly slightly sandy CLAY	Atterberg 1 Point	23		73	53	24	29						
2769666	TP08	Not Given	1.50	Not Given	B	Orangish brown mottled grey slightly gravelly slightly sandy silty CLAY	Atterberg 1 Point	36		98	49	30	19						

Note: # Non accredited; NP - Non plastic

Comments:

Signed:

Katarzyna Koziel

Katarzyna Koziel
Reporting Specialist
for and on behalf of i2 Analytical Ltd

Opinions and interpretations expressed herein are outside of the scope of the UKAS Accreditation. This report may not be reproduced other than in full without the prior written approval of the issuing laboratory. The results included within the report relate only to the sample(s) submitted for testing.



SUMMARY REPORT

DETERMINATION OF WATER CONTENT

Tested in Accordance with: BS 1377-2: 1990: Clause 3.2

i2 Analytical Ltd
Unit 8 Harrowden Road
Brackmills Industrial Estate
Northampton NN4 7EB



Environmental Science

4041

Client: Travis Baker Geo-Environmental Limited

Client Address: Trinity Point, New Road,
Halesowen, West Midlands,
B63 3HY

Contact: Daniel Potts

Site Address: Burroughs Road Ratby

Testing carried out at i2 Analytical Limited, ul. Pionierow, 41-711 Ruda Slaska, Poland

Client Reference: 22069

Job Number: 23-48829-1

Date Sampled: Not Given

Date Received: 02/08/2023

Date Tested: 11/08 - 16/08/2023

Sampled By: Not Given

Test results

Laboratory Reference	Hole No.	Sample				Description	Remarks	WC	Sample preparation / Oven temperature at the time of testing			
		Reference	Depth Top m	Depth Base m	Type							
2769660	TP01	Not Given	1.70	Not Given	B	Reddish brown mottled light grey sandy clayey SILT		33	Sample was quartered, oven dried at 109 °C			
2769662	TP03	Not Given	2.20	Not Given	B	Grey slightly gravelly very sandy CLAY		24	Sample was quartered, oven dried at 109 °C			
2769663	TP04	Not Given	1.00	Not Given	B	Reddish brown mottled light grey sandy CLAY		15	Sample was quartered, oven dried at 109 °C			
2769664	TP05	Not Given	1.30	Not Given	B	Orangish brown slightly gravelly slightly sandy CLAY		23	Sample was quartered, oven dried at 106.1 °C			
2769666	TP08	Not Given	1.50	Not Given	B	Orangish brown mottled grey slightly gravelly slightly sandy silty CLAY		36	Sample was quartered, oven dried at 106.1 °C			

Comments:

Opinions and interpretations expressed herein are outside of the scope of the UKAS Accreditation. This report may not be reproduced other than in full without the prior written approval of the issuing laboratory. The results included within the report relate only to the sample(s) submitted for testing.

Signed:

Katarzyna Koziel

Katarzyna Koziel
Reporting Specialist
for and on behalf of i2 Analytical Ltd



TEST CERTIFICATE

DETERMINATION OF PARTICLE SIZE DISTRIBUTION

Tested in Accordance with: BS 1377-2: 1990

i2 Analytical Ltd
Unit 8 Harrowden Road
Brackmills Industrial Estate
Northampton NN4 7EB



Environmental Science

4041

Client: Travis Baker Geo-Environmental Limited

Client Address: Trinity Point, New Road,
Halesowen, West Midlands,
B63 3HY

Contact: Daniel Potts

Site Address: Burroughs Road Ratby

Testing carried out at i2 Analytical Limited, ul. Pionierow, 41-711 Ruda Slaska, Poland

Client Reference: 22069

Job Number: 23-48829-1

Date Sampled: Not Given

Date Received: 02/08/2023

Date Tested: 11/08/2023

Sampled By: Not Given

Test Results:

Laboratory Reference: 2769661

Hole No.: TP02

Sample Reference: Not Given

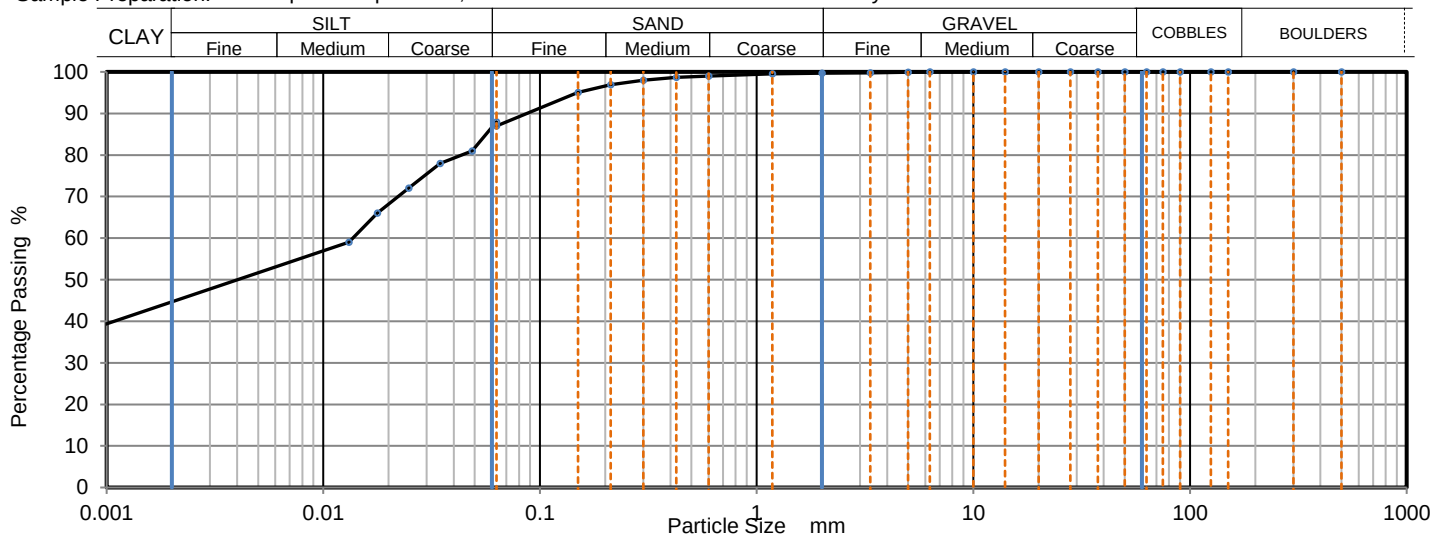
Sample Description: Orangish brown mottled grey CLAY

Sample Preparation: Sample was quartered, oven dried at 106.1 °C and broken down by hand.

