



NOTES

I. This drawing should not be scaled, only use annotated dimensions.

Hole ID	Easting	Northing	Level (mOD)
BH201	529074.30	529074.30	28.32
BH202	529072.64	182424.77	28.02
HP101	529015.15	182383.12	28.27
HP102	529043.21	182399.31	28.26
HP103	529063.98	182409.44	28.25
BH101	529044.69	182389.64	27.99

KEY

-  BH- Cable Percussion Borehole
-  TP - Trial Pit

No	Revision	Drawn	Checked	Passed	Date

CONCEPT SITE INVESTIGATIONS

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Tel: 020 8811 2880
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Client:	Lendlease/British Land Property Management Ltd		
Project:	Longford Place, 1 Triton Square		
Title:	Exploratory Hole Location Plan		
Dwg. No:	183086/00		
Status:	Issue		
Scale:	NTS		
Drawn AM	Checked OS	Passed IP	Date March 2018

8. CABLE PERCUSSION BOREHOLE LOGS

Project

Longford Place, 1 Triton Square

Job No

18/3086

Date Started

12/02/18

Date Completed

13/02/18

Ground Level (mOD)

28.32

Co-Ordinates

E 529074.3 N 529074.3

Final Depth

8.15m

Client

Lendlease/British Land Property Management Ltd

BOREHOLE SUMMARY

Top (m)	Base (m)	Type	Date Started	Date Ended	Crew	Logged By	Core Barrel (mm)	Core Bit	Plant Used/ Method	SPT Hammer Reference
0.00	1.20	IP	12/02/2018	12/02/2018	GM	JP			Hand Excavated	
1.20	8.15	CP	13/02/2018	13/02/2018	GM	JP			Dando 4000	WW1

WATER STRIKES

Strike at (m)	Rise to (m)	Time to Rise (min)	Casing Depth (m)	Sealed (m)

WATER ADDED

From (m)	To (m)
2.20	6.90

CHISELLING / SLOW DRILLING

From (m)	To (m)	Duration (hr)	Remarks

HOLE

Depth (m)	Diameter (mm)
0.00	150
8.15	150

CASING

Depth (m)	Diameter (mm)
0.00	150
7.50	150

ROTARY RECOVERY

From (m)	To (m)	Blows	Recovery (%)

ROTARY FLUSH DETAIL

From (m)	To (m)	Flush Type	Flush Return (%)	Flush Colour

INSTALLATION DETAILS

Type	Diameter (mm)	Depth of Installation (m)	Top of Response Zone (m)	Bottom of Response Zone (m)	Date of Installation
SPGW	50	7.20	4.20	7.20	13/02/2018

BACKFILL DETAILS

Top (m)	Bottom (m)	Material	Backfill Date
0.00	0.30	Concrete / Flush Cover	13/02/2018
0.30	4.20	Bentonite Pellets	
4.20	7.20	Pea Shingle	
7.20	8.15	Bentonite Pellets	

Project

Longford Place, 1 Triton Square

Job No 18/3086	Date Started 12/02/18	Ground Level (mOD) 28.32	Co-Ordinates E 529074.3 N 529074.3	Final Depth 8.15m
	Date Completed 13/02/18			

Client

Lendlease/British Land Property Management Ltd

PROGRESS					SPT DETAILS					
Date	Hole Depth (m)	Casing Depth (m)	Water Depth (m)	Remarks	Type	Depth (m)	N Value	Blow Count / 75mm	Casing Depth (m)	Water Depth (m)
12/02/18	0.00		Dry		S	1.70	N15	2, 2 / 2, 2, 4, 7	1.70	Dry
12/02/18	1.20		Dry		C	2.70	N50/0.285	2, 5 / 10, 12, 16, 12	2.70	2.50
13/02/18	1.20		Dry		C	3.70	N50/0.285	2, 4 / 8, 12, 15, 15	3.70	3.20
13/02/18	2.20	2.00	2.20	... Water Added	C	4.70	N40	2, 3 / 6, 8, 12, 14	4.70	4.00
13/02/18	2.70	2.70	2.50		C	5.70	N29	2, 3 / 6, 6, 8, 9	5.70	4.70
13/02/18	3.40	3.40	3.00		C	6.70	N19	2, 3 / 3, 4, 5, 7	6.70	5.80
13/02/18	3.70	3.70	3.20		S	7.70	N21	2, 3 / 5, 5, 5, 6	7.50	Dry
13/02/18	4.40	4.40	4.00							
13/02/18	5.40	5.40	4.20							
13/02/18	5.50	5.50	4.70							
13/02/18	6.40	6.40	5.20							
13/02/18	6.70	6.70	5.80							
13/02/18	7.30	7.30	Dry							
13/02/18	8.15	7.50	Dry							

GENERAL REMARKS

- UXO survey carried out at the following depth: 1.70m, 2.70m and 3.70m depth. Borehole collapsing at those depths and re-drilled.
- Borehole blowing in the gravels.

KEY

SAMPLES

- ES - Environmental Sample (Tub, Vial, Jar)
- U - 100mm Diameter Undisturbed Sample
- UT - 100mm Diameter Thin Wall Undisturbed Sample
- U38 - 38mm Diameter Undisturbed Sample
- D - Disturbed Sample, B-Bulk Sample, L-B- Large Bulk Sample, BLK-Block Sample
- C - Core Sample, W-Water Sample, R-Root Sample, P-Piston Sample

INSTALLATION DETAILS

- SPIE - Standpipe Piezometer
- SPGW - Groundwater Monitor Standpipe
- SPG/GW - Gas / Groundwater Monitor Standpipe
- VWP - Vibrating Wire Piezometer
- ICM - Inclinator
- HOLE TYPES
- IP - Inspection Pit, TP-Trial Pit TT - Trial Trench
- CP - Cable Percussion, RC-Rotary Coring, R/S-Rotary/Sonic
- DS - Dynamic Sampling, DS/R-Dynamic Sampling / Rotary
- DC - Diamond Coring, CPR-Cable Percussion Rotary follow on

TESTS S/C-SPT / CPT, V-Shear Vane, PP-Pocket Penetrometer, MP-Mackintosh Probe, VOC-Volatile Organic Compounds

Note: All depths are in metres, all diameters in millimetres, water strike rise time in minutes. For details of abbreviations see Key

Project

Longford Place, 1 Triton Square

Job No 18/3086	Date Started 12/02/18 Date Completed 13/02/18	Ground Level (mOD) 28.32	Co-Ordinates E 529074.3 N 529074.3	Final Depth 8.15m
Client Lendlease/British Land Property Management Ltd			Method/ Plant Used Cable Percussion	Sheet 1 of 1

PROGRESS			STRATA				SAMPLES & TESTS				Field Records	Instrument/ Backfill
Date	Casing	Water	Level (mOD)	Legend	Depth (Thickness)	Strata Description	Depth (m)	Type No	Test Result			
12/02/18		Dry				Dark brown slightly silty gravelly fine to medium SAND with rootlets. Gravel comprises fine to medium subangular to subrounded flint, brick ceramic, plastic and glass fragments. (MADE GROUND)	0.30 0.50	ES01 B02		... VOC 0.1ppm		
			27.46		0.86							
12/02/18 13/02/18		Dry Dry				Yellowish brown silty sandy GRAVEL. Gravel comprises subangular to subrounded fine to medium flint, brick, concrete, ceramic and metal fragments. Sand is fine to coarse. (MADE GROUND)	1.00 1.00	ES03 B04		... VOC 0.0ppm		
					(1.34)		1.70 1.70-2.15 2.00		N15 D05 ES06	2, 2 / 2, 2, 4, 7 ... VOC 0.0ppm		
13/02/18	2.00	2.20	26.12		2.20							
13/02/18	2.70	2.50				Very dense, yellowish brown silty sandy GRAVEL. Gravel is subangular to subrounded fine to coarse flint. (RIVER TERRACE DEPOSITS)	2.40-2.50 2.50 2.70	B07 ES08		... VOC 0.1ppm 2, 5 / 10, 12, 16, 12		
13/02/18	3.40	3.00					2.70-3.15	D09				
13/02/18	3.70	3.20					3.40 3.50 3.70	B10 ES11		... VOC 0.0ppm 2, 4 / 8, 12, 15, 15		
13/02/18	4.40	4.00					3.70-4.15	D12				
13/02/18	5.40	4.20					4.40 4.50 4.70	B13 ES14		... VOC 0.0ppm 2, 3 / 6, 8, 12, 14		
13/02/18	5.50	4.70				4.70 ... becoming dense	4.70-5.15	D15				
13/02/18	6.40	5.20					5.40 5.50 5.70	B16 ES17		... VOC 0.0ppm 2, 3 / 6, 6, 8, 9		
13/02/18	6.70	5.80					5.70-6.15	D18				
13/02/18	7.30	Dry	21.42		6.90		6.40 6.50 6.70	B19 ES20		... VOC 0.0ppm 2, 3 / 3, 4, 5, 7		
13/02/18	7.50	Dry	20.17		8.15		6.70-7.15	D21				
						Stiff, brownish grey slightly micaceous CLAY. (THAMES GROUP: LONDON CLAY FORMATION?)	7.30 7.40	ES22 B23		... VOC 0.0ppm		
							7.70 7.70-8.15	D24		N21 2, 3 / 5, 5, 5, 6		
						End of Borehole						

Project

Longford Place, 1 Triton Square

Job No 18/3086	Date Started 13/02/18 Date Completed 15/02/18	Ground Level (mOD) 28.02	Co-Ordinates E 529072.6 N 182424.8	Final Depth 8.15m
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Client

Lendlease/British Land Property Management Ltd

BOREHOLE SUMMARY

Top (m)	Base (m)	Type	Date Started	Date Ended	Crew	Logged By	Core Barrel (mm)	Core Bit	Plant Used/ Method	SPT Hammer Reference
0.00 1.20	1.20 8.15	IP CP	13/02/2018 14/02/2018	13/02/2018 14/02/2018	GM GM	JP JP			Hand Excavated Dando 4000	WW1

WATER STRIKES

WATER ADDED

CHISELLING / SLOW DRILLING

Strike at (m)	Rise to (m)	Time to Rise (min)	Casing Depth (m)	Sealed (m)	From (m)	To (m)	From (m)	To (m)	Duration (hr)	Remarks
					2.50	6.80				

HOLE

CASING

ROTARY RECOVERY

Depth (m)	Diameter (mm)	Depth (m)	Diameter (mm)	From (m)	To (m)	Blows	Recovery (%)
0.00 8.15	150 150	0.00 7.00	150 150				

ROTARY FLUSH DETAIL

From (m)	To (m)	Flush Type	Flush Return (%)	Flush Colour

INSTALLATION DETAILS

Type	Diameter (mm)	Depth of Installation (m)	Top of Response Zone (m)	Bottom of Response Zone (m)	Date of Installation
SPGW	50	7.00	4.00	7.00	15/02/2018

BACKFILL DETAILS

Top (m)	Bottom (m)	Material	Backfill Date
0.00 0.30 4.00 7.00	0.30 4.00 7.00 8.15	Concrete / Flush Cover Bentonite Pellets Pea Shingle Bentonite Pellets	15/02/2018

Project

Longford Place, 1 Triton Square

Job No 18/3086	Date Started 13/02/18	Ground Level (mOD) 28.02	Co-Ordinates E 529072.6 N 182424.8	Final Depth 8.15m
Date Completed 15/02/18				

Client

Lendlease/British Land Property Management Ltd

PROGRESS					SPT DETAILS					
Date	Hole Depth (m)	Casing Depth (m)	Water Depth (m)	Remarks	Type	Depth (m)	N Value	Blow Count / 75mm	Casing Depth (m)	Water Depth (m)
13/02/18	0.00		Dry		S	1.70	N17	2, 3 / 3, 3, 5, 6		Dry
13/02/18	1.20		Dry		C	2.70	N50/0.225	5, 8 / 14, 16, 20	2.70	2.00
14/02/18	1.20		Dry		C	3.70	N50	3, 6 / 9, 10, 14, 17	3.70	2.60
14/02/18	2.50	2.50	2.00	... Water Added	C	4.70	N50/0.21	6, 12 / 16, 19, 15	4.70	3.60
14/02/18	3.40	3.40	2.20		C	5.70	N36	2, 3 / 7, 9, 9, 11	5.70	4.40
14/02/18	3.70	3.70	2.60		C	6.70	N16	4, 4 / 3, 4, 4, 5	6.70	5.80
14/02/18	4.40	4.40	3.00		C	7.70	N16	2, 3 / 3, 4, 4, 5	7.00	Dry
14/02/18	4.50	4.50	3.20							
14/02/18	4.70	4.70	3.60							
14/02/18	5.40	5.40	4.00							
14/02/18	5.50	5.50	4.20							
14/02/18	5.70	5.70	4.40							
14/02/18	6.40	6.40	5.00							
14/02/18	6.50	6.50	5.50							
14/02/18	6.70	6.70	5.80							
14/02/18	7.30	7.00	Dry							
14/02/18	8.15	7.00	Dry							

GENERAL REMARKS

- UXO survey carried out at the following depth: 1.70m, 2.70m and 3.70m depth.
- Reinforced concrete encountered on SE side of inspection pit between 0.25m and 0.50m depth (Ø6mm rebar mesh 200mm spacing). Concrete broken out.
- Borehole blowing in the gravels.
- Water level before installation at 5.40m depth on 15/02/18.

KEY

SAMPLES

- ES - Environmental Sample (Tub, Vial, Jar)
- U - 100mm Diameter Undisturbed Sample
- UT - 100mm Diameter Thin Wall Undisturbed Sample
- U38 - 38mm Diameter Undisturbed Sample
- D - Disturbed Sample, B-Bulk Sample, LB- Large Bulk Sample, BLK-Block Sample
- C - Core Sample, W-Water Sample, R-Root Sample, P-Piston Sample

INSTALLATION DETAILS

- SPIE - Standpipe Piezometer
- SPGW - Groundwater Monitor Standpipe
- SPG/GW - Gas / Groundwater Monitor Standpipe
- VWP - Vibrating Wire Piezometer
- ICM - Inclinator
- HOLE TYPES
- IP - Inspection Pit, TP-Trial Pit TT - Trial Trench
- CP - Cable Percussion, RC-Rotary Coring, R/S-Rotary/Sonic
- DS - Dynamic Sampling, DS/R-Dynamic Sampling /Rotary
- DC - Diamond Coring, C/P-R-Cable Percussion Rotary follow on

TESTS S/C-SPT / CPT, V-Shear Vane, PP-Pocket Penetrometer, MP-Mackintosh Probe, VOC-Volatile Organic Compounds

Note: All depths are in metres, all diameters in millimetres, water strike rise time in minutes. For details of abbreviations see Key

Project

Longford Place, 1 Triton Square

Job No 18/3086	Date Started 13/02/18 Date Completed 15/02/18	Ground Level (mOD) 28.02	Co-Ordinates E 529072.6 N 182424.8	Final Depth 8.15m
Client Lendlease/British Land Property Management Ltd			Method/ Plant Used Cable Percussion	Sheet 1 of 1

PROGRESS			STRATA				SAMPLES & TESTS				Field Records	Instrument/ Backfill
Date	Casing	Water	Level (mOD)	Legend	Depth (Thickness)	Strata Description	Depth (m)	Type No	Test Result			
13/02/18		Dry	27.77		0.25	Pavement slab (0.08m) over yellowish brown silty fine to medium SAND. (MADE GROUND)	0.30	ES01		... VOC 0.1ppm		
							0.35			... Concrete encountered on SE side of pit between 0.25m and 0.55m depth		
							0.50	B02		... VOC 0.0ppm		
13/02/18		Dry				Greyish brown slightly gravelly silty fine to coarse SAND with occasional rootlets. Gravel comprises subangular to subrounded fine to coarse flint, brick, concrete and glass fragments. (MADE GROUND)	1.00	ES03				
14/02/18		Dry			(2.25)	0.28 ... with a plastic membrane						
							1.70		N17	2, 3 / 3, 3, 5, 6		
							1.70-2.15	D04		... VOC 0.0ppm		
							2.00	ES05				
14/02/18	2.50	2.00	25.52		2.50		2.40	B06		... VOC 0.0ppm		
							2.50	ES07		5, 8 / 14, 16, 20		
							2.70		N50/ 225 mm			
14/02/18	3.40	2.20				Very dense, yellowish brown slightly sandy GRAVEL. Gravel is subangular to subrounded fine to coarse flint. Sand is fine to coarse. (RIVER TERRACE DEPOSITS)	2.70-3.15	D08				
14/02/18	3.70	2.60					3.40	B09		... VOC 0.0ppm		
							3.50	ES10		3, 6 / 9, 10, 14, 17		
							3.70		N50			
							3.70-4.15	D11				
14/02/18	4.40	3.00					4.40	B12		... VOC 0.0ppm		
14/02/18	4.50	3.20					4.50	ES13		6, 12 / 16, 19, 15		
14/02/18	4.70	3.60			(4.30)		4.70		N50/ 210 mm			
							4.70-5.15	D14				
14/02/18	5.40	4.00					5.40	B15		... VOC 0.0ppm		
14/02/18	5.50	4.20					5.50	ES16		2, 3 / 7, 9, 9, 11		
14/02/18	5.70	4.40				5.70 ... becoming dense	5.70		N36			
							5.70-6.15	D17				
14/02/18	6.40	5.00					6.40	B18		... VOC 0.0ppm		
14/02/18	6.50	5.50					6.50	ES19		4, 4 / 3, 4, 4, 5		
14/02/18	6.70	5.80	21.22		6.80		6.70		N16			
							6.70-7.15	D20				
14/02/18	7.00	Dry			(1.35)	Stiff, brownish grey slightly micaceous CLAY. (THAMES GROUP: LONDON CLAY FORMATION?)	7.30	ES21		... VOC 0.0ppm		
							7.40	B22				
							7.70		N16	2, 3 / 3, 4, 4, 5		
							7.70-8.15	D23				
14/02/18	7.00	Dry	19.87		8.15	End of Borehole						

Southern Testing Laboratories
Keeble House
Stuart Way
East Grinstead
West Sussex
RH19 4QA

SPT Hammer Ref: WW1
Test Date: 11/09/2017
Report Date: 11/09/2017
File Name: WW1.spt
Test Operator: NPB

Instrumented Rod Data

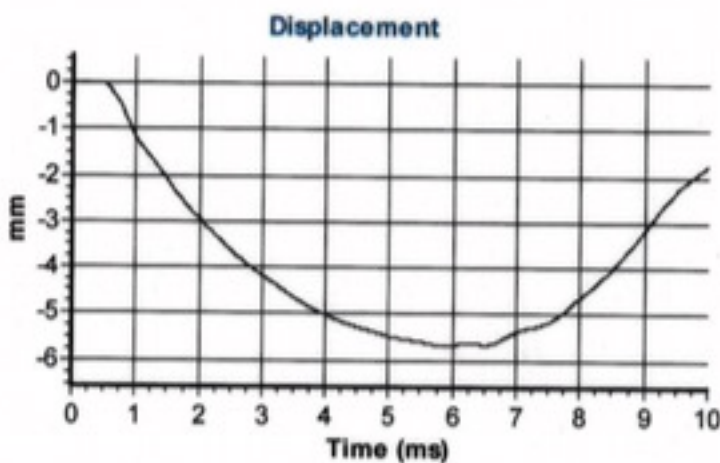
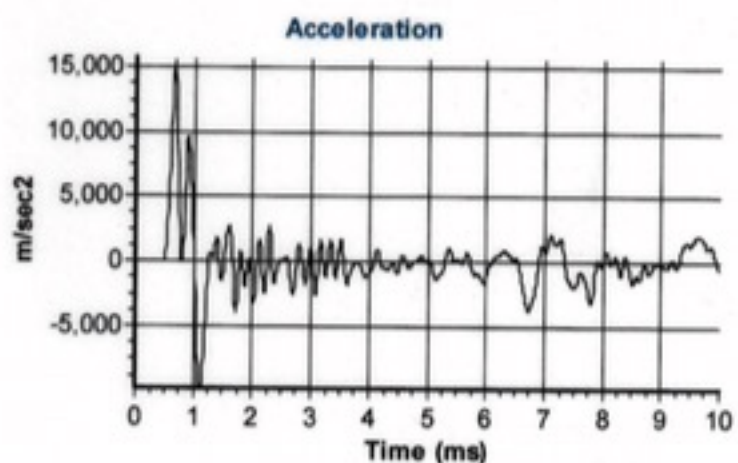
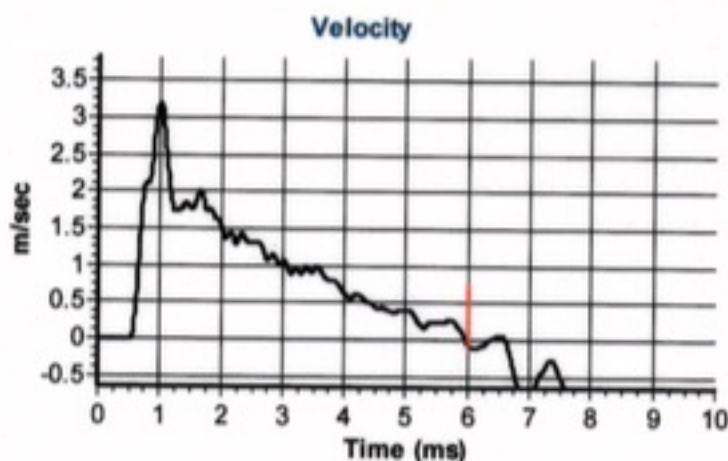
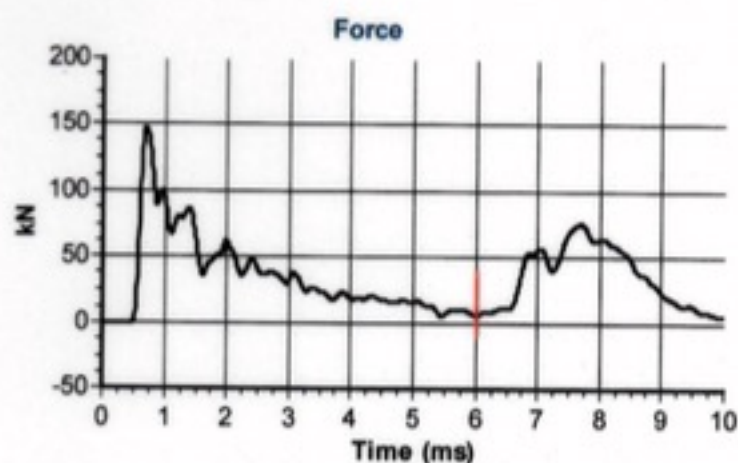
Diameter d_r (mm): 54
Wall Thickness t_r (mm): 6.0
Assumed Modulus E_a (GPa): 200
Accelerometer No.1: 6458
Accelerometer No.2: 9607

SPT Hammer Information

Hammer Mass m (kg): 63.5
Falling Height h (mm): 760
SPT String Length L (m): 14.5

Comments / Location


CHARLWOODS



Calculations

Area of Rod A (mm^2): 905
Theoretical Energy E_{theor} (J): 473
Measured Energy E_{meas} (J): 301

Energy Ratio E_r (%): **64**


Signed: Neil Burrows
Title: Field Operations Manager

The recommended calibration interval is 12 months

9. HAND EXCAVATED TRIAL PIT LOGS

Project

Longford Place, 1 Triton Square

Job No 18/3086	Date Started 14/02/18	Ground Level (mOD) 28.27	Co-Ordinates E 529015.2 N 182383.1	Final Depth 1.20m
Client Lendlease/British Land Property Management Ltd	Date Completed 14/02/18		Method/ Plant Used Hand Excavated	Sheet 1 of 1

STRATA					SAMPLES & TESTS			Field Records
Water	Level (mOD)	Legend	Depth (Thickness)	Strata Description	Depth	Type No	Test Result	
	28.07		0.20	Pavement slab (0.08m) over yellowish brown silty fine to medium SAND. (MADE GROUND)				
	27.99		0.28	Reinforced CONCRETE (Ø6mm rebar mesh).				
			(0.92)	Yellowish brown clayey sandy GRAVEL. Gravel comprises subangular to subrounded fine to coarse flint, brick and concrete fragments. Sand is fine to coarse. (MADE GROUND)	0.30	ES01	... VOC 0.0ppm	
					0.70	B02		
	27.07		1.20	End of Trial Pit	1.00	ES03	... VOC 0.0ppm	

GENERAL REMARKS

1. Weather was partially cloudy.
2. Pit was dry and stable.
3. Pit dimensions: 0.30m x 0.30m x 1.20m depth.
4. Pit backfilled with soil arisings and made up good upon completion.

Project

Longford Place, 1 Triton Square

Job No 18/3086	Date Started 14/02/18	Ground Level (mOD) 28.26	Co-Ordinates E 529043.2 N 182399.3	Final Depth 1.20m
Client Lendlease/British Land Property Management Ltd	Date Completed 14/02/18		Method/ Plant Used Hand Excavated	Sheet 1 of 1

STRATA					SAMPLES & TESTS			Field Records
Water	Level (mOD)	Legend	Depth (Thickness)	Strata Description	Depth	Type No	Test Result	
	28.06		0.20	Pavement slab (0.08m) over yellowish brown silty fine to medium SAND. (MADE GROUND)				
	27.98		0.28	0.20 ... with a plastic membrane CONCRETE.	0.30	ES01		... VOC 0.0ppm
	27.86		0.40	Dark brown silty gravelly fine to coarse SAND. Gravel comprises subangular to subrounded fine to coarse flint, brick and concrete fragments. (MADE GROUND)				
			(0.80)	Yellowish brown silty sandy GRAVEL. Gravel comprises subangular to subrounded fine to coarse flint and brick fragments. Sand is fine to coarse. (MADE GROUND)	0.70	B02		
	27.06		1.20		1.00	ES03		... VOC 0.0ppm
				End of Trial Pit				




GENERAL REMARKS

1. Weather was partially cloudy.
2. Pit was dry and stable.
3. Pit dimensions: 0.30m x 0.30m x 1.20m depth.
4. Pit backfilled with soil arisings and made up good upon completion.

Project

Longford Place, 1 Triton Square

Job No 18/3086	Date Started 13/02/18 Date Completed 13/02/18	Ground Level (mOD) 28.25	Co-Ordinates E 529064.0 N 182409.4	Final Depth 0.70m
Client Lendlease/British Land Property Management Ltd			Method/ Plant Used Hand Excavated	Sheet 1 of 1

STRATA					SAMPLES & TESTS			Field Records
Water	Level (mOD)	Legend	Depth (Thickness)	Strata Description	Depth	Type No	Test Result	
	28.15		(0.10) 0.10	Rubber surfacing (0.01m) over CONCRETE.				
	28.00		(0.15) 0.25	Greyish pink silty sandy GRAVEL. Gravel is subangular to subrounded fine to coarse igneous. (Type 1) (MADE GROUND)				
			(0.45)	Yellowish brown silty gravelly fine to coarse SAND with glass, porcelain and metal fragments. Gravel comprises subangular to subrounded fine to coarse flint, brick and concrete fragments. (MADE GROUND)	0.30	ES01		... VOC 0.0ppm
					0.50	B02		
	27.55		0.70	End of Trial Pit	0.70	ES03		... VOC 0.0ppm ... Pit was aborted at 0.70m depth (see Remarks)

GENERAL REMARKS

1. Weather was partially cloudy.
2. Pit was dry and stable.
3. Pit was aborted at 0.70m depth due to presence of concrete.
4. Pit dimensions: 0.30m x 0.30m x 0.70m depth.
5. Pit backfilled with soil arisings and made up good upon completion.

