# Basement Impact Assessment

# 3A Mornington Crescent, London NW1 7RH

**Geotechnical Factual Report**

*21 November 2017*

MAUND GEO-CONSULTING

*Produced for:*

Dilhan Sebastian

*Prepared by:*

Julian Maund BSc PhD CEng MIMMM CGeol FGS

Geotechnical Engineer

Maund Geo-Consulting Ltd
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Worcester WR5 1QD

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***E*** *julian.maund@gmail.com*

| | | | |
|---|---|---|---|
| **Report Title** | Basement Impact Assessment | **Site Address** | 3A Mornington Crescent, London NW1 6RH |
| **Work Stage** | Factual Geotechnical Report | **Report Date** | November 2017 |
| **Brief Description of the Report Contents** | Factual report on ground investigation undertaken in November 2017 as part of a Basement Impact Assessment | | |

# Document Control Sheet

| | |
|---|---|
| Project Title | 3A Mornington Crescent |
| Report Title | Ground Investigation Factual Report |
| Reference | MGC-FGR-17-25-V1 |
| Revision | 1 |
| Status | Final |
| Control Date | 21 November 2017 |

**Record of Issue**

| Issue | Status | Date | Author | |
|---|---|---|---|---|
| A | Final | 21/11/17 | Julian Maund |  |
| | | | | |

**Distribution**

| | Contact | Copies |
|---|---|---|
| Dilhan Sebastian | | 1 |
| Croft Structural Engineers | Concetta Cosenza | 1 |
| | | |
| | | |

# Contents

# 1 Introduction

## 1.1 Terms of Reference

Maund Geo-Consulting Ltd (MGC) was instructed on 17 October 2017 by Croft Structural Engineers Ltd on behalf of Dilhan Sebastian to undertake a ground investigation at 3A Mornington Crescent to provide information on the ground conditions to support a Basement Impact Assessment to satisfy planning requirements for a basement extension.

## 1.2 Limitations

Notwithstanding anything to the contrary contained in the report, Maund Geo Consulting Limited (MGC) has exercised reasonable skill, care and diligence in the performance of the services required by Dilhan Sebastian and MGC shall not be liable except to the extent that it has failed to exercise reasonable skill, care and diligence and this report shall be read and construed accordingly. Information provided by third parties has been used in good faith and is taken at face value; however, MGC cannot guarantee its accuracy or completeness. The inherent variation of ground conditions allows only definition of the actual conditions at the locations and depths at the time of the investigation. At intermediate locations, conditions can only be inferred.

# 2 The Site

## 2.1 Location

The property is located on Mornington Crescent which is within the London Borough of Camden, shown on Figure 1 in Appendix A.

## 2.2 Geology

Information obtained from the BGS website http://mapapps.bgs.ac.uk/geologyofbritain/home.html indicates that the site is located on The London Clay Formation.

# 3 Ground Investigation

## 3.1 General

A ground investigation was undertaken on 2nd November 2017. The investigation was carried out by Topdrill Ltd which comprised 1 No. cable percussive borehole and two No. hand dug trial pits to expose party wall footings. The borehole was undertaken using a specialist LLAMR rig which was carried through the house in sections and assembled at the borehole location. The location of the exploratory holes is shown in Figure 2 in Appendix A.

## 3.1 Service Clearance and survey

The borehole and trial pit locations were checked for service clearance by using a Cable Avoidance Tool and the use of Thames Water service drawings. The location of the borehole and trial pits was referenced to existing features.

## 3.2 Drilling depths

Borehole BH01 was drilled to 9.50 m. The trial pits were excavated to approximately 0.5 m depth.

## 3.3 Insitu Testing

Insitu Standard Penetration Tests were undertaken at regular intervals was shown on borehole records included in Appendix B.

## 3.4 Sampling

Disturbed samples were taken in the borehole from the split sampler at all SPT depths from the borehole.

## 3.5 Installation

A groundwater monitoring standpipe was installed in BH01. Details of the installation are included in the borehole records in Appendix B.

# 4 Laboratory Testing

## 4.1 General

Selected samples were sent to i2 Laboratories Ltd for geotechnical testing.

## 4.2 Geotechnical Testing on soil

The following tests were undertaken in accordance with BS1377:1990. The test results with methodologies are included in Appendix C.

| Test type | No. of tests | Test Method |
|---|---|---|
| Moisture Content | 5 | BS1377:1990 |
| Plasticity Index - 1 point Liquid Limit | 5 | BS1377:1990 |
| pH, and water-soluble sulphate, | 1 | BRE SD1 |

