### **APPENDIX D**

Historic BGS Borehole Logs



Not to scale.

Modified from www.bgs.ac.uk

| Client                | Project                               | Job No     |
|-----------------------|---------------------------------------|------------|
| 1923 Mortimer Estates | Arthur Stanley House, Tottenham       | CGL/09198a |
| Limited               | Street                                | CGL/09198a |
| CGL                   | BGS Historical Borehole Location Plan | Appendix D |

2923 RECORD OF BOREHOLE NO. 3 10in. to 42ft.6in. 10in. to 42ft.6in 8in. to 91ft. 16in. 6in. to 160ft. 10in. to 42ft.6in 8in. to 91ft. 6in. to 107ft. 88.0ft. above O.D. Hewlyn Dia. of boring :.. Type of boring :.... Shell and Auger Lining tubes : Change of Strata Samples Daily Description of Strata Progress Type TARMACADAM and CINDERS FILL (brick rubble, gravel and pockets of clay) Soft brown sandy CLAY with gravel 10.6. 16'0" BD 1.1.63 21'0" Brown fine to medium SAND and fine to coarse GRAYEL with occasional cobbles 26'0" 31'0" 36'0" sa a Firm brown silty Clay with occasional fine graval 24.0 32.0 3.1.63 4.1.63 49.0-54'0' 99'0" 5.1.63 66.0. Stiff grey silty CLAY 71'0" 76'0" 81'0" 86'0" 91'0' 7.1.63 28.00 95'0" D 99.0. 108'0" 109.0. 114'0" 118'0 123'0" Stiff to very stiff mottled red, brown, grey-bk and yellow allty CLAY with traces of grey silty send below 15%ft. 128'0" 133'0" 14010" 145'0" 148'0" D 153'0" 160.0. and grey DD -72.0 8.1.63 Key to type of sample : Remarks: (Observations on ground-water, etc.) Key to type of sample:

J (4) — 4 in dis, undisturbed sam;
U (15) — 1 in oid.
D — disturbed sample.
BO — bulk disturbed sample.
W — water sample.
C — dynamic cone penetration test
C — dynamic cone penetration.
No. in brackets gives
(No. of blows/12 in. penetration. Ground-water was first encountered at depth of 20ft., rose to 18ft.6in. below ground level on evening of 1.1.63 and was asbsequently sealed off by lining tubes. 5/ 3464 Soits No: 5/3464 LONDON G.P.O., SCHEME 155 FIG. 4 HAYES GEORGE WIMPEY & CO., LTD. CENTRAL LABORATORY HAYES

TU 285E

981

TR 28 SE 982

RECORD OF BOREHOLE NO.5

| Daily        | Samples  |          | Ch          | ange of S     | trata                                | Description of Strata  |                |  |
|--------------|--|----------|-------------|---------------|--------------------------------------|--|----------------|--|
| Progress     | Depth  | Туре     | Legend      | Depth 0.D. Le |                                      |  |                |  |
|              |  |          |             | 0'7"          | 87.4                                 | GRANITE SETS.  |                |  |
|              | British Geologica  | Surpry   | ****        |               | 80.0                                 | British Geological Survey  |                |  |
| 2.1.63       | 12 (2)   |          | <b>****</b> |               | 1 1                                  |  |                |  |
|              | 14.0.  | . 8D     | <b>****</b> |               |                                      | FILL (bricks, rubble, cinders, clay  | and gravel)    |  |
|              | 20.0.  | - BD     |             |               |                                      | E 8 1  | 8              |  |
|              | 26'0"  | 80       |             | 24.0.         | 64.0                                 | Brown fine to course GRAVEL  | -              |  |
|              | 29.6.  | . 0      | 000         | 29.0.         | 59.0                                 | Fire brown silty CLAY  |                |  |
| 4.1.63       | 34'0"  | . 0      | 23          | 35.4.         | 35.5                                 |  |                |  |
|              |  |          | <b>高空</b>   |               | 0.0                                  |  | Ar.            |  |
| Geological 3 | arvey 39.0"  |          | 2.5         |               | British (                            | eological Survey   | British        |  |
|              | 44.0.  | 1        | 32          |               | 97.0                                 |  |                |  |
| 1            | 10.0.  | - D      |             |               |                                      |  |                |  |
|              | 54·ó-  | D        |             |               |                                      | Stiff grey silty CLAY  |                |  |
|              | 58'0"  | D        | 133         | 1             |                                      | Stiff grey silty CLAY  |                |  |
|              | 63.0.  | D        | 150         | 1             | 1 *                                  |  |                |  |
|              | 68.0-  | - 0      | 100         |               | 1                                    |  |                |  |
|              | 73.0-  | - D      | 35          |               |                                      | British Geological Survey  |                |  |
|              | 78'0"  | - 0      |             |               | 1.2                                  | Dissil Devinging oursey  |                |  |
|              | 83.0.  | D        | 833         | M.0.          | 4.0                                  |  |                |  |
|              | 85.0-  | - 0      | 3.5         | 9             | +1"                                  |  |                |  |
| 15.1.69      | 90.0-  | D        | 34          | 3             |                                      |  |                |  |
|              | 93.0-  | - 0      | 25          |               |                                      | and the second   |                |  |
|              | 88.0.  | D        | 菱           | ×             | 300                                  | in the second of |                |  |
|              | 103.0.   | 0        | 337         | 5             |                                      |  | e 90.00g       |  |
| Geological S | 110.0.   | - 8      | 2           | 3             | British C                            | Stological Survey  | - British      |  |
|              | 113.0.   | - 0      | 123         | 4             |                                      | Stiff to very stiff mottled brown,   | grey and       |  |
|              | 118.0.   | - 0      |             | ¥ .           |                                      | July String CEAN   | 100            |  |
|              | 123.0.   | - 0      |             | 3             |                                      | the second day   |                |  |
|              | 124'0"-125'6"  | -U(#)    | 33          | 4             | 1                                    | 19 1   |                |  |
|              | 129.0-   | 0        | 33          | 3             | - 1                                  |  |                |  |
| 16.1.63      | 134.0-   | 0        |             | 4             |                                      |  |                |  |
| 200          | 139'0"   | D        |             | 4             | 1 2 6 7                              | British Geological Survey  |                |  |
|              | 144'0"   | - 0      | 33          | 146'0         | -58.0                                |  |                |  |
|              | 149.0.   | . 0      |             | -             |                                      | grey sandy SILT  |                |  |
| 17.1.63      | 153.0.   | . 0      | 1           | 155'0         | -67.0                                |  |                |  |
|              | 155.0  |          |             |               |                                      | and a series   |                |  |
|              |  | 1        | 1           |               |                                      |  |                |  |
|              | 1  |          | +-          |               | (Obsession                           | tions on ground-water, etc.)   |                |  |
| W (1)        | pe of sample :<br>- 4 In. dia. undisturi                 | ed samp  |             |               |                                      |  | ose to British |  |
| U (1)        | 4 in. dia. undisturi<br>11 in. dia.<br>disturbed sample. |          | 11          | ft.6in.       | below gr                             | irst encountered at depth of 22ft., round level after & hour and was subseng tubes.  | quently        |  |
| W -          | - bulk disturbed sa<br>- water sample.                   | mpie.    | - 8         |               | , .,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,, |  | 9.7            |  |
| ( } }        | - standard penetrat<br>- dynamic cone per                | etration |             |               |                                      |  |                |  |
|              | test.<br>ackets gives<br>lows/12 in. penetrat            |          |             |               |                                      | *  |                |  |
| (No. of b    | lows/12 in. penetrat                                     | ion.     |             |               | ,                                    |  | Solls No:      |  |
|              |  |          |             |               | 7                                    |  | 3/3464         |  |
| 130          |  | 3        | LONDON      | G. P. (       | o., sch                              | EME 155  |                |  |
|              | British Geologica  |          |             |               | į.                                   | British Geological Survey  | FIG. 5         |  |
|              | WIMPEY & CO  | 7 17     |             | _             | <del></del> -                        | CENTRAL LABORATORY   | HAY            |  |
|              |  |          |             |               |                                      |  |                |  |

#### Terresearch Ltd.

Ta 285E/1648

|       | Client                 | ::          | t: Goodg<br>R M Douglas    | je S<br>Const | tree<br>truct             | et<br>ion L:             | imited                 |                  |                                  | Borehol<br>Sheet No. 2<br>Depth 10                | e N       | O. 1         | Ĺ        |
|-------|------------------------|-------------|----------------------------|---------------|---------------------------|--------------------------|------------------------|------------------|----------------------------------|---|-----------|--------------|----------|
|       | Equipment<br>Light Cab | and l       | Methods<br>cussion Boring  |               | Groun                     | nd Leve                  | 1 : (m                 | 0.D.)            |                                  | Job Number  |           | 7/564        |          |
|       | 15000 010              | EC COI.     |                            |               | Coord                     | dinates                  | ;                      |                  |                                  | Location  | :         |              |          |
|       | Orientatio             |             |                            |               | British Geological Survey |                          |                        |                  |                                  | Dates : 27/10/87<br>2/11/87                       |           |              | I Survey |
|       | Daily Wa<br>Prog. Le   | ter<br>vels | Remarks                    |               | In Situ<br>Tests          | Samples<br>Taken         | Depth<br>(Thick)       | Reduced<br>Level | Descript                         | ion   |           |              | Legend   |
| ngica | 1 Survey               |             |                            | Britis        | 'S '34 <sup> C8</sup>     | U_ 4639<br>J 4640        | 10.00                  |                  | Stiff to<br>fissured<br>becoming | very stiff dar<br>and laminated<br>fine sandy cla |           | brown<br>LAY |          |
|       | Britist Gel            | ological    | survey                     |               | S 24                      | UEL<br>J 4642<br>British | (8.70)<br>Jeological J | uresy            |                                  |   | * British | n Geologica  |          |
|       | *                      |             |                            |               | S 39                      | U_4643<br>J 4644         |                        |                  |                                  |   |           |              | 2        |
| gic   | .2/11_                 |             |                            | Britis        | n Geologics               | Survey                   | 45.00                  |                  |                                  | End of Boreho                                     | le –      |              | EI       |
|       | Britis Ger             | plogical    | Survey                     |               |                           | Broosh                   | Seologicar             | ütvey            |                                  |   | Billist   | o Geologica  | Survey   |
| igid  | el Survey              |             |                            | enuar         | r Geologica               | I Survey                 |                        |                  |                                  | British Geological                                | Survey    |              |          |
|       | Operator<br>AGT        | ologica     | General Remarks:<br>Survey |               |                           | British                  | Geological S           | urvey            |                                  |   | British   | Append       |          |
|       | Scale<br>10m/sheet     | ŧ           | 5                          |               |                           |                          |                        |                  |                                  |   |           | Sheet        | No.      |

