Site Analytical Services Ltd.

Site	Trial Pit Number
115-119 GOLDHURST TERRACE,LONDON,NW6 3HR	TP5

Excavation Method	Dimensions	Ground Level (mOD)	Client	Job Number
HAND EXCAVATION	0.30m(W) x 0.30m(L) x 0.90m(D)	39.20	HIVE 1 LIMITED	1624927
	Location TQ260841	**Dates** 14/03/2016	**Engineer** ELLIOTT WOOD PARTNERSHIP LLP	**Sheet** 1/1

Depth (m)	Sample / Tests	Water Depth (m)	Field Records	Level (mOD)	Depth (m) (Thickness)	Description	Legend	Water
0.25	D1				(0.90)	MADE GROUND: Grass surface over dark brown silty slightly clayey sand with fragments of brick and concrete rubble		
0.50	D2							
0.90	D3			38.30	0.90	Complete at 0.90m		

Plan

Remarks

Excavating from 0.00m to 1.00m for 1 hour.
D= Disturbed Sample
Groundwater was not encountered during boring/excavation

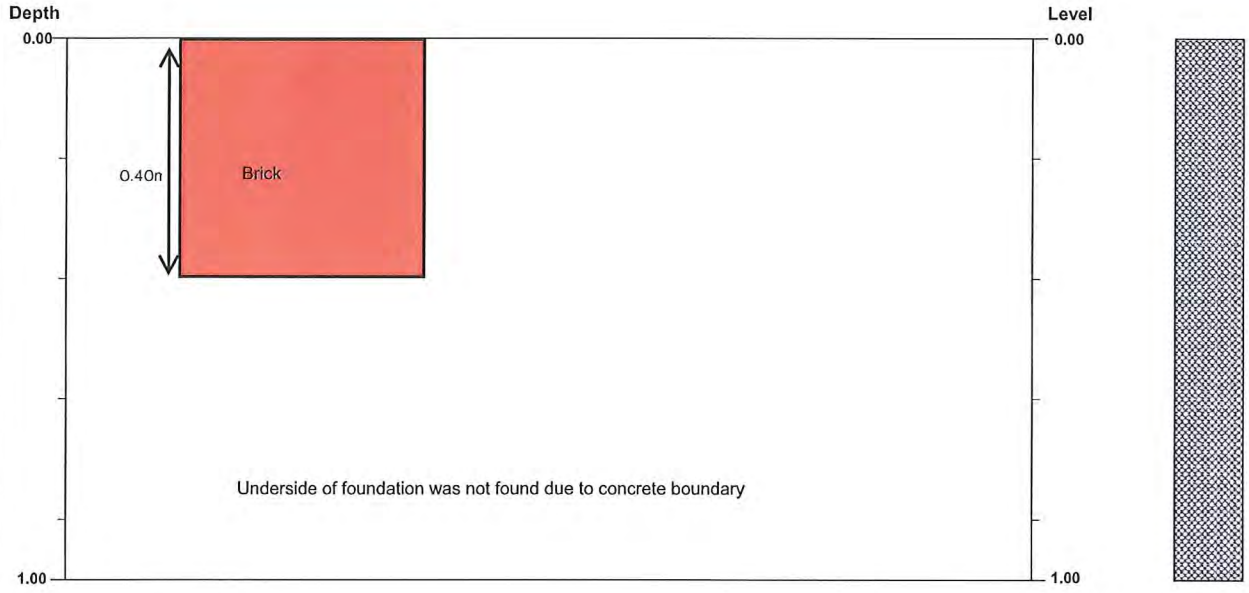
Scale (approx)	Logged By	Figure No.
1:50	EW	1624927.TP5

Site Analytical Services Ltd.

Site	Trial Pit Number
115-119 GOLDHURST TERRACE,LONDON,NW6 3HR	TP5

Method	Dimensions	Ground Level (mOD)	Client	Job Number
Trial Pit	0.30m(W) x 0.30m(L) x 0.90m(D)		HIVE 1 LIMITED	1624927

Orientation	Location	Dates	Engineer	Sheet
A / D / B / C	TQ260841	14/03/2016	ELLIOTT WOOD PARTNERSHIP LLP	1/1



Strata			Samples and Tests		
Depth (m)	No.	Description	Depth (m)	Type	Field Records
0.00-0.90	1	MADE GROUND: Grass surface over dark brown silty slightly clayey sand with fragments of brick and concrete rubble	0.25 0.50 0.90	D1 D2 D3	

Excavation Method:
HAND EXCAVATION

Shoring / Support:
N/A

Stability:
GOOD

Backfill:
ARISINGS

Remarks
D= Disturbed Sample
Groundwater was not encountered during boring/excavation
Excavating from 0.00m to 1.00m for 1 hour.

Logged By	: EW
Checked By	:
Figure No.	: 1624927.TP5

Site Analytical Services Ltd.

Site	Trial Pit Number
115-119 GOLDHURST TERRACE,LONDON,NW6 3HR	TP6A

Excavation Method	Dimensions	Ground Level (mOD)	Client	Job Number
HAND EXCAVATION	0.30m(W) x 0.30m(L) x 1.20m(D)	39.25	HIVE 1 LIMITED	1624927
	Location TQ260841	**Dates** 14/03/2016	**Engineer** ELLIOTT WOOD PARTNERSHIP LLP	**Sheet** 1/1

Depth (m)	Sample / Tests	Water Depth (m)	Field Records	Level (mOD)	Depth (m) (Thickness)	Description	Legend	Water
				39.20	0.05	MADE GROUND: Paving Slab		
				39.15	0.10	MADE GROUND: Yellow sand		
0.25	D1				(1.10)	MADE GROUND: Loose, dark brown black clayey sand with fragments of brick and concrete rubble		
0.50	D2							
0.75	D3							
0.90	D4							
0.90-1.20	M1 78/300			38.05	1.20	Complete at 1.20m		

Plan

Remarks

Excavating from 0.00m to 1.00m for 1 hour.
D= Disturbed sample
M= Makintosh Probe - Blows Penetration (mm)
Groundwater was not encountered during boring/excavation

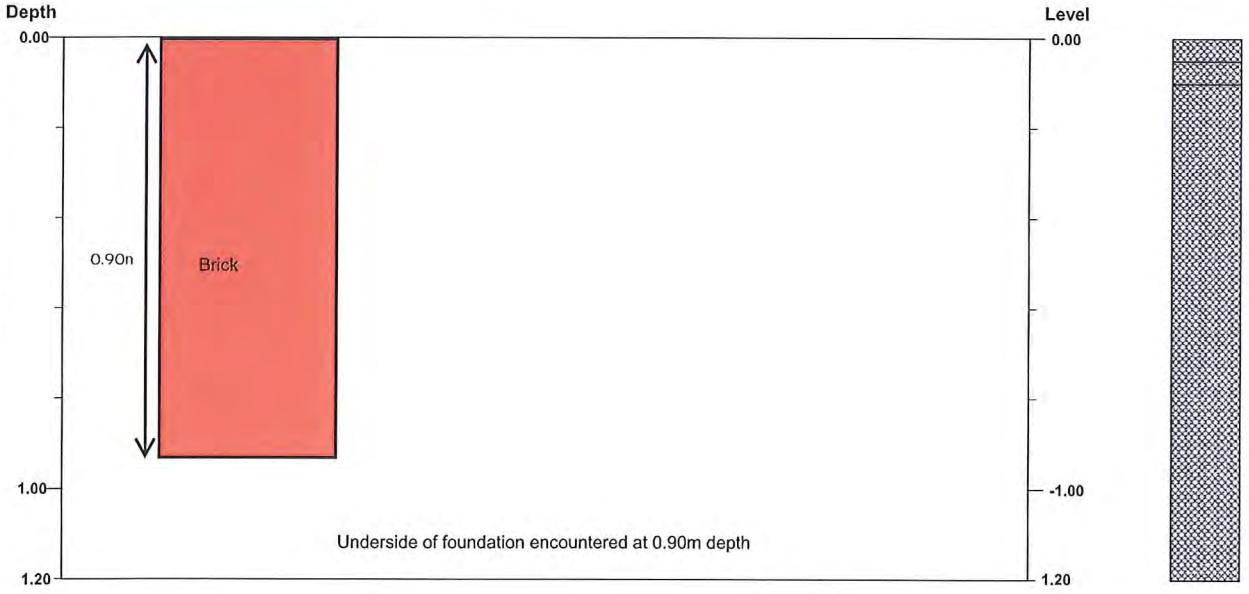
Scale (approx)	Logged By	Figure No.
1:50	EW	1624927.TP6A

Site Analytical Services Ltd.

Site	Trial Pit Number
115-119 GOLDHURST TERRACE,LONDON,NW6 3HR	TP6A

Method	Dimensions	Ground Level (mOD)	Client	Job Number
Trial Pit	0.30m(W) x 0.30m(L) x 1.20m(D)		HIVE 1 LIMITED	1624927

Orientation	Location	Dates	Engineer	Sheet
A / D / B / C	TQ260841	14/03/2016	ELLIOTT WOOD PARTNERSHIP LLP	1/1



Strata

Depth (m)	No.	Description
0.00-0.05	1	MADE GROUND: Paving Slab
0.05-0.10	2	MADE GROUND: Yellow sand
0.10-1.20	3	MADE GROUND: Loose, dark brown black clayey sand with fragments of brick and concrete rubble

Samples and Tests

Depth (m)	Type	Field Records
0.25	D1	
0.50	D2	
0.75	D3	
0.90	D4	
0.90-1.20	M1 78/300	

Excavation Method:
HAND EXCAVATION

Shoring / Support:
N/A

Stability:
GOOD

Backfill:
ARISINGS

Remarks
D= Disturbed sample
M= Makintosh Probe - Blows Penetration (mm)
Groundwater was not encountered during boring/excavation
Excavating from 0.00m to 1.00m for 1 hour.

Logged By	: EW
Checked By	:
Figure No.	: 1624927.TP6A

Site Analytical Services Ltd.