10. INSTRUMENTATION MONITORING RESULTS

Borehole	Depth of Installation (mbgl)	Date of Installation	Type	Top (mbgl)	Bottom (mbgl)	Date & Time	Water Level (mbgl)	Water Level (mOD)	Remarks
BH201	7.20	13/02/2018	SPGW	4.20	7.20	27/02/2018 11:37:00	5.70	22.62	
	7.20	13/02/2018	SPGW	4.20	7.20	06/03/2018 10:45:00	5.68	22.64	
BH202	7.00	15/02/2018	SPGW	4.00	7.00	27/02/2018 12:28:00	5.53	22.49	
	7.00	15/02/2018	SPGW	4.00	7.00	06/03/2018 09:50:00	5.53	22.49	

KEY

SPIE - Standpipe Piezometer
 SPGW - Groundwater Monitor Standpipe
 SPG/GW - Gas / Groundwater Monitor Standpipe
 VWP - Vibrating Wire Piezometer

CONCEPT

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GROUNDWATER MONITORING

Job No: 18/3086

Project: Longford Place, 1 Triton Square

Client: Lendlease/British Land Property Management Ltd

Borehole	Depth of Installation (mbgl)	Date of Installation	Type	Top (mbgl)	Bottom (mbgl)	Date & Time	Water Level (mbgl)	Water Level (mOD)	Remarks
BH101	2.40	13/04/2017	SPG/GW	1.00	2.40	28/04/2017 10:35:00	Dry		
	2.40	13/04/2017	SPG/GW	1.00	2.40	05/05/2017 11:10:00	Dry		
	2.40	13/04/2017	SPG/GW	1.00	2.40	11/05/2017 12:30:00	Dry		
	2.40	13/04/2017	SPG/GW	1.00	2.40	18/05/2017 10:32:00	Dry		
	2.40	13/04/2017	SPG/GW	1.00	2.40	27/02/2018 12:06:00	Dry		
	2.40	13/04/2017	SPG/GW	1.00	2.40	06/03/2018 09:33:00	Dry		
	7.85	13/04/2017	SPGW	3.40	7.85	26/04/2017 10:40:00	5.85	22.14	
	7.85	13/04/2017	SPGW	3.40	7.85	05/05/2017 11:15:00	5.76	22.23	
	7.85	13/04/2017	SPGW	3.40	7.85	11/05/2017 12:30:00	5.85	22.14	
	7.85	13/04/2017	SPGW	3.40	7.85	18/05/2017 10:30:00	5.85	22.14	
	7.85	13/04/2017	SPGW	3.40	7.85	27/02/2018 12:05:00	5.74	22.25	
	7.85	13/04/2017	SPGW	3.40	7.85	06/03/2018 09:32:00	5.72	22.27	
CH01	1.73	26/04/2017	SPIE	0.50	1.73	03/05/2017 10:27:00	1.03	22.04	
	1.73	26/04/2017	SPIE	0.50	1.73	05/05/2017 10:00:00	1.01	22.06	
	1.73	26/04/2017	SPIE	0.50	1.73	11/05/2017 13:14:00	0.95	22.12	
	1.73	26/04/2017	SPIE	0.50	1.73	18/05/2017 10:51:00	1.01	22.06	
CH02	2.13	21/04/2017	SPIE	0.51	2.13	03/05/2017 10:20:00	0.79	22.28	
	2.13	21/04/2017	SPIE	0.51	2.13	05/05/2017 09:11:00	0.77	22.30	
	2.13	21/04/2017	SPIE	0.51	2.13	11/05/2017 13:35:00	0.78	22.29	
	2.13	21/04/2017	SPIE	0.51	2.13	18/05/2017 10:53:00	0.76	22.31	
CH03	2.05	26/04/2017	SPIE	0.62	2.05	03/05/2017 10:00:00	0.67	22.40	
	2.05	26/04/2017	SPIE	0.62	2.05	05/05/2017 08:23:00	0.69	22.38	
	2.05	26/04/2017	SPIE	0.62	2.05	11/05/2017 13:52:00	0.64	22.43	
	2.05	26/04/2017	SPIE	0.62	2.05	18/05/2017 10:59:00	0.64	22.43	

KEY

SPIE - Standpipe Piezometer
 SPGW - Groundwater Monitor Standpipe
 SPG/GW - Gas / Groundwater Monitor Standpipe
 VWP - Vibrating Wire Piezometer

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AGS

**GROUNDWATER MONITORING**

Job No: 17/2961

Project: 1 Triton Square, Ground Investigation, Phase 1

Client: British Land

[illegible]

[illegible]

[illegible]

[illegible]

[illegible]

[illegible]

11. GEOTECHNICAL LABORATORY TEST RESULTS

CONCEPT SITE INVESTIGATIONS

PARTICLE SIZE DISTRIBUTION

TEST REPORT

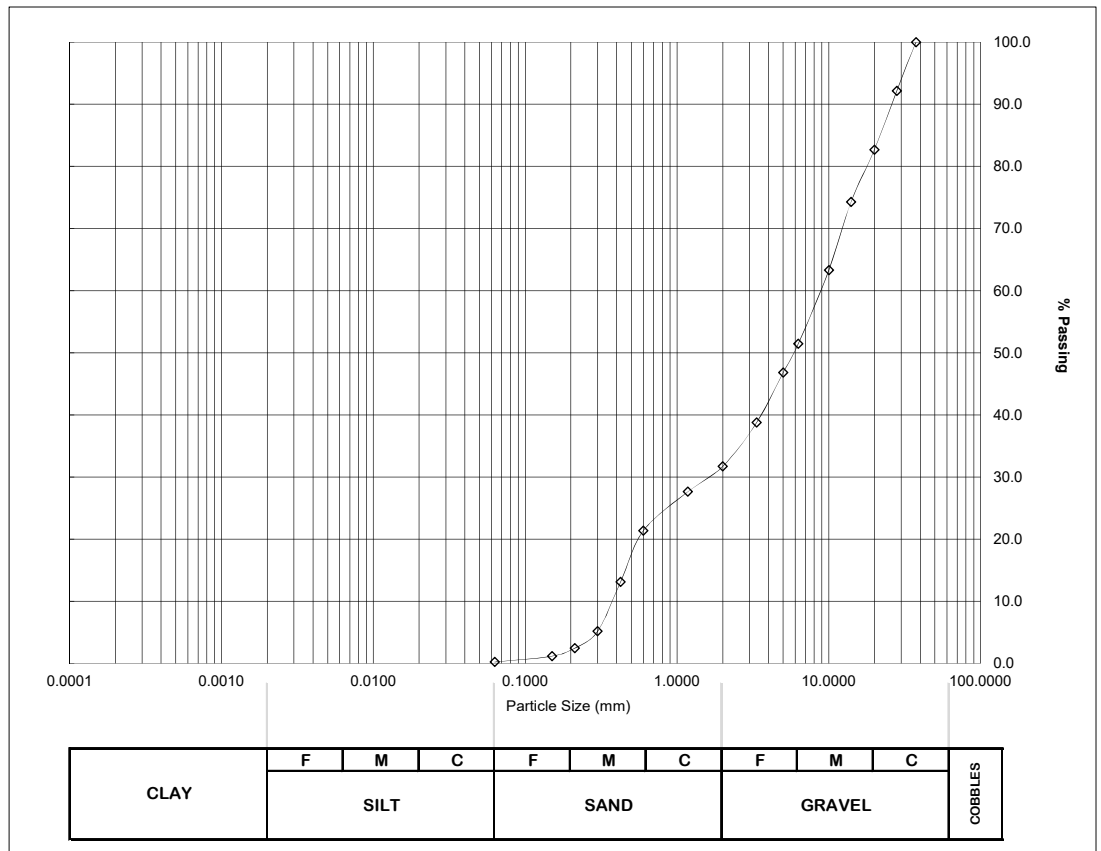
Site Name:	Triton Square	Job Number:	18/3086
Client:	Lendlease/British Land Property Management Ltd	Date Reported:	12/03/2018
Borehole No:	BH201	Sample Type/No.	B 07
		Top Depth:	2.40 m
		Bottom Depth:	2.50 m

Soil Description:

Orangish brown very sandy subangular to well rounded fine to coarse flint GRAVEL

BS Test Sieves	
Size (mm)	% Passing
75.000	100
63.000	100
50.000	100
37.500	100
28.000	92
20.000	83
14.000	74
10.000	63
6.300	51
5.000	47
3.350	39
2.000	32
1.180	28
0.600	21
0.425	13
0.300	5
0.212	2
0.150	1
0.063	0

Sedimentation (*if applicable)	
Size (mm)	% Passing
0.020	
0.006	
0.002	



Method/type:	Dry Sieving
--------------	-------------

BS 1377: Part 2: Clause 9.3: 1990 Determination of particle size distribution - dry sieving method.

Particle Proportions %	
Cobbles	
Gravel	68.3
Sand	31.5
Silt and Clay	0.2



Remarks:

Date - samples received:	16/02/2018	Checked by:	KM	CONCEPT 47-49 Brunel Road, London W3 7XR Tel: 02087401553 Email: lab@conceptconsultants.co.uk
Date - samples tested:	07/03/2018	Date:	09/03/2018	
Approved Signatories: L Griffin LG (Quality Mngr) – K Mazerant KM (Lab Mngr)				

CONCEPT SITE INVESTIGATIONS

PARTICLE SIZE DISTRIBUTION

TEST REPORT

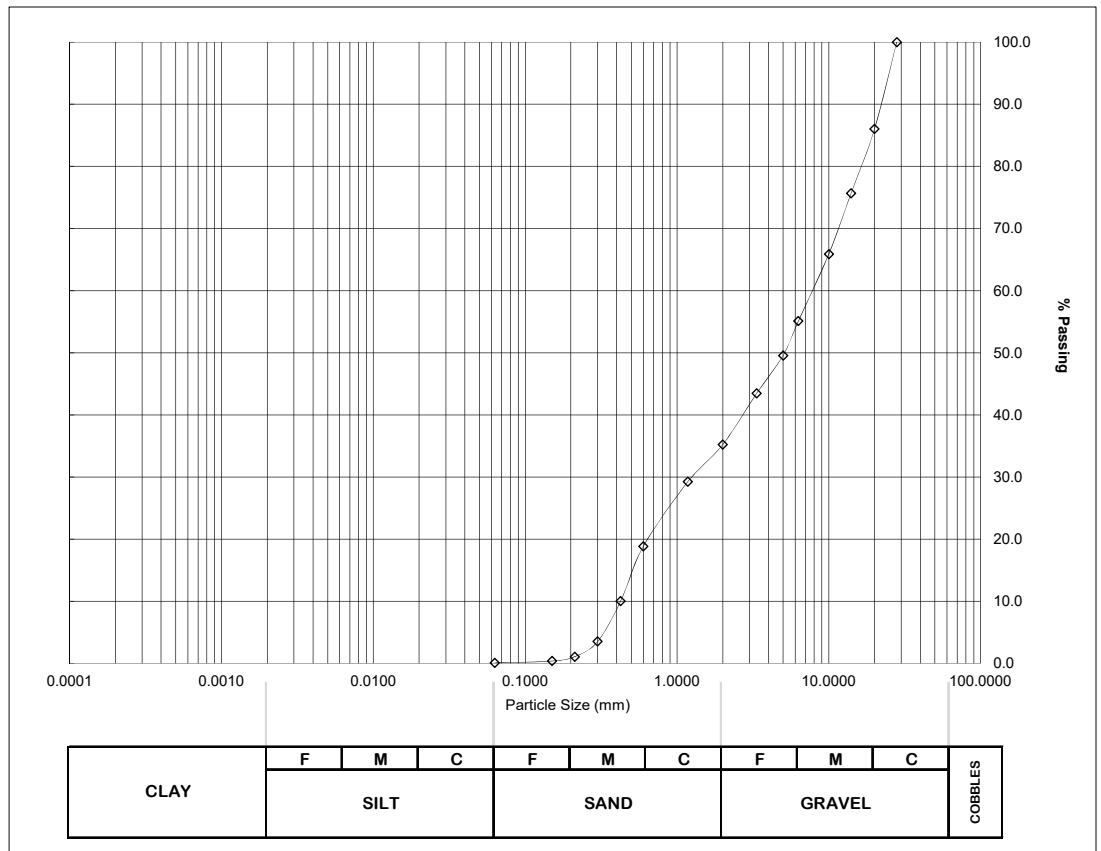
Site Name:	Triton Square	Job Number:	18/3086
Client:	Lendlease/British Land Property Management Ltd	Date Reported:	12/03/2018
Borehole No:	BH201	Sample Type/No.	B 16
		Top Depth:	5.40 m
		Bottom Depth:	m

Soil Description:

Light brown very sandy subangular to well rounded fine to coarse flint GRAVEL

BS Test Sieves	
Size (mm)	% Passing
75.000	100
63.000	100
50.000	100
37.500	100
28.000	100
20.000	86
14.000	76
10.000	66
6.300	55
5.000	50
3.350	43
2.000	35
1.180	29
0.600	19
0.425	10
0.300	4
0.212	1
0.150	0
0.063	0

Sedimentation (*if applicable)	
Size (mm)	% Passing
0.020	
0.006	
0.002	



Method/type:	Dry Sieving
--------------	-------------

BS 1377: Part 2: Clause 9.3: 1990 Determination of particle size distribution - dry sieving method.

Particle Proportions %	
Cobbles	
Gravel	64.8
Sand	35.1
Silt and Clay	0.1



Remarks:

Date - samples received:	16/02/2018	Checked by:	KM	CONCEPT 47-49 Brunel Road, London W3 7XR Tel: 02087401553 Email: lab@conceptconsultants.co.uk
Date - samples tested:	07/03/2018	Date:	09/03/2018	
Approved Signatories: L Griffin LG (Quality Mngr) – K Mazerant KM (Lab Mngr)				



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Analytical Report Number : 18-78213

Replaces Analytical Report Number : 18-78213, issue no. 1

Project / Site name:	Triton Square	Samples received on:	07/03/2018
Your job number:	18-3086	Samples instructed on:	07/03/2018
Your order number:	L1706	Analysis completed by:	14/03/2018
Report Issue Number:	2	Report issued on:	14/03/2018
Samples Analysed:	2 soil samples		

Signed: 

Jordan Hill
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: 18-78213

Project / Site name: Triton Square

Your Order No: L1706

Lab Sample Number				920593	920594			
Sample Reference				BH201	BH201			
Sample Number				04	09			
Depth (m)				1.00	2.70-3.15			
Date Sampled				06/03/2018	06/03/2018			
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	%	N/A	NONE	12	6.3			
Total mass of sample received	kg	0.001	NONE	0.77	0.33			

General Inorganics

pH - Automated	pH Units	N/A	MCERTS	8.5	8.2			
Total Sulphate as SO ₄	%	0.005	MCERTS	0.114	0.025			
Water Soluble SO ₄ 16hr extraction (2:1 Leachate Equivalent)	g/l	0.00125	MCERTS	0.052	0.026			
Water Soluble SO ₄ 16hr extraction (2:1 Leachate Equivalent)	mg/l	1.25	MCERTS	52.3	26.0			
Water Soluble Chloride (2:1) (leachate equivalent)	mg/l	0.5	MCERTS	8.9	5.6			
Total Sulphur	%	0.005	MCERTS	0.053	0.009			
Water Soluble Nitrate (2:1) as N (leachate equivalent)	mg/l	2	NONE	2.8	< 2.0			

Heavy Metals / Metalloids

Magnesium (water soluble)	mg/kg	5	NONE	8.8	< 5.0			
Magnesium (leachate equivalent)	mg/l	2.5	NONE	4.4	< 2.5			



Analytical Report Number : 18-78213

Project / Site name: Triton Square

* 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 *
920593	BH201	04	1.00	Brown loam and sand with gravel and vegetation.
920594	BH201	09	2.70-3.15	Light brown sand with gravel.

Analytical Report Number : 18-78213

Project / Site name: Triton Square

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

Analytical Test Name	Analytical Method Description	Analytical Method Reference	Method number	Wet / Dry Analysis	Accreditation Status
Chloride, water soluble, in soil	Determination of Chloride colorimetrically by discrete analyser.	In-house method based on BS1377 Part 3, 1990, Chemical and Electrochemical Tests. 2:1 extraction.	L082-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.	In-house method based on BS1377 Part 2, 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 (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 based on BS1377 Part 3, 1990, Chemical and Electrochemical Tests, 2:1 water:soil extraction, analysis by ICP-OES.	L038-PL	D	MCERTS
Total Sulphate in soil as %	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	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 based on BS1377 Part 3, 1990, and MEWAM 2006 Methods for the Determination of Metals in Soil	L038	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 Wastewater & Polish Standard Method PN-82/C-04579.08, 2:1 extraction.	L078-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.

12. CHEMICAL LABORATORY TEST RESULTS

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Analytical Report Number : 18-76209

Project / Site name:	1 Triton Square	Samples received on:	13/02/2018
Your job number:	18-3086	Samples instructed on:	15/02/2018
Your order number:	CL1288	Analysis completed by:	22/02/2018
Report Issue Number:	1	Report issued on:	22/02/2018
Samples Analysed:	5 soil samples		

Signed:

Jordan Hill
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: 18-76209

Project / Site name: 1 Triton Square

Your Order No: CL1288

Lab Sample Number				909152	909153	909154	909155	909156
Sample Reference				BH201	BH201	BH201	BH202	BH202
Sample Number				None Supplied	None Supplied	None Supplied	None Supplied	None Supplied
Depth (m)				0.30	1.00	2.50	0.30	1.00
Date Sampled				12/02/2018	12/02/2018	13/02/2018	13/02/2018	13/02/2018
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	20	6.6	8.1	11	12
Total mass of sample received	kg	0.001	NONE	1.4	1.6	1.9	1.4	1.4

Asbestos in Soil Screen / Identification Name	Type	N/A	ISO 17025	Chrysotile	-	-	Chrysotile	-
Asbestos in Soil	Type	N/A	ISO 17025	Detected	Not-detected	-	Detected	Not-detected
Asbestos Quantification (Stage 2)	%	0.001	ISO 17025	< 0.001	-	-	< 0.001	-
Asbestos Quantification Total	%	0.001	ISO 17025	< 0.001	-	-	< 0.001	-

General Inorganics

pH - Automated	pH Units	N/A	MCERTS	8.4	9.0	8.8	10.8	8.9
Total Cyanide	mg/kg	1	MCERTS	< 1	< 1	< 1	< 1	< 1
Total Organic Carbon (TOC)	%	0.1	MCERTS	4.8	0.6	< 0.1	0.7	0.4

Total Phenols

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

Naphthalene	mg/kg	0.05	MCERTS	0.18	< 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	< 0.05	< 0.05	-	< 0.05	< 0.05
Fluorene	mg/kg	0.05	MCERTS	< 0.05	< 0.05	-	< 0.05	< 0.05
Phenanthrene	mg/kg	0.05	MCERTS	1.1	0.48	-	< 0.05	< 0.05
Anthracene	mg/kg	0.05	MCERTS	0.26	< 0.05	-	< 0.05	< 0.05
Fluoranthene	mg/kg	0.05	MCERTS	2.7	1.0	-	< 0.05	< 0.05
Pyrene	mg/kg	0.05	MCERTS	2.3	0.92	-	< 0.05	< 0.05
Benzo(a)anthracene	mg/kg	0.05	MCERTS	1.5	0.70	-	< 0.05	< 0.05
Chrysene	mg/kg	0.05	MCERTS	1.6	0.51	-	< 0.05	< 0.05
Benzo(b)fluoranthene	mg/kg	0.05	MCERTS	2.3	0.84	-	< 0.05	< 0.05
Benzo(k)fluoranthene	mg/kg	0.05	MCERTS	1.1	0.44	-	< 0.05	< 0.05
Benzo(a)pyrene	mg/kg	0.05	MCERTS	2.0	0.80	-	< 0.05	< 0.05
Indeno(1,2,3-cd)pyrene	mg/kg	0.05	MCERTS	1.0	0.41	-	< 0.05	< 0.05
Dibenz(a,h)anthracene	mg/kg	0.05	MCERTS	0.19	< 0.05	-	< 0.05	< 0.05
Benzo(ghi)perylene	mg/kg	0.05	MCERTS	1.1	0.49	-	< 0.05	< 0.05

Total PAH

Speciated Total EPA-16 PAHs	mg/kg	0.8	MCERTS	17.1	6.63	-	< 0.80	< 0.80
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Heavy Metals / Metalloids

Antimony (aqua regia extractable)	mg/kg	1	ISO 17025	3.7	3.1	< 1.0	14	2.6
Arsenic (aqua regia extractable)	mg/kg	1	MCERTS	16	10	11	25	12
Beryllium (aqua regia extractable)	mg/kg	0.06	MCERTS	0.92	0.66	0.68	1.3	0.98
Boron (water soluble)	mg/kg	0.2	MCERTS	2.2	1.1	0.4	2.1	1.3
Cadmium (aqua regia extractable)	mg/kg	0.2	MCERTS	0.3	< 0.2	< 0.2	< 0.2	< 0.2
Chromium (aqua regia extractable)	mg/kg	1	MCERTS	28	21	18	33	27
Copper (aqua regia extractable)	mg/kg	1	MCERTS	64	63	8.5	400	31
Lead (aqua regia extractable)	mg/kg	1	MCERTS	210	130	12	620	130
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	24	17	16	31	20
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	33	31	54	48
Zinc (aqua regia extractable)	mg/kg	1	MCERTS	190	96	22	240	48

Analytical Report Number: 18-76209

Project / Site name: 1 Triton Square

Your Order No: CL1288

Lab Sample Number	909152	909153	909154	909155	909156
Sample Reference	BH201	BH201	BH201	BH202	BH202
Sample Number	None Supplied	None Supplied	None Supplied	None Supplied	None Supplied
Depth (m)	0.30	1.00	2.50	0.30	1.00
Date Sampled	12/02/2018	12/02/2018	13/02/2018	13/02/2018	13/02/2018
Time Taken	None Supplied	None Supplied	None Supplied	None Supplied	None Supplied
Analytical Parameter (Soil Analysis)	Units	Limit of detection	Accreditation Status		

Monoaromatics

Benzene	ug/kg	1	MCERTS	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Toluene	ug/kg	1	MCERTS	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Ethylbenzene	ug/kg	1	MCERTS	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
p & m-xylene	ug/kg	1	MCERTS	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
o-xylene	ug/kg	1	MCERTS	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
MTBE (Methyl Tertiary Butyl Ether)	ug/kg	1	MCERTS	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0

Petroleum Hydrocarbons

Petroleum Range Organics (C6 - C10)	mg/kg	0.1	MCERTS	< 0.1	< 0.1	-	< 0.1	< 0.1
Mineral Oil (C10 - C40)	mg/kg	10	NONE	< 10	< 10	-	< 10	< 10

TPH C10 - C40	mg/kg	10	MCERTS	25	31	-	< 10	< 10
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TPH-CWG - Aliphatic >EC5 - EC6	mg/kg	0.001	MCERTS	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
TPH-CWG - Aliphatic >EC6 - EC8	mg/kg	0.001	MCERTS	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
TPH-CWG - Aliphatic >EC8 - EC10	mg/kg	0.001	MCERTS	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
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	< 8.0	< 8.0	< 8.0	< 8.0
TPH-CWG - Aliphatic > EC35 - EC44	mg/kg	8.4	NONE	< 8.4	< 8.4	< 8.4	< 8.4	< 8.4
TPH-CWG - Aliphatic (EC5 - EC35)	mg/kg	10	MCERTS	< 10	< 10	< 10	< 10	< 10
TPH-CWG - Aliphatic (EC5 - EC44)	mg/kg	10	NONE	< 10	< 10	< 10	< 10	< 10

TPH-CWG - Aromatic >EC5 - EC7	mg/kg	0.001	MCERTS	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
TPH-CWG - Aromatic >EC7 - EC8	mg/kg	0.001	MCERTS	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
TPH-CWG - Aromatic >EC8 - EC10	mg/kg	0.001	MCERTS	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
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	2.3	3.4	< 2.0	< 2.0	< 2.0
TPH-CWG - Aromatic >EC16 - EC21	mg/kg	10	MCERTS	11	< 10	< 10	< 10	< 10
TPH-CWG - Aromatic >EC21 - EC35	mg/kg	10	MCERTS	12	< 10	< 10	< 10	< 10
TPH-CWG - Aromatic > EC35 - EC44	mg/kg	8.4	NONE	< 8.4	< 8.4	< 8.4	< 8.4	< 8.4
TPH-CWG - Aromatic (EC5 - EC35)	mg/kg	10	MCERTS	25	17	< 10	< 10	< 10
TPH-CWG - Aromatic (EC5 - EC44)	mg/kg	10	NONE	25	17	< 10	< 10	< 10

TPH (C8 - C10)	mg/kg	0.1	MCERTS	< 0.1	< 0.1	-	< 0.1	< 0.1
TPH (C8 - C40)	mg/kg	10	NONE	25	31	-	< 10	< 10

TPH (C10 - C25)	mg/kg	10	MCERTS	18	16	-	< 10	< 10
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Analytical Report Number: 18-76209

Project / Site name: 1 Triton Square

Your Order No: CL1288

Lab Sample Number				909152	909153	909154	909155	909156
Sample Reference				BH201	BH201	BH201	BH202	BH202
Sample Number				None Supplied	None Supplied	None Supplied	None Supplied	None Supplied
Depth (m)				0.30	1.00	2.50	0.30	1.00
Date Sampled				12/02/2018	12/02/2018	13/02/2018	13/02/2018	13/02/2018
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	-	< 1.0	< 1.0
Chloroethane	µg/kg	1	NONE	< 1.0	< 1.0	-	< 1.0	< 1.0
Bromomethane	µg/kg	1	ISO 17025	< 1.0	< 1.0	-	< 1.0	< 1.0
Vinyl Chloride	µg/kg	1	NONE	< 1.0	< 1.0	-	< 1.0	< 1.0
Trichlorofluoromethane	µg/kg	1	NONE	< 1.0	< 1.0	-	< 1.0	< 1.0
1,1-Dichloroethene	µg/kg	1	NONE	< 1.0	< 1.0	-	< 1.0	< 1.0
1,1,2-Trichloro 1,2,2-Trifluoroethane	µg/kg	1	ISO 17025	< 1.0	< 1.0	-	< 1.0	< 1.0
Cis-1,2-dichloroethene	µg/kg	1	MCERTS	< 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
1,1-Dichloroethane	µg/kg	1	MCERTS	< 1.0	< 1.0	-	< 1.0	< 1.0
2,2-Dichloropropane	µg/kg	1	MCERTS	< 1.0	< 1.0	-	< 1.0	< 1.0
Trichloromethane	µg/kg	1	MCERTS	< 1.0	< 1.0	-	< 1.0	< 1.0
1,1,1-Trichloroethane	µg/kg	1	MCERTS	< 1.0	< 1.0	-	< 1.0	< 1.0
1,2-Dichloroethane	µg/kg	1	MCERTS	< 1.0	< 1.0	-	< 1.0	< 1.0
1,1-Dichloropropene	µg/kg	1	MCERTS	< 1.0	< 1.0	-	< 1.0	< 1.0
Trans-1,2-dichloroethene	µg/kg	1	NONE	< 1.0	< 1.0	-	< 1.0	< 1.0
Benzene	µg/kg	1	MCERTS	< 1.0	< 1.0	-	< 1.0	< 1.0
Tetrachloromethane	µg/kg	1	MCERTS	< 1.0	< 1.0	-	< 1.0	< 1.0
1,2-Dichloropropane	µg/kg	1	MCERTS	< 1.0	< 1.0	-	< 1.0	< 1.0
Trichloroethene	µg/kg	1	MCERTS	< 1.0	< 1.0	-	< 1.0	< 1.0
Dibromomethane	µg/kg	1	MCERTS	< 1.0	< 1.0	-	< 1.0	< 1.0
Bromodichloromethane	µg/kg	1	MCERTS	< 1.0	< 1.0	-	< 1.0	< 1.0
Cis-1,3-dichloropropene	µg/kg	1	ISO 17025	< 1.0	< 1.0	-	< 1.0	< 1.0
Trans-1,3-dichloropropene	µg/kg	1	ISO 17025	< 1.0	< 1.0	-	< 1.0	< 1.0
Toluene	µg/kg	1	MCERTS	< 1.0	< 1.0	-	< 1.0	< 1.0
1,1,2-Trichloroethane	µg/kg	1	MCERTS	< 1.0	< 1.0	-	< 1.0	< 1.0
1,3-Dichloropropane	µg/kg	1	ISO 17025	< 1.0	< 1.0	-	< 1.0	< 1.0
Dibromochloromethane	µg/kg	1	ISO 17025	< 1.0	< 1.0	-	< 1.0	< 1.0
Tetrachloroethene	µg/kg	1	NONE	< 1.0	< 1.0	-	< 1.0	< 1.0
1,2-Dibromoethane	µg/kg	1	ISO 17025	< 1.0	< 1.0	-	< 1.0	< 1.0
Chlorobenzene	µg/kg	1	MCERTS	< 1.0	< 1.0	-	< 1.0	< 1.0
1,1,1,2-Tetrachloroethane	µg/kg	1	MCERTS	< 1.0	< 1.0	-	< 1.0	< 1.0
Ethylbenzene	µg/kg	1	MCERTS	< 1.0	< 1.0	-	< 1.0	< 1.0
p & m-Xylene	µg/kg	1	MCERTS	< 1.0	< 1.0	-	< 1.0	< 1.0
Styrene	µg/kg	1	MCERTS	< 1.0	< 1.0	-	< 1.0	< 1.0
Tribromomethane	µg/kg	1	NONE	< 1.0	< 1.0	-	< 1.0	< 1.0
o-Xylene	µg/kg	1	MCERTS	< 1.0	< 1.0	-	< 1.0	< 1.0
1,1,2,2-Tetrachloroethane	µg/kg	1	MCERTS	< 1.0	< 1.0	-	< 1.0	< 1.0
Isopropylbenzene	µg/kg	1	MCERTS	< 1.0	< 1.0	-	< 1.0	< 1.0
Bromobenzene	µg/kg	1	MCERTS	< 1.0	< 1.0	-	< 1.0	< 1.0
n-Propylbenzene	µg/kg	1	ISO 17025	< 1.0	< 1.0	-	< 1.0	< 1.0
2-Chlorotoluene	µg/kg	1	MCERTS	< 1.0	< 1.0	-	< 1.0	< 1.0
4-Chlorotoluene	µg/kg	1	MCERTS	< 1.0	< 1.0	-	< 1.0	< 1.0
1,3,5-Trimethylbenzene	µg/kg	1	ISO 17025	< 1.0	< 1.0	-	< 1.0	< 1.0
tert-Butylbenzene	µg/kg	1	MCERTS	< 1.0	< 1.0	-	< 1.0	< 1.0
1,2,4-Trimethylbenzene	µg/kg	1	ISO 17025	< 1.0	< 1.0	-	< 1.0	< 1.0
sec-Butylbenzene	µg/kg	1	MCERTS	< 1.0	< 1.0	-	< 1.0	< 1.0
1,3-Dichlorobenzene	µg/kg	1	ISO 17025	< 1.0	< 1.0	-	< 1.0	< 1.0
p-Isopropyltoluene	µg/kg	1	ISO 17025	< 1.0	< 1.0	-	< 1.0	< 1.0
1,2-Dichlorobenzene	µg/kg	1	MCERTS	< 1.0	< 1.0	-	< 1.0	< 1.0
1,4-Dichlorobenzene	µg/kg	1	MCERTS	< 1.0	< 1.0	-	< 1.0	< 1.0
Butylbenzene	µg/kg	1	MCERTS	< 1.0	< 1.0	-	< 1.0	< 1.0
1,2-Dibromo-3-chloropropane	µg/kg	1	ISO 17025	< 1.0	< 1.0	-	< 1.0	< 1.0
1,2,4-Trichlorobenzene	µg/kg	1	MCERTS	< 1.0	< 1.0	-	< 1.0	< 1.0
Hexachlorobutadiene	µg/kg	1	MCERTS	< 1.0	< 1.0	-	< 1.0	< 1.0
1,2,3-Trichlorobenzene	µg/kg	1	ISO 17025	< 1.0	< 1.0	-	< 1.0	< 1.0