Depth Top [m]: 1.40

Depth Base [m]: Not Given

Sample Type: B



Sieving		Sedimentation	
Particle Size mm	% Passing	Particle Size mm	% Passing
500	100	0.0630	88
300	100	0.0486	81
150	100	0.0346	78
125	100	0.0248	72
90	100	0.0178	66
75	100	0.0131	59
63	100	0.0008	38
50	100		
37.5	100		
28	100		
20	100		
14	100		
10	100		
6.3	100		
5	100		
3.35	100	Particle density (assumed) 2.65 Mg/m ³	
2	100		
1.18	100		
0.6	99		
0.425	99		
0.3	98		
0.212	97		
0.15	95		
0.063	88		

Sample Proportions	% dry mass
Very coarse	0
Gravel	0
Sand	12
Silt	44
Clay	44

Grading Analysis	
D100	mm
D60	mm
D30	mm
D10	mm
Uniformity Coefficient	> 16
Curvature Coefficient	

Uniformity and Curvature Coefficient calculated in accordance with BS EN ISO 14688-2:2018

Note: Tested in Accordance with BS1377:Part 2:1990, clauses 9.2 and 9.5

Remarks:

Signed:

Katarzyna Koziel

Katarzyna Koziel
Reporting Specialist
for and on behalf of i2 Analytical Ltd

Opinions and interpretations expressed herein are outside of the scope of the UKAS Accreditation. This report may not be reproduced other than in full without the prior written approval of the issuing laboratory. The results included within the report relate only to the sample(s) submitted for testing.



TEST CERTIFICATE

DETERMINATION OF PARTICLE SIZE DISTRIBUTION

Tested in Accordance with: BS 1377-2: 1990

i2 Analytical Ltd
Unit 8 Harrowden Road
Brackmills Industrial Estate
Northampton NN4 7EB



Environmental Science

4041

Client: Travis Baker Geo-Environmental Limited

Client Address: Trinity Point, New Road,
Halesowen, West Midlands,
B63 3HY

Contact: Daniel Potts

Site Address: Burroughs Road Ratby

Testing carried out at i2 Analytical Limited, ul. Pionierow, 41-711 Ruda Slaska, Poland

Client Reference: 22069

Job Number: 23-48829-1

Date Sampled: Not Given

Date Received: 02/08/2023

Date Tested: 16/08/2023

Sampled By: Not Given

Test Results:

Laboratory Reference: 2769663

Hole No.: TP04

Sample Reference: Not Given

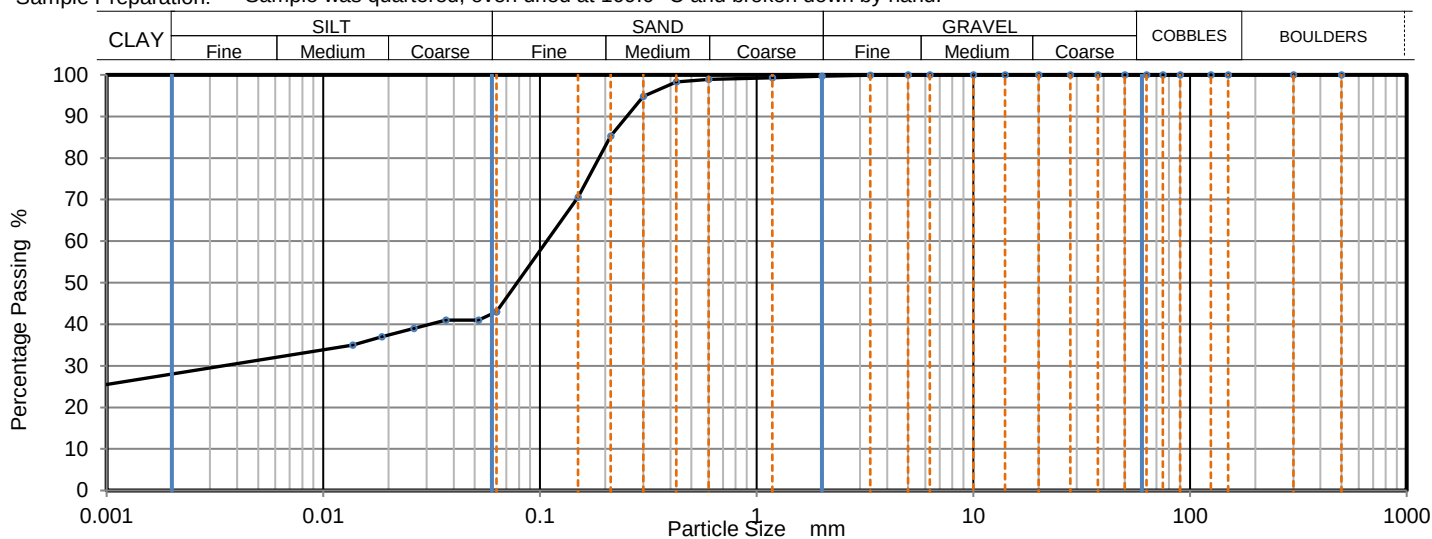
Sample Description: Reddish brown mottled light grey sandy CLAY

Sample Preparation: Sample was quartered, oven dried at 109.0 °C and broken down by hand.