Site	Trial Pit Number
115-119 GOLDHURST TERRACE,LONDON,NW6 3HR	TP6B

Excavation Method	Dimensions	Ground Level (mOD)	Client	Job Number
HAND EXCAVATION	0.30m(W) x 0.30m(L) x 1.30m(D)	39.25	HIVE 1 LIMITED	1624927
	Location	**Dates**	**Engineer**	**Sheet**
	TQ260841	14/03/2016	ELLIOTT WOOD PARTNERSHIP LLP	1/1

Depth (m)	Sample / Tests	Water Depth (m)	Field Records	Level (mOD)	Depth (m) (Thickness)	Description	Legend	Water
				39.20	0.05	MADE GROUND: Paving Slab		
				39.15	0.10	MADE GROUND: Yellow sand		
0.25	D1							
0.50	D2				(1.20)	MADE GROUND: Loose, dark brown black clayey sand with fragments of brick and concrete rubble		
0.75	D3							
0.90	D4							
0.90-1.20	M1 78/300							
				37.95	1.30	Complete at 1.30m		

Plan

Remarks

Excavating from 0.00m to 1.00m for 1 hour.
D= Disturbed sample
M= Makintosh Probe - Blows Penetration (mm)
Groundwater was not encountered during boring/excavation

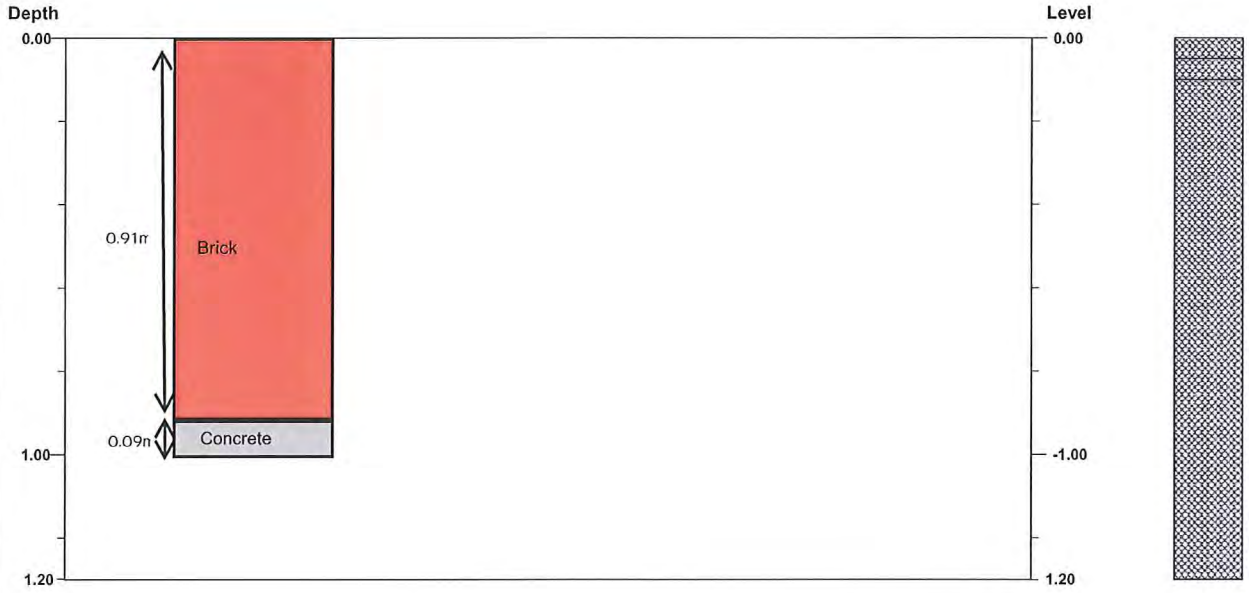
Scale (approx)	Logged By	Figure No.
1:50	EW	1624927.TP6B

Site Analytical Services Ltd.

Site	Trial Pit Number
115-119 GOLDHURST TERRACE,LONDON,NW6 3HR	TP6B

Method	Dimensions	Ground Level (mOD)	Client	Job Number
Trial Pit	0.30m(W) x 0.30m(L) x 1.30m(D)		HIVE 1 LIMITED	1624927

Orientation	Location	Dates	Engineer	Sheet
A / D B / C	TQ260841	14/03/2016	ELLIOTT WOOD PARTNERSHIP LLP	1/1



Strata

Depth (m)	No.	Description
0.00-0.05	1	MADE GROUND: Paving Slab
0.05-0.10	2	MADE GROUND: Yellow sand
0.10-1.30	3	MADE GROUND: Loose, dark brown black clayey sand with fragments of brick and concrete rubble

Samples and Tests

Depth (m)	Type	Field Records
0.25	D1	
0.50	D2	
0.75	D3	
0.90	D4	
0.90-1.20	M1 78/300	

Excavation Method:
HAND EXCAVATION

Shoring / Support:
N/A

Stability:
GOOD

Backfill:
ARISINGS

Remarks
D= Disturbed sample
M= Makintosh Probe - Blows Penetration (mm)
Groundwater was not encountered during boring/excavation
Excavating from 0.00m to 1.00m for 1 hour.

Logged By : EW
Checked By :
Figure No. : 1624927.TP6B

Site Analytical Services Ltd.

Site	Trial Pit Number
115-119 GOLDHURST TERRACE,LONDON,NW6 3HR	TP8

Excavation Method	Dimensions	Ground Level (mOD)	Client	Job Number
HAND EXCAVATION	0.30m(W) x 0.30m(L) x 1.50m(D)	38.98	HIVE 1 LIMITED	1624927
	Location	**Dates**	**Engineer**	**Sheet**
	TQ260841	14/03/2016	ELLIOTT WOOD PARTNERSHIP LLP	1/1

Depth (m)	Sample / Tests	Water Depth (m)	Field Records	Level (mOD)	Depth (m) (Thickness)	Description	Legend	Water
				38.86	0.12	MADE GROUND: Concrete		
0.25	D1					MADE GROUND: Brown sandy clay with large fragments of brick and concrete rubble		
0.50	D2							
0.75	D3				(1.38)			
1.00	D4							
1.50	D5			37.48	1.50	Complete at 1.50m		

Plan

Remarks

Excavating from 0.00m to 1.00m for 1 hour.
D= Disturbed Sample
Groundwater was not encountered during boring/excavation

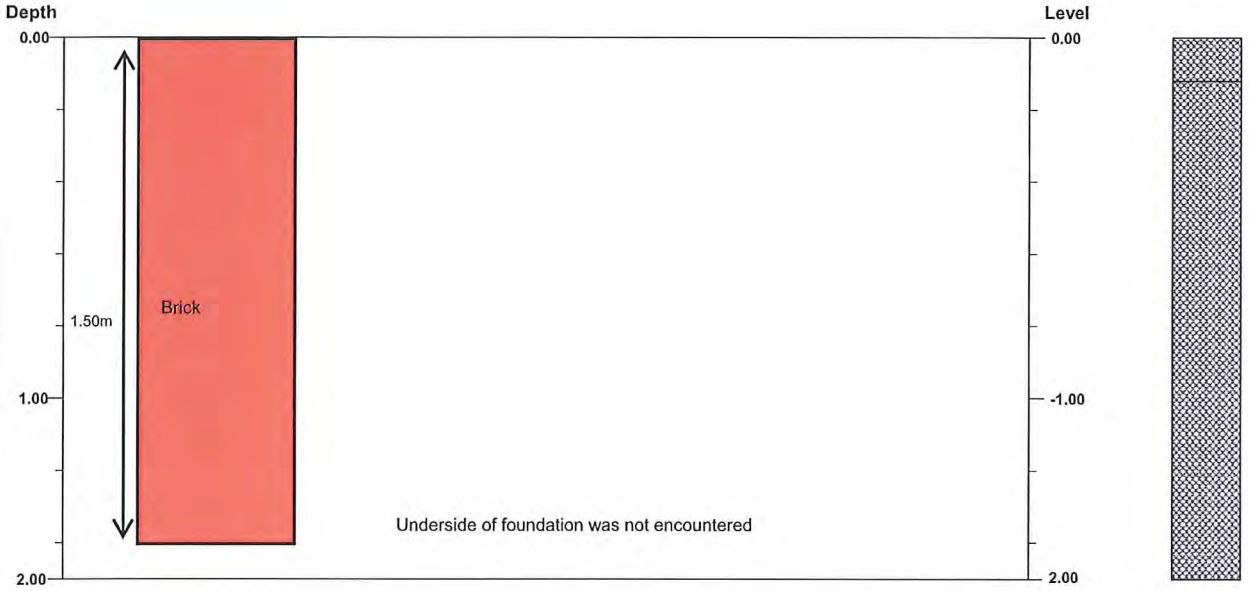
Scale (approx)	Logged By	Figure No.
1:50	EW	1624927.TP8

Site Analytical Services Ltd.

Site	Trial Pit Number
115-119 GOLDHURST TERRACE,LONDON,NW6 3HR	TP8

Method	Dimensions	Ground Level (mOD)	Client	Job Number
Trial Pit	0.30m(W) x 0.30m(L) x 1.50m(D)		HIVE 1 LIMITED	1624927

Orientation	Location	Dates	Engineer	Sheet
A / D B / C	TQ260841	14/03/2016	ELLIOTT WOOD PARTNERSHIP LLP	1/1



Strata

Depth (m)	No.	Description
0.00-0.12	1	MADE GROUND: Concrete
0.12-1.50	2	MADE GROUND: Brown sandy clay with large fragments of brick and concrete rubble

Samples and Tests

Depth (m)	Type	Field Records
0.25	D1	
0.50	D2	
0.75	D3	
1.00	D4	
1.50	D5	

Excavation Method:
HAND EXCAVATION

Shoring / Support:
N/A

Stability:
GOOD

Backfill:
ARISING

Remarks
D= Disturbed Sample
Groundwater was not encountered during boring/excavation
Excavating from 0.00m to 1.00m for 1 hour.

Logged By : EW
Checked By :
Figure No. : 1624927.TP8

Site Analytical Services Ltd.

Site	Trial Pit Number
115-119 GOLDHURST TERRACE,LONDON,NW6 3HR	TP9

Excavation Method	Dimensions	Ground Level (mOD)	Client	Job Number
HAND EXCAVATION	0.30m(W) x 0.30m(L) x 1.00m(D)	38.87	HIVE 1 LIMITED	1624927
	Location TQ260841	**Dates** 15/03/2016	**Engineer** ELLIOTT WOOD PARTNERSHIP LLP	**Sheet** 1/1

Depth (m)	Sample / Tests	Water Depth (m)	Field Records	Level (mOD)	Depth (m) (Thickness)	Description	Legend	Water
0.25	D1				(0.75)	MADE GROUND: Grass surface over dark brown black sandy clay with fragments of brick and concrete rubble and various different materials		
0.50	D2							
0.75	D3			38.12	0.75			
1.00	D4				(0.25)	MADE GROUND: Dark brown slightly clayey sand with fragments of brick and concrete rubble		
				37.87	1.00	Complete at 1.00m		

Plan

Remarks

Excavating from 0.00m to 1.00m for 1 hour.
D= Disturbed Sample
Groundwater was not encountered during boring/excavation

Scale (approx)	Logged By	Figure No.
1:50	EW	1624927.TP9

Site Analytical Services Ltd.

