

Trial Pit Log



Soil Mechanics

Logged by SM Checked by SS	Equipment and Methods Machine excavated Trial Pit from 0.00m to 2.30m.	Ground Level + 5.68 m AOD Coordinates 543360.53 mE 180406.28 mN
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GL	A	B	C	D
1.0				
2.0				
3.0				
4.0				

End of Trial Pit at 2.30m

A
B
C
D

Excavation date 03/07/2000

Samples and Tests			Strata		
Depth (m)	Type & No.	Records	Depth (m)	No.	Description
0.50	B1		0.00-0.10	1	Reinforced CONCRETE at 0.10mm. Bars of 10mm diameter at 100mm centres. (MADE GROUND)
			0.10-0.50	2	Grey brown clayey sandy angular to rounded fine to coarse GRAVEL of flint and concrete. (MADE GROUND)
			0.50-0.75	3	Soft to firm dark brown and grey sandy very silty CLAY and rounded to angular fine to coarse GRAVEL of flint and concrete. (MADE GROUND)
0.80	B2		0.75-1.30	4	Orange brown clayey locally very clayey medium to coarse SAND and rounded fine to coarse GRAVEL of flint. (MADE GROUND)
1.30	B3		1.30-1.40	5	White silt size to cobble size CHALK. (MADE GROUND)
1.50	B4		1.40-2.20	6	Orange brown clayey locally very clayey medium to coarse SAND and rounded fine to coarse GRAVEL of flint. (MADE GROUND)
2.20	B5		2.20-2.30	7	Firm blue grey mottled dark blue grey very silty CLAY. (ALLUVIUM/MADE GROUND?)

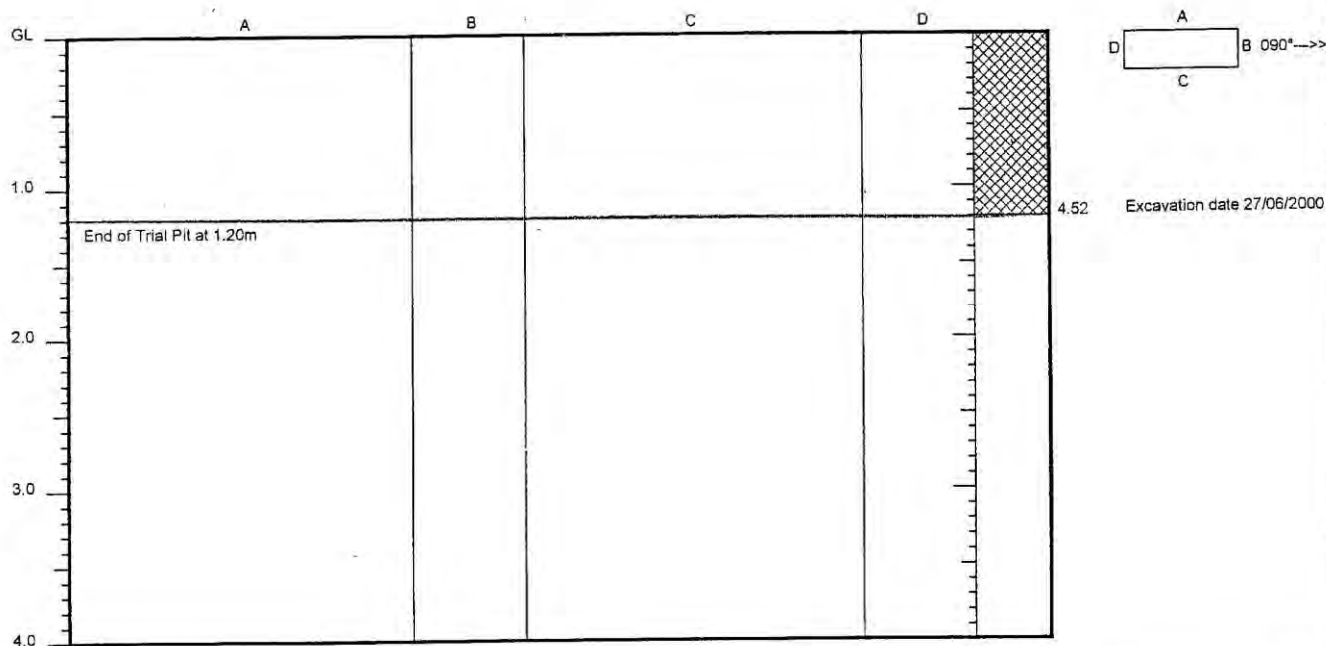
Groundwater No groundwater observed	Remarks 1. Breaking at ground level through concrete for 15 mins. 2. Sides of pit unstable from 0.10m to 2.20m depth.
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Notes : For explanation of symbols and abbreviations see key sheet. All depths in metres. Scale 1 : 50	Project LONDON CITY AIRPORT Project no. 140013 Carried out for GIBB LTD	626	Trial Pit TP229 Sheet 1 of 1
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29/09/2000 14:18:21

Trial Pit Log

Logged by SMG Checked by SS	Equipment and Methods Machine excavated Trial Pit from 0.00m to 1.20m.	Ground Level + 5.72 m AOD Coordinates 543414.95 mE 180403.83 mN
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Samples and Tests			Strata		
Depth (m)	Type & No.	Records	Depth (m)	No.	Description
0.50 1.00	B1 CD1		0.00-1.20	1	Brown-grey very sandy silty fine to coarse GRAVEL and COBBLES size fragments of concrete and brick. (MADE GROUND) At 0.60m: with fragments 100mm spaced 15mm diameter reinforcing. At 0.90m: With occasional ceramic faced 1/2 bricks and rare shards of fabric and textile. At 1.00m: Very gravelly with some brick cobbles. At 1.20m: Concrete slab.

Groundwater
No groundwater observed

Remarks
1. Concrete slab encountered at 1.20m depth. Pit extended 3m to east. Concrete continued.
2. Trial Pit terminated.

Notes : For explanation of symbols and abbreviations see key sheet. All depths in metres.
Scale 1 : 50

Project LONDON CITY AIRPORT
Project no. 140013
Carried out for GIBB LTD

627

Trial Pit
TP230
Sheet 1 of 1

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29/09/2000 17:30:24

Trial Pit Log



Soil Mechanics

Logged by SM Checked by SS	Equipment and Methods Machine excavated Trial Pit from 0.00m to 2.00m.	Ground Level + 5.71 m AOD Coordinates 543475.05 mE 180403.69 mN
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GL	A	B	C	D
1.0				5.16
2.0				4.91
3.0				3.71
4.0				

End of Trial Pit at 2.00m

Excavation date 01/07/2000

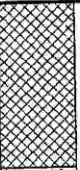
Samples and Tests			Strata		
Depth (m)	Type & No.	Records	Depth (m)	No.	Description
0.40	B1		0.00-0.15	1	Reinforced CONCRETE at 0.15m depth of 10mm diameter reinforcing running east to west. (MADE GROUND)
			0.15-0.55	2	Orange brown fine to medium SAND and rounded fine to coarse GRAVEL of flint. (MADE GROUND)
			At 0.50-0.55m: Dark grey brown medium gravel sized wood chippings.		
1.50	B2		0.55-0.80	3	Light brown very silty fine SAND. (MADE GROUND)
			0.80-2.00	4	Orange brown fine to coarse SAND and rounded fine to coarse GRAVEL of flint. (MADE GROUND)

Groundwater No groundwater observed	Remarks 1. Constant collapse of sides from 0.80m-2.00m.
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Notes : For explanation of symbols and abbreviations see key sheet. All depths in metres. Scale 1 : 50	Project LONDON CITY AIRPORT Project no. 140013 Carried out for GIBB LTD	629	Trial Pit TP232 Sheet 1 of 1
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Borehole Log

Soil Mechanics

Drilled by DIACORE Logged by SJD Checked by		Equipment and Methods Concrete Cored from 1.10m to 1.26m, 70mm diameter using a portable diamond drill.				Ground Level + 5.42 m AOD Coordinates 543371.01 mE 180449.42 mN	
Samples and Tests					Strata		
Depth	TCR SCR RQD	If	Records	Date Casing Time Water	Description	Depth, Level (Thickness)	Legend
1.10 - 1.26				10/07/2000	For description of soil see log TP219.	(1.10)	 
				10/07/2000	Light grey CONCRETE, strong, 50 to 55% aggregate of subangular to rounded fine to medium flint. Around 1.15m: 70 to 80% aggregate of angular to subrounded fine flint. BOREHOLE ENDS AT 1.26 m.	1.10 +4.32 1.26 +4.16	
Groundwater					Remarks TCR/SCR/RQD: 1.10-1.26 100//		
Notes : For explanation of symbols and abbreviations see key sheet. All depths and reduced levels in metres. Stratum thickness given in brackets in depth column. Scale 1 : 50					Project LONDON CITY AIRPORT Project no. 140013 Carried out for GIBB LTD		Borehole CC219C Sheet 1 of 1

18/08/2000 16:07:31

630

Borehole Log

Soil Mechanics

Drilled by DIACORE Logged by SJD Checked by		Equipment and Methods Concrete Cored from 1.60m to 1.90m, 70mm diameter core using a portable diamond drill.				Ground Level + 5.68 m AOD Coordinates 543439.49 mE 180447.88 mN	
Samples and Tests					Strata		
Depth	TCR SCR RQD	If	Records	Date Casing Time Water	Description	Depth, Level (Thickness)	Legend
				10/07/2000	For descriptions of soil see log TP221.	(1.60)	
				10/07/2000	Light grey CONCRETE, strong, 50 to 60% aggregate of angular to rounded fine to coarse flint. BOREHOLE ENDS AT 1.90 m.	1.60 +4.08 (0.30pen) 1.90 +3.78	
Groundwater Not applicable					Remarks		
Notes : For explanation of symbols and abbreviations see key sheet. All depths and reduced levels in metres. Stratum thickness given in brackets in depth column. Scale 1 : 50					Project LONDON CITY AIRPORT Project no. 140013 Carried out for GIBB LTD		Borehole CC221C Sheet 1 of 1

18/08/2000 16:29:35

631

Borehole Log

Drilled by DIACORE Logged by SJD Checked by		Equipment and Methods Concrete Cored from 0.50m to 0.65m, 70mm diameter core using a portable diamond drill.				Ground Level + 5.73 m AOD Coordinates 543454.49 mE 180421.49 mN		
Samples and Tests					Strata			
Depth	TCR SCR RQD	If	Records	Date Casing	Time Water	Description	Depth, Level (Thickness)	Legend
0.50 - 0.65				10/07/2000		For description of soil see log TP227.	(0.50)	
				10/07/2000		Light grey CONCRETE, strong, 40 to 50% aggregate of subangular to subrounded fine to medium flint, less than 1% air voids BOREHOLE ENDS AT 0.65 m.	0.50 +5.23 0.65 +5.08	
Groundwater Not applicable.						Remarks TCR/SCR/RQD: 0.50-0.65 100/0		
Notes: For explanation of symbols and abbreviations see key sheet. All depths and reduced levels in metres. Stratum thickness given in brackets in depth column. Scale 1: 50				Project LONDON CITY AIRPORT Project no. 140013 Carried out for GIBB LTD		632		Borehole CC227C Sheet 1 of 1

18/08/2000 16:29:46

Borehole Log

Soil Mechanics

Drilled by DIACORE Logged by RM Checked by		Equipment and Methods Concrete cored from 0.00m to 3.32m, 70mm diameter core using a portable diamond drill.				Ground Level + 5.53 m AOD Coordinates 543316.08 mE 180393.95 mN		
Samples and Tests					Strata			
Depth	TCR SCR RQD	If	Records	Date Casing	Time Water	Description	Depth, Level (Thickness)	Legend
0.00 - 0.50	88			06/07/2000		White GRANITE, very strong.	(0.44)	
0.50 - 1.09	100					Light grey CONCRETE, strong, 15% aggregate of subrounded to rounded fine to medium flint and quartz, 1 to 5% small voids.	0.44 +5.09 0.50 +5.03	
1.09 - 1.67	117					Light grey CONCRETE, strong, 30 to 40% aggregate of subrounded to rounded fine to coarse flint, 1 to 5% small voids.	(1.34)	
1.67 - 2.26						Light grey CONCRETE, strong, 30 to 35% aggregate of subrounded to rounded fine to coarse flint gravel, 5 to 15% voids with white calcareous deposits on void surfaces.	1.84 +3.69 (0.42)	
2.26 - 2.87	100					Light grey CONCRETE, strong, 35% aggregate of subrounded to rounded fine to coarse flint, 15% void space. Some white calcareous deposits on void surfaces.	2.26 +3.27 (1.06pen)	
2.87 - 3.32	100			06/07/2000		BOREHOLE ENDS AT 3.32 m.	3.32 +2.21	
Groundwater Not applicable.					Remarks			
Notes : For explanation of symbols and abbreviations see key sheet. All depths and reduced levels in metres. Stratum thickness given in brackets in depth column. Scale 1 : 50					Project LONDON CITY AIRPORT Project no. 140013 Carried out for GIBB LTD		Borehole CC241 Sheet 1 of 1	

18/08/2000 14:11:53

633

Borehole Log

Soil Mechanics

Drilled by DIACORE
Logged by RM
Checked by

Equipment and Methods
Concrete Cored from 0.00m to 0.37m. 70mm diameter using portable diamond drill.

