

SITE INVESTIGATION REPORT

46 Avenue Road
London
NW8 6HS

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SITE INVESTIGATION REPORT

46 Avenue Road
London
NW8 6HS

Prepared for: Brightwood Properties Limited

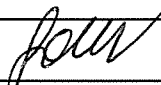
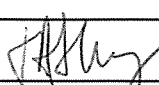

Concept: 11/2390- FR 01

15/08/2011

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| | | | Name | | | |
| | | | Signature | | | |

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CONCEPT SITE INVESTIGATIONS

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CONCEPT SITE INVESTIGATIONS

1. PROJECT PARTICULARS

| | |
|---------------------------|--------------------------------|
| Site Location: | 46 Avenue Road, London NW8 6HS |
| Client: | Brightwood Properties Limited |
| Engineer: | RDK Consultant Ltd |
| Date of Fieldwork: | 06/07/2011 - 08/07/2011 |

2. SCOPE OF WORKS

- 3 No Cable Percussion Boreholes to a maximum depth of 25.00m
- Geotechnical and Chemical Laboratory Testing

3. DESCRIPTION OF WORKS

3.1 Cable Percussion Boreholes

3 No. Cable Percussion Boreholes (BH01, BH02 & BH03) were drilled to a maximum depth of 25.00m below existing ground level using standard cable percussion boring techniques with 150mm diameter equipment. Inspection pits to locate potential underground services were hand excavated to 1.20m prior to boring commencing.

Bulk samples were taken in the made ground and granular material. Undisturbed 102mm nominal diameter (U102) samples were taken in cohesive material when possible using a down-hole sliding hammer at 3.00m intervals.

Standard penetration tests (SPT) were carried out at 3.00m intervals following each undisturbed sample. The resulting SPT N values are presented in the relevant borehole records. Where an SPT using the split shoe sampler was not possible, because of the granular nature of the material, a solid cone was used.

Small, disturbed samples were either retrieved from the cutting shoe or material was collected within the SPT split spoon sampler. Small disturbed samples were also collected between the SPT and the following attempt for an undisturbed sample. Plastic tubs, borosilicate jars and vial samples for chemical analysis were taken at each change in strata and where visual or olfactory evidence of contamination was noted or as instructed by the Engineer.

Groundwater observations, carried out during the fieldworks are reported in the relevant borehole log presented in Section 6.

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3.2 Standpipe Installations

Monitoring standpipes were installed in boreholes as follows:

| | Diameter of Installation | Type of Installation | Base (m bgl) | Top RZ (m bgl) | Bottom RZ (m bgl) |
|------|--------------------------|----------------------|--------------|----------------|-------------------|
| BH01 | 50mm | GW | 8.00 | 1.00 | 8.00 |
| BH02 | 50mm | GW | 8.00 | 1.00 | 8.00 |
| BH03 | 50mm | GW | 10.00 | 1.00 | 10.00 |

GW - Groundwater standpipe,
RZ – Response Zone

Table 3.1 Monitoring Installation Details

Groundwater monitoring was carried out by Concept subsequent to completion of the site works. Monitoring results are presented in Section 7 of this report.

3.3 Logging / Laboratory Testing

Logging of all soil samples was carried out in accordance with BS 5930:1999 incorporating Amendment No.2 (Aug '10).

All geotechnical testing is performed at Concept Site Investigations laboratory in accordance with BS1377:1990 unless otherwise stated in the report. Concept is accredited by UKAS for tests where the UKAS logo is appended to the individual test report or summary. Approved signatories for laboratory testing are as follows:

- JR – Jon Roberts (Quality Manager)
- KM – Kasia Mazerant (Laboratory Manager)
- JF – Justyna Fokt (Senior Laboratory Technician)

Where subcontracted analysis has been carried out, the details of the laboratory (and accreditation where applicable) are shown in the individual test report or summary.

The laboratory test results are presented in tabular formats in Section 8 of this report.

All chemical testing has been carried out by Scientifics in accordance with the requirements of UKAS ISO17025 and ISO17020. The results are presented in tabular format in Section 9 of this report.

3.4 Setting Out

The locations of all exploratory holes and the trial pits were agreed with the Engineer and set out prior to commencement of the site works.

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The locations of the boreholes and trial pits are shown in the Exploratory Hole Location Plan in Section 5 of this report.

REFERENCES

British Standards Institution, (1999) Code of practice for site investigations, British Standard BS 5930: 1999 incorporating Amendment No.2 (Aug '10), BSI, London

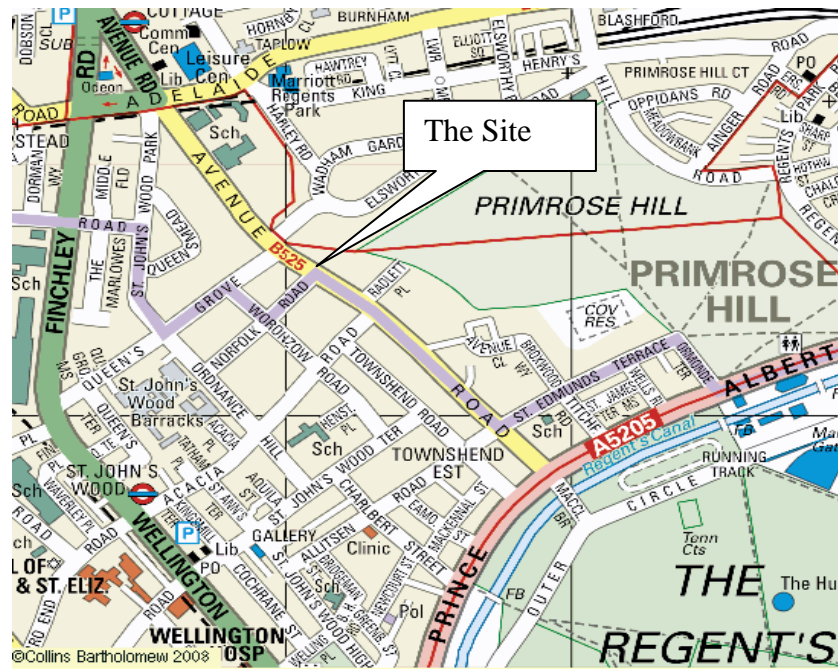
British Standards Institution, (2001) Investigation of potentially contaminated sites, British Standard BS10175: 2001, BSI, London.

Specification for Ground Investigation, (1999) Site Investigation Steering Group, Thomas Telford, London

British Geological Survey (1996) London and the Thames Valley 4th Edition, London HMSO

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4. SITE LOCATION PLAN



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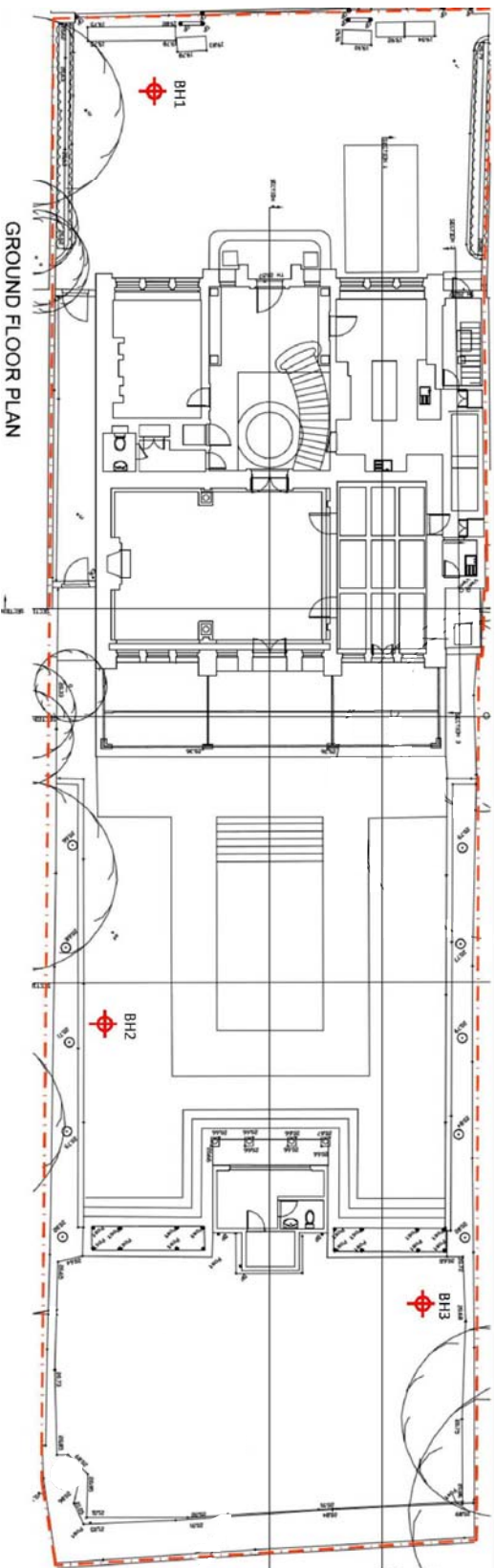
CONCEPT SITE INVESTIGATIONS

5. EXPLORATORY HOLE LOCATION PLAN

NOTES

1. This drawing should not be scaled.

| BH | LEVEL (mOD) |
|------|-------------|
| BH01 | 43.20 |
| BH02 | 43.40 |
| BH03 | 44.00 |



KEY

 BH - Cable Percussion Borehole

| No | Revision | Drawn | Checked | Passed | Date |
|----|----------|-------|---------|--------|------|
| | | | | | |

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| | | | | | | | |
|-----------|-----------------------------------|---------|----|--------|----|------|-----------|
| Client: | Brightwood Properties Limited | | | | | | |
| Project: | 46 Avenue Road, London NW8 6HS | | | | | | |
| Title: | Exploratory Hole Location Plan | | | | | | |
| Dwg. No.: | 11/2390 | | | | | | |
| Status: | Issue | | | | | | |
| Scale: | NTS | | | | | | |
| Drawn | OS | Checked | MD | Passed | MD | Date | July 2011 |

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6. CABLE PERCUSSION BOREHOLE LOGS

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Borehole No

BH01

Project
46 Avenue Road, London NW8 6HS

| | | | | |
|--|---------------------------------|------------------------------------|---|------------------------------|
| Job No 11/2390 | Date Started 05/07/11 | Ground Level (mOD) 43.20 | Co-Ordinates | Final Depth 25.00m |
| Client Brightwood Properties Limited | | | Method/ Plant Used Cable Percussion | Sheet 1 of 3 |

| PROGRESS | | | STRATA | | | | SAMPLES & TESTS | | | Field Records | Instrument/ Backfill | | |
|----------------------|--------|-------|-------------|--------|-------------------|--|-----------------|----------|---|----------------|--|-----------|------|
| Date | Casing | Water | Level (mOD) | Legend | Depth (Thickness) | Strata Description | Depth (m) | Type No | Test Result | | | | |
| 05/07/11 | | Dry | 43.07 | | 0.13 | Granite paving over coarse sand. (MADE GROUND) | 0.50 | B01 | | | | | |
| | | | 42.85 | | 0.35 | | | | | | Type 1 gravel. (MADE GROUND) | 0.50 | ES02 |
| | | | 42.45 | | 0.75 | | | | | | Brown gravelly CLAY with brick and concrete fragments. (MADE GROUND) | 1.00 | D03 |
| | | | 42.10 | | 1.10 | | | | | | Greyish brown mottled orange slightly sandy slightly gravelly CLAY with frequent brick and rare concrete fragments. Gravel is subangular to rounded fine to coarse gravel. (MADE GROUND) | 1.50-1.95 | U04 |
| 05/07/11 06/07/11 | 2.80 | Dry | | | (1.40) | Firm, brown slightly sandy slightly silty CLAY with occasional black flecks and cream highly calcareous silt nodules (10x10mm). | 2.00 | D05 | | | | | |
| | | | 40.70 | | 2.50 | Stiff, extremely closely fissured brown CLAY with rare bluish grey staining along fissures and rootlet tracks. (LONDON CLAY FORMATION) | 2.50 | D06 | | | | | |
| | | | | | | | 3.00-3.45 | D07 | N6 | 1 / 1, 2, 1, 2 | | | |
| | | | | | | | 3.00 | | | | | | |
| | | | | | | 4.00 | D08 | | | | | | |
| | | | | | | 4.00 | | | | | | | |
| | | | | | | 4.50-4.95 | U09 | 32 blows | ... Rare rootlets of live appearance encountered to 4.50m depth | | | | |
| | | | | | | 5.00 | D10 | | | | | | |
| | | | | | | 5.00 | D11 | | | | | | |
| | | | | | | 6.00-6.45 | D12 | N18 | 2, 2 / 4, 4, 4, 6 | | | | |
| | | | | | | 6.00 | | | | | | | |
| | | | | | | 7.00 | D13 | | | | | | |
| | | | | | | 7.00 | | | | | | | |
| | | | | | | 7.50-7.95 | U14 | 42 blows | | | | | |
| | | | | | | 8.00 | D15 | | | | | | |
| | | | | | | 8.00 | D16 | | | | | | |
| | | | | | | 9.00-9.45 | D17 | N22 | 2, 3 / 4, 6, 6, 6 | | | | |
| | | | | | | 9.00 | | | | | | | |
| | | | | | | 10.00 | D18 | | | | | | |

| Chiselling (m) | | | Water Added (m) | | | GENERAL REMARKS |
|----------------|----|-------|-----------------|----|--|------------------------|
| From | To | Hours | From | To | | |
| | | | | | 1. An inspection pit was hand excavated to 1.20m below ground level prior to boring commencing. 2. Ø150mm casing used from ground level to 2.80m below ground level. 3. Ø50mm monitoring well installed at 8.00m depth, slotted between 1.00m and 8.00m depth. 4. Borehole backfilled with bentonite pellets between 25.00m and 8.00m, pea shingle with geosoc between 8.00m and 1.00m and with bentonite pellets from 1.00m to 0.30m depth. Concrete with stopcock cover installed between 0.30m and ground level. | |

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| Issue No. 02 | Driller SW | |
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Borehole No

BH01

Project
46 Avenue Road, London NW8 6HS

| | | | | |
|--|--|------------------------------------|--|------------------------------|
| Job No 11/2390 | Date Started 05/07/11 Date Completed 06/07/11 | Ground Level (mOD) 43.20 | Co-Ordinates | Final Depth 25.00m |
| Client Brightwood Properties Limited | | | Method/ Plant Used Cable Percussion | Sheet 2 of 3 |

| PROGRESS | | | STRATA | | | | SAMPLES & TESTS | | | Field Records | Instrument/ Backfill |
|----------|--------|-------|-------------|--------|-------------------|---|-----------------|---------|-------------|-------------------|-------------------------|
| Date | Casing | Water | Level (mOD) | Legend | Depth (Thickness) | Strata Description | Depth (m) | Type No | Test Result | | |
| | | | | | | ... becoming greyish brown with occasional bioturbation at 10.00m | 10.50-10.95 | U19 | 44 blows | | |
| | | | | | | | 11.00 | D20 | | | |
| | | | | | | | 11.50 | D21 | | | |
| | | | | | | | 12.00-12.45 | D22 | | | |
| | | | | | | | 12.00 | | N25 | 3, 3 / 5, 6, 6, 8 | |
| | | | | | | | 13.00 | D23 | | | |
| | | | | | | ... becoming slightly micaceous below 13.00m | 13.50-13.95 | U24 | 70 blows | | |
| | | | | | (22.50) | | 14.00 | D25 | | | |
| | | | | | | | 14.50 | D26 | | | |
| | | | | | | | 15.00-15.45 | D27 | | | |
| | | | | | | | 15.00 | | N27 | 3, 4 / 6, 6, 7, 8 | |
| | | | | | | | 16.00 | D28 | | | |
| | | | | | | ... becoming brownish grey slightly sandy with occasional bioturbation at 16.00m | 16.50-16.95 | U29 | 74 blows | | |
| | | | | | | | 17.00 | D30 | | | |
| | | | | | | ... with pockets of dark grey fine silty sand (50x70mm) at 17.00m | 17.50 | D31 | | | |
| | | | | | | | 18.00-18.45 | D32 | | | |
| | | | | | | ... with pockets of dark grey and light brown fine silty sand (10x10mm) at 18.00m | 18.00 | | N30 | 4, 5 / 6, 7, 8, 9 | |
| | | | | | | | 19.00 | D33 | | | |
| | | | | | | | 19.50-19.95 | U34 | 100 blows | No Recovery | |
| | | | | | | | 19.50-20.00 | B35 | | | |
| | | | | | | ... with a band of claystone between 19.55m and 19.80m | 20.00-20.45 | U36 | 80 blows | | |

| | | | | | |
|----------------|----|-------|-----------------|----|------------------------|
| Chiselling (m) | | | Water Added (m) | | GENERAL REMARKS |
| From | To | Hours | From | To | |
| | | | | | |

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| Issue No. 02 | Driller SW | |
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Borehole No