Site	Trial Pit Number
115-119 GOLDHURST TERRACE,LONDON,NW6 3HR	TP10

Excavation Method	Dimensions	Ground Level (mOD)	Client	Job Number
HAND EXCAVATION	0.30m(W) x 0.30m(L) x 1.00m(D)	39.15	HIVE 1 LIMITED	1624927
	Location TQ260841	**Dates** 15/03/2016	**Engineer** ELLIOTT WOOD PARTNERSHIP LLP	**Sheet** 1/1

Depth (m)	Sample / Tests	Water Depth (m)	Field Records	Level (mOD)	Depth (m) (Thickness)	Description	Legend	Water
0.25	D1				(1.00)	MADE GROUND: Grass surface over dark brown black sandy clay with fragments of brick and concrete rubble and various different materials		
0.50	D2							
0.75	D3							
1.00	D4			38.15	1.00	Complete at 1.00m		

Plan

Remarks

Excavating from 0.00m to 1.00m for 1 hour.
D= Disturbed Sample
Groundwater was not encountered during boring/excavation

Scale (approx)	Logged By	Figure No.
1:50	EW	1624927.TP9

Site Analytical Services Ltd.

Site 115-119 GOLDHURST TERRACE,LONDON,NW6 3HR			**Trial Pit Number** TP11
Excavation Method HAND EXCAVATION	**Dimensions** 0.30m(W) x 0.30m(L) x 1.00m(D)	**Ground Level (mOD)** 39.39	**Client** HIVE 1 LIMITED	**Job Number** 1624927
	Location TQ260841	**Dates** 15/03/2016	**Engineer** ELLIOTT WOOD PARTNERSHIP LLP	**Sheet** 1/1

Depth (m)	Sample / Tests	Water Depth (m)	Field Records	Level (mOD)	Depth (m) (Thickness)	Description	Legend	Water
0.25	D1				(0.75)	MADE GROUND: Grass surface over dark brown black sandy clay with fragments of brick and concrete rubble and various different materials		
0.50	D2							
0.75	D3			38.64	0.75			
1.00	D4				(0.25)	MADE GROUND: Dark brown slightly clayey sand with fragments of brick and concrete rubble		
				38.39	1.00	Complete at 1.00m		

Plan

Remarks

Excavating from 0.00m to 1.00m for 1 hour.
D= Disturbed Sample
Groundwater was not encountered during boring/excavation

Scale (approx)	Logged By	Figure No.
1:50	EW	1624927.TP11

APPENDIX `B'

In-Situ, Laboratory Test and Groundwater Monitoring Data

Site Analytical Services Ltd.

Site	Borehole Number
115-119 GOLDHURST TERRACE,LONDON,NW6 3HR	WS2

In Situ Permeability Type	Test No.	Ground Level (mOD)	Client	Job Number
Falling Head	1	39.17	HIVE 1 LIMITED	1624927
	Location	**Dates**	**Engineer**	**Sheet**
	TQ260841	16/03/2016	ELLIOTT WOOD PARTNERSHIP LLP	1/1

Height of casing above ground level:	0.00	m
Depth to Base of Borehole:	3.00	m bgl
Depth to Base of Casing:	0.00	m bgl
Depth to equilibrium water level:		m bgl
Test Length L:	3.00	m
Diameter of Test Length D:	0.10	m
Area of Test Section:	0.0079	m2
Intake Factor F: (after condition A, figure 6, BS 5930)	0.2000	

PERMEABILITY (after Hvorslev, 1951)

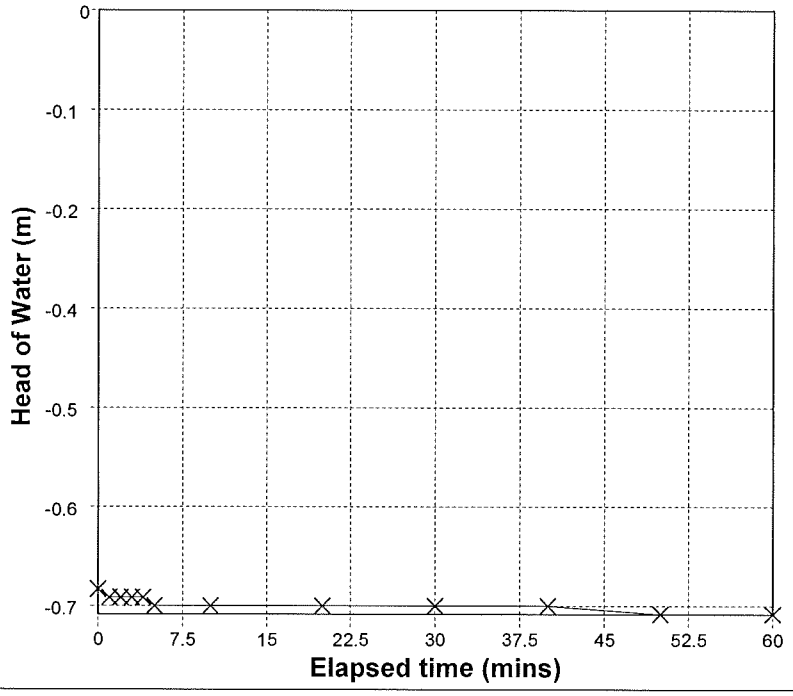
General Approach

H1 selected at t= -0.71 mins (=t1 = 22.2 secs)

H2 selected at t= -0.729 mins (=t2 = 3560.4 secs)

k = -2.93E-07 **ms-1**

Elapsed time (mins)	Depth to water (m bgl)	Head of Water, H (m)	Ht / Ho
0.0	0.700	-0.700	1.000
1.0	0.710	-0.710	1.014
2.0	0.710	-0.710	1.014
3.0	0.710	-0.710	1.014
4.0	0.710	-0.710	1.014
5.0	0.720	-0.720	1.029
10.0	0.720	-0.720	1.029
20.0	0.720	-0.720	1.029
30.0	0.720	-0.720	1.029
40.0	0.720	-0.720	1.029
50.0	0.730	-0.730	1.043
60.0	0.730	-0.730	1.043



Remarks

Key: bgl = Below Ground Level btoc = Below Top of Casing

Site Analytical Services Ltd.

Ref: 16/24927

UNDRAINED TRIAXIAL COMPRESSION TEST

LOCATION 115 -119 Goldhurst Terrace, London, NW6 3HR

BH/TP No.	MOISTURE CONTENT %	BULK DENSITY Mg/m^3	LATERAL PRESSURE kN/m^2	COMPRESSIVE STRENGTH kN/m^2	COHESION kN/m^2	ANGLE OF SHEARING RESISTANCE degrees	DEPTH m
BH1	25	2.02	50	302	151		2.25
	26	1.99	80	370	185		4.25
	28	1.96	130	369	185		6.75
	27	1.99	190	424	212		9.75
	27	2.01	250	417	209		12.75
	22	2.07	310	424	212		15.75
	23	2.07	370	436	218		18.75

Table 1

Site Analytical Services Ltd.

Ref: 16/24927

PLASTICITY INDEX & MOISTURE CONTENT DETERMINATIONS

LOCATION 115 -119 Goldhurst Terrace, London, NW6 3HR

BH/TP No.	Depth m	Natural Moisture %	Liquid Limit %	Plastic Limit %	Plasticity Index %	Passing 425 μm %	Class
BH1	3.75	28	61	27	34	100	CH
WS1	4.00	30	63	27	36	99	CH
WS2	3.50	30	68	31	37	100	CH

Table 2

Site Analytical Services Ltd.

Ref: 16/24927

GROUNDWATER MONITORING

LOCATION 115 -119 Goldhurst Terrace, London, NW6 3HR

GROUNDWATER MONITORING RECORD			
Date	**Weather Conditions**	**Ground Conditions**	**Temperature (°C)**
12/04/2016	Sunny with light clouds	Damp	11.6
Monitoring Point Location	**Depth to water (mBGL)**		**Depth to Base of well (mBGL)**
BH1	DRY		5.05
WS1	1.09		5.00
WS2	1.34		4.69

Table 3

Site Analytical Services Ltd.

Ref: 16/24927

GROUNDWATER MONITORING

LOCATION 115 -119 Goldhurst Terrace, London, NW6 3HR

GROUNDWATER MONITORING RECORD			
Date	**Weather Conditions**	**Ground Conditions**	**Temperature (°C)**
29/04/2016	Sunny with showers	Wet	8.7
Monitoring Point Location	**Depth to water (mBGL)**		**Depth to Base of well (mBGL)**
BH1	DRY		5.05
WS1	1.04		5.00
WS2	1.05		4.69

Table 3a

Aubrey Davidson
Site Analytical Services Ltd
Units 14 -15
River Road Business Park
33 River Road
Barking
Essex
IG11 0EA

t: 0208 5948134
f: 0208 5948072
e: aubreyd@siteanalytical.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 : 16-14309

Project / Site name:	115-119 Goldhurst Terrace	**Samples received on:**	30/03/2016
Your job number:	16-24927	**Samples instructed on:**	30/03/2016
Your order number:	22624	**Analysis completed by:**	06/04/2016
Report Issue Number:	1	**Report issued on:**	06/04/2016
Samples Analysed:	4 soil samples		

Signed:

Rexona Rahman
Reporting Manager
For & on behalf of i2 Analytical Ltd.

Signed:

Emma Winter
Assistant Reporting Manager
For & on behalf of i2 Analytical Ltd.

