


BOREHOLE RECORD - Cable Percussion

Draft

Project GRAVEN HILL, BICESTER, LAND TRANSFER AREA 2 (LTA2) Engineer WATERMAN INFRASTRUCTURE & ENVIRONMENT LIMITED Borehole BH802 Project No PC207899
Client GRAVEN HILL VILLAGE DEVELOPMENT COMPANY LIMITED National Grid Coordinates 459611.6 E 220150.9 N Ground Level 68.08 m OD


Sampling			Properties			Strata	Scale 1:50		
Depth	Sample Type	Depth Cased & (to Water)	Strength kPa	w %	SPT N	Description	Depth	Legend	Level m OD
						MADE GROUND: Ballast**.	G.L.		68.08
0.70	D						0.60		67.48
0.70	ES					MADE GROUND: Firm brown slightly sandy gravelly clay. Gravel is angular to subangular fine to coarse ash, granite and sandstone.	0.90		67.18
0.70			PID<0.1						
1.00	D					Firm orangish brown mottled grey slightly sandy CLAY with occasional pockets (up to 2mm in size) of orangish brown sand.			
1.00	ES								
1.20- 2.00	B	1.20 (DRY)			S8				
1.20- 1.65	D								
1.50	D								
2.10	ES					Firm to stiff greyish brown slightly sandy CLAY with occasional gypsum crystals (up to 2mm in size).	2.10		65.98
2.10			PID<0.1						
2.30- 2.75	UT16	1.20 (DRY)	59	34					
2.70- 3.50	B								
2.75- 2.90	D								
3.20	D								
3.50- 3.95	D	1.20 (DRY)			S23				
3.70- 4.50	B					Stiff grey CLAY with occasional shell fragments (up to 20mm in size).	3.70		64.38
4.30	D								
4.50- 4.95	UT33	1.20 (DRY)							
4.95- 5.10	D								
5.50	D								
6.00- 6.45	D	1.20 (DRY)			S27				
						End of Borehole	6.45		61.63

Boring				Progress					Groundwater					
Depth	Hole Dia	Technique	Crew	Depth of Hole	Depth Cased	Depth to Water	Date	Time	Depth Struck	Depth Cased	Rose to	In Mins	Depth Sealed	Remarks on Groundwater
1.20		Inspection Pit	MR/SS	G.L.			16/07/20	08:00						None encountered during boring.
6.45	0.15	Cable Percussion	MR/SS	6.45	1.20	DRY	16/07/20	18:00						

Remarks  Inspection pit hand excavated to 1.20m depth and no services were found.
ES sample = 2 x vial, 1 x plastic jar and 2 amber jar
Water was added to assist boring between 1.20 and 6.00 m.
Radioactive screening at discrete sample depths, using a Thermo Scientific Mini 900E. No activity detected.
** Drillers description.
Backfill details from base of hole: bentonite up to ground level.

Symbols and abbreviations are explained on the accompanying key sheet.
All dimensions are in metres.

Logged in accordance with BS5930:2015

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BOREHOLE RECORD - Cable Percussion

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Project GRAVEN HILL, BICESTER, LAND TRANSFER AREA 2 (LTA2) Engineer WATERMAN INFRASTRUCTURE & ENVIRONMENT LIMITED Borehole BH803 Project No PC207899

Client GRAVEN HILL VILLAGE DEVELOPMENT COMPANY LIMITED National Grid Coordinates 459535.7 E 220168.1 N Ground Level 70.05 m OD

Sampling			Properties			Strata	Scale 1:50		
Depth	Sample Type	Depth Cased & (to Water)	Strength kPa	w %	SPT N	Description	Depth	Legend	Level m OD
0.10	ES					POSSIBLE MADE GROUND: Firm dark brown slightly sandy slightly gravelly CLAY with many rootlets and rare roots (up to 4mm in diameter). Gravel is angular to subangular fine to coarse sandstone.	G.L.		70.05
0.10			PID<0.1				0.20		69.85
0.20- 1.00	B								
0.50	D								
0.50	ES		PID<0.1						
1.00	D			26		Firm brownish grey CLAY with rare roots (up to 3mm in diameter).			
1.20- 1.65	UT10	1.20 (DRY)	72	28			1.40		68.65
1.40- 2.20	B								
1.50	D			30					
1.50	ES		PID<0.1						
2.20- 2.65	D	1.20 (DRY)			S9	Stiff grey slightly sandy CLAY with occasional gypsum crystals (up to 63mm in size) and occasional shell fragments (up to 20mm in size).			
2.70- 3.40	B						2.70		67.35
3.20	D								
3.40- 3.85	UT21	1.20 (DRY)	88	31					
3.80- 4.50	B								
3.85- 4.00	D					Between 3.85-4.00m, many gypsum crystals.			
4.00	D								
4.50- 4.95	D	1.20 (DRY)			S22				
5.20	D								
6.00- 6.45	UT31	1.20 (DRY)	137	23		Below 5.00m, gypsum crystals absent.			
6.45- 6.60	D								
						End of Borehole	6.60		63.45

Boring				Progress					Groundwater					
Depth	Hole Dia	Technique	Crew	Depth of Hole	Depth Cased	Depth to Water	Date	Time	Depth Struck	Depth Cased	Rose to	In Mins	Depth Sealed	Remarks on Groundwater
1.20	0.15	Inspection Pit	MR/SS	G.L.	1.20	DRY	15/07/20	08:00						None encountered during boring.
6.60		Cable Percussion	MR/SS	6.60			15/07/20	18:00						

Remarks Inspection pit hand excavated to 1.20m depth and no services were found.
 ES sample = 2 x vial, 1 x plastic jar and 2 amber jar
 Water was added to assist boring between 1.20 and 6.00m.
 Radioactive screening at discrete sample depths, using a Thermo Scientific Mini 900E. No activity detected.
 Backfill details from base of hole: bentonite up to ground level.

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Figure 1 of 1
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All dimensions are in metres. Logged in accordance with BS5930:2015

BOREHOLE RECORD - Cable Percussion

Draft

Project GRAVEN HILL, BICESTER, LAND TRANSFER AREA 2 (LTA2) Engineer WATERMAN INFRASTRUCTURE & ENVIRONMENT LIMITED Borehole BH804 Project No PC207899
Client GRAVEN HILL VILLAGE DEVELOPMENT COMPANY LIMITED National Grid Coordinates 459598.6 E 220112.7 N Ground Level 67.84 m OD

Sampling			Properties			Strata	Scale 1:50		
Depth	Sample Type	Depth Cased & (to Water)	Strength kPa	w %	SPT N	Description	Depth	Legend	Level m OD
						MADE GROUND: Ballast**.	G.L.		67.84
0.70- 1.20	B								
0.80	D								
0.80	ES					MADE GROUND: Soft brown and black slightly sandy slightly gravelly clay. Gravel is angular to subangular fine to coarse ash and granite.	0.70		67.14
0.80			PID<0.1						
1.20- 2.40	B								
1.20- 1.65	D	1.20 (DRY)			S5	Soft orangish brown and grey slightly sandy CLAY with rare pockets (up to 10mm in size) of orangish brown sand.	1.20		66.64
1.30	ES		PID<0.1						
1.30				37					
1.50	D								
2.30	ES		PID<0.1						
2.30					S6				
2.40- 2.85	D	1.20 (DRY)							
2.40	D								
2.50- 3.50	B								
3.00	D								
3.50- 3.95	UT23	1.20 (DRY)	78	30					
3.90- 4.50	B					Stiff dark greenish grey slightly sandy CLAY with occasional gypsum crystals (up to 63mm in size) and occasional shell fragments (up to 10mm in size).	3.90		63.94
3.95- 4.10	D								
4.20	D								
4.50- 4.95	D	1.20 (DRY)			S26	Between 4.50-4.95m, with many gypsum crystals.			
						Below 5.00m, gypsum crystals absent.			
5.20	D								
6.00- 6.45	UT30	1.20 (DRY)							
6.45- 6.60	D								
						End of Borehole	6.60		61.24

Boring				Progress					Groundwater					
Depth	Hole Dia	Technique	Crew	Depth of Hole	Depth Cased	Depth to Water	Date	Time	Depth Struck	Depth Cased	Rose to	In Mins	Depth Sealed	Remarks on Groundwater
1.20		Inspection Pit	MR/SS	G.L.			16/07/20	08:00						None encountered during boring.
6.60	0.15	Cable Percussion	MR/SS	3.50	1.20	DRY	16/07/20	18:00						
				3.50	1.20	DRY	17/07/20	08:00						
				6.60	1.20	DRY	17/07/20	18:00						

Remarks Inspection pit hand excavated to 1.20m depth and no services were found.
ES sample = 2 x vial, 1 x plastic jar and 2 amber jar
Water was added to assist boring between 1.20 and 6.00 m.
Radioactive screening at discrete sample depths, using a Thermo Scientific Mini 900E. No activity detected.
** Drillers description.
Backfill details from base of hole: bentonite up to ground level.