Depth Top [m]: 1.00

Depth Base [m]: Not Given

Sample Type: B



Sieving		Sedimentation	
Particle Size mm	% Passing	Particle Size mm	% Passing
500	100	0.0630	43
300	100	0.0520	41
150	100	0.0368	41
125	100	0.0262	39
90	100	0.0186	37
75	100	0.0137	35
63	100	0.009	25
50	100		
37.5	100		
28	100		
20	100		
14	100		
10	100		
6.3	100		
5	100		
3.35	100	Particle density (assumed) 2.65 Mg/m3	
2	100		
1.18	99		
0.6	99		
0.425	98		
0.3	95		
0.212	85		
0.15	71		
0.063	43		

Sample Proportions	% dry mass
Very coarse	0
Gravel	0
Sand	56
Silt	16
Clay	28

Grading Analysis	
D100	mm
D60	mm
D30	mm
D10	mm
Uniformity Coefficient	> 120
Curvature Coefficient	

Uniformity and Curvature Coefficient calculated in accordance with BS EN ISO 14688-2:2018

Note: Tested in Accordance with BS1377:Part 2:1990, clauses 9.2 and 9.5

Remarks:

Signed:

Katarzyna Koziel

Katarzyna Koziel
Reporting Specialist
for and on behalf of i2 Analytical Ltd

Opinions and interpretations expressed herein are outside of the scope of the UKAS Accreditation. This report may not be reproduced other than in full without the prior written approval of the issuing laboratory. The results included within the report relate only to the sample(s) submitted for testing.



TEST CERTIFICATE

DETERMINATION OF PARTICLE SIZE DISTRIBUTION

Tested in Accordance with: BS 1377-2: 1990

i2 Analytical Ltd
Unit 8 Harrowden Road
Brackmills Industrial Estate
Northampton NN4 7EB



Environmental Science

4041

Client: Travis Baker Geo-Environmental Limited
Client Address: Trinity Point, New Road,
Halesowen, West Midlands,
B63 3HY
Contact: Daniel Potts
Site Address: Burroughs Road Ratby

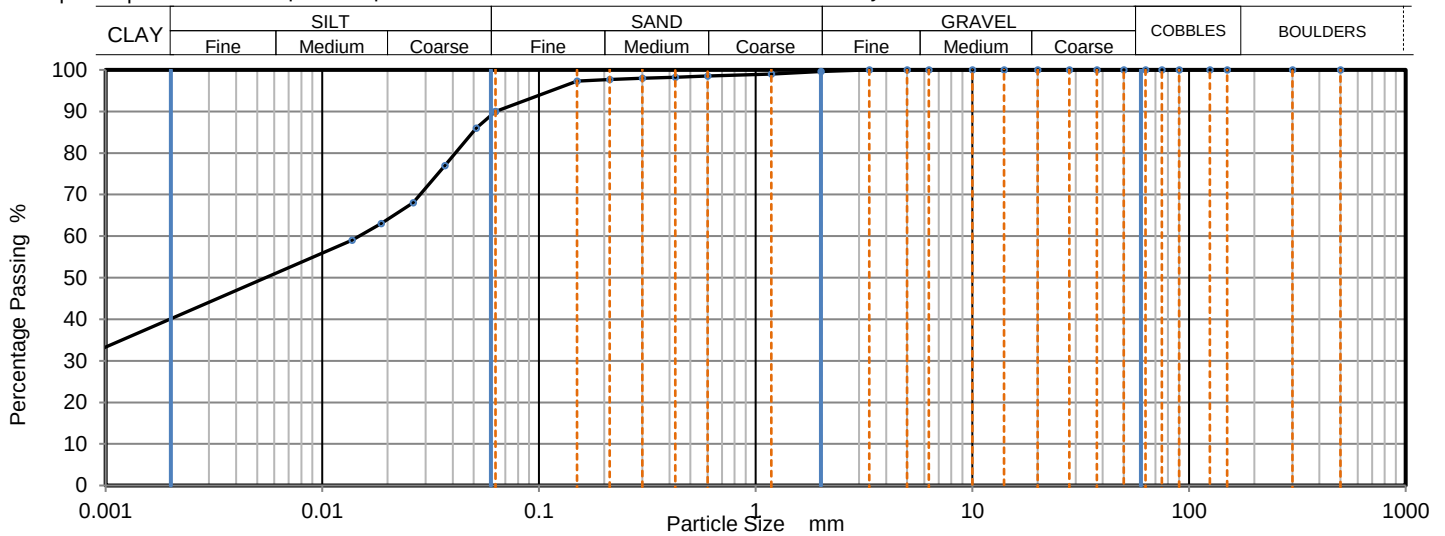
Client Reference: 22069
Job Number: 23-48829-1
Date Sampled: Not Given
Date Received: 02/08/2023
Date Tested: 16/08/2023
Sampled By: Not Given

Testing carried out at i2 Analytical Limited, ul. Pionierow, 41-711 Ruda Slaska, Poland

Test Results:

Laboratory Reference: 2769665
Hole No.: TP07
Sample Reference: Not Given
Sample Description: Reddish brown mottled light grey CLAY
Sample Preparation: Sample was quartered, oven dried at 109.0 °C and broken down by hand.

