

Results - Soil

| Client: Applied Geology | Chemtest Job No.: | | | | | | | | | | | |
|-------------------------------------|----------------------|------|-------|-------|------------------|----------------------|----------|------------------|----------------------|----------------------|------------------|----------------|
| Quotation No.: | Chemtest Sample ID.: | | | | | | | | | | | |
| | Sample Location: | | | | | | | | | | | |
| | Sample Type: | | | | | | | | | | | |
| | Top Depth (m): | | | | | | | | | | | |
| | Date Sampled: | | | | | | | | | | | |
| | Asbestos Lab: | | | | | | | | | | | |
| Determinand | Accred. | SOP | Units | LOD | 18-26118 | 18-26118 | 18-26118 | 18-26118 | 18-26118 | 18-26118 | 18-26118 | 18-26118 |
| Aliphatic TPH >C21-C35 | M | 2680 | mg/kg | 1.0 | [B] < 1.0 | | < 1.0 | | | < 1.0 | | |
| Aliphatic TPH >C35-C44 | N | 2680 | mg/kg | 1.0 | [B] < 1.0 | | < 1.0 | | | < 1.0 | | |
| Total Aliphatic Hydrocarbons | N | 2680 | mg/kg | 5.0 | [B] < 5.0 | | < 5.0 | | | < 5.0 | | |
| Aromatic TPH >C5-C7 | N | 2680 | mg/kg | 1.0 | [B] < 1.0 | | < 1.0 | | | < 1.0 | | |
| Aromatic TPH >C7-C8 | N | 2680 | mg/kg | 1.0 | [B] < 1.0 | | < 1.0 | | | < 1.0 | | |
| Aromatic TPH >C8-C10 | M | 2680 | mg/kg | 1.0 | [B] < 1.0 | | < 1.0 | | | < 1.0 | | |
| Aromatic TPH >C10-C12 | M | 2680 | mg/kg | 1.0 | [B] < 1.0 | | < 1.0 | | | < 1.0 | | |
| Aromatic TPH >C12-C16 | M | 2680 | mg/kg | 1.0 | [B] < 1.0 | | < 1.0 | | | < 1.0 | | |
| Aromatic TPH >C16-C21 | U | 2680 | mg/kg | 1.0 | [B] < 1.0 | | < 1.0 | | | < 1.0 | | |
| Aromatic TPH >C21-C35 | M | 2680 | mg/kg | 1.0 | [B] < 1.0 | | < 1.0 | | | < 1.0 | | |
| Aromatic TPH >C35-C44 | N | 2680 | mg/kg | 1.0 | [B] < 1.0 | | < 1.0 | | | < 1.0 | | |
| Total Aromatic Hydrocarbons | N | 2680 | mg/kg | 5.0 | [B] < 5.0 | | < 5.0 | | | < 5.0 | | |
| Total Petroleum Hydrocarbons | N | 2680 | mg/kg | 10.0 | [B] < 10 | | < 10 | | | < 10 | | |
| Sulphate (2:1 Water Soluble) as SO4 | M | 2120 | g/l | 0.010 | < 0.010 | < 0.010 | < 0.010 | < 0.010 | < 0.010 | < 0.010 | < 0.010 | < 0.010 |
| ACM Type | U | 2192 | | N/A | | - | | | - | - | | |
| Asbestos Identification | U | 2192 | % | 0.001 | | No Asbestos Detected | | | No Asbestos Detected | No Asbestos Detected | | |
| Moisture | N | 2030 | % | 0.020 | 8.6 | 8.5 | 9.8 | 6.9 | 8.9 | 6.9 | 9.7 | 5.1 |
| Stones and Removed Materials | N | 2030 | % | 0.020 | < 0.020 | < 0.020 | < 0.020 | < 0.020 | < 0.020 | < 0.020 | < 0.020 | < 0.020 |
| Soil Colour | N | 2040 | | N/A | Brown | Orange | Brown | Brown | Brown | Brown | Brown | Yellow, Orange |
| Other Material | N | 2040 | | N/A | Stones, Roots 3% | Stones | Stones | Stones, Roots 3% | Stones, Roots 3% | Stones | Stones, Roots 3% | Stones |
| Soil Texture | N | 2040 | | N/A | Sand | Sand | Sand | Sand | Sand | Sand | Sand | Sand |
| pH | M | 2010 | | N/A | 7.8 | 8.0 | 8.3 | 8.1 | 7.9 | 8.1 | 8.0 | 8.2 |
| Methyl Tert-Butyl Ether | M | 2760 | µg/kg | 1.0 | [B] < 1.0 | | < 1.0 | | | < 1.0 | | |
| Demeton-O | N | 2820 | mg/kg | 0.20 | | < 0.20 | | < 0.20 | < 0.20 | < 0.20 | | |
| Phorate | N | 2820 | mg/kg | 0.20 | | < 0.20 | | < 0.20 | < 0.20 | < 0.20 | | |
| Demeton-S | N | 2820 | mg/kg | 0.20 | | < 0.20 | | < 0.20 | < 0.20 | < 0.20 | | |
| Disulfoton | N | 2820 | mg/kg | 0.20 | | < 0.20 | | < 0.20 | < 0.20 | < 0.20 | | |
| Fenthion | N | 2820 | mg/kg | 0.20 | | < 0.20 | | < 0.20 | < 0.20 | < 0.20 | | |
| Trichloronate | N | 2820 | mg/kg | 0.20 | | < 0.20 | | < 0.20 | < 0.20 | < 0.20 | | |
| Prothiofos | N | 2820 | mg/kg | 0.20 | | < 0.20 | | < 0.20 | < 0.20 | < 0.20 | | |
| Fensulphothion | N | 2820 | mg/kg | 0.20 | | < 0.20 | | < 0.20 | < 0.20 | < 0.20 | | |
| Sulprofos | N | 2820 | mg/kg | 0.20 | | < 0.20 | | < 0.20 | < 0.20 | < 0.20 | | |
| Azinphos-Methyl | N | 2820 | mg/kg | 0.20 | | < 0.20 | | < 0.20 | < 0.20 | < 0.20 | | |
| Coumaphos | N | 2820 | mg/kg | 0.20 | | < 0.20 | | < 0.20 | < 0.20 | < 0.20 | | |
| Atraton | N | 2830 | mg/kg | 0.20 | | < 0.20 | | < 0.20 | < 0.20 | < 0.20 | | |
| Prometon | N | 2830 | mg/kg | 0.20 | | < 0.20 | | < 0.20 | < 0.20 | < 0.20 | | |

Results - Soil

| Client: Applied Geology | Chemtest Job No.: | | 18-26118 | 18-26118 | 18-26118 | 18-26118 | 18-26118 | 18-26118 | 18-26118 | |
|-------------------------|----------------------|------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|
| Quotation No.: | Chemtest Sample ID.: | | 679694 | 679695 | 679696 | 679697 | 679698 | 679699 | 679700 | 679701 |
| | Sample Location: | | T41 | T43 | T49 | T50 | T51 | T55 | T56 | T57 |
| | Sample Type: | | SOIL | SOIL | SOIL | SOIL | SOIL | SOIL | SOIL | SOIL |
| | Top Depth (m): | | 0.20 | 0.60 | 0.75 | 0.35 | 0.25 | 0.50 | 0.45 | 1.10 |
| | Date Sampled: | | 10-Aug-2018 | 10-Aug-2018 | 20-Aug-2018 | 22-Aug-2018 | 22-Aug-2018 | 20-Aug-2018 | 22-Aug-2018 | 20-Aug-2018 |
| | Asbestos Lab: | | | COVENTRY | | | COVENTRY | COVENTRY | | |
| Determinand | Accred. | SOP | Units | LOD | | | | | | |
| Simazine | N | 2830 | mg/kg | 0.20 | | < 0.20 | < 0.20 | < 0.20 | | |
| Atrazine | N | 2830 | mg/kg | 0.20 | | < 0.20 | < 0.20 | < 0.20 | | |
| Propazine | N | 2830 | mg/kg | 0.20 | | < 0.20 | < 0.20 | < 0.20 | | |
| Terbutylazine | N | 2830 | mg/kg | 0.20 | | < 0.20 | < 0.20 | < 0.20 | | |
| Secbumeton | N | 2830 | mg/kg | 0.20 | | < 0.20 | < 0.20 | < 0.20 | | |
| Simetryn | N | 2830 | mg/kg | 0.20 | | < 0.20 | < 0.20 | < 0.20 | | |
| Ametryn | N | 2830 | mg/kg | 0.20 | | < 0.20 | < 0.20 | < 0.20 | | |
| Prometryn | N | 2830 | mg/kg | 0.20 | | < 0.20 | < 0.20 | < 0.20 | | |
| Terbutryn | N | 2830 | mg/kg | 0.20 | | < 0.20 | < 0.20 | < 0.20 | | |
| Alpha-HCH | N | 2840 | mg/kg | 0.20 | | < 0.20 | < 0.20 | < 0.20 | | |
| Gamma-HCH (Lindane) | N | 2840 | mg/kg | 0.20 | | < 0.20 | < 0.20 | < 0.20 | | |
| Beta-HCH | N | 2840 | mg/kg | 0.20 | | < 0.20 | < 0.20 | < 0.20 | | |
| Delta-HCH | N | 2840 | mg/kg | 0.20 | | < 0.20 | < 0.20 | < 0.20 | | |
| Heptachlor | N | 2840 | mg/kg | 0.20 | | < 0.20 | < 0.20 | < 0.20 | | |
| Aldrin | N | 2840 | mg/kg | 0.20 | | < 0.20 | < 0.20 | < 0.20 | | |
| Heptachlor Epoxide | N | 2840 | mg/kg | 0.20 | | < 0.20 | < 0.20 | < 0.20 | | |
| Gamma-Chlordane | N | 2840 | mg/kg | 0.20 | | < 0.20 | < 0.20 | < 0.20 | | |
| Alpha-Chlordane | N | 2840 | mg/kg | 0.20 | | < 0.20 | < 0.20 | < 0.20 | | |
| Endosulfan I | N | 2840 | mg/kg | 0.20 | | < 0.20 | < 0.20 | < 0.20 | | |
| 4,4-DDE | N | 2840 | mg/kg | 0.20 | | < 0.20 | < 0.20 | < 0.20 | | |
| Dieldrin | N | 2840 | mg/kg | 0.20 | | < 0.20 | < 0.20 | < 0.20 | | |
| Endrin | N | 2840 | mg/kg | 0.20 | | < 0.20 | < 0.20 | < 0.20 | | |
| 4,4-DDD | N | 2840 | mg/kg | 0.20 | | < 0.20 | < 0.20 | < 0.20 | | |
| Endosulfan II | N | 2840 | mg/kg | 0.20 | | < 0.20 | < 0.20 | < 0.20 | | |
| Endrin Aldehyde | N | 2840 | mg/kg | 0.20 | | < 0.20 | < 0.20 | < 0.20 | | |
| 4,4-DDT | N | 2840 | mg/kg | 0.20 | | < 0.20 | < 0.20 | < 0.20 | | |
| Endosulfan Sulphate | N | 2840 | mg/kg | 0.20 | | < 0.20 | < 0.20 | < 0.20 | | |
| Methoxychlor | N | 2840 | mg/kg | 0.20 | | < 0.20 | < 0.20 | < 0.20 | | |
| Endrin Ketone | N | 2840 | mg/kg | 0.20 | | < 0.20 | < 0.20 | < 0.20 | | |

Deviations

In accordance with UKAS Policy on Deviating Samples TPS 63. Chemtest have a procedure to ensure 'upon receipt of each sample a competent laboratory shall assess whether the sample is suitable with regard to the requested test(s)'. This policy and the respective holding times applied, can be supplied upon request. The reason a sample is declared as deviating is detailed below. Where applicable the analysis remains UKAS/MCERTs accredited but the results may be compromised.

| Sample: | Sample Ref: | Sample ID: | Sample Location: | Sampled Date: | Deviation Code(s): | Containers Received: |
|---------|-------------|------------|------------------|---------------|--------------------|----------------------|
| 679692 | | | T37 | 14-Aug-2018 | B | Amber Glass 250ml |
| 679692 | | | T37 | 14-Aug-2018 | B | Amber Glass 60ml |
| 679692 | | | T37 | 14-Aug-2018 | B | Plastic Tub 500g |
| 679694 | | | T41 | 10-Aug-2018 | B | Amber Glass 250ml |
| 679694 | | | T41 | 10-Aug-2018 | B | Amber Glass 60ml |
| 679694 | | | T41 | 10-Aug-2018 | B | Plastic Tub 500g |

| SOP | Title | Parameters included | Method summary |
|------|---|---|--|
| 2010 | pH Value of Soils | pH | pH Meter |
| 2030 | Moisture and Stone Content of Soils(Requirement of MCERTS) | Moisture content | Determination of moisture content of soil as a percentage of its as received mass obtained at <37°C. |
| 2040 | Soil Description(Requirement of MCERTS) | Soil description | As received soil is described based upon BS5930 |
| 2120 | Water Soluble Boron, Sulphate, Magnesium & Chromium | Boron; Sulphate; Magnesium; Chromium | Aqueous extraction / ICP-OES |
| 2192 | Asbestos | Asbestos | Polarised light microscopy / Gravimetry |
| 2450 | Acid Soluble Metals in Soils | Metals, including: Arsenic; Barium; Beryllium; Cadmium; Chromium; Cobalt; Copper; Lead; Manganese; Mercury; Molybdenum; Nickel; Selenium; Vanadium; Zinc | Acid digestion followed by determination of metals in extract by ICP-MS. |
| 2625 | Total Organic Carbon in Soils | Total organic Carbon (TOC) | Determined by high temperature combustion under oxygen, using an Eltra elemental analyser. |
| 2680 | TPH A/A Split | Aliphatics: >C5-C6, >C6-C8,>C8-C10, >C10-C12, >C12-C16, >C16-C21, >C21-C35, >C35- C44Aromatics: >C5-C7, >C7-C8, >C8- C10, >C10-C12, >C12-C16, >C16- C21, >C21- C35, >C35- C44 | Dichloromethane extraction / GCxGC FID detection |
| 2700 | Speciated Polynuclear Aromatic Hydrocarbons (PAH) in Soil by GC-FID | Acenaphthene; Acenaphthylene; Anthracene; Benzo[a]Anthracene; Benzo[a]Pyrene; Benzo[b]Fluoranthene; Benzo[ghi]Perylene; Benzo[k]Fluoranthene; Chrysene; Dibenzo[ah]Anthracene; Fluoranthene; Fluorene; Indeno[123cd]Pyrene; Naphthalene; Phenanthrene; Pyrene | Dichloromethane extraction / GC-FID |
| 2760 | Volatile Organic Compounds (VOCs) in Soils by Headspace GC-MS | Volatile organic compounds, including BTEX and halogenated Aliphatic/Aromatics.(cf. USEPA Method 8260)*please refer to UKAS schedule | Automated headspace gas chromatographic (GC) analysis of a soil sample, as received, with mass spectrometric (MS) detection of volatile organic compounds. |
| 2820 | Organophosphorus (O-P) Pesticides in Soils by GC-MS | Organophosphorus pesticide representative suite including Parathion, Malathion etc, plus client specific determinands | Dichloromethane extraction / GC-MS |
| 2830 | Organonitrogen (O-N) Pesticides in Soils by GC-MS | Organonitrogen pesticide representative suite including Triazines etc, plus client specific determinands | Dichloromethane extraction / GC-MS |
| 2840 | Organochlorine (O-Cl) Pesticides in Soils by GC-MS | Organochlorine pesticide representative suite including DDT and its metabolites, 'drins' and HCH etc, plus client specific determinands | Dichloromethane extraction / GC-MS |

Report Information

Key

- U UKAS accredited
- M MCERTS and UKAS accredited
- N Unaccredited
- S This analysis has been subcontracted to a UKAS accredited laboratory that is accredited for this analysis
- SN This analysis has been subcontracted to a UKAS accredited laboratory that is not accredited for this analysis
- T This analysis has been subcontracted to an unaccredited laboratory
- I/S Insufficient Sample
- U/S Unsuitable Sample
- N/E not evaluated
- < "less than"
- > "greater than"

Comments or interpretations are beyond the scope of UKAS accreditation

The results relate only to the items tested

Uncertainty of measurement for the determinands tested are available upon request

None of the results in this report have been recovery corrected

All results are expressed on a dry weight basis

The following tests were analysed on samples as received and the results subsequently corrected to a dry weight basis TPH, BTEX, VOCs, SVOCs, PCBs, Phenols

For all other tests the samples were dried at < 37°C prior to analysis

All Asbestos testing is performed at the indicated laboratory

Issue numbers are sequential starting with 1 all subsequent reports are incremented by 1

Sample Deviation Codes

- A - Date of sampling not supplied
- B - Sample age exceeds stability time (sampling to extraction)
- C - Sample not received in appropriate containers
- D - Broken Container
- E - Insufficient Sample (Applies to LOI in Trommel Fines Only)

Sample Retention and Disposal

All soil samples will be retained for a period of 45 days from the date of receipt

All water samples will be retained for 14 days from the date of receipt

Charges may apply to extended sample storage

If you require extended retention of samples, please email your requirements to:

customerservices@chemtest.com



Final Report

Report No.: 18-26922-1

Initial Date of Issue: 12-Sep-2018

Client: Applied Geology

Client Address: Unit 23, Abbey Park
Stareton
Kenilworth
Warwickshire
CV8 2LY

Contact(s): Adam Perks
Lab Results
Sarah Treacy

Project: AG2873-18 - Howes Lane, Bicester

Quotation No.: Q17-09497 **Date Received:** 06-Sep-2018

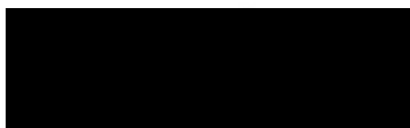
Order No.: 13376 **Date Instructed:** 06-Sep-2018

No. of Samples: 4

Turnaround (Wkdays): 5 **Results Due:** 12-Sep-2018

Date Approved: 12-Sep-2018

Approved By:



