SUMMARY REPORT

SUMMARY OF CLASSIFICATION TEST RESULTS

Tested in Accordance with:

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; PD by BS 1377-2: 1990: Clause 8.2

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

4041

Client: Johnson Poole & Bloomer

Client Address: Unit 8, Shaw House, Two Woods Lane, Brierley Hill, DY5 1TA

Contact: David Pacheco

Site Address: Ickenham

Client Reference: WB307
Job Number: 22-52085
Date Sampled: Not Given
Date Received: 11/04/2022
Date Tested: 26/04 - 10/05/2022
Sampled By: Not Given

Testing carried out at i2 Analytical Limited, ul. Pionierow 39, 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				%	%	%	%	%	%	Mg/m3	Mg/m3	Mg/m3	%		
2252231	TP04	Not Given	3.00	Not Given	D	Yellowish brown slightly gravelly slightly sandy CLAY	Atterberg 1 Point	21		99	57	24	33						
2252230	TP12	Not Given	3.00	Not Given	D	Brown CLAY	Atterberg 1 Point	28		100	68	28	40						
2240680	WS01	Not Given	1.40	1.50	D	Brown CLAY	Atterberg 1 Point	29		100	70	24	46						
2240681	WS02	Not Given	2.00	2.20	D	Brownish grey gravelly sandy CLAY	Atterberg 1 Point	8.4		60	44	22	22						
2240685	WS03	Not Given	2.80	3.00	D	Brown slightly sandy CLAY	Atterberg 1 Point	20		100	48	20	28						
2240686	WS04	Not Given	0.80	0.90	D	Light brown CLAY	Atterberg 1 Point	29		100	76	27	49						
2240687	WS04	Not Given	1.80	1.90	D	Brown CLAY	Atterberg 1 Point	27		100	62	22	40						
2240688	WS06	Not Given	2.80	3.00	D	Light brown slightly sandy CLAY	Atterberg 1 Point	24		100	49	20	29						
2240683	WS07	Not Given	1.80	1.90	D	Brown CLAY	Atterberg 1 Point	26		100	69	27	42						
2240684	WS07	Not Given	3.50	3.60	D	Brown slightly sandy CLAY	Atterberg 1 Point	20		100	57	20	37						

Note: # Non accredited; NP - Non plastic

Comments:

Signed:

Anna Dudzinska
PL Deputy Head of Reporting Team
for and on behalf of i2 Analytical Ltd

Date Reported: 12/05/2022

GF 234.14

SUMMARY REPORT

SUMMARY OF CLASSIFICATION TEST RESULTS

Tested in Accordance with:

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

4041

Client: Johnson Poole & Bloomer

Client Address: Unit 8, Shaw House, Two Woods Lane, Brierley Hill, DY5 1TA

Contact: David Pacheco

Site Address: Ickenham

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; PD by BS 1377-2: 1990: Clause 8.2

Client Reference: WB307
Job Number: 22-52085
Date Sampled: 08/04/2022
Date Received: 11/04/2022
Date Tested: 26/04/2022
Sampled By: Not Given

Testing carried out at i2 Analytical Limited, ul. Pionierow 39, 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				%	%	%	%	%	%	Mg/m3	Mg/m3	Mg/m3	%		
2240690	WS08	Not Given	1.80	1.90	D	Light brown CLAY	Atterberg 1 Point	29		100	70	26	44						
2240691	WS08	Not Given	3.10	3.20	D	Brown CLAY	Atterberg 1 Point	27		100	67	25	42						
2240692	WS09	Not Given	1.00	1.20	D	Brown CLAY	Atterberg 1 Point	29		100	73	28	45						
2240693	WS09	Not Given	2.50	2.70	D	Brown CLAY	Atterberg 1 Point	29		100	70	26	44						
2240695	WS11	Not Given	1.80	2.00	D	Brown CLAY	Atterberg 1 Point	31		100	75	28	47						
2240694	WS12	Not Given	2.50	2.60	D	Brown CLAY	Atterberg 1 Point	33		100	80	27	53						

Note: # Non accredited; NP - Non plastic

Comments:

Signed:

Anna Dudzinska
PL Deputy Head of Reporting Team
for and on behalf of i2 Analytical Ltd

Date Reported: 12/05/2022

GF 234.14

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

4041

Client: Johnson Poole & Bloomer

Client Address: Unit 8, Shaw House,
Two Woods Lane, Brierley Hill,
DY5 1TA

Contact: David Pacheco

Site Address: Ickenham

Client Reference: WB307
Job Number: 22-52085
Date Sampled: Not Given
Date Received: 11/04/2022
Date Tested: 26/04 - 10/05/2022
Sampled By: Not Given

Testing carried out at i2 Analytical Limited, ul. Pionierow 39, 41-711 Ruda Slaska, Poland

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			%				
2252231	TP04	Not Given	3.00	Not Given	D	Yellowish brown slightly gravelly slightly sandy CLAY		21	Sample was quartered, oven dried at 108.5 °C			
2252230	TP12	Not Given	3.00	Not Given	D	Brown CLAY		28	Sample was quartered, oven dried at 108.9 °C			
2240680	WS01	Not Given	1.40	1.50	D	Brown CLAY		29	Sample was quartered, oven dried at 108.5 °C			
2240681	WS02	Not Given	2.00	2.20	D	Brownish grey gravelly sandy CLAY		8.4	Sample was quartered, oven dried at 108.5 °C			
2240685	WS03	Not Given	2.80	3.00	D	Brown slightly sandy CLAY		20	Sample was quartered, oven dried at 106.0 °C			
2240686	WS04	Not Given	0.80	0.90	D	Light brown CLAY		29	Sample was quartered, oven dried at 108.5 °C			
2240687	WS04	Not Given	1.80	1.90	D	Brown CLAY		27	Sample was quartered, oven dried at 109 °C			
2240688	WS06	Not Given	2.80	3.00	D	Light brown slightly sandy CLAY		24	Sample was quartered, oven dried at 108.5 °C			
2240683	WS07	Not Given	1.80	1.90	D	Brown CLAY		26	Sample was quartered, oven dried at 108.5 °C			
2240684	WS07	Not Given	3.50	3.60	D	Brown slightly sandy CLAY		20	Sample was quartered, oven dried at 108.5 °C			

Comments:

Signed:

Anna Dudzinska
PL Deputy Head of Reporting Team
for and on behalf of i2 Analytical Ltd

Date Reported: 11/05/2022

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

4041

Client: Johnson Poole & Bloomer

Client Address: Unit 8, Shaw House,
Two Woods Lane, Brierley Hill,
DY5 1TA

Contact: David Pacheco

Site Address: Ickenham

Client Reference: WB307
Job Number: 22-52085
Date Sampled: 08/04/2022
Date Received: 11/04/2022
Date Tested: 26/04/2022
Sampled By: Not Given

Testing carried out at i2 Analytical Limited, ul. Pionierow 39, 41-711 Ruda Slaska, Poland

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			%				
2240690	WS08	Not Given	1.80	1.90	D	Light brown CLAY		29	Sample was quartered, oven dried at 108.5 °C			
2240691	WS08	Not Given	3.10	3.20	D	Brown CLAY		27	Sample was quartered, oven dried at 108.5 °C			
2240692	WS09	Not Given	1.00	1.20	D	Brown CLAY		29	Sample was quartered, oven dried at 108.5 °C			
2240693	WS09	Not Given	2.50	2.70	D	Brown CLAY		29	Sample was quartered, oven dried at 108.5 °C			
2240695	WS11	Not Given	1.80	2.00	D	Brown CLAY		31	Sample was quartered, oven dried at 108.5 °C			
2240694	WS12	Not Given	2.50	2.60	D	Brown CLAY		33	Sample was quartered, oven dried at 108.5 °C			

Comments:

Signed:

Anna Dudzinska
PL Deputy Head of Reporting Team
for and on behalf of i2 Analytical Ltd

Date Reported: 11/05/2022

GF 099.16

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

UKAS TESTING 4041

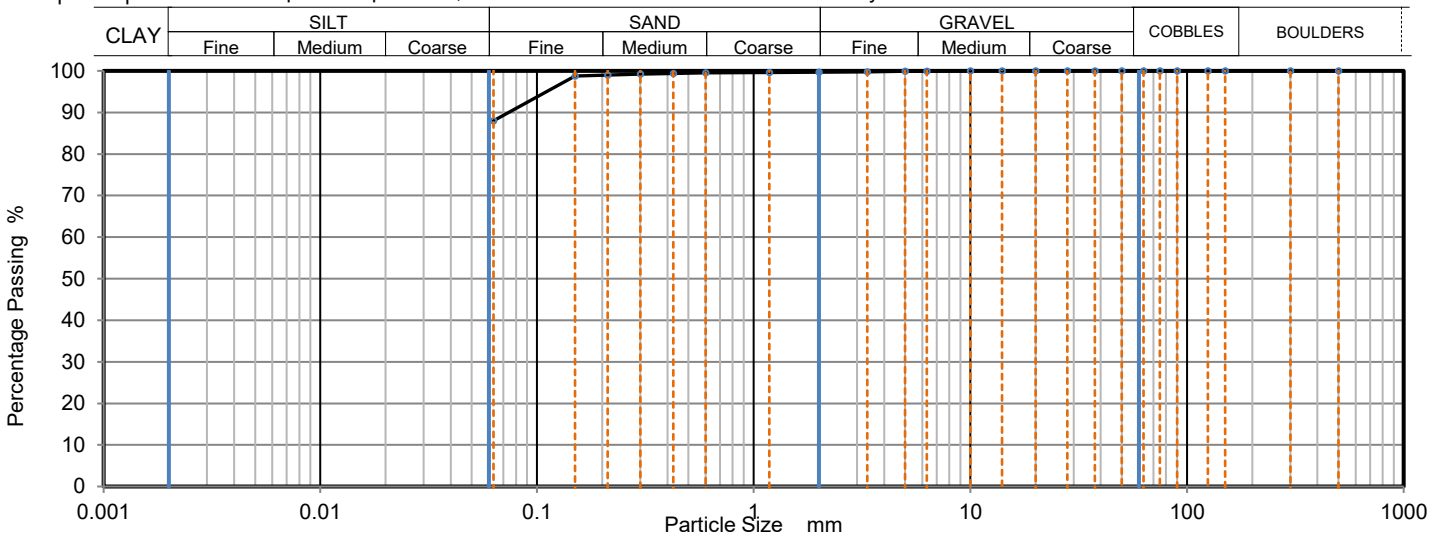
Environmental Science

Client:	Johnson Poole & Bloomer	Client Reference:	WB307
Client Address:	Unit 8, Shaw House, Two Woods Lane, Brierley Hill, DY5 1TA	Job Number:	22-52085
		Date Sampled:	05/04/2022
		Date Received:	11/04/2022
Contact:	David Pacheco	Date Tested:	25/04/2022
Site Address:	Ickenham	Sampled By:	Not Given

Testing carried out at i2 Analytical Limited, ul. Pionierow 39, 41-711 Ruda Slaska, Poland

Test Results:

Laboratory Reference:	2240675	Depth Top [m]:	1.30
Hole No.:	TP11	Depth Base [m]:	Not Given
Sample Reference:	Not Given	Sample Type:	B
Sample Description:	Brown sandy CLAY		
Sample Preparation:	Sample was quartered, oven dried at 109.0 °C and broken down by hand.		



Sieving		Sedimentation	
Particle Size mm	% Passing	Particle Size mm	% Passing
500	100		
300	100		
150	100		
125	100		
90	100		
75	100		
63	100		
50	100		
37.5	100		
28	100		
20	100		
14	100		
10	100		
6.3	100		
5	100		
3.35	100		
2	100		
1.18	100		
0.6	100		
0.425	99		
0.3	99		
0.212	99		
0.15	99		
0.063	88		

Sample Proportions	% dry mass
Very coarse	0
Gravel	0
Sand	11
Fines <0.063mm	88

Grading Analysis		
D100	mm	10
D60	mm	
D30	mm	
D10	mm	
Uniformity Coefficient		N/A
Curvature Coefficient		

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

Note: Tested in Accordance with BS1377:Part 2:1990, clause 9.2

Remarks:

Signed: Dudzinska Anna

Anna Dudzinska
PL Deputy Head of Reporting Team
for and on behalf of i2 Analytical Ltd

Date Reported: 12/05/2022

GF 100.21

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

UKAS TESTING 4041

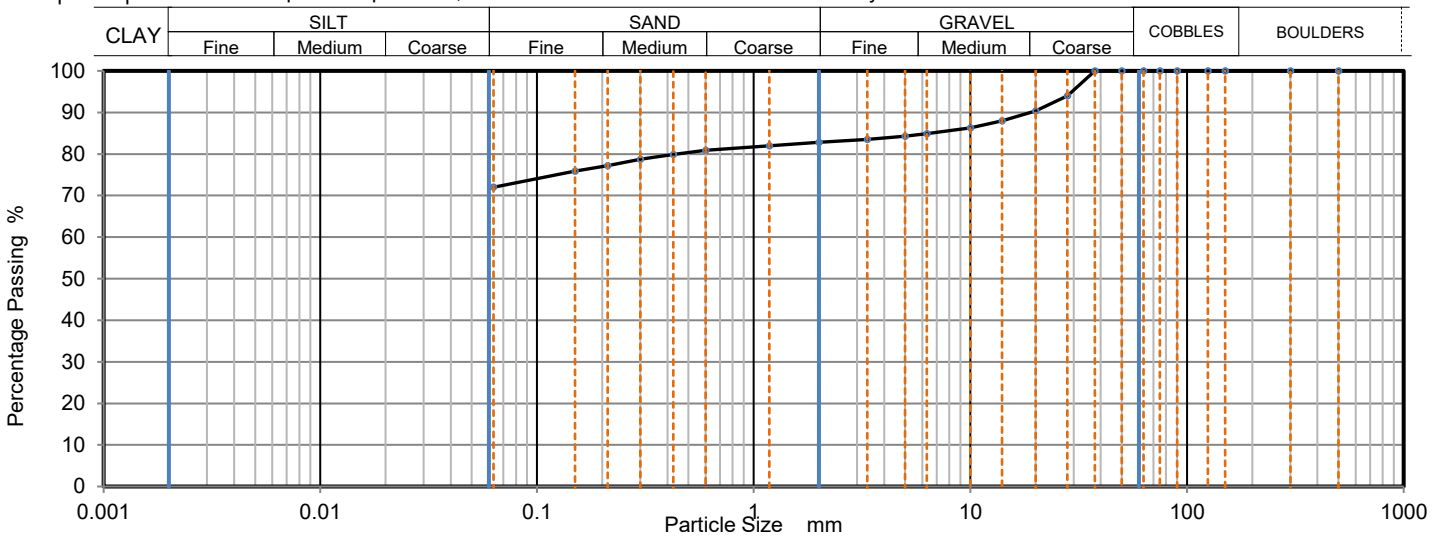
Environmental Science

Client:	Johnson Poole & Bloomer	Client Reference:	WB307
Client Address:	Unit 8, Shaw House, Two Woods Lane, Brierley Hill, DY5 1TA	Job Number:	22-52085
		Date Sampled:	06/04/2022
		Date Received:	11/04/2022
Contact:	David Pacheco	Date Tested:	25/04/2022
Site Address:	Ickenham	Sampled By:	Not Given

Testing carried out at i2 Analytical Limited, ul. Pionierow 39, 41-711 Ruda Slaska, Poland

Test Results:

Laboratory Reference:	2240678	Depth Top [m]:	0.30
Hole No.:	TP15	Depth Base [m]:	Not Given
Sample Reference:	Not Given	Sample Type:	B
Sample Description:	Brown sandy gravelly CLAY with fragments of brick		
Sample Preparation:	Sample was quartered, oven dried at 109.0 °C and broken down by hand.		



Sieving		Sedimentation	
Particle Size mm	% Passing	Particle Size mm	% Passing
500	100		
300	100		
150	100		
125	100		
90	100		
75	100		
63	100		
50	100		
37.5	100		
28	94		
20	90		
14	88		
10	86		
6.3	85		
5	84		
3.35	84		
2	83		
1.18	82		
0.6	81		
0.425	80		
0.3	79		
0.212	77		
0.15	76		
0.063	72		

Sample Proportions	% dry mass
Very coarse	0
Gravel	17
Sand	10
Fines <0.063mm	72

Grading Analysis		
D100	mm	37.5
D60	mm	
D30	mm	
D10	mm	
Uniformity Coefficient		N/A
Curvature Coefficient		

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

Note: Tested in Accordance with BS1377:Part 2:1990, clause 9.2

Remarks:

Signed: Dudzinska Anna

Anna Dudzinska
PL Deputy Head of Reporting Team
for and on behalf of i2 Analytical Ltd

Date Reported: 12/05/2022

GF 100.21

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

UKAS TESTING 4041

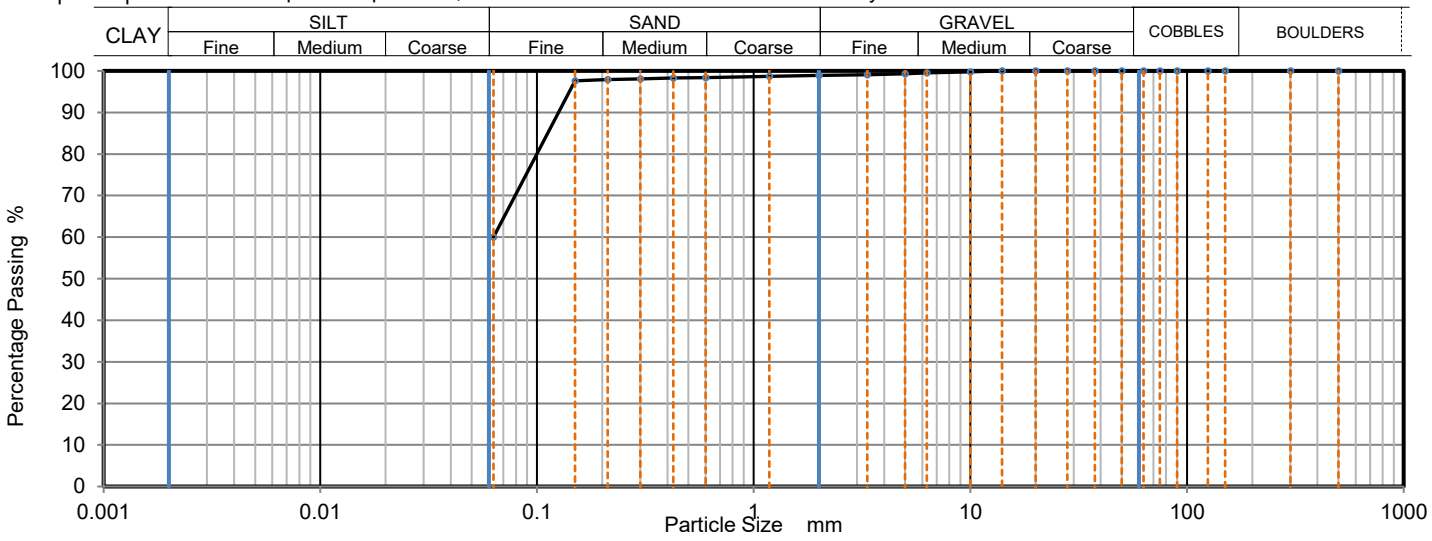
Environmental Science

Client:	Johnson Poole & Bloomer	Client Reference:	WB307
Client Address:	Unit 8, Shaw House, Two Woods Lane, Brierley Hill, DY5 1TA	Job Number:	22-52085
		Date Sampled:	07/04/2022
		Date Received:	11/04/2022
Contact:	David Pacheco	Date Tested:	25/04/2022
Site Address:	Ickenham	Sampled By:	Not Given

Testing carried out at i2 Analytical Limited, ul. Pionierow 39, 41-711 Ruda Slaska, Poland

Test Results:

Laboratory Reference:	2240682	Depth Top [m]:	1.00
Hole No.:	WS05	Depth Base [m]:	4.00
Sample Reference:	Not Given	Sample Type:	B
Sample Description:	Brown very sandy CLAY		
Sample Preparation:	Sample was quartered, oven dried at 109.0 °C and broken down by hand.		



Sieving		Sedimentation	
Particle Size mm	% Passing	Particle Size mm	% Passing
500	100		
300	100		
150	100		
125	100		
90	100		
75	100		
63	100		
50	100		
37.5	100		
28	100		
20	100		
14	100		
10	100		
6.3	100		
5	99		
3.35	99		
2	99		
1.18	99		
0.6	98		
0.425	98		
0.3	98		
0.212	98		
0.15	98		
0.063	60		

Sample Proportions	% dry mass
Very coarse	0
Gravel	1
Sand	39
Fines <0.063mm	60

Grading Analysis		
D100	mm	14
D60	mm	
D30	mm	
D10	mm	
Uniformity Coefficient		N/A
Curvature Coefficient		

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

Note: Tested in Accordance with BS1377:Part 2:1990, clause 9.2

Remarks:

Signed: Dudzinska Anna

Anna Dudzinska
PL Deputy Head of Reporting Team
for and on behalf of i2 Analytical Ltd

Date Reported: 12/05/2022

GF 100.21

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

UKAS TESTING 4041

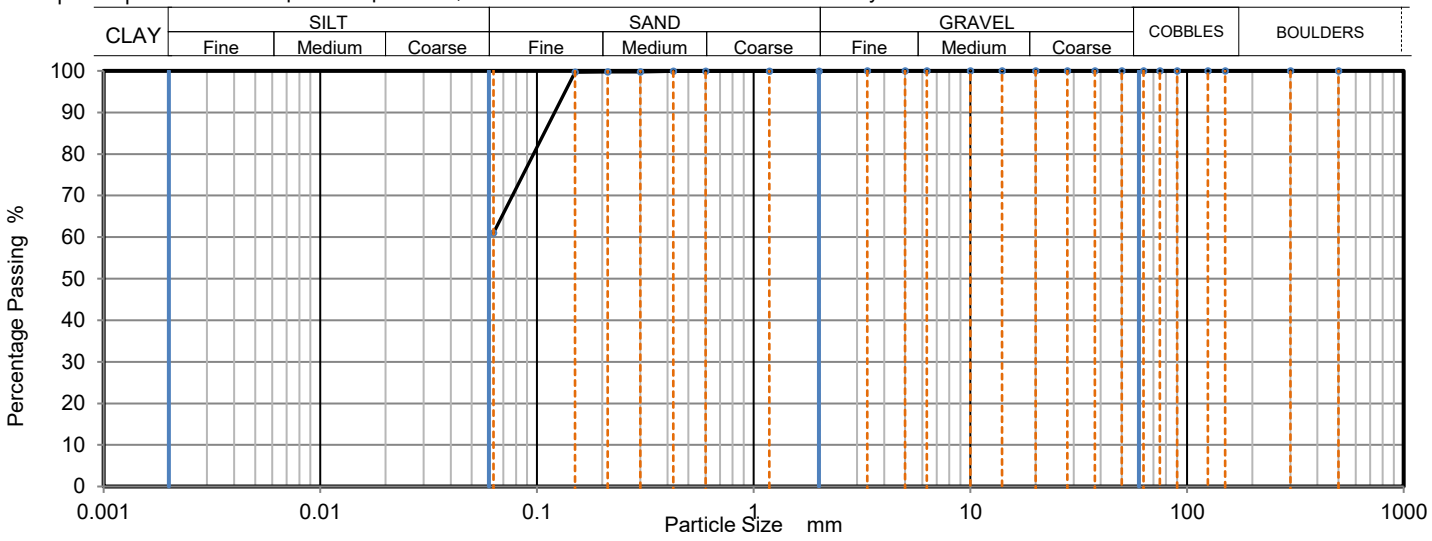
Environmental Science

Client:	Johnson Poole & Bloomer	Client Reference:	WB307
Client Address:	Unit 8, Shaw House, Two Woods Lane, Brierley Hill, DY5 1TA	Job Number:	22-52085
		Date Sampled:	08/04/2022
		Date Received:	11/04/2022
Contact:	David Pacheco	Date Tested:	25/04/2022
Site Address:	Ickenham	Sampled By:	Not Given

Testing carried out at i2 Analytical Limited, ul. Pionierow 39, 41-711 Ruda Slaska, Poland

Test Results:

Laboratory Reference:	2240689	Depth Top [m]:	3.20
Hole No.:	WS06	Depth Base [m]:	4.00
Sample Reference:	Not Given	Sample Type:	B
Sample Description:	Brown very sandy CLAY		
Sample Preparation:	Sample was quartered, oven dried at 109.0 °C and broken down by hand.		



Sieving		Sedimentation	
Particle Size mm	% Passing	Particle Size mm	% Passing
500	100		
300	100		
150	100		
125	100		
90	100		
75	100		
63	100		
50	100		
37.5	100		
28	100		
20	100		
14	100		
10	100		
6.3	100		
5	100		
3.35	100		
2	100		
1.18	100		
0.6	100		
0.425	100		
0.3	100		
0.212	100		
0.15	100		
0.063	61		

Sample Proportions	% dry mass
Very coarse	0
Gravel	0
Sand	39
Fines <0.063mm	61

Grading Analysis		
D100	mm	5
D60	mm	
D30	mm	
D10	mm	
Uniformity Coefficient		N/A
Curvature Coefficient		

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

Note: Tested in Accordance with BS1377:Part 2:1990, clause 9.2

Remarks:

Signed: Dudzinska Anna

Anna Dudzinska
PL Deputy Head of Reporting Team
for and on behalf of i2 Analytical Ltd

Date Reported: 12/05/2022

GF 100.21

TEST CERTIFICATE

DETERMINATION OF DRY DENSITY/MOISTURE CONTENT RELATIONSHIP METHOD USING 2.5 KG RAMMER

Tested in Accordance with: BS 1377-4: 1990

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

UKAS TESTING 4041

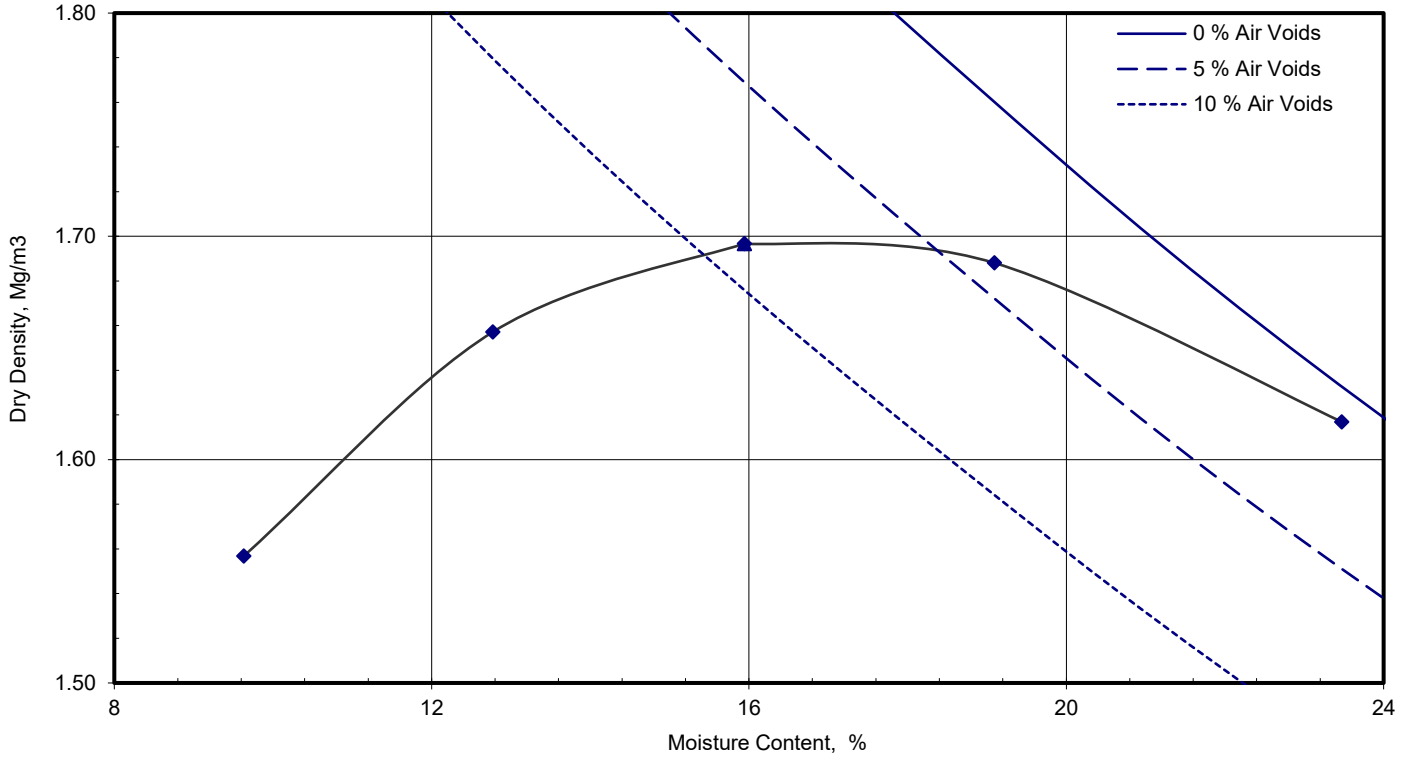
Environmental Science

Client:	Johnson Poole & Bloomer	Client Reference:	WB307
Client Address:	Unit 8, Shaw House, Two Woods Lane, Brierley Hill, DY5 1TA	Job Number:	22-52085
		Date Sampled:	04/04/2022
		Date Received:	11/04/2022
Contact:	David Pacheco	Date Tested:	29/04/2022
Site Address:	Ickenham	Sampled By:	Not Given

Testing carried out at i2 Analytical Limited, ul. Pionierow 39, 41-711 Ruda Slaska, Poland

Test Results:

Laboratory Reference:	2240671	Depth Top [m]:	1.60
Hole No.:	TP20	Depth Base [m]:	Not Given
Sample Reference:	Not Given	Sample Type:	B
Sample Description:	Light brown gravelly CLAY		
Sample Preparation:	Sample was quartered and broken down by hand. Material used was natural.		



Compaction Point No.		1	2	3	4	5
Moisture Content	%	9.6	13	16	19	23
Dry Density	Mg/m³	1.56	1.66	1.70	1.69	1.62

Mould Type		CBR
Samples Used		Single sample tested
Material Retained on 37.5 mm Sieve	%	11
Material Retained on 20.0 mm Sieve	%	20
Particle Density - Assumed	Mg/m³	2.65
As received Moisture Content	%	23
Maximum Dry Density	Mg/m³	**1.70**

Optimum Moisture Content	%	**16**

Note: Tested in Accordance with BS 1377-4: 1990: Clause 3.4 using 2.5kg [light] Rammer

Remarks: Zone X - test carried out as per client request

Signed: Dudzinska Anna

Anna Dudzinska
PL Deputy Head of Reporting Team
for and on behalf of i2 Analytical Ltd

Date Reported: 12/05/2022

GF 109.22

TEST CERTIFICATE

DETERMINATION OF DRY DENSITY/MOISTURE CONTENT RELATIONSHIP METHOD USING 2.5 KG RAMMER

Tested in Accordance with: BS 1377-4: 1990

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

UKAS TESTING 4041

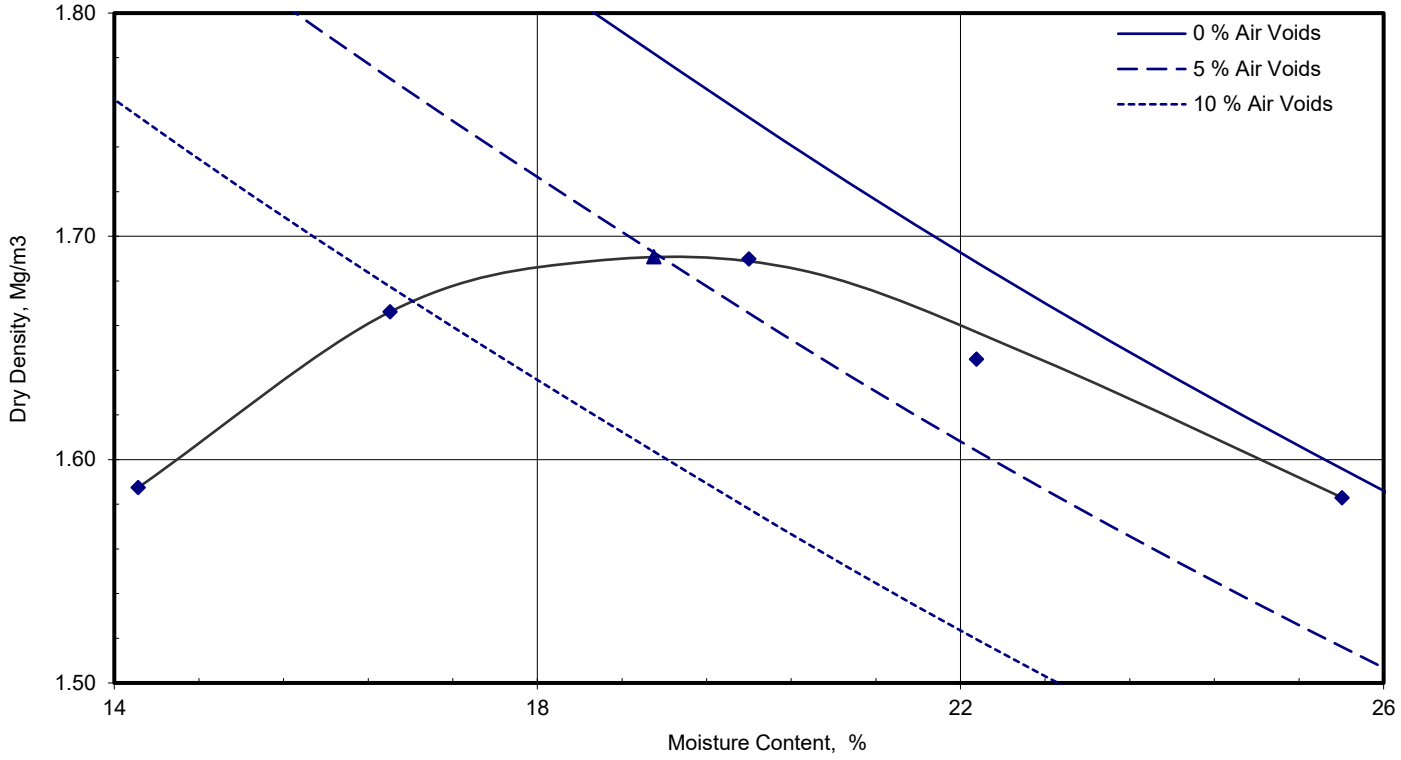
Environmental Science

Client:	Johnson Poole & Bloomer	Client Reference:	WB307
Client Address:	Unit 8, Shaw House, Two Woods Lane, Brierley Hill, DY5 1TA	Job Number:	22-52085
		Date Sampled:	04/04/2022
		Date Received:	11/04/2022
Contact:	David Pacheco	Date Tested:	29/04/2022
Site Address:	Ickenham	Sampled By:	Not Given

Testing carried out at i2 Analytical Limited, ul. Pionierow 39, 41-711 Ruda Slaska, Poland

Test Results:

Laboratory Reference:	2240672	Depth Top [m]:	0.50
Hole No.:	TP19	Depth Base [m]:	Not Given
Sample Reference:	Not Given	Sample Type:	B
Sample Description:	Light brown CLAY		
Sample Preparation:	Sample was quartered and broken down by hand. Material used was natural.		