Other office located at: ul. Pionierów 39, 41 -711 Ruda Śląska, Poland

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

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Analytical Report Number: 16-14309

Project / Site name: 115-119 Goldhurst Terrace
Your Order No: 22624

Lab Sample Number				555110	555111	555112	555113	
Sample Reference				BH1	BH1	WS1	WS2	
Sample Number				None Supplied	None Supplied	None Supplied	None Supplied	
Depth (m)				8.00	14.00	5.00	4.50	
Date Sampled				30/03/2016	30/03/2016	30/03/2016	30/03/2016	
Time Taken				None Supplied	None Supplied	None Supplied	None Supplied	
Analytical Parameter (Soil Analysis)	**Units**	**Limit of detection**	**Accreditation Status**					
Moisture Content	%	N/A	NONE	21	19	19	20	
Total mass of sample received	kg	0.001	NONE	0.21	0.24	1.5	1.6	
Whole Sample Crushed		N/A	NONE	Crushed	Crushed	Crushed	Crushed	
General Inorganics								
pH	pH Units	N/A	MCERTS	8.1	8.3	8.2	8.0	
Water Soluble Sulphate (2:1 Leachate Equivalent)	g/l	0.00125	MCERTS	2.1	1.0	2.3	3.5	

Analytical Report Number : 16-14309

Project / Site name: 115-119 Goldhurst Terrace

* 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 topsoil/loam soil types. Data for unaccredited types of solid should be interpreted with care.

Lab Sample Number	Sample Reference	Sample Number	Depth (m)	Sample Description *
555110	BH1	None Supplied	8.00	Brown clay and loam.
555111	BH1	None Supplied	14.00	Brown clay and loam.
555112	WS1	None Supplied	5.00	Brown clay and loam.
555113	WS2	None Supplied	4.50	Brown clay and loam.

Analytical Report Number : 16-14309

Project / Site name: 115-119 Goldhurst Terrace

Water matrix abbreviations: Surface Water (SW) Potable Water (PW) Ground Water (GW)

Analytical Test Name	Analytical Method Description	Analytical Method Reference	Method number	Wet / Dry Analysis	Accreditation Status
Crush Whole Sample	Either: Client specific preparation instructions - sample(s) crushed whole prior to analysis; OR Sample unsuitable for standard preparation and therefore crushed whole prior to analysis.	In house method, applicable to dry samples only.	L019-UK	D	NONE
Moisture Content	Moisture content, determined gravimetrically.	In-house method based on BS1377 Part 3, 1990, Chemical and Electrochemical Tests	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 based on BS1377 Part 3, 1990, Chemical and Electrochemical Tests	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
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 based on BS1377 Part 3, 1990, Chemical and Electrochemical Tests, 2:1 water:soil extraction, analysis by ICP-OES.	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.

Aubrey Davidson
Site Analytical Services Ltd
Units 14 -15
River Road Business Park
33 River Road
Barking
Essex
IG11 0EA

t: 0208 5948134
f: 0208 5948072
e: aubreyd@siteanalytical.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 : 16-14304

Project / Site name:	115-119 Goldhurst Terrace	**Samples received on:**	30/03/2016
Your job number:	16-24927	**Samples instructed on:**	30/03/2016
Your order number:	22624	**Analysis completed by:**	06/04/2016
Report Issue Number:	1	**Report issued on:**	06/04/2016
Samples Analysed:	6 soil samples		

Signed:

Dr Claire Stone
Quality Manager
For & on behalf of i2 Analytical Ltd.

Signed:

Emma Winter
Assistant Reporting Manager
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

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Analytical Report Number: 16-14304

Project / Site name: 115-119 Goldhurst Terrace
Your Order No: 22624

Lab Sample Number				555089	555090	555091	555092	555093
Sample Reference				BH1	TP9	TP10	TP11	WS1
Sample Number				None Supplied	None Supplied	None Supplied	None Supplied	None Supplied
Depth (m)				0.25	0.50	0.50	0.25	0.25
Date Sampled				30/03/2016	30/03/2016	30/03/2016	30/03/2016	30/03/2016
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	%	N/A	NONE	12	22	21	21	27
Total mass of sample received	kg	0.001	NONE	0.60	0.49	0.58	0.59	0.55
Whole Sample Crushed		N/A	NONE	Crushed	Crushed	Crushed	Crushed	Crushed
Asbestos in Soil	Type	N/A	ISO 17025	Not-detected	Not-detected	Not-detected	Not-detected	Not-detected
General Inorganics								
pH	pH Units	N/A	MCERTS	8.4	8.6	8.3	9.3	8.4
Total Cyanide	mg/kg	1	MCERTS	< 1	< 1	1	< 1	< 1
Complex Cyanide	mg/kg	1	NONE	< 1	< 1	1	< 1	< 1
Free Cyanide	mg/kg	1	NONE	< 1	< 1	< 1	< 1	< 1
Total Sulphate as SO_4	mg/kg	50	MCERTS	1400	3000	2300	12000	1100
Water Soluble Sulphate (2:1 Leachate Equivalent)	g/l	0.00125	MCERTS	0.067	0.13	0.23	1.9	0.032
Sulphide	mg/kg	1	MCERTS	8.6	9.9	1.8	11	1.9
Total Organic Carbon (TOC)	%	0.1	MCERTS	0.9	1.6	2.2	1.0	1.3
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	0.1	MCERTS	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10
Acenaphthene	mg/kg	0.1	MCERTS	< 0.10	< 0.10	0.23	< 0.10	< 0.10
Fluorene	mg/kg	0.1	MCERTS	< 0.10	< 0.10	0.22	< 0.10	< 0.10
Phenanthrene	mg/kg	0.1	MCERTS	1.3	0.81	7.3	1.1	1.9
Anthracene	mg/kg	0.1	MCERTS	0.24	0.13	0.37	0.17	0.32
Fluoranthene	mg/kg	0.1	MCERTS	3.2	1.8	11	2.2	3.4
Pyrene	mg/kg	0.1	MCERTS	2.7	1.7	8.8	1.8	3.1
Benzo(a)anthracene	mg/kg	0.1	MCERTS	1.4	0.69	2.9	0.91	1.6
Chrysene	mg/kg	0.05	MCERTS	1.2	0.80	4.3	0.84	1.4
Benzo(b)fluoranthene	mg/kg	0.1	MCERTS	1.7	0.99	4.3	1.1	1.7
Benzo(k)fluoranthene	mg/kg	0.1	MCERTS	0.67	0.27	2.4	0.45	0.69
Benzo(a)pyrene	mg/kg	0.1	MCERTS	1.3	0.66	3.4	0.85	1.4
Indeno(1,2,3-cd)pyrene	mg/kg	0.1	MCERTS	0.78	0.43	2.4	0.53	0.87
Dibenz(a,h)anthracene	mg/kg	0.1	MCERTS	< 0.10	< 0.10	0.50	< 0.10	0.28
Benzo(ghi)perylene	mg/kg	0.05	MCERTS	0.93	0.52	2.7	0.59	1.1
Total PAH								
Speciated Total EPA-16 PAHs	mg/kg	1.6	MCERTS	15.3	8.86	50.6	10.6	17.7
Heavy Metals / Metalloids								
Arsenic (aqua regia extractable)	mg/kg	1	MCERTS	14	18	23	19	28
Beryllium (aqua regia extractable)	mg/kg	0.06	MCERTS	0.9	0.8	1.2	1.0	1.4
Boron (total)	mg/kg	1	MCERTS	6.0	8.3	8.3	13	11
Cadmium (aqua regia extractable)	mg/kg	0.2	MCERTS	0.3	0.9	3.0	< 0.2	0.4
Chromium (hexavalent)	mg/kg	4	MCERTS	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0
Chromium (aqua regia extractable)	mg/kg	1	MCERTS	22	22	29	24	35
Copper (aqua regia extractable)	mg/kg	1	MCERTS	50	64	94	59	110
Lead (aqua regia extractable)	mg/kg	1	MCERTS	440	1200	1100	390	700
Mercury (aqua regia extractable)	mg/kg	0.3	MCERTS	< 0.3	< 0.3	14	< 0.3	1.3
Nickel (aqua regia extractable)	mg/kg	1	MCERTS	13	16	24	19	26
Selenium (aqua regia extractable)	mg/kg	1	MCERTS	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Vanadium (aqua regia extractable)	mg/kg	1	MCERTS	43	42	51	48	62
Zinc (aqua regia extractable)	mg/kg	1	MCERTS	290	590	1200	320	590

Analytical Report Number: 16-14304

Project / Site name: 115-119 Goldhurst Terrace
Your Order No: 22624

Lab Sample Number				555089	555090	555091	555092	555093
Sample Reference				BH1	TP9	TP10	TP11	WS1
Sample Number				None Supplied	None Supplied	None Supplied	None Supplied	None Supplied
Depth (m)				0.25	0.50	0.50	0.25	0.25
Date Sampled				30/03/2016	30/03/2016	30/03/2016	30/03/2016	30/03/2016
Time Taken				None Supplied	None Supplied	None Supplied	None Supplied	None Supplied
Analytical Parameter (Soil Analysis)	**Units**	**Limit of detection**	**Accreditation Status**					
Monoaromatics								
Benzene	µg/kg	1	MCERTS	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Toluene	µg/kg	1	MCERTS	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Ethylbenzene	µg/kg	1	MCERTS	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
p & m-xylene	µg/kg	1	MCERTS	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
o-xylene	µg/kg	1	MCERTS	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
MTBE (Methyl Tertiary Butyl Ether)	µg/kg	1	MCERTS	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Petroleum Hydrocarbons								
TPH-CWG - Aliphatic >EC5 - EC6	mg/kg	0.1	MCERTS	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1
TPH-CWG - Aliphatic >EC6 - EC8	mg/kg	0.1	MCERTS	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1
TPH-CWG - Aliphatic >EC8 - EC10	mg/kg	0.1	MCERTS	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1
TPH-CWG - Aliphatic >EC10 - EC12	mg/kg	1	MCERTS	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
TPH-CWG - Aliphatic >EC12 - EC16	mg/kg	2	MCERTS	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0
TPH-CWG - Aliphatic >EC16 - EC21	mg/kg	8	MCERTS	< 8.0	< 8.0	< 8.0	< 8.0	< 8.0
TPH-CWG - Aliphatic >EC21 - EC35	mg/kg	8	MCERTS	< 8.0	9.2	35	58	18
TPH-CWG - Aliphatic (EC5 - EC35)	mg/kg	10	MCERTS	< 10	13	39	62	21
TPH-CWG - Aromatic >EC5 - EC7	mg/kg	0.1	MCERTS	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1
TPH-CWG - Aromatic >EC7 - EC8	mg/kg	0.1	MCERTS	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1
TPH-CWG - Aromatic >EC8 - EC10	mg/kg	0.1	MCERTS	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1
TPH-CWG - Aromatic >EC10 - EC12	mg/kg	1	MCERTS	< 1.0	1.0	< 1.0	< 1.0	< 1.0
TPH-CWG - Aromatic >EC12 - EC16	mg/kg	2	MCERTS	< 2.0	2.3	3.6	< 2.0	< 2.0
TPH-CWG - Aromatic >EC16 - EC21	mg/kg	10	MCERTS	13	14	38	15	10
TPH-CWG - Aromatic >EC21 - EC35	mg/kg	10	MCERTS	13	14	55	150	15
TPH-CWG - Aromatic (EC5 - EC35)	mg/kg	10	MCERTS	27	31	98	170	26