# 5 Groundwater Monitoring

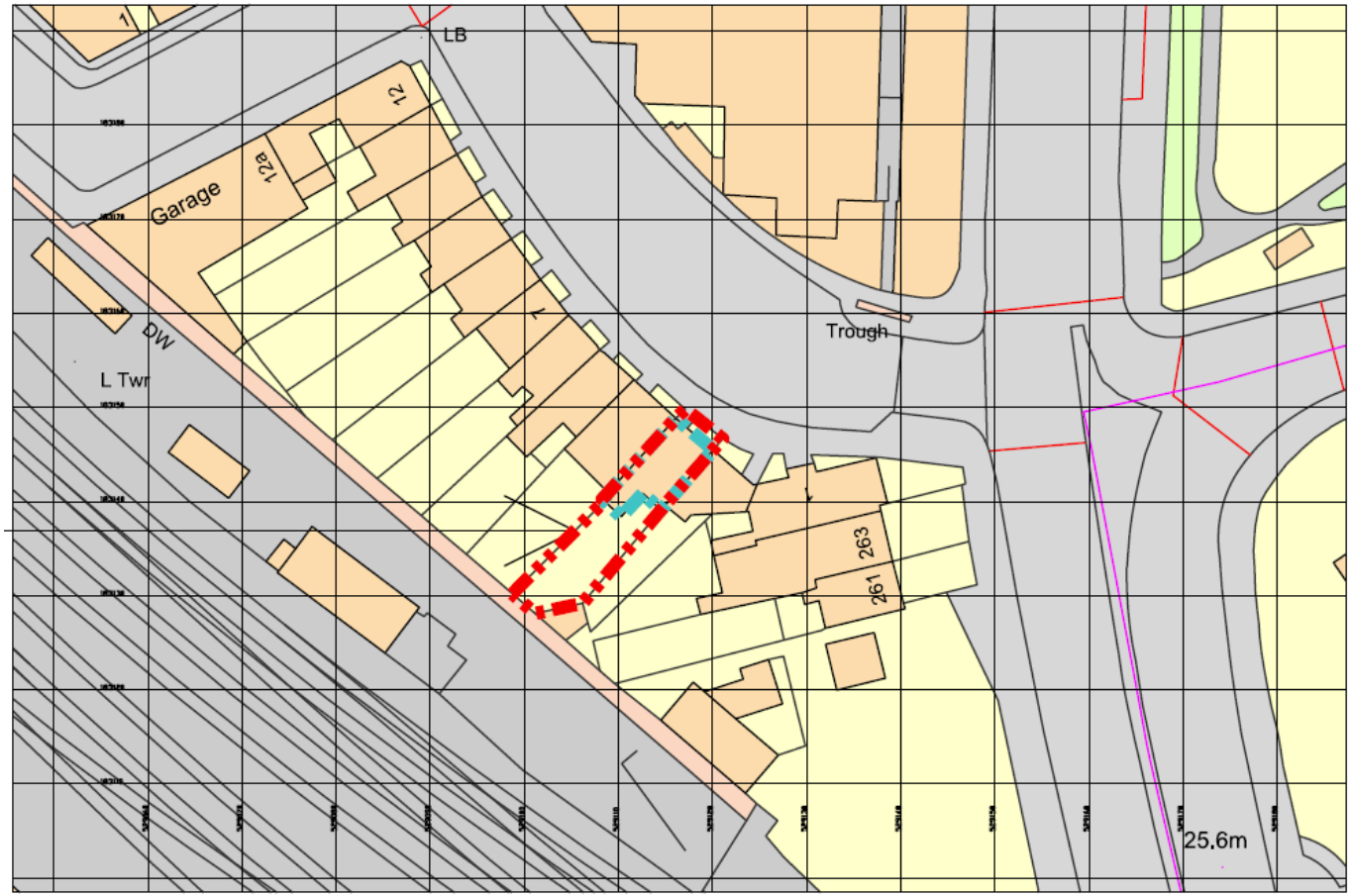
Groundwater levels in the borehole installation in BH01 was monitored while on site on 26/10/17 and 2 no. subsequent occasions. The results are proved in Table 5.1.

**Table 5.1**

| Date of Monitoring | Groundwater (depth metres below ground level) |
|---|---|
| 2/11/17 | Seepages at 5.45 and 7.10 m while drilling |
| 14/11/17 | 4.47 |
| 21/11/17 | 4.17 |

# Appendices

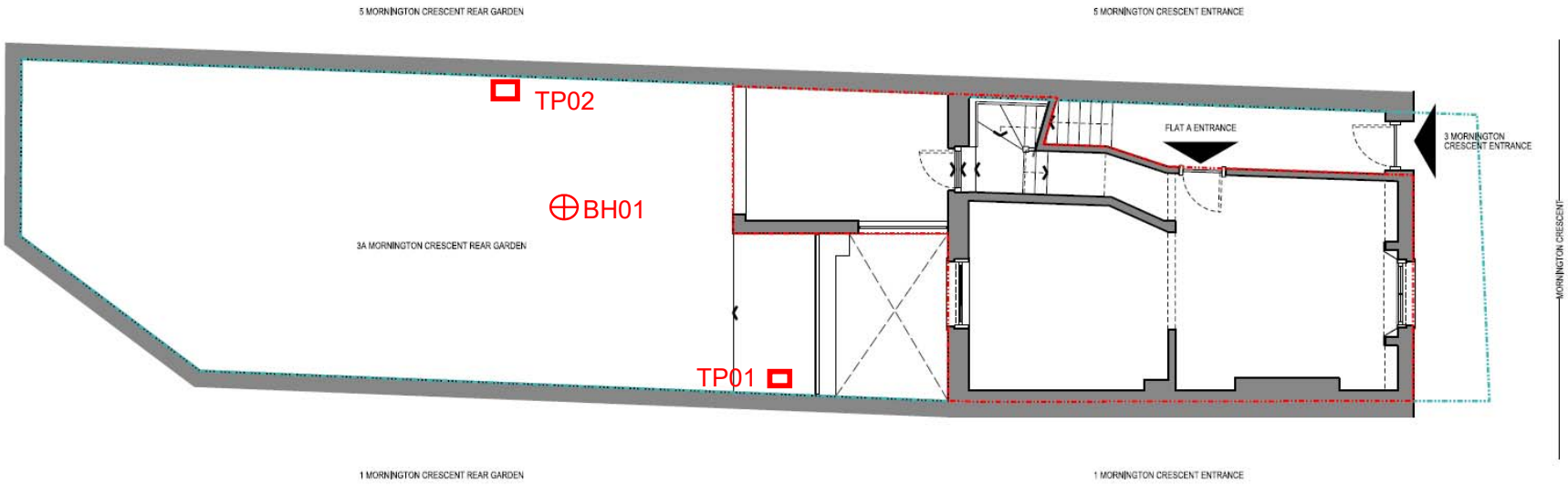
# Appendix A Drawings






| Client | | Project |
|---|---|---|
| Dilhan Sebastian | MAUND GEO-CONSULTING | 3A Mornington Crescent - BIA. |

| Job No. | Title | Figure |
|---|---|---|
| MGC/17/26 | Site Location Plan | 1 |




| Client | | Project |
|---|---|---|
| Dilhan Sebastian | **MAUND GEO-CONSULTING** | 3A Mornington Crescent |

| Job No. | Title | Figure |
|---|---|---|
| MGC/17/26 | Exploratory Location Plan | 2 |

# Appendix B Exploratory Hole Records

# MAUND GEO-CONSULTING

Julian Maund BSc PhD MIMMM CEng FGS CGeol

Maund Geo-Consulting Ltd
20 Mortlake Avenue
Worcester WR5 1QD
07817018716
julian.maund@gmail.com

Borehole No.

