key sheet. All dimensions are in metres.

Logged in accordance with B\$5930:2015

GRAVEN HILL, BICESTER, LAND TRANSFER AREA 2 (LTA2) **Trial Pit TP812** Project Engineer WATERMAN INFRASTRUCTURE & ENVIRONMENT LIMITED Project No PC207899 GRAVEN HILL VILLAGE DEVELOPMENT National Grid m OD Client COMPANY LIMITED Coordinates Ground Level 69.55 219978.5 Samples and Tests Strata Scale 1:50 Stratum Depth Type Results Description Depth Legend m ODΝo 69.55 G.L. MADE GROUND: Dark brown gravelly slightly silty sand with many roots and rootlets (up to 40mm in diameter). Gravel is angular to subangular fine to coarse brick fragments, flint, clinker and slag.  $\Box$ 0.20 0.20 0.20 0.20 в 2 D 0.30 69.25 D ES 0.45 69.10 3 0.20 MADE GROUND: Grey sandy gravel with a medium cobble content of limestone. Gravel is angular to subangular PID=<0.1 в 0.90 68.65 0.50 0.50 0.80 0.80 1.00 1.30 1.50 В fine to coarse limestone. POSSIBLE MADE GROUND: Firm orangish brown mottled grey slightly sandy clay with occasional rootlets. ES ΗV Av=96kPa 4 PID=<0.1 в Below 0.60m, rootlets absent. D mc=29% Firm light orangish brown mottled light grey slightly sandy CLAY with occasional shell fragments (up to ΗV Av=49kPa D 2.00 67.55 2.00 В 35mm in size). D 2.00 2.50 HV Av=57kPa Below 1.90m, shells absent. D 5 Firm dark brownish grey slightly sandy CLAY. 2.70 ΗV Av=50kPa 3.00 D 3.00 66.55 End of Excavation Groundwater Excavation Depth Depth Plant Width (B) JCB 3CX 15/07/2020 0.60 of Pit Length (Ć) Observed Shoring 069 deg 15/07/2020 Orientation None encountered during excavation. Date Backfilled Stability Stable during excavation. 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 Logged by ΜJ Symbols and abbreviations are activity detected. Figure 1 of 1 06/11/2020 explained on the accompanying ووفاوطنسنع

Project

Engineer

WATERMAN INFRASTRUCTURE &

**TP813** 

**Trial Pit** 

GRAVEN HILL, BICESTER, LAND TRANSFER AREA 2 (LTA2) ENVIRONMENT LIMITED Project No PC207899 GRAVEN HILL VILLAGE DEVELOPMENT National Grid Client Ground Level 65.86 m OD COMPANY LIMITED Coordinates 219894.9 Samples and Tests Strata Scale 1:50 Stratum Depth Type Results Description Depth Leaend m ODΝo 65.86 G.L. MADE GROUND: Firm dark greyish brown slightly sandy slightly gravelly clay with many rootlets. Gravel is angular to subangular fine to coarse asphalt, clinker 0.00- 0.20 1 0.10 ES PID=<0.1 0.30 65.56 0.20 0.30and brick. 2 D B 0.70 mc=17% 0.30- 0.70 0.40 MADE GROUND: Stiff brown mottled grey slightly sandy slightly gravelly clay with occasional rootlets. Gravel is angular to subangular fine to medium brick. B D 0.70 65.16 0.50 ES 3 Av=110kPa ΗV 0.50 0.50 0.70- 1.20 0.70- 1.20 0.95 PID=<0.1 Below 0.40m, rootlets absent. в Stiff grey mottled brown slightly sandy CLAY with occasional decomposed rootlets (up to 1mm in 1.50 64.36 ES 0.95 PID=<0.1 mc=28% Av=82kPa 1.00 D 4 Firm grey mottled orangish brown slightly sandy slightly gravelly calcareous CLAY. Gravel is angular to subangular fine to medium limestone. ΗV 1.50- 2.00 2.00 2.00 2.30- 2.50 2.40 в D HV Av=70kPa 2.30 2.50 63.56 5 63.36 B D Firm brown mottled grey slightly sandy CLAY. End of Excavation Groundwater Excavation Depth Depth Plant Width (B) JCB 3CX 14/07/2020 0.60 Length (Ć) Observed of Pit Shoring 145 deg 14/07/2020 Orientation None encountered during excavation. Date Backfilled Stability Stable during excavation. 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
abbreviations are explained on the

Backfill details from base of hole: arisings up to ground level. Logged by MM Figure 1 of 1 06/11/2020 explained on the accompanying pededinies kev sheet. All dimensions are in metres.

GRAVEN HILL, BICESTER, LAND TRANSFER AREA 2 (LTA2) **Trial Pit TP814** Project Engineer WATERMAN INFRASTRUCTURE & ENVIRONMENT LIMITED Project No PC207899 GRAVEN HILL VILLAGE DEVELOPMENT National Grid Client Ground Level 67.41 m ODCOMPANY LIMITED Coordinates 219891.0 Scale 1:50 Samples and Tests Strata Stratum Depth Type Results Description Depth Leaend m ODΝo 67.41 G.L. MADE GROUND: Firm dark grey slightly sandy slightly gravelly clay with a low cobble content of subangular brick and slag, a metal rod (0.30m in length, 20mm 0.00- 0.40 1 0.20 ES PID=<0.1 0.40 67.01 0.30 0.40thick), many roots (up to 15mm in size) and rootlets 2 0.70 0.50 MADE GROUND: Stiff grey slightly sandy slightly gravelly clay. Gravel is angular to subangular fine ES 0.70 66.71 HV Av=105kPa 3 0.50 PID=<0.1 brick and pottery. 0.60 D 0.70- 1.00 0.70- 1.00 Firm orangish brown mottled light grey calcareous CLAY with many shell fragments (up to 30mm in size) and occasional gypsum crystals (up to 8mm in size). в 1.20 66.21 4. в 0.95 ES 1.50 65.91 PID=<0.1 Firm grey slightly sandy slightly gravelly calcareous CLAY with a low cobble content of subangular limestone and occasional decomposed rootlets (up to 1mm in size). Gravel is angular to subangular fine to coarse limestone. 1.00 ΗV Av=75kPa mc=21% 5 1.20- 1.50 В 1.20- 1.50 1.20- 1.50 1.40 в 1.50- 2.00 1.70 1.90 2.00 2.40- 2.50 2.40 2.50 в 65.01 6 64.91 ES Firm grey mottled light grey calcareous CLAY. HV Av=65kPa Firm brown mottled grey slightly sandy CLAY. B D 2.45 End of Excavation Groundwater Excavation Plant Depth Depth Width (B) JCB 3CX 14/07/2020 0.69 Length (Ć) Observed of Pit Shoring 040 deg 14/07/2020 Orientation None encountered during excavation. Date Backfilled Stability Stable during excavation. Remarks

Symbols and abbreviations are explained on the activity detected.

Backfill details from base of hole: arisings up to ground level. Logged by MM Figure 1 of 1 06/11/2020 explained on the accompanying geolechnics kev sheet. All dimensions are in metres.

Project

Engineer

WATERMAN INFRASTRUCTURE &

**TP815** 

**Trial Pit** 

GRAVEN HILL, BICESTER, LAND TRANSFER AREA 2 (LTA2) ENVIRONMENT LIMITED Project No PC207899 GRAVEN HILL VILLAGE DEVELOPMENT National Grid Client Ground Level 70.01 m ODCOMPANY LIMITED Coordinates 219951.8 Scale 1:50 Samples and Tests Strata Stratum Depth Type Results Depth Leaend Description m ODΝo 70.01 G.L. MADE GROUND: Firm dark brownish grey slightly sandy slightly gravelly clay with many rootlets (up to 40mm in diameter) Gravel is angular to subangular fine to 0.00- 0.40 1 0.15 0.15 ES PID=<0.1 0.40 69.61 0.25 0.40medium limestone, flint, brick and slag. D B 0.80 2 0.40- 0.80 0.45 MADE GROUND: Stiff brown mottled grey slightly sandy slightly gravelly clay with occasional shell fragments (up to 20mm in size). Gravel is angular to subangular fine limestone and slag. ES 0.80 69.21 3 0.45 PID=<0.1 1.00 69.01 Av=120kPa HV 0.60 D Stiff bluish grey mottled brown slightly sandy CLAY with occasional rootlets.  $\,$ 0.80 - 1.00В 4 0.80- 1.00 в mc=29% 0.90 D Firm brown mottled grey slightly sandy slightly gravelly calcareous CLAY with occasional shell fragments (up to 15mm in size) and occasional gypsum crystals (up to 2mm in size). Gravel is angular to subangular fine to medium limestone. 0.90 ΗV Av=102kPa 1.00-1.50 В 1.90 68.11 1.00- 1.50 1.10 1.10 ES PID=<0.1 5 1.50 1.50 1.80 1.80 2.00-D Firm grey mottled brown and light grey slightly sandy slightly gravelly calcareous CLAY with occasional shell fragments (up to 20mm in size), occasional pockets (up to 300mm in size) of soft to firm orangish brown sandy clay and rare pockets (up to 200mm in size) of dark grey decomposed organic material with an organic odour. ΗV Av=75kPa ES PID=<0.1 2.70 67.31 2.50 B D 2.30 End of Excavation Groundwater Excavation Plant Depth Depth Width (B) JCB 3CX 15/07/2020 0.60 Length (Ć) Observed of Pit Shoring 090 deg 15/07/2020 None encountered during excavation. Orientation Date Backfilled Stability Stable during excavation. 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 Logged by MM Symbols and abbreviations are activity detected. Figure 1 of 1 06/11/2020 explained on the accompanying geolechnics kev sheet. All dimensions are in metres.