Ground Level + 5.68 m AOD
Coordinates 543311.72 mE
180401.92 mN

Samples and Tests

Strata

Depth	TCR SCR RQD	If	Records	Date Casing	Time Water	Description	Depth, Level (Thickness)	Legend
0.00 0.00 - 0.37	38			05/07/2000 05/07/2000		Light grey CONCRETE, strong, 40% aggregate of angular to subangular fine to medium basalt gravel and occasional flints. 1 to 5% voids. Light grey CONCRETE, strong, 30% aggregate of rounded fine to coarse flint gravel with some orange brown staining around aggregate. BOREHOLE ENDS AT 0.37 m.	0.05 +5.63 (0.32m) 0.37 +5.31	

Groundwater
Not applicable

Remarks

Notes : For explanation of symbols and abbreviations see key sheet. All depths and reduced levels in metres. Stratum thickness given in brackets in depth column.
Scale 1 : 50

Project LONDON CITY AIRPORT
Project no. 140013
Carried out for GIBB LTD

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Borehole
CC242
Sheet 1 of 1

Borehole Log

Soil Mechanics

Drilled by DIACORE Logged by RM Checked by		Equipment and Methods Concrete Cored from 0.00m to 0.42m. 70 mm diameter core using portable diamond drill.			Ground Level + 5.74 m AOD Coordinates 543411.71 mE 180399.96 mN	
Samples and Tests				Strata		
Depth	TCR SCR RQD	If	Records	Date Casing Water	Description	Depth, Level (Thickness)
0.00				05/07/2000	Light grey CONCRETE, strong, 35 to 40% aggregate of angular to subangular fine to medium basalt gravel and occasional flint. 1% voids. Light grey CONCRETE, strong, 30 to 35% aggregate of subangular to rounded fine to coarse flint. 1 to 5% voids. Steel, possibly a steel plate, 6mm thick. Light grey CONCRETE, strong, 40 to 50% aggregate of subangular to rounded fine to coarse flint gravel. 1% air voids. Light grey CONCRETE, strong, 50% aggregate of subrounded to rounded fine to coarse flint gravel. 1 to 5% voids.	0.05 +5.69
0.19 - 0.42				05/07/2000		0.11 +5.63
						0.12 +5.62
						0.19 +5.55
						0.42 +5.32
					BOREHOLE ENDS AT 0.42 m.	
Groundwater Not applicable.					Remarks TCR/SCR/RQD: 0.00-0.19 100//, 0.00-0.00 //, 0.19-0.42 //	
Notes : For explanation of symbols and abbreviations see key sheet. All depths and reduced levels in metres. Stratum thickness given in brackets in depth column. Scale 1 : 50			Project LONDON CITY AIRPORT Project no. 140013 Carried out for GIBB LTD		Borehole CC243 Sheet 1 of 1	

18/08/2000 14:57:56

635

Borehole Log

Soil Mechanics

Drilled by DIACORE Logged by RM Checked by		Equipment and Methods Concrete Cored from 0.00m to 0.20m, 70mm diameter core using a portable diamond drill.				Ground Level + 5.50 m AOD Coordinates 543405.00 mE 180392.11 mN		
Samples and Tests					Strata			
Depth	TCR SCR RQD	If	Records	Date Casing	Time Water	Description	Depth, Level (Thickness)	Legend
0.00 - 0.20				05/07/2000		Light grey CONCRETE, strong, 30 to 40% aggregate of subangular to rounded fine to coarse flint. 5% voids. BOREHOLE ENDS AT 0.20 m.	0.20 +5.30	
Groundwater						Remarks		
Not applicable.						TCR/SCR/RQD: 0.00-0.20 100//		
Notes: For explanation of symbols and abbreviations see key sheet. All depths and reduced levels in metres. Stratum thickness given in brackets in depth column. Scale 1 : 50				Project LONDON CITY AIRPORT Project no. 140013 Carried out for GIBB LTD		Borehole CC244 Sheet 1 of 1		

18/08/2000 15:47:05

636

Borehole Log

Soil Mechanics

Drilled by DIACORE Logged by RM Checked by		Equipment and Methods Concrete Cored from 0.00m to 0.33m, 70mm diameter using a portable diamond drill.				Ground Level + 5.75 m AOD Coordinates 543470.64 mE 180397.34 mN	
Samples and Tests					Strata		
Depth	TCR SCR RQD	If	Records	Date Casing Water	Description	Depth, Level (Thickness)	Legend
0.00 0.00 - 0.33				05/07/2000 05/07/2000	Light grey CONCRETE, strong, 30% aggregate of angular to subangular fine to fine to medium basalt gravel. 1 to 5% voids. Light grey CONCRETE, strong, 30% aggregate of subrounded to rounded fine to coarse flint. 5% voids. Light grey CONCRETE, strong, 20 to 30% aggregate of subrounded to rounded fine to coarse flint gravel. 1 to 5% voids. BOREHOLE ENDS AT 0.33 m.	0.09 +5.75 0.23 +5.75 0.33 +5.75	
Groundwater Not applicable.					Remarks TCR/SCR/RQD: 0.00-0.33 85//		
Notes: For explanation of symbols and abbreviations see key sheet. All depths and reduced levels in metres. Stratum thickness given in brackets in depth column. Scale 1 : 50					Project LONDON CITY AIRPORT Project no. 140013 Carried out for GIBB LTD		Borehole CC245 Sheet 1 of 1

18/08/2000 15:47:17

637

Borehole Log

Soil Mechanics

Drilled by DIACORE Logged by RM Checked by		Equipment and Methods Concrete Cored from 0.00m to 3.00m. 70mm diameter core using a portable diamond drill.				Ground Level + 5.57 m AOD Coordinates 543467.87 mE 180390.45 mN	
Samples and Tests					Strata		
Depth	TCR SCR RQD	If	Records	Date Casing Time Water	Description	Depth, Level (Thickness)	Legend
0.00 - 0.44	100			05/07/2000	White GRANITE, very strong.	(0.44)	
0.44 - 0.75					Light grey CONCRETE, strong, 20% aggregate of subrounded to rounded fine to medium flint. Locally up to 15% voids.	0.44 +5.13 0.51 +5.06 0.75 +4.82	
0.75 - 1.10	100				Light grey CONCRETE, strong, 30 aggregate of subrounded to rounded fine to coarse flint. 5% voids.	(0.35) 1.10 +4.47	
1.10 - 1.31					Light grey CONCRETE, strong, 30% aggregate of subrounded to rounded fine to medium flint. 1 to 5% voids.	(1.30)	
1.31 - 1.61							
1.60 - 1.80							
1.80 - 1.94							
1.94 - 2.40	75				Light grey CONCRETE, strong, 30% aggregate of subrounded to rounded fine to coarse flint. 5 to 10% voids.	2.40 +3.17	
2.40 - 2.79	100				Light grey CONCRETE, strong, 30% aggregate of subrounded to rounded fine to coarse flint. 10 to 15% voids with white calcareous deposits on void surfaces.	(0.70pen) 3.10 +2.47	
2.79 - 3.10				05/07/2000	BOREHOLE ENDS AT 3.10 m.		
Groundwater					Remarks TCR/SCR/RQD: 0.44-0.75 100//, 1.10-1.31 100//, 1.31-1.61 103//, 1.60-1.80 100// 1.80-1.94 100//, 2.79-3.10 100//		
Notes : For explanation of symbols and abbreviations see key sheet. All depths and reduced levels in metres. Stratum thickness given in brackets in depth column. Scale 1 : 50			Project LONDON CITY AIRPORT Project no. 140013 Carried out for GIBB LTD		638		Borehole CC246 Sheet 1 of 1

18/08/2000 14:12:52

APPENDIX 4

Keltbray 2011 SI Logs

City Airport : Geoprobe hole logs

Geoprobe Hole	Depth (m BGL)	Description	Sample Depths (m BGL)
S10 - 0.3m	CONCRETE overlying thin layer of black tarmac		
	0.3 - 0.4m	Bro n clayey slightly sandy and gravelly ADE GRO ND ith shell ash	
	0.4 - 0.5m	Pink HOGGIN	
	0.5 - 0.85m	Dark brown grey clayey sandy gravelly ADE GRO ND ith brick fragments. 0.7-0.8m	
	0.85 - 1.1m	Loose grey n pink HOGGIN	
	1.1 - 1.2m	Black loose gravelly ash HOGGIN ADE GRO ND	
	1.2 - 1.45m	Dark grey black clayey ADE GRO ND ith gravel ash and brick fragments. PID = 11.9ppm	1.3-1.45m
	1.45 - 2.0m	Soft becoming firm ith depth grey alluvial CLA ith black mottling. Hydrocarbon odour strongest at Peak PID = 289ppm	1.7-1.8m
	2.0 - 2.35m	Band of black GRA EL	
	2.35 - 3.0m	Soft becoming firm ith depth grey alluvial CLA ith black mottling. 2.5m	
S20 - 0.3m	CONCRETE		
	0.3 - 0.6m	Loose black and black mixed S B BASE	
	0.6 - 0.85m	Loose black orange gravelly ash ADE GRO ND ith brick fragments and plug of clay at base	0.6-0.85m
	0.85 - 1.1m	Band of tarmac black gravelly ash ADE GRO ND	
	1.0 - 1.3m	Fixed loose pink and black sandy gravelly ash ADE GRO ND. Slight hydrocarbon odour. Peak PID = 25.7ppm	1-1.3m
	1.3m - 2.0m	Firm grey CLA ith black mottling. Hydrocarbon odour. Peak PID = 103ppm	1.3-1.45m
	2.0 - 2.1m	Band of black clayey GRA EL	
	2.1 - 3.0m	Firm becoming stiff ith depth grey CLA ith black mottling. Fainter hydrocarbon odour. Peak PID = 66.4ppm	2.2-2.35m
	CONCRETE		
	0.35 - 0.7m	Loose pink and grey S B BASE HOGGIN	0.4-0.7m
S30 - 0.35m	0.7 - 1.0m	Loose black ash sandy gravelly ADE GRO ND	0.7-1.1m
	1.0 - 1.35m	Loose black brown orange gravelly sandy ADE GRO ND 1.1-1.35m	
	1.35 - 2.0m	Soft to firm grey mottled black CLA. Peak PID @ 1.5-1.65m = 26.3ppm. Peak PID @ depth 1.7 - 1.8m = 79.6ppm	1.5-1.65m
	2.0 - 2.45m	White and black fine GRA EL coarse SAND	
	2.45 - 3.0m	Firm grey mottled black CLA. Peak PID = 14.5ppm	2.5-2.6m
	CONCRETE		
	0.2 - 0.55m	Pink and black clayey gravelly S B BASE HOGGIN	0.2-0.55m
	0.55-1.0m	Black ash gravelly slightly clayey ADE GRO ND ith brick fragments 0.55-1.0m	
	1.0 - 1.3m	Loose black yellow gravelly ash ADE GRO ND. Peak PID = 92.1ppm	1.0-1.3m
	1.3 - 1.75m	Soft peaty becoming firmer ith depth grey black silty GRA. Peak PID = 68.1ppm	1.3-1.7m
S40 - 0.2m	1.75 - 2.0m	Loss of Recovery	
	2.0 - 2.3m	Black and yellow loose fine GRA EL coarse SAND. Hydrocarbon odour. Peak PID = 106.5ppm	2.0-2.3m
	2.3 - 3.0m	Firm grey mottled black CLA. Peak PID = 169.7ppm	2.3-2.5m

				
City Airport : Geoprobe hole logs				
Geoprobe Hole	Depth (m BGL)	Description		Sample Depths (m BGL)
S50 - 0.3m	CONCRETE 0.3 - 2.0m BRIC RBBLE			0.3 - 1.0m 1.0 - 1.4m
S60 - 0.6m	Compact BRIC RBBLE 0.6 - 1.7m Rubble FILL			0.6 - 1.0m 1.0 - 1.7m
S70 - 0.35m	TAR AC 0.35 - 0.55m Layer of CONCRETE 0.55 - 1.4m BRIC RBBLE 1.4 - 2.55m 2.55 - 3.0m Firm grey mottled black alluvial CLAY with peat and food fragments	Orange sandy clayey GRADE GROUND with brick and concrete fragments. No odour 2.6-2.85m		0.55-1.1m 1.5-1.8m and 2.2-2.5m
S80 - 0.3m	TAR AC 0.3 - 1.2m BRIC AND CONCRETE RBBLE 1.2 - 2.2m 2.2 - 3.0m	Orange sandy stoney HOGGIN type material becoming more sandy with depths coarse orange SAND with stones and gravel. No odour Soft grey peaty alluvial CLAY decomposed = 0ppm		0.4 - 1.2m 1.2 - 2.0m 2.0 - 2.2m 2.2 - 2.5m



APPENDIX 5

RPS 2013 SI Logs

Project No.:

HLEI_24974

Scale

1:50

Project Name:

London City Airport

Location:

Hartmann Rd E16 2PX

Excavation Method:

Tracked window sample rig

Logged By

MA

Client:

London City Airport Ltd

Dates:

12/02/2013

Level:

Boring Diameter:

100 (mm)

Checked By

NT

Installation Details	Water Strikes	Samples & In Situ Testing			Depth (m)	Level (m ASD)	Legend	Stratum Description	
		Depth (m)	Type	Test Result					
		0.10	ES	0.0ppmV	0.10			Tarmac	1
		0.50 0.50			1.10			MADE GROUND: Sandy gravelly clay. Gravel is fine to coarse fragments of brick, concrete and ash.	
								End of Borehole at 1.10 m	2
									3
									4
									5
									6
									7
									8
									9

Excavation Remarks: Hole terminated at 1.1m bgl on concrete obstruction.

Groundwater Remarks: Groundwater not encountered

Project No.:

HLEI_24974

Project Name:

London City Airport

Location:

Hartmann Rd E16 2PX

Excavation Method:

Tracked window sample rig

Logged By

MA

Client:

London City Airport Ltd

Dates:

19/02/2013

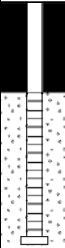
Level:

Boring Diameter:

100 (mm)

Checked By

NT

Installation Details	Water Strikes	Samples & In Situ Testing			Depth (m)	Level (m ASD)	Legend	Stratum Description	
		Depth (m)	Type	Test Result					
		0.10			0.10				
		0.50		0.0ppmV					
		1.00		0.0ppmV					
		1.20	ES						
					1.60				
								End of Borehole at 1.60 m	

Excavation Remarks: Hole terminated at 1.2m bgl on concrete obstruction.

Groundwater Remarks: Groundwater not encountered during drilling

Project No.:

HLEI_24974

Project Name:

London City Airport

Location:

Hartmann Rd E16 2PX

Excavation Method:

Tracked window sample rig

Logged By

MA

Client:

London City Airport Ltd

Dates:

11/02/2013

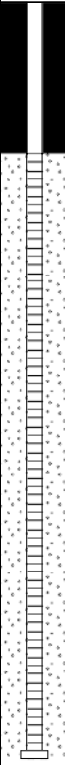
Level:

Boring Diameter:

1000 (mm)

Checked By

NT

Installation Details	Water Strikes	Samples & In Situ Testing			Depth (m)	Level (m ASD)	Legend	Stratum Description	
		Depth (m)	Type	Test Result					
					1.00			MADE GROUND: Soft brown sandy gravelly clay. Gravel is brick, ceramic, ash, clinker, plastic and flint.	1
								MADE GROUND: Gravelly cobbley sand. Gravel is concrete, brick, ash and flint. Cobbles are brick and concrete.	2
					3.70			MADE GROUND: Soft brown gravelly clay. Gravel is brick, ash and clinker.	4
					5.00			End of Borehole at 5.00 m	5
									6
									7
									8
									9

Excavation Remarks:

Hole moved from original position after possible UXO detection.

Groundwater Remarks:

Groundwater not encountered during drilling.