Compaction Point No.		1	2	3	4	5
Moisture Content	%	14	17	20	22	26
Dry Density	Mg/m³	1.59	1.67	1.69	1.64	1.58

Mould Type		1 Litre
Samples Used		Single sample tested
Material Retained on 37.5 mm Sieve	%	0
Material Retained on 20.0 mm Sieve	%	0
Particle Density - Assumed	Mg/m³	2.70
As received Moisture Content	%	22
Maximum Dry Density	Mg/m³	**1.69**

Optimum Moisture Content	%	**19**

Note: Tested in Accordance with BS 1377-4: 1990: Clause 3.3 using 2.5kg [light] Rammer

Remarks:

Signed: Dudzinska Anna

Anna Dudzinska
PL Deputy Head of Reporting Team
for and on behalf of i2 Analytical Ltd

Date Reported: 12/05/2022

GF 109.22

TEST CERTIFICATE

DETERMINATION OF DRY DENSITY/MOISTURE CONTENT RELATIONSHIP METHOD USING 2.5 KG RAMMER

Tested in Accordance with: BS 1377-4: 1990

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

UKAS TESTING 4041

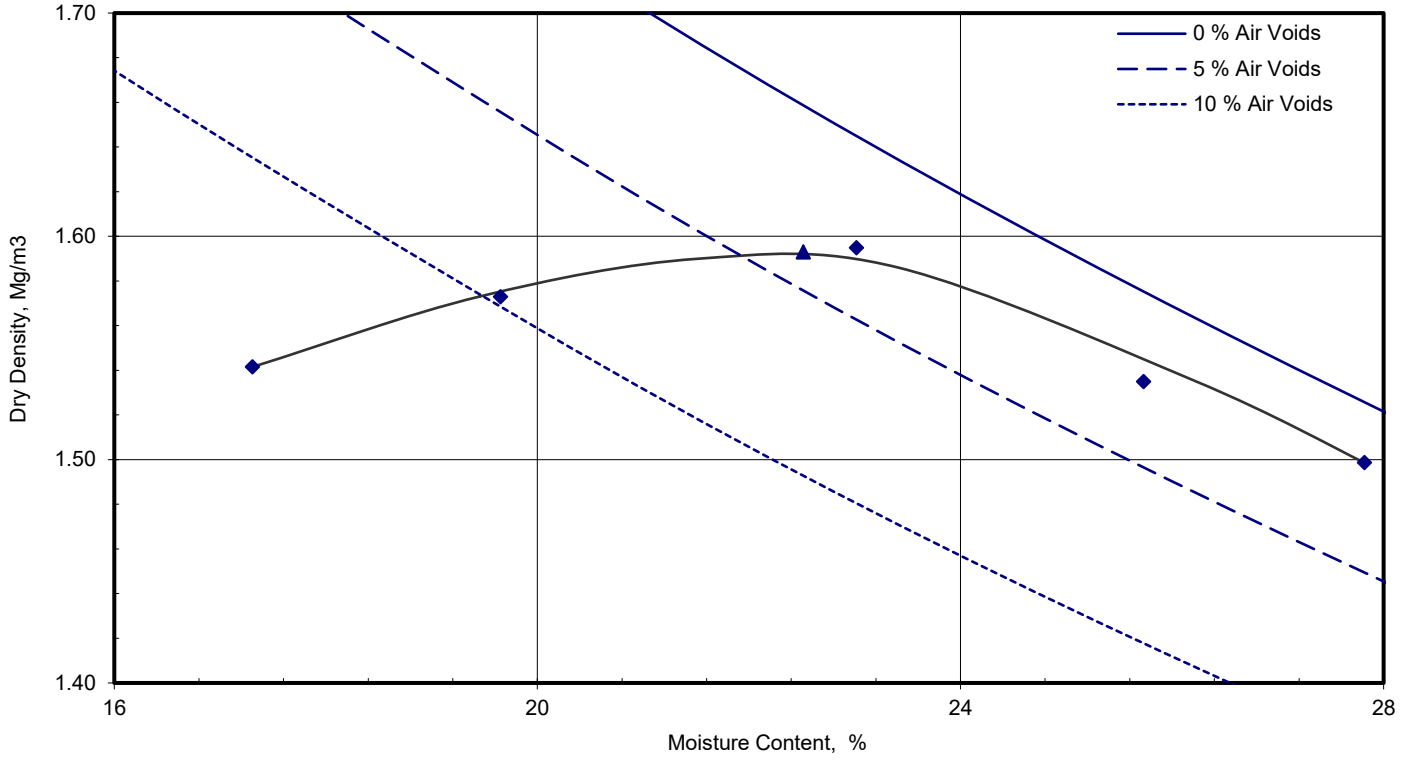
Environmental Science

Client:	Johnson Poole & Bloomer	Client Reference:	WB307
Client Address:	Unit 8, Shaw House, Two Woods Lane, Brierley Hill, DY5 1TA	Job Number:	22-52085
		Date Sampled:	04/04/2022
		Date Received:	11/04/2022
Contact:	David Pacheco	Date Tested:	29/04/2022
Site Address:	Ickenham	Sampled By:	Not Given

Testing carried out at i2 Analytical Limited, ul. Pionierow 39, 41-711 Ruda Slaska, Poland

Test Results:

Laboratory Reference:	2240673	Depth Top [m]:	0.80
Hole No.:	TP18	Depth Base [m]:	Not Given
Sample Reference:	Not Given	Sample Type:	B
Sample Description:	Light brown CLAY		
Sample Preparation:	Sample was quartered and broken down by hand. Material used was natural.		



Compaction Point No.		1	2	3	4	5
Moisture Content	%	17	20	23	26	28
Dry Density	Mg/m³	1.54	1.57	1.59	1.53	1.50

Mould Type		1 Litre
Samples Used		Single sample tested
Material Retained on 37.5 mm Sieve	%	0
Material Retained on 20.0 mm Sieve	%	0
Particle Density - Assumed	Mg/m³	2.65
As received Moisture Content	%	26
Maximum Dry Density	Mg/m³	**1.59**

Optimum Moisture Content	%	**23**

Note: Tested in Accordance with BS 1377-4: 1990: Clause 3.3 using 2.5kg [light] Rammer

Remarks:

Signed: Dudzinska Anna

Anna Dudzinska
PL Deputy Head of Reporting Team
for and on behalf of i2 Analytical Ltd

Date Reported: 12/05/2022

GF 109.22

TEST CERTIFICATE

DETERMINATION OF DRY DENSITY/MOISTURE CONTENT RELATIONSHIP METHOD USING 2.5 KG RAMMER

Tested in Accordance with: BS 1377-4: 1990

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

UKAS TESTING 4041

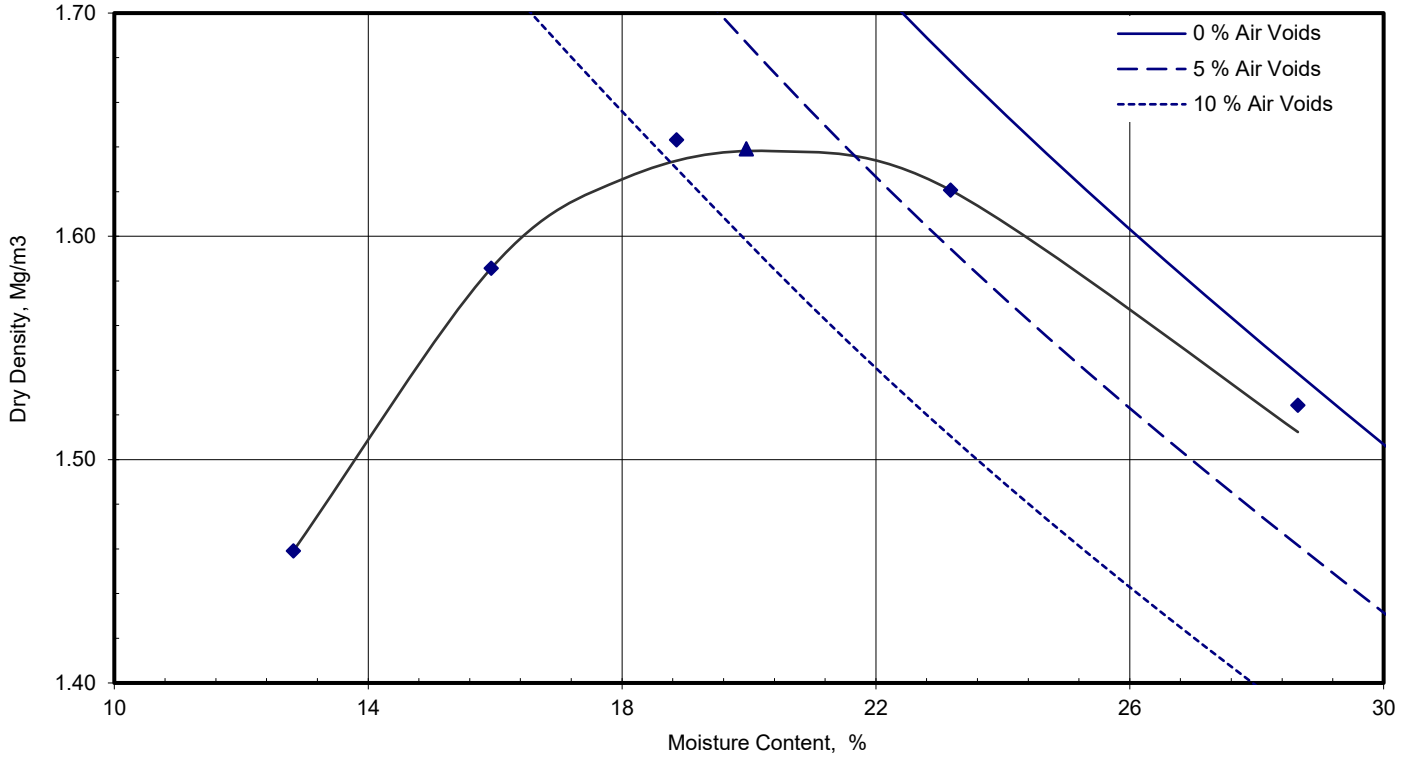
Environmental Science

Client:	Johnson Poole & Bloomer	Client Reference:	WB307
Client Address:	Unit 8, Shaw House, Two Woods Lane, Brierley Hill, DY5 1TA	Job Number:	22-52085
		Date Sampled:	06/04/2022
		Date Received:	11/04/2022
Contact:	David Pacheco	Date Tested:	29/04/2022
Site Address:	Ickenham	Sampled By:	Not Given

Testing carried out at i2 Analytical Limited, ul. Pionierow 39, 41-711 Ruda Slaska, Poland

Test Results:

Laboratory Reference:	2240676	Depth Top [m]:	0.70
Hole No.:	TP03	Depth Base [m]:	Not Given
Sample Reference:	Not Given	Sample Type:	B
Sample Description:	Light brown CLAY		
Sample Preparation:	Sample was quartered and broken down by hand. Material used was natural.		



Compaction Point No.		1	2	3	4	5
Moisture Content	%	13	16	19	23	29
Dry Density	Mg/m³	1.46	1.59	1.64	1.62	1.52

Mould Type		1 Litre
Samples Used		Single sample tested
Material Retained on 37.5 mm Sieve	%	0
Material Retained on 20.0 mm Sieve	%	0
Particle Density - Assumed	Mg/m³	2.75
As received Moisture Content	%	29
Maximum Dry Density	Mg/m³	**1.64**

Optimum Moisture Content	%	**20**

Note: Tested in Accordance with BS 1377-4: 1990: Clause 3.3 using 2.5kg [light] Rammer

Remarks:

Signed: Dudzinska Anna

Anna Dudzinska
PL Deputy Head of Reporting Team
for and on behalf of i2 Analytical Ltd

Date Reported: 12/05/2022

GF 109.22

TEST CERTIFICATE

DETERMINATION OF DRY DENSITY/MOISTURE CONTENT RELATIONSHIP METHOD USING 2.5 KG RAMMER

Tested in Accordance with: BS 1377-4: 1990

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

UKAS TESTING 4041

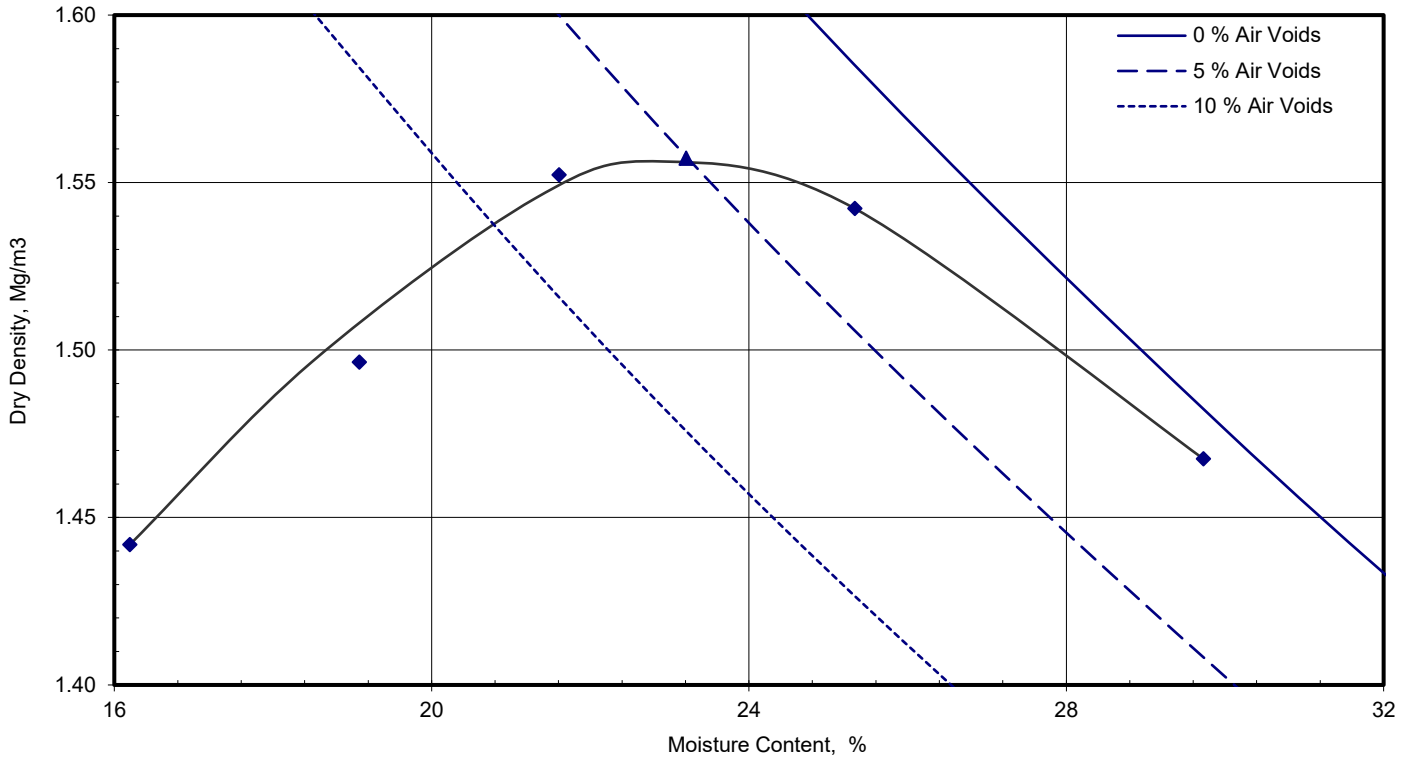
Environmental Science

Client:	Johnson Poole & Bloomer	Client Reference:	WB307
Client Address:	Unit 8, Shaw House, Two Woods Lane, Brierley Hill, DY5 1TA	Job Number:	22-52085
		Date Sampled:	06/04/2022
		Date Received:	11/04/2022
Contact:	David Pacheco	Date Tested:	29/04/2022
Site Address:	Ickenham	Sampled By:	Not Given

Testing carried out at i2 Analytical Limited, ul. Pionierow 39, 41-711 Ruda Slaska, Poland

Test Results:

Laboratory Reference:	2240677	Depth Top [m]:	2.50
Hole No.:	TP03	Depth Base [m]:	Not Given
Sample Reference:	Not Given	Sample Type:	B
Sample Description:	Light brown CLAY		
Sample Preparation:	Sample was quartered and broken down by hand. Material used was natural.		



Compaction Point No.		1	2	3	4	5
Moisture Content	%	16	19	22	25	30
Dry Density	Mg/m³	1.44	1.50	1.55	1.54	1.47

Mould Type		1 Litre
Samples Used		Single sample tested
Material Retained on 37.5 mm Sieve	%	0
Material Retained on 20.0 mm Sieve	%	0
Particle Density - Assumed	Mg/m³	2.65
As received Moisture Content	%	30
Maximum Dry Density	Mg/m³	**1.56**

Optimum Moisture Content	%	**23**

Note: Tested in Accordance with BS 1377-4: 1990: Clause 3.3 using 2.5kg [light] Rammer

Remarks:

Signed: Dudzinska Anna

Anna Dudzinska
PL Deputy Head of Reporting Team
for and on behalf of i2 Analytical Ltd

Date Reported: 12/05/2022

GF 109.22

TEST CERTIFICATE

DETERMINATION OF DRY DENSITY/MOISTURE CONTENT RELATIONSHIP METHOD USING 2.5 KG RAMMER

Tested in Accordance with: BS 1377-4: 1990

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

UKAS TESTING 4041

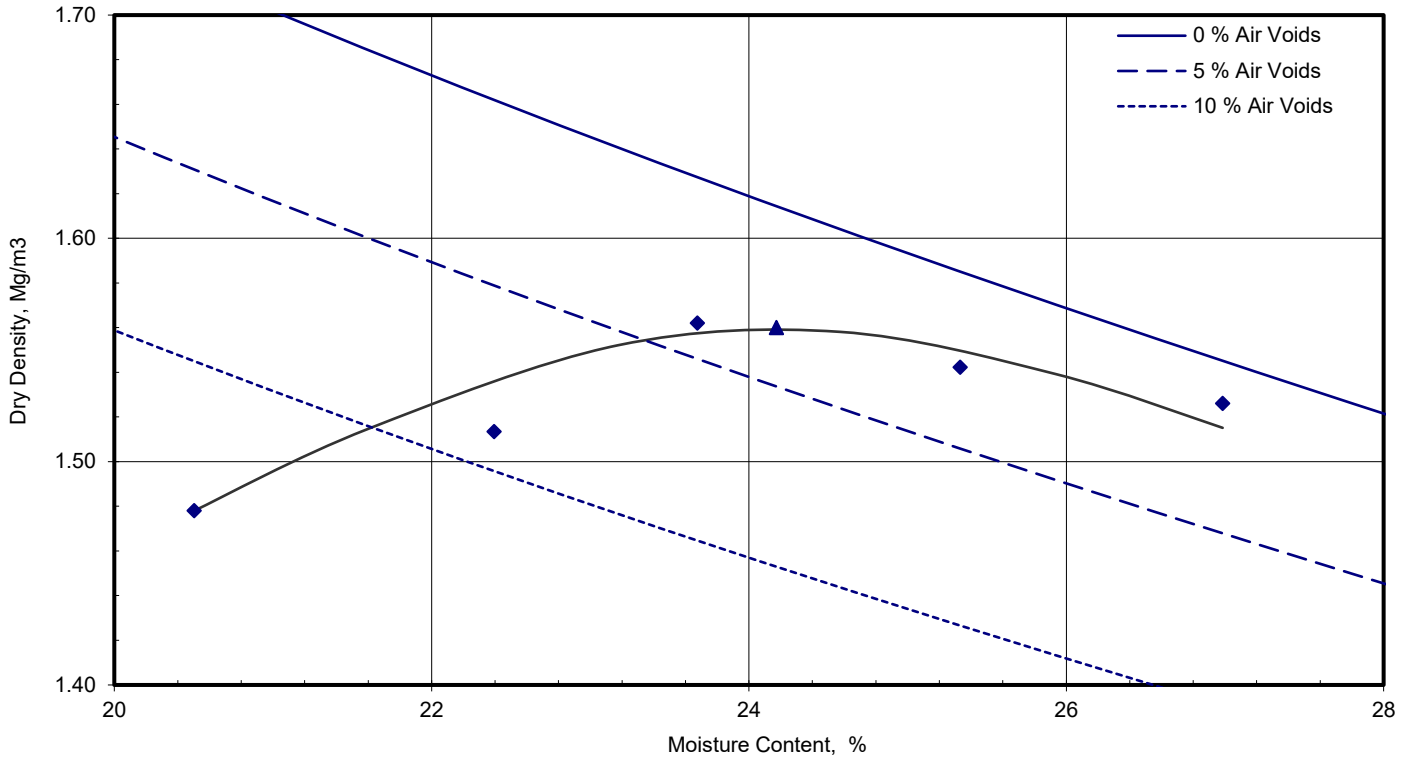
Environmental Science

Client:	Johnson Poole & Bloomer	Client Reference:	WB307
Client Address:	Unit 8, Shaw House, Two Woods Lane, Brierley Hill, DY5 1TA	Job Number:	22-52085
		Date Sampled:	06/04/2022
		Date Received:	11/04/2022
Contact:	David Pacheco	Date Tested:	29/04/2022
Site Address:	Ickenham	Sampled By:	Not Given

Testing carried out at i2 Analytical Limited, ul. Pionierow 39, 41-711 Ruda Slaska, Poland

Test Results:

Laboratory Reference:	2240679	Depth Top [m]:	1.00
Hole No.:	TP15	Depth Base [m]:	Not Given
Sample Reference:	Not Given	Sample Type:	B
Sample Description:	Light brown CLAY		
Sample Preparation:	Sample was quartered and broken down by hand. Material used was natural.		



Compaction Point No.		1	2	3	4	5
Moisture Content	%	21	22	24	25	27
Dry Density	Mg/m³	1.48	1.51	1.56	1.54	1.53

Mould Type		1 Litre
Samples Used		Single sample tested
Material Retained on 37.5 mm Sieve	%	0
Material Retained on 20.0 mm Sieve	%	0
Particle Density - Assumed	Mg/m³	2.65
As received Moisture Content	%	33
Maximum Dry Density	Mg/m³	**1.56**

Optimum Moisture Content	%	**24**

Note: Tested in Accordance with BS 1377-4: 1990: Clause 3.3 using 2.5kg [light] Rammer

Remarks:

Signed: Dudzinska Anna

Anna Dudzinska
PL Deputy Head of Reporting Team
for and on behalf of i2 Analytical Ltd

Date Reported: 12/05/2022

GF 109.22

Appendix 12 Chemical Test Results – I2 Analytical – April 2022

David Pacheco
Johnson Poole & Bloomer
Harris & Pearson Building
Brettell Lane
Brierley Hill
West Midlands
DY5 3LH

t: (01384) 262000

e: enquiries@jpb.co.uk

i2 Analytical Ltd.
7 Woodshots Meadow,
Croxley Green
Business Park,
Watford,
Herts,
WD18 8YS

t: 01923 225404
f: 01923 237404
e: reception@i2analytical.com

Analytical Report Number : 22-50733

Project / Site name:	ICKENHAM	**Samples received on:**	06/04/2022
Your job number:	WB307	**Samples instructed on/ Analysis started on:**	07/04/2022
Your order number:	20220407	**Analysis completed by:**	20/04/2022
Report Issue Number:	1	**Report issued on:**	20/04/2022
Samples Analysed:	5 leachate samples - 11 soil samples		

Signed:

Adam Fenwick
Technical Reviewer
For & on behalf of i2 Analytical Ltd.

Standard Geotechnical, Asbestos and Chemical Testing Laboratory located at: ul. Pionierów 39, 41 -711 Ruda Śląska, Poland.

Accredited tests are defined within the report, opinions and interpretations expressed herein are outside the scope of accreditation.

Standard sample disposal times, unless otherwise agreed with the laboratory, are :

soils	- 4 weeks from reporting
leachates	- 2 weeks from reporting
waters	- 2 weeks from reporting
asbestos	- 6 months from reporting

Excel copies of reports are only valid when accompanied by this PDF certificate.

Any assessments of compliance with specifications are based on actual analytical results with no contribution from uncertainty of measurement.
Application of uncertainty of measurement would provide a range within which the true result lies.
An estimate of measurement uncertainty can be provided on request.

Analytical Report Number: 22-50733
Project / Site name: ICKENHAM
Your Order No: 20220407

Lab Sample Number				2232484	2232485	2232486	2232487	2232488
Sample Reference				TP11	TP02	TP14	TP17	TP07
Sample Number				None Supplied	None Supplied	None Supplied	None Supplied	None Supplied
Depth (m)				0.30	0.20	0.30	0.30	0.20
Date Sampled				05/04/2022	06/04/2022	05/04/2022	05/04/2022	05/04/2022
Time Taken				None Supplied	None Supplied	None Supplied	None Supplied	None Supplied
Analytical Parameter (Soil Analysis)	**Units**	**Limit of detection**	**Accreditation Status**					
Stone Content	%	0.1	NONE	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1
Moisture Content	%	0.01	NONE	18	21	8.2	8.5	9.7
Total mass of sample received	kg	0.001	NONE	0.5	0.9	0.9	0.9	0.9
Asbestos in Soil	Type	N/A	ISO 17025	Not-detected	Not-detected	Not-detected	Not-detected	Not-detected
Asbestos Analyst ID	N/A	N/A	N/A	MLO	MLO	MLO	MLO	MLO

General Inorganics

pH - Automated	pH Units	N/A	MCERTS	8.2	7.8	10.8	11.0	7.6
Total Cyanide	mg/kg	1	MCERTS	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Total Sulphate as SO4	mg/kg	50	MCERTS	1300	2300	3800	5400	2700
Total Sulphate as SO4	%	0.005	MCERTS	-	-	-	0.543	-
Water Soluble Sulphate as SO4 16hr extraction (2:1)	mg/kg	2.5	MCERTS	1100	77	420	660	130
Water Soluble SO4 16hr extraction (2:1 Leachate Equivalent)	g/l	0.00125	MCERTS	0.56	0.038	0.21	0.33	0.067
Water Soluble SO4 16hr extraction (2:1 Leachate Equivalent)	mg/l	1.25	MCERTS	-	-	-	329	-
Sulphide	mg/kg	1	MCERTS	2.4	1.5	83	360	11
Water Soluble Chloride (2:1) (leachate equivalent)	mg/l	0.5	MCERTS	-	-	-	55	-
Total Sulphur	%	0.005	MCERTS	-	-	-	0.22	-
Ammoniacal Nitrogen as NH4	mg/kg	0.5	MCERTS	-	-	-	1.1	-
Ammonium as NH4 (10:1 leachate equivalent)	mg/l	0.05	MCERTS	-	-	-	0.11	-
Organic Matter (automated)	%	0.1	MCERTS	1.9	2.7	1.9	1.3	1.9
Water Soluble Nitrate (2:1) as N (leachate equivalent)	mg/l	2	NONE	-	-	-	< 2.0	-

Total Phenols

Total Phenols (monohydric)	mg/kg	1	MCERTS	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0

Speciated PAHs

Naphthalene	mg/kg	0.05	MCERTS	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
Acenaphthylene	mg/kg	0.05	MCERTS	0.27	< 0.05	< 0.05	< 0.05	< 0.05
Acenaphthene	mg/kg	0.05	MCERTS	0.21	< 0.05	< 0.05	< 0.05	< 0.05
Fluorene	mg/kg	0.05	MCERTS	0.33	< 0.05	< 0.05	< 0.05	< 0.05
Phenanthrene	mg/kg	0.05	MCERTS	4.9	< 0.05	0.5	0.59	0.22
Anthracene	mg/kg	0.05	MCERTS	1.5	< 0.05	< 0.05	< 0.05	< 0.05
Fluoranthene	mg/kg	0.05	MCERTS	10	< 0.05	1.5	1.5	0.22
Pyrene	mg/kg	0.05	MCERTS	9	< 0.05	1.4	1.5	0.24
Benzo(a)anthracene	mg/kg	0.05	MCERTS	6.7	< 0.05	1.4	1.3	< 0.05
Chrysene	mg/kg	0.05	MCERTS	3.8	< 0.05	0.8	0.79	< 0.05
Benzo(b)fluoranthene	mg/kg	0.05	MCERTS	6	< 0.05	1.2	1.2	< 0.05
Benzo(k)fluoranthene	mg/kg	0.05	MCERTS	2.7	< 0.05	0.94	0.63	< 0.05
Benzo(a)pyrene	mg/kg	0.05	MCERTS	5.9	< 0.05	1.3	1	< 0.05
Indeno(1,2,3-cd)pyrene	mg/kg	0.05	MCERTS	3.1	< 0.05	0.79	0.57	< 0.05
Dibenz(a,h)anthracene	mg/kg	0.05	MCERTS	0.79	< 0.05	0.21	< 0.05	< 0.05
Benzo(ghi)perylene	mg/kg	0.05	MCERTS	3.6	< 0.05	0.87	0.7	< 0.05

Total PAH

Speciated Total EPA-16 PAHs	mg/kg	0.8	MCERTS	58.8	< 0.80	10.8	9.81	< 0.80

Analytical Report Number: 22-50733
Project / Site name: ICKENHAM
Your Order No: 20220407

Lab Sample Number				2232484	2232485	2232486	2232487	2232488
Sample Reference				TP11	TP02	TP14	TP17	TP07
Sample Number				None Supplied	None Supplied	None Supplied	None Supplied	None Supplied
Depth (m)				0.30	0.20	0.30	0.30	0.20
Date Sampled				05/04/2022	06/04/2022	05/04/2022	05/04/2022	05/04/2022
Time Taken				None Supplied	None Supplied	None Supplied	None Supplied	None Supplied
Analytical Parameter (Soil Analysis)	**Units**	**Limit of detection**	**Accreditation Status**					
Heavy Metals / Metalloids								
Arsenic (aqua regia extractable)	mg/kg	1	MCERTS	19	16	19	15	26
Boron (water soluble)	mg/kg	0.2	MCERTS	1.2	0.5	0.9	1.2	0.7
Cadmium (aqua regia extractable)	mg/kg	0.2	MCERTS	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2
Chromium (hexavalent)	mg/kg	4	NONE	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0
Chromium (aqua regia extractable)	mg/kg	1	MCERTS	43	40	36	39	35
Copper (aqua regia extractable)	mg/kg	1	MCERTS	47	39	71	24	31
Lead (aqua regia extractable)	mg/kg	1	MCERTS	49	41	180	120	77
Mercury (aqua regia extractable)	mg/kg	0.3	MCERTS	< 0.3	< 0.3	< 0.3	< 0.3	< 0.3
Nickel (aqua regia extractable)	mg/kg	1	MCERTS	37	24	29	24	21
Selenium (aqua regia extractable)	mg/kg	1	MCERTS	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Zinc (aqua regia extractable)	mg/kg	1	MCERTS	140	100	230	120	81
Magnesium (water soluble)	mg/kg	5	NONE	-	-	-	< 5.0	-
Magnesium (leachate equivalent)	mg/l	2.5	NONE	-	-	-	< 2.5	-
Petroleum Hydrocarbons								
TPH6 - Aliphatic (C6 - C8) $_{HS\_1D\_AL}$	mg/kg	0.001	MCERTS	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
TPH6 - Aliphatic (C8 - C10) $_{HS\_1D\_AL}$	mg/kg	0.001	MCERTS	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
TPH6 - Aliphatic (C10 - C12) $_{EH\_CU\_1D\_AL}$	mg/kg	1	MCERTS	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
TPH6 - Aliphatic (C12 - C16) $_{EH\_CU\_1D\_AL}$	mg/kg	2	MCERTS	< 2.0	< 2.0	7.9	17	< 2.0
TPH6 - Aliphatic (C16 - C21) $_{EH\_CU\_1D\_AL}$	mg/kg	8	MCERTS	< 8.0	< 8.0	26	38	< 8.0
TPH6 - Aliphatic (C21 - C35) $_{EH\_CU\_1D\_AL}$	mg/kg	8	MCERTS	< 8.0	< 8.0	37	120	< 8.0
TPH6 - Aliphatic (C6 - C35) $_{EH\_CU+HS\_1D\_AL}$	mg/kg	10	NONE	< 10	< 10	71	180	< 10
TPH6 - Aromatic (C6 - C8) $_{HS\_1D\_AR}$	mg/kg	0.001	NONE	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
TPH6 - Aromatic (C8 - C10) $_{HS\_1D\_AR}$	mg/kg	0.001	MCERTS	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
TPH6 - Aromatic (C10 - C12) $_{EH\_CU\_1D\_AR}$	mg/kg	1	MCERTS	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
TPH6 - Aromatic (C12 - C16) $_{EH\_CU\_1D\_AR}$	mg/kg	2	MCERTS	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0
TPH6 - Aromatic (C16 - C21) $_{EH\_CU\_1D\_AR}$	mg/kg	10	MCERTS	42	< 10	17	22	< 10
TPH6 - Aromatic (C21 - C35) $_{EH\_CU\_1D\_AR}$	mg/kg	10	MCERTS	62	< 10	41	67	< 10
TPH6 - Aromatic (C6 - C35) $_{EH\_CU+HS\_1D\_AR}$	mg/kg	10	NONE	100	< 10	58	89	< 10

U/S = Unsuitable Sample I/S = Insufficient Sample

Analytical Report Number: 22-50733
Project / Site name: ICKENHAM
Your Order No: 20220407

Lab Sample Number				2232489	2232490	2232491	2232492	2232493
Sample Reference				TP04	TP04	TP14	TP12	TP08
Sample Number				None Supplied	None Supplied	None Supplied	None Supplied	None Supplied
Depth (m)				0.45	3.00	2.80	1.50	0.30
Date Sampled				06/04/2022	06/04/2022	05/04/2022	05/04/2022	05/04/2022
Time Taken				None Supplied	None Supplied	None Supplied	None Supplied	None Supplied
Analytical Parameter (Soil Analysis)	**Units**	**Limit of detection**	**Accreditation Status**					
Stone Content	%	0.1	NONE	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1
Moisture Content	%	0.01	NONE	18	18	21	19	10
Total mass of sample received	kg	0.001	NONE	0.5	0.5	0.5	0.5	0.5
Asbestos in Soil	Type	N/A	ISO 17025	-	-	-	-	-
Asbestos Analyst ID	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A

General Inorganics

pH - Automated	pH Units	N/A	MCERTS	6.9	8.4	7.4	8.2	10.7
Total Cyanide	mg/kg	1	MCERTS	-	-	-	-	-
Total Sulphate as SO4	mg/kg	50	MCERTS	-	-	-	-	-
Total Sulphate as SO4	%	0.005	MCERTS	0.035	0.049	3.43	0.182	0.206
Water Soluble Sulphate as SO4 16hr extraction (2:1)	mg/kg	2.5	MCERTS	-	-	-	-	-
Water Soluble SO4 16hr extraction (2:1 Leachate Equivalent)	g/l	0.00125	MCERTS	0.14	0.13	2.8	0.11	0.11
Water Soluble SO4 16hr extraction (2:1 Leachate Equivalent)	mg/l	1.25	MCERTS	141	126	2770	113	115
Sulphide	mg/kg	1	MCERTS	-	-	-	-	-
Water Soluble Chloride (2:1) (leachate equivalent)	mg/l	0.5	MCERTS	20	7.4	12	3.4	47
Total Sulphur	%	0.005	MCERTS	0.03	0.02	1.2	0.062	0.091
Ammoniacal Nitrogen as NH4	mg/kg	0.5	MCERTS	7	< 0.5	< 0.5	< 0.5	0.6
Ammonium as NH4 (10:1 leachate equivalent)	mg/l	0.05	MCERTS	0.7	< 0.05	< 0.05	< 0.05	0.06
Organic Matter (automated)	%	0.1	MCERTS	-	-	-	-	-
Water Soluble Nitrate (2:1) as N (leachate equivalent)	mg/l	2	NONE	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0