Analytical Report Number: 18-76209

Project / Site name: 1 Triton Square

Your Order No: CL1288

Lab Sample Number	909152	909153	909154	909155	909156
Sample Reference	BH201	BH201	BH201	BH202	BH202
Sample Number	None Supplied	None Supplied	None Supplied	None Supplied	None Supplied
Depth (m)	0.30	1.00	2.50	0.30	1.00
Date Sampled	12/02/2018	12/02/2018	13/02/2018	13/02/2018	13/02/2018
Time Taken	None Supplied	None Supplied	None Supplied	None Supplied	None Supplied
Analytical Parameter (Soil Analysis)	Units	Limit of detection	Accreditation Status		

SVOCs								
Aniline	mg/kg	0.1	NONE	< 0.1	< 0.1	-	< 0.1	< 0.1
Phenol	mg/kg	0.2	ISO 17025	< 0.2	< 0.2	-	< 0.2	< 0.2
2-Chlorophenol	mg/kg	0.1	MCERTS	< 0.1	< 0.1	-	< 0.1	< 0.1
Bis(2-chloroethyl)ether	mg/kg	0.2	MCERTS	< 0.2	< 0.2	-	< 0.2	< 0.2
1,3-Dichlorobenzene	mg/kg	0.2	MCERTS	< 0.2	< 0.2	-	< 0.2	< 0.2
1,2-Dichlorobenzene	mg/kg	0.1	MCERTS	< 0.1	< 0.1	-	< 0.1	< 0.1
1,4-Dichlorobenzene	mg/kg	0.2	MCERTS	< 0.2	< 0.2	-	< 0.2	< 0.2
Bis(2-chloroisopropyl)ether	mg/kg	0.1	MCERTS	< 0.1	< 0.1	-	< 0.1	< 0.1
2-Methylphenol	mg/kg	0.3	MCERTS	< 0.3	< 0.3	-	< 0.3	< 0.3
Hexachloroethane	mg/kg	0.05	MCERTS	< 0.05	< 0.05	-	< 0.05	< 0.05
Nitrobenzene	mg/kg	0.3	MCERTS	< 0.3	< 0.3	-	< 0.3	< 0.3
4-Methylphenol	mg/kg	0.2	NONE	< 0.2	< 0.2	-	< 0.2	< 0.2
Isophorone	mg/kg	0.2	MCERTS	< 0.2	< 0.2	-	< 0.2	< 0.2
2-Nitrophenol	mg/kg	0.3	MCERTS	< 0.3	< 0.3	-	< 0.3	< 0.3
2,4-Dimethylphenol	mg/kg	0.3	MCERTS	< 0.3	< 0.3	-	< 0.3	< 0.3
Bis(2-chloroethoxy)methane	mg/kg	0.3	MCERTS	< 0.3	< 0.3	-	< 0.3	< 0.3
1,2,4-Trichlorobenzene	mg/kg	0.3	MCERTS	< 0.3	< 0.3	-	< 0.3	< 0.3
Naphthalene	mg/kg	0.05	MCERTS	0.18	< 0.05	-	< 0.05	< 0.05
2,4-Dichlorophenol	mg/kg	0.3	MCERTS	< 0.3	< 0.3	-	< 0.3	< 0.3
4-Chloroaniline	mg/kg	0.1	NONE	< 0.1	< 0.1	-	< 0.1	< 0.1
Hexachlorobutadiene	mg/kg	0.1	MCERTS	< 0.1	< 0.1	-	< 0.1	< 0.1
4-Chloro-3-methylphenol	mg/kg	0.1	NONE	< 0.1	< 0.1	-	< 0.1	< 0.1
2,4,6-Trichlorophenol	mg/kg	0.1	MCERTS	< 0.1	< 0.1	-	< 0.1	< 0.1
2,4,5-Trichlorophenol	mg/kg	0.2	MCERTS	< 0.2	< 0.2	-	< 0.2	< 0.2
2-Methylnaphthalene	mg/kg	0.1	NONE	< 0.1	< 0.1	-	< 0.1	< 0.1
2-Chloronaphthalene	mg/kg	0.1	MCERTS	< 0.1	< 0.1	-	< 0.1	< 0.1
Dimethylphthalate	mg/kg	0.1	MCERTS	< 0.1	< 0.1	-	< 0.1	< 0.1
2,6-Dinitrotoluene	mg/kg	0.1	MCERTS	< 0.1	< 0.1	-	< 0.1	< 0.1
Acenaphthylene	mg/kg	0.05	MCERTS	< 0.05	< 0.05	-	< 0.05	< 0.05
Acenaphthene	mg/kg	0.05	MCERTS	< 0.05	< 0.05	-	< 0.05	< 0.05
2,4-Dinitrotoluene	mg/kg	0.2	MCERTS	< 0.2	< 0.2	-	< 0.2	< 0.2
Dibenzofuran	mg/kg	0.2	MCERTS	< 0.2	< 0.2	-	< 0.2	< 0.2
4-Chlorophenyl phenyl ether	mg/kg	0.3	ISO 17025	< 0.3	< 0.3	-	< 0.3	< 0.3
Diethyl phthalate	mg/kg	0.2	MCERTS	< 0.2	< 0.2	-	< 0.2	< 0.2
4-Nitroaniline	mg/kg	0.2	MCERTS	< 0.2	< 0.2	-	< 0.2	< 0.2
Fluorene	mg/kg	0.05	MCERTS	< 0.05	< 0.05	-	< 0.05	< 0.05
Azobenzene	mg/kg	0.3	MCERTS	< 0.3	< 0.3	-	< 0.3	< 0.3
Bromophenyl phenyl ether	mg/kg	0.2	MCERTS	< 0.2	< 0.2	-	< 0.2	< 0.2
Hexachlorobenzene	mg/kg	0.3	MCERTS	< 0.3	< 0.3	-	< 0.3	< 0.3
Phenanthrene	mg/kg	0.05	MCERTS	1.1	0.48	-	< 0.05	< 0.05
Anthracene	mg/kg	0.05	MCERTS	0.26	< 0.05	-	< 0.05	< 0.05
Carbazole	mg/kg	0.3	MCERTS	< 0.3	< 0.3	-	< 0.3	< 0.3
Dibutyl phthalate	mg/kg	0.2	MCERTS	< 0.2	< 0.2	-	< 0.2	< 0.2
Anthraquinone	mg/kg	0.3	MCERTS	< 0.3	< 0.3	-	< 0.3	< 0.3
Fluoranthene	mg/kg	0.05	MCERTS	2.7	1.0	-	< 0.05	< 0.05
Pyrene	mg/kg	0.05	MCERTS	2.3	0.92	-	< 0.05	< 0.05
Butyl benzyl phthalate	mg/kg	0.3	ISO 17025	< 0.3	< 0.3	-	< 0.3	< 0.3
Benzo(a)anthracene	mg/kg	0.05	MCERTS	1.5	0.70	-	< 0.05	< 0.05
Chrysene	mg/kg	0.05	MCERTS	1.6	0.51	-	< 0.05	< 0.05
Benzo(b)fluoranthene	mg/kg	0.05	MCERTS	2.3	0.84	-	< 0.05	< 0.05
Benzo(k)fluoranthene	mg/kg	0.05	MCERTS	1.1	0.44	-	< 0.05	< 0.05
Benzo(a)pyrene	mg/kg	0.05	MCERTS	2.0	0.80	-	< 0.05	< 0.05
Indeno(1,2,3-cd)pyrene	mg/kg	0.05	MCERTS	1.0	0.41	-	< 0.05	< 0.05
Dibenz(a,h)anthracene	mg/kg	0.05	MCERTS	0.19	< 0.05	-	< 0.05	< 0.05
Benzo(ghi)perylene	mg/kg	0.05	MCERTS	1.1	0.49	-	< 0.05	< 0.05

Analytical Report Number: 18-76209

Project / Site name: 1 Triton Square

Your Order No: CL1288

Lab Sample Number				909152	909153	909154	909155	909156
Sample Reference				BH201	BH201	BH201	BH202	BH202
Sample Number				None Supplied	None Supplied	None Supplied	None Supplied	None Supplied
Depth (m)				0.30	1.00	2.50	0.30	1.00
Date Sampled				12/02/2018	12/02/2018	13/02/2018	13/02/2018	13/02/2018
Time Taken				None Supplied	None Supplied	None Supplied	None Supplied	None Supplied
Analytical Parameter (Soil Analysis)	Units	Limit of detection	Accreditation Status					

PCBs

PCB Congener 077	mg/kg	0.001	NONE	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
PCB Congener 081	mg/kg	0.001	NONE	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
PCB Congener 105	mg/kg	0.001	NONE	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
PCB Congener 114	mg/kg	0.001	NONE	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
PCB Congener 118	mg/kg	0.001	NONE	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
PCB Congener 123	mg/kg	0.001	NONE	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
PCB Congener 126	mg/kg	0.001	NONE	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
PCB Congener 156	mg/kg	0.001	NONE	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
PCB Congener 157	mg/kg	0.001	NONE	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
PCB Congener 167	mg/kg	0.001	NONE	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
PCB Congener 169	mg/kg	0.001	NONE	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
PCB Congener 189	mg/kg	0.001	NONE	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
Total PCBs	mg/kg	0.012	NONE	< 0.012	< 0.012	< 0.012	< 0.012	< 0.012



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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 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
909152	BH201	0.30	150	Loose Fibres	Chrysotile	< 0.001	< 0.001
909155	BH202	0.30	199	Loose Fibrous Debris	Chrysotile	< 0.001	< 0.001

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



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* 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 *
909152	BH201	None Supplied	0.30	Brown loam and sand with gravel.
909153	BH201	None Supplied	1.00	Brown sand with gravel.
909154	BH201	None Supplied	2.50	Light brown sand with gravel.
909155	BH202	None Supplied	0.30	Brown sand with rubble and gravel
909156	BH202	None Supplied	1.00	Brown sandy clay with vegetation.

Analytical Report Number : 18-76209

Project / Site name: 1 Triton Square

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

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
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
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
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
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
DRO (Soil)	Determination of extractable hydrocarbons in soil by GC-MS/FID.	In-house method	L076-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
Mineral Oil (Soil) C10 - C40	Determination of mineral oil fraction extractable hydrocarbons in soil by GC-MS/GC-FID.	in-house method	L076-PL	D	NONE
Moisture Content	Moisture content, determined gravimetrically.	In-house method based on BS1377 Part 2, 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
PCBs WHO 12 in soil	Determination of PCBs (WHO-12 Congeners) by GC-MS.	In-house method based on USEPA 8082	L027-PL	D	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
PRO (Soil)	Determination of hydrocarbons C6-C10 by headspace GC-MS.	In-house method based on USEPA8260	L088-PL	W	MCERTS
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
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
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

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

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Analytical Report Number : 18-76209

Project / Site name: 1 Triton Square

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

Analytical Test Name	Analytical Method Description	Analytical Method Reference	Method number	Wet / Dry Analysis	Accreditation Status
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 based on BS1377 Part 3, 1990, Chemical and Electrochemical Tests""	L009-PL	D	MCERTS
TPH Banding in Soil by FID	Determination of hexane extractable hydrocarbons in soil by GC-FID.	In-house method, TPH with carbon banding.	L076-PL	W	MCERTS
TPH in (Soil)	Determination of TPH bands by HS-GC-MS/GC-FID	In-house method, TPH with carbon banding.	L076-PL	D	NONE
TPHCWG (Soil)	Determination of hexane extractable hydrocarbons in soil by GC-MS/GC-FID.	In-house method	L088/76-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

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.

**Flora Elliston**

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Analytical Report Number : 18-76211

Project / Site name:	1 Triton Square	Samples received on:	13/02/2018
Your job number:	18-3086	Samples instructed on:	15/02/2018
Your order number:	CL1288	Analysis completed by:	22/02/2018
Report Issue Number:	1	Report issued on:	22/02/2018
Samples Analysed:	5 10:1 WAC leachate samples		

Signed:

Jordan Hill
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

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

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Waste Acceptance Criteria Analytical Results							
Report No:	18-76211						
					Client: CONCEPT		
Location	1 Triton Square						
Lab Reference (Sample Number)	909159				Landfill Waste Acceptance Criteria		
Sampling Date	12/02/2018				Inert Waste Landfill	Stable Non-reactive HAZARDOUS waste in non-hazardous Landfill	Hazardous Waste Landfill
Sample ID	BH201						
Depth (m)	0.30						
Solid Waste Analysis							
TOC (%)**	-				3%	5%	6%
Loss on Ignition (%) **	-				--	--	10%
BTEX (µg/kg) **	-				6000	--	--
Sum of PCBs (mg/kg) **	-				1	--	--
Mineral Oil (mg/kg)	-				500	--	--
Total PAH (WAC-17) (mg/kg)	-				100	--	--
pH (units)**	-				--	>6	--
Acid Neutralisation Capacity (mol / kg)	-				--	To be evaluated	To be evaluated
Eluate Analysis	10:1			10:1	Limit values for compliance leaching test		
	mg/l			mg/kg	using BS EN 12457-2 at L/S 10 l/kg (mg/kg)		
Arsenic *	0.0078			0.0543	0.5	2	25
Barium *	0.0068			0.0474	20	100	300
Cadmium *	< 0.0001			< 0.0008	0.04	1	5
Chromium *	0.0013			0.0092	0.5	10	70
Copper *	0.027			0.19	2	50	100
Mercury *	< 0.0005			< 0.0050	0.01	0.2	2
Molybdenum *	0.0105			0.0728	0.5	10	30
Nickel *	0.0011			0.0076	0.4	10	40
Lead *	0.0093			0.065	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 *	0.016			0.11	4	50	200
Chloride *	0.84			5.8	800	4000	25000
Fluoride	0.68			4.8	10	150	500
Sulphate *	3.2			22	1000	20000	50000
TDS	64			450	4000	60000	100000
Phenol Index (Monohydric Phenols) *	< 0.010			< 0.10	1	-	-
DOC	12.6			87.5	500	800	1000
Leach Test Information							
Stone Content (%)	-						
Sample Mass (kg)	-						
Dry Matter (%)	-						
Moisture (%)	-						
Results are expressed on a dry weight basis, after correction for moisture content where applicable.							
Stated limits are for guidance only and i2 cannot be held responsible for any discrepancies with current legislation				** = UKAS accredited (liquid eluate analysis only)			
				** = MCFRTS 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.
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Waste Acceptance Criteria Analytical Results							
Report No:	18-76211						
					Client: CONCEPT		
Location	1 Triton Square						
Lab Reference (Sample Number)	909160				Landfill Waste Acceptance Criteria		
Sampling Date	12/02/2018				Inert Waste Landfill	Stable Non-reactive HAZARDOUS waste in non-hazardous Landfill	Hazardous Waste Landfill
Sample ID	BH201						
Depth (m)	1.00						
Solid Waste Analysis							
TOC (%)**	-				3%	5%	6%
Loss on Ignition (%) **	-				--	--	10%
BTEX (µg/kg) **	-				6000	--	--
Sum of PCBs (mg/kg) **	-				1	--	--
Mineral Oil (mg/kg)	-				500	--	--
Total PAH (WAC-17) (mg/kg)	-				100	--	--
pH (units)**	-				--	>6	--
Acid Neutralisation Capacity (mol / kg)	-				--	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 *	0.0069			0.0586	0.5	2	25
Barium *	0.0063			0.0530	20	100	300
Cadmium *	< 0.0001			< 0.0008	0.04	1	5
Chromium *	0.0022			0.018	0.5	10	70
Copper *	0.013			0.11	2	50	100
Mercury *	< 0.0005			< 0.0050	0.01	0.2	2
Molybdenum *	0.0025			0.0215	0.5	10	30
Nickel *	0.0007			0.0062	0.4	10	40
Lead *	0.012			0.10	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 *	0.015			0.12	4	50	200
Chloride *	0.82			6.9	800	4000	25000
Fluoride	0.37			3.1	10	150	500
Sulphate *	5.2			44	1000	20000	50000
TDS	45			380	4000	60000	100000
Phenol Index (Monhydric Phenols) *	< 0.010			< 0.10	1	-	-
DOC	5.88			49.9	500	800	1000
Leach Test Information							
Stone Content (%)	-						
Sample Mass (kg)	-						
Dry Matter (%)	-						
Moisture (%)	-						
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							

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Waste Acceptance Criteria Analytical Results

Report No:	18-76211						
					Client: CONCEPT		
Location	1 Triton Square						
Lab Reference (Sample Number)	909161				Landfill Waste Acceptance Criteria		
					Limits		
Sampling Date	13/02/2018				Inert Waste Landfill	Stable Non-reactive HAZARDOUS waste in non-hazardous Landfill	Hazardous Waste Landfill
Sample ID	BH201						
Depth (m)	2.50						
Solid Waste Analysis							
TOC (%)**	-				3%	5%	6%
Loss on Ignition (%) **	-				--	--	10%
BTEX (µg/kg) **	-				6000	--	--
Sum of PCBs (mg/kg) **	-				1	--	--
Mineral Oil (mg/kg)	-				500	--	--
Total PAH (WAC-17) (mg/kg)	-				100	--	--
pH (units)**	-				--	>6	--
Acid Neutralisation Capacity (mol / kg)	-				--	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 *	< 0.0011			< 0.0110	0.5	2	25
Barium *	0.0023			0.0176	20	100	300
Cadmium *	< 0.0001			< 0.0008	0.04	1	5
Chromium *	< 0.0004			< 0.0040	0.5	10	70
Copper *	0.0008			< 0.0070	2	50	100
Mercury *	< 0.0005			< 0.0050	0.01	0.2	2
Molybdenum *	0.0019			0.0146	0.5	10	30
Nickel *	< 0.0003			< 0.0030	0.4	10	40
Lead *	0.0013			0.010	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 *	0.0024			0.018	4	50	200
Chloride *	6.5			50	800	4000	25000
Fluoride	0.19			1.4	10	150	500
Sulphate *	3.5			26	1000	20000	50000
TDS	22			170	4000	60000	100000
Phenol Index (Monhydric Phenols) *	< 0.010			< 0.10	1	-	-
DOC	3.36			25.5	500	800	1000
Leach Test Information							
Stone Content (%)	-						
Sample Mass (kg)	-						
Dry Matter (%)	-						
Moisture (%)	-						
Results are expressed on a dry weight basis, after correction for moisture content where applicable.							
Stated limits are for guidance only and i2 cannot be held responsible for any discrepancies with current legislation							
** = MCERTS accredited							
* = UKAS accredited (liquid eluate analysis only)							

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Waste Acceptance Criteria Analytical Results							
Report No:	18-76211						
					Client: CONCEPT		
Location	1 Triton Square						
Lab Reference (Sample Number)	909162				Landfill Waste Acceptance Criteria		
Sampling Date	13/02/2018				Inert Waste Landfill	Stable Non- reactive HAZARDOUS waste in non- hazardous Landfill	Hazardous Waste Landfill
Sample ID	BH202						
Depth (m)	0.30						
Solid Waste Analysis							
TOC (%)**	-				3%	5%	6%
Loss on Ignition (%) **	-				--	--	10%
BTEX (µg/kg) **	-				6000	--	--
Sum of PCBs (mg/kg) **	-				1	--	--
Mineral Oil (mg/kg)	-				500	--	--
Total PAH (WAC-17) (mg/kg)	-				100	--	--
pH (units)**	-				--	>6	--
Acid Neutralisation Capacity (mol / kg)	-				--	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 *	0.0180			0.143	0.5	2	25
Barium *	0.0070			0.0556	20	100	300
Cadmium *	< 0.0001			< 0.0008	0.04	1	5
Chromium *	0.0065			0.051	0.5	10	70
Copper *	0.017			0.14	2	50	100
Mercury *	< 0.0005			< 0.0050	0.01	0.2	2
Molybdenum *	0.0034			0.0269	0.5	10	30
Nickel *	< 0.0003			< 0.0030	0.4	10	40
Lead *	0.0085			0.067	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 *	0.0025			0.020	4	50	200
Chloride *	4.8			38	800	4000	25000
Fluoride	0.29			2.3	10	150	500
Sulphate *	29			230	1000	20000	50000
TDS	130			1100	4000	60000	100000
Phenol Index (Monhydric Phenols) *	< 0.010			< 0.10	1	-	-
DOC	4.01			31.7	500	800	1000
Leach Test Information							
Stone Content (%)	-						
Sample Mass (kg)	-						
Dry Matter (%)	-						
Moisture (%)	-						
Results are expressed on a dry weight basis, after correction for moisture content where applicable.							
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Waste Acceptance Criteria Analytical Results							
Report No:	18-76211						
					Client: CONCEPT		
Location	1 Triton Square						
Lab Reference (Sample Number)	909163				Landfill Waste Acceptance Criteria		
Sampling Date	13/02/2018				Inert Waste Landfill	Stable Non-reactive HAZARDOUS waste in non-hazardous Landfill	Hazardous Waste Landfill
Sample ID	BH202						
Depth (m)	1.00						
Solid Waste Analysis							
TOC (%)**	-				3%	5%	6%
Loss on Ignition (%) **	-				--	--	10%
BTEX (µg/kg) **	-				6000	--	--
Sum of PCBs (mg/kg) **	-				1	--	--
Mineral Oil (mg/kg)	-				500	--	--
Total PAH (WAC-17) (mg/kg)	-				100	--	--
pH (units)**	-				--	>6	--
Acid Neutralisation Capacity (mol / kg)	-				--	To be evaluated	To be evaluated
Eluate Analysis	10:1			10:1	Limit values for compliance leaching test		
	mg/l			mg/kg	using BS EN 12457-2 at L/S 10 l/kg (mg/kg)		
Arsenic *	0.0119			0.0891	0.5	2	25
Barium *	0.0044			0.0328	20	100	300
Cadmium *	< 0.0001			< 0.0008	0.04	1	5
Chromium *	0.0038			0.028	0.5	10	70
Copper *	0.0076			0.057	2	50	100
Mercury *	< 0.0005			< 0.0050	0.01	0.2	2
Molybdenum *	0.0235			0.175	0.5	10	30
Nickel *	< 0.0003			< 0.0030	0.4	10	40
Lead *	0.0026			0.020	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 *	0.0028			0.021	4	50	200
Chloride *	10			74	800	4000	25000
Fluoride	0.87			6.5	10	150	500
Sulphate *	31			230	1000	20000	50000
TDS	110			810	4000	60000	100000
Phenol Index (Monhydric Phenols) *	< 0.010			< 0.10	1	-	-
DOC	4.24			31.7	500	800	1000
Leach Test Information							
Stone Content (%)	-						
Sample Mass (kg)	-						
Dry Matter (%)	-						
Moisture (%)	-						
Results are expressed on a dry weight basis, after correction for moisture content where applicable.					*= UKAS accredited (liquid eluate analysis only)		
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Analytical Report Number : 18-76211

Project / Site name: 1 Triton Square

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

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
Chloride 10:1 WAC	Determination of Chloride colorimetrically by discrete analyser.	In house based on MEWAM Method ISBN 0117516260.	L082-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
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
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
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
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 electrometric measurement.	In-house method based on Examination of Water and Wastewater 20th Edition: Clesceri, Greenberg & Eaton	L004-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.



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Analytical Report Number : 18-76212

Replaces Analytical Report Number : 18-76212, issue no. 3

Project / Site name:	1 Triton Square	Samples received on:	14/02/2018
Your job number:	18-3086	Samples instructed on:	15/02/2018
Your order number:	CL1289	Analysis completed by:	15/03/2018
Report Issue Number:	4	Report issued on:	15/03/2018
Samples Analysed:	7 soil samples		

Signed:

Rexona Rahman
Head of Customer Services
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: 18-76212

Project / Site name: 1 Triton Square

Your Order No: CL1289

Lab Sample Number	909164	909165	909166	909167	909168
Sample Reference	HP101	HP101	HP102	HP102	HP103
Sample Number	None Supplied	None Supplied	None Supplied	None Supplied	None Supplied
Depth (m)	0.10	1.00	0.30	1.00	0.30
Date Sampled	14/02/2018	14/02/2018	14/02/2018	14/02/2018	13/02/2018
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
Moisture Content	%	N/A	NONE	16	14
Total mass of sample received	kg	0.001	NONE	1.8	1.8

Asbestos in Soil Screen / Identification Name	Type	N/A	ISO 17025	-	-	-	Chrysotile	-
Asbestos in Soil	Type	N/A	ISO 17025	Not-detected	Not-detected	Not-detected	Detected	Not-detected
Asbestos Quantification (Stage 2)	%	0.001	ISO 17025	-	-	-	0.002	-
Asbestos Quantification Total	%	0.001	ISO 17025	-	-	-	0.002	-

General Inorganics

pH - Automated	pH Units	N/A	MCERTS	8.7	9.7	9.5	10.0	9.8
Total Cyanide	mg/kg	1	MCERTS	< 1	< 1	< 1	< 1	< 1
Total Organic Carbon (TOC)	%	0.1	MCERTS	1.0	0.9	2.7	1.1	0.6

Total Phenols

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

Naphthalene	mg/kg	0.05	MCERTS	-	-	-	0.32	-
Acenaphthylene	mg/kg	0.05	MCERTS	-	-	-	0.19	-
Acenaphthene	mg/kg	0.05	MCERTS	-	-	-	0.32	-
Fluorene	mg/kg	0.05	MCERTS	-	-	-	0.36	-
Phenanthrene	mg/kg	0.05	MCERTS	-	-	-	3.5	-
Anthracene	mg/kg	0.05	MCERTS	-	-	-	0.69	-
Fluoranthene	mg/kg	0.05	MCERTS	-	-	-	4.3	-
Pyrene	mg/kg	0.05	MCERTS	-	-	-	3.6	-
Benzo(a)anthracene	mg/kg	0.05	MCERTS	-	-	-	2.0	-
Chrysene	mg/kg	0.05	MCERTS	-	-	-	2.2	-
Benzo(b)fluoranthene	mg/kg	0.05	MCERTS	-	-	-	2.7	-
Benzo(k)fluoranthene	mg/kg	0.05	MCERTS	-	-	-	1.3	-
Benzo(a)pyrene	mg/kg	0.05	MCERTS	-	-	-	2.4	-
Indeno(1,2,3-cd)pyrene	mg/kg	0.05	MCERTS	-	-	-	1.2	-
Dibenz(a,h)anthracene	mg/kg	0.05	MCERTS	-	-	-	0.25	-
Benzo(ghi)perylene	mg/kg	0.05	MCERTS	-	-	-	1.3	-

Total PAH

Speciated Total EPA-16 PAHs	mg/kg	0.8	MCERTS	-	-	-	26.6	-
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Analytical Report Number: 18-76212

Project / Site name: 1 Triton Square

Your Order No: CL1289

Lab Sample Number	909164	909165	909166	909167	909168
Sample Reference	HP101	HP101	HP102	HP102	HP103
Sample Number	None Supplied	None Supplied	None Supplied	None Supplied	None Supplied
Depth (m)	0.10	1.00	0.30	1.00	0.30
Date Sampled	14/02/2018	14/02/2018	14/02/2018	14/02/2018	13/02/2018
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

Antimony (aqua regia extractable)	mg/kg	1	ISO 17025	5.4	9.2	1.2	< 1.0	2.7
Arsenic (aqua regia extractable)	mg/kg	1	MCERTS	18	14	8.3	11	14
Beryllium (aqua regia extractable)	mg/kg	0.06	MCERTS	1.2	1.1	0.77	0.58	0.76
Boron (water soluble)	mg/kg	0.2	MCERTS	1.5	1.3	1.3	1.9	2.7
Cadmium (aqua regia extractable)	mg/kg	0.2	MCERTS	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2
Chromium (aqua regia extractable)	mg/kg	1	MCERTS	31	28	73	21	25
Copper (aqua regia extractable)	mg/kg	1	MCERTS	120	130	40	32	58
Lead (aqua regia extractable)	mg/kg	1	MCERTS	410	740	240	120	750
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	27	22	35	16	19
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	52	45	51	32	42
Zinc (aqua regia extractable)	mg/kg	1	MCERTS	180	170	93	73	210

Monoaromatics

Benzene	ug/kg	1	MCERTS	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Toluene	ug/kg	1	MCERTS	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Ethylbenzene	ug/kg	1	MCERTS	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
p & m-xylene	ug/kg	1	MCERTS	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
o-xylene	ug/kg	1	MCERTS	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
MTBE (Methyl Tertiary Butyl Ether)	ug/kg	1	MCERTS	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0

Petroleum Hydrocarbons

Petroleum Range Organics (C6 - C10)	mg/kg	0.1	MCERTS	-	-	-	-	< 0.1
Mineral Oil (C10 - C40)	mg/kg	10	NONE	-	-	-	-	< 10

TPH C10 - C40	mg/kg	10	MCERTS	-	-	-	-	33
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TPH-CWG - Aliphatic >EC5 - EC6	mg/kg	0.001	MCERTS	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
TPH-CWG - Aliphatic >EC6 - EC8	mg/kg	0.001	MCERTS	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
TPH-CWG - Aliphatic >EC8 - EC10	mg/kg	0.001	MCERTS	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
TPH-CWG - Aliphatic >EC10 - EC12	mg/kg	1	MCERTS	< 1.0	< 1.0	< 1.0	2.9	< 1.0
TPH-CWG - Aliphatic >EC12 - EC16	mg/kg	2	MCERTS	< 2.0	< 2.0	4.4	6.1	< 2.0
TPH-CWG - Aliphatic >EC16 - EC21	mg/kg	8	MCERTS	< 8.0	< 8.0	17	20	< 8.0
TPH-CWG - Aliphatic >EC21 - EC35	mg/kg	8	MCERTS	< 8.0	< 8.0	100	85	< 8.0
TPH-CWG - Aliphatic > EC35 - EC44	mg/kg	8.4	NONE	< 8.4	< 8.4	110	72	< 8.4
TPH-CWG - Aliphatic (EC5 - EC35)	mg/kg	10	MCERTS	< 10	< 10	130	110	< 10
TPH-CWG - Aliphatic (EC5 - EC44)	mg/kg	10	NONE	< 10	< 10	240	190	< 10