BH01

Project
46 Avenue Road, London NW8 6HS

| | | | | |
|--|--|------------------------------------|--|------------------------------|
| Job No 11/2390 | Date Started 05/07/11 Date Completed 06/07/11 | Ground Level (mOD) 43.20 | Co-Ordinates | Final Depth 25.00m |
| Client Brightwood Properties Limited | | | Method/ Plant Used Cable Percussion | Sheet 3 of 3 |

| PROGRESS | | | STRATA | | | | SAMPLES & TESTS | | | Field Records | Instrument/ Backfill |
|----------|--------|-------|-------------|--------|-------------------|---|-----------------|---------|-------------|---------------------|-------------------------|
| Date | Casing | Water | Level (mOD) | Legend | Depth (Thickness) | Strata Description | Depth (m) | Type No | Test Result | | |
| 06/07/11 | 2.80 | Dry | 18.20 | | 25.00 | ... becoming very closely fissured below 20.00m | 20.50 | D37 | | 3, 4 / 7, 8, 9, 11 | |
| | | | | | | ... with shell inprint (10x20mm) below 20.50m | 21.00 | D38 | | | |
| | | | | | | | 21.50-21.95 | D39 | N35 | | |
| | | | | | | | 21.50 | | | | |
| | | | | | | | 22.50 | D40 | | | |
| | | | | | | | 23.00-23.45 | U41 | 100 blows | | |
| | | | | | | | 23.50 | D42 | | | |
| | | | | | | | 24.00 | D43 | | | |
| | | | | | | | | | | | |
| | | | | | | ... with pockets of dark grey fine silty sand (20x25mm) at 24.50m | 24.50-24.95 | D44 | N38 | 4, 6 / 7, 9, 10, 12 | |
| | | | | | | End of Borehole | | | | | |

| | | | | | |
|----------------|----|-------|-----------------|----|------------------------|
| Chiselling (m) | | | Water Added (m) | | GENERAL REMARKS |
| From | To | Hours | From | To | |
| | | | | | |

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| Issue No. 02 | Driller SW | |
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Borehole No

BH02

Project
46 Avenue Road, London NW8 6HS

| | | | | |
|--|--|------------------------------------|--|-----------------------------|
| Job No 11/2390 | Date Started 07/07/11 Date Completed 08/07/11 | Ground Level (mOD) 43.40 | Co-Ordinates | Final Depth 8.00m |
| Client Brightwood Properties Limited | | | Method/ Plant Used Cable Percussion | Sheet 1 of 1 |

| PROGRESS | | | STRATA | | | | SAMPLES & TESTS | | | Field Records | Instrument/ Backfill |
|----------|--------|-------|-------------|--------|-------------------|---|-----------------|---------|-------------|--|-------------------------|
| Date | Casing | Water | Level (mOD) | Legend | Depth (Thickness) | Strata Description | Depth (m) | Type No | Test Result | | |
| 07/07/11 | | Dry | 43.12 | | 0.28 | Turf over brown silty SAND. (MADE GROUND) | 0.50 | ES01 | | | |
| 07/07/11 | | | 43.04 | | 0.36 (0.59) | Pea shingle. (MADE GROUND) | 0.50 | B02 | | | |
| 07/07/11 | | Dry | 42.45 | | 0.95 | Brown silty gravelly CLAY with brick and plastic fragments. (MADE GROUND) | 1.00 | D03 | | | |
| 08/07/11 | 1.80 | Dry | 42.10 | | 1.30 | Soft, brown locally grey CLAY with rare cream silt nodules (2x2mm). | 1.30 | ES04 | | | |
| 08/07/11 | 1.80 | Dry | | | | Firm, brown mottled bluish grey CLAY with rare pockets of orangish brown silt (10x20mm). (LONDON CLAY FORMATION) | 1.50 | U05 | 22 blows | | |
| | | | | | | ... with rare pockets of reddish orange silt (10x20mm), pockets of light brown fine silty sand (10x5mm) rare selenite crystals at 3.00m | 2.00 | D06 | | | |
| | | | | | | ... becoming rarely mottled bluish grey with occasional selenite crystals and rare black flecks at 4.00m | 2.50 | D07 | | | |
| | | | | | (6.70) | ... becoming extremely closely fissured with pyrite nodules (5x10mm) at 4.50m | 3.00-3.45 | D08 | | | |
| | | | | | | ... with bluish grey staining along rootlet tracks at 5.00m | 3.00 | D09 | N11 | 1, 2 / 1, 2, 3, 5 | |
| | | | | | | ... becoming brown below 5.50m | 4.00 | D10 | | | |
| | | | | | | ... becoming bluish brown slightly micaceous with rare selenite crystals below 6.00m | 4.50-4.95 | U10 | 44 blows | | |
| | | | | | | | 5.00 | D11 | | ... Rootlets of live appearance encountered at 5.00m depth | |
| | | | | | | | 5.00 | D12 | | | |
| | | | | | | | 5.50 | D13 | N16 | 2, 2 / 3, 3, 5, 5 | |
| | | | | | | | 6.00-6.45 | D14 | | | |
| | | | | | | | 6.00 | D15 | | | |
| | | | | | | | 7.00 | D16 | | | |
| | | | | | | | 7.50-7.95 | U15 | 62 blows | | |
| 08/07/11 | 1.80 | Dry | 35.40 | | 8.00 | End of Borehole | 8.00 | D16 | | | |

| | | | | | |
|----------------|----|-------|-----------------|----|--|
| Chiselling (m) | | | Water Added (m) | | GENERAL REMARKS 1. An inspection pit was hand excavated to 1.20m below ground level prior to boring commencing. 2. Ø150mm casing used from ground level to 1.80m below ground level. 3. Water seepage encountered at 0.70m below ground level, standing at 0.62m depth. 4. Ø50mm monitoring well installed at 8.00m depth, slotted between 1.00m and 8.00m depth. 5. Borehole backfilled with pea shingle with geosoc between 8.00m and 1.00m and with bentonite pellets from 1.00m to 0.30m depth. Concrete with stopcock cover installed between 0.30m and ground level. |
| From | To | Hours | From | To | |
| | | | | | |

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| Issue No. 02 | Driller SW | |
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Borehole No

BH03

Project
46 Avenue Road, London NW8 6HS

| | | | | |
|--|--|------------------------------------|--|------------------------------|
| Job No 11/2390 | Date Started 06/07/11 Date Completed 07/07/11 | Ground Level (mOD) 44.00 | Co-Ordinates | Final Depth 15.00m |
| Client Brightwood Properties Limited | | | Method/ Plant Used Cable Percussion | Sheet 1 of 2 |

| PROGRESS | | | STRATA | | | | SAMPLES & TESTS | | | Field Records | Instrument/ Backfill | | |
|----------|--------|-------|-------------|--------|--|---|---|-----------|-------------------|-------------------|-------------------------|----------|--|
| Date | Casing | Water | Level (mOD) | Legend | Depth (Thickness) | Strata Description | Depth (m) | Type No | Test Result | | | | |
| 06/07/11 | | Dry | 43.89 | | 0.11 | Turf over brown sandy CLAY. | 0.20 | ES01 | | | | | |
| | | | 43.64 | | 0.36 | (TOPSOIL) | 0.50 | B02 | | | | | |
| | | | 43.53 | | 0.47 | Brown gravelly CLAY with brick fragments. (MADE GROUND) | | | | | | | |
| 06/07/11 | 1.80 | Dry | | | | Firm, brown silty gravelly CLAY. | 1.00 | ES03 | | 1, 1 / 1, 2, 2, 2 | | | |
| 07/07/11 | | Dry | | | | Firm, brown mottled orangish brown slightly sandy CLAY with occasional selenite crystals. (LONDON CLAY FORMATION) | 1.00 | D04 | | | | | |
| | | | | | | | ... with occasional sand to fine gravel size iron stained nodules at 1.50m | 1.50 | D05 | | | N7 | |
| | | | | | | | | 2.50 | D06 | | | | |
| | | | | | | | ... becoming locally mottled bluish grey with occasional pockets of orangish brown silt (25x30mm) at 2.50m | 3.00-3.45 | U07 | | | 38 blows | ... Rootlets of live appearance encountered at 3.00m depth |
| | | | | | | | ... becoming extremely closely fissured with rare pockets of orange silt and light brown fine silty sand (10x5mm) below 3.00m | 3.00 | D08 | | | | |
| | | | | | | | | 3.50 | D08 | | | | |
| | | | | | | | | 4.00 | D09 | | | | |
| | | | | | | | | 4.50-4.95 | D10 | | | N12 | 1, 2 / 2, 3, 3, 4 |
| | | | | | | | ... becoming brown below 5.50m | 5.50 | D11 | | | | |
| | | | | | ... with rare reddish brown staining at 6.00m | 6.00-6.45 | U12 | 48 blows | | | | | |
| | | | | | | 6.50 | D13 | | | | | | |
| | | | | | | 7.00 | D14 | | | | | | |
| | | | | | | 7.50-7.95 | D15 | N22 | 2, 3 / 5, 5, 6, 6 | | | | |
| | | | | | (14.53) | 7.50 | | | | | | | |
| | | | | | | 8.50 | D16 | | | | | | |
| | | | | | ... with occasional selenite crystals at 8.50m | 9.00-9.45 | U17 | 70 blows | | | | | |
| | | | | | | 9.50 | D18 | | | | | | |
| | | | | | ... becoming stiff and extremely closely fissured greyish brown with occasional pockets of orange silt (10x15mm) below | 10.00 | D19 | | | | | | |

| | | | | | |
|-----------------------|----|-------|------------------------|----|--|
| Chiselling (m) | | | Water Added (m) | | GENERAL REMARKS 1. An inspection pit was hand excavated to 1.20m below ground level prior to boring commencing. 2. Ø150mm casing used from ground level to 1.80m below ground level. 3. Ø50mm monitoring well installed at 10.00m depth, slotted between 1.00m and 10.00m depth. 4. Borehole backfilled with bentonite pellets between 15.00m and 10.00m, pea shingle with geosoc between 10.00m and 1.00m and with bentonite pellets from 1.00m to 0.30m depth. Concrete with stopcock cover installed between 0.30m and ground level. |
| From | To | Hours | From | To | |
| | | | | | |

| | | |
|--------------|------------|--|
| Issue No. 02 | Driller SW | |
|--------------|------------|--|

CONCEPT SITE INVESTIGATIONS

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Borehole No

BH03

Project
46 Avenue Road, London NW8 6HS

| | | | | |
|--|--|------------------------------------|--|------------------------------|
| Job No 11/2390 | Date Started 06/07/11 Date Completed 07/07/11 | Ground Level (mOD) 44.00 | Co-Ordinates | Final Depth 15.00m |
| Client Brightwood Properties Limited | | | Method/ Plant Used Cable Percussion | Sheet 2 of 2 |

| PROGRESS | | | STRATA | | | | SAMPLES & TESTS | | | Field Records | Instrument/ Backfill |
|----------|--------|-------|-------------|--------|-------------------|--|----------------------|---------|-------------|-------------------|-------------------------|
| Date | Casing | Water | Level (mOD) | Legend | Depth (Thickness) | Strata Description | Depth (m) | Type No | Test Result | | |
| 07/07/11 | 1.80 | Dry | 29.00 | | 15.00 | 9.50m ... becoming grey at 10.00m | 10.50-10.95 10.50 | D20 | N25 | 3, 4 / 5, 5, 7, 8 | |
| | | | | | | ... becoming grey at 11.50m | 11.50 | D21 | 76 blows | | |
| | | | | | | ... becoming very closely fissured below 12.50m | 12.50-12.95 | U22 | | | |
| | | | | | | ... with rare bioturbation at 13.00m | 13.00 | D23 | | | |
| | | | | | | ... with rare pockets of dark grey fine silty sand (10x10mm) at 14.00m | 14.00 | D24 | | | |
| | | | | | | ... with a band of claystone between 14.10m and 14.20m | 14.50-14.95 14.50 | D25 | N31 | 4, 5 / 6, 8, 8, 9 | |
| | | | | | | End of Borehole | | | | | |

| | | | | | |
|----------------|----|-------|-----------------|----|------------------------|
| Chiselling (m) | | | Water Added (m) | | GENERAL REMARKS |
| From | To | Hours | From | To | |
| | | | | | |

| | | |
|--------------|------------|--|
| Issue No. 02 | Driller SW | |
|--------------|------------|--|

CONCEPT SITE INVESTIGATIONS

7. GROUNDWATER MONITORING RESULTS

| Borehole | Depth of Installation | Date of Installation | Type | Top | Bottom | Date & Time | Depth (mbgl) | Depth (mOD) | Remarks |
|----------|-----------------------|----------------------|------|------|--------|---------------------|--------------|-------------|---------|
| BH01 | 8.00 | 06/07/2011 | SP | 1.00 | 8.00 | 15/07/2011 11:15:00 | 7.88 | | |
| | 8.00 | 06/07/2011 | SP | 1.00 | 8.00 | 29/07/2011 11:30:00 | 7.09 | | |
| BH02 | 8.00 | 08/07/2011 | SP | 1.00 | 8.00 | 15/07/2011 11:25:00 | 0.54 | | |
| | 8.00 | 08/07/2011 | SP | 1.00 | 8.00 | 29/07/2011 11:30:00 | 0.56 | | |
| BH03 | 10.00 | 07/07/2011 | SP | 1.00 | 10.00 | 15/07/2011 11:35:00 | 4.75 | | |
| | 10.00 | 07/07/2011 | SP | 1.00 | 10.00 | 29/07/2011 11:30:00 | 0.80 | | |

GENERAL REMARKS

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GROUNDWATER MONITORING

Project: 46 Avenue Road, London NW8 6HS

Client: Brightwood Properties Limited

Job No: 11/2390

CONCEPT SITE INVESTIGATIONS

8. LABORATORY TEST RESULTS

CONCEPT SITE INVESTIGATIONS

| Test Type | No. of Pages |
|--|---------------------|
| Moisture Content & Atterberg Limits | 3 |
| Bulk & Dry Density | |
| Particle Density | |
| Particle Size Distribution & Sedimentation | 14 |
| Electrochemical Tests | 1 |
| Compaction Tests | |
| California Bearing Ratio | |
| One-dimensional consolidation/swelling | |
| Shearbox (60mm) | |
| Shearbox (300mm) | |
| Quick Undrained Triaxial | 3 |

CONCEPT SITE INVESTIGATIONS

| | | | |
|-------------------|--------------------------------|-----------------------|------------|
| Site Name: | 46 Avenue Road, London NW8 6HS | Job No.: | 11/2390 |
| Client: | Brightwood Properties Limited | Date Reported: | 15/08/2011 |

Summary Test Report Determination of Moisture Content and Liquid and Plastic Limits

| Borehole No. | Sample Type | Sample No. | Depth m | Description | Natural Moisture Content % | ¹ Passing 425 μm sieve % | Liquid Limit % | Plastic Limit % | Plasticity Index % | Remarks |
|--------------|-------------|------------|---------|---|----------------------------|-------------------------------------|----------------|-----------------|--------------------|---------|
| BH01 | D | 05 | 2.00 | Brown slightly sandy CLAY with occasional black flecks and pockets of cream silt (2x15mm) | 22 | 100 | 55 | 18 | 37 | |
| BH01 | D | 06 | 2.50 | Brown CLAY with occasional black flecks | 28 | 100 | 72 | 26 | 46 | |
| BH01 | D | 07 | 3.00 | Brown locally mottled bluish grey CLAY | 38 | 100 | 77 | 29 | 48 | |
| BH01 | U | 09 | 4.50 | Extremely closely fissured orangish brown CLAY with bluish grey staining along the fissures, occasional selenite crystals, rare pockets of orange fine sand and rare rootlets (semi-decayed and of live appearance) | 27 | 100 | 76 | 24 | 52 | |
| BH01 | D | 12 | 6.00 | Brown slightly sandy CLAY with occasional selenite crystals | 26 | 100 | 72 | 23 | 49 | |
| BH01 | U | 14 | 7.50 | Extremely closely fissured brown CLAY with occasional selenite crystals, rare pockets of orange fine silty sand (40x30mm) | 27 | 100 | 68 | 23 | 45 | |
| | | | | | | | | | | |
| | | | | | | | | | | |
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BS 1377: Part 2: Clause 4.4: 1990 Determination of the liquid limit by the cone penetrometer method.

BS 1377: Part 2: Clause 5: 1990 Determination of the plastic limit and plasticity index.

BS 1377: Part 2: Clause 3.2: 1990 Determination of the moisture content by the oven drying method.



| | |
|--|------------------|
| Date - samples received: 11/07/2011 | Checked by: K.M. |
| Date - samples tested: 05/08/2011 | Date: 11/08/2011 |
| Approved Signatories: J Roberts - JR (Quality Mngr) - K Mazerant - KM (Lab Mngr) - J Fokt - JF (Snr Tech) | |

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CONCEPT SITE INVESTIGATIONS

| | | | |
|-------------------|--------------------------------|-----------------------|------------|
| Site Name: | 46 Avenue Road, London NW8 6HS | Job No.: | 11/2390 |
| Client: | Brightwood Properties Limited | Date Reported: | 11/08/2011 |

Summary Test Report Determination of Moisture Content and Liquid and Plastic Limits

| Borehole No. | Sample Type | Sample No. | Depth m | Description | Natural Moisture Content % | ¹ Passing 425 µm sieve % | Liquid Limit % | Plastic Limit % | Plasticity Index % | Remarks |
|--------------|-------------|------------|---------|--|----------------------------|-------------------------------------|----------------|-----------------|--------------------|---------|
| BH02 | D | 06 | 2.00 | Brown mottled bluish grey CLAY with rare pockets of orangish brown silt (2x4mm) | 31 | 100 | 76 | 26 | 50 | |
| BH02 | D | 07 | 2.50 | Brown mottled bluish grey CLAY with rare pockets of orangish brown silt (2x5mm) and selenite crystals | 34 | 100 | 71 | 26 | 45 | |
| BH02 | D | 08 | 3.00 | Brown mottled bluish grey CLAY with rare pockets of reddish orange silt (2x3mm) and selenite crystals | 35 | 100 | 69 | 27 | 42 | |
| BH02 | D | 09 | 4.00 | Brown CLAY with occasional selenite crystals and rare black flecks | 35 | 100 | 84 | 28 | 56 | |
| BH02 | U | 10 | 4.50 | Extremely closely fissured brown CLAY with occasional selenite crystals, bluish grey staining along rootlet tracks, pyrite nodules (5x10mm), pockets of orange silt (30x20mm) rare rootlets of live appearance | 32 | 100 | 78 | 26 | 52 | |
| BH02 | D | 13 | 6.00 | Brown CLAY with occasional selenite crystals | 32 | 100 | 70 | 24 | 46 | |
| BH02 | U | 15 | 7.50 | Extremely closely fissured brown CLAY with occasional selenite crystals and oxidization along fissures | 29 | 100 | 80 | 22 | 58 | |
| | | | | | | | | | | |
| | | | | | | | | | | |
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BS 1377: Part 2: Clause 4.4: 1990 Determination of the liquid limit by the cone penetrometer method.