Total Phenols

Total Phenols (monohydric)	mg/kg	1	MCERTS	-	-	-	-	-

Speciated PAHs

Naphthalene	mg/kg	0.05	MCERTS	-	-	-	-	-
Acenaphthylene	mg/kg	0.05	MCERTS	-	-	-	-	-
Acenaphthene	mg/kg	0.05	MCERTS	-	-	-	-	-
Fluorene	mg/kg	0.05	MCERTS	-	-	-	-	-
Phenanthrene	mg/kg	0.05	MCERTS	-	-	-	-	-
Anthracene	mg/kg	0.05	MCERTS	-	-	-	-	-
Fluoranthene	mg/kg	0.05	MCERTS	-	-	-	-	-
Pyrene	mg/kg	0.05	MCERTS	-	-	-	-	-
Benzo(a)anthracene	mg/kg	0.05	MCERTS	-	-	-	-	-
Chrysene	mg/kg	0.05	MCERTS	-	-	-	-	-
Benzo(b)fluoranthene	mg/kg	0.05	MCERTS	-	-	-	-	-
Benzo(k)fluoranthene	mg/kg	0.05	MCERTS	-	-	-	-	-
Benzo(a)pyrene	mg/kg	0.05	MCERTS	-	-	-	-	-
Indeno(1,2,3-cd)pyrene	mg/kg	0.05	MCERTS	-	-	-	-	-
Dibenz(a,h)anthracene	mg/kg	0.05	MCERTS	-	-	-	-	-
Benzo(ghi)perylene	mg/kg	0.05	MCERTS	-	-	-	-	-

Total PAH

Speciated Total EPA-16 PAHs	mg/kg	0.8	MCERTS	-	-	-	-	-

Analytical Report Number: 22-50733
Project / Site name: ICKENHAM
Your Order No: 20220407

Lab Sample Number				2232489	2232490	2232491	2232492	2232493
Sample Reference				TP04	TP04	TP14	TP12	TP08
Sample Number				None Supplied	None Supplied	None Supplied	None Supplied	None Supplied
Depth (m)				0.45	3.00	2.80	1.50	0.30
Date Sampled				06/04/2022	06/04/2022	05/04/2022	05/04/2022	05/04/2022
Time Taken				None Supplied	None Supplied	None Supplied	None Supplied	None Supplied
Analytical Parameter (Soil Analysis)	**Units**	**Limit of detection**	**Accreditation Status**					
Heavy Metals / Metalloids								
Arsenic (aqua regia extractable)	mg/kg	1	MCERTS	-	-	-	-	-
Boron (water soluble)	mg/kg	0.2	MCERTS	-	-	-	-	-
Cadmium (aqua regia extractable)	mg/kg	0.2	MCERTS	-	-	-	-	-
Chromium (hexavalent)	mg/kg	4	NONE	-	-	-	-	-
Chromium (aqua regia extractable)	mg/kg	1	MCERTS	-	-	-	-	-
Copper (aqua regia extractable)	mg/kg	1	MCERTS	-	-	-	-	-
Lead (aqua regia extractable)	mg/kg	1	MCERTS	-	-	-	-	-
Mercury (aqua regia extractable)	mg/kg	0.3	MCERTS	-	-	-	-	-
Nickel (aqua regia extractable)	mg/kg	1	MCERTS	-	-	-	-	-
Selenium (aqua regia extractable)	mg/kg	1	MCERTS	-	-	-	-	-
Zinc (aqua regia extractable)	mg/kg	1	MCERTS	-	-	-	-	-
Magnesium (water soluble)	mg/kg	5	NONE	28	27	660	39	< 5.0
Magnesium (leachate equivalent)	mg/l	2.5	NONE	14	13	330	20	< 2.5
Petroleum Hydrocarbons								
TPH6 - Aliphatic (C6 - C8) $_{HS\_1D\_AL}$	mg/kg	0.001	MCERTS	-	-	-	-	-
TPH6 - Aliphatic (C8 - C10) $_{HS\_1D\_AL}$	mg/kg	0.001	MCERTS	-	-	-	-	-
TPH6 - Aliphatic (C10 - C12) $_{EH\_CU\_1D\_AL}$	mg/kg	1	MCERTS	-	-	-	-	-
TPH6 - Aliphatic (C12 - C16) $_{EH\_CU\_1D\_AL}$	mg/kg	2	MCERTS	-	-	-	-	-
TPH6 - Aliphatic (C16 - C21) $_{EH\_CU\_1D\_AL}$	mg/kg	8	MCERTS	-	-	-	-	-
TPH6 - Aliphatic (C21 - C35) $_{EH\_CU\_1D\_AL}$	mg/kg	8	MCERTS	-	-	-	-	-
TPH6 - Aliphatic (C6 - C35) $_{EH\_CU+HS\_1D\_AL}$	mg/kg	10	NONE	-	-	-	-	-
TPH6 - Aromatic (C6 - C8) $_{HS\_1D\_AR}$	mg/kg	0.001	NONE	-	-	-	-	-
TPH6 - Aromatic (C8 - C10) $_{HS\_1D\_AR}$	mg/kg	0.001	MCERTS	-	-	-	-	-
TPH6 - Aromatic (C10 - C12) $_{EH\_CU\_1D\_AR}$	mg/kg	1	MCERTS	-	-	-	-	-
TPH6 - Aromatic (C12 - C16) $_{EH\_CU\_1D\_AR}$	mg/kg	2	MCERTS	-	-	-	-	-
TPH6 - Aromatic (C16 - C21) $_{EH\_CU\_1D\_AR}$	mg/kg	10	MCERTS	-	-	-	-	-
TPH6 - Aromatic (C21 - C35) $_{EH\_CU\_1D\_AR}$	mg/kg	10	MCERTS	-	-	-	-	-
TPH6 - Aromatic (C6 - C35) $_{EH\_CU+HS\_1D\_AR}$	mg/kg	10	NONE	-	-	-	-	-

U/S = Unsuitable Sample I/S = Insufficient Sample

Analytical Report Number: 22-50733
Project / Site name: ICKENHAM
Your Order No: 20220407

Lab Sample Number				2232494
Sample Reference				TP07
Sample Number				None Supplied
Depth (m)				1.00
Date Sampled				05/04/2022
Time Taken				None Supplied
Analytical Parameter (Soil Analysis)	**Units**	**Limit of detection**	**Accreditation Status**	
Stone Content	%	0.1	NONE	< 0.1
Moisture Content	%	0.01	NONE	9
Total mass of sample received	kg	0.001	NONE	0.5

Asbestos in Soil	Type	N/A	ISO 17025	-
Asbestos Analyst ID	N/A	N/A	N/A	N/A

General Inorganics

pH - Automated	pH Units	N/A	MCERTS	7.5
Total Cyanide	mg/kg	1	MCERTS	-
Total Sulphate as SO4	mg/kg	50	MCERTS	-
Total Sulphate as SO4	%	0.005	MCERTS	0.032
Water Soluble Sulphate as SO4 16hr extraction (2:1)	mg/kg	2.5	MCERTS	-
Water Soluble SO4 16hr extraction (2:1 Leachate Equivalent)	g/l	0.00125	MCERTS	0.042
Water Soluble SO4 16hr extraction (2:1 Leachate Equivalent)	mg/l	1.25	MCERTS	42.1
Sulphide	mg/kg	1	MCERTS	-
Water Soluble Chloride (2:1) (leachate equivalent)	mg/l	0.5	MCERTS	5.7
Total Sulphur	%	0.005	MCERTS	0.013
Ammoniacal Nitrogen as NH4	mg/kg	0.5	MCERTS	< 0.5
Ammonium as NH4 (10:1 leachate equivalent)	mg/l	0.05	MCERTS	< 0.05
Organic Matter (automated)	%	0.1	MCERTS	-
Water Soluble Nitrate (2:1) as N (leachate equivalent)	mg/l	2	NONE	< 2.0

Total Phenols

Total Phenols (monohydric)	mg/kg	1	MCERTS	-

Speciated PAHs

Naphthalene	mg/kg	0.05	MCERTS	-
Acenaphthylene	mg/kg	0.05	MCERTS	-
Acenaphthene	mg/kg	0.05	MCERTS	-
Fluorene	mg/kg	0.05	MCERTS	-
Phenanthrene	mg/kg	0.05	MCERTS	-
Anthracene	mg/kg	0.05	MCERTS	-
Fluoranthene	mg/kg	0.05	MCERTS	-
Pyrene	mg/kg	0.05	MCERTS	-
Benzo(a)anthracene	mg/kg	0.05	MCERTS	-
Chrysene	mg/kg	0.05	MCERTS	-
Benzo(b)fluoranthene	mg/kg	0.05	MCERTS	-
Benzo(k)fluoranthene	mg/kg	0.05	MCERTS	-
Benzo(a)pyrene	mg/kg	0.05	MCERTS	-
Indeno(1,2,3-cd)pyrene	mg/kg	0.05	MCERTS	-
Dibenz(a,h)anthracene	mg/kg	0.05	MCERTS	-
Benzo(ghi)perylene	mg/kg	0.05	MCERTS	-

Total PAH

Speciated Total EPA-16 PAHs	mg/kg	0.8	MCERTS	-

Analytical Report Number: 22-50733
Project / Site name: ICKENHAM
Your Order No: 20220407

Lab Sample Number				2232494
Sample Reference				TP07
Sample Number				None Supplied
Depth (m)				1.00
Date Sampled				05/04/2022
Time Taken				None Supplied
Analytical Parameter (Soil Analysis)	**Units**	**Limit of detection**	**Accreditation Status**	
Heavy Metals / Metalloids				
Arsenic (aqua regia extractable)	mg/kg	1	MCERTS	-
Boron (water soluble)	mg/kg	0.2	MCERTS	-
Cadmium (aqua regia extractable)	mg/kg	0.2	MCERTS	-
Chromium (hexavalent)	mg/kg	4	NONE	-
Chromium (aqua regia extractable)	mg/kg	1	MCERTS	-
Copper (aqua regia extractable)	mg/kg	1	MCERTS	-
Lead (aqua regia extractable)	mg/kg	1	MCERTS	-
Mercury (aqua regia extractable)	mg/kg	0.3	MCERTS	-
Nickel (aqua regia extractable)	mg/kg	1	MCERTS	-
Selenium (aqua regia extractable)	mg/kg	1	MCERTS	-
Zinc (aqua regia extractable)	mg/kg	1	MCERTS	-
Magnesium (water soluble)	mg/kg	5	NONE	14
Magnesium (leachate equivalent)	mg/l	2.5	NONE	7
Petroleum Hydrocarbons				
TPH6 - Aliphatic (C6 - C8) $_{HS\_1D\_AL}$	mg/kg	0.001	MCERTS	-
TPH6 - Aliphatic (C8 - C10) $_{HS\_1D\_AL}$	mg/kg	0.001	MCERTS	-
TPH6 - Aliphatic (C10 - C12) $_{EH\_CU\_1D\_AL}$	mg/kg	1	MCERTS	-
TPH6 - Aliphatic (C12 - C16) $_{EH\_CU\_1D\_AL}$	mg/kg	2	MCERTS	-
TPH6 - Aliphatic (C16 - C21) $_{EH\_CU\_1D\_AL}$	mg/kg	8	MCERTS	-
TPH6 - Aliphatic (C21 - C35) $_{EH\_CU\_1D\_AL}$	mg/kg	8	MCERTS	-
TPH6 - Aliphatic (C6 - C35) $_{EH\_CU+HS\_1D\_AL}$	mg/kg	10	NONE	-
TPH6 - Aromatic (C6 - C8) $_{HS\_1D\_AR}$	mg/kg	0.001	NONE	-
TPH6 - Aromatic (C8 - C10) $_{HS\_1D\_AR}$	mg/kg	0.001	MCERTS	-
TPH6 - Aromatic (C10 - C12) $_{EH\_CU\_1D\_AR}$	mg/kg	1	MCERTS	-
TPH6 - Aromatic (C12 - C16) $_{EH\_CU\_1D\_AR}$	mg/kg	2	MCERTS	-
TPH6 - Aromatic (C16 - C21) $_{EH\_CU\_1D\_AR}$	mg/kg	10	MCERTS	-
TPH6 - Aromatic (C21 - C35) $_{EH\_CU\_1D\_AR}$	mg/kg	10	MCERTS	-
TPH6 - Aromatic (C6 - C35) $_{EH\_CU+HS\_1D\_AR}$	mg/kg	10	NONE	-

U/S = Unsuitable Sample I/S = Insufficient Sample

Analytical Report Number: 22-50733
Project / Site name: ICKENHAM

Your Order No: 20220407

Lab Sample Number				2232495	2232496	2232497	2232498	2232499
Sample Reference				TP11	TP02	TP14	TP17	TP07
Sample Number				None Supplied	None Supplied	None Supplied	None Supplied	None Supplied
Depth (m)				0.30	0.20	0.30	0.30	0.20
Date Sampled				05/04/2022	06/04/2022	05/04/2022	05/04/2022	05/04/2022
Time Taken				None Supplied	None Supplied	None Supplied	None Supplied	None Supplied
Analytical Parameter (Leachate Analysis)	**Units**	**Limit of detection**	**Accreditation Status**					
General Inorganics								
pH (automated)	pH Units	N/A	ISO 17025	8.0	7.8	8.0	11.0	8.2
Total Cyanide	µg/l	10	ISO 17025	< 10	< 10	< 10	< 10	< 10
Sulphate as SO_4	mg/l	0.1	ISO 17025	51.4	5.3	8.5	36.6	13.5
Sulphide	µg/l	5	NONE	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0
Total Phenols								
Total Phenols (monohydric)	µg/l	1	ISO 17025	1.6	2.5	1.8	2	1.8
Heavy Metals / Metalloids								
Arsenic (dissolved)	µg/l	1	ISO 17025	1.1	1.4	6.1	4.4	2.5
Cadmium (dissolved)	µg/l	0.08	ISO 17025	< 0.08	< 0.08	< 0.08	< 0.08	< 0.08
Chromium (dissolved)	µg/l	0.4	ISO 17025	6.9	4.6	4.4	2.9	2.5
Copper (dissolved)	µg/l	0.7	ISO 17025	10	16	17	29	15
Lead (dissolved)	µg/l	1	ISO 17025	2.7	90	20	7.6	9
Mercury (dissolved)	µg/l	0.5	ISO 17025	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5
Nickel (dissolved)	µg/l	0.3	ISO 17025	4.2	5	4.8	4.3	4.6
Selenium (dissolved)	µg/l	4	ISO 17025	< 4.0	< 4.0	8.4	6.7	9.1
Zinc (dissolved)	µg/l	0.4	ISO 17025	25	22	15	13	12
Calcium (dissolved)	mg/l	0.012	ISO 17025	32	27	21	37	26
Magnesium (dissolved)	mg/l	0.005	ISO 17025	7	2	1.7	0.36	1.9

U/S = Unsuitable Sample I/S = Insufficient Sample

Analytical Report Number : 22-50733
Project / Site name: ICKENHAM

* These descriptions are only intended to act as a cross check if sample identities are questioned. The major constituent of the sample is intended to act with respect to MCERTS validation. The laboratory is accredited for sand, clay and loam (MCERTS) soil types. Data for unaccredited types of solid should be interpreted with care.

Stone content of a sample is calculated as the % weight of the stones not passing a 10 mm sieve. Results are not corrected for stone content.

Lab Sample Number	Sample Reference	Sample Number	Depth (m)	Sample Description *
2232484	TP11	None Supplied	0.3	Brown clay and loam with gravel and vegetation.
2232485	TP02	None Supplied	0.2	Brown clay and loam with gravel and vegetation.
2232486	TP14	None Supplied	0.3	Brown sandy loam with gravel and vegetation.
2232487	TP17	None Supplied	0.3	Brown sand with gravel.
2232488	TP07	None Supplied	0.2	Brown sand with gravel.
2232489	TP04	None Supplied	0.45	Brown clay with vegetation.
2232490	TP04	None Supplied	3	Brown clay.
2232491	TP14	None Supplied	2.8	Brown clay.
2232492	TP12	None Supplied	1.5	Brown clay.
2232493	TP08	None Supplied	0.3	Brown gravelly sand.
2232494	TP07	None Supplied	1	Brown clay and sand.

Analytical Report Number : 22-50733
Project / Site name: ICKENHAM

Water matrix abbreviations:
Surface Water (SW) Potable Water (PW) Ground Water (GW) Process Waters (PrW) Final Sewage Effluent (FSE) Landfill Leachate (LL)

Analytical Test Name	Analytical Method Description	Analytical Method Reference	Method number	Wet / Dry Analysis	Accreditation Status
Metals in soil by ICP-OES	Determination of metals in soil by aqua-regia digestion followed by ICP-OES.	In-house method based on MEWAM 2006 Methods for the Determination of Metals in Soil.	L038-PL	D	MCERTS
Sulphate, water soluble, in soil (16hr extraction)	Determination of water soluble sulphate by ICP-OES. Results reported directly (leachate equivalent) and corrected for extraction ratio (soil equivalent).	In house method.	L038-PL	D	MCERTS
BS EN 12457-1 (2:1) Leachate Prep	2:1 (as recieved, moisture adjusted) end over end extraction with water for 24 hours. Eluate filtered prior to analysis.	In-house method based on BSEN12457-1.	L043-PL	W	NONE
Asbestos identification in soil	Asbestos Identification with the use of polarised light microscopy in conjunction with disperion staining techniques.	In house method based on HSG 248	A001-PL	D	ISO 17025
Metals by ICP-OES in leachate	Determination of metals in leachate by acidification followed by ICP-OES.	In-house method based on MEWAM 2006 Methods for the Determination of Metals in Soil.	L039-PL	W	ISO 17025
Boron, water soluble, in soil	Determination of water soluble boron in soil by hot water extract followed by ICP-OES.	In-house method based on Second Site Properties version 3	L038-PL	D	MCERTS
Magnesium, water soluble, in soil	Determination of water soluble magnesium by extraction with water followed by ICP-OES.	In-house method based on TRL 447	L038-PL	D	NONE
Moisture Content	Moisture content, determined gravimetrically. (30 oC)	In house method.	L019-UK/PL	W	NONE
Monohydric phenols in leachate - LOW LEVEL 1 ug/l	Determination of phenols in leachate by distillation followed by colorimetry.	In-house method based on Examination of Water and Wastewater 20th Edition: Clesceri, Greenberg & Eaton (skalar)	L080-PL	W	ISO 17025
Monohydric phenols in soil	Determination of phenols in soil by extraction with sodium hydroxide followed by distillation followed by colorimetry.	In-house method based on Examination of Water and Wastewater 20th Edition: Clesceri, Greenberg & Eaton (skalar)	L080-PL	W	MCERTS
Speciated EPA-16 PAHs in soil	Determination of PAH compounds in soil by extraction in dichloromethane and hexane followed by GC-MS with the use of surrogate and internal standards.	In-house method based on USEPA 8270	L064-PL	D	MCERTS
pH in soil (automated)	Determination of pH in soil by addition of water followed by automated electrometric measurement.	In house method.	L099-PL	D	MCERTS
pH at 20oC in leachate (automated)	Determination of pH in leachate by electrometric measurement.	In house method.	L099B	W	ISO 17025
Sulphide in leachate	Determination of sulphide in leachate by ion selective electrode.	In-house method	L010-PL	W	NONE
Sulphide in soil	Determination of sulphide in soil by acidification and heating to liberate hydrogen sulphide, trapped in an alkaline solution then assayed by ion selective electrode.	In-house method	L010-PL	D	MCERTS
Total sulphate (as SO4 in soil)	Determination of total sulphate in soil by extraction with 10% HCl followed by ICP-OES.	In house method.	L038-PL	D	MCERTS
Stones content of soil	Standard preparation for all samples unless otherwise detailed. Gravimetric determination of stone > 10 mm as % dry weight.	In-house method based on British Standard Methods and MCERTS requirements.	L019-UK/PL	D	NONE

Analytical Report Number : 22-50733
Project / Site name: ICKENHAM

Water matrix abbreviations:
Surface Water (SW) Potable Water (PW) Ground Water (GW) Process Waters (PrW) Final Sewage Effluent (FSE) Landfill Leachate (LL)

Analytical Test Name	Analytical Method Description	Analytical Method Reference	Method number	Wet / Dry Analysis	Accreditation Status
TPH6 (Soil)	Determination of TPH bands by HS-GC-MS/GC-FID	In-house method with silica gel split/clean up.	L076-PL	D	MCERTS
Total cyanide in leachate	Determination of total cyanide by distillation followed by colorimetry.	In-house method based on Examination of Water and Wastewater 20th Edition: Clesceri, Greenberg & Eaton (Skalar)	L080-PL	W	ISO 17025
Total cyanide in soil	Determination of total cyanide by distillation followed by colorimetry.	In-house method based on Examination of Water and Wastewater 20th Edition: Clesceri, Greenberg & Eaton (Skalar)	L080-PL	W	MCERTS
Ammonium as NH4 in soil	Determination of Ammonium/Ammonia/ Ammoniacal Nitrogen by the colorimetric salicylate/nitroprusside method, 10:1 water extraction.	In-house method based on Examination of Water and Wastewater 20th Edition: Clesceri, Greenberg & Eaton	L082-PL	W	MCERTS
TPH Chromatogram in Soil	TPH Chromatogram in Soil.	In-house method	L064-PL	D	NONE
Sulphate in leachates	Determination of sulphate in leachate by acidification followed by ICP-OES.	In-house method based on MEWAM 1986 Methods for the Determination of Metals in Soil""	L039-PL	W	ISO 17025
Organic matter (Automated) in soil	Determination of organic matter in soil by oxidising with potassium dichromate followed by titration with iron (II) sulphate.	In house method.	L009-PL	D	MCERTS
Hexavalent chromium in soil	Determination of hexavalent chromium in soil by extraction in water then by acidification, addition of 1,5 diphenylcarbazide followed by colorimetry.	In-house method	L080-PL	W	NONE
Total Sulphate in soil as %	Determination of total sulphate in soil by extraction with 10% HCl followed by ICP-OES.	In house method.	L038-PL	D	MCERTS
Total Sulphur in soil as %	Determination of total sulphur in soil by extraction with aqua-regia, potassium bromide/bromate followed by ICP-OES.	In house method.	L038-PL	D	MCERTS
D.O. for Gravimetric Quant if Screen/ID positive	Dependent option for Gravimetric Quant if Screen/ID positive scheduled.	In house asbestos methods A001 & A006.	A006-PL	D	NONE
Water Soluble Nitrate (2:1) as N in soil	Determination of nitrate by reaction with sodium salicylate and colorimetry.	In-house method based on Examination of Water and Wastewatern & Polish Standard Method PN-82/C-04579.08, 2:1 extraction.	L078-PL	W	NONE
Chloride, water soluble, in soil	Determination of Chloride colorimetrically by discrete analyser.	In house method.	L082-PL	D	MCERTS
Sulphate, water soluble, in soil	Determination of water soluble sulphate by ICP-OES. Results reported directly (leachate equivalent) and corrected for extraction ratio (soil equivalent).	In house method.	L038-PL	D	MCERTS

For method numbers ending in 'UK' analysis have been carried out in our laboratory in the United Kingdom.
For method numbers ending in 'PL' analysis have been carried out in our laboratory in Poland.
Soil analytical results are expressed on a dry weight basis. Where analysis is carried out on as-received the results obtained are multiplied by a moisture correction factor that is determined gravimetrically using the moisture content which is carried out at a maximum of 30oC.

Unless otherwise indicated, site information, order number, project number, sampling date, time, sample reference and depth are provided by the client. The instructed on date indicates the date on which this information was provided to the laboratory.

Information in Support of Analytical Results

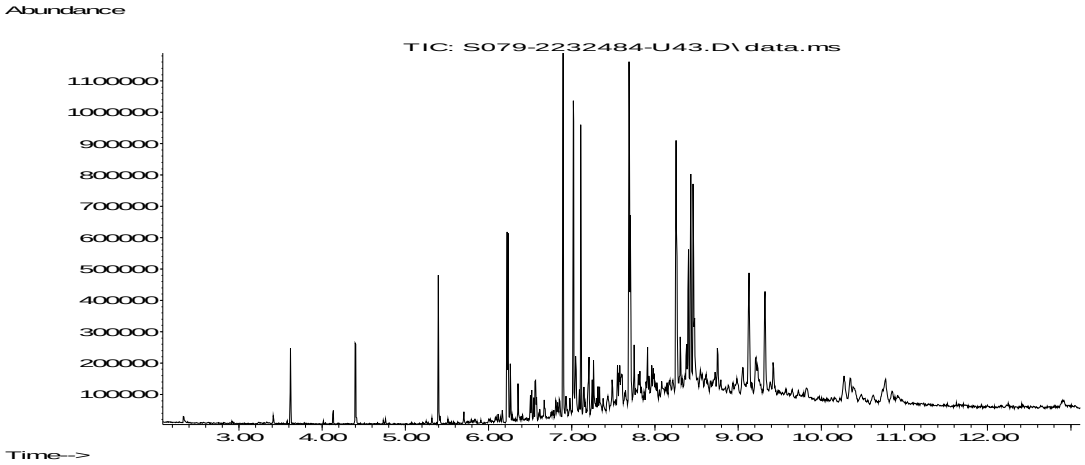
Analytical Report Number : 22-50733
Project / Site name: ICKENHAM

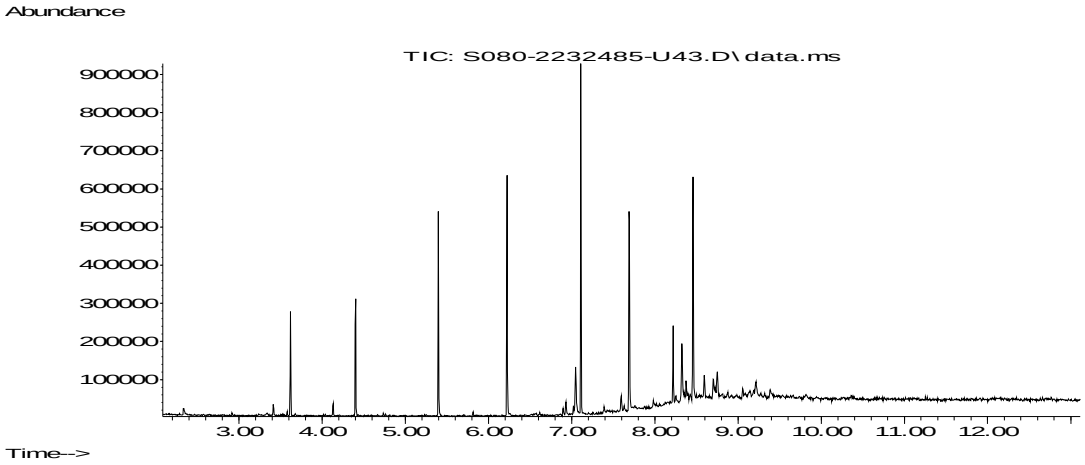
Water matrix abbreviations:
Surface Water (SW) Potable Water (PW) Ground Water (GW) Process Waters (PrW) Final Sewage Effluent (FSE) Landfill Leachate (LL)

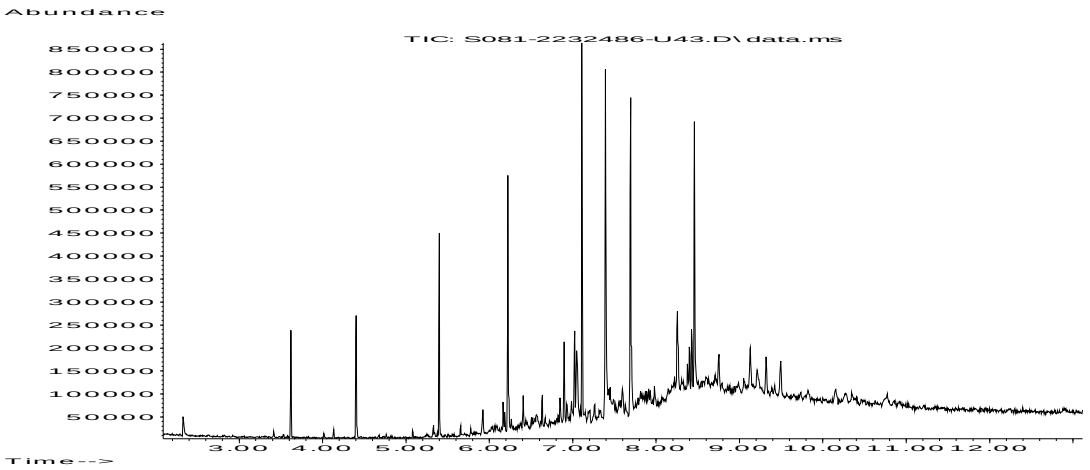
Analytical Test Name	Analytical Method Description	Analytical Method Reference	Method number	Wet / Dry Analysis	Accreditation Status

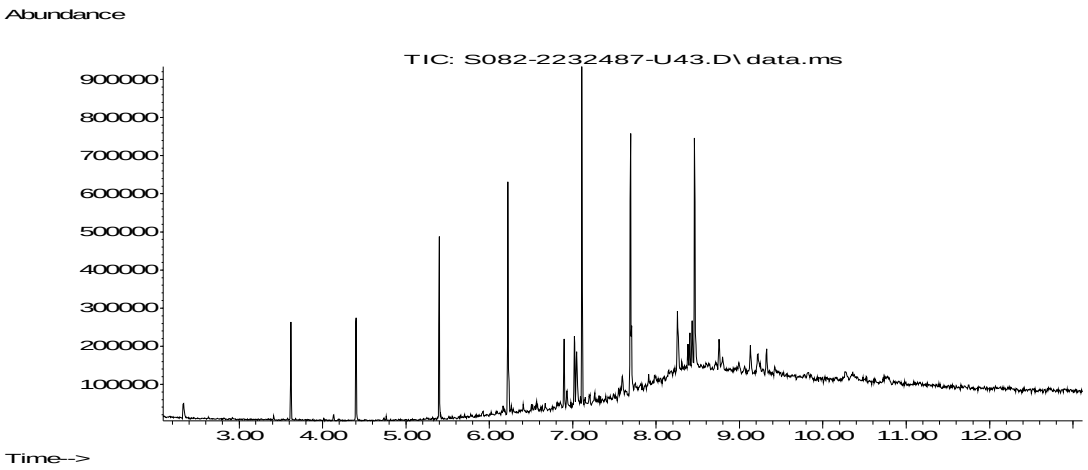
List of HWOL Acronyms and Operators

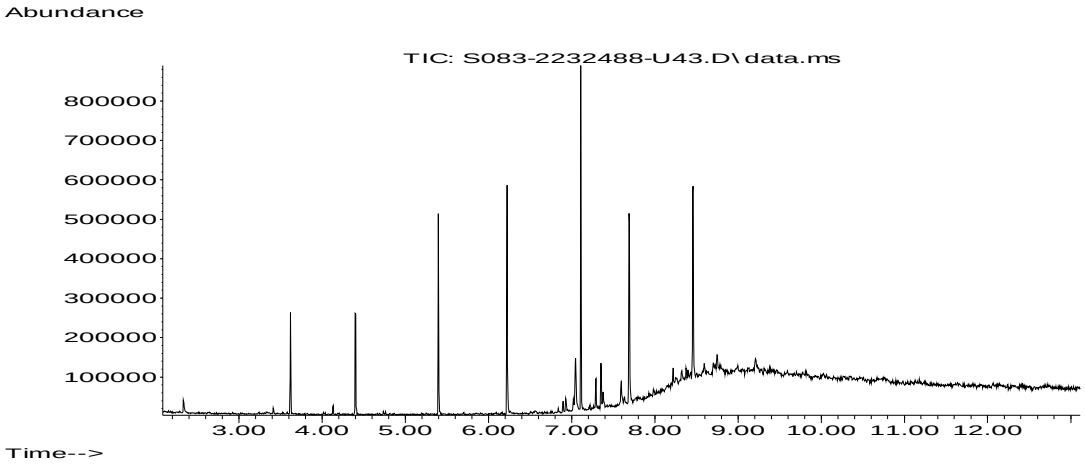
Acronym	Descriptions
HS	Headspace Analysis
MS	Mass spectrometry
FID	Flame Ionisation Detector
GC	Gas Chromatography
EH	Extractable Hydrocarbons (i.e. everything extracted by the solvent(s))
CU	Clean-up - e.g. by Florisil®, silica gel
1D	GC - Single coil/column gas chromatography
2D	GC-GC - Double coil/column gas chromatography
Total	Aliphatics & Aromatics
AL	Aliphatics
AR	Aromatics
#1	EH_2D_Total but with humics mathematically subtracted
#2	EH_2D_Total but with fatty acids mathematically subtracted
_	Operator - understore to separate acronyms (exception for +)
+	Operator to indicate cumulative e.g. EH+HS_Total or EH_CU+HS_Total


Abundance
TIC: S079-2232484-U43.D\data.ms
1100000
1000000
900000
800000
700000
600000
500000
400000
300000
200000
100000
3.00
4.00
5.00
6.00
7.00
8.00
9.00
10.00
11.00
12.00
Time-->


Abundance
TIC: S080-2232485-U43.D\data.ms
900000
800000
700000
600000
500000
400000
300000
200000
100000
3.00
4.00
5.00
6.00
7.00
8.00
9.00
10.00
11.00
12.00
Time-->


Abundance
TIC: S081-2232486-U43.D\data.ms
850000
800000
750000
700000
650000
600000
550000
500000
450000
400000
350000
300000
250000
200000
150000
100000
50000
3.00
4.00
5.00
6.00
7.00
8.00
9.00
10.00
11.00
12.00
Time-->


Abundance
TIC: S082-2232487-U43.D\ data.ms
900000
800000
700000
600000
500000
400000
300000
200000
100000
3.00
4.00
5.00
6.00
7.00
8.00
9.00
10.00
11.00
12.00
Time-->


Abundance
TIC: S083-2232488-U43.D\data.ms
800000
700000
600000
500000
400000
300000
200000
100000
3.00
4.00
5.00
6.00
7.00
8.00
9.00
10.00
11.00
12.00
Time-->

David Pacheco
Johnson Poole & Bloomer
Harris & Pearson Building
Brettell Lane
Brierley Hill
West Midlands
DY5 3LH

t: (01384) 262000

e: enquiries@jpb.co.uk

i2 Analytical Ltd.
7 Woodshots Meadow,
Croxley Green
Business Park,
Watford,
Herts,
WD18 8YS

t: 01923 225404
f: 01923 237404
e: reception@i2analytical.com

Analytical Report Number : 22-51366

Project / Site name:	ICKENHAM	**Samples received on:**	11/04/2022
Your job number:	WB307	**Samples instructed on/ Analysis started on:**	11/04/2022
Your order number:	20220407	**Analysis completed by:**	22/04/2022
Report Issue Number:	1	**Report issued on:**	22/04/2022
Samples Analysed:	11 leachate samples - 12 soil samples		

Signed:

Adam Fenwick
Technical Reviewer
For & on behalf of i2 Analytical Ltd.

Standard Geotechnical, Asbestos and Chemical Testing Laboratory located at: ul. Pionierów 39, 41 -711 Ruda Śląska, Poland.

Accredited tests are defined within the report, opinions and interpretations expressed herein are outside the scope of accreditation.

Standard sample disposal times, unless otherwise agreed with the laboratory, are :

soils - 4 weeks from reporting
leachates - 2 weeks from reporting
waters - 2 weeks from reporting
asbestos - 6 months from reporting

Excel copies of reports are only valid when accompanied by this PDF certificate.

Any assessments of compliance with specifications are based on actual analytical results with no contribution from uncertainty of measurement.
Application of uncertainty of measurement would provide a range within which the true result lies.
An estimate of measurement uncertainty can be provided on request.