Project

Engineer

WATERMAN INFRASTRUCTURE &

**TP816** 

**Trial Pit** 

GRAVEN HILL, BICESTER, LAND TRANSFER AREA 2 (LTA2) ENVIRONMENT LIMITED Project No PC207899 GRAVEN HILL VILLAGE DEVELOPMENT National Grid Client Ground Level 68.08 m ODCOMPANY LIMITED Coordinates 219746.0 Samples and Tests Strata Scale 1:50 Level Stratum Depth Type Results Description Depth Leaend m ODΝo G.L. 68.08 1 MADE GROUND: Dark brown slightly sandy slightly в 0.10 0.10 0.10 0.40 gravelly silt with many rootlets and roots (up to 6mm in size) and a low cobble content of subangular limestone. Gravel is angular to subrounded fine to coarse limestone and quartzite. ח 0.20 67.88 ES PID=<0.1 В 2 0.40 D ES MADE GROUND: Stiff light brown mottled light grey slightly sandy slightly gravelly clay with occasional rootlets. Gravel is angular to subangular fine to coarse limestone, brick and flint. 0.40 PID=<0.1 1.00 67.08 HV Av=130kPa × 3 × × 1.00 1.00 1.00 1.00 1.00 R 1.30 66.78 D ES Below 0.85m, becoming firm. HV Av=68kPa POSSIBLE MADE GROUND: Dark grey mottled dark reddish brown slightly sandy SILT with many rootlets and rare roots (up to 15mm in size). PID=<0.1 в 1.50 1.50 ES 4 Av=83kPa HV Stiff light grey mottled light brown slightly sandy 1.50 2.00 2.50 PID=<0.1 D D Below 1.60m, with many shell fragments (up to 8mm in 2.50 HV Av=89kPa size). Below 2.40m, with many pockets (up to 60mm in size) of orangish brown silty sand. 3.00 D 3.00 65.08 3.00 HV Av=57kPa Below 2.50m, becoming firm with rare rootlets, many gypsum crystals (up to 3mm in size) and occasional pockets (up to 4mm in size) of grey silt. End of Excavation Groundwater Excavation Plant Depth Depth Width (B) JCB 3CX 07/08/2020 0.60 2.90 174 deg 07/08/2020 Details Length (Ć) Observed of Pit Shoring Orientation 3.00 3.00 Seepage. Date Backfilled Stability Stable during excavation. Remarks

Symbols and abbreviations are explained on the activity detected.

Backfill details from base of hole: arisings up to ground level. Logged by MJ Figure 1 of 1 06/11/2020 explained on the accompanying ووفاوطنسنع kev sheet. All dimensions are in metres.

Logged in accordance with BS5930:2015

GRAVEN HILL, BICESTER, LAND TRANSFER AREA 2 (LTA2) **Trial Pit TP817** Project Engineer WATERMAN INFRASTRUCTURE & ENVIRONMENT LIMITED Project No PC207899 GRAVEN HILL VILLAGE DEVELOPMENT National Grid \_m O D Client Ground Level 62.94 COMPANY LIMITED Coordinates 219640.2 Samples and Tests Strata Scale 1:50 Level Stratum Depth Type Results Description Depth Legend m ODΝo 62.94 G.L. 1 0.15 62.79 MADE GROUND: Concrete. 0.15- 0.55 0.15 0.25 0.25 R MADE GROUND: Light brown slightly sandy slightly silty gravel with a high cobble content of angular to subangular limestone. Gravel is angular to subrounded fine to coarse flint, quartzite and concrete. 2 D ES PID=<0.1 0.55 3 62.39 0.30 0.55-D B 0.70 62.24 0.70 0.60 0.60 0.60 0.60 0.90 1.00 MADE GROUND: Soft greenish grey slightly sandy slightly gravelly clay with occasional pockets (up to 3mm in size) of dark grey organic clay. ES ΗV Av=28kPa 4 PID=<0.1 Stiff orangish brown mottled grey slightly sandy CLAY with occasional gypsum crystals (up to 3mm in size). D mc=25% ES PID=<0.1 ΗV 61.04 Av=82kPa 1.90 D Firm brown mottled yellowish brown slightly sandy ES 1.70 1.70 CLAY with a strong organic odour and occasional gypsum crystals (up to 2mm in size). PID=<0.1 5 1.80- 2.30 2.00- 2.50 2.00 2.30 В HV Av=67kPa D 2.70 60.24 End of Excavation Groundwater Excavation Depth Depth Plant Width (B) JCB 3CX 17/07/2020 0.60 Length (Ć) Observed of Pit Shoring 040 deg 17/07/2020 Orientation None encountered during excavation. Date Backfilled Stability Stable during excavation. 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
abbreviations are explained on the

Backfill details from base of hole: arisings up to ground level. Logged by MM Figure 1 of 1 06/11/2020 explained on the accompanying pededinies kev sheet.

Logged in accordance with BS5930:2015

GRAVEN HILL, BICESTER, LAND TRANSFER AREA 2 (LTA2) **Trial Pit TP818** Project Engineer WATERMAN INFRASTRUCTURE & ENVIRONMENT LIMITED Project No PC207899 National Grid GRAVEN HILL VILLAGE DEVELOPMENT 459237.5 Client Ground Level 69.02 m ODCOMPANY LIMITED Coordinates 219602.2 Scale 1:50 Samples and Tests Strata Stratum Depth Type Results Depth Legend Description m ODΝo 69.02 G.L. 1 0.15 0.00- 0.15 MADE GROUND: Firm dark brownish grey slightly sandy 68.87 в 0.10 slightly gravelly clay with many rootlets and occasional roots (up to 20mm in diameter). Gravel is ES 2 0.10 0.20-PID=<0.1 angular to subrounded fine to coarse flint and 0.80 limestone. 0.35 ES MADE GROUND: Stiff brown mottled grey slightly sandy PID=<0.1 0.80 68.22 3 0.50 D slightly gravelly clay with many rootlets and occasional roots (up to 20mm in diameter). Gravel is HV Av=122kPa 1.10 67.92 0.80- 1.10 0.90 R angular to subrounded flint, brick, slag and mc=25% D limestone. 1.00 ES 4 Stiff brown mottled grey slightly sandy CLAY with many rootlets, rare roots (up to 20mm in diameter) and occasional roots infilled with dark brown HV Av=97kPa 1.00 1.00 PID=<0.1 1.10- 1.60 mc=29% 1.20 D slightly sandy organic clay. 2.00 67.02 1.50 1.80 HV Av=83kPaStiff light grey mottled orangish brown slightly sandy CLAY with occasional rootlets and rare roots (up to 5mm in diameter), and rare gypsum crystals (up to 2mm in size). 5 1.80 1.80 1.90 2.00-ES PID=<0.1 2.50 66.52 D 2.50 В 2.20 HV Av=78kPa Below 1.60m, becoming grey. 2.30 D Stiff dark grey mottled dark reddish brown slightly sandy CLAY with occasional gypsum crystals (up to 3mm in size), occasional decomposed organic material (up to 3mm in size) and occasional pockets (up to 30mm in size) of orangish brown sandy clay End of Excavation Groundwater Excavation Plant Depth Depth Width (B) JCB 3CX 16/07/2020 Length (Ć) Observed of Pit 2.40 005 deg 16/07/2020 Shoring Orientation None encountered during excavation. Date Backfilled Stability Stable during excavation. 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 explained on the accompanying geolechnics kev sheet.

key sheet. All dimensions are in metres.