#### Terresearch Ltd.

TQ2858/1648

Contract: Goodge Street Borehole No. 1 R M Douglas Construction Limited Equipment and Methods Light Cable Percussion Boring 150mm diameter Ground Level : (m O D ) Joh Number Coordinates : Location : 27/10/07 2/11/07 Dates Orientation : Vertical Water Remarks In Situ Samples Depth Reduced Description Tests Taken (Thick) Level Legend MADE GROUND (Fine to coarse subrounded to angular brick, gravel and sand) C 14 (1.50)-C 15 1.50 NADE GROUND (Dark brown and red medium to coarse brick, concrete, charcoal and ash gravel becoming playey with depth) C 19 ¥ 28/10 (2.90) C 17 27/10 Water rose to 3.00m in 29/10 35 minutes. C 17 27/10 S 27 4828 Medium dense slightly gravelly medium brown fine to comrse SAND 4629 S 18 8-4630 (1.40) S 17 4631 5.80 Firm orange-brown CLAY with bands of medium fine to coarse sand (0.50) 28/10 V 30/10 6.30 J 4633 Stiff to very stiff dark grey brown fissured and laminated silty CLAY becoming fine sandy clay ¥ 2/11 S 28 Traces of claystone at . 4636 29/10 U., 4637 Traces of claystone at 5 32 4638 10.00 Continued General Remarks: Operator Appendix Scale. Sheet No. 10m/sheet

### **APPENDIX E**

CGL Exploratory Hole Records



### **SPT Hammer Energy Test Report**

in accordance with BSEN ISO 22476-3:2005

**Neil Burrows** 

**Southern Testing Laboratories** 

Unit 11

Charlwoods Road East Grinstead

**RH19 2HU** 

SPT Hammer Ref: GEH1

Test Date:

02/02/2018

Report Date:

02/02/2018

File Name:

GEH1.spt

Test Operator:

NPB

#### **Instrumented Rod Data**

Diameter d, (mm):

54

Wall Thickness t<sub>r</sub> (mm):

6.0

Assumed Modulus Ea (GPa): 200

Accelerometer No.1:

Accelerometer No.2:

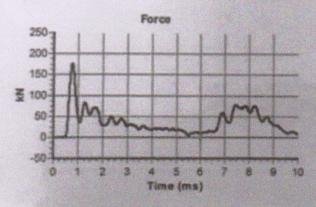
### **SPT Hammer Information**

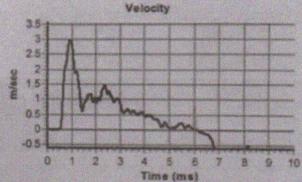
Hammer Mass m (kg): 64.5

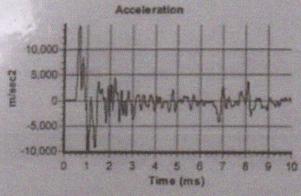
Falling Height h (mm): 750

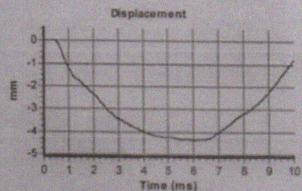
SPT String Length L (m): 14.5

Comments / Location









#### Calculations

Area of Rod A (mm2):

905

Theoretical Energy Etheor (J):

473

Measured Energy Empas (3):

1).

254

Energy Ratio E, (%):

54

Signed: N P Burrows

Title:

Field Operations Manager

The recommended calibration interval is 12 months

| DOMETT        |                    |                    |                  | <b>CGL</b>  |
|---------------|--------------------|--------------------|------------------|-------------|
| Project       |                    |                    |                  | BOREHOLE No |
| Arthur Stanle | y House, Tottenham | Street, London, W1 | T 4RN            | BH1         |
| Job No        | Date 02-01-18      | Ground Level (m)   | Co-Ordinates (m) | рит         |
| CGL/09198a    | 08-01-18           | 27.47              |                  |             |
| Client        |                    | •                  |                  | Sheet       |
| 1923 Mortim   | er Estates Limited |                    |                  | 1 of 4      |

|   | 1923                   | 3 Mort     | imer Es         | tate     | es Limited       | t           |                   |  | 1 of 4             |                         |
|---|------------------------|------------|-----------------|----------|------------------|-------------|-------------------|--|--------------------|-------------------------|
|   | SAMPLI                 | ES & TI    | ESTS            |          |                  |             |                   | STRATA   |                    | ent<br>                 |
|   | Depth<br>(m)           | Type<br>No | Test<br>Result  | Water    | Reduced<br>Level | egend       | 116331            | DESCRIPTION  |                    | Instrument<br>/Backfill |
|   | -<br>-<br>-            |            |                 |          | 27.12            |             | 0.35              | Reinforced concrete.   |                    |                         |
|   | <del>-</del><br>-<br>- |            |                 |          |                  |             | -                 | Basement void.   |                    |                         |
|   | -<br>-<br>-            |            |                 |          |                  |             |                   |  |                    |                         |
|   | -<br>-<br>-            |            |                 |          |                  |             | -                 |  |                    |                         |
|   | -                      |            |                 |          |                  |             |                   |  |                    |                         |
|   | -<br>-<br>-            |            |                 |          |                  |             | -<br>-            |  |                    |                         |
|   | =<br>-<br>-<br>-       |            |                 |          |                  |             |                   |  |                    |                         |
|   | -<br>-<br>-            |            |                 |          |                  |             |                   |  |                    |                         |
|   | -<br>-<br>-            |            |                 |          |                  |             | -                 |  |                    |                         |
|   | -<br>-<br>-            |            |                 |          |                  |             | (6.15)            |  |                    |                         |
|   | -<br>-<br>-            |            |                 |          |                  |             | -                 |  |                    |                         |
|   | -<br><br>-             |            |                 |          |                  |             | _                 |  |                    |                         |
|   | -<br>-<br>-            |            |                 |          |                  |             | -                 |  |                    |                         |
|   | -                      |            |                 |          |                  |             |                   |  |                    |                         |
|   |                        |            |                 |          |                  |             | -<br>-<br>-       |  |                    |                         |
|   | -<br>-<br>-            |            |                 |          |                  |             |                   |  |                    |                         |
|   | -<br>-<br>-            |            |                 |          |                  |             | -                 |  |                    |                         |
|   | -<br>-<br>-            |            |                 |          |                  |             |                   |  |                    |                         |
|   | -                      |            |                 |          | 20.97            | 1 4 7 P     | 6.50              | Reinforced concrete.   |                    |                         |
|   | -<br>-<br><del>-</del> |            |                 |          | 8                |             | (4.20)            |  |                    |                         |
|   | -<br>-<br>-            |            |                 |          | 7 40 9           | 4 4 4       | (1.20)            |  |                    |                         |
|   | 7.50                   | В          | NEC             | <b>±</b> | 190              | 1 4 P       | 7.70              |  |                    |                         |
|   | 7.50<br>7.80           | ES         | N56             | -        | :                | o' . ' . '  | -<br>-<br>-       | Very dense dark orange brown very gravelly SAND. Grav coarse sub-angular to sub-rounded flint.           | el is fine to      |                         |
|   | -                      |            |                 |          | [:               | 0           | -                 | [LYNCH HILL GRAVEL MEMBER]   |                    |                         |
|   | 8.50<br>8.50           | B<br>ES    |                 |          |                  | · . · a · . | (1.70)            |  |                    |                         |
|   | 8.50                   |            | N66             |          |                  | o' . ' . '  | -                 |  |                    |                         |
| GDT 16/2/18   | <del>-</del><br>-<br>- |            |                 |          | 18.07<br>17.97   | <u> </u>    | 9.40              | Stiff dark grange brown clightly candy gravelly CLAV Con   | wal is fine to     |                         |
| TÖT<br>1,   | 9.50<br>- 9.50         | SPT        | N22             |          | 11.31            | × × ×       | 9.50              | Stiff dark orange brown slightly sandy gravelly CLAY. Gra<br>coarse sub-rounded to rounded flint.        | vei is line to     |                         |
| 3.<br>1.G   | _                      | ogress     |                 |          | Obcone           | → —         | .                 | [LYNCH HILL GRAVEL MEMBER]   |                    |                         |
| AGS   | Boring Pro             | mment      | Strike<br>Depth |          | Casing           |             | Standing<br>Depth | General Remarks  1. Borehole Terminated at 36m below ground level. (Tar                                  | get denth achieved | ,                       |
| ST<br>ST<br>ST<br>ST<br>ST<br>ST<br>ST<br>ST<br>ST<br>ST<br>ST<br>ST<br>ST<br>S | 04.01.10               | Foot       | veptn<br>7.70   | ٦ ا      | epth Dĭa         | ı. mm       | Depth             | Borehole Terminated at 36m below ground level. (Tar 2. No visual or olfactory evidence of contamination. | o acpa. demerca    | <b>'</b>                |

| 38.3                     | Boring I | Progress | and Wa          |                                     |  |                   | General Remarks   |
|--------------------------|----------|----------|-----------------|-------------------------------------|--|-------------------|---|
| STD A(                   | Date     | Comment  | Strike<br>Depth | Casing Standing Depth Dia. mm Depth |  | Standing<br>Depth | Borehole Terminated at 36m below ground level. (Target depth achieved)     No visual or olfactory evidence of contamination.  |
| OG CGL 09198A.GPJ GINT S | 04-01-18 | Fast     | 7.70            | 8.00                                |  |                   | 3. D=Disturbed Sample; ES=Environment Sample; B=Bulk sample; U=Undisturbed sample; N=Standard penetration test 'N' value 4. 15 mins of chiseling between 12.6m and 12.7m 5. Hole drilled from ground floor level through double storey height basement 6. Groundwater and gas standpipe installed with response zones between 7.7mbgl and 11.7mbgl 7. Water encountered beneath basement slab. Pumping of water from sumps was taking place during ground investigation to maintain water at basement level |

| Method/ | Cut-down Cable Percussive | Field Crew | GEH | Logged By | Checked By | EJB | EJB | Checked By |