Analytical Report Number: 22-51366
Project / Site name: ICKENHAM

Lab Sample Number				2236454	2236455	2236456	2236457	2236458
Sample Reference				WS01	WS02	WS05	WS03	WS04
Sample Number				None Supplied	None Supplied	None Supplied	None Supplied	None Supplied
Depth (m)				0.20	0.90-1.00	0.30-0.50	0.40-0.50	0.20-0.40
Date Sampled				07/04/2022	07/04/2022	07/04/2022	07/04/2022	07/04/2022
Time Taken				None Supplied	None Supplied	None Supplied	None Supplied	None Supplied
Analytical Parameter (Soil Analysis)	**Units**	**Limit of detection**	**Accreditation Status**					
Stone Content	%	0.1	NONE	< 0.1	< 0.1	31	< 0.1	< 0.1
Moisture Content	%	0.01	NONE	17	19	9.9	19	27
Total mass of sample received	kg	0.001	NONE	0.3	0.3	2	0.3	0.3
Asbestos in Soil Screen / Identification Name	Type	N/A	ISO 17025	-	-	Chrysotile	-	-
Asbestos in Soil	Type	N/A	ISO 17025	Not-detected	Not-detected	Detected	Not-detected	Not-detected
Asbestos Quantification (Stage 2)	%	0.001	ISO 17025	-	-	1.19	-	-
Asbestos Quantification Total	%	0.001	ISO 17025	-	-	1.19	-	-
Asbestos Analyst ID	N/A	N/A	N/A	EC	EC	EC	EC	EC
General Inorganics								
pH - Automated	pH Units	N/A	MCERTS	6.7	8.3	10.2	7.2	7.6
Electrical Conductivity	µS/cm	10	ISO 17025	-	110	-	-	-
Total Cyanide	mg/kg	1	MCERTS	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Total Sulphate as SO4	mg/kg	50	MCERTS	1000	4000	4600	350	910
Total Sulphate as SO4	%	0.005	MCERTS	-	-	-	-	0.091
Water Soluble Sulphate as SO4 16hr extraction (2:1)	mg/kg	2.5	MCERTS	28	13	1300	120	85
Water Soluble SO4 16hr extraction (2:1 Leachate Equivalent)	g/l	0.00125	MCERTS	0.014	0.0066	0.65	0.062	0.043
Water Soluble SO4 16hr extraction (2:1 Leachate Equivalent)	mg/l	1.25	MCERTS	-	-	-	-	42.5
Sulphide	mg/kg	1	MCERTS	1.8	1.5	< 1.0	19	7
Water Soluble Chloride (2:1) (leachate equivalent)	mg/l	0.5	MCERTS	-	-	-	-	5.3
Total Sulphur	%	0.005	MCERTS	-	-	-	-	0.059
Ammoniacal Nitrogen as NH4	mg/kg	0.5	MCERTS	-	-	-	-	< 0.5
Ammonium as NH4 (10:1 leachate equivalent)	mg/l	0.05	MCERTS	-	-	-	-	< 0.05
Organic Matter (automated)	%	0.1	MCERTS	3.7	0.4	< 0.1	0.9	8.4
Water Soluble Nitrate (2:1) as N (leachate equivalent)	mg/l	2	NONE	-	-	-	-	3.9
Redox Potential	mV	-800	NONE	-	25.6	-	-	-
Phenols by HPLC								
Catechol	mg/kg	0.1	ISO 17025	-	< 0.10	-	-	-
Resorcinol	mg/kg	0.1	ISO 17025	-	< 0.10	-	-	-
Cresols (o-, m-, p-)	mg/kg	0.3	ISO 17025	-	< 0.30	-	-	-
Total Naphthols (sum of 1- and 2- Naphthol)	mg/kg	0.2	ISO 17025	-	< 0.20	-	-	-
2-Isopropylphenol	mg/kg	0.1	ISO 17025	-	< 0.10	-	-	-
Phenol	mg/kg	0.1	ISO 17025	-	2.1	-	-	-
Trimethylphenol (2,3,5-)	mg/kg	0.1	ISO 17025	-	< 0.10	-	-	-
Total Xylenols and Ethylphenols	mg/kg	0.3	ISO 17025	-	< 0.30	-	-	-
Total Phenols								
Total Phenols (monohydric)	mg/kg	1	MCERTS	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Total Phenols (HPLC)	mg/kg	1.3	ISO 17025	-	2.1	-	-	-

Analytical Report Number: 22-51366
Project / Site name: ICKENHAM

Lab Sample Number				2236454	2236455	2236456	2236457	2236458
Sample Reference				WS01	WS02	WS05	WS03	WS04
Sample Number				None Supplied	None Supplied	None Supplied	None Supplied	None Supplied
Depth (m)				0.20	0.90-1.00	0.30-0.50	0.40-0.50	0.20-0.40
Date Sampled				07/04/2022	07/04/2022	07/04/2022	07/04/2022	07/04/2022
Time Taken				None Supplied	None Supplied	None Supplied	None Supplied	None Supplied
Analytical Parameter (Soil Analysis)	**Units**	**Limit of detection**	**Accreditation Status**					
Speciated PAHs								
Naphthalene	mg/kg	0.05	MCERTS	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
Acenaphthylene	mg/kg	0.05	MCERTS	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
Acenaphthene	mg/kg	0.05	MCERTS	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
Fluorene	mg/kg	0.05	MCERTS	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
Phenanthrene	mg/kg	0.05	MCERTS	< 0.05	< 0.05	< 0.05	0.59	1
Anthracene	mg/kg	0.05	MCERTS	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
Fluoranthene	mg/kg	0.05	MCERTS	< 0.05	< 0.05	< 0.05	0.42	0.97
Pyrene	mg/kg	0.05	MCERTS	< 0.05	< 0.05	< 0.05	0.28	0.74
Benzo(a)anthracene	mg/kg	0.05	MCERTS	< 0.05	< 0.05	< 0.05	< 0.05	0.45
Chrysene	mg/kg	0.05	MCERTS	< 0.05	< 0.05	< 0.05	< 0.05	0.33
Benzo(b)fluoranthene	mg/kg	0.05	MCERTS	< 0.05	< 0.05	< 0.05	< 0.05	0.33
Benzo(k)fluoranthene	mg/kg	0.05	MCERTS	< 0.05	< 0.05	< 0.05	< 0.05	0.2
Benzo(a)pyrene	mg/kg	0.05	MCERTS	< 0.05	< 0.05	< 0.05	< 0.05	0.36
Indeno(1,2,3-cd)pyrene	mg/kg	0.05	MCERTS	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
Dibenz(a,h)anthracene	mg/kg	0.05	MCERTS	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
Benzo(ghi)perylene	mg/kg	0.05	MCERTS	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
Total PAH								
Speciated Total EPA-16 PAHs	mg/kg	0.8	MCERTS	< 0.80	< 0.80	< 0.80	1.29	4.38
Heavy Metals / Metalloids								
Arsenic (aqua regia extractable)	mg/kg	1	MCERTS	16	17	9.5	11	14
Boron (water soluble)	mg/kg	0.2	MCERTS	1.7	0.9	1.2	1.1	0.7
Cadmium (aqua regia extractable)	mg/kg	0.2	MCERTS	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2
Chromium (hexavalent)	mg/kg	4	NONE	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0
Chromium (aqua regia extractable)	mg/kg	1	MCERTS	34	48	23	28	33
Copper (aqua regia extractable)	mg/kg	1	MCERTS	26	22	15	16	32
Lead (aqua regia extractable)	mg/kg	1	MCERTS	67	16	24	21	57
Mercury (aqua regia extractable)	mg/kg	0.3	MCERTS	< 0.3	< 0.3	< 0.3	< 0.3	< 0.3
Nickel (aqua regia extractable)	mg/kg	1	MCERTS	22	20	13	15	19
Selenium (aqua regia extractable)	mg/kg	1	MCERTS	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Zinc (aqua regia extractable)	mg/kg	1	MCERTS	91	58	37	46	130
Magnesium (water soluble)	mg/kg	5	NONE	-	-	-	-	21
Magnesium (leachate equivalent)	mg/l	2.5	NONE	-	-	-	-	10
Monoaromatics & Oxygenates								
Benzene	µg/kg	1	MCERTS	-	< 1.0	-	-	-
Toluene	µg/kg	1	MCERTS	-	< 1.0	-	-	-
Ethylbenzene	µg/kg	1	MCERTS	-	< 1.0	-	-	-
p & m-xylene	µg/kg	1	MCERTS	-	< 1.0	-	-	-
o-xylene	µg/kg	1	MCERTS	-	< 1.0	-	-	-
MTBE (Methyl Tertiary Butyl Ether)	µg/kg	1	MCERTS	-	< 1.0	-	-	-

Analytical Report Number: 22-51366
Project / Site name: ICKENHAM

Lab Sample Number				2236454	2236455	2236456	2236457	2236458
Sample Reference				WS01	WS02	WS05	WS03	WS04
Sample Number				None Supplied	None Supplied	None Supplied	None Supplied	None Supplied
Depth (m)				0.20	0.90-1.00	0.30-0.50	0.40-0.50	0.20-0.40
Date Sampled				07/04/2022	07/04/2022	07/04/2022	07/04/2022	07/04/2022
Time Taken				None Supplied	None Supplied	None Supplied	None Supplied	None Supplied
Analytical Parameter (Soil Analysis)	**Units**	**Limit of detection**	**Accreditation Status**					
Petroleum Hydrocarbons								
Mineral Oil (C10 - C20) EH_CU_1D_AL	mg/kg	10	NONE	-	< 10	-	-	-
Mineral Oil (C21 - C40) EH_CU_1D_AL	mg/kg	10	NONE	-	< 10	-	-	-
TPH6 - Aliphatic (C6 - C8) HS_1D_AL	mg/kg	0.001	MCERTS	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
TPH6 - Aliphatic (C8 - C10) HS_1D_AL	mg/kg	0.001	MCERTS	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
TPH6 - Aliphatic (C10 - C12) EH_CU_1D_AL	mg/kg	1	MCERTS	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
TPH6 - Aliphatic (C12 - C16) EH_CU_1D_AL	mg/kg	2	MCERTS	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0
TPH6 - Aliphatic (C16 - C21) EH_CU_1D_AL	mg/kg	8	MCERTS	< 8.0	< 8.0	8.7	< 8.0	10
TPH6 - Aliphatic (C21 - C35) EH_CU_1D_AL	mg/kg	8	MCERTS	< 8.0	< 8.0	40	< 8.0	51
TPH6 - Aliphatic (C6 - C35) EH_CU+HS_1D_AL	mg/kg	10	NONE	< 10	< 10	49	< 10	61
TPH6 - Aromatic (C6 - C8) HS_1D_AR	mg/kg	0.001	NONE	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
TPH6 - Aromatic (C8 - C10) HS_1D_AR	mg/kg	0.001	MCERTS	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
TPH6 - Aromatic (C10 - C12) EH_CU_1D_AR	mg/kg	1	MCERTS	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
TPH6 - Aromatic (C12 - C16) EH_CU_1D_AR	mg/kg	2	MCERTS	< 2.0	< 2.0	< 2.0	4.2	< 2.0
TPH6 - Aromatic (C16 - C21) EH_CU_1D_AR	mg/kg	10	MCERTS	< 10	< 10	< 10	< 10	< 10
TPH6 - Aromatic (C21 - C35) EH_CU_1D_AR	mg/kg	10	MCERTS	< 10	< 10	< 10	< 10	< 10
TPH6 - Aromatic (C6 - C35) EH_CU+HS_1D_AR	mg/kg	10	NONE	< 10	< 10	< 10	< 10	< 10
TPH (C5 - C10) HS_1D_TOTAL	mg/kg	1	NONE	-	< 1.0	-	-	-
Chlorinated Solvents								
Total Chlorinated Solvents	µg/kg	100	NONE	-	< 100	-	-	-

Analytical Report Number: 22-51366
Project / Site name: ICKENHAM

Lab Sample Number				2236454	2236455	2236456	2236457	2236458
Sample Reference				WS01	WS02	WS05	WS03	WS04
Sample Number				None Supplied	None Supplied	None Supplied	None Supplied	None Supplied
Depth (m)				0.20	0.90-1.00	0.30-0.50	0.40-0.50	0.20-0.40
Date Sampled				07/04/2022	07/04/2022	07/04/2022	07/04/2022	07/04/2022
Time Taken				None Supplied	None Supplied	None Supplied	None Supplied	None Supplied
Analytical Parameter (Soil Analysis)	**Units**	**Limit of detection**	**Accreditation Status**					
VOCs								
Chloromethane	µg/kg	1	ISO 17025	-	< 1.0	< 1.0	-	-
Chloroethane	µg/kg	1	NONE	-	< 1.0	< 1.0	-	-
Bromomethane	µg/kg	1	ISO 17025	-	< 1.0	< 1.0	-	-
Vinyl Chloride	µg/kg	1	NONE	-	< 1.0	< 1.0	-	-
Trichlorofluoromethane	µg/kg	1	NONE	-	< 1.0	< 1.0	-	-
1,1-Dichloroethene	µg/kg	1	NONE	-	< 1.0	< 1.0	-	-
1,1,2-Trichloro 1,2,2-Trifluoroethane	µg/kg	1	ISO 17025	-	< 1.0	< 1.0	-	-
Cis-1,2-dichloroethene	µg/kg	1	MCERTS	-	< 1.0	< 1.0	-	-
MTBE (Methyl Tertiary Butyl Ether)	µg/kg	1	MCERTS	-	< 1.0	< 1.0	-	-
1,1-Dichloroethane	µg/kg	1	MCERTS	-	< 1.0	< 1.0	-	-
2,2-Dichloropropane	µg/kg	1	MCERTS	-	< 1.0	< 1.0	-	-
Trichloromethane	µg/kg	1	MCERTS	-	< 1.0	< 1.0	-	-
1,1,1-Trichloroethane	µg/kg	1	MCERTS	-	< 1.0	< 1.0	-	-
1,2-Dichloroethane	µg/kg	1	MCERTS	-	< 1.0	< 1.0	-	-
1,1-Dichloropropene	µg/kg	1	MCERTS	-	< 1.0	< 1.0	-	-
Trans-1,2-dichloroethene	µg/kg	1	NONE	-	< 1.0	< 1.0	-	-
Benzene	µg/kg	1	MCERTS	-	< 1.0	< 1.0	-	-
Tetrachloromethane	µg/kg	1	MCERTS	-	< 1.0	< 1.0	-	-
1,2-Dichloropropane	µg/kg	1	MCERTS	-	< 1.0	< 1.0	-	-
Trichloroethene	µg/kg	1	MCERTS	-	< 1.0	< 1.0	-	-
Dibromomethane	µg/kg	1	MCERTS	-	< 1.0	< 1.0	-	-
Bromodichloromethane	µg/kg	1	MCERTS	-	< 1.0	< 1.0	-	-
Cis-1,3-dichloropropene	µg/kg	1	ISO 17025	-	< 1.0	< 1.0	-	-
Trans-1,3-dichloropropene	µg/kg	1	ISO 17025	-	< 1.0	< 1.0	-	-
Toluene	µg/kg	1	MCERTS	-	< 1.0	< 1.0	-	-
1,1,2-Trichloroethane	µg/kg	1	MCERTS	-	< 1.0	< 1.0	-	-
1,3-Dichloropropane	µg/kg	1	ISO 17025	-	< 1.0	< 1.0	-	-
Dibromochloromethane	µg/kg	1	ISO 17025	-	< 1.0	< 1.0	-	-
Tetrachloroethene	µg/kg	1	NONE	-	< 1.0	< 1.0	-	-
1,2-Dibromoethane	µg/kg	1	ISO 17025	-	< 1.0	< 1.0	-	-
Chlorobenzene	µg/kg	1	MCERTS	-	< 1.0	< 1.0	-	-
1,1,1,2-Tetrachloroethane	µg/kg	1	MCERTS	-	< 1.0	< 1.0	-	-
Ethylbenzene	µg/kg	1	MCERTS	-	< 1.0	< 1.0	-	-
p & m-Xylene	µg/kg	1	MCERTS	-	< 1.0	< 1.0	-	-
Styrene	µg/kg	1	MCERTS	-	< 1.0	< 1.0	-	-
Tribromomethane	µg/kg	1	NONE	-	< 1.0	< 1.0	-	-
o-Xylene	µg/kg	1	MCERTS	-	< 1.0	< 1.0	-	-
1,1,2,2-Tetrachloroethane	µg/kg	1	MCERTS	-	< 1.0	< 1.0	-	-
Isopropylbenzene	µg/kg	1	MCERTS	-	< 1.0	< 1.0	-	-
Bromobenzene	µg/kg	1	MCERTS	-	< 1.0	< 1.0	-	-
n-Propylbenzene	µg/kg	1	ISO 17025	-	< 1.0	< 1.0	-	-
2-Chlorotoluene	µg/kg	1	MCERTS	-	< 1.0	< 1.0	-	-
4-Chlorotoluene	µg/kg	1	MCERTS	-	< 1.0	< 1.0	-	-
1,3,5-Trimethylbenzene	µg/kg	1	ISO 17025	-	< 1.0	< 1.0	-	-
tert-Butylbenzene	µg/kg	1	MCERTS	-	< 1.0	< 1.0	-	-
1,2,4-Trimethylbenzene	µg/kg	1	ISO 17025	-	< 1.0	< 1.0	-	-
sec-Butylbenzene	µg/kg	1	MCERTS	-	< 1.0	< 1.0	-	-
1,3-Dichlorobenzene	µg/kg	1	ISO 17025	-	< 1.0	< 1.0	-	-
p-Isopropyltoluene	µg/kg	1	ISO 17025	-	< 1.0	< 1.0	-	-
1,2-Dichlorobenzene	µg/kg	1	MCERTS	-	< 1.0	< 1.0	-	-
1,4-Dichlorobenzene	µg/kg	1	MCERTS	-	< 1.0	< 1.0	-	-
Butylbenzene	µg/kg	1	MCERTS	-	< 1.0	< 1.0	-	-
1,2-Dibromo-3-chloropropane	µg/kg	1	ISO 17025	-	< 1.0	< 1.0	-	-
1,2,4-Trichlorobenzene	µg/kg	1	MCERTS	-	< 1.0	< 1.0	-	-
Hexachlorobutadiene	µg/kg	1	MCERTS	-	< 1.0	< 1.0	-	-

Analytical Report Number: 22-51366
Project / Site name: ICKENHAM

Lab Sample Number				2236454	2236455	2236456	2236457	2236458
Sample Reference				WS01	WS02	WS05	WS03	WS04
Sample Number				None Supplied	None Supplied	None Supplied	None Supplied	None Supplied
Depth (m)				0.20	0.90-1.00	0.30-0.50	0.40-0.50	0.20-0.40
Date Sampled				07/04/2022	07/04/2022	07/04/2022	07/04/2022	07/04/2022
Time Taken				None Supplied	None Supplied	None Supplied	None Supplied	None Supplied
Analytical Parameter (Soil Analysis)	Units	Limit of detection	Accreditation Status					
1,2,3-Trichlorobenzene	µg/kg	1	ISO 17025	-	< 1.0	< 1.0	-	-

Analytical Report Number: 22-51366
Project / Site name: ICKENHAM

Lab Sample Number				2236454	2236455	2236456	2236457	2236458
Sample Reference				WS01	WS02	WS05	WS03	WS04
Sample Number				None Supplied	None Supplied	None Supplied	None Supplied	None Supplied
Depth (m)				0.20	0.90-1.00	0.30-0.50	0.40-0.50	0.20-0.40
Date Sampled				07/04/2022	07/04/2022	07/04/2022	07/04/2022	07/04/2022
Time Taken				None Supplied	None Supplied	None Supplied	None Supplied	None Supplied
Analytical Parameter (Soil Analysis)	**Units**	**Limit of detection**	**Accreditation Status**					
VOCs TICs								
VOCs TICs Compound Name		N/A	NONE	-	None detected	-	-	-
VOC % Match	%	N/A	NONE	-	0	-	-	-
SVOCs								
Aniline	mg/kg	0.1	NONE	-	< 0.1	-	-	-
Phenol	mg/kg	0.2	ISO 17025	-	< 0.2	-	-	-
2-Chlorophenol	mg/kg	0.1	MCERTS	-	< 0.1	-	-	-
Bis(2-chloroethyl)ether	mg/kg	0.2	MCERTS	-	< 0.2	-	-	-
1,3-Dichlorobenzene	mg/kg	0.2	MCERTS	-	< 0.2	-	-	-
1,2-Dichlorobenzene	mg/kg	0.1	MCERTS	-	< 0.1	-	-	-
1,4-Dichlorobenzene	mg/kg	0.2	MCERTS	-	< 0.2	-	-	-
Bis(2-chloroisopropyl)ether	mg/kg	0.1	MCERTS	-	< 0.1	-	-	-
2-Methylphenol	mg/kg	0.3	MCERTS	-	< 0.3	-	-	-
Hexachloroethane	mg/kg	0.05	MCERTS	-	< 0.05	-	-	-
Nitrobenzene	mg/kg	0.3	MCERTS	-	< 0.3	-	-	-
4-Methylphenol	mg/kg	0.2	NONE	-	< 0.2	-	-	-
Isophorone	mg/kg	0.2	MCERTS	-	< 0.2	-	-	-
2-Nitrophenol	mg/kg	0.3	MCERTS	-	< 0.3	-	-	-
2,4-Dimethylphenol	mg/kg	0.3	MCERTS	-	< 0.3	-	-	-
Bis(2-chloroethoxy)methane	mg/kg	0.3	MCERTS	-	< 0.3	-	-	-
1,2,4-Trichlorobenzene	mg/kg	0.3	MCERTS	-	< 0.3	-	-	-
Naphthalene	mg/kg	0.05	MCERTS	-	< 0.05	-	-	-
2,4-Dichlorophenol	mg/kg	0.3	MCERTS	-	< 0.3	-	-	-
4-Chloroaniline	mg/kg	0.1	NONE	-	< 0.1	-	-	-
Hexachlorobutadiene	mg/kg	0.1	MCERTS	-	< 0.1	-	-	-
4-Chloro-3-methylphenol	mg/kg	0.1	NONE	-	< 0.1	-	-	-
2,4,6-Trichlorophenol	mg/kg	0.1	MCERTS	-	< 0.1	-	-	-
2,4,5-Trichlorophenol	mg/kg	0.2	MCERTS	-	< 0.2	-	-	-
2-Methylnaphthalene	mg/kg	0.1	NONE	-	< 0.1	-	-	-
2-Chloronaphthalene	mg/kg	0.1	MCERTS	-	< 0.1	-	-	-
Dimethylphthalate	mg/kg	0.1	MCERTS	-	< 0.1	-	-	-
2,6-Dinitrotoluene	mg/kg	0.1	MCERTS	-	< 0.1	-	-	-
Acenaphthylene	mg/kg	0.05	MCERTS	-	< 0.05	-	-	-
Acenaphthene	mg/kg	0.05	MCERTS	-	< 0.05	-	-	-
2,4-Dinitrotoluene	mg/kg	0.2	MCERTS	-	< 0.2	-	-	-
Dibenzofuran	mg/kg	0.2	MCERTS	-	< 0.2	-	-	-
4-Chlorophenyl phenyl ether	mg/kg	0.3	ISO 17025	-	< 0.3	-	-	-
Diethyl phthalate	mg/kg	0.2	MCERTS	-	< 0.2	-	-	-
4-Nitroaniline	mg/kg	0.2	MCERTS	-	< 0.2	-	-	-
Fluorene	mg/kg	0.05	MCERTS	-	< 0.05	-	-	-
Azobenzene	mg/kg	0.3	MCERTS	-	< 0.3	-	-	-
Bromophenyl phenyl ether	mg/kg	0.2	MCERTS	-	< 0.2	-	-	-
Hexachlorobenzene	mg/kg	0.3	MCERTS	-	< 0.3	-	-	-
Phenanthrene	mg/kg	0.05	MCERTS	-	< 0.05	-	-	-
Anthracene	mg/kg	0.05	MCERTS	-	< 0.05	-	-	-
Carbazole	mg/kg	0.3	MCERTS	-	< 0.3	-	-	-
Dibutyl phthalate	mg/kg	0.2	MCERTS	-	< 0.2	-	-	-
Anthraquinone	mg/kg	0.3	MCERTS	-	< 0.3	-	-	-
Fluoranthene	mg/kg	0.05	MCERTS	-	< 0.05	-	-	-
Pyrene	mg/kg	0.05	MCERTS	-	< 0.05	-	-	-
Butyl benzyl phthalate	mg/kg	0.3	ISO 17025	-	< 0.3	-	-	-
Benzo(a)anthracene	mg/kg	0.05	MCERTS	-	< 0.05	-	-	-
Chrysene	mg/kg	0.05	MCERTS	-	< 0.05	-	-	-
Benzo(b)fluoranthene	mg/kg	0.05	MCERTS	-	< 0.05	-	-	-
Benzo(k)fluoranthene	mg/kg	0.05	MCERTS	-	< 0.05	-	-	-

Analytical Report Number: 22-51366
Project / Site name: ICKENHAM

Lab Sample Number				2236454	2236455	2236456	2236457	2236458
Sample Reference				WS01	WS02	WS05	WS03	WS04
Sample Number				None Supplied	None Supplied	None Supplied	None Supplied	None Supplied
Depth (m)				0.20	0.90-1.00	0.30-0.50	0.40-0.50	0.20-0.40
Date Sampled				07/04/2022	07/04/2022	07/04/2022	07/04/2022	07/04/2022
Time Taken				None Supplied	None Supplied	None Supplied	None Supplied	None Supplied
Analytical Parameter (Soil Analysis)	**Units**	**Limit of detection**	**Accreditation Status**					
Benzo(a)pyrene	mg/kg	0.05	MCERTS	-	< 0.05	-	-	-
Indeno(1,2,3-cd)pyrene	mg/kg	0.05	MCERTS	-	< 0.05	-	-	-
Dibenz(a,h)anthracene	mg/kg	0.05	MCERTS	-	< 0.05	-	-	-
Benzo(ghi)perylene	mg/kg	0.05	MCERTS	-	< 0.05	-	-	-
SVOCs TICs								
SVOCs TICs Compound Name		N/A	NONE	-	None Detected	-	-	-
SVOC % Match	%	N/A	NONE	-	0	-	-	-
Aldehydes (various)								
Acetaldehyde	mg/kg	1	NONE	-	< 1	-	-	-
Propanal	mg/kg	1	NONE	-	< 1	-	-	-
Butanal	mg/kg	1	NONE	-	< 1	-	-	-
Methacrolein [Crotonaldehyde]	mg/kg	1	NONE	-	< 1	-	-	-
Pentanal	mg/kg	1	NONE	-	< 1	-	-	-
Hexanal	mg/kg	1	NONE	-	< 1	-	-	-
Heptanal	mg/kg	1	NONE	-	< 1	-	-	-
Benzaldehyde	mg/kg	1	NONE	-	< 1	-	-	-
Octanal	mg/kg	1	NONE	-	< 1	-	-	-
Nonanal	mg/kg	1	NONE	-	< 1	-	-	-
Decanal	mg/kg	1	NONE	-	< 1	-	-	-
PCBs by GC-MS								
PCB Congener 28	mg/kg	0.001	MCERTS	-	-	< 0.001	-	-
PCB Congener 52	mg/kg	0.001	MCERTS	-	-	< 0.001	-	-
PCB Congener 101	mg/kg	0.001	MCERTS	-	-	< 0.001	-	-
PCB Congener 118	mg/kg	0.001	MCERTS	-	-	< 0.001	-	-
PCB Congener 138	mg/kg	0.001	MCERTS	-	-	< 0.001	-	-
PCB Congener 153	mg/kg	0.001	MCERTS	-	-	< 0.001	-	-
PCB Congener 180	mg/kg	0.001	MCERTS	-	-	< 0.001	-	-
Total PCBs by GC-MS								
Total PCBs	mg/kg	0.007	MCERTS	-	-	< 0.007	-	-
Miscellaneous Organics								
Acetone	mg/kg	0.1	NONE	-	< 0.1	-	-	-

U/S = Unsuitable Sample I/S = Insufficient Sample

Analytical Report Number: 22-51366
Project / Site name: ICKENHAM

Lab Sample Number				2236459	2236460	2236461	2236462	2236463
Sample Reference				WS06	WS08	WS08	WS09	WS12
Sample Number				None Supplied	None Supplied	None Supplied	None Supplied	None Supplied
Depth (m)				0.90-1.00	0.20-0.30	1.00-1.20	0.20-0.30	0.40-0.50
Date Sampled				08/04/2022	08/04/2022	08/04/2022	08/04/2022	08/04/2022
Time Taken				None Supplied	None Supplied	None Supplied	None Supplied	None Supplied
Analytical Parameter (Soil Analysis)	**Units**	**Limit of detection**	**Accreditation Status**					
Stone Content	%	0.1	NONE	< 0.1	< 0.1	20	< 0.1	< 0.1
Moisture Content	%	0.01	NONE	18	16	9.9	19	18
Total mass of sample received	kg	0.001	NONE	0.3	0.3	0.3	1	1
Asbestos in Soil Screen / Identification Name	Type	N/A	ISO 17025	-	-	-	-	-
Asbestos in Soil	Type	N/A	ISO 17025	Not-detected	Not-detected	-	Not-detected	Not-detected
Asbestos Quantification (Stage 2)	%	0.001	ISO 17025	-	-	-	-	-
Asbestos Quantification Total	%	0.001	ISO 17025	-	-	-	-	-
Asbestos Analyst ID	N/A	N/A	N/A	EC	EC	N/A	EC	EC
General Inorganics								
pH - Automated	pH Units	N/A	MCERTS	7.1	7.7	7.8	8.6	8.0
Electrical Conductivity	µS/cm	10	ISO 17025	510	-	180	-	-
Total Cyanide	mg/kg	1	MCERTS	< 1.0	< 1.0	-	< 1.0	< 1.0
Total Sulphate as SO4	mg/kg	50	MCERTS	560	570	-	210	380
Total Sulphate as SO4	%	0.005	MCERTS	-	-	-	-	-
Water Soluble Sulphate as SO4 16hr extraction (2:1)	mg/kg	2.5	MCERTS	440	22	-	42	40
Water Soluble SO4 16hr extraction (2:1 Leachate Equivalent)	g/l	0.00125	MCERTS	0.22	0.011	-	0.021	0.02
Water Soluble SO4 16hr extraction (2:1 Leachate Equivalent)	mg/l	1.25	MCERTS	-	-	-	-	-
Sulphide	mg/kg	1	MCERTS	4.6	1.2	-	< 1.0	2.4
Water Soluble Chloride (2:1) (leachate equivalent)	mg/l	0.5	MCERTS	-	-	-	-	-
Total Sulphur	%	0.005	MCERTS	-	-	-	-	-
Ammoniacal Nitrogen as NH4	mg/kg	0.5	MCERTS	-	-	-	-	-
Ammonium as NH4 (10:1 leachate equivalent)	mg/l	0.05	MCERTS	-	-	-	-	-
Organic Matter (automated)	%	0.1	MCERTS	0.5	2.9	-	0.6	2.9
Water Soluble Nitrate (2:1) as N (leachate equivalent)	mg/l	2	NONE	-	-	-	-	-
Redox Potential	mV	-800	NONE	133.5	-	256.6	-	-
Phenols by HPLC								
Catechol	mg/kg	0.1	ISO 17025	< 0.10	-	< 0.10	-	-
Resorcinol	mg/kg	0.1	ISO 17025	< 0.10	-	< 0.10	-	-
Cresols (o-, m-, p-)	mg/kg	0.3	ISO 17025	< 0.30	-	< 0.30	-	-
Total Naphthols (sum of 1- and 2- Naphthol)	mg/kg	0.2	ISO 17025	< 0.20	-	< 0.20	-	-
2-Isopropylphenol	mg/kg	0.1	ISO 17025	< 0.10	-	< 0.10	-	-
Phenol	mg/kg	0.1	ISO 17025	1.5	-	< 0.10	-	-
Trimethylphenol (2,3,5-)	mg/kg	0.1	ISO 17025	< 0.10	-	< 0.10	-	-
Total Xylenols and Ethylphenols	mg/kg	0.3	ISO 17025	< 0.30	-	< 0.30	-	-
Total Phenols								
Total Phenols (monohydric)	mg/kg	1	MCERTS	< 1.0	< 1.0	-	< 1.0	< 1.0
Total Phenols (HPLC)	mg/kg	1.3	ISO 17025	1.5	-	< 1.3	-	-

Analytical Report Number: 22-51366
Project / Site name: ICKENHAM

Lab Sample Number				2236459	2236460	2236461	2236462	2236463
Sample Reference				WS06	WS08	WS08	WS09	WS12
Sample Number				None Supplied	None Supplied	None Supplied	None Supplied	None Supplied
Depth (m)				0.90-1.00	0.20-0.30	1.00-1.20	0.20-0.30	0.40-0.50
Date Sampled				08/04/2022	08/04/2022	08/04/2022	08/04/2022	08/04/2022
Time Taken				None Supplied	None Supplied	None Supplied	None Supplied	None Supplied
Analytical Parameter (Soil Analysis)	**Units**	**Limit of detection**	**Accreditation Status**					
Speciated PAHs								
Naphthalene	mg/kg	0.05	MCERTS	< 0.05	< 0.05	-	< 0.05	< 0.05
Acenaphthylene	mg/kg	0.05	MCERTS	< 0.05	< 0.05	-	< 0.05	< 0.05
Acenaphthene	mg/kg	0.05	MCERTS	0.25	< 0.05	-	< 0.05	< 0.05
Fluorene	mg/kg	0.05	MCERTS	0.3	< 0.05	-	< 0.05	< 0.05
Phenanthrene	mg/kg	0.05	MCERTS	1.8	< 0.05	-	< 0.05	< 0.05
Anthracene	mg/kg	0.05	MCERTS	0.26	< 0.05	-	< 0.05	< 0.05
Fluoranthene	mg/kg	0.05	MCERTS	1.2	< 0.05	-	< 0.05	< 0.05
Pyrene	mg/kg	0.05	MCERTS	0.79	< 0.05	-	< 0.05	< 0.05
Benzo(a)anthracene	mg/kg	0.05	MCERTS	0.3	< 0.05	-	< 0.05	< 0.05
Chrysene	mg/kg	0.05	MCERTS	0.29	< 0.05	-	< 0.05	< 0.05
Benzo(b)fluoranthene	mg/kg	0.05	MCERTS	< 0.05	< 0.05	-	< 0.05	< 0.05
Benzo(k)fluoranthene	mg/kg	0.05	MCERTS	< 0.05	< 0.05	-	< 0.05	< 0.05
Benzo(a)pyrene	mg/kg	0.05	MCERTS	< 0.05	< 0.05	-	< 0.05	< 0.05
Indeno(1,2,3-cd)pyrene	mg/kg	0.05	MCERTS	< 0.05	< 0.05	-	< 0.05	< 0.05
Dibenz(a,h)anthracene	mg/kg	0.05	MCERTS	< 0.05	< 0.05	-	< 0.05	< 0.05
Benzo(ghi)perylene	mg/kg	0.05	MCERTS	< 0.05	< 0.05	-	< 0.05	< 0.05
Total PAH								
Speciated Total EPA-16 PAHs	mg/kg	0.8	MCERTS	5.19	< 0.80	-	< 0.80	< 0.80
Heavy Metals / Metalloids								
Arsenic (aqua regia extractable)	mg/kg	1	MCERTS	14	15	-	15	17
Boron (water soluble)	mg/kg	0.2	MCERTS	0.4	0.5	-	1.4	1.8
Cadmium (aqua regia extractable)	mg/kg	0.2	MCERTS	< 0.2	< 0.2	-	< 0.2	< 0.2
Chromium (hexavalent)	mg/kg	4	NONE	< 4.0	< 4.0	-	< 4.0	< 4.0
Chromium (aqua regia extractable)	mg/kg	1	MCERTS	50	35	-	49	36
Copper (aqua regia extractable)	mg/kg	1	MCERTS	34	26	-	31	28
Lead (aqua regia extractable)	mg/kg	1	MCERTS	24	50	-	27	51
Mercury (aqua regia extractable)	mg/kg	0.3	MCERTS	< 0.3	< 0.3	-	< 0.3	< 0.3
Nickel (aqua regia extractable)	mg/kg	1	MCERTS	34	25	-	43	22
Selenium (aqua regia extractable)	mg/kg	1	MCERTS	< 1.0	< 1.0	-	< 1.0	< 1.0
Zinc (aqua regia extractable)	mg/kg	1	MCERTS	75	160	-	86	92
Magnesium (water soluble)	mg/kg	5	NONE	-	-	-	-	-
Magnesium (leachate equivalent)	mg/l	2.5	NONE	-	-	-	-	-
Monoaromatics & Oxygenates								
Benzene	µg/kg	1	MCERTS	< 1.0	-	< 1.0	-	-
Toluene	µg/kg	1	MCERTS	< 1.0	-	< 1.0	-	-
Ethylbenzene	µg/kg	1	MCERTS	< 1.0	-	< 1.0	-	-
p & m-xylene	µg/kg	1	MCERTS	< 1.0	-	< 1.0	-	-
o-xylene	µg/kg	1	MCERTS	< 1.0	-	< 1.0	-	-
MTBE (Methyl Tertiary Butyl Ether)	µg/kg	1	MCERTS	< 1.0	-	< 1.0	-	-