BS 1377: Part 2: Clause 5: 1990 Determination of the plastic limit and plasticity index.

BS 1377: Part 2: Clause 3.2: 1990 Determination of the moisture content by the oven drying method.



| | |
|-------------------------------------|------------------|
| Date - samples received: 11/07/2011 | Checked by: K.M. |
| Date - samples tested: 05/08/2011 | Date: 11/08/2011 |

Approved Signatories: J Roberts - JR (Quality Mngr) - K Mazerant - KM (Lab Mngr) - J Fokt - JF (Snr Tech)

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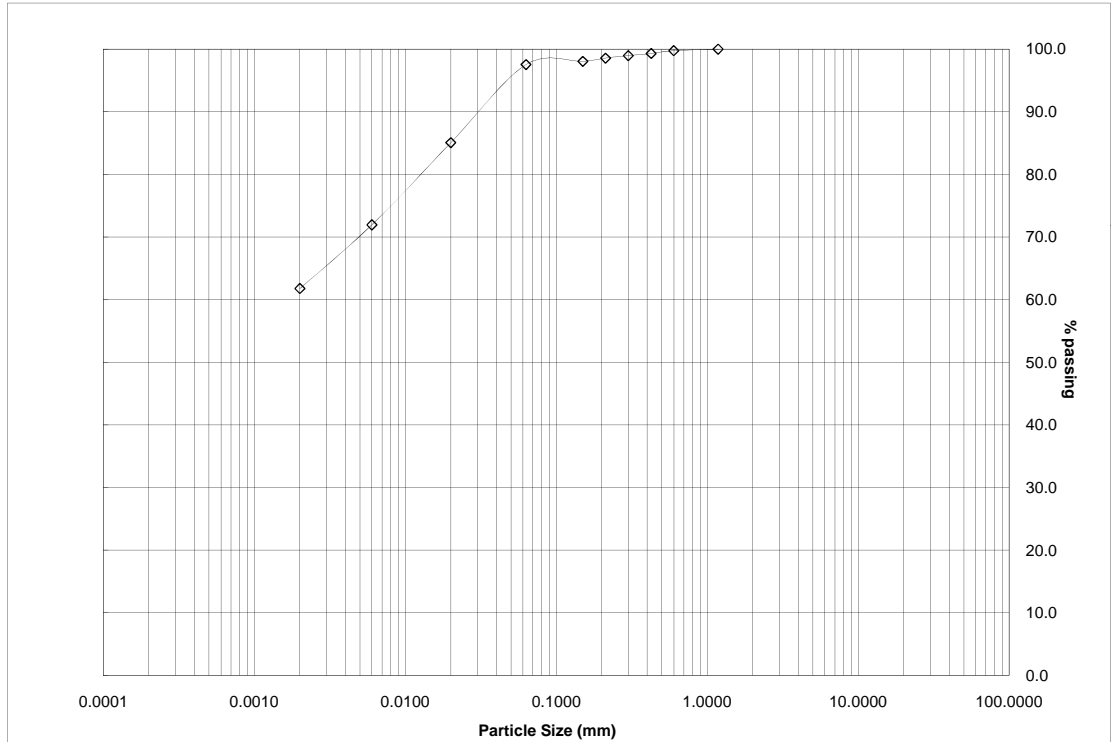
PARTICLE SIZE DISTRIBUTION

TEST REPORT

| | | | | | |
|--|------------------------------|----------------------|--|----------------------------------|---------|
| Site Name: 46 Avenue Road, London NW8 6HS | | | | Job Number: 11/2390 | |
| Client: Brightwood Properties Limited | | | | Date Reported: 11/08/2011 | |
| Borehole No: BH01 | Sample Type/No.: D 05 | Depth: 2.00 m | | Method/type: | Pipette |

Soil Description:
Brown slightly sandy CLAY with occasional black flecks and pockets of cream silt (2x15mm)

| BS Test Sieves | |
|----------------|-----------|
| Size (mm) | % Passing |
| 75.000 | 100 |
| 63.000 | 100 |
| 50.000 | 100 |
| 37.500 | 100 |
| 28.000 | 100 |
| 20.000 | 100 |
| 14.000 | 100 |
| 10.000 | 100 |
| 6.300 | 100 |
| 5.000 | 100 |
| 3.350 | 100 |
| 2.000 | 100 |
| 1.180 | 100 |
| 0.600 | 100 |
| 0.425 | 99 |
| 0.300 | 99 |
| 0.212 | 99 |
| 0.150 | 98 |
| 0.063 | 98 |



| Particle Proportions % | |
|------------------------|------|
| Cobbles | |
| Gravel | |
| Sand | 2.5 |
| Silt and Clay | 97.5 |

| | | | | | | | | | | |
|------|------|---|---|------|---|---|--------|---|---|---------|
| CLAY | F | M | C | F | M | C | F | M | C | COBBLES |
| | SILT | | | SAND | | | GRAVEL | | | |

BS 1377: Part 2: Clause 9.2: 1990 Determination of particle size distribution - wet sieving method.
 BS 1377: Part 2: Clause 9.3: 1990 Determination of particle size distribution - dry sieving method.
 BS 1377: Part 2: Clause 9.4: 1990 Determination of sedimentation by the pipette method.

| | | |
|------------------------------|---|------------------|
| Date - samples received: | 11/07/2011 | Remarks: |
| Date - samples tested: | 09/08/2011 | |
| Approved Signatories: | J Roberts - JR (Quality Mngr) - K Mazerant - KM (Lab Mngr) - J Fokt - JF (Snr Tech) | |
| Checked by: | K.M. | Date: 11/08/2011 |



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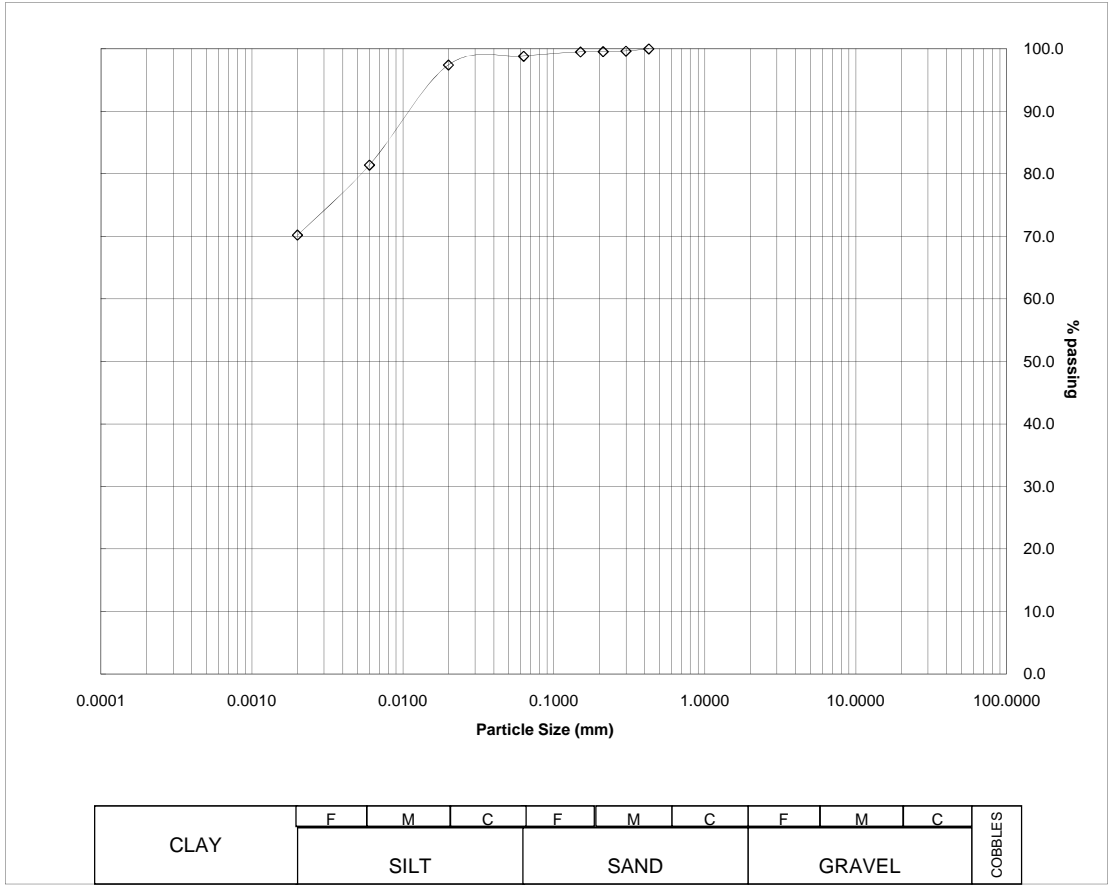
PARTICLE SIZE DISTRIBUTION

TEST REPORT

| | | | | |
|--|------------------------------|----------------------|----------------------------------|---------|
| Site Name: 46 Avenue Road, London NW8 6HS | | | Job Number: 11/2390 | |
| Client: Brightwood Properties Limited | | | Date Reported: 11/08/2011 | |
| Borehole No: BH01 | Sample Type/No.: D 07 | Depth: 3.00 m | Method/type: | Pipette |

Soil Description:
Brown locally mottled bluish grey CLAY

| BS Test Sieves | |
|----------------|-----------|
| Size (mm) | % Passing |
| 75.000 | 100 |
| 63.000 | 100 |
| 50.000 | 100 |
| 37.500 | 100 |
| 28.000 | 100 |
| 20.000 | 100 |
| 14.000 | 100 |
| 10.000 | 100 |
| 6.300 | 100 |
| 5.000 | 100 |
| 3.350 | 100 |
| 2.000 | 100 |
| 1.180 | 100 |
| 0.600 | 100 |
| 0.425 | 100 |
| 0.300 | 100 |
| 0.212 | 100 |
| 0.150 | 99 |
| 0.063 | 99 |



| Particle Proportions % | |
|------------------------|------|
| Cobbles | |
| Gravel | |
| Sand | 1.2 |
| Silt and Clay | 98.8 |

| | | | | | | | | | | |
|------|------|---|---|------|---|---|--------|---|---|---------|
| CLAY | F | M | C | F | M | C | F | M | C | COBBLES |
| | SILT | | | SAND | | | GRAVEL | | | |

BS 1377: Part 2: Clause 9.2: 1990 Determination of particle size distribution - wet sieving method.
 BS 1377: Part 2: Clause 9.3: 1990 Determination of particle size distribution - dry sieving method.
 BS 1377: Part 2: Clause 9.4: 1990 Determination of sedimentation by the pipette method.

| | | |
|------------------------------|---|------------------|
| Date - samples received: | 11/07/2011 | Remarks: |
| Date - samples tested: | 09/08/2011 | |
| Approved Signatories: | J Roberts - JR (Quality Mngr) - K Mazerant - KM (Lab Mngr) - J Fokt - JF (Snr Tech) | |
| Checked by: | K.M. | Date: 11/08/2011 |



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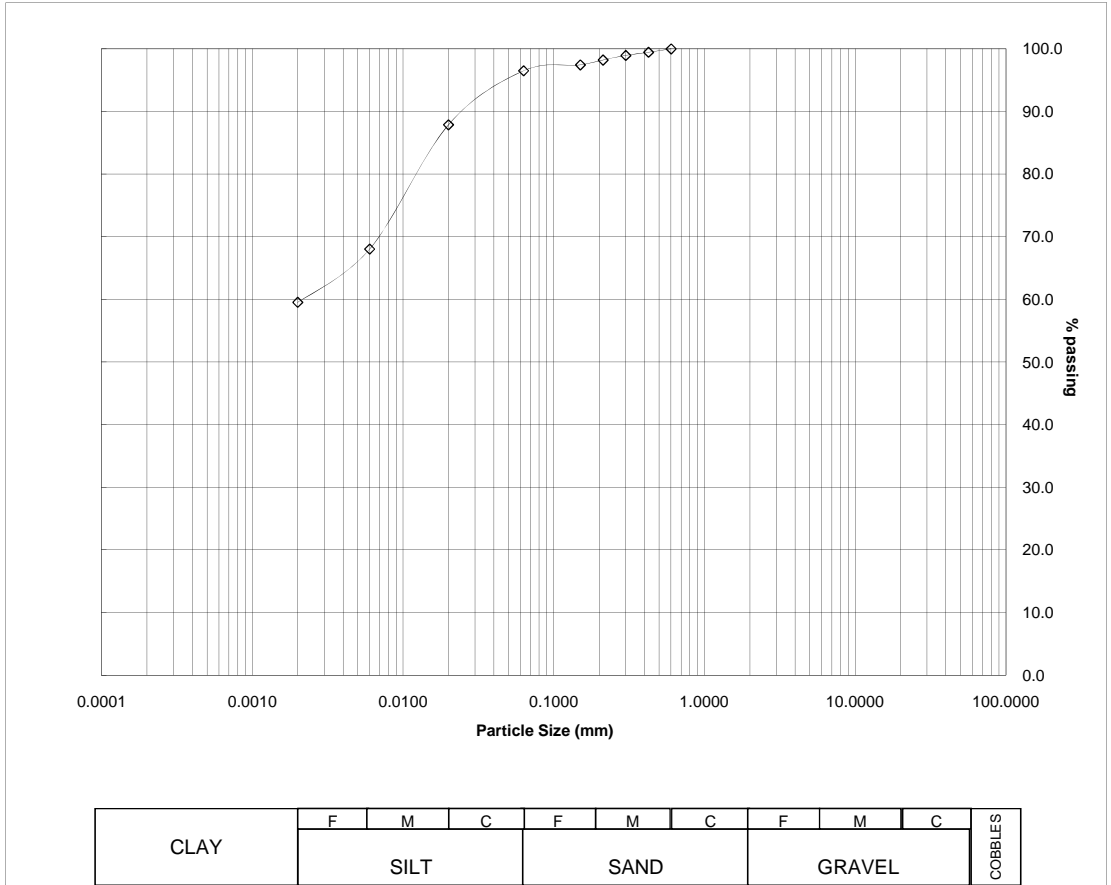
PARTICLE SIZE DISTRIBUTION

TEST REPORT

| | | | | |
|--|------------------------------|----------------------|----------------------------------|--|
| Site Name: 46 Avenue Road, London NW8 6HS | | | Job Number: 11/2390 | |
| Client: Brightwood Properties Limited | | | Date Reported: 15/08/2011 | |
| Borehole No: BH01 | Sample Type/No.: U 09 | Depth: 4.50 m | Method/type: Pipette | |

Soil Description:
 Extremely closely fissured orangish brown CLAY with bluish grey staining along fissures, occasional selenite crystals, rare pockets of orange fine sand and rare rootlets (semi-decayed and of live appearance)

| BS Test Sieves | |
|----------------|-----------|
| Size (mm) | % Passing |
| 75.000 | 100 |
| 63.000 | 100 |
| 50.000 | 100 |
| 37.500 | 100 |
| 28.000 | 100 |
| 20.000 | 100 |
| 14.000 | 100 |
| 10.000 | 100 |
| 6.300 | 100 |
| 5.000 | 100 |
| 3.350 | 100 |
| 2.000 | 100 |
| 1.180 | 100 |
| 0.600 | 100 |
| 0.425 | 99 |
| 0.300 | 99 |
| 0.212 | 98 |
| 0.150 | 97 |
| 0.063 | 97 |



| Particle Proportions % | |
|------------------------|------|
| Cobbles | |
| Gravel | |
| Sand | 3.5 |
| Silt and Clay | 96.5 |

| | | | | | | | | | | | |
|------|------|---|---|------|---|---|---|---|---|--------|---------|
| CLAY | F | M | C | F | M | C | F | M | C | GRAVEL | COBBLES |
| | SILT | | | SAND | | | | | | | |

BS 1377: Part 2: Clause 9.2: 1990 Determination of particle size distribution - wet sieving method.
 BS 1377: Part 2: Clause 9.3: 1990 Determination of particle size distribution - dry sieving method.
 BS 1377: Part 2: Clause 9.4: 1990 Determination of sedimentation by the pipette method.