Details: Glynn Harvey, Laboratory Manager

| Client: Applied Geology | Chemtest Job No.: | | | | 18-26922 | 18-26922 | 18-26922 | 18-26922 |
|--------------------------|----------------------|------|-------|-------|-------------|-------------|-------------|-------------|
| Quotation No.: Q17-09497 | Chemtest Sample ID.: | | | | 683463 | 683464 | 683465 | 683466 |
| | Client Sample ID.: | | | | 1 | 1 | 1 | 1 |
| | Sample Location: | | | | R4 | R3 | R1 | R6 |
| | Sample Type: | | | | WATER | WATER | WATER | WATER |
| | Top Depth (m): | | | | 4.50 | 4.50 | 4.50 | 4.50 |
| | Date Sampled: | | | | 31-Aug-2018 | 31-Aug-2018 | 31-Aug-2018 | 31-Aug-2018 |
| Determinand | Accred. | SOP | Units | LOD | | | | |
| Arsenic (Dissolved) | U | 1450 | µg/l | 1.0 | < 1.0 | < 1.0 | < 1.0 | < 1.0 |
| Cadmium (Dissolved) | U | 1450 | µg/l | 0.080 | < 0.080 | < 0.080 | < 0.080 | < 0.080 |
| Chromium (Dissolved) | U | 1450 | µg/l | 1.0 | < 1.0 | < 1.0 | < 1.0 | 1.0 |
| Copper (Dissolved) | U | 1450 | µg/l | 1.0 | < 1.0 | < 1.0 | < 1.0 | < 1.0 |
| Lead (Dissolved) | U | 1450 | µg/l | 1.0 | < 1.0 | < 1.0 | 1.4 | < 1.0 |
| Mercury (Dissolved) | U | 1450 | µg/l | 0.50 | < 0.50 | < 0.50 | < 0.50 | < 0.50 |
| Nickel (Dissolved) | U | 1450 | µg/l | 1.0 | < 1.0 | < 1.0 | < 1.0 | 1.6 |
| Selenium (Dissolved) | U | 1450 | µg/l | 1.0 | < 1.0 | < 1.0 | < 1.0 | < 1.0 |
| Zinc (Dissolved) | U | 1450 | µg/l | 1.0 | 3.1 | 6.3 | 4.8 | 1.4 |
| Naphthalene | N | 1790 | µg/l | 0.50 | < 0.50 | < 0.50 | < 0.50 | < 0.50 |
| Naphthalene | U | 1700 | µg/l | 0.10 | < 0.10 | < 0.10 | < 0.10 | < 0.10 |
| Acenaphthylene | N | 1790 | µg/l | 0.50 | < 0.50 | < 0.50 | < 0.50 | < 0.50 |
| Acenaphthylene | U | 1700 | µg/l | 0.10 | < 0.10 | < 0.10 | < 0.10 | < 0.10 |
| Acenaphthene | N | 1790 | µg/l | 0.50 | < 0.50 | < 0.50 | < 0.50 | < 0.50 |
| Acenaphthene | U | 1700 | µg/l | 0.10 | < 0.10 | < 0.10 | < 0.10 | < 0.10 |
| Fluorene | N | 1790 | µg/l | 0.50 | < 0.50 | < 0.50 | < 0.50 | < 0.50 |
| Fluorene | U | 1700 | µg/l | 0.10 | < 0.10 | < 0.10 | < 0.10 | < 0.10 |
| Phenanthrene | N | 1790 | µg/l | 0.50 | < 0.50 | < 0.50 | < 0.50 | < 0.50 |
| Phenanthrene | U | 1700 | µg/l | 0.10 | < 0.10 | < 0.10 | < 0.10 | < 0.10 |
| Anthracene | N | 1790 | µg/l | 0.50 | < 0.50 | < 0.50 | < 0.50 | < 0.50 |
| Anthracene | U | 1700 | µg/l | 0.10 | < 0.10 | < 0.10 | < 0.10 | < 0.10 |
| Fluoranthene | N | 1790 | µg/l | 0.50 | < 0.50 | < 0.50 | < 0.50 | < 0.50 |
| Fluoranthene | U | 1700 | µg/l | 0.10 | < 0.10 | < 0.10 | < 0.10 | < 0.10 |
| Pyrene | N | 1790 | µg/l | 0.50 | < 0.50 | < 0.50 | < 0.50 | < 0.50 |
| Pyrene | U | 1700 | µg/l | 0.10 | < 0.10 | < 0.10 | < 0.10 | < 0.10 |
| Benzo[a]anthracene | N | 1790 | µg/l | 0.50 | < 0.50 | < 0.50 | < 0.50 | < 0.50 |
| Benzo[a]anthracene | U | 1700 | µg/l | 0.10 | < 0.10 | < 0.10 | < 0.10 | < 0.10 |
| Chrysene | N | 1790 | µg/l | 0.50 | < 0.50 | < 0.50 | < 0.50 | < 0.50 |
| Chrysene | N | 1700 | µg/l | 0.10 | < 0.10 | < 0.10 | < 0.10 | < 0.10 |
| Benzo[b]fluoranthene | N | 1790 | µg/l | 0.50 | < 0.50 | < 0.50 | < 0.50 | < 0.50 |
| Benzo[b]fluoranthene | U | 1700 | µg/l | 0.10 | < 0.10 | < 0.10 | < 0.10 | < 0.10 |
| Benzo[k]fluoranthene | N | 1790 | µg/l | 0.50 | < 0.50 | < 0.50 | < 0.50 | < 0.50 |
| Benzo[k]fluoranthene | U | 1700 | µg/l | 0.10 | < 0.10 | < 0.10 | < 0.10 | < 0.10 |
| Benzo[a]pyrene | N | 1790 | µg/l | 0.50 | < 0.50 | < 0.50 | < 0.50 | < 0.50 |
| Benzo[a]pyrene | U | 1700 | µg/l | 0.10 | < 0.10 | < 0.10 | < 0.10 | < 0.10 |
| Dibenz(a,h)Anthracene | N | 1790 | µg/l | 0.50 | < 0.50 | < 0.50 | < 0.50 | < 0.50 |
| Dibenz(a,h)Anthracene | U | 1700 | µg/l | 0.10 | < 0.10 | < 0.10 | < 0.10 | < 0.10 |
| Indeno(1,2,3-c,d)Pyrene | N | 1790 | µg/l | 0.50 | < 0.50 | < 0.50 | < 0.50 | < 0.50 |
| Indeno(1,2,3-c,d)Pyrene | U | 1700 | µg/l | 0.10 | < 0.10 | < 0.10 | < 0.10 | < 0.10 |

| Client: Applied Geology | Chemtest Job No.: | | | | 18-26922 | 18-26922 | 18-26922 | 18-26922 |
|------------------------------|----------------------|------|-------|------|-------------|-------------|-------------|-------------|
| Quotation No.: Q17-09497 | Chemtest Sample ID.: | | | | 683463 | 683464 | 683465 | 683466 |
| | Client Sample ID.: | | | | 1 | 1 | 1 | 1 |
| | Sample Location: | | | | R4 | R3 | R1 | R6 |
| | Sample Type: | | | | WATER | WATER | WATER | WATER |
| | Top Depth (m): | | | | 4.50 | 4.50 | 4.50 | 4.50 |
| | Date Sampled: | | | | 31-Aug-2018 | 31-Aug-2018 | 31-Aug-2018 | 31-Aug-2018 |
| Determinand | Accred. | SOP | Units | LOD | | | | |
| Benzo[g,h,i]perylene | N | 1790 | µg/l | 0.50 | < 0.50 | < 0.50 | < 0.50 | < 0.50 |
| Benzo[g,h,i]perylene | U | 1700 | µg/l | 0.10 | < 0.10 | < 0.10 | < 0.10 | < 0.10 |
| Total Of 16 PAH's | N | 1700 | µg/l | 2.0 | < 2.0 | < 2.0 | < 2.0 | < 2.0 |
| Phenol | N | 1790 | µg/l | 0.50 | < 0.50 | < 0.50 | < 0.50 | < 0.50 |
| Benzene | U | 1760 | µg/l | 1.0 | < 1.0 | < 1.0 | < 1.0 | < 1.0 |
| Toluene | U | 1760 | µg/l | 1.0 | < 1.0 | < 1.0 | < 1.0 | < 1.0 |
| Ethylbenzene | U | 1760 | µg/l | 1.0 | < 1.0 | < 1.0 | < 1.0 | < 1.0 |
| m & p-Xylene | U | 1760 | µg/l | 1.0 | < 1.0 | < 1.0 | < 1.0 | < 1.0 |
| o-Xylene | U | 1760 | µg/l | 1.0 | < 1.0 | < 1.0 | < 1.0 | < 1.0 |
| Aliphatic TPH >C5-C6 | N | 1675 | µg/l | 0.10 | < 0.10 | < 0.10 | < 0.10 | < 0.10 |
| Aliphatic TPH >C6-C8 | N | 1675 | µg/l | 0.10 | < 0.10 | < 0.10 | < 0.10 | < 0.10 |
| Aliphatic TPH >C8-C10 | N | 1675 | µg/l | 0.10 | < 0.10 | < 0.10 | < 0.10 | < 0.10 |
| Aliphatic TPH >C10-C12 | N | 1675 | µg/l | 0.10 | < 0.10 | < 0.10 | < 0.10 | < 0.10 |
| Aliphatic TPH >C12-C16 | N | 1675 | µg/l | 0.10 | < 0.10 | < 0.10 | < 0.10 | < 0.10 |
| Aliphatic TPH >C16-C21 | N | 1675 | µg/l | 0.10 | < 0.10 | < 0.10 | < 0.10 | < 0.10 |
| Aliphatic TPH >C21-C35 | N | 1675 | µg/l | 0.10 | < 0.10 | < 0.10 | < 0.10 | < 0.10 |
| Aliphatic TPH >C35-C44 | N | 1675 | µg/l | 0.10 | < 0.10 | < 0.10 | < 0.10 | < 0.10 |
| Total Aliphatic Hydrocarbons | N | 1675 | µg/l | 5.0 | < 5.0 | < 5.0 | < 5.0 | < 5.0 |
| Aromatic TPH >C5-C7 | N | 1675 | µg/l | 0.10 | < 0.10 | < 0.10 | < 0.10 | < 0.10 |
| Aromatic TPH >C7-C8 | N | 1675 | µg/l | 0.10 | < 0.10 | < 0.10 | < 0.10 | < 0.10 |
| Aromatic TPH >C8-C10 | N | 1675 | µg/l | 0.10 | < 0.10 | < 0.10 | < 0.10 | < 0.10 |
| Aromatic TPH >C10-C12 | N | 1675 | µg/l | 0.10 | < 0.10 | < 0.10 | < 0.10 | < 0.10 |
| Aromatic TPH >C12-C16 | N | 1675 | µg/l | 0.10 | < 0.10 | < 0.10 | < 0.10 | < 0.10 |
| Aromatic TPH >C16-C21 | N | 1675 | µg/l | 0.10 | < 0.10 | < 0.10 | < 0.10 | < 0.10 |
| Aromatic TPH >C21-C35 | N | 1675 | µg/l | 0.10 | < 0.10 | < 0.10 | < 0.10 | < 0.10 |
| Aromatic TPH >C35-C44 | N | 1675 | µg/l | 0.10 | < 0.10 | < 0.10 | < 0.10 | < 0.10 |
| Total Aromatic Hydrocarbons | N | 1675 | µg/l | 5.0 | < 5.0 | < 5.0 | < 5.0 | < 5.0 |
| Total Petroleum Hydrocarbons | N | 1675 | µg/l | 10 | < 10 | < 10 | < 10 | < 10 |
| Sulphate | U | 1220 | mg/l | 1.0 | 160 | 310 | 210 | 47 |
| pH | U | 1010 | | N/A | 7.7 | 7.8 | 7.7 | 7.6 |
| Magnesium | U | 1415 | mg/l | 0.50 | 18 | 23 | 19 | 6.7 |
| Total Hardness as CaCO3 | U | 1270 | mg/l | 15 | 320 | 380 | 370 | 330 |
| Boron (Dissolved) | U | 1450 | µg/l | 20 | 710 | 990 | 890 | 150 |
| Beryllium (Dissolved) | U | 1450 | µg/l | 1.0 | < 1.0 | < 1.0 | < 1.0 | < 1.0 |
| Vanadium (Dissolved) | U | 1450 | µg/l | 1.0 | < 1.0 | < 1.0 | < 1.0 | < 1.0 |
| Dichlorodifluoromethane | U | 1760 | µg/l | 1.0 | < 1.0 | < 1.0 | < 1.0 | < 1.0 |
| Chloromethane | U | 1760 | µg/l | 1.0 | < 1.0 | < 1.0 | < 1.0 | < 1.0 |
| Vinyl Chloride | N | 1760 | µg/l | 1.0 | < 1.0 | < 1.0 | < 1.0 | < 1.0 |
| Bromomethane | U | 1760 | µg/l | 5.0 | < 5.0 | < 5.0 | < 5.0 | < 5.0 |

| Client: Applied Geology | Chemtest Job No.: | | | | 18-26922 | 18-26922 | 18-26922 | 18-26922 |
|---------------------------|----------------------|------|-------|-----|-------------|-------------|-------------|-------------|
| Quotation No.: Q17-09497 | Chemtest Sample ID.: | | | | 683463 | 683464 | 683465 | 683466 |
| | Client Sample ID.: | | | | 1 | 1 | 1 | 1 |
| | Sample Location: | | | | R4 | R3 | R1 | R6 |
| | Sample Type: | | | | WATER | WATER | WATER | WATER |
| | Top Depth (m): | | | | 4.50 | 4.50 | 4.50 | 4.50 |
| | Date Sampled: | | | | 31-Aug-2018 | 31-Aug-2018 | 31-Aug-2018 | 31-Aug-2018 |
| Determinand | Accred. | SOP | Units | LOD | | | | |
| Chloroethane | U | 1760 | µg/l | 2.0 | < 2.0 | < 2.0 | < 2.0 | < 2.0 |
| Trichlorofluoromethane | U | 1760 | µg/l | 1.0 | < 1.0 | < 1.0 | < 1.0 | < 1.0 |
| 1,1-Dichloroethene | U | 1760 | µg/l | 1.0 | < 1.0 | < 1.0 | < 1.0 | < 1.0 |
| Trans 1,2-Dichloroethene | U | 1760 | µg/l | 1.0 | < 1.0 | < 1.0 | < 1.0 | < 1.0 |
| 1,1-Dichloroethane | U | 1760 | µg/l | 1.0 | < 1.0 | < 1.0 | < 1.0 | < 1.0 |
| cis 1,2-Dichloroethene | U | 1760 | µg/l | 1.0 | < 1.0 | < 1.0 | < 1.0 | < 1.0 |
| Bromochloromethane | U | 1760 | µg/l | 5.0 | < 5.0 | < 5.0 | < 5.0 | < 5.0 |
| Trichloromethane | U | 1760 | µg/l | 1.0 | < 1.0 | < 1.0 | < 1.0 | < 1.0 |
| 1,1,1-Trichloroethane | U | 1760 | µg/l | 1.0 | < 1.0 | < 1.0 | < 1.0 | < 1.0 |
| Tetrachloromethane | U | 1760 | µg/l | 1.0 | < 1.0 | < 1.0 | < 1.0 | < 1.0 |
| 1,1-Dichloropropene | U | 1760 | µg/l | 1.0 | < 1.0 | < 1.0 | < 1.0 | < 1.0 |
| 1,2-Dichloroethane | U | 1760 | µg/l | 2.0 | < 2.0 | < 2.0 | < 2.0 | < 2.0 |
| Trichloroethene | N | 1760 | µg/l | 1.0 | < 1.0 | < 1.0 | < 1.0 | < 1.0 |
| 1,2-Dichloropropane | U | 1760 | µg/l | 1.0 | < 1.0 | < 1.0 | < 1.0 | < 1.0 |
| Dibromomethane | U | 1760 | µg/l | 10 | < 10 | < 10 | < 10 | < 10 |
| Bromodichloromethane | U | 1760 | µg/l | 5.0 | < 5.0 | < 5.0 | < 5.0 | < 5.0 |
| cis-1,3-Dichloropropene | N | 1760 | µg/l | 10 | < 10 | < 10 | < 10 | < 10 |
| Trans-1,3-Dichloropropene | N | 1760 | µg/l | 10 | < 10 | < 10 | < 10 | < 10 |
| 1,1,2-Trichloroethane | U | 1760 | µg/l | 10 | < 10 | < 10 | < 10 | < 10 |
| Tetrachloroethene | U | 1760 | µg/l | 1.0 | < 1.0 | < 1.0 | < 1.0 | < 1.0 |
| 1,3-Dichloropropane | U | 1760 | µg/l | 2.0 | < 2.0 | < 2.0 | < 2.0 | < 2.0 |
| Dibromochloromethane | U | 1760 | µg/l | 10 | < 10 | < 10 | < 10 | < 10 |
| 1,2-Dibromoethane | U | 1760 | µg/l | 5.0 | < 5.0 | < 5.0 | < 5.0 | < 5.0 |
| Chlorobenzene | N | 1760 | µg/l | 1.0 | < 1.0 | < 1.0 | < 1.0 | < 1.0 |
| 1,1,1,2-Tetrachloroethane | U | 1760 | µg/l | 2.0 | < 2.0 | < 2.0 | < 2.0 | < 2.0 |
| Styrene | U | 1760 | µg/l | 1.0 | < 1.0 | < 1.0 | < 1.0 | < 1.0 |
| Tribromomethane | U | 1760 | µg/l | 1.0 | < 1.0 | < 1.0 | < 1.0 | < 1.0 |
| Isopropylbenzene | U | 1760 | µg/l | 1.0 | < 1.0 | < 1.0 | < 1.0 | < 1.0 |
| Bromobenzene | U | 1760 | µg/l | 1.0 | < 1.0 | < 1.0 | < 1.0 | < 1.0 |
| 1,2,3-Trichloropropane | N | 1760 | µg/l | 50 | < 50 | < 50 | < 50 | < 50 |
| N-Propylbenzene | U | 1760 | µg/l | 1.0 | < 1.0 | < 1.0 | < 1.0 | < 1.0 |
| 2-Chlorotoluene | U | 1760 | µg/l | 1.0 | < 1.0 | < 1.0 | < 1.0 | < 1.0 |
| 1,3,5-Trimethylbenzene | U | 1760 | µg/l | 1.0 | < 1.0 | < 1.0 | < 1.0 | < 1.0 |
| 4-Chlorotoluene | U | 1760 | µg/l | 1.0 | < 1.0 | < 1.0 | < 1.0 | < 1.0 |
| Tert-Butylbenzene | U | 1760 | µg/l | 1.0 | < 1.0 | < 1.0 | < 1.0 | < 1.0 |
| 1,2,4-Trimethylbenzene | U | 1760 | µg/l | 1.0 | < 1.0 | < 1.0 | < 1.0 | < 1.0 |
| Sec-Butylbenzene | U | 1760 | µg/l | 1.0 | < 1.0 | < 1.0 | < 1.0 | < 1.0 |
| 1,3-Dichlorobenzene | N | 1760 | µg/l | 1.0 | < 1.0 | < 1.0 | < 1.0 | < 1.0 |
| 4-Isopropyltoluene | U | 1760 | µg/l | 1.0 | < 1.0 | < 1.0 | < 1.0 | < 1.0 |

| Client: Applied Geology | | Chemtest Job No.: | | 18-26922 | 18-26922 | 18-26922 | 18-26922 |
|-----------------------------|---------|----------------------|-------|-------------|-------------|-------------|-------------|
| Quotation No.: Q17-09497 | | Chemtest Sample ID.: | | 683463 | 683464 | 683465 | 683466 |
| | | Client Sample ID.: | | 1 | 1 | 1 | 1 |
| | | Sample Location: | | R4 | R3 | R1 | R6 |
| | | Sample Type: | | WATER | WATER | WATER | WATER |
| | | Top Depth (m): | | 4.50 | 4.50 | 4.50 | 4.50 |
| | | Date Sampled: | | 31-Aug-2018 | 31-Aug-2018 | 31-Aug-2018 | 31-Aug-2018 |
| Determinand | Accred. | SOP | Units | LOD | | | |
| 1,4-Dichlorobenzene | U | 1760 | µg/l | 1.0 | < 1.0 | < 1.0 | < 1.0 |
| N-Butylbenzene | U | 1760 | µg/l | 1.0 | < 1.0 | < 1.0 | < 1.0 |
| 1,2-Dichlorobenzene | U | 1760 | µg/l | 1.0 | < 1.0 | < 1.0 | < 1.0 |
| 1,2-Dibromo-3-Chloropropane | U | 1760 | µg/l | 50 | < 50 | < 50 | < 50 |
| 1,2,4-Trichlorobenzene | U | 1760 | µg/l | 1.0 | < 1.0 | < 1.0 | < 1.0 |
| Hexachlorobutadiene | U | 1760 | µg/l | 1.0 | < 1.0 | < 1.0 | < 1.0 |
| 1,2,3-Trichlorobenzene | U | 1760 | µg/l | 2.0 | < 2.0 | < 2.0 | < 2.0 |
| Methyl Tert-Butyl Ether | N | 1760 | µg/l | 1.0 | < 1.0 | < 1.0 | < 1.0 |
| N-Nitrosodimethylamine | N | 1790 | µg/l | 0.50 | < 0.50 | < 0.50 | < 0.50 |
| 2-Chlorophenol | N | 1790 | µg/l | 0.50 | < 0.50 | < 0.50 | < 0.50 |
| Bis-(2-Chloroethyl)Ether | N | 1790 | µg/l | 0.50 | < 0.50 | < 0.50 | < 0.50 |
| 1,3-Dichlorobenzene | N | 1790 | µg/l | 0.50 | < 0.50 | < 0.50 | < 0.50 |
| 1,4-Dichlorobenzene | N | 1790 | µg/l | 0.50 | < 0.50 | < 0.50 | < 0.50 |
| 1,2-Dichlorobenzene | N | 1790 | µg/l | 0.50 | < 0.50 | < 0.50 | < 0.50 |
| 2-Methylphenol (o-Cresol) | N | 1790 | µg/l | 0.50 | < 0.50 | < 0.50 | < 0.50 |
| Bis(2-Chloroisopropyl)Ether | N | 1790 | µg/l | 0.50 | < 0.50 | < 0.50 | < 0.50 |
| Hexachloroethane | N | 1790 | µg/l | 0.50 | < 0.50 | < 0.50 | < 0.50 |
| N-Nitrosodi-n-propylamine | N | 1790 | µg/l | 0.50 | < 0.50 | < 0.50 | < 0.50 |
| 4-Methylphenol | N | 1790 | µg/l | 0.50 | < 0.50 | < 0.50 | < 0.50 |
| Nitrobenzene | N | 1790 | µg/l | 0.50 | < 0.50 | < 0.50 | < 0.50 |
| Isophorone | N | 1790 | µg/l | 0.50 | < 0.50 | < 0.50 | < 0.50 |
| 2-Nitrophenol | N | 1790 | µg/l | 0.50 | < 0.50 | < 0.50 | < 0.50 |
| 2,4-Dimethylphenol | N | 1790 | µg/l | 0.50 | < 0.50 | < 0.50 | < 0.50 |
| Bis(2-Chloroethoxy)Methane | N | 1790 | µg/l | 0.50 | < 0.50 | < 0.50 | < 0.50 |
| 2,4-Dichlorophenol | N | 1790 | µg/l | 0.50 | < 0.50 | < 0.50 | < 0.50 |
| 1,2,4-Trichlorobenzene | N | 1790 | µg/l | 0.50 | < 0.50 | < 0.50 | < 0.50 |
| 4-Chloroaniline | N | 1790 | µg/l | 0.50 | < 0.50 | < 0.50 | < 0.50 |
| Hexachlorobutadiene | N | 1790 | µg/l | 0.50 | < 0.50 | < 0.50 | < 0.50 |
| 4-Chloro-3-Methylphenol | N | 1790 | µg/l | 0.50 | < 0.50 | < 0.50 | < 0.50 |
| 2-Methylnaphthalene | N | 1790 | µg/l | 0.50 | < 0.50 | < 0.50 | < 0.50 |
| Hexachlorocyclopentadiene | N | 1790 | µg/l | 0.50 | < 0.50 | < 0.50 | < 0.50 |
| 2,4,6-Trichlorophenol | N | 1790 | µg/l | 0.50 | < 0.50 | < 0.50 | < 0.50 |
| 2,4,5-Trichlorophenol | N | 1790 | µg/l | 0.50 | < 0.50 | < 0.50 | < 0.50 |
| 2-Chloronaphthalene | N | 1790 | µg/l | 0.50 | < 0.50 | < 0.50 | < 0.50 |
| 2-Nitroaniline | N | 1790 | µg/l | 0.50 | < 0.50 | < 0.50 | < 0.50 |
| Dimethylphthalate | N | 1790 | µg/l | 0.50 | < 0.50 | < 0.50 | < 0.50 |
| 2,6-Dinitrotoluene | N | 1790 | µg/l | 0.50 | < 0.50 | < 0.50 | < 0.50 |
| 3-Nitroaniline | N | 1790 | µg/l | 0.50 | < 0.50 | < 0.50 | < 0.50 |
| Dibenzofuran | N | 1790 | µg/l | 0.50 | < 0.50 | < 0.50 | < 0.50 |