| 19             | 23 Mort    | imer Es         | tate  | es Limite        | ed                                      |   |   | 2 of 4   |
|----------------|------------|-----------------|-------|------------------|---|---|---|--|
| SAME           | LES & T    | ESTS            | L     |                  |   |   | STRATA  | ent  |
| Depth<br>(m)   | Type<br>No | Test<br>Result  | Water | Reduced<br>Level | Legend                                  | Depth (m)<br>(Thick-<br>ness)                       | DESCRIPTION   | Instrument<br>/Backfill  |
| 10.50          | U100       |                 |       |                  | * * * * * * * * * * * * * * * * * * *   |   | Stiff light brownish grey becoming dark orange grey silty occasional partings of fine silty sand. Rare selenite cryst [LONDON CLAY FORMATION] (continued)   | r CLAY with als throughout.  |
| 11.00          | D          |                 |       |                  | × × × ×                                 | (3.10)  |   |  |
| 11.50          | SPT        | N29             |       |                  | X                                       |   |   |  |
| 12.50          | D          |                 |       | 14.87<br>14.77   | X X X                                   | 12.60<br>12.70                                      | CLAYSTONE.<br>\[[LONDON CLAY FORMATION]   |  |
| 13.00          | U100       |                 |       |                  | × × × ×                                 | -   | Very stiff closely fissured dark grey silty CLAY with occasion silty sand.  | ional partings of  |
| 13.50          | D          |                 |       |                  | X                                       | -<br>-<br>-<br>-<br>-<br>-<br>-<br>-<br>-<br>-      | [LONDÓN CLAY FORMATION]   |  |
| 14.50<br>14.50 | SPT        | N36             |       |                  | X X X X X X X X X X X X X X X X X X X   | -<br>-<br>-<br>-<br>-<br>-<br>-<br>-<br>-<br>-<br>- |   |  |
| 15.50          | D          |                 |       |                  | xx                                      |   |   |  |
| 16.00          | U100       |                 |       |                  | * - × - ><br>* - × - ><br>× - × - >     | -<br>-<br>-   |   |  |
| 16.50          | D          |                 |       |                  | X X X X X X X X X X X X X X X X X X X   |   |   |  |
| 17.50<br>17.50 | SPT        | N40             |       |                  | X - X - X - X - X - X - X - X - X - X - | -   |   |  |
| 18.50          | D          |                 |       |                  | xx                                      |   |   |  |
| 19.00          | U100       |                 |       |                  | × × × × × × × × × × × × × × × × × × ×   | -   |   |  |
| 19.50          | D          |                 |       |                  | × × × × × × × × × × × × × × × × × × ×   | (13.40)   |   |  |
| m Daring [     | rogress    | and Wa          | ater  | Observ           | vations                                 | <u> </u>  | General Remarks   |  |
|                | Comment    | Strike<br>Depth |       |                  | g<br>la. mm                             |   | Borehole Terminated at 36m below ground level. (Tai 2. No visual or olfactory evidence of contamination.     DeDisturbed Sample; ES=Environment Sample; B=Bul sample; N=Standard penetration test 'N' value     Hereign set to the sample of the sample; B=Bul sample; N=Standard penetration test 'N' value     Hereign set to the sample of | k sample; U=Undisturbed<br>corey height basement<br>ise zones between<br>g of water from sumps |

| Boring Progress and Water Observations |         |                 |              |                  |                   |  |  |  |  |  |
|--|---------|-----------------|--------------|------------------|-------------------|--|--|--|--|--|
| Date                                   | Comment | Strike<br>Depth | Cas<br>Depth | ing<br>  Dia. mm | Standing<br>Depth |  |  |  |  |  |
|  |         |                 | •            |                  | ·                 |  |  |  |  |  |
| 1                                      |         |                 |              |                  |                   |  |  |  |  |  |
| 1                                      |         |                 |              |                  |                   |  |  |  |  |  |
| 1                                      |         |                 |              |                  |                   |  |  |  |  |  |
| 1                                      |         |                 |              |                  |                   |  |  |  |  |  |
| 1                                      |         |                 |              |                  |                   |  |  |  |  |  |
| 1                                      |         |                 |              |                  |                   |  |  |  |  |  |

- 2. No visual or olfactory evidence of contamination.
- 2. No visual or offactory evidence of contamination.
  3. D=Disturbed Sample; ES=Environment Sample; B=Bulk sample; U=Undisturbed sample; N=Standard penetration test 'N' value
  4. 15 mins of chiseling between 12.6m and 12.7m
  5. Hole drilled from ground floor level through double storey height basement
  6. Groundwater and gas standpipe installed with response zones between
  7.7mbgl and 11.7mbgl

- 7. Water encountered beneath basement slab. Pumping of water from sumps was taking place during ground investigation to maintain water at basement

| ™ Method/     |                           | Field Crew | Logged By | Checked By |
|---------------|---------------------------|------------|-----------|------------|
| ਰੂ Plant Used | Cut-down Cable Percussive | GEH        | TJB       | EJB        |

| Project       |                      |                    |                  | BOREHOLE No |
|---------------|----------------------|--------------------|------------------|-------------|
| Arthur Stanle | y House, Tottenham : | Street, London, W1 | T 4RN            | BH1         |
| Job No        | Date 02-01-18        | Ground Level (m)   | Co-Ordinates (m) | рит         |
| CGL/09198a    | 08-01-18             | 27.47              |                  |             |
| Client        |                      | •                  |                  | Sheet       |
| 1923 Mortim   | 3 of 4               |                    |                  |             |

| SAMPLI         | ES & TI    | -515           | e        | STRATA           |   |  |   |  |  |
|----------------|------------|----------------|----------|------------------|---|--|---|--|--|
| Depth<br>(m)   | Type<br>No | Test<br>Result | Water    | Reduced<br>Level | Legend                                  | Depth (m)<br>(Thick-<br>ness)          | DESCRIPTION   |  |  |
| 20.50<br>20.50 | SPT        | N42            |          |                  | X X X X X X X X X X X X X X X X X X X   | <del>-</del>                           | Very stiff closely fissured dark grey silty CLAY with occasional partings of fine silty sand.  [LONDON CLAY FORMATION] (continued)                                  |  |  |
| 21.50          | D          |                |          |                  | × —× -<br>× — ×<br>× — ×                |  | 21.20 Rare gravel sized CLAYSTONES below 21.2m.   |  |  |
| 22.00          | U100       |                |          |                  | × × × × × × × × × × × × × × × × × × ×   |  |   |  |  |
| 22.50          | D          |                | <u>*</u> |                  | × × × × × × × × × × × × × × × × × × ×   | -<br>-<br>-<br>-<br>-<br>-<br>-        |   |  |  |
| 23.50<br>23.50 | SPT        | N42            |          |                  | X X X X X X X X X X X X X X X X X X X   | <del>,</del>                           |   |  |  |
| 24.50          | D          |                |          |                  | × × ×                                   |  |   |  |  |
| 25.00          | U100       |                |          |                  | <u> </u>                                | <u>*</u><br>-<br>-                     |   |  |  |
| 25.50          | D          |                |          |                  | × × × × × × × × × × × × × × × × × × ×   | \\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\ |   |  |  |
| 26.50<br>26.50 | SPT        | N64            |          | 1.37             | * - X - X - X - X - X - X - X - X - X - | 26.10                                  | Hard dark blue grey mottled brownish red slightly sandy silty CLAY with occasional partings of fine sand. Rare shell fragments present above 27.4m. [LAMBETH GROUP] |  |  |
| 27.50          | D          |                |          |                  | × × × × × × × × × × × × × × × × × × ×   | (4.20)                                 |   |  |  |
| 28.50          | D          |                |          |                  | × × × × × × × × × × × × × × × × × × ×   | \\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\ |   |  |  |
| 29.00          | U100       |                |          |                  | × .× .<br>× .×                          |  |   |  |  |
| 29.50<br>29.50 | SPT        | N83            |          |                  | X · X                                   | <u>*</u>                               |   |  |  |

| 33                      | Doning   | i logicus | and vva         | ter Obse     | .i vation.     | ,                 | General Kemarks   |
|-------------------------|----------|-----------|-----------------|--------------|----------------|-------------------|---|
| TD A(                   | Date     | Comment   | Strike<br>Depth | Cas<br>Depth | ing<br>Dia. mm | Standing<br>Depth | Borehole Terminated at 36m below ground level. (Target depth achieved)     No visual or olfactory evidence of contamination.  |
| G CGL 09198A.GPJ GINT S | 08-01-18 | Slow      | 22.50           | 9.8          |                |                   | 3. D=Disturbed Sample; ES=Environment Sample; B=Bulk sample; U=Undisturbed sample; N=Standard penetration test 'N' value 4. 15 mins of chiseling between 12.6m and 12.7m 5. Hole drilled from ground floor level through double storey height basement 6. Groundwater and gas standpipe installed with response zones between 7.7mbgl and 11.7mbgl 7. Water encountered beneath basement slab. Pumping of water from sumps was taking place during ground investigation to maintain water at basement level |

Method/ Plant Used Cut-down Cable Percussive Field Crew GEH Logged By TJB EJB

| DONLIN        |                    |                  |                  | CGL         |
|---------------|--------------------|------------------|------------------|-------------|
| Project       |                    |                  |                  | BOREHOLE No |
| Arthur Stanle | DU1                |                  |                  |             |
| Job No        | Date 02-01-18      | Ground Level (m) | Co-Ordinates (m) | BH1         |
| CGL/09198a    | 08-01-18           | 27.47            |                  |             |
| Client        |                    |                  |                  | Sheet       |
| 1923 Mortim   | er Estates Limited |                  |                  | 4 of 4      |