TPH-CWG - Aromatic >EC5 - EC7	mg/kg	0.001	MCERTS	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
TPH-CWG - Aromatic >EC7 - EC8	mg/kg	0.001	MCERTS	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
TPH-CWG - Aromatic >EC8 - EC10	mg/kg	0.001	MCERTS	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
TPH-CWG - Aromatic >EC10 - EC12	mg/kg	1	MCERTS	< 1.0	< 1.0	< 1.0	4.1	< 1.0
TPH-CWG - Aromatic >EC12 - EC16	mg/kg	2	MCERTS	3.5	3.1	6.3	14	< 2.0
TPH-CWG - Aromatic >EC16 - EC21	mg/kg	10	MCERTS	60	57	34	29	10
TPH-CWG - Aromatic >EC21 - EC35	mg/kg	10	MCERTS	66	67	240	160	23
TPH-CWG - Aromatic > EC35 - EC44	mg/kg	8.4	NONE	< 8.4	< 8.4	720	190	< 8.4
TPH-CWG - Aromatic (EC5 - EC35)	mg/kg	10	MCERTS	130	130	280	210	33
TPH-CWG - Aromatic (EC5 - EC44)	mg/kg	10	NONE	130	130	1000	390	33

TPH (C8 - C10)	mg/kg	0.1	MCERTS	-	-	-	-	< 0.1
TPH (C8 - C40)	mg/kg	10	NONE	-	-	-	-	33

TPH (C10 - C25)	mg/kg	10	MCERTS	-	-	-	-	14
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Analytical Report Number: 18-76212

Project / Site name: 1 Triton Square

Your Order No: CL1289

Lab Sample Number	909164	909165	909166	909167	909168
Sample Reference	HP101	HP101	HP102	HP102	HP103
Sample Number	None Supplied	None Supplied	None Supplied	None Supplied	None Supplied
Depth (m)	0.10	1.00	0.30	1.00	0.30
Date Sampled	14/02/2018	14/02/2018	14/02/2018	14/02/2018	13/02/2018
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
Chloroethane	µg/kg	1	NONE	-	-	-	-	< 1.0
Bromomethane	µg/kg	1	ISO 17025	-	-	-	-	< 1.0
Vinyl Chloride	µg/kg	1	NONE	-	-	-	-	< 1.0
Trichlorofluoromethane	µg/kg	1	NONE	-	-	-	-	< 1.0
1,1-Dichloroethene	µg/kg	1	NONE	-	-	-	-	< 1.0
1,1,2-Trichloro 1,2,2-Trifluoroethane	µg/kg	1	ISO 17025	-	-	-	-	< 1.0
Cis-1,2-dichloroethene	µg/kg	1	MCERTS	-	-	-	-	< 1.0
MTBE (Methyl Tertiary Butyl Ether)	µg/kg	1	MCERTS	-	-	-	-	< 1.0
1,1-Dichloroethane	µg/kg	1	MCERTS	-	-	-	-	< 1.0
2,2-Dichloropropane	µg/kg	1	MCERTS	-	-	-	-	< 1.0
Trichloromethane	µg/kg	1	MCERTS	-	-	-	-	< 1.0
1,1,1-Trichloroethane	µg/kg	1	MCERTS	-	-	-	-	< 1.0
1,2-Dichloroethane	µg/kg	1	MCERTS	-	-	-	-	< 1.0
1,1-Dichloropropene	µg/kg	1	MCERTS	-	-	-	-	< 1.0
Trans-1,2-dichloroethene	µg/kg	1	NONE	-	-	-	-	< 1.0
Benzene	µg/kg	1	MCERTS	-	-	-	-	< 1.0
Tetrachloromethane	µg/kg	1	MCERTS	-	-	-	-	< 1.0
1,2-Dichloropropane	µg/kg	1	MCERTS	-	-	-	-	< 1.0
Trichloroethene	µg/kg	1	MCERTS	-	-	-	-	< 1.0
Dibromomethane	µg/kg	1	MCERTS	-	-	-	-	< 1.0
Bromodichloromethane	µg/kg	1	MCERTS	-	-	-	-	< 1.0
Cis-1,3-dichloropropene	µg/kg	1	ISO 17025	-	-	-	-	< 1.0
Trans-1,3-dichloropropene	µg/kg	1	ISO 17025	-	-	-	-	< 1.0
Toluene	µg/kg	1	MCERTS	-	-	-	-	< 1.0
1,1,2-Trichloroethane	µg/kg	1	MCERTS	-	-	-	-	< 1.0
1,3-Dichloropropane	µg/kg	1	ISO 17025	-	-	-	-	< 1.0
Dibromochloromethane	µg/kg	1	ISO 17025	-	-	-	-	< 1.0
Tetrachloroethene	µg/kg	1	NONE	-	-	-	-	< 1.0
1,2-Dibromoethane	µg/kg	1	ISO 17025	-	-	-	-	< 1.0
Chlorobenzene	µg/kg	1	MCERTS	-	-	-	-	< 1.0
1,1,1,2-Tetrachloroethane	µg/kg	1	MCERTS	-	-	-	-	< 1.0
Ethylbenzene	µg/kg	1	MCERTS	-	-	-	-	< 1.0
p & m-Xylene	µg/kg	1	MCERTS	-	-	-	-	< 1.0
Styrene	µg/kg	1	MCERTS	-	-	-	-	< 1.0
Tribromomethane	µg/kg	1	NONE	-	-	-	-	< 1.0
o-Xylene	µg/kg	1	MCERTS	-	-	-	-	< 1.0
1,1,2,2-Tetrachloroethane	µg/kg	1	MCERTS	-	-	-	-	< 1.0
Isopropylbenzene	µg/kg	1	MCERTS	-	-	-	-	< 1.0
Bromobenzene	µg/kg	1	MCERTS	-	-	-	-	< 1.0
n-Propylbenzene	µg/kg	1	ISO 17025	-	-	-	-	< 1.0
2-Chlorotoluene	µg/kg	1	MCERTS	-	-	-	-	< 1.0
4-Chlorotoluene	µg/kg	1	MCERTS	-	-	-	-	< 1.0
1,3,5-Trimethylbenzene	µg/kg	1	ISO 17025	-	-	-	-	< 1.0
tert-Butylbenzene	µg/kg	1	MCERTS	-	-	-	-	< 1.0
1,2,4-Trimethylbenzene	µg/kg	1	ISO 17025	-	-	-	-	< 1.0
sec-Butylbenzene	µg/kg	1	MCERTS	-	-	-	-	< 1.0
1,3-Dichlorobenzene	µg/kg	1	ISO 17025	-	-	-	-	< 1.0
p-Isopropyltoluene	µg/kg	1	ISO 17025	-	-	-	-	< 1.0
1,2-Dichlorobenzene	µg/kg	1	MCERTS	-	-	-	-	< 1.0
1,4-Dichlorobenzene	µg/kg	1	MCERTS	-	-	-	-	< 1.0
Butylbenzene	µg/kg	1	MCERTS	-	-	-	-	< 1.0
1,2-Dibromo-3-chloropropane	µg/kg	1	ISO 17025	-	-	-	-	< 1.0
1,2,4-Trichlorobenzene	µg/kg	1	MCERTS	-	-	-	-	< 1.0
Hexachlorobutadiene	µg/kg	1	MCERTS	-	-	-	-	< 1.0
1,2,3-Trichlorobenzene	µg/kg	1	ISO 17025	-	-	-	-	< 1.0

Analytical Report Number: 18-76212

Project / Site name: 1 Triton Square

Your Order No: CL1289

Lab Sample Number	909164	909165	909166	909167	909168
Sample Reference	HP101	HP101	HP102	HP102	HP103
Sample Number	None Supplied	None Supplied	None Supplied	None Supplied	None Supplied
Depth (m)	0.10	1.00	0.30	1.00	0.30
Date Sampled	14/02/2018	14/02/2018	14/02/2018	14/02/2018	13/02/2018
Time Taken	None Supplied	None Supplied	None Supplied	None Supplied	None Supplied
Analytical Parameter (Soil Analysis)	Units	Limit of detection	Accreditation Status		

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	-	1.3
Anthracene	mg/kg	0.05	MCERTS	-	0.29
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	-	2.4
Pyrene	mg/kg	0.05	MCERTS	-	2.2
Butyl benzyl phthalate	mg/kg	0.3	ISO 17025	-	< 0.3
Benzo(a)anthracene	mg/kg	0.05	MCERTS	-	1.3
Chrysene	mg/kg	0.05	MCERTS	-	1.3
Benzo(b)fluoranthene	mg/kg	0.05	MCERTS	-	2.0
Benzo(k)fluoranthene	mg/kg	0.05	MCERTS	-	0.64
Benzo(a)pyrene	mg/kg	0.05	MCERTS	-	1.6
Indeno(1,2,3-cd)pyrene	mg/kg	0.05	MCERTS	-	0.94
Dibenz(a,h)anthracene	mg/kg	0.05	MCERTS	-	< 0.05
Benzo(ghi)perylene	mg/kg	0.05	MCERTS	-	1.0

Analytical Report Number: 18-76212

Project / Site name: 1 Triton Square

Your Order No: CL1289

Lab Sample Number				909164	909165	909166	909167	909168
Sample Reference				HP101	HP101	HP102	HP102	HP103
Sample Number				None Supplied	None Supplied	None Supplied	None Supplied	None Supplied
Depth (m)				0.10	1.00	0.30	1.00	0.30
Date Sampled				14/02/2018	14/02/2018	14/02/2018	14/02/2018	13/02/2018
Time Taken				None Supplied	None Supplied	None Supplied	None Supplied	None Supplied
Analytical Parameter (Soil Analysis)				Units	Limit of detection	Accreditation Status		
PCBs								
PCB Congener 077	mg/kg	0.001	NONE	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
PCB Congener 081	mg/kg	0.001	NONE	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
PCB Congener 105	mg/kg	0.001	NONE	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
PCB Congener 114	mg/kg	0.001	NONE	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
PCB Congener 118	mg/kg	0.001	NONE	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
PCB Congener 123	mg/kg	0.001	NONE	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
PCB Congener 126	mg/kg	0.001	NONE	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
PCB Congener 156	mg/kg	0.001	NONE	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
PCB Congener 157	mg/kg	0.001	NONE	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
PCB Congener 167	mg/kg	0.001	NONE	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
PCB Congener 169	mg/kg	0.001	NONE	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
PCB Congener 189	mg/kg	0.001	NONE	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
Total PCBs	mg/kg	0.012	NONE	< 0.012	< 0.012	< 0.012	< 0.012	< 0.012

Analytical Report Number: 18-76212

Project / Site name: 1 Triton Square

Your Order No: CL1289

Lab Sample Number				909169	909170			
Sample Reference				HP103	BH201			
Sample Number				None Supplied	None Supplied			
Depth (m)				0.70	7.30			
Date Sampled				13/02/2018	13/02/2018			
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	%	N/A	NONE	11	21			
Total mass of sample received	kg	0.001	NONE	1.4	1.3			

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

General Inorganics

pH - Automated	pH Units	N/A	MCERTS	10.0	8.3			
Total Cyanide	mg/kg	1	MCERTS	< 1	< 1			
Total Organic Carbon (TOC)	%	0.1	MCERTS	0.7	0.6			

Total Phenols

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

Naphthalene	mg/kg	0.05	MCERTS	< 0.05	-			
Acenaphthylene	mg/kg	0.05	MCERTS	< 0.05	-			
Acenaphthene	mg/kg	0.05	MCERTS	< 0.05	-			
Fluorene	mg/kg	0.05	MCERTS	< 0.05	-			
Phenanthrene	mg/kg	0.05	MCERTS	1.2	-			
Anthracene	mg/kg	0.05	MCERTS	0.31	-			
Fluoranthene	mg/kg	0.05	MCERTS	2.8	-			
Pyrene	mg/kg	0.05	MCERTS	2.7	-			
Benzo(a)anthracene	mg/kg	0.05	MCERTS	1.7	-			
Chrysene	mg/kg	0.05	MCERTS	1.6	-			
Benzo(b)fluoranthene	mg/kg	0.05	MCERTS	2.3	-			
Benzo(k)fluoranthene	mg/kg	0.05	MCERTS	1.3	-			
Benzo(a)pyrene	mg/kg	0.05	MCERTS	2.2	-			
Indeno(1,2,3-cd)pyrene	mg/kg	0.05	MCERTS	1.2	-			
Dibenz(a,h)anthracene	mg/kg	0.05	MCERTS	0.22	-			
Benzo(ghi)perylene	mg/kg	0.05	MCERTS	1.3	-			

Total PAH

Speciated Total EPA-16 PAHs	mg/kg	0.8	MCERTS	18.7	-			
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Analytical Report Number: 18-76212

Project / Site name: 1 Triton Square

Your Order No: CL1289

Lab Sample Number				909169	909170			
Sample Reference				HP103	BH201			
Sample Number				None Supplied	None Supplied			
Depth (m)				0.70	7.30			
Date Sampled				13/02/2018	13/02/2018			
Time Taken				None Supplied	None Supplied			
Analytical Parameter (Soil Analysis)	Units	Limit of detection	Accreditation Status					
Heavy Metals / Metalloids								
Antimony (aqua regia extractable)	mg/kg	1	ISO 17025	4.3	1.6			
Arsenic (aqua regia extractable)	mg/kg	1	MCERTS	12	12			
Beryllium (aqua regia extractable)	mg/kg	0.06	MCERTS	0.67	1.4			
Boron (water soluble)	mg/kg	0.2	MCERTS	1.0	1.1			
Cadmium (aqua regia extractable)	mg/kg	0.2	MCERTS	< 0.2	< 0.2			
Chromium (aqua regia extractable)	mg/kg	1	MCERTS	23	39			
Copper (aqua regia extractable)	mg/kg	1	MCERTS	45	28			
Lead (aqua regia extractable)	mg/kg	1	MCERTS	660	18			
Mercury (aqua regia extractable)	mg/kg	0.3	MCERTS	< 0.3	< 0.3			
Nickel (aqua regia extractable)	mg/kg	1	MCERTS	17	59			
Selenium (aqua regia extractable)	mg/kg	1	MCERTS	< 1.0	< 1.0			
Vanadium (aqua regia extractable)	mg/kg	1	MCERTS	37	60			
Zinc (aqua regia extractable)	mg/kg	1	MCERTS	220	86			

Monoaromatics

Benzene	ug/kg	1	MCERTS	< 1.0	< 1.0			
Toluene	ug/kg	1	MCERTS	< 1.0	< 1.0			
Ethylbenzene	ug/kg	1	MCERTS	< 1.0	< 1.0			
p & m-xylene	ug/kg	1	MCERTS	< 1.0	< 1.0			
o-xylene	ug/kg	1	MCERTS	< 1.0	< 1.0			
MTBE (Methyl Tertiary Butyl Ether)	ug/kg	1	MCERTS	< 1.0	< 1.0			

Petroleum Hydrocarbons

Petroleum Range Organics (C6 - C10)	mg/kg	0.1	MCERTS	< 0.1	-			
Mineral Oil (C10 - C40)	mg/kg	10	NONE	< 10	-			

TPH C10 - C40	mg/kg	10	MCERTS	29	-			
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TPH-CWG - Aliphatic >EC5 - EC6	mg/kg	0.001	MCERTS	< 0.001	< 0.001			
TPH-CWG - Aliphatic >EC6 - EC8	mg/kg	0.001	MCERTS	< 0.001	< 0.001			
TPH-CWG - Aliphatic >EC8 - EC10	mg/kg	0.001	MCERTS	< 0.001	< 0.001			
TPH-CWG - Aliphatic >EC10 - EC12	mg/kg	1	MCERTS	< 1.0	< 1.0			
TPH-CWG - Aliphatic >EC12 - EC16	mg/kg	2	MCERTS	< 2.0	< 2.0			
TPH-CWG - Aliphatic >EC16 - EC21	mg/kg	8	MCERTS	< 8.0	< 8.0			
TPH-CWG - Aliphatic >EC21 - EC35	mg/kg	8	MCERTS	< 8.0	< 8.0			
TPH-CWG - Aliphatic > EC35 - EC44	mg/kg	8.4	NONE	< 8.4	< 8.4			
TPH-CWG - Aliphatic (EC5 - EC35)	mg/kg	10	MCERTS	< 10	< 10			
TPH-CWG - Aliphatic (EC5 - EC44)	mg/kg	10	NONE	< 10	< 10			

TPH-CWG - Aromatic >EC5 - EC7	mg/kg	0.001	MCERTS	< 0.001	< 0.001			
TPH-CWG - Aromatic >EC7 - EC8	mg/kg	0.001	MCERTS	< 0.001	< 0.001			
TPH-CWG - Aromatic >EC8 - EC10	mg/kg	0.001	MCERTS	< 0.001	< 0.001			
TPH-CWG - Aromatic >EC10 - EC12	mg/kg	1	MCERTS	< 1.0	< 1.0			
TPH-CWG - Aromatic >EC12 - EC16	mg/kg	2	MCERTS	< 2.0	< 2.0			
TPH-CWG - Aromatic >EC16 - EC21	mg/kg	10	MCERTS	< 10	< 10			
TPH-CWG - Aromatic >EC21 - EC35	mg/kg	10	MCERTS	19	< 10			
TPH-CWG - Aromatic > EC35 - EC44	mg/kg	8.4	NONE	< 8.4	< 8.4			
TPH-CWG - Aromatic (EC5 - EC35)	mg/kg	10	MCERTS	29	< 10			
TPH-CWG - Aromatic (EC5 - EC44)	mg/kg	10	NONE	29	< 10			

TPH (C8 - C10)	mg/kg	0.1	MCERTS	< 0.1	-			
TPH (C8 - C40)	mg/kg	10	NONE	29	-			

TPH (C10 - C25)	mg/kg	10	MCERTS	16	-			
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Analytical Report Number: 18-76212

Project / Site name: 1 Triton Square

Your Order No: CL1289

Lab Sample Number				909169	909170			
Sample Reference				HP103	BH201			
Sample Number				None Supplied	None Supplied			
Depth (m)				0.70	7.30			
Date Sampled				13/02/2018	13/02/2018			
Time Taken				None Supplied	None Supplied			
Analytical Parameter (Soil Analysis)	Units	Limit of detection	Accreditation Status					
VOCs								
Chloromethane	µg/kg	1	ISO 17025	< 1.0	-			
Chloroethane	µg/kg	1	NONE	< 1.0	-			
Bromomethane	µg/kg	1	ISO 17025	< 1.0	-			
Vinyl Chloride	µg/kg	1	NONE	< 1.0	-			
Trichlorofluoromethane	µg/kg	1	NONE	< 1.0	-			
1,1-Dichloroethene	µg/kg	1	NONE	< 1.0	-			
1,1,2-Trichloro 1,2,2-Trifluoroethane	µg/kg	1	ISO 17025	< 1.0	-			
Cis-1,2-dichloroethene	µg/kg	1	MCERTS	< 1.0	-			
MTBE (Methyl Tertiary Butyl Ether)	µg/kg	1	MCERTS	< 1.0	-			
1,1-Dichloroethane	µg/kg	1	MCERTS	< 1.0	-			
2,2-Dichloropropane	µg/kg	1	MCERTS	< 1.0	-			
Trichloromethane	µg/kg	1	MCERTS	< 1.0	-			
1,1,1-Trichloroethane	µg/kg	1	MCERTS	< 1.0	-			
1,2-Dichloroethane	µg/kg	1	MCERTS	< 1.0	-			
1,1-Dichloropropene	µg/kg	1	MCERTS	< 1.0	-			
Trans-1,2-dichloroethene	µg/kg	1	NONE	< 1.0	-			
Benzene	µg/kg	1	MCERTS	< 1.0	-			
Tetrachloromethane	µg/kg	1	MCERTS	< 1.0	-			
1,2-Dichloropropane	µg/kg	1	MCERTS	< 1.0	-			
Trichloroethene	µg/kg	1	MCERTS	< 1.0	-			
Dibromomethane	µg/kg	1	MCERTS	< 1.0	-			
Bromodichloromethane	µg/kg	1	MCERTS	< 1.0	-			
Cis-1,3-dichloropropene	µg/kg	1	ISO 17025	< 1.0	-			
Trans-1,3-dichloropropene	µg/kg	1	ISO 17025	< 1.0	-			
Toluene	µg/kg	1	MCERTS	< 1.0	-			
1,1,2-Trichloroethane	µg/kg	1	MCERTS	< 1.0	-			
1,3-Dichloropropane	µg/kg	1	ISO 17025	< 1.0	-			
Dibromochloromethane	µg/kg	1	ISO 17025	< 1.0	-			
Tetrachloroethene	µg/kg	1	NONE	< 1.0	-			
1,2-Dibromoethane	µg/kg	1	ISO 17025	< 1.0	-			
Chlorobenzene	µg/kg	1	MCERTS	< 1.0	-			
1,1,1,2-Tetrachloroethane	µg/kg	1	MCERTS	< 1.0	-			
Ethylbenzene	µg/kg	1	MCERTS	< 1.0	-			
p & m-Xylene	µg/kg	1	MCERTS	< 1.0	-			
Styrene	µg/kg	1	MCERTS	< 1.0	-			
Tribromomethane	µg/kg	1	NONE	< 1.0	-			
o-Xylene	µg/kg	1	MCERTS	< 1.0	-			
1,1,1,2,2-Tetrachloroethane	µg/kg	1	MCERTS	< 1.0	-			
Isopropylbenzene	µg/kg	1	MCERTS	< 1.0	-			
Bromobenzene	µg/kg	1	MCERTS	< 1.0	-			
n-Propylbenzene	µg/kg	1	ISO 17025	< 1.0	-			
2-Chlorotoluene	µg/kg	1	MCERTS	< 1.0	-			
4-Chlorotoluene	µg/kg	1	MCERTS	< 1.0	-			
1,3,5-Trimethylbenzene	µg/kg	1	ISO 17025	< 1.0	-			
tert-Butylbenzene	µg/kg	1	MCERTS	< 1.0	-			
1,2,4-Trimethylbenzene	µg/kg	1	ISO 17025	< 1.0	-			
sec-Butylbenzene	µg/kg	1	MCERTS	< 1.0	-			
1,3-Dichlorobenzene	µg/kg	1	ISO 17025	< 1.0	-			
p-Isopropyltoluene	µg/kg	1	ISO 17025	< 1.0	-			
1,2-Dichlorobenzene	µg/kg	1	MCERTS	< 1.0	-			
1,4-Dichlorobenzene	µg/kg	1	MCERTS	< 1.0	-			
Butylbenzene	µg/kg	1	MCERTS	< 1.0	-			
1,2-Dibromo-3-chloropropane	µg/kg	1	ISO 17025	< 1.0	-			
1,2,4-Trichlorobenzene	µg/kg	1	MCERTS	< 1.0	-			
Hexachlorobutadiene	µg/kg	1	MCERTS	< 1.0	-			
1,2,3-Trichlorobenzene	µg/kg	1	ISO 17025	< 1.0	-			

Analytical Report Number: 18-76212

Project / Site name: 1 Triton Square

Your Order No: CL1289

Lab Sample Number				909169	909170			
Sample Reference				HP103	BH201			
Sample Number				None Supplied	None Supplied			
Depth (m)				0.70	7.30			
Date Sampled				13/02/2018	13/02/2018			
Time Taken				None Supplied	None Supplied			
Analytical Parameter (Soil Analysis)	Units	Limit of detection	Accreditation Status					
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	1.2	-			
Anthracene	mg/kg	0.05	MCERTS	0.31	-			
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	2.8	-			
Pyrene	mg/kg	0.05	MCERTS	2.7	-			
Butyl benzyl phthalate	mg/kg	0.3	ISO 17025	< 0.3	-			
Benzo(a)anthracene	mg/kg	0.05	MCERTS	1.7	-			
Chrysene	mg/kg	0.05	MCERTS	1.6	-			
Benzo(b)fluoranthene	mg/kg	0.05	MCERTS	2.3	-			
Benzo(k)fluoranthene	mg/kg	0.05	MCERTS	1.3	-			
Benzo(a)pyrene	mg/kg	0.05	MCERTS	2.2	-			
Indeno(1,2,3-cd)pyrene	mg/kg	0.05	MCERTS	1.2	-			
Dibenz(a,h)anthracene	mg/kg	0.05	MCERTS	0.22	-			
Benzo(ghi)perylene	mg/kg	0.05	MCERTS	1.3	-			

Analytical Report Number: 18-76212

Project / Site name: 1 Triton Square

Your Order No: CL1289

Lab Sample Number				909169	909170			
Sample Reference				HP103	BH201			
Sample Number				None Supplied	None Supplied			
Depth (m)				0.70	7.30			
Date Sampled				13/02/2018	13/02/2018			
Time Taken				None Supplied	None Supplied			
Analytical Parameter (Soil Analysis)	Units	Limit of detection	Accreditation Status					
PCBs								
PCB Congener 077	mg/kg	0.001	NONE	< 0.001	< 0.001			
PCB Congener 081	mg/kg	0.001	NONE	< 0.001	< 0.001			
PCB Congener 105	mg/kg	0.001	NONE	< 0.001	< 0.001			
PCB Congener 114	mg/kg	0.001	NONE	< 0.001	< 0.001			
PCB Congener 118	mg/kg	0.001	NONE	< 0.001	< 0.001			
PCB Congener 123	mg/kg	0.001	NONE	< 0.001	< 0.001			
PCB Congener 126	mg/kg	0.001	NONE	< 0.001	< 0.001			
PCB Congener 156	mg/kg	0.001	NONE	< 0.001	< 0.001			
PCB Congener 157	mg/kg	0.001	NONE	< 0.001	< 0.001			
PCB Congener 167	mg/kg	0.001	NONE	< 0.001	< 0.001			
PCB Congener 169	mg/kg	0.001	NONE	< 0.001	< 0.001			
PCB Congener 189	mg/kg	0.001	NONE	< 0.001	< 0.001			
Total PCBs	mg/kg	0.012	NONE	< 0.012	< 0.012			



Analytical Report Number: 18-76212
Project / Site name: Triton Square
Your Order No: CL1289

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 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
909167	HP102	1.00	120	Loose Fibrous Debris	Chrysotile	0.002	0.002

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



Analytical Report Number : 18-76212

Project / Site name: 1 Triton Square

* 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 *
909164	HP101	None Supplied	0.10	Brown clay and sand with brick and gravel
909165	HP101	None Supplied	1.00	Brown clay and sand with gravel.
909166	HP102	None Supplied	0.30	Brown sand with rubble and gravel
909167	HP102	None Supplied	1.00	Brown gravelly sand with rubble.
909168	HP103	None Supplied	0.30	Brown gravelly sand with rubble.
909169	HP103	None Supplied	0.70	Brown gravelly sand with rubble.
909170	BH201	None Supplied	7.30	Brown clay.

Analytical Report Number : 18-76212

Project / Site name: 1 Triton Square

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

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
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
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
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
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
DRO (Soil)	Determination of extractable hydrocarbons in soil by GC-MS/FID.	In-house method	L076-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
Mineral Oil (Soil) C10 - C40	Determination of mineral oil fraction extractable hydrocarbons in soil by GC-MS/GC-FID.	in-house method	L076-PL	D	NONE
Moisture Content	Moisture content, determined gravimetrically.	In-house method based on BS1377 Part 2, 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
PCBs WHO 12 in soil	Determination of PCBs (WHO-12 Congeners) by GC-MS.	In-house method based on USEPA 8082	L027-PL	D	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
PRO (Soil)	Determination of hydrocarbons C6-C10 by headspace GC-MS.	In-house method based on USEPA8260	L088-PL	W	MCERTS
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
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
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

Iss No 18-76212-4 1 Triton Square 18-3086

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

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Analytical Report Number : 18-76212

Project / Site name: 1 Triton Square

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

Analytical Test Name	Analytical Method Description	Analytical Method Reference	Method number	Wet / Dry Analysis	Accreditation Status
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 based on BS1377 Part 3, 1990, Chemical and Electrochemical Tests""	L009-PL	D	MCERTS
TPH Banding in Soil by FID	Determination of hexane extractable hydrocarbons in soil by GC-FID.	In-house method, TPH with carbon banding.	L076-PL	W	MCERTS
TPH in (Soil)	Determination of TPH bands by HS-GC-MS/GC-FID	In-house method, TPH with carbon banding.	L076-PL	D	NONE
TPHCWG (Soil)	Determination of hexane extractable hydrocarbons in soil by GC-MS/GC-FID.	In-house method	L088/76-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

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.