**BH01**

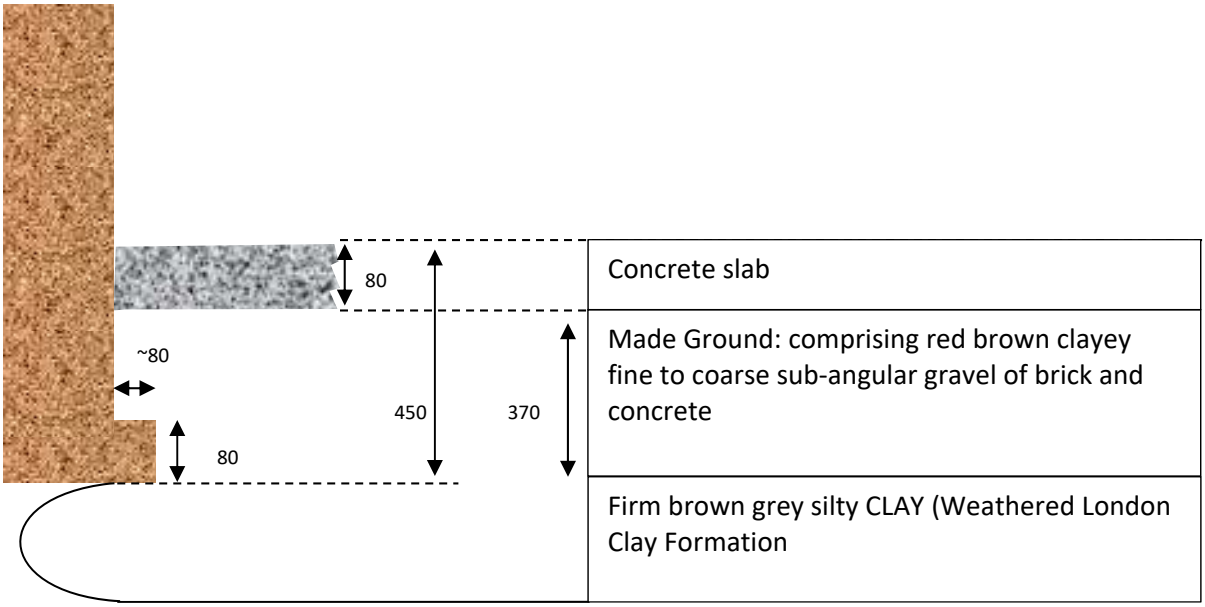
Sheet 1 of 1

| | | | |
|---|---|---|---|
| Project Name: 3A Mornington Crescent, London NW1 7RH | Project No: | Co -ords | Hole Type: Top Drill LLAMR |
| Location: 3A Mornington Crescent, London NW1 7RH | | Level: (m AOD) 26 (Approx only) | Hole Diameter: 150 mm |
| Client: Dilhan Sebastian | | Date Drilled: 02/11/17 | Logged By: JGM |

| Well | Water Strikes | Sampling and Insitu Testing: Depth (m) | Type | Results | Depth (m) | Level (m AOD) | Legend | Stratum Description |
|---|---|---|---|---|---|---|---|---|
| | | 0-0.3 | E | | 0.05 | 25.95 | | Made Ground: Concrete 600 mm square paving slabs |
| | | | | | 0.4 | 25.6 | | Made Ground: Fine sandy clayey gravel of brick and flint |
| | | 1.20 | D | N=6 (1/1,1,1,2,2) | | | | Firm to stiff yellow brown silty CLAY with a trace of fine brown sand (London Clay Formation) |
| | | | | | | | | … rare fine gravel from 0.4 to 0.8 (possibly disturbed ground) |
| | | 2.00 | D | N=17 (1/2,3,4,4,6) | | | | |
| | | 3.00 | D | N= 11 (1,/2,2,2,4,3) | | | | |
| | | | | | | | | …fine brown sand horizon at 3.9 to 3.91m |
| | | 4.00 | D | N= 10 (1,/2,2,2,3,3) | | | | … soil becoming moist at 4.0 m |
| | | 5.00 | D | N= 12 (1,/1,2,3,3,4) | | | | |
| | ▼ | | | | | | | … slow water seepage at 5.45 m |
| | | 6.00 | D | N= 15 (1,/2,3,4,4,4) | | | | |
| | ▼ ▽ | 7.00 | D | N=44 (10,/25,21,8,7,8) | | | | … claystone fragments recovered at 7.00 m |
| | | | | | | | | … water seepage at 7.1 m standing at 7.20 in 20 minutes |
| | | | | | | | | … becoming brown grey in colour from 7.50 m |
| | | 8.00 | D | N=17 (2,/4,4,4,4,5) | | | | |
| | | 9.00 | D | N=20 (3,/5,6,4,5,5) | | | | |
| | | | | | 9.5 | 16.5 | | Borehole compete at 9.50 m |

Remarks

Inspection pit to 1.2 m and CAT scan.
Groundwater struck at 5.45 slow seepage no rise in 20 mins. Groundwater struck at 7.1 m at 7.2 m after 20 minutes.
Standpipe Piezomter installed to depth of 8 m. Bentonite seal from 5.0 to 0.5 m. Gas bung and flat cover