| SAMPL     | FS & TI | STS             |          |                 |  |                         | STRATA  | •  | ınt                  |
|-----------|---------|-----------------|----------|-----------------|--|-------------------------|---|--|----------------------|
| Depth     | Type    | Test            | Water    | Reduced         |  | Depth (m)               |   |  | nstrument            |
| (m)       | No      | Result          | <b>×</b> | Level           | Legend   | (Thick-<br>ness)        | DESCRIPTION   |  | Instr                |
|           |         |                 |          | -2.83           | × ·× ·>  | 30.30                   |   |  |                      |
| 30.50     | D       |                 |          |                 | × -× -   | -<br>-                  | Hard dark grey mottled yellowish brown slightly sandy rare calcareous horizons.   | silty CLAY with  |                      |
| _         |         |                 |          |                 | × · · ›  | -<br>-<br>-             | [LAMBETH GROUP]   |  |                      |
| 31.00     | U100    |                 |          |                 | × × ×  | -<br>-                  |   |  | \$                   |
| 31.50     | D       |                 |          |                 | X X  | -                       |   |  |                      |
| -         |         |                 |          |                 | × × × × × × × × × × × × × × × × × × ×          | -<br>-<br>              |   |  |                      |
|           |         |                 |          |                 | * .— X — X — X — X — X — X — X — X — X —       | -<br>-<br>-             |   |  |                      |
| 32.50     | SPT     | N75             |          |                 | × ·× · ·                                       | -<br>-                  |   |  |                      |
| 32.50     |         | 11175           |          |                 | × · · · · · · · · · · · · · · · · · · ·        | -<br>-<br>-<br>- (5.70) |   |  |                      |
|           |         |                 |          |                 | × , ×  | (5.70)                  |   |  |                      |
| 33.50     | D       |                 |          |                 |  | -                       |   |  |                      |
|           |         |                 |          |                 | <u>× ·                                    </u> | -<br>-<br>-             |   |  |                      |
|           |         |                 |          |                 |  | -<br>-<br>-             |   |  |                      |
| 34.50     | U100    |                 |          |                 | × · × ·  | -                       |   |  |                      |
| •         |         |                 |          |                 | × -× -   | <u>-</u><br>-<br>-      |   |  | Z                    |
|           |         |                 |          |                 | × ^ × -  | -<br>-<br>-             |   |  |                      |
|           |         |                 |          | -8.53           | × · ×  | 36.00                   |   |  |                      |
| -         |         |                 |          | 0.55            | · · · · ·                                      | - 30.00                 | (Borehole terminated at 36m)  |  |                      |
|           |         |                 |          |                 |  | -                       |   |  |                      |
|           |         |                 |          |                 |  | -                       |   |  |                      |
|           |         |                 |          |                 |  | -<br>-<br>-             |   |  |                      |
|           |         |                 |          |                 |  | -                       |   |  |                      |
|           |         |                 |          |                 |  | -<br>-<br>-             |   |  |                      |
|           |         |                 |          |                 |  | -<br>-<br>-             |   |  |                      |
|           |         |                 |          |                 |  |                         |   |  |                      |
|           |         |                 |          |                 |  | -<br>-<br>-             |   |  |                      |
|           |         |                 |          |                 |  | -<br>-<br>-             |   |  |                      |
|           |         |                 |          |                 |  | -                       |   |  |                      |
|           |         |                 | <u> </u> |                 |  | -                       |   |  | <u></u>              |
| Boring Pr |         |                 |          |                 |  |                         | General Remarks   | rant donth c -l-:-   | ۱۳۷                  |
| Date Co   | omment  | Strike<br>Depth | D        | Casin<br>epth D | <u>หือ. mm</u>                                 | Standing<br>Depth       | Borehole Terminated at 36m below ground level. (Ta 2. No visual or olfactory evidence of contamination. 3. D=Disturbed Sample; ES=Environment Sample; B=Bu sample; N=Standard penetration test 'N' value 4. 15 mins of chiseling between 12.6m and 12.7m 5. Hole drilled from ground floor level through double s 6. Groundwater and gas standpipe installed with respondance of the contamination of the contamina | Ik sample; U=Undis<br>torey height basen<br>nse zones between<br>g of water from sui | sturb<br>nent<br>mps |
| Method/   |         |                 | •        |                 |  |                         | Field Crew Logged By  | Checked B  | Rv.                  |

Method/ Plant Used

**Cut-down Cable Percussive** 

|               |                    |                  |                  | <b>CGI</b>  |
|---------------|--------------------|------------------|------------------|-------------|
| Project       |                    |                  |                  | BOREHOLE No |
| Arthur Stanle | рцэ                |                  |                  |             |
| Job No        | Date 15-01-18      | Ground Level (m) | Co-Ordinates (m) | ВН3         |
| CGL/09198a    | 18-01-18           | 27.53            |                  |             |
| Client        |                    | 1                |                  | Sheet       |
| 1022 Mortin   | or Estatos Limitad |                  |                  | 1 of 4      |

| SAMPL  | ES & TI    | ESTS   | <u></u>  |                |                                       |             | STRATA   |                      |
|--|------------|--|--|----------------|---------------------------------------|-------------|--|----------------------|
| Depth<br>(m)   | Type<br>No | Test<br>Result   | Water  |                | Legend                                | ness)       | DESCRIPTION  | Instrument           |
|  |            |  |  | 27.23          |                                       | 0.30        | Reinforced concrete.   |                      |
|  |            |  |  |                |                                       | (6.20)      | Basement void.   |                      |
| 7.50   | ES         |  | <u></u>  | 21.03<br>20.63 | 0.00                                  | 6.50        | Reinforced concrete.  Medium dense dark orange brown very sandy GRAVEL. G coarse sub-angular to sub-rounded flint. [LYNCH HILL GRAVEL MEMBER]                          | ravel is fine to     |
| 3.00<br>3.00<br>3.00   | B<br>ES    | N17  |  | 18.63          | 0.0.0                                 | -<br>-<br>- |  |                      |
| 3.90<br>9.00<br>9.00   | D<br>SPT   | N24  |  | 18.23          | × × × × × × × × × × × × × × × × × × × | 9.30        | Firm dark orange brown slightly gravelly silty CLAY with o partings of fine silty sand. Gravel is fine to coarse sub-ang sub-rounded flint. [LYNCH HILL GRAVEL MEMBER] | ccasional<br>ular to |
| oring Pr   | ogress     |  |  |                |                                       |             | General Remarks  |                      |
| Date Comment Strike Casing Depth Dia. mm Standing Depth 16-01-18 Fast 6.90 7 |            | 1. Borehole Terminated at 31m below ground level. (Targ 2. No visual or olfactory evidence of contamination. 3. D=Disturbed Sample; ES=Environment Sample; B=Bulk sample; N=Standard penetration test 'N' value 4. 15 mins of chiseling between 14.4m and 14.6m 5. Hole drilled from ground floor level through double sto 6. Groundwater and gas standpipe installed with respons 7.0mbgl and 9.5mbgl 7. Water encountered beneath basement slab. Pumping of was taking place during ground investigation to maintain level | sample; U=Undisturb<br>rey height basement<br>e zones between<br>of water from sumps |                |                                       |             |  |                      |

**GEH** 

TJĖ

EJB

| Project       |                     |                    |                  | BOREHOLE No |
|---------------|---------------------|--------------------|------------------|-------------|
| Arthur Stanle | ey House, Tottenham | Street, London, W1 | T 4RN            | внз         |
| Job No        | Date 15-01-18       | Ground Level (m)   | Co-Ordinates (m) | ВПЭ         |
| CGL/09198a    | 18-01-18            | 27.53              |                  |             |
| Client        |                     |                    | •                | Sheet       |
| 1022 Mortin   | or Estatos Limitad  |                    |                  | 2 of 4      |

| 1925                     | 3 Mort                                 | imer Es        | tate     | es Limite        | ed   |                                 | 2 of 4   |                   |                         |
|--------------------------|--|----------------|----------|------------------|--|---------------------------------|--|-------------------|-------------------------|
| SAMPLE                   | ES & TE                                | STS            | <u>_</u> |                  |  |                                 | STRATA   |                   | ent                     |
| Depth<br>(m)             | Type<br>No                             | Test<br>Result | Water    | Reduced<br>Level | Legend   | Depth (m)<br>(Thick-<br>ness)   | DESCRIPTION  |                   | Instrument<br>/Backfill |
| 11.00                    | U100                                   |                |          |                  | X X X X X X X X X X X X X X X X X X X  | (5.10)                          | Stiff becoming very stiff closely fissured dark grey silty Coccasional partings of fine silty sand. [LONDON CLAY FORMATION] (continued)                                | LAY with          |                         |
| 12.00<br>12.00           | D<br>U100                              |                |          |                  | -x -:<br>x x x<br>x x - |                                 |  |                   |                         |
| 13.00                    | D                                      |                |          |                  | X X X X X X X X X X X X X X X X X X X  |                                 |  |                   |                         |
| 14.00<br>14.00<br>14.40  | D<br>D                                 | N39            |          | 13.13<br>12.93   | × × × × × × × × × × × × × × × × × × ×  | 14.40<br>14.60                  |  |                   |                         |
| 15.00                    | D                                      |                |          | 12.33            | × × × × × × × × × × × × × × × × × × ×  |                                 | [LONDON CLAY FORMATION]  Very stiff closely fissured dark grey silty CLAY with occas fine silty sand. Occasional selenite crystals throughout. [LONDON CLAY FORMATION] | ional partings of |                         |
| 15.50                    | U100                                   |                |          |                  | × × × × × × × × × × × × × × × × × × ×  | -<br> -<br> -<br> -<br> -       |  |                   |                         |
| 16.00                    | D                                      |                |          |                  | X X X X X X X X X X X X X X X X X X X  |                                 |  |                   |                         |
| -<br>17.00<br>-<br>17.00 | D                                      | N36            |          |                  | × × × × × × × × × × × × × × × × × × ×  | <br>                            |  |                   |                         |
| 18.00                    | D                                      |                |          |                  | X X X  | }_<br>-<br>-<br>-<br>-<br>-     |  |                   |                         |
| 18.50                    | U100<br>D                              |                |          |                  | × × × × × × × × × × × × × × × × × × ×  | <del> </del>                    |  |                   |                         |
| 5 -<br>5 -<br>-<br><br>  |  |                |          |                  | × × × ×  | -<br>-<br>-<br>-<br>-<br>-<br>- |  |                   |                         |
| Boring Pro               | Boring Progress and Water Observations |                |          |                  |  |                                 | General Remarks  |                   |                         |
| ( )                      |  | Striko         |          | Cacin            | ~  | Standing                        |  |                   |                         |

| 1.GDT 16/2/18                 | F                                      | D       |          |            | × × × × × × × × × × × × × × × × × × × |   |                   |                  |                   |
|-------------------------------|--|---------|----------|------------|---------------------------------------|---|-------------------|------------------|-------------------|
| GS 3                          | Boring Progress and Water Observations |         |          |            |                                       |   | General Remarks   |                  |                   |
| LOG CGL 09198A.GPJ GINT STD A |  | Comment |          |            | Standing<br>Depth                     | <ol> <li>1. Borehole Terminated at 31m below ground level. (Target depth achieved)</li> <li>2. No visual or olfactory evidence of contamination.</li> <li>3. D=Disturbed Sample; ES=Environment Sample; B=Bulk sample; U=Undisturb sample; N=Standard penetration test 'N' value</li> <li>4. 15 mins of chiseling between 14.4m and 14.6m</li> <li>5. Hole drilled from ground floor level through double storey height basement</li> <li>6. Groundwater and gas standpipe installed with response zones between</li> <li>7. Ombgl and 9.5mbgl</li> <li>7. Water encountered beneath basement slab. Pumping of water from sumps was taking place during ground investigation to maintain water at basement level</li> </ol> |                   |                  |                   |
| CGL BH                        |  |         | down Cal | ble Percus | ssive                                 |   | Field Crew<br>GEH | Logged By<br>TJB | Checked By<br>EJB |