Symbols and abbreviations are explained on the accompanying key sheet.
All dimensions are in metres.

Logged in accordance with BS5930:2015

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BOREHOLE RECORD - Cable Percussion

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Project GRAVEN HILL, BICESTER, LAND TRANSFER AREA 2 (LTA2) Engineer WATERMAN INFRASTRUCTURE & ENVIRONMENT LIMITED Borehole BH807 Project No PC207899

Client GRAVEN HILL VILLAGE DEVELOPMENT COMPANY LIMITED National Grid Coordinates 459433.9 E 220078.5 N Ground Level 69.85 m OD

Sampling			Properties			Strata	Scale 1:50		
Depth	Sample Type	Depth Cased & (to Water)	Strength kPa	w %	SPT N	Description	Depth	Legend	Level m OD
0.10	ES					MADE GROUND: Asphalt.	G.L.		69.85
0.10			PID<0.1				0.15		69.70
0.20- 0.50	B					MADE GROUND: Light brown sandy slightly clayey gravel with a low cobble content of subangular limestone. Gravel is angular to subangular fine to coarse limestone.	0.50		69.35
0.30	D								
0.30	ES		PID<0.1				0.90		68.95
0.30									
0.50- 0.90	B					MADE GROUND: Black slightly sandy slightly clayey gravel with a low cobble content of subangular clinker. Gravel is angular to subangular fine to coarse brick, ash and clinker.			
0.60	D								
0.60	ES		PID<0.1						
0.60									
1.10	ES		PID<0.1						
1.10			PID<0.1						
1.20- 2.30	B					Firm brown mottled grey slightly sandy CLAY with occasional gypsum crystals (up to 60mm in size).			
1.20	UT12	1.20 (DRY)	67	38					
1.50	D								
1.65- 1.80	D								
2.10	ES		PID<0.1						
2.10									
2.30- 2.75	D	1.20 (DRY)			S15				
						Stiff dark grey slightly sandy CLAY.	2.60		67.25
3.00	D			37					
3.50- 3.95	UT19	1.20 (DRY)	99	23					
3.95- 4.10	D								
4.00- 4.50	B					Stiff dark greenish grey slightly sandy CLAY with shell fragments (up to 20mm in size)	3.80		66.05
4.00	D								
4.50- 4.95	D	1.20 (DRY)			S24				
5.50	D								
6.00- 6.45	UT31	1.20 (DRY)							
6.45- 6.60	D								
						End of Borehole	6.60		63.25

Boring				Progress					Groundwater					
Depth	Hole Dia	Technique	Crew	Depth of Hole	Depth Cased	Depth to Water	Date	Time	Depth Struck	Depth Cased	Rose to	In Mins	Depth Sealed	Remarks on Groundwater
1.20	0.15	Inspection Pit	MR/SS	G.L.	1.20	DRY	21/07/20	08:00						None encountered during boring.
6.60		Cable Percussion	MR/SS	6.60			21/07/20	18:00						

Remarks Inspection pit hand excavated to 1.20m depth and no services were found.
 Water was added to assist boring between 1.20 and 6.00 m.
 ES sample = 2 x vial, 1 x plastic jar and 2 amber jar
 Radioactive screening at discrete sample depths, using a Thermo Scientific Mini 900E. No activity detected.
 Backfill details from base of hole: bentonite up to ground level.

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Figure 1 of 1
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All dimensions are in metres. Logged in accordance with BS5930:2015

BOREHOLE RECORD - Cable Percussion

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Project GRAVEN HILL, BICESTER, LAND TRANSFER AREA 2 (LTA2) Engineer WATERMAN INFRASTRUCTURE & ENVIRONMENT LIMITED Borehole BH808 Project No PC207899
Client GRAVEN HILL VILLAGE DEVELOPMENT COMPANY LIMITED National Grid Coordinates 459556.4 E 220016.5 N Ground Level 66.63 m OD

Sampling			Properties			Strata	Scale 1:50		
Depth	Sample Type	Depth Cased & (to Water)	Strength kPa	w %	SPT N	Description	Depth	Legend	Level m OD
0.10- 0.40	B					MADE GROUND: Black slightly gravelly slightly clayey sand with many rootlets. Gravel is angular to subangular fine to coarse ash and clinker.	G.L.		66.63
0.20	D								
0.20	ES								
0.20									
0.50- 1.20	B		PID<0.1			Firm light orangish brown mottled grey slightly sandy CLAY.	0.40		66.23
0.50	D								
0.50	ES								
0.50									
1.20- 1.65	D	1.20 (DRY)			S12	Soft to firm dark grey slightly sandy CLAY with occasional shell fragments (up to 20mm in size).			
1.40- 2.30	B								
1.50	ES		PID<0.1				1.60		65.03
1.50				35					
1.80	D					Stiff dark greenish grey slightly sandy CLAY with occasional shell fragments (up to 30mm in size).			
2.40- 2.85		1.20 (DRY)			S6				
3.10- 3.50	B								
3.30	D								
3.50- 3.95	D	1.20 (DRY)			S19		3.10		63.53
4.00	D								
4.50- 4.95	UT27	1.20 (DRY)	120	24					
4.95- 5.10	D								
5.50	D					End of Borehole			
6.00- 6.45	D	1.20 (DRY)			S30				
							6.45		60.18

Boring				Progress					Groundwater					
Depth	Hole Dia	Technique	Crew	Depth of Hole	Depth Cased	Depth to Water	Date	Time	Depth Struck	Depth Cased	Rose to	In Mins	Depth Sealed	Remarks on Groundwater
1.20		Inspection Pit		G.L.			20/07/20	08:00	1.80	1.20				Seepage.
6.45	0.15	Cable Percussion	MR/SS MR/SS	6.45	1.20	DRY	20/07/20	18:00						

Remarks **MS** Inspection pit hand excavated to 1.20m depth and no services were found.
ES sample = 2 x vial, 1 x plastic jar and 2 amber jar
Radioactive screening at discrete sample depths, using a Thermo Scientific Mini 900E. No activity detected.
Water was added to assist boring between 1.20 and 6.00 m.
Backfill details from base of hole: bentonite up to ground level.

Symbols and abbreviations are explained on the accompanying key sheet.
All dimensions are in metres.

Logged in accordance with BS5930:2015

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BOREHOLE RECORD - Cable Percussion

Draft

Project GRAVEN HILL, BICESTER, LAND TRANSFER AREA 2 (LTA2) Engineer WATERMAN INFRASTRUCTURE & ENVIRONMENT LIMITED Borehole BH809 Project No PC207899
Client GRAVEN HILL VILLAGE DEVELOPMENT COMPANY LIMITED National Grid Coordinates 459516.0 E 219985.0 N Ground Level 66.45 m OD

Sampling			Properties			Strata			Scale 1:50		
Depth	Sample Type	Depth Cased & (to Water)	Strength kPa	w %	SPT N	Description	Depth	Legend	Level m OD		
0.10- 0.40	B					MADE GROUND: Firm dark brown slightly sandy slightly gravelly clay with many rootlets. Gravel is angular to subangular fine to coarse brick and clinker.	G.L.		66.45		
0.10	D										
0.10	ES										
0.10			PID<0.1			Firm brown slightly sandy CLAY.	0.40		66.05		
0.50- 1.20	B										
0.50	D										
0.50	ES		PID<0.1			Firm light orangish brown and grey slightly sandy CLAY.					
0.50											
0.50											
1.20- 1.65	D	1.20 (DRY)		26	S11		1.30		65.15		
1.20	ES										
1.20			PID<0.1								
1.30- 2.30	B										
1.70	D										
2.30- 2.75	UT13	1.20 (DRY)	68	29		Stiff dark grey slightly sandy CLAY with occasional shell fragments (up to 30mm in size).	2.50		63.95		
2.50- 3.50	B										
2.60- 3.50	B										
2.75- 2.90	D					Stiff dark greenish grey slightly sandy CLAY with occasional shell fragments (up to 50mm size).	3.50		62.95		
3.00	D										
3.50- 4.50	B	1.20 (DRY)		29	S41						
3.50- 3.95	D										
3.95- 4.10	D										
4.00	D										
4.50- 4.95	UT32	1.20 (DRY)	92	24							
4.95- 5.10	D										
5.50	D										
6.00- 6.45	D	1.20 (DRY)			S33						
						End of Borehole	6.45		60.00		

Boring				Progress					Groundwater					
Depth	Hole Dia	Technique	Crew	Depth of Hole	Depth Cased	Depth to Water	Date	Time	Depth Struck	Depth Cased	Rose to	in Mins	Depth Sealed	Remarks on Groundwater
1.20	0.15	Inspection Pit	MR/SS	G.L.	1.20	DRY	21/07/20	08:00						None encountered during boring.
6.45		Cable Percussion	MR/SS	6.45			21/07/20	18:00						

Remarks Inspection pit hand excavated to 1.20m depth and no services were found.
ES sample = 2 x vial, 1 x plastic jar and 2 amber jar
Radioactive screening at discrete sample depths, using a Thermo Scientific Mini 900E. No activity detected.
Water was added to assist boring between 1.20 and 6.00 m.
Backfill details from base of hole: bentonite up to ground level.