Logged in accordance with B\$5930:2015

GRAVEN HILL, BICESTER, LAND TRANSFER AREA 2 (LTA2) **Trial Pit TP819** Project Engineer WATERMAN INFRASTRUCTURE & ENVIRONMENT LIMITED Project No PC207899 GRAVEN HILL VILLAGE DEVELOPMENT National Grid m OD Client COMPANY LIMITED Coordinates 219648.6 Ground Level 63.79 Samples and Tests Strata Scale 1:50 Level Stratum Depth Type Results Description Depth Legend m ODΝo G.L. 63.79 MADE GROUND: Dark brown gravelly slightly silty sand with many roots and rootlets (up to 10mm in diameter). Gravel is angular to subangular fine to 0.20 0.20 0.20 0.20 R 0.22 63.57 D 2 ES coarse glass, brick, metal nails and flint. PID=<0.1 0.65 63.14 0.40 B D PROBABLE MADE GROUND: Firm brown, occasionally mottled grey, slightly sandy clay with occasional 0.40 ΗV Av=72kPa rootlets в 0.80 0.80 1.00 1.00 1.20 1.70 D Below 0.50m, rootlets absent. ĒS .3 ΗV Av=60kPa Firm light grey mottled light brown slightly sandy PID=<0.1 mc=27% CLAY. D D At 1.50m, with occasional pockets of gypsum crystals. 2.00 HV Av=56kPa 2.30 2.30 2.50 в 2.30 61.49 Stiff dark brownish grey slightly sandy CLAY with a organic odour and occasional pockets (up to  $10\,\mathrm{mm}$  in size) of decomposed organic material. D HV Av=89kPa 4 2.80 D 3.00 60.79 End of Excavation Groundwater Excavation Depth Depth Plant Width (B) JCB 3CX 15/07/2020 0.60 of Pit Length (Ć) Observed Shoring 013 deg 15/07/2020 Orientation None encountered during excavation. Date Backfilled Stability Stable during excavation. 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 Logged by MJ Symbols and abbreviations are activity detected. Figure 1 of 1 06/11/2020 explained on the accompanying esimbetoep

TRIAL PIT RECORD Trial Pit Draft GRAVEN HILL, BICESTER, LAND TRANSFER AREA 2 (LTA2) **Trial Pit TP820** Project Engineer WATERMAN INFRASTRUCTURE & ENVIRONMENT LIMITED Project No PC207899 GRAVEN HILL VILLAGE DEVELOPMENT National Grid Client Ground Level 68.24 m OD Coordinates COMPANY LIMITED 220034.9 Samples and Tests Strata Scale 1:50 Level Stratum Depth Type Results Description Depth Legend m ODΝo 68.24 G.L. MADE GROUND: Asphalt. 0.10 68.14 0.10 0.10 0.25 0.25 ES 0.20 68.04 MADE GROUND: Light brown sandy slightly silty gravel with a low cobble content of angular to subangular limestone. Gravel is angular to subangular fine to PID=<0.1 3 ĒS 0.60 67.64 0.25 PID=<0.1 coarse limestone. Av=42kPa ΗV 0.85 0.85 0.85 0.85 MADE GROUND: Black sandy very silty gravel with a medium cobble content of angular to subangular limestone. Gravel is angular to subangular fine to в mc=35% ES PID=<0.1 coarse ash, clinker, slag and quartzite. 1.30 1.30 1.30 1.30 В 4 Firm dark greenish grey sandy CLAY with occasional rootlets and roots (up to 5 mm in size). D ES PID=<0.1 1.50 ΗV v=55kPa Below 1.15m, rootlets absent. 2.00 D Below 1.20m, with many gypsum crystals (up to 5mm in size) and occasional pockets (up to 4mm in size) of HV Av=55kPa 65.84 2.40 grey silt. 2.60 2.60 D Below 1.80m, becoming dark greenish grey. 3.00 D End of Excavation Groundwater Excavation Depth Depth Plant Width (B) JCB 3CX 31/07/2020 0.60 Length (Ć) Observed of Pit Shoring 220 deg 31/07/2020 Orientation None encountered during excavation. Date Backfilled Stability Stable during excavation. 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

Symbols and abbreviations are activity detected.

Backfill details from base of hole: arisings up to ground level. Logged by ΜJ Figure 1 of 1 06/11/2020 explained on the

accompanying kev sheet. All dimensions are in metres.

Logged in accordance with BS5930:2015



TRIAL PIT RECORD Trial Pit Draft GRAVEN HILL, BICESTER, LAND TRANSFER AREA 2 (LTA2) **Trial Pit TP821** Project Engineer WATERMAN INFRASTRUCTURE & ENVIRONMENT LIMITED Project No PC207899 GRAVEN HILL VILLAGE DEVELOPMENT National Grid m OD Client Ground Level 68.48 COMPANY LIMITED Coordinates 220027.9 Samples and Tests Strata Scale 1:50 Level Stratum Depth Type Results Description Depth Legend m ODΝo 68.48 G.L. MADE GROUND: Dark brown slightly gravelly slightly clayey sand with many rootlets and roots (up to 20mm in diameter). Gravel is angular to subangular fine to coarse brick, limestone and clinker. 1 0.10 в 0.10 0.10 0.10 0.40 ח 0.20 68.28 ES PID=<0.1 В 2 MADE GROUND: Stiff dark orangish brown slightly sandy slightly gravelly clay with occasional rootlets. Gravel is angular to subangular fine to coarse brick, granite, limestone and pottery. 0.40 D ES 0.40 PID=<0.1 Av=130kPa 1.00 ΗV 1.10 67.38 1.30 1.30 1.30 1.30 0.50m, a clay land drain (100mm in diameter). В 3 ES Below 0.60m, rootlets absent. PID=<0.1 At 1.00m, a clay land drain (100mm in diameter). D 1.80 66.68 2.00 2.00 Stiff light brown mottled light grey slightly sandy CLAY with occasional shell fragments (up to  $10\,\mathrm{mm}$  in D ES 2.00 2.50 PID=<0.1 size) and occasional relic rootlets. 4 D Firm to stiff dark greyish brown mottled light brown sandy CLAY with many gypsum crystals (up to  $6\,\mathrm{mm}$  in 3.00 D 3.00 65.48 End of Excavation Groundwater Excavation Depth Depth Plant Width (B) JCB 3CX 31/07/2020 0.60 Length (Ć) Observed of Pit Shoring 338 deg 31/07/2020 Orientation None encountered during excavation. Date Backfilled Stability Stable during excavation. 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
abbreviations are explained on the

Backfill details from base of hole: arisings up to ground level. Logged by MJ 1 of 1

explained on the accompanying kev sheet. All dimensions are in metres.

Logged in accordance with BS5930:2015

Figure 06/11/2020



TRIAL PIT RECORD Trial Pit Draft GRAVEN HILL, BICESTER, LAND TRANSFER AREA 2 (LTA2) **Trial Pit TP822** Project Engineer WATERMAN INFRASTRUCTURE & ENVIRONMENT LIMITED Project No PC207899 GRAVEN HILL VILLAGE DEVELOPMENT National Grid m OD Client Coordinates COMPANY LIMITED 219984.9 Ground Level 67.77 1:50 Samples and Tests Strata Scale Level Stratum Depth Type Results Description Depth Legend m ODΝo 67.77 G.L. 1 0.15 MADE GROUND: Asphalt. 67.62 0.15 0.15 0.15 0.25 MADE GROUND: Light brown slightly gravelly slightly silty sand. Gravel is angular to subangular fine to coarse limestone. ES 2 PID=<0.1 D 0.80 66.97 1.00 1.00 1.00 1.00 В Firm light orangish brown mottled light grey sandy  ${\tt CLAY}$ . ES Av=48kPa PID=<0.1 ΗV 3 Below 1.40m, with occasional pockets (up to 25 mm in size) of orangish brown silty sand. D 1.50 1.50 ΗV Av=64kPa 2.00 ΗV Av=71kPa 65.67 2.10 Firm dark greyish brown mottled light brown slightly sandy CLAY with many gypsum crystals (up to 8mm in size). 2.30 2.30 2.30 2.30 4 ES PID=<0.1 Below 2.60m, becoming grey. 3.00 D 3.00 64.77 End of Excavation Groundwater Excavation Depth Depth Plant Width (B) JCB 3CX 31/07/2020 0.60 2.40 044 deg 31/07/2020 Details of Pit Length (Ć) Observed Shoring Orientation 0.70 0.80 Moderate inflow. Date Backfilled Stability Stable during excavation. 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

Symbols and abbreviations are activity detected.