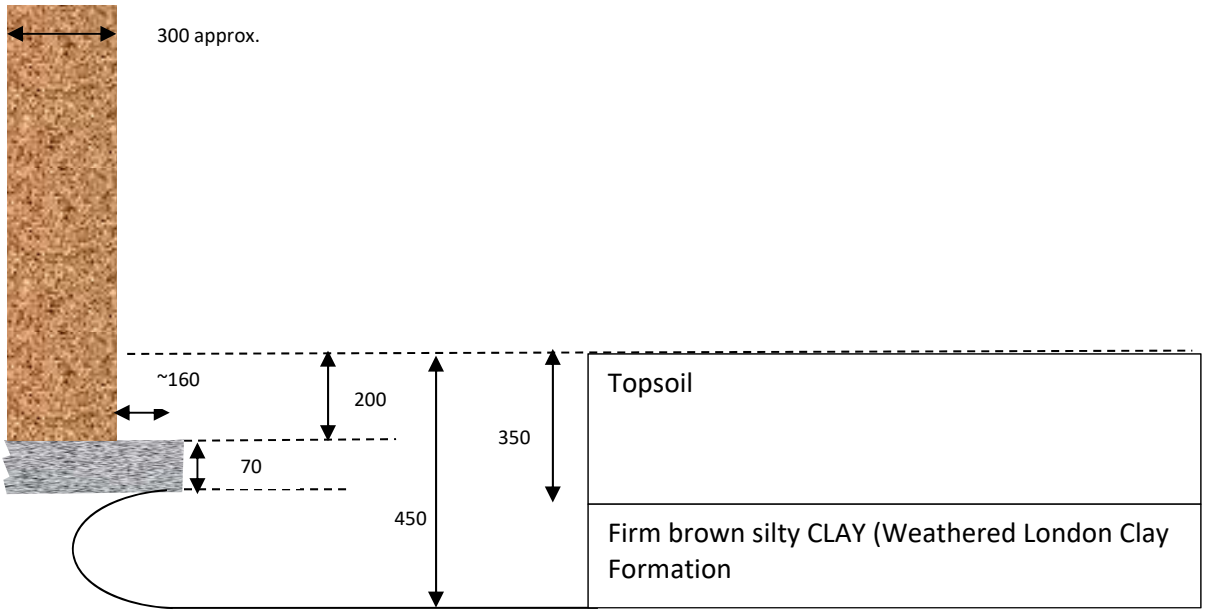



NOTE: NOT TO SCALE Dimensions in mm.

Concrete

Brick wall (with concrete render)

| | | |
|---|---|---|
| **Client:** **Dilhan Sebastian** | **Date:** **November 2017** | **Project:** **3A Mornington Crescent NW1 7RH** |
| **Section Drawing: Foundation Exposure TP01** | **MAUND GEO-CONSULTING** | **Ref:** **MGC 17-26** |




NOTE: NOT TO SCALE Dimensions in mm.

Concrete footing (extent not proven on neighbour's side)

Brick wall

| | | |
|---|---|---|
| **Client:** **Dilhan Sebastian** | **Date:** **November 2017** | **Project:** **3A Mornington Crescent NW1 7RH** |
| **Section Drawing: Foundation Exposure TP02** | **MAUND GEO-CONSULTING** | **Ref:** **MGC 17-26** |

# Appendix C Geotechnical Laboratory Test Report

# TEST CERTIFICATE

## Determination of Liquid and Plastic Limits

i2 Analytical Ltd
7 Woodshots Meadow
Croxley Green Business Park
Watford Herts WD18 8YS

4041

Tested in Accordance with BS1377-2: 1990: Clause 4.4 & 5: One Point Method

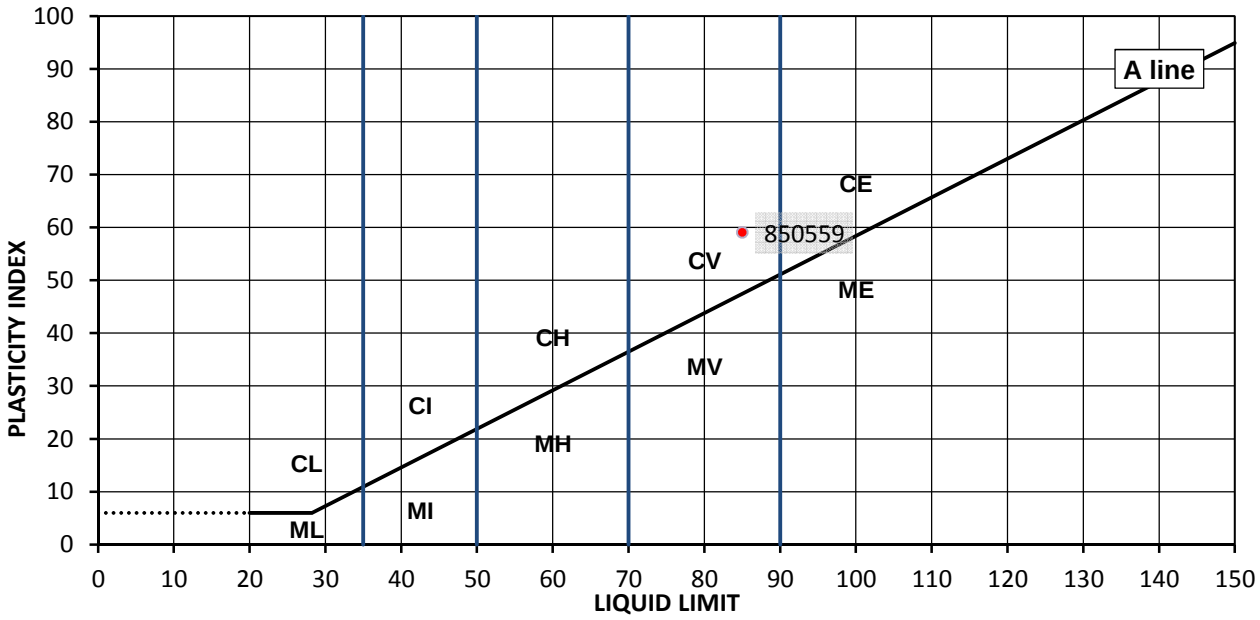
| | | | |
|---|---|---|---|
| Client: | Maund GeoConsulting Ltd | Client Reference: | 17-66410 |
| Client Address: | 20 Mortlake Avenue<br>Worcester<br>WR5 1QT | Job Number: | 17-66410 |
| | | Date Sampled: | 02/11/2017 |
| | | Date Received: | 02/11/2017 |
| Contact: | Julian Maund | Date Tested: | 15/11/2017 |
| Site Name: | 3A Mornington Cresent NW1 7RH | Sampled By: | Not Given |
| Site Address: | Not Given | | |

**TEST RESULTS**

Laboratory Reference: 850559
Sample Reference: Not Given

| | | | |
|---|---|---|---|
| Description: | Brown CLAY | Sample Type: | B |
| Location: | BH01 | Depth Top [m]: | 1.00 |
| Sample Preparation: | Tested in natural condition | Depth Base [m]: | Not Given |

| As Received Moisture Content [%] | Liquid Limit [%] | Plastic Limit [%] | Plasticity Index [%] | % Passing 425µm BS Test Sieve |
|---|---|---|---|---|
| 19 | 85 | 26 | 59 | 100 |