Symbols and abbreviations are explained on the accompanying key sheet.
All dimensions are in metres.

Logged in accordance with BS5930:2015

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Figure 1 of 1
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BOREHOLE RECORD - Cable Percussion

Draft

Project GRAVEN HILL, BICESTER, LAND TRANSFER AREA 2 (LTA2) Engineer WATERMAN INFRASTRUCTURE & ENVIRONMENT LIMITED Borehole BH813 Project No PC207899
Client GRAVEN HILL VILLAGE DEVELOPMENT COMPANY LIMITED National Grid Coordinates 459117.7 E 219914.4 N Ground Level 69.10 m OD

Sampling			Properties			Strata	Scale 1:50		
Depth	Sample Type	Depth Cased & (to Water)	Strength kPa	w %	SPT N	Description	Depth	Legend	Level m OD
0.00- 0.20	B					MADE GROUND: Firm dark brown slightly sandy slightly gravelly clay with many rootlets and occasional roots (up to 4mm in size). Gravel is angular to subangular fine to coarse brick.	G.L.		69.10
0.10- 0.20	D						0.20		68.90
0.10- 0.20	ES		PID<0.1						
0.20- 0.30	B					MADE GROUND: Firm brown slightly sandy slightly gravelly clay with rare rootlets and rare roots (up to 3mm in size). Gravel is angular to subangular fine to coarse concrete, ash and clinker.	0.70		68.40
0.20- 0.30	D								
0.50- 0.70	B					Stiff orangish brown mottled grey slightly sandy CLAY with rare partly-decomposed rootlets.			
0.50- 0.60	D								
0.50- 0.60	ES		PID<0.1						
0.50- 0.60				22					
0.70- 1.00	B								
0.70- 0.80	D								
1.00- 1.10	D								
1.00- 1.10	ES		PID<0.1						
1.20- 1.65	D	1.20 (DRY)			S7				
2.00- 2.10	D								
2.00- 2.10	ES		PID<0.1						
2.20- 2.65	UT35	1.50 (DRY)	97	28		Firm dark greenish grey slightly sandy CLAY with occasional shell fragments (up to 20mm in size).	2.50		66.60
2.65- 2.70	D								
2.70- 3.00	B								
3.00- 3.10	D								
3.10	W								
3.20- 3.65	D	1.50 (DRY)			S13				
4.00- 4.10	D								
4.30- 4.75	UT60	1.50 (DAMP)							
4.75- 4.80	D								
5.00- 5.10	D								
5.50- 5.95	D	1.50 (3.10)			S22	Below 5.50m, becoming stiff.			
5.90- 6.00	D					End of Borehole	6.00		63.10

Boring				Progress					Groundwater					
Depth	Hole Dia	Technique	Crew	Depth of Hole	Depth Cased	Depth to Water	Date	Time	Depth Struck	Depth Cased	Rose to	In Mins	Depth Sealed	Remarks on Groundwater
1.20		Inspection Pit		G.L.			16/07/20	08:00	4.30	1.50			NS	Seepage
6.00	0.15	Cable Percussion	DC/LC	6.00	1.50	3.10	16/07/20	18:00	4.80	1.50	3.10	20	NS	Fast inflow

Remarks Inspection pit hand excavated to 1.20m depth and no services were found.
ES sample = 2 x vial, 1 x plastic jar and 2 amber jar
Radioactive screening at discrete sample depths, using a Thermo Scientific Mini 900E. No activity detected.
A 50mm standpipe was installed to 6.00m with a geowrapped slotted section from 1.00m to 6.00m with flush lockable protective cover. Backfill details from base of hole: gravel filter up to 1.00m, bentonite up to 0.30m, concrete up to ground level.

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Figure 1 of 1
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BOREHOLE RECORD - Cable Percussion

Draft

Project GRAVEN HILL, BICESTER, LAND TRANSFER AREA 2 (LTA2) Engineer WATERMAN INFRASTRUCTURE & ENVIRONMENT LIMITED Borehole BH814 Project No PC207899
Client GRAVEN HILL VILLAGE DEVELOPMENT COMPANY LIMITED National Grid Coordinates 459148.5 E 219816.4 N Ground Level 66.46 m OD

Sampling			Properties			Strata	Scale 1:50		
Depth	Sample Type	Depth Cased & (to Water)	Strength kPa	w %	SPT N	Description	Depth	Legend	Level m OD
0.00- 0.20	B					MADE GROUND: Firm dark brown slightly sandy clay with many rootlets and rare roots (up to 4mm in diameter). Gravel is angular to subangular fine to coarse sandstone.	G.L.		66.46
0.10- 0.20	D						0.20		66.26
0.10- 0.20	ES		PID<0.1						
0.10- 0.20									
0.20- 0.50	B					MADE GROUND: Black gravelly slightly clayey sand. Gravel is angular to subangular fine to coarse coal, ash and clinker. Between 0.50-0.60m, with many pockets (up to 60mm in size) of orangish brown sandy clay.	0.60		65.86
0.20- 0.30	D								
0.20- 0.30	ES		PID<0.1						
0.20- 0.30									
0.50- 0.60	B					Soft light orangish brown slightly sandy CLAY with rare roots (up to 2mm in diameter).			
0.50- 0.60	D								
0.50- 0.60	ES		PID<0.1						
0.50- 0.60									
0.60- 0.90	B					Soft to firm dark grey slightly sandy CLAY with occasional pockets (up to 30mm in size) of sand.	1.90		64.56
0.60- 0.70	D								
1.00- 1.10	D								
1.00- 1.10	ES		PID<0.1						
1.00- 1.10									
1.20- 1.65	UT20	1.20 (DRY)	35	33		Firm dark greenish grey slightly sandy CLAY with occasional shell fragments (up to 30mm in size).	2.20		64.26
1.65- 1.70	D								
1.90- 2.00	D								
1.90- 2.00	ES		PID<0.1						
1.90- 2.00									
2.20- 2.65	D	1.20 (DRY)			S7				
2.60- 3.40	B								
3.00- 3.10	D								
3.40- 3.85	UT60	1.50 (DRY)	51	26					
3.85- 3.90	D								
4.00- 4.10	D								
4.50- 4.95	D	1.50 (DAMP)			S22				
5.00- 5.50	B								
5.00- 5.10	D								
5.50- 5.95	UT70	1.50 (DRY)							
5.95- 6.00	D								
						End of Borehole	6.00		60.46

Boring				Progress					Groundwater					
Depth	Hole Dia	Technique	Crew	Depth of Hole	Depth Cased	Depth to Water	Date	Time	Depth Struck	Depth Cased	Rose to	In Mins	Depth Sealed	Remarks on Groundwater
1.20	0.15	Inspection Pit	DC/LC	G.L.	1.50	DRY	17/07/20	08:00	3.90	1.50				Seepage.
6.00		Cable Percussion	DC/LC	6.00			17/07/20	18:00						

Remarks Inspection pit hand excavated to 1.20m depth and no services were found.
ES sample = 2 x vial, 1 x plastic jar and 2 amber jar
Radioactive screening at discrete sample depths, using a Thermo Scientific Mini 900E. No activity detected.
Backfill details from base of hole: bentonite up to ground level.