| | | |
|--|------------|------------------|
| Date - samples received: | 11/07/2011 | Remarks: |
| Date - samples tested: | 10/08/2011 | |
| Approved Signatories: J Roberts - JR (Quality Mngr) - K Mazerant - KM (Lab Mngr) - J Fokt - JF (Snr Tech) | | |
| Checked by: | K.M. | Date: 11/08/2011 |



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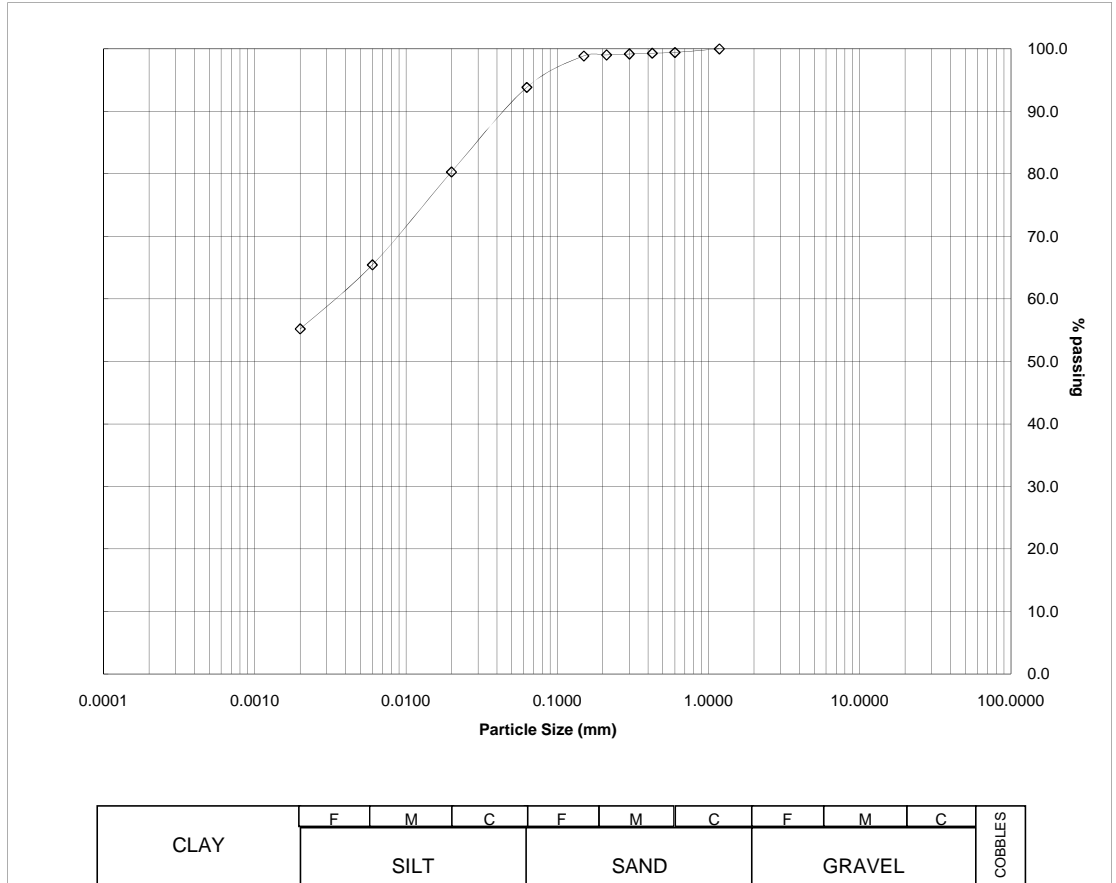
PARTICLE SIZE DISTRIBUTION

TEST REPORT

| | | | | | |
|--|------------------------------|----------------------|-----------------------------|----------------------------------|--|
| Site Name: 46 Avenue Road, London NW8 6HS | | | | Job Number: 11/2390 | |
| Client: Brightwood Properties Limited | | | | Date Reported: 11/08/2011 | |
| Borehole No: BH01 | Sample Type/No.: D 12 | Depth: 6.00 m | Method/type: Pipette | | |

Soil Description:
Brown slightly sandy CLAY with occasional selenite crystals

| BS Test Sieves | |
|----------------|-----------|
| Size (mm) | % Passing |
| 75.000 | 100 |
| 63.000 | 100 |
| 50.000 | 100 |
| 37.500 | 100 |
| 28.000 | 100 |
| 20.000 | 100 |
| 14.000 | 100 |
| 10.000 | 100 |
| 6.300 | 100 |
| 5.000 | 100 |
| 3.350 | 100 |
| 2.000 | 100 |
| 1.180 | 100 |
| 0.600 | 99 |
| 0.425 | 99 |
| 0.300 | 99 |
| 0.212 | 99 |
| 0.150 | 99 |
| 0.063 | 94 |



| Particle Proportions % | |
|------------------------|------|
| Cobbles | |
| Gravel | |
| Sand | 6.2 |
| Silt and Clay | 93.8 |

| | | | | | | | | | | |
|------|------|---|---|------|---|---|--------|---|---|---------|
| CLAY | F | M | C | F | M | C | F | M | C | COBBLES |
| | SILT | | | SAND | | | GRAVEL | | | |

BS 1377: Part 2: Clause 9.2: 1990 Determination of particle size distribution - wet sieving method.
 BS 1377: Part 2: Clause 9.3: 1990 Determination of particle size distribution - dry sieving method.
 BS 1377: Part 2: Clause 9.4: 1990 Determination of sedimentation by the pipette method.

| | | |
|--|------------|------------------|
| Date - samples received: | 11/07/2011 | Remarks: |
| Date - samples tested: | 09/08/2011 | |
| Approved Signatories: J Roberts - JR (Quality Mngr) - K Mazerant - KM (Lab Mngr) - J Fokt - JF (Snr Tech) | | |
| Checked by: | K.M. | Date: 11/08/2011 |



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PARTICLE SIZE DISTRIBUTION

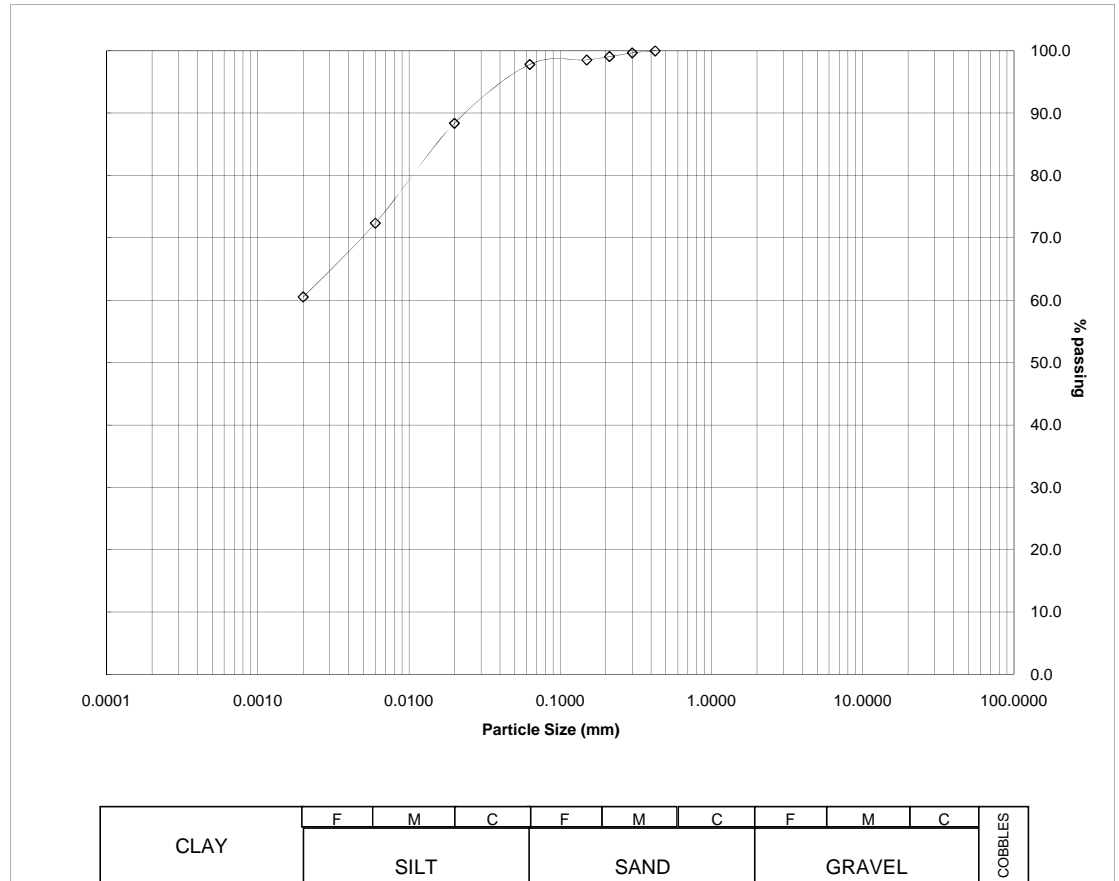
TEST REPORT

| | | | | | |
|--|------------------------------|----------------------|--|----------------------------------|---------|
| Site Name: 46 Avenue Road, London NW8 6HS | | | | Job Number: 11/2390 | |
| Client: Brightwood Properties Limited | | | | Date Reported: 11/08/2011 | |
| Borehole No: BH01 | Sample Type/No.: U 14 | Depth: 7.50 m | | Method/type: | Pipette |

Soil Description:

Extremely closely fissured brown CLAY with occasional selenite crystals, rare pockets of orange fine silty sand (40x30mm)

| BS Test Sieves | |
|----------------|-----------|
| Size (mm) | % Passing |
| 75.000 | 100 |
| 63.000 | 100 |
| 50.000 | 100 |
| 37.500 | 100 |
| 28.000 | 100 |
| 20.000 | 100 |
| 14.000 | 100 |
| 10.000 | 100 |
| 6.300 | 100 |
| 5.000 | 100 |
| 3.350 | 100 |
| 2.000 | 100 |
| 1.180 | 100 |
| 0.600 | 100 |
| 0.425 | 100 |
| 0.300 | 100 |
| 0.212 | 99 |
| 0.150 | 99 |
| 0.063 | 98 |



| Particle Proportions % | |
|------------------------|------|
| Cobbles | |
| Gravel | |
| Sand | 2.2 |
| Silt and Clay | 97.8 |

| | | | | | | | | | | | |
|------|------|---|---|------|---|---|---|---|---|--------|---------|
| CLAY | F | M | C | F | M | C | F | M | C | GRAVEL | COBBLES |
| | SILT | | | SAND | | | | | | | |

- BS 1377: Part 2: Clause 9.2: 1990 Determination of particle size distribution - wet sieving method.
- BS 1377: Part 2: Clause 9.3: 1990 Determination of particle size distribution - dry sieving method.
- BS 1377: Part 2: Clause 9.4: 1990 Determination of sedimentation by the pipette method.

| | | |
|------------------------------|---|------------------|
| Date - samples received: | 11/07/2011 | Remarks: |
| Date - samples tested: | 10/08/2011 | |
| Approved Signatories: | J Roberts - JR (Quality Mngr) - K Mazerant - KM (Lab Mngr) - J Fokt - JF (Snr Tech) | |
| Checked by: | K.M. | Date: 11/08/2011 |



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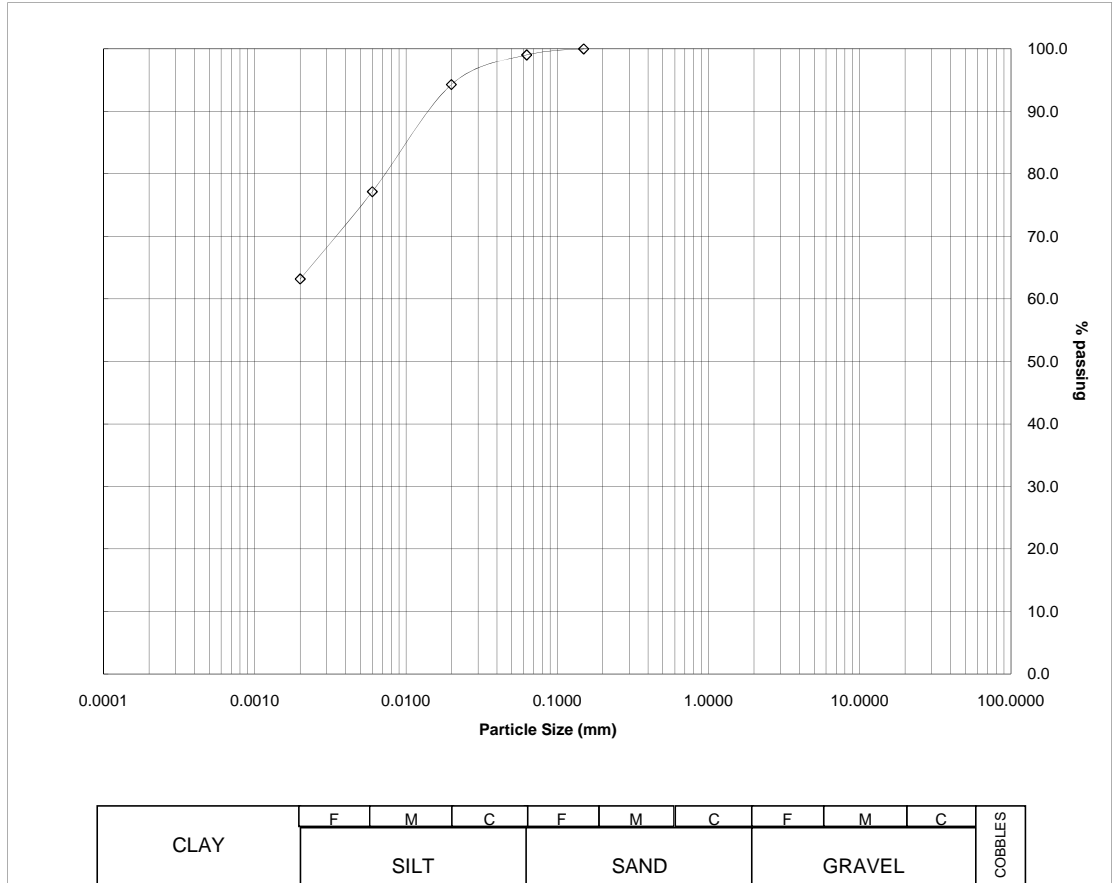
PARTICLE SIZE DISTRIBUTION

TEST REPORT

| | | | | |
|--|-----------------------------|----------------------|----------------------------------|---------|
| Site Name: 46 Avenue Road, London NW8 6HS | | | Job Number: 11/2390 | |
| Client: Brightwood Properties Limited | | | Date Reported: 11/08/2011 | |
| Borehole No: BH02 | Sample Type/No. D 06 | Depth: 2.00 m | Method/type: | Pipette |

Soil Description:
Brown mottled bluish grey CLAY with rare pockets of orangish brown silt (2x4mm)

| BS Test Sieves | |
|----------------|-----------|
| Size (mm) | % Passing |
| 75.000 | 100 |
| 63.000 | 100 |
| 50.000 | 100 |
| 37.500 | 100 |
| 28.000 | 100 |
| 20.000 | 100 |
| 14.000 | 100 |
| 10.000 | 100 |
| 6.300 | 100 |
| 5.000 | 100 |
| 3.350 | 100 |
| 2.000 | 100 |
| 1.180 | 100 |
| 0.600 | 100 |
| 0.425 | 100 |
| 0.300 | 100 |
| 0.212 | 100 |
| 0.150 | 100 |
| 0.063 | 99 |



| Particle Proportions % | |
|------------------------|------|
| Cobbles | |
| Gravel | |
| Sand | 1.0 |
| Silt and Clay | 99.0 |

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 BS 1377: Part 2: Clause 9.3: 1990 Determination of particle size distribution - dry sieving method.
 BS 1377: Part 2: Clause 9.4: 1990 Determination of sedimentation by the pipette method.

| | | |
|--|------------|------------------|
| Date - samples received: | 11/07/2011 | Remarks: |
| Date - samples tested: | 09/08/2011 | |
| Approved Signatories: J Roberts - JR (Quality Mngr) - K Mazerant - KM (Lab Mngr) - J Fokt - JF (Snr Tech) | | |
| Checked by: | K.M. | Date: 11/08/2011 |