Depth Top [m]: 1.60
Depth Base [m]: Not Given
Sample Type: B



Sieving		Sedimentation	
Particle Size mm	% Passing	Particle Size mm	% Passing
500	100	0.0630	90
300	100	0.0513	86
150	100	0.0367	77
125	100	0.0263	68
90	100	0.0187	63
75	100	0.0137	59
63	100	0.009	32
50	100		
37.5	100		
28	100		
20	100		
14	100		
10	100		
6.3	100		
5	100		
3.35	100	Particle density (assumed) 2.65 Mg/m3	
2	100		
1.18	99		
0.6	99		
0.425	98		
0.3	98		
0.212	98		
0.15	97		
0.063	90		

Sample Proportions	% dry mass
Very coarse	0
Gravel	0
Sand	9
Silt	51
Clay	40

Grading Analysis		
D100	mm	5
D60	mm	0.0151
D30	mm	
D10	mm	
Uniformity Coefficient		> 17
Curvature Coefficient		

Uniformity and Curvature Coefficient calculated in accordance with BS EN ISO 14688-2:2018

Note: Tested in Accordance with BS1377:Part 2:1990, clauses 9.2 and 9.5

Remarks:

Signed:

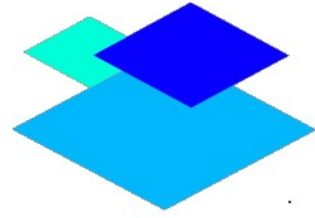
Katarzyna Koziel

Katarzyna Koziel
Reporting Specialist
for and on behalf of i2 Analytical Ltd

Opinions and interpretations expressed herein are outside of the scope of the UKAS Accreditation. This report may not be reproduced other than in full without the prior written approval of the issuing laboratory. The results included within the report relate only to the sample(s) submitted for testing.

APPENDIX 6

Dynamic Cone Penetrometer Test Results



TEST REPORT: **TRRL DYNAMIC CONE PENETROMETER TESTING**
In accordance with TRRL & in-house procedures (60° Cone)

REPORT No.:	CS/230243/010823/001	CLIENT:	Travis Baker
CLIENT REF:	DCP Test 1	ADDRESS:	Trinity Point, New Road, Halesowen, B63 3HY
DATE TESTED:	01/08/2023	SITE DETAILS:	Burrough Road, Ratby, LE6 0LS
DATE REPORTED:	01/08/2023	SURFACE MATERIAL:	Top Soil
TESTED BY:	C Skipworth	TEST LOCATION:	See map - DCP 1
LAYERS REMOVED:	No		

RESULTS

Gradient 1

Depth from:	50	mm	No. of Blows :	7	per layer	Estimated C.B.R Value (%):	6.6
Depth to:	310	mm	Blow Rate :	37.1	mm/blow		

Gradient 2

Depth from:	310	mm	No. of Blows :	33	per layer	Estimated C.B.R Value (%):	32
Depth to:	590	mm	Blow Rate :	8.5	mm/blow		

Gradient 3

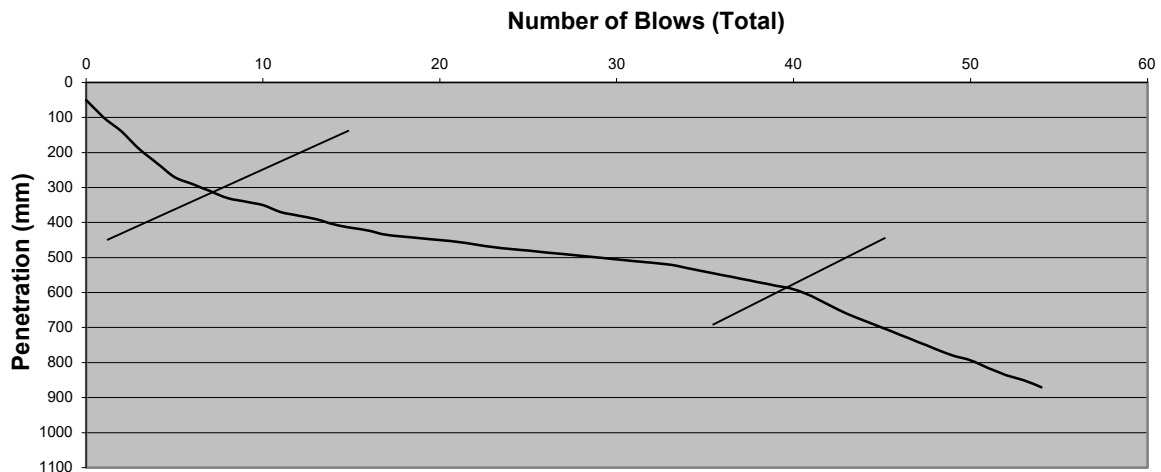
Depth from:	590	mm	No. of Blows :	14	per layer	Estimated C.B.R Value (%):	13
Depth to:	870	mm	Blow Rate :	20.0	mm/blow		

Gradient 4 (Not applicable)

Depth from:	-	mm	No. of Blows :	-	per layer	Estimated C.B.R Value (%):	
Depth to:	-	mm	Blow Rate :	-	mm/blow		

Gradient 5 (Not applicable)

Depth from:	-	mm	No. of Blows :	-	per layer	Estimated C.B.R Value (%):	
Depth to:	-	mm	Blow Rate :	-	mm/blow		



Depth of layer removed: 0 mm Layer Type: Surface Level

REMARKS: No voids noted during testing

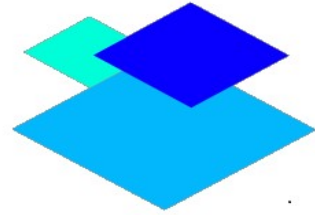
Certified that the testing was carried out in accordance with the DMH Testing In House Procedure based upon SHW Design manual IAN73/06. Results relate only to the location tested. Where external contractors have been used, or deviations from the standard method have been necessary, this will be noted in comments.