Analytical Report Number: 16-14304

Project / Site name: 115-119 Goldhurst Terrace
Your Order No: 22624

Lab Sample Number				555094				
Sample Reference				WS2				
Sample Number				None Supplied				
Depth (m)				0.50				
Date Sampled				30/03/2016				
Time Taken				None Supplied				
Analytical Parameter (Soil Analysis)	**Units**	**Limit of detection**	**Accreditation Status**					
Stone Content	%	0.1	NONE	< 0.1				
Moisture Content	%	N/A	NONE	23				
Total mass of sample received	kg	0.001	NONE	0.56				
Whole Sample Crushed		N/A	NONE	Crushed				
Asbestos in Soil	Type	N/A	ISO 17025	Not-detected				
General Inorganics								
pH	pH Units	N/A	MCERTS	9.4				
Total Cyanide	mg/kg	1	MCERTS	< 1				
Complex Cyanide	mg/kg	1	NONE	< 1				
Free Cyanide	mg/kg	1	NONE	< 1				
Total Sulphate as SO_4	mg/kg	50	MCERTS	4200				
Water Soluble Sulphate (2:1 Leachate Equivalent)	g/l	0.00125	MCERTS	0.39				
Sulphide	mg/kg	1	MCERTS	15				
Total Organic Carbon (TOC)	%	0.1	MCERTS	1.4				
Total Phenols								
Total Phenols (monohydric)	mg/kg	1	MCERTS	< 1.0				
Speciated PAHs								
Naphthalene	mg/kg	0.05	MCERTS	< 0.05				
Acenaphthylene	mg/kg	0.1	MCERTS	< 0.10				
Acenaphthene	mg/kg	0.1	MCERTS	< 0.10				
Fluorene	mg/kg	0.1	MCERTS	< 0.10				
Phenanthrene	mg/kg	0.1	MCERTS	0.55				
Anthracene	mg/kg	0.1	MCERTS	< 0.10				
Fluoranthene	mg/kg	0.1	MCERTS	1.1				
Pyrene	mg/kg	0.1	MCERTS	1.0				
Benzo(a)anthracene	mg/kg	0.1	MCERTS	0.45				
Chrysene	mg/kg	0.05	MCERTS	0.61				
Benzo(b)fluoranthene	mg/kg	0.1	MCERTS	0.69				
Benzo(k)fluoranthene	mg/kg	0.1	MCERTS	0.27				
Benzo(a)pyrene	mg/kg	0.1	MCERTS	0.53				
Indeno(1,2,3-cd)pyrene	mg/kg	0.1	MCERTS	0.40				
Dibenz(a,h)anthracene	mg/kg	0.1	MCERTS	< 0.10				
Benzo(ghi)perylene	mg/kg	0.05	MCERTS	0.51				
Total PAH								
Speciated Total EPA-16 PAHs	mg/kg	1.6	MCERTS	6.11				
Heavy Metals / Metalloids								
Arsenic (aqua regia extractable)	mg/kg	1	MCERTS	20				
Beryllium (aqua regia extractable)	mg/kg	0.06	MCERTS	1.0				
Boron (total)	mg/kg	1	MCERTS	12				
Cadmium (aqua regia extractable)	mg/kg	0.2	MCERTS	0.5				
Chromium (hexavalent)	mg/kg	4	MCERTS	< 4.0				
Chromium (aqua regia extractable)	mg/kg	1	MCERTS	25				
Copper (aqua regia extractable)	mg/kg	1	MCERTS	70				
Lead (aqua regia extractable)	mg/kg	1	MCERTS	830				
Mercury (aqua regia extractable)	mg/kg	0.3	MCERTS	< 0.3				
Nickel (aqua regia extractable)	mg/kg	1	MCERTS	21				
Selenium (aqua regia extractable)	mg/kg	1	MCERTS	< 1.0				
Vanadium (aqua regia extractable)	mg/kg	1	MCERTS	52				
Zinc (aqua regia extractable)	mg/kg	1	MCERTS	410				

Analytical Report Number: 16-14304

Project / Site name: 115-119 Goldhurst Terrace
Your Order No: 22624

Lab Sample Number				555094				
Sample Reference				WS2				
Sample Number				None Supplied				
Depth (m)				0.50				
Date Sampled				30/03/2016				
Time Taken				None Supplied				
Analytical Parameter (Soil Analysis)	**Units**	**Limit of detection**	**Accreditation Status**					
Monoaromatics								
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				

Petroleum Hydrocarbons

TPH-CWG - Aliphatic >EC5 - EC6	mg/kg	0.1	MCERTS	< 0.1				
TPH-CWG - Aliphatic >EC6 - EC8	mg/kg	0.1	MCERTS	< 0.1				
TPH-CWG - Aliphatic >EC8 - EC10	mg/kg	0.1	MCERTS	< 0.1				
TPH-CWG - Aliphatic >EC10 - EC12	mg/kg	1	MCERTS	< 1.0				
TPH-CWG - Aliphatic >EC12 - EC16	mg/kg	2	MCERTS	< 2.0				
TPH-CWG - Aliphatic >EC16 - EC21	mg/kg	8	MCERTS	< 8.0				
TPH-CWG - Aliphatic >EC21 - EC35	mg/kg	8	MCERTS	< 8.0				
TPH-CWG - Aliphatic (EC5 - EC35)	mg/kg	10	MCERTS	< 10				

TPH-CWG - Aromatic >EC5 - EC7	mg/kg	0.1	MCERTS	< 0.1				
TPH-CWG - Aromatic >EC7 - EC8	mg/kg	0.1	MCERTS	< 0.1				
TPH-CWG - Aromatic >EC8 - EC10	mg/kg	0.1	MCERTS	< 0.1				
TPH-CWG - Aromatic >EC10 - EC12	mg/kg	1	MCERTS	< 1.0				
TPH-CWG - Aromatic >EC12 - EC16	mg/kg	2	MCERTS	< 2.0				
TPH-CWG - Aromatic >EC16 - EC21	mg/kg	10	MCERTS	< 10				
TPH-CWG - Aromatic >EC21 - EC35	mg/kg	10	MCERTS	< 10				
TPH-CWG - Aromatic (EC5 - EC35)	mg/kg	10	MCERTS	< 10				

Analytical Report Number : 16-14304

Project / Site name: 115-119 Goldhurst Terrace

* 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 *
555089	BH1	None Supplied	0.25	Brown loam and sand with glass and gravel
555090	TP9	None Supplied	0.50	Brown loam and sand with gravel and brick.
555091	TP10	None Supplied	0.50	Brown loam and sand with gravel and brick.
555092	TP11	None Supplied	0.25	Brown loam and sand with gravel and vegetation.
555093	WS1	None Supplied	0.25	Brown clay and loam with gravel and brick.
555094	WS2	None Supplied	0.50	Brown loam and sand with gravel and brick.

Analytical Report Number : 16-14304

Project / Site name: 115-119 Goldhurst Terrace

Water matrix abbreviations: Surface Water (SW) Potable Water (PW) Ground Water (GW)

Analytical Test Name	Analytical Method Description	Analytical Method Reference	Method number	Wet / Dry Analysis	Accreditation Status
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
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
Complex cyanide in soil	Determination of complex 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	NONE
Crush Whole Sample	Either: Client specific preparation instructions - sample(s) crushed whole prior to analysis; OR Sample unsuitable for standard preparation and therefore crushed whole prior to analysis.	In house method, applicable to dry samples only.	L019-UK	D	NONE
Free cyanide in soil	Determination of free 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	NONE
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	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
Moisture Content	Moisture content, determined gravimetrically.	In-house method based on BS1377 Part 3, 1990, Chemical and Electrochemical Tests	L019-UK/PL	W	NONE
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
pH in soil (automated)	Determination of pH in soil by addition of water followed by automated electrometric measurement.	In-house method based on BS1377 Part 3, 1990, Chemical and Electrochemical Tests	L099-PL	D	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
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
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 based on BS1377 Part 3, 1990, Chemical and Electrochemical Tests, 2:1 water:soil extraction, analysis by ICP-OES.	L038-PL	D	MCERTS
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 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
Total organic carbon in soil	Determination of organic matter in soil by oxidising with potassium dichromate followed by titration with iron (II) sulphate.	In-house method based on BS1377 Part 3, 1990, Chemical and Electrochemical Tests	L023-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 based on BS1377 Part 3, 1990, Chemical and Electrochemical Tests	L038-PL	D	MCERTS

Analytical Report Number : 16-14304

Project / Site name: 115-119 Goldhurst Terrace

Water matrix abbreviations: Surface Water (SW) Potable Water (PW) Ground Water (GW)

Analytical Test Name	Analytical Method Description	Analytical Method Reference	Method number	Wet / Dry Analysis	Accreditation Status
TPHCWG (Soil)	Determination of hexane extractable hydrocarbons in soil by GC-MS/GC-FID.	In-house method	L076-PL	W	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.

The results included within the report are representative of the samples submitted for analysis.