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Analytical Report Number : 18-76217

Replaces Analytical Report Number : 18-76217, issue no. 3

Project / Site name:	1 Triton Square	Samples received on:	14/02/2018
Your job number:	18-3086	Samples instructed on:	15/02/2018
Your order number:	CL1289	Analysis completed by:	15/03/2018
Report Issue Number:	4	Report issued on:	15/03/2018
Samples Analysed:	7 leachate samples		

Signed:

Rexona Rahman
Head of Customer Services
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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Waste Acceptance Criteria Analytical Results							
Report No:	18-76217						
					Client: CONCEPT		
Location	1 Triton Square						
Lab Reference (Sample Number)	909202				Landfill Waste Acceptance Criteria		
Sampling Date	14/02/2018				Inert Waste Landfill	Stable Non-reactive HAZARDOUS waste in non-hazardous Landfill	Hazardous Waste Landfill
Sample ID	HP101						
Depth (m)	0.10						
Solid Waste Analysis							
TOC (%)**	-				3%	5%	6%
Loss on Ignition (%) **	-				--	--	10%
BTEX (µg/kg) **	-				6000	--	--
Sum of PCBs (mg/kg) **	-				1	--	--
Mineral Oil (mg/kg)	-				500	--	--
Total PAH (WAC-17) (mg/kg)	-				100	--	--
pH (units)**	-				--	>6	--
Acid Neutralisation Capacity (mol / kg)	-				--	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 *	0.0095			0.0670	0.5	2	25
Barium *	0.0081			0.0567	20	100	300
Cadmium *	< 0.0001			< 0.0008	0.04	1	5
Chromium *	0.011			0.078	0.5	10	70
Copper *	0.011			0.076	2	50	100
Mercury *	< 0.0005			< 0.0050	0.01	0.2	2
Molybdenum *	0.0024			0.0167	0.5	10	30
Nickel *	< 0.0003			< 0.0030	0.4	10	40
Lead *	0.0058			0.041	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 *	0.0060			0.042	4	50	200
Chloride *	0.60			4.2	800	4000	25000
Fluoride	0.49			3.5	10	150	500
Sulphate *	10			72	1000	20000	50000
TDS	56			400	4000	60000	100000
Phenol Index (Monohydric Phenols) *	< 0.010			< 0.10	1	-	-
DOC	2.90			20.3	500	800	1000
Leach Test Information							
Stone Content (%)	-						
Sample Mass (kg)	-						
Dry Matter (%)	-						
Moisture (%)	-						
Results are expressed on a dry weight basis, after correction for moisture content where applicable.							
Stated limits are for guidance only and i2 cannot be held responsible for any discrepancies with current legislation				** = UKAS accredited (liquid eluate analysis only)			
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Waste Acceptance Criteria Analytical Results							
Report No:	18-76217						
					Client: CONCEPT		
Location	1 Triton Square						
Lab Reference (Sample Number)	909203				Landfill Waste Acceptance Criteria		
Sampling Date	14/02/2018				Inert Waste Landfill	Stable Non-reactive HAZARDOUS waste in non-hazardous Landfill	Hazardous Waste Landfill
Sample ID	HP101						
Depth (m)	1.00						
Solid Waste Analysis							
TOC (%)**	-				3%	5%	6%
Loss on Ignition (%) **	-				--	--	10%
BTEX (µg/kg) **	-				6000	--	--
Sum of PCBs (mg/kg) **	-				1	--	--
Mineral Oil (mg/kg)	-				500	--	--
Total PAH (WAC-17) (mg/kg)	-				100	--	--
pH (units)**	-				--	>6	--
Acid Neutralisation Capacity (mol / kg)	-				--	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 *	0.0109			0.0793	0.5	2	25
Barium *	0.0057			0.0418	20	100	300
Cadmium *	< 0.0001			< 0.0008	0.04	1	5
Chromium *	0.010			0.075	0.5	10	70
Copper *	0.0066			0.048	2	50	100
Mercury *	< 0.0005			< 0.0050	0.01	0.2	2
Molybdenum *	0.0029			0.0210	0.5	10	30
Nickel *	< 0.0003			< 0.0030	0.4	10	40
Lead *	0.0087			0.064	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 *	0.0077			0.056	4	50	200
Chloride *	0.68			5.0	800	4000	25000
Fluoride	0.44			3.2	10	150	500
Sulphate *	10			73	1000	20000	50000
TDS	54			390	4000	60000	100000
Phenol Index (Monhydric Phenols) *	< 0.010			< 0.10	1	-	-
DOC	2.64			19.2	500	800	1000
Leach Test Information							
Stone Content (%)	-						
Sample Mass (kg)	-						
Dry Matter (%)	-						
Moisture (%)	-						
Results are expressed on a dry weight basis, after correction for moisture content where applicable.							
					*= UKAS accredited (liquid eluate analysis only)		
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** = MCERTS accredited							

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Waste Acceptance Criteria Analytical Results

Report No:	18-76217						
					Client: CONCEPT		
Location	1 Triton Square						
Lab Reference (Sample Number)	909204				Landfill Waste Acceptance Criteria		
Sampling Date	14/02/2018				Limits		
Sample ID	HP102				Inert Waste Landfill	Stable Non-reactive HAZARDOUS waste in non-hazardous Landfill	Hazardous Waste Landfill
Depth (m)	0.30						
Solid Waste Analysis							
TOC (%)**	-				3%	5%	6%
Loss on Ignition (%) **	-				--	--	10%
BTEX (µg/kg) **	-				6000	--	--
Sum of PCBs (mg/kg) **	-				1	--	--
Mineral Oil (mg/kg)	-				500	--	--
Total PAH (WAC-17) (mg/kg)	-				100	--	--
pH (units)**	-				--	>6	--
Acid Neutralisation Capacity (mol / kg)	-				--	To be evaluated	To be evaluated
Eluate Analysis							
(BS EN 12457 - 2 preparation utilising end over end leaching procedure)	10:1			10:1	Limit values for compliance leaching test		
	mg/l			mg/kg	using BS EN 12457-2 at L/S 10 l/kg (mg/kg)		
Arsenic *	0.0028			0.0226	0.5	2	25
Barium *	0.0097			0.0769	20	100	300
Cadmium *	< 0.0001			< 0.0008	0.04	1	5
Chromium *	0.0047			0.037	0.5	10	70
Copper *	0.0071			0.057	2	50	100
Mercury *	< 0.0005			< 0.0050	0.01	0.2	2
Molybdenum *	0.0029			0.0233	0.5	10	30
Nickel *	< 0.0003			< 0.0030	0.4	10	40
Lead *	0.0092			0.074	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 *	0.0072			0.057	4	50	200
Chloride *	2.7			22	800	4000	25000
Fluoride	0.36			2.9	10	150	500
Sulphate *	31			250	1000	20000	50000
TDS	86			690	4000	60000	100000
Phenol Index (Monhydric Phenols) *	< 0.010			< 0.10	1	-	-
DOC	6.37			50.7	500	800	1000
Leach Test Information							
Stone Content (%)	-						
Sample Mass (kg)	-						
Dry Matter (%)	-						
Moisture (%)	-						
Results are expressed on a dry weight basis, after correction for moisture content where applicable.							
Stated limits are for guidance only and i2 cannot be held responsible for any discrepancies with current legislation				** = UKAS accredited (liquid eluate analysis only)			
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Waste Acceptance Criteria Analytical Results							
Report No:	18-76217						
					Client: CONCEPT		
Location	1 Triton Square						
Lab Reference (Sample Number)	909205				Landfill Waste Acceptance Criteria		
					Limits		
Sampling Date	14/02/2018				Inert Waste Landfill	Stable Non-reactive HAZARDOUS waste in non-hazardous Landfill	Hazardous Waste Landfill
Sample ID	HP102						
Depth (m)	1.00						
Solid Waste Analysis							
TOC (%)**	-				3%	5%	6%
Loss on Ignition (%) **	-				--	--	10%
BTEX (µg/kg) **	-				6000	--	--
Sum of PCBs (mg/kg) **	-				1	--	--
Mineral Oil (mg/kg)	-				500	--	--
Total PAH (WAC-17) (mg/kg)	-				100	--	--
pH (units)**	-				--	>6	--
Acid Neutralisation Capacity (mol / kg)	-				--	To be evaluated	To be evaluated
Eluate Analysis					Limit values for compliance leaching test		
(BS EN 12457 - 2 preparation utilising end over end leaching procedure)	10:1			10:1	using BS EN 12457-2 at L/S 10 l/kg (mg/kg)		
	mg/l			mg/kg			
Arsenic *	0.0087			0.0720	0.5	2	25
Barium *	0.0066			0.0551	20	100	300
Cadmium *	< 0.0001			< 0.0008	0.04	1	5
Chromium *	0.011			0.087	0.5	10	70
Copper *	0.010			0.086	2	50	100
Mercury *	< 0.0005			< 0.0050	0.01	0.2	2
Molybdenum *	0.0048			0.0399	0.5	10	30
Nickel *	< 0.0003			< 0.0030	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 *	0.0027			0.023	4	50	200
Chloride *	2.7			23	800	4000	25000
Fluoride	0.24			2.0	10	150	500
Sulphate *	36			300	1000	20000	50000
TDS	100			860	4000	60000	100000
Phenol Index (Monhydric Phenols) *	< 0.010			< 0.10	1	-	-
DOC	4.39			36.4	500	800	1000
Leach Test Information							
Stone Content (%)	-						
Sample Mass (kg)	-						
Dry Matter (%)	-						
Moisture (%)	-						
Results are expressed on a dry weight basis, after correction for moisture content where applicable.							
Stated limits are for guidance only and i2 cannot be held responsible for any discrepancies with current legislation					** = UKAS accredited (liquid eluate analysis only)		
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Waste Acceptance Criteria Analytical Results							
Report No:	18-76217						
				Client: CONCEPT			
Location	1 Triton Square						
Lab Reference (Sample Number)	909206			Landfill Waste Acceptance Criteria			
Sampling Date	13/02/2018			Inert Waste Landfill	Stable Non-reactive HAZARDOUS waste in non-hazardous Landfill	Hazardous Waste Landfill	
Sample ID	HP103						
Depth (m)	0.30						
Solid Waste Analysis							
TOC (%)**	-				3%	5%	6%
Loss on Ignition (%) **	-				--	--	10%
BTEX (µg/kg) **	-				6000	--	--
Sum of PCBs (mg/kg) **	-				1	--	--
Mineral Oil (mg/kg)	-				500	--	--
Total PAH (WAC-17) (mg/kg)	-				100	--	--
pH (units)**	-				--	>6	--
Acid Neutralisation Capacity (mol / kg)	-				--	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 *	0.0066			0.0550	0.5	2	25
Barium *	0.0108			0.0897	20	100	300
Cadmium *	< 0.0001			< 0.0008	0.04	1	5
Chromium *	0.028			0.23	0.5	10	70
Copper *	0.0091			0.076	2	50	100
Mercury *	< 0.0005			< 0.0050	0.01	0.2	2
Molybdenum *	0.0043			0.0362	0.5	10	30
Nickel *	< 0.0003			< 0.0030	0.4	10	40
Lead *	0.024			0.20	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 *	0.0055			0.046	4	50	200
Chloride *	15			120	800	4000	25000
Fluoride	0.36			3.0	10	150	500
Sulphate *	82			690	1000	20000	50000
TDS	170			1400	4000	60000	100000
Phenol Index (Monhydric Phenols) *	< 0.010			< 0.10	1	-	-
DOC	4.36			36.4	500	800	1000
Leach Test Information							
Stone Content (%)	-						
Sample Mass (kg)	-						
Dry Matter (%)	-						
Moisture (%)	-						
Results are expressed on a dry weight basis, after correction for moisture content where applicable.							
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Waste Acceptance Criteria Analytical Results							
Report No:	18-76217						
				Client: CONCEPT			
Location	1 Triton Square						
Lab Reference (Sample Number)	909207			Landfill Waste Acceptance Criteria			
Sampling Date	13/02/2018			Inert Waste Landfill	Stable Non-reactive HAZARDOUS waste in non-hazardous Landfill	Hazardous Waste Landfill	
Sample ID	HP103						
Depth (m)	0.70						
Solid Waste Analysis							
TOC (%)**	-				3%	5%	6%
Loss on Ignition (%) **	-				--	--	10%
BTEX (µg/kg) **	-				6000	--	--
Sum of PCBs (mg/kg) **	-				1	--	--
Mineral Oil (mg/kg)	-				500	--	--
Total PAH (WAC-17) (mg/kg)	-				100	--	--
pH (units)**	-				--	>6	--
Acid Neutralisation Capacity (mol / kg)	-				--	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 *	0.0086			0.0712	0.5	2	25
Barium *	0.0109			0.0905	20	100	300
Cadmium *	< 0.0001			< 0.0008	0.04	1	5
Chromium *	0.025			0.20	0.5	10	70
Copper *	0.0079			0.066	2	50	100
Mercury *	< 0.0005			< 0.0050	0.01	0.2	2
Molybdenum *	0.0041			0.0344	0.5	10	30
Nickel *	< 0.0003			< 0.0030	0.4	10	40
Lead *	0.022			0.18	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 *	0.0095			0.079	4	50	200
Chloride *	16			130	800	4000	25000
Fluoride	0.33			2.8	10	150	500
Sulphate *	76			640	1000	20000	50000
TDS	160			1400	4000	60000	100000
Phenol Index (Monhydric Phenols) *	< 0.010			< 0.10	1	-	-
DOC	3.85			32.0	500	800	1000
Leach Test Information							
Stone Content (%)	-						
Sample Mass (kg)	-						
Dry Matter (%)	-						
Moisture (%)	-						
Results are expressed on a dry weight basis, after correction for moisture content where applicable.							
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Waste Acceptance Criteria Analytical Results							
Report No:	18-76217						
					Client: CONCEPT		
Location	1 Triton Square						
Lab Reference (Sample Number)	909208				Landfill Waste Acceptance Criteria		
Sampling Date	13/02/2018				Inert Waste Landfill	Stable Non-reactive HAZARDOUS waste in non-hazardous Landfill	Hazardous Waste Landfill
Sample ID	BH201						
Depth (m)	7.30						
Solid Waste Analysis							
TOC (%)**	-				3%	5%	6%
Loss on Ignition (%) **	-				--	--	10%
BTEX (µg/kg) **	-				6000	--	--
Sum of PCBs (mg/kg) **	-				1	--	--
Mineral Oil (mg/kg)	-				500	--	--
Total PAH (WAC-17) (mg/kg)	-				100	--	--
pH (units)**	-				--	>6	--
Acid Neutralisation Capacity (mol / kg)	-				--	To be evaluated	To be evaluated
Eluate Analysis	10:1			10:1	Limit values for compliance leaching test		
	mg/l			mg/kg	using BS EN 12457-2 at L/S 10 l/kg (mg/kg)		
Arsenic *	0.0020			0.0138	0.5	2	25
Barium *	0.0060			0.0402	20	100	300
Cadmium *	< 0.0001			< 0.0008	0.04	1	5
Chromium *	0.0009			0.0060	0.5	10	70
Copper *	0.030			0.20	2	50	100
Mercury *	< 0.0005			< 0.0050	0.01	0.2	2
Molybdenum *	0.0124			0.0836	0.5	10	30
Nickel *	0.0018			0.012	0.4	10	40
Lead *	< 0.0010			< 0.010	0.5	10	50
Antimony *	< 0.0017			< 0.017	0.06	0.7	5
Selenium *	0.023			0.15	0.1	0.5	7
Zinc *	0.011			0.072	4	50	200
Chloride *	13			90	800	4000	25000
Fluoride	0.88			6.0	10	150	500
Sulphate *	48			320	1000	20000	50000
TDS	74			500	4000	60000	100000
Phenol Index (Monhydric Phenols) *	< 0.010			< 0.10	1	-	-
DOC	3.24			21.9	500	800	1000
Leach Test Information							
Stone Content (%)	-						
Sample Mass (kg)	-						
Dry Matter (%)	-						
Moisture (%)	-						
Results are expressed on a dry weight basis, after correction for moisture content where applicable.							
Stated limits are for guidance only and i2 cannot be held responsible for any discrepancies with current legislation				** = UKAS accredited (liquid eluate analysis only)			
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Analytical Report Number : 18-76217

Project / Site name: 1 Triton Square

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

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
Chloride 10:1 WAC	Determination of Chloride colorimetrically by discrete analyser.	In house based on MEWAM Method ISBN 0117516260.	L082-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
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
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
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
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 electrometric measurement.	In-house method based on Examination of Water and Wastewater 20th Edition: Clesceri, Greenberg & Eaton	L004-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.



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Analytical Report Number : 18-77602

Project / Site name:	1 Triton Square	Samples received on:	01/03/2018
Your job number:	18-3086	Samples instructed on:	01/03/2018
Your order number:	CL1303	Analysis completed by:	07/03/2018
Report Issue Number:	1	Report issued on:	07/03/2018
Samples Analysed:	3 water samples		

Signed: 

Dr Claire Stone
Quality 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: 18-77602

Project / Site name: 1 Triton Square

Your Order No: CL1303

Lab Sample Number				917284	917285	917286		
Sample Reference				BH101	BH201	BH202		
Sample Number				None Supplied	None Supplied	None Supplied		
Depth (m)				None Supplied	None Supplied	None Supplied		
Date Sampled				27/02/2018	27/02/2018	27/02/2018		
Time Taken				None Supplied	None Supplied	None Supplied		
Analytical Parameter (Water Analysis)	Units	Limit of detection	Accreditation Status					

General Inorganics

pH	pH Units	N/A	ISO 17025	7.2	7.5	7.1		
Total Cyanide	µg/l	10	ISO 17025	< 10	< 10	< 10		
Chloride	mg/l	0.15	ISO 17025	69	26	76		
Ammoniacal Nitrogen as N	µg/l	15	ISO 17025	140	40	610		
Dissolved Organic Carbon (DOC)	mg/l	0.1	NONE	4.24	3.20	4.25		
Hardness - Total	mgCaCO3/l	1	ISO 17025	217	178	353		

Total Phenols

Total Phenols (monohydric)	µg/l	10	ISO 17025	< 10	< 10	< 10		
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Speciated PAHs

Naphthalene	µg/l	0.01	ISO 17025	< 0.01	< 0.01	< 0.01		
Acenaphthylene	µg/l	0.01	ISO 17025	< 0.01	< 0.01	< 0.01		
Acenaphthene	µg/l	0.01	ISO 17025	< 0.01	< 0.01	< 0.01		
Fluorene	µg/l	0.01	ISO 17025	< 0.01	< 0.01	< 0.01		
Phenanthrene	µg/l	0.01	ISO 17025	< 0.01	< 0.01	< 0.01		
Anthracene	µg/l	0.01	ISO 17025	< 0.01	< 0.01	< 0.01		
Fluoranthene	µg/l	0.01	ISO 17025	< 0.01	< 0.01	< 0.01		
Pyrene	µg/l	0.01	ISO 17025	< 0.01	< 0.01	< 0.01		
Benzo(a)anthracene	µg/l	0.01	ISO 17025	< 0.01	< 0.01	< 0.01		
Chrysene	µg/l	0.01	ISO 17025	< 0.01	< 0.01	< 0.01		
Benzo(b)fluoranthene	µg/l	0.01	ISO 17025	< 0.01	< 0.01	< 0.01		
Benzo(k)fluoranthene	µg/l	0.01	ISO 17025	< 0.01	< 0.01	< 0.01		
Benzo(a)pyrene	µg/l	0.01	ISO 17025	< 0.01	< 0.01	< 0.01		
Indeno(1,2,3-cd)pyrene	µg/l	0.01	ISO 17025	< 0.01	< 0.01	< 0.01		
Dibenz(a,h)anthracene	µg/l	0.01	ISO 17025	< 0.01	< 0.01	< 0.01		
Benzo(ghi)perylene	µg/l	0.01	ISO 17025	< 0.01	< 0.01	< 0.01		

Total PAH

Total EPA-16 PAHs	µg/l	0.16	ISO 17025	< 0.16	< 0.16	< 0.16		
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Heavy Metals / Metalloids

Antimony (dissolved)	µg/l	0.4	ISO 17025	< 0.4	0.4	< 0.4		
Arsenic (dissolved)	µg/l	0.15	ISO 17025	0.75	0.66	0.81		
Beryllium (dissolved)	µg/l	0.1	ISO 17025	< 0.1	< 0.1	< 0.1		
Cadmium (dissolved)	µg/l	0.02	ISO 17025	< 0.02	0.02	0.04		
Calcium (dissolved)	mg/l	0.012	ISO 17025	77	65	130		
Chromium (dissolved)	µg/l	0.2	ISO 17025	0.6	< 0.2	< 0.2		
Copper (dissolved)	µg/l	0.5	ISO 17025	5.9	1.7	3.8		
Lead (dissolved)	µg/l	0.2	ISO 17025	0.3	< 0.2	< 0.2		
Magnesium (dissolved)	mg/l	0.005	ISO 17025	6.0	3.7	8.3		
Manganese (dissolved)	µg/l	0.05	ISO 17025	9.8	2.0	170		
Mercury (dissolved)	µg/l	0.05	ISO 17025	< 0.05	< 0.05	< 0.05		
Nickel (dissolved)	µg/l	0.5	ISO 17025	2.7	2.2	5.5		
Selenium (dissolved)	µg/l	0.6	ISO 17025	6.6	5.7	1.4		
Vanadium (dissolved)	µg/l	0.2	ISO 17025	2.4	1.0	2.0		
Zinc (dissolved)	µg/l	0.5	ISO 17025	8.3	4.1	2.6		



Analytical Report Number: 18-77602

Project / Site name: 1 Triton Square

Your Order No: CL1303

Lab Sample Number				917284	917285	917286		
Sample Reference				BH101	BH201	BH202		
Sample Number				None Supplied	None Supplied	None Supplied		
Depth (m)				None Supplied	None Supplied	None Supplied		
Date Sampled				27/02/2018	27/02/2018	27/02/2018		
Time Taken				None Supplied	None Supplied	None Supplied		
Analytical Parameter (Water Analysis)	Units	Limit of detection	Accreditation Status					

Monoaromatics

Benzene	µg/l	1	ISO 17025	< 1.0	< 1.0	< 1.0		
Toluene	µg/l	1	ISO 17025	< 1.0	< 1.0	< 1.0		
Ethylbenzene	µg/l	1	ISO 17025	< 1.0	< 1.0	< 1.0		
p & m-xylene	µg/l	1	ISO 17025	< 1.0	< 1.0	< 1.0		
o-xylene	µg/l	1	ISO 17025	< 1.0	< 1.0	< 1.0		
MTBE (Methyl Tertiary Butyl Ether)	µg/l	1	ISO 17025	< 1.0	< 1.0	< 1.0		

Petroleum Hydrocarbons

Petroleum Range Organics (C6 - C10)	µg/l	10	ISO 17025	< 10.0	< 10.0	< 10.0		
Mineral Oil (C10 - C40)	µg/l	10	NONE	< 10.0	< 10.0	< 10.0		
Diesel Range Organics (C10 - C25)	µg/l	10	NONE	< 10	< 10	< 10		

TPH-CWG - Aliphatic >C5 - C6	µg/l	1	ISO 17025	< 1.0	< 1.0	< 1.0		
TPH-CWG - Aliphatic >C6 - C8	µg/l	1	ISO 17025	< 1.0	< 1.0	< 1.0		
TPH-CWG - Aliphatic >C8 - C10	µg/l	1	ISO 17025	< 1.0	< 1.0	< 1.0		
TPH-CWG - Aliphatic >C10 - C12	µg/l	10	NONE	< 10	< 10	< 10		
TPH-CWG - Aliphatic >C12 - C16	µg/l	10	NONE	< 10	< 10	< 10		
TPH-CWG - Aliphatic >C16 - C21	µg/l	10	NONE	< 10	< 10	< 10		
TPH-CWG - Aliphatic >C21 - C35	µg/l	10	NONE	< 10	< 10	< 10		
TPH-CWG - Aliphatic >C35 - C44	µg/l	10	NONE	< 10	< 10	< 10		
TPH-CWG - Aliphatic (C5 - C35)	µg/l	10	NONE	< 10	< 10	< 10		
TPH-CWG - Aliphatic (C5 - C44)	µg/l	10	NONE	< 10	< 10	< 10		

TPH-CWG - Aromatic >C5 - C7	µg/l	1	ISO 17025	< 1.0	< 1.0	< 1.0		
TPH-CWG - Aromatic >C7 - C8	µg/l	1	ISO 17025	< 1.0	< 1.0	< 1.0		
TPH-CWG - Aromatic >C8 - C10	µg/l	1	ISO 17025	< 1.0	< 1.0	< 1.0		
TPH-CWG - Aromatic >C10 - C12	µg/l	10	NONE	< 10	< 10	< 10		
TPH-CWG - Aromatic >C12 - C16	µg/l	10	NONE	< 10	< 10	< 10		
TPH-CWG - Aromatic >C16 - C21	µg/l	10	NONE	< 10	< 10	< 10		
TPH-CWG - Aromatic >C21 - C35	µg/l	10	NONE	< 10	< 10	< 10		
TPH-CWG - Aromatic >C35 - C44	µg/l	10	NONE	< 10	< 10	< 10		
TPH-CWG - Aromatic (C5 - C35)	µg/l	10	NONE	< 10	< 10	< 10		
TPH-CWG - Aromatic (C5 - C44)	µg/l	10	NONE	< 10	< 10	< 10		

TPH Total C8 - C40	µg/l	10	NONE	< 10	< 10	< 10		
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Analytical Report Number: 18-77602

Project / Site name: 1 Triton Square

Your Order No: CL1303

Lab Sample Number				917284	917285	917286		
Sample Reference				BH101	BH201	BH202		
Sample Number				None Supplied	None Supplied	None Supplied		
Depth (m)				None Supplied	None Supplied	None Supplied		
Date Sampled				27/02/2018	27/02/2018	27/02/2018		
Time Taken				None Supplied	None Supplied	None Supplied		
Analytical Parameter (Water Analysis)	Units	Limit of detection	Accreditation Status					

VOCs

Chloromethane	µg/l	1	ISO 17025	< 1.0	< 1.0	< 1.0		
Chloroethane	µg/l	1	ISO 17025	< 1.0	< 1.0	< 1.0		
Bromomethane	µg/l	1	ISO 17025	< 1.0	< 1.0	< 1.0		
Vinyl Chloride	µg/l	1	NONE	< 1.0	< 1.0	< 1.0		
Trichlorofluoromethane	µg/l	1	NONE	< 1.0	< 1.0	< 1.0		
1,1-Dichloroethene	µg/l	1	ISO 17025	< 1.0	< 1.0	< 1.0		
1,1,2-Trichloro-1,2,2-trifluoroethane	µg/l	1	ISO 17025	< 1.0	< 1.0	< 1.0		
Cis-1,2-dichloroethene	µg/l	1	ISO 17025	< 1.0	< 1.0	< 1.0		
MTBE (Methyl Tertiary Butyl Ether)	µg/l	1	ISO 17025	< 1.0	< 1.0	< 1.0		
1,1-Dichloroethane	µg/l	1	ISO 17025	< 1.0	< 1.0	< 1.0		
2,2-Dichloropropane	µg/l	1	ISO 17025	< 1.0	< 1.0	< 1.0		
Trichloromethane	µg/l	1	ISO 17025	< 1.0	< 1.0	< 1.0		
1,1,1-Trichloroethane	µg/l	1	ISO 17025	< 1.0	< 1.0	< 1.0		
1,2-Dichloroethane	µg/l	1	ISO 17025	< 1.0	< 1.0	< 1.0		
1,1-Dichloropropene	µg/l	1	ISO 17025	< 1.0	< 1.0	< 1.0		
Trans-1,2-dichloroethene	µg/l	1	ISO 17025	< 1.0	< 1.0	< 1.0		
Benzene	µg/l	1	ISO 17025	< 1.0	< 1.0	< 1.0		
Tetrachloromethane	µg/l	1	ISO 17025	< 1.0	< 1.0	< 1.0		
1,2-Dichloropropane	µg/l	1	ISO 17025	< 1.0	< 1.0	< 1.0		
Trichloroethene	µg/l	1	ISO 17025	< 1.0	< 1.0	< 1.0		
Dibromomethane	µg/l	1	ISO 17025	< 1.0	< 1.0	< 1.0		
Bromodichloromethane	µg/l	1	ISO 17025	< 1.0	< 1.0	< 1.0		
Cis-1,3-dichloropropene	µg/l	1	ISO 17025	< 1.0	< 1.0	< 1.0		
Trans-1,3-dichloropropene	µg/l	1	ISO 17025	< 1.0	< 1.0	< 1.0		
Toluene	µg/l	1	ISO 17025	< 1.0	< 1.0	< 1.0		
1,1,2-Trichloroethane	µg/l	1	ISO 17025	< 1.0	< 1.0	< 1.0		
1,3-Dichloropropane	µg/l	1	ISO 17025	< 1.0	< 1.0	< 1.0		
Dibromochloromethane	µg/l	1	ISO 17025	< 1.0	< 1.0	< 1.0		
Tetrachloroethene	µg/l	1	ISO 17025	< 1.0	< 1.0	< 1.0		
1,2-Dibromoethane	µg/l	1	ISO 17025	< 1.0	< 1.0	< 1.0		
Chlorobenzene	µg/l	1	ISO 17025	< 1.0	< 1.0	< 1.0		
1,1,1,2-Tetrachloroethane	µg/l	1	ISO 17025	< 1.0	< 1.0	< 1.0		
Ethylbenzene	µg/l	1	ISO 17025	< 1.0	< 1.0	< 1.0		
p & m-Xylene	µg/l	1	ISO 17025	< 1.0	< 1.0	< 1.0		
Styrene	µg/l	1	ISO 17025	< 1.0	< 1.0	< 1.0		
Tribromomethane	µg/l	1	ISO 17025	< 1.0	< 1.0	< 1.0		
o-Xylene	µg/l	1	ISO 17025	< 1.0	< 1.0	< 1.0		
1,1,2,2-Tetrachloroethane	µg/l	1	ISO 17025	< 1.0	< 1.0	< 1.0		
Isopropylbenzene	µg/l	1	ISO 17025	< 1.0	< 1.0	< 1.0		
Bromobenzene	µg/l	1	ISO 17025	< 1.0	< 1.0	< 1.0		
n-Propylbenzene	µg/l	1	ISO 17025	< 1.0	< 1.0	< 1.0		
2-Chlorotoluene	µg/l	1	ISO 17025	< 1.0	< 1.0	< 1.0		
4-Chlorotoluene	µg/l	1	ISO 17025	< 1.0	< 1.0	< 1.0		
1,3,5-Trimethylbenzene	µg/l	1	ISO 17025	< 1.0	< 1.0	< 1.0		
tert-Butylbenzene	µg/l	1	ISO 17025	< 1.0	< 1.0	< 1.0		
1,2,4-Trimethylbenzene	µg/l	1	ISO 17025	< 1.0	< 1.0	< 1.0		
sec-Butylbenzene	µg/l	1	ISO 17025	< 1.0	< 1.0	< 1.0		
1,3-Dichlorobenzene	µg/l	1	ISO 17025	< 1.0	< 1.0	< 1.0		
p-Isopropyltoluene	µg/l	1	ISO 17025	< 1.0	< 1.0	< 1.0		
1,2-Dichlorobenzene	µg/l	1	ISO 17025	< 1.0	< 1.0	< 1.0		
1,4-Dichlorobenzene	µg/l	1	ISO 17025	< 1.0	< 1.0	< 1.0		
Butylbenzene	µg/l	1	ISO 17025	< 1.0	< 1.0	< 1.0		
1,2-Dibromo-3-chloropropane	µg/l	1	ISO 17025	< 1.0	< 1.0	< 1.0		
1,2,4-Trichlorobenzene	µg/l	1	ISO 17025	< 1.0	< 1.0	< 1.0		
Hexachlorobutadiene	µg/l	1	ISO 17025	< 1.0	< 1.0	< 1.0		
1,2,3-Trichlorobenzene	µg/l	1	ISO 17025	< 1.0	< 1.0	< 1.0		