Project No.:

HLEI_24974

Scale

1:50

Project Name:

London City Airport

Location:

Hartmann Rd E16 2PX

Excavation Method:

Tracked window sample rig

Logged By

MA

Client:

London City Airport Ltd

Dates:

11/02/2013

Level:

Boring Diameter:

100

(mm)

Checked By

NT

Installation Details	Water Strikes	Samples & In Situ Testing			Depth (m)	Level (m ASD)	Legend	Stratum Description	
		Depth (m)	Type	Test Result					
		0.15			0.15			CONCRETE	
		0.50		1.0ppmV				MADE GROUND: Black ashy gravelly sand. Gravel is of mixed lithologies, brick and ceramic. Slight hydrocarbon odour.	1
		1.00		12.0ppmV					
		1.30			1.30			MADE GROUND: Soft brown clay.	
		1.50		0.0ppmV					
		1.70			1.70			MADE GROUND: Orange sand and gravel. Both are fine to coarse.	2
		2.00		0.0ppmV					
		2.50		0.0ppmV					
		3.00		0.0ppmV					3
		4.00		0.0ppmV	4.00			MADE GROUND: Dark brown gravelly clay. With fragments of brick and ash (reworked Alluvium).	4
		4.50		0.0ppmV					
		5.00		0.0ppmV	5.00			End of Borehole at 5.00 m	5
									6
									7
									8
									9

Excavation
Remarks:Groundwater Groundwater not encountered during drilling.
Remarks:

Project No.:

HLEI_24974

Project Name:

London City Airport

Location:

Hartmann Rd E16 2PX

Excavation Method:

Tracked window sample rig

Logged By

MA

Client:

London City Airport Ltd

Dates:

15/02/2013

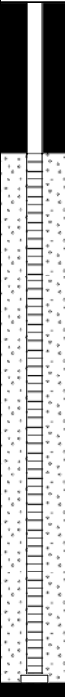
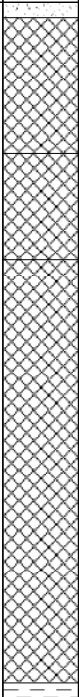
Level:

Boring Diameter:

100 (mm)

Checked By

NT

Installation Details	Water Strikes	Samples & In Situ Testing			Depth (m)	Level (m ASD)	Legend	Stratum Description	
		Depth (m)	Type	Test Result					
		0.10			0.10			Tarmac	
		0.50		0.0ppmV				MADE GROUND: Grey sandy clayey gravel of brick, concrete, ash and stone of mixed lithologies.	
		1.00		0.0ppmV	1.00			MADE GROUND: Orange sandy fine to coarse gravel of stones of mixed lithologies.	1
		1.50		1.0ppmV					
					1.70			MADE GROUND: Black sandy gravelly clay. Gravel is brick, ash and timber (reworked Aluvium).	2
		2.50		2.0ppmV					
		3.00		25.0ppmV					3
		3.50		10.0ppmV					
		4.00		0.0ppmV					4
		4.50		0.0ppmV	4.50			Soft grey mottled black CLAY (Alluvium).	
		5.00		0.0ppmV	5.00			End of Borehole at 5.00 m	5
									6
									7
									8
									9

Excavation
Remarks:Groundwater Groundwater encountered at 4.8m bgl during drilling.
Remarks:

Project No.:

HLEI_24974

Project Name:

London City Airport

Location:

Hartmann Rd E16 2PX

Excavation Method:

Tracked window sample rig

Logged By

MA

Client:

London City Airport Ltd

Dates:

19/02/2013

Level:

Boring Diameter:

100 (mm)

Checked By

NT

Installation Details	Water Strikes	Samples & In Situ Testing			Depth (m)	Level (m ASD)	Legend	Stratum Description	
		Depth (m)	Type	Test Result					
		0.10	ES	0.0ppmV	0.10		Brick Paving		
		0.30			0.30		MADE GROUND: Brown gravelly sand. Gravel is fine to coarse of mixed lithologies.		
		0.45			0.45		MADE GROUND: Tarmac		
		0.50	ES	0.0ppmV	0.50		MADE GROUND: Brown gravelly sand. Gravel is fine to coarse and of mixed lithologies.	1	
		1.00			1.00				
		1.50			1.50				
		2.00			2.00				
		2.50			2.50				
		2.80	ES	0.0ppmV	2.80		MADE GROUND: Soft brown sandy gravelly clay.	3	
		3.00			3.00		MADE GROUND: Soft grey / black clay with bands of ashy gravel of brick.		
		3.50			3.50				
		4.00	ES	0.0ppmV	4.00			4	
		4.50			4.50		Soft grey CLAY (Alluvium).		
		5.00			5.00		End of Borehole at 5.00 m		
								5	
								6	
								7	
								8	
								9	

Excavation
Remarks:

Groundwater Groundwater not encountered during drilling.
Remarks:

Project No.:

HLEI_24974

Project Name:

London City Airport

Location:

Hartmann Rd E16 2PX

Excavation Method:

Tracked window sample rig

Logged By

MA

Client:

London City Airport Ltd

Dates:

15/02/2013

Level:

Boring Diameter:

100 (mm)

Checked By

NT

Installation Details	Water Strikes	Samples & In Situ Testing			Depth (m)	Level (m ASD)	Legend	Stratum Description	
		Depth (m)	Type	Test Result					
		0.50		0.0ppmV	0.10				
		0.50			0.25				
		1.00		0.0ppmV					1
		1.50		0.0ppmV					
		2.00		0.0ppmV					2
		2.50		0.0ppmV					
		3.00		0.0ppmV	3.00				3
		3.10							
		3.50		0.0ppmV					
		4.00		0.0ppmV					4
		4.50		0.0ppmV					
		5.00		0.0ppmV	5.00				5
								End of Borehole at 5.00 m	
									6
									7
									8
									9

Excavation
Remarks:

Groundwater Groundwater not encountered during drilling.
Remarks:

Project No.:

HLEI_24974

Project Name:

London City Airport

Location:

Hartmann Rd E16 2PX

Excavation Method:

Tracked window sample rig

Logged By

MA

Client:

London City Airport Ltd

Dates:

13/02/2013

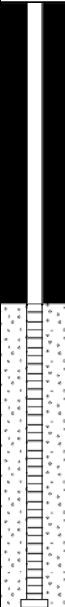
Level:

Boring Diameter:

100 (mm)

Checked By

NT

Installation Details	Water Strikes	Samples & In Situ Testing			Depth (m)	Level (m ASD)	Legend	Stratum Description	
		Depth (m)	Type	Test Result					
		0.05			0.05			Tarmac	
					0.38			Concrete	
		0.50		0.0ppmV	0.38			MADE GROUND: Orange-brown, gravelly fine to coarse sand. Gravel is fine to coarse of mixed lithologies.	
		1.00		0.0ppmV	1.00			Soft brown sandy peaty CLAY (Alluvium - possibly reworked).	1
		1.50		0.0ppmV					
		2.00		0.0ppmV					2
		2.50		0.0ppmV	2.30			Orange SAND and GRAVEL. Gravel is fine to coarse and of mixed lithologies (possible Made Ground).	
		3.00		0.0ppmV					3
		3.50		0.0ppmV					4
					4.00			End of Borehole at 4.00 m	4
									5
									6
									7
									8
									9

Excavation
Remarks:

Refusal at 4.0m bgl on dense sand and gravel. Hole collapsed to 3.5m bgl.

Groundwater
Remarks:

Groundwater encountered at 3.5m bgl.



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Borehole No

WS10

Sheet 1 of 1

Project No.:

HLEI_24974

Project Name:

London City Airport

Location:

Hartmann Rd E16 2PX

Excavation Method:

Tracked window sample rig

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Client:

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Dates:

15/02/2013

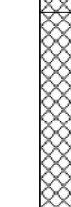
Level:

Boring Diameter:

100 (mm)

Checked By

NT

Installation Details	Water Strikes	Samples & In Situ Testing			Depth (m)	Level (m ASD)	Legend	Stratum Description		
		Depth (m)	Type	Test Result						
		0.00	ES		0.10			Tarmac	1	
		1.00			0.35			Concrete	2	
					1.20			MADE GROUND: Sandy gravel of flint, brick and concrete.		3
			2.40	MADE GROUND: Soft grey gravelly clay. Gravel is ash and brick.		4				
		2.70	ES				MADE GROUND: Sandy fine to coarse gravel of mixed lithologies.		5	
		3.70					MADE GROUND: Soft brown gravelly clay. Gravel is brick, ash and timber.		6	
		3.90	ES				Orange sandy fine to coarse GRAVEL of mixed lithologies (River Terrace Deposits).		7	
		4.30					End of Borehole at 5.00 m		8	
										9
										10
								11		
								12		
								13		
								14		
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								99		
								100		

Excavation
Remarks:

Groundwater Remarks: Groundwater encountered at 4.5m bgl during drilling.

Project No.:

HLEI_24974

Project Name:

London City Airport

Location:

Hartmann Rd E16 2PX

Excavation Method:

Tracked window sample rig

Logged By

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Client:

London City Airport Ltd

Dates:

15/02/2013

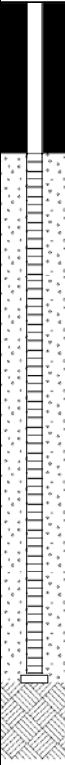
Level:

Boring Diameter:

100 (mm)

Checked By

NT

Installation Details	Water Strikes	Samples & In Situ Testing			Depth (m)	Level (m ASD)	Legend	Stratum Description	
		Depth (m)	Type	Test Result					
					0.10			Tarmac	
					0.35			Concrete	
					0.90			MADE GROUND: Orange-brown, gravelly sand. Gravel is fine to coarse flint.	
		1.00		0.0ppmV				MADE GROUND: Soft brown / grey sandy gravelly clay. Gravel is brick and ash.	1
		2.00		0.0ppmV					2
		3.00		0.0ppmV					3
		4.00		0.0ppmV					4
		4.50						Soft brown slightly peaty CLAY (Alluvium).	
		5.00		0.0ppmV	5.00			End of Borehole at 5.00 m	5
									6
									7
									8
									9

Excavation
Remarks:

Groundwater Groundwater not encountered during drilling.
Remarks:



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Borehole No

WS12

Sheet 1 of 1

Project No.:

HLEI_24974

Project Name:

London City Airport

Location:

Hartmann Rd E16 2PX

Excavation Method:

Tracked window sample rig

Logged By

MA

Client:

London City Airport Ltd

Dates:

12/02/2013

Level:

Boring Diameter:

100 (mm)

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NT

Installation Details	Water Strikes	Samples & In Situ Testing			Depth (m)	Level (m ASD)	Legend	Stratum Description	
		Depth (m)	Type	Test Result					
					0.10			Tarmac	1 2 3 4 5 6 7 8 9
					0.25			Concrete	
					0.50		MADE GROUND: Sandy gravel of mixed lithologies. Concrete obstruction encountered at 0.5m depth.		
							End of Borehole at 0.50 m		

Excavation Remarks: Hole terminated at 0.5m on concrete obstruction.

Groundwater Remarks: Groundwater not encountered during drilling.

Project No.:

HLEI_24974

Project Name:

London City Airport

Location:

Hartmann Rd E16 2PX

Excavation Method:

Tracked window sample rig

Logged By

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Client:

London City Airport Ltd

Dates:

12/02/2013

Level:

Boring Diameter:

100 (mm)

Checked By

NT

Installation Details	Water Strikes	Samples & In Situ Testing			Depth (m)	Level (m ASD)	Legend	Stratum Description	
		Depth (m)	Type	Test Result					
					0.10				
					0.38			Tarmac	
		0.50		0.0ppmV				Concrete	
		1.00		0.0ppmV				MADE GROUND: Orange-brown sand and gravel. Gravel is fine to coarse and of mixed lithologies.	1
		1.50		0.0ppmV	1.30			Soft brown sandy gravelly peaty CLAY (Alluvium - possibly reworked)	
		2.00		0.0ppmV					2
		2.50		0.0ppmV					
		3.00		0.0ppmV					3
		3.50		0.0ppmV					
		4.00		0.0ppmV	3.70			Orange clayey SAND and GRAVEL. Gravel is fine to coarse and of mixed lithologies (River Terrace Deposits).	4
					4.00			End of Borehole at 4.00 m	
									5
									6
									7
									8
									9

Excavation Refusal at 4.0m on dense sand and gravel.
Remarks:

Groundwater Groundwater not encountered during drilling.
Remarks:

Project No.:

HLEI_24974

Scale

1:50

Project Name:

London City Airport

Location:

Hartmann Rd E16 2PX

Excavation Method:

Tracked window sample rig

Logged By

MA

Client:

London City Airport Ltd

Dates:

19/02/2013

Level:

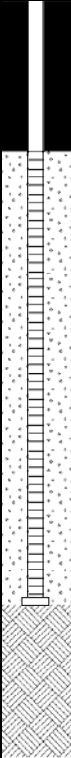
Boring Diameter:

100

(mm)

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NT

Installation Details	Water Strikes	Samples & In Situ Testing			Depth (m)	Level (m ASD)	Legend	Stratum Description	
		Depth (m)	Type	Test Result					
		0.25						Concrete	
		0.50		2.0ppmV				MADE GROUND: Orange brown gravelly sand. Gravel is fine to coarse and of mixed lithology.	
		1.00	ES	0.0ppmV					1
		1.00							
		1.50		0.0ppmV					
		2.00		0.0ppmV					2
		2.50		0.0ppmV					
		3.00		0.0ppmV					3
		3.50		0.0ppmV					
		4.00		0.0ppmV					4
		4.50		0.0ppmV					
		4.70						Soft brown peaty CLAY (Alluvium).	
		5.00		0.0ppmV				End of Borehole at 5.00 m	5
									6
									7
									8
									9

Excavation
Remarks:Groundwater Groundwater encountered at 2.0m bgl during drilling.
Remarks:



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Borehole No

WS15

Sheet 1 of 1

Project No.:

HLEI_24974

Project Name:

London City Airport

Location:

Hartmann Rd E16 2PX

Excavation Method:

Tracked window sample rig

Logged By

MA

Client:

London City Airport Ltd

Dates:

14/02/2013

Level:

Boring Diameter:

100 (mm)

Checked By

NT

Installation Details	Water Strikes	Samples & In Situ Testing			Depth (m)	Level (m ASD)	Legend	Stratum Description		
		Depth (m)	Type	Test Result						
					0.10			Granite block paving		
									Concrete	
		0.50		2.0ppmV	0.50				MADE GROUND: Gravelly clayey sand. Gravel is fine to coarse flint.	1
		0.70								
		1.00		2.0ppmV	1.10				MADE GROUND: Soft grey mottled black clay with occasional fragments of brick, shell, timber, ash, clinker and ceramic.	2
		1.50		2.0ppmV						
		1.70								
		2.00		1.0ppmV						
		2.50		1.0ppmV						
						5.00			End of Borehole at 5.00 m	3
								4		
								5		
								6		
								7		
								8		
								9		
				</						

Excavation
Remarks:

Groundwater Remarks: Groundwater encountered at 2.0m bgl during drilling.

Project No.:

HLEI_24974

Scale

1:50

Project Name:

London City Airport

Location:

Hartmann Rd E16 2PX

Excavation Method:

Tracked window sample rig

Logged By

MA

Client:

London City Airport Ltd

Dates:

14/02/2013

Level:

Boring Diameter:

100 (mm)

Checked By

NT

Installation Details	Water Strikes	Samples & In Situ Testing			Depth (m)	Level (m ASD)	Legend	Stratum Description	
		Depth (m)	Type	Test Result					
					0.40			Concrete hardstanding.	
		0.80							
		1.00		0.0ppmV				MADE GROUND: Orange gravelly sand. Gravel is fine to coarse flint.	1
					1.30				
								MADE GROUND: Soft brown sandy gravelly clay.	
		2.00		0.0ppmV					2
		2.50							
		3.00		0.0ppmV	3.00				3
								No recovery.	
		4.00		0.0ppmV	4.00				4
								End of Borehole at 4.00 m	
									5
									6
									7
									8
									9

Excavation
Remarks:

Refusal at 4.0m on dense gravels.

Groundwater
Remarks:

Groundwater not encountered during drilling.