Results - Water

| Client: Applied Geology | | Chemtest Job No.: | | 18-26922 | 18-26922 | 18-26922 | 18-26922 |
|----------------------------|---------|----------------------|-------|-------------|-------------|-------------|-------------|
| Quotation No.: Q17-09497 | | Chemtest Sample ID.: | | 683463 | 683464 | 683465 | 683466 |
| | | Client Sample ID.: | | 1 | 1 | 1 | 1 |
| | | Sample Location: | | R4 | R3 | R1 | R6 |
| | | Sample Type: | | WATER | WATER | WATER | WATER |
| | | Top Depth (m): | | 4.50 | 4.50 | 4.50 | 4.50 |
| | | Date Sampled: | | 31-Aug-2018 | 31-Aug-2018 | 31-Aug-2018 | 31-Aug-2018 |
| Determinand | Accred. | SOP | Units | LOD | | | |
| 4-Chlorophenylphenylether | N | 1790 | µg/l | 0.50 | < 0.50 | < 0.50 | < 0.50 |
| 2,4-Dinitrotoluene | N | 1790 | µg/l | 0.50 | < 0.50 | < 0.50 | < 0.50 |
| Diethyl Phthalate | N | 1790 | µg/l | 0.50 | < 0.50 | < 0.50 | < 0.50 |
| 4-Nitroaniline | N | 1790 | µg/l | 0.50 | < 0.50 | < 0.50 | < 0.50 |
| 2-Methyl-4,6-Dinitrophenol | N | 1790 | µg/l | 0.50 | < 0.50 | < 0.50 | < 0.50 |
| Azobenzene | N | 1790 | µg/l | 0.50 | < 0.50 | < 0.50 | < 0.50 |
| 4-Bromophenylphenyl Ether | N | 1790 | µg/l | 0.50 | < 0.50 | < 0.50 | < 0.50 |
| Hexachlorobenzene | N | 1790 | µg/l | 0.50 | < 0.50 | < 0.50 | < 0.50 |
| Pentachlorophenol | N | 1790 | µg/l | 0.50 | < 0.50 | < 0.50 | < 0.50 |
| Carbazole | N | 1790 | µg/l | 0.50 | < 0.50 | < 0.50 | < 0.50 |
| Di-N-Butyl Phthalate | N | 1790 | µg/l | 0.50 | < 0.50 | < 0.50 | < 0.50 |
| Butylbenzyl Phthalate | N | 1790 | µg/l | 0.50 | < 0.50 | < 0.50 | < 0.50 |
| Bis(2-Ethylhexyl)Phthalate | N | 1790 | µg/l | 0.50 | < 0.50 | < 0.50 | < 0.50 |
| Di-N-Octyl Phthalate | N | 1790 | µg/l | 0.50 | < 0.50 | < 0.50 | < 0.50 |
| 4-Nitrophenol | N | 1790 | µg/l | 0.50 | < 0.50 | < 0.50 | < 0.50 |

| SOP | Title | Parameters included | Method summary |
|------|---|--|--|
| 1010 | pH Value of Waters | pH | pH Meter |
| 1220 | Anions, Alkalinity & Ammonium in Waters | Fluoride; Chloride; Nitrite; Nitrate; Total; Oxidisable Nitrogen (TON); Sulfate; Phosphate; Alkalinity; Ammonium | Automated colorimetric analysis using 'Aquakem 600' Discrete Analyser. |
| 1270 | Total Hardness of Waters | Total hardness | Calculation applied to calcium and magnesium results, expressed as mg l-1 CaCO ₃ equivalent. |
| 1415 | Cations in Waters by ICP-MS | Sodium; Potassium; Calcium; Magnesium | Direct determination by inductively coupled plasma - mass spectrometry (ICP-MS). |
| 1450 | Metals in Waters by ICP-MS | Metals, including: Antimony; Arsenic; Barium; Beryllium; Boron; Cadmium; Chromium; Cobalt; Copper; Lead; Manganese; Mercury; Molybdenum; Nickel; Selenium; Tin; Vanadium; Zinc | Filtration of samples followed by direct determination by inductively coupled plasma mass spectrometry (ICP-MS). |
| 1675 | TPH Aliphatic/Aromatic split in Waters by GC-FID(cf. Texas Method 1006 / TPH CWG) | Aliphatics: >C5-C6, >C6-C8, >C8- C10, >C10-C12, >C12-C16, >C16-C21, >C21-C35, >C35- C44 Aromatics: >C5-C7, >C7-C8, >C8- C10, >C10-C12, >C12-C16, >C16- C21, >C21- C35, >C35- C44 | Pentane extraction / GCxGC FID detection |
| 1700 | Speciated Polynuclear Aromatic Hydrocarbons (PAH) in Waters by GC-FID | Acenaphthene; Acenaphthylene; Anthracene; Benzo[a]Anthracene; Benzo[a]Pyrene; Benzo[b]Fluoranthene; Benzo[ghi]Perylene; Benzo[k]Fluoranthene; Chrysene; Dibenz[ah]Anthracene; Fluoranthene; Fluorene; Indeno[123cd]Pyrene; Naphthalene; Phenanthrene; Pyrene | Dichloromethane extraction / GC-FID (GC-FID detection is non-selective and can be subject to interference from co-eluting compounds) |
| 1760 | Volatile Organic Compounds (VOCs) in Waters by Headspace GC-MS | Volatile organic compounds, including BTEX and halogenated Aliphatic/Aromatics. (cf. USEPA Method 8260) | Automated headspace gas chromatographic (GC) analysis of water samples with mass spectrometric (MS) detection of volatile organic compounds. |
| 1790 | Semi-Volatile Organic Compounds (SVOCs) in Waters by GC-MS | Semi-volatile organic compounds | Solvent extraction / GCMS detection |

Report Information

Key

- U UKAS accredited
- M MCERTS and UKAS accredited
- N Unaccredited
- S This analysis has been subcontracted to a UKAS accredited laboratory that is accredited for this analysis
- SN This analysis has been subcontracted to a UKAS accredited laboratory that is not accredited for this analysis
- T This analysis has been subcontracted to an unaccredited laboratory
- I/S Insufficient Sample
- U/S Unsuitable Sample
- N/E not evaluated
- < "less than"
- > "greater than"

Comments or interpretations are beyond the scope of UKAS accreditation

The results relate only to the items tested

Uncertainty of measurement for the determinands tested are available upon request

None of the results in this report have been recovery corrected

All results are expressed on a dry weight basis

The following tests were analysed on samples as received and the results subsequently corrected to a dry weight basis TPH, BTEX, VOCs, SVOCs, PCBs, Phenols

For all other tests the samples were dried at < 37°C prior to analysis

All Asbestos testing is performed at the indicated laboratory

Issue numbers are sequential starting with 1 all subsequent reports are incremented by 1

Sample Deviation Codes

- A - Date of sampling not supplied
- B - Sample age exceeds stability time (sampling to extraction)
- C - Sample not received in appropriate containers
- D - Broken Container
- E - Insufficient Sample (Applies to LOI in Trommel Fines Only)

Sample Retention and Disposal

All soil samples will be retained for a period of 45 days from the date of receipt

All water samples will be retained for 14 days from the date of receipt

Charges may apply to extended sample storage

If you require extended retention of samples, please email your requirements to:

customerservices@chemtest.com



TEST CERTIFICATE

Determination of Liquid and Plastic Limits

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

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



4041

Client: Applied Geology Ltd
Client Address: Unit 23
Abbey Park
Stareton
Kenilworth
Warwickshire
CV8 2LY
Contact: Sarah Treacy
Site Name: Howes Lane, Bicester AG2873-18
Site Address: Not Given

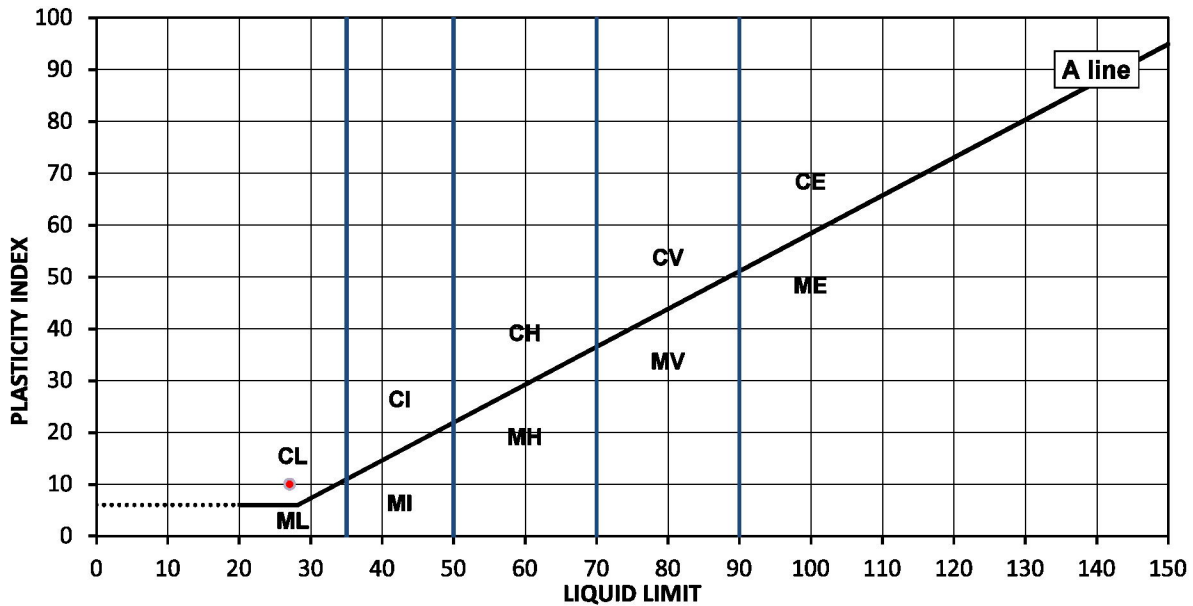
Client Reference: 18-11279
Job Number: 18-11279
Date Sampled: 16/08/2018
Date Received: 16/08/2018
Date Tested: 28/09/2018
Sampled By: Not Given

Test Results

Laboratory Reference: 1050866
Hole No.: TP3
Sample Reference: Not Given
Soil Description: Orangish brown slightly gravelly very sandy CLAY
Sample Preparation: Tested after washing to remove >425um

Depth Top [m]: 2.40
Depth Base [m]: Not Given
Sample Type: D

| As Received Moisture Content [%] | Liquid Limit [%] | Plastic Limit [%] | Plasticity Index [%] | % Passing 425µm BS Test Sieve |
|----------------------------------|------------------|-------------------|----------------------|-------------------------------|
| 8.1 | 27 | 17 | 10 | 75 |



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

| | | | | | | |
|---|---------|------------|--|----------------|--------------|--------------|
| C | Clay | Plasticity | L | Low | Liquid Limit | 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
Date Reported: 04/10/2018



Signed:

Darren Berrill
Geotechnical General
Manager



for and on behalf of i2 Analytical Ltd

"Opinions and interpretations expressed here in are outside of the scope of the UKAS Accreditation.
This report may not be reproduced other than in full without the prior written approval of the issuing laboratory.
The results included within the report are representative of the samples submitted for analysis.
The analysis was carried out at i2 Analytical Limited, ul. Pionierow 39, 41-711 Ruda Slaska, Poland."



4041

TEST CERTIFICATE

Determination of Liquid and Plastic Limits

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

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



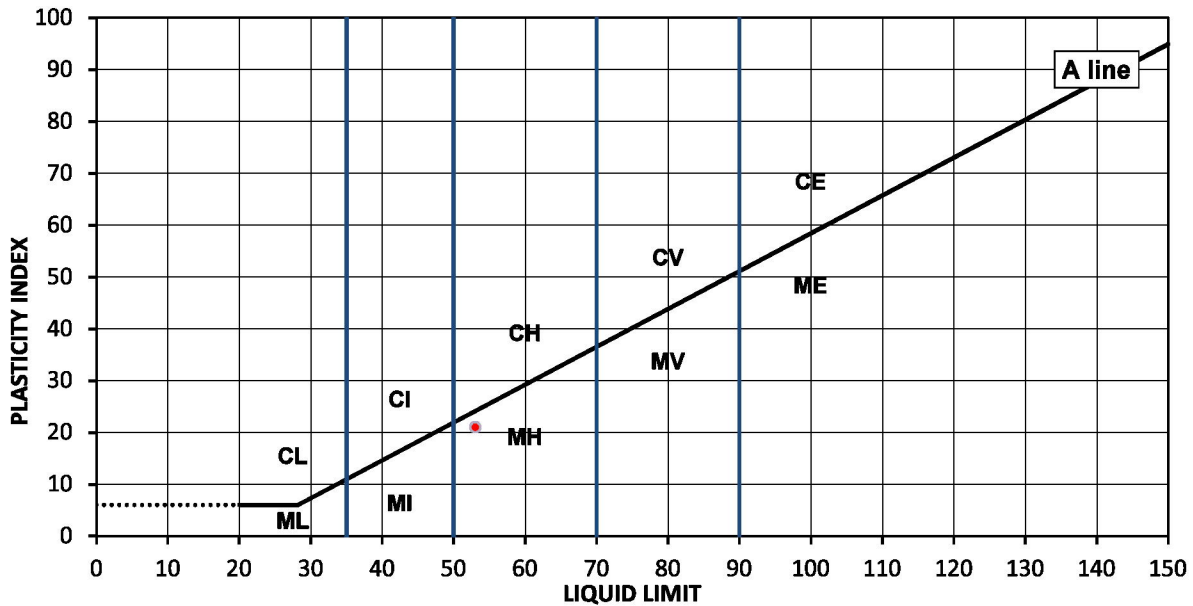
Client: Applied Geology Ltd
Client Address: Unit 23
Abbey Park
Stareton
Kenilworth
Warwickshire
CV8 2LY
Contact: Sarah Treacy
Site Name: Howes Lane, Bicester AG2873-18
Site Address: Not Given

Client Reference: 18-11279
Job Number: 18-11279
Date Sampled: 16/08/2018
Date Received: 16/08/2018
Date Tested: 28/09/2018
Sampled By: Not Given

Test Results

Laboratory Reference: 1050867
Hole No.: TP5
Sample Reference: Not Given
Soil Description: Brown slightly gravelly slightly sandy CLAY
Sample Preparation: Tested after washing to remove >425um
Depth Top [m]: 0.25
Depth Base [m]: Not Given
Sample Type: D

| As Received Moisture Content [%] | Liquid Limit [%] | Plastic Limit [%] | Plasticity Index [%] | % Passing 425µm BS Test Sieve |
|----------------------------------|------------------|-------------------|----------------------|-------------------------------|
| 11 | 53 | 32 | 21 | 98 |



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

| | | | | | | |
|---|---------|------------|--|----------------|--------------|--------------|
| C | Clay | Plasticity | L | Low | Liquid Limit | 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
Date Reported: 04/10/2018



Signed:

Darren Berrill
Geotechnical General
Manager



for and on behalf of i2 Analytical Ltd

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TEST CERTIFICATE

Determination of Liquid and Plastic Limits

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

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



4041

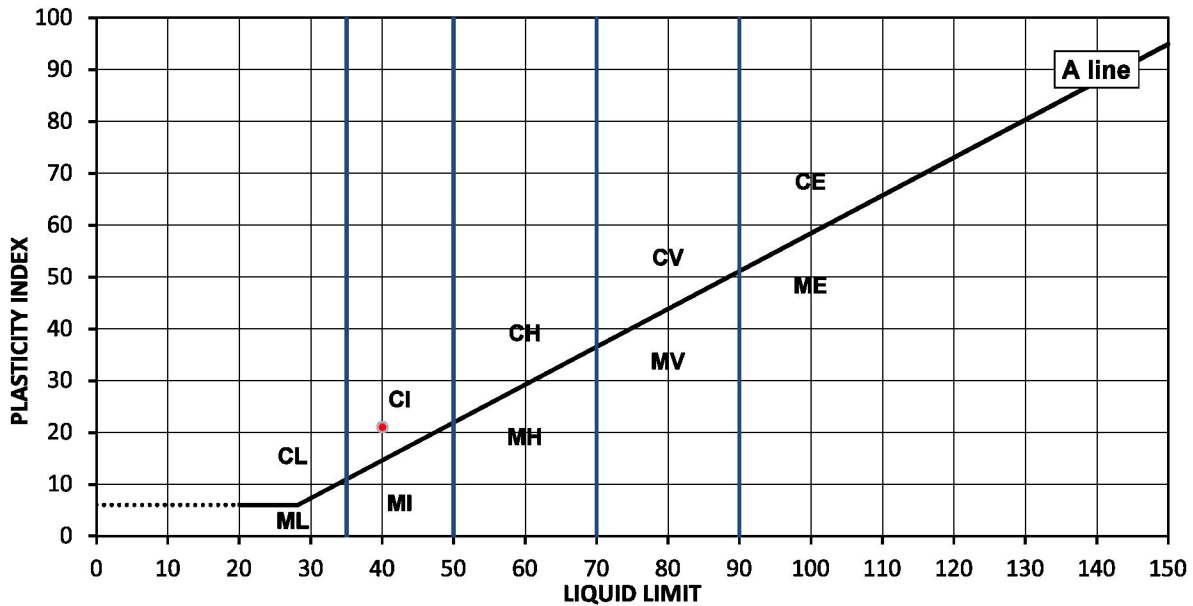
Client: Applied Geology Ltd
Client Address: Unit 23
Abbey Park
Stareton
Kenilworth
Warwickshire
CV8 2LY
Contact: Sarah Treacy
Site Name: Howes Lane, Bicester AG2873-18
Site Address: Not Given

Client Reference: 18-11279
Job Number: 18-11279
Date Sampled: 17/08/2018
Date Received: 16/08/2018
Date Tested: 28/09/2018
Sampled By: Not Given

Test Results

Laboratory Reference: 1050868
Hole No.: TP7
Sample Reference: Not Given
Soil Description: Grey to orangish brown slightly gravelly sandy CLAY
Sample Preparation: Tested after washing to remove >425um
Depth Top [m]: 2.30
Depth Base [m]: Not Given
Sample Type: D

| As Received Moisture Content [%] | Liquid Limit [%] | Plastic Limit [%] | Plasticity Index [%] | % Passing 425µm BS Test Sieve |
|----------------------------------|------------------|-------------------|----------------------|-------------------------------|
| 18 | 40 | 19 | 21 | 99 |



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

| | | | | | | |
|---|---------|------------|--|----------------|--------------|--------------|
| C | Clay | Plasticity | L | Low | Liquid Limit | 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:

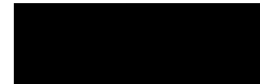
Approved:

Dariusz Piotrowski
PL Laboratory
Manager
Date Reported: 04/10/2018



Signed:

Darren Berrill
Geotechnical General
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i2 Analytical Ltd
7 Woodshots Meadow
Croxley Green Business Park
Watford Herts WD18 8YS