Analytical Report Number: 22-51366
Project / Site name: ICKENHAM

Lab Sample Number				2236459	2236460	2236461	2236462	2236463
Sample Reference				WS06	WS08	WS08	WS09	WS12
Sample Number				None Supplied	None Supplied	None Supplied	None Supplied	None Supplied
Depth (m)				0.90-1.00	0.20-0.30	1.00-1.20	0.20-0.30	0.40-0.50
Date Sampled				08/04/2022	08/04/2022	08/04/2022	08/04/2022	08/04/2022
Time Taken				None Supplied	None Supplied	None Supplied	None Supplied	None Supplied
Analytical Parameter (Soil Analysis)	**Units**	**Limit of detection**	**Accreditation Status**					
Petroleum Hydrocarbons								
Mineral Oil (C10 - C20) EH_CU_1D_AL	mg/kg	10	NONE	< 10	-	< 10	-	-
Mineral Oil (C21 - C40) EH_CU_1D_AL	mg/kg	10	NONE	25	-	< 10	-	-
TPH6 - Aliphatic (C6 - C8) HS_1D_AL	mg/kg	0.001	MCERTS	< 0.001	< 0.001	-	< 0.001	< 0.001
TPH6 - Aliphatic (C8 - C10) HS_1D_AL	mg/kg	0.001	MCERTS	< 0.001	< 0.001	-	< 0.001	< 0.001
TPH6 - Aliphatic (C10 - C12) EH_CU_1D_AL	mg/kg	1	MCERTS	< 1.0	< 1.0	-	< 1.0	< 1.0
TPH6 - Aliphatic (C12 - C16) EH_CU_1D_AL	mg/kg	2	MCERTS	< 2.0	< 2.0	-	< 2.0	< 2.0
TPH6 - Aliphatic (C16 - C21) EH_CU_1D_AL	mg/kg	8	MCERTS	< 8.0	< 8.0	-	< 8.0	< 8.0
TPH6 - Aliphatic (C21 - C35) EH_CU_1D_AL	mg/kg	8	MCERTS	25	< 8.0	-	< 8.0	< 8.0
TPH6 - Aliphatic (C6 - C35) EH_CU+HS_1D_AL	mg/kg	10	NONE	25	< 10	-	< 10	< 10
TPH6 - Aromatic (C6 - C8) HS_1D_AR	mg/kg	0.001	NONE	< 0.001	< 0.001	-	< 0.001	< 0.001
TPH6 - Aromatic (C8 - C10) HS_1D_AR	mg/kg	0.001	MCERTS	< 0.001	< 0.001	-	< 0.001	< 0.001
TPH6 - Aromatic (C10 - C12) EH_CU_1D_AR	mg/kg	1	MCERTS	< 1.0	< 1.0	-	< 1.0	< 1.0
TPH6 - Aromatic (C12 - C16) EH_CU_1D_AR	mg/kg	2	MCERTS	< 2.0	< 2.0	-	< 2.0	< 2.0
TPH6 - Aromatic (C16 - C21) EH_CU_1D_AR	mg/kg	10	MCERTS	11	< 10	-	< 10	< 10
TPH6 - Aromatic (C21 - C35) EH_CU_1D_AR	mg/kg	10	MCERTS	23	< 10	-	< 10	< 10
TPH6 - Aromatic (C6 - C35) EH_CU+HS_1D_AR	mg/kg	10	NONE	34	< 10	-	< 10	< 10
TPH (C5 - C10) HS_1D_TOTAL	mg/kg	1	NONE	< 1.0	-	< 1.0	-	-
Chlorinated Solvents								
Total Chlorinated Solvents	µg/kg	100	NONE	< 100	-	< 100	-	-

Analytical Report Number: 22-51366
Project / Site name: ICKENHAM

Lab Sample Number				2236459	2236460	2236461	2236462	2236463
Sample Reference				WS06	WS08	WS08	WS09	WS12
Sample Number				None Supplied	None Supplied	None Supplied	None Supplied	None Supplied
Depth (m)				0.90-1.00	0.20-0.30	1.00-1.20	0.20-0.30	0.40-0.50
Date Sampled				08/04/2022	08/04/2022	08/04/2022	08/04/2022	08/04/2022
Time Taken				None Supplied	None Supplied	None Supplied	None Supplied	None Supplied
Analytical Parameter (Soil Analysis)	**Units**	**Limit of detection**	**Accreditation Status**					
VOCs								
Chloromethane	µg/kg	1	ISO 17025	< 1.0	-	< 1.0	-	-
Chloroethane	µg/kg	1	NONE	< 1.0	-	< 1.0	-	-
Bromomethane	µg/kg	1	ISO 17025	< 1.0	-	< 1.0	-	-
Vinyl Chloride	µg/kg	1	NONE	< 1.0	-	< 1.0	-	-
Trichlorofluoromethane	µg/kg	1	NONE	< 1.0	-	< 1.0	-	-
1,1-Dichloroethene	µg/kg	1	NONE	< 1.0	-	< 1.0	-	-
1,1,2-Trichloro 1,2,2-Trifluoroethane	µg/kg	1	ISO 17025	< 1.0	-	< 1.0	-	-
Cis-1,2-dichloroethene	µg/kg	1	MCERTS	< 1.0	-	< 1.0	-	-
MTBE (Methyl Tertiary Butyl Ether)	µg/kg	1	MCERTS	< 1.0	-	< 1.0	-	-
1,1-Dichloroethane	µg/kg	1	MCERTS	< 1.0	-	< 1.0	-	-
2,2-Dichloropropane	µg/kg	1	MCERTS	< 1.0	-	< 1.0	-	-
Trichloromethane	µg/kg	1	MCERTS	< 1.0	-	< 1.0	-	-
1,1,1-Trichloroethane	µg/kg	1	MCERTS	< 1.0	-	< 1.0	-	-
1,2-Dichloroethane	µg/kg	1	MCERTS	< 1.0	-	< 1.0	-	-
1,1-Dichloropropene	µg/kg	1	MCERTS	< 1.0	-	< 1.0	-	-
Trans-1,2-dichloroethene	µg/kg	1	NONE	< 1.0	-	< 1.0	-	-
Benzene	µg/kg	1	MCERTS	< 1.0	-	< 1.0	-	-
Tetrachloromethane	µg/kg	1	MCERTS	< 1.0	-	< 1.0	-	-
1,2-Dichloropropane	µg/kg	1	MCERTS	< 1.0	-	< 1.0	-	-
Trichloroethene	µg/kg	1	MCERTS	< 1.0	-	< 1.0	-	-
Dibromomethane	µg/kg	1	MCERTS	< 1.0	-	< 1.0	-	-
Bromodichloromethane	µg/kg	1	MCERTS	< 1.0	-	< 1.0	-	-
Cis-1,3-dichloropropene	µg/kg	1	ISO 17025	< 1.0	-	< 1.0	-	-
Trans-1,3-dichloropropene	µg/kg	1	ISO 17025	< 1.0	-	< 1.0	-	-
Toluene	µg/kg	1	MCERTS	< 1.0	-	< 1.0	-	-
1,1,2-Trichloroethane	µg/kg	1	MCERTS	< 1.0	-	< 1.0	-	-
1,3-Dichloropropane	µg/kg	1	ISO 17025	< 1.0	-	< 1.0	-	-
Dibromochloromethane	µg/kg	1	ISO 17025	< 1.0	-	< 1.0	-	-
Tetrachloroethene	µg/kg	1	NONE	< 1.0	-	< 1.0	-	-
1,2-Dibromoethane	µg/kg	1	ISO 17025	< 1.0	-	< 1.0	-	-
Chlorobenzene	µg/kg	1	MCERTS	< 1.0	-	< 1.0	-	-
1,1,1,2-Tetrachloroethane	µg/kg	1	MCERTS	< 1.0	-	< 1.0	-	-
Ethylbenzene	µg/kg	1	MCERTS	< 1.0	-	< 1.0	-	-
p & m-Xylene	µg/kg	1	MCERTS	< 1.0	-	< 1.0	-	-
Styrene	µg/kg	1	MCERTS	< 1.0	-	< 1.0	-	-
Tribromomethane	µg/kg	1	NONE	< 1.0	-	< 1.0	-	-
o-Xylene	µg/kg	1	MCERTS	< 1.0	-	< 1.0	-	-
1,1,2,2-Tetrachloroethane	µg/kg	1	MCERTS	< 1.0	-	< 1.0	-	-
Isopropylbenzene	µg/kg	1	MCERTS	< 1.0	-	< 1.0	-	-
Bromobenzene	µg/kg	1	MCERTS	< 1.0	-	< 1.0	-	-
n-Propylbenzene	µg/kg	1	ISO 17025	< 1.0	-	< 1.0	-	-
2-Chlorotoluene	µg/kg	1	MCERTS	< 1.0	-	< 1.0	-	-
4-Chlorotoluene	µg/kg	1	MCERTS	< 1.0	-	< 1.0	-	-
1,3,5-Trimethylbenzene	µg/kg	1	ISO 17025	< 1.0	-	< 1.0	-	-
tert-Butylbenzene	µg/kg	1	MCERTS	< 1.0	-	< 1.0	-	-
1,2,4-Trimethylbenzene	µg/kg	1	ISO 17025	< 1.0	-	< 1.0	-	-
sec-Butylbenzene	µg/kg	1	MCERTS	< 1.0	-	< 1.0	-	-
1,3-Dichlorobenzene	µg/kg	1	ISO 17025	< 1.0	-	< 1.0	-	-
p-Isopropyltoluene	µg/kg	1	ISO 17025	< 1.0	-	< 1.0	-	-
1,2-Dichlorobenzene	µg/kg	1	MCERTS	< 1.0	-	< 1.0	-	-
1,4-Dichlorobenzene	µg/kg	1	MCERTS	< 1.0	-	< 1.0	-	-
Butylbenzene	µg/kg	1	MCERTS	< 1.0	-	< 1.0	-	-
1,2-Dibromo-3-chloropropane	µg/kg	1	ISO 17025	< 1.0	-	< 1.0	-	-
1,2,4-Trichlorobenzene	µg/kg	1	MCERTS	< 1.0	-	< 1.0	-	-
Hexachlorobutadiene	µg/kg	1	MCERTS	< 1.0	-	< 1.0	-	-

Analytical Report Number: 22-51366
Project / Site name: ICKENHAM

Lab Sample Number				2236459	2236460	2236461	2236462	2236463
Sample Reference				WS06	WS08	WS08	WS09	WS12
Sample Number				None Supplied	None Supplied	None Supplied	None Supplied	None Supplied
Depth (m)				0.90-1.00	0.20-0.30	1.00-1.20	0.20-0.30	0.40-0.50
Date Sampled				08/04/2022	08/04/2022	08/04/2022	08/04/2022	08/04/2022
Time Taken				None Supplied	None Supplied	None Supplied	None Supplied	None Supplied
Analytical Parameter (Soil Analysis)	Units	Limit of detection	Accreditation Status					
1,2,3-Trichlorobenzene	µg/kg	1	ISO 17025	< 1.0	-	< 1.0	-	-

Analytical Report Number: 22-51366
Project / Site name: ICKENHAM

Lab Sample Number				2236459	2236460	2236461	2236462	2236463
Sample Reference				WS06	WS08	WS08	WS09	WS12
Sample Number				None Supplied	None Supplied	None Supplied	None Supplied	None Supplied
Depth (m)				0.90-1.00	0.20-0.30	1.00-1.20	0.20-0.30	0.40-0.50
Date Sampled				08/04/2022	08/04/2022	08/04/2022	08/04/2022	08/04/2022
Time Taken				None Supplied	None Supplied	None Supplied	None Supplied	None Supplied
Analytical Parameter (Soil Analysis)	**Units**	**Limit of detection**	**Accreditation Status**					
VOCs TICs								
VOCs TICs Compound Name		N/A	NONE	None detected	-	None detected	-	-
VOC % Match	%	N/A	NONE	0	-	0	-	-
SVOCs								
Aniline	mg/kg	0.1	NONE	< 0.1	-	< 0.1	-	-
Phenol	mg/kg	0.2	ISO 17025	< 0.2	-	< 0.2	-	-
2-Chlorophenol	mg/kg	0.1	MCERTS	< 0.1	-	< 0.1	-	-
Bis(2-chloroethyl)ether	mg/kg	0.2	MCERTS	< 0.2	-	< 0.2	-	-
1,3-Dichlorobenzene	mg/kg	0.2	MCERTS	< 0.2	-	< 0.2	-	-
1,2-Dichlorobenzene	mg/kg	0.1	MCERTS	< 0.1	-	< 0.1	-	-
1,4-Dichlorobenzene	mg/kg	0.2	MCERTS	< 0.2	-	< 0.2	-	-
Bis(2-chloroisopropyl)ether	mg/kg	0.1	MCERTS	< 0.1	-	< 0.1	-	-
2-Methylphenol	mg/kg	0.3	MCERTS	< 0.3	-	< 0.3	-	-
Hexachloroethane	mg/kg	0.05	MCERTS	< 0.05	-	< 0.05	-	-
Nitrobenzene	mg/kg	0.3	MCERTS	< 0.3	-	< 0.3	-	-
4-Methylphenol	mg/kg	0.2	NONE	< 0.2	-	< 0.2	-	-
Isophorone	mg/kg	0.2	MCERTS	< 0.2	-	< 0.2	-	-
2-Nitrophenol	mg/kg	0.3	MCERTS	< 0.3	-	< 0.3	-	-
2,4-Dimethylphenol	mg/kg	0.3	MCERTS	< 0.3	-	< 0.3	-	-
Bis(2-chloroethoxy)methane	mg/kg	0.3	MCERTS	< 0.3	-	< 0.3	-	-
1,2,4-Trichlorobenzene	mg/kg	0.3	MCERTS	< 0.3	-	< 0.3	-	-
Naphthalene	mg/kg	0.05	MCERTS	< 0.05	-	< 0.05	-	-
2,4-Dichlorophenol	mg/kg	0.3	MCERTS	< 0.3	-	< 0.3	-	-
4-Chloroaniline	mg/kg	0.1	NONE	< 0.1	-	< 0.1	-	-
Hexachlorobutadiene	mg/kg	0.1	MCERTS	< 0.1	-	< 0.1	-	-
4-Chloro-3-methylphenol	mg/kg	0.1	NONE	< 0.1	-	< 0.1	-	-
2,4,6-Trichlorophenol	mg/kg	0.1	MCERTS	< 0.1	-	< 0.1	-	-
2,4,5-Trichlorophenol	mg/kg	0.2	MCERTS	< 0.2	-	< 0.2	-	-
2-Methylnaphthalene	mg/kg	0.1	NONE	< 0.1	-	< 0.1	-	-
2-Chloronaphthalene	mg/kg	0.1	MCERTS	< 0.1	-	< 0.1	-	-
Dimethylphthalate	mg/kg	0.1	MCERTS	< 0.1	-	< 0.1	-	-
2,6-Dinitrotoluene	mg/kg	0.1	MCERTS	< 0.1	-	< 0.1	-	-
Acenaphthylene	mg/kg	0.05	MCERTS	< 0.05	-	< 0.05	-	-
Acenaphthene	mg/kg	0.05	MCERTS	0.25	-	< 0.05	-	-
2,4-Dinitrotoluene	mg/kg	0.2	MCERTS	< 0.2	-	< 0.2	-	-
Dibenzofuran	mg/kg	0.2	MCERTS	< 0.2	-	< 0.2	-	-
4-Chlorophenyl phenyl ether	mg/kg	0.3	ISO 17025	< 0.3	-	< 0.3	-	-
Diethyl phthalate	mg/kg	0.2	MCERTS	< 0.2	-	< 0.2	-	-
4-Nitroaniline	mg/kg	0.2	MCERTS	< 0.2	-	< 0.2	-	-
Fluorene	mg/kg	0.05	MCERTS	0.3	-	< 0.05	-	-
Azobenzene	mg/kg	0.3	MCERTS	< 0.3	-	< 0.3	-	-
Bromophenyl phenyl ether	mg/kg	0.2	MCERTS	< 0.2	-	< 0.2	-	-
Hexachlorobenzene	mg/kg	0.3	MCERTS	< 0.3	-	< 0.3	-	-
Phenanthrene	mg/kg	0.05	MCERTS	1.8	-	< 0.05	-	-
Anthracene	mg/kg	0.05	MCERTS	0.26	-	< 0.05	-	-
Carbazole	mg/kg	0.3	MCERTS	< 0.3	-	< 0.3	-	-
Dibutyl phthalate	mg/kg	0.2	MCERTS	< 0.2	-	< 0.2	-	-
Anthraquinone	mg/kg	0.3	MCERTS	< 0.3	-	< 0.3	-	-
Fluoranthene	mg/kg	0.05	MCERTS	1.2	-	< 0.05	-	-
Pyrene	mg/kg	0.05	MCERTS	0.79	-	< 0.05	-	-
Butyl benzyl phthalate	mg/kg	0.3	ISO 17025	< 0.3	-	< 0.3	-	-
Benzo(a)anthracene	mg/kg	0.05	MCERTS	0.3	-	< 0.05	-	-
Chrysene	mg/kg	0.05	MCERTS	0.29	-	< 0.05	-	-
Benzo(b)fluoranthene	mg/kg	0.05	MCERTS	< 0.05	-	< 0.05	-	-
Benzo(k)fluoranthene	mg/kg	0.05	MCERTS	< 0.05	-	< 0.05	-	-

Analytical Report Number: 22-51366
Project / Site name: ICKENHAM

Lab Sample Number				2236459	2236460	2236461	2236462	2236463
Sample Reference				WS06	WS08	WS08	WS09	WS12
Sample Number				None Supplied	None Supplied	None Supplied	None Supplied	None Supplied
Depth (m)				0.90-1.00	0.20-0.30	1.00-1.20	0.20-0.30	0.40-0.50
Date Sampled				08/04/2022	08/04/2022	08/04/2022	08/04/2022	08/04/2022
Time Taken				None Supplied	None Supplied	None Supplied	None Supplied	None Supplied
Analytical Parameter (Soil Analysis)	**Units**	**Limit of detection**	**Accreditation Status**					
Benzo(a)pyrene	mg/kg	0.05	MCERTS	< 0.05	-	< 0.05	-	-
Indeno(1,2,3-cd)pyrene	mg/kg	0.05	MCERTS	< 0.05	-	< 0.05	-	-
Dibenz(a,h)anthracene	mg/kg	0.05	MCERTS	< 0.05	-	< 0.05	-	-
Benzo(ghi)perylene	mg/kg	0.05	MCERTS	< 0.05	-	< 0.05	-	-
SVOCs TICs								
SVOCs TICs Compound Name		N/A	NONE	None Detected	-	None Detected	-	-
SVOC % Match	%	N/A	NONE	0	-	0	-	-
Aldehydes (various)								
Acetaldehyde	mg/kg	1	NONE	< 1	-	< 1	-	-
Propanal	mg/kg	1	NONE	< 1	-	< 1	-	-
Butanal	mg/kg	1	NONE	< 1	-	< 1	-	-
Methacrolein [Crotonaldehyde]	mg/kg	1	NONE	< 1	-	< 1	-	-
Pentanal	mg/kg	1	NONE	< 1	-	< 1	-	-
Hexanal	mg/kg	1	NONE	< 1	-	< 1	-	-
Heptanal	mg/kg	1	NONE	< 1	-	< 1	-	-
Benzaldehyde	mg/kg	1	NONE	< 1	-	< 1	-	-
Octanal	mg/kg	1	NONE	< 1	-	< 1	-	-
Nonanal	mg/kg	1	NONE	< 1	-	< 1	-	-
Decanal	mg/kg	1	NONE	< 1	-	< 1	-	-
PCBs by GC-MS								
PCB Congener 28	mg/kg	0.001	MCERTS	-	-	-	-	-
PCB Congener 52	mg/kg	0.001	MCERTS	-	-	-	-	-
PCB Congener 101	mg/kg	0.001	MCERTS	-	-	-	-	-
PCB Congener 118	mg/kg	0.001	MCERTS	-	-	-	-	-
PCB Congener 138	mg/kg	0.001	MCERTS	-	-	-	-	-
PCB Congener 153	mg/kg	0.001	MCERTS	-	-	-	-	-
PCB Congener 180	mg/kg	0.001	MCERTS	-	-	-	-	-
Total PCBs by GC-MS								
Total PCBs	mg/kg	0.007	MCERTS	-	-	-	-	-
Miscellaneous Organics								
Acetone	mg/kg	0.1	NONE	< 0.1	-	< 0.1	-	-

U/S = Unsuitable Sample I/S = Insufficient Sample

Analytical Report Number: 22-51366
Project / Site name: ICKENHAM

Lab Sample Number				2236464	2236465
Sample Reference				WS10	BUND1
Sample Number				None Supplied	None Supplied
Depth (m)				0.40-0.50	None Supplied
Date Sampled				08/04/2022	08/04/2022
Time Taken				None Supplied	None Supplied
Analytical Parameter (Soil Analysis)	**Units**	**Limit of detection**	**Accreditation Status**		
Stone Content	%	0.1	NONE	< 0.1	< 0.1
Moisture Content	%	0.01	NONE	23	27
Total mass of sample received	kg	0.001	NONE	0.3	0.3

Asbestos in Soil Screen / Identification Name	Type	N/A	ISO 17025	-	-
Asbestos in Soil	Type	N/A	ISO 17025	Not-detected	Not-detected
Asbestos Quantification (Stage 2)	%	0.001	ISO 17025	-	-
Asbestos Quantification Total	%	0.001	ISO 17025	-	-
Asbestos Analyst ID	N/A	N/A	N/A	EC	EC

General Inorganics

pH - Automated	pH Units	N/A	MCERTS	7.7	7.8
Electrical Conductivity	µS/cm	10	ISO 17025	-	-
Total Cyanide	mg/kg	1	MCERTS	< 1.0	< 1.0
Total Sulphate as SO4	mg/kg	50	MCERTS	650	820
Total Sulphate as SO4	%	0.005	MCERTS	-	-
Water Soluble Sulphate as SO4 16hr extraction (2:1)	mg/kg	2.5	MCERTS	27	170
Water Soluble SO4 16hr extraction (2:1 Leachate Equivalent)	g/l	0.00125	MCERTS	0.014	0.083
Water Soluble SO4 16hr extraction (2:1 Leachate Equivalent)	mg/l	1.25	MCERTS	-	-
Sulphide	mg/kg	1	MCERTS	9.4	35
Water Soluble Chloride (2:1) (leachate equivalent)	mg/l	0.5	MCERTS	-	-
Total Sulphur	%	0.005	MCERTS	-	-
Ammoniacal Nitrogen as NH4	mg/kg	0.5	MCERTS	-	-
Ammonium as NH4 (10:1 leachate equivalent)	mg/l	0.05	MCERTS	-	-
Organic Matter (automated)	%	0.1	MCERTS	2.7	4.1
Water Soluble Nitrate (2:1) as N (leachate equivalent)	mg/l	2	NONE	-	-
Redox Potential	mV	-800	NONE	-	-

Phenols by HPLC

Catechol	mg/kg	0.1	ISO 17025	-	-
Resorcinol	mg/kg	0.1	ISO 17025	-	-
Cresols (o-, m-, p-)	mg/kg	0.3	ISO 17025	-	-
Total Naphthols (sum of 1- and 2- Naphthol)	mg/kg	0.2	ISO 17025	-	-
2-Isopropylphenol	mg/kg	0.1	ISO 17025	-	-
Phenol	mg/kg	0.1	ISO 17025	-	-
Trimethylphenol (2,3,5-)	mg/kg	0.1	ISO 17025	-	-
Total Xylenols and Ethylphenols	mg/kg	0.3	ISO 17025	-	-

Total Phenols

Total Phenols (monohydric)	mg/kg	1	MCERTS	< 1.0	< 1.0
Total Phenols (HPLC)	mg/kg	1.3	ISO 17025	-	-

Analytical Report Number: 22-51366
Project / Site name: ICKENHAM

Lab Sample Number				2236464	2236465
Sample Reference				WS10	BUND1
Sample Number				None Supplied	None Supplied
Depth (m)				0.40-0.50	None Supplied
Date Sampled				08/04/2022	08/04/2022
Time Taken				None Supplied	None Supplied
Analytical Parameter (Soil Analysis)	**Units**	**Limit of detection**	**Accreditation Status**		
Speciated PAHs					
Naphthalene	mg/kg	0.05	MCERTS	< 0.05	2.7
Acenaphthylene	mg/kg	0.05	MCERTS	< 0.05	< 0.05
Acenaphthene	mg/kg	0.05	MCERTS	< 0.05	3.8
Fluorene	mg/kg	0.05	MCERTS	< 0.05	6.5
Phenanthrene	mg/kg	0.05	MCERTS	< 0.05	35
Anthracene	mg/kg	0.05	MCERTS	< 0.05	8.4
Fluoranthene	mg/kg	0.05	MCERTS	< 0.05	26
Pyrene	mg/kg	0.05	MCERTS	< 0.05	16
Benzo(a)anthracene	mg/kg	0.05	MCERTS	< 0.05	8.3
Chrysene	mg/kg	0.05	MCERTS	< 0.05	5.2
Benzo(b)fluoranthene	mg/kg	0.05	MCERTS	< 0.05	3.3
Benzo(k)fluoranthene	mg/kg	0.05	MCERTS	< 0.05	1.6
Benzo(a)pyrene	mg/kg	0.05	MCERTS	< 0.05	2.1
Indeno(1,2,3-cd)pyrene	mg/kg	0.05	MCERTS	< 0.05	0.64
Dibenz(a,h)anthracene	mg/kg	0.05	MCERTS	< 0.05	< 0.05
Benzo(ghi)perylene	mg/kg	0.05	MCERTS	< 0.05	0.52
Total PAH					
Speciated Total EPA-16 PAHs	mg/kg	0.8	MCERTS	< 0.80	120
Heavy Metals / Metalloids					
Arsenic (aqua regia extractable)	mg/kg	1	MCERTS	16	13
Boron (water soluble)	mg/kg	0.2	MCERTS	1.4	0.4
Cadmium (aqua regia extractable)	mg/kg	0.2	MCERTS	< 0.2	< 0.2
Chromium (hexavalent)	mg/kg	4	NONE	< 4.0	< 4.0
Chromium (aqua regia extractable)	mg/kg	1	MCERTS	38	29
Copper (aqua regia extractable)	mg/kg	1	MCERTS	26	35
Lead (aqua regia extractable)	mg/kg	1	MCERTS	51	73
Mercury (aqua regia extractable)	mg/kg	0.3	MCERTS	< 0.3	< 0.3
Nickel (aqua regia extractable)	mg/kg	1	MCERTS	23	24
Selenium (aqua regia extractable)	mg/kg	1	MCERTS	< 1.0	< 1.0
Zinc (aqua regia extractable)	mg/kg	1	MCERTS	68	110
Magnesium (water soluble)	mg/kg	5	NONE	-	-
Magnesium (leachate equivalent)	mg/l	2.5	NONE	-	-
Monoaromatics & Oxygenates					
Benzene	µg/kg	1	MCERTS	-	-
Toluene	µg/kg	1	MCERTS	-	-
Ethylbenzene	µg/kg	1	MCERTS	-	-
p & m-xylene	µg/kg	1	MCERTS	-	-
o-xylene	µg/kg	1	MCERTS	-	-
MTBE (Methyl Tertiary Butyl Ether)	µg/kg	1	MCERTS	-	-

Analytical Report Number: 22-51366
Project / Site name: ICKENHAM

Lab Sample Number				2236464	2236465
Sample Reference				WS10	BUND1
Sample Number				None Supplied	None Supplied
Depth (m)				0.40-0.50	None Supplied
Date Sampled				08/04/2022	08/04/2022
Time Taken				None Supplied	None Supplied
Analytical Parameter (Soil Analysis)	**Units**	**Limit of detection**	**Accreditation Status**		
Petroleum Hydrocarbons					
Mineral Oil (C10 - C20) EH_CU_1D_AL	mg/kg	10	NONE	-	-
Mineral Oil (C21 - C40) EH_CU_1D_AL	mg/kg	10	NONE	-	-
TPH6 - Aliphatic (C6 - C8) HS_1D_AL	mg/kg	0.001	MCERTS	< 0.001	< 0.001
TPH6 - Aliphatic (C8 - C10) HS_1D_AL	mg/kg	0.001	MCERTS	< 0.001	< 0.001
TPH6 - Aliphatic (C10 - C12) EH_CU_1D_AL	mg/kg	1	MCERTS	< 1.0	< 1.0
TPH6 - Aliphatic (C12 - C16) EH_CU_1D_AL	mg/kg	2	MCERTS	< 2.0	< 2.0
TPH6 - Aliphatic (C16 - C21) EH_CU_1D_AL	mg/kg	8	MCERTS	< 8.0	40
TPH6 - Aliphatic (C21 - C35) EH_CU_1D_AL	mg/kg	8	MCERTS	< 8.0	250
TPH6 - Aliphatic (C6 - C35) EH_CU+HS_1D_AL	mg/kg	10	NONE	< 10	290
TPH6 - Aromatic (C6 - C8) HS_1D_AR	mg/kg	0.001	NONE	< 0.001	< 0.001
TPH6 - Aromatic (C8 - C10) HS_1D_AR	mg/kg	0.001	MCERTS	< 0.001	< 0.001
TPH6 - Aromatic (C10 - C12) EH_CU_1D_AR	mg/kg	1	MCERTS	< 1.0	3.7
TPH6 - Aromatic (C12 - C16) EH_CU_1D_AR	mg/kg	2	MCERTS	< 2.0	22
TPH6 - Aromatic (C16 - C21) EH_CU_1D_AR	mg/kg	10	MCERTS	< 10	110
TPH6 - Aromatic (C21 - C35) EH_CU_1D_AR	mg/kg	10	MCERTS	< 10	150
TPH6 - Aromatic (C6 - C35) EH_CU+HS_1D_AR	mg/kg	10	NONE	< 10	290
TPH (C5 - C10) HS_1D_TOTAL	mg/kg	1	NONE	-	-
Chlorinated Solvents					
Total Chlorinated Solvents	µg/kg	100	NONE	-	-

Analytical Report Number: 22-51366
Project / Site name: ICKENHAM

Lab Sample Number				2236464	2236465
Sample Reference				WS10	BUND1
Sample Number				None Supplied	None Supplied
Depth (m)				0.40-0.50	None Supplied
Date Sampled				08/04/2022	08/04/2022
Time Taken				None Supplied	None Supplied
Analytical Parameter (Soil Analysis)	**Units**	**Limit of detection**	**Accreditation Status**		
VOCs					
Chloromethane	µg/kg	1	ISO 17025	-	-
Chloroethane	µg/kg	1	NONE	-	-
Bromomethane	µg/kg	1	ISO 17025	-	-
Vinyl Chloride	µg/kg	1	NONE	-	-
Trichlorofluoromethane	µg/kg	1	NONE	-	-
1,1-Dichloroethene	µg/kg	1	NONE	-	-
1,1,2-Trichloro 1,2,2-Trifluoroethane	µg/kg	1	ISO 17025	-	-
Cis-1,2-dichloroethene	µg/kg	1	MCERTS	-	-
MTBE (Methyl Tertiary Butyl Ether)	µg/kg	1	MCERTS	-	-
1,1-Dichloroethane	µg/kg	1	MCERTS	-	-
2,2-Dichloropropane	µg/kg	1	MCERTS	-	-
Trichloromethane	µg/kg	1	MCERTS	-	-
1,1,1-Trichloroethane	µg/kg	1	MCERTS	-	-
1,2-Dichloroethane	µg/kg	1	MCERTS	-	-
1,1-Dichloropropene	µg/kg	1	MCERTS	-	-
Trans-1,2-dichloroethene	µg/kg	1	NONE	-	-
Benzene	µg/kg	1	MCERTS	-	-
Tetrachloromethane	µg/kg	1	MCERTS	-	-
1,2-Dichloropropane	µg/kg	1	MCERTS	-	-
Trichloroethene	µg/kg	1	MCERTS	-	-
Dibromomethane	µg/kg	1	MCERTS	-	-
Bromodichloromethane	µg/kg	1	MCERTS	-	-
Cis-1,3-dichloropropene	µg/kg	1	ISO 17025	-	-
Trans-1,3-dichloropropene	µg/kg	1	ISO 17025	-	-
Toluene	µg/kg	1	MCERTS	-	-
1,1,2-Trichloroethane	µg/kg	1	MCERTS	-	-
1,3-Dichloropropane	µg/kg	1	ISO 17025	-	-
Dibromochloromethane	µg/kg	1	ISO 17025	-	-
Tetrachloroethene	µg/kg	1	NONE	-	-
1,2-Dibromoethane	µg/kg	1	ISO 17025	-	-
Chlorobenzene	µg/kg	1	MCERTS	-	-
1,1,1,2-Tetrachloroethane	µg/kg	1	MCERTS	-	-
Ethylbenzene	µg/kg	1	MCERTS	-	-
p & m-Xylene	µg/kg	1	MCERTS	-	-
Styrene	µg/kg	1	MCERTS	-	-
Tribromomethane	µg/kg	1	NONE	-	-
o-Xylene	µg/kg	1	MCERTS	-	-
1,1,2,2-Tetrachloroethane	µg/kg	1	MCERTS	-	-
Isopropylbenzene	µg/kg	1	MCERTS	-	-
Bromobenzene	µg/kg	1	MCERTS	-	-
n-Propylbenzene	µg/kg	1	ISO 17025	-	-
2-Chlorotoluene	µg/kg	1	MCERTS	-	-
4-Chlorotoluene	µg/kg	1	MCERTS	-	-
1,3,5-Trimethylbenzene	µg/kg	1	ISO 17025	-	-
tert-Butylbenzene	µg/kg	1	MCERTS	-	-
1,2,4-Trimethylbenzene	µg/kg	1	ISO 17025	-	-
sec-Butylbenzene	µg/kg	1	MCERTS	-	-
1,3-Dichlorobenzene	µg/kg	1	ISO 17025	-	-
p-Isopropyltoluene	µg/kg	1	ISO 17025	-	-
1,2-Dichlorobenzene	µg/kg	1	MCERTS	-	-
1,4-Dichlorobenzene	µg/kg	1	MCERTS	-	-
Butylbenzene	µg/kg	1	MCERTS	-	-
1,2-Dibromo-3-chloropropane	µg/kg	1	ISO 17025	-	-
1,2,4-Trichlorobenzene	µg/kg	1	MCERTS	-	-
Hexachlorobutadiene	µg/kg	1	MCERTS	-	-

Analytical Report Number: 22-51366
Project / Site name: ICKENHAM

Lab Sample Number				2236464	2236465
Sample Reference				WS10	BUND1
Sample Number				None Supplied	None Supplied
Depth (m)				0.40-0.50	None Supplied
Date Sampled				08/04/2022	08/04/2022
Time Taken				None Supplied	None Supplied
Analytical Parameter (Soil Analysis)	**Units**	**Limit of detection**	**Accreditation Status**		
1,2,3-Trichlorobenzene	µg/kg	1	ISO 17025	-	-