Backfill details from base of hole: arisings up to ground level. Logged by ΜJ 1 of 1

explained on the

accompanying kev sheet. All dimensions are in metres.

Logged in accordance with B\$5930:2015

Figure

06/11/2020 esimbetoep

GRAVEN HILL, BICESTER, LAND TRANSFER AREA 2 (LTA2) **Trial Pit TP823** Project Engineer WATERMAN INFRASTRUCTURE & ENVIRONMENT LIMITED Project No PC207899 GRAVEN HILL VILLAGE DEVELOPMENT National Grid m OD Client Ground Level 69.88 COMPANY LIMITED Coordinates 220009.2 Samples and Tests Strata Scale 1:50 Level Stratum Depth Type Results Description Depth Legend m ODΝo 69.88 G.L. 0.10 0.10 ES MADE GROUND: Asphalt. 69.78 0.10 0.20 0.30 0.37 0.57 69.68 69.58 0.10 PID=<0.1 MADE GROUND: Weak grey concrete, 50% aggregate of 5 0.50 0.50 69.51 69.31 subangular limestone. B D 0.50  ${\tt MADE}$  GROUND: Reddish brown silty sand and gravel. Gravel is angular to subangular fine to coarse ES PID=<0.1 0.50 0.70 0.70 0.70 0.70 1.00 1.50 ΗV Av=70kPa 6 в D MADE GROUND: Dark yellowish brown gravelly silty ES sand. Gravel is angular to subrounded fine to coarse 1.45 PID=<0.1 68.43 HV Av=79kPa MADE GROUND: Dark reddish grey and brown silty sand and gravel. Gravel is angular to subangular fine to D ΗV Av=62kPa В <u>.</u> 1.60 1.60 D MADE GROUND: Firm greenish grey mottled grey slightly sandy clay with relict rootlets. ES 1.60 2.00 2.10 2.50 2.60 2.60 PID=<0.1 HV Av=61kPa 2.50 67.38 D Firm brownish orange mottled light grey slightly HV Av=64kPa sandy CLAY. 8 B D Below 1.80m, becoming light brownish orange. 3.00 66.88 2.60 ES PID=<0.1 Stiff dark brownish grey slightly sandy CLAY with slight organic odour End of Excavation Groundwater Excavation Depth Depth Plant Width (B) JCB 3CX 16/07/2020 0.50 Length (Ć) Observed of Pit Shoring 006 deg 16/07/2020 Orientation None encountered during excavation. Date Backfilled Stability Stable during excavation. 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
abbreviations are
avalained on the

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 MJ Figure 1 of 1 06/11/2020 explained on the accompanying geolechnics kev sheet. All dimensions are in metres. Logged in accordance with BS5930:2015

Logged in accordance with B\$5930:2015

GRAVEN HILL, BICESTER, LAND TRANSFER AREA 2 (LTA2) **Trial Pit TP824** Project Engineer WATERMAN INFRASTRUCTURE & ENVIRONMENT LIMITED Project No PC207899 GRAVEN HILL VILLAGE DEVELOPMENT National Grid m OD Client COMPANY LIMITED Ground Level 69.48 Coordinates 219952.9 Samples and Tests Strata Scale 1:50 Level Stratum Depth Type Results Description Depth Legend m ODΝo 69.48 G.L. MADE GROUND: Dark brown gravelly slightly silty sand with many roots and rootlets (up to 10mm in diameter). Gravel is angular to subangular fine to medium brick fragments and flint.  $\Box$ 0.20 0.20 0.20 0.20 R 0.30 69.18 D 2 ES PID=<0.1 0.20 0.40 0.40 0.75 0.80 mc=25% mc=24% PROBABLE MADE GROUND: Firm orangish brown mottled grey slightly sandy clay with occasional rootlets. B D 0.70 68.78 3 ΗV Av=57kPa 1.00 68.48 4 POSSIBLE MADE GROUND: Firm light grey and light brown в 1.15 68.33 0.80 0.80 1.10 1.10 1.10 1.20 D slightly sandy CLAY. в Soft dark grey sandy CLAY with pockets (up to 100mm in size) of decomposed organic material.  $\,$ D ES PID=<0.1 Av=74kPa Stiff light grey mottled light brown slightly sandy CLAY with occasional shell fragments (up to  $5 \, \mathrm{mm}$  in ΗV 1.30 В 5 1.30 1.80 D D mc=26% size). 2.00 2.30 2.50 2.70 Av=60kPa Below 1.90m, becoming firm. HV D HV Av=53kPa Below 2.50m, becoming light grey occasionally mottled light brown. B D 2.70 3.00 66.48 End of Excavation Groundwater Excavation Depth Depth Plant Width (B) JCB 3CX 15/07/2020 0.60 of Pit Length (Ć) Observed Shoring 064 deg 15/07/2020 Orientation None encountered during excavation. Date Backfilled Stability Stable during excavation. 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 Logged by ΜJ Symbols and abbreviations are activity detected. Figure 1 of 1 06/11/2020 explained on the accompanying ووفاوطنسنع kev sheet.

key sheet. All dimensions are in metres.

Logged in accordance with BS5930:2015

geolechnics

**Trial Pit TP825** GRAVEN HILL, BICESTER, LAND TRANSFER Engineer WATERMAN INFRASTRUCTURE & AREA 2 (LTA2) ENVIRONMENT LIMITED Project No PC207899 National Grid GRAVEN HILL VILLAGE DEVELOPMENT Client Ground Level 70.45 COMPANY LIMITED Coordinates 219954.6 m OD Scale 1:50 Samples and Tests Strata Stratum Depth Type Results Depth Leaend Description m OD Νo 70.45 G.L. MADE GROUND: Firm dark grey slightly sandy slightly gravelly clay with many rootlets and occasional roots (up to 6mm in size). Gravel is angular to subrounded 1 0.00- 0.20 в 0.10 0.20 70.25 2 ES 0.10 0.20-PID=<0.1 fine to coarse sandstone, limestone and brick 0.50 69.95 0.50 в fragments. 3 0.20 D MADE GROUND: Firm brown mottled grey slightly sandy D 0.80 69.65 slightly gravelly clay with many pockets (up to 120m in size) of black sandy ash, a low cobble content of limestone, and occasional rootlets and roots (up to 6mm in diameter). Gravel is angular to subangular 4 0.40 ES PID=<0.1 1.10 69.35 0.50- 0.80 0.55 в ΗV Av=120kPa 0.70 fine to coarse limestone. 5 0.80- 1.10 mc=30% в MADE GROUND: Stiff brown mottled grey slightly sandy slightly gravelly clay. Gravel is angular fine to medium brick fragments, limestone and occasional shell fragments (up to 10mm in size). 1.00 1.00 HV Av=103kPa1.50 2.00 68.45 1.20 1.20 ES PID=<0.1 6 1.30 1.50 1.80 1.80 Stiff fissured grey mottled brown slightly sandy CLAY with occasional shells (up to 15mm in size). Fissures are very closely to closely spaced, randomly orientated, smooth and polished. D Av=85kPa ΗV 2.50 67.95 ES PID=<0.1 1.90 Firm to stiff brown mottled grey slightly sandy slightly gravelly calcareous CLAY with occasional shell fragments (up to 15mm in size). Gravel is angular to subangular fine to medium limestone. 2.00- 2.50 в 2.20 HV Av=87kPa D Firm to stiff grey mottled light grey and brown slightly sandy slightly gravelly calcareous CLAY with occasional shells (up to 20mm in size), occasional pockets (up to 200mm in size) of firm orangish brown sandy clay, and rare pockets (up to 20mm in size) of decomposed organic material. End of Excavation Excavation Groundwater Plant Depth Depth Width (B) JCB 3CX 15/07/2020 0.60 Length (Ć) Observed of Pit 090 deg 15/07/2020 Shoring Orientation None encountered during excavation. Date Backfilled Stability Stable during excavation. 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 explained on the accompanying