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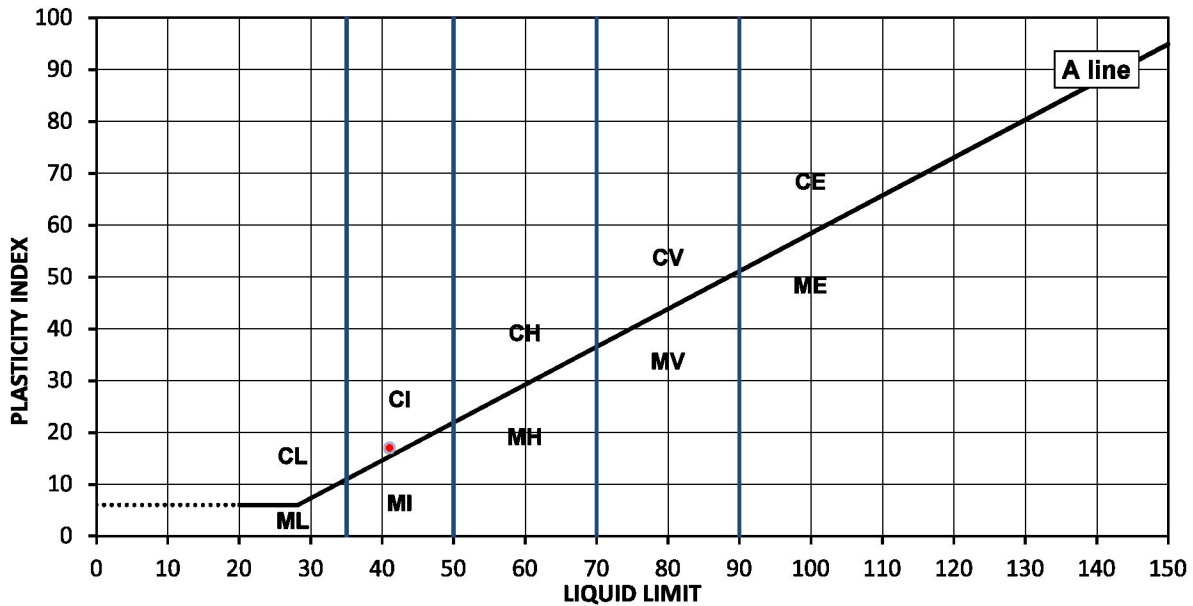
Client: Applied Geology Ltd
Client Address: Unit 23
Abbey Park
Stareton
Kenilworth
Warwickshire
CV8 2LY
Contact: Sarah Treacy
Site Name: Howes Lane, Bicester AG2873-18
Site Address: Not Given

Client Reference: 18-11279
Job Number: 18-11279
Date Sampled: 17/08/2018
Date Received: 16/08/2018
Date Tested: 28/09/2018
Sampled By: Not Given

Test Results

Laboratory Reference: 1050869
Hole No.: TP8
Sample Reference: Not Given
Soil Description: Grey to orangish brown sandy CLAY
Sample Preparation: Tested in natural condition
Depth Top [m]: 2.30
Depth Base [m]: Not Given
Sample Type: D

| As Received Moisture Content [%] | Liquid Limit [%] | Plastic Limit [%] | Plasticity Index [%] | % Passing 425µm BS Test Sieve |
|----------------------------------|------------------|-------------------|----------------------|-------------------------------|
| 18 | 41 | 24 | 17 | 100 |



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

| | | | | | | |
|---|---------|------------|--|----------------|--------------|--------------|
| C | Clay | Plasticity | L | Low | Liquid Limit | 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:

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Watford Herts WD18 8YS



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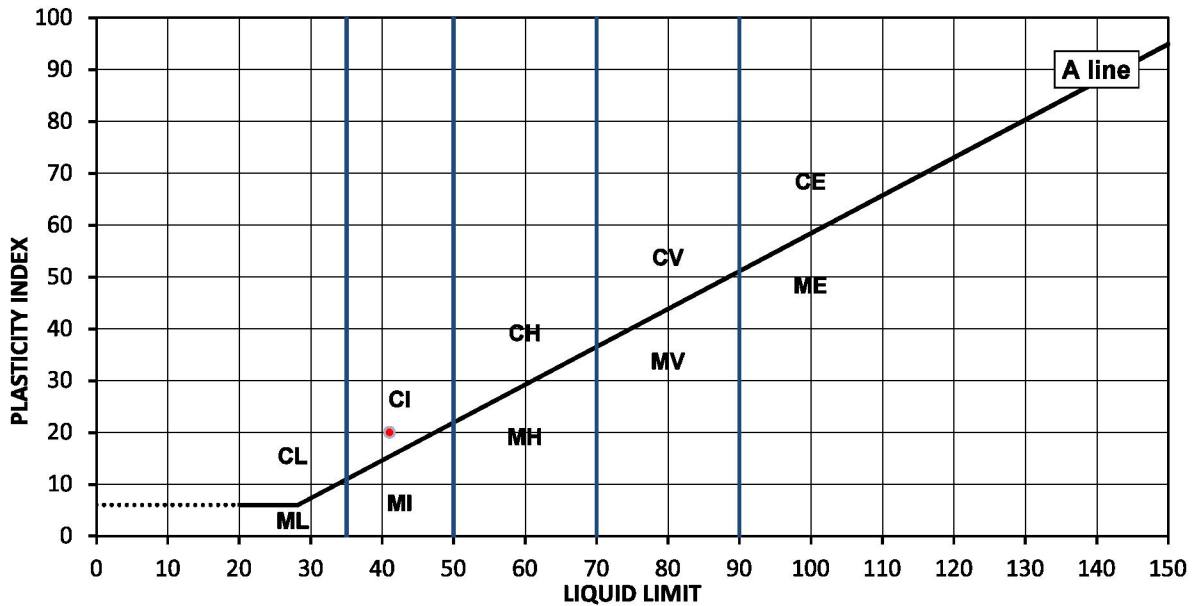
Client: Applied Geology Ltd
Client Address: Unit 23
Abbey Park
Stareton
Kenilworth
Warwickshire
CV8 2LY
Contact: Sarah Treacy
Site Name: Howes Lane, Bicester AG2873-18
Site Address: Not Given

Client Reference: 18-11279
Job Number: 18-11279
Date Sampled: 17/08/2018
Date Received: 16/08/2018
Date Tested: 28/09/2018
Sampled By: Not Given

Test Results

Laboratory Reference: 1050870
Hole No.: TP8
Sample Reference: Not Given
Soil Description: Grey sandy CLAY
Sample Preparation: Tested in natural condition
Depth Top [m]: 3.90
Depth Base [m]: Not Given
Sample Type: D

| As Received Moisture Content [%] | Liquid Limit [%] | Plastic Limit [%] | Plasticity Index [%] | % Passing 425µm BS Test Sieve |
|----------------------------------|------------------|-------------------|----------------------|-------------------------------|
| 17 | 41 | 21 | 20 | 100 |



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

| | | | | | | |
|---|---------|------------|--|----------------|--------------|--------------|
| C | Clay | Plasticity | L | Low | Liquid Limit | 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) | | | |

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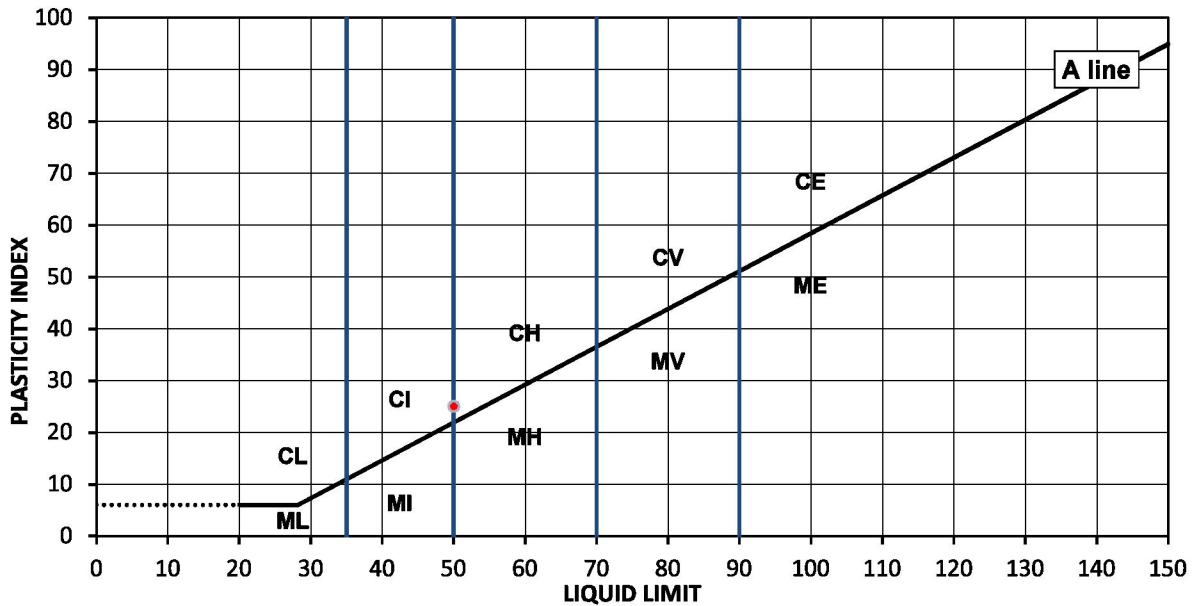
Client: Applied Geology Ltd
Client Address: Unit 23
Abbey Park
Stareton
Kenilworth
Warwickshire
CV8 2LY
Contact: Sarah Treacy
Site Name: Howes Lane, Bicester AG2873-18
Site Address: Not Given

Client Reference: 18-11279
Job Number: 18-11279
Date Sampled: 17/08/2018
Date Received: 16/08/2018
Date Tested: 28/09/2018
Sampled By: Not Given

Test Results

Laboratory Reference: 1050871
Hole No.: TP10
Sample Reference: Not Given
Soil Description: Greyish brown slightly sandy CLAY
Sample Preparation: Tested in natural condition
Depth Top [m]: 2.60
Depth Base [m]: Not Given
Sample Type: D

| As Received Moisture Content [%] | Liquid Limit [%] | Plastic Limit [%] | Plasticity Index [%] | % Passing 425µm BS Test Sieve |
|----------------------------------|------------------|-------------------|----------------------|-------------------------------|
| 23 | 50 | 25 | 25 | 100 |



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

| | | | | | |
|---------|------|---|--|--------------|--------------|
| C | Clay | L | Low | Liquid Limit | 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:

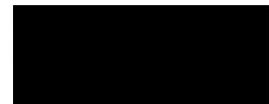
Approved:

Dariusz Piotrowski
PL Laboratory
Manager
Date Reported: 04/10/2018



Signed:

Darren Berrill
Geotechnical General
Manager



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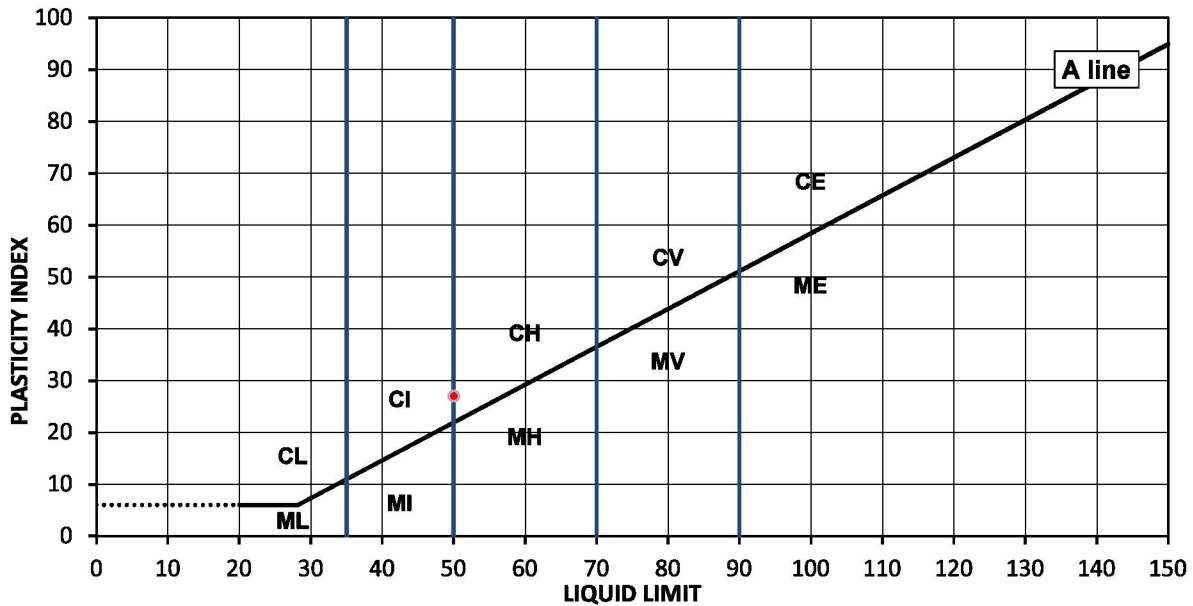
Client: Applied Geology Ltd
Client Address: Unit 23
Abbey Park
Stareton
Kenilworth
Warwickshire
CV8 2LY
Contact: Sarah Treacy
Site Name: Howes Lane, Bicester AG2873-18
Site Address: Not Given

Client Reference: 18-11279
Job Number: 18-11279
Date Sampled: 15/08/2018
Date Received: 16/08/2018
Date Tested: 28/09/2018
Sampled By: Not Given

Test Results

Laboratory Reference: 1050872
Hole No.: TP13
Sample Reference: Not Given
Soil Description: Orangish brown slightly gravelly slightly sandy CLAY
Sample Preparation: Tested after washing to remove >425um
Depth Top [m]: 1.80
Depth Base [m]: Not Given
Sample Type: D

| As Received Moisture Content [%] | Liquid Limit [%] | Plastic Limit [%] | Plasticity Index [%] | % Passing 425µm BS Test Sieve |
|----------------------------------|------------------|-------------------|----------------------|-------------------------------|
| 24 | 50 | 23 | 27 | 70 |



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

| | | | | | | |
|---|---------|------------|--|----------------|--------------|--------------|
| C | Clay | Plasticity | L | Low | Liquid Limit | 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) | | | |

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Date Reported: 04/10/2018



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Croxley Green Business Park
Watford Herts WD18 8YS



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Client: Applied Geology Ltd
Client Address: Unit 23
Abbey Park
Stareton
Kenilworth
Warwickshire
CV8 2LY
Contact: Sarah Treacy
Site Name: Howes Lane, Bicester AG2873-18
Site Address: Not Given

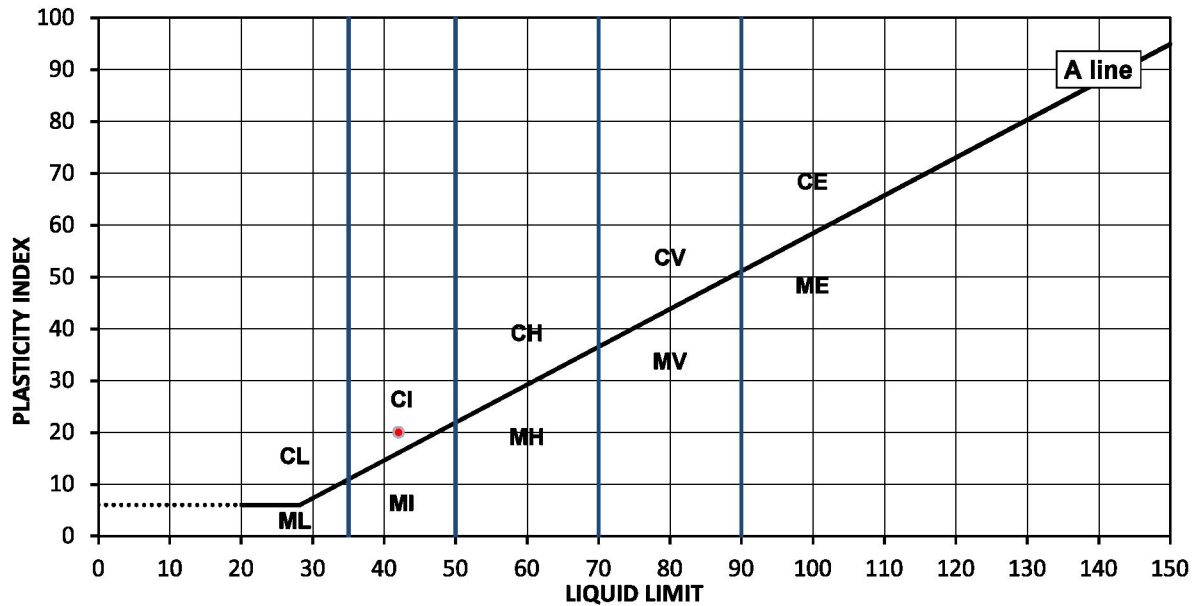
Client Reference: 18-11279
Job Number: 18-11279
Date Sampled: 15/08/2018
Date Received: 16/08/2018
Date Tested: 28/09/2018
Sampled By: Not Given

Test Results

Laboratory Reference: 1050873
Hole No.: TP15
Sample Reference: Not Given
Soil Description: Orangish brown slightly gravelly sandy CLAY
Sample Preparation: Tested after washing to remove >425um

Depth Top [m]: 1.75
Depth Base [m]: Not Given
Sample Type: D

| As Received Moisture Content [%] | Liquid Limit [%] | Plastic Limit [%] | Plasticity Index [%] | % Passing 425µm BS Test Sieve |
|----------------------------------|------------------|-------------------|----------------------|-------------------------------|
| 17 | 42 | 22 | 20 | 86 |



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

| | | | | | | |
|---|---------|------------|--|----------------|--------------|--------------|
| C | Clay | Plasticity | L | Low | Liquid Limit | 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
Date Reported: 04/10/2018

Signed:

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Geotechnical General
Manager

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



4041

Client: Applied Geology Ltd
Client Address: Unit 23
Abbey Park
Stareton
Kenilworth
Warwickshire
CV8 2LY
Contact: Sarah Treacy
Site Name: Howes Lane, Bicester AG2873-18
Site Address: Not Given

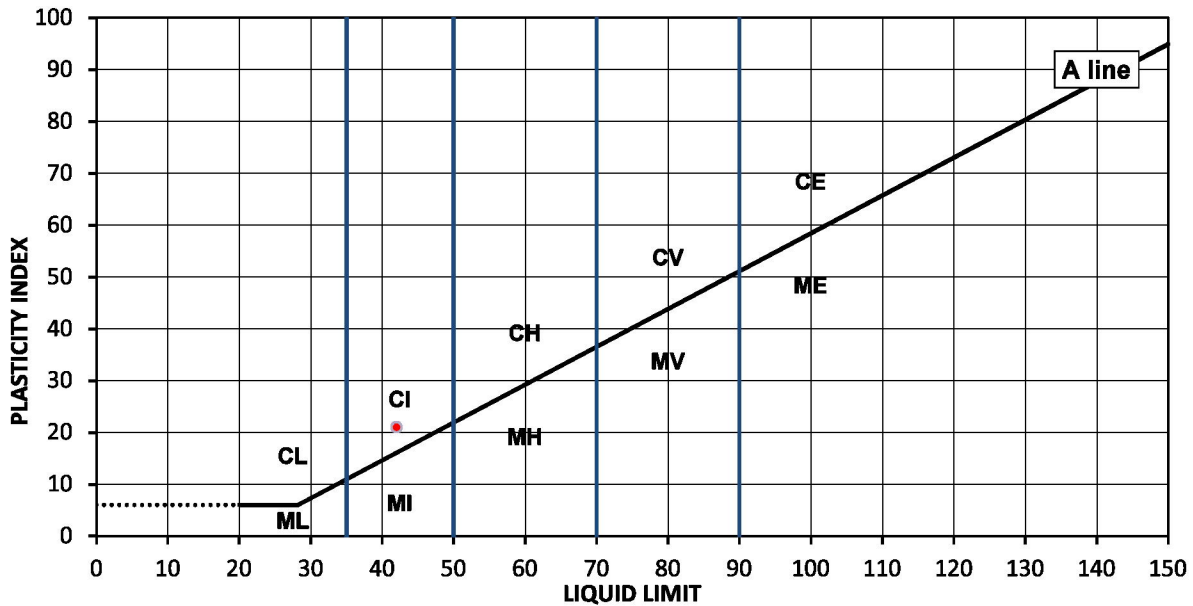
Client Reference: 18-11279
Job Number: 18-11279
Date Sampled: 15/08/2018
Date Received: 16/08/2018
Date Tested: 25/09/2018
Sampled By: Not Given

Test Results

Laboratory Reference: 1050874
Hole No.: TP20
Sample Reference: Not Given
Soil Description: Greyish brown slightly gravelly sandy CLAY
Sample Preparation: Tested after washing to remove >425um

Depth Top [m]: 2.45
Depth Base [m]: Not Given
Sample Type: D

| As Received Moisture Content [%] | Liquid Limit [%] | Plastic Limit [%] | Plasticity Index [%] | % Passing 425µm BS Test Sieve |
|----------------------------------|------------------|-------------------|----------------------|-------------------------------|
| 19 | 42 | 21 | 21 | 99 |



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

| | | | | | | |
|---|---------|------------|--|----------------|--------------|--------------|
| C | Clay | Plasticity | L | Low | Liquid Limit | 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:

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Dariusz Piotrowski
PL Laboratory
Manager
Date Reported: 04/10/2018



Signed:

Darren Berrill
Geotechnical General
Manager



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



4041

Client: Applied Geology Ltd
Client Address: Unit 23
Abbey Park
Stareton
Kenilworth
Warwickshire
CV8 2LY
Contact: Sarah Treacy
Site Name: Howes Lane, Bicester AG2873-18
Site Address: Not Given