Project No.:

HLEI_24974

Scale

1:50

Project Name:

London City Airport

Location:

Hartmann Rd E16 2PX

Excavation Method:

Tracked window sample rig

Logged By

MA

Client:

London City Airport Ltd

Dates:

13/02/2013

Level:

Boring Diameter:

100 (mm)

Checked By

NT

Installation Details	Water Strikes	Samples & In Situ Testing			Depth (m)	Level (m ASD)	Legend	Stratum Description	
		Depth (m)	Type	Test Result					
					0.10			Granite block paving.	
								MADE GROUND: Concrete slab.	
					0.52			MADE GROUND: Soft grey / black gravelly clay. Gravel is ceramic, brick, chalk and flint.	1
		1.00		0.0ppmV					
		1.20	ES						
		2.00		0.0ppmV	2.00			MADE GROUND: Orange-brown gravelly sand. Gravel is fine to coarse flint.	2
		2.10	ES						
		3.00		0.0ppmV					3
		4.00		0.0ppmV					4
					5.00			End of Borehole at 5.00 m	5
									6
									7
									8
									9

Excavation
Remarks:Groundwater Groundwater encountered at 2.0m bgl during drilling.
Remarks:

Project No.:

HLEI_24974

Scale

1:50

Project Name:

London City Airport

Location:

Hartmann Rd E16 2PX

Excavation Method:

Tracked window sample rig

Logged By

MA

Client:

London City Airport Ltd

Dates:

19/02/2013

Level:

Boring Diameter:

100

(mm)

Checked By

NT

Installation Details	Water Strikes	Samples & In Situ Testing			Depth (m)	Level (m ASD)	Legend	Stratum Description	
		Depth (m)	Type	Test Result					
		0.10						Concrete hardstanding.	
		0.50		0.0ppmV				MADE GROUND: Orange brown gravelly sand. Gravel is fine to coarse and of mixed lithologies.	
		1.00		0.0ppmV					1
		1.00	ES						
		1.50		0.0ppmV					
	▽	2.00		0.0ppmV					2
		2.50		0.0ppmV					
		3.00		0.0ppmV					3
		3.50		0.0ppmV					
		4.00		0.0ppmV					4
		4.50		0.0ppmV				Soft grey sandy CLAY (Alluvium)	
		4.70							
		5.00		0.0ppmV				End of Borehole at 5.00 m	5
									6
									7
									8
									9

Excavation
Remarks:Groundwater Groundwater encountered at 2.0m bgl during drilling.
Remarks:



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Borehole No

WS19

Sheet 1 of 1

Project No.:

HLEI_24974

Project Name:

London City Airport

Location:

Hartmann Rd E16 2PX

Excavation Method:

Tracked window sample rig

Logged By

MA

Client:

London City Airport Ltd

Dates:

19/02/2013

Level:

Boring Diameter:

100 (mm)

Checked By

NT

[illegible]Excavation
Remarks:

Groundwater Remarks: Groundwater encountered at 1.0m bgl during drilling.

Project No.:

HLEI_24974

Scale

1:50

Project Name:

London City Airport

Location:

Hartmann Rd E16 2PX

Excavation Method:

Tracked window sample rig

Logged By

MA

Client:

London City Airport Ltd

Dates:

13/02/2013

Level:

Boring Diameter:

100 (mm)

Checked By

NT

Installation Details	Water Strikes	Samples & In Situ Testing			Depth (m)	Level (m ASD)	Legend	Stratum Description	
		Depth (m)	Type	Test Result					
		1.00		0.0ppmV				MADE GROUND: Clayey sandy gravel of mixed lithologies with fragments of brick and concrete.	1
		2.00		0.0ppmV	2.00			Soft brown peaty CLAY (Alluvium - possibly reworked).	2
		3.00		0.0ppmV	3.00			No recovery.	3
					4.00			End of Borehole at 4.00 m	4
									5
									6
									7
									8
									9

Excavation Remarks: No recovery in wet sand and gravel.

Groundwater Remarks: Groundwater encountered at 3.0m bgl during drilling.

Project No.:

HLEI_24974

Project Name:

London City Airport

Location:

Hartmann Rd E16 2PX

Excavation Method:

Tracked window sample rig

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Client:

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Dates:

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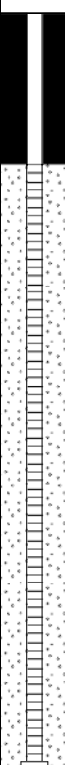
Level:

Boring Diameter:

100 (mm)

Checked By

NT

Installation Details	Water Strikes	Samples & In Situ Testing			Depth (m)	Level (m ASD)	Legend	Stratum Description	
		Depth (m)	Type	Test Result					
		0.40	ES					MADE GROUND: Clayey gravelly sand. Gravel is brick and ash.	1
		1.00		0.0ppmV					
		1.60	ES		1.50			MADE GROUND: Soft grey mottled black clay with rare brick fragments and ash.	2
		2.00		0.0ppmV					
		3.00		0.0ppmV					3
		4.00		0.0ppmV					4
					5.00			End of Borehole at 5.00 m	5
									6
									7
									8
									9

Excavation Remarks:

Groundwater Groundwater not encountered during drilling.

Remarks:

Project No.:

HLEI_24974

Scale

1:50

Project Name:

London City Airport

Location:

Hartmann Rd E16 2PX

Excavation Method:

Tracked window sample rig

Logged By

RP

Client:

London City Airport Ltd

Dates:

14/02/2013

Level:

Boring Diameter:

100

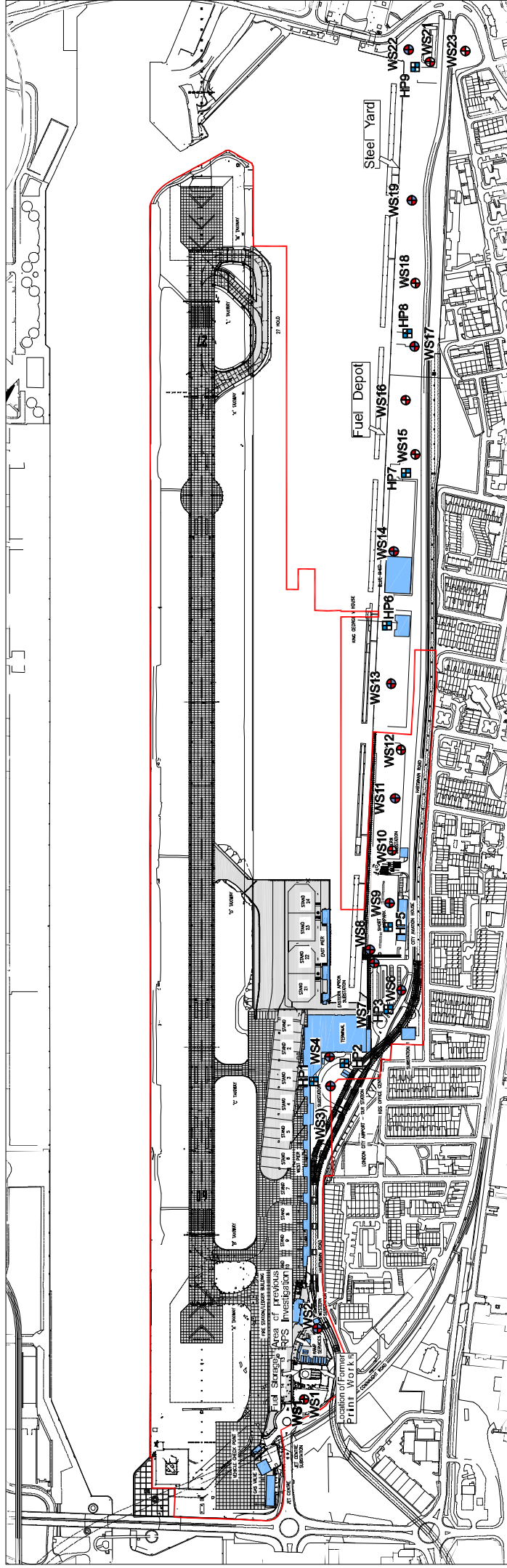
(mm)

Checked By

NT

Installation Details	Water Strikes	Samples & In Situ Testing			Depth (m)	Level (m ASD)	Legend	Stratum Description	
		Depth (m)	Type	Test Result					
		0.00							
					0.15			MADE GROUND: Black clayey gravelly sand with fibrous organic material.	
					0.40			MADE GROUND: Yellow brown sandy gravel with cobbles of concrete.	
								No recovery.	
		1.00	ES		1.00			MADE GROUND: Soft grey / brown sandy gravelly clay. Gravel is fine to medium brick, flint and ash.	1
					1.80			No recovery.	
		2.00	ES		2.00			Soft dark grey silty clay (reworked Alluvium).	2
					2.30			No recovery.	
					3.00			End of Borehole at 3.00 m	3
									4
									5
									6
									7
									8
									9

Excavation
Remarks:Groundwater Groundwater not encountered during drilling.
Remarks:



Key

● Borehole Location

■ Borehole with Monitoring Well Installed

■ Hand Pit Location

RPS

14 Dorset Lane, London, E16 3NR
T: 020 7253 5522 F: 020 7253 5546 W: www.rpsgroup.com

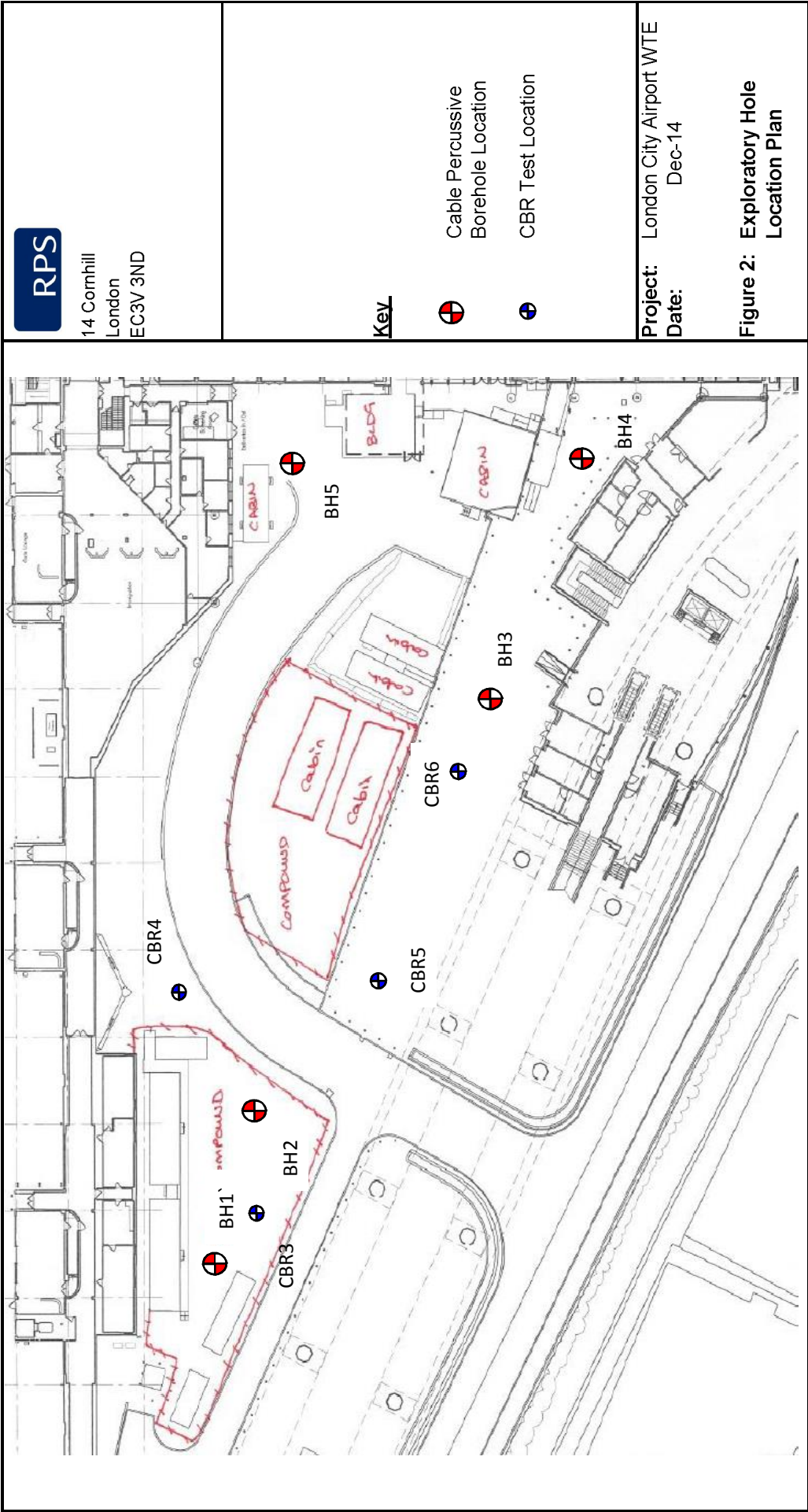
Date: March 2013 Scale: A13

Project: London City Airport Figure: 02 Rev: 00

Title: Expository Hole Location Plan A05.004.H.EI.23.074

APPENDIX 6

RPS 2014 SI Logs



RPS BOREHOLE LOG Borehole No. BH1 Sheet 1 of 3												
Project Name: London City Airport - Western Terminal Extension			Coordinates		Drilling Method: Dando 2000			Hole Type				
Project No. HLEI32363			Northings:		Start Date: 22/10/2014		Casing Diameter (mm)	Casing Depth (m)	CP			
Location: London City Airport			Eastings:		End Date: 23/10/2014				Scale			
Client: London City Airport			Ground Level: m AOD		Logged By: RB		Pipe Diameter (mm): 50		1:50			
Well	Water Strikes	Samples & In Situ Testing			Level (m AOD)	Thick ness (m)	Depth (m)	Legend	Description Of Strata			
		Depth (m)	Type	Results								
		0.10	PID	0ppm		(0.20)	0.20		Brown gravelly fine to medium sand. Gravel is angular to sub-rounded fine to medium of flint and red brick, concrete and plastic fragments. (MADE GROUND) Concrete. (CONCRETE)			
		0.10	D			(0.15)	0.35					
		0.10-0.20	B			(0.55)						
		0.35	D				0.90					
		0.40	ES									
		0.50	PID	17ppm		(0.70)						
		0.60	D				1.60					
		0.90	ES									
		0.90	D									
		0.90-1.50	B									
		1.00	PID	0ppm				Brown/grey sandy gravelly clay. Gravel is angular to sub-rounded fine to medium of flint and red and yellow brick, concrete and ceramic fragments. Yellow brick blocks at 1.60m bgl. (MADE GROUND)				
		1.50	SPT	N=10								
				(2,1/2,2,3,3)								
		1.50	PID	0ppm								
		1.50-1.95	D			(2.20)						
		1.60	D									
		2.00	PID	0ppm								
		2.50	SPT	N=23								
				(2,1/3,6,8,6)								
		2.50	PID	0ppm								
		2.50-3.00	B					Dark brown sandy gravelly clay. Gravel is angular to sub-rounded fine to medium of flint and red and yellow brick fragments. (MADE GROUND)				
		3.00	ES									
		3.00	PID	0ppm		(0.10)	3.80					
		3.40	D				3.90					
		3.50	PID	0ppm								
		3.50	SPT	N=3		(1.10)						
				(2,2/1,0,1,1)								
		3.50-3.95	D									
		3.90	D									
		4.00	PID	0ppm			5.00					
	4.00-4.50	B					Grey mottled reddish brown silty CLAY. (ALLUVIUM)					
	4.50-4.95	U										
	4.70	ES			(1.30)							
	5.00	PID	0ppm									
	5.00	D										
	5.50	SPT	N=4									
			(1,1/1,1,1,1)									
	5.50-5.95	D				6.30						
	6.00	PID	0ppm									
	6.30	D										
	6.50-6.95	U					Dark brown slightly clayey PEAT. (ALLUVIUM)					
	7.00	PID	0ppm									
	7.00	D										
	7.00-7.50	B			(2.30)							
	7.50	SPT	N=6									
			(0,1/1,1,2,2)									
	7.50-7.95	D										
	8.00	PID	1ppm									
	8.30	D										
	8.50-8.95	U				8.60						
							Greenish grey slightly silty fine SAND. (SHEPPERTON GRAVEL MEMBER)					
	9.00	PID	0ppm		(0.90)							
	9.00	D										
	9.00-9.50	B										
	9.50	SPT	N=23			9.50						
			(4,4/5,4,6,8)									
	9.50	D										
	9.50-10.00	B										
Continued on next sheet												
Remarks Hole terminated at target depth of 20.00m bgl.						Chiseling Details				Groundwater Notes		
						Time Taken	Depth From (m)	Depth To (m)	Tool Used	Strike (m)	Casing Depth (m)	Level After 20 Mins (m)
										9.50	9.50	5.70