Analytical Report Number: 18-77602

Project / Site name: 1 Triton Square

Your Order No: CL1303

Lab Sample Number				917284	917285	917286		
Sample Reference				BH101	BH201	BH202		
Sample Number				None Supplied	None Supplied	None Supplied		
Depth (m)				None Supplied	None Supplied	None Supplied		
Date Sampled				27/02/2018	27/02/2018	27/02/2018		
Time Taken				None Supplied	None Supplied	None Supplied		
Analytical Parameter (Water Analysis)	Units	Limit of detection	Accreditation Status					

SVOCs

Aniline	µg/l	0.05	NONE	< 0.05	< 0.05	< 0.05		
Phenol	µg/l	0.05	NONE	< 0.05	< 0.05	< 0.05		
2-Chlorophenol	µg/l	0.05	NONE	< 0.05	< 0.05	< 0.05		
Bis(2-chloroethyl)ether	µg/l	0.05	NONE	< 0.05	< 0.05	< 0.05		
1,3-Dichlorobenzene	µg/l	0.05	NONE	< 0.05	< 0.05	< 0.05		
1,2-Dichlorobenzene	µg/l	0.05	NONE	< 0.05	< 0.05	< 0.05		
1,4-Dichlorobenzene	µg/l	0.05	NONE	< 0.05	< 0.05	< 0.05		
Bis(2-chloroisopropyl)ether	µg/l	0.05	NONE	< 0.05	< 0.05	< 0.05		
2-Methylphenol	µg/l	0.05	NONE	< 0.05	< 0.05	< 0.05		
Hexachloroethane	µg/l	0.05	NONE	< 0.05	< 0.05	< 0.05		
Nitrobenzene	µg/l	0.05	NONE	< 0.05	< 0.05	< 0.05		
4-Methylphenol	µg/l	0.05	NONE	< 0.05	< 0.05	< 0.05		
Isophorone	µg/l	0.05	NONE	< 0.05	< 0.05	< 0.05		
2-Nitrophenol	µg/l	0.05	NONE	< 0.05	< 0.05	< 0.05		
2,4-Dimethylphenol	µg/l	0.05	NONE	< 0.05	< 0.05	< 0.05		
Bis(2-chloroethoxy)methane	µg/l	0.05	NONE	< 0.05	< 0.05	< 0.05		
1,2,4-Trichlorobenzene	µg/l	0.05	NONE	< 0.05	< 0.05	< 0.05		
Naphthalene	µg/l	0.01	ISO 17025	< 0.01	< 0.01	< 0.01		
2,4-Dichlorophenol	µg/l	0.05	NONE	< 0.05	< 0.05	< 0.05		
4-Chloroaniline	µg/l	0.05	NONE	< 0.05	< 0.05	< 0.05		
Hexachlorobutadiene	µg/l	0.05	NONE	< 0.05	< 0.05	< 0.05		
4-Chloro-3-methylphenol	µg/l	0.05	NONE	< 0.05	< 0.05	< 0.05		
2,4,6-Trichlorophenol	µg/l	0.05	NONE	< 0.05	< 0.05	< 0.05		
2,4,5-Trichlorophenol	µg/l	0.05	NONE	< 0.05	< 0.05	< 0.05		
2-Methylnaphthalene	µg/l	0.05	NONE	< 0.05	< 0.05	< 0.05		
2-Chloronaphthalene	µg/l	0.05	NONE	< 0.05	< 0.05	< 0.05		
Dimethylphthalate	µg/l	0.05	NONE	< 0.05	< 0.05	< 0.05		
2,6-Dinitrotoluene	µg/l	0.05	NONE	< 0.05	< 0.05	< 0.05		
Acenaphthylene	µg/l	0.01	ISO 17025	< 0.01	< 0.01	< 0.01		
Acenaphthene	µg/l	0.01	ISO 17025	< 0.01	< 0.01	< 0.01		
2,4-Dinitrotoluene	µg/l	0.05	NONE	< 0.05	< 0.05	< 0.05		
Dibenzofuran	µg/l	0.05	NONE	< 0.05	< 0.05	< 0.05		
4-Chlorophenyl phenyl ether	µg/l	0.05	NONE	< 0.05	< 0.05	< 0.05		
Diethyl phthalate	µg/l	0.05	NONE	< 0.05	< 0.05	< 0.05		
4-Nitroaniline	µg/l	0.05	NONE	< 0.05	< 0.05	< 0.05		
Fluorene	µg/l	0.01	ISO 17025	< 0.01	< 0.01	< 0.01		
Azobenzene	µg/l	0.05	NONE	< 0.05	< 0.05	< 0.05		
Bromophenyl phenyl ether	µg/l	0.05	NONE	< 0.05	< 0.05	< 0.05		
Hexachlorobenzene	µg/l	0.05	NONE	< 0.05	< 0.05	< 0.05		
Phenanthrene	µg/l	0.01	ISO 17025	< 0.01	< 0.01	< 0.01		
Anthracene	µg/l	0.01	ISO 17025	< 0.01	< 0.01	< 0.01		
Carbazole	µg/l	0.05	NONE	< 0.05	< 0.05	< 0.05		
Dibutyl phthalate	µg/l	0.05	NONE	< 0.05	< 0.05	< 0.05		
Anthraquinone	µg/l	0.05	NONE	< 0.05	< 0.05	< 0.05		
Fluoranthene	µg/l	0.01	ISO 17025	< 0.01	< 0.01	< 0.01		
Pyrene	µg/l	0.01	ISO 17025	< 0.01	< 0.01	< 0.01		
Butyl benzyl phthalate	µg/l	0.05	NONE	< 0.05	< 0.05	< 0.05		
Benzo(a)anthracene	µg/l	0.01	ISO 17025	< 0.01	< 0.01	< 0.01		
Chrysene	µg/l	0.01	ISO 17025	< 0.01	< 0.01	< 0.01		
Benzo(b)fluoranthene	µg/l	0.01	ISO 17025	< 0.01	< 0.01	< 0.01		
Benzo(k)fluoranthene	µg/l	0.01	ISO 17025	< 0.01	< 0.01	< 0.01		
Benzo(a)pyrene	µg/l	0.01	ISO 17025	< 0.01	< 0.01	< 0.01		
Indeno(1,2,3-cd)pyrene	µg/l	0.01	ISO 17025	< 0.01	< 0.01	< 0.01		
Dibenz(a,h)anthracene	µg/l	0.01	ISO 17025	< 0.01	< 0.01	< 0.01		
Benzo(ghi)perylene	µg/l	0.01	ISO 17025	< 0.01	< 0.01	< 0.01		



Analytical Report Number: 18-77602

Project / Site name: 1 Triton Square

Your Order No: CL1303

Lab Sample Number				917284	917285	917286		
Sample Reference				BH101	BH201	BH202		
Sample Number				None Supplied	None Supplied	None Supplied		
Depth (m)				None Supplied	None Supplied	None Supplied		
Date Sampled				27/02/2018	27/02/2018	27/02/2018		
Time Taken				None Supplied	None Supplied	None Supplied		
Analytical Parameter (Water Analysis)	Units	Limit of detection	Accreditation Status					

PCBs by GC-MS

PCB Congener 28	mg/l	0.00002	NONE	< 0.00002	< 0.00002	< 0.00002		
PCB Congener 52	mg/l	0.00002	NONE	< 0.00002	< 0.00002	< 0.00002		
PCB Congener 101	mg/l	0.00002	NONE	< 0.00002	< 0.00002	< 0.00002		
PCB Congener 118	mg/l	0.00002	NONE	< 0.00002	< 0.00002	< 0.00002		
PCB Congener 138	mg/l	0.00002	NONE	< 0.00002	< 0.00002	< 0.00002		
PCB Congener 153	mg/l	0.00002	NONE	< 0.00002	< 0.00002	< 0.00002		
PCB Congener 180	mg/l	0.00002	NONE	< 0.00002	< 0.00002	< 0.00002		

PCBs by GC-MS

Total ICES-7 PCBs	mg/l	0.00014	NONE	0.00014	0.00014	0.00014		
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U/S = Unsuitable Sample I/S = Insufficient Sample



Analytical Report Number : 18-77602

Project / Site name: 1 Triton Square

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

Analytical Test Name	Analytical Method Description	Analytical Method Reference	Method number	Wet / Dry Analysis	Accreditation Status
Ammoniacal Nitrogen as N in water	Determination of Ammonium/Ammonia/ Ammoniacal Nitrogen by the discrete analyser (colorimetric) salicylate/nitroprusside method. Accredited matrices SW, GW, PW.	In-house method based on Examination of Water and Wastewater 20th Edition: Clesceri, Greenberg & Eaton	L082-PL	W	ISO 17025
BTEX and MTBE in water (Monoaromatics)	Determination of BTEX and MTBE in water by headspace GC-MS. Accredited matrices: SW PW GW	In-house method based on USEPA8260	L073B-PL	W	ISO 17025
Chloride in water	Determination of Chloride colorimetrically by discrete analyser.	In house based on MEWAM Method ISBN 0117516260. Accredited matrices: SW, PW, GW.	L082-PL	W	ISO 17025
Dissolved Organic Carbon in water	Determination of dissolved inorganic carbon in water by TOC/DOC NDIR Analyser.	In-house method based on Examination of Water and Wastewater 20th Edition: Clesceri, Greenberg & Eaton	L037-PL	W	NONE
DRO (Waters)	Determination of dichloromethane extractable hydrocarbons in water by GC-MS.	In-house method	L070-PL	W	NONE
Metals in water by ICP-MS (dissolved)	Determination of metals in water by acidification followed by ICP-MS. Accredited Matrices: SW, GW, PW except B=SW,GW, Hg=SW,PW, Al=SW,PW.	In-house method based on USEPA Method 6020 & 200.8 "for the determination of trace elements in water by ICP-MS.	L012-PL	W	ISO 17025
Metals in water by ICP-OES (dissolved)	Determination of metals in water by acidification followed by ICP-OES. Accredited Matrices SW, GW, PW, PrW.(Al, Cu,Fe,Zn).	In-house method based on MEWAM 2006 Methods for the Determination of Metals in Soil.	L039-PL	W	ISO 17025
Mineral Oil (Waters) C10 - C40	Determination of dichloromethane extractable hydrocarbons in water by GC-MS.	In-house method	L070-PL	W	NONE
Monohydric phenols in water	Determination of phenols in water by continuous flow analyser. Accredited matrices: SW PW GW	In-house method based on Examination of Water and Wastewater 20th Edition: Clesceri, Greenberg & Eaton (skalar)	L080-PL	W	ISO 17025
PCB's By GC-MS in water	Determination of PCB by extraction with acetone and hexane followed by GC-MS.	In-house method based on USEPA 8082	L028-PL	W	NONE
pH at 20oC in water (automated)	Determination of pH in water by electrometric measurement. Accredited matrices: SW PW GW	In-house method based on BS1377 Part 3, 1990, Chemical and Electrochemical Tests	L099-PL	W	ISO 17025
PRO (Waters)	Determination of hydrocarbons C6-C10 by headspace GC-MS. Accredited Matrices SW, PW. GW.	In-house method based on USEPA8260	L088-PL	W	ISO 17025
Semi-volatile organic compounds in water	Determination of semi-volatile organic compounds in leachate by extraction in dichloromethane followed by GC-MS.	In-house method based on USEPA 8270	L102B-PL	W	NONE
Speciated EPA-16 PAHs in water	Determination of PAH compounds in water by extraction in dichloromethane followed by GC-MS with the use of surrogate and internal standards. Accredited matrices: SW PW GW	In-house method based on USEPA 8270	L102B-PL	W	ISO 17025
Total cyanide in water	Determination of total cyanide by distillation followed by colorimetry. Accredited matrices: SW PW GW	In-house method based on Examination of Water and Wastewater 20th Edition: Clesceri, Greenberg & Eaton (Skalar)	L080-PL	W	ISO 17025
Total Hardness of water	Determination of hardness in waters by calculation from calcium and magnesium. Accredited Matrices SW, GW, PW.	In-house method based on Examination of Water and Wastewater 20th Edition: Clesceri, Greenberg & Eaton	L045-PL	W	ISO 17025
TPH in (Water)	Determination of TPH bands by HS-GC-MS/GC-FID	In-house method, TPH with carbon banding.	L070-PL	W	NONE

Iss No 18-77602-1 1 Triton Square 18-3086

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

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Analytical Report Number : 18-77602

Project / Site name: 1 Triton Square

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

Analytical Test Name	Analytical Method Description	Analytical Method Reference	Method number	Wet / Dry Analysis	Accreditation Status
TPHCWG (Waters)	Determination of dichloromethane extractable hydrocarbons in water by GC-MS, speciation by interpretation.	In-house method	L070-PL	W	NONE
Volatile organic compounds in water	Determination of volatile organic compounds in water by headspace GC-MS. Accredited matrices: SW PW GW	In-house method based on USEPA8260	L073B-PL	W	ISO 17025

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.



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Analytical Report Number : 18-78220

Project / Site name:	1 Triton Square	Samples received on:	07/03/2018
Your job number:	18-3086	Samples instructed on:	07/03/2018
Your order number:	CL1310	Analysis completed by:	14/03/2018
Report Issue Number:	1	Report issued on:	14/03/2018
Samples Analysed:	3 water samples		

Signed:

Jordan Hill
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: 18-78220

Project / Site name: 1 Triton Square

Your Order No: CL1310

Lab Sample Number				920633	920634	920635		
Sample Reference				BH101	BH201	BH202		
Sample Number				None Supplied	None Supplied	None Supplied		
Depth (m)				None Supplied	None Supplied	None Supplied		
Date Sampled				06/03/2018	06/03/2018	06/03/2018		
Time Taken				None Supplied	None Supplied	None Supplied		
Analytical Parameter (Water Analysis)	Units	Limit of detection	Accreditation Status					

General Inorganics

pH	pH Units	N/A	ISO 17025	7.3	7.5	7.3		
Total Cyanide	µg/l	10	ISO 17025	< 10	< 10	< 10		
Chloride	mg/l	0.15	ISO 17025	66	20	85		
Ammoniacal Nitrogen as N	µg/l	15	ISO 17025	280	36	680		
Dissolved Organic Carbon (DOC)	mg/l	0.1	NONE	4.10	3.08	4.70		
Hardness - Total	mgCaCO3/l	1	ISO 17025	265	177	384		

Total Phenols

Total Phenols (monohydric)	µg/l	10	ISO 17025	< 10	< 10	< 10		
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Heavy Metals / Metalloids

Antimony (dissolved)	µg/l	0.4	ISO 17025	0.4	< 0.4	< 0.4		
Arsenic (dissolved)	µg/l	0.15	ISO 17025	0.78	0.49	0.98		
Beryllium (dissolved)	µg/l	0.1	ISO 17025	< 0.1	< 0.1	0.1		
Cadmium (dissolved)	µg/l	0.02	ISO 17025	< 0.02	< 0.02	< 0.02		
Calcium (dissolved)	mg/l	0.012	ISO 17025	97	65	140		
Chromium (dissolved)	µg/l	0.2	ISO 17025	< 0.2	0.2	0.5		
Copper (dissolved)	µg/l	0.5	ISO 17025	3.0	1.9	12		
Lead (dissolved)	µg/l	0.2	ISO 17025	< 0.2	< 0.2	1.6		
Magnesium (dissolved)	mg/l	0.005	ISO 17025	5.5	3.5	9.0		
Manganese (dissolved)	µg/l	0.05	ISO 17025	9.0	3.8	72		
Mercury (dissolved)	µg/l	0.05	ISO 17025	< 0.05	< 0.05	< 0.05		
Nickel (dissolved)	µg/l	0.5	ISO 17025	1.9	1.4	3.8		
Selenium (dissolved)	µg/l	0.6	ISO 17025	8.6	6.6	2.0		
Zinc (dissolved)	µg/l	0.5	ISO 17025	3.1	1.7	4.3		



Analytical Report Number: 18-78220

Project / Site name: 1 Triton Square

Your Order No: CL1310

Lab Sample Number				920633	920634	920635		
Sample Reference				BH101	BH201	BH202		
Sample Number				None Supplied	None Supplied	None Supplied		
Depth (m)				None Supplied	None Supplied	None Supplied		
Date Sampled				06/03/2018	06/03/2018	06/03/2018		
Time Taken				None Supplied	None Supplied	None Supplied		
Analytical Parameter (Water Analysis)	Units	Limit of detection	Accreditation Status					

Monoaromatics

Benzene	µg/l	1	ISO 17025	< 1.0	< 1.0	< 1.0		
Toluene	µg/l	1	ISO 17025	< 1.0	< 1.0	< 1.0		
Ethylbenzene	µg/l	1	ISO 17025	< 1.0	< 1.0	< 1.0		
p & m-xylene	µg/l	1	ISO 17025	< 1.0	< 1.0	< 1.0		
o-xylene	µg/l	1	ISO 17025	< 1.0	< 1.0	< 1.0		
MTBE (Methyl Tertiary Butyl Ether)	µg/l	1	ISO 17025	< 1.0	< 1.0	< 1.0		

Petroleum Hydrocarbons

Petroleum Range Organics (C6 - C10)	µg/l	10	ISO 17025	< 10.0	< 10.0	< 10.0		
Mineral Oil (C10 - C40)	µg/l	10	NONE	< 10.0	< 10.0	< 10.0		
Diesel Range Organics (C10 - C25)	µg/l	10	NONE	< 10	< 10	< 10		

TPH-CWG - Aliphatic >C5 - C6	µg/l	1	ISO 17025	< 1.0	< 1.0	< 1.0		
TPH-CWG - Aliphatic >C6 - C8	µg/l	1	ISO 17025	< 1.0	< 1.0	< 1.0		
TPH-CWG - Aliphatic >C8 - C10	µg/l	1	ISO 17025	< 1.0	< 1.0	< 1.0		
TPH-CWG - Aliphatic >C10 - C12	µg/l	10	NONE	< 10	< 10	< 10		
TPH-CWG - Aliphatic >C12 - C16	µg/l	10	NONE	< 10	< 10	< 10		
TPH-CWG - Aliphatic >C16 - C21	µg/l	10	NONE	< 10	< 10	< 10		
TPH-CWG - Aliphatic >C21 - C35	µg/l	10	NONE	< 10	< 10	< 10		
TPH-CWG - Aliphatic >C35 - C44	µg/l	10	NONE	< 10	< 10	< 10		
TPH-CWG - Aliphatic (C5 - C35)	µg/l	10	NONE	< 10	< 10	< 10		
TPH-CWG - Aliphatic (C5 - C44)	µg/l	10	NONE	< 10	< 10	< 10		

TPH-CWG - Aromatic >C5 - C7	µg/l	1	ISO 17025	< 1.0	< 1.0	< 1.0		
TPH-CWG - Aromatic >C7 - C8	µg/l	1	ISO 17025	< 1.0	< 1.0	< 1.0		
TPH-CWG - Aromatic >C8 - C10	µg/l	1	ISO 17025	< 1.0	< 1.0	< 1.0		
TPH-CWG - Aromatic >C10 - C12	µg/l	10	NONE	< 10	< 10	< 10		
TPH-CWG - Aromatic >C12 - C16	µg/l	10	NONE	< 10	< 10	< 10		
TPH-CWG - Aromatic >C16 - C21	µg/l	10	NONE	< 10	< 10	< 10		
TPH-CWG - Aromatic >C21 - C35	µg/l	10	NONE	< 10	< 10	< 10		
TPH-CWG - Aromatic >C35 - C44	µg/l	10	NONE	< 10	< 10	< 10		
TPH-CWG - Aromatic (C5 - C35)	µg/l	10	NONE	< 10	< 10	< 10		
TPH-CWG - Aromatic (C5 - C44)	µg/l	10	NONE	< 10	< 10	< 10		

TPH Total C8 - C40	µg/l	10	NONE	< 10	< 10	< 10		
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PCBs by GC-MS

PCB Congener 28	µg/l	0.02	NONE	< 0.02	< 0.02	< 0.02		
PCB Congener 52	µg/l	0.02	NONE	< 0.02	< 0.02	< 0.02		
PCB Congener 101	µg/l	0.02	NONE	< 0.02	< 0.02	< 0.02		
PCB Congener 118	µg/l	0.02	NONE	< 0.02	< 0.02	< 0.02		
PCB Congener 138	µg/l	0.02	NONE	< 0.02	< 0.02	< 0.02		
PCB Congener 153	µg/l	0.02	NONE	< 0.02	< 0.02	< 0.02		
PCB Congener 180	µg/l	0.02	NONE	< 0.02	< 0.02	< 0.02		

PCBs by GC-MS

Total PCBs	µg/l	0.14	NONE	< 0.14	< 0.14	< 0.14		
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U/S = Unsuitable Sample I/S = Insufficient Sample



Analytical Report Number : 18-78220

Project / Site name: 1 Triton Square

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

Analytical Test Name	Analytical Method Description	Analytical Method Reference	Method number	Wet / Dry Analysis	Accreditation Status
Ammoniacal Nitrogen as N in water	Determination of Ammonium/Ammonia/ Ammoniacal Nitrogen by the discrete analyser (colorimetric) salicylate/nitroprusside method. Accredited matrices SW, GW, PW.	In-house method based on Examination of Water and Wastewater 20th Edition: Clesceri, Greenberg & Eaton	L082-PL	W	ISO 17025
BTEX and MTBE in water (Monoaromatics)	Determination of BTEX and MTBE in water by headspace GC-MS. Accredited matrices: SW PW GW	In-house method based on USEPA8260	L073B-PL	W	ISO 17025
Chloride in water	Determination of Chloride colorimetrically by discrete analyser.	In house based on MEWAM Method ISBN 0117516260. Accredited matrices: SW, PW, GW.	L082-PL	W	ISO 17025
Dissolved Organic Carbon in water	Determination of dissolved inorganic carbon in water by TOC/DOC NDIR Analyser.	In-house method based on Examination of Water and Wastewater 20th Edition: Clesceri, Greenberg & Eaton	L037-PL	W	NONE
DRO (Waters)	Determination of dichloromethane extractable hydrocarbons in water by GC-MS.	In-house method	L070-PL	W	NONE
Metals in water by ICP-MS (dissolved)	Determination of metals in water by acidification followed by ICP-MS. Accredited Matrices: SW, GW, PW except B=SW,GW, Hg=SW,PW, Al=SW,PW.	In-house method based on USEPA Method 6020 & 200.8 "for the determination of trace elements in water by ICP-MS.	L012-PL	W	ISO 17025
Metals in water by ICP-OES (dissolved)	Determination of metals in water by acidification followed by ICP-OES. Accredited Matrices SW, GW, PW, PrW.(Al, Cu,Fe,Zn).	In-house method based on MEWAM 2006 Methods for the Determination of Metals in Soil.	L039-PL	W	ISO 17025
Mineral Oil (Waters) C10 - C40	Determination of dichloromethane extractable hydrocarbons in water by GC-MS.	In-house method	L070-PL	W	NONE
Monohydric phenols in water	Determination of phenols in water by continuous flow analyser. Accredited matrices: SW PW GW	In-house method based on Examination of Water and Wastewater 20th Edition: Clesceri, Greenberg & Eaton (skalar)	L080-PL	W	ISO 17025
PCB's By GC-MS in water	Determination of PCB by extraction with acetone and hexane followed by GC-MS.	In-house method based on USEPA 8082	L028-PL	W	NONE
pH at 20oC in water (automated)	Determination of pH in water by electrometric measurement. Accredited matrices: SW PW GW	In-house method based on BS1377 Part 3, 1990, Chemical and Electrochemical Tests	L099-PL	W	ISO 17025
PRO (Waters)	Determination of hydrocarbons C6-C10 by headspace GC-MS. Accredited Matrices SW, PW. GW.	In-house method based on USEPA8260	L088-PL	W	ISO 17025
Total cyanide in water	Determination of total cyanide by distillation followed by colorimetry. Accredited matrices: SW PW GW	In-house method based on Examination of Water and Wastewater 20th Edition: Clesceri, Greenberg & Eaton (Skalar)	L080-PL	W	ISO 17025
Total Hardness of water	Determination of hardness in waters by calculation from calcium and magnesium. Accredited Matrices SW, GW, PW.	In-house method based on Examination of Water and Wastewater 20th Edition: Clesceri, Greenberg & Eaton	L045-PL	W	ISO 17025
TPH in (Water)	Determination of TPH bands by HS-GC-MS/GC-FID	In-house method, TPH with carbon banding.	L070-PL	W	NONE
TPHCWG (Waters)	Determination of dichloromethane extractable hydrocarbons in water by GC-MS, speciation by interpretation.	In-house method	L070-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.

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

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13. PHOTOGRAPHS

Site Name	Longford Place, 1 Triton Square	Job No.	18/3086	HOLE	HP01
Carried out for	Lendlease/British Land Property Management Ltd	Date		Photograph	01



Photograph No 01

Site Name	Longford Place, 1 Triton Square	Job No.	18/3086	HOLE	HP02
Carried out for	Lendlease/British Land Property Management Ltd	Date		Photograph	02



Photograph No 02

Site Name	Longford Place, 1 Triton Square	Job No.	18/3086	HOLE	HP03
Carried out for	Lendlease/British Land Property Management Ltd	Date		Photograph	03



Photograph No 03

Appendix B

Fuel tanks information



Mr Tim Morgan
Senior Environmental Consultant
Environmental Consulting
Ove Arup & Partners
13 Fitzroy Street
London
W1T 4BQ

London Fire and Emergency Planning
Authority runs the London Fire Brigade

Date 18 December 2017
Our Ref 02/186354/BCW
Your Ref Triton Sq - Longford Place

Dear Mr Morgan,

THE ENVIRONMENTAL INFORMATION REGULATIONS 2004 - ENVIRONMENTAL ENQUIRY

**Premises: FORMER FILLING STATION AT LAND BETWEEN 1-7 TRITON SQUARE, NW1 3HG
AND LONGFORD STREET, LONDON NW1 3HB.**

As requested, a search has been made for information on the above site. A thorough search of current and historical files and databases has revealed no petroleum tank information for the site.

Please note that this report is restricted to matters currently known by the London Fire and Emergency Planning Authority. Although we hold extremely comprehensive records, it is possible that we do not hold any records whatsoever for some solid-filled and very old tanks. This will be for one of the following reasons:-

1. The records held by this Authority were passed to it from the Greater London Council in 1986. In 1965 the Greater London Council inherited petroleum related records from the London County Council and the outer London Boroughs / Councils. Some of the outer London records were incomplete.
2. For premises where petroleum tanks have been either removed or permanently made safe, the Authority's records have (in a minority of cases) been destroyed; and for these cases the Authority does not hold any records that indicate that there was ever a 'petroleum' interest at the premises.

As you are aware, a fee is levied for the provision of this information and payment should be made in accordance with the invoice, which will be sent under separate cover.

Any queries regarding this letter should be addressed to the Petroleum Group Admin Manager. If you are dissatisfied in any way with the response given, please ask to speak to the Team Leader quoting our reference.

Yours faithfully,

Barry Walford

for Assistant Commissioner (Fire Safety)

Directorate of Operations

petroleum@london-fire.gov.uk

Reply to Barry Walford

Direct **T** 020 85551200 x30858

Direct **F** 020 7960 3624

ENVIRONMENTAL ENQUIRY DETAIL FORM

Premises:
FORMER FILLING STATION AT LAND BETWEEN 1-7 TRITON SQUARE, NW1 3HG AND LONGFORD STREET, LONDON NW1 3HB.
Our Reference:
02/186354/BCW

Current licence / Petroleum Storage Certificate in force?
YES <input type="checkbox"/> NO <input checked="" type="checkbox"/>
Date last licence(s)/storage certificate(s) issued:
N/A

Known leaks or spills at this site:
N/A

Comments:
The Authority holds no record of petroleum storage tanks on this site.

Signed:	<i>Barry Walford</i>
----------------	----------------------

Name:	Barry Walford
--------------	---------------

Position:	Administrative Officer
------------------	------------------------

Date:	18 December 2017
--------------	------------------

Appendix C

Risk assessment methodology

C1 Risk assessment methodology

C1.1 Introduction

Land contamination is regulated under several regimes including environmental protection, pollution prevention and control, waste management, planning and development control, and health and safety.