| Project       |                           |                      |       | BOREHOLE No |
|---------------|---------------------------|----------------------|-------|-------------|
| Arthur Stanle | y House, Tottenham        | n Street, London, W1 | T 4RN | внз         |
| Job No        | БПЭ                       |                      |       |             |
| CGL/09198a    | Date 15-01-18<br>18-01-18 | 27.53                |       |             |
| Client        | •                         |                      | •     | Sheet       |
| 1923 Mortim   | er Estates Limited        |                      |       | 3 of 4      |

| 152.             | JIVIOIC    | IIIICI L3      | tatt     | .3 Lillillea                                     |  |   | 3 01 4            |                         |
|------------------|------------|----------------|----------|--|--|---|-------------------|-------------------------|
| SAMPLI           | ES & TI    | ESTS           |          |  | _  | STRATA  |                   | l<br>I                  |
| Depth<br>(m)     | Type<br>No | Test<br>Result | Water    | Reduced<br>Level Legend                          | Depth (m)<br>(Thick-<br>ness)  | DESCRIPTION   |                   | Instrument<br>/Backfill |
| 20.00<br>20.00   | SPT        | N39            |          | X X X X X X X X X X X X X X X X X X X            | (12.20)  | Very stiff closely fissured dark grey silty CLAY with occas<br>fine silty sand. Occasional selenite crystals throughout.<br>[LONDON CLAY FORMATION] (continued) | ional partings of |                         |
| 21.00            | D          |                |          | - <u>×</u> -<br>× - <u>×</u> -<br>× - <u>×</u> - | - <u>}_</u><br>- <del>}_</del><br>- <del>}</del><br>- <del>}</del> -                             |   |                   |                         |
| 21.50            | U100       |                |          | × × ×  | -1<br>-1<br>-1<br>-1   | 21.50 - 22.40 Abundant silty sand lenses. Sand is fine.   |                   |                         |
| 22.00            | D          |                | <u>2</u> | x x x x x x x x x x x x x x x x x x x            | <del>1</del>   |   |                   |                         |
| 23.00<br>23.00   | SPT        | N42            |          | × × × × × × × × × × × × × × × × × × ×            | 7<br>  |   |                   |                         |
| 24.00            | D          |                |          | x<br> x<br>  xx                                  | - <u>1</u> -<br>   |   |                   |                         |
| 24.50            | U100       |                |          | * * * * * * * * * * * * * * * * * * *            | 7<br>-<br>-<br>-<br>-<br>-<br>-<br>-<br>-<br>-<br>-<br>-<br>-<br>-<br>-<br>-<br>-<br>-<br>-<br>- |   |                   |                         |
| 25.50            | D          |                |          | x _x         | -1<br>-1<br>-1<br>-1<br>-1<br>-1   |   |                   |                         |
| 26.00<br>- 26.00 | SPT        | N44            |          | 0.73   | 26.80  |   |                   |                         |
| -<br>27.00       | D          |                |          | X  | 7<br>-7<br>-7<br>-7<br>-7  | Hard light blueish grey mottled red brown slightly sandshell fragments above 28m. [LAMBETH GROUP]   | silty CLAY. Rare  |                         |
| 27.50            | U100       |                |          | × × ×  | **<br>**<br>**   |   |                   |                         |
| 28.00            | D          |                |          | X X X X X X X X X X X X X X X X X X X            | (3.70)   |   |                   |                         |
| 29.00<br>29.00   | SPT        | N55/<br>150 mm |          | × × × × × × × × × × × × × × × × × × ×            | <del> </del>   |   |                   |                         |
| Boring Pro       | ogress     | and W          | ater     | Observation                                      | ns   | General Remarks   |                   |                         |

| Boring Progress and Water Observations |  |       |     |  |  |  |  |  |  |
|--|--|-------|-----|--|--|--|--|--|--|
| Date                                   | Comment Strike Casing Standing Depth Depth Dia. mm Depth |       |     |  |  |  |  |  |  |
| 17-01-18                               | Slow   | 22.80 | 9.5 |  |  |  |  |  |  |
|  |  |       |     |  |  |  |  |  |  |
|  |  |       |     |  |  |  |  |  |  |
|  |  |       |     |  |  |  |  |  |  |
|  |  |       |     |  |  |  |  |  |  |

### General Remarks

- 1. Borehole Terminated at 31m below ground level. (Target depth achieved)
  2. No visual or olfactory evidence of contamination.
  3. D=Disturbed Sample; ES=Environment Sample; B=Bulk sample; U=Undisturbed sample; N=Standard penetration test 'N' value
  4. 15 mins of chiseling between 14.4m and 14.6m
  5. Hole drilled from ground floor level through double storey height basement 6. Groundwater and gas standpipe installed with response zones between 7.0mbgl and 9.5mbgl
  7. Water encountered beneath basement slab. Pumping of water from sumps was taking place during ground investigation to maintain water at basement

- was taking place during ground investigation to maintain water at basement level

| 1.GDT 16/2/18                 | 29.00                | 251       | N55/<br>150 mm           |                            | × × × · · · · · · · · · · · · · · · · · |                   |   |  |   |
|-------------------------------|----------------------|-----------|--------------------------|----------------------------|---|-------------------|---|--|---|
| GS 3                          | Boring l             | Progress  | and Wa                   | ter Obse                   | ervation                                | S                 | General Remarks   |  |   |
| OG CGL 09198A.GPJ GINT STD AC | Date<br>17-01-18     | Slow Slow | Strike<br>Depth<br>22.80 | Cas<br><u>Depth</u><br>9.5 | ing<br>Dia. mm                          | Standing<br>Depth | 1. Borehole Terminated at 31m below group 2. No visual or olfactory evidence of contains 3. D=Disturbed Sample; ES=Environment Stample; N=Standard penetration test 'N' vood 4. 15 mins of chiseling between 14.4m and 5. Hole drilled from ground floor level thro 6. Groundwater and gas standpipe installer 7.0mbgl and 9.5mbgl 7. Water encountered beneath basement was taking place during ground investigation level | mination.  ample; B=Bulk samp lue  14.6m ugh double storey h d with response zon slab. Pumping of wa | ole; U=Undisturbe<br>eight basement<br>es between<br>ter from sumps |
| CGL BH L                      | Method/<br>Plant Use | d Cut-c   | down Cab                 | ole Percus                 | ssive                                   |                   | Field Crew<br>GEH   | Logged By<br>TJB   | Checked By<br>EJB   |

|               |                    |                  |                  | CGI         |
|---------------|--------------------|------------------|------------------|-------------|
| Project       |                    |                  |                  | BOREHOLE No |
| Arthur Stanle | ВН3                |                  |                  |             |
| Job No        | Date 15-01-18      | Ground Level (m) | Co-Ordinates (m) | ВП3         |
| CGL/09198a    | 18-01-18           | 27.53            |                  |             |
| Client        |                    |                  |                  | Sheet       |
| 1923 Mortima  | er Estates Limited |                  |                  | 1 of 1      |

| SAMPLES & TESTS   Type   Test   Type   Test   Tes   | ŧ              | 4 of 4             |  |                   | ted      | es Limit         | tate | imer Est       | 3 Mort  | 192          |
|--|----------------|--------------------|--|-------------------|----------|------------------|------|----------------|---------|--------------|
| 30.00 D  -2.97 - 30.50  30.50 U100  -3.47 - 30.50   Colored to the state of the sta | ent .          |                    | STRATA   |                   |          |                  | _    | ESTS           | ES & TI | SAMPL        |
| 30.50 U100 C2.97 30.50 Hard dark grey mottled yellow brown slightly sandy silty CLAY. Rare calcareous horizons. [LAMBETH GROUP]  | Instrument     |                    |  | (Thick-           | Legend   | Reduced<br>Level | Wate | Test<br>Result |         | Depth<br>(m) |
| 30.50 U100 Hard dark grey mottled yellow brown slightly sandy silty CLAY. Rare calcareous horizons.  [LAMBETH GROUP]   |                |                    |  |                   | <u> </u> |                  |      |                | D       | 30.00        |
| 24.00  |                | CLAY. Rare         | Hard dark grey mottled yellow brown slightly sandy silty calcareous horizons.  | _                 | × ×      |                  |      |                | U100    | 30.50        |
|  | - 500          |                    | (  | 31.00             | / -x>    | -3.47            |      |                | D       | 31.00        |
|  |                |                    | ,  |                   |          |                  |      |                |         |              |
|  |                |                    |  | -                 |          |                  |      |                |         |              |
|  |                |                    |  | -<br>-<br>-       |          |                  |      |                |         |              |
|  |                |                    |  | -                 |          |                  |      |                |         |              |
|  |                |                    |  | -                 |          |                  |      |                |         |              |
|  |                |                    |  | -                 |          |                  |      |                |         |              |
|  |                |                    |  | -                 |          |                  |      |                |         |              |
|  |                |                    |  | -                 |          |                  |      |                |         |              |
|  |                |                    |  | -                 |          |                  |      |                |         |              |
|  |                |                    |  | -                 |          |                  |      |                |         |              |
|  |                |                    |  | -                 |          |                  |      |                |         |              |
|  |                |                    |  | -                 |          |                  |      |                |         |              |
|  |                |                    |  |                   |          |                  |      |                |         |              |
|  |                |                    |  | -                 |          |                  |      |                |         |              |
|  |                |                    |  |                   |          |                  |      |                |         |              |
|  |                |                    |  | -                 |          |                  |      |                |         |              |
|  |                |                    |  |                   |          |                  |      |                |         |              |
|  |                |                    |  | -                 |          |                  |      |                |         |              |
|  |                |                    |  |                   |          |                  |      |                |         |              |
|  |                |                    |  | -                 |          |                  |      |                |         |              |
|  |                |                    |  | -                 |          |                  |      |                |         |              |
|  |                |                    |  | -                 |          |                  |      |                |         |              |
|  |                |                    |  | -                 |          |                  |      |                |         |              |
|  |                |                    |  |                   |          |                  |      |                |         |              |
|  |                |                    |  | -                 |          |                  |      |                |         |              |
| Boring Progress and Water Observations General Remarks   |                |                    | General Remarks  | 5                 | rvations | Obser            | ater | and Wa         | ogress  | Boring Pr    |
| Date Comment Strike Depth Dia. mm Depth Dia. | ed)<br>isturbe | get depth achieved | Borehole Terminated at 31m below ground level. (Targ<br>2. No visual or olfactory evidence of contamination.     Belik | Standing<br>Depth |          |                  |      |                |         |              |