Analytical Report Number: 22-51366
Project / Site name: ICKENHAM

Lab Sample Number				2236464	2236465
Sample Reference				WS10	BUND1
Sample Number				None Supplied	None Supplied
Depth (m)				0.40-0.50	None Supplied
Date Sampled				08/04/2022	08/04/2022
Time Taken				None Supplied	None Supplied
Analytical Parameter (Soil Analysis)	**Units**	**Limit of detection**	**Accreditation Status**		
VOCs TICs					
VOCs TICs Compound Name		N/A	NONE	-	-
VOC % Match	%	N/A	NONE	-	-
SVOCs					
Aniline	mg/kg	0.1	NONE	-	-
Phenol	mg/kg	0.2	ISO 17025	-	-
2-Chlorophenol	mg/kg	0.1	MCERTS	-	-
Bis(2-chloroethyl)ether	mg/kg	0.2	MCERTS	-	-
1,3-Dichlorobenzene	mg/kg	0.2	MCERTS	-	-
1,2-Dichlorobenzene	mg/kg	0.1	MCERTS	-	-
1,4-Dichlorobenzene	mg/kg	0.2	MCERTS	-	-
Bis(2-chloroisopropyl)ether	mg/kg	0.1	MCERTS	-	-
2-Methylphenol	mg/kg	0.3	MCERTS	-	-
Hexachloroethane	mg/kg	0.05	MCERTS	-	-
Nitrobenzene	mg/kg	0.3	MCERTS	-	-
4-Methylphenol	mg/kg	0.2	NONE	-	-
Isophorone	mg/kg	0.2	MCERTS	-	-
2-Nitrophenol	mg/kg	0.3	MCERTS	-	-
2,4-Dimethylphenol	mg/kg	0.3	MCERTS	-	-
Bis(2-chloroethoxy)methane	mg/kg	0.3	MCERTS	-	-
1,2,4-Trichlorobenzene	mg/kg	0.3	MCERTS	-	-
Naphthalene	mg/kg	0.05	MCERTS	-	-
2,4-Dichlorophenol	mg/kg	0.3	MCERTS	-	-
4-Chloroaniline	mg/kg	0.1	NONE	-	-
Hexachlorobutadiene	mg/kg	0.1	MCERTS	-	-
4-Chloro-3-methylphenol	mg/kg	0.1	NONE	-	-
2,4,6-Trichlorophenol	mg/kg	0.1	MCERTS	-	-
2,4,5-Trichlorophenol	mg/kg	0.2	MCERTS	-	-
2-Methylnaphthalene	mg/kg	0.1	NONE	-	-
2-Chloronaphthalene	mg/kg	0.1	MCERTS	-	-
Dimethylphthalate	mg/kg	0.1	MCERTS	-	-
2,6-Dinitrotoluene	mg/kg	0.1	MCERTS	-	-
Acenaphthylene	mg/kg	0.05	MCERTS	-	-
Acenaphthene	mg/kg	0.05	MCERTS	-	-
2,4-Dinitrotoluene	mg/kg	0.2	MCERTS	-	-
Dibenzofuran	mg/kg	0.2	MCERTS	-	-
4-Chlorophenyl phenyl ether	mg/kg	0.3	ISO 17025	-	-
Diethyl phthalate	mg/kg	0.2	MCERTS	-	-
4-Nitroaniline	mg/kg	0.2	MCERTS	-	-
Fluorene	mg/kg	0.05	MCERTS	-	-
Azobenzene	mg/kg	0.3	MCERTS	-	-
Bromophenyl phenyl ether	mg/kg	0.2	MCERTS	-	-
Hexachlorobenzene	mg/kg	0.3	MCERTS	-	-
Phenanthrene	mg/kg	0.05	MCERTS	-	-
Anthracene	mg/kg	0.05	MCERTS	-	-
Carbazole	mg/kg	0.3	MCERTS	-	-
Dibutyl phthalate	mg/kg	0.2	MCERTS	-	-
Anthraquinone	mg/kg	0.3	MCERTS	-	-
Fluoranthene	mg/kg	0.05	MCERTS	-	-
Pyrene	mg/kg	0.05	MCERTS	-	-
Butyl benzyl phthalate	mg/kg	0.3	ISO 17025	-	-
Benzo(a)anthracene	mg/kg	0.05	MCERTS	-	-
Chrysene	mg/kg	0.05	MCERTS	-	-
Benzo(b)fluoranthene	mg/kg	0.05	MCERTS	-	-
Benzo(k)fluoranthene	mg/kg	0.05	MCERTS	-	-

Analytical Report Number: 22-51366
Project / Site name: ICKENHAM

Lab Sample Number				2236464	2236465
Sample Reference				WS10	BUND1
Sample Number				None Supplied	None Supplied
Depth (m)				0.40-0.50	None Supplied
Date Sampled				08/04/2022	08/04/2022
Time Taken				None Supplied	None Supplied
Analytical Parameter (Soil Analysis)	**Units**	**Limit of detection**	**Accreditation Status**		
Benzo(a)pyrene	mg/kg	0.05	MCERTS	-	-
Indeno(1,2,3-cd)pyrene	mg/kg	0.05	MCERTS	-	-
Dibenz(a,h)anthracene	mg/kg	0.05	MCERTS	-	-
Benzo(ghi)perylene	mg/kg	0.05	MCERTS	-	-
SVOCs TICs					
SVOCs TICs Compound Name		N/A	NONE	-	-
SVOC % Match	%	N/A	NONE	-	-
Aldehydes (various)					
Acetaldehyde	mg/kg	1	NONE	-	-
Propanal	mg/kg	1	NONE	-	-
Butanal	mg/kg	1	NONE	-	-
Methacrolein [Crotonaldehyde]	mg/kg	1	NONE	-	-
Pentanal	mg/kg	1	NONE	-	-
Hexanal	mg/kg	1	NONE	-	-
Heptanal	mg/kg	1	NONE	-	-
Benzaldehyde	mg/kg	1	NONE	-	-
Octanal	mg/kg	1	NONE	-	-
Nonanal	mg/kg	1	NONE	-	-
Decanal	mg/kg	1	NONE	-	-
PCBs by GC-MS					
PCB Congener 28	mg/kg	0.001	MCERTS	-	-
PCB Congener 52	mg/kg	0.001	MCERTS	-	-
PCB Congener 101	mg/kg	0.001	MCERTS	-	-
PCB Congener 118	mg/kg	0.001	MCERTS	-	-
PCB Congener 138	mg/kg	0.001	MCERTS	-	-
PCB Congener 153	mg/kg	0.001	MCERTS	-	-
PCB Congener 180	mg/kg	0.001	MCERTS	-	-
Total PCBs by GC-MS					
Total PCBs	mg/kg	0.007	MCERTS	-	-
Miscellaneous Organics					
Acetone	mg/kg	0.1	NONE	-	-

U/S = Unsuitable Sample I/S = Insufficient Sample

Analytical Report Number: 22-51366
Project / Site name: ICKENHAM
Your Order No:

Certificate of Analysis - Asbestos Quantification

Methods:

Qualitative Analysis

The samples were analysed qualitatively for asbestos by polarising light and dispersion staining as described by the Health and Safety Executive in HSG 248.

Quantitative Analysis

The analysis was carried out using our documented in-house method A006-PL based on HSE Contract Research Report No: 83/1996: Development and Validation of an analytical method to determine the amount of asbestos in soils and loose aggregates (Davies et al, 1996) and HSG 248. Our method includes initial examination of the entire representative sample, then fractionation and detailed analysis of each fraction, with quantification by hand picking and weighing.

The limit of detection (reporting limit) of this method is 0.001 %.

The method has been validated using samples of at least 100 g, results for samples smaller than this should be interpreted with caution.

Both Qualitative and Quantitative Analyses are UKAS accredited.

Sample Number	Sample ID	Sample Depth (m)	Sample Weight (g)	Asbestos Containing Material Types Detected (ACM)	PLM Results	Asbestos by hand picking/weighing (%)	Total % Asbestos in Sample
2236456	WS05	0.30-0.50	153	Hard/Cement Type Material	**Chrysotile**	1.190	**1.19**

Opinions and interpretations expressed herein are outside the scope of UKAS accreditation.

Analytical Report Number: 22-51366
Project / Site name: ICKENHAM

Lab Sample Number				2236466	2236467	2236468	2236469	2236470
Sample Reference				WS01	WS02	WS05	WS03	WS04
Sample Number				None Supplied	None Supplied	None Supplied	None Supplied	None Supplied
Depth (m)				0.20	0.90-1.00	0.30-0.50	0.40-0.50	0.20-0.40
Date Sampled				07/04/2022	07/04/2022	07/04/2022	07/04/2022	07/04/2022
Time Taken				None Supplied	None Supplied	None Supplied	None Supplied	None Supplied
Analytical Parameter (Leachate Analysis)	**Units**	**Limit of detection**	**Accreditation Status**					
General Inorganics								
pH (automated)	pH Units	N/A	ISO 17025	6.9	7.8	11.2	8.0	8.1
Total Cyanide	µg/l	10	ISO 17025	< 10	< 10	< 10	< 10	< 10
Sulphate as SO_4	mg/l	0.1	ISO 17025	7.5	4	123	13.6	8.9
Sulphide	µg/l	5	NONE	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0
Total Phenols								
Total Phenols (monohydric)	µg/l	1	ISO 17025	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Heavy Metals / Metalloids								
Arsenic (dissolved)	µg/l	1	ISO 17025	1.6	< 1.0	< 1.0	1.8	< 1.0
Cadmium (dissolved)	µg/l	0.08	ISO 17025	< 0.08	< 0.08	< 0.08	< 0.08	< 0.08
Chromium (dissolved)	µg/l	0.4	ISO 17025	1.8	< 0.4	120	1.6	2.4
Copper (dissolved)	µg/l	0.7	ISO 17025	36	7	16	18	24
Lead (dissolved)	µg/l	1	ISO 17025	5.3	4.9	3.4	6.7	7.7
Mercury (dissolved)	µg/l	0.5	ISO 17025	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5
Nickel (dissolved)	µg/l	0.3	ISO 17025	11	3.7	3.8	6.9	8.2
Selenium (dissolved)	µg/l	4	ISO 17025	< 4.0	< 4.0	9.6	7.4	7.4
Zinc (dissolved)	µg/l	0.4	ISO 17025	43	6.1	4.6	12	35
Calcium (dissolved)	mg/l	0.012	ISO 17025	9	12	95	13	31
Magnesium (dissolved)	mg/l	0.005	ISO 17025	1.3	3.7	0.49	2	3.3

U/S = Unsuitable Sample I/S = Insufficient Sample

Analytical Report Number: 22-51366
Project / Site name: ICKENHAM

Lab Sample Number				2236471	2236472	2236473	2236474	2236475
Sample Reference				WS06	WS08	WS09	WS12	WS10
Sample Number				None Supplied	None Supplied	None Supplied	None Supplied	None Supplied
Depth (m)				0.90-1.00	0.20-0.30	0.20-0.30	0.40-0.50	0.40-0.50
Date Sampled				08/04/2022	08/04/2022	08/04/2022	08/04/2022	08/04/2022
Time Taken				None Supplied	None Supplied	None Supplied	None Supplied	None Supplied
Analytical Parameter (Leachate Analysis)	**Units**	**Limit of detection**	**Accreditation Status**					
General Inorganics								
pH (automated)	pH Units	N/A	ISO 17025	6.9	7.3	8.0	7.9	7.9
Total Cyanide	µg/l	10	ISO 17025	< 10	< 10	< 10	< 10	< 10
Sulphate as SO_4	mg/l	0.1	ISO 17025	98.4	6.8	14.1	5.6	4.8
Sulphide	µg/l	5	NONE	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0
Total Phenols								
Total Phenols (monohydric)	µg/l	1	ISO 17025	2.1	< 1.0	< 1.0	< 1.0	< 1.0
Heavy Metals / Metalloids								
Arsenic (dissolved)	µg/l	1	ISO 17025	< 1.0	1.6	< 1.0	< 1.0	5.3
Cadmium (dissolved)	µg/l	0.08	ISO 17025	< 0.08	< 0.08	< 0.08	< 0.08	< 0.08
Chromium (dissolved)	µg/l	0.4	ISO 17025	0.7	3	2.6	1.3	3.9
Copper (dissolved)	µg/l	0.7	ISO 17025	7.2	32	17	16	22
Lead (dissolved)	µg/l	1	ISO 17025	2.7	5.3	6.3	6	8.4
Mercury (dissolved)	µg/l	0.5	ISO 17025	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5
Nickel (dissolved)	µg/l	0.3	ISO 17025	5.2	9.8	6.9	7.1	9.5
Selenium (dissolved)	µg/l	4	ISO 17025	14	5.7	< 4.0	7	4.8
Zinc (dissolved)	µg/l	0.4	ISO 17025	5.4	31	10	9.8	21
Calcium (dissolved)	mg/l	0.012	ISO 17025	19	12	27	18	18
Magnesium (dissolved)	mg/l	0.005	ISO 17025	6.6	2.4	5.4	4.5	3.8

U/S = Unsuitable Sample I/S = Insufficient Sample

Analytical Report Number: 22-51366
Project / Site name: ICKENHAM

Lab Sample Number				2236476
Sample Reference				BUND1
Sample Number				None Supplied
Depth (m)				None Supplied
Date Sampled				08/04/2022
Time Taken				None Supplied
Analytical Parameter (Leachate Analysis)	**Units**	**Limit of detection**	**Accreditation Status**	
General Inorganics				
pH (automated)	pH Units	N/A	ISO 17025	8.1
Total Cyanide	µg/l	10	ISO 17025	< 10
Sulphate as SO_4	mg/l	0.1	ISO 17025	5.3
Sulphide	µg/l	5	NONE	< 5.0
Total Phenols				
Total Phenols (monohydric)	µg/l	1	ISO 17025	< 1.0
Heavy Metals / Metalloids				
Arsenic (dissolved)	µg/l	1	ISO 17025	< 1.0
Cadmium (dissolved)	µg/l	0.08	ISO 17025	< 0.08
Chromium (dissolved)	µg/l	0.4	ISO 17025	1.4
Copper (dissolved)	µg/l	0.7	ISO 17025	18
Lead (dissolved)	µg/l	1	ISO 17025	6.7
Mercury (dissolved)	µg/l	0.5	ISO 17025	< 0.5
Nickel (dissolved)	µg/l	0.3	ISO 17025	7.3
Selenium (dissolved)	µg/l	4	ISO 17025	9.5
Zinc (dissolved)	µg/l	0.4	ISO 17025	12
Calcium (dissolved)	mg/l	0.012	ISO 17025	57
Magnesium (dissolved)	mg/l	0.005	ISO 17025	5

U/S = Unsuitable Sample I/S = Insufficient Sample

Analytical Report Number : 22-51366
Project / Site name: ICKENHAM

* These descriptions are only intended to act as a cross check if sample identities are questioned. The major constituent of the sample is intended to act with respect to MCERTS validation. The laboratory is accredited for sand, clay and loam (MCERTS) soil types. Data for unaccredited types of solid should be interpreted with care.

Stone content of a sample is calculated as the % weight of the stones not passing a 10 mm sieve. Results are not corrected for stone content.

Lab Sample Number	Sample Reference	Sample Number	Depth (m)	Sample Description *
2236454	WS01	None Supplied	0.2	Brown clay and loam with vegetation.
2236455	WS02	None Supplied	0.90-1.00	Brown clay and loam with vegetation.
2236456	WS05	None Supplied	0.30-0.50	Brown gravelly sand with stones and brick.
2236457	WS03	None Supplied	0.40-0.50	Brown clay and loam.
2236458	WS04	None Supplied	0.20-0.40	Brown loam and clay with vegetation.
2236459	WS06	None Supplied	0.90-1.00	Brown clay and loam.
2236460	WS08	None Supplied	0.20-0.30	Brown clay and loam with gravel and vegetation.
2236461	WS08	None Supplied	1.00-1.20	Brown clay and loam with gravel and stones.
2236462	WS09	None Supplied	0.20-0.30	Brown clay and loam with vegetation.
2236463	WS12	None Supplied	0.40-0.50	Brown clay and loam with vegetation.
2236464	WS10	None Supplied	0.40-0.50	Brown clay and sand with gravel and vegetation.
2236465	BUND1	None Supplied	None Supplied	Brown clay and sand with gravel and vegetation.

Analytical Report Number : 22-51366
Project / Site name: ICKENHAM

Water matrix abbreviations:
Surface Water (SW) Potable Water (PW) Ground Water (GW) Process Waters (PrW) Final Sewage Effluent (FSE) Landfill Leachate (LL)

Analytical Test Name	Analytical Method Description	Analytical Method Reference	Method number	Wet / Dry Analysis	Accreditation Status
Sulphate, water soluble, in soil (16hr extraction)	Determination of water soluble sulphate by ICP-OES. Results reported directly (leachate equivalent) and corrected for extraction ratio (soil equivalent).	In house method.	L038-PL	D	MCERTS
Metals in soil by ICP-OES	Determination of metals in soil by aqua-regia digestion followed by ICP-OES.	In-house method based on MEWAM 2006 Methods for the Determination of Metals in Soil.	L038-PL	D	MCERTS
BS EN 12457-1 (2:1) Leachate Prep	2:1 (as recieved, moisture adjusted) end over end extraction with water for 24 hours. Eluate filtered prior to analysis.	In-house method based on BSEN12457-1.	L043-PL	W	NONE
Asbestos identification in soil	Asbestos Identification with the use of polarised light microscopy in conjunction with disperion staining techniques.	In house method based on HSG 248	A001-PL	D	ISO 17025
Metals by ICP-OES in leachate	Determination of metals in leachate by acidification followed by ICP-OES.	In-house method based on MEWAM 2006 Methods for the Determination of Metals in Soil.	L039-PL	W	ISO 17025
Phenols, speciated, in soil, by HPLC	Determination of speciated phenols by HPLC.	In house method based on Blue Book Method.	L030-PL	W	ISO 17025
Boron, water soluble, in soil	Determination of water soluble boron in soil by hot water extract followed by ICP-OES.	In-house method based on Second Site Properties version 3	L038-PL	D	MCERTS
Electrical conductivity of soil	Determination of electrical conductivity in soil by electrometric measurement.	In-house method	L031-PL	D	ISO 17025
Magnesium, water soluble, in soil	Determination of water soluble magnesium by extraction with water followed by ICP-OES.	In-house method based on TRL 447	L038-PL	D	NONE
Moisture Content	Moisture content, determined gravimetrically. (30 oC)	In house method.	L019-UK/PL	W	NONE
Monohydric phenols in leachate - LOW LEVEL 1 ug/l	Determination of phenols in leachate by distillation followed by colorimetry.	In-house method based on Examination of Water and Wastewater 20th Edition: Clesceri, Greenberg & Eaton (skalar)	L080-PL	W	ISO 17025
Monohydric phenols in soil	Determination of phenols in soil by extraction with sodium hydroxide followed by distillation followed by colorimetry.	In-house method based on Examination of Water and Wastewater 20th Edition: Clesceri, Greenberg & Eaton (skalar)	L080-PL	W	MCERTS
Speciated EPA-16 PAHs in soil	Determination of PAH compounds in soil by extraction in dichloromethane and hexane followed by GC-MS with the use of surrogate and internal standards.	In-house method based on USEPA 8270	L064-PL	D	MCERTS
PCB's By GC-MS in soil	Determination of PCB by extraction with acetone and hexane followed by GC-MS.	In-house method based on USEPA 8082	L027-PL	D	MCERTS
pH in soil (automated)	Determination of pH in soil by addition of water followed by automated electrometric measurement.	In house method.	L099-PL	D	MCERTS
pH at 20oC in leachate (automated)	Determination of pH in leachate by electrometric measurement.	In house method.	L099B	W	ISO 17025
Redox Potential of soil	Determination of redox potential in soil by electrometric measurement.	In house method.	L084-PL	W	NONE

Analytical Report Number : 22-51366
Project / Site name: ICKENHAM

Water matrix abbreviations:
Surface Water (SW) Potable Water (PW) Ground Water (GW) Process Waters (PrW) Final Sewage Effluent (FSE) Landfill Leachate (LL)

Analytical Test Name	Analytical Method Description	Analytical Method Reference	Method number	Wet / Dry Analysis	Accreditation Status
Sulphide in leachate	Determination of sulphide in leachate by ion selective electrode.	In-house method	L010-PL	W	NONE
Sulphide in soil	Determination of sulphide in soil by acidification and heating to liberate hydrogen sulphide, trapped in an alkaline solution then assayed by ion selective electrode.	In-house method	L010-PL	D	MCERTS
Total sulphate (as SO4 in soil)	Determination of total sulphate in soil by extraction with 10% HCl followed by ICP-OES.	In house method.	L038-PL	D	MCERTS
Stones content of soil	Standard preparation for all samples unless otherwise detailed. Gravimetric determination of stone > 10 mm as % dry weight.	In-house method based on British Standard Methods and MCERTS requirements.	L019-UK/PL	D	NONE
Semi-volatile organic compounds in soil	Determination of semi-volatile organic compounds in soil by extraction in dichloromethane and hexane followed by GC-MS.	In-house method based on USEPA 8270	L064-PL	D	MCERTS
Tentatively identified compounds (SVOC) in soil	Determination of semi-volatile organic compounds total ion count in soil by extraction with dichloromethane and hexane followed by GC-MS followed by a full library scan.	In-house method based on USEPA 8270	L064-PL	D	NONE
TPH6 (Soil)	Determination of TPH bands by HS-GC-MS/GC-FID	In-house method with silica gel split/clean up.	L076-PL	D	MCERTS
Total cyanide in leachate	Determination of total cyanide by distillation followed by colorimetry.	In-house method based on Examination of Water and Wastewater 20th Edition: Clesceri, Greenberg & Eaton (Skalar)	L080-PL	W	ISO 17025
Total cyanide in soil	Determination of total cyanide by distillation followed by colorimetry.	In-house method based on Examination of Water and Wastewater 20th Edition: Clesceri, Greenberg & Eaton (Skalar)	L080-PL	W	MCERTS
Volatile organic compounds in soil	Determination of volatile organic compounds in soil by headspace GC-MS.	In-house method based on USEPA8260	L073B-PL	W	MCERTS
Tentatively identified compounds (VOC) in soil	Determination of volatile organic compounds total ion count in soil by headspace GC-MS followed by a full library scan.	In-house method based on USEPA8260	L073-PL	W	NONE
BTEX and MTBE in soil (Monoaromatics)	Determination of BTEX in soil by headspace GC-MS.	In-house method based on USEPA8260	L073B-PL	W	MCERTS
Ammonium as NH4 in soil	Determination of Ammonium/Ammonia/ Ammoniacal Nitrogen by the colorimetric salicylate/nitroprusside method, 10:1 water extraction.	In-house method based on Examination of Water and Wastewater 20th Edition: Clesceri, Greenberg & Eaton	L082-PL	W	MCERTS
Total Chlorinated Solvents in soil	Determination of chlorinated solvents in soil by headspace GC-MS.	In-house method based on USEPA8260	L017-UK	W	MCERTS
TPH Chromatogram in Soil	TPH Chromatogram in Soil.	In-house method	L064-PL	D	NONE
Acetone in soil	Determination of Acetone by HS-GC-MS.	In house method	L073B-PL	W	NONE
Asbestos Quantification - Gravimetric	Asbestos quantification by gravimetric method - in house method based on references.	HSE Report No: 83/1996, HSG 248, HSG 264 & SCA Blue Book (draft).	A006-PL	D	ISO 17025

Analytical Report Number : 22-51366
Project / Site name: ICKENHAM

Water matrix abbreviations:
Surface Water (SW) Potable Water (PW) Ground Water (GW) Process Waters (PrW) Final Sewage Effluent (FSE) Landfill Leachate (LL)

Analytical Test Name	Analytical Method Description	Analytical Method Reference	Method number	Wet / Dry Analysis	Accreditation Status
Sulphate in leachates	Determination of sulphate in leachate by acidification followed by ICP-OES.	In-house method based on MEWAM 1986 Methods for the Determination of Metals in Soil""	L039-PL	W	ISO 17025
Organic matter (Automated) in soil	Determination of organic matter in soil by oxidising with potassium dichromate followed by titration with iron (II) sulphate.	In house method.	L009-PL	D	MCERTS
Hexavalent chromium in soil	Determination of hexavalent chromium in soil by extraction in water then by acidification, addition of 1,5 diphenylcarbazide followed by colorimetry.	In-house method	L080-PL	W	NONE
Total Sulphate in soil as %	Determination of total sulphate in soil by extraction with 10% HCl followed by ICP-OES.	In house method.	L038-PL	D	MCERTS
Total Sulphur in soil as %	Determination of total sulphur in soil by extraction with aqua-regia, potassium bromide/bromate followed by ICP-OES.	In house method.	L038-PL	D	MCERTS
Aldehydes in soil		In-house method	L073B-PL	W	NONE
D.O. for Gravimetric Quant if Screen/ID positive	Dependent option for Gravimetric Quant if Screen/ID positive scheduled.	In house asbestos methods A001 & A006.	A006-PL	D	NONE
TPH in (Soil)	Determination of TPH bands by HS-GC-MS/GC-FID	In-house method, TPH with carbon banding and silica gel split/cleanup.	L076-PL	D	NONE
Mineral Oil (Soil) C10 - C40	Determination of mineral oil fraction extractable hydrocarbons in soil by GC-MS/GC-FID.	In-house method with silica gel split/clean up.	L076-PL	D	NONE
WIR compounds	Determination of WIR compounds by various methods listed in the Methods Table.	In House Method		W	MCERTS
Water Soluble Nitrate (2:1) as N in soil	Determination of nitrate by reaction with sodium salicylate and colorimetry.	In-house method based on Examination of Water and Wastewatern & Polish Standard Method PN-82/C-04579.08, 2:1 extraction.	L078-PL	W	NONE
Chloride, water soluble, in soil	Determination of Chloride colorimetrically by discrete analyser.	In house method.	L082-PL	D	MCERTS
Sulphate, water soluble, in soil	Determination of water soluble sulphate by ICP-OES. Results reported directly (leachate equivalent) and corrected for extraction ratio (soil equivalent).	In house method.	L038-PL	D	MCERTS

For method numbers ending in 'UK' analysis have been carried out in our laboratory in the United Kingdom.
For method numbers ending in 'PL' analysis have been carried out in our laboratory in Poland.
Soil analytical results are expressed on a dry weight basis. Where analysis is carried out on as-received the results obtained are multiplied by a moisture correction factor that is determined gravimetrically using the moisture content which is carried out at a maximum of 30oC.

Unless otherwise indicated, site information, order number, project number, sampling date, time, sample reference and depth are provided by the client. The instructed on date indicates the date on which this information was provided to the laboratory.

Analytical Report Number : 22-51366
Project / Site name: ICKENHAM

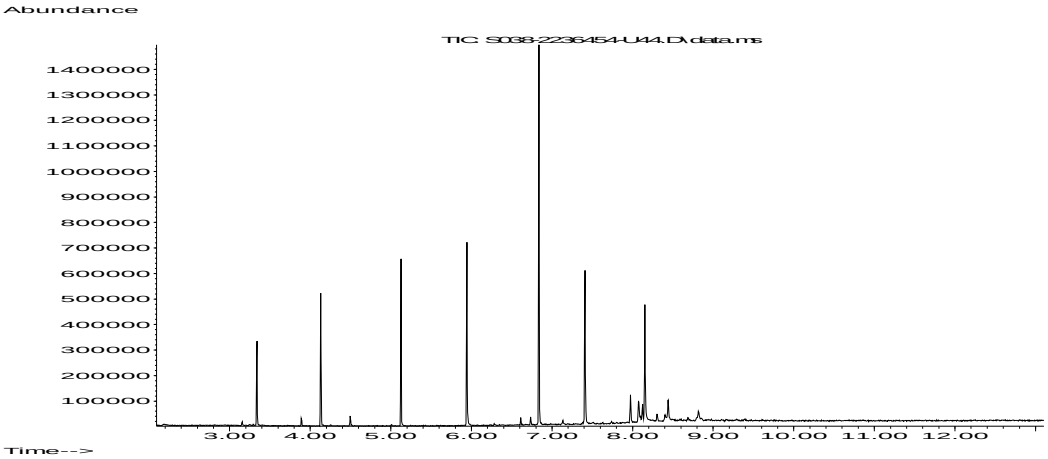
Water matrix abbreviations:
Surface Water (SW) Potable Water (PW) Ground Water (GW) Process Waters (PrW) Final Sewage Effluent (FSE) Landfill Leachate (LL)

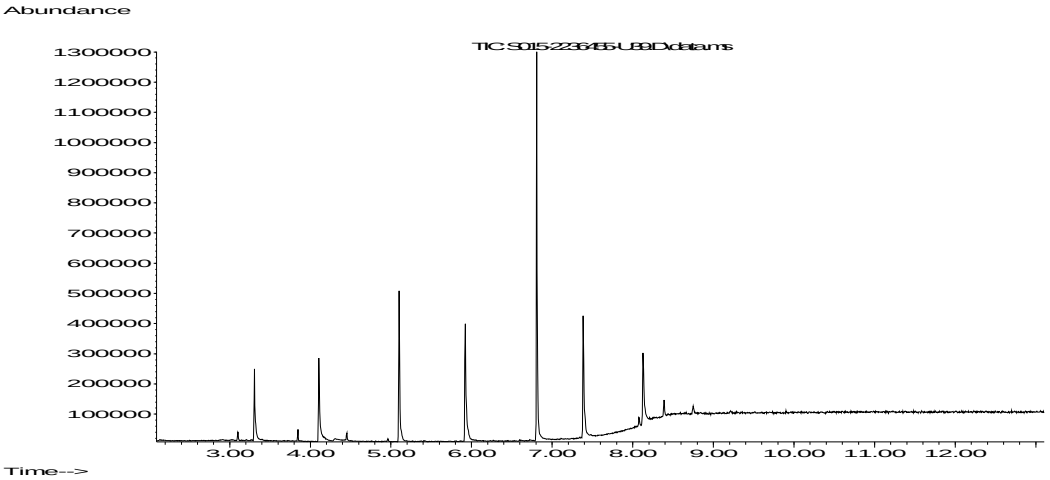
Analytical Test Name	Analytical Method Description	Analytical Method Reference	Method number	Wet / Dry Analysis	Accreditation Status

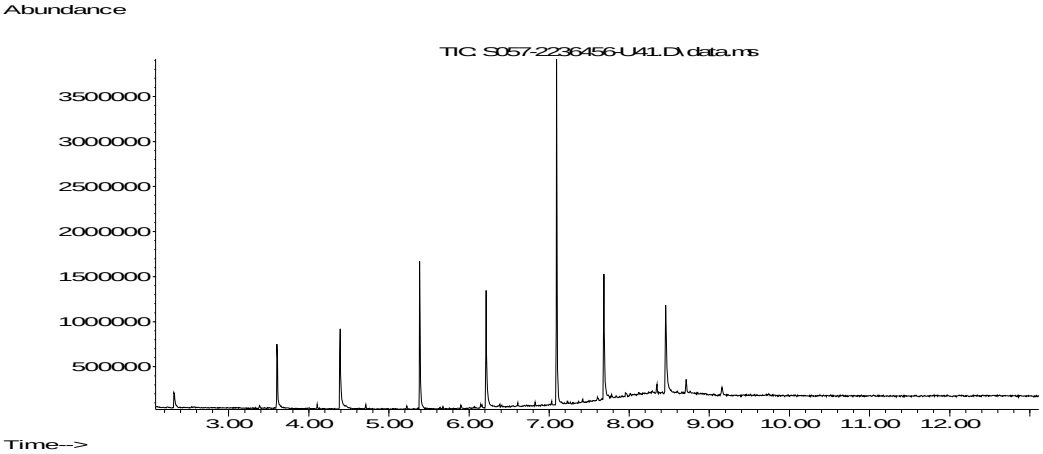
Information in Support of Analytical Results

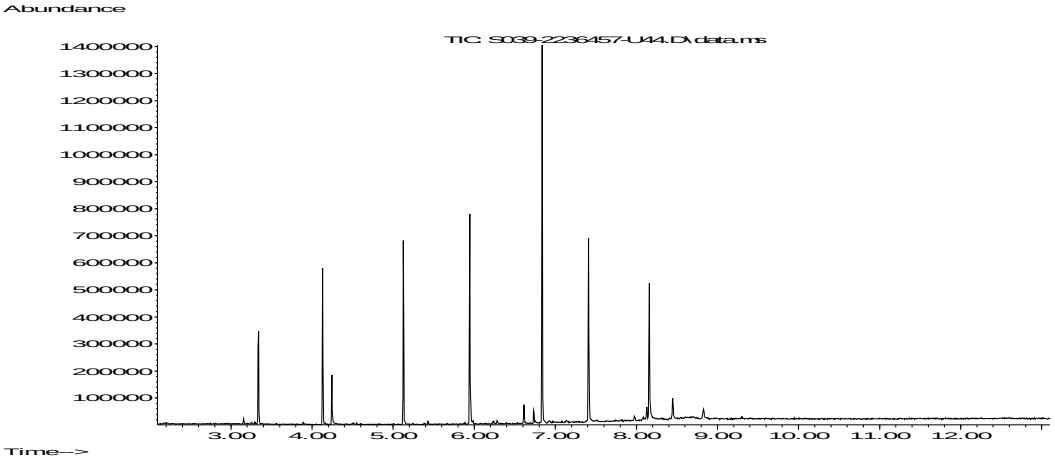
List of HWOL Acronyms and Operators

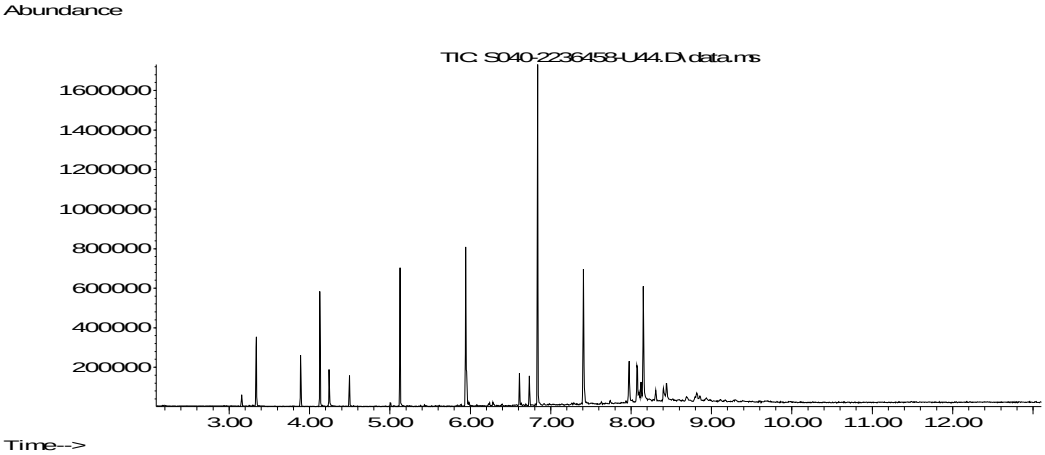
Acronym	Descriptions
HS	Headspace Analysis
MS	Mass spectrometry
FID	Flame Ionisation Detector
GC	Gas Chromatography
EH	Extractable Hydrocarbons (i.e. everything extracted by the solvent(s))
CU	Clean-up - e.g. by Florisil®, silica gel
1D	GC - Single coil/column gas chromatography
2D	GC-GC - Double coil/column gas chromatography
Total	Aliphatics & Aromatics
AL	Aliphatics
AR	Aromatics
#1	EH_2D_Total but with humics mathematically subtracted
#2	EH_2D_Total but with fatty acids mathematically subtracted
_	Operator - understore to separate acronyms (exception for +)
+	Operator to indicate cumulative e.g. EH+HS_Total or EH_CU+HS_Total