The National Planning Policy Framework (NPPF) places responsibility on the developer of the land for ensuring that development is safe and suitable for use for the purpose for which it is intended, which will include dealing with historical contamination of the ground to the satisfaction of the local authority and Environment Agency. The NPPF defines site investigation information as including a risk assessment of land potentially affected by contamination. It states that all investigations of land potentially affected by contamination should be carried out in accordance with established procedures.

The UK framework for the assessment of contaminated land endorses the principle of a “suitable for use” approach, where remedial action is only required if there are unacceptable risks to health or the environment, taking into account the use of the land and its environmental setting. For land to be determined as contaminated and require remediation (or possibly a change to less sensitive use), all three elements of a source, pathway and receptor (SPR) ‘plausible pollutant linkage’ (PPL) must be present.

A generic quantitative assessment of the results of the contemporary phase of ground investigation is provided in the report in accordance with the current UK guidance on the assessment of contaminated land and in particular the Contaminated Land Exposure Assessment (CLEA) framework.

C1.2 Human health

C1.2.1 Chemical contamination

C1.2.1.1 Generic assessment criteria

The UK statutory guidance suggests that generic soil quality guideline values may be used for an initial screening of soil contamination results in regard to human health risk assessment. Generic assessment criteria (GAC) provide an indication of concentration in soil below which the long term human health risks for various generic land-use scenarios are considered to be minimal. Concentrations above GAC do not necessarily indicate that significant contamination is present, but rather that further assessment or risk management measures may be warranted.

A generic public open space residential (POS_{resi}) end use has been considered in the assessment to provide an initial screen of the results. The POS_{resi} end use assumes a predominantly grassed area adjacent to high density housing or as a central green area around which houses are located. It is based on assessing risks to a female child using the site on a regular basis (1 hour at a time for 170 days a year). She frequently uses the soft landscaping and is directly exposed to soils being assessed via ingestion, dermal contact, and inhalation of dust and vapour included dust tracked back into the home.

Future users of the site will not come into direct contact with potential contamination in soils or dust on the site. Any soft landscaping will be formed of specified landscaping soils certified for use. Human health exposure during operation of the development will be limited to inhalation of vapour.

Category 4 Screening Levels (C4SLs), released by Defra for some determinands including lead, have been used within this assessment. C4SLs are only available for six contaminants.

Arup has derived GAC, using CLEA v1.07, which use C4SL exposure parameters but maintain the traditional minimal risk toxicological benchmarks. Input data for the toxicological effects, physical characteristics and contaminant fate and transport parameters for the determinands have been taken from sources published by the Environment Agency and other industry sources (including LQM/CIEH [1] and the European Food Safety Authority (EFSA)).

C1.2.1.2 C4SLs

Defra has released a set of Category 4 screening levels (C4SLs) which, according to associated guidance may be applicable under the planning regime in some circumstances.

The Contaminated Land Statutory Guidance (2012) defines four ‘categories’ of land when considering human health and the water environment to assist in determining whether a site might be “Contaminated Land” under Part 2A. Category 1 and 2 would indicate that the site would be determined; whereas in the case of both 3 and 4 it would not. Land that has been developed which is assessed to be within category 4 should be acceptable under planning. Defra recently confirmed in writing that C4SL (criteria developed to define the boundary between category 3 and category 4) could be used under the planning regime. It states that C4SL provide a simple test for deciding if land is “suitable for use” and definitely not contaminated. A developer may decide that in the cases where they are providing high quality new development that a higher level of protection may be preferred on a voluntary basis, for instance by using generic assessment criteria based on a negligible levels of risk.

A range of modifications of input parameters used in their derivation have been discussed. Since the use of C4SLs in a planning context is yet to be confirmed this assessment has used Arup GACs with consideration of the implications of C4SLs. In general, the C4SLs are higher than the Arup GAC, as by design they include a reduced level of conservatism within at least some of the input parameters used in their derivation. However, due to changes in the toxicological data used to derive assessment criteria for lead the C4SL is below the current Arup GAC for this contaminant and as such these lower assessment criteria have been considered in the assessment.

The conditions assumed in the C4SL calculations include sandy loam soil and 6% SOM. The detailed description of the Made Ground suggest that the soils could reasonable classified within the sandy loam to sandy clay range; the %SOM is low, typically <1%. However, based on the assumption used in the CLEA model neither the % SOM nor the composition of the soil has an impact on the derivation of GAC / C4SL values for lead.

C1.2.2 Asbestos in soil

Work with asbestos in the UK is controlled by the Health and Safety Executive (HSE) and the Control of Asbestos Regulations (CAR) 2012 [2]. Certain activities, such as working with

asbestos insulation, coatings, and insulating board require licensing and notification to the appropriate authority before work commences. All work with asbestos materials must be initially assessed by a competent person and various requirements arise from that assessment.

The HSE has published a Code of Practice for CAR 2012 which does not include specific guidance regulating asbestos in soils. In March 2014 CIRIA published C733 Asbestos in Soil and Made Ground: A guide to understanding and managing risks [3]. Further guidance (a code of practice) has been prepared by the Joint Industry Working Group (JIWG) and was published in July 2016 [4].

In order for asbestos found within soil to pose a risk to health, it has to be present in a form that can release fibres to air for inhalation (or may do after it has been disturbed). The potential for fibre release is likely to be relatively lower when asbestos is present in soil in the form of cements or other ‘bonded’ materials and higher when friable forms or unconsolidated forms such as ‘free fibres’ are present. However, even cemented and bonded ACM may eventually degrade and release fibres and can be disturbed and broken during construction for instance.

The release of fibres from the soil into the air can occur via wind-blown disturbance or physical disturbance either during site development (e.g. construction, remediation or earthworks) or during site use after development. The concentration of airborne fibres released is influenced by many factors including asbestos type, ACM type and condition/state, depth, distribution and concentration in soil, soil type, and soil moisture content. There is limited data on the release of airborne fibres from soils in real world environments, but soil moisture content has a particularly significant impact. In laboratory studies, the addition of 5% moisture to a dry soil reduced airborne fibre release by 80-95% and no airborne fibre were detected when the soil moisture content was greater than 15%.

There are currently no generic assessment criteria for asbestos in soils and C733 makes it clear that such criteria are unlikely in the near future due to uncertainties on the mechanisms for fibre release, calculating the likely exposure and the risk of harm at low levels of exposure. Instead the report recommends site specific assessment based on multiple lines of evidence.

There are a number of current initiatives to advance the industries understanding of the way asbestos in soils should be regulated, tested and assessed and further new publications are expected in the next two years.

Analysis has been performed to the lowest possible accredited detection limit routinely reported by laboratories (0.001%) and a robust strategy to sever plausible pollutant linkages will be adopted in the remediation strategy, to reduce exposure as low as reasonably practicable during development and prevent exposure after development.

C1.3 Controlled waters

The framework within which the Environment Agency can work with others to manage and protect groundwater is set out within ‘Groundwater protection: Principal and practice (GP3), 2013’ [5]. Groundwater and leachability results have been screened against Water Quality Standards (WQS), initially by comparison with the environmental quality standards (EQS) for inland surface water, or where unavailable freshwater EQS. Where EQS screening criteria are not available, the following guidelines and standards have been referred to in this hierarchy:

- UK Drinking Water Standards (DWS);
- Surface Water Abstraction Directive (SWAD); and
- The World Health Organisation (WHO) Guidelines for Drinking Water.

No criteria are available at all for certain other PAH and for TPH. In the absence of criteria for TPH the withdrawn DWS of 0.01mg/kg has been considered as an initial assessment.

C1.4 Waste classification

C1.4.1 Framework

There are three types of permitted landfill (inert, non-hazardous and hazardous) and four principal types of waste, as outlined below.

- Inert; generally uncontaminated natural soils that may be disposed of to an inert landfill. Other materials such as Made Ground may be classified as inert if it contains no hazardous properties and satisfies the inert waste acceptance criteria (WAC).
- Hazardous; defined by the analysis of ‘total’ chemical parameters to assess the hazard properties. If classed as hazardous it may only be disposed of (following treatment) if it satisfies the TOC and leachability WAC for hazardous waste.
- Stable non-reactive (SNR) hazardous waste; defined in a similar manner to hazardous waste but satisfying stricter WAC. Following treatment, it may be disposed of in specifically designed separate cells in non-hazardous landfills (if the operator has obtained a permit to operate these cells).
- Non-hazardous waste; if the waste is not classified as inert or hazardous then it is non-hazardous. There is no WAC for non-hazardous waste.

C1.4.2 Methodology and background

The following documents were used to carry out the initial waste classification and disposal assessment of Made Ground and natural soil arisings generated by the development:

- Environment Agency, Hazardous Waste, August 2009 Update [6];
- Environment Agency, Hazardous Waste, Technical guidance WM2 2013 [7];
- The Hazardous Waste (England and Wales) Regulations [8]; and
- Table 3.2 of Annex VI to Regulation (EC) No. 1272/2008 [9].

C1.5 References

- [1] The LQM/CIEH (2009) Generic Assessment Criteria for Human Health Risk Assessment, second edition
- [2] HSE (2012) The Control of Asbestos Regulations (CAR).

- [3] CIRIA (2014) C733 Asbestos in soil and Made Ground: a guide to understanding and managing risks.
- [4] CAR-SOIL™ (CLAIRE & JIWG) (2016) Control of Asbestos Regulations 2012, Interpretation for Managing and Working with Asbestos in Soil and Construction and Demolition Materials, Industry Guidance.
- [5] Environment Agency (August 2013), Groundwater protection: Principles and practice (GP3), version 1.1.
- [6] Environment Agency (2009), Hazardous Waste – August 2009 Update.
- [7] Environment Agency (2013), Hazardous Waste, Technical guidance WM2, version 3.
- [8] The Hazardous Waste (England and Wales) Regulations 2005.
- [9] European CLP Regulations (Updated 2010) CLP-Regulation (EC) No 1272/2008.

Appendix D

Screening results

Project: Longford Place Human Health Assessment- Soils		Exploratory hole	BH001	BH001	BH001	BH001	BH002	BH002	HP101	HP101	HP102	HP102	HP103	HP103
		Sample depth (m)	0.30	1.00	2.50	7.30	0.30	1.00	0.10	1.00	0.30	1.00	0.30	1.00
		Date sampled	12.2.18	12.2.18	13.2.18	13.2.18	13.2.18	13.2.18	14.2.18	14.2.18	14.2.18	14.2.18	13.2.18	13.2.18
		Strata	MG	MG	RTD	LC	MG	MG	MG	MG	MG	MG	MG	MG
Determinants		Units	Criterion*											
Stone Content		%		<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Moisture Content		%		20	6.6	8.1	21	11	12	16	14	8.6	9.2	11
Total mass of sample received		kg		1.4	1.6	1.9	1.3	1.4	1.4	1.8	1.5	1.4	1.4	1.1
Asbestos in Soil Screen / Identification Name		Type		Chrysotile	-	-	-	Chrysotile	-	-	-	Chrysotile	-	-
Asbestos Quantification (Stage 2)		Type		Detected	Not-detected	-	-	Detected	Not-detected	Not-detected	Not-detected	Detected	Not-detected	Not-detected
Asbestos Quantification Total		%		<0.001	-	-	-	<0.001	-	-	-	0.002	-	-
General Inorganics														
pH - Automated		pH Units	NC	8.4	9	8.8	8.3	10.8	8.9	8.7	9.7	9.5	10	9.8
Total Cyanide		mg/kg	1595	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
Total Organic Carbon (TOC)		%	NC	4.8	0.6	<0.1	0.6	0.7	0.4	1	0.9	2.7	1.1	0.6
Soil Organic Matter		%	NC	8.28	1.03	0.00	1.03	1.21	0.69	1.72	1.55	4.66	1.90	1.03
Total Phenols														
Total Phenols (monohydric)		mg/kg	#N/A	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
Speciated PAHs														
Naphthalene		mg/kg	4890	0.18	<0.05	-	-	<0.05	<0.05	-	-	-	0.32	-
Acenaphthylene		mg/kg	14800	<0.05	<0.05	-	-	<0.05	<0.05	-	-	-	0.19	-
Acenaphthene		mg/kg	14800	<0.05	<0.05	-	-	<0.05	<0.05	-	-	-	0.32	-
Fluorene		mg/kg	9870	<0.05	<0.05	-	-	<0.05	<0.05	-	-	-	0.36	-
Phenanthrene		mg/kg	3070	1.1	0.48	-	-	<0.05	<0.05	-	-	-	3.5	-
Anthracene		mg/kg	74100	0.26	<0.05	-	-	<0.05	<0.05	-	-	-	0.69	-
Fluoranthene		mg/kg	3080	2.7	1	-	-	<0.05	<0.05	-	-	-	4.3	-
Pyrene		mg/kg	7410	2.3	0.92	-	-	<0.05	<0.05	-	-	-	3.6	-
Benzo(a)anthracene		mg/kg	29	1.5	0.7	-	-	<0.05	<0.05	-	-	-	2	-
Chrysene		mg/kg	57	1.6	0.51	-	-	<0.05	<0.05	-	-	-	2.2	-
Benzo(b)fluoranthene		mg/kg	7.2	2.3	0.84	-	-	<0.05	<0.05	-	-	-	2.7	-
Benzo(k)fluoranthene		mg/kg	190	1.1	0.44	-	-	<0.05	<0.05	-	-	-	1.3	-
Benzo(a)pyrene		mg/kg	5.7	2	0.8	-	-	<0.05	<0.05	-	-	-	2.4	-
Indeno(1,2,3-cd)pyrene		mg/kg	NC	1	0.41	-	-	<0.05	<0.05	-	-	-	1.2	-
Dibenzo(a,h)anthracene		mg/kg	NC	0.19	<0.05	-	-	<0.05	<0.05	-	-	-	0.25	-
Benzo(ghi)perylene		mg/kg	NC	1.1	0.49	-	-	<0.05	<0.05	-	-	-	1.3	-
Total PAH														
Speciated Total EPA-16 PAHs		mg/kg	NC	17.1	6.63	-	-	<0.89	<0.89	-	-	-	26.6	-
Heavy Metals / Metalloids														
Antimony		mg/kg	1070	3.7	3.1	<1.0	1.6	14	2.6	5.4	9.2	1.2	<1.0	2.7
Arsenic		mg/kg	79	16	10	11	12	25	12	18	14	8.3	11	14
Barium		mg/kg	2	2	0.92	0.66	0.68	1.4	1.3	0.98	1.2	1.1	0.77	0.68
Boron		mg/kg	21500	2.2	1.1	0.4	1.1	2.1	1.3	1.5	1.3	1.3	1.9	2.7
Cadmium		mg/kg	106	0.3	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2
Chromium (trivalent)		mg/kg	1539	28	21	18	39	33	27	31	28	73	21	25
Copper		mg/kg	12000	64	63	8.5	28	400	31	120	130	40	32	58
Lead		mg/kg	630	210	130	12	18	620	130	410	745	240	120	750
Mercury		mg/kg	16	<0.63	<0.63	<0.63	<0.63	<0.63	<0.63	<0.63	<0.63	<0.63	<0.63	<0.63
Nickel		mg/kg	231	24	17	16	59	31	20	27	22	35	16	19
Selenium		mg/kg	1140	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
Vanadium		mg/kg	1100	43	33	31	60	54	48	52	45	51	32	42
Zinc		mg/kg	50500	190	96	22	66	240	48	160	170	83	73	210
Monocaromatics														
Benzene		mg/kg	72	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
Toluene		mg/kg	55800	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
Ethylbenzene		mg/kg	23900	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
p & m-xylene		mg/kg	NC	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
o-xylene		mg/kg	41000	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
MTBE (Methyl Tertiary Butyl Ether)		mg/kg	NC	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
Petroleum Hydrocarbons														
Petroleum Range Organics (C6 - C16)		mg/kg	NC	<0.1	<0.1	-	-	<0.1	<0.1	-	-	-	-	<0.1
Mineral Oil (C10 - C40)		mg/kg	NC	<16	<16	-	-	<10	<10	-	-	-	-	<16
TPH C10 - C40		mg/kg	NC	25	31	-	-	<10	<10	-	-	-	-	29
TPH-CWG - Aliphatic >EC5 - EC8		mg/kg	575000 (304)	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
TPH-CWG - Aliphatic >EC8 - EC10		mg/kg	597000	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
TPH-CWG - Aliphatic >EC10 - EC12		mg/kg	12500	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
TPH-CWG - Aliphatic >EC12 - EC16		mg/kg	12600	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
TPH-CWG - Aliphatic >EC16 - EC21		mg/kg	251000	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0
TPH-CWG - Aliphatic >EC21 - EC35		mg/kg	251000	<8.0	<8.0	<8.0	<8.0	<8.0	<8.0	<8.0	<8.0	<8.0	<8.0	<8.0
TPH-CWG - Aliphatic >EC35 - EC44		mg/kg	251000	<8.4	<8.4	<8.4	<8.4	<8.4	<8.4	<8.4	<8.4	<8.4	<8.4	<8.4
TPH-CWG - Aliphatic (EC5 - EC35)		mg/kg	NC	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10
TPH-CWG - Aliphatic (EC10 - EC12)		mg/kg	NC	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10
TPH-CWG - Aromatic >EC5 - EC7		mg/kg	72	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
TPH-CWG - Aromatic >EC7 - EC8		mg/kg	55600	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
TPH-CWG - Aromatic >EC8 - EC10		mg/kg	5020	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
TPH-CWG - Aromatic >EC10 - EC12		mg/kg	5040	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
TPH-CWG - Aromatic >EC12 - EC16		mg/kg	5050	2.3	3.4	<2.0	<2.0	<2.0	<2.0	3.5	3.1	6.3	14	<2.0
TPH-CWG - Aromatic >EC16 - EC21		mg/kg	3770	11	<10	<10	<10	<10	<10	60	57	34	29	<10
TPH-CWG - Aromatic >EC21 - EC35		mg/kg	3770	12	<10	<10	<10	<10	<10	66	67	240	160	<10
TPH-CWG - Aromatic >EC35 - EC44		mg/kg	3770	<8.4	<8.4	<8.4	<8.4	<8.4	<8.4	<8.4	<8.4	<8.4	<8.4	<8.4
TPH-CWG - Aromatic (EC5 - EC35)		mg/kg	NC	25	17	<10	<10	<10	<10	130	130	280	210	33
TPH-CWG - Aromatic >EC44 - EC50		mg/kg	NC	25	17	<10	<10	<10	<10	130	130	280	210	33
TPH (C5 - C10)		mg/kg	NC	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
TPH (C8 - C40)		mg/kg	NC	25	31	-	-	<10	<10	-	-	-	-	29
TPH (C10 - C25)		mg/kg	NC	18	16	-	-	<10	<10	-	-	-	-	16
VOCs														
Chloroethane		mg/kg	NC	<0.001	<0.001	-	-	<0.001	<0.001	-	-	-	-	<0.001
Chloroethane		mg/kg	601000 (2610)	<0.001	<0.001	-	-	<0.001	<0.001	-	-	-	-	<0.001
Bromomethane		mg/kg	NC	<0.001	<0.001	-	-	<0.001	<0.001	-	-	-	-	<0.001
Vinyl Chloride		mg/kg	NC	<0.001	<0.001	-	-	<0.001	<0.001	-	-	-	-	<0.001
Trichlorofluoromethane		mg/kg	NC	<0.001	<0.001	-	-	<0.001	<0.001	-	-	-	-	<0.001
1,1-Dichloroethene		mg/kg	10200 (2220)	<0.001	<0.001	-	-	<0.001	<0.001	-	-	-	-	<0.001
1,1,2-Trichloro-1,2,2-Trifluoroethane		mg/kg	NC	<0.001	<0.001	-	-	<0.001	<0.001	-	-	-	-	<0.001
Cis-1,2-dichloroethene		mg/kg	NC	<0.001	<0.001	-	-	<0.001	<0.001	-	-	-	-	<0.001
MTBE (Methyl Tertiary Butyl Ether)		mg/kg	NC	<0.001	<0.001	-	-	<0.001	<0.001	-	-	-	-	<0.001
1,1-Dichloroethane		mg/kg	45900	<0.001	<0.001	-	-	<0.001	<0.001	-	-	-	-	<0.001
2,2-Dichloropropane		mg/kg	NC	<0.001	<0.001	-	-	<0.001	<0.001	-	-	-	-	<0.001
Trichloromethane		mg/kg	NC	<0.001	<0.001	-	-	<0.001	<0.001	-	-	-	-	<0.001
1,1,1-Trichloroethane		mg/kg												

Project: Longford Place Human Health Assessment- Soils		Explanatory Note		BH001	BH001	BH001	BH001	BH002	BH002	BH002	HP101	HP101	HP102	HP102	HP103	HP103	
		Sample depth (m)		0.30	1.00	2.50	7.30	0.30	1.00	2.50	7.30	1.00	1.00	0.30	1.00	0.30	0.70
		Date sampled		12.2.19	12.2.19	13.2.18	13.2.18	13.2.18	13.2.18	14.2.18	14.2.18	14.2.18	14.2.18	14.2.18	13.2.18	13.2.18	
1,1,2,2-Tetrachloroethane	mg/kg	1420	< 0.001	< 0.001	-	-	-	< 0.001	< 0.001	-	-	-	-	-	-	< 0.001	< 0.001
Isopropylbenzene	mg/kg	NC	< 0.001	< 0.001	-	-	-	< 0.001	< 0.001	-	-	-	-	-	-	< 0.001	< 0.001
Bromobenzene	mg/kg	5217	< 0.001	< 0.001	-	-	-	< 0.001	< 0.001	-	-	-	-	-	-	< 0.001	< 0.001
n-Propylbenzene	mg/kg	NC	< 0.001	< 0.001	-	-	-	< 0.001	< 0.001	-	-	-	-	-	-	< 0.001	< 0.001
2-Chlorotoluene	mg/kg	NC	< 0.001	< 0.001	-	-	-	< 0.001	< 0.001	-	-	-	-	-	-	< 0.001	< 0.001
1-Chlorobenzene	mg/kg	NC	< 0.001	< 0.001	-	-	-	< 0.001	< 0.001	-	-	-	-	-	-	< 0.001	< 0.001
1,3,5-Trimethylbenzene	mg/kg	NC	< 0.001	< 0.001	-	-	-	< 0.001	< 0.001	-	-	-	-	-	-	< 0.001	< 0.001
tert-Butylbenzene	mg/kg	NC	< 0.001	< 0.001	-	-	-	< 0.001	< 0.001	-	-	-	-	-	-	< 0.001	< 0.001
1,2,4-Trimethylbenzene	mg/kg	248	< 0.001	< 0.001	-	-	-	< 0.001	< 0.001	-	-	-	-	-	-	< 0.001	< 0.001
n-Butylbenzene	mg/kg	NC	< 0.001	< 0.001	-	-	-	< 0.001	< 0.001	-	-	-	-	-	-	< 0.001	< 0.001
1,3-Dichlorobenzene	mg/kg	247	< 0.001	< 0.001	-	-	-	< 0.001	< 0.001	-	-	-	-	-	-	< 0.001	< 0.001
p-Isopropyltoluene	mg/kg	NC	< 0.001	< 0.001	-	-	-	< 0.001	< 0.001	-	-	-	-	-	-	< 0.001	< 0.001
1,2-Dichlorobenzene	mg/kg	89000	< 0.001	< 0.001	-	-	-	< 0.001	< 0.001	-	-	-	-	-	-	< 0.001	< 0.001
1,4-Dichlorobenzene	mg/kg	17200	< 0.001	< 0.001	-	-	-	< 0.001	< 0.001	-	-	-	-	-	-	< 0.001	< 0.001
Butylbenzene	mg/kg	NC	< 0.001	< 0.001	-	-	-	< 0.001	< 0.001	-	-	-	-	-	-	< 0.001	< 0.001
2-Ethoxy-2-chloropropane	mg/kg	NC	< 0.001	< 0.001	-	-	-	< 0.001	< 0.001	-	-	-	-	-	-	< 0.001	< 0.001
1,2,4-Trichlorobenzene	mg/kg	14900	< 0.001	< 0.001	-	-	-	< 0.001	< 0.001	-	-	-	-	-	-	< 0.001	< 0.001
Hexachlorobutadiene	mg/kg	25	< 0.001	< 0.001	-	-	-	< 0.001	< 0.001	-	-	-	-	-	-	< 0.001	< 0.001
1,2,3-Trichlorobenzene	mg/kg	1750	< 0.001	< 0.001	-	-	-	< 0.001	< 0.001	-	-	-	-	-	-	< 0.001	< 0.001
		SVOCs															
Aniline	mg/kg	NC	< 0.1	< 0.1	-	-	-	< 0.1	< 0.1	-	-	-	-	-	-	< 0.1	< 0.1
Phenol	mg/kg	NC	< 0.2	< 0.2	-	-	-	< 0.2	< 0.2	-	-	-	-	-	-	< 0.2	< 0.2
2-Chlorophenol	mg/kg	507	< 0.1	< 0.1	-	-	-	< 0.1	< 0.1	-	-	-	-	-	-	< 0.1	< 0.1
Bis(2-chloroethyl) ether	mg/kg	NC	< 0.2	< 0.2	-	-	-	< 0.2	< 0.2	-	-	-	-	-	-	< 0.2	< 0.2
1,3-Dichlorobenzene	mg/kg	247	< 0.2	< 0.2	-	-	-	< 0.2	< 0.2	-	-	-	-	-	-	< 0.2	< 0.2
1,2-Dichlorobenzene	mg/kg	89000	< 0.1	< 0.1	-	-	-	< 0.1	< 0.1	-	-	-	-	-	-	< 0.1	< 0.1
1,4-Dichlorobenzene	mg/kg	17200	< 0.2	< 0.2	-	-	-	< 0.2	< 0.2	-	-	-	-	-	-	< 0.2	< 0.2
Bis(2-chloroisopropyl) ether	mg/kg	NC	< 0.1	< 0.1	-	-	-	< 0.1	< 0.1	-	-	-	-	-	-	< 0.1	< 0.1
2-Methylphenol	mg/kg	25080	< 0.3	< 0.3	-	-	-	< 0.3	< 0.3	-	-	-	-	-	-	< 0.3	< 0.3
Hexachlorocyclopentadiene	mg/kg	124	< 0.05	< 0.05	-	-	-	< 0.05	< 0.05	-	-	-	-	-	-	< 0.05	< 0.05
Nitrobenzene	mg/kg	NC	< 0.3	< 0.3	-	-	-	< 0.3	< 0.3	-	-	-	-	-	-	< 0.3	< 0.3
4-Methylphenol	mg/kg	25080	< 0.2	< 0.2	-	-	-	< 0.2	< 0.2	-	-	-	-	-	-	< 0.2	< 0.2
Phenolone	mg/kg	NC	< 0.2	< 0.2	-	-	-	< 0.2	< 0.2	-	-	-	-	-	-	< 0.2	< 0.2
2-Nitrophenol	mg/kg	NC	< 0.3	< 0.3	-	-	-	< 0.3	< 0.3	-	-	-	-	-	-	< 0.3	< 0.3
2,4-Dimethylphenol	mg/kg	5020	< 0.3	< 0.3	-	-	-	< 0.3	< 0.3	-	-	-	-	-	-	< 0.3	< 0.3
Bis(2-chloroethoxy)methane	mg/kg	NC	< 0.3	< 0.3	-	-	-	< 0.3	< 0.3	-	-	-	-	-	-	< 0.3	< 0.3
1,2,4-Trichlorobenzene	mg/kg	14900	< 0.3	< 0.3	-	-	-	< 0.3	< 0.3	-	-	-	-	-	-	< 0.3	< 0.3
Naphthalene	mg/kg	4890	0.18	< 0.05	-	-	-	< 0.05	< 0.05	-	-	-	-	-	-	< 0.05	< 0.05
2,4-Dichlorophenol	mg/kg	597	< 0.3	< 0.3	-	-	-	< 0.3	< 0.3	-	-	-	-	-	-	< 0.3	< 0.3
4-Chloroaniline	mg/kg	NC	< 0.1	< 0.1	-	-	-	< 0.1	< 0.1	-	-	-	-	-	-	< 0.1	< 0.1
Hexachlorobutadiene	mg/kg	25	< 0.1	< 0.1	-	-	-	< 0.1	< 0.1	-	-	-	-	-	-	< 0.1	< 0.1
4-Chloro-3-methylphenol	mg/kg	NC	< 0.1	< 0.1	-	-	-	< 0.1	< 0.1	-	-	-	-	-	-	< 0.1	< 0.1
1,4,5-Trichlorophenol	mg/kg	598	< 0.1	< 0.1	-	-	-	< 0.1	< 0.1	-	-	-	-	-	-	< 0.1	< 0.1
2,4,5-Trichlorophenol	mg/kg	NC	< 0.2	< 0.2	-	-	-	< 0.2	< 0.2	-	-	-	-	-	-	< 0.2	< 0.2
2-Methylnaphthalene	mg/kg	NC	< 0.1	< 0.1	-	-	-	< 0.1	< 0.1	-	-	-	-	-	-	< 0.1	< 0.1
1-Chloronaphthalene	mg/kg	7490	< 0.1	< 0.1	-	-	-	< 0.1	< 0.1	-	-	-	-	-	-	< 0.1	< 0.1
Dimethylphthalate	mg/kg	NC	< 0.1	< 0.1	-	-	-	< 0.1	< 0.1	-	-	-	-	-	-	< 0.1	< 0.1
2,6-Dinitrotoluene	mg/kg	251	< 0.1	< 0.1	-	-	-	< 0.1	< 0.1	-	-	-	-	-	-	< 0.1	< 0.1
Acenaphthylene	mg/kg	14800	< 0.05	< 0.05	-	-	-	< 0.05	< 0.05	-	-	-	-	-	-	< 0.05	< 0.05
Acenaphthene	mg/kg	14800	< 0.05	< 0.05	-	-	-	< 0.05	< 0.05	-	-	-	-	-	-	< 0.05	< 0.05
2,6-Dinitrotoluene	mg/kg	501	< 0.2	< 0.2	-	-	-	< 0.2	< 0.2	-	-	-	-	-	-	< 0.2	< 0.2
Dibenzofuran	mg/kg	NC	< 0.2	< 0.2	-	-	-	< 0.2	< 0.2	-	-	-	-	-	-	< 0.2	< 0.2
4-Chlorophenyl phenyl ether	mg/kg	NC	< 0.3	< 0.3	-	-	-	< 0.3	< 0.3	-	-	-	-	-	-	< 0.3	< 0.3
Diethyl phthalate	mg/kg	49400	< 0.2	< 0.2	-	-	-	< 0.2	< 0.2	-	-	-	-	-	-	< 0.2	< 0.2
1,4-Nitroaniline	mg/kg	NC	< 0.2	< 0.2	-	-	-	< 0.2	< 0.2	-	-	-	-	-	-	< 0.2	< 0.2
Azobenzene	mg/kg	9070	< 0.05	< 0.05	-	-	-	< 0.05	< 0.05	-	-	-	-	-	-	< 0.05	< 0.05
Azobenzene	mg/kg	NC	< 0.3	< 0.3	-	-	-	< 0.3	< 0.3	-	-	-	-	-	-	< 0.3	< 0.3
Bromophenyl phenyl ether	mg/kg	NC	< 0.2	< 0.2	-	-	-	< 0.2	< 0.2	-	-	-	-	-	-	< 0.2	< 0.2
Hexachlorobenzene	mg/kg	18	< 0.3	< 0.3	-	-	-	< 0.3	< 0.3	-	-	-	-	-	-	< 0.3	< 0.3
Phenanthrene	mg/kg	3070	1.1	0.48	-	-	-	< 0.05	< 0.05	-	-	-	-	-	-	1.3	1.2
Anthracene	mg/kg	74100	0.26	< 0.05	-	-	-	< 0.05	< 0.05	-	-	-	-	-	-	0.29	0.31
Carbazole	mg/kg	NC	< 0.3	< 0.3	-	-	-	< 0.3	< 0.3	-	-	-	-	-	-	< 0.3	< 0.3
Diethyl phthalate	mg/kg	NC	< 0.2	< 0.2	-	-	-	< 0.2	< 0.2	-	-	-	-	-	-	< 0.2	< 0.2
Anthraquinone	mg/kg	NC	< 0.3	< 0.3	-	-	-	< 0.3	< 0.3	-	-	-	-	-	-	< 0.3	< 0.3
Fluoranthene	mg/kg	3080	2.7	1	-	-	-	< 0.05	< 0.05	-	-	-	-	-	-	2.4	2.8
Pyrene	mg/kg	7410	2.3	0.92	-	-	-	< 0.05	< 0.05	-	-	-	-	-	-	2.2	2.7
Butyl benzyl phthalate	mg/kg	126000	< 0.3	< 0.3	-	-	-	< 0.3	< 0.3	-	-	-	-	-	-	< 0.3	< 0.3
Benz(a)anthracene	mg/kg	29	1.5	0.7	-	-	-	< 0.05	< 0.05	-	-	-	-	-	-	1.3	1.7
Chrysene	mg/kg	57	1.6	0.51	-	-	-	< 0.05	< 0.05	-	-	-	-	-	-	1.3	1.6
Benz(b)fluoranthene	mg/kg	7.2	2.3	0.84	-	-	-	< 0.05	< 0.05	-	-	-	-	-	-	2	2.3
Benz(k)fluoranthene	mg/kg	190	1.1	0.44	-	-	-	< 0.05	< 0.05	-	-	-	-	-	-	0.64	1.3
Benz(a)pyrene	mg/kg	5.7	2	0.8	-	-	-	< 0.05	< 0.05	-	-	-	-	-	-	1.6	2.2
Indeno(1,2,3-cd)pyrene	mg/kg	NC	1	0.41	-	-	-	< 0.05	< 0.05	-	-	-	-	-	-	0.94	1.2
Dibenz(a,h)anthracene	mg/kg	NC	0.19	< 0.05	-	-	-	< 0.05	< 0.05	-	-	-	-	-	-	< 0.05	< 0.02
Benz(g,h)perylene	mg/kg	NC	1.1	0.49	-	-	-	< 0.05	< 0.05	-	-	-	-	-	-	1	1.23
PCBs																	
PCB Congener 077	mg/kg	NC	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
PCB Congener 081	mg/kg	NC	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
PCB Congener 105	mg/kg	NC	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
PCB Congener 114	mg/kg	NC	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
PCB Congener 118	mg/kg	NC	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
PCB Congener 123	mg/kg	NC	< 0.001	< 0.001	< 0.001												