Boring Progress and Water Observations

Date Comment Strike Depth Depth Da. mm Depth

Depth Da. mm Depth Dep

Method/ Field Crew GEH Logged By Checked By Flant Used Cut-down Cable Percussive GEH TJB EJB

|               |                    |                    |                  | CGL         |
|---------------|--------------------|--------------------|------------------|-------------|
| Project       |                    |                    |                  | BOREHOLE No |
| Arthur Stanle | y House, Tottenham | Street, London, W1 | T 4RN            | BH4         |
| Job No        | Date 09-01-18      | Ground Level (m)   | Co-Ordinates (m) | БП4         |
| CGL/09198a    | 12-01-18           | 27.52              |                  |             |
| Client        |                    |                    |                  | Sheet       |
| 1022 Mortim   | or Estatos Limitad |                    |                  | 1 of 2      |

| 1923             | 3 Mort     | imer Es         | tate     | s Limit          | ed   |                               |  | 1 of 3               |                         |
|------------------|------------|-----------------|----------|------------------|--|-------------------------------|--|----------------------|-------------------------|
| SAMPLE           | ES & TI    | ESTS            | _        |                  |  |                               | STRATA   |                      | ent<br>                 |
| Depth<br>(m)     | Type<br>No | Test<br>Result  | Water    | Reduced<br>Level | Legend   | Depth (m)<br>(Thick-<br>ness) | DESCRIPTION  |                      | Instrument<br>/Backfill |
|                  |            |                 |          | 27.22            | P 4 4 P  |                               | Reinforced concrete.   |                      |                         |
|                  |            |                 |          |                  |  | -                             | Basement void.   |                      |                         |
| -                |            |                 |          |                  |  | -                             |  |                      |                         |
|                  |            |                 |          |                  |  | -                             |  |                      |                         |
| -                |            |                 |          |                  |  | -<br>-<br>-                   |  |                      |                         |
|                  |            |                 |          |                  |  | -                             |  |                      |                         |
| -                |            |                 |          |                  |  | -<br>-<br>-                   |  |                      |                         |
|                  |            |                 |          |                  |  | -                             |  |                      |                         |
| _                |            |                 |          |                  |  | -<br>-                        |  |                      |                         |
|                  |            |                 |          |                  |  | -<br>(6.20)                   |  |                      |                         |
| -                |            |                 |          |                  |  | (0.20)                        |  |                      |                         |
| -                |            |                 |          |                  |  | -                             |  |                      |                         |
| -                |            |                 |          |                  |  | -<br>-<br>-                   |  |                      |                         |
| Ē                |            |                 |          |                  |  | -                             |  |                      |                         |
| -                |            |                 |          |                  |  | -                             |  |                      |                         |
| -                |            |                 |          |                  |  | -<br>-<br>-                   |  |                      |                         |
|                  |            |                 |          |                  |  |                               |  |                      |                         |
| -                |            |                 |          |                  |  | -                             |  |                      |                         |
|                  |            |                 |          | 21.02            | !  | 6.50                          |  |                      |                         |
| -                |            |                 |          |                  | 9 4 4 9  | (0.75)                        | Reinforced concrete.   |                      |                         |
| -                |            |                 | <b>1</b> | 20.27            |  | 7.25                          |  |                      |                         |
|                  | _          |                 | <u> </u> |                  | 0.00   | -                             | Medium dense to very dense pale yellowish brown very Gravel is fine to coarse sub-angular to sub-rounded flint | sandy GRAVEL.        |                         |
| - 7.50<br>- 7.50 | В          | N21             |          |                  | 0000   |                               | [LYNCH HILL GRAVEL MEMBER]   | '                    |                         |
| 8.00             | ES         |                 |          |                  | 0.0.0  | (1.75)                        |  |                      |                         |
| 0.50             | _          |                 |          |                  | 000  |                               |  |                      |                         |
| 8.50<br>8.50     | В          | N55             |          | 18.52            | 0.00   | 9.00                          |  |                      |                         |
| <u>-</u>         |            |                 |          | 18.42            | <del>*                                    </del> | 9.10                          |  | el is fine to coarse |                         |
| 9.50             | D          |                 |          | 18.12            | <u> </u>   | 9.40                          | sub-angular to sub-rounded flint. [LYNCH HILL GRAVEL MEMBER]   | /                    |                         |
| 9.50             | U100       |                 |          |                  | × × ×  |                               | Stiff closely fissured dark brownish grey silty CLAY with rine silty sand.                                     | are partings of      |                         |
| Boring Pro       |            |                 | ater     |                  |  |                               | General Remarks  |                      |                         |
| <u> </u>         | mment      | Strike<br>Depth |          | -                | ng<br>Dia. mm                                    | Standing<br>Depth             | 1. Borehole Terminated at 26m below ground level. (Tar 2. No visual or olfactory evidence of contamination.    |                      |                         |
| 10-01-18         | Fast       | 7.25            |          | 7.5              |  |                               | 3. D=Disturbed Sample: FS=Environment Sample: B=Bull   | k samnle: U=Undisti  | urbed                   |

| GS                     | BOTTING  | Progress | anu vva         | ter Obse     | ervations         | >                 | General Ken  |
|------------------------|----------|----------|-----------------|--------------|-------------------|-------------------|--|
| D.A                    |          | Comment  | Strike<br>Depth | Cas<br>Depth | sing<br>  Dia. mm | Standing<br>Depth | 1. Borehole Teri   |
| CGL 09198A.GPJ GINT ST | 10-01-18 | Fast     | 7.25            | 7.5          |                   |                   | 2. No visual or c<br>3. D=Disturbed is<br>sample; N=Stan<br>4. 15 mins of ch<br>5. Hole drilled fr<br>6. Groundwater<br>10.7mbgl and 1:<br>7. Water encour<br>was taking place |

- orractory evidence or contamination.
  d Sample; ES=Environment Sample; B=Bulk sample; U=Undisturbed ndard penetration test 'N' value
  hiseling between 13.7m and 13.9m
  from ground floor level through double storey height basement er and gas standpipe installed with response zones between
  12.5mbgl

- untered beneath basement slab. Pumping of water from sumps was taking place during ground investigation to maintain water at basement level

BH LOG Method/ Plant Used Logged By Field Crew Checked By **Cut-down Cable Percussive GEH** TJĖ EJB



| 172            | JIVIOIC    | IIIICI L3      | itatt                | .3 Lillilled                                |  |   | 2 01 3            |                         |
|----------------|------------|----------------|----------------------|---|--|---|-------------------|-------------------------|
| SAMPLI         | ES & TI    | ESTS           | _                    |   |  | STRATA  |                   | ient<br>I               |
| Depth<br>(m)   | Type<br>No | Test<br>Result | Water                | Reduced<br>Level Legend                     | Depth (m)<br>(Thick-<br>ness)                        | DESCRIPTION   |                   | Instrument<br>/Backfill |
| 10.50          | SPT        | N21            | <b>2</b><br><u>−</u> | 16.82                                       | 10.70  | Stiff dark brownish grey very sandy CLAY. Sand is fine. [LONDON CLAY FORMATION]   |                   |                         |
| 12.00          | U100<br>D  |                |                      | X X X X X X X X X X X X X X X X X X X       | (2.50)   | Very stiff dark grey closely fissured silty CLAY with occas<br>fine silty sand. Rare selenite crystals throughout.<br>[LONDON CLAY FORMATION]                               | ional partings of |                         |
| 13.00          | SPT        | N31            |                      | 13.82                                       | - <u>†</u><br>- <u>-</u>                             |   |                   |                         |
| 14.00<br>14.50 | D U100     |                |                      | 13.62 × × × × × × × × × × × × × × × × × × × | 13.90  | CLAYSTONE. [LONDON CLAY FORMATION]  Very stiff dark grey closely fissured silty CLAY with occas fine silty sand. Rare selenite crystals throughout. [LONDON CLAY FORMATION] | ional partings of |                         |
| 15.00          | D          |                |                      | * - x<br>* - x<br>- x<br>- x<br>- x         | - 1-<br>- 1-<br>- 1-<br>- 1-<br>- 1-<br>- 1-<br>- 1- |   |                   |                         |
| 16.00<br>16.00 | SPT        | N35            |                      | X X X X X X X X X X X X X X X X X X X       |  |   |                   |                         |
| 17.00<br>17.50 | D<br>U100  |                |                      | * * *<br>* -×<br>* -x                       | - <u>                                    </u>        |   |                   |                         |
| 18.00          | D D        |                |                      | * -× -× -× -× -× -× -× -× -× -× -× -× -×    | -  -<br>   |   |                   |                         |
| 19.00<br>19.00 | SPT        | N40            |                      | X X X X X X X X X X X X X X X X X X X       |  |   |                   |                         |
| Boring Dr      | oarocc     | and M          | ator                 | Chcarvation                                 | ).C  | General Remarks   |                   |                         |

| Š                       | Boring I | Progress | and Wa          |              |                         |  | General Remarks   |
|-------------------------|----------|----------|-----------------|--------------|-------------------------|--|---|
| E A                     | Date     | Comment  | Strike<br>Depth | Cas<br>Depth | Casing<br>Depth Dia. mm |  | Borehole Terminated at 26m below ground level. (Target depth achieved)     No visual or olfactory evidence of contamination.  |
| OG CGL 09198A.GPJ GINTS | 10-01-18 | Medium   | 10.70           | 9.5          |                         |  | 2. No visual of bilactory evidence of contamination.  3. D=Disturbed Sample; ES=Environment Sample; B=Bulk sample; U=Undisturbed sample; N=Standard penetration test 'N' value  4. 15 mins of chiseling between 13.7m and 13.9m  5. Hole drilled from ground floor level through double storey height basement  6. Groundwater and gas standpipe installed with response zones between  10.7mbgl and 12.5mbgl  7. Water encountered beneath basement slab. Pumping of water from sumps was taking place during ground investigation to maintain water at basement level |