Aubrey Davidson
Site Analytical Services Ltd
Units 14 & 15
River Road Business Park
33 River Road
Barking
Essex
IG11 0EA

QTS Environmental Ltd
Unit 1
Rose Lane Industrial Estate
Rose Lane
Lenham Heath
Kent
ME17 2JN
t: 01622 850410
russell.jarvis@qtsenvironmental.com

QTS Environmental Report No: 16-42402

Site Reference:	115-119 Goldhurst
Project / Job Ref:	16/24927
Order No:	22625
Sample Receipt Date:	30/03/2016
Sample Scheduled Date:	31/03/2016
Report Issue Number:	1
Reporting Date:	06/04/2016

Authorised by:

Russell Jarvis
Associate Director of Client Services
On behalf of QTS Environmental Ltd

Authorised by:

Kevin Old
Associate Director of Laboratory
On behalf of QTS Environmental Ltd

QTS Environmental Ltd
Unit 1, Rose Lane Industrial Estate
Rose Lane
Lenham Heath
Maidstone
Kent ME17 2JN
Tel : 01622 850410

Soil Analysis Certificate						
QTS Environmental Report No: 16-42402	Date Sampled	None Supplied				
Site Analytical Services Ltd	Time Sampled	None Supplied				
Site Reference: 115-119 Goldhurst	TP / BH No	WS2				
Project / Job Ref: 16/24927	Additional Refs	None Supplied				
Order No: 22625	Depth (m)	1.00				
Reporting Date: 06/04/2016	QTSE Sample No	199189				

Determinand	Unit	RL	Accreditation					
Asbestos Screen	N/a	N/a	ISO17025	Not Detected				
pH	pH Units	N/a	MCERTS	8.0				
Total Cyanide	mg/kg	< 2	NONE	< 2				
Complex Cyanide	mg/kg	< 2	NONE	< 2				
Free Cyanide	mg/kg	< 2	NONE	< 2				
Total Sulphate as SO_4	mg/kg	< 200	NONE	8296				
Total Sulphate as SO_4	%	< 0.02	NONE	0.83				
W/S Sulphate as SO_4 (2:1)	mg/l	< 10	MCERTS	2610				
W/S Sulphate as SO_4 (2:1)	g/l	< 0.01	MCERTS	2.61				
Sulphide	mg/kg	< 5	NONE	< 5				
Organic Matter	%	< 0.1	MCERTS	0.2				
Total Organic Carbon (TOC)	%	< 0.1	MCERTS	0.1				
Arsenic (As)	mg/kg	< 2	MCERTS	12				
W/S Boron	mg/kg	< 1	NONE	< 1				
Cadmium (Cd)	mg/kg	< 0.2	MCERTS	< 0.2				
Chromium (Cr)	mg/kg	< 2	MCERTS	47				
Chromium (hexavalent)	mg/kg	< 2	NONE	< 2				
Copper (Cu)	mg/kg	< 4	MCERTS	21				
Lead (Pb)	mg/kg	< 3	MCERTS	14				
Mercury (Hg)	mg/kg	< 1	NONE	< 1				
Nickel (Ni)	mg/kg	< 3	MCERTS	34				
Selenium (Se)	mg/kg	< 3	NONE	< 3				
Zinc (Zn)	mg/kg	< 3	MCERTS	72				
Total Phenols (monohydric)	mg/kg	< 2	NONE	< 2				

Analytical results are expressed on a dry weight basis where samples are assisted-dried at less than 30°C

Analysis carried out on the dried sample is corrected for the stone content

The samples have been examined to identify the presence of asbestiform minerals by polarising light microscopy and dispersion staining technique to In-House Procedures QTSE600 Determination of Asbestos in Bulk Materials; Asbestos in Soils/Sediments (fibre screening and identification)

This report refers to samples as received, and QTS Environmental Ltd, takes no responsibility for the accuracy or competence of sampling by others.

The material description shall be regarded as tentative and is not included in our scope of UKAS Accreditation.

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

Asbestos Analyst: Graham Revell

RL: Reporting Limit

Pinch Test: Where pinch test is positive it is reported "Loose Fibres - PT" with type(s).

Subcontracted analysis (S)

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Unit 1, Rose Lane Industrial Estate
Rose Lane
Lenham Heath
Maidstone
Kent ME17 2JN
Tel : 01622 850410

4480

Soil Analysis Certificate - Speciated PAHs						
QTS Environmental Report No: 16-42402	Date Sampled	None Supplied				
Site Analytical Services Ltd	Time Sampled	None Supplied				
Site Reference: 115-119 Goldhurst	TP / BH No	WS2				
Project / Job Ref: 16/24927	Additional Refs	None Supplied				
Order No: 22625	Depth (m)	1.00				
Reporting Date: 06/04/2016	QTSE Sample No	199189				

Determinand	Unit	RL	Accreditation					
Naphthalene	mg/kg	< 0.1	MCERTS	< 0.1				
Acenaphthylene	mg/kg	< 0.1	MCERTS	< 0.1				
Acenaphthene	mg/kg	< 0.1	MCERTS	< 0.1				
Fluorene	mg/kg	< 0.1	MCERTS	< 0.1				
Phenanthrene	mg/kg	< 0.1	MCERTS	< 0.1				
Anthracene	mg/kg	< 0.1	MCERTS	< 0.1				
Fluoranthene	mg/kg	< 0.1	MCERTS	< 0.1				
Pyrene	mg/kg	< 0.1	MCERTS	< 0.1				
Benzo(a)anthracene	mg/kg	< 0.1	MCERTS	< 0.1				
Chrysene	mg/kg	< 0.1	MCERTS	< 0.1				
Benzo(b)fluoranthene	mg/kg	< 0.1	MCERTS	< 0.1				
Benzo(k)fluoranthene	mg/kg	< 0.1	MCERTS	< 0.1				
Benzo(a)pyrene	mg/kg	< 0.1	MCERTS	< 0.1				
Indeno(1,2,3-cd)pyrene	mg/kg	< 0.1	MCERTS	< 0.1				
Dibenz(a,h)anthracene	mg/kg	< 0.1	MCERTS	< 0.1				
Benzo(ghi)perylene	mg/kg	< 0.1	MCERTS	< 0.1				
Coronene	mg/kg	< 0.1	NONE	< 0.1				
Total Oily Waste PAHs	mg/kg	< 1	MCERTS	< 1				
Total Dutch 10 PAHs	mg/kg	< 1	MCERTS	< 1				
Total EPA-16 PAHs	mg/kg	< 1.6	MCERTS	< 1.6				
Total WAC-17 PAHs	mg/kg	< 1.7	NONE	< 1.7				

Analytical results are expressed on a dry weight basis where samples are assisted-dried at less than 30^{o}C

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Soil Analysis Certificate - TPH CWG Banded						
QTS Environmental Report No: 16-42402	Date Sampled	None Supplied				
Site Analytical Services Ltd	Time Sampled	None Supplied				
Site Reference: 115-119 Goldhurst	TP / BH No	WS2				
Project / Job Ref: 16/24927	Additional Refs	None Supplied				
Order No: 22625	Depth (m)	1.00				
Reporting Date: 06/04/2016	QTSE Sample No	199189				

Determinand	Unit	RL	Accreditation					
Aliphatic >C5 - C6	mg/kg	< 0.01	NONE	< 0.01				
Aliphatic >C6 - C8	mg/kg	< 0.05	NONE	< 0.05				
Aliphatic >C8 - C10	mg/kg	< 2	MCERTS	< 2				
Aliphatic >C10 - C12	mg/kg	< 2	MCERTS	< 2				
Aliphatic >C12 - C16	mg/kg	< 3	MCERTS	< 3				
Aliphatic >C16 - C21	mg/kg	< 3	MCERTS	< 3				
Aliphatic >C21 - C34	mg/kg	< 10	MCERTS	< 10				
Aliphatic (C5 - C34)	mg/kg	< 21	NONE	< 21				
Aromatic >C5 - C7	mg/kg	< 0.01	NONE	< 0.01				
Aromatic >C7 - C8	mg/kg	< 0.05	NONE	< 0.05				
Aromatic >C8 - C10	mg/kg	< 2	MCERTS	< 2				
Aromatic >C10 - C12	mg/kg	< 2	MCERTS	< 2				
Aromatic >C12 - C16	mg/kg	< 2	MCERTS	< 2				
Aromatic >C16 - C21	mg/kg	< 3	MCERTS	< 3				
Aromatic >C21 - C35	mg/kg	< 10	MCERTS	< 10				
Aromatic (C5 - C35)	mg/kg	< 21	NONE	< 21				
Total >C5 - C35	mg/kg	< 42	NONE	< 42				

Analytical results are expressed on a dry weight basis where samples are assisted-dried at less than 30^{o}C

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Soil Analysis Certificate - BTEX / MTBE						
QTS Environmental Report No: 16-42402	Date Sampled	None Supplied				
Site Analytical Services Ltd	Time Sampled	None Supplied				
Site Reference: 115-119 Goldhurst	TP / BH No	WS2				
Project / Job Ref: 16/24927	Additional Refs	None Supplied				
Order No: 22625	Depth (m)	1.00				
Reporting Date: 06/04/2016	QTSE Sample No	199189				

Determinand	Unit	RL	Accreditation					
Benzene	ug/kg	< 2	MCERTS	< 2				
Toluene	ug/kg	< 5	MCERTS	< 5				
Ethylbenzene	ug/kg	< 2	MCERTS	< 2				
p & m-xylene	ug/kg	< 2	MCERTS	< 2				
o-xylene	ug/kg	< 2	MCERTS	< 2				
MTBE	ug/kg	< 5	MCERTS	< 5				

Analytical results are expressed on a dry weight basis where samples are assisted-dried at less than 30^{O}C

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Waste Acceptance Criteria Analytical Certificate - BS EN 12457/3