Signed:

For and on behalf of DMH Testing Ltd

[X] L McLundie - Director
[] P Jelfs - Director





TEST REPORT: **TRRL DYNAMIC CONE PENETROMETER TESTING**
In accordance with TRRL & in-house procedures (60° Cone)

REPORT No.:	CS/230243/010823/002	CLIENT:	Travis Baker
CLIENT REF:	DCP Test 2	ADDRESS:	Trinity Point, New Road, Halesowen, B63 3HY
DATE TESTED:	01/08/2023	SITE DETAILS:	Burrough Road, Ratby, LE6 0LS
DATE REPORTED:	01/08/2023	SURFACE MATERIAL:	Top Soil
TESTED BY:	C Skipworth	TEST LOCATION:	See map - DCP 2
LAYERS REMOVED:	No		

RESULTS

Gradient 1

Depth from:	30	mm	No. of Blows :	4	per layer	Estimated C.B.R Value (%)	3.3
Depth to:	320	mm	Blow Rate :	72.5	mm/blow		

Gradient 2

Depth from:	320	mm	No. of Blows :	17	per layer	Estimated C.B.R Value (%)	7.7
Depth to:	870	mm	Blow Rate :	32.4	mm/blow		

Gradient 3 (Not applicable)

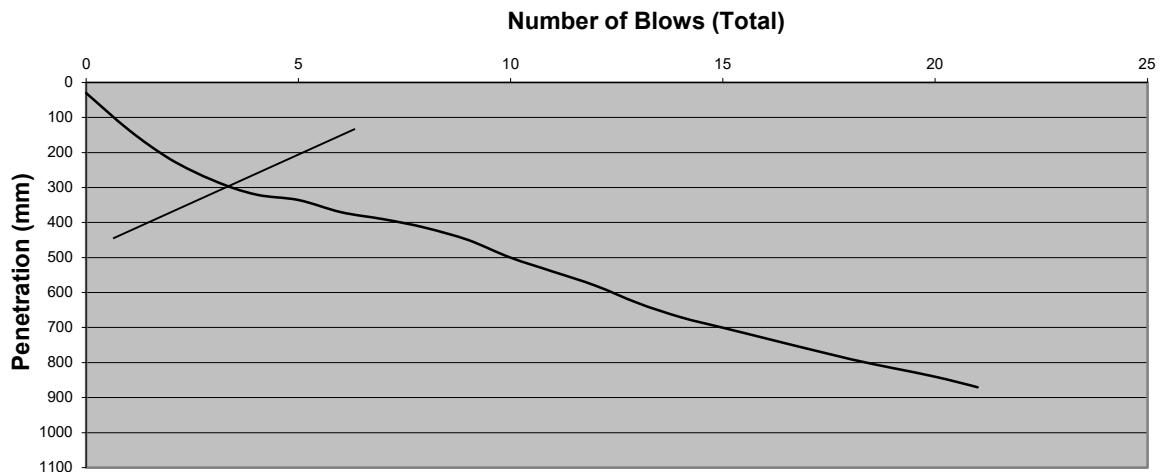
Depth from:	-	mm	No. of Blows :	-	per layer	Estimated C.B.R Value (%)	
Depth to:	-	mm	Blow Rate :	-	mm/blow		

Gradient 4 (Not applicable)

Depth from:	-	mm	No. of Blows :	-	per layer	Estimated C.B.R Value (%)	
Depth to:	-	mm	Blow Rate :	-	mm/blow		

Gradient 5 (Not applicable)

Depth from:	-	mm	No. of Blows :	-	per layer	Estimated C.B.R Value (%)	
Depth to:	-	mm	Blow Rate :	-	mm/blow		



Depth of layer removed: 0 mm Layer Type: Surface Level

REMARKS: No voids noted during testing

Certified that the testing was carried out in accordance with the DMH Testing In House Procedure based upon SHW Design manual IAN73/06. Results relate only to the location tested. Where external contractors have been used, or deviations from the standard method have been necessary, this will be noted in comments.

Signed:

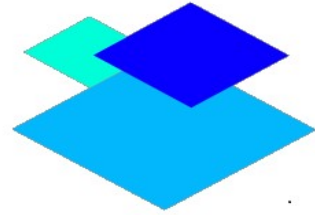
For and on behalf of DMH Testing Ltd

[X] L McLundie - Director

[] P Jelfs - Director



23594



TEST REPORT: **TRRL DYNAMIC CONE PENETROMETER TESTING**
In accordance with TRRL & in-house procedures (60° Cone)

REPORT No.:	CS/230243/010823/003	CLIENT:	Travis Baker
CLIENT REF:	DCP Test 3	ADDRESS:	Trinity Point, New Road, Halesowen, B63 3HY
DATE TESTED:	01/08/2023	SITE DETAILS:	Burrough Road, Ratby, LE6 0LS
DATE REPORTED:	01/08/2023	SURFACE MATERIAL:	Top Soil
TESTED BY:	C Skipworth	TEST LOCATION:	See map - DCP 3
LAYERS REMOVED:	No		

RESULTS

Gradient 1

Depth from:	25	mm	No. of Blows :	2	per layer	Estimated C.B.R Value (%)	3.5
Depth to:	160	mm	Blow Rate :	67.5	mm/blow		

Gradient 2

Depth from:	160	mm	No. of Blows :	20	per layer	Estimated C.B.R Value (%)	7.2
Depth to:	850	mm	Blow Rate :	34.5	mm/blow		

Gradient 3 (Not applicable)