Legend, based on BS 5930:2015 Code of practice for site investigations

| | | Plasticity | | Liquid Limit |
|---|---|---|---|---|
| C | Clay | L | Low | below 35 |
| M | Silt | I | Medium | 35 to 50 |
| | | H | High | 50 to 70 |
| | | V | Very high | 70 to 90 |
| | | E | Extremely high | exceeding 90 |
| | Organic | O | append to classification for organic material ( eg CHO ) | |

Remarks

Approved:

Dariusz Piotrowski
PL Laboratory Manager Geotechnical Section
Date Reported: 21/11/2017

Signed:

Mark Beastall
Geotechnical Commercial Manager

**for and on behalf of i2 Analytical Ltd**

# TEST CERTIFICATE

## Determination of Liquid and Plastic Limits

i2 Analytical Ltd
7 Woodshots Meadow
Croxley Green Business Park
Watford Herts WD18 8YS

UKAS TESTING 4041

Tested in Accordance with BS1377-2: 1990: Clause 4.4 & 5: One Point Method

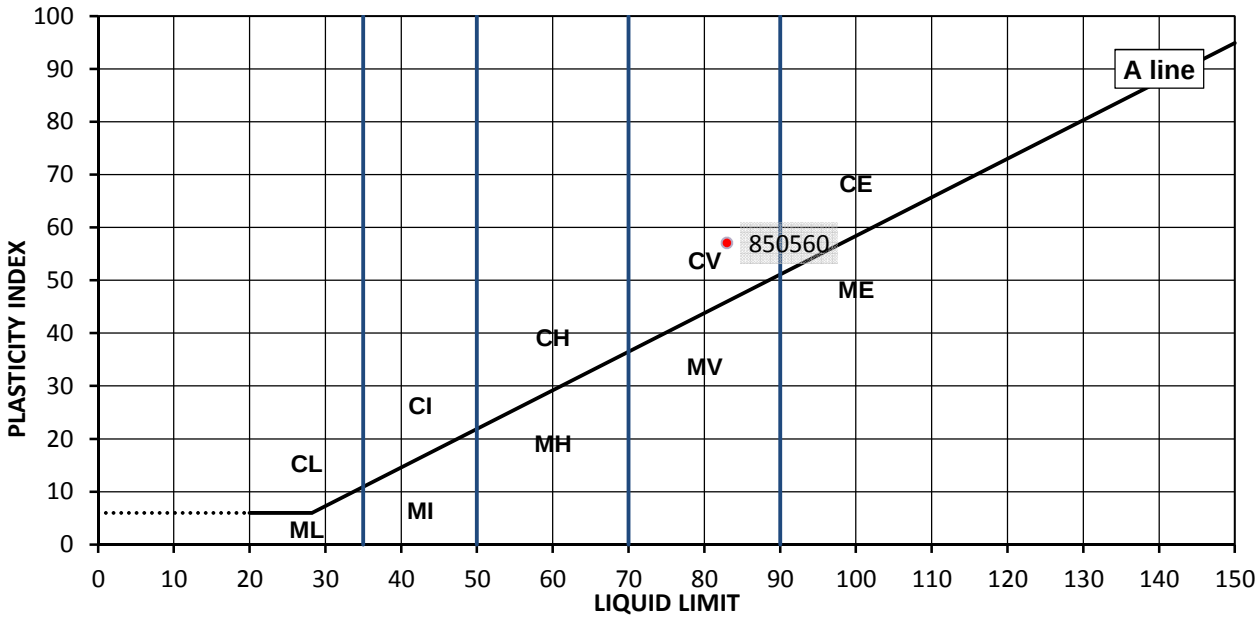
| | | | |
|---|---|---|---|
| Client: | Maund GeoConsulting Ltd | Client Reference: | 17-66410 |
| Client Address: | 20 Mortlake Avenue<br>Worcester<br>WR5 1QT | Job Number: | 17-66410 |
| | | Date Sampled: | 02/11/2017 |
| | | Date Received: | 02/11/2017 |
| Contact: | Julian Maund | Date Tested: | 15/11/2017 |
| Site Name: | 3A Mornington Cresent NW1 7RH | Sampled By: | Not Given |
| Site Address: | Not Given | | |

**TEST RESULTS**

Laboratory Reference: 850560
Sample Reference: Not Given

| | | | |
|---|---|---|---|
| Description: | Brown CLAY | Sample Type: | B |
| Location: | BH02 | Depth Top [m]: | 2.00 |
| Sample Preparation: | Tested in natural condition | Depth Base [m]: | Not Given |

| As Received Moisture Content [%] | Liquid Limit [%] | Plastic Limit [%] | Plasticity Index [%] | % Passing 425µm BS Test Sieve |
|---|---|---|---|---|
| 21 | 83 | 26 | 57 | 100 |

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|---|---|---|---|
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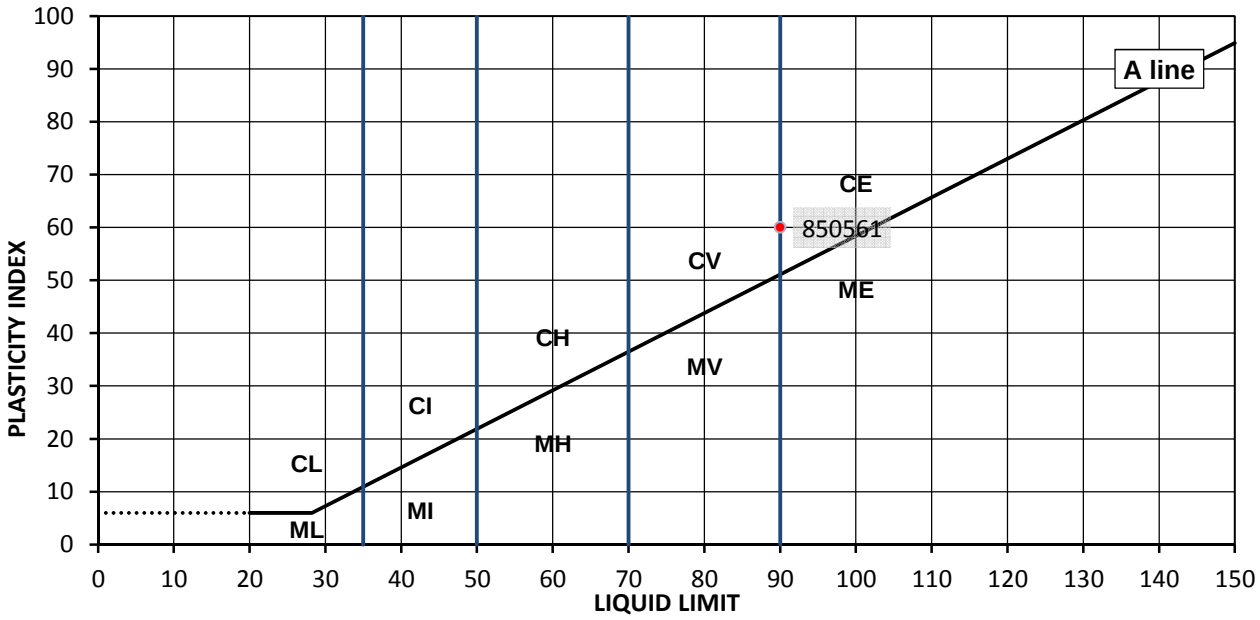
| Client Address: | 20 Mortlake Avenue<br>Worcester<br>WR5 1QT | Job Number: | 17-66410 |
| | | Date Sampled: | 02/11/2017 |
| | | Date Received: | 02/11/2017 |
| Contact: | Julian Maund | Date Tested: | 15/11/2017 |
| Site Name: | 3A Mornington Cresent NW1 7RH | Sampled By: | Not Given |
| Site Address: | Not Given | | |