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Figure 1 of 1
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BOREHOLE RECORD - Cable Percussion

Draft

Project GRAVEN HILL, BICESTER, LAND TRANSFER AREA 2 (LTA2) Engineer WATERMAN INFRASTRUCTURE & ENVIRONMENT LIMITED Borehole BH815 Project No PC207899
Client GRAVEN HILL VILLAGE DEVELOPMENT COMPANY LIMITED National Grid Coordinates 459259.3 E 219761.9 N Ground Level 66.23 m OD

Sampling			Properties			Strata	Scale 1:50		
Depth	Sample Type	Depth Cased & (to Water)	Strength kPa	w %	SPT N	Description	Depth	Legend	Level m OD
0.20	ES					TOPSOIL.**	G.L.		66.23
0.20							0.10		66.13
0.50- 1.00	B		PID<0.1			Loose brown clayey TOPSOIL.**	0.30		65.93
0.50	D								
0.50	ES		PID<0.1			Firm brown slightly sandy slightly gravelly CLAY with occasional rootlets. Gravel is angular to subangular fine limestone.			
1.00	ES		PID<0.1						
1.20- 1.65	D	1.20 (DRY)			S9	Firm orangish brown mottled grey calcareous CLAY with many shell fragments (up to 3mm in size).	1.20		65.03
1.50	ES		PID<0.1						
1.70	D								
2.30- 2.75	UT31	1.50 (DRY)	66	33					
2.80	D								
3.00- 3.40	B					Stiff dark greyish brown CLAY with an organic odour.	3.00		63.23
3.40- 3.85	D	1.50 (DRY)			S18				
3.90	D			35					
4.60- 5.05	UT42	1.50 (DRY)	69						
5.10	D					Below 5.10m, with occasional pockets (up to 15mm in size) of orangish brown slightly sandy clay and occasional gypsum crystals (up to 2mm in size).			
6.00- 6.45	D	1.50 (DRY)			S30				
						End of Borehole	6.45		59.78

Boring				Progress					Groundwater					
Depth	Hole Dia	Technique	Crew	Depth of Hole	Depth Cased	Depth to Water	Date	Time	Depth Struck	Depth Cased	Rose to	In Mins	Depth Sealed	Remarks on Groundwater
1.20		Inspection Pit	KR/JT	G.L.			10/08/20	08:00						None encountered during boring.
6.45	0.15	Cable Percussion	KR/JT	6.45	1.50	DRY	10/08/20	18:00						








Remarks Inspection pit hand excavated to 1.20m depth and no services were found.
ES sample = 2 x vial, 1 x plastic jar and 2 amber jar
Radioactive screening at discrete sample depths, using a Thermo Scientific Mini 900E. No activity detected.
** Drillers description.
A 50mm standpipe was installed to 6.00m with a geowrapped slotted section from 1.00m to 6.00m with upright lockable protective cover. Backfill details from base of hole: gravel filter up to 1.00m, bentonite up to 0.50m, concrete up to ground level.
Logged in accordance with BS5930:2015

Logged by MM
Figure 1 of 1
06/11/2020
geotechnics

BOREHOLE RECORD - Cable Percussion

Draft

Project GRAVEN HILL, BICESTER, LAND TRANSFER AREA 2 (LTA2) Engineer WATERMAN INFRASTRUCTURE & ENVIRONMENT LIMITED Borehole BH818 Project No PC207899
Client GRAVEN HILL VILLAGE DEVELOPMENT COMPANY LIMITED National Grid Coordinates 459030.2 E 219643.4 N Ground Level 64.18 m OD

Sampling			Properties			Strata		Scale 1:50		
Depth	Sample Type	Depth Cased & (to Water)	Strength kPa	w %	SPT N	Description	Depth	Legend	Level m OD	
						MADE GROUND: Concrete.	G.L.		64.18	
0.25- 0.40	B						0.25		63.93	
0.25- 0.40	D					MADE GROUND: Black gravelly sand. Gravel is angular to subangular fine to coarse clinker and ash.	0.40		63.78	
0.25- 0.40	ES		PID=<0.1							
0.25- 0.40										
0.40- 0.70	B					MADE GROUND: Black gravelly slightly clayey sand. Gravel is angular to subangular fine to coarse ash, brick and clinker.	0.70		63.48	
0.50- 0.60	D									
0.50- 0.60	ES		PID=<0.1							
0.50- 0.60										
0.70- 0.90	B					Firm dark brown slightly sandy CLAY.	1.20		62.98	
0.70- 0.80	D									
1.00- 1.10	D			28		Firm light orangish brown slightly sandy CLAY with rare shell fragments (up to 10mm in size).				
1.00- 1.10	ES									
1.00- 1.20			PID=<0.1							
1.20- 1.70	B									
1.20- 1.65	UT20	1.20 (DAMP)	55	26						
1.65- 1.70	D									
2.00- 2.10	D									
2.00- 2.10	ES		PID=<0.1							
2.00- 2.10										
2.20- 2.65	D	1.50 (DRY)			S5					
2.70- 2.80	D									
						Firm dark brown slightly sandy CLAY with rare shell fragments (up to 10mm in size).	2.70		61.48	
3.20- 3.65	UT22	1.50 (DRY)	27	30						
3.65- 3.70	D									
3.90- 4.00	D									
4.10- 4.60	B					Stiff dark greenish grey slightly sandy CLAY with occasional shell fragments (up to 40mm in size).	3.90		60.28	
4.10- 4.55	D	1.50 (DRY)			S14					

Boring				Progress					Groundwater					
Depth	Hole Dia	Technique	Crew	Depth of Hole	Depth Cased	Depth to Water	Date	Time	Depth Struck	Depth Cased	Rose to	In Mins	Depth Sealed	Remarks on Groundwater
1.20	0.15	Inspection Pit	DC/LC	G.L.	1.50	DRY	20/07/20	08:00	0.70	NIL				Seepage.
6.20		Cable Percussion	DC/LC	6.20			20/07/20	18:00	3.20	1.50				Seepage.

Remarks Inspection pit hand excavated to 1.20m depth and no services were found.
ES sample = 2 x vial, 1 x plastic jar and 2 amber jar
Radioactive screening at discrete sample depths, using a Thermo Scientific Mini 900E. No activity detected.
Backfill details from base of hole: bentonite up to ground level.

Symbols and abbreviations are explained on the accompanying key sheet.

All dimensions are in metres.








Logged in accordance with BS5930:2015

Logged by SI
Figure 1 of 1
06/11/2020



geotechnics

Project GRAVEN HILL, BICESTER, LAND TRANSFER AREA 2 (LTA2) Engineer WATERMAN INFRASTRUCTURE & ENVIRONMENT LIMITED Trial Pit RC801 Project No PC207899

Client GRAVEN HILL VILLAGE DEVELOPMENT COMPANY LIMITED National Grid Coordinates 459538.6 E 220127.4 N Ground Level 68.87 m OD




Samples and Tests				Strata	Scale 1:50		
Depth	Type	Stratum No	Results	Description	Depth	Legend	Level m OD
0.10	ES		PID=<0.1	MADE GROUND: Asphalt	G.L.		68.87
0.10					0.08		68.79
0.20	B			MADE GROUND: Brown and grey slightly sandy gravel. Gravel is angular to subangular fine to coarse granite and concrete.	0.15		68.72
0.20	D				0.25		68.62
0.30	B				0.40		68.47
0.30	D				0.60		68.27
0.60	B			MADE GROUND: Yellowish brown gravelly sand. Gravel is subangular fine to coarse sandstone.	0.90		67.97
0.60	D						
0.60	ES		PID=<0.1	MADE GROUND: Black mottled grey and brown very sandy gravel. Gravel is subangular to rounded fine to coarse quartzite, sandstone and concrete.	1.20		67.67
0.90	B						
0.90	D						
0.90	ES		PID=<0.1	MADE GROUND: Light brown sandy gravel with a medium cobble content of subangular limestone.			
0.90				MADE GROUND: Black mottled dark grey sandy clayey gravel with cobbles of much angular to subangular limestone. Gravel is subangular fine to coarse ash and limestone.			
				Firm greenish grey slightly sandy CLAY.			
				End of Excavation			

Excavation				Groundwater		
Plant	Hand Tools	Width (B)	0.30	Depth Observed	Depth of Pit	Details
Date	15/07/2020	Length (C)	0.30			
Shoring	None.	Date Backfilled	15/07/2020			None encountered during excavation.
Stability	Stable during excavation.					

Remarks	 Inspection pit hand excavated to 1.20m depth and no services were found. ES sample = 2 x vial, 1 x plastic jar and 2 amber jar Radioactive screening at discrete sample depths, using a Thermo Scientific Mini 900E. No activity detected. Backfill details from base of hole: arisings up to 0.80m, bentonite up to 0.08m, asphalt up to ground level.	Logged by	EPS
		Figure	1 of 1 06/11/2020
			
		All dimensions are in metres. Logged in accordance with BS5930:2015	

Project GRAVEN HILL, BICESTER, LAND TRANSFER AREA 2 (LTA2) Engineer WATERMAN INFRASTRUCTURE & ENVIRONMENT LIMITED Trial Pit RC804 Project No PC207899

Client GRAVEN HILL VILLAGE DEVELOPMENT COMPANY LIMITED National Grid Coordinates 459530.0 E 220018.2 N Ground Level 66.76 m OD





Samples and Tests				Strata	Scale 1:50		
Depth	Type	Stratum No	Results	Description	Depth	Legend	Level m OD
0.20	HV		Av=130kPa	TOPSOIL: Soft dark brown slightly sandy silt with many rootlets and occasional roots (up to 4mm in diameter).	G.L.		66.76
0.30	B				0.15		66.61
0.00- 2.04	DCP						
0.30	D						
0.30	ES			Stiff dark brown mottled orangish brown slightly sandy CLAY with many rootlets and roots (up to 3mm in diameter).	0.60		66.16
0.30			PID=<0.1				
0.35	HV		Av=82kPa				
0.70	HV		Av=65kPa	Firm brown mottled grey slightly sandy CLAY with occasional rootlets and roots (up to 3mm in diameter).	1.20		65.56
1.00	B						
1.00	D						
1.00	ES						
1.00			PID=<0.1	End of Excavation			

Excavation				Groundwater		
Plant	Hand Tools	Width (B)	0.30	Depth Observed	Depth of Pit	Details
Date	24/07/2020	Length (C)	0.30			
Shoring	None.	Date Backfilled	24/07/2020			None encountered during excavation.
Stability	Stable during excavation.					