QTS Environmental Report No: 16-42402		Date Sampled	None Supplied				Landfill Waste Acceptance Criteria Limits		
Site Analytical Services Ltd		Time Sampled	None Supplied				Inert Waste Landfill	Stable Non-reactive HAZARDOUS waste in non-hazardous Landfill	Hazardous Waste Landfill
Site Reference: 115-119 Goldhurst		TP / BH No	WS2						
Project / Job Ref: 16/24927		Additional Refs	None Supplied						
Order No: 22625		Depth (m)	1.00						
Reporting Date: 06/04/2016		QTSE Sample No	199189						
Determinand	Unit	MDL							
TOC[MU]	%	< 0.1	0.1				3%	5%	6%
Loss on Ignition	%	< 0.01	1.60				--	--	10%
BTEX[MU]	mg/kg	< 0.05	< 0.05				6	--	--
Sum of PCBs	mg/kg	< 0.1	< 0.1				1	--	--
Mineral Oil[MU]	mg/kg	< 10	< 10				500	--	--
Total PAH[MU]	mg/kg	< 1.7	< 1.7				100	--	--
pH[MU]	pH Units	N/a	8.0				--	>6	--
Acid Neutralisation Capacity	mol/kg (+/-)	< 1	< 1				--	To be evaluated	To be evaluated
Eluate Analysis			2:1 mg/l	8:1 mg/l		Cumulative 10:1 mg/kg	Limit values for compliance leaching test using BS EN 12457-3 at L/S 10 l/kg (mg/kg)		
Arsenic[U]			< 0.01	< 0.01		< 0.2	0.5	2	25
Barium[U]			0.16	0.07		0.8	20	100	300
Cadmium[U]			< 0.0005	< 0.0005		< 0.02	0.04	1	5
Chromium[U]			< 0.005	< 0.005		< 0.20	0.5	10	70
Copper[U]			< 0.01	< 0.01		< 0.5	2	50	100
Mercury[U]			< 0.005	< 0.005		< 0.01	0.01	0.2	2
Molybdenum[U]			< 0.001	< 0.001		< 0.1	0.5	10	30
Nickel[U]			< 0.007	< 0.007		< 0.2	0.4	10	40
Lead[U]			< 0.005	< 0.005		< 0.2	0.5	10	50
Antimony[U]			< 0.005	< 0.005		< 0.06	0.06	0.7	5
Selenium[U]			< 0.005	< 0.005		< 0.1	0.1	0.5	7
Zinc[U]			0.020	< 0.005		< 0.2	4	50	200
Chloride[U]			5	2		20	800	15000	25000
Fluoride[U]			0.7	0.9		9.2	10	150	500
Sulphate[U]			694	141		1650	1000	20000	50000
TDS			834	262		2872	4000	60000	100000
Phenol Index			< 0.01	< 0.01		< 0.5	1	-	-
DOC			4.3	2.3		24.3	500	800	1000
Leach Test Information									
Sample Mass (kg)			0.22						
Dry Matter (%)			79						
Moisture (%)			26.6						
Stage 1									
Volume Eluate L2 (litres)			0.30						
Filtered Eluate VE1 (litres)			0.08						

Results are expressed on a dry weight basis, after correction for moisture content where applicable
Stated limits are for guidance only and QTS Environmental cannot be held responsible for any discrepencies with current legislation
M Denotes MCERTS accredited test
U Denotes ISO17025 accredited test

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Maidstone
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Soil Analysis Certificate - Sample Descriptions	
QTS Environmental Report No: 16-42402	
Site Analytical Services Ltd	
Site Reference: 115-119 Goldhurst	
Project / Job Ref: 16/24927	
Order No: 22625	
Reporting Date: 06/04/2016	

QTSE Sample No	TP / BH No	Additional Refs	Depth (m)	Moisture Content (%)	Sample Matrix Description
^ 199189	WS2	None Supplied	1.00	21	Brown clay

Moisture content is part of procedure E003 & is not an accredited test

Insufficient Sample I/S

Unsuitable Sample U/S

^ no sampling date provided; unable to confirm if samples are within acceptable holding times

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mCERTS THE ENVIRONMENT AGENCY'S MONITORING CERTIFICATION SCHEME
UKAS TESTING 4480

Soil Analysis Certificate - Methodology & Miscellaneous Information
QTS Environmental Report No: 16-42402
Site Analytical Services Ltd
Site Reference: 115-119 Goldhurst
Project / Job Ref: 16/24927
Order No: 22625
Reporting Date: 06/04/2016

Matrix	Analysed On	Determinand	Brief Method Description	Method No
Soil	D	Boron - Water Soluble	Determination of water soluble boron in soil by 2:1 hot water extract followed by ICP-OES	E012
Soil	AR	BTEX	Determination of BTEX by headspace GC-MS	E001
Soil	D	Cations	Determination of cations in soil by aqua-regia digestion followed by ICP-OES	E002
Soil	D	Chloride - Water Soluble (2:1)	Determination of chloride by extraction with water & analysed by ion chromatography	E009
Soil	AR	Chromium - Hexavalent	Determination of hexavalent chromium in soil by extraction in water then by acidification, addition of 1,5 diphenylcarbazide followed by colorimetry	E016
Soil	AR	Cyanide - Complex	Determination of complex cyanide by distillation followed by colorimetry	E015
Soil	AR	Cyanide - Free	Determination of free cyanide by distillation followed by colorimetry	E015
Soil	AR	Cyanide - Total	Determination of total cyanide by distillation followed by colorimetry	E015
Soil	D	Cyclohexane Extractable Matter (CEM)	Gravimetrically determined through extraction with cyclohexane	E011
Soil	AR	Diesel Range Organics (C10 - C24)	Determination of hexane/acetone extractable hydrocarbons by GC-FID	E004
Soil	AR	Electrical Conductivity	Determination of electrical conductivity by addition of saturated calcium sulphate followed by electrometric measurement	E022
Soil	AR	Electrical Conductivity	Determination of electrical conductivity by addition of water followed by electrometric measurement	E023
Soil	D	Elemental Sulphur	Determination of elemental sulphur by solvent extraction followed by GC-MS	E020
Soil	AR	EPH (C10 – C40)	Determination of acetone/hexane extractable hydrocarbons by GC-FID	E004
Soil	AR	EPH Product ID	Determination of acetone/hexane extractable hydrocarbons by GC-FID	E004
Soil	AR	EPH TEXAS (C6-C8, C8-C10, C10-C12, C12-C16, C16-C21, C21-C40)	Determination of acetone/hexane extractable hydrocarbons by GC-FID for C8 to C40. C6 to C8 by headspace GC-MS	E004
Soil	D	Fluoride - Water Soluble	Determination of Fluoride by extraction with water & analysed by ion chromatography	E009
Soil	D	FOC (Fraction Organic Carbon)	Determination of fraction of organic carbon by oxidising with potassium dichromate followed by titration with iron (II) sulphate	E010
Soil	D	Loss on Ignition @ 450oC	Determination of loss on ignition in soil by gravimetrically with the sample being ignited in a muffle furnace	E019
Soil	D	Magnesium - Water Soluble	Determination of water soluble magnesium by extraction with water followed by ICP-OES	E025
Soil	D	Metals	Determination of metals by aqua-regia digestion followed by ICP-OES	E002
Soil	AR	Mineral Oil (C10 - C40)	Determination of hexane/acetone extractable hydrocarbons by GC-FID fractionating with SPE cartridge	E004
Soil	AR	Moisture Content	Moisture content; determined gravimetrically	E003
Soil	D	Nitrate - Water Soluble (2:1)	Determination of nitrate by extraction with water & analysed by ion chromatography	E009
Soil	D	Organic Matter	Determination of organic matter by oxidising with potassium dichromate followed by titration with iron (II) sulphate	E010
Soil	AR	PAH - Speciated (EPA 16)	Determination of PAH compounds by extraction in acetone and hexane followed by GC-MS with the use of surrogate and internal standards	E005
Soil	AR	PCB - 7 Congeners	Determination of PCB by extraction with acetone and hexane followed by GC-MS	E008
Soil	D	Petroleum Ether Extract (PEE)	Gravimetrically determined through extraction with petroleum ether	E011
Soil	AR	pH	Determination of pH by addition of water followed by electrometric measurement	E007
Soil	AR	Phenols - Total (monohydric)	Determination of phenols by distillation followed by colorimetry	E021
Soil	D	Phosphate - Water Soluble (2:1)	Determination of phosphate by extraction with water & analysed by ion chromatography	E009
Soil	D	Sulphate (as SO4) - Total	Determination of total sulphate by extraction with 10% HCl followed by ICP-OES	E013
Soil	D	Sulphate (as SO4) - Water Soluble (2:1)	Determination of sulphate by extraction with water & analysed by ion chromatography	E009
Soil	D	Sulphate (as SO4) - Water Soluble (2:1)	Determination of water soluble sulphate by extraction with water followed by ICP-OES	E014
Soil	AR	Sulphide	Determination of sulphide by distillation followed by colorimetry	E018
Soil	D	Sulphur - Total	Determination of total sulphur by extraction with aqua-regia followed by ICP-OES	E024
Soil	AR	SVOC	Determination of semi-volatile organic compounds by extraction in acetone and hexane followed by GC-MS	E006
Soil	AR	Thiocyanate (as SCN)	Determination of thiocyanate by extraction in caustic soda followed by acidification followed by addition of ferric nitrate followed by colorimetry	E017
Soil	D	Toluene Extractable Matter (TEM)	Gravimetrically determined through extraction with toluene	E011
Soil	D	Total Organic Carbon (TOC)	Determination of organic matter by oxidising with potassium dichromate followed by titration with iron (II) sulphate	E010
Soil	AR	TPH CWG (ali: C5- C6, C6-C8, C8-C10, C10-C12, C12-C16, C16-C21, C21-C34, aro: C5-C7, C7-C8, C8-C10, C10-C12, C12-C16, C16-C21, C21-C35)	Determination of hexane/acetone extractable hydrocarbons by GC-FID fractionating with SPE cartridge for C8 to C35. C5 to C8 by headspace GC-MS	E004
Soil	AR	TPH LQM (ali: C5-C6, C6-C8, C8-C10, C10-C12, C12-C16, C16-C35, C35-C44, aro: C5-C7, C7-C8, C8-C10, C10-C12, C12-C16, C16-C21, C21-C35, C35-C44)	Determination of hexane/acetone extractable hydrocarbons by GC-FID fractionating with SPE cartridge for C8 to C44. C5 to C8 by headspace GC-MS	E004
Soil	AR	VOCs	Determination of volatile organic compounds by headspace GC-MS	E001
Soil	AR	VPH (C6-C8 & C8-C10)	Determination of hydrocarbons C6-C8 by headspace GC-MS & C8-C10 by GC-FID	E001

D Dried
AR As Received

APPENDIX `C'

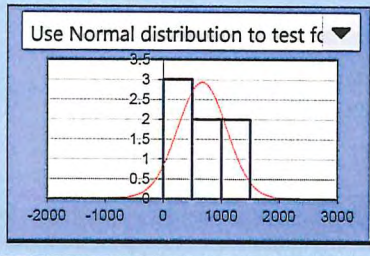
Statistical Analysis

Test Results

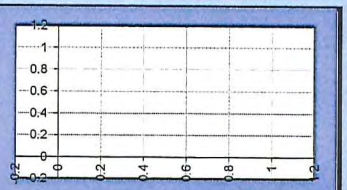
Client/client ref: 115-119 Goldhu Site ref:
Project ref: 16/24927 Data description:

Date: 03-May-2016
User details: A Davidson

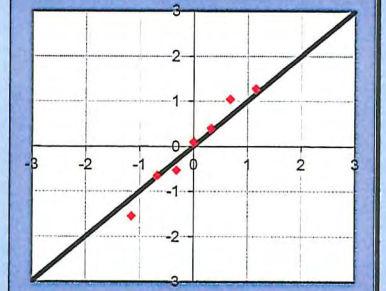
Dataset:	Pb
Sample mean, $\overline{x}$	667.71
Sample standard deviation, s	419.11
Sample size, n	7
Critical concentration, Cc	200