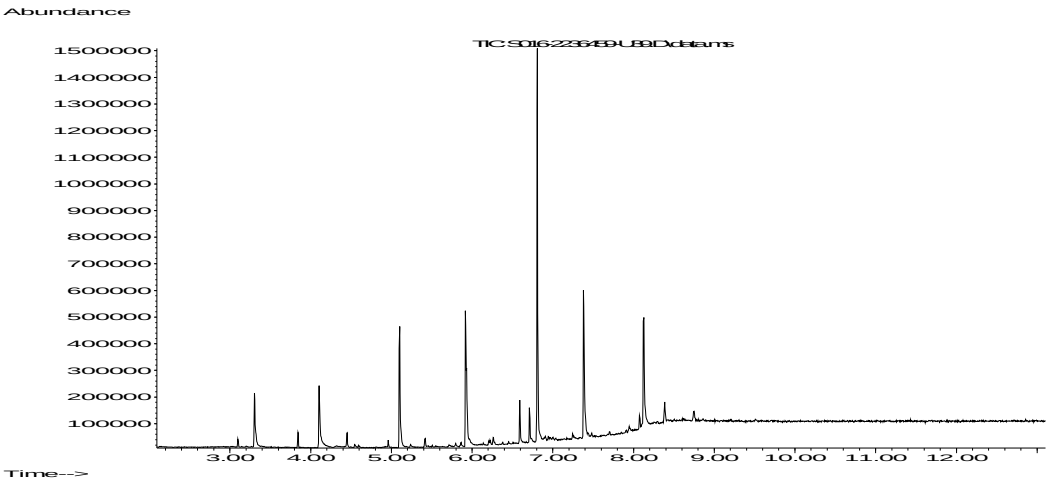

Abundance
TIC: S038-2236454-U44.D\data.ms
1400000
1300000
1200000
1100000
1000000
900000
800000
700000
600000
500000
400000
300000
200000
100000
3.00
4.00
5.00
6.00
7.00
8.00
9.00
10.00
11.00
12.00
Time-->

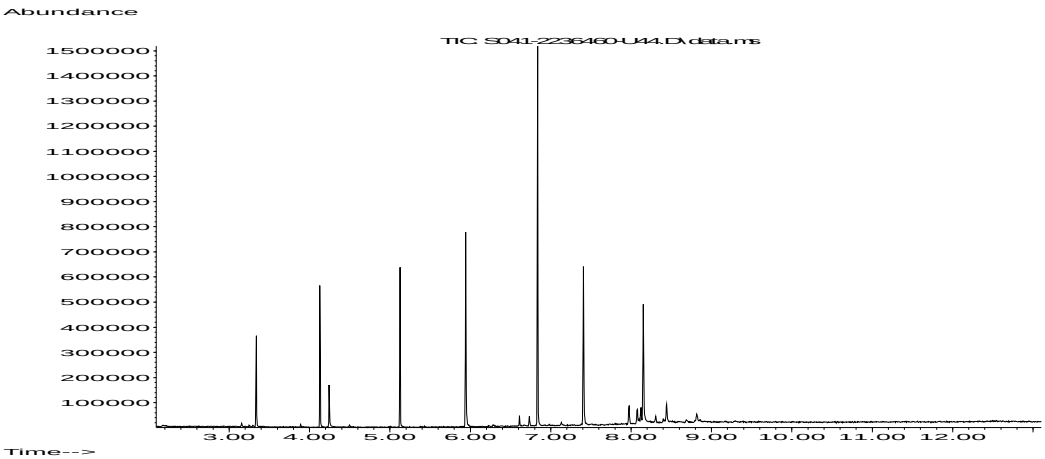

Abundance
TIC: S015223655.UB9D.datams
1300000
1200000
1100000
1000000
900000
800000
700000
600000
500000
400000
300000
200000
100000
3.00
4.00
5.00
6.00
7.00
8.00
9.00
10.00
11.00
12.00
Time-->

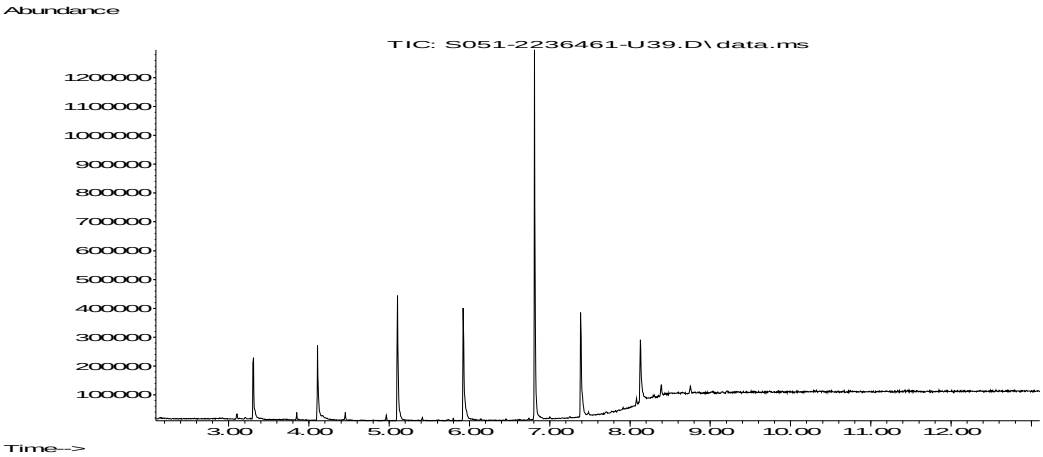

Abundance
TIC: S057-2236456-U41.D\data.ms
3500000
3000000
2500000
2000000
1500000
1000000
500000
3.00
4.00
5.00
6.00
7.00
8.00
9.00
10.00
11.00
12.00
Time-->

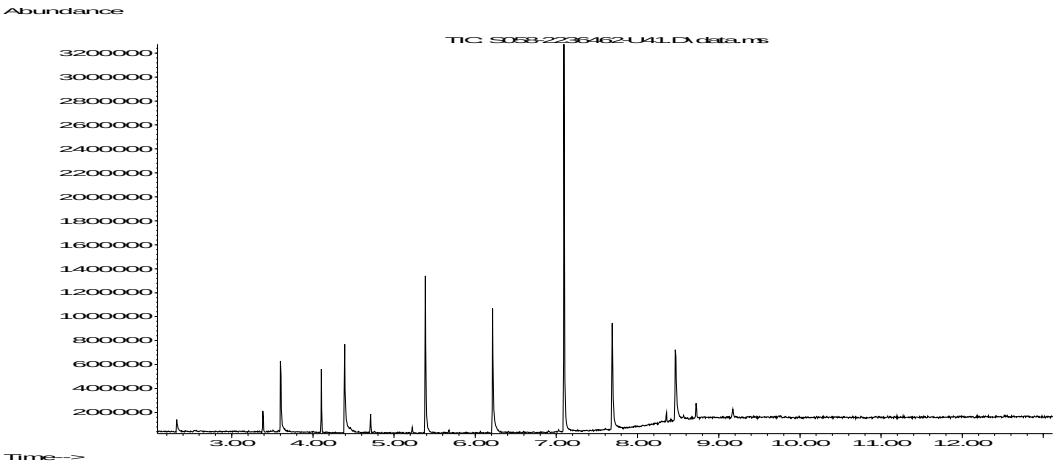

Abundance
TIC: S039-2236457-U44.D\data.ms
1400000
1300000
1200000
1100000
1000000
900000
800000
700000
600000
500000
400000
300000
200000
100000
3.00
4.00
5.00
6.00
7.00
8.00
9.00
10.00
11.00
12.00
Time-->

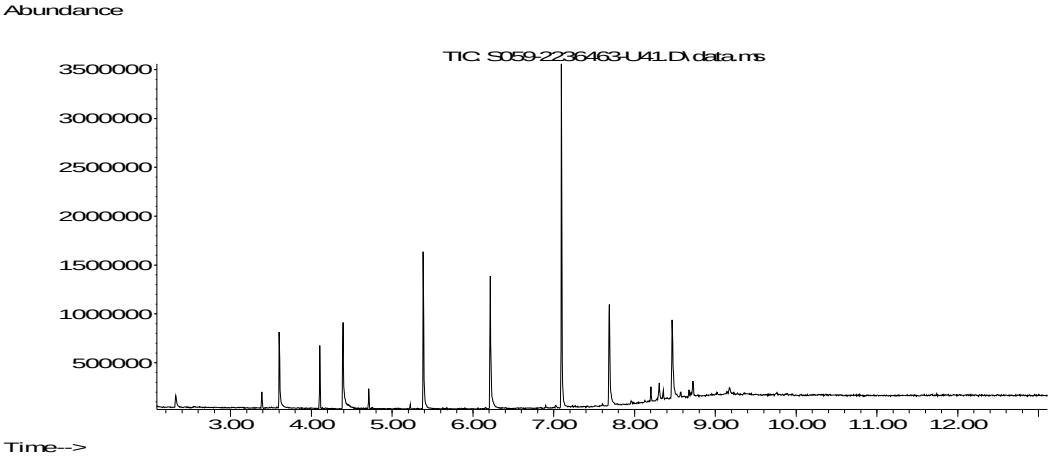

Abundance
TIC: S040-2236458-U44.D\data.ms
1600000
1400000
1200000
1000000
800000
600000
400000
200000
3.00
4.00
5.00
6.00
7.00
8.00
9.00
10.00
11.00
12.00
Time-->

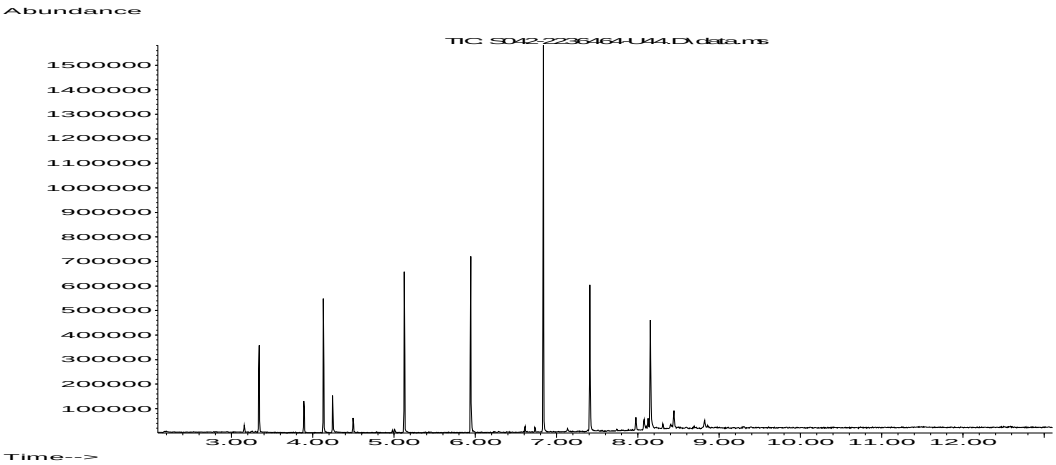

Abundance
1500000
1400000
1300000
1200000
1100000
1000000
900000
800000
700000
600000
500000
400000
300000
200000
100000
3.00
4.00
5.00
6.00
7.00
8.00
9.00
10.00
11.00
12.00
Time-->

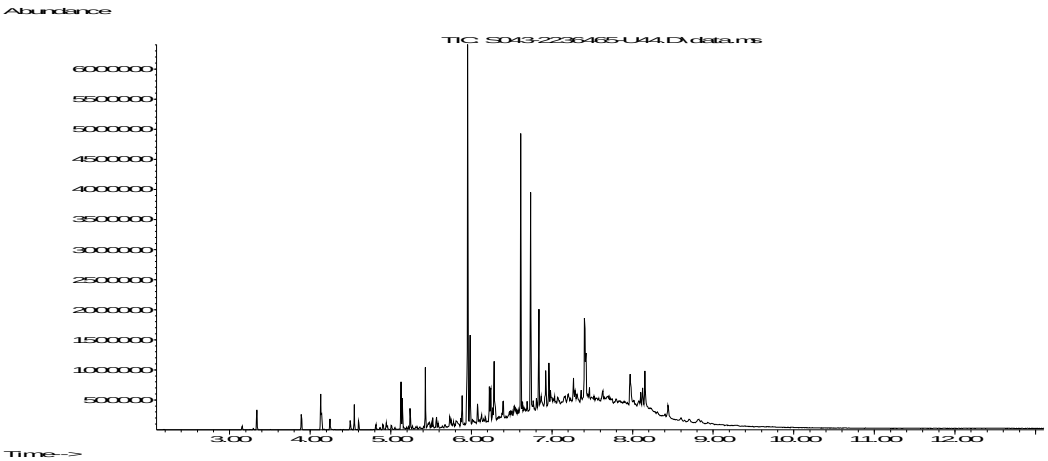

Abundance
TIC: S041-2236460-U44.D\data.ms
1500000
1400000
1300000
1200000
1100000
1000000
900000
800000
700000
600000
500000
400000
300000
200000
100000
3.00
4.00
5.00
6.00
7.00
8.00
9.00
10.00
11.00
12.00
Time-->


Abundance
TIC: S051-2236461-U39.D\data.ms
1200000
1100000
1000000
900000
800000
700000
600000
500000
400000
300000
200000
100000
3.00
4.00
5.00
6.00
7.00
8.00
9.00
10.00
11.00
12.00
Time-->


Abundance
TIC: 9058-2236462-U41.D\data.ms
3200000
3000000
2800000
2600000
2400000
2200000
2000000
1800000
1600000
1400000
1200000
1000000
800000
600000
400000
200000
3.00
4.00
5.00
6.00
7.00
8.00
9.00
10.00
11.00
12.00
Time-->


Abundance
TIC: S059-2236463-U41.D\data.ms
3500000
3000000
2500000
2000000
1500000
1000000
500000
3.00
4.00
5.00
6.00
7.00
8.00
9.00
10.00
11.00
12.00
Time-->


Abundance
TIC: 9042-2236464-U44.D\data.ms
1500000
1400000
1300000
1200000
1100000
1000000
900000
800000
700000
600000
500000
400000
300000
200000
100000
3.00
4.00
5.00
6.00
7.00
8.00
9.00
10.00
11.00
12.00
Time-->


Abundance
TIC: S043-2236465-U44.D\data.ms
6000000
5500000
5000000
4500000
4000000
3500000
3000000
2500000
2000000
1500000
1000000
500000
3.00
4.00
5.00
6.00
7.00
8.00
9.00
10.00
11.00
12.00
Time-->

David Pacheco
Johnson Poole & Bloomer
Harris & Pearson Building
Brettell Lane
Brierley Hill
West Midlands
DY5 3LH

t: (01384) 262000

e: enquiries@jpb.co.uk

i2 Analytical Ltd.
7 Woodshots Meadow,
Croxley Green
Business Park,
Watford,
Herts,
WD18 8YS

t: 01923 225404
f: 01923 237404
e: reception@i2analytical.com

Analytical Report Number : 22-52086

Project / Site name:	Ickenham	**Samples received on:**	11/04/2022
Your job number:	WS307	**Samples instructed on/ Analysis started on:**	12/04/2022
Your order number:		**Analysis completed by:**	06/05/2022
Report Issue Number:	1	**Report issued on:**	09/05/2022
Samples Analysed:	11 soil samples		

Signed: Martyna Langer

Martyna Langer
Junior Reporting Specialist
For & on behalf of i2 Analytical Ltd.

Standard Geotechnical, Asbestos and Chemical Testing Laboratory located at: ul. Pionierów 39, 41 -711 Ruda Śląska, Poland.

Accredited tests are defined within the report, opinions and interpretations expressed herein are outside the scope of accreditation.

Standard sample disposal times, unless otherwise agreed with the laboratory, are :

soils - 4 weeks from reporting
leachates - 2 weeks from reporting
waters - 2 weeks from reporting
asbestos - 6 months from reporting

Excel copies of reports are only valid when accompanied by this PDF certificate.

Any assessments of compliance with specifications are based on actual analytical results with no contribution from uncertainty of measurement.
Application of uncertainty of measurement would provide a range within which the true result lies.
An estimate of measurement uncertainty can be provided on request.

Analytical Report Number: 22-52086
Project / Site name: Ickenham

Lab Sample Number				2240696	2240697	2240698	2240699	2240700
Sample Reference				WS01	WS02	WS05	WS07	WS03
Sample Number				None Supplied	None Supplied	None Supplied	None Supplied	None Supplied
Depth (m)				3.50-3.60	1.20-1.30	1.00-1.10	0.80-1.00	1.80-2.00
Date Sampled				07/04/2022	07/04/2022	07/04/2022	07/04/2022	07/04/2022
Time Taken				None Supplied	None Supplied	None Supplied	None Supplied	None Supplied
Analytical Parameter (Soil Analysis)	**Units**	**Limit of detection**	**Accreditation Status**					
Stone Content	%	0.1	NONE	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1
Moisture Content	%	0.01	NONE	9.8	19	18	19	16
Total mass of sample received	kg	0.001	NONE	0.5	0.5	0.5	0.5	0.5

General Inorganics

pH - Automated	pH Units	N/A	MCERTS	7.8	7.6	8	7.1	7.7
Total Sulphate as SO4	%	0.005	MCERTS	0.076	0.013	0.023	0.01	0.012
Water Soluble SO4 16hr extraction (2:1 Leachate Equivalent)	g/l	0.00125	MCERTS	0.074	0.042	0.14	0.01	0.048
Water Soluble SO4 16hr extraction (2:1 Leachate Equivalent)	mg/l	1.25	MCERTS	74.3	42.4	138	10.1	47.6
Water Soluble Chloride (2:1) (leachate equivalent)	mg/l	0.5	MCERTS	2.5	2.8	3.9	1.4	7
Total Sulphur	%	0.005	MCERTS	0.026	0.006	0.015	< 0.005	0.007
Ammoniacal Nitrogen as NH4	mg/kg	0.5	MCERTS	< 0.5	< 0.5	14	< 0.5	< 0.5
Ammonium as NH4 (10:1 leachate equivalent)	mg/l	0.05	MCERTS	< 0.05	< 0.05	1.37	< 0.05	< 0.05
Water Soluble Nitrate (2:1) as N (leachate equivalent)	mg/l	2	NONE	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0

Heavy Metals / Metalloids

Magnesium (water soluble)	mg/kg	5	NONE	25	24	22	8.3	21
Magnesium (leachate equivalent)	mg/l	2.5	NONE	12	12	11	4.1	10

U/S = Unsuitable Sample I/S = Insufficient Sample

Analytical Report Number: 22-52086
Project / Site name: Ickenham

Lab Sample Number				2240701	2240702	2240703	2240704	2240705
Sample Reference				WS04	WS06	WS12	WS11	WS10
Sample Number				None Supplied	None Supplied	None Supplied	None Supplied	None Supplied
Depth (m)				0.20-0.40	1.80-2.00	4.00-4.20	3.70-3.90	0.80-0.90
Date Sampled				07/04/2022	08/04/2022	08/04/2022	08/04/2022	08/04/2022
Time Taken				None Supplied	None Supplied	None Supplied	None Supplied	None Supplied
Analytical Parameter (Soil Analysis)	**Units**	**Limit of detection**	**Accreditation Status**					
Stone Content	%	0.1	NONE	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1
Moisture Content	%	0.01	NONE	23	14	18	17	19
Total mass of sample received	kg	0.001	NONE	0.5	0.5	0.5	0.5	0.5

General Inorganics

pH - Automated	pH Units	N/A	MCERTS	7.2	6.9	7.2	7.7	8.1
Total Sulphate as SO4	%	0.005	MCERTS	0.06	0.392	3.01	1.33	0.044
Water Soluble SO4 16hr extraction (2:1 Leachate Equivalent)	g/l	0.00125	MCERTS	0.046	2.1	3.4	3.3	0.041
Water Soluble SO4 16hr extraction (2:1 Leachate Equivalent)	mg/l	1.25	MCERTS	46.4	2070	3350	3300	41.4
Water Soluble Chloride (2:1) (leachate equivalent)	mg/l	0.5	MCERTS	4	48	50	74	3.8
Total Sulphur	%	0.005	MCERTS	0.045	0.118	1.37	0.771	0.024
Ammoniacal Nitrogen as NH4	mg/kg	0.5	MCERTS	< 0.5	< 0.5	0.7	1.2	< 0.5
Ammonium as NH4 (10:1 leachate equivalent)	mg/l	0.05	MCERTS	< 0.05	< 0.05	0.07	0.12	< 0.05
Water Soluble Nitrate (2:1) as N (leachate equivalent)	mg/l	2	NONE	3.4	< 2.0	< 2.0	< 2.0	2.7

Heavy Metals / Metalloids

Magnesium (water soluble)	mg/kg	5	NONE	15	380	890	890	16
Magnesium (leachate equivalent)	mg/l	2.5	NONE	7.3	190	440	450	7.7

U/S = Unsuitable Sample I/S = Insufficient Sample

Analytical Report Number: 22-52086
Project / Site name: Ickenham

Lab Sample Number				2252240
Sample Reference				WS10
Sample Number				None Supplied
Depth (m)				4.90-5.00
Date Sampled				08/04/2022
Time Taken				None Supplied
Analytical Parameter (Soil Analysis)	**Units**	**Limit of detection**	**Accreditation Status**	
Stone Content	%	0.1	NONE	< 0.1
Moisture Content	%	0.01	NONE	15
Total mass of sample received	kg	0.001	NONE	0.4

General Inorganics

pH - Automated	pH Units	N/A	MCERTS	7.5
Total Sulphate as SO4	%	0.005	MCERTS	2.07
Water Soluble SO4 16hr extraction (2:1 Leachate Equivalent)	g/l	0.00125	MCERTS	3.2
Water Soluble SO4 16hr extraction (2:1 Leachate Equivalent)	mg/l	1.25	MCERTS	3180
Water Soluble Chloride (2:1) (leachate equivalent)	mg/l	0.5	MCERTS	98
Total Sulphur	%	0.005	MCERTS	0.877
Ammoniacal Nitrogen as NH4	mg/kg	0.5	MCERTS	1.2
Ammonium as NH4 (10:1 leachate equivalent)	mg/l	0.05	MCERTS	0.12
Water Soluble Nitrate (2:1) as N (leachate equivalent)	mg/l	2	NONE	< 2.0

Heavy Metals / Metalloids

Magnesium (water soluble)	mg/kg	5	NONE	640
Magnesium (leachate equivalent)	mg/l	2.5	NONE	320

U/S = Unsuitable Sample I/S = Insufficient Sample

Analytical Report Number : 22-52086
Project / Site name: Ickenham

* These descriptions are only intended to act as a cross check if sample identities are questioned. The major constituent of the sample is intended to act with respect to MCERTS validation. The laboratory is accredited for sand, clay and loam (MCERTS) soil types. Data for unaccredited types of solid should be interpreted with care.

Stone content of a sample is calculated as the % weight of the stones not passing a 10 mm sieve. Results are not corrected for stone content.

Lab Sample Number	Sample Reference	Sample Number	Depth (m)	Sample Description *
2240696	WS01	None Supplied	3.50-3.60	Brown clay and sand.
2240697	WS02	None Supplied	1.20-1.30	Brown clay.
2240698	WS05	None Supplied	1.00-1.10	Brown clay and loam with vegetation.
2240699	WS07	None Supplied	0.80-1.00	Brown clay with vegetation.
2240700	WS03	None Supplied	1.80-2.00	Brown clay.
2240701	WS04	None Supplied	0.20-0.40	Brown clay and loam with vegetation and gravel
2240702	WS06	None Supplied	1.80-2.00	Brown clay and sand.
2240703	WS12	None Supplied	4.00-4.20	Brown clay with gravel.
2240704	WS11	None Supplied	3.70-3.90	Brown clay with vegetation.
2240705	WS10	None Supplied	0.80-0.90	Brown clay and loam with vegetation.
2252240	WS10	None Supplied	4.90-5.00	Brown clay and sand.

Analytical Report Number : 22-52086
Project / Site name: Ickenham

Water matrix abbreviations:
Surface Water (SW) Potable Water (PW) Ground Water (GW) Process Waters (PrW) Final Sewage Effluent (FSE) Landfill Leachate (LL)

Analytical Test Name	Analytical Method Description	Analytical Method Reference	Method number	Wet / Dry Analysis	Accreditation Status
Sulphate, water soluble, in soil (16hr extraction)	Determination of water soluble sulphate by ICP-OES. Results reported directly (leachate equivalent) and corrected for extraction ratio (soil equivalent).	In house method.	L038-PL	D	MCERTS
Magnesium, water soluble, in soil	Determination of water soluble magnesium by extraction with water followed by ICP-OES.	In-house method based on TRL 447	L038-PL	D	NONE
Moisture Content	Moisture content, determined gravimetrically. (30 oC)	In house method.	L019-UK/PL	W	NONE
pH in soil (automated)	Determination of pH in soil by addition of water followed by automated electrometric measurement.	In house method.	L099-PL	D	MCERTS
Stones content of soil	Standard preparation for all samples unless otherwise detailed. Gravimetric determination of stone > 10 mm as % dry weight.	In-house method based on British Standard Methods and MCERTS requirements.	L019-UK/PL	D	NONE
Ammonium as NH4 in soil	Determination of Ammonium/Ammonia/ Ammoniacal Nitrogen by the colorimetric salicylate/nitroprusside method, 10:1 water extraction.	In-house method based on Examination of Water and Wastewater 20th Edition: Clesceri, Greenberg & Eaton	L082-PL	W	MCERTS
Total Sulphate in soil as %	Determination of total sulphate in soil by extraction with 10% HCl followed by ICP-OES.	In house method.	L038-PL	D	MCERTS
Total Sulphur in soil as %	Determination of total sulphur in soil by extraction with aqua-regia, potassium bromide/bromate followed by ICP-OES.	In house method.	L038-PL	D	MCERTS
Water Soluble Nitrate (2:1) as N in soil	Determination of nitrate by reaction with sodium salicylate and colorimetry.	In-house method based on Examination of Water and Wastewatern & Polish Standard Method PN-82/C-04579.08, 2:1 extraction.	L078-PL	W	NONE
Chloride, water soluble, in soil	Determination of Chloride colorimetrically by discrete analyser.	In house method.	L082-PL	D	MCERTS
Sulphate, water soluble, in soil	Determination of water soluble sulphate by ICP-OES. Results reported directly (leachate equivalent) and corrected for extraction ratio (soil equivalent).	In house method.	L038-PL	D	MCERTS

For method numbers ending in 'UK' analysis have been carried out in our laboratory in the United Kingdom.
For method numbers ending in 'PL' analysis have been carried out in our laboratory in Poland.
Soil analytical results are expressed on a dry weight basis. Where analysis is carried out on as-received the results obtained are multiplied by a moisture correction factor that is determined gravimetrically using the moisture content which is carried out at a maximum of 30oC.

Unless otherwise indicated, site information, order number, project number, sampling date, time, sample reference and depth are provided by the client. The instructed on date indicates the date on which this information was provided to the laboratory.

David Pacheco
Johnson Poole & Bloomer
Harris & Pearson Building
Brettell Lane
Brierley Hill
West Midlands
DY5 3LH

t: (01384) 262000

e: enquiries@jpb.co.uk

i2 Analytical Ltd.
7 Woodshots Meadow,
Croxley Green
Business Park,
Watford,
Herts,
WD18 8YS

t: 01923 225404
f: 01923 237404
e: reception@i2analytical.com

Analytical Report Number : 22-51368

Project / Site name:	ICKENHAM	**Samples received on:**	11/04/2022
Your job number:	WB307	**Samples instructed on/ Analysis started on:**	11/04/2022
Your order number:		**Analysis completed by:**	22/04/2022
Report Issue Number:	1	**Report issued on:**	22/04/2022
Samples Analysed:	3 10:1 WAC Samples		

Signed:

Joanna Wawrzeczko
Reporting Specialist
For & on behalf of i2 Analytical Ltd.

Standard Geotechnical, Asbestos and Chemical Testing Laboratory located at: ul. Pionierów 39, 41 -711 Ruda Śląska, Poland.

Accredited tests are defined within the report, opinions and interpretations expressed herein are outside the scope of accreditation.

Standard sample disposal times, unless otherwise agreed with the laboratory, are :

soils - 4 weeks from reporting
leachates - 2 weeks from reporting
waters - 2 weeks from reporting
asbestos - 6 months from reporting

Excel copies of reports are only valid when accompanied by this PDF certificate.

Any assessments of compliance with specifications are based on actual analytical results with no contribution from uncertainty of measurement.
Application of uncertainty of measurement would provide a range within which the true result lies.
An estimate of measurement uncertainty can be provided on request.

i2 Analytical
7 Woodshots Meadow
Croxley Green Business Park
Watford, WD18 8YS

Telephone: 01923 225404
Fax: 01923 237404
email:reception@i2analytical.com

Waste Acceptance Criteria Analytical Results

Report No:	**22-51368**						
					Client:	**JPB**	
Location	**ICKENHAM**						
Lab Reference (Sample Number)	2236480 / 2236481				**Landfill Waste Acceptance Criteria Limits**		
Sampling Date	07/04/2022				Inert Waste Landfill	Stable Non-reactive HAZARDOUS waste in non-hazardous Landfill	Hazardous Waste Landfill
Sample ID	WS03						
Depth (m)	0.40-0.50						
Solid Waste Analysis							
TOC (%)**	0.5				3%	5%	6%
Loss on Ignition (%) **	3.7				--	--	10%
BTEX (µg/kg) **	< 10				6000	--	--
Sum of PCBs (mg/kg) **	< 0.007				1	--	--
Mineral Oil (mg/kg) EH_1D_CU_AL	< 10				500	--	--
Total PAH (WAC-17) (mg/kg)	1.35				100	--	--
pH (units)**	7.4				--	>6	--
Acid Neutralisation Capacity (mmol / kg)	1.8				--	To be evaluated	To be evaluated
Eluate Analysis	10:1			10:1	Limit values for compliance leaching test		
(BS EN 12457 - 2 preparation utilising end over end leaching procedure)	mg/l			mg/kg	using BS EN 12457-2 at L/S 10 l/kg (mg/kg)		
Arsenic *	0.0026			0.0209	0.5	2	25
Barium *	0.0190			0.155	20	100	300
Cadmium *	< 0.0001			< 0.0008	0.04	1	5
Chromium *	0.0048			0.039	0.5	10	70
Copper *	0.012			0.095	2	50	100
Mercury *	< 0.0005			< 0.0050	0.01	0.2	2
Molybdenum *	0.0027			0.0219	0.5	10	30
Nickel *	0.0077			0.063	0.4	10	40
Lead *	0.0068			0.056	0.5	10	50
Antimony *	< 0.0017			< 0.017	0.06	0.7	5
Selenium *	< 0.0040			< 0.040	0.1	0.5	7
Zinc *	0.021			0.17	4	50	200
Chloride *	4.4			36	800	15000	25000
Fluoride	0.37			3.0	10	150	500
Sulphate *	6.8			56	1000	20000	50000
TDS*	39			320	4000	60000	100000
Phenol Index (Monohydric Phenols) *	< 0.010			< 0.10	1	-	-
DOC	26.9			219	500	800	1000
Leach Test Information							
Stone Content (%)	< 0.1						
Sample Mass (kg)	0.30						
Dry Matter (%)	81						
Moisture (%)	19						

Results are expressed on a dry weight basis, after correction for moisture content where applicable.
*= UKAS accredited (liquid eluate analysis only)
Stated limits are for guidance only and i2 cannot be held responsible for any discrepancies with current legislation
** = MCERTS accredited

Landfill WAC analysis (specifically leaching test results) must not be used for hazardous waste classification purposes as defined by the Waste (England and Wales) Regulations 2011 (as amended) and EA Guidance WM3.
This analysis is only applicable for landfill acceptance criteria (The Environmental Permitting (England and Wales) Regulations) and does not give any indication as to whether a waste may be hazardous or non-hazardous.

i2 Analytical
7 Woodshots Meadow
Croxley Green Business Park
Watford, WD18 8YS

Telephone: 01923 225404
Fax: 01923 237404
email:reception@i2analytical.com

Waste Acceptance Criteria Analytical Results

Report No:	**22-51368**						
					Client:	**JPB**	
Location	**ICKENHAM**						
Lab Reference (Sample Number)	2236482 / 2236483				**Landfill Waste Acceptance Criteria Limits**		
Sampling Date	08/04/2022				Inert Waste Landfill	Stable Non-reactive HAZARDOUS waste in non-hazardous Landfill	Hazardous Waste Landfill
Sample ID	WS09						
Depth (m)	0.20-0.30						
Solid Waste Analysis							
TOC (%)**	0.3				3%	5%	6%
Loss on Ignition (%) **	3.1				--	--	10%
BTEX (µg/kg) **	< 10				6000	--	--
Sum of PCBs (mg/kg) **	< 0.007				1	--	--
Mineral Oil (mg/kg) EH_1D_CU_AL	< 10				500	--	--
Total PAH (WAC-17) (mg/kg)	< 0.85				100	--	--
pH (units)**	8.1				--	>6	--
Acid Neutralisation Capacity (mmol / kg)	5.7				--	To be evaluated	To be evaluated
Eluate Analysis	10:1			10:1	Limit values for compliance leaching test		
(BS EN 12457 - 2 preparation utilising end over end leaching procedure)	mg/l			mg/kg	using BS EN 12457-2 at L/S 10 l/kg (mg/kg)		
Arsenic *	< 0.0010			< 0.0100	0.5	2	25
Barium *	0.0112			0.0842	20	100	300
Cadmium *	< 0.0001			< 0.0008	0.04	1	5
Chromium *	0.0011			0.0081	0.5	10	70
Copper *	0.010			0.078	2	50	100
Mercury *	< 0.0005			< 0.0050	0.01	0.2	2
Molybdenum *	0.0029			0.0219	0.5	10	30
Nickel *	0.0048			0.036	0.4	10	40
Lead *	0.0054			0.040	0.5	10	50
Antimony *	< 0.0017			< 0.017	0.06	0.7	5
Selenium *	< 0.0040			< 0.040	0.1	0.5	7
Zinc *	0.012			0.090	4	50	200
Chloride *	2.2			17	800	15000	25000
Fluoride	0.65			4.8	10	150	500
Sulphate *	7.7			58	1000	20000	50000
TDS*	68			510	4000	60000	100000
Phenol Index (Monohydric Phenols) *	< 0.010			< 0.10	1	-	-
DOC	12.8			95.5	500	800	1000
Leach Test Information							
Stone Content (%)	< 0.1						
Sample Mass (kg)	1.0						
Dry Matter (%)	81						
Moisture (%)	19						

Results are expressed on a dry weight basis, after correction for moisture content where applicable.
*= UKAS accredited (liquid eluate analysis only)
Stated limits are for guidance only and i2 cannot be held responsible for any discrepencies with current legislation
** = MCERTS accredited

Landfill WAC analysis (specifically leaching test results) must not be used for hazardous waste classification purposes as defined by the Waste (England and Wales) Regulations 2011 (as amended) and EA Guidance WM3.
This analysis is only applicable for landfill acceptance criteria (The Environmental Permitting (England and Wales) Regulations) and does not give any indication as to whether a waste may be hazardous or non-hazardous.

i2 Analytical
7 Woodshots Meadow
Croxley Green Business Park
Watford, WD18 8YS

Telephone: 01923 225404
Fax: 01923 237404
email:reception@i2analytical.com

Waste Acceptance Criteria Analytical Results

Report No:	**22-51368**						
					Client:	**JPB**	
Location	**ICKENHAM**						
Lab Reference (Sample Number)	2236484 / 2236485				**Landfill Waste Acceptance Criteria Limits**		
Sampling Date	08/04/2022				Inert Waste Landfill	Stable Non-reactive HAZARDOUS waste in non-hazardous Landfill	Hazardous Waste Landfill
Sample ID	WS12						
Depth (m)	0.40-0.50						
Solid Waste Analysis							
TOC (%)**	1.7				3%	5%	6%
Loss on Ignition (%) **	5.7				--	--	10%
BTEX (µg/kg) **	< 10				6000	--	--
Sum of PCBs (mg/kg) **	< 0.007				1	--	--
Mineral Oil (mg/kg) EH_1D_CU_AL	< 10				500	--	--
Total PAH (WAC-17) (mg/kg)	< 0.85				100	--	--
pH (units)**	7.8				--	>6	--
Acid Neutralisation Capacity (mmol / kg)	2.2				--	To be evaluated	To be evaluated
Eluate Analysis	10:1			10:1	Limit values for compliance leaching test		
(BS EN 12457 - 2 preparation utilising end over end leaching procedure)	mg/l			mg/kg	using BS EN 12457-2 at L/S 10 l/kg (mg/kg)		
Arsenic *	0.0012			< 0.0100	0.5	2	25
Barium *	0.0112			0.0873	20	100	300
Cadmium *	< 0.0001			< 0.0008	0.04	1	5
Chromium *	0.0014			0.011	0.5	10	70
Copper *	0.015			0.11	2	50	100
Mercury *	< 0.0005			< 0.0050	0.01	0.2	2
Molybdenum *	0.0037			0.0286	0.5	10	30
Nickel *	0.0057			0.044	0.4	10	40
Lead *	0.0072			0.056	0.5	10	50
Antimony *	< 0.0017			< 0.017	0.06	0.7	5
Selenium *	< 0.0040			< 0.040	0.1	0.5	7
Zinc *	0.013			0.10	4	50	200
Chloride *	2.7			21	800	15000	25000
Fluoride	0.77			6.0	10	150	500
Sulphate *	4.9			38	1000	20000	50000
TDS*	44			340	4000	60000	100000
Phenol Index (Monohydric Phenols) *	< 0.010			< 0.10	1	-	-
DOC	20.5			159	500	800	1000
Leach Test Information							
Stone Content (%)	< 0.1						
Sample Mass (kg)	1.0						
Dry Matter (%)	82						
Moisture (%)	18						

Results are expressed on a dry weight basis, after correction for moisture content where applicable.
*= UKAS accredited (liquid eluate analysis only)
Stated limits are for guidance only and i2 cannot be held responsible for any discrepencies with current legislation
** = MCERTS accredited

Landfill WAC analysis (specifically leaching test results) must not be used for hazardous waste classification purposes as defined by the Waste (England and Wales) Regulations 2011 (as amended) and EA Guidance WM3.
This analysis is only applicable for landfill acceptance criteria (The Environmental Permitting (England and Wales) Regulations) and does not give any indication as to whether a waste may be hazardous or non-hazardous.