RPS BOREHOLE LOG Borehole No. BH1 Sheet 2 of 3											
Project Name: London City Airport - Western Terminal Extension			Coordinates		Drilling Method: Dando 2000			Hole Type			
Project No. HLEI32363			Northings:		Start Date: 22/10/2014		Casing Diameter (mm)	Casing Depth (m)	CP		
Location: London City Airport			Eastings:		End Date: 23/10/2014				Scale		
Client: London City Airport			Ground Level: m AOD		Logged By: RB		Pipe Diameter (mm): 50		1:50		
Well	Water Strikes	Samples & In Situ Testing			Level (m AOD)	Thickness (m)	Depth (m)	Legend	Description Of Strata		
		Depth (m)	Type	Results							
		10.00	ES						(SHEPPERTON GRAVEL MEMBER)		
		10.00	PID	0ppm							
		10.50	D		(1.50)						
		11.00	PID	0ppm			11.00			11	
		11.00	SPT	N=37 (7,9/9,9,9,10)	(0.80)				Grey/brown sandy angular to rounded fine to medium GRAVEL of flint. (SHEPPERTON GRAVEL MEMBER)		
		11.00-11.50	B				11.80				
		12.00	D						Grey/brown very gravelly fine to medium SAND. Gravel is sub-angular to rounded fine to medium of flint. (SHEPPERTON GRAVEL MEMBER)	12	
		12.00	PID	0ppm							
		12.50	SPT	N=34 (3,3/5,7,10,12)							
		12.50-13.00	B							13	
		13.00	PID	0ppm							
		13.50	D		(3.70)						
		14.00	PID	0ppm						14	
		14.00	SPT	N=13 (2,3/4,3,2,4)							
		14.00-14.50	B								
		15.00	PID	0ppm						15	
		15.00	D								
		15.50	SPT	N=32 (3,4/6,9,9,8)	(0.30)		15.50		Grey/brown sandy angular to rounded fine to medium GRAVEL of flint. (SHEPPERTON GRAVEL MEMBER)		
		15.50-16.00	B				15.80		Grey/brown very gravelly fine to medium SAND. Gravel is sub-angular to rounded fine to medium of flint. (SHEPPERTON GRAVEL MEMBER)	16	
		16.00	PID	1ppm							
	16.50	D									
	17.00	SPT	N=13 (1,2/3,4,3,3)	(2.50)					17		
	17.00	PID	0ppm								
	17.00-17.50	B									
	18.00	D							18		
	18.00	PID	0ppm	(0.10)		18.30					
	18.30	D				18.40		Grey/brown fine SAND with rare angular to rounded fine gravel of flint. (SHEPPERTON GRAVEL MEMBER)			
	18.50	SPT	50 (25 for 100mm/50 for 60mm)					Dark grey silty fine SAND. (THANET SAND FORMATION)	19		
	18.50-19.00	B		(1.60)							
	19.00	PID	0ppm								
	19.30	ES									
	19.50	D									
	20.00	PID	0ppm			20.00			20		
Continued on next sheet											
Remarks Hole terminated at target depth of 20.00m bgl.					Chiseling Details				Groundwater Notes		
					Time Taken	Depth From (m)	Depth To (m)	Tool Used	Strike (m)	Casing Depth (m)	Level After 20 Mins (m)
									9.50	9.50	5.70

RPS BOREHOLE LOG										Borehole No. BH1 Sheet 3 of 3			
Project Name: London City Airport - Western Terminal Extension			Coordinates			Drilling Method: Dando 2000			Hole Type				
Project No. HLEI32363			Northings:			Start Date: 22/10/2014		Casing Diameter (mm)	Casing Depth (m)	CP			
Location: London City Airport			Eastings:			End Date: 23/10/2014				Scale			
Client: London City Airport			Ground Level: m AOD			Logged By: RB		Pipe Diameter (mm): 50		1:50			
Well	Water Strikes	Samples & In Situ Testing			Level (m AOD)	Thickness (m)	Depth (m)	Legend	Description Of Strata				
		Depth (m)	Type	Results									
		20.00	SPT	50 (25 for 80mm/50 for 70mm)					End of borehole at 20.00 m				
		20.00-20.45	D										
											21		
												22	
												23	
												24	
												25	
												26	
												27	
												28	
												29	
												30	
		Remarks Hole terminated at target depth of 20.00m bgl.					Chiseling Details				Groundwater Notes		
							Time Taken	Depth From (m)	Depth To (m)	Tool Used	Strike (m)	Casing Depth (m)	Level After 20 Mins (m)
									9.50	9.50	5.70		

RPS BOREHOLE LOG Borehole No. BH2 Sheet 1 of 3									
Project Name: London City Airport - Western Terminal Extension			Coordinates		Drilling Method: Dando 2000			Hole Type	
Project No. HLEI32363			Northings:		Start Date: 24/10/2014		Casing Diameter (mm)	Casing Depth (m)	CP
Location: London City Airport			Eastings:		End Date: 27/10/2014				Scale
Client: London City Airport			Ground Level: m AOD		Logged By: RB		Pipe Diameter (mm): 50		1:50
Well	Water Strikes	Samples & In Situ Testing			Level (m AOD)	Thickness (m)	Depth (m)	Legend	Description Of Strata
		Depth (m)	Type	Results					
		0.10	D			(0.25)			Brown gravelly fine to medium sand. Gravel is angular to sub-angular fine to medium of flint and red and yellow brick and concrete fragments. (MADE GROUND) Concrete. (CONCRETE)
		0.15	ES			(0.25)	0.25		
		0.50	PID	0ppm			0.50		
		0.50	D						
		0.50-1.00	B						
		0.60	ES						
		1.00	PID	0ppm		(1.30)			
		1.20	D						
		1.50	SPT	N=12 (1,5/3,3,3,3)					
		1.50	PID	0ppm		(0.10)	1.80		
		1.50-1.95	D			(0.50)	1.90		Reddish brown gravelly sand. Gravel is angular to sub-rounded fine of flint. (MADE GROUND)
		1.80	D						
		2.00	PID	0ppm					
		2.30	D						
		2.50	PID	0ppm					Reddish brown angular to rounded fine to medium gravel of flint. (MADE GROUND)
		2.50	SPT	N=2 (1,1/0,1,0,1)		(1.00)			
		2.50-3.00	B						Reddish brown/black sandy gravel. Gravel is angular to rounded fine to medium of flint with tarmac fragments. (MADE GROUND)
		3.00	PID	0ppm					
		3.00	D						
		3.50	SPT	N=0 (0,0/0,0,0,0)		(1.00)			
		3.50	PID	0ppm					Dark grey/brown sandy CLAY with rare sub-rounded to rounded fine gravel of flint. (ALLUVIUM)
		3.50-4.00	B						
		4.00	PID	0ppm					
		4.00	ES			(0.50)	4.40		
		4.00	D						Dark brown slightly peaty CLAY. (ALLUVIUM)
		4.50-4.95	U						
		5.00	PID	0ppm					Grey/brown CLAY. (ALLUVIUM)
		5.00	D						
		5.40	ES						
		5.50	SPT	N=6 (1,1/1,2,1,2)		(1.60)			
	5.50-5.50	B						Dark brown PEAT. (ALLUVIUM)	
	5.50-5.95	D							
	6.00	PID	0ppm						
	6.50	D				6.50			
	6.50-6.95	U						Dark brown PEAT. (ALLUVIUM)	
	7.00	PID	0ppm						
	7.00	D							
	7.00-7.50	B							
	7.50	SPT	N=7 (1,2/1,1,2,3)					Dark brown/blueish grey peaty sandy CLAY. (ALLUVIUM)	
	7.50-7.95	D			(2.80)				
	8.00	PID	2ppm						
	8.50-8.95	U							
	8.50-9.00	B						Grey/brown gravelly fine to medium SAND. Gravel is angular to sub-angular fine of flint.	
	9.00	PID	2ppm						
	9.30	ES			(0.10)	9.30			
	9.30	D			(0.10)	9.40			
	9.50	SPT	N=11 (4,3/3,3,3,2)				9.50		
	9.50	ES							

Continued on next sheet

Remarks		Chiseling Details				Groundwater Notes		
Hole terminated at target depth of 20.00m bgl.		Time Taken	Depth From (m)	Depth To (m)	Tool Used	Strike (m)	Casing Depth (m)	Level After 20 Mins (m)
						9.50	9.50	5.70

RPS BOREHOLE LOG Borehole No. BH2 Sheet 2 of 3											
Project Name: London City Airport - Western Terminal Extension			Coordinates		Drilling Method: Dando 2000			Hole Type			
Project No. HLEI32363			Northings:		Start Date: 24/10/2014		Casing Diameter (mm)	Casing Depth (m)	CP		
Location: London City Airport			Eastings:		End Date: 27/10/2014				Scale		
Client: London City Airport			Ground Level: m AOD		Logged By: RB		Pipe Diameter (mm): 50		1:50		
Well	Water Strikes	Samples & In Situ Testing			Level (m AOD)	Thickness (m)	Depth (m)	Legend	Description Of Strata		
		Depth (m)	Type	Results							
		9.50-10.00	B	0ppm					(SHEPPERTON GRAVEL MEMBER)		
		10.00	PID						Grey/brown sandy angular to rounded fine to medium GRAVEL of flint. (SHEPPERTON GRAVEL MEMBER)		
		11.00	PID	0ppm		(2.50)					
		11.00	SPT	N=18 (5,6/6,5,4,3)							
		11.00-11.50	B								
		12.00	D				12.00				
		12.00	PID	0ppm					Grey/brown gravelly fine to medium SAND. Gravel is angular to sub-angular fine of flint. (SHEPPERTON GRAVEL MEMBER)		
		12.50	SPT	N=21 (4,3/5,5,6,5)							
		12.50-13.00	B								
		13.00	PID	0ppm							
		13.50	D								
		14.00	SPT	50 (25 for 125mm/50 for 100mm)		(5.00)					
		14.00	PID	0ppm							
		14.00-14.50	B								
		15.00	D								
		15.00	PID	0ppm							
		15.50	SPT	N=31 (5,7/10,5,7,9)							
		15.50-16.00	B								
		16.00	PID	0ppm							
		16.50	D								
	17.00	PID	0ppm			17.00		Grey/brown sandy angular to rounded fine to medium GRAVEL of flint. (SHEPPERTON GRAVEL MEMBER)			
	17.00	SPT	50 (3,8/50 for 180mm)		(0.50)						
	17.00-17.50	B				17.50		Grey/brown slightly gravelly fine to medium SAND. Gravel is angular to sub-angular fine of flint. (SHEPPERTON GRAVEL MEMBER)			
	18.00	PID	0ppm			18.10		Dark grey silty fine SAND. (THANET SAND FORMATION)			
	18.10	D									
	18.20	ES									
	18.50	SPT	50 (25 for 145mm/50 for 50mm)								
	18.50-19.00	B				(1.90)					
	19.00	PID	0ppm								
	19.50	D									
						20.00					
					Continued on next sheet						
Remarks Hole terminated at target depth of 20.00m bgl.					Chiseling Details				Groundwater Notes		
					Time Taken	Depth From (m)	Depth To (m)	Tool Used	Strike (m)	Casing Depth (m)	Level After 20 Mins (m)
									9.50	9.50	5.70

RPS BOREHOLE LOG										Borehole No. BH2 Sheet 3 of 3			
Project Name: London City Airport - Western Terminal Extension			Coordinates			Drilling Method: Dando 2000				Hole Type			
Project No. HLEI32363			Northings:			Start Date: 24/10/2014		Casing Diameter (mm)		Casing Depth (m)		CP	
Location: London City Airport			Eastings:			End Date: 27/10/2014						Scale	
Client: London City Airport			Ground Level: m AOD			Logged By: RB		Pipe Diameter (mm): 50				1:50	
Well	Water Strikes	Samples & In Situ Testing			Level (m AOD)	Thickness (m)	Depth (m)	Legend	Description Of Strata				
		Depth (m)	Type	Results									
		20.00	SPT	50 (25 for 110mm/50 for 60mm) 0ppm					End of borehole at 20.00 m				
		20.00	PID										
		20.00-20.45	D										
Remarks Hole terminated at target depth of 20.00m bgl.					Chiseling Details				Groundwater Notes				
					Time Taken	Depth From (m)	Depth To (m)	Tool Used	Strike (m)	Casing Depth (m)	Level After 20 Mins (m)		
									9.50	9.50	5.70		