GRAVEN HILL, BICESTER, LAND TRANSFER AREA 2 (LTA2) **Trial Pit TP826** Project Engineer WATERMAN INFRASTRUCTURE & ENVIRONMENT LIMITED Project No PC207899 GRAVEN HILL VILLAGE DEVELOPMENT National Grid Client Ground Level 68.90 m ODCOMPANY LIMITED Coordinates 219897.6 Scale 1:50 Samples and Tests Strata Level Stratum Depth Type Results Depth Legend Description m ODΝo 68.90 G.L 1 68.75 0.06 ES MADE GROUND: Asphalt. 0.15 0.06 PID=<0.1 2 MADE GROUND: Black very gravelly silty sand with high cobble content of angular to subangular limestone. Gravel is angular to subangular fine to coarse flint, 0.40 0.40 0.50 68.40 0.40 ES brick, ash, clinker, slag and limestone PID=<0.1 0.40 0.60 0.70 1.00 1.50 1.50 ΗV Av=75kPa Between 0.40-0.45m, thin band of yellowish brown в limestone. 3 D mc=30% Firm light grey slightly sandy calcareous CLAY with occasional shell fragments (up to 8mm in size) and occasional decomposed organic matter (up to 20mm in HV Av = 73kPaD ES Av=76kPa PID=<0.1 ΗV 67.00 1.90 Firm dark grey mottled light brown slightly sandy calcareous CLAY with many pockets (up to 10mm in size) of decomposed organic material. 2.00 В 2.00 mc=36% D HV Av=62kPa . 4 2.50 D HV Av=58kPa Below 2.50m, with many shell fragments (up to 50mm in size). 2.80 2.80 66.10 65.90 D 5 B Stiff dark brownish grey slightly sandy CLAY with 2.90 slight organic odour. Between  $3.00-3.15\mathrm{m}$ , a pocket (150mm in size) of orangish brown silty sand. End of Excavation Groundwater Excavation Plant Depth Depth Width (B) JCB 3CX 16/07/2020 0.60 Details Length (Ć) Observed of Pit Shoring 006 deg 16/07/2020 Orientation 3.00 3.00 Seepage. Date Backfilled Stability Stable during excavation. 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
abbreviations are explained on the

Backfill details from base of hole: arisings up to ground level. Logged by MJ Figure 1 of 1 06/11/2020 explained on the accompanying geolechnics kev sheet. All dimensions are in metres.

Logged in accordance with BS5930:2015

TRIAL PIT RECORD Trial Pit Draft GRAVEN HILL, BICESTER, LAND TRANSFER AREA 2 (LTA2) **Trial Pit TP827** Engineer WATERMAN INFRASTRUCTURE & ENVIRONMENT LIMITED Project No PC207899 GRAVEN HILL VILLAGE DEVELOPMENT National Grid \_m O D Client Ground Level 66.84 COMPANY LIMITED Coordinates 219810.4 Samples and Tests Strata Scale 1:50 Stratum Depth Type Results Description Depth Legend m ODΝo 66.84 G.L. 1 0.15 ES MADE GROUND: Asphalt. 66.69 0.08 0.30 0.30 0.30 PID=<0.1 MADE GROUND: Black very gravelly silty sand with a slight hydrocarbon odour and a high cobble and boulder content of angular to subangular brick, slag and limestone. Gravel is angular to subangular fine to coarse slag, chalk, brick, limestone and tarmac. 2 ES PID=<0.1 0.50 в 0.70 66.14 HV Av=49kPa 0.80 0.80 0.80 0.80 Below 0.35m, becoming slightly gravelly. ES POSSIBLE MADE GROUND: Light grey mottled greenish brown slightly sandy calcareous CLAY with occasional shell fragments (up to 6mm in size) and occasional relict rootlets. 3 PID=<0.1 1.00 1.40 1.50 1.70 ΗV Av=56kPa D ΗV Av=48kPa 65.04 1.80 1.70 1.70 1.70 Below 1.60m, with many pockets (up to 20mm in size) of decomposed organic material. ES PID=<0.1 Firm dark grey occasionally mottled light brown slightly sandy calcareous CLAY with many pockets (up to 40mm in size) of decomposed organic material. 1.90 2.00 2.50 D 4 HV Av=52kPa D 3.00 D 3.00 63.84 End of Excavation Groundwater Excavation Depth Depth Plant Width (B) JCB 3CX 16/07/2020 0.60 2.40 162 deg 16/07/2020 Length (Ć) Observed of Pit Shoring Orientation None encountered during excavation. Date Backfilled Stability Stable during excavation. 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

Symbols and abbreviations are activity detected.

Backfill details from base of hole: arisings up to ground level. Logged by ΜJ Figure 1 of 1 06/11/2020 explained on the accompanying geolechnics kev sheet.

Logged in accordance with BS5930:2015

GRAVEN HILL, BICESTER, LAND TRANSFER AREA 2 (LTA2) **Trial Pit TP828** Project Engineer WATERMAN INFRASTRUCTURE & ENVIRONMENT LIMITED Project No PC207899 GRAVEN HILL VILLAGE DEVELOPMENT National Grid 458846.5 Client Ground Level 67.15 m OD COMPANY LIMITED Coordinates 219818.7 Scale 1:50 Samples and Tests Strata Level Stratum Depth Type Results Description Depth Leaend m ODΝo 67.15 G.L. MADE GROUND: Dark brown gravelly slightly silty sand with many rootlets and roots (up to 10mm diameter). Gravel is angular to subangular fine to coarse brick 1 в 0.10 0.10 0.10 0.30 ח 0.20 66.95 ES 2 PID=<0.1 fragments, clinker, slag, flint and limestone. В MADE GROUND: Stiff light brown mottled light grey slightly sandy slightly gravelly clay with occasional rootlets. Gravel is angular to subangular fine to medium brick fragments, clinker and ash. 0.30 0.70 66.45 ES 0.30 HV Av=130kPa 3 PID=<0.1 0.80 в Firm light brown mottled light grey slightly sandy mc=26% 1.40 65.75 D 0.80 ES CLAY with occasional rootlets. PID=<0.1 1.00 1.40 1.40 ΗV Av=64kPa Below 0.90m, rootlets absent. В Below 1.30m, predominantly light grey occasionally light brown mottled and with many shell fragments (up to 6mm in size). 4 D 1.40 1.40 ES PID=<0.1 1.50 2.00 2.00 2.70 2.70 HV Av=61kPa Firm dark grey mottled light brown slightly sandy CLAY with many pockets (up to 20mm in size) of decomposed organic material. D 2.50 64.65 HV Av=62kPa 5 D D mc=43% Stiff dark brownish grey slightly sandy CLAY with a 3.00 64.15 slight organic odour. End of Excavation Groundwater Excavation Plant Depth Depth Width (B) JCB 3CX 16/07/2020 0.50 Length (Ć) Observed of Pit Shoring 098 deg 16/07/2020 Orientation None encountered during excavation. Date Backfilled Stability Stable during excavation. 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
abbreviations are explained on the

Backfill details from base of hole: arisings up to ground level. Logged by MJ Figure 1 of 1 06/11/2020 explained on the accompanying geolechnics kev sheet.

Project

Engineer

WATERMAN INFRASTRUCTURE &

**TP829** 

**Trial Pit** 

GRAVEN HILL, BICESTER, LAND TRANSFER AREA 2 (LTA2) ENVIRONMENT LIMITED Project No PC207899 GRAVEN HILL VILLAGE DEVELOPMENT National Grid Client Ground Level 67.79 m OD COMPANY LIMITED Coordinates 219889.9 Samples and Tests Strata Scale 1:50 Level Stratum Depth Type Results Description Depth Leaend m ODΝo 67.79 G.L. MADE GROUND: Dark brown slightly sandy slightly 0.20 0.20 gravelly silt with many rootlets and occasional roots (up to 6mm in diameter). Gravel is angular to R 0.25 67.54 2 0.35 67.44 D 0.20 ES subrounded fine to coarse quartzite and flint 3 PID=<0.1 0.50 PROBABLE MADE GROUND: Firm light grey and light brown slightly sandy slightly gravelly clay. Gravel is angular to subrounded fine to coarse quartzite. B D mc=22% 0.80 66.99 0.50 ES HV Av=61kPa 0.50 1.00 1.00 1.00 Firm light grey mottled light brown slightly sandy CLAY with many shell fragments (up to  $10\,\mathrm{mm}$  in size). PID=<0.1 4 в Firm dark grey slightly sandy CLAY with occasional pockets (up to 4mm in size) of grey silt, occasional pockets (up to 20mm in size) decomposed organic material, occasional shell fragments (up to 25mm in ES Av=72kPa PID=<0.1 ΗV 1.00 65.89 1.90 2.00 в 2.00 size) and many relict rootlets D HV Av=84kPa Stiff dark grey mottled brown sandy CLAY with many shell fragments (up to 20mm in size) and occasional pockets (up to 20mm in size) of decomposed organic 5 2.50 D material. 2.80 64.99 64.79 6 Stiff grey slightly sandy CLAY with many shell fragments (up to  $80\,\mathrm{mm}$  in size) 3.00 B D 3.00 End of Excavation Groundwater Excavation Plant Depth Depth Width (B) JCB 3CX 07/08/2020 0.60 Length (Ć) Observed of Pit Shoring 086 deg 07/08/2020 Orientation None encountered during excavation. Date Backfilled Stability Stable during excavation. 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
abbreviations are explained on the