Remarks	Inspection pit hand excavated to 1.20m depth and no services were found.					Logged by	EPS
ES sample = 2 x vial, 1 x plastic jar and 2 amber jar						Figure	1 of 1
Radioactive screening at discrete sample depths, using a Thermo Scientific Mini 900E. No activity detected.							06/11/2020
Backfill details from base of hole: arisings up to 0.80m, bentonite up to 0.20m, arisings up to ground level.						geotechnics	
All dimensions are in metres.	Logged in accordance with BS5930:2015						

Project GRAVEN HILL, BICESTER, LAND TRANSFER AREA 2 (LTA2) Engineer WATERMAN INFRASTRUCTURE & ENVIRONMENT LIMITED Trial Pit RC805 Project No PC207899

Client GRAVEN HILL VILLAGE DEVELOPMENT COMPANY LIMITED National Grid Coordinates 459404.4 E 219955.5 N Ground Level 67.79 m OD

Samples and Tests				Strata	Scale 1:50		
Depth	Type	Stratum No	Results	Description	Depth	Legend	Level m OD
0.15	B			MADE GROUND: Asphalt.	G.L.		67.79
0.15	D			MADE GROUND: Yellowish brown gravelly sand with a slight hydrocarbon odour. Gravel is subangular fine to coarse limestone and slag.	0.19		67.60
0.15	ES		PID=<0.1		0.60		67.19
0.25	B			Below 0.30m, with a high cobble content of subangular limestone and slag.	0.80		66.99
0.25	D				1.20		66.59
0.60	ES		PID=<0.1 Av=63kPa	MADE GROUND: Black mottled greenish grey and grey slightly gravelly slightly clayey sand. Gravel is subangular to subrounded fine to coarse ash, slag, limestone and brick.			
0.60				Firm greenish grey slightly sandy CLAY.			
0.80	HV		mc=31%				
0.90	B		PID=<0.1	End of Excavation			
0.90	D						
0.90	ES						

Excavation				Groundwater		
Plant	Hand Tools	Width (B)	0.30	Depth Observed	Depth of Pit	Details
Date	15/07/2020	Length (C)	0.30			
Shoring	None.	Date Backfilled	15/07/2020			None encountered during excavation.
Stability	Stable during excavation.					

Remarks	<p>Inspection pit hand excavated to 1.20m depth and no services were found.</p> <p>ES sample = 2 x vial, 1 x plastic jar and 2 amber jar</p> <p>Radioactive screening at discrete sample depths, using a Thermo Scientific Mini 900E. No activity detected.</p> <p>Backfill details from base of hole: arisings up to 0.80m, bentonite up to 0.19m, asphalt up to ground level.</p>					Logged by	EPS
Symbols and abbreviations are explained on the accompanying key sheet.						Figure	1 of 1
All dimensions are in metres.	Logged in accordance with BS5930:2015						

Project GRAVEN HILL, BICESTER, LAND TRANSFER AREA 2 (LTA2) Engineer WATERMAN INFRASTRUCTURE & ENVIRONMENT LIMITED Trial Pit RC806 Project No PC207899

Client GRAVEN HILL VILLAGE DEVELOPMENT COMPANY LIMITED National Grid Coordinates 459273.2 E 219977.0 N Ground Level 69.33 m OD



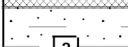
Samples and Tests				Strata	Scale 1:50		
Depth	Type	Stratum No	Results	Description	Depth	Legend	Level m OD
0.10	ES		PID=<0.1	MADE GROUND: Asphalt.	G.L.	1	69.33
0.10					0.05	2	69.28
0.20	B			MADE GROUND: Grey sandy gravel. Gravel is angular to subangular fine to coarse granite and slag.	0.20	3	69.13
0.20	D				0.35	4	68.98
0.40	B						
0.40	D			MADE GROUND: Black mottled yellowish brown and grey gravelly sand with a medium cobble content of angular to subangular limestone. Gravel is angular to subangular fine to coarse granite, limestone and ash.	0.55	5	68.78
0.50	D				0.65	6	68.68
0.50	ES		PID=<0.1				
0.50			Av=54kPa				
0.80	HV			MADE GROUND: Light brown sandy slightly clayey gravel with a medium cobble content of subangular limestone. Gravel is angular to subangular fine to coarse limestone.	1.20		68.13
0.90	B						
0.90	D						
0.90	ES		PID=<0.1				
0.90				MADE GROUND: Firm greenish grey slightly sandy slightly gravelly clay. Gravel is subangular fine to coarse limestone and ash.			
				Firm greyish green slightly sandy CLAY.			
				End of Excavation			

Excavation				Groundwater		
Plant	Hand Tools	Width (B)	0.30	Depth Observed	Depth of Pit	Details
Date	15/07/2020	Length (C)	0.30	0.60	0.65	Seepage
Shoring	None.	Date Backfilled	15/07/2020			
Stability	Stable during excavation.					



<div>Remarks</div> <div><div><div>U</div><div>ACS</div></div></div> <div>Symbols and abbreviations are explained on the accompanying key sheet.</div> <div>All dimensions are in metres.</div>	Inspection pit hand excavated to 1.20m depth and no services were found.				Logged by	EPS
	ES sample = 2 x vial, 1 x plastic jar and 2 amber jar				Figure	1 of 1
	Radioactive screening at discrete sample depths, using a Thermo Scientific Mini 900E. No activity detected.				06/11/2020	
	Backfill details from base of hole: arisings up to 0.80m, bentonite up to 0.05m, asphalt up to ground level.				<div><div></div><div>geotechnics</div><div></div></div>	
	Logged in accordance with BS5930:2015					

Project GRAVEN HILL, BICESTER, LAND TRANSFER AREA 2 (LTA2) Engineer WATERMAN INFRASTRUCTURE & ENVIRONMENT LIMITED Trial Pit RC807 Project No PC207899

Client GRAVEN HILL VILLAGE DEVELOPMENT COMPANY LIMITED National Grid Coordinates 459203.9 E 219929.9 N Ground Level 69.27 m OD



Samples and Tests				Strata		Scale 1:50			
Depth	Type	Stratum No	Results	Description	Depth	Legend	Level m OD		
0.10	B			MADE GROUND: Firm brown slightly sandy slightly gravelly silt with many rootlets. Gravel is angular to subangular fine to medium quartzite, slag and limestone.	G.L.		69.27		
0.10	D				0.35		68.92		
0.10	ES			MADE GROUND: Stiff brown mottled grey slightly sandy slightly gravelly clay with many rootlets and rare shell fragments (up to 5mm in size). Gravel is angular to subangular fine to coarse brick, slag and limestone.	0.65		68.62		
0.00- 2.01	DCP		PID=<0.1						
0.10	B			Stiff grey and brown slightly sandy CLAY with occasional rootlets.	1.20		68.07		
0.50	D								
0.50	ES		PID=<0.1	Stiff grey and brown slightly sandy CLAY with occasional rootlets.					
0.50			Av=104kPa						
0.70	HV			Stiff grey and brown slightly sandy CLAY with occasional rootlets.					
1.00	B								
1.00	D		mc=30%	Stiff grey and brown slightly sandy CLAY with occasional rootlets.					
1.00	ES		PID=<0.1						
1.00				End of Excavation					

Excavation				Groundwater		
Plant	Hand Tools	Width (B)	0.30	Depth Observed	Depth of Pit	Details
Date	31/07/2020	Length (C)	0.30			
Shoring	None.	Date Backfilled	31/07/2020			None encountered during excavation.
Stability	Stable during excavation.					