RPS BOREHOLE LOG Borehole No. BH3 Sheet 1 of 3									
Project Name: London City Airport - Western Terminal Extension			Coordinates		Drilling Method: Dando 2000			Hole Type	
Project No. HLEI32363			Northings:		Start Date: 30/10/2014		Casing Diameter (mm)	Casing Depth (m)	CP
Location: London City Airport			Eastings:		End Date: 03/11/2014				Scale
Client: London City Airport			Ground Level: m AOD		Logged By: RB		Pipe Diameter (mm): 50		1:50
Well	Water Strikes	Samples & In Situ Testing			Level (m AOD)	Thick ness (m)	Depth (m)	Legend	Description Of Strata
		Depth (m)	Type	Results					
		0.10	D			(0.06)	0.06		Concrete block paving. (CONCRETE)
		0.10-0.50	B			(0.10)	0.16		
		0.50	PID	237ppm		(0.10)	0.26		Green crushed glass. (MADE GROUND)
		0.80	ES			(0.84)			Grey gravelly medium to coarse sand. Gravel is sub-rounded to rounded fine to medium of flint.
		1.00	PID	0ppm		(0.40)	1.10		(MADE GROUND)
		1.10	D						Brown gravelly sand with pockets of dark brown/grey clay becoming dark brown and ashey from 0.70 to 0.90m bgl. Gravel is angular to rounded fine to medium of flint and wood, ceramic, red brick and metal fragments.
		1.50	PID	0ppm		(0.50)	1.50		(MADE GROUND)
		1.50	SPT	50 (3,10/50 for 295mm)					Odour recorded.
		1.50-1.95	D			(0.30)	2.00		Reddish brown sandy red brick and wood fragments.
		1.50-2.00	B			(0.20)	2.30		(MADE GROUND)
		2.00-2.40	B			(0.30)	2.50		Brown slightly clayey gravelly sand. Gravel is angular to sub-rounded of flint and concrete and red brick fragments.
		2.50	PID	3ppm		(0.10)	2.80		(MADE GROUND)
		2.50	SPT	50 (6,10/50 for 145mm)		(0.20)	2.90		Concrete.
		2.50-2.80	D			(1.20)	3.10		(CONCRETE)
		2.70	ES						Brown gravelly sand. Gravel is angular to sub-rounded fine to medium of red brick and wood fragments.
		2.80-3.10	B			(0.80)	4.30		(MADE GROUND)
		3.00	PID	4ppm					Brown clayey gravelly fine to medium sand. Gravel is angular to rounded fine to medium of flint and concrete and red brick fragments.
		3.10	D			(1.30)	5.10		(MADE GROUND)
		3.10-3.50	B						Concrete.
		3.40	ES			(0.30)	6.40		(CONCRETE)
		3.50	SPT	50 (1,8/50 for 235mm)		(0.60)	6.70		Brown clayey gravelly fine to medium sand. Gravel is angular to rounded fine to medium of flint and concrete and red brick fragments.
		3.50	PID	4ppm					(MADE GROUND)
		3.50-3.95	D			(2.00)	7.30		Brown sandy gravelly clay. Gravel is angular to sub-angular fine to medium of flint and red brick fragments. Likely reworked alluvium.
		4.00	PID	2ppm					(MADE GROUND)
		4.30	D						Grey/brown clay with occasional angular to sub-angular fine red and yellow brick fragments.
		4.50	SPT	N=30 (3,4/9,7,9,5)					(MADE GROUND)
		4.50-5.00	B						Grey/brown mottled reddish brown sandy CLAY with occasional pockets of dark brown peat.
		5.00	PID	1ppm					(ALLUVIUM)
		5.10	D						Grey slightly silty slightly peaty CLAY.
		5.20	D						(ALLUVIUM)
		5.50-5.95	U						Dark brown/grey clayey PEAT with shell fragments.
		6.00	PID	0ppm					(ALLUVIUM)
	6.00	D							
	6.40	D							
	6.50	SPT	N=2 (0,0/0,0,1,1)						
	6.50-6.95	D							
	6.50-7.00	B							
	7.00	PID	0ppm						
	7.30	D							
	7.50-7.95	U							
	8.00	PID	0ppm						
	8.00	D							
	8.00-8.50	B							
	8.50	SPT	N=4 (1,1/1,1,1,1)						
	8.50-8.95	D							
	9.00	PID	0ppm						
	9.20	ES							
	9.30	D							
Remarks Hole terminated at target depth of 25.00m bgl.					Chiseling Details				
					Groundwater Notes				
					Time Taken	Depth From (m)	Depth To (m)	Tool Used	Strike (m)
									9.30
									5.50
									6.60

RPS BOREHOLE LOG Borehole No. BH3 Sheet 2 of 3											
Project Name: London City Airport - Western Terminal Extension			Coordinates		Drilling Method: Dando 2000			Hole Type			
Project No. HLEI32363			Northings:		Start Date: 30/10/2014		Casing Diameter (mm)	Casing Depth (m)	CP		
Location: London City Airport			Eastings:		End Date: 03/11/2014				Scale		
Client: London City Airport			Ground Level: m AOD		Logged By: RB		Pipe Diameter (mm): 50		1:50		
Well	Water Strikes	Samples & In Situ Testing			Level (m AOD)	Thickness (m)	Depth (m)	Legend	Description Of Strata		
		Depth (m)	Type	Results							
		10.00	SPT	N=14 (3,3/4,4,3,3)					Dark brown slightly clayey PEAT. (ALLUVIUM)		
		10.00 10.00-10.50	PID B	0ppm					Dark grey/brown angular to rounded fine to medium GRAVEL of flint. (SHEPPERTON GRAVEL MEMBER)		
		11.00 11.00	D PID	0ppm						11	
		11.50 11.50-12.00	SPT B	N=24 (3,8/8,6,5,5)		(3.90)					
		12.00	PID	0ppm						12	
		12.50	D								
		13.00	SPT	N=4 (2,1/1,1,1,1)						13	
		13.00 13.00-13.20	PID B	0ppm		(0.60)	13.20		Grey/brown silty fine SAND with a band of peat. (SHEPPERTON GRAVEL MEMBER)		
		13.20 13.40	D ES				13.80		Grey/brown gravelly fine to medium SAND. Gravel is sub-angular to rounded fine to medium of flint. (SHEPPERTON GRAVEL MEMBER)	14	
		13.50-13.80	B			(0.40)	14.20				
		13.80	D				14.50		Grey/brown sandy sub-rounded to rounded fine to medium GRAVEL of flint. (SHEPPERTON GRAVEL MEMBER)		
		14.00 14.50	PID SPT	0ppm N=8 (3,2/2,2,2,2)		(0.30)			Grey/brown gravelly fine to medium SAND. Gravel is sub-angular to rounded fine to medium of flint. (SHEPPERTON GRAVEL MEMBER)	15	
		14.50-15.00 15.00	B PID	0ppm		(1.50)					
		15.50	D								
		16.00 16.00	PID SPT	0ppm N=8 (3,2/2,2,2,2)			16.00		Grey/brown slightly gravelly fine to medium SAND. Gravel is angular to rounded fine of flint. (SHEPPERTON GRAVEL MEMBER)	16	
		16.00-16.50	B			(1.00)					
		17.00 17.00	PID B	0ppm			17.00		Grey/brown fine to medium SAND with rare angular to rounded fine gravel of flint from 16.00 to 17.50m bgl. (SHEPPERTON GRAVEL MEMBER)	17	
		17.50	SPT	50 (25 for 7mm/50 for 20mm)							
		17.50-17.95 17.50-18.00	D B							18	
		18.00 18.50	PID D	0ppm		(4.50)					
	19.00 19.00	PID SPT	0ppm 47 (25 for 75mm/47 for 105mm)						19		
	19.00-19.45 19.00-19.50 20.00	D B D							20		
Remarks Hole terminated at target depth of 25.00m bgl.					Chiseling Details					Groundwater Notes	
					Time Taken	Depth From (m)	Depth To (m)	Tool Used	Strike (m)	Casing Depth (m)	Level After 20 Mins (m)
									9.30	5.50	6.60

RPS BOREHOLE LOG										Borehole No. BH3 Sheet 3 of 3		
Project Name: London City Airport - Western Terminal Extension			Coordinates			Drilling Method: Dando 2000			Hole Type			
Project No. HLEI32363			Northings:			Start Date: 30/10/2014		Casing Diameter (mm)	Casing Depth (m)	CP		
Location: London City Airport			Eastings:			End Date: 03/11/2014				Scale		
Client: London City Airport			Ground Level: m AOD			Logged By: RB		Pipe Diameter (mm): 50		1:50		
Well	Water Strikes	Samples & In Situ Testing			Level (m AOD)	Thick ness (m)	Depth (m)	Legend	Description Of Strata			
		Depth (m)	Type	Results								
		20.00	PID	0ppm							21	
		20.50	SPT	50 (25 for 145mm/50 for 90mm)								
		20.50-20.95	D									
		20.50-21.00	B									
		21.00	PID	0ppm								
		21.50	D									
		22.00	PID	0ppm								22
		22.00	SPT	50 (25 for 120mm/50 for 85mm)								
		22.00-22.45	D									
		22.00-22.50	B									
		22.50	ES									23
		23.00	D									
		23.00	PID	0ppm								
		23.50	SPT	50 (25 for 115mm/50 for 80mm)		(4.00)						
	23.50-23.95	D									24	
	23.50-24.00	B										
	24.00	PID	0ppm									
	25.00	PID	0ppm								25	
	25.00	SPT	50 (23 for 80mm/50 for 105mm)							End of borehole at 25.00 m		
	25.00-25.45	D				25.50					26	
											27	
											28	
											29	
											30	
Remarks Hole terminated at target depth of 25.00m bgl.					Chiseling Details				Groundwater Notes			
					Time Taken	Depth From (m)	Depth To (m)	Tool Used	Strike (m)	Casing Depth (m)	Level After 20 Mins (m)	
									9.30	5.50	6.60	

RPS BOREHOLE LOG Borehole No. BH4 Sheet 1 of 3										
Project Name: London City Airport - Western Terminal Extension			Coordinates		Drilling Method: Dando 2000			Hole Type		
Project No. HLEI32363			Northings:		Start Date: 28/10/2014		Casing Diameter (mm)	Casing Depth (m)	CP	
Location: London City Airport			Eastings:		End Date: 29/10/2014				Scale	
Client: London City Airport			Ground Level: m AOD		Logged By: RB		Pipe Diameter (mm): 50		1:50	
Well	Water Strikes	Samples & In Situ Testing			Level (m AOD)	Thick ness (m)	Depth (m)	Legend	Description Of Strata	
		Depth (m)	Type	Results						
		0.20	D			(0.12) (0.08)	0.06		Concrete block paving. (CONCRETE)	
		0.45	ES			(0.24)	0.18		Green crushed glass. (MADE GROUND)	
		0.50	PID	2ppm		(0.10)	0.26			
		0.85	D			(0.25)	0.50		Concrete. (CONCRETE)	
		1.00	PID	1ppm			0.60		Reddish brown gravelly sand. Gravel is sub-rounded to rounded fine of flint with rare concrete fragments. (MADE GROUND)	
		1.00-1.50	B			(1.15)	0.85			
		1.30	ES						Pinkish brown sandy angular to sub-rounded fine to medium gravel of limestone with rare red brick and concrete fragments. (MADE GROUND)	
		1.50	SPT	N=4 (1,1/1,1,1,1)					Brown very gravelly fine to medium sand. Gravel is angular to sub-angular fine to coarse of flint and red brick and concrete fragments. (MADE GROUND)	
		1.50	PID	1ppm						
		1.50-19.50	D				2.00		Dark brown/black ashey slightly clayey gravelly sand. Gravel is angular to sub-rounded fine of flint and red brick and chalk fragments. (MADE GROUND)	
		2.00	D							
		2.00-2.50	B						Brown mottled reddish brown slightly gravelly clay becoming gravelly at 3.00m bgl. Gravel is angular to sub-angular fine of glass, red brick, and chalk fragments with flint from 3.00m bgl. (MADE GROUND)	
		2.10	ES							
		2.50	SPT	N=6 (1,1/1,2,1,2)		(1.50)			Black organic clay with occasional coal and glass fragments. (MADE GROUND)	
		2.50	PID	0ppm						
		2.50-2.95	D						Brown mottled reddish brown gravelly clay. Gravel is angular to sub-angular fine of flint and glass, red brick, and chalk fragments. (MADE GROUND)	
		3.00	PID	0ppm						
		3.40	D			(0.20)	3.50		Grey/brown CLAY becoming sandy at 6.00m bgl. (ALLUVIUM)	
		3.50	SPT	N=3 (1,0/1,1,1,0)			3.70			
		3.50	ES							
		3.50	PID	0ppm						
		3.50-3.95	D			(1.50)				
		4.00	PID	0ppm						
		4.50	SPT	N=9 (5,3/3,2,1,3)						
		4.50	PID	0ppm			5.20			
	4.50-4.95	D								
	5.00	PID	0ppm							
	5.20	D								
	5.50-5.95	U								
	5.50-6.00	B								
	6.00	SPT	N=3 (1,0/1,0,1,1)		(2.10)					
	6.00	PID	0ppm							
	6.00-6.45	D								
	6.20	ES								
	6.50-6.95	U								
	7.00	D								
	7.00	PID	0ppm			7.30				
	7.30	D								
	7.50	SPT	N=6 (1,1/2,1,1,2)							
	7.50-7.95	D								
	7.50-8.00	B								
	8.00	PID	0ppm							
	8.50-8.95	U			(2.30)					
	9.00	D								
	9.00	PID	0ppm							
	9.50	SPT	N=11 (1,2/3,2,3,3)			9.60				
	9.50	ES								
	9.50-9.95	D								
Remarks Hole terminated at target depth of 25.00m bgl.					Chiseling Details				Groundwater Notes	
					Time Taken	Depth From (m)	Depth To (m)	Tool Used	Strike (m)	Casing Depth (m)
									9.60	5.00
										6.40

RPS BOREHOLE LOG Borehole No. BH4 Sheet 2 of 3											
Project Name: London City Airport - Western Terminal Extension			Coordinates		Drilling Method: Dando 2000			Hole Type			
Project No. HLEI32363			Northings:		Start Date: 28/10/2014		Casing Diameter (mm)	Casing Depth (m)	CP		
Location: London City Airport			Eastings:		End Date: 29/10/2014				Scale		
Client: London City Airport			Ground Level: m AOD		Logged By: RB		Pipe Diameter (mm): 50		1:50		
Well	Water Strikes	Samples & In Situ Testing			Level (m AOD)	Thickness (m)	Depth (m)	Legend	Description Of Strata		
		Depth (m)	Type	Results							
		9.60	D						(SHEPPERTON GRAVEL MEMBER)		
		10.00	PID	0ppm							
		10.00-10.50	B								
		11.00	PID	0ppm						11	
		11.00	SPT	50 (4,6/50 for 255mm)							
		11.00-11.50	B		(3.40)						
		12.00	PID	0ppm						12	
		12.00	D								
		12.50	SPT	N=32 (2,3/4,6,9,13)							
		12.50-13.00	B				13.00			13	
		12.70	ES						Grey/brown fine to coarse SAND. (SHEPPERTON GRAVEL MEMBER)		
		13.00	PID	0ppm	(0.80)						
		13.50	D								
		14.00	PID	0ppm			13.80		Grey/brown gravelly fine to coarse SAND. Gravel is angular to sub-rounded fine to medium of flint. (SHEPPERTON GRAVEL MEMBER)	14	
		14.00	SPT	N=15 (2,2/3,4,3,5)	(0.90)						
		14.00-14.50	B				14.70		Grey/brown sandy sub-angular to rounded fine to medium GRAVEL of flint. (SHEPPERTON GRAVEL MEMBER)	15	
		15.00	PID	0ppm							
		15.00	D								
		15.50	SPT	50 (9,11/50 for 95mm)							
		15.50-16.00	B		(2.30)					16	
	16.00	PID	0ppm								
	16.50	D									
	17.00	SPT	N=34 (4,5/6,8,9,11)			17.00		Grey/brown fine to coarse SAND. (SHEPPERTON GRAVEL MEMBER)	17		
	17.00	PID	0ppm	(1.00)							
	17.00-17.50	B									
	18.00	D				18.00		Grey/brown sandy sub-angular to rounded fine to medium GRAVEL of flint. (SHEPPERTON GRAVEL MEMBER)	18		
	18.00	PID	0ppm	(0.60)							
	18.50	SPT	50 (25 for 95mm/50 for 100mm)			18.60		Grey/brown fine SAND. (SHEPPERTON GRAVEL MEMBER)			
	18.50-19.00	B		(0.40)		19.00		Grey/brown fine to medium SAND. (SHEPPERTON GRAVEL MEMBER)	19		
	19.00	PID	0ppm								
	19.00	D									
	19.10	ES		(1.50)							
	20.00	PID	0ppm						20		
					Continued on next sheet						
Remarks Hole terminated at target depth of 25.00m bgl.					Chiseling Details				Groundwater Notes		
					Time Taken	Depth From (m)	Depth To (m)	Tool Used	Strike (m)	Casing Depth (m)	Level After 20 Mins (m)
									9.60	5.00	6.40