**TEST RESULTS**

Laboratory Reference: 850561
Sample Reference: Not Given

| | | | |
|---|---|---|---|
| Description: | Brown CLAY | Sample Type: | B |
| Location: | BH03 | Depth Top [m]: | 3.00 |
| Sample Preparation: | Tested in natural condition | Depth Base [m]: | Not Given |

| As Received Moisture Content [%] | Liquid Limit [%] | Plastic Limit [%] | Plasticity Index [%] | % Passing 425µm BS Test Sieve |
|---|---|---|---|---|
| 28 | 90 | 30 | 60 | 100 |




Legend, based on BS 5930:2015 Code of practice for site investigations

| | | Plasticity | | Liquid Limit |
|---|---|---|---|---|
| C | Clay | L | Low | below 35 |
| M | Silt | I | Medium | 35 to 50 |
| | | H | High | 50 to 70 |
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PL Laboratory Manager Geotechnical Section
Date Reported: 21/11/2017

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Geotechnical Commercial Manager

**for and on behalf of i2 Analytical Ltd**

# TEST CERTIFICATE

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i2 Analytical Ltd
7 Woodshots Meadow
Croxley Green Business Park
Watford Herts WD18 8YS

UKAS TESTING 4041

Tested in Accordance with BS1377-2: 1990: Clause 4.4 & 5: One Point Method

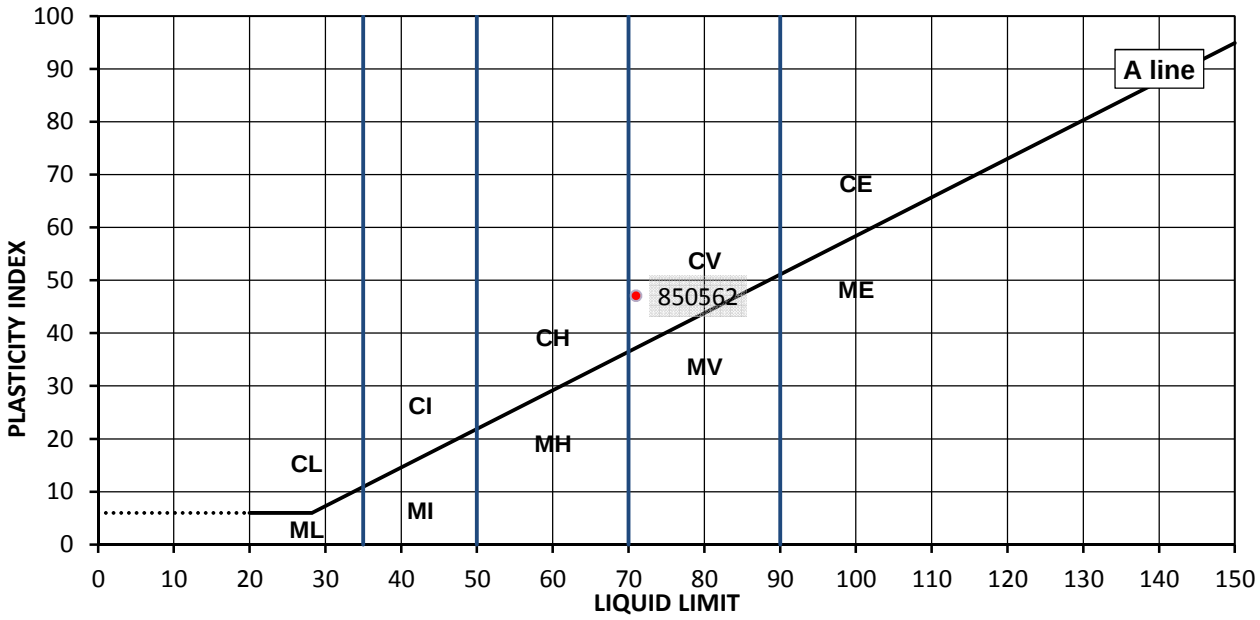
| | | | |
|---|---|---|---|
| Client: | Maund GeoConsulting Ltd | Client Reference: | 17-66410 |
| Client Address: | 20 Mortlake Avenue<br>Worcester<br>WR5 1QT | Job Number: | 17-66410 |
| | | Date Sampled: | 02/11/2017 |
| | | Date Received: | 02/11/2017 |
| Contact: | Julian Maund | Date Tested: | 15/11/2017 |
| Site Name: | 3A Mornington Cresent NW1 7RH | Sampled By: | Not Given |
| Site Address: | Not Given | | |

**TEST RESULTS**

Laboratory Reference: 850562
Sample Reference: Not Given

| | | | |
|---|---|---|---|
| Description: | Brown CLAY | Sample Type: | B |
| Location: | BH01 | Depth Top [m]: | 6.00 |
| Sample Preparation: | Tested in natural condition | Depth Base [m]: | Not Given |

| As Received Moisture Content [%] | Liquid Limit [%] | Plastic Limit [%] | Plasticity Index [%] | % Passing 425µm BS Test Sieve |
|---|---|---|---|---|
| 27 | 71 | 24 | 47 | 100 |