Backfill details from base of hole: arisings up to ground level. Logged by MJ Figure 1 of 1 06/11/2020 explained on the accompanying geolechnics kev sheet. All dimensions are in metres. Logged in accordance with BS5930:2015

GRAVEN HILL, BICESTER, LAND TRANSFER AREA 2 (LTA2) Project Engineer **Trial Pit TP830** WATERMAN INFRASTRUCTURE & ENVIRONMENT LIMITED Project No PC207899 National Grid Coordinates GRAVEN HILL VILLAGE DEVELOPMENT Client Ground Level 66.67 m OD COMPANY LIMITED 219877.4 Scale 1:50 Samples and Tests Strata Stratum Depth Type Results Description Depth Legend m ODΝo G.L. 66.67 0.10 66.57 0.05 ES MADE GROUND: Asphalt. 2 0.05 PID=<0.1 0.30 0.50 MADE GROUND: Concrete. 66.37 3 0.46 EW 66.17 MADE GROUND: Grey sandy silty gravel. Gravel is subangular to subrounded fine to coarse quartzite End of Excavation Excavation Groundwater Depth Depth Plant Width (B) 0.60 2.10 184 deg 07/08/2020 JCB 3CX 07/08/2020 Details of Pit Length (Ć) Observed Shoring Orientation Date Backfilled 0.50 0.50 Fast inflow. Stability Stable during excavation. 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

Symbols and abbreviations are activity detected.

Backfill details from base of hole: arisings up to 0.10m, asphalt up to ground level. Logged by ΜJ Figure 1 of 1 06/11/2020 explained on the

accompanying key sheet. All dimensions are in metres.

Logged in accordance with BS5930:2015



Logged in accordance with BS5930:2015

GRAVEN HILL, BICESTER, LAND TRANSFER AREA 2 (LTA2) **Trial Pit TP831** Project Engineer WATERMAN INFRASTRUCTURE & ENVIRONMENT LIMITED Project No PC207899 GRAVEN HILL VILLAGE DEVELOPMENT National Grid Client Ground Level 65.74 m OD COMPANY LIMITED Coordinates 219776.3 Scale 1:50 Samples and Tests Strata Stratum Depth Type Results Description Depth Legend m ODΝo 65.74 G.L 1 ES MADE GROUND: Asphalt. 0.10 65.64 0.10 0.30 0.30 0.30 2 PID=<0.1 MADE GROUND: Black gravelly silty sand with a hydrocarbon odour. Gravel is angular to subangular fine to coarse brick, concrete, slag, ash and 0.35 65.39 3 ES 0.50 65.24 PID=<0.1 0.50 HV Av=48kPa clinker. в MADE GROUND: Yellowish brown and grey slightly sandy gravel with a high cobble content of angular to subangular medium strong limestone. 0.60 D 4 ES 0.60 1.00 1.20 1.50 1.70 PID=<0.1 ΗV Av = 63kPaSoft light grey mottled light brown slightly sandy calcareous CLAY with many shell fragments (up to 5mm in size) and many pockets (up to 20mm in size) of decomposed organic material. D HV Av=50kPa 64.14 1.60 в D 1.70 1.70 2.00 5 ES Firm dark grey mottled light brown slightly sandy CLAY with many pockets (up to 25mm in size) of decomposed organic material and relict rootlets and roots (up to 10mm in diameter). PID=<0.1 ΗV Av=52kPa 2.20 2.40 2.40 D 2.30 63.44 B D 6 Stiff dark brownish grey slightly sandy CLAY with a slight organic odour and rare shell fragments (up to  $10\,\mathrm{mm}$  in size). 3.00 D 3.00 62.74 End of Excavation Groundwater Excavation Plant Depth Depth Width (B) JCB 3CX 16/07/2020 Length (Ć) Observed of Pit 2.00 Shoring 001 deg 16/07/2020 Orientation None encountered during excavation. Date Backfilled Stability Stable during excavation. 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
abbreviations are explained on the

Backfill details from base of hole: arisings up to ground level. Logged by MJ Figure 1 of 1 06/11/2020 explained on the accompanying geolechnics kev sheet.

key sheet. All dimensions are in metres.

Logged in accordance with BS5930:2015

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GRAVEN HILL, BICESTER, LAND TRANSFER AREA 2 (LTA2) **Trial Pit TP832** Project Engineer WATERMAN INFRASTRUCTURE & ENVIRONMENT LIMITED Project No PC207899 GRAVEN HILL VILLAGE DEVELOPMENT National Grid m OD Client Coordinates Ground Level 64.50 COMPANY LIMITED 219672.8 Samples and Tests Strata Scale 1:50 Level Stratum Depth Type Results Description Depth Legend m ODΝo 64.50 G.L 0.05 0.25 0.30 64.45 64.25 64.20 MADE GROUND: Asphalt. 0.25 0.25 0.25 0.60 ES MADE GROUND: Reinforced concrete. 3 PID=<0.1 0.50 64.00 в MADE GROUND: Black sandy silty gravel. Gravel is angular to subrounded fine to medium ash, clinker, quartzite and slag. 0.60 D ES 0.60 PID=<0.1 D Firm grey mottled orangish brown slightly sandy CLAY. 4 Firm grey mottled orangish brown slightly sandy slightly gravelly CLAY. Gravel is angular to subangular fine to coarse limestone. 1.50 ח ES 1.50 1.50 PID=<0.1 Below 1.50m, with many pockets (up to 3mm in size) of grey silt, occasional rootlets and occasional roots (up to 5mm in diameter). 62.60 1.90 2.00 В 2.00 D Firm grey slightly sandy CLAY. 5 2.50 D Below 2.50m, becoming grey mottled light brown. 3.00 D 3.00 61.50 End of Excavation Groundwater Excavation Depth Depth Plant Width (B) JCB 3CX 29/07/2020 0.60 of Pit Length (Ć) Observed Shoring 253 deg 29/07/2020 Orientation None encountered during excavation. Date Backfilled Stability Stable during excavation. 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

Symbols and abbreviations are activity detected.

Backfill details from base of hole: arisings up to ground level. Logged by ΜJ Figure 1 of 1 06/11/2020 explained on the accompanying

TRIAL PIT RECORD Trial Pit Draft GRAVEN HILL, BICESTER, LAND TRANSFER AREA 2 (LTA2) Engineer **Trial Pit** TP832A Project WATERMAN INFRASTRUCTURE & ENVIRONMENT LIMITED Project No PC207899 GRAVEN HILL VILLAGE DEVELOPMENT National Grid Client Ground Level 64.61 m ODCoordinates COMPANY LIMITED 219669.8 Scale 1:50 Samples and Tests Strata Level Stratum Depth Type Results Description Depth Legend m ODΝo 64.61 G.L. MADE GROUND: Soft to firm dark brownish grey very sandy silty gravel with a high cobble content of angular to subangular brick and concrete. Gravel is angular to subrounded fine to coarse glass, metal, plastic, brick, concrete, asphalt, clinker, slag, limestone and quartzite. [Stockpile] 1.00 1.00 1.00 1.00 B B mc=27% 1.00 63.61 End of Excavation B D D ES 1.00 PID=<0.1 Excavation Groundwater Depth Depth Plant Width (B) JCB 3CX 29/07/2020 0.60 of Pit Length (Ć) Observed Shoring 253 deg 29/07/2020 Orientation None encountered during excavation. Date Backfilled Stability Stable during excavation. 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

Symbols and abbreviations are activity detected.

Backfill details from base of hole: arisings up to ground level. Logged by MJ Figure 1 of 1 06/11/2020

explained on the

accompanying key sheet.