Remarks		Inspection pit hand excavated to 1.20m depth and no services were found.		Logged by	EPS
		ES sample = 2 x vial, 1 x plastic jar and 2 amber jar		Figure	1 of 1
Symbols and abbreviations are explained on the accompanying key sheet.	Radioactive screening at discrete sample depths, using a Thermo Scientific Mini 900E. No activity detected.		06/11/2020		
	Backfill details from base of hole: bentonite up to 0.80m, arisings up to ground level.				
All dimensions are in metres.	Logged in accordance with BS5930:2015				

Project GRAVEN HILL, BICESTER, LAND TRANSFER AREA 2 (LTA2) Engineer WATERMAN INFRASTRUCTURE & ENVIRONMENT LIMITED Trial Pit RC808 Project No PC207899

Client GRAVEN HILL VILLAGE DEVELOPMENT COMPANY LIMITED National Grid Coordinates 459229.2 E 219850.0 N Ground Level 66.57 m OD



Samples and Tests				Strata	Scale 1:50		
Depth	Type	Stratum No	Results	Description	Depth	Legend	Level m OD
0.10	B			MADE GROUND: Firm brown slightly sandy slightly gravelly silt with many rootlets. Gravel is angular to subangular fine to coarse slag, quartzite and limestone.	G.L.		66.57
0.10	D				0.30		66.27
0.10	ES				0.70		65.87
0.00-2.02	DCP		PID=<0.1	MADE GROUND: Stiff brown mottled reddish brown slightly sandy slightly gravelly clay with occasional rootlets. Gravel is angular to subangular fine to coarse clinker, quartzite, brick and limestone.			
0.10	B				1.20		65.37
0.50	D			Stiff brown and grey slightly sandy CLAY with occasional pockets (up to 30mm in size) of light brown sand and occasional shell fragments (up to 15mm in size).			
0.50	ES		PID=<0.1				
0.50			Av=80kPa				
0.70	HV						
1.00	B						
1.00	D			End of Excavation			
1.00	ES		PID=<0.1				

Excavation				Groundwater		
Plant	Hand Tools	Width (B)	0.30	Depth Observed	Depth of Pit	Details
Date	31/07/2020	Length (C)	0.30			
Shoring	None.	Date Backfilled	31/07/2020			None encountered during excavation.
Stability	Stable during excavation.					



Remarks  Inspection pit hand excavated to 1.20m depth and no services were found. Symbols and abbreviations are explained on the accompanying key sheet. All dimensions are in metres.	ES sample = 2 x vial, 1 x plastic jar and 2 amber jar	Logged by	EPS
	Radioactive screening at discrete sample depths, using a Thermo Scientific Mini 900E. No activity detected. Backfill details from base of hole: bentonite up to 0.80m, arisings up to ground level.	Figure	1 of 1 06/11/2020

Project GRAVEN HILL, BICESTER, LAND TRANSFER AREA 2 (LTA2) Engineer WATERMAN INFRASTRUCTURE & ENVIRONMENT LIMITED Trial Pit RC809 Project No PC207899

Client GRAVEN HILL VILLAGE DEVELOPMENT COMPANY LIMITED National Grid Coordinates 459280.9 E 219766.1 N Ground Level 66.22 m OD




Samples and Tests				Strata	Scale 1:50		
Depth	Type	Stratum No	Results	Description	Depth	Legend	Level m OD
0.10	B			MADE GROUND: Firm brown slightly sandy slightly gravelly clay with many rootlets and roots (up to 5mm in diameter). Gravel is angular to subangular fine to coarse brick and quartzite.	G.L.		66.22
0.10	D				0.25		65.97
0.10	ES			Firm brown mottled grey slightly sandy CLAY.			
0.00-2.06	DCP						
0.10			PID=<0.1	Below 0.65m, becoming brown mottled reddish brown.			
0.50	B						
0.50	D		mc=25%	End of Excavation			
0.50	ES						
0.50	HV		Av=98kPa		1.20		65.02
0.50			PID=<0.1				
0.70	HV		Av=112kPa				
1.00	B						
1.00	D						

Excavation				Groundwater		
Plant	Hand Tools	Width (B)	0.30	Depth Observed	Depth of Pit	Details
Date	31/07/2020	Length (C)	0.30			
Shoring	None.	Date Backfilled	31/07/2020			None encountered during excavation.
Stability	Stable during excavation.					


Remarks		Inspection pit hand excavated to 1.20m depth and no services were found.				Logged by	EPS
		ES sample = 2 x vial, 1 x plastic jar and 2 amber jar				Figure	1 of 1
		Radioactive screening at discrete sample depths, using a Thermo Scientific Mini 900E. No activity detected.				06/11/2020	
		Backfill details from base of hole: bentonite up to 0.80m, arisings up to ground level.					
Symbols and abbreviations are explained on the accompanying key sheet.							
All dimensions are in metres.		Logged in accordance with BS5930:2015					

Project GRAVEN HILL, BICESTER, LAND TRANSFER AREA 2 (LTA2) Engineer WATERMAN INFRASTRUCTURE & ENVIRONMENT LIMITED Trial Pit RC810 Project No PC207899

Client GRAVEN HILL VILLAGE DEVELOPMENT COMPANY LIMITED National Grid Coordinates 459325.2 E 219730.8 N Ground Level 65.15 m OD







Samples and Tests				Strata	Scale 1:50		
Depth	Type	Stratum No	Results	Description	Depth	Legend	Level m OD
0.15	ES		PID=<0.1	MADE GROUND: Asphalt.	G.L.		65.15
0.15	B			MADE GROUND: Light yellowish brown mottled black and grey gravelly sand with a medium cobble content of brick and limestone. Gravel is angular to subangular fine to coarse limestone, brick, slag and granite.	0.13		65.02
0.50	D						
0.50	ES		PID=<0.1		0.75		64.40
0.50	B			POSSIBLE MADE GROUND: Firm greenish grey mottled black slightly sandy CLAY with a slight hydrocarbon odour and occasional pockets (up to 35mm in size) of light brown fine to coarse sand.			
1.00	D				1.20		63.95
1.00	ES		Av=66kPa PID=<0.1				
1.00	HV			End of Excavation			
1.00							

Excavation				Groundwater		
Plant	Hand Tools	Width (B)	0.30	Depth Observed	Depth of Pit	Details
Date	20/07/2020	Length (C)	0.30			
Shoring	None.	Date Backfilled	20/07/2020			None encountered during excavation.
Stability	Stable during excavation.					

Remarks	<p>Inspection pit hand excavated to 1.20m depth and no services were found.</p> <p>ES sample = 2 x vial, 1 x plastic jar and 2 amber jar</p> <p>Radioactive screening at discrete sample depths, using a Thermo Scientific Mini 900E. No activity detected.</p> <p>Backfill details from base of hole: arisings up to 0.80m, bentonite up to 0.13m, asphalt up to ground level.</p>					Logged by	EPS
Symbols and abbreviations are explained on the accompanying key sheet.						Figure	1 of 1
All dimensions are in metres.	Logged in accordance with BS5930:2015						

Project GRAVEN HILL, BICESTER, LAND TRANSFER AREA 2 (LTA2) Engineer WATERMAN INFRASTRUCTURE & ENVIRONMENT LIMITED Trial Pit TP801 Project No PC207899

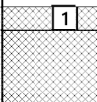
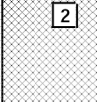


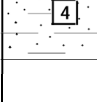
Client GRAVEN HILL VILLAGE DEVELOPMENT COMPANY LIMITED National Grid Coordinates 459599.1 E 220227.4 N Ground Level 69.57 m OD

Samples and Tests				Strata	Scale 1:50		
Depth	Type	Stratum No	Results	Description	Depth	Legend	Level m OD
0.00- 0.30	B			MADE GROUND: Firm dark brownish grey slightly sandy slightly gravelly clay with many rootlets. Gravel is angular to subangular fine to coarse brick, concrete and limestone.	G.L.		69.57
0.20	D				0.30		69.27
0.20	ES		PID=<0.1				
0.30- 0.80	B			Firm orangish brown mottled grey slightly sandy CLAY with occasional pockets (up to 120mm in size) of decomposed organic material.	0.90		68.67
0.30- 0.80	B						
0.55	ES		PID=<0.1				
0.55							
0.60	D						
0.60	HV		Av=62kPa	Firm grey mottled reddish brown slightly sandy CLAY with rare relic rootlets.			
1.00- 1.50	B		mc=32%				
1.00- 1.50	B			Below 1.40m, becoming grey mottled orangish brown.			
1.30	ES		PID=<0.1				
1.30							
1.50	D						
1.50	HV		Av=72kPa				
2.20- 2.70	B			Stiff fissured grey mottled brown slightly sandy CLAY. Fissures are very closely spaced, subhorizontal, undulating and smooth with occasional brown sandy clay infill (up to 1mm thick).	2.20		67.37
2.50	D						
2.50	HV		Av=83kPa		2.70		66.87
				End of Excavation			


Excavation				Groundwater		
Plant	JCB 3CX	Width (B)	0.60	Depth Observed	Depth of Pit	Details
Date	13/07/2020	Length (C)	3.70			
Shoring	None.	Orientation	035 deg	2.00		Seepage
Stability	Stable during excavation.					
		Date Backfilled	13/07/2020			