CGL BH LOG CGL 09198A.GPJ GINT STD AGS 3\_1.GDT 16/2/18 Method/ Plant Used Logged By TJB Field Crew Checked By **Cut-down Cable Percussive GEH** EJB

| DOKLIK        |                     |                      |                  | CGL         |
|---------------|---------------------|----------------------|------------------|-------------|
| Project       |                     |                      |                  | BOREHOLE No |
| Arthur Stanle | ey House, Tottenhar | n Street, London, W1 | T 4RN            | ВЦА         |
| Job No        | Date 09-01-18       | Ground Level (m)     | Co-Ordinates (m) | BH4         |
| CGL/09198a    | 12-01-18            | 27.52                |                  |             |
| Client        | •                   | •                    |                  | Sheet       |
| 1923 Mortin   | ner Estates Limited |                      |                  | 3 of 3      |

| SAMPLES 8     | ξ TE     | STS            | _                    |  |   |                               | STRATA   |                  | nent<br>II              |
|---------------|----------|----------------|----------------------|--|---|-------------------------------|--|------------------|-------------------------|
| Depth Tyl     | pe<br>lo | Test<br>Result | Water                | Reduced<br>Level                       | _egend                                  | Depth (m)<br>(Thick-<br>ness) | DESCRIPTION  |                  | Instrument<br>/Backfill |
| 20.00         | D        |                |                      | ×<br>×                                 | × ×                                     | (12.10)                       | Very stiff dark grey closely fissured silty CLAY with occasion fine silty sand. Rare selenite crystals throughout. [LONDON CLAY FORMATION] (continued) | onal partings of |                         |
| 20.50 U1      | 100      |                |                      | ×                                      |   |                               | [LONDON CLAY FORMATION] (continued)  |                  |                         |
| 21.00 D       | D        |                |                      | \\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\ | × - × - × - × - × - × - × - × - × - × - |                               |  |                  |                         |
| 22.00 SP      | РТ       | N43            | <b>3</b><br><u>−</u> |  | × × × × × × × × × × × × × × × × × × ×   |                               |  |                  |                         |
| 23.00 D       | D        |                |                      | ×                                      | × × ×                                   |                               |  |                  |                         |
| 23.50 U1      | 100      |                |                      | ×                                      | × ×                                     |                               |  |                  |                         |
| 24.00 D       | D        |                |                      | -<br> -<br> -                          | × × × × × × × × × × × × × × × × × × ×   | -                             |  |                  |                         |
| 25.00 E       | D        | N47            |                      | X<br>                                  | × ->                                    | -                             |  |                  |                         |
| -<br>-        |          |                |                      | 1.52                                   | × ×                                     | 26.00                         | (Borehole terminated at 26m)   | Į.               |                         |
| -             |          |                |                      |  |   |                               | (Borenoie terminatea at 26m)   |                  |                         |
|               |          |                |                      |  |   |                               |  |                  |                         |
| -<br>-<br>-   |          |                |                      |  |   | -                             |  |                  |                         |
| -<br>-<br>-   |          |                |                      |  |   | -                             |  |                  |                         |
| -<br>-<br>-   |          |                |                      |  |   |                               |  |                  |                         |
| -<br>-<br>-   |          |                |                      |  |   |                               |  |                  |                         |
| -             |          |                |                      |  |   |                               |  |                  |                         |
| :<br>-        |          |                |                      |  |   | -                             |  |                  |                         |
| -<br>-        |          |                |                      |  |   | -                             |  |                  |                         |
|               |          |                |                      |  |   |                               |  |                  |                         |
| Roring Progre | 255 7    | and M/s        | ater                 | Ohsanı                                 | ations                                  |                               | General Remarks  |                  |                         |

| 1.GDT 16/2/18             | -        |          |                 |              |                  | -<br>-<br>-<br>-<br>-<br>-<br>- |   |
|---------------------------|----------|----------|-----------------|--------------|------------------|---------------------------------|---|
| 3S 3                      | Boring I | Progress | and Wa          | iter Obse    | ervation         | S                               | General Remarks   |
| TD A(                     | Date     | Comment  | Strike<br>Depth | Cas<br>Depth | ing<br>  Dia. mm | Standing<br>Depth               | Borehole Terminated at 26m below ground level. (Target depth achieved)     No visual or olfactory evidence of contamination.  |
| OG CGL 09198A.GPJ GINT S' | 11-01-18 | Slow     | 22.00           | 11.5         |                  |                                 | 2. No Visual of ollactory evidence of contamination. 3. D=Disturbed Sample; ES=Environment Sample; B=Bulk sample; U=Undisturbed sample; N=Standard penetration test 'N' value 4. 15 mins of chiseling between 13.7m and 13.9m 5. Hole drilled from ground floor level through double storey height basement 6. Groundwater and gas standpipe installed with response zones between 10.7mbgl and 12.5mbgl 7. Water encountered beneath basement slab. Pumping of water from sumps was taking place during ground investigation to maintain water at basement level |

| Ievel | | Ievel | | Ievel | | Ievel | | Ievel | | Ievel | Ie

|               |                    |                    |                  | <b>CGL</b>  |
|---------------|--------------------|--------------------|------------------|-------------|
| Project       |                    |                    |                  | BOREHOLE No |
| Arthur Stanle | y House, Tottenham | Street, London, W1 | T 4RN            | DUE         |
| Job No        | Date 19-01-18      | Ground Level (m)   | Co-Ordinates (m) | BH5         |
| CGL/09198a    | 22-01-18           | 27.53              |                  |             |
| Client        |                    |                    | •                | Sheet       |
| 1923 Mortim   | er Estates Limited |                    |                  | 1 of 3      |

| 1923             | 3 Morti    | imer Es        | tate  | es Limite        | ed                                      |                               |  | 1 of 3             |                         |
|------------------|------------|----------------|-------|------------------|---|-------------------------------|--|--------------------|-------------------------|
| SAMPLI           | ES & TE    | STS            | _     |                  |   |                               | STRATA   |                    | ent<br>                 |
| Depth<br>(m)     | Type<br>No | Test<br>Result | Water | Reduced<br>Level | Legend                                  | Depth (m)<br>(Thick-<br>ness) | DESCRIPTION  |                    | Instrument<br>/Backfill |
| -                |            |                |       | 27.23            |   |                               | Reinforced conrete.  |                    |                         |
| [                |            |                |       |                  |   |                               | Basement void.   |                    |                         |
| -                |            |                |       |                  |   | -                             |  |                    |                         |
| -                |            |                |       |                  |   | -<br>-<br>-                   |  |                    |                         |
|                  |            |                |       |                  |   |                               |  |                    |                         |
| -                |            |                |       |                  |   | -<br>-<br>-                   |  |                    |                         |
| -                |            |                |       |                  |   | -                             |  |                    |                         |
| -                |            |                |       |                  |   | -                             |  |                    |                         |
| _                |            |                |       |                  |   | -                             |  |                    |                         |
| -                |            |                |       |                  |   | (6.20)                        |  |                    |                         |
|                  |            |                |       |                  |   | - (6.20)<br>-                 |  |                    |                         |
| -                |            |                |       |                  |   | -<br>-                        |  |                    |                         |
|                  |            |                |       |                  |   | -<br>-<br>-                   |  |                    |                         |
| -<br>-           |            |                |       |                  |   | -<br>-<br>-                   |  |                    |                         |
| -                |            |                |       |                  |   | -                             |  |                    |                         |
| [<br>-           |            |                |       |                  |   | -                             |  |                    |                         |
| -                |            |                |       |                  |   | -                             |  |                    |                         |
| <u>-</u>         |            |                |       |                  |   | -                             |  |                    |                         |
| -                |            |                |       | 21.03            |   | 6.50                          |  |                    |                         |
|                  |            |                |       | 20.63            | A 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 | 6.90                          | Reinforced concrete.   |                    |                         |
| 6.90             | D          |                |       | 20.53            |   | 7.00                          |  | oarse angular to   |                         |
| <u>-</u>         |            |                |       |                  |   | (4.40)                        | sub-angular of brick, concrete and flint. [MADE GROUND]  | /                  |                         |
| 7.50<br>7.50     | B<br>ES    |                | 1     |                  |   | (1.10)                        | Medium dense dark brown clayey gravel. Gravel is fine t to sub-angular of brick, concrete and flint. | o coarse angular   |                         |
| 7.50             | SPT        | N19            | Ţ     | 19.43            |   | 8.10                          | [MADE GROUND]  | AVEL Crovelie      |                         |
| -                |            |                |       |                  | 00.00                                   | ŧ l                           | Medium dense to very dense yellowish brown sandy GR fine to coarse sub-angular to rounded flint.     | AVEL. Gravei is    |                         |
| - 8.50<br>- 8.50 | B<br>SPT   | N54            |       |                  | .000                                    | -                             | [LYNCH HILL GRAVEL MEMBER]<br>8.70 - 9.20 Common sub-rounded cobbles of flint.                       |                    |                         |
| _8.70            | ES         |                |       |                  | 0.0.0                                   |                               |  |                    |                         |
| -                |            |                |       |                  | 0000                                    | } I                           |  |                    |                         |
| 9.50<br>9.50     | B<br>SPT   | N30            |       |                  | 1.º O. º Z                              | -                             |  |                    |                         |
| Boring Pro       | ogress     | and M          | ater  | Obsan            | <u> </u>                                | <u> </u>                      | General Remarks  |                    |                         |
| Date Co          | mmont      | Strike         | 1     | Casin            |   |                               | 1 Rorehole Terminated at 26m below ground level /Tax   | gat donth achieved | $\overline{}$           |

| Boring Progress and Water Observations |                 |                         |                                   |   |  |  |  |  |  |  |  |  |
|--|-----------------|-------------------------|-----------------------------------|---|--|--|--|--|--|--|--|--|
| Comment                                | Strike<br>Depth | Cas<br>Depth            | ing<br>  Dia. mm                  | Standing<br>Depth                         |  |  |  |  |  |  |  |  |
| Fast                                   | 8.00            | 8                       |                                   |   |  |  |  |  |  |  |  |  |
|  |                 |                         |                                   |   |  |  |  |  |  |  |  |  |
|  |                 |                         |                                   |   |  |  |  |  |  |  |  |  |
|  |                 |                         |                                   |   |  |  |  |  |  |  |  |  |
|  | Comment         | Comment Strike<br>Depth | Comment Strike Cas<br>Depth Depth | Comment Strike Casing Depth Depth Dia. mm |  |  |  |  |  |  |  |  |