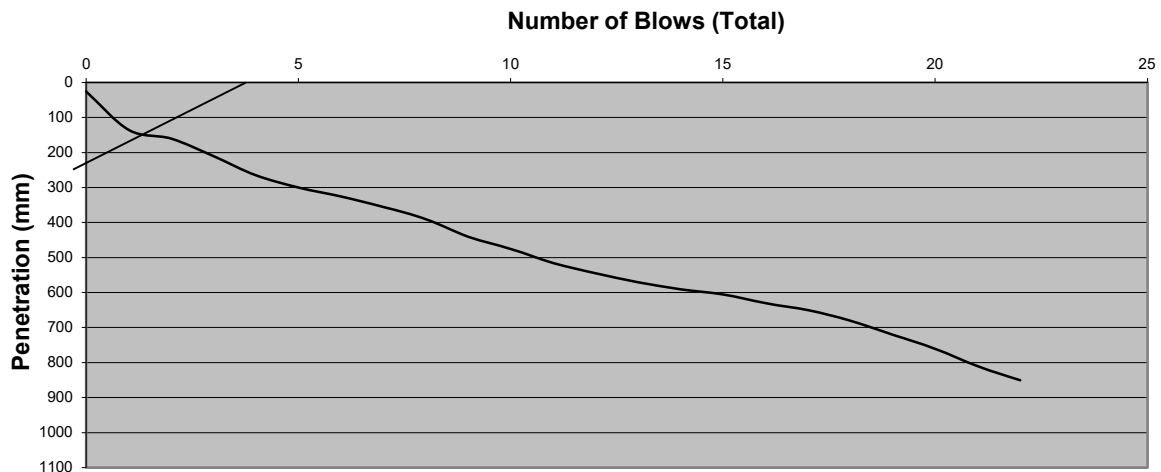
Depth from:	-	mm	No. of Blows :	-	per layer	Estimated C.B.R Value (%)	
Depth to:	-	mm	Blow Rate :	-	mm/blow		

Gradient 4 (Not applicable)

Depth from:	-	mm	No. of Blows :	-	per layer	Estimated C.B.R Value (%)	
Depth to:	-	mm	Blow Rate :	-	mm/blow		

Gradient 5 (Not applicable)

Depth from:	-	mm	No. of Blows :	-	per layer	Estimated C.B.R Value (%)	
Depth to:	-	mm	Blow Rate :	-	mm/blow		



Depth of layer removed: 0 mm Layer Type: Surface Level

REMARKS: No voids noted during testing

Certified that the testing was carried out in accordance with the DMH Testing In House Procedure based upon SHW Design manual IAN73/06. Results relate only to the location tested. Where external contractors have been used, or deviations from the standard method have been necessary, this will be noted in comments.

Signed:

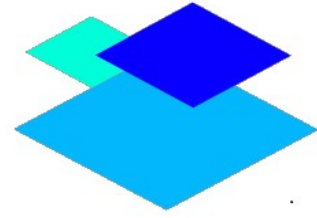
For and on behalf of DMH Testing Ltd

[X] L McLundie - Director

[] P Jelfs - Director



23594



TEST REPORT: **TRRL DYNAMIC CONE PENETROMETER TESTING**
In accordance with TRRL & in-house procedures (60° Cone)

REPORT No.:	CS/230243/010823/004	CLIENT:	Travis Baker
CLIENT REF:	DCP Test 4	ADDRESS:	Trinity Point, New Road, Halesowen, B63 3HY
DATE TESTED:	01/08/2023	SITE DETAILS:	Burrough Road, Ratby, LE6 0LS
DATE REPORTED:	01/08/2023	SURFACE MATERIAL:	Top Soil
TESTED BY:	C Skipworth	TEST LOCATION:	See map - DCP 4
LAYERS REMOVED:	No		

RESULTS

Gradient 1

Depth from:	30	mm	No. of Blows :	36	per layer	Estimated C.B.R Value (%)	11
Depth to:	870	mm	Blow Rate :	23.3	mm/blow		

Gradient 2 (Not applicable)

Depth from:	-	mm	No. of Blows :	-	per layer	Estimated C.B.R Value (%)	
Depth to:	-	mm	Blow Rate :	-	mm/blow		

Gradient 3 (Not applicable)

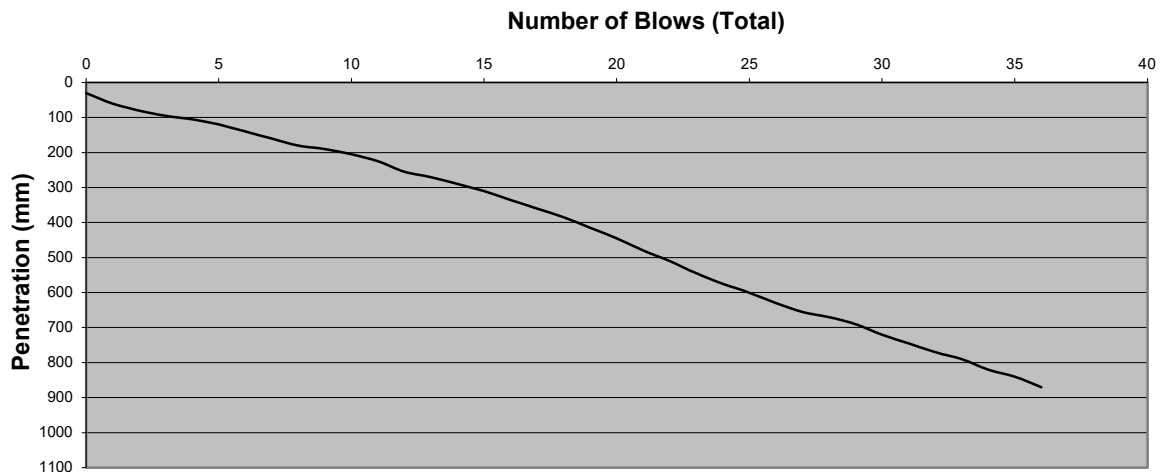
Depth from:	-	mm	No. of Blows :	-	per layer	Estimated C.B.R Value (%)	
Depth to:	-	mm	Blow Rate :	-	mm/blow		

Gradient 4 (Not applicable)

Depth from:	-	mm	No. of Blows :	-	per layer	Estimated C.B.R Value (%)	
Depth to:	-	mm	Blow Rate :	-	mm/blow		

Gradient 5 (Not applicable)

Depth from:	-	mm	No. of Blows :	-	per layer	Estimated C.B.R Value (%)	
Depth to:	-	mm	Blow Rate :	-	mm/blow		



Depth of layer removed: 0 mm Layer Type: Surface Level

REMARKS: No voids noted during testing

Certified that the testing was carried out in accordance with the DMH Testing In House Procedure based upon SHW Design manual IAN73/06. Results relate only to the location tested. Where external contractors have been used, or deviations from the standard method have been necessary, this will be noted in comments.