4503



CONCEPT SITE INVESTIGATIONS

Unit 8 Warple Mews Warple Way London W3 0RF

Tel: 020 8811 2880 Fax: 020 8811 2881

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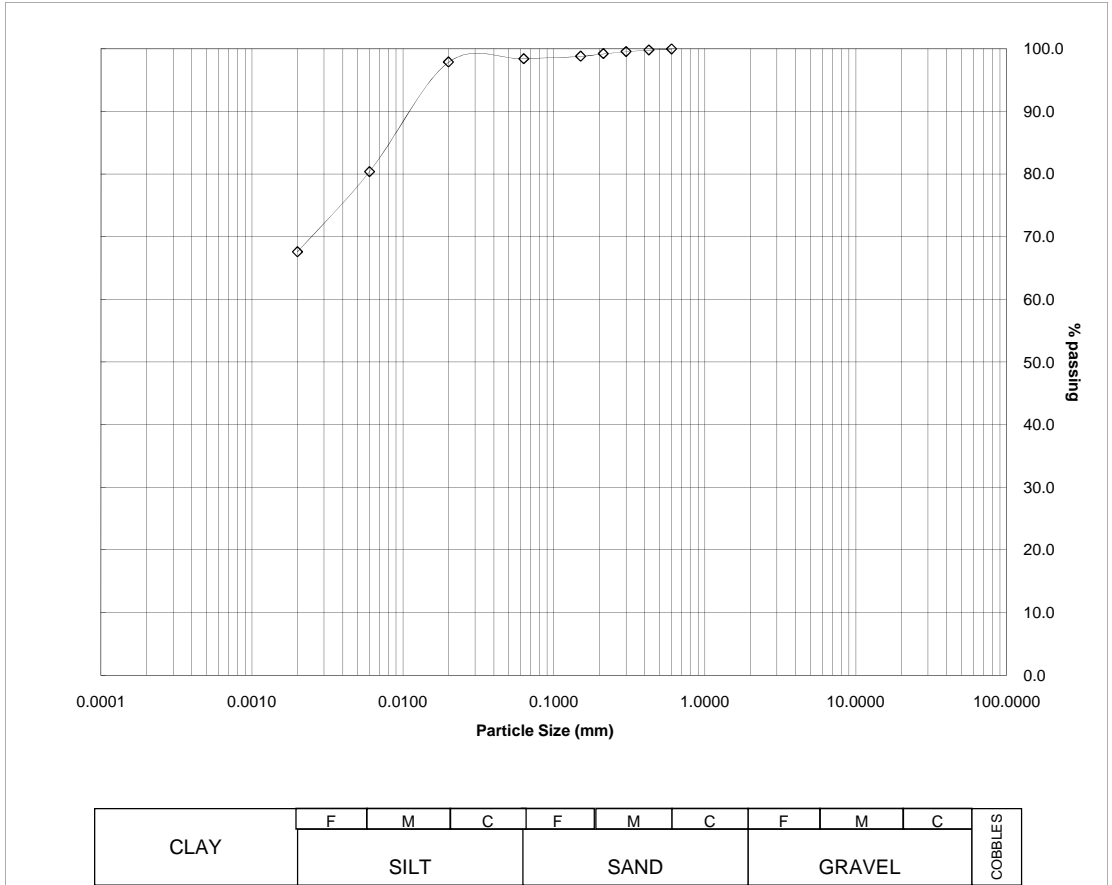
PARTICLE SIZE DISTRIBUTION

TEST REPORT

| | | | | | |
|--|------------------------------|----------------------|-----------------------------|----------------------------------|--|
| Site Name: 46 Avenue Road, London NW8 6HS | | | | Job Number: 11/2390 | |
| Client: Brightwood Properties Limited | | | | Date Reported: 11/08/2011 | |
| Borehole No: BH02 | Sample Type/No.: D 08 | Depth: 3.00 m | Method/type: Pipette | | |

Soil Description:
Brown mottled bluish grey CLAY with rare pockets of reddish orange silt (2x3mm) and selenite crystals

| BS Test Sieves | |
|----------------|-----------|
| Size (mm) | % Passing |
| 75.000 | 100 |
| 63.000 | 100 |
| 50.000 | 100 |
| 37.500 | 100 |
| 28.000 | 100 |
| 20.000 | 100 |
| 14.000 | 100 |
| 10.000 | 100 |
| 6.300 | 100 |
| 5.000 | 100 |
| 3.350 | 100 |
| 2.000 | 100 |
| 1.180 | 100 |
| 0.600 | 100 |
| 0.425 | 100 |
| 0.300 | 100 |
| 0.212 | 99 |
| 0.150 | 99 |
| 0.063 | 98 |



| Particle Proportions % | |
|------------------------|------|
| Cobbles | |
| Gravel | |
| Sand | 1.6 |
| Silt and Clay | 98.4 |

| | | | | | | | | | | | |
|------|------|---|---|------|---|---|---|---|---|--------|---------|
| CLAY | F | M | C | F | M | C | F | M | C | GRAVEL | COBBLES |
| | SILT | | | SAND | | | | | | | |

BS 1377: Part 2: Clause 9.2: 1990 Determination of particle size distribution - wet sieving method.
 BS 1377: Part 2: Clause 9.3: 1990 Determination of particle size distribution - dry sieving method.
 BS 1377: Part 2: Clause 9.4: 1990 Determination of sedimentation by the pipette method.

| | | |
|--|------------|------------------|
| Date - samples received: | 11/07/2011 | Remarks: |
| Date - samples tested: | 09/08/2011 | |
| Approved Signatories: J Roberts - JR (Quality Mngr) - K Mazerant - KM (Lab Mngr) - J Fokt - JF (Snr Tech) | | |
| Checked by: | K.M. | Date: 11/08/2011 |



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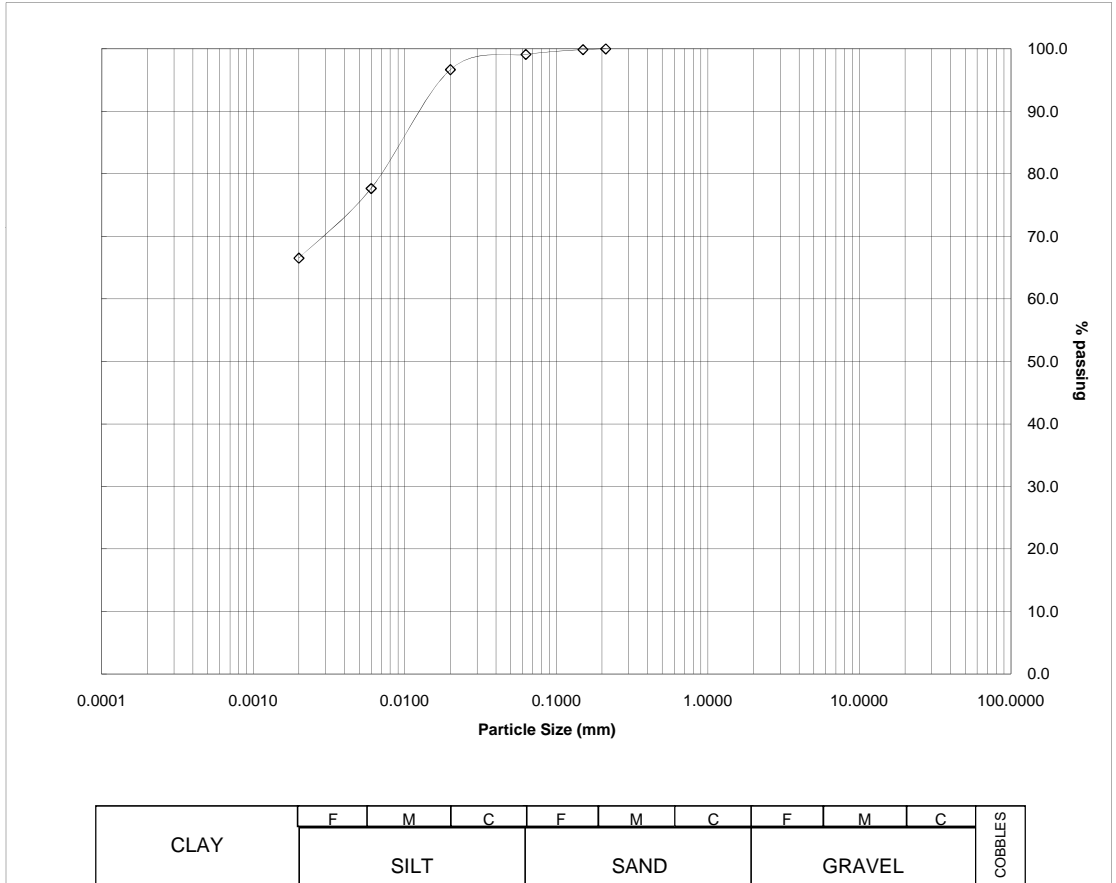
PARTICLE SIZE DISTRIBUTION

TEST REPORT

| | | | | |
|--|-----------------------------|----------------------|----------------------------------|--|
| Site Name: 46 Avenue Road, London NW8 6HS | | | Job Number: 11/2390 | |
| Client: Brightwood Properties Limited | | | Date Reported: 11/08/2011 | |
| Borehole No: BH02 | Sample Type/No. U 10 | Depth: 4.50 m | Method/type: Pipette | |

Soil Description:
Extremely closely fissured brown CLAY with occasional selenite crystals, bluish grey staining along rootlet tracks, pyrite nodules (5x10mm), pockets of orange silt (30x20mm) rare rootlets of live appearance

| BS Test Sieves | |
|----------------|-----------|
| Size (mm) | % Passing |
| 75.000 | 100 |
| 63.000 | 100 |
| 50.000 | 100 |
| 37.500 | 100 |
| 28.000 | 100 |
| 20.000 | 100 |
| 14.000 | 100 |
| 10.000 | 100 |
| 6.300 | 100 |
| 5.000 | 100 |
| 3.350 | 100 |
| 2.000 | 100 |
| 1.180 | 100 |
| 0.600 | 100 |
| 0.425 | 100 |
| 0.300 | 100 |
| 0.212 | 100 |
| 0.150 | 100 |
| 0.063 | 99 |



| Particle Proportions % | |
|------------------------|------|
| Cobbles | |
| Gravel | |
| Sand | 0.9 |
| Silt and Clay | 99.1 |

BS 1377: Part 2: Clause 9.2: 1990 Determination of particle size distribution - wet sieving method.
 BS 1377: Part 2: Clause 9.3: 1990 Determination of particle size distribution - dry sieving method.
 BS 1377: Part 2: Clause 9.4: 1990 Determination of sedimentation by the pipette method.

| | | |
|--|------------|------------------|
| Date - samples received: | 11/07/2011 | Remarks: |
| Date - samples tested: | 10/08/2011 | |
| Approved Signatories: J Roberts - JR (Quality Mngr) - K Mazerant - KM (Lab Mngr) - J Fokt - JF (Snr Tech) | | |
| Checked by: | K.M. | Date: 11/08/2011 |



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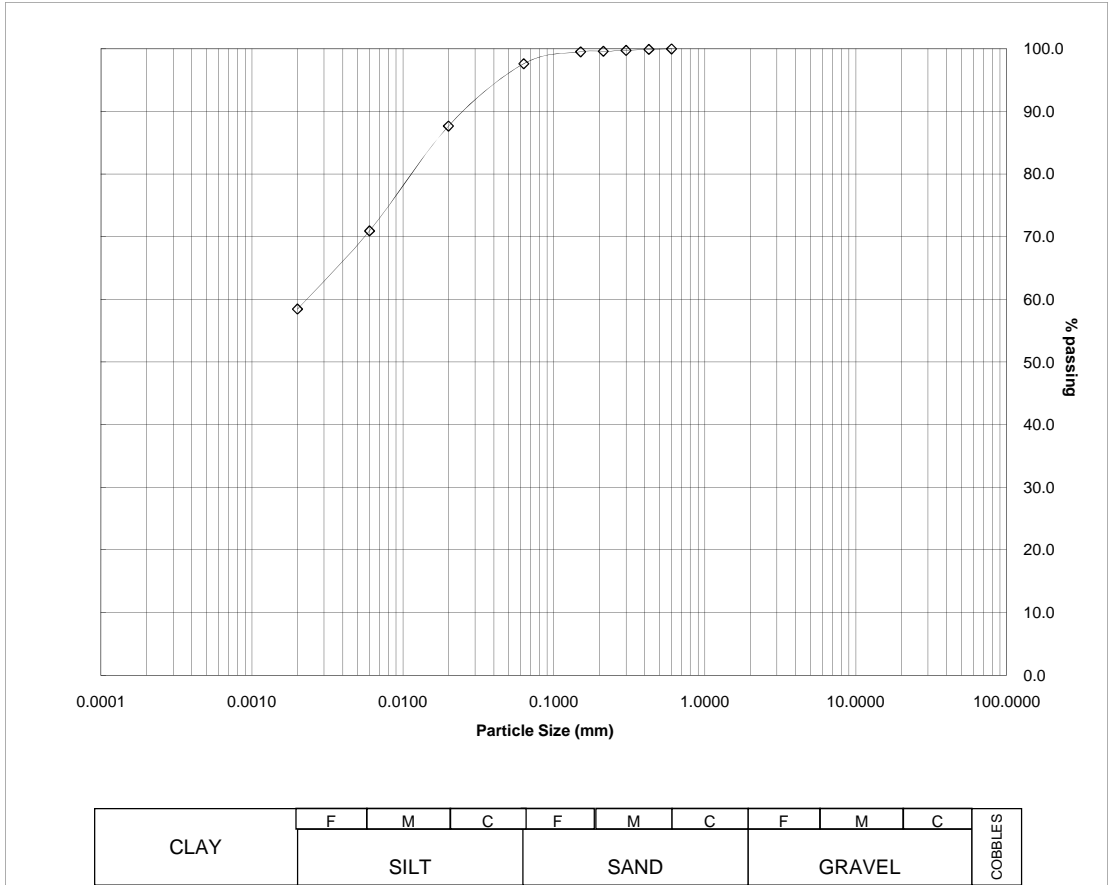
PARTICLE SIZE DISTRIBUTION

TEST REPORT

| | | | | | |
|--|------------------------------|----------------------|-----------------------------|----------------------------------|--|
| Site Name: 46 Avenue Road, London NW8 6HS | | | | Job Number: 11/2390 | |
| Client: Brightwood Properties Limited | | | | Date Reported: 11/08/2011 | |
| Borehole No: BH02 | Sample Type/No.: D 13 | Depth: 6.00 m | Method/type: Pipette | | |

Soil Description:
 Brown CLAY with occasional selenite crystals

| BS Test Sieves | |
|----------------|-----------|
| Size (mm) | % Passing |
| 75.000 | 100 |
| 63.000 | 100 |
| 50.000 | 100 |
| 37.500 | 100 |
| 28.000 | 100 |
| 20.000 | 100 |
| 14.000 | 100 |
| 10.000 | 100 |
| 6.300 | 100 |
| 5.000 | 100 |
| 3.350 | 100 |
| 2.000 | 100 |
| 1.180 | 100 |
| 0.600 | 100 |
| 0.425 | 100 |
| 0.300 | 100 |
| 0.212 | 100 |
| 0.150 | 100 |
| 0.063 | 98 |



| Particle Proportions % | |
|------------------------|------|
| Cobbles | |
| Gravel | |
| Sand | 2.4 |
| Silt and Clay | 97.6 |

| | | | | | | | | | | | |
|------|------|---|---|------|---|---|---|---|---|--------|---------|
| CLAY | F | M | C | F | M | C | F | M | C | GRAVEL | COBBLES |
| | SILT | | | SAND | | | | | | | |

BS 1377: Part 2: Clause 9.2: 1990 Determination of particle size distribution - wet sieving method.
 BS 1377: Part 2: Clause 9.3: 1990 Determination of particle size distribution - dry sieving method.
 BS 1377: Part 2: Clause 9.4: 1990 Determination of sedimentation by the pipette method.

| | | |
|--|------------|------------------|
| Date - samples received: | 11/07/2011 | Remarks: |
| Date - samples tested: | 09/08/2011 | |
| Approved Signatories: J Roberts - JR (Quality Mngr) - K Mazerant - KM (Lab Mngr) - J Fokt - JF (Snr Tech) | | |
| Checked by: | K.M. | Date: 11/08/2011 |



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PARTICLE SIZE DISTRIBUTION

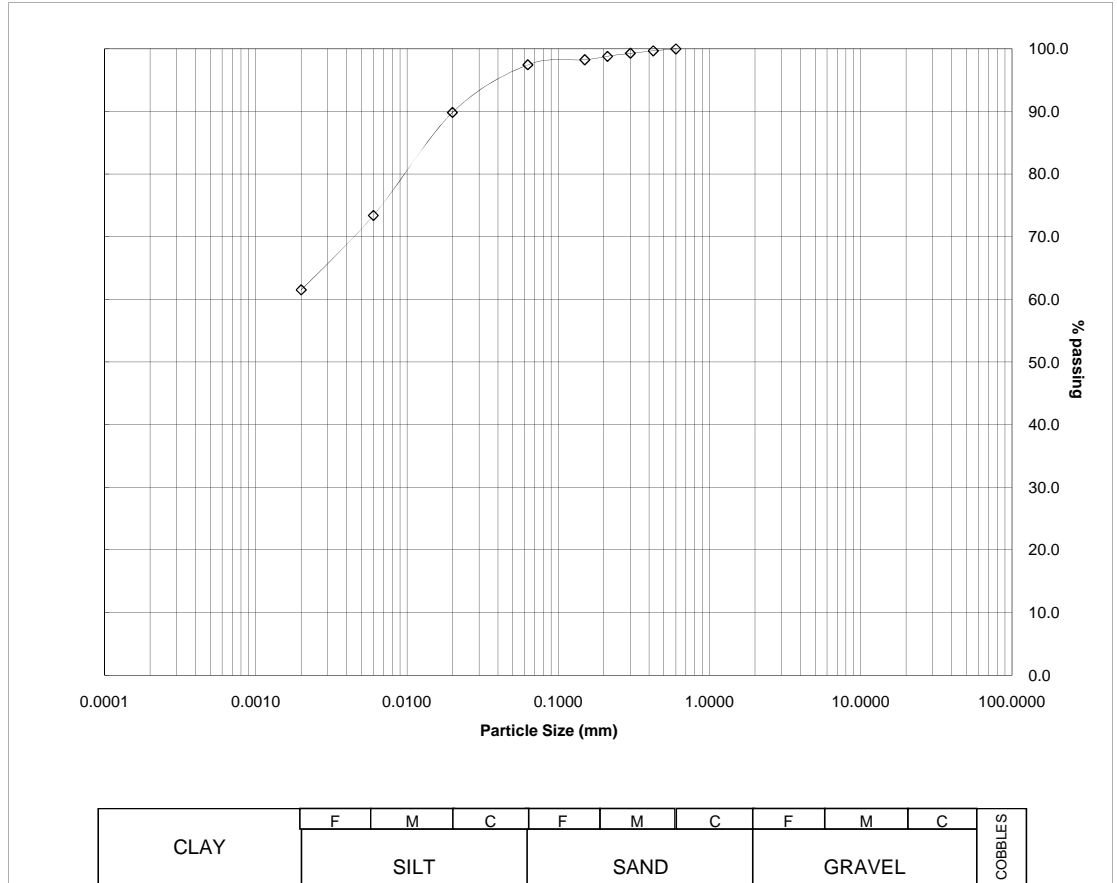
TEST REPORT

| | | | | |
|--|-----------------------------|----------------------|----------------------------------|---------|
| Site Name: 46 Avenue Road, London NW8 6HS | | | Job Number: 11/2390 | |
| Client: Brightwood Properties Limited | | | Date Reported: 11/08/2011 | |
| Borehole No: BH02 | Sample Type/No. U 15 | Depth: 7.50 m | Method/type: | Pipette |