Borehole No.
BH4
Sheet 3 of 3

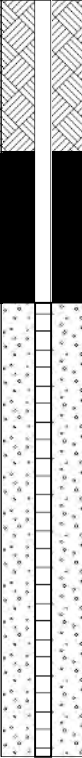
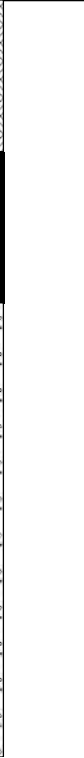
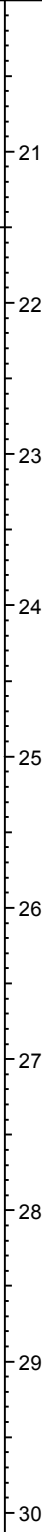
[illegible]

BOREHOLE LOG Borehole No. BH5 Sheet 1 of 3									
Project Name: London City Airport - Western Terminal Extension			Coordinates		Drilling Method: Dando 2000			Hole Type	
Project No. HLEI32363			Northings:		Start Date: 04/11/2014		Casing Diameter (mm)	Casing Depth (m)	CP
Location: London City Airport			Eastings:		End Date: 06/11/2014				Scale
Client: London City Airport			Ground Level: m AOD		Logged By: RB		Pipe Diameter (mm): 50		1:50
Well	Water Strikes	Samples & In Situ Testing			Level (m AOD)	Thickness (m)	Depth (m)	Legend	Description Of Strata
		Depth (m)	Type	Results					
		0.20	D			(0.08)	0.08		Brick paving. (CONCRETE) Light yellowish brown slightly gravelly fine to medium sand. Gravel is angular to sub-angular fine of flint. (MADE GROUND) Brown slightly gravelly fine to medium sand. Gravel is angular to sub-angular fine of flint. (MADE GROUND) Brown clayey gravelly fine to medium sand. (MADE GROUND) Reddish brown gravelly fine to medium sand. Gravel is angular to sub-angular fine of flint. (MADE GROUND) Light brown gravelly fine to medium sand. Gravel is angular to rounded fine of flint. (MADE GROUND) Black/dark brown clayey gravelly ASH. Gravel is angular to rounded fine to medium of flint with rare wire fragment. (MADE GROUND) Dark grey/brown mottled reddish brown CLAY. (ALLUVIUM) <u>Organic odour recorded.</u> Dark grey/brown mottled reddish brown peaty CLAY. (ALLUVIUM) Dark brown/brown PEAT. (ALLUVIUM) Grey/brown sandy angular to rounded fine to medium GRAVEL of flint. (SHEPPERTON GRAVEL MEMBER)
	0.20-0.50	B		(0.10)		0.18			
	0.50	PID	0ppm						
	0.60	ES							
	1.00	D							
	1.00	PID	0ppm	(2.02)					
	1.50	PID	0ppm						
	1.50	SPT	N=7 (2,3/2,2,2,1)						
	1.50-1.95	D							
	1.50-2.00	B							
	2.20	D		(0.30)					
	2.30	ES							
	2.50	SPT	N=10 (2,1/2,3,2,3)	(0.50)					
	2.50	PID	1ppm						
	2.50-2.95	D							
	2.50-3.00	B							
	3.00	PID	0ppm	(1.00)					
	3.20	D							
	3.50	PID	0ppm						
	3.50	SPT	N=7 (2,1/2,2,2,1)	4.00					
	3.50-3.95	D		(0.80)					
	3.50-4.00	B							
	4.00	PID	0ppm						
	4.00	D		4.80					
	4.10	ES							
	4.50	SPT	N=9 (4,1/2,2,2,3)						
	4.50	PID	0ppm						
	4.50-4.80	B							
	4.50-4.95	D		(2.40)					
	4.80	D							
5.00	PID	0ppm							
5.00-5.50	B								
5.50-5.95	U								
6.00	D								
6.00	PID	0ppm							
6.50	SPT	N=5 (1,2/1,1,2,1)	(0.20)						
6.50-6.95	D								
7.00	PID	0ppm							
7.20	D								
7.50-7.95	U								
8.00	D		(1.50)						
8.00	PID	0ppm							
8.00-8.50	B								
8.50	SPT	N=10 (1,2/2,2,3,3)							
8.50-8.90	B								
8.50-8.95	D		8.90						
8.80	ES								
8.90	D								
9.00	PID	0ppm							
9.50	ES								

Continued on next sheet

Remarks Hole terminated at target depth of 25.00m bgl.				Chiseling Details				Groundwater Notes		
				Time Taken	Depth From (m)	Depth To (m)	Tool Used	Strike (m)	Casing Depth (m)	Level After 20 Mins (m)
								8.90	8.90	6.00

RPS BOREHOLE LOG Borehole No. BH5 Sheet 2 of 3											
Project Name: London City Airport - Western Terminal Extension			Coordinates		Drilling Method: Dando 2000			Hole Type			
Project No. HLEI32363			Northings:		Start Date: 04/11/2014		Casing Diameter (mm)	Casing Depth (m)	CP		
Location: London City Airport			Eastings:		End Date: 06/11/2014				Scale		
Client: London City Airport			Ground Level: m AOD		Logged By: RB		Pipe Diameter (mm): 50		1:50		
Well	Water Strikes	Samples & In Situ Testing			Level (m AOD)	Thickness (m)	Depth (m)	Legend	Description Of Strata		
		Depth (m)	Type	Results							
		9.50	SPT	N=9 (2,2/2,2,3,2)							
		9.50-10.00	B								
		10.00	PID	0ppm							
		10.50	D								
		11.00	SPT	N=22 (3,4/5,7,5,5)							
		11.00	PID	0ppm							
		11.00-11.50	B								
		12.00	D								
		12.00	PID	0ppm							
		12.50	SPT	N=36 (4,6/7,9,10,10)							
		12.50-13.00	B								
		13.00	PID	0ppm							
		13.50	B								
		14.00	SPT	50 (5,7/50 for 210mm)							
		14.00	PID	0ppm							
		14.00-14.50	B								
		15.00	PID	0ppm							
		15.00	D								
		15.50	SPT	50 (25 for 135mm/50 for 285mm)							
		15.50-16.00	B								
16.00	PID	0ppm									
16.50	D										
17.00	SPT	50 (4,6/50 for 205mm)									
17.00	PID	0ppm									
17.00-17.50	B										
17.80	D										
18.00	PID	0ppm									
18.50	SPT	50 (25 for 105mm/50 for 75mm)									
18.50-18.95	D										
18.50-19.00	B										
19.00	PID	0ppm									
19.50	D										
20.00	PID	0ppm									
Continued on next sheet											
Remarks Hole terminated at target depth of 25.00m bgl.					Chiseling Details				Groundwater Notes		
					Time Taken	Depth From (m)	Depth To (m)	Tool Used	Strike (m)	Casing Depth (m)	Level After 20 Mins (m)
									8.90	8.90	6.00

RPS BOREHOLE LOG										Borehole No. BH5 Sheet 3 of 3				
Project Name: London City Airport - Western Terminal Extension				Coordinates			Drilling Method: Dando 2000			Hole Type				
Project No. HLEI32363				Northings:			Start Date: 04/11/2014		Casing Diameter (mm)		Casing Depth (m)		CP	
Location: London City Airport				Eastings:			End Date: 06/11/2014						Scale	
Client: London City Airport				Ground Level: m AOD			Logged By: RB		Pipe Diameter (mm): 50			1:50		
Well	Water Strikes	Samples & In Situ Testing			Level (m AOD)	Thick ness (m)	Depth (m)	Legend	Description Of Strata					
		Depth (m)	Type	Results										
		20.00	SPT	50 (25 for 95mm/50 for 70mm)	(3.50)		21.50		Dark greenish grey silty fine SAND. (THANET SAND FORMATION)					
		20.00-20.45	D											
		20.00-20.50	B											
		21.00	D											
		21.00	PID	0ppm										
		21.50	SPT	50 (25 for 50mm/50 for 70mm)										
		21.50-21.95	D											
		21.50-22.00	B											
		22.00	PID	0ppm										
		22.50	ES											
		22.50	D											
		23.00	SPT	50 (25 for 105mm/50 for 90mm)										
		23.00	PID	0ppm										
		23.00-23.45	D											
		23.00-23.50	B											
24.00	D													
24.00	PID	0ppm												
24.50	SPT	50 (25 for 85mm/50 for 95mm)												
24.50-24.95	D													
24.50-25.00	B													
25.00	PID	0ppm												
Remarks Hole terminated at target depth of 25.00m bgl.				Chiseling Details				Groundwater Notes						
				Time Taken	Depth From (m)	Depth To (m)	Tool Used	Strike (m)	Casing Depth (m)	Level After 20 Mins (m)				
								8.90	8.90	6.00				

APPENDIX 7

Concept SI Logs

CADP Surveys Ground Investigation (Dock) - Phase 2

Issue No: 01	Checked By: AN	Approved By: OS	Log Print Date & Time: 03/03/2017 17:48
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Project

CADP Surveys Ground Investigation (Dock) - Phase 2

Job No
16/2900

Date Started 10/11/16
Date Completed 17/11/16

Ground Level (mOD)
4.77

Co-Ordinates
E 542413.4 N 180267.9

Final Depth
34.60m

Client
London City Airport Limited

Method/ **Dynamic Sampling /**
Plant Used **Rotary**

Sheet
3 of 4

PROGRESS

STRATA

SAMPLES & TESTS

Date	Casing	Water	TCR %	SCR %	RQD %	Level (mOD)	Legend	Depth (Thickness)	Strata Description	Depth (m)	Type No	Test Result	Field Records	Instrument/ Backfill
			0											
						-16.23		-21.00		21.00-21.50	B10			
15/11/16	17.20	3.80	100				x		Light grey silty fine SAND. (THANET SAND FORMATION: THANET SAND)	21.50		N50/ 180 mm	4, 14 / 15, 23, 12	
16/11/16	17.20	4.60	100				x		21.50 ... becoming slightly clayey	21.50	D11			
							x		21.50 - 21.80 ... with coarse gravel and cobble size flint	21.50				
							x			22.30			... Pressuremeter Test at 22.30m	
			0				x			23.80			... Pressuremeter Test at 23.80m	
							x			24.50		N50/ 115 mm	12, 19 / 24, 26	
							x			24.50	D12			
							x			25.10	B13			
			87				x	(8.50)	25.20 ... with no clay					
							x			26.65			... Pressuremeter Test at 26.65m	
16/11/16	16.80	5.10					x							
17/11/16	17.20	3.90					x							
			87				x		28.20 ... with occasional pockets of dark green fine glauconitic sand	28.70	B14			
			0				x			29.50			... Pressuremeter pocket aborted see Remarks	
			100	0		-24.73	0	-29.50	Dark grey angular to subangular medium to coarse rindled flint GRAVEL. (THANET SAND FORMATION: BULLHEAD BED)					
						-25.03	0	-29.80						

Issue No: 01

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Log Print Date & Time: 03/03/2017 17:48

Project

CADP Surveys Ground Investigation (Dock) - Phase 2

Job No
16/2900

Date Started 10/11/16
Date Completed 17/11/16

Ground Level (mOD)
4.77

Co-Ordinates
E 542413.4 N 180267.9

Final Depth
34.60m

Client
London City Airport Limited

Method/ **Dynamic Sampling /**
Plant Used **Rotary**

Sheet
4 of 4

PROGRESS

STRATA

SAMPLES & TESTS

Date	Casing	Water	TCR %	SCR %	RQD %	Level (mOD)	Legend	Depth (Thickness)	Strata Description	Depth (m)	Type No	Test Result	Field Records	Instrument/Backfill
17/11/16	24.30	8.60	100	0					White CHALK recovered as: extremely weak, medium density silty subangular to angular white chalk COBBLES with occasional light grey marling. (SEAFORD CHALK FORMATION)					
									30.60 - 30.75 ... with occasional medium to coarse gravel size and rare cobble size angular to subangular black rinded flint					
			100	43					30.80 ... becoming strong and medium density					
									30.90 ... with a fracture	31.40-31.65	C15			
									31.20 - 31.25 ... with a band of angular to subangular coarse black rinded flint gravel					
17/11/16	24.30	8.60						(4.80)	31.70 ... with a fracture infilled with coarse black rinded flint gravel	32.00		N48	21, 4 / 9, 10, 11, 18	
									31.75 ... [NI] recovered as: moderately weak, medium density off-white angular to subangular silty chalk COBBLES					
			100	67	57				32.00 - 32.20 ... [NI] recovered as: off-white soft, very gravelly SILT. Gravel is angular to subangular medium to coarse black rinded flint	32.70-33.00	C16			
									32.35 - 32.40 ... with a fracture infilled with angular to subangular fine to coarse moderately weak, medium density white chalk fragments					
									32.45 ... with a fracture					
17/11/16	24.30	8.60							33.20 ... [NI] recovered as: off-white angular to subangular fine to coarse silty GRAVEL. Gravel comprises extremely weak, medium density chalk fragments and black rinded flint	33.50		N50/ 85 mm	21, 4 / 36, 14	
			90	63	63				33.30 - 33.50 ... with horizontal, planar, smooth fracture	33.80-34.10	C17			
									End of Borehole					

Issue No: 01

Checked By: AN

Approved By: OS

Log Print Date & Time: 03/03/2017 17:48

Project

CADP Surveys Ground Investigation (Dock) - Phase 2

Job No 16/2900	Date Started 22/12/16 Date Completed 05/01/17	Ground Level (mOD) 4.89	Co-Ordinates E 542417.7 N 180296.2	Final Depth 37.50m
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Client

London City Airport Limited

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	37.50	CP	22/12/2016	05/01/2017	ST	CB			Dando 175	AR909

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
					12.30	16.50	21.50	24.00	2:00	Sand
					18.00	24.00	29.50	31.50	2:10	Sand
					24.00	31.50	31.50	32.50	0:30	Sand

HOLE

CASING

ROTARY RECOVERY

Depth (m)	Diameter (mm)	Depth (m)	Diameter (mm)	From (m)	To (m)	Blows	Recovery (%)
0.00	200	0.00	200				
24.00	200	20.50	200				
37.50	150	27.30	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

BACKFILL DETAILS

Top (m)	Bottom (m)	Material	Backfill Date
11.50	37.50	Cement / Bentonite Grout	05/01/2017

Issue No: 01

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Log Print Date & Time: 03/03/2017 17:42

Project

CADP Surveys Ground Investigation (Dock) - Phase 2

Job No 16/2900	Date Started 22/12/16 Date Completed 05/01/17	Ground Level (mOD) 4.89	Co-Ordinates E 542417.7 N 180296.2	Final Depth 37.50m
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Client