Signed:

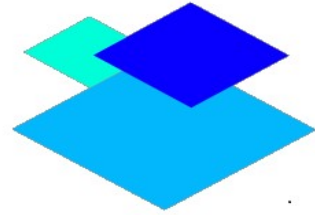
For and on behalf of DMH Testing Ltd

[X] L McLundie - Director

[] P Jelfs - Director



23594



TEST REPORT: **TRRL DYNAMIC CONE PENETROMETER TESTING**
In accordance with TRRL & in-house procedures (60° Cone)

REPORT No.:	CS/230243/010823/005	CLIENT:	Travis Baker
CLIENT REF:	DCP Test 5	ADDRESS:	Trinity Point, New Road, Halesowen, B63 3HY
DATE TESTED:	01/08/2023	SITE DETAILS:	Burrough Road, Ratby, LE6 0LS
DATE REPORTED:	01/08/2023	SURFACE MATERIAL:	Top Soil
TESTED BY:	C Skipworth	TEST LOCATION:	See map - DCP 5
LAYERS REMOVED:	No		

RESULTS

Gradient 1

Depth from:	140	mm	No. of Blows :	27	per layer	Estimated C.B.R Value (%)	9.3
Depth to:	865	mm	Blow Rate :	26.9	mm/blow		

Gradient 2 (Not applicable)

Depth from:	-	mm	No. of Blows :	-	per layer	Estimated C.B.R Value (%)	
Depth to:	-	mm	Blow Rate :	-	mm/blow		

Gradient 3 (Not applicable)

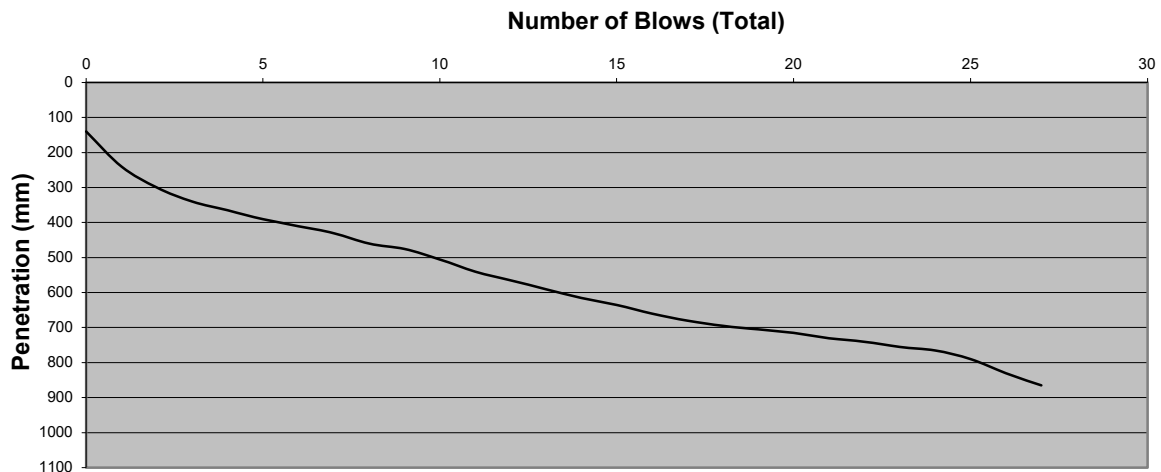
Depth from:	-	mm	No. of Blows :	-	per layer	Estimated C.B.R Value (%)	
Depth to:	-	mm	Blow Rate :	-	mm/blow		

Gradient 4 (Not applicable)

Depth from:	-	mm	No. of Blows :	-	per layer	Estimated C.B.R Value (%)	
Depth to:	-	mm	Blow Rate :	-	mm/blow		

Gradient 5 (Not applicable)

Depth from:	-	mm	No. of Blows :	-	per layer	Estimated C.B.R Value (%)	
Depth to:	-	mm	Blow Rate :	-	mm/blow		



Depth of layer removed: 0 mm Layer Type: Surface Level

REMARKS: No voids noted during testing

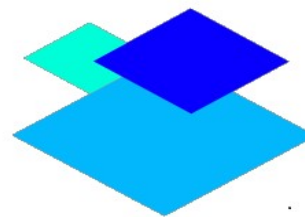
Certified that the testing was carried out in accordance with the DMH Testing In House Procedure based upon SHW Design manual IAN73/06. Results relate only to the location tested. Where external contractors have been used, or deviations from the standard method have been necessary, this will be noted in comments.