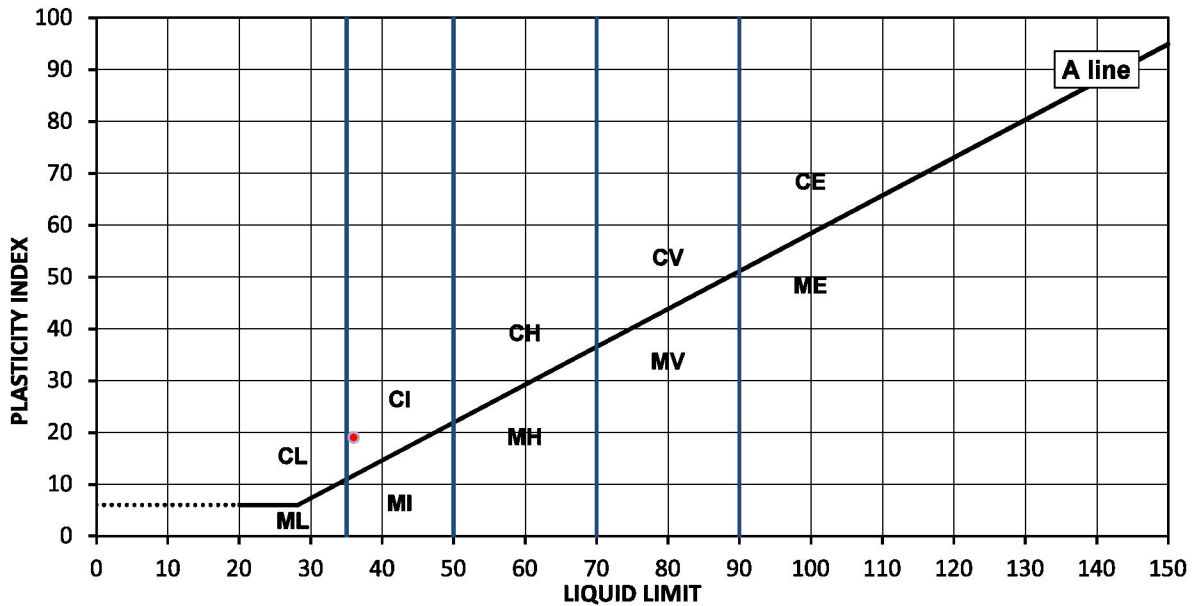
Client Reference: 18-11279
Job Number: 18-11279
Date Sampled: 15/08/2018
Date Received: 16/08/2018
Date Tested: 28/09/2018
Sampled By: Not Given

Test Results

Laboratory Reference: 1050875
Hole No.: TP22
Sample Reference: Not Given
Soil Description: Orangish brown slightly gravelly sandy CLAY
Sample Preparation: Tested after washing to remove >425um

Depth Top [m]: 1.60
Depth Base [m]: Not Given
Sample Type: D

| As Received Moisture Content [%] | Liquid Limit [%] | Plastic Limit [%] | Plasticity Index [%] | % Passing 425µm BS Test Sieve |
|----------------------------------|------------------|-------------------|----------------------|-------------------------------|
| 13 | 36 | 17 | 19 | 83 |



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

| | | | | | | |
|---|---------|------------|--|----------------|--------------|--------------|
| C | Clay | Plasticity | L | Low | Liquid Limit | 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:

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PL Laboratory
Manager
Date Reported: 04/10/2018

Signed:

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7 Woodshots Meadow
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Watford Herts WD18 8YS



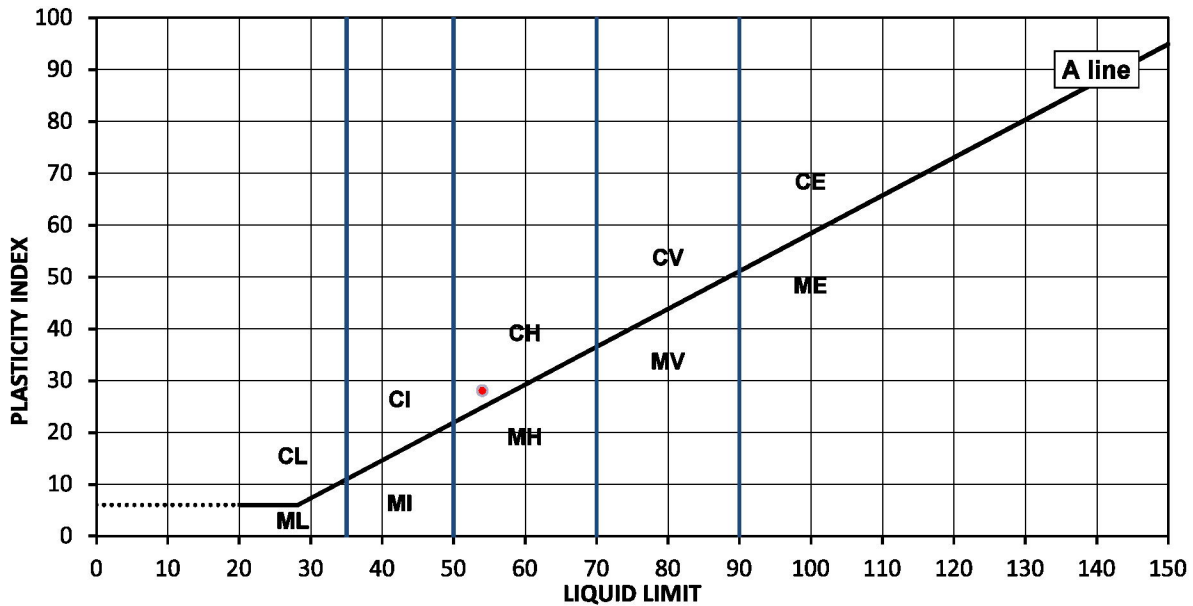
Client: Applied Geology Ltd
Client Address: Unit 23
Abbey Park
Stareton
Kenilworth
Warwickshire
CV8 2LY
Contact: Sarah Treacy
Site Name: Howes Lane, Bicester AG2873-18
Site Address: Not Given

Client Reference: 18-11279
Job Number: 18-11279
Date Sampled: 15/08/2018
Date Received: 16/08/2018
Date Tested: 28/09/2018
Sampled By: Not Given

Test Results

Laboratory Reference: 1050876
Hole No.: TP24
Sample Reference: Not Given
Soil Description: Orangish brown slightly gravelly slightly sandy CLAY
Sample Preparation: Tested after washing to remove >425um
Depth Top [m]: 1.90
Depth Base [m]: Not Given
Sample Type: D

| As Received Moisture Content [%] | Liquid Limit [%] | Plastic Limit [%] | Plasticity Index [%] | % Passing 425µm BS Test Sieve |
|----------------------------------|------------------|-------------------|----------------------|-------------------------------|
| 23 | 54 | 26 | 28 | 88 |



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

| | | | | | | |
|---|---------|------------|--|----------------|--------------|--------------|
| C | Clay | Plasticity | L | Low | Liquid Limit | 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) | | | |

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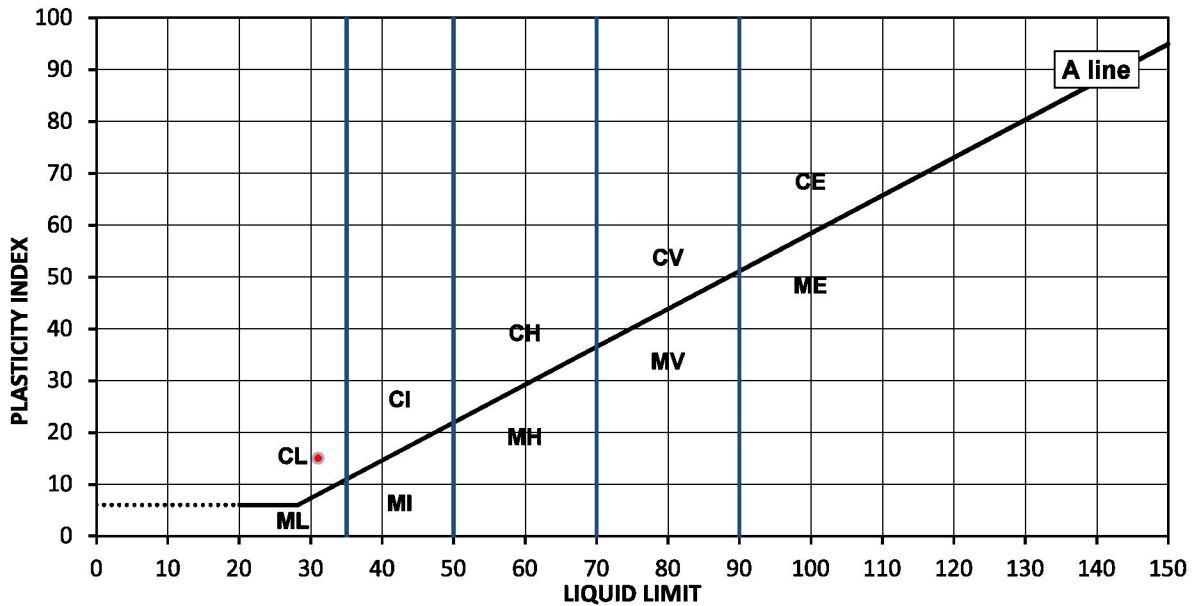
Client: Applied Geology Ltd
Client Address: Unit 23
Abbey Park
Stareton
Kenilworth
Warwickshire
CV8 2LY
Contact: Sarah Treacy
Site Name: Howes Lane, Bicester AG2873-18
Site Address: Not Given

Client Reference: 18-11279
Job Number: 18-11279
Date Sampled: 14/08/2018
Date Received: 16/08/2018
Date Tested: 28/09/2018
Sampled By: Not Given

Test Results

Laboratory Reference: 1050877
Hole No.: TP26
Sample Reference: Not Given
Soil Description: Light brown slightly gravelly very sandy CLAY
Sample Preparation: Tested after washing to remove >425um
Depth Top [m]: 1.80
Depth Base [m]: Not Given
Sample Type: D

| As Received Moisture Content [%] | Liquid Limit [%] | Plastic Limit [%] | Plasticity Index [%] | % Passing 425µm BS Test Sieve |
|----------------------------------|------------------|-------------------|----------------------|-------------------------------|
| 14 | 31 | 16 | 15 | 84 |



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

| | | | | | | |
|---|---------|------------|--|----------------|--------------|--------------|
| C | Clay | Plasticity | L | Low | Liquid Limit | 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:

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PL Laboratory
Manager
Date Reported: 04/10/2018



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Watford Herts WD18 8YS



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Client: Applied Geology Ltd
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Kenilworth
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CV8 2LY
Contact: Sarah Treacy
Site Name: Howes Lane, Bicester AG2873-18
Site Address: Not Given

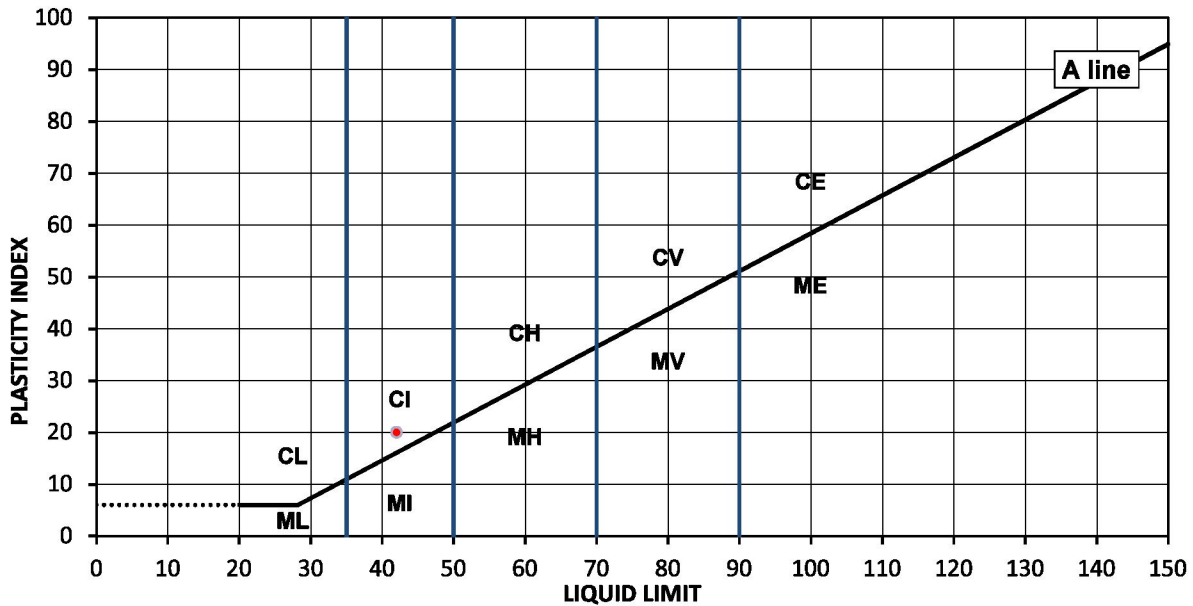
Client Reference: 18-11279
Job Number: 18-11279
Date Sampled: 14/08/2018
Date Received: 16/08/2018
Date Tested: 28/09/2018
Sampled By: Not Given

Test Results

Laboratory Reference: 1050878
Hole No.: TP28
Sample Reference: Not Given
Soil Description: Orangish brown slightly gravelly sandy CLAY
Sample Preparation: Tested after washing to remove >425um

Depth Top [m]: 2.40
Depth Base [m]: Not Given
Sample Type: D

| As Received Moisture Content [%] | Liquid Limit [%] | Plastic Limit [%] | Plasticity Index [%] | % Passing 425µm BS Test Sieve |
|----------------------------------|------------------|-------------------|----------------------|-------------------------------|
| 20 | 42 | 22 | 20 | 95 |



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

| | | | | | | |
|---|---------|------------|--|----------------|--------------|--------------|
| C | Clay | Plasticity | L | Low | Liquid Limit | 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
Date Reported: 04/10/2018

Signed:

Darren Berrill
Geotechnical General
Manager

for and on behalf of i2 Analytical Ltd

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TEST CERTIFICATE

Determination of Liquid and Plastic Limits

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

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



4041

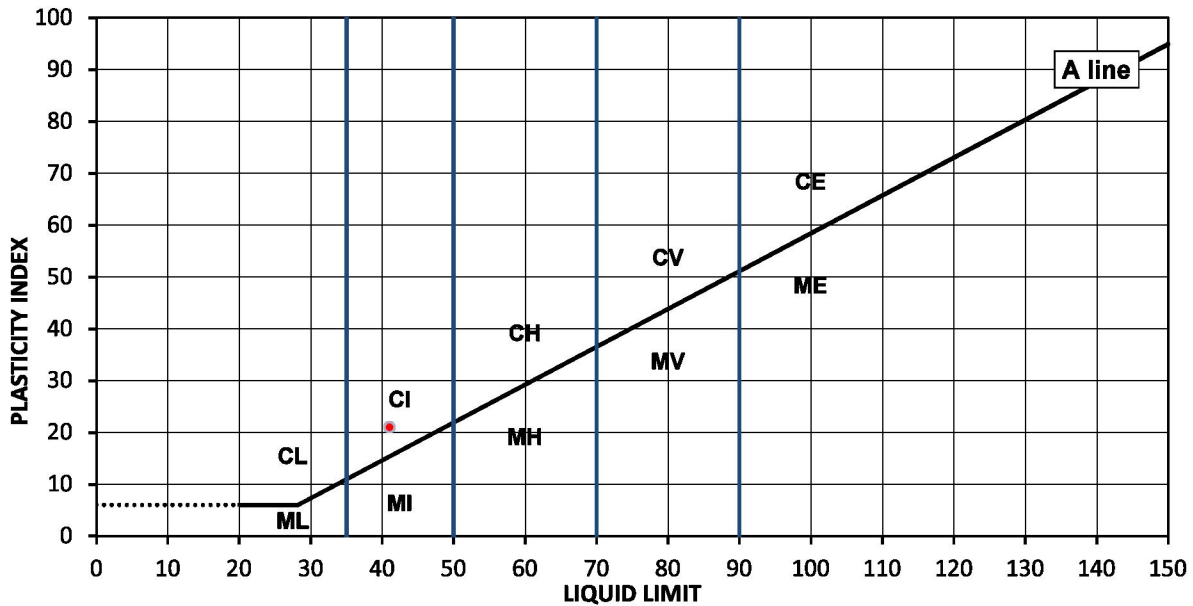
Client: Applied Geology Ltd
Client Address: Unit 23
Abbey Park
Stareton
Kenilworth
Warwickshire
CV8 2LY
Contact: Sarah Treacy
Site Name: Howes Lane, Bicester AG2873-18
Site Address: Not Given

Client Reference: 18-11279
Job Number: 18-11279
Date Sampled: 20/08/2018
Date Received: 16/08/2018
Date Tested: 28/09/2018
Sampled By: Not Given

Test Results

Laboratory Reference: 1050879
Hole No.: TP30
Sample Reference: Not Given
Soil Description: Orangish brown slightly gravelly sandy CLAY
Sample Preparation: Tested after washing to remove >425um
Depth Top [m]: 1.20
Depth Base [m]: Not Given
Sample Type: D

| As Received Moisture Content [%] | Liquid Limit [%] | Plastic Limit [%] | Plasticity Index [%] | % Passing 425µm BS Test Sieve |
|----------------------------------|------------------|-------------------|----------------------|-------------------------------|
| 16 | 41 | 20 | 21 | 83 |



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

| | | | | | | |
|---|---------|------------|--|----------------|--------------|--------------|
| C | Clay | Plasticity | L | Low | Liquid Limit | 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
Date Reported: 04/10/2018

Signed:

Darren Berrill
Geotechnical General
Manager

for and on behalf of i2 Analytical Ltd

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TEST CERTIFICATE

Determination of Liquid and Plastic Limits

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

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



4041

Client: Applied Geology Ltd
Client Address: Unit 23
Abbey Park
Stareton
Kenilworth
Warwickshire
CV8 2LY
Contact: Sarah Treacy
Site Name: Howes Lane, Bicester AG2873-18
Site Address: Not Given

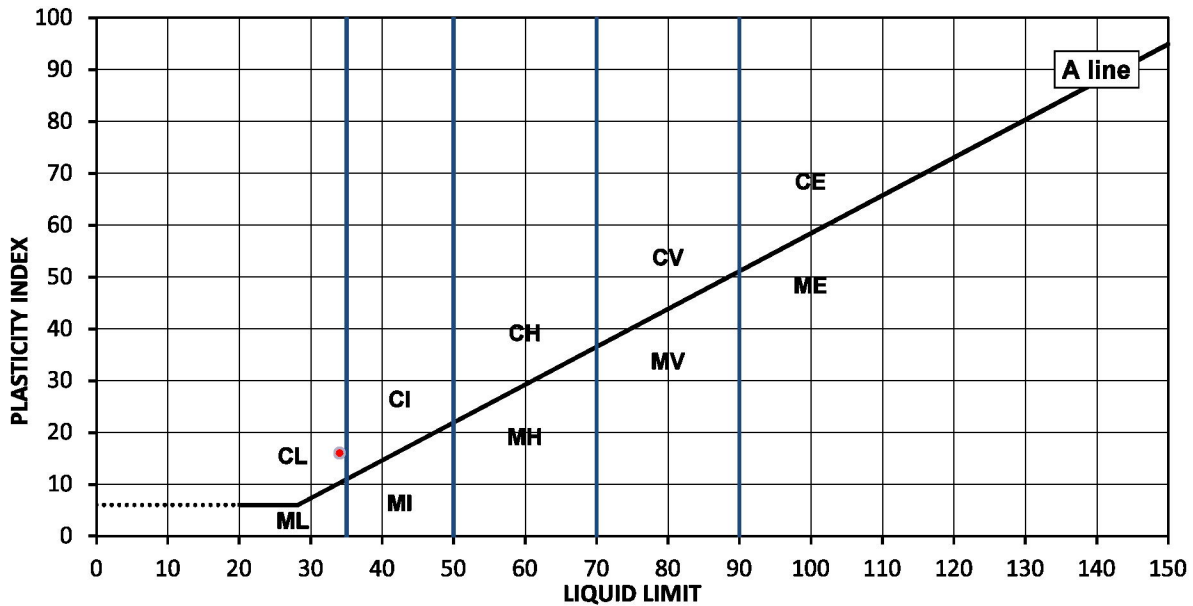
Client Reference: 18-11279
Job Number: 18-11279
Date Sampled: 14/08/2018
Date Received: 16/08/2018
Date Tested: 28/09/2018
Sampled By: Not Given

Test Results

Laboratory Reference: 1050880
Hole No.: TP37
Sample Reference: Not Given
Soil Description: Orangish brown slightly gravelly very sandy CLAY
Sample Preparation: Tested after washing to remove >425um

Depth Top [m]: 2.40
Depth Base [m]: Not Given
Sample Type: D

| As Received Moisture Content [%] | Liquid Limit [%] | Plastic Limit [%] | Plasticity Index [%] | % Passing 425µm BS Test Sieve |
|----------------------------------|------------------|-------------------|----------------------|-------------------------------|
| 14 | 34 | 18 | 16 | 72 |



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

| | | | | | | |
|---|---------|------------|--|----------------|--------------|--------------|
| C | Clay | Plasticity | L | Low | Liquid Limit | 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
Date Reported: 04/10/2018



Signed:

Darren Berrill
Geotechnical General
Manager



for and on behalf of i2 Analytical Ltd

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TEST CERTIFICATE

Determination of Liquid and Plastic Limits

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

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



4041

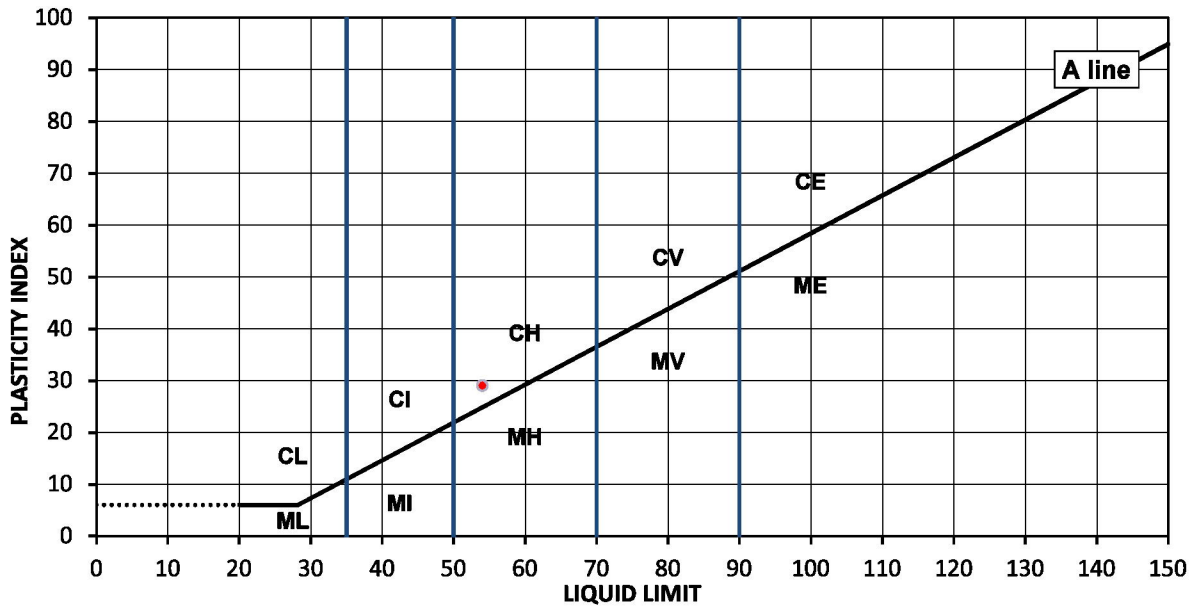
Client: Applied Geology Ltd
Client Address: Unit 23
Abbey Park
Stareton
Kenilworth
Warwickshire
CV8 2LY
Contact: Sarah Treacy
Site Name: Howes Lane, Bicester AG2873-18
Site Address: Not Given

Client Reference: 18-11279
Job Number: 18-11279
Date Sampled: 10/08/2018
Date Received: 16/08/2018
Date Tested: 28/09/2018
Sampled By: Not Given

Test Results

Laboratory Reference: 1050881
Hole No.: TP41
Sample Reference: Not Given
Soil Description: Orangish brown slightly gravelly slightly sandy CLAY
Sample Preparation: Tested after washing to remove >425um
Depth Top [m]: 2.00
Depth Base [m]: Not Given
Sample Type: D

| As Received Moisture Content [%] | Liquid Limit [%] | Plastic Limit [%] | Plasticity Index [%] | % Passing 425µm BS Test Sieve |
|----------------------------------|------------------|-------------------|----------------------|-------------------------------|
| 19 | 54 | 25 | 29 | 96 |



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

| | | | | | | |
|---|---------|------------|--|----------------|--------------|--------------|
| C | Clay | Plasticity | L | Low | Liquid Limit | 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
Date Reported: 04/10/2018



Signed:

Darren Berrill
Geotechnical General
Manager



for and on behalf of i2 Analytical Ltd

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TEST CERTIFICATE

Determination of Liquid and Plastic Limits

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



4041

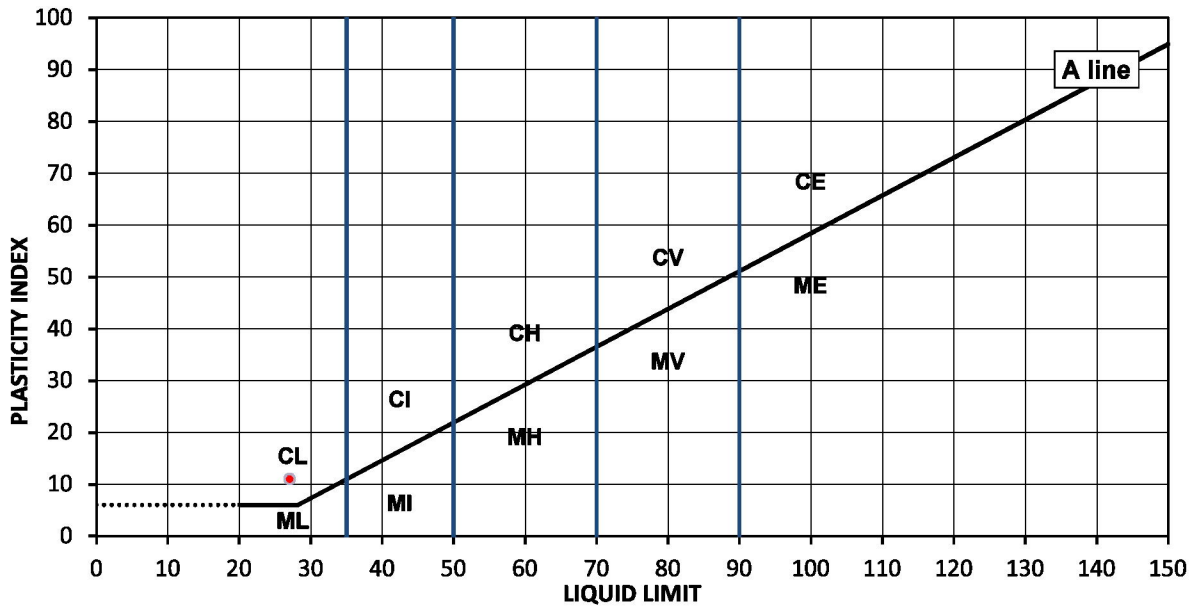
Client: Applied Geology Ltd
Client Address: Unit 23
Abbey Park
Stareton
Kenilworth
Warwickshire
CV8 2LY
Contact: Sarah Treacy
Site Name: Howes Lane, Bicester AG2873-18
Site Address: Not Given

Client Reference: 18-11279
Job Number: 18-11279
Date Sampled: 20/08/2018
Date Received: 16/08/2018
Date Tested: 28/09/2018
Sampled By: Not Given

Test Results

Laboratory Reference: 1050882
Hole No.: TP49
Sample Reference: Not Given
Soil Description: Light brown slightly gravelly very sandy CLAY
Sample Preparation: Tested after washing to remove >425um
Depth Top [m]: 1.90
Depth Base [m]: Not Given
Sample Type: D

| As Received Moisture Content [%] | Liquid Limit [%] | Plastic Limit [%] | Plasticity Index [%] | % Passing 425µm BS Test Sieve |
|----------------------------------|------------------|-------------------|----------------------|-------------------------------|
| 23 | 27 | 16 | 11 | 71 |



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

| | | | | | | |
|---|---------|------------|--|----------------|--------------|--------------|
| C | Clay | Plasticity | L | Low | Liquid Limit | 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
Date Reported: 04/10/2018



Signed:

Darren Berrill
Geotechnical General
Manager



for and on behalf of i2 Analytical Ltd

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TEST CERTIFICATE

Determination of Liquid and Plastic Limits

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

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



4041

Client: Applied Geology Ltd
Client Address: Unit 23
Abbey Park
Stareton
Kenilworth
Warwickshire
CV8 2LY
Contact: Sarah Treacy
Site Name: Howes Lane, Bicester AG2873-18
Site Address: Not Given

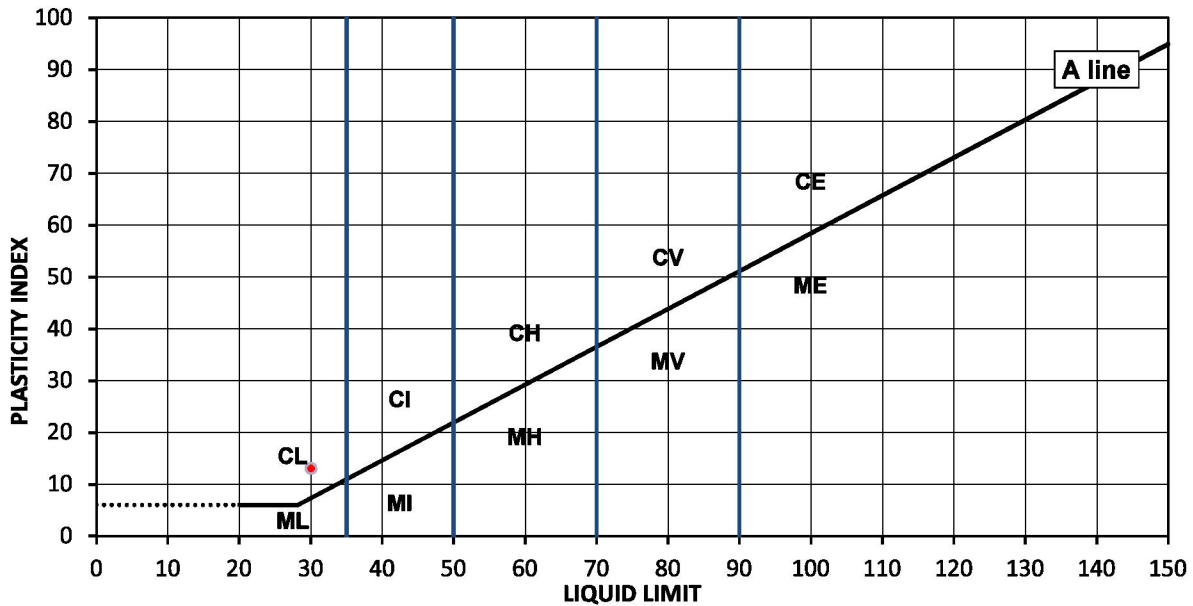
Client Reference: 18-11279
Job Number: 18-11279
Date Sampled: 20/08/2018
Date Received: 16/08/2018
Date Tested: 28/09/2018
Sampled By: Not Given

Test Results

Laboratory Reference: 1050883
Hole No.: TP55
Sample Reference: Not Given
Soil Description: Orangish brown gravelly very sandy CLAY
Sample Preparation: Tested after washing to remove >425um

Depth Top [m]: 1.50
Depth Base [m]: Not Given
Sample Type: D

| As Received Moisture Content [%] | Liquid Limit [%] | Plastic Limit [%] | Plasticity Index [%] | % Passing 425µm BS Test Sieve |
|----------------------------------|------------------|-------------------|----------------------|-------------------------------|
| 12 | 30 | 17 | 13 | 62 |



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

| | | | | | | |
|---|---------|------------|--|----------------|--------------|--------------|
| C | Clay | Plasticity | L | Low | Liquid Limit | 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
Date Reported: 04/10/2018

Signed:

Darren Berrill
Geotechnical General
Manager

for and on behalf of i2 Analytical Ltd

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TEST CERTIFICATE

Determination of Liquid and Plastic Limits

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

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



Client: Applied Geology Ltd
Client Address: Unit 23
Abbey Park
Stareton
Kenilworth
Warwickshire
CV8 2LY
Contact: Sarah Treacy
Site Name: Howes Lane, Bicester AG2873-18
Site Address: Not Given

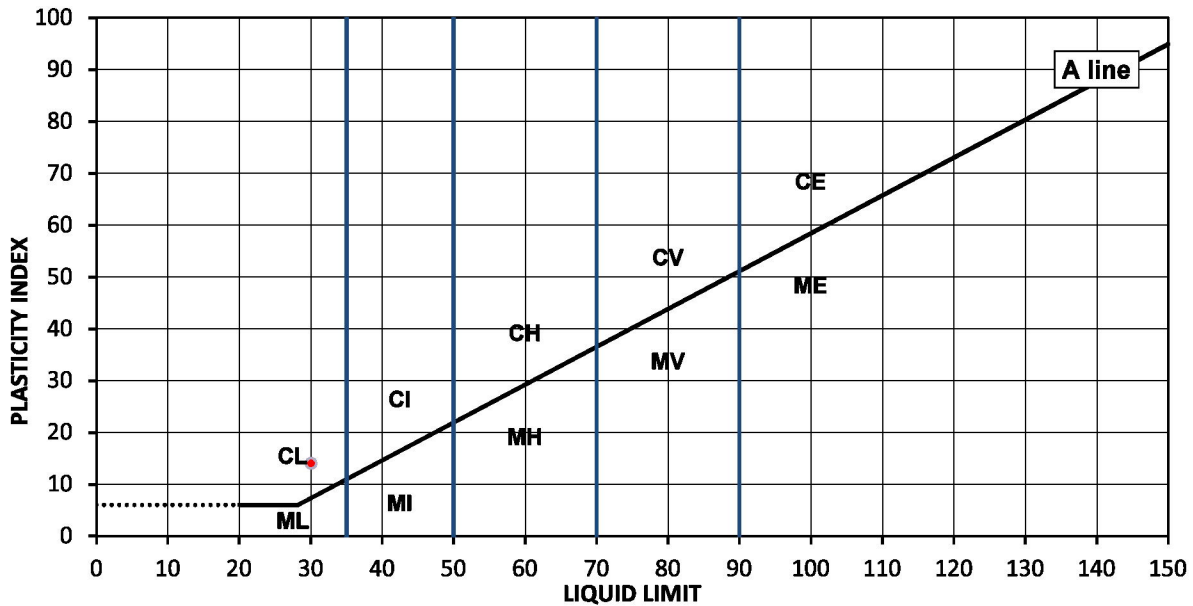
Client Reference: 18-11279
Job Number: 18-11279
Date Sampled: 22/08/2018
Date Received: 16/08/2018
Date Tested: 28/09/2018
Sampled By: Not Given

Test Results

Laboratory Reference: 1050884
Hole No.: TP56
Sample Reference: Not Given
Soil Description: Orangish brown slightly gravelly very sandy CLAY
Sample Preparation: Tested after washing to remove >425um

Depth Top [m]: 1.75
Depth Base [m]: Not Given
Sample Type: D

| As Received Moisture Content [%] | Liquid Limit [%] | Plastic Limit [%] | Plasticity Index [%] | % Passing 425µm BS Test Sieve |
|----------------------------------|------------------|-------------------|----------------------|-------------------------------|
| 12 | 30 | 16 | 14 | 80 |



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

| | | | | | | |
|---|---------|------------|--|----------------|--------------|--------------|
| C | Clay | Plasticity | L | Low | Liquid Limit | 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
Date Reported: 04/10/2018

Signed:

Darren Berrill
Geotechnical General
Manager

for and on behalf of i2 Analytical Ltd

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TEST CERTIFICATE

Determination of Liquid and Plastic Limits

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

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



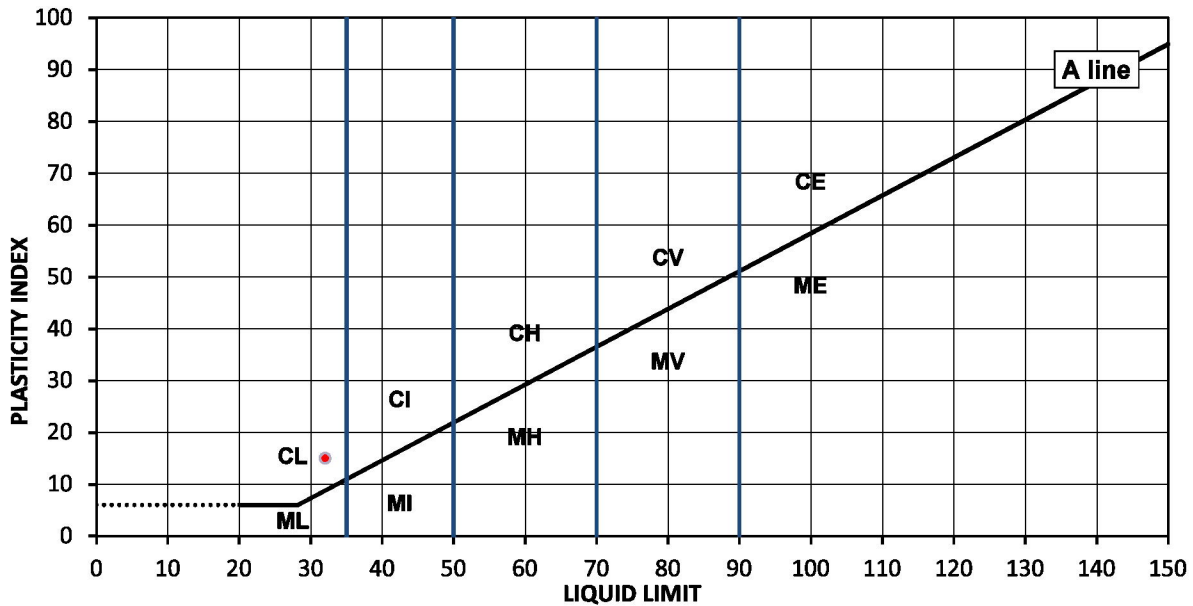
Client: Applied Geology Ltd
Client Address: Unit 23
Abbey Park
Stareton
Kenilworth
Warwickshire
CV8 2LY
Contact: Sarah Treacy
Site Name: Howes Lane, Bicester AG2873-18
Site Address: Not Given

Client Reference: 18-11279
Job Number: 18-11279
Date Sampled: 20/08/2018
Date Received: 16/08/2018
Date Tested: 28/09/2018
Sampled By: Not Given

Test Results

Laboratory Reference: 1050885
Hole No.: TP57
Sample Reference: Not Given
Soil Description: Orangish brown slightly gravelly very sandy CLAY
Sample Preparation: Tested after washing to remove >425um
Depth Top [m]: 1.90
Depth Base [m]: Not Given
Sample Type: D

| As Received Moisture Content [%] | Liquid Limit [%] | Plastic Limit [%] | Plasticity Index [%] | % Passing 425µm BS Test Sieve |
|----------------------------------|------------------|-------------------|----------------------|-------------------------------|
| 12 | 32 | 17 | 15 | 72 |



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

| | | | | | | |
|---|---------|------------|--|----------------|--------------|--------------|
| C | Clay | Plasticity | L | Low | Liquid Limit | 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
Date Reported: 04/10/2018



Signed:

Darren Berrill
Geotechnical General
Manager



for and on behalf of i2 Analytical Ltd

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TEST CERTIFICATE

Determination of Liquid and Plastic Limits

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

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



4041

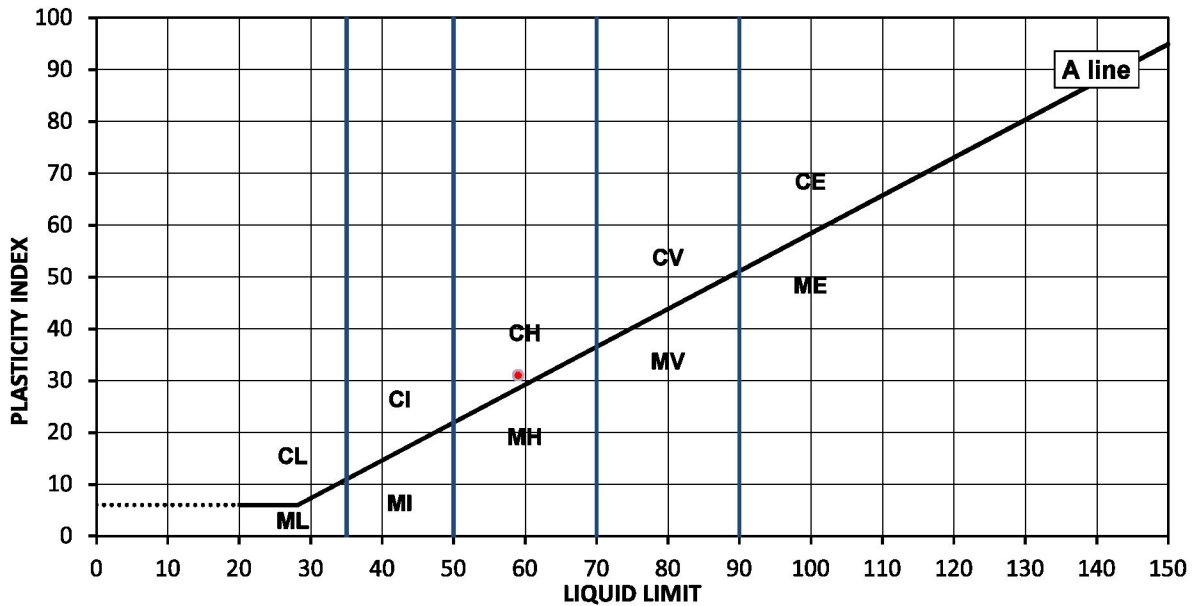
Client: Applied Geology Ltd
Client Address: Unit 23
Abbey Park
Stareton
Kenilworth
Warwickshire
CV8 2LY
Contact: Sarah Treacy
Site Name: Howes Lane, Bicester AG2873-18
Site Address: Not Given