London City Airport Limited

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)
22/12/16	0.00			... see Remark 3	C	13.50	N40	5, 9 / 12, 8, 8, 12	13.00	1.20
22/12/16	11.50	11.50	1.00		C	14.50	N30	1, 2 / 3, 7, 8, 12	14.20	2.00
22/12/16	13.50	13.00	1.20		C	15.50	N16	1, 1 / 2, 4, 4, 6	15.30	1.90
22/12/16	14.50	14.20	2.00		C	16.50	N50/0.115	1, 7 / 22, 28	16.40	2.00
22/12/16	15.50	15.30	1.90		S	18.00	N50/0.085	17, 8 / 40, 10	17.00	2.00
22/12/16	16.50	16.40	2.00		S	19.50	N50/0.03	25 / 50	17.00	2.10
22/12/16	17.00	17.00	2.00		S	21.00	N50/0.135	10, 15 / 22, 28	17.00	3.00
03/01/17	17.00	16.50	1.50		S	22.50	N50/0.17	5, 10 / 17, 24, 9	17.00	1.50
03/01/17	18.00	17.00	2.00		S	24.00	N36/0.115	14, 14 / 26, 10	20.50	1.60
03/01/17	19.50	17.00	2.10		S	25.50	N50/0.22	4, 9 / 13, 17, 20	25.40	1.60
03/01/17	21.00	17.00	3.00		S	27.00	N50/0.155	8, 14 / 20, 23, 7	25.50	1.20
03/01/17	22.50	17.00	1.50		S	28.50	N60/0.22	8, 12 / 19, 21, 20	25.50	3.00
03/01/17	24.00	20.50	1.60		S	30.00	N50/0.16	5, 9 / 15, 23, 12	27.30	2.10
03/01/17	24.00	24.00	2.00		S	31.50	N50/0.015	20, 5 / 50	27.30	1.60
04/01/17	24.00	20.50	1.10		S	33.00	N37	6, 5 / 6, 8, 6, 17	27.30	1.20
04/01/17	25.50	25.40	1.60		S	34.50	N50/0.17	9, 7 / 13, 22, 15	27.30	1.50
04/01/17	27.00	25.50	1.20							
04/01/17	28.50	25.50	3.00							
04/01/17	30.00	27.30	2.10							
04/01/17	31.50	27.30	1.60							
04/01/17	31.50	27.30	2.00							
05/01/17	31.50	27.30	2.00							
05/01/17	33.00	27.30	1.20							
05/01/17	34.50	27.30	1.50							

GENERAL REMARKS

- Borehole carried out from a pontoon. All levels are recorded relative to the pontoon level.
- Clearance by UXO Magnetometer probe.
- Water present in the borehole from casing installation through the dock.
- Ø200mm casing used from pontoon level to 17.00m depth. Bentonite seal inserted between 24.00m and 26.00m and borehole re-drilled with Ø150mm casing to 27.30m depth.

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

INSTALLATION DETAILS

- SPIE - Standpipe Piezometer
- SPGW - Groundwater Monitor Standpipe
- SPGVW - 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 Multi-Media 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



Borehole No

BH04

Project

CADP Surveys Ground Investigation (Dock) - Phase 2

Job No 16/2900	Date Started 22/12/16 Date Completed 05/01/17	Ground Level (mOD) 4.89	Co-Ordinates E 542417.7 N 180296.2	Final Depth 37.50m
Client London City Airport Limited			Method/ Plant Used Cable Percussion	Sheet 1 of 4

PROGRESS			STRATA				SAMPLES & TESTS			Field Records	Instrument/ Backfill
Date	Casing	Water	Level (mOD)	Legend	Depth (Thickness)	Strata Description	Depth (m)	Type No	Test Result		
22/12/16						Water					

CADP Surveys Ground Investigation (Dock) - Phase 2

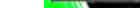
Issue No: 01	Checked By: AN	Approved By: OS	Log Print Date & Time: 03/03/2017 17:45
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Project

CADP Surveys Ground Investigation (Dock) - Phase 2

Job No 16/2900	Date Started	22/12/16	Ground Level (mOD)	Co-Ordinates	Final Depth
	Date Completed	05/01/17			
Client London City Airport Limited				Method/ Plant Used	Sheet
				Cable Percussion	3 of 4

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Issue No: 01	Checked By: AN	Approved By: OS	Log Print Date & Time: 03/03/2017 17:45	
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Project

CADP Surveys Ground Investigation (Dock) - Phase 2

Job No
16/2900

Date Started 22/12/16
Date Completed 05/01/17

Ground Level (mOD)
4.89

Co-Ordinates
E 542417.7 N 180296.2

Final Depth
37.50m

Client
London City Airport Limited

**Method/
Plant Used** Cable Percussion

Sheet
4 of 4

PROGRESS			STRATA				SAMPLES & TESTS			Field Records	Instrument/ Backfill
Date	Casing	Water	Level (mOD)	Legend	Depth (Thickness)	Strata Description	Depth (m)	Type No	Test Result		
			-25.21		30.10	Black angular to subangular fine to coarse rinded flint GRAVEL. (THANET SAND FORMATION: BULLHEAD BED)	30.00 30.00-30.50	D26 B27			
						White CHALK recovered as: silty angular to subangular fine to coarse GRAVEL. Gravel comprises weak medium density white chalk fragments and black rinded flint. (SEAFORD CHALK FORMATION)	31.00-31.50	B28			
04/01/17	27.30	1.60					31.50		N50/ 15 mm	20, 5 / 50	
05/01/17	27.30	2.00					31.50	D29			
							32.50-33.00	B30			
05/01/17	27.30	1.20				33.00 ... [NI] recovered as: white slightly gravelly SILT. Gravel comprises fine to medium weak medium density chalk fragments and black rinded flint	33.00 33.00	D31	N37	6, 5 / 6, 8, 6, 17	
					(7.40)		34.00-34.50	B32			
05/01/17	27.30	1.50				34.00 ... with rare cobble size black rinded flint	34.50		N50/ 170 mm	9, 7 / 13, 22, 15	
						34.50 ... [NI] recovered as: slightly gravelly SILT. Gravel comprises angular to subangular fine to medium weak medium density chalk fragments	34.50	D33			
			-32.61		37.50	37.49 ... [NI] recovered as: firm, white slightly gravelly SILT. Gravel comprises weak medium density angular to subangular fine to coarse chalk fragments and black rinded flint End of Borehole					

Issue No: 01

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Log Print Date & Time: 03/03/2017 17:45



Project

CADP Surveys Ground Investigation (Dock) - Phase 2

Job No 16/2900	Date Started 19/12/16 Date Completed 21/12/16	Ground Level (mOD) 4.68	Co-Ordinates E 542452.3 N 180279.1	Final Depth 33.95m
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Client

London City Airport Limited

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	33.95	CP	19/12/2016	21/12/2016	ST	CB			Dando 175	AR909

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
					17.00	26.00				

HOLE

CASING

ROTARY RECOVERY

Depth (m)	Diameter (mm)	Depth (m)	Diameter (mm)	From (m)	To (m)	Blows	Recovery (%)
0.00	200	0.00	200				
24.50	200	17.00	200				
33.95	150	25.00	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

BACKFILL DETAILS

Top (m)	Bottom (m)	Material	Backfill Date
11.90	33.95	Cement / Bentonite Grout	

Issue No: 01

Checked By: AN

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Log Print Date & Time: 03/03/2017 17:42

Project

CADP Surveys Ground Investigation (Dock) - Phase 2

Job No 16/2900	Date Started 19/12/16 Date Completed 21/12/16	Ground Level (mOD) 4.68	Co-Ordinates E 542452.3 N 180279.1	Final Depth 33.95m
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Client

London City Airport Limited

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)	
19/12/16	0.00			... see Remark 3	C	13.00	N12	3, 2 / 3, 4, 2, 3	12.50	2.00	
19/12/16	12.10	11.90	1.20		C	14.00	N44	5, 14 / 13, 8, 12, 11	13.50	2.50	
19/12/16	13.00	12.50	2.00		C	15.00	N53/0.23	1, 3 / 3, 15, 25, 10	14.60	2.70	
19/12/16	14.00	13.50	2.50		S	16.00	N50/0.135	1, 2 / 17, 33	15.50	2.00	
19/12/16	15.00	14.60	2.70		S	17.00	N50/0.07	12, 13 / 50	16.50	1.90	
19/12/16	15.50	15.50	2.70		S	18.50	N50/0.07	13, 12 / 50	17.00	1.60	
20/12/16	15.50	15.50	2.00		S	20.00	N50/0.22	6, 8 / 15, 17, 18	17.00	1.00	
20/12/16	16.00	15.50	2.00		S	21.50	N50/0.17	8, 14 / 19, 20, 11	17.00	1.30	
20/12/16	17.00	16.50	1.90		S	23.00	N50/0.2	6, 14 / 17, 23, 10	17.00	1.00	
20/12/16	18.50	17.00	1.60		S	24.50	N50/0.275	4, 7 / 13, 13, 14, 10	17.00	1.50	
20/12/16	20.00	17.00	1.00		S	26.00	N50/0.19	6, 12 / 14, 22, 14	25.00	2.00	
20/12/16	21.50	17.00	1.30		S	27.50	N50/0.18	7, 12 / 16, 25, 9	25.00	1.00	
20/12/16	23.00	17.00	1.00		S	29.00	N50	7, 8 / 10, 12, 10, 18	25.00	1.60	
20/12/16	24.50	17.00	1.50		S	30.50	N50	4, 5 / 4, 19, 12, 15	25.00	1.80	
20/12/16	26.00	25.00	2.00		S	32.00	N36	4, 5 / 7, 8, 8, 13	25.00	3.00	
21/12/16	26.00	25.00	1.00		S	33.50	N50	5, 5 / 10, 15, 12, 13	25.00	2.00	
21/12/16	27.50	25.00	1.00								
21/12/16	29.00	25.00	1.60								
21/12/16	30.50	25.00	1.80								
21/12/16	32.00	25.00	3.00								
21/12/16	33.50	25.00	2.00								
21/12/16	33.95	25.00	2.00								
GENERAL REMARKS											
1. Borehole carried out from a pontoon. All levels are recorded relative to the pontoon level.											
2. Clearance by UXO Magnetometer probe.											
3. Water present in the borehole from casing installation through the dock.											
4. Ø200mm casing used from pontoon level to 17.00m depth. Bentonite seal inserted between 22.50m and 24.50m and borehole re-drilled with Ø150mm casing to 25.00m depth.											
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											
INSTALLATION DETAILS											
SPIE - Standpipe Piezometer											
SPGW - Groundwater Monitor Standpipe											
SPGW - GWT (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-Multi-media Probe, VOC-Volatile Organic Compounds											

Project

CADP Surveys Ground Investigation (Dock) - Phase 2

Job No
16/2900

Date Started 19/12/16
Date Completed 21/12/16

Ground Level (mOD)
4.68

Co-Ordinates
E 542452.3 N 180279.1

Final Depth
33.95m

Client
London City Airport Limited

**Method/
Plant Used** Cable Percussion

Sheet
2 of 4

PROGRESS			STRATA				SAMPLES & TESTS			Field Records	Instrument/ Backfill
Date	Casing	Water	Level (mOD)	Legend	Depth (Thickness)	Strata Description	Depth (m)	Type No	Test Result		
19/12/16	11.90	1.20	-7.22		11.90						
				x x x x	(0.60)	Soft, dark grey clayey SILT. (DOCK SEDIMENT)	12.10-12.55	UT01	10 blows	100% Recovery	
			-7.82	x x x x	12.50		12.50-13.00	B02			
			-7.87	x x x x	12.55		12.50	D03			
19/12/16	12.50	2.00				Yellowish brown gravelly fine to coarse SAND. Gravel is angular to subangular fine to coarse flint. (RIVER TERRACE DEPOSITS)	13.00		N12	3, 2 / 3, 4, 2, 3	
						Dark grey sandy GRAVEL with strong hydrocarbon odour. Gravel is angular to rounded fine to coarse flint. Sand is fine to coarse. (RIVER TERRACE DEPOSITS)	13.00-13.50	B04			
19/12/16	13.50	2.50			(3.45)	13.00 ... becoming clayey with rare angular to subangular flint cobbles and rare pieces of plastic	14.00		N44	5, 14 / 13, 8, 12, 11	
						14.00 ... becoming very sandy with no clay and no hydrocarbon odour	14.00-14.50	B05			
19/12/16	14.60	2.70					15.00		N53/ 230 mm	1, 3 / 3, 15, 25, 10	
19/12/16	15.50	2.70				15.00 ... with a pocket of soft brown clay (<40mm)	15.00-15.50	B06			
20/12/16	15.50	2.00	-11.32		16.00		16.00		N50/ 135 mm	1, 2 / 17, 33	
				x x x x		Light grey silty fine SAND. (THANET SAND FORMATION: THANET SAND)	16.00	D07			
				x x x x			16.00-16.50	B08			
20/12/16	16.50	1.90		x x x x			17.00		N50/ 70 mm	12, 13 / 50	
				x x x x			17.00	D09			
				x x x x			17.50-18.00	B10			
20/12/16	17.00	1.60		x x x x			18.50		N50/ 70 mm	13, 12 / 50	
				x x x x			18.50	D11			
				x x x x		19.00 ... becoming slightly clayey	19.00-20.00	B12			
20/12/16	17.00	1.00		x x x x			20.00		N50/ 220 mm	6, 8 / 15, 17, 18	

Issue No: 01

Checked By: AN

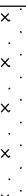
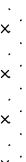
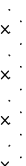
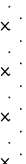
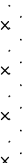
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Project

CADP Surveys Ground Investigation (Dock) - Phase 2

Job No 16/2900	Date Started 19/12/16	Ground Level (mOD) 4.68	Co-Ordinates E 542452.3 N 180279.1	Final Depth 33.95m
	Date Completed 21/12/16			
Client London City Airport Limited			Method/ Plant Used Cable Percussion	Sheet 3 of 4

PROGRESS			STRATA				SAMPLES & TESTS			Field Records	Instrument/ Backfill
Date	Casing	Water	Level (mOD)	Legend	Depth (Thickness)	Strata Description	Depth (m)	Type No	Test Result		
20/12/16	17.00	1.30					20.00 20.50-21.00	D13 B14		8, 14 / 19, 20, 11	
							21.50		N50/ 170 mm		
							21.50 22.00-22.50	D15 B16			
20/12/16	17.00	1.00			(12.80)	22.00 ... becoming clayey				6, 14 / 17, 23, 10	
							23.00		N50/ 200 mm		
							23.00 23.50-24.00	D17 B18			
20/12/16	17.00	1.50								4, 7 / 13, 13, 14, 10	
							24.50		N50/ 275 mm		
							24.50 25.00-25.50	D19 B20			
20/12/16 21/12/16	25.00 25.00	2.00 1.00								6, 12 / 14, 22, 14	
							26.00		N50/ 190 mm		
							26.00 26.50-27.00	D21 B22			
21/12/16	25.00	1.00								7, 12 / 16, 25, 9	
							27.50		N50/ 180 mm		
							27.50-27.90 28.00-28.50	D23 B24			
21/12/16	25.00	1.60	-24.12		28.80		28.80-29.00	D25		7, 8 / 10, 12, 10, 18	
			-24.32		29.00	Black angular to subangular fine to coarse rinded flint GRAVEL. (THANET SAND FORMATION: BULLHEAD BED)	29.00 29.00-29.50	D26	N50		
						White CHALK recovered as: firm, white gravelly SILT. Gravel is angular to subangular fine to coarse black rinded flint. (SEAFORD CHALK FORMATION)	29.50-30.00	B27			