All dimensions are in metres. Logged in accordance with B\$5930:2015



Project

Engineer

WATERMAN INFRASTRUCTURE &

**TP833** 

**Trial Pit** 

GRAVEN HILL, BICESTER, LAND TRANSFER AREA 2 (LTA2) ENVIRONMENT LIMITED Project No PC207899 GRAVEN HILL VILLAGE DEVELOPMENT National Grid Client m ODGround Level 64.41 COMPANY LIMITED Coordinates 219638.0 Scale 1:50 Samples and Tests Strata Level Stratum Depth Type Results Description Depth Legend m ODΝo 64.41 G.L. 1 0.15 MADE GROUND: Concrete. 64.26 MADE GROUND: Black gravelly very silty sand. Gravel is angular to subrounded fine to medium quartzite, ash, slag and clinker. 2 0.50 0.50 B ES 0.60 63.81 3 0.50 PID=<0.1 Stiff grey mottled orangish brown slightly sandy 0.80 63.61 0.90 0.90 0.90 0.90 1.40 1.50 1.50 2.00 2.00 2.00 2.50 2.50 в Stiff grey mottled orangish brown slightly sandy slightly gravelly CLAY. Gravel is angular to subangular fine to coarse mudstone. ES 4 ΗV Av=82kPa PID=<0.1 mc=22% D D Below 1.00m, with rare pockets (up to 2mm in size) of Av=79kPa HV 62.51 grey silt. 1.90 В в Between 1.30-1.45m, a layer of soft orangish brown sandy clay. ES At 1.70m, with a pocket (200mm in size) of sandy very silty gravel of subangular to subrounded fine to coarse quartzite. 5 ΗV Av=83kPa PID=<0.1 D HV Av=77kPa Stiff dark grey, occasionally mottled orangish brown, slightly sandy CLAY. D 3.00 61.41 3.00 HV Av=124kPa End of Excavation Groundwater Excavation Depth Depth Plant Width (B) JCB 3CX 29/07/2020 0.60 2.60 145 deg 29/07/2020 Details Length (Ć) Observed of Pit Shoring Orientation 0.60 0.70 Slow inflow. Date Backfilled Stability Stable during excavation. 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
abbreviations are explained on the

Backfill details from base of hole: arisings up to ground level. Logged by MJ Figure 1 of 1 06/11/2020 explained on the accompanying geolechnics kev sheet. All dimensions are in metres.

TRIAL PIT RECORD Trial Pit Draft GRAVEN HILL, BICESTER, LAND TRANSFER AREA 2 (LTA2) Engineer **Trial Pit TP833A** Project WATERMAN INFRASTRUCTURE & ENVIRONMENT LIMITED Project No PC207899 GRAVEN HILL VILLAGE DEVELOPMENT National Grid Client m ODCoordinates Ground Level 64.31 COMPANY LIMITED 219640.1 Scale 1:50 Samples and Tests Strata Stratum Depth Type Results Description Depth Legend m ODΝo 64.31 G.L. MADE GROUND: Soft to firm dark brownish grey slightly sandy gravelly clay with a low cobble content of subangular brick and concrete. Gravel is angular to subrounded fine to coarse glass, metal, plastic, brick, concrete, asphalt, clinker, slag, limestone and quartzite. [Stockpile] 1.00 1.00 1.00 1.00 B B 1.00 63.31 mc=28% End of Excavation B D D ES 1.00 PID=<0.1 Excavation Groundwater Depth Depth Plant Width (B) JCB 3CX 29/07/2020 0.60 1.00 145 deg 29/07/2020 of Pit Length (Ć) Observed Shoring Orientation None encountered during excavation. Date Backfilled Stability Stable during excavation. 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

Symbols and abbreviations are activity detected.

Backfill details from base of hole: arisings up to ground level. Logged by MJ

explained on the

accompanying key sheet.

All dimensions are in metres. Logged in accordance with B\$5930:2015 Figure

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TRIAL PIT RECORD Trial Pit Draft GRAVEN HILL, BICESTER, LAND TRANSFER AREA 2 (LTA2) **Trial Pit TP834** Project Engineer WATERMAN INFRASTRUCTURE & ENVIRONMENT LIMITED Project No PC207899 GRAVEN HILL VILLAGE DEVELOPMENT National Grid m OD Client Coordinates COMPANY LIMITED 219658.8 Ground Level 64.57 Samples and Tests Strata Scale 1:50 Level Stratum Depth Type Results Description Depth Legend m ODΝo G.L. 0.15 64.57 64.42 64.37 64.22 MADE GROUND: Concrete. 0.20 3  $\mbox{\tt MADE}$  GROUND: Orangish brown gravelly sand. Gravel is angular to subangular fine to coarse sandstone. 0.70 0.75 0.75 0.75 1.00 1.20 1.50 MADE GROUND: Black slightly sandy very silty gravel. Gravel is angular to subrounded fine to coarse slag, HV Av=63kPa в D quartzite, clinker and ash. ES 4 POSSIBLE MADE GROUND: Firm grey mottled orangish brown slightly sandy slightly gravelly CLAY. Gravel is subangular to subrounded fine to coarse mudstone. PID=<0.1 в D HV Av=78kPa At 0.90m, a pocket (170mm in size) of orangish brown sandy very silty gravel of angular to subangular fine to coarse quartzite. ES 62.67 1.90 PID=<0.1 2.00 В D Below 1.40m, becoming dark grey mottled orangish 2.00 Av=71kPa HV brown. 5 D Firm grey slightly sandy CLAY with occasional rootlets and roots (up to  $4\,\mathrm{mm}$  in diameter). 3.00 D Below 2.40m, becoming grey mottled light brown. 3.00 61.57 End of Excavation Groundwater Excavation Depth Depth Plant Width (B) JCB 3CX 29/07/2020 0.60 Length (Ć) Observed of Pit Shoring 260 deg 29/07/2020 Orientation None encountered during excavation. Date Backfilled Stability Stable during excavation. 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
abbreviations are explained on the

Backfill details from base of hole: arisings up to ground level. Logged by ΜJ Figure 1 of 1

explained on the accompanying kev sheet.

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

geolechnics

06/11/2020

TRIAL PIT RECORD Trial Pit Draft GRAVEN HILL, BICESTER, LAND TRANSFER AREA 2 (LTA2) Engineer **Trial Pit TP834A** Project WATERMAN INFRASTRUCTURE & ENVIRONMENT LIMITED Project No PC207899 GRAVEN HILL VILLAGE DEVELOPMENT National Grid Client m ODCoordinates Ground Level 64.57 COMPANY LIMITED 219661.1 Scale 1:50 Samples and Tests Strata Level Stratum Depth Type Results Description Depth Legend m ODΝo 64.57 G.L. MADE GROUND: Soft to firm dark brownish grey slightly sandy slightly gravelly silt. Gravel is angular to subrounded fine to coarse glass, metal, plastic, brick, concrete, asphalt, clinker, slag, limestone and quartzite. [Stockpile] 1.00 1.00 1.00 1.00 B B 1.00 63.57 End of Excavation B D mc=35% D ES 1.00 PID=<0.1 Excavation Groundwater Depth Depth Plant Width (B) 0.60 1.00 260 deg 29/07/2020 JCB 3CX 29/07/2020 of Pit Length (Ć) Observed Shoring Orientation None encountered during excavation. Date Backfilled Stability Stable during excavation. 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

Symbols and abbreviations are activity detected.

Backfill details from base of hole: arisings up to ground level. Logged by MJ

explained on the

accompanying key sheet.

All dimensions are in metres.

Logged in accordance with B\$5930:2015

Figure 1 of 1 06/11/2020



TRIAL PIT RECORD Trial Pit Draft **Trial Pit TP835** Project GRAVEN HILL, BICESTER, LAND TRANSFER Engineer WATERMAN INFRASTRUCTURE & AREA 2 (LTA2) ENVIRONMENT LIMITED Project No PC207899 National Grid GRAVEN HILL VILLAGE DEVELOPMENT Client Ground Level 64.21 COMPANY LIMITED Coordinates 219640.9 m OD Scale 1:50 Samples and Tests Strata Level Stratum Depth Type Results Depth Leaend Description m OD Νo G.L. 64.21 1 0.00- 0.20 MADE GROUND: Firm dark grey slightly sandy slightly gravelly clay with many rootlets and occasional roots (up to 12mm in diameter). Gravel is angular to subrounded fine to coarse brick, limestone, flint and 0.10 ES 0.20 64.01 PID=<0.1 2 D B 0.20-0.50 0.60 63.61 concrete. 0.30 3 MADE GROUND: Stiff grey mottled brown slightly sandy slightly gravelly clay with a low cobble content of subangular limestone and brick and many rootlets and occasional roots (up to 12mm in diameter). Gravel is angular to rounded fine to coarse limestone, brick, ES 0.85 63.36 4 0.40 PID=<0.1 Av=120kPa HV 1.10 63.11 0.60- 0.80 0.70 R 5 mc=28% 1.40 62.81 D concrete, slag and rare metal fragments. 0.70 0.80- 1.10 6 Stiff orangish brown mottled grey slightly sandy CLAY with occasional gypsum crystals (up to 3mm in size) and rare pockets (up to 25mm in size) of orangish 0.80 ES 0.80 PID=<0.11.80 62.41 D 1.00 1.10- 1.40 HV Av=85kPabrown sandy clay. 7 Stiff grey mottled reddish brown CLAY with rare gypsum crystals (up to 2mm in size) and rare shell fragments (up to 3mm in size). 1.20 1.40- 1.70 D mc=28% 2.50 61.71 1.50 1.60 1.60 ΗV Av=60kPa Firm grey mottled orangish brown and dark brown slightly sandy CLAY with occasional gypsum crystals (up to 2mm in size), occasional pockets of orangish brown and lightly grey sandy clay and occasional pockets (up to 3mm in size) of decomposed organic material ES PID=<0.1 1.90 2.00- 2.50 D В 2.00 HV Av=90kPa 2.40 D material. Firm brown mottled orangish brown and light grey sandy CLAY with occasional gypsum crystals (up to 3mm in size), many pockets (up to 5mm in size) of decomposed organic material and occasional pockets (up to 25mm in size) of light grey and brown sandy clay. Stiff dark grey slightly sandy CLAY with low organic odour and occasional gypsum crystals (up to 2mm in Below 2.10m, with occasional pockets of light brown sandy clay. End of Excavation Excavation Groundwater Plant Depth Depth Width (B) JCB 3CX 16/07/2020 Length (Ć) Observed of Pit 2.50 001 deg 16/07/2020 Shoring Orientation None encountered during excavation. Date Backfilled Stability Stable during excavation. 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