Soil Description:

Extremely closely fissured brown CLAY with occasional selenite crystals and oxidization along fissures

| BS Test Sieves | |
|----------------|-----------|
| Size (mm) | % Passing |
| 75.000 | 100 |
| 63.000 | 100 |
| 50.000 | 100 |
| 37.500 | 100 |
| 28.000 | 100 |
| 20.000 | 100 |
| 14.000 | 100 |
| 10.000 | 100 |
| 6.300 | 100 |
| 5.000 | 100 |
| 3.350 | 100 |
| 2.000 | 100 |
| 1.180 | 100 |
| 0.600 | 100 |
| 0.425 | 100 |
| 0.300 | 99 |
| 0.212 | 99 |
| 0.150 | 98 |
| 0.063 | 97 |



| Particle Proportions % | |
|------------------------|------|
| Cobbles | |
| Gravel | |
| Sand | 2.5 |
| Silt and Clay | 97.5 |

| | | | | | | | | | | |
|------|------|---|---|------|---|---|--------|---|---|---------|
| CLAY | F | M | C | F | M | C | F | M | C | COBBLES |
| | SILT | | | SAND | | | GRAVEL | | | |

- BS 1377: Part 2: Clause 9.2: 1990 Determination of particle size distribution - wet sieving method.
- BS 1377: Part 2: Clause 9.3: 1990 Determination of particle size distribution - dry sieving method.
- BS 1377: Part 2: Clause 9.4: 1990 Determination of sedimentation by the pipette method.

| | | |
|------------------------------|---|------------------|
| Date - samples received: | 11/07/2011 | Remarks: |
| Date - samples tested: | 10/08/2011 | |
| Approved Signatories: | J Roberts - JR (Quality Mngr) - K Mazerant - KM (Lab Mngr) - J Fokt - JF (Snr Tech) | |
| Checked by: | K.M. | Date: 11/08/2011 |



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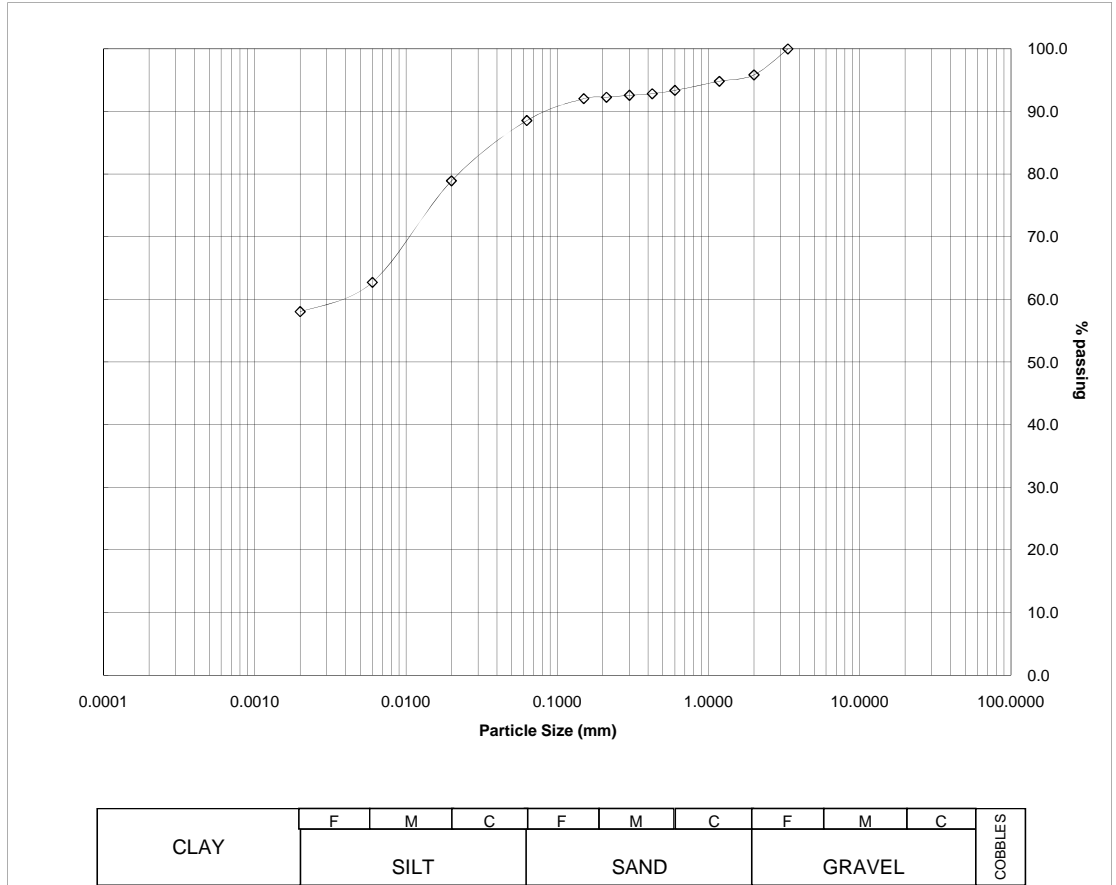
PARTICLE SIZE DISTRIBUTION

TEST REPORT

| | | | | |
|--|------------------------------|----------------------|----------------------------------|--|
| Site Name: 46 Avenue Road, London NW8 6HS | | | Job Number: 11/2390 | |
| Client: Brightwood Properties Limited | | | Date Reported: 11/08/2011 | |
| Borehole No: BH03 | Sample Type/No.: D 05 | Depth: 1.50 m | Method/type: Pipette | |

Soil Description:
Brown mottled orangish brown slightly sandy CLAY with occasional pockets of orangish brown silt, selenite crystals and sand to fine gravel size iron stained nodules

| BS Test Sieves | |
|----------------|-----------|
| Size (mm) | % Passing |
| 75.000 | 100 |
| 63.000 | 100 |
| 50.000 | 100 |
| 37.500 | 100 |
| 28.000 | 100 |
| 20.000 | 100 |
| 14.000 | 100 |
| 10.000 | 100 |
| 6.300 | 100 |
| 5.000 | 100 |
| 3.350 | 100 |
| 2.000 | 96 |
| 1.180 | 95 |
| 0.600 | 93 |
| 0.425 | 93 |
| 0.300 | 93 |
| 0.212 | 92 |
| 0.150 | 92 |
| 0.063 | 89 |



| Particle Proportions % | |
|------------------------|------|
| Cobbles | |
| Gravel | 4.2 |
| Sand | 7.3 |
| Silt and Clay | 88.6 |

BS 1377: Part 2: Clause 9.2: 1990 Determination of particle size distribution - wet sieving method.
 BS 1377: Part 2: Clause 9.3: 1990 Determination of particle size distribution - dry sieving method.
 BS 1377: Part 2: Clause 9.4: 1990 Determination of sedimentation by the pipette method.

| | | |
|--|------------|------------------|
| Date - samples received: | 11/07/2011 | Remarks: |
| Date - samples tested: | 10/08/2011 | |
| Approved Signatories: J Roberts - JR (Quality Mngr) - K Mazerant - KM (Lab Mngr) - J Fokt - JF (Snr Tech) | | |
| Checked by: | K.M. | Date: 11/08/2011 |



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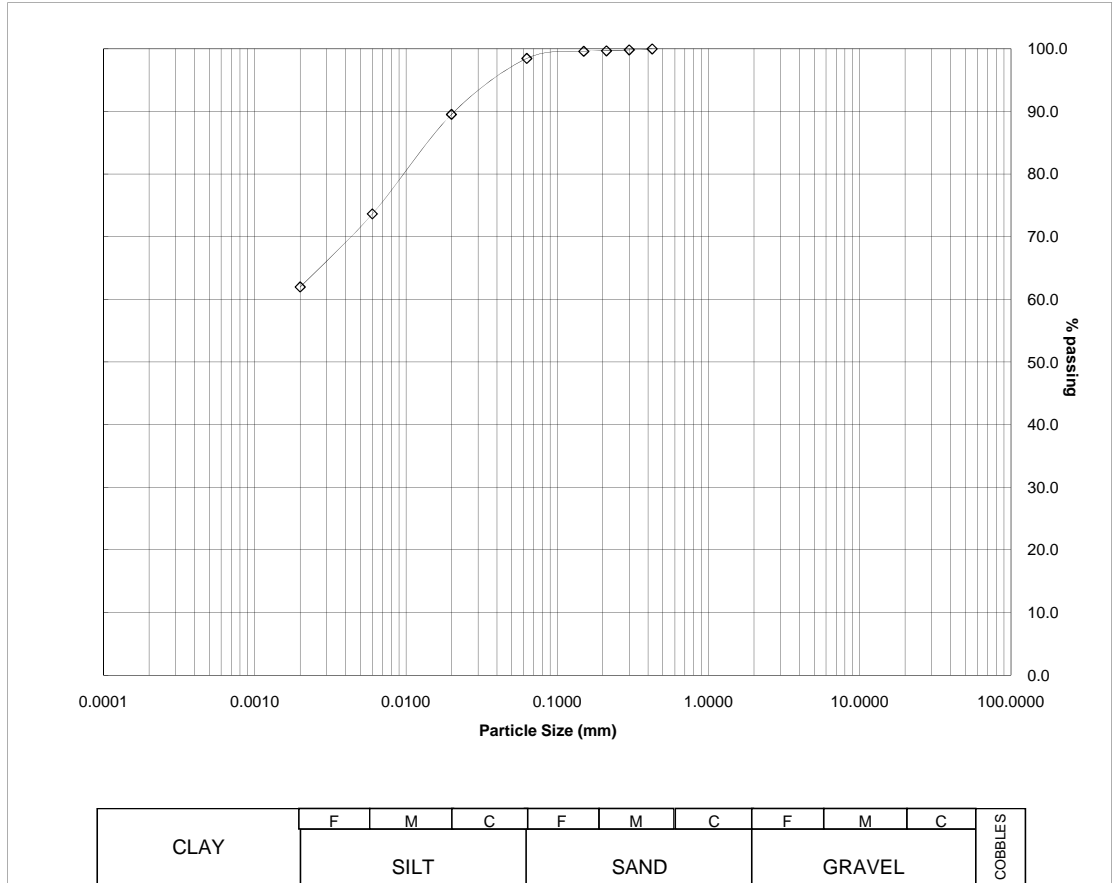
PARTICLE SIZE DISTRIBUTION

TEST REPORT

| | | | | |
|--|------------------------------|----------------------|----------------------------------|--|
| Site Name: 46 Avenue Road, London NW8 6HS | | | Job Number: 11/2390 | |
| Client: Brightwood Properties Limited | | | Date Reported: 11/08/2011 | |
| Borehole No: BH03 | Sample Type/No.: D 06 | Depth: 2.50 m | Method/type: Pipette | |

Soil Description:
 Brown locally mottled bluish grey CLAY with occasional pockets of orangish brown silt (3x10mm) and rare selenite crystals

| BS Test Sieves | |
|----------------|-----------|
| Size (mm) | % Passing |
| 75.000 | 100 |
| 63.000 | 100 |
| 50.000 | 100 |
| 37.500 | 100 |
| 28.000 | 100 |
| 20.000 | 100 |
| 14.000 | 100 |
| 10.000 | 100 |
| 6.300 | 100 |
| 5.000 | 100 |
| 3.350 | 100 |
| 2.000 | 100 |
| 1.180 | 100 |
| 0.600 | 100 |
| 0.425 | 100 |
| 0.300 | 100 |
| 0.212 | 100 |
| 0.150 | 100 |
| 0.063 | 98 |



| Particle Proportions % | |
|------------------------|------|
| Cobbles | |
| Gravel | |
| Sand | 1.5 |
| Silt and Clay | 98.5 |

| | | | | | | | | | | |
|------|------|---|---|------|---|---|--------|---|---|---------|
| CLAY | F | M | C | F | M | C | F | M | C | COBBLES |
| | SILT | | | SAND | | | GRAVEL | | | |

BS 1377: Part 2: Clause 9.2: 1990 Determination of particle size distribution - wet sieving method.
 BS 1377: Part 2: Clause 9.3: 1990 Determination of particle size distribution - dry sieving method.
 BS 1377: Part 2: Clause 9.4: 1990 Determination of sedimentation by the pipette method.

| | | |
|--|------------|------------------|
| Date - samples received: | 11/07/2011 | Remarks: |
| Date - samples tested: | 09/08/2011 | |
| Approved Signatories: J Roberts - JR (Quality Mngr) - K Mazerant - KM (Lab Mngr) - J Fokt - JF (Snr Tech) | | |
| Checked by: | K.M. | Date: 11/08/2011 |



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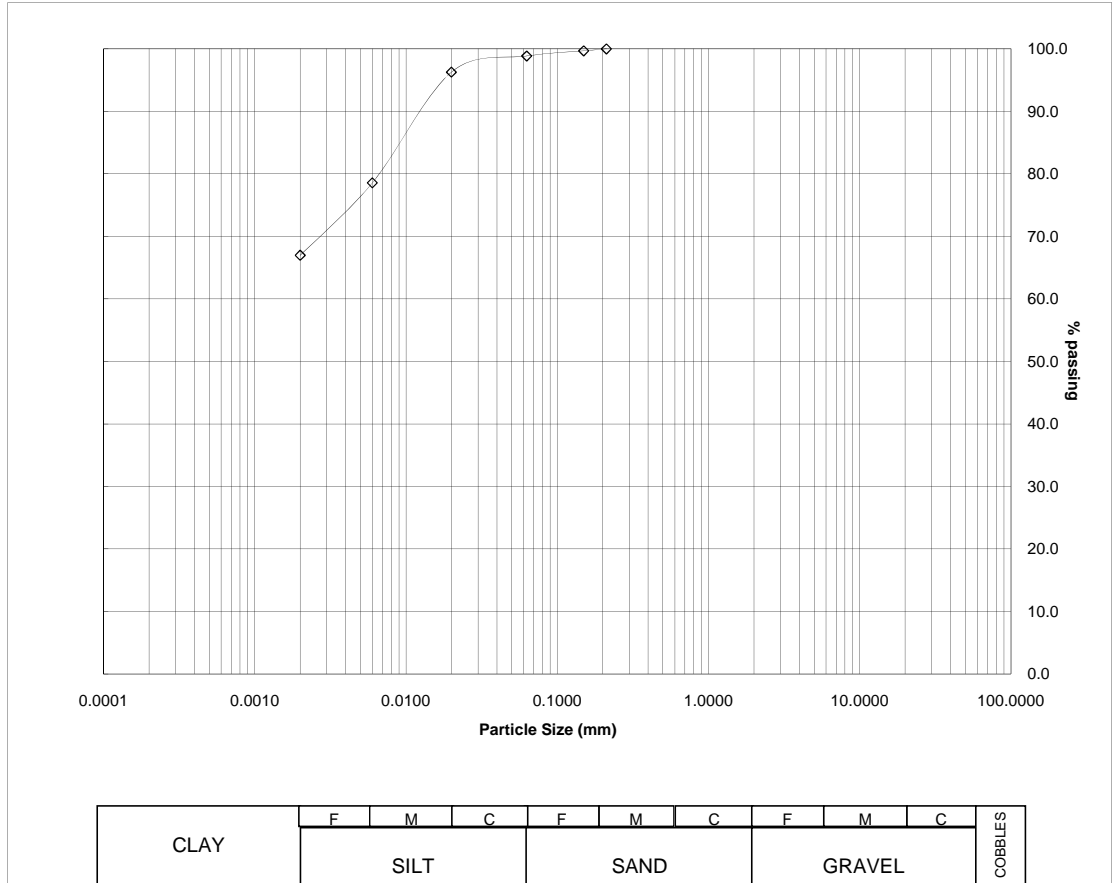
PARTICLE SIZE DISTRIBUTION