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Dariusz Piotrowski
PL Laboratory Manager Geotechnical Section
Date Reported: 21/11/2017

Signed:

Mark Beastall
Geotechnical Commercial Manager

**for and on behalf of i2 Analytical Ltd**

# TEST CERTIFICATE

## Determination of Liquid and Plastic Limits

i2 Analytical Ltd
7 Woodshots Meadow
Croxley Green Business Park
Watford Herts WD18 8YS

UKAS TESTING 4041

Tested in Accordance with BS1377-2: 1990: Clause 4.4 & 5: One Point Method

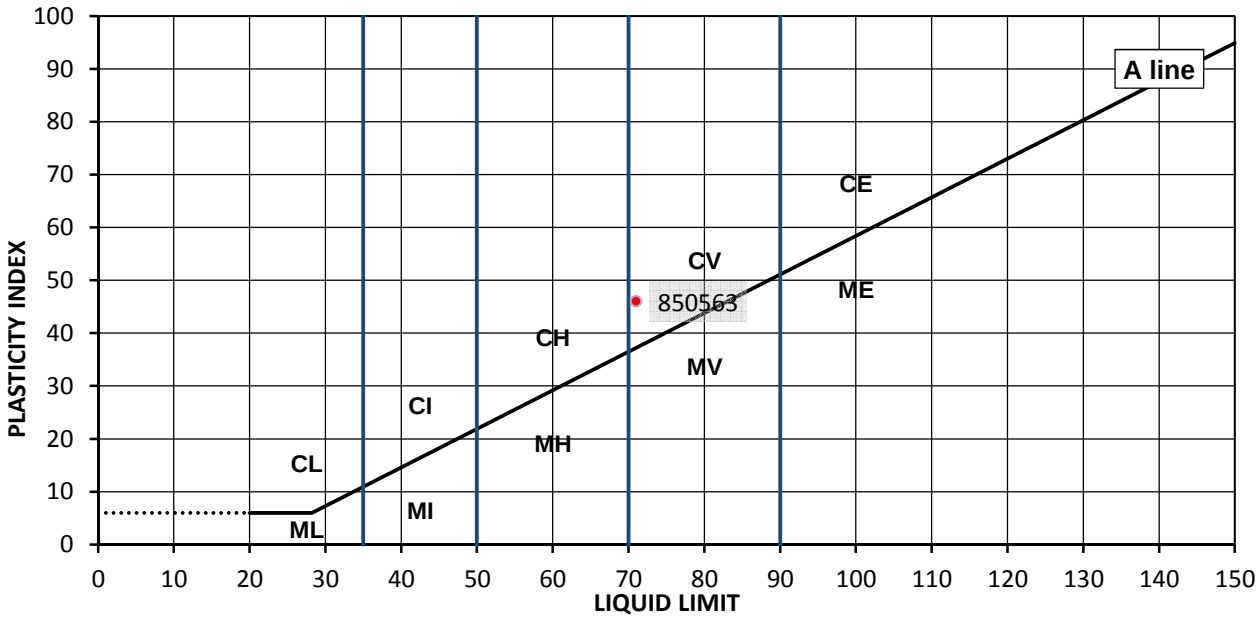
| | | | |
|---|---|---|---|
| Client: | Maund GeoConsulting Ltd | Client Reference: | 17-66410 |
| Client Address: | 20 Mortlake Avenue<br>Worcester<br>WR5 1QT | Job Number: | 17-66410 |
| | | Date Sampled: | 02/11/2017 |
| | | Date Received: | 02/11/2017 |
| Contact: | Julian Maund | Date Tested: | 15/11/2017 |
| Site Name: | 3A Mornington Cresent NW1 7RH | Sampled By: | Not Given |
| Site Address: | Not Given | | |

**TEST RESULTS**

Laboratory Reference: 850563
Sample Reference: Not Given

| | | | |
|---|---|---|---|
| Description: | Brown CLAY with gypsum crystals | Sample Type: | B |
| Location: | BH02 | Depth Top [m]: | 8.00 |
| Sample Preparation: | Tested in natural condition | Depth Base [m]: | Not Given |

| As Received Moisture Content [%] | Liquid Limit [%] | Plastic Limit [%] | Plasticity Index [%] | % Passing 425µm BS Test Sieve |
|---|---|---|---|---|
| 30 | 71 | 25 | 46 | 100 |




Legend, based on BS 5930:2015 Code of practice for site investigations

| | | Plasticity | | Liquid Limit |
|---|---|---|---|---|
| C | Clay | L | Low | below 35 |
| M | Silt | I | Medium | 35 to 50 |
| | | H | High | 50 to 70 |
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| | | E | Extremely high | exceeding 90 |
| | Organic | O | append to classification for organic material ( eg CHO ) | |

Remarks

Approved:

Dariusz Piotrowski
PL Laboratory Manager Geotechnical Section
Date Reported: 21/11/2017

Signed:

Mark Beastall
Geotechnical Commercial Manager

**for and on behalf of i2 Analytical Ltd**

# TEST CERTIFICATE

## Summary of Classification Test Results

i2 Analytical Ltd
7 Woodshots Meadow
Croxley Green Business Park
Watford Herts WD18 8YS

Client: Maund GeoConsulting Ltd
Client Address: 20 Mortlake Avenue
Worcester
WR5 1QT
Contact: Julian Maund
Site Name: 3A Mornington Cresent NW1 7RH
Site Address: Not Given

Client Reference: 17-66410
Job Number: 17-66410
Date Sampled: 02/11/2017
Date Received: 02/11/2017
Date Tested: 15/11/2017
Sampled By: Not Given