Remarks	ES sample = 2 x vial, 1 x plastic jar and 2 amber jar	Logged by	MM
	Radioactive screening at discrete sample depths, using a Thermo Scientific Mini 900E. No activity detected.	Figure	1 of 1
	Backfill details from base of hole: arisings up to ground level.		06/11/2020
Symbols and abbreviations are explained on the accompanying key sheet.			
All dimensions are in metres.	Logged in accordance with BS5930:2015		








Project GRAVEN HILL, BICESTER, LAND TRANSFER Engineer WATERMAN INFRASTRUCTURE & ENVIRONMENT LIMITED Trial Pit TP802
 AREA 2 (LTA2) Project No PC207899
 Client GRAVEN HILL VILLAGE DEVELOPMENT National Grid 459558.2 E
 COMPANY LIMITED Coordinates 220197.8 N Ground Level 70.59 m OD

Samples and Tests				Strata	Scale 1:50		
Depth	Type	Stratum No	Results	Description	Depth	Legend	Level m OD
0.10	B			MADE GROUND: Firm brown slightly sandy slightly gravelly silty with many rootlets and roots (up to 3mm in diameter). Gravel is angular to subangular fine to coarse limestone, brick and quartzite.	G.L.		70.59
0.10	D				0.15		70.44
0.10	ES						
0.10							
0.20	HV		PID=<0.1 Av=97kPa mc=24% mc=27%				
0.30	B			MADE GROUND: Firm, locally stiff, brown mottled orangish brown slightly sandy slightly gravelly clay with occasional rootlets and roots (up to 3mm in size). Gravel is angular to subangular fine to coarse clinker, limestone, quartzite and brick.			
0.30	D						
0.30	ES						
0.30							
0.60	HV		PID=<0.1 Av=134kPa		1.30		69.29
0.80	B			Below 0.50m, with occasional pottery fragments (up to 100mm in size).			
0.80	D						
0.80	ES						
0.80							
1.00	HV		PID=<0.1 Av=103kPa				
1.50	B			Firm orangish brown mottled grey slightly sandy CLAY with rare rootlets.			
1.50	D						
1.50	ES						
1.50							
1.60	HV		PID=<0.1 Av=74kPa		2.40		68.19
2.00	D			Firm brown mottled grey slightly sandy CLAY with many pockets (up to 40mm in size) of orangish brown slightly silty sand.			
2.50	B						
2.50	D						
2.50	HV		Av=68kPa		3.00		67.59
2.90	D						
				End of Excavation			



Excavation				Groundwater		
Plant	JCB 3CX	Width (B)	0.60	Depth Observed	Depth of Pit	Details
Date	10/08/2020	Length (C)	2.70			
Shoring	None.	Orientation	240 deg			None encountered during excavation.
Stability	Stable during excavation.					
		Date Backfilled	10/08/2020			

Remarks				Logged by	EPS
ES sample = 2 x vial, 1 x plastic jar and 2 amber jar				Figure	1 of 1
Radioactive screening at discrete sample depths, using a Thermo Scientific Mini 900E. No activity detected.					06/11/2020
Backfill details from base of hole: arisings up to ground level.					
Symbols and abbreviations are explained on the accompanying key sheet.					
All dimensions are in metres.					
Logged in accordance with BS5930:2015					

Project GRAVEN HILL, BICESTER, LAND TRANSFER AREA 2 (LTA2)	Engineer WATERMAN INFRASTRUCTURE & ENVIRONMENT LIMITED	Trial Pit TP803 Project No PC207899
Client GRAVEN HILL VILLAGE DEVELOPMENT COMPANY LIMITED	National Grid Coordinates 459602.5 E 220157.4 N	Ground Level 69.83 m OD

Samples and Tests				Strata	Scale 1:50		
Depth	Type	Stratum No	Results	Description	Depth	Legend	Level m OD
0.00- 0.30	B			MADE GROUND: Firm greyish brown slightly sandy slightly gravelly clay with many rootlets. Gravel is angular to subangular fine to coarse brick, limestone and plastic.	G.L.		69.83
0.10	D		PID=<0.1		0.30		69.53
0.30- 0.80	B				0.80		69.03
0.40	ES		PID=<0.1		1.30		68.53
0.40			Av=123kPa	MADE GROUND: Stiff brown slightly sandy slightly gravelly clay with rare rootlets and a metal fragment (200mm x 200mm x 15mm). Gravel is angular to subangular fine to coarse limestone and slag.			
0.50	D				2.40		67.43
0.50	HV				3.30		66.53
1.00- 1.30	B			Stiff orangish brown mottled grey sandy CLAY.			
1.00	D		PID=<0.1		4.50		65.33
1.00	ES						
1.50- 2.00	B		mc=30%	Firm grey mottled orangish brown slightly sandy CLAY with occasional gypsum crystals (up to 2mm in size) and rare pockets (up to 3mm in size) of decomposed organic material.			
1.50	D		Av=58kPa				
1.50	HV						
1.80	ES		PID=<0.1				
1.80							
2.30	D						
2.30	ES		PID=<0.1	Firm to stiff bluish grey CLAY with occasional pockets (up to 80mm in size) of soft organic clay, occasional pockets (up to 50mm in size) of orangish brown sandy clay, occasional gypsum crystals (up to 2mm in size) and occasional shell fragments (up to 20mm in size).			
2.30							
2.40- 2.70	B						
2.50	D		Av=67kPa				
2.50	HV						
3.00	D						
3.50- 4.00	B			Stiff bluish grey CLAY with occasional shell fragments (up to 20mm in size) and an organic odour.			
3.50	D		Av=78kPa				
3.50	HV						
4.40	D			End of Excavation			

Excavation				Groundwater		
Plant	JCB 3CX	Width (B)	0.60	Depth Observed	Depth of Pit	Details
Date	11/08/2020	Length (C)	3.00	3.00	3.00	Seepage.
Shoring	None.	Orientation	020 deg			
Stability	Stable during excavation.					
		Date Backfilled	11/08/2020			





Remarks  ES sample = 2 x vial, 1 x plastic jar and 2 amber jar Radioactive screening at discrete sample depths, using a Thermo Scientific Mini 900E. No activity detected. Backfill details from base of hole: arisings up to ground level.	Logged by MM Figure 1 of 1 06/11/2020 
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Symbols and abbreviations are explained on the accompanying key sheet.

All dimensions are in metres. Logged in accordance with BS5930:2015

Project GRAVEN HILL, BICESTER, LAND TRANSFER AREA 2 (LTA2) Engineer WATERMAN INFRASTRUCTURE & ENVIRONMENT LIMITED Trial Pit TP804 Project No PC207899



Client GRAVEN HILL VILLAGE DEVELOPMENT COMPANY LIMITED National Grid Coordinates 459579.2 E 220079.5 N Ground Level 67.79 m OD

Samples and Tests				Strata	Scale 1:50		
Depth	Type	Stratum No	Results	Description	Depth	Legend	Level m OD
				MADE GROUND: Grey slightly sandy gravel. Gravel is angular to subangular fine to coarse granite.	G.L.		67.79
0.50	B			Below 0.25m, becoming sandy.	0.30		67.49
0.50	D				0.35		67.44
0.50	ES		PID=<0.1	At 0.30m, geotextile layer.	0.60		67.19
0.50				MADE GROUND: Orangish yellow silty sand.			
0.70	B			MADE GROUND: Black very sandy silty gravel. Gravel is angular to subangular fine to medium ash, clinker, slag and quartzite.	1.10		66.69
0.70	D		PID=<0.1				
0.70	ES			Firm dark grey slightly sandy CLAY with occasional shell fragments (up to 5mm in size) and occasional rootlets.			
				End of Excavation			

Excavation				Groundwater		
Plant	JCB 3CX	Width (B)	0.60	Depth Observed	Depth of Pit	Details
Date	30/07/2020	Length (C)	1.00			
Shoring	None.	Orientation	012 deg			None encountered during excavation.
Stability	Stable during excavation.	Date Backfilled	30/07/2020			

Remarks	ES sample = 2 x vial, 1 x plastic jar and 2 amber jar	Logged by	MJ
AGS	Radioactive screening at discrete sample depths, using a Thermo Scientific Mini 900E. No activity detected.	Figure	1 of 1
	Backfill details from base of hole: arisings up to ground level.		06/11/2020
<p>Symbols and abbreviations are explained on the accompanying key sheet.</p> <p>All dimensions are in metres.</p> <p>geotechnics</p>			
Logged in accordance with BS5930:2015			

Project GRAVEN HILL, BICESTER, LAND TRANSFER AREA 2 (LTA2) Engineer WATERMAN INFRASTRUCTURE & ENVIRONMENT LIMITED Trial Pit TP808
 Client GRAVEN HILL VILLAGE DEVELOPMENT COMPANY LIMITED National Grid Coordinates 459429.4 E 220053.8 N Project No PC207899
 Ground Level 69.70 m OD