Analytical Report Number : 22-51368
Project / Site name: ICKENHAM

* These descriptions are only intended to act as a cross check if sample identities are questioned. The major constituent of the sample is intended to act with respect to MCERTS validation. The laboratory is accredited for sand, clay and loam (MCERTS) soil types. Data for unaccredited types of solid should be interpreted with care.

Stone content of a sample is calculated as the % weight of the stones not passing a 10 mm sieve. Results are not corrected for stone content.

Lab Sample Number	Sample Reference	Sample Number	Depth (m)	Sample Description *
2236480	WS03	None Supplied	0.40-0.50	Brown clay and loam.
2236482	WS09	None Supplied	0.20-0.30	Brown clay and loam with vegetation.
2236484	WS12	None Supplied	0.40-0.50	Brown clay and loam with vegetation.

Analytical Report Number : 22-51368
Project / Site name: ICKENHAM

Water matrix abbreviations:
Surface Water (SW) Potable Water (PW) Ground Water (GW) Process Waters (PrW) Final Sewage Effluent (FSE) Landfill Leachate (LL)

Analytical Test Name	Analytical Method Description	Analytical Method Reference	Method number	Wet / Dry Analysis	Accreditation Status
BS EN 12457-2 (10:1) Leachate Prep	10:1 (as recieved, moisture adjusted) end over end extraction with water for 24 hours. Eluate filtered prior to analysis.	In-house method based on BSEN12457-2.	L043-PL	W	NONE
Acid neutralisation capacity of soil	Determination of acid neutralisation capacity by addition of acid or alkali followed by electronic probe.	In-house method based on Guidance an Sampling and Testing of Wastes to Meet Landfill Waste Acceptance""	L046-PL	W	NONE
Loss on ignition of soil @ 450oC	Determination of loss on ignition in soil by gravimetrically with the sample being ignited in a muffle furnace.	In house method.	L047-PL	D	MCERTS
Mineral Oil (Soil) C10 - C40	Determination of mineral oil fraction extractable hydrocarbons in soil by GC-MS/GC-FID.	In-house method with silica gel split/clean up.	L076-PL	D	NONE
Moisture Content	Moisture content, determined gravimetrically. (30 oC)	In house method.	L019-UK/PL	W	NONE
Speciated WAC-17 PAHs in soil	Determination of PAH compounds in soil by extraction in dichloromethane and hexane followed by GC-MS with the use of surrogate and internal standards.	In-house method based on USEPA 8270. MCERTS accredited except Coronene.	L064-PL	D	MCERTS
PCB's By GC-MS in soil	Determination of PCB by extraction with acetone and hexane followed by GC-MS.	In-house method based on USEPA 8082	L027-PL	D	MCERTS
pH at 20oC in soil	Determination of pH in soil by addition of water followed by electrometric measurement.	In house method.	L005-PL	W	MCERTS
Stones content of soil	Standard preparation for all samples unless otherwise detailed. Gravimetric determination of stone > 10 mm as % dry weight.	In-house method based on British Standard Methods and MCERTS requirements.	L019-UK/PL	D	NONE
Total organic carbon (Automated) in soil	Determination of organic matter in soil by oxidising with potassium dichromate followed by titration with iron (II) sulphate.	In house method.	L009-PL	D	MCERTS
BTEX in soil (Monoaromatics)	Determination of BTEX in soil by headspace GC-MS.	In-house method based on USEPA8260	L073B-PL	W	MCERTS
Total BTEX in soil (Poland)	Determination of BTEX in soil by headspace GC-MS.	In-house method based on USEPA8260	L073-PL	W	MCERTS
Metals in leachate by ICP-OES	Determination of metals in leachate by acidification followed by ICP-OES.	In-house method based on MEWAM 2006 Methods for the Determination of Metals in Soil""	L039-PL	W	ISO 17025
Chloride 10:1 WAC	Determination of Chloride colorimetrically by discrete analyser.	In house based on MEWAM Method ISBN 0117516260.	L082-PL	W	ISO 17025
Fluoride 10:1 WAC	Determination of fluoride in leachate by 1:1ratio with a buffer solution followed by Ion Selective Electrode.	In-house method based on Use of Total Ionic Strength Adjustment Buffer for Electrode Determination"	L033B-PL	W	ISO 17025
Sulphate 10:1 WAC	Determination of sulphate in leachate by ICP-OES	In-house method based on MEWAM 1986 Methods for the Determination of Metals in Soil""	L039-PL	W	ISO 17025
Total dissolved solids 10:1 WAC	Determination of total dissolved solids in water by EC probe using a factor of 0.6.	In-house method based on Examination of Water and Wastewater 20th Edition: Clesceri, Greenberg & Eaton	L004-PL	W	ISO 17025

Analytical Report Number : 22-51368
Project / Site name: ICKENHAM

Water matrix abbreviations:
Surface Water (SW) Potable Water (PW) Ground Water (GW) Process Waters (PrW) Final Sewage Effluent (FSE) Landfill Leachate (LL)

Analytical Test Name	Analytical Method Description	Analytical Method Reference	Method number	Wet / Dry Analysis	Accreditation Status
Monohydric phenols 10:1 WAC	Determination of phenols in leachate by distillation followed by colorimetry.	In-house method based on Examination of Water and Wastewater 20th Edition: Clesceri, Greenberg & Eaton	L080-PL	W	ISO 17025
Dissolved organic carbon 10:1 WAC	Determination of dissolved inorganic carbon in leachate by TOC/DOC NDIR Analyser.	In-house method based on Examination of Water and Wastewater 20th Edition: Clesceri, Greenberg & Eaton	L037-PL	W	NONE

For method numbers ending in 'UK' analysis have been carried out in our laboratory in the United Kingdom.
For method numbers ending in 'PL' analysis have been carried out in our laboratory in Poland.
Soil analytical results are expressed on a dry weight basis. Where analysis is carried out on as-received the results obtained are multiplied by a moisture correction factor that is determined gravimetrically using the moisture content which is carried out at a maximum of 30oC.

Unless otherwise indicated, site information, order number, project number, sampling date, time, sample reference and depth are provided by the client. The instructed on date indicates the date on which this information was provided to the laboratory.

Information in Support of Analytical Results

List of HWOL Acronyms and Operators

Acronym	Descriptions
HS	Headspace Analysis
MS	Mass spectrometry
FID	Flame Ionisation Detector
GC	Gas Chromatography
EH	Extractable Hydrocarbons (i.e. everything extracted by the solvent(s))
CU	Clean-up - e.g. by Florisil®, silica gel
1D	GC - Single coil/column gas chromatography
2D	GC-GC - Double coil/column gas chromatography
Total	Aliphatics & Aromatics
AL	Aliphatics
AR	Aromatics
#1	EH_2D_Total but with humics mathematically subtracted
#2	EH_2D_Total but with fatty acids mathematically subtracted
_	Operator - understore to separate acronyms (exception for +)
+	Operator to indicate cumulative e.g. EH+HS_Total or EH_CU+HS_Total

Appendix 13 **Results of On-site Gas and Groundwater Monitoring – Johnson Poole & Bloomer – April and June 2022**

Date	21/04/2022	Weather	Sunny
Engineer	TMM	Atmospheric Pressure	1008

Gas Readings at Borehole		WS01		Surface level (mAOD)		49.26		Comments				
Time	CH_4 %vol	CO_2 % vol	O_2 % vol	N_2 % vol	H_2S ppm	CO ppm	Atmos Pressure (mb)	Diff Pressure (mb)	Ave Flow (l/h)	G/water Depth (m)	Depth of BH (m)	Water Level (mAOD)
Initial	0.5	0.1	21.3		0	0	1008		0.3			
15s	0.4	0.7	21.0		0	0	1008		0.4			
30s	0.4	0.7	21.0		0	0	1008		0.4			
60s	0.4	0.7	21.0		0	0	1008		0.4			
90s	0.4	0.7	21.0		0	0	1008		0.4			
120s	0.4	0.7	21.0		0	0	1008		0.4			
150s												
180s												
210s												
240s												
270s												
300s								-0.26		1.68	5.0	47.58

Gas Readings at Borehole		WS05		Surface level (mAOD)		50.26		Comments				
Time	CH_4 %vol	CO_2 % vol	O_2 % vol	N_2 % vol	H_2S ppm	CO ppm	Atmos Pressure (mb)	Diff Pressure (mb)	Ave Flow (l/h)	G/water Depth (m)	Depth of BH (m)	Water Level (mAOD)
Initial	0.5	0.1	21.7		0	0	1009		0.2			
15s	0.5	0.1	21.7		0	0	1009		0.5			
30s	0.4	0.1	21.7		0	0	1009		0.5			
60s	0.5	0.1	21.7		0	0	1009		0.5			
90s	0.5	0.1	21.7		0	0	1009		0.5			
120s												
150s												
180s												
210s												
240s												
270s												
300s								-0.32		2.17	4.95	48.09

Gas Readings at Borehole		WS08		Surface level (mAOD)		52.35		Comments				
Time	CH_4 %vol	CO_2 % vol	O_2 % vol	N_2 % vol	H_2S ppm	CO ppm	Atmos Pressure (mb)	Diff Pressure (mb)	Ave Flow (l/h)	G/water Depth (m)	Depth of BH (m)	Water Level (mAOD)
Initial	0.5	0.1	21.8		0	0	1008		0.3			
15s	0.5	0.1	21.8		0	0	1008		0.5			
30s	0.5	0.1	21.8		0	0	1008		0.5			
60s	0.5	0.1	21.8		0	0	1008		0.5			
90s	0.5	0.1	21.8		0	0	1008		0.5			
120s	0.5	0.1	21.8		0	0	1008		0.5			
150s												
180s												
210s												
240s												
270s												
300s								-0.34		3.25	5.0	49.1

Gas Readings at Borehole	WS04	Surface level (mAOD)	52.55	Comments	

Time	CH_4 %vol	CO_2 % vol	O_2 % vol	N_2 % vol	H_2S ppm	CO ppm	Atmos Pressure (mb)	Diff Pressure (mb)	Ave Flow (l/h)	G/water Depth (m)	Depth of BH (m)	Water Level (mAOD)
Initial	0.4	0.1	21.2		0	0	1008		0.1			
15s	0.4	0.3	20.8		0	0	1008		0.2			
30s	0.4	0.4	20.8		0	0	1008		0.3			
60s	0.4	0.4	20.7		0	0	1008		0.3			
90s	0.4	0.4	20.7		0	0	1008		0.3			
120s	0.4	0.4	20.7		0	0	1008		0.3			
150s												
180s												
210s												
240s												
270s												
300s								-0.2		3.83	4.88	48.72

Gas Readings at Borehole		WS11		Surface level (mAOD)		57.61		Comments				
Time	CH_4 %vol	CO_2 % vol	O_2 % vol	N_2 % vol	H_2S ppm	CO ppm	Atmos Pressure (mb)	Diff Pressure (mb)	Ave Flow (l/h)	G/water Depth (m)	Depth of BH (m)	Water Level (mAOD)
Initial	0.4	0.1	20.6		0	1	1008		0.1			
15s	0.4	0.1	20.7		1	1	1008		0.2			
30s	0.4	0.1	20.7		1	1	1008		0.2			
60s	0.4	0.1	20.7		1	1	1008		0.2			
90s	0.4	0.1	20.7		1	1	1008					
120s	0.4	0.1	20.7		1	1	1008					
150s	0.4	0.1	20.7		1	1	1008					
180s	0.4	0.1	20.7		1	1	1008					
210s	0.4	0.1	20.7		1	1	1008					
240s	0.4	0.1	20.8		1	1	1008					
270s	0.4	0.1	20.8		1	1	1008					
300s	0.4	0.1	20.8		1	1	1008	-0.02		2.22	4.96	55.39

Date	06/05/2022	Weather	Clear
Engineer	Enitial	Atmospheric Pressure	1020

Gas Readings at Borehole		WS01		Surface level (mAOD)		49.26		Comments				
Time	CH_4 %vol	CO_2 % vol	O_2 % vol	N_2 % vol	H_2S ppm	CO ppm	Atmos Pressure (mb)	Diff Pressure (mb)	Ave Flow (l/h)	G/water Depth (m)	Depth of BH (m)	Water Level (mAOD)
Initial	0.0	1.9	19.6		0	0	1020		0.0			
15s	0.0	1.9	19.6		0	0	1020		0.0			
30s	0.0	1.9	19.6		0	0	1020		0.0			
60s	0.0	1.9	19.6		0	0	1020		0.0			
90s	0.0	1.9	19.6		0	0	1020		0.0			
120s	0.0	1.9	19.6		0	0	1020		0.0			
150s												
180s												
210s												
240s												
270s												
300s								0.0		1.96	5.0	47.3

Gas Readings at Borehole		WS05		Surface level (mAOD)		50.26		Comments				
Time	CH_4 %vol	CO_2 % vol	O_2 % vol	N_2 % vol	H_2S ppm	CO ppm	Atmos Pressure (mb)	Diff Pressure (mb)	Ave Flow (l/h)	G/water Depth (m)	Depth of BH (m)	Water Level (mAOD)
Initial	0.0	0.4	14.7		1	1	1020		-0.1			
15s	0.0	0.4	14.7		1	1	1020		-0.1			
30s	0.0	0.4	14.7		1	1	1020		-0.1			
60s	0.0	0.4	14.7		1	1	1020		-0.1			
90s	0.0	0.4	14.7		1	1	1020		-0.1			
120s	0.0	0.4	14.7		1	1	1020		-0.1			
150s												
180s												
210s												
240s												
270s												
300s								-0.02		2.43	4.95	47.83

Gas Readings at Borehole		WS08		Surface level (mAOD)		52.35		Comments				
Time	CH_4 %vol	CO_2 % vol	O_2 % vol	N_2 % vol	H_2S ppm	CO ppm	Atmos Pressure (mb)	Diff Pressure (mb)	Ave Flow (l/h)	G/water Depth (m)	Depth of BH (m)	Water Level (mAOD)
Initial	0.0	1.2	20.0		0	0	1020		0.0			
15s	0.0	1.2	20.0		0	0	1020		0.0			
30s	0.0	1.2	20.0		0	0	1020		0.0			
60s	0.0	1.2	20.0		0	0	1020		0.0			
90s	0.0	1.2	20.0		0	0	1020		0.0			
120s	0.0	1.2	20.0		0	0	1020		0.0			
150s												
180s												
210s												
240s												
270s												
300s								0.12		3.59	5.0	48.76

Gas Readings at Borehole	WS04	Surface level (mAOD)	52.55	Comments	

Time	CH_4 %vol	CO_2 % vol	O_2 % vol	N_2 % vol	H_2S ppm	CO ppm	Atmos Pressure (mb)	Diff Pressure (Pa)	Ave Flow (l/h)	G/water Depth (m)	Depth of BH (m)	Water Level (mAOD)
Initial	0.0	1.0	19.3		0	0	1020		0.0			
15s	0.0	1.0	19.3		0	0	1020		0.0			
30s	0.0	1.0	19.3		0	0	1020		0.0			
60s	0.0	1.0	19.3		0	0	1020		0.0			
90s	0.0	1.0	19.3		0	0	1020		0.0			
120s	0.0	1.0	19.3		0	0	1020		0.0			
150s												
180s												
210s												
240s												
270s												
300s								0.21		4.05	4.88	48.5

Gas Readings at Borehole		WS11		Surface level (mAOD)		57.61		Comments				
Time	CH_4 %vol	CO_2 % vol	O_2 % vol	N_2 % vol	H_2S ppm	CO ppm	Atmos Pressure (mb)	Diff Pressure (mb)	Ave Flow (l/h)	G/water Depth (m)	Depth of BH (m)	Water Level (mAOD)
Initial	0.0	0.7	20.2		0	0	1020		0.0			
30s	0.0	0.7	20.2		0	0	1020		0.0			
60s	0.0	0.7	20.2		0	0	1020		0.0			
90s	0.0	0.7	20.2		0	0	1020		0.0			
120s	0.0	0.7	20.2		0	0	1020		0.0			
150s												
180s												
210s												
240s												
270s												
300s								-0.09		2.06	4.96	55.55

Date	20/05/2022	Weather	Clear
Engineer	Enitial	Atmospheric Pressure	1013

Gas Readings at Borehole		WS01		Surface level (mAOD)		49.26		Comments				
Time	CH_4 %vol	CO_2 % vol	O_2 % vol	N_2 % vol	H_2S ppm	CO ppm	Atmos Pressure (mb)	Diff Pressure (mb)	Ave Flow (l/h)	G/water Depth (m)	Depth of BH (m)	Water Level (mAOD)
Initial	0.0	1.9	19.9		0	0	1013		0.0			
15s	0.0	1.9	19.9		0	0	1013		0.0			
30s	0.0	1.9	19.9		0	0	1013		0.0			
60s	0.0	1.9	19.9		0	0	1013		0.0			
90s	0.0	1.9	19.9		0	0	1013		0.0			
120s	0.0	1.9	19.9		0	0	1013		0.0			
150s												
180s												
210s												
240s												
270s												
300s								0.0		2.06	5.0	47.2

Gas Readings at Borehole		WS05		Surface level (mAOD)		50.26		Comments				
Time	CH_4 %vol	CO_2 % vol	O_2 % vol	N_2 % vol	H_2S ppm	CO ppm	Atmos Pressure (mb)	Diff Pressure (mb)	Ave Flow (l/h)	G/water Depth (m)	Depth of BH (m)	Water Level (mAOD)
Initial	0.0	1.0	18.9		0	0	1013		0.0			
15s	0.0	1.0	18.9		0	0	1013		0.0			
30s	0.0	1.0	18.9		0	0	1013		0.0			
60s	0.0	1.0	18.9		0	0	1013		0.0			
90s	0.0	1.0	18.9		0	0	1013		0.0			
120s	0.0	0.9	18.9		0	0	1013		0.0			
150s												
180s												
210s												
240s												
270s												
300s								0.63		2.4	4.95	47.86

Gas Readings at Borehole		WS08		Surface level (mAOD)		52.35		Comments				
Time	CH_4 %vol	CO_2 % vol	O_2 % vol	N_2 % vol	H_2S ppm	CO ppm	Atmos Pressure (mb)	Diff Pressure (mb)	Ave Flow (l/h)	G/water Depth (m)	Depth of BH (m)	Water Level (mAOD)
Initial	0.0	1.7	20.1		0	1	1013		0.0			
15s	0.0	1.7	20.1		0	1	1013		0.0			
30s	0.0	1.7	20.1		0	1	1013		0.0			
60s	0.0	1.7	20.1		0	1	1013		0.0			
90s	0.0	1.7	20.1		0	1	1013		0.0			
120s	0.0	1.7	20.1		0	1	1013		0.0			
150s												
180s												
210s												
240s												
270s												
300s								0.09		3.64	5.0	48.71

Gas Readings at Borehole	WS04	Surface level (mAOD)	52.55	Comments	

Time	CH_4 %vol	CO_2 % vol	O_2 % vol	N_2 % vol	H_2S ppm	CO ppm	Atmos Pressure (mb)	Diff Pressure (Pa)	Ave Flow (l/h)	G/water Depth (m)	Depth of BH (m)	Water Level (mAOD)
Initial	0.0	1.4	19.8		0	0	1013		0.0			
15s	0.0	1.4	19.8		0	0	1013		0.0			
30s	0.0	1.4	19.8		0	0	1013		0.0			
60s	0.0	1.4	19.8		0	0	1013		0.0			
90s	0.0	1.4	19.8		0	0	1013		0.0			
120s	0.0	1.4	19.8		0	0	1013		0.0			
150s												
180s												
210s												
240s												
270s												
300s								0.0		4.1	4.88	48.45

Gas Readings at Borehole		WS11		Surface level (mAOD)		57.61		Comments				
Time	CH_4 %vol	CO_2 % vol	O_2 % vol	N_2 % vol	H_2S ppm	CO ppm	Atmos Pressure (mb)	Diff Pressure (mb)	Ave Flow (l/h)	G/water Depth (m)	Depth of BH (m)	Water Level (mAOD)
Initial	0.0	1.2	20.3		0	0	1013		0.0			
30s	0.0	1.2	20.3		0	0	1013		0.0			
60s	0.0	1.2	20.3		0	0	1013		0.0			
90s	0.0	1.2	20.3		0	0	1013		0.0			
120s	0.0	1.2	20.3		0	0	1013		0.0			
150s							1013					
180s												
210s												
240s												
270s												
300s								0.05		1.88	4.96	55.73

Date	01/06/2022	Weather	Clear
Engineer	Enitial	Atmospheric Pressure	1012

Gas Readings at Borehole		WS01		Surface level (mAOD)		49.26		Comments				
Time	CH_4 %vol	CO_2 % vol	O_2 % vol	N_2 % vol	H_2S ppm	CO ppm	Atmos Pressure (mb)	Diff Pressure (mb)	Ave Flow (l/h)	G/water Depth (m)	Depth of BH (m)	Water Level (mAOD)
Initial	0.0	2.5	19.4		0	0	1012		0.0			
15s	0.0	2.5	19.4		0	0	1012		0.0			
30s	0.0	2.5	19.4		0	0	1012		0.0			
60s	0.0	2.5	19.4		0	0	1012		0.0			
90s	0.0	2.5	19.4		0	0	1012		0.0			
120s	0.0	2.5	19.4		0	0	1012		0.0			
150s												
180s												
210s												
240s												
270s												
300s								-0.14		2.05	5.0	47.21

Gas Readings at Borehole		WS05		Surface level (mAOD)		50.26		Comments				
Time	CH_4 %vol	CO_2 % vol	O_2 % vol	N_2 % vol	H_2S ppm	CO ppm	Atmos Pressure (mb)	Diff Pressure (mb)	Ave Flow (l/h)	G/water Depth (m)	Depth of BH (m)	Water Level (mAOD)
Initial	0.0	1.5	18.9		0	0	1012		0.0			
15s	0.0	1.5	18.9		0	0	1012		0.0			
30s	0.0	1.5	18.9		0	0	1012		0.0			
60s	0.0	1.3	18.9		0	0	1012		0.0			
90s	0.0	1.2	18.9		0	0	1012		0.0			
120s	0.0	1.1	18.9		0	0	1012		0.0			
150s												
180s												
210s												
240s												
270s												
300s								0.0		2.3	4.95	47.96

Gas Readings at Borehole		WS08		Surface level (mAOD)		52.35		Comments				
Time	CH_4 %vol	CO_2 % vol	O_2 % vol	N_2 % vol	H_2S ppm	CO ppm	Atmos Pressure (mb)	Diff Pressure (mb)	Ave Flow (l/h)	G/water Depth (m)	Depth of BH (m)	Water Level (mAOD)
Initial	0.0	1.7	20.1		0	0	1012		0.0			
15s	0.0	1.7	20.1		0	0	1012		0.0			
30s	0.0	1.7	20.1		0	0	1012		0.0			
60s	0.0	1.7	20.1		0	0	1012		0.0			
90s	0.0	1.7	20.1		0	0	1012		0.0			
120s	0.0	1.7	20.1		0	0	1012		0.0			
150s												
180s												
210s												
240s												
270s												
300s								-0.02		3.63	5.0	48.72

Gas Readings at Borehole	WS04	Surface level (mAOD)	52.55	Comments	

Time	CH_4 %vol	CO_2 % vol	O_2 % vol	N_2 % vol	H_2S ppm	CO ppm	Atmos Pressure (mb)	Diff Pressure (Pa)	Ave Flow (l/h)	G/water Depth (m)	Depth of BH (m)	Water Level (mAOD)
Initial	0.0	1.4	19.3		0	0	1012		0.0			
15s	0.0	1.4	19.3		0	0	1012		0.0			
30s	0.0	1.4	19.3		0	0	1012		0.0			
60s	0.0	1.4	19.3		0	0	1012		0.0			
90s	0.0	1.4	19.3		0	0	1012		0.0			
120s	0.0	1.4	19.3		0	0	1012		0.0			
150s												
180s												
210s												
240s												
270s												
300s								0.0		4.17	4.88	48.38

Gas Readings at Borehole		WS11		Surface level (mAOD)		57.61		Comments				
Time	CH_4 %vol	CO_2 % vol	O_2 % vol	N_2 % vol	H_2S ppm	CO ppm	Atmos Pressure (mb)	Diff Pressure (mb)	Ave Flow (l/h)	G/water Depth (m)	Depth of BH (m)	Water Level (mAOD)
Initial	0.0	1.3	20.1		0	0	1012		0.0			
30s	0.0	1.3	20.1		0	0	1012		0.0			
60s	0.0	1.3	20.1		0	0	1012		0.0			
90s	0.0	1.3	20.1		0	0	1012		0.0			
120s	0.0	1.3	20.1		0	0	1012		0.0			
150s												
180s												
210s												
240s												
270s												
300s								-0.05		1.88	4.96	55.73
300s												

Date	14/06/2022	Weather	Clear
Engineer	Enitial	Atmospheric Pressure	1018

Gas Readings at Borehole		WS01		Surface level (mAOD)		49.26		Comments				
Time	CH_4 %vol	CO_2 % vol	O_2 % vol	N_2 % vol	H_2S ppm	CO ppm	Atmos Pressure (mb)	Diff Pressure (Pa)	Ave Flow (l/h)	G/water Depth (m)	Depth of BH (m)	Water Level (mAOD)
Initial	0.0	2.8	18.7		0	0	1018		0.0			
30s	0.0	2.8	18.7		0	0	1018		0.0			
60s	0.0	2.8	18.7		0	0	1018		0.0			
90s	0.0	2.8	18.7		0	0	1018		0.0			
120s	0.0	2.8	18.7		0	0	1018		0.0			
150s	0.0	2.8	18.7		0	0	1018		0.0			
180s												
210s												
240s												
270s												
300s								-0.38		2.14	5.0	47.12

Gas Readings at Borehole		WS05		Surface level (mAOD)		50.26		Comments				
Time	CH_4 %vol	CO_2 % vol	O_2 % vol	N_2 % vol	H_2S ppm	CO ppm	Atmos Pressure (mb)	Diff Pressure (Pa)	Ave Flow (l/h)	G/water Depth (m)	Depth of BH (m)	Water Level (mAOD)
Initial	0.0	1.8	17.0		0	0	1018		0.0			
30s	0.0	1.8	17.0		0	0	1018		0.0			
60s	0.0	1.8	17.0		0	0	1018		0.0			
90s	0.0	1.7	17.0		0	0	1018		0.0			
120s	0.0	1.6	17.0		0	0	1018		0.0			
150s	0.0	1.6	17.0		0	0	1018		0.0			
180s												
210s												
240s												
270s												
300s								-0.5		2.36	4.95	47.9

Gas Readings at Borehole		WS08		Surface level (mAOD)		52.35		Comments				
Time	CH_4	CO_2	O_2	N_2	H_2S	CO	Atmos	Diff	Ave	G/water	Depth of	Water Level
Initial	0.0	1.9	18.9		0	0	1018		0.0			
30s	0.0	1.9	18.9		0	0	1018		0.0			
60s	0.0	1.9	18.9		0	0	1018		0.0			
90s	0.0	1.9	18.9		0	0	1018		0.0			
120s	0.0	1.9	18.9		0	0	1018		0.0			
150s	0.0	1.9	18.9		0	0	1018		0.0			
180s												
210s												
240s												
270s												
300s								6.58		3.67	5.0	48.68

Gas Readings at Borehole		WS04		Surface level (mAOD)		52.55		Comments				
Time	CH_4 %vol	CO_2 % vol	O_2 % vol	N_2 % vol	H_2S ppm	CO ppm	Atmos Pressure (mb)	Diff Pressure (Pa)	Ave Flow (l/h)	G/water Depth (m)	Depth of BH (m)	Water Level (mAOD)
Initial	0.0	0.0	20.1		0	0	1017		0.0			
30s	0.0	0.0	20.1		0	0	1017		0.0			
60s	0.0	0.0	20.1		0	0	1017		0.0			
90s	0.0	0.0	20.1		0	0	1017		0.0			

120s	0.0	0.0	20.1		0	0	1017		0.0			
150s	0.0	0.0	20.1		0	0	1017		0.0			
180s												
210s												
240s												
270s												
300s								8.05		4.27	4.88	48.28

Gas Readings at Borehole		WS11		Surface level (mAOD)		57.61		Comments				
Time	CH_4 %vol	CO_2 % vol	O_2 % vol	N_2 % vol	H_2S ppm	CO ppm	Atmos Pressure (mb)	Diff Pressure (Pa)	Ave Flow (l/h)	G/water Depth (m)	Depth of BH (m)	Water Level (mAOD)
Initial	0.0	1.5	18.7		0	0	1017		0.0			
30s	0.0	1.5	18.7		0	0	1017		0.0			
60s	0.0	1.5	18.7		0	0	1017		0.0			
90s	0.0	1.5	18.7		0	0	1017		0.0			
120s	0.0	1.5	18.7		0	0	1017		0.0			
150s	0.0	1.5	18.7		0	0	1017		0.0			
180s												
210s												
240s												
270s												
300s								0.09		1.86	4.96	55.75

Date	30/06/2022	Weather	Clear
Engineer	Enitial	Atmospheric Pressure	1008

Gas Readings at Borehole	WS01			Surface level (mAOD)		49.26		Comments				
Time	CH_4 %vol	CO_2 % vol	O_2 % vol	N_2 % vol	H_2S ppm	CO ppm	Atmos Pressure (mb)	Diff Pressure (Pa)	Ave Flow (l/h)	G/water Depth (m)	Depth of BH (m)	Water Level (mAOD)
Initial	0.0	2.5	19.9		0	0	1007		0.0			
30s	0.0	2.5	19.9		0	0	1007		0.0			
60s	0.0	2.5	19.9		0	0	1007		0.0			
90s	0.0	2.5	19.9		0	0	1007		0.0			
120s	0.0	2.5	19.9		0	0	1007		0.0			
150s	0.0	2.5	19.9		0	0	1007		0.0			
180s												
210s												
240s												
270s												
300s								-0.43		2.23	5.0	47.03

Gas Readings at Borehole	WS05			Surface level (mAOD)		50.26		Comments				
Time	CH_4 %vol	CO_2 % vol	O_2 % vol	N_2 % vol	H_2S ppm	CO ppm	Atmos Pressure (mb)	Diff Pressure (Pa)	Ave Flow (l/h)	G/water Depth (m)	Depth of BH (m)	Water Level (mAOD)
Initial	0.0	2.1	19.0		0	0	1007		0.0			
30s	0.0	2.1	19.0		0	0	1007		0.0			
60s	0.0	2.1	19.0		0	0	1007		0.0			
90s	0.0	2.0	19.0		0	0	1007		0.0			
120s	0.0	1.9	19.0		0	0	1007		0.0			
150s	0.0	1.8	19.0		0	0	1007		0.0			
180s												
210s												
240s												
270s												
300s								-0.29		2.23	4.95	48.03

Gas Readings at Borehole	WS08			Surface level (mAOD)		52.35		Comments				
Time	CH_4 %vol	CO_2 % vol	O_2 % vol	N_2 % vol	H_2S ppm	CO ppm	Atmos Pressure (mb)	Diff Pressure (Pa)	Ave Flow (l/h)	G/water Depth (m)	Depth of BH (m)	Water Level (mAOD)
Initial	0.0	1.4	20.1		0	0	1007		0.0			
30s	0.0	1.4	20.1		0	0	1007		0.0			
60s	0.0	1.4	20.1		0	0	1007		0.0			
90s	0.0	1.4	20.1		0	0	1007		0.0			
120s	0.0	1.4	20.1		0	0	1007		0.0			
150s	0.0	1.4	20.1		0	0	1007		0.0			
180s												
210s												
240s												
270s												
300s								-0.5		3.71	5.0	48.64

Gas Readings at Borehole	WS04			Surface level (mAOD)		52.55		Comments				
Time	CH_4 %vol	CO_2 % vol	O_2 % vol	N_2 % vol	H_2S ppm	CO ppm	Atmos Pressure (mb)	Diff Pressure (Pa)	Ave Flow (l/h)	G/water Depth (m)	Depth of BH (m)	Water Level (mAOD)
Initial	0.0	1.0	20.4		0	0	1008		0.0			
30s	0.0	1.0	20.4		0	0	1008		0.0			
60s	0.0	1.0	20.4		0	0	1008		0.0			
90s	0.0	1.0	20.4		0	0	1008		0.0			
120s	0.0	1.0	20.4		0	0	1008		0.0			
150s	0.0	1.0	20.4		0	0	1008		0.0			
180s												
210s												
240s												
270s												
300s								-0.5		4.43	4.88	48.12

Gas Readings at Borehole	WS11			Surface level (mAOD)		57.61		Comments				
Time	CH_4 %vol	CO_2 % vol	O_2 % vol	N_2 % vol	H_2S ppm	CO ppm	Atmos Pressure (mb)	Diff Pressure (Pa)	Ave Flow (l/h)	G/water Depth (m)	Depth of BH (m)	Water Level (mAOD)
Initial	0.0	0.9	20.2		0	0	1008		0.0			
30s	0.0	0.9	20.2		0	0	1008		0.0			
60s	0.0	0.9	20.2		0	0	1008		0.0			
90s	0.0	0.9	20.2		0	0	1008		0.0			
120s	0.0	0.9	20.2		0	0	1008		0.0			
150s	0.0	0.9	20.2		0	0	1008		0.0			
180s												
210s												
240s												
270s												
300s								0.43		1.95	4.96	55.66


Johnson
Poole &
Bloomer
Consultants
GEO-ENVIRONMENTAL & MINERALS