Signed:

For and on behalf of DMH Testing Ltd

[X] L McLundie - Director
[] P Jelfs - Director





TEST REPORT: **TRRL DYNAMIC CONE PENETROMETER TESTING**
In accordance with TRRL & in-house procedures (60° Cone)

REPORT No.:	CS/230243/010823/006	CLIENT:	Travis Baker
CLIENT REF:	DCP Test 6	ADDRESS:	Trinity Point, New Road, Halesowen, B63 3HY
DATE TESTED:	01/08/2023	SITE DETAILS:	Burrough Road, Ratby, LE6 0LS
DATE REPORTED:	01/08/2023	SURFACE MATERIAL:	Top Soil
TESTED BY:	C Skipworth	TEST LOCATION:	See map - DCP 6
LAYERS REMOVED:	No		

RESULTS

Gradient 1

Depth from:	270	mm	No. of Blows :	12	per layer	Estimated C.B.R Value (%)	9.4
Depth to:	590	mm	Blow Rate :	26.7	mm/blow		

Gradient 2

Depth from:	590	mm	No. of Blows :	13	per layer	Estimated C.B.R Value (%)	12
Depth to:	860	mm	Blow Rate :	20.8	mm/blow		

Gradient 3 (Not applicable)

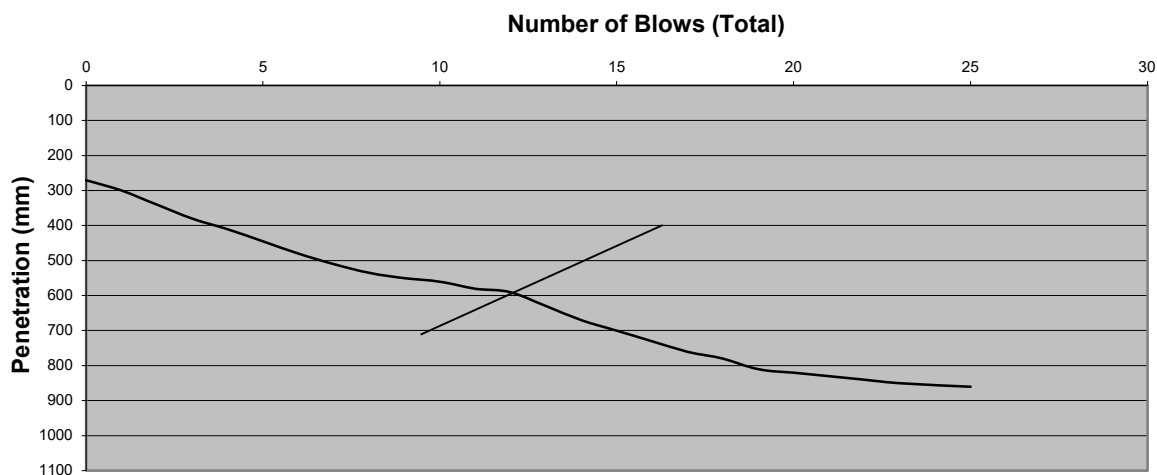
Depth from:	-	mm	No. of Blows :	-	per layer	Estimated C.B.R Value (%)	
Depth to:	-	mm	Blow Rate :	-	mm/blow		

Gradient 4 (Not applicable)

Depth from:	-	mm	No. of Blows :	-	per layer	Estimated C.B.R Value (%)	
Depth to:	-	mm	Blow Rate :	-	mm/blow		

Gradient 5 (Not applicable)

Depth from:	-	mm	No. of Blows :	-	per layer	Estimated C.B.R Value (%)	
Depth to:	-	mm	Blow Rate :	-	mm/blow		



Depth of layer removed: 0 mm Layer Type: Surface Level

REMARKS: No voids noted during testing

Certified that the testing was carried out in accordance with the DMH Testing In House Procedure based upon SHW Design manual IAN73/06. Results relate only to the location tested. Where external contractors have been used, or deviations from the standard method have been necessary, this will be noted in comments.

Signed:

For and on behalf of DMH Testing Ltd

[X] L McLundie - Director
[] P Jelfs - Director



Appendix 7

Adopted Generic Assessment Criteria for Long-term Human Health

BURROUGHS ROAD, RATBY
Appendix 7 – Long-Term Human Health Generic Assessment Criteria for Contamination Assessment (Soils)

Substance	Source	Target Value (mg/kg)
Inorganic Mercury	CIEH/LQM – S4UL	40
Selenium	CIEH/LQM – S4UL	250
Arsenic	C4SL	37
Nickel	CIEH/LQM – S4UL	180
Cadmium	C4SL	26
Boron	CIEH/LQM – S4UL	290
Chromium (III)	CIEH/LQM – S4UL	910
Copper	CIEH/LQM – S4UL	2,400
Lead	C4SL	200
Zinc	CIEH/LQM – S4UL	3,750
Asbestos	In House	0.001%
Acenaphthene	CIEH/LQM – S4UL	210
Acenaphthylene	CIEH/LQM – S4UL	170
Anthracene	CIEH/LQM – S4UL	2,400
Benzo(a)anthracene	CIEH/LQM – S4UL	7.2
Benzo(a)pyrene	CIEH/LQM – S4UL	2.2
Benzo(b)fluoranthene	CIEH/LQM – S4UL	2.6
Benzo(ghi)perylene	CIEH/LQM – S4UL	320
Benzo(k)fluoranthene	CIEH/LQM – S4UL	77
Chrysene	CIEH/LQM – S4UL	15
Dibenzo(ah)anthracene	CIEH/LQM – S4UL	0.24
Fluoranthene	CIEH/LQM – S4UL	280
Fluorene	CIEH/LQM – S4UL	170
Indeno(123-cd)pyrene	CIEH/LQM – S4UL	27
Naphthalene	CIEH/LQM – S4UL	2.3
Phenanthrene	CIEH/LQM – S4UL	95
Pyrene	CIEH/LQM – S4UL	620

Notes

CIEH/LQM - Suitable for Use Level (S4UL) published by the Chartered Institute of Environmental Health (CIEH) and Land Quality Management (LQM) dated January 2015 (Copyright Land Quality Management Ltd reproduced with permission; Publication Number S4UL3689).

C4SL - Category 4 Screening Levels published by DEFRA in 2014