Client Reference: 18-11279
Job Number: 18-11279
Date Sampled: 14/08/2018
Date Received: 16/08/2018
Date Tested: 29/09/2018
Sampled By: Not Given

Test Results

Laboratory Reference: 1050886
Hole No.: TP33
Sample Reference: Not Given
Soil Description: Grey slightly sandy CLAY
Sample Preparation: Tested after washing to remove >425um
Depth Top [m]: 3.90
Depth Base [m]: Not Given
Sample Type: B

| As Received Moisture Content [%] | Liquid Limit [%] | Plastic Limit [%] | Plasticity Index [%] | % Passing 425µm BS Test Sieve |
|----------------------------------|------------------|-------------------|----------------------|-------------------------------|
| 19 | 59 | 28 | 31 | 99 |



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

| | | | | | | |
|---|---------|------------|--|----------------|--------------|--------------|
| C | Clay | Plasticity | L | Low | Liquid Limit | 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
Date Reported: 04/10/2018

Signed:

Darren Berrill
Geotechnical General
Manager

for and on behalf of i2 Analytical Ltd

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TEST CERTIFICATE

Summary of Classification Test Results

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



Client: Applied Geology Ltd
Client Address: Unit 23
Abbey Park
Stareton
Kenilworth
Warwickshire
CV8 2LY
Contact: Sarah Treacy
Site Name: Howes Lane, Bicester AG2873-18
Site Address: Not Given

Client Reference: 18-11279
Job Number: 18-11279
Date Sampled: 14/08 - 20/08/2018
Date Received: 16/08/2018
Date Tested: 25/09 - 28/09/2018
Sampled By: Not Given

Test results

| Laboratory Reference | Hole No. | Sample | | | | Soil Description | M/C % | Atterberg | | | | Density | | Total Porosity Mg/m3 |
|----------------------|----------|-----------|---------------|----------------|------|--|----------|----------------------|---------|---------|---------|---------------|-------------|-------------------------|
| | | Reference | Top depth [m] | Base depth [m] | Type | | | % Passing 425um % | LL % | PL % | PI % | bulk Mg/m3 | PD Mg/m3 | |
| | | | | | | | | | | | | | | |
| 1050871 | TP10 | Not Given | 2.60 | Not Given | D | Greyish brown slightly sandy CLAY | 23 | 100 | 50 | 25 | 25 | | | |
| 1050872 | TP13 | Not Given | 1.80 | Not Given | D | Orangish brown slightly gravelly slightly sandy CLAY | 24 | 70 | 50 | 23 | 27 | | | |
| 1050873 | TP15 | Not Given | 1.75 | Not Given | D | Orangish brown slightly gravelly sandy CLAY | 17 | 86 | 42 | 22 | 20 | | | |
| 1050874 | TP20 | Not Given | 2.45 | Not Given | D | Greyish brown slightly gravelly sandy CLAY | 19 | 99 | 42 | 21 | 21 | | | |
| 1050875 | TP22 | Not Given | 1.60 | Not Given | D | Orangish brown slightly gravelly sandy CLAY | 13 | 83 | 36 | 17 | 19 | | | |
| 1050876 | TP24 | Not Given | 1.90 | Not Given | D | Orangish brown slightly gravelly slightly sandy CLAY | 23 | 88 | 54 | 26 | 28 | | | |
| 1050877 | TP26 | Not Given | 1.80 | Not Given | D | Light brown slightly gravelly very sandy CLAY | 14 | 84 | 31 | 16 | 15 | | | |
| 1050878 | TP28 | Not Given | 2.40 | Not Given | D | Orangish brown slightly gravelly sandy CLAY | 20 | 95 | 42 | 22 | 20 | | | |
| 1050866 | TP3 | Not Given | 2.40 | Not Given | D | Orangish brown slightly gravelly very sandy CLAY | 8.1 | 75 | 27 | 17 | 10 | | | |
| 1050879 | TP30 | Not Given | 1.20 | Not Given | D | Orangish brown slightly gravelly sandy CLAY | 16 | 83 | 41 | 20 | 21 | | | |

Comments:

Approved:

Dariusz Piotrowski
PL Laboratory Manager
Geotechnical Section

Date Reported: 04/10/2018

Signed:

Darren Berrill
Geotechnical General Manager

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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: Applied Geology Ltd
Client Address: Unit 23
Abbey Park
Stareton
Kenilworth
Warwickshire
CV8 2LY
Contact: Sarah Treacy
Site Name: Howes Lane, Bicester AG2873-18
Site Address: Not Given

Client Reference: 18-11279
Job Number: 18-11279
Date Sampled: 10/08 - 22/08/2018
Date Received: 16/08/2018
Date Tested: 28/09 - 29/09/2018
Sampled By: Not Given

Test results

| Laboratory Reference | Hole No. | Sample | | | | Soil Description | M/C % | Atterberg | | | | Density | | Total Porosity Mg/m3 |
|----------------------|----------|-----------|---------------|----------------|------|--|----------|----------------------|---------|---------|---------|---------------|-------------|-------------------------|
| | | Reference | Top depth [m] | Base depth [m] | Type | | | % Passing 425um % | LL % | PL % | PI % | bulk Mg/m3 | PD Mg/m3 | |
| 1050886 | TP33 | Not Given | 3.90 | Not Given | B | Grey slightly sandy CLAY | 19 | 99 | 59 | 28 | 31 | | 2.75 | |
| 1050880 | TP37 | Not Given | 2.40 | Not Given | D | Orangish brown slightly gravelly very sandy CLAY | 14 | 72 | 34 | 18 | 16 | | | |
| 1050881 | TP41 | Not Given | 2.00 | Not Given | D | Orangish brown slightly gravelly slightly sandy CLAY | 19 | 96 | 54 | 25 | 29 | | | |
| 1050882 | TP49 | Not Given | 1.90 | Not Given | D | Light brown slightly gravelly very sandy CLAY | 23 | 71 | 27 | 16 | 11 | | | |
| 1050867 | TP5 | Not Given | 0.25 | Not Given | D | Brown slightly gravelly slightly sandy CLAY | 11 | 98 | 53 | 32 | 21 | | | |
| 1050883 | TP55 | Not Given | 1.50 | Not Given | D | Orangish brown gravelly very sandy CLAY | 12 | 62 | 30 | 17 | 13 | | | |
| 1050884 | TP56 | Not Given | 1.75 | Not Given | D | Orangish brown slightly gravelly very sandy CLAY | 12 | 80 | 30 | 16 | 14 | | | |
| 1050885 | TP57 | Not Given | 1.90 | Not Given | D | Orangish brown slightly gravelly very sandy CLAY | 12 | 72 | 32 | 17 | 15 | | | |
| 1050868 | TP7 | Not Given | 2.30 | Not Given | D | Grey to orangish brown slightly gravelly sandy CLAY | 18 | 99 | 40 | 19 | 21 | | | |
| 1050869 | TP8 | Not Given | 2.30 | Not Given | D | Grey to orangish brown sandy CLAY | 18 | 100 | 41 | 24 | 17 | | | |

Comments:

Approved:

Dariusz Piotrowski
PL Laboratory Manager
Geotechnical Section

Date Reported: 04/10/2018

Signed:

Darren Berrill
Geotechnical General Manager

for and on behalf of i2 Analytical Ltd

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The results included within the report are representative of the samples submitted for analysis.
The analysis was carried out at i2 Analytical Limited, ul. Pionierow 39, 41-711 Ruda Slaska, Poland.*

TEST CERTIFICATE

Summary of Classification Test Results

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



Client: Applied Geology Ltd
Client Address: Unit 23
Abbey Park
Stareton
Kenilworth
Warwickshire
CV8 2LY
Contact: Sarah Treacy
Site Name: Howes Lane, Bicester AG2873-18
Site Address: Not Given

Client Reference: 18-11279
Job Number: 18-11279
Date Sampled: 17/08/2018
Date Received: 16/08/2018
Date Tested: 28/09/2018
Sampled By: Not Given

Test results

| Laboratory Reference | Hole No. | Sample | | | | Soil Description | M/C % | Atterberg | | | | Density | | Total Porosity Mg/m3 | |
|----------------------|----------|-----------|---------------|----------------|------|------------------|----------|----------------------|---------|---------|---------|---------------|-------------|-------------------------|--|
| | | Reference | Top depth [m] | Base depth [m] | Type | | | % Passing 425um % | LL % | PL % | PI % | bulk Mg/m3 | PD Mg/m3 | | |
| | | | | | | | | | | | | | | | |
| 1050870 | TP8 | Not Given | 3.90 | Not Given | D | Grey sandy CLAY | 17 | 100 | 41 | 21 | 20 | | | | |
| | | | | | | | | | | | | | | | |
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Comments:

Approved: 
Dariusz Piotrowski
PL Laboratory Manager
Geotechnical Section
Date Reported: 04/10/2018

Signed: 
Darren Berrill
Geotechnical General Manager

for and on behalf of i2 Analytical Ltd

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TEST CERTIFICATE

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



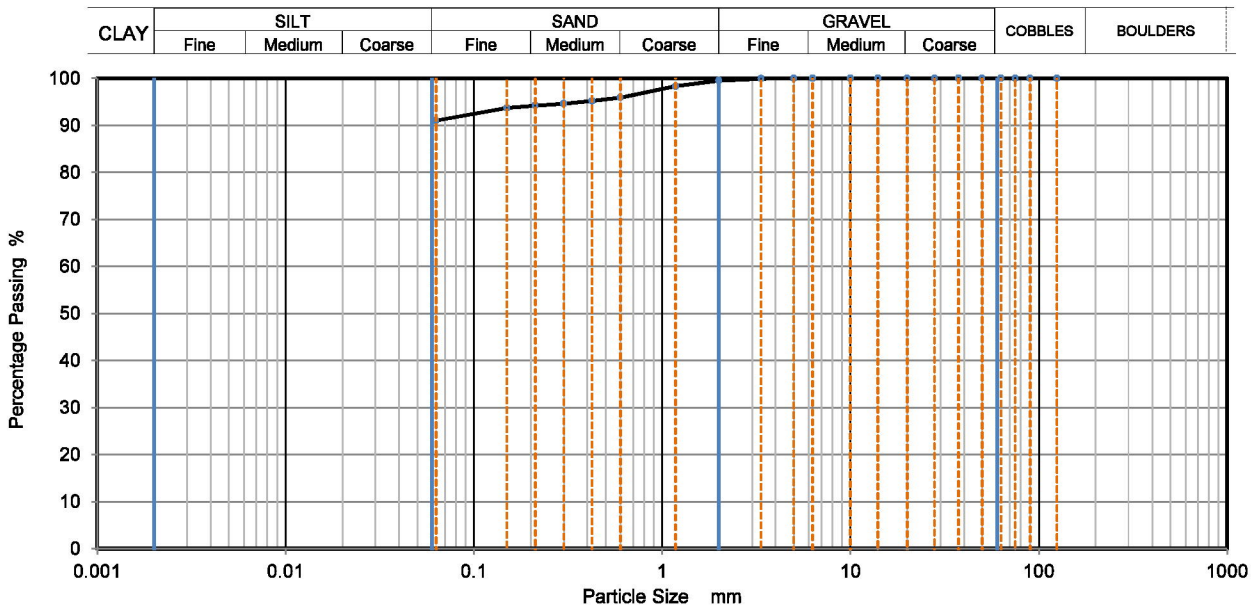
Determination of Particle Size Distribution

Tested in Accordance with BS1377:Part 2:1990, clause 9.2

Client: Applied Geology Ltd
Client Address: Unit 23
Abbey Park
Stareton
Kenilworth
Warwickshire
CV8 2LY
Contact: Sarah Treacy
Site Name: Howes Lane, Bicester AG2873-18
Site Address: Not Given

Client Reference: 18-11279
Job Number: 18-11279
Date Sampled: 14/08/2018
Date Received: 16/08/2018
Date Tested: 29/09/2018
Sampled By: Not Given

TEST RESULTS Laboratory Reference: 1050886 Sample Reference: Not Given
Sample description: Grey slightly sandy CLAY Sample Type: B
Location: TP33 Depth Top [m]: 3.90
Supplier: Not Given Depth Base [m]: Not Given



| Sieving | | Sedimentation | |
|------------------|-----------|------------------|-----------|
| Particle Size mm | % Passing | Particle Size mm | % Passing |
| 125 | 100 | | |
| 90 | 100 | | |
| 75 | 100 | | |
| 63 | 100 | | |
| 50 | 100 | | |
| 37.5 | 100 | | |
| 28 | 100 | | |
| 20 | 100 | | |
| 14 | 100 | | |
| 10 | 100 | | |
| 6.3 | 100 | | |
| 5 | 100 | | |
| 3.35 | 100 | | |
| 2 | 100 | | |
| 1.18 | 98 | | |
| 0.6 | 96 | | |
| 0.425 | 95 | | |
| 0.3 | 95 | | |
| 0.212 | 94 | | |
| 0.15 | 94 | | |
| 0.063 | 91 | | |

Dry Mass of sample [g]: 170

| Sample Proportions | % dry mass |
|--------------------|------------|
| Very coarse | 0.00 |
| Gravel | 0.50 |
| Sand | 8.10 |
| Fines <0.063mm | 91.40 |

| Grading Analysis | | |
|------------------------|----|---|
| D100 | mm | 5 |
| D60 | mm | |
| D30 | mm | |
| D10 | mm | |
| Uniformity Coefficient | | |
| Curvature Coefficient | | |

Remarks
Preparation and testing in accordance with BS1377 unless noted below

Approved:

Dariusz Piotrowski
PL Laboratory Manager
Geotechnical Section



Signed:

Darren Berrill
Geotechnical General
Manager



Date Reported: 04/10/2018

for and on behalf of i2 Analytical Ltd

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4041

TEST CERTIFICATE

Dry Density / Moisture Content Relationship Light Compaction

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



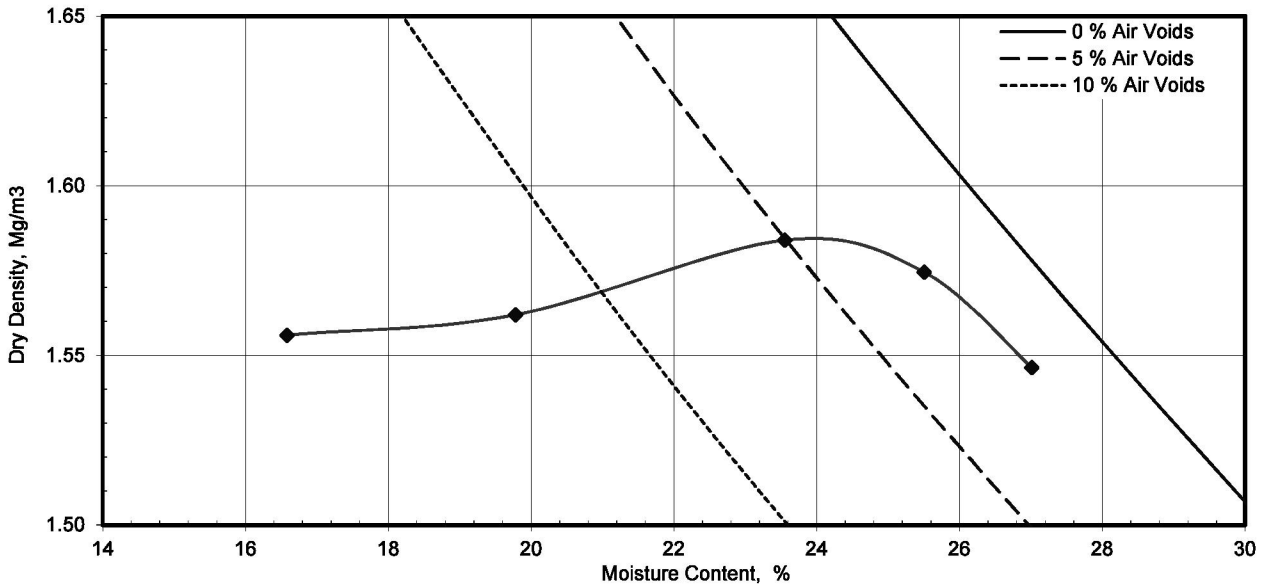
Tested in accordance with BS 1377-4:1990: Clause 3.3 using 2.5kg[light] Rammer

Client: Applied Geology Ltd
Client Address: Unit 23
Abbey Park
Stareton
Kenilworth
Warwickshire
CV8 2LY
Contact: Sarah Treacy
Site Name: Howes Lane, Bicester AG2873-18
Site Address: Not Given

Client Reference: 18-11279
Job Number: 18-11279
Date Sampled: 14/08/2018
Date Received: 16/08/2018
Date Tested: 02/10/2018
Sampled By: Not Given

TEST RESULTS

Laboratory Reference: 1050886
Hole No.: TP33
Sample Reference: Not Given
Sample Description: Grey slightly sandy CLAY
Depth Top [m]: 3.90
Depth Base [m]: Not Given
Sample Type: B



| | | |
|---|----------------------------|-------------|
| Preparation | Material used was natural | |
| Mould Type | 1 Litre | |
| Samples Used | Composite specimens tested | |
| Material Retained on 37.5 mm Sieve | % | 0 |
| Material Retained on 20.0 mm Sieve | % | 0 |
| Particle Density - Measured using gas jar | Mg/m³ | 2.75 |
| As received Moisture Content | % | 24 |
| Maximum Dry Density | Mg/m³ | 1.58 |
| Optimum Moisture Content | % | 24 |

Remarks:

Approved:

Dariusz Piotrowski
PL Laboratory Manager
Geotechnical Section



Signed:

Darren Berrill
Geotechnical General
Manager



Date Reported: 04/10/2018

for and on behalf of i2 Analytical Ltd

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4041

TEST CERTIFICATE

Dry Density / Moisture Content Relationship Heavy Compaction

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



Environmental Science

Tested in accordance with BS 1377-4: 1990: Clause 3.5 using 4.5kg [heavy] Rammer

Client: Applied Geology Ltd
Client Address: Unit 23
Abbey Park
Stareton
Kenilworth
Warwickshire
CV8 2LY

Client Reference: 18-11279
Job Number: 18-11279
Date Sampled: 14/08/2018

Date Received: 16/08/2018

Contact: Sarah Treacy
Site Name: Howes Lane, Bicester AG2873-18
Site Address: Not Given

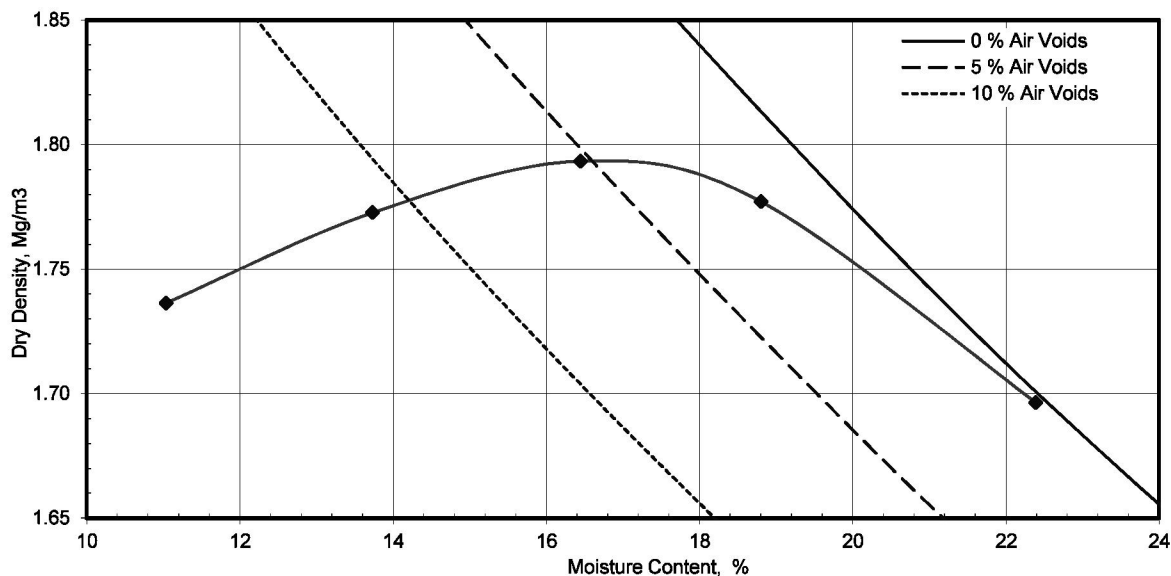
Date Tested: 02/10/2018

Sampled By: Not Given

TEST REPORTS

Laboratory Reference: 1050886
Hole No.: TP33
Sample Reference: Not Given
Sample Description: Grey slightly sandy CLAY

Depth Top [m]: 3.90
Depth Base [m]: Not Given
Sample Type: B



| | | |
|---|-------------------|----------------------------|
| Preparation | | Material used was natural |
| Mould Type | | 1 Litre |
| Samples Used | | Composite specimens tested |
| Material Retained on 37.5 mm Sieve | % | 0 |
| Material Retained on 20.0 mm Sieve | % | 0 |
| Particle Density - Measured using gas jar | Mg/m ³ | 2.75 |
| As received Moisture Content | % | 22 |
| Maximum Dry Density | Mg/m ³ | 1.79 |
| Optimum Moisture Content | % | 16 |

Remarks:

Approved:

Dariusz Piotrowski
PL Laboratory Manager
Geotechnical Section



Signed:

Darren Berrill
Geotechnical General
Manager



Date Reported: 04/10/2018

for and on behalf of i2 Analytical Ltd

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Sarah Treacy
Applied Geology Ltd
Unit 23
Abbey Park
Stareton
Kenilworth
Warwickshire
CV8 2LY

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

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

e: sarah.treacy@appliedgeology.co.uk

Analytical Report Number : 18-11295

Replaces Analytical Report Number : 18-11295, issue no. 1

| | | | |
|-----------------------------|----------------------|-------------------------------|------------|
| Project / Site name: | Howes Lane, Bicester | Samples received on: | 20/09/2018 |
| Your job number: | AG2873-18 | Samples instructed on: | 20/09/2018 |
| Your order number: | 13428 | Analysis completed by: | 08/10/2018 |
| Report Issue Number: | 2 | Report issued on: | 08/10/2018 |
| Samples Analysed: | 20 soil samples | | |

Signed: 

Jordan Hill
Reporting 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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Iss No 18-11295-2 Howes Lane, Bicester AG1873-18

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The results included within the report are representative of the samples submitted for analysis.