TEST REPORT

| | | | |
|--|-----------------------------|----------------------------------|-----------------------------|
| Site Name: 46 Avenue Road, London NW8 6HS | | Job Number: 11/2390 | |
| Client: Brightwood Properties Limited | | Date Reported: 11/08/2011 | |
| Borehole No: BH03 | Sample Type/No. U 07 | Depth: 3.00 m | Method/type: Pipette |

Soil Description:
 Extremely closely fissured brown CLAY with occasional selenite crystals, bluish grey staining along rootlet tracks, rare pockets of orange silt (20x10mm), pockets of light brown fine silty sand (10x5mm) and rootlets of live appearance

| BS Test Sieves | |
|----------------|-----------|
| Size (mm) | % Passing |
| 75.000 | 100 |
| 63.000 | 100 |
| 50.000 | 100 |
| 37.500 | 100 |
| 28.000 | 100 |
| 20.000 | 100 |
| 14.000 | 100 |
| 10.000 | 100 |
| 6.300 | 100 |
| 5.000 | 100 |
| 3.350 | 100 |
| 2.000 | 100 |
| 1.180 | 100 |
| 0.600 | 100 |
| 0.425 | 100 |
| 0.300 | 100 |
| 0.212 | 100 |
| 0.150 | 100 |
| 0.063 | 99 |



| Particle Proportions % | |
|------------------------|------|
| Cobbles | |
| Gravel | |
| Sand | 1.1 |
| Silt and Clay | 98.9 |

| | | | | | | | | | | |
|------|------|---|---|------|---|---|--------|---|---|---------|
| CLAY | F | M | C | F | M | C | F | M | C | COBBLES |
| | SILT | | | SAND | | | GRAVEL | | | |

BS 1377: Part 2: Clause 9.2: 1990 Determination of particle size distribution - wet sieving method.
 BS 1377: Part 2: Clause 9.3: 1990 Determination of particle size distribution - dry sieving method.
 BS 1377: Part 2: Clause 9.4: 1990 Determination of sedimentation by the pipette method.

| | | |
|------------------------------|---|------------------|
| Date - samples received: | 11/07/2011 | Remarks: |
| Date - samples tested: | 10/08/2011 | |
| Approved Signatories: | J Roberts - JR (Quality Mngr) - K Mazerant - KM (Lab Mngr) - J Fokt - JF (Snr Tech) | |
| Checked by: | K.M. | Date: 11/08/2011 |



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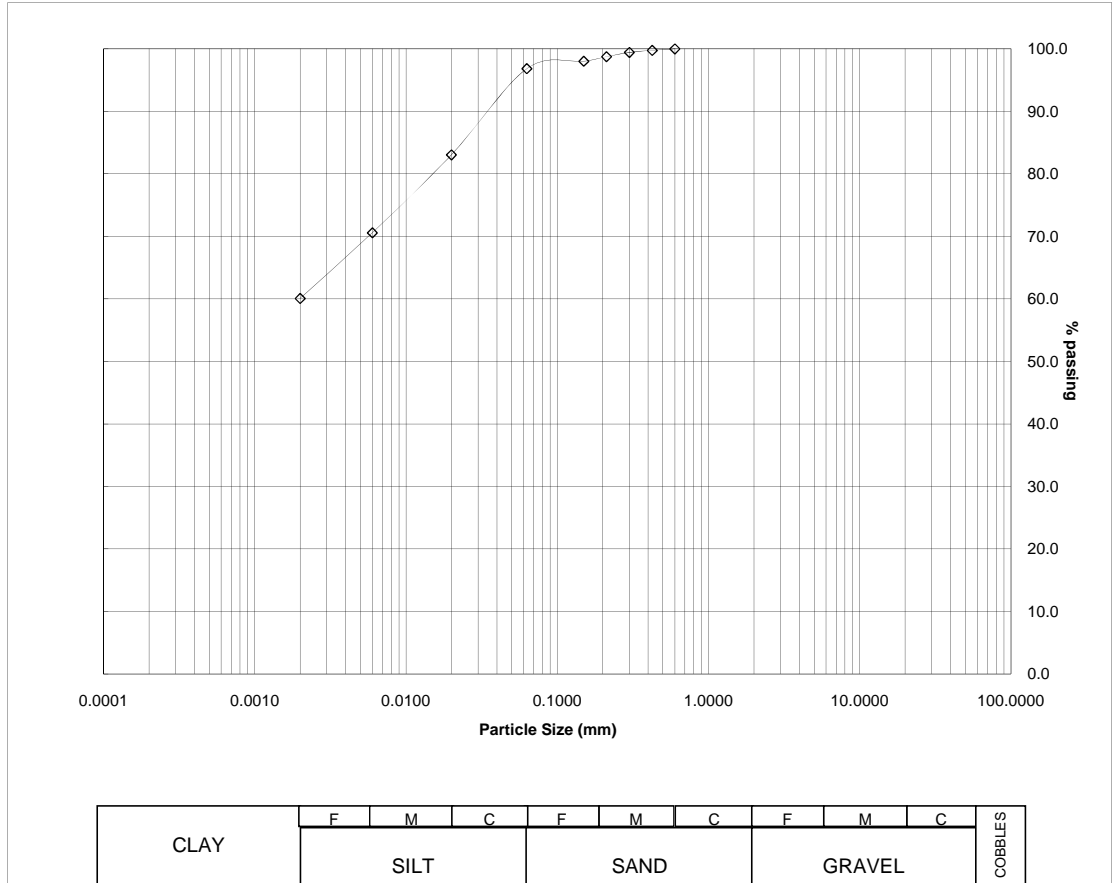
PARTICLE SIZE DISTRIBUTION

TEST REPORT

| | | | | | |
|--|-----------------------------|----------------------|-----------------------------|----------------------------------|--|
| Site Name: 46 Avenue Road, London NW8 6HS | | | | Job Number: 11/2390 | |
| Client: Brightwood Properties Limited | | | | Date Reported: 11/08/2011 | |
| Borehole No: BH03 | Sample Type/No. U 12 | Depth: 6.00 m | Method/type: Pipette | | |

Soil Description:
Extremely closely fissured brown CLAY with occasional pockets of orangish brown fine sand (20x20mm), selenite crystals and oxidization along fissures

| BS Test Sieves | |
|----------------|-----------|
| Size (mm) | % Passing |
| 75.000 | 100 |
| 63.000 | 100 |
| 50.000 | 100 |
| 37.500 | 100 |
| 28.000 | 100 |
| 20.000 | 100 |
| 14.000 | 100 |
| 10.000 | 100 |
| 6.300 | 100 |
| 5.000 | 100 |
| 3.350 | 100 |
| 2.000 | 100 |
| 1.180 | 100 |
| 0.600 | 100 |
| 0.425 | 100 |
| 0.300 | 99 |
| 0.212 | 99 |
| 0.150 | 98 |
| 0.063 | 97 |



| Particle Proportions % | |
|------------------------|------|
| Cobbles | |
| Gravel | |
| Sand | 3.2 |
| Silt and Clay | 96.8 |

BS 1377: Part 2: Clause 9.2: 1990 Determination of particle size distribution - wet sieving method.
 BS 1377: Part 2: Clause 9.3: 1990 Determination of particle size distribution - dry sieving method.
 BS 1377: Part 2: Clause 9.4: 1990 Determination of sedimentation by the pipette method.

| | | |
|--|------------|------------------|
| Date - samples received: | 11/07/2011 | Remarks: |
| Date - samples tested: | 10/08/2011 | |
| Approved Signatories: J Roberts - JR (Quality Mngr) - K Mazerant - KM (Lab Mngr) - J Fokt - JF (Snr Tech) | | |
| Checked by: | K.M. | Date: 11/08/2011 |



CONCEPT SITE INVESTIGATIONS

| | |
|---|----------------------------------|
| Site Name: 46 Avenue Road, London NW8 6HS | Job No.: 11/2390 |
| Carried out for: Brightwood Properties Limited | Date Reported: 11/08/2011 |



Summary Test Report Sulphate Content of Soil



| Borehole No. | Sample Type | Sample No. | Depth (m) | Description | % dry mass passing 2mm sieve | pH | Sulphate 2:1 water soil g/l SO ₄ | Sulphate Total % SO ₃ | Remarks |
|--------------|-------------|------------|-----------|--|------------------------------|------|---|----------------------------------|---------|
| BH02 | U | 05 | 1.50 | Orangish brown CLAY with bluish grey staining along rootlet tracks, occasional roots (<3mm) and frequent rootlets of live appearance | 100 | 8.04 | 0.61 | | |
| BH02 | D | 12 | 5.50 | Brown CLAY with occasional pockets of orangish brown silt (3x7mm) and selenite crystals | 100 | 7.68 | 3.19 | | |
| BH02 | D | 16 | 8.00 | Brown CLAY with rare pockets of orangish brown silt (3x3mm) and selenite crystals | 100 | 8.03 | 2.40 | | |
| BH03 | D | 04 | 1.00 | Brown mottled orangish brown locally mottled bluish grey slightly sandy CLAY with rare selenite crystals | 100 | 7.98 | 2.55 | | |
| BH03 | D | 11 | 5.50 | Brown CLAY with occasional selenite crystals | 100 | 7.79 | 3.24 | | |
| BH03 | D | 15 | 7.50 | Brown slightly sandy CLAY with occasional selenite crystals | 100 | 7.87 | 2.96 | | |
| | | | | | | | | | |
| | | | | | | | | | |
| | | | | | | | | | |
| | | | | | | | | | |
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| | | | | | | | | | |



BS 1377: Part 3: Clause 5.5 : 1990 (Issue 2 April 1996)
Determination of the sulphate content of soil & ground water: gravimetric method.

| | | |
|---|------------------|--|
| Date - samples received: 11/07/2011 | Checked by: K.M. | CONCEPT Unit 8 Warple Mews Warple Way London W3 0RF Tel: 020 8811 2880 Fax: 020 8811 2881 |
| Date - samples tested: 04/108 | Date: 11/08/2011 | |
| Approved Signatories: J Roberts (Quality Mngr) - K Mazerant (Lab Mngr) - J Fokt (Snr Tech) | | |

| CONCEPT SITE INVESTIGATIONS | | | | Summary Test Report - Undrained Triaxial Compression (Single-Stage) | | | | | | Date Reported: | | 15/08/2011 | | |
|--|-------------|-----------|--------------------------------|---|--|---------------------|--|-------------------------------|-------|-----------------------|--------------------|----------------------------------|---|--|
| | | | | BS 1377 : Part 7: 1990 Clause 8 | | | | | | Job No.: | | 11/2390 | | |
| Site Location: | | | 46 Avenue Road, London NW8 6HS | | | | Client: Brightwood Properties Limited | | | | | | | |
| BH No. | Sample Type | Sample No | Depth top (m) | Description | Cell pressure kN/m ² | Strain at failure % | Bulk Density Mg/m ³ | Dry Density Mg/m ³ | NMC % | Max Dev. Stress kPa | Shear Strength kPa | Mode of failure/Comments | | |
| BH01 | U | 04 | 1.50 | Orangish brown mottled brown CLAY with occasional angular to subrounded medium and coarse flint gravel and rootlets of live appearance | 60 | 12.4 | 1.984 | 1.549 | 28 | 148 | 74 | Plastic | | |
| BH01 | U | 09 | 4.50 | Extremely closely fissured orangish brown CLAY with bluish grey staining along the fissures, occasional selenite crystals, rare pockets of orange fine sand and rare rootlets (semi-decayed and of live appearance) | 150 | 12.8 | 1.967 | 1.542 | 28 | 177 | 88 | Brittle with plastic deformation | | |
| BH01 | U | 14 | 7.50 | Extremely closely fissured brown CLAY with occasional selenite crystals, rare pockets of orange fine silty sand (40x30mm) and pyrite nodules | 240 | 5.5 | 1.963 | 1.542 | 27 | 257 | 128 | Brittle | | |
| BH01 | U | 19 | 10.50 | Extremely closely fissured brownish grey CLAY with rare bioturbation | 330 | 5.5 | 1.984 | 1.549 | 28 | 245 | 122 | Brittle | | |
| BH01 | U | 24 | 13.50 | Extremely closely fissured brownish grey CLAY with occasional oxidization along fissures, rare claystone (30x30mm), shell fragments (10x10mm) and bioturbation | 420 | 3.9 | 1.985 | 1.559 | 27 | 307 | 153 | Brittle | | |
| BH01 | U | 29 | 16.50 | Extremely closely fissured grey CLAY with occasional oxidization along fissures and rare dark grey and light brown fine silty sand (5x10mm) | 510 | 3.6 | 1.943 | 1.542 | 26 | 213 | 106 | Brittle | | |
| BH01 | U | 36 | 20.00 | Very closely fissured grey CLAY with occasional bioturbation and rare pockets of dark grey fine silty sand (15x15mm) | 615 | 6.2 | 2.030 | 1.622 | 25 | 381 | 190 | Brittle | | |
| BH01 | U | 41 | 23.00 | Very closely fissured grey CLAY with occasional pockets of dark grey fine silty sand (20x20mm) and bioturbation | 705 | 5.1 | 2.041 | 1.655 | 23 | 535 | 268 | Brittle | | |
| Date - samples received: 11/07/2011 | | | | | CONCEPT Unit 8 Warple Mews Warple Way London W3 0RF Tel: 020 8811 2880 Fax: 020 8811 2881 Email: Lab@conceptconsultants.co.uk | | | | | | | |   | |
| Date - samples tested: 04/08/2011 | | | | | | | | | | | | | | |
| Approved Signatories: J Roberts (Quality Mngr) - K Mazerant (Lab Mngr) - J Fokt - JF (Snr Tech) | | | | | | | | | | | | | | |
| Checked by: K.M. Date: 11/08/2011 | | | | | | | | | | | | | | |

| CONCEPT SITE INVESTIGATIONS | | | | Summary Test Report - Undrained Triaxial Compression (Single-Stage) | | | | | | Date Reported: | | 11/08/2011 | |
|--|-------------|------------------|--------------------------------|--|--|---------------------|--|-------------------------------|-------|---|--------------------|--|--|
| | | | | BS 1377 : Part 7: 1990 Clause 8 | | | | | | Job No.: | | 11/2390 | |
| Site Location: | | | 46 Avenue Road, London NW8 6HS | | | | Client: Brightwood Properties Limited | | | | | | |
| BH No. | Sample Type | Sample No | Depth top (m) | Description | Cell pressure kN/m ² | Strain at failure % | Bulk Density Mg/m ³ | Dry Density Mg/m ³ | NMC % | Max Dev. Stress kPa | Shear Strength kPa | Mode of failure/Comments | |
| BH02 | U | 05 | 1.50 | Orangish brown CLAY with bluish grey staining along rootlet tracks, occasional roots (<3mm) and frequent rootlets of live appearance | 45 | 15.8 | 1.956 | 1.496 | 31 | 105 | 52 | Plastic with brittle failure | |
| BH02 | U | 10 | 4.50 | Extremely closely fissured brown CLAY with occasional selenite crystals, bluish grey staining along rootlet tracks, pyrite nodules (5x10mm), pockets of orange silt (30x20mm) rare rootlets of live appearance | 150 | 9.6 | 1.902 | 1.445 | 32 | 193 | 96 | Plastic with brittle failure | |
| BH02 | U | 15 | 7.50 | Extremely closely fissured brown CLAY with occasional selenite crystals, oxidization along fissures and a band of orange fine sand between 7.52 and 7.54m | 240 | 4.9 | 1.959 | 1.515 | 29 | 247 | 124 | Brittle | |
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| Date - samples received: 11/07/2011 | | | | | CONCEPT Unit 8 Warple Mews Warple Way London W3 0RF Tel: 020 8811 2880 Fax: 020 8811 2881 Email: Lab@conceptconsultants.co.uk | | | | |  AGS ASSOCIATION OF GEOTECHNICAL & GEONVIRONMENTAL SPECIALISTS | |  UKAS TESTING 4503 | |
| Date - samples tested: 04/08/2011 | | | | | | | | | | | | | |
| Approved Signatories: J Roberts (Quality Mngr) - K Mazerant (Lab Mngr) - J Fokt - JF (Snr Tech) | | | | | | | | | | | | | |
| Checked by: K.M. | | Date: 11/08/2011 | | | | | | | | | | | |

| CONCEPT SITE INVESTIGATIONS | | | | Summary Test Report - Undrained Triaxial Compression (Single-Stage) | | | | | | Date Reported: | | 11/08/2011 | |
|---|-------------|-----------|--------------------------------|--|--|---------------------|--|-------------------------------|-------|---|--------------------|---|--|
| | | | | BS 1377 : Part 7: 1990 Clause 8 | | | | | | Job No.: | | 11/2390 | |
| Site Location: | | | 46 Avenue Road, London NW8 6HS | | | | Client: Brightwood Properties Limited | | | | | | |
| BH No. | Sample Type | Sample No | Depth top (m) | Description | Cell pressure kN/m ² | Strain at failure % | Bulk Density Mg/m ³ | Dry Density Mg/m ³ | NMC % | Max Dev. Stress kPa | Shear Strength kPa | Mode of failure/Comments | |
| BH03 | U | 07 | 3.00 | Extremely closely fissured brown CLAY with occasional selenite crystals, bluish grey staining along rootlet tracks, rare pockets of orange silt (20x10mm), pockets of light brown fine silty sand (10x5mm) and rootlets of live appearance | 105 | 6.3 | 1.943 | 1.495 | 30 | 204 | 102 | Brittle | |
| BH03 | U | 12 | 6.00 | Extremely closely fissured brown CLAY with occasional pockets of orangish brown fine sand (20x20mm), selenite crystals and oxidization along fissures | 195 | 6.2 | 1.963 | 1.523 | 29 | 204 | 102 | Brittle | |
| BH03 | U | 17 | 9.00 | Extremely closely fissured brown CLAY with occasional selenite crystals, oxidization along fissures and rare pyritised wood fragment (5x10mm) | 285 | 4.8 | 1.971 | 1.541 | 28 | 296 | 148 | Brittle | |
| BH03 | U | 22 | 12.50 | Very closely fissured brownish grey CLAY with rare selenite crystals, pockets of light brown and dark grey fine silty sand (10x15mm) and bioturbation | 390 | 4.5 | 1.977 | 1.546 | 28 | 361 | 181 | Brittle | |
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| Date - samples received: 11/07/2011 | | | | | CONCEPT Unit 8 Warple Mews Warple Way London W3 0RF Tel: 020 8811 2880 Fax: 020 8811 2881 Email: Lab@conceptconsultants.co.uk | | | | |  | |  | |
| Date - samples tested: 08/08/2011 | | | | | | | | | | | | | |
| Approved Signatories: J Roberts (Quality Mngr) - K Mazerant (Lab Mngr) - J Fokt - JF (Snr Tech) | | | | | | | | | | | | | |
| Checked by: K.M. Date: 11/08/2011 | | | | | | | | | | | | | |

CONCEPT SITE INVESTIGATIONS

9. CHEMICAL TEST RESULTS

TEST REPORT

SOIL SAMPLE ANALYSIS



Report No. EFS/116196 (Ver. 1)

Concept Consultants
Unit 8
Warple Mews
Warple Way
Acton
London
W3 ORF
W3 ORF

Site: 46 Avenue Road, London NW8 6HS

The 1 sample described in this report were logged for analysis by Scientifics on 20-Jul-2011. This report supersedes any versions previously issued by the laboratory.