Samples and Tests				Strata	Scale 1:50		
Depth	Type	Stratum No	Results	Description	Depth	Legend	Level m OD
0.05	D			MADE GROUND: Asphalt.	G.L.		69.70
0.05	ES				0.05		69.65
0.05			PID=<0.1	MADE GROUND: Reddish brown sandy slightly silty gravel. Gravel is angular to subangular fine to coarse granite.	0.40		69.30
0.30	B						
0.40	ES		PID=<0.1	At 0.40m, a layer of steel mesh obstruction encountered.			
0.40				End of Excavation			

Excavation				Groundwater		
Plant	JCB 3CX	Width (B)	0.60	Depth Observed	Depth of Pit	Details
Date	31/07/2020	Length (C)	3.20			
Shoring	None.	Orientation	317 deg			None encountered during excavation.
Stability	Stable during excavation.					
		Date Backfilled	31/07/2020			


Remarks		Logged by		MJ	
Symbols and abbreviations are explained on the accompanying key sheet.	ES sample = 2 x vial, 1 x plastic jar and 2 amber jar			Figure	1 of 1 06/11/2020
	Radioactive screening at discrete sample depths, using a Thermo Scientific Mini 900E. No activity detected.				
	The Trial Pit was terminated at a depth of 0.40 m on the instruction of the Engineer due to the presence of an obstruction.				
Backfill details from base of hole: arisings up to ground level.					
All dimensions are in metres.	Logged in accordance with BS5930:2015				

Project GRAVEN HILL, BICESTER, LAND TRANSFER AREA 2 (LTA2) Engineer WATERMAN INFRASTRUCTURE & ENVIRONMENT LIMITED Trial Pit TP809 Project No PC207899










Client GRAVEN HILL VILLAGE DEVELOPMENT COMPANY LIMITED National Grid Coordinates 459470.6 E 219984.7 N Ground Level 67.33 m OD

Samples and Tests				Strata	Scale 1:50		
Depth	Type	Stratum No	Results	Description	Depth	Legend	Level m OD
				MADE GROUND: Grey slightly sandy gravel. Gravel is angular to subangular fine to coarse granite.	G.L.		67.33
0.50	B			Below 0.30m, becoming sandy.	0.40		66.93
0.50	D				0.45		66.88
0.50	ES			At 0.40m, geotextile layer.	0.60		66.73
0.70	HV	PID=<0.1	Av=64kPa	MADE GROUND: Orangish brown slightly silty sand.			
0.80	B			MADE GROUND: Black very sandy silty gravel. Gravel is angular to subangular fine to medium ash, clinker, slag and quartzite.			
0.80	D				1.30		66.03
0.80	ES	PID=<0.1		Firm dark grey sandy CLAY with occasional rootlets.			
				End of Excavation			


Excavation				Groundwater		
Plant	JCB 3CX	Width (B)	0.60	Depth Observed	Depth of Pit	Details
Date	30/07/2020	Length (C)	1.00			
Shoring	None.	Orientation	057 deg			None encountered during excavation.
Stability	Stable during excavation.					
		Date Backfilled	30/07/2020			

Remarks				Logged by	MJ
ES sample = 2 x vial, 1 x plastic jar and 2 amber jar				Figure	1 of 1
Radioactive screening at discrete sample depths, using a Thermo Scientific Mini 900E. No activity detected.					06/11/2020
Backfill details from base of hole: arisings up to ground level.					
Symbols and abbreviations are explained on the accompanying key sheet.					
All dimensions are in metres.					
Logged in accordance with BS5930:2015					

Project GRAVEN HILL, BICESTER, LAND TRANSFER AREA 2 (LTA2) Engineer WATERMAN INFRASTRUCTURE & ENVIRONMENT LIMITED Trial Pit TP810
 Client GRAVEN HILL VILLAGE DEVELOPMENT COMPANY LIMITED National Grid Coordinates 459443.7 E 219991.0 N Project No PC207899 Ground Level 67.63 m OD

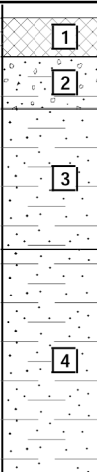
Samples and Tests				Strata	Scale 1:50		
Depth	Type	Stratum No	Results	Description	Depth	Legend	Level m OD
				MADE GROUND: Concrete.	G.L.		67.63
				MADE GROUND: Brick.	0.20		67.43
0.40	B				0.30		67.33
0.40	D						
0.40	ES			MADE GROUND: Black and grey sandy very silty gravel with a high cobble content of angular to subangular limestone, brick and concrete. Gravel is angular to subangular fine to coarse limestone, brick, ash and concrete.	0.60		67.03
0.40			PID=<0.1				
0.60	HV		Av=86kPa				
0.65	B						
0.65	D						
0.65	ES			Stiff dark greenish grey, occasionally mottled orangish brown, slightly sandy CLAY.			
0.65			PID=<0.1				
1.00	D						
1.00	HV		Av=67kPa	Below 0.75m, becoming firm and occasionally mottled light brown.	1.80		65.83
1.30	B						
1.30	D						
1.30	ES			Firm brownish grey mottled light brown sandy CLAY with many relict rootlets and occasional pockets (up to 4mm in size) of grey silt.			
1.30			PID=<0.1				
1.50	HV		Av=61kPa				
1.80	D						
2.20	B			Below 2.20m, with many gypsum crystals (up to 8mm in size).			
2.20	D						
2.80	D				3.00		64.63
				End of Excavation			

Excavation				Groundwater		
Plant	JCB 3CX	Width (B)	0.60	Depth Observed	Depth of Pit	Details
Date	03/08/2020	Length (C)	2.60			
Shoring	None.	Orientation	290 deg	0.60	0.70	Slow inflow.
Stability	Stable during excavation.					
		Date Backfilled	03/08/2020			

Remarks	ES sample = 2 x vial, 1 x plastic jar and 2 amber jar	Logged by	MJ
	Radioactive screening at discrete sample depths, using a Thermo Scientific Mini 900E. No activity detected.	Figure	1 of 1
Symbols and abbreviations are explained on the accompanying key sheet.	Backfill details from base of hole: arisings up to ground level.		06/11/2020
All dimensions are in metres.			
	Logged in accordance with BS5930:2015		

Project GRAVEN HILL, BICESTER, LAND TRANSFER AREA 2 (LTA2) Engineer WATERMAN INFRASTRUCTURE & ENVIRONMENT LIMITED Trial Pit TP811 Project No PC207899

Client GRAVEN HILL VILLAGE DEVELOPMENT COMPANY LIMITED National Grid Coordinates 459375.0 E 220011.2 N Ground Level 69.27 m OD

Samples and Tests				Strata	Scale 1:50		
Depth	Type	Stratum No	Results	Description	Depth	Legend	Level m OD
0.20	B			MADE GROUND: Dark brown gravelly slightly silty sand with many rootlets (up to 30mm in diameter). Gravel is angular to subangular fine to coarse flint and brick fragments.	G.L.		69.27
0.20	D				0.25		69.02
0.20	ES						
0.20			PID=<0.1		0.60		68.67
0.40	B			POSSIBLE MADE GROUND: Firm dark brown mottled dark grey and occasionally brownish orange slightly sandy slightly gravelly CLAY with occasional rootlets and roots (up to 35mm in diameter).			
0.40	D						
0.40	ES		PID=<0.1				
0.40							
0.70	B			Firm light orangish brown mottled light grey slightly sandy CLAY with occasional rootlets and roots (up to 6mm in diameter).			
0.70	D						
0.70	ES		PID=<0.1		1.52		67.75
0.70							
1.00	ES			Below 1.30m, becoming stiff.			
1.00	HV		Av=72kPa				
1.00			PID=<0.1				
1.20	D						
1.20	D			Stiff dark grey mottled light orangish brown slightly sandy CLAY.			
1.50	HV		Av=101kPa				
1.60	B						
1.60	D		mc=27%				
2.10	D			Between 1.80-2.10m, many gypsum crystals (up to 6mm in size).			
2.60	D						
2.60	D						
2.60	D						
3.00	D			End of Excavation	3.00		66.27

Excavation				Groundwater		
Plant	JCB 3CX	Width (B)	0.60	Depth Observed	Depth of Pit	Details
Date	15/07/2020	Length (C)	2.00			
Shoring	None.	Orientation	058 deg			None encountered during excavation.
Stability	Stable during excavation.					
		Date Backfilled	15/07/2020			

Remarks	ES sample = 2 x vial, 1 x plastic jar and 2 amber jar	Logged by	MJ
	Radioactive screening at discrete sample depths, using a Thermo Scientific Mini 900E. No activity detected.	Figure	1 of 1
Symbols and abbreviations are explained on the accompanying key sheet.			06/11/2020
All dimensions are in metres.	Logged in accordance with BS5930:2015	