- 1. Borehole Terminated at 26m below ground level. (Target depth achieved)
  2. No visual or olfactory evidence of contamination.
  3. D=Disturbed Sample; ES=Environment Sample; B=Bulk sample; U=Undisturbed sample; N=Standard penetration test 'N' value
  4. Hole drilled from ground floor level through double storey height basement
  5. Groundwater and gas standpipe installed with response zones between
  6.9mbgl and 12.5mbgl
  6. Water encountered beneath basement slab. Pumping of water from sumps was taking place during ground investigation to maintain water at basement level

| 1.GDT 16/2/18               | 9.50<br>9.50         | B<br>SPT | N30             |              | 0.0.0            |                   |   |   |  |
|-----------------------------|----------------------|----------|-----------------|--------------|------------------|-------------------|---|---|--|
| GS 3_                       | Boring I             | Progress | and Wa          | ter Obse     | ervations        | S                 | General Remarks   |   |  |
| STD AC                      | Date                 | Comment  | Strike<br>Depth | Cas<br>Depth | ing<br>  Dia. mm | Standing<br>Depth | Borehole Terminated at 26m below group.     No visual or olfactory evidence of contains.  |   | pth achieved)                                    |
| LOG CGL 09198A.GPJ GINT STI | 22-01-18             | Fast     | 8.00            | 8            |                  |                   | 3. D=Disturbed Sample; ES=Environment S sample; N=Standard penetration test 'N' v. 4. Hole drilled from ground floor level thro 5. Groundwater and gas standpipe installe 6.9mbgl and 12.5mbgl 6. Water encountered beneath basement was taking place during ground investigation level | ample; B=Bulk samp<br>alue<br>ugh double storey h<br>d with response zon<br>slab. Pumping of wa | neight basement<br>nes between<br>ter from sumps |
| CGL BH                      | Method/<br>Plant Use | d Cut-o  | down Cal        | ble Percus   | ssive            |                   | Field Crew<br>GEH   | Logged By<br>TJB  | Checked By<br>EJB                                |



| 1923 Mortimer Estates Limited |            |                |                      |                  |   |                            |  | 2 01 3               |                         |
|-------------------------------|------------|----------------|----------------------|------------------|---|----------------------------|--|----------------------|-------------------------|
| SAMPLI                        | ES & TI    | STS            | ڀ                    |                  |   |                            | STRATA   |                      | ent                     |
| Depth<br>(m)                  | Type<br>No | Test<br>Result | Water                | Reduced<br>Level | Legena                                  | ness)                      | DESCRIPTION  |                      | Instrument<br>/Backfill |
| 10.50                         | B<br>SPT   | N21            |                      |                  | 0000                                    | (4.60)                     | Medium dense to very dense yellowish brown sandy GR fine to coarse sub-angular to rounded flint. [LYNCH HILL GRAVEL MEMBER] (continued)  | AVEL. Gravel is      |                         |
| 11.50                         | B<br>SPT   | N19            |                      |                  | 0.000                                   |                            |  |                      |                         |
| 12.70                         | D<br>U100  |                |                      | 14.83<br>14.53   | <del>× ×</del>                          | 12.70                      | Stiff light orange brown slightly gravelly silty CLAY. Grav<br>sub-angular to rounded flint.   | el is fine to coarse |                         |
| 13.00                         | 0100       |                |                      |                  | × × × × × × × × × × × × × × × × × × ×   |                            | \[LYNCH HILL GRAVEL MEMBER]  Very stiff dark grey closely fissured silty CLAY with occase fine silty sand. Occasional coarse selenite crystals through [LONDON CLAY FORMATION] |                      |                         |
| 14.00                         | D          |                |                      |                  | × × × × × × × × × × × × × × × × × × ×   | -                          |  |                      |                         |
| 14.50<br>14.50                | SPT<br>SPT | N34            |                      |                  | × × × × × × × × × × × × × × × × × × ×   | -                          |  |                      |                         |
| 15.50                         | D          |                |                      |                  | - x                                     |                            |  |                      |                         |
| 16.00                         | U100       |                |                      |                  | X X X X X X X X X X X X X X X X X X X   |                            |  |                      |                         |
| 17.00                         | D          |                |                      |                  | X _ X _ X _ X _ X _ X _ X _ X _ X _ X _ | -<br>-<br>-<br>-           |  |                      |                         |
| 17.50<br>17.50                | SPT<br>SPT | N39            | <b>2</b><br><u>−</u> |                  | × × × × × × × × × × × × × × × × × × ×   | -                          |  |                      |                         |
| 18.50                         | D<br>U100  |                |                      |                  |   | -<br>-<br>-<br>-<br>-<br>- |  |                      |                         |
| 0170                          | 3100       |                |                      |                  | X X X X X X X X X X X X X X X X X X X   | (13.00)                    |  |                      |                         |
| Boring Pro                    | ogress     | and W          | ater                 | Obser            | vations                                 | S                          | General Remarks  |                      |                         |
|                               |            | Strike         |                      | Casin            | σ                                       | Standing                   | 1 2 1 7 1 1 1 2 2 1 1 1 7  |                      |                         |

| GS 3                   | Boring I | Progress |                 | General Remarks |                  |                   |  |
|------------------------|----------|----------|-----------------|-----------------|------------------|-------------------|--|
| TD AC                  | Date     | Comment  | Strike<br>Depth | Cas<br>Depth    | ing<br>  Dia. mm | Standing<br>Depth | 1. Buteriole Terrificated at 20  |
| CGL 09198A.GPJ GINT S' | 23-01-18 | Slow     | 18.00           | 13.3            |                  |                   | 2. No visual or olfactory evid<br>3. D=Disturbed Sample; ES=E<br>sample; N=Standard penetra<br>4. Hole drilled from ground fl<br>5. Groundwater and gas stan<br>6.9mbgl and 12.5mbgl<br>6. Water encountered benea<br>was taking place during grou |

LOG

- 26m below ground level. (Target depth achieved) dence of contamination.
- dence of contamination.

  Environment Sample; B=Bulk sample; U=Undisturbed ration test 'N' value floor level through double storey height basement andpipe installed with response zones between
- eath basement slab. Pumping of water from sumps und investigation to maintain water at basement level

| ⊞ Method/     |                           | Field Crew | Logged By | Checked By |
|---------------|---------------------------|------------|-----------|------------|
| ਰੂ Plant Used | Cut-down Cable Percussive | GEH        | TJB       | EJB        |

| Project       |                     |                      |                  | BOREHOLE No |
|---------------|---------------------|----------------------|------------------|-------------|
| Arthur Stanle | ey House, Tottenham | n Street, London, W1 | T 4RN            | ВН5         |
| Job No        | Date 19-01-18       | Ground Level (m)     | Co-Ordinates (m) | БПЭ         |
| CGL/09198a    | 22-01-18            | 27.53                |                  |             |
| Client        | •                   |                      |                  | Sheet       |
| 1923 Mortim   | 3 of 3              |                      |                  |             |

| 172.   | IVIOIC          | IIIICI L3 | itate    | S LIIIIIL        | cu                                      |   |  | 3 01 3  |                     |
|--|-----------------|-----------|----------|------------------|---|---|--|---|---------------------|
| SAMPLE   | S & TI          | ESTS      | Water    |                  |   |   | STRATA   |   | ent                 |
| Depth Type Test<br>(m) No Result   |                 |           |          | Reduced<br>Level | Legend                                  | Depth (m)<br>(Thick-<br>ness)   | DESCRIPTION  |   | Instrument          |
| 20.00<br>20.50<br>20.50  | D<br>SPT<br>SPT | N44       |          |                  | X X X X X X X X X X X X X X X X X X X   |   | Very stiff dark grey closely fissured silty CLAY with occasione silty sand. Occasional coarse selenite crystals throu [LONDON CLAY FORMATION] (continued)  | sional partings of<br>ghout.  |                     |
| 21.50  | D               |           | 3 €      |                  | × × × × × × × × × × × × × × × × × × ×   |   | 21.70 - 22.40 Abundant lenses of fine silty SAND.  |   |                     |
| 22.00  | U100            |           | -        |                  | × × × × × × × × × × × × × × × × × × ×   | -<br>-<br>-<br>-<br>-<br>-<br>-<br>-<br>-<br>-<br>-<br>-<br>-<br>-<br>-<br>-<br>-<br>-<br>- |  |   |                     |
| 23.00  | D               |           |          |                  | - X - X - X - X - X - X - X - X - X - X | }<br>   |  |   |                     |
| 23.50<br>23.55   | SPT<br>SPT      | N44       |          |                  | X X X X X X X X X X X X X X X X X X X   | <del>,</del>  |  |   |                     |
| 24.75  | D               |           |          |                  | × × × × × × × × × × × × × × × × × × ×   | -<br>-<br>-<br>-<br>-<br>-<br>-<br>-<br>-   |  |   |                     |
| 25.55  | U100            |           |          | 1.53             | × × × × × × × × × × × × × × × × × × ×   | 26.00   | (Borehole terminated at 26m)   |   |                     |
|  |                 |           |          |                  |   |   |  |   |                     |
| Boring Pro   | ogress          | and W     | ater     | Obser            | vation                                  | <u>-</u><br>s   | General Remarks  |   |                     |
| Date Comment Strike Depth Depth Dia. mm Depth De |                 |           |          |                  |   |   | 1. Borehole Terminated at 26m below ground level. (Ta 2. No visual or olfactory evidence of contamination. 3. D=Disturbed Sample; ES=Environment Sample; B=Bul sample; N=Standard penetration test 'N' value 4. Hole drilled from ground floor level through double s 5. Groundwater and gas standpipe installed with respon 6.9mbgl and 12.5mbgl 6. Water encountered beneath basement slab. Pumping was taking place during ground investigation to maintail level | k sample; U=Undis<br>torey height basem<br>ase zones between<br>g of water from sur | turb<br>ient<br>nps |
| Method/  |                 | lown Ca   | <u> </u> |                  |   |   | Field Crew Logged By   | Checked B   |                     |

| Boring Progress and Water Observations |         |                 |              |                   |                   |  |  |  |  |  |  |
|--|---------|-----------------|--------------|-------------------|-------------------|--|--|--|--|--|--|
| Date                                   | Comment | Strike<br>Depth | Cas<br>Depth | sing<br>  Dia. mm | Standing<br>Depth |  |  |  |  |  |  |
| 23-01-18                               | Slow    | 22.00           | 13.3         |                   |                   |  |  |  |  |  |  |
|  |         |                 |              |                   |                   |  |  |  |  |  |  |
|  |         |                 |              |                   |                   |  |  |  |  |  |  |
|  |         |                 |              |                   |                   |  |  |  |  |  |  |
|  |         |                 |              |                   |                   |  |  |  |  |  |  |

- 1. Borehole Terminated at 26m below ground level. (Target depth achieved)
  2. No visual or olfactory evidence of contamination.
  3. D=Disturbed Sample; ES=Environment Sample; B=Bulk sample; U=Undisturbed sample; N=Standard penetration test 'N' value
  4. Hole drilled from ground floor level through double storey height basement
  5. Groundwater and gas standpipe installed with response zones between
  6.9mbgl and 12.5mbgl
  6. Water encountered beneath basement slab. Pumping of water from sumps was taking place during ground investigation to maintain water at basement level

| ™ Method/     |                           | Field Crew | Logged By | Checked By |
|---------------|---------------------------|------------|-----------|------------|
| ਰੂ Plant Used | Cut-down Cable Percussive | GEH        | TJB       | EJB        |