explained on the accompanying kev sheet. All dimensions

are in metres.

Logged in accordance with BS5930:2015

geolechnics

key sheet. All dimensions are in metres.

Logged in accordance with BS5930:2015

GRAVEN HILL, BICESTER, LAND TRANSFER AREA 2 (LTA2) **Trial Pit TP836** Engineer WATERMAN INFRASTRUCTURE & ENVIRONMENT LIMITED Project No PC207899 GRAVEN HILL VILLAGE DEVELOPMENT National Grid m OD Client COMPANY LIMITED Coordinates 219561.5 Ground Level 62.67 Samples and Tests Strata Scale 1:50 Stratum Depth Type Results Description Depth Legend m ODΝo 62.67 G.L. 0.15 62.52 MADE GROUND: Concrete. 0.20 0.20 0.20 0.50 0.25 62.42 MADE GROUND: Black sandy very silty gravel. Gravel is angular to subangular fine to medium ash, clinker, slag and quartzite. ES PID=<0.1 3 ΗV Av=36kPa 0.55 0.55 0.55 0.55 R D Soft greenish grey mottled orangish brown slightly 0.85 61.82 ES PID=<0.1 1.00 1.00 1.00 в Soft light grey mottled light orangish brown slightly 4 sandy CLAY. D ES HV Av=35kPa 1.00 PID=<0.1 Below 1.70m, becoming firm. 60.87 1.80 Stiff dark greyish brown mottled light brown slightly sandy CLAY with many gypsum crystals (up to 3mm in size), occasional pockets (up to 3mm in size) of grey silt and occasional pockets (up to 10mm in size) of 2.00 В 2.00 ES 5 2.00 2.00 2.50 Av=86kPa PID=<0.1 HV grey silty sand. D 2.80 59.87 59.67 6 Stiff grey slightly sandy CLAY with occasional gypsum crystals (up to  $8\,\mathrm{mm}$  in size). 3.00 B D 3.00 End of Excavation Groundwater Excavation Depth Depth Plant Width (B) JCB 3CX 29/07/2020 0.60 Length (Ć) Observed of Pit Shoring 100 deg 29/07/2020 Orientation None encountered during excavation. Date Backfilled Stability Stable during excavation. 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
abbreviations are
avalained on the

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 MJ Figure 1 of 1 06/11/2020 explained on the accompanying geolechnics

Logged in accordance with BS5930:2015

**Trial Pit TP837** Project GRAVEN HILL, BICESTER, LAND TRANSFER Engineer WATERMAN INFRASTRUCTURE & AREA 2 (LTA2) ENVIRONMENT LIMITED Project No PC207899 GRAVEN HILL VILLAGE DEVELOPMENT National Grid m OD Client Ground Level 64.93 COMPANY LIMITED Coordinates 219715.9 Samples and Tests Strata Scale 1:50 Level Stratum Depth Type Results Depth Legend Description m ODΝo 64.93 G.L. 1 2 3 0.16 64.77 MADE GROUND: Asphalt. 0.15 0.15 0.17 0.17 0.20 64.73 64.58 ES MADE GROUND: Light yellowish brown gravelly slightly silty sand. Gravel is angular to subrounded fine to medium limestone. PID=<0.1 4 ES PID=<0.1 0.60 64.33 0.17 0.30 0.70 0.70 0.70 0.70 0.70 ES MADE GROUND: Dark grey and black gravelly silty sand with a low cobble content of angular to subangular brick. Gravel is angular to subangular fine to coarse PID=<0.1 5 B B D concrete, brick and limestone. 1.20 63.73 ES MADE GROUND: Grey slightly sandy gravel with a high cobble content of angular to subangular medium strong 6 ΗV Av=51kPa PID=<0.1 Av=64kPa 1.00 1.70 ΗV 63.23 7 В Firm dark greenish grey mottled black slightly sandy CLAY with occasional pockets (up to 40mm in size) of decomposed organic material. 1.30 В 2.00 62.93 1.30 1.50 1.70 1.80 1.80 2.00 2.10 D HV Av=68kPa D В Below 0.80m, becomes light greenish grey mottled 8 в light grey. D Firm light grey occasionally mottled orangish brown slightly sandy  ${\tt CLAY}.$ HV Av=39kPaв 3.00 61.93 2.10 2.10 2.50 2.80 3.00 3.00 в D Soft orangish brown mottled grey slightly sandy CLAY. D Av=59kPa Stiff dark brown slightly sandy CLAY. ΗV В D Below 2.60m, becomes mottled yellowish End of Excavation Groundwater Excavation Plant Depth Depth Width (B) JCB 3CX 14/07/2020 0.60 Length (Ć) Observed of Pit Shoring 210 deg 14/07/2020 Orientation None encountered during excavation. Date Backfilled Stability Stable during excavation. 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 ΜJ Figure 1 of 1 06/11/2020 explained on the accompanying geolechnics kev sheet.

TRIAL PIT RECORD Trial Pit Draft GRAVEN HILL, BICESTER, LAND TRANSFER AREA 2 (LTA2) **Trial Pit TP838** Engineer WATERMAN INFRASTRUCTURE & ENVIRONMENT LIMITED Project No PC207899 GRAVEN HILL VILLAGE DEVELOPMENT National Grid Client Ground Level 66.09 m OD COMPANY LIMITED Coordinates 219819.7 1:50 Samples and Tests Strata Scale Level Stratum Depth Type Results Description Depth Legend m ODΝo 66.09 G.L. 1 0.15 ES MADE GROUND: Asphalt. 65.94 0.10 0.30 0.30 0.30 0.30 0.60 2 PID=<0.1 MADE GROUND: Yellowish brown and grey very gravelly 0.30 65.79 3 slightly silty sand. ĒS 0.55 65.54 PROBABLE MADE GROUND: Grey slightly sandy gravel with a high cobble content of angular to subangular medium PID=<0.1 в 0.60 0.60 0.60 0.70 1.20 В strong limestone. mc=33% Firm brown mottled light grey and brown slightly sandy CLAY. 4 ES PID=<0.1 ΗV Av=50kPa D Below 0.90m, becomes brown mottled orangish brown. ΗV Av=51kPa 64.19 В 1.90 D Soft to firm brown mottled dark brownish orange slightly sandy CLAY with many gypsum crystals (up to 3mm in size). 1.90 1.90 B B 1.90 2.40 D D 5 Below 2.30m, gypsum crystals absent. Below 2.40m, becomes predominantly dark brown occasionally mottled orangish brown. 2.90 B D 3.00 63.09 2.90 End of Excavation Groundwater Excavation Depth Depth Plant Width (B) JCB 3CX 14/07/2020 0.60 Length (Ć) Observed of Pit Shoring 126 deg 14/07/2020 Orientation None encountered during excavation. Date Backfilled Stability Stable during excavation. 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

Symbols and abbreviations are activity detected.

Backfill details from base of hole: arisings up to ground level. Logged by MJ Figure 1 of 1

explained on the

accompanying kev sheet. All dimensions are in metres.

Logged in accordance with BS5930:2015