**Test results**

| Laboratory Reference | Hole No. | Sample | | | | Soil Description | Density | | M/C | Atterberg | | | | PD |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | Reference | Top depth [m] | Base depth [m] | Type | | bulk Mg/m$^3$ | dry Mg/m$^3$ | % | % Passing 425um % | LL % | PL % | PI % | Mg/m$^3$ |
| 850559 | BH01 | Not Given | 1.00 | Not Given | B | Brown CLAY | | | 19 | 100 | 85 | 26 | 59 | |
| 850562 | BH01 | Not Given | 6.00 | Not Given | B | Brown CLAY | | | 27 | 100 | 71 | 24 | 47 | |
| 850560 | BH02 | Not Given | 2.00 | Not Given | B | Brown CLAY | | | 21 | 100 | 83 | 26 | 57 | |
| 850563 | BH02 | Not Given | 8.00 | Not Given | B | Brown CLAY with gypsum crystals | | | 30 | 100 | 71 | 25 | 46 | |
| 850561 | BH03 | Not Given | 3.00 | Not Given | B | Brown CLAY | | | 28 | 100 | 90 | 30 | 60 | |
| | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | |

Comments:

Approved:

Dariusz Piotrowski
PL Laboratory Manager
Geotechnical Section

Signed:

Mark Beastall
Geotechnical Commercial Manager

Date Reported: 21/11/2017

**for and on behalf of i2 Analytical Ltd**

**Julian Maund**
Maund GeoConsulting Ltd
20 Mortlake Avenue
Worcester
WR5 1QT

**e:** julian.maund@gmail.com

i2 Analytical Ltd.
7 Woodshots Meadow,
Croxley Green
Business Park,
Watford,
Herts,
WD18 8YS

**t:** 01923 225404
**f:** 01923 237404
**e:** reception@i2analytical.com

# Analytical Report Number : 17-66619

| | | | |
|---|---|---|---|
| **Project / Site name:** | 3A Mornington Crescent, NW1 7RH | **Samples received on:** | 02/11/2017 |
| **Your job number:** | | **Samples instructed on:** | 03/11/2017 |
| **Your order number:** | | **Analysis completed by:** | 14/11/2017 |
| **Report Issue Number:** | 1 | **Report issued on:** | 14/11/2017 |
| **Samples Analysed:** | 1 soil sample | | |

**Signed:** CCStone

Dr Claire Stone
Quality Manager
**For & on behalf of i2 Analytical Ltd.**

Standard Geotechnical, Asbestos and Chemical Testing Laboratory located at: ul. Pionierów 39, 41 -711 Ruda Śląska, Poland.

Accredited tests are defined within the report, opinions and interpretations expressed herein are outside the scope of accreditation.

Standard sample disposal times, unless otherwise agreed with the laboratory, are :

| | |
|---|---|
| soils | - 4 weeks from reporting |
| leachates | - 2 weeks from reporting |
| waters | - 2 weeks from reporting |
| asbestos | - 6 months from reporting |

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**Analytical Report Number: 17-66619**

**Project / Site name: 3A Mornington Crescent, NW1 7RH**

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| **Lab Sample Number** | | | | 851934 | | | | |
| **Sample Reference** | | | | BH01 | | | | |
| **Sample Number** | | | | None Supplied | | | | |
| **Depth (m)** | | | | 1.20 | | | | |
| **Date Sampled** | | | | 02/11/2017 | | | | |
| **Time Taken** | | | | None Supplied | | | | |
| **Analytical Parameter (Soil Analysis)** | **Units** | **Limit of detection** | **Accreditation Status** | | | | | |
| Stone Content | % | 0.1 | NONE | < 0.1 | | | | |
| Moisture Content | % | N/A | NONE | 17 | | | | |
| Total mass of sample received | kg | 0.001 | NONE | 0.24 | | | | |
| **General Inorganics** | | | | | | | | |
| pH - Automated | pH Units | N/A | MCERTS | 7.0 | | | | |
| Water Soluble SO4 16hr extraction (2:1 Leachate Equivalent) | g/l | 0.00125 | MCERTS | 0.10 | | | | |

**Analytical Report Number : 17-66619**

**Project / Site name: 3A Mornington Crescent, NW1 7RH**

* These descriptions are only intended to act as a cross check if sample identities are questioned. The major constituent of the sample is intended to act with respect to MCERTS validation. The laboratory is accredited for sand, clay and loam (MCERTS) soil types. Data for unaccredited types of solid should be interpreted with care.

Stone content of a sample is calculated as the % weight of the stones not passing a 10 mm sieve. Results are not corrected for stone content.

| Lab Sample Number | Sample Reference | Sample Number | Depth (m) | Sample Description * |
|---|---|---|---|---|
| 851934 | BH01 | None Supplied | 1.20 | Brown clay. |

**Analytical Report Number : 17-66619**

**Project / Site name: 3A Mornington Crescent, NW1 7RH**

**Water matrix abbreviations: Surface Water (SW) Potable Water (PW) Ground Water (GW) Process Water (PrW)**

| Analytical Test Name | Analytical Method Description | Analytical Method Reference | Method number | Wet / Dry Analysis | Accreditation Status |
|---|---|---|---|---|---|
| Moisture Content | Moisture content, determined gravimetrically. | In-house method based on BS1377 Part 2, 1990, Chemical and Electrochemical Tests | L019-UK/PL | W | NONE |
| pH in soil (automated) | Determination of pH in soil by addition of water followed by automated electrometric measurement. | In-house method based on BS1377 Part 3, 1990, Chemical and Electrochemical Tests | L099-PL | D | MCERTS |
| Stones content of soil | Standard preparation for all samples unless otherwise detailed. Gravimetric determination of stone > 10 mm as % dry weight. | In-house method based on British Standard Methods and MCERTS requirements. | L019-UK/PL | D | NONE |
| Sulphate, water soluble, in soil (16hr extraction) | Determination of water soluble sulphate by ICP-OES. Results reported directly (leachate equivalent) and corrected for extraction ratio (soil equivalent). | In-house method based on BS1377 Part 3, 1990, Chemical and Electrochemical Tests, 2:1 water:soil extraction, analysis by ICP-OES. | L038-PL | D | MCERTS |

**For method numbers ending in 'UK' analysis have been carried out in our laboratory in the United Kingdom.**
**For method numbers ending in 'PL' analysis have been carried out in our laboratory in Poland.**
**Soil analytical results are expressed on a dry weight basis. Where analysis is carried out on as-received the results obtained are multiplied by a moisture correction factor that is determined gravimetrically using the moisture content which is carried out at a maximum of 30oC.**