The analysis was completed by: 27-Jul-2011

Tests where the accreditation is set to N or No, and any individual data items marked with a * are not UKAS accredited
Any opinions or interpretations expressed herein are outside the scope of any UKAS accreditation held by Scientifics.

The following tables are contained in this report:

Table 1 Main Analysis Results (Pages 2 to 3)
Table of PAH (MS-SIM) (80) Results (Page 4)
Table of PCB Congener Results (Page 5)
GC-FID Chromatograms (Page 6)
Table of Asbestos Screening Results (Page 7)
Analytical and Deviating Sample Overview (Page 8)
Table of Method Descriptions (Page 9)
Table of Report Notes (Page 10)

On behalf of
Scientifics :
Andrew Timms

Operations Manager

Date of Issue: 27-Jul-2011

Tests marked 'N' have been subcontracted to another laboratory.

Scientifics accepts no responsibility for any sampling not carried out by our personnel.

Where individual results are flagged see report notes for status.

Polycyclic Aromatic Hydrocarbons GC/MS (SIM)

| | | | |
|-----------------------------------|---|------------------------|------------|
| Customer and Site Details: | Concept Consultants: 46 Avenue Road, London NW8 6HS | | |
| Sample Details: | BH02 0.5 | Job Number: | S11_6196 |
| LIMS ID Number: | CL1128966 | Date Booked in: | 20-Jul-11 |
| QC Batch Number: | 111600 | Date Extracted: | 26-Jul-11 |
| Quantitation File: | Initial Calibration | Date Analysed: | 26-Jul-11 |
| Directory: | 2511PAH.GC5\ | Matrix: | Soil |
| Dilution: | 1.0 | Ext Method: | Ultrasonic |

UKAS accredited?: Yes

| Target Compounds | CAS # | R.T. (min) | Concentration mg/kg | % Fit |
|------------------------|----------|---------------|------------------------|-------|
| Naphthalene | 91-20-3 | - | < 0.08 | - |
| Acenaphthylene | 208-96-8 | - | < 0.08 | - |
| Acenaphthene | 83-32-9 | - | < 0.08 | - |
| Fluorene | 86-73-7 | - | < 0.08 | - |
| Phenanthrene | 85-01-8 | - | < 0.08 | - |
| Anthracene | 120-12-7 | - | < 0.08 | - |
| Fluoranthene | 206-44-0 | - | < 0.08 | - |
| Pyrene | 129-00-0 | - | < 0.08 | - |
| Benzo[a]anthracene | 56-55-3 | - | < 0.08 | - |
| Chrysene | 218-01-9 | - | < 0.08 | - |
| Benzo[b]fluoranthene | 205-99-2 | - | < 0.08 | - |
| Benzo[k]fluoranthene | 207-08-9 | - | < 0.08 | - |
| Benzo[a]pyrene | 50-32-8 | - | < 0.08 | - |
| Indeno[1,2,3-cd]pyrene | 193-39-5 | - | < 0.08 | - |
| Dibenzo[a,h]anthracene | 53-70-3 | - | < 0.08 | - |
| Benzo[g,h,i]perylene | 191-24-2 | - | < 0.08 | - |
| Total (USEPA16) PAHs | - | - | < 1.28 | - |

"M" denotes that % fit has been manually interpreted

| Internal Standards | % Area |
|------------------------|--------|
| 1,4-Dichlorobenzene-d4 | NA |
| Naphthalene-d8 | 103 |
| Acenaphthene-d10 | 103 |
| Phenanthrene-d10 | 107 |
| Chrysene-d12 | 118 |
| Perylene-d12 | 142 |

| Surrogates | % Rec |
|------------------|-------|
| Nitrobenzene-d5 | NA |
| 2-Fluorobiphenyl | 100 |
| Terphenyl-d14 | 113 |

Concentrations are reported on a wet weight basis.

The Total PAH result is the sum of non-rounded individual PAH results and therefore may differ to the sum of the rounded individual PAH results printed above. By convention, where any one or more result is a "less than", the total is expressed as a "less than" and includes the "less than" concentration within the total.

Polychlorinated Biphenyls (congeners)

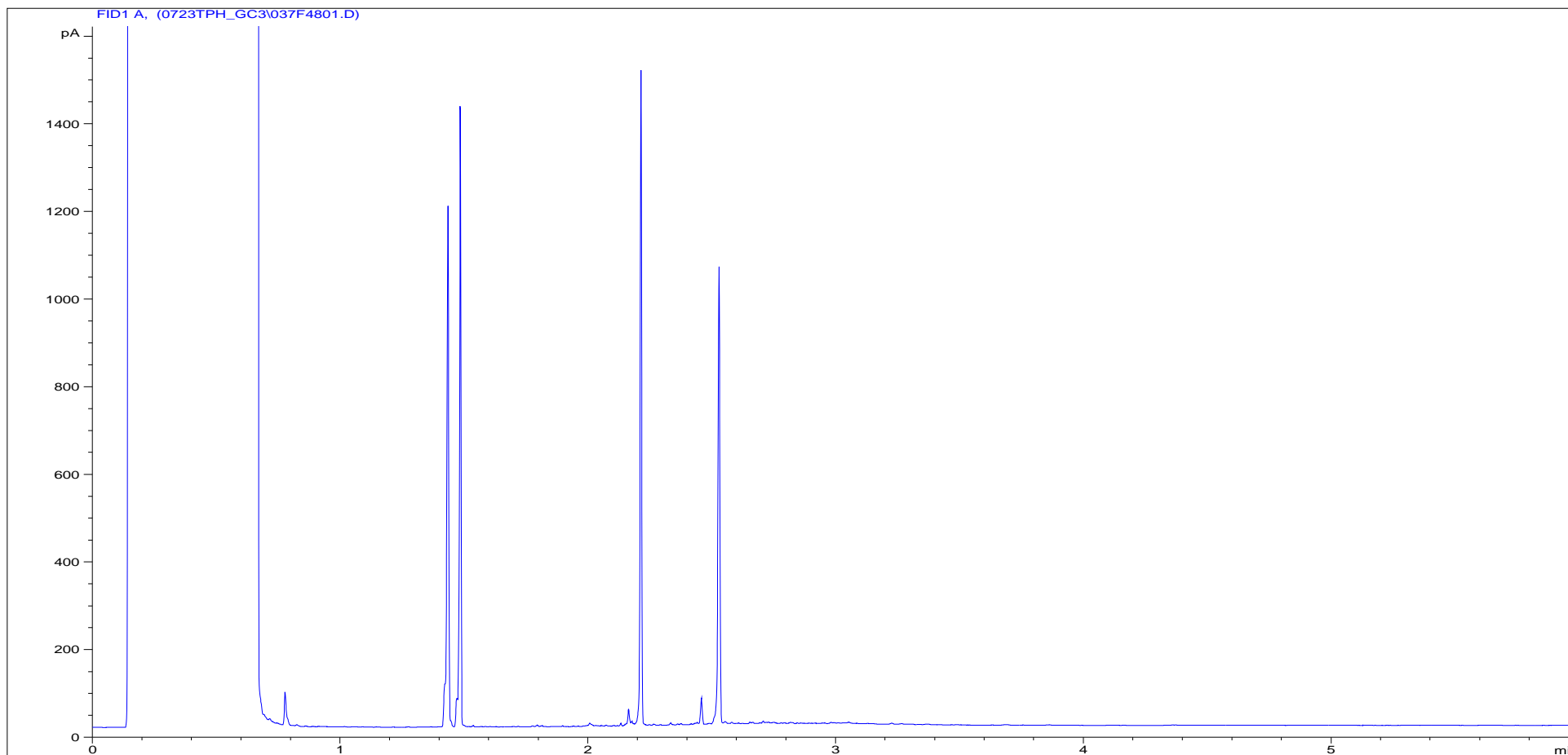
Customer and Site Details: Concept Consultants: 46 Avenue Road, London NW8 6HS
Job Number: S11_6196
QC Batch Number: 111596
Directory: 0726PCB.GC8
Method: Ultrasonic

Matrix: SOIL
Date Booked in: 20-Jul-11
Date Extracted: 26-Jul-11
Date Analysed: 27-Jul-11

* This sample data is not UKAS accredited.

| Sample ID | Customer ID | Concentration, (µg/kg) | | | | | | |
|-------------|-------------|------------------------|-------|--------|--------|--------|--------|--------|
| | | PCB28 | PCB52 | PCB101 | PCB118 | PCB153 | PCB138 | PCB180 |
| * CL1128966 | BH02 0.5 | <5.0 | <5.0 | <5.0 | <5.0 | <5.0 | <5.0 | <5.0 |
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Petroleum Hydrocarbons (C8 to C40) by GC/FID



| | | | |
|-------------------------------|---|---------------------------|--------------------------------|
| Sample ID: | CL1128966 | Job Number: | S11_6196 |
| Multiplier: | 8 | Client: | Concept Consultants |
| Dilution: | 1 | Site: | 46 Avenue Road, London NW8 6HS |
| Acquisition Method: | 5UL_RUNF.M | Client Sample Ref: | BH02 0.5 |
| Acquisition Date/Time: | 23-Jul-11 | | |
| Datafile: | D:\TES\DATA\Y2011\JULY2011\0723TPH_GC3\037F4801.D | | |

Where individual results are flagged see report notes for status.

Customer Concept Consultants
Site 46 Avenue Road, London NW8 6HS
Report No S116196

Consignment No 22160
Date Logged 20-Jul-2011

Report Due 27-Jul-2011

| ID Number | Description | MethodID | BTEXHSA | CustServ | ELESULP | ICPBOR | ICPMSS | PAHMSUS | PCBSCONR | PHHPPLC | PHSOIL | SFAPL | SFAS | Sub002a | TEM | TPHFDUS | W/LM59 | | | | | | |
|------------------------|-------------|----------|-------------------|----------|-------------------|---------------------|--------------|--------------|---------------|-------------|-----------|--------------|-------------|---------------|-----------|--------------------|-------------------|----------------|---------------|---------------------|--------------------|-------------------|-------|
| | | | BTEX-HSA analysis | REPORT A | Elemental Sulphur | Boron (H20 Soluble) | Arsenic (MS) | Cadmium (MS) | Chromium (MS) | Copper (MS) | Lead (MS) | Mercury (MS) | Nickel (MS) | Selenium (MS) | Zinc (MS) | PAH by MS.16(0.08) | PCB - 7 Congeners | Phenol - HPPLC | pH units (AR) | Cyanide(Total) (AR) | Sulphide as S (AR) | Asbestos (screen) | TEM % |
| Accredited to ISO17025 | | | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | | | | | |
| CL/1128966 | BH02 0.5 | 12/07/11 | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | | | | | | |

Note: For analysis where the Report Due date is greater than 7 days (Volatiles, PAH, Pesticides, PCB, Phenols, Herbicides) or 2 days (BOD) after the sampling date, although we will do our utmost to prioritise your samples, they may become deviant whilst being processed in the Laboratory.

In this instance, please contact the Laboratory immediately should you wish to discuss how you would like us to proceed. If you do not respond within 24 hours, we will proceed as originally requested.

Deviating Sample Key

- A The sample was received in an inappropriate container for this analysis
- B The sample was received without the correct preservation for this analysis
- C Headspace present in the sample container
- D The sampling date was not supplied so holding time may be compromised - applicable to all analysis
- E Sample processing did not commence within the appropriate holding time

Requested Analysis Key

- Analysis Required
- Analysis dependant upon trigger result - **Note: due date may be affected if triggered**
- No analysis scheduled
- Analysis Subcontracted

Where individual results are flagged see report notes for status

Method Descriptions

| Matrix | MethodID | Analysis Basis | Method Description |
|--------|------------|----------------|--|
| Soil | BTEXHSA | As Received | Determination of Benzene, Toluene, Ethyl benzene and Xylenes (BTEX) by Headspace GCFID |
| Soil | ELESULP | Air Dried | Determination of Elemental Sulphur using Solvent Extraction followed by HPLC detection. |
| Soil | ICPBOR | Air Dried | Determination of Boron in soil samples by hot water extraction followed by ICPOES detection |
| Soil | ICPMSS | Air Dried | Determination of Metals in soil samples by aqua regia digestion followed by ICPMS |
| Soil | PAHMSUS | As Received | Determination of Polycyclic Aromatic Hydrocarbons (PAH) by hexane/acetone extraction followed by GCMS detection |
| Soil | PCBUSECDAR | As Received | Determination of Polychlorinated Biphenyl (PCB) congeners/aocloris by hexane/acetone extraction followed by GCECD detection |
| Soil | PHEHPLC | As Received | Determination of Phenols by methanol extraction followed by HPLC detection |
| Soil | PHSOIL | As Received | Determination of pH of 2.5:1 deionised water to soil extracts using pH probe. |
| Soil | SFAPI | As Received | Segmented flow analysis with colorimetric detection |
| Soil | SFAS | As Received | Segmented flow analysis with colorimetric detection |
| Soil | SubCon* | * | Contact Laboratory for details of the methodology used by the sub-contractor. |
| Soil | TEM | Air Dried | Determination of % Toluene Extractable Material by gravimetric analysis |
| Soil | TPHFIDUS | As Received | Determination of hexane/acetone extractable Hydrocarbons in soil with GCFID detection. |
| Soil | WSLM59 | Air Dried | Determination of Organic Carbon in soil using sulphurous Acid digestion followed by high temperature combustion and IR detection |

Where individual results are flagged see report notes for status.

Report Notes

Generic Notes

Soil/Solid Analysis

Unless stated otherwise,

- Results expressed as mg/kg have been calculated on an air dried basis
- Sulphate analysis not conducted in accordance with BS1377
- Water Soluble Sulphate is on a 2:1 water:soil extract

Waters Analysis

Unless stated otherwise results are expressed as mg/l

Nil: Where "Nil" has been entered against Total Alkalinity or Total Acidity this indicates that a measurement was not required due to the inherent pH of the sample.

Oil analysis specific

Unless stated otherwise,

- Results are expressed as mg/kg
- SG is expressed as g/cm³@ 15°C

Gas (Tedlar bag) Analysis

Unless stated otherwise, results are expressed as ug/l

Asbestos Analysis

CH Denotes Chrysotile

CR Denotes Crocidolite

AM Denotes Amosite

NAIS No Asbestos Identified in Sample

Symbol Reference

^ Sub-contracted analysis. Note: The accreditation status is that assigned by the subcontract laboratory.

\$\$ Unable to analyse due to the nature of the sample

¶ Samples submitted for this analyte were not preserved on site in accordance with laboratory protocols.

This may have resulted in deterioration of the sample(s) during transit to the laboratory.

Consequently the reported data may not represent the concentration of the target analyte present in the sample at the time of sampling

¥ Results for guidance only due to possible interference

& Blank corrected result

I.S Insufficient sample to complete requested analysis

I.S(g) Insufficient sample to re-analyse, results for guidance only

Intf Unable to analyse due to interferences

N.D Not determined

N.Det Not detected

Req Analysis requested, see attached sheets for results

▮ Raised detection limit due to nature of the sample

* All accreditation has been removed by the laboratory for this result

‡ MCERTS accreditation has been removed for this result

Note: The Laboratory may only claim that data is accredited when all of the requirements of our Quality System have been met. Where these requirements have not been met the laboratory may elect to include the data in its final report and remove the accreditation from individual data items if it believes that the validity of the data has not been affected. If further details are required of the circumstances which have led to the removal of accreditation then please do not hesitate to contact the laboratory.

END OF REPORT

Where individual results are flagged see report notes for status.