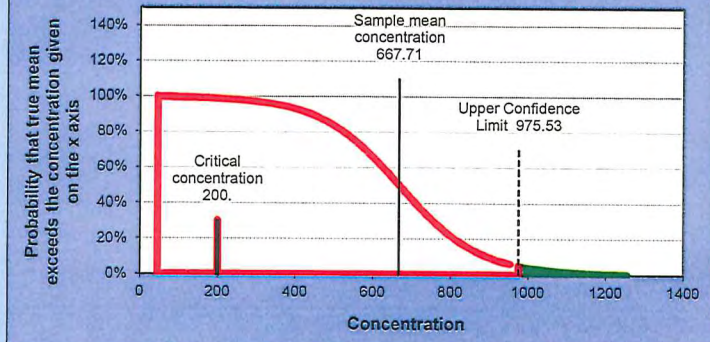
Outliers & non-detects	
Outliers present?	NO
Significance level	5%
Outliers removed?	0
Non-detects	0



Normality test	
Significance level:	5%
Normal distribution	
Use:	Auto: One-sample t-test



Test scenario:	Planning: is true mean lower than critical concentration (μ < Cc)?
Null hypothesis:	The true mean concentration is equal to or greater than the critical concentration: μ ≥ Cc
Alternative hypothesis:	The true mean concentration is less than the critical concentration: μ < Cc



Evidence against Null hypothesis:	1%
Base decision on:	evidence level
Evidence level required:	95%
Balance of probability?	N/A
Reject Null Hypothesis?	No
μ ≥ Cc	

Back to data | Back to summary | Go to outlier test | Go to normality test

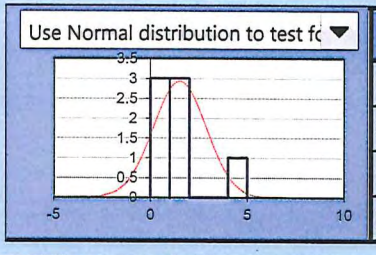
SAS Site Analytical Services Ltd.

Test Results

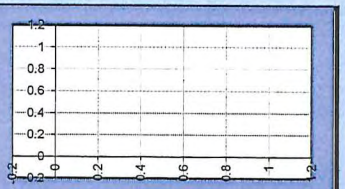
Client/client ref: 115-119 Goldhu Site ref:
Project ref: 16/24927 Data description:

Date: 03-May-2016
User details: A Davidson

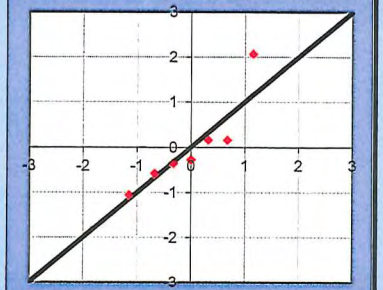
Dataset:	BbF
Sample mean, $\overline{x}$	1.5043
Sample standard deviation, s	1.3601
Sample size, n	7
Critical concentration, Cc	3.3



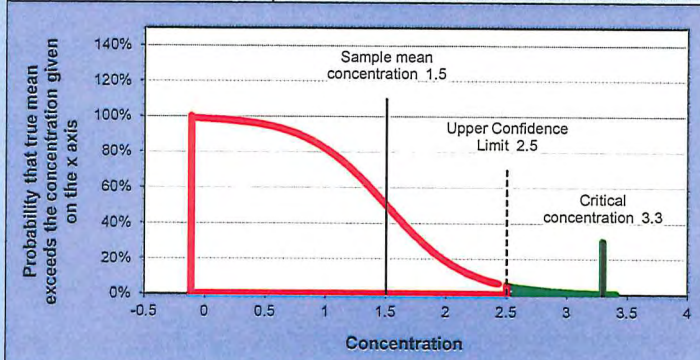
Outliers & non-detects	
Outliers present?	YES
Significance level	5%
Outliers removed?	0
Non-detects	1



Normality test	
Significance level:	5%
Normal distribution	
Use:	Auto: One-sample t-test



Test scenario:	Planning: is true mean lower than critical concentration (μ < Cc)?
Null hypothesis:	The true mean concentration is equal to or greater than the critical concentration: μ ≥ Cc
Alternative hypothesis:	The true mean concentration is less than the critical concentration: μ < Cc



Evidence against Null hypothesis:	99%
Base decision on:	evidence level
Evidence level required:	95%
Balance of probability?	N/A
Reject Null Hypothesis?	Yes

μ < Cc (re this dataset)

Back to data | Back to summary | Go to outlier test | Go to normality test

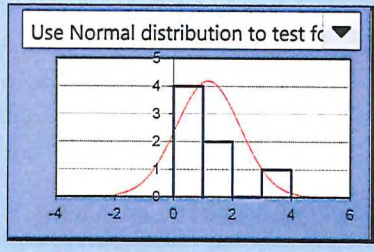
Site Analytical Services Ltd.

Test Results

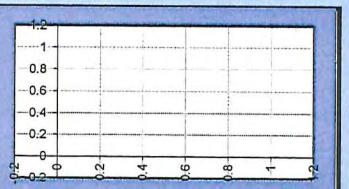
Client/client ref: 115-119 Goldhu Site ref:
Project ref: 16/24927 Data description:

Date: 03-May-2016
User details: A Davidson

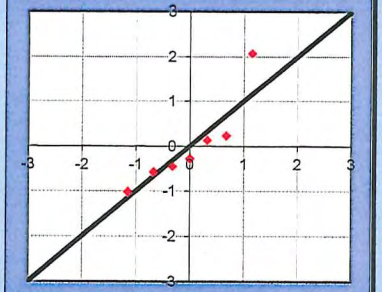
Dataset:	BaP
Sample mean, $\overline{x}$	1.17
Sample standard deviation, s	1.0854
Sample size, n	7
Critical concentration, Cc	2.7



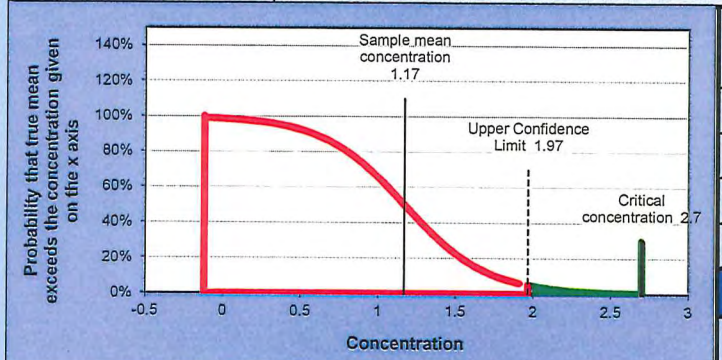
Outliers & non-detects	
Outliers present?	YES
Significance level	5%
Outliers removed?	0
Non-detects	1



Normality test	
Significance level:	5%
Normal distribution	
Use:	Auto: One-sample t-test



Test scenario:	Planning: is true mean lower than critical concentration (μ < Cc)?
Null hypothesis:	The true mean concentration is equal to or greater than the critical concentration: μ ≥ Cc
Alternative hypothesis:	The true mean concentration is less than the critical concentration: μ < Cc



Evidence against Null hypothesis:	100%
Base decision on:	evidence level
Evidence level required:	95%
Balance of probability?	N/A
Reject Null Hypothesis?	Yes

μ < Cc (re this dataset)

Back to data | Back to summary | Go to outlier test | Go to normality test

Site Analytical Services Ltd.

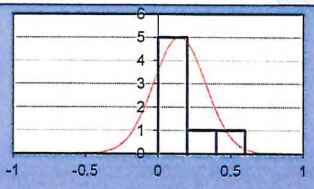
Test Results

Client/client ref: 115-119 Goldhu Site ref:
Project ref: 16/24927 Data description:

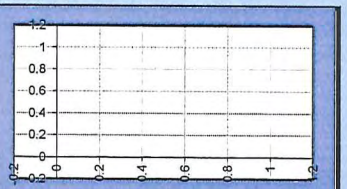
Date: 03-May-2016
User details: A Davidson

Dataset:	DahA
Sample mean, $\overline{x}$	0.1471
Sample standard deviation, s	0.1776
Sample size, n	7
Critical concentration, Cc	0.28

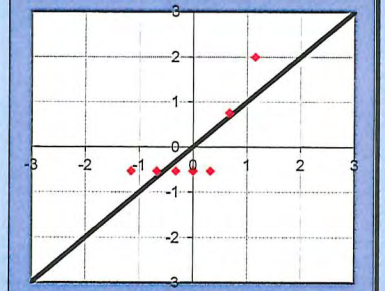
Use Normal distribution to test fc



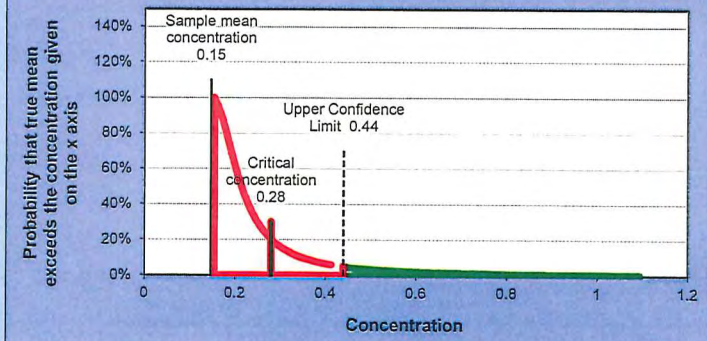
Outliers & non-detects	
Outliers present?	YES
Significance level	5%
Outliers removed?	0
Non-detects	5



Normality test	
Significance level:	5%
Non-normal distribution	
Use:	Auto: Chebychev



Test scenario:	Planning: is true mean lower than critical concentration (μ < Cc)?
Null hypothesis:	The true mean concentration is equal to or greater than the critical concentration: μ ≥ Cc
Alternative hypothesis:	The true mean concentration is less than the critical concentration: μ < Cc



Evidence against Null hypothesis:	80%
Base decision on:	evidence level
Evidence level required:	95%
Balance of probability?	N/A
Reject Null Hypothesis?	No

Not enough evidence

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