Project: Longford Place Controlled Waters Assessment- Groundwater			Exploratory hole	BH101	BH201	BH202	BH101	BH201	BH202
Sample round			1	1	1	1	1	1	1
Date sampled			27.2.18	27.2.18	27.2.18	06.03.18	06.03.18	06.03.18	06.03.18
Determinants	Units	Criterion*	Source						
General Inorganics									
pH	pH Units	NC		7.2	7.5	7.1	7.3	7.5	7.3
Total Cyanide	µg/l	NC		< 10	< 10	< 10	< 10	< 10	< 10
Chloride	mg/l	250	DWS	69	26	76	66	20	85
Ammoniacal Nitrogen as N	µg/l	NC		140	40	610	280	36	680
Dissolved Organic Carbon (DOC)	mg/l	NC		4.24	3.2	4.25	4.1	3.08	4.7
Hardness - Total	mgCaCO3/l	NC		217	178	353	265	177	384
Total Phenols									
Total Phenols (monohydric)	µg/l	1000	UK 1989	< 10	< 10	< 10	< 10	< 10	< 10
Speciated PAHs									
Naphthalene	µg/l	2	EQS	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01
Acenaphthylene	µg/l	NC		< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01
Acenaphthene	µg/l	NC		< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01
Fluorene	µg/l	NC		< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01
Phenanthrene	µg/l	NC		< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01
Anthracene	µg/l	NC		< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01
Fluoranthene	µg/l	NC		< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01
Pyrene	µg/l	NC		< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01
Benzo(a)anthracene	µg/l	NC		< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01
Chrysene	µg/l	NC		< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01
Benzo(b)fluoranthene	µg/l	0.1	DWS	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01
Benzo(k)fluoranthene	µg/l	0.1	DWS	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01
Benzo(a)pyrene	µg/l	0.01	DWS	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01
Indeno(1,2,3-cd)pyrene	µg/l	0.1	DWS	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01
Dibenz(a,h)anthracene	µg/l	NC		< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01
Benzo(ghi)perylene	µg/l	0.1	DWS	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01
Total PAH									
Total EPA-16 PAHs	µg/l	NC		< 0.16	< 0.16	< 0.16	< 0.16	< 0.16	< 0.16
Heavy Metals / Metalloids									
Antimony (dissolved)	µg/l	5	DWS	< 0.4	0.4	< 0.4	0.4	< 0.4	< 0.4
Arsenic (dissolved)	µg/l	10	DWS	0.75	0.66	0.81	0.78	0.49	0.98
Beryllium (dissolved)	µg/l	NC		< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	0.1
Cadmium (dissolved)	µg/l	5	DWS	< 0.02	0.02	0.04	< 0.02	< 0.02	< 0.02
Calcium (dissolved)	mg/l	250	UK 1989	77	65	130	97	65	140
Chromium (dissolved)	µg/l	50	DWS	0.6	< 0.2	< 0.2	< 0.2	0.2	0.5
Copper (dissolved)	µg/l	2000	DWS	5.9	1.7	3.8	3	1.9	12
Lead (dissolved)	µg/l	10	DWS	0.3	< 0.2	< 0.2	< 0.2	< 0.2	1.6
Magnesium (dissolved)	mg/l	50	UK 1989	6	3.7	8.3	5.5	3.5	9
Manganese (dissolved)	µg/l	100	EQS	9.8	2	170	9	3.8	72
Mercury (dissolved)	µg/l	1	DWS	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
Nickel (dissolved)	µg/l	20	DWS	2.7	2.2	5.5	1.9	1.4	3.8
Selenium (dissolved)	µg/l	10	EQS	6.6	5.7	1.4	8.6	6.6	2
Vanadium (dissolved)	µg/l	20	EQS	2.4	1	2			
Zinc (dissolved)	µg/l	500	EQS	8.3	4.1	2.6	3.1	1.7	4.3
Monoaromatics									
Benzene	µg/l	1	DWS	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Toluene	µg/l	50	DWS	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Ethylbenzene	µg/l	20	EQS	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
p & m-xylene	µg/l	30	EQS	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
o-xylene	µg/l	30	EQS	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
MTBE (Methyl Tertiary Butyl Ether)	µg/l			< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Petroleum Hydrocarbons									
Petroleum Range Organics (C6 - C10)	µg/l	NC		< 10.0	< 10.0	< 10.0	< 10.0	< 10.0	< 10.0
Mineral Oil (C10 - C40)	µg/l	NC		< 10.0	< 10.0	< 10.0	< 10.0	< 10.0	< 10.0
Diesel Range Organics (C10 - C25)	µg/l	NC		< 10	< 10	< 10	< 10	< 10	< 10
TPH-CWG - Aliphatic >C5 - C6	µg/l	15000	WHO	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
TPH-CWG - Aliphatic >C6 - C8	µg/l	15000	WHO	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
TPH-CWG - Aliphatic >C8 - C10	µg/l	300	WHO	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
TPH-CWG - Aliphatic >C10 - C12	µg/l	300	WHO	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
TPH-CWG - Aliphatic >C12 - C16	µg/l	300	WHO	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
TPH-CWG - Aliphatic >C16 - C21	µg/l	NC		< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
TPH-CWG - Aliphatic >C21 - C35	µg/l	NC		< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
TPH-CWG - Aliphatic >C35 - C44	µg/l	NC		< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
TPH-CWG - Aliphatic (C5 - C35)	µg/l	NC		< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
TPH-CWG - Aliphatic (C5 - C44)	µg/l	NC		< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
TPH-CWG - Aromatic >C5 - C7	µg/l	10	WHO	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
TPH-CWG - Aromatic >C7 - C8	µg/l	700	WHO	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
TPH-CWG - Aromatic >C8 - C10	µg/l	300	WHO	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
TPH-CWG - Aromatic >C10 - C12	µg/l	90	WHO	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
TPH-CWG - Aromatic >C12 - C16	µg/l	90	WHO	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
TPH-CWG - Aromatic >C16 - C21	µg/l	90	WHO	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
TPH-CWG - Aromatic >C21 - C35	µg/l	90	WHO	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
TPH-CWG - Aromatic >C35 - C44	µg/l	NC		< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
TPH-CWG - Aromatic (C5 - C35)	µg/l	NC		< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
TPH-CWG - Aromatic (C5 - C44)	µg/l	NC		< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
TPH Total C8 - C40	µg/l	NC		< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
VOCs									
Chloromethane	µg/l	NC		< 1.0	< 1.0	< 1.0			
Chloroethane	µg/l	NC		< 1.0	< 1.0	< 1.0			
Bromomethane	µg/l	NC		< 1.0	< 1.0	< 1.0			
Vinyl Chloride	µg/l	NC		< 1.0	< 1.0	< 1.0			
Trichlorofluoromethane	µg/l	NC		< 1.0	< 1.0	< 1.0			
1,1-Dichloroethene	µg/l	NC		< 1.0	< 1.0	< 1.0			
1,1,2-Trichloro-1,2,2-trifluoroethane	µg/l	NC		< 1.0	< 1.0	< 1.0			
Cis-1,2-dichloroethene	µg/l	NC		< 1.0	< 1.0	< 1.0			
MTBE (Methyl Tertiary Butyl Ether)	µg/l	NC		< 1.0	< 1.0	< 1.0			
1,1-Dichloroethane	µg/l	NC		< 1.0	< 1.0	< 1.0			
2,2-Dichloropropane	µg/l	NC		< 1.0	< 1.0	< 1.0			
Trichloromethane	µg/l	NC		< 1.0	< 1.0	< 1.0			
1,1,1-Trichloroethane	µg/l	NC		< 1.0	< 1.0	< 1.0			
1,2-Dichloroethane	µg/l	NC		< 1.0	< 1.0	< 1.0			
1,1-Dichloropropene	µg/l	NC		< 1.0	< 1.0	< 1.0			
Trans-1,2-dichloroethene	µg/l	NC		< 1.0	< 1.0	< 1.0			
Benzene	µg/l	1	DWS	< 1.0	< 1.0	< 1.0			
Tetrachloromethane	µg/l	NC		< 1.0	< 1.0	< 1.0			
1,2-Dichloropropane	µg/l	NC		< 1.0	< 1.0	< 1.0			
Trichloroethene	µg/l	NC		< 1.0	< 1.0	< 1.0			
Dibromomethane	µg/l	NC		< 1.0	< 1.0	< 1.0			
Bromodichloromethane	µg/l	NC		< 1.0	< 1.0	< 1.0			
Cis-1,3-dichloropropene	µg/l	NC		< 1.0	< 1.0	< 1.0			
Trans-1,3-dichloropropene	µg/l	NC		< 1.0	< 1.0	< 1.0			
Toluene	µg/l	50	DWS	< 1.0	< 1.0	< 1.0			
1,1,2-Trichloroethane	µg/l	NC		< 1.0	< 1.0	< 1.0			
1,3-Dichloropropane	µg/l	NC		< 1.0	< 1.0	< 1.0			
Dibromochloromethane	µg/l	NC		< 1.0	< 1.0	< 1.0			
Tetrachloroethene	µg/l	NC		< 1.0	< 1.0	< 1.0			
1,2-Dibromoethane	µg/l	NC		< 1.0	< 1.0	< 1.0			
Chlorobenzene	µg/l	NC		< 1.0	< 1.0	< 1.0			
1,1,1,2-Tetrachloroethane	µg/l	NC		< 1.0	< 1.0	< 1.0			
Ethylbenzene	µg/l	20	EQS	< 1.0	< 1.0	< 1.0			
p & m-Xylene	µg/l	30	EQS	< 1.0	< 1.0	< 1.0			
Styrene	µg/l	NC		< 1.0	< 1.0	< 1.0			
Tribromomethane	µg/l	NC		< 1.0	< 1.0	< 1.0			
o-Xylene	µg/l	30	EQS	< 1.0	< 1.0	< 1.0			
1,1,2,2-Tetrachloroethane	µg/l	NC		< 1.0	< 1.0	< 1.0			
Isopropylbenzene	µg/l	NC		< 1.0	< 1.0	< 1.0			

Project: Longford Place Controlled Waters Assessment- Groundwater		Exploratory hole	BH101	BH201	BH202	BH101	BH201	BH202
		Sample round	1	1	1	1	1	1
		Date sampled	27.2.18	27.2.18	27.2.18	06.03.18	06.03.18	06.03.18
Bromobenzene	µg/l	NC	< 1.0	< 1.0	< 1.0			
n-Propylbenzene	µg/l	NC	< 1.0	< 1.0	< 1.0			
2-Chlorotoluene	µg/l	NC	< 1.0	< 1.0	< 1.0			
4-Chlorotoluene	µg/l	NC	< 1.0	< 1.0	< 1.0			
1,3,5-Trimethylbenzene	µg/l	NC	< 1.0	< 1.0	< 1.0			
tert-Butylbenzene	µg/l	NC	< 1.0	< 1.0	< 1.0			
1,2,4-Trimethylbenzene	µg/l	NC	< 1.0	< 1.0	< 1.0			
sec-Butylbenzene	µg/l	NC	< 1.0	< 1.0	< 1.0			
1,3-Dichlorobenzene	µg/l	NC	< 1.0	< 1.0	< 1.0			
p-Isopropyltoluene	µg/l	NC	< 1.0	< 1.0	< 1.0			
1,2-Dichlorobenzene	µg/l	NC	< 1.0	< 1.0	< 1.0			
1,4-Dichlorobenzene	µg/l	NC	< 1.0	< 1.0	< 1.0			
Butylbenzene	µg/l	NC	< 1.0	< 1.0	< 1.0			
1,2-Dibromo-3-chloropropane	µg/l	NC	< 1.0	< 1.0	< 1.0			
1,2,4-Trichlorobenzene	µg/l	NC	< 1.0	< 1.0	< 1.0			
Hexachlorobutadiene	µg/l	NC	< 1.0	< 1.0	< 1.0			
1,2,3-Trichlorobenzene	µg/l	NC	< 1.0	< 1.0	< 1.0			
SVOCs								
Aniline	µg/l	NC	< 0.05	< 0.05	< 0.05			
Phenol	µg/l	NC	< 0.05	< 0.05	< 0.05			
2-Chlorophenol	µg/l	NC	< 0.05	< 0.05	< 0.05			
Bis(2-chloroethyl)ether	µg/l	NC	< 0.05	< 0.05	< 0.05			
1,3-Dichlorobenzene	µg/l	NC	< 0.05	< 0.05	< 0.05			
1,2-Dichlorobenzene	µg/l	NC	< 0.05	< 0.05	< 0.05			
1,4-Dichlorobenzene	µg/l	NC	< 0.05	< 0.05	< 0.05			
Bis(2-chloroisopropyl)ether	µg/l	NC	< 0.05	< 0.05	< 0.05			
2-Methylphenol	µg/l	NC	< 0.05	< 0.05	< 0.05			
Hexachloroethane	µg/l	NC	< 0.05	< 0.05	< 0.05			
Nitrobenzene	µg/l	NC	< 0.05	< 0.05	< 0.05			
4-Methylphenol	µg/l	NC	< 0.05	< 0.05	< 0.05			
Isophorone	µg/l	NC	< 0.05	< 0.05	< 0.05			
2-Nitrophenol	µg/l	NC	< 0.05	< 0.05	< 0.05			
2,4-Dimethylphenol	µg/l	NC	< 0.05	< 0.05	< 0.05			
Bis(2-chloroethoxy)methane	µg/l	NC	< 0.05	< 0.05	< 0.05			
1,2,4-Trichlorobenzene	µg/l	NC	< 0.05	< 0.05	< 0.05			
Naphthalene	µg/l	2	< 0.01	< 0.01	< 0.01			
2,4-Dichlorophenol	µg/l	NC	< 0.05	< 0.05	< 0.05			
4-Chloroaniline	µg/l	NC	< 0.05	< 0.05	< 0.05			
Hexachlorobutadiene	µg/l	NC	< 0.05	< 0.05	< 0.05			
4-Chloro-3-methylphenol	µg/l	NC	< 0.05	< 0.05	< 0.05			
2,4,6-Trichlorophenol	µg/l	NC	< 0.05	< 0.05	< 0.05			
2,4,5-Trichlorophenol	µg/l	NC	< 0.05	< 0.05	< 0.05			
2-Methylnaphthalene	µg/l	NC	< 0.05	< 0.05	< 0.05			
2-Chloronaphthalene	µg/l	NC	< 0.05	< 0.05	< 0.05			
Dimethylphthalate	µg/l	NC	< 0.05	< 0.05	< 0.05			
2,6-Dinitrotoluene	µg/l	NC	< 0.05	< 0.05	< 0.05			
Acenaphthylene	µg/l	NC	< 0.01	< 0.01	< 0.01			
Acenaphthene	µg/l	NC	< 0.01	< 0.01	< 0.01			
2,4-Dinitrotoluene	µg/l	NC	< 0.05	< 0.05	< 0.05			
Dibenzofuran	µg/l	NC	< 0.05	< 0.05	< 0.05			
4-Chlorophenyl phenyl ether	µg/l	NC	< 0.05	< 0.05	< 0.05			
Diethyl phthalate	µg/l	NC	< 0.05	< 0.05	< 0.05			
4-Nitroaniline	µg/l	NC	< 0.05	< 0.05	< 0.05			
Fluorene	µg/l	NC	< 0.01	< 0.01	< 0.01			
Azobenzene	µg/l	NC	< 0.05	< 0.05	< 0.05			
Bromophenyl phenyl ether	µg/l	NC	< 0.05	< 0.05	< 0.05			
Hexachlorobenzene	µg/l	NC	< 0.05	< 0.05	< 0.05			
Phenanthrene	µg/l	NC	< 0.01	< 0.01	< 0.01			
Anthracene	µg/l	NC	< 0.01	< 0.01	< 0.01			
Carbazole	µg/l	NC	< 0.05	< 0.05	< 0.05			
Dibutyl phthalate	µg/l	NC	< 0.05	< 0.05	< 0.05			
Anthraquinone	µg/l	NC	< 0.05	< 0.05	< 0.05			
Fluoranthene	µg/l	NC	< 0.01	< 0.01	< 0.01			
Pyrene	µg/l	NC	< 0.01	< 0.01	< 0.01			
Butyl benzyl phthalate	µg/l	NC	< 0.05	< 0.05	< 0.05			
Benzo(a)anthracene	µg/l	NC	< 0.01	< 0.01	< 0.01			
Chrysene	µg/l	NC	< 0.01	< 0.01	< 0.01			
Benzo(b)fluoranthene	µg/l	NC	< 0.01	< 0.01	< 0.01			
Benzo(k)fluoranthene	µg/l	NC	< 0.01	< 0.01	< 0.01			
Benzo(a)pyrene	µg/l	NC	< 0.01	< 0.01	< 0.01			
Indeno(1,2,3-cd)pyrene	µg/l	NC	< 0.01	< 0.01	< 0.01			
Dibenz(a,h)anthracene	µg/l	NC	< 0.01	< 0.01	< 0.01			
Benzo(ghi)perylene	µg/l	NC	< 0.01	< 0.01	< 0.01			
PCBs by GC-MS								
PCB Congener 28	mg/l	NC	< 0.00002	< 0.00002	< 0.00002	< 0.00002	< 0.00002	< 0.00002
PCB Congener 52	mg/l	NC	< 0.00002	< 0.00002	< 0.00002	< 0.00002	< 0.00002	< 0.00002
PCB Congener 101	mg/l	NC	< 0.00002	< 0.00002	< 0.00002	< 0.00002	< 0.00002	< 0.00002
PCB Congener 118	mg/l	NC	< 0.00002	< 0.00002	< 0.00002	< 0.00002	< 0.00002	< 0.00002
PCB Congener 138	mg/l	NC	< 0.00002	< 0.00002	< 0.00002	< 0.00002	< 0.00002	< 0.00002
PCB Congener 153	mg/l	NC	< 0.00002	< 0.00002	< 0.00002	< 0.00002	< 0.00002	< 0.00002
PCB Congener 180	mg/l	NC	< 0.00002	< 0.00002	< 0.00002	< 0.00002	< 0.00002	< 0.00002
Total ICES-7 PCBs	mg/l	NC	0.00014	0.00014	0.00014	0.00014	0.00014	0.00014

Project: Longford Place Controlled Waters Assessment- Soil Leachate				Exploratory hole	BH201	BH201	BH201	BH202	BH202	HP101	HP101	HP102	HP102	HP103	HP103	BH201
				Sample depth (m)	0.3	1	2.5	0.3	1	0.1	1	0.3	1	0.3	1	7.3
				Date sampled	12.2.18	12.2.18	13.2.18	13.2.18	13.2.18	14.2.18	14.2.18	14.2.18	14.2.18	13.2.18	13.2.18	13.2.18
				Strata												
Determinants	Units	Criterion	Source													
Arsenic	mg/l	0.05	EQS		0.008	0.007	< 0.0011	0.018	0.012	0.010	0.011	0.003	0.009	0.007	0.009	0.002
Barium	mg/l	0.10	EQS		0.007	0.006	0.002	0.007	0.004	0.008	0.006	0.010	0.007	0.011	0.011	0.006
Cadmium	mg/l	0.005	EQS		< 0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0001
Chromium	mg/l	0.05	EQS		0.001	0.002	< 0.0004	0.007	0.004	0.011	0.010	0.005	0.011	0.028	0.025	0.001
Copper	mg/l	0.001	EQS		0.027	0.013	0.001	0.017	0.008	0.011	0.007	0.007	0.010	0.009	0.008	0.030
Mercury	mg/l	0.001	EQS		< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005
Molybdenum	mg/l	0.07	WHO 2004		0.011	0.003	0.002	0.003	0.024	0.002	0.003	0.003	0.005	0.004	0.004	0.012
Nickel	mg/l	0.004	EQS		0.001	0.001	< 0.0003	< 0.0003	< 0.0003	< 0.0003	< 0.0003	< 0.0003	< 0.0003	< 0.0003	< 0.0003	0.002
Lead	mg/l	0.05	EQS		0.009	0.012	0.001	0.009	0.003	0.006	0.009	0.009	0.007	0.024	0.022	< 0.0010
Antimony	mg/l	0.005	DWS		< 0.0017	< 0.0017	< 0.0017	< 0.0017	< 0.0017	< 0.0017	< 0.0017	< 0.0017	< 0.0017	< 0.0017	< 0.0017	< 0.0017
Selenium	mg/l	0.01	EQS		< 0.0040	< 0.0040	< 0.0040	< 0.0040	< 0.0040	< 0.0040	< 0.0040	< 0.0040	< 0.0040	< 0.0040	< 0.0040	0
Zinc	mg/l	0.01	EQS		0	0	0	0	0	0	0	0	0	0	0	0
Chloride	mg/l	NC			1	1	7	5	10	1	1	3	3	15	16	13
Fluoride	mg/l	NC			0.680	0.370	0.190	0.290	0.870	0.490	0.440	0.360	0.240	0.360	0.330	0.880
Sulphate	mg/l	NC			3.200	5.200	3.500	29.000	31.000	10.000	10.000	31.000	36.000	82.000	76.000	48.000
Total Dissolved Solids	mg/l	NC			64	45	22	130	110	56	54	86	100	170	160	74
Phenol Index	mg/l	0.50	DWS		< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010
Dissolved Organic Carbon	mg/l	NC			12.6	5.88	3.36	4.01	4.24	2.9	2.64	6.37	4.39	4.36	3.85	3.24

Project: Longford Place Waste Assessment			Exploratory hole	BH201	BH201	BH201	BH201	BH202	BH202	HP103	HP103	HP101	HP101	HP102	HP102
			Sample depth (m)	0.3	1	2.5	7.3	0.3	1	0.3	1	0.1	1	0.3	1
			Date sampled	12.2.18	12.2.18	13.2.18	13.2.18	13.2.18	13.2.18	13.2.18	13.2.18	14.2.18	14.2.18	14.2.18	14.2.18
			Strata												
Determinants	Units	Inert WAC													
Arsenic	mg/kg	0.5	0.0543	0.0586	< 0.0110	0.0138	0.143	0.0891	0.055	0.0712	0.067	0.0793	0.0226	0.072	
Barium	mg/kg	20	0.0474	0.053	0.0176	0.0402	0.0556	0.0328	0.0897	0.0905	0.0567	0.0418	0.0769	0.0551	
Cadmium	mg/kg	0.04	< 0.0008	< 0.0008	< 0.0008	< 0.0008	< 0.0008	< 0.0008	< 0.0008	< 0.0008	< 0.0008	< 0.0008	< 0.0008	< 0.0008	< 0.0008
Chromium	mg/kg	0.5	0.0092	0.018	< 0.0040	0.006	0.051	0.028	0.23	0.2	0.078	0.075	0.037	0.087	
Copper	mg/kg	2	0.19	0.11	< 0.0070	0.2	0.14	0.057	0.076	0.066	0.076	0.048	0.057	0.086	
Mercury	mg/kg	0.01	< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.0050
Molybdenum	mg/kg	0.5	0.0728	0.0215	0.0146	0.0836	0.0269	0.175	0.0362	0.0344	0.0167	0.021	0.0233	0.0399	
Nickel	mg/kg	0.4	0.0076	0.0062	< 0.0030	0.012	< 0.0030	< 0.0030	< 0.0030	< 0.0030	< 0.0030	< 0.0030	< 0.0030	< 0.0030	< 0.0030
Lead	mg/kg	0.5	0.065	0.1	0.01	< 0.010	0.067	0.02	0.2	0.18	0.041	0.064	0.074	0.056	
Antimony	mg/kg	0.06	< 0.017	< 0.017	< 0.017	< 0.017	< 0.017	< 0.017	< 0.017	< 0.017	< 0.017	< 0.017	< 0.017	< 0.017	< 0.017
Selenium	mg/kg	0.1	< 0.040	< 0.040	< 0.040	0.15	< 0.040	< 0.040	< 0.040	< 0.040	< 0.040	< 0.040	< 0.040	< 0.040	< 0.040
Zinc	mg/kg	4	0.11	0.12	0.018	0.072	0.02	0.021	0.046	0.079	0.042	0.056	0.057	0.023	
Chloride	mg/kg	800	5.8	6.9	50	90	38	74	120	130	4.2	5	22	23	
Fluoride	mg/kg	10	4.8	3.1	1.4	6	2.3	6.5	3	2.8	3.5	3.2	2.9	2	
Sulphate	mg/kg	1000	22	44	26	320	230	230	690	640	72	73	250	300	
Total Dissolved Solids	mg/kg	4000	450	380	170	500	1100	810	1400	1400	400	390	690	860	
Phenol Index	mg/kg	1	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10
Dissolved Organic Carbon	mg/kg	500	87.5	49.9	25.5	21.9	31.7	31.7	36.4	32	20.3	19.2	50.7	36.4	
TOC	%	3%	4.8	0.6	< 0.1	0.6	0.7	0.4	1	0.9	2.7	1.1	0.6	0.7	