Page 1 of 8



Analytical Report Number: 18-11295

Project / Site name: Howes Lane, Bicester

Your Order No: 13428

| Lab Sample Number | 1050972 | 1050973 | 1050974 | 1050975 | 1050976 | | | |
|--------------------------------------|---------------|--------------------|----------------------|---------------|---------------|-------|-------|-------|
| Sample Reference | TP3 | TP5 | TP7 | TP8 | TP8 | | | |
| Sample Number | None Supplied | None Supplied | None Supplied | None Supplied | None Supplied | | | |
| Depth (m) | 2.40 | 0.25 | 2.30 | 2.30 | 3.90 | | | |
| Date Sampled | 16/08/2018 | 16/08/2018 | 17/08/2018 | 17/08/2018 | 17/08/2018 | | | |
| Time Taken | None Supplied | None Supplied | None Supplied | None Supplied | None Supplied | | | |
| Analytical Parameter (Soil Analysis) | Units | Limit of detection | Accreditation Status | | | | | |
| Stone Content | % | 0.1 | NONE | < 0.1 | < 0.1 | < 0.1 | < 0.1 | < 0.1 |
| Moisture Content | % | N/A | NONE | 6.9 | 13 | 13 | 14 | 13 |
| Total mass of sample received | kg | 0.001 | NONE | 0.37 | 0.31 | 0.38 | 0.34 | 0.35 |

General Inorganics

| | | | | | | | | |
|---|----------|---------|--------|-------|-------|-------|-------|------|
| pH - Automated | pH Units | N/A | MCERTS | 7.7 | 7.4 | 8.2 | 8.2 | 7.8 |
| Total Sulphate as SO ₄ | % | 0.005 | MCERTS | 0.076 | - | - | 0.106 | - |
| Water Soluble SO ₄ 16hr extraction (2:1 Leachate Equivalent) | g/l | 0.00125 | MCERTS | 0.025 | 0.023 | 0.017 | 0.043 | 0.85 |
| Water Soluble SO ₄ 16hr extraction (2:1 Leachate Equivalent) | mg/l | 1.25 | MCERTS | 24.7 | 23.3 | 17.3 | 43.4 | 848 |
| Total Sulphur | % | 0.005 | MCERTS | 0.044 | - | - | 0.053 | - |



Analytical Report Number: 18-11295

Project / Site name: Howes Lane, Bicester

Your Order No: 13428

| Lab Sample Number | 1050977 | | | 1050978 | | | 1050979 | | | 1050980 | | | 1050981 | | |
|--------------------------------------|---------------|--------------------|----------------------|---------------|-------|-------|---------------|-------|-------|---------------|-------|-------|---------------|-------|--|
| Sample Reference | TP10 | | | TP13 | | | TP15 | | | TP20 | | | TP22 | | |
| Sample Number | None Supplied | | | None Supplied | | | None Supplied | | | None Supplied | | | None Supplied | | |
| Depth (m) | 2.60 | | | 1.80 | | | 1.75 | | | 2.45 | | | 1.60 | | |
| Date Sampled | 17/08/2018 | | | 15/08/2018 | | | 15/08/2018 | | | 15/08/2018 | | | 15/08/2018 | | |
| Time Taken | None Supplied | | | None Supplied | | | None Supplied | | | None Supplied | | | None Supplied | | |
| Analytical Parameter (Soil Analysis) | Units | Limit of detection | Accreditation Status | | | | | | | | | | | | |
| Stone Content | % | 0.1 | NONE | < 0.1 | < 0.1 | < 0.1 | < 0.1 | < 0.1 | < 0.1 | < 0.1 | < 0.1 | < 0.1 | < 0.1 | < 0.1 | |
| Moisture Content | % | N/A | NONE | 16 | 15 | 11 | 14 | 9.7 | | | | | | | |
| Total mass of sample received | kg | 0.001 | NONE | 0.35 | 0.33 | 0.30 | 0.34 | 0.34 | | | | | | | |

General Inorganics

| | | | | | | | | |
|---|----------|---------|--------|-------|-------|-------|-------|-------|
| pH - Automated | pH Units | N/A | MCERTS | 8.3 | 8.4 | 8.4 | 8.4 | 8.5 |
| Total Sulphate as SO ₄ | % | 0.005 | MCERTS | - | - | 0.096 | - | 0.088 |
| Water Soluble SO ₄ 16hr extraction (2:1 Leachate Equivalent) | g/l | 0.00125 | MCERTS | 0.031 | 0.017 | 0.010 | 0.017 | 0.017 |
| Water Soluble SO ₄ 16hr extraction (2:1 Leachate Equivalent) | mg/l | 1.25 | MCERTS | 31.1 | 17.4 | 10.2 | 17.1 | 16.6 |
| Total Sulphur | % | 0.005 | MCERTS | - | - | 0.057 | - | 0.040 |



Analytical Report Number: 18-11295

Project / Site name: Howes Lane, Bicester

Your Order No: 13428

| Lab Sample Number | 1050982 | | | 1050983 | | | 1050984 | | | 1050985 | | | 1050986 | | |
|--------------------------------------|---------------|--------------------|----------------------|---------------|-------|-------|---------------|-------|-------|---------------|-------|-------|---------------|-------|--|
| Sample Reference | TP24 | | | TP26 | | | TP28 | | | TP30 | | | TP37 | | |
| Sample Number | None Supplied | | | None Supplied | | | None Supplied | | | None Supplied | | | None Supplied | | |
| Depth (m) | 1.90 | | | 1.80 | | | 2.40 | | | 1.20 | | | 2.40 | | |
| Date Sampled | 15/08/2018 | | | 14/08/2018 | | | 14/08/2018 | | | 20/08/2018 | | | 14/08/2018 | | |
| Time Taken | None Supplied | | | None Supplied | | | None Supplied | | | None Supplied | | | None Supplied | | |
| Analytical Parameter (Soil Analysis) | Units | Limit of detection | Accreditation Status | | | | | | | | | | | | |
| Stone Content | % | 0.1 | NONE | < 0.1 | < 0.1 | < 0.1 | < 0.1 | < 0.1 | < 0.1 | < 0.1 | < 0.1 | < 0.1 | < 0.1 | < 0.1 | |
| Moisture Content | % | N/A | NONE | 16 | 15 | 15 | 12 | 12 | 11 | 11 | 11 | 11 | 11 | 11 | |
| Total mass of sample received | kg | 0.001 | NONE | 0.39 | 0.34 | 0.34 | 0.34 | 0.37 | 0.33 | 0.33 | 0.33 | 0.33 | 0.33 | 0.33 | |

General Inorganics

| | | | | | | | | |
|---|----------|---------|--------|-------|-------|-------|-------|-------|
| pH - Automated | pH Units | N/A | MCERTS | 8.4 | 8.4 | 8.6 | 8.5 | 8.1 |
| Total Sulphate as SO ₄ | % | 0.005 | MCERTS | - | 0.059 | 0.143 | 0.086 | 0.140 |
| Water Soluble SO ₄ 16hr extraction (2:1 Leachate Equivalent) | g/l | 0.00125 | MCERTS | 0.025 | 0.016 | 0.015 | 0.025 | 0.41 |
| Water Soluble SO ₄ 16hr extraction (2:1 Leachate Equivalent) | mg/l | 1.25 | MCERTS | 25.1 | 15.7 | 14.7 | 24.7 | 413 |
| Total Sulphur | % | 0.005 | MCERTS | - | 0.031 | 0.064 | 0.045 | 0.115 |



Analytical Report Number: 18-11295

Project / Site name: Howes Lane, Bicester

Your Order No: 13428

| Lab Sample Number | 1050987 | 1050988 | 1050989 | 1050990 | 1050991 | | | |
|--------------------------------------|---------------|--------------------|----------------------|---------------|---------------|-------|-------|-------|
| Sample Reference | TP41 | TP49 | TP55 | TP56 | TP57 | | | |
| Sample Number | None Supplied | None Supplied | None Supplied | None Supplied | None Supplied | | | |
| Depth (m) | 2.00 | 1.90 | 1.50 | 1.75 | 1.90 | | | |
| Date Sampled | 10/08/2018 | 20/08/2018 | 20/08/2018 | 22/08/2018 | 20/08/2018 | | | |
| Time Taken | None Supplied | None Supplied | None Supplied | None Supplied | None Supplied | | | |
| Analytical Parameter (Soil Analysis) | Units | Limit of detection | Accreditation Status | | | | | |
| Stone Content | % | 0.1 | NONE | < 0.1 | < 0.1 | < 0.1 | < 0.1 | < 0.1 |
| Moisture Content | % | N/A | NONE | 14 | 9.0 | 8.0 | 10 | 12 |
| Total mass of sample received | kg | 0.001 | NONE | 0.36 | 0.41 | 0.38 | 0.33 | 0.39 |

General Inorganics

| | | | | | | | | |
|---|----------|---------|--------|-------|-------|-------|-------|-------|
| pH - Automated | pH Units | N/A | MCERTS | 8.4 | 8.6 | 8.6 | 8.5 | 8.5 |
| Total Sulphate as SO ₄ | % | 0.005 | MCERTS | - | - | 0.073 | - | 0.074 |
| Water Soluble SO ₄ 16hr extraction (2:1 Leachate Equivalent) | g/l | 0.00125 | MCERTS | 0.016 | 0.011 | 0.025 | 0.012 | 0.015 |
| Water Soluble SO ₄ 16hr extraction (2:1 Leachate Equivalent) | mg/l | 1.25 | MCERTS | 16.2 | 11.0 | 24.6 | 12.0 | 15.3 |
| Total Sulphur | % | 0.005 | MCERTS | - | - | 0.043 | - | 0.038 |



Analytical Report Number : 18-11295

Project / Site name: Howes Lane, Bicester

* 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 * |
|-------------------|------------------|---------------|-----------|---|
| 1050972 | TP3 | None Supplied | 2.40 | Light brown clay and sand. |
| 1050973 | TP5 | None Supplied | 0.25 | Brown loam and clay with gravel and vegetation. |
| 1050974 | TP7 | None Supplied | 2.30 | Light brown clay. |
| 1050975 | TP8 | None Supplied | 2.30 | Light brown clay. |
| 1050976 | TP8 | None Supplied | 3.90 | Grey clay. |
| 1050977 | TP10 | None Supplied | 2.60 | Grey clay. |
| 1050978 | TP13 | None Supplied | 1.80 | Brown clay and sand. |
| 1050979 | TP15 | None Supplied | 1.75 | Brown clay. |
| 1050980 | TP20 | None Supplied | 2.45 | Brown clay. |
| 1050981 | TP22 | None Supplied | 1.60 | Light brown clay and sand. |
| 1050982 | TP24 | None Supplied | 1.90 | Brown clay and sand. |
| 1050983 | TP26 | None Supplied | 1.80 | Light brown clay and sand. |
| 1050984 | TP28 | None Supplied | 2.40 | Brown clay. |
| 1050985 | TP30 | None Supplied | 1.20 | Brown clay. |
| 1050986 | TP37 | None Supplied | 2.40 | Brown clay and sand. |
| 1050987 | TP41 | None Supplied | 2.00 | Brown clay and sand. |
| 1050988 | TP49 | None Supplied | 1.90 | Light brown clay. |
| 1050989 | TP55 | None Supplied | 1.50 | Light brown clay. |
| 1050990 | TP56 | None Supplied | 1.75 | Light brown clay and sand. |
| 1050991 | TP57 | None Supplied | 1.90 | Brown clay and sand. |

Analytical Report Number : 18-11295

Project / Site name: Howes Lane, Bicester

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 |
| Total Sulphate in soil as % | Determination of total sulphate in soil by extraction with 10% HCl followed by ICP-OES. | In-house method based on BS1377 Part 3, 1990, Chemical and Electrochemical Tests" | L038 | D | MCERTS |
| Total Sulphur in soil as % | Determination of total sulphur in soil by extraction with aqua-regia, potassium bromide/bromate followed by ICP-OES. | In-house method based on BS1377 Part 3, 1990, and MEWAM 2006 Methods for the Determination of Metals in Soil | L038 | 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.

Sample Deviation Report



| Sample ID | Other ID | Sample Type | Job | Sample Number | Sample Deviation Code | test_name | test_ref | Test Deviation code |
|-----------|----------|-------------|----------|---------------|-----------------------|------------------------|----------|---------------------|
| TP10 | | S | 18-11295 | 1050977 | c | pH in soil (automated) | L099-PL | c |
| TP13 | | S | 18-11295 | 1050978 | c | pH in soil (automated) | L099-PL | c |
| TP15 | | S | 18-11295 | 1050979 | c | pH in soil (automated) | L099-PL | c |
| TP20 | | S | 18-11295 | 1050980 | c | pH in soil (automated) | L099-PL | c |
| TP22 | | S | 18-11295 | 1050981 | c | pH in soil (automated) | L099-PL | c |
| TP24 | | S | 18-11295 | 1050982 | c | pH in soil (automated) | L099-PL | c |
| TP26 | | S | 18-11295 | 1050983 | c | pH in soil (automated) | L099-PL | c |
| TP28 | | S | 18-11295 | 1050984 | c | pH in soil (automated) | L099-PL | c |
| TP3 | | S | 18-11295 | 1050972 | c | pH in soil (automated) | L099-PL | c |
| TP30 | | S | 18-11295 | 1050985 | c | pH in soil (automated) | L099-PL | c |
| TP37 | | S | 18-11295 | 1050986 | c | pH in soil (automated) | L099-PL | c |
| TP41 | | S | 18-11295 | 1050987 | c | pH in soil (automated) | L099-PL | c |
| TP49 | | S | 18-11295 | 1050988 | c | pH in soil (automated) | L099-PL | c |
| TP5 | | S | 18-11295 | 1050973 | c | pH in soil (automated) | L099-PL | c |
| TP55 | | S | 18-11295 | 1050989 | c | pH in soil (automated) | L099-PL | c |
| TP56 | | S | 18-11295 | 1050990 | c | pH in soil (automated) | L099-PL | c |
| TP57 | | S | 18-11295 | 1050991 | c | pH in soil (automated) | L099-PL | c |
| TP7 | | S | 18-11295 | 1050974 | c | pH in soil (automated) | L099-PL | c |
| TP8 | | S | 18-11295 | 1050975 | c | pH in soil (automated) | L099-PL | c |
| TP8 | | S | 18-11295 | 1050976 | c | pH in soil (automated) | L099-PL | c |



TEST CERTIFICATE

Liquid and Plastic Limits

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



Environmental Science

4041

Tested in Accordance with: BS 1377-2: 1990: Clause 4.4 and 5

Client: Applied Geology Ltd
Client Address: Unit 23
Abbey Park
Stareton, Kenilworth, Warwickshire, CV8 2LY
Contact: Sarah Treacy
Site Name: Howes Lane, Bicester AG2373-18
Site Address: Not Given

Client Reference: 18-13497
Job Number: 18-13497
Date Sampled: 27/09/2018
Date Received: 01/10/2018
Date Tested: 16/10/2018
Sampled By: Not Given

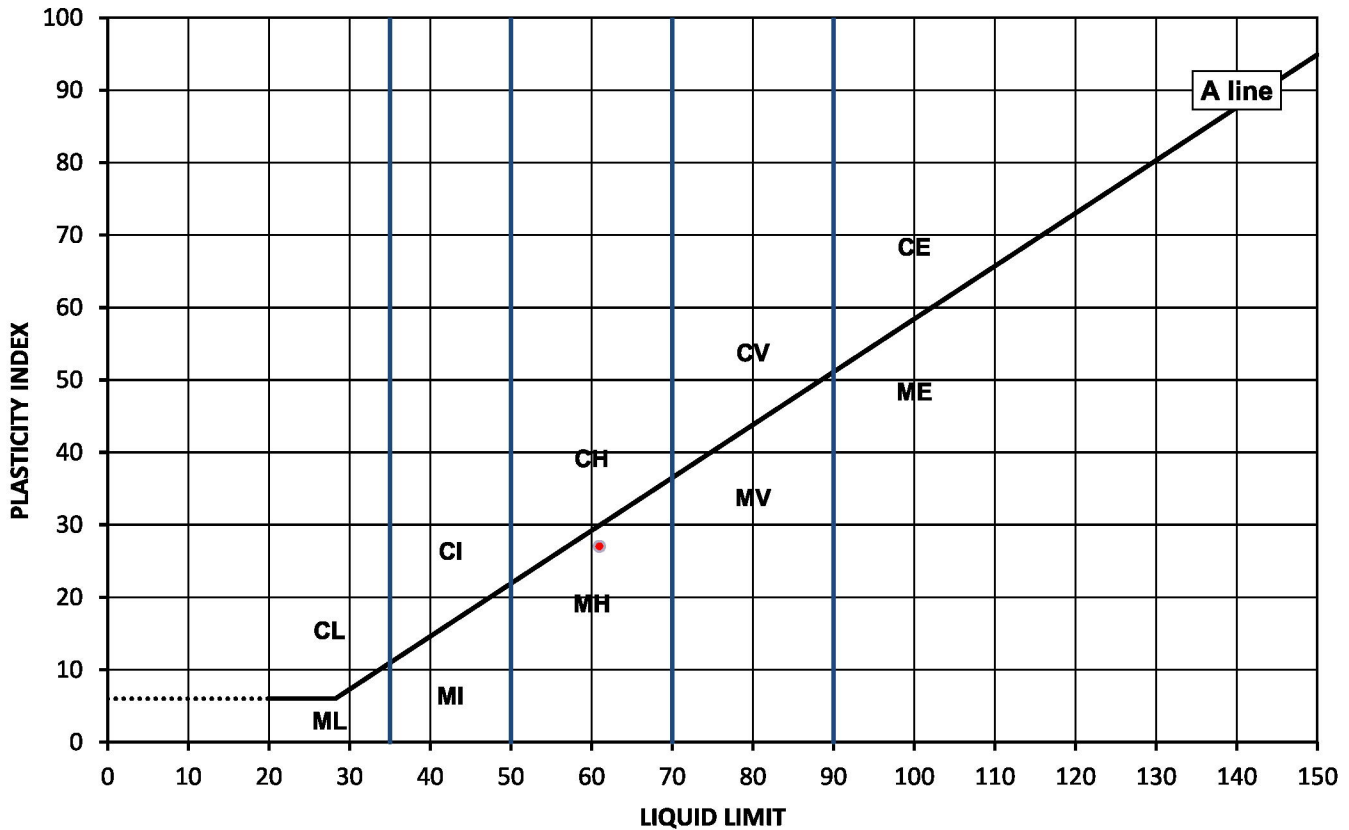
Test Results

Laboratory Reference: 1063629
Hole No.: TP8
Sample Reference: Not Given
Soil Description: Light brown sandy very clayey GRAVEL

Depth Top [m]: 0.50
Depth Base [m]: Not Given
Sample Type: B

Sample Preparation: Tested after washing to remove >425um

| As Received Moisture Content [%] | Liquid Limit [%] | Plastic Limit [%] | Plasticity Index [%] | % Passing 425µm BS Test Sieve |
|----------------------------------|------------------|-------------------|----------------------|-------------------------------|
| 18 | 61 | 34 | 27 | 42 |



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

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

Remarks:

Approved: Dariusz Piotrowski
PL Laboratory Manager Geotechnical Section
Date Reported: 23/10/2018

Signed: Darren Berrill
Geotechnical General Manager

GF 232.3

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The results included within the report are representative of the samples submitted for analysis.
The analysis was carried out at i2 Analytical Limited, ul. Pionierow 39, 41-711 Rudzka Staska, Poland.*



TEST CERTIFICATE

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



Environmental Science

Liquid and Plastic Limits

Tested in Accordance with: BS 1377-2: 1990: Clause 4.4 and 5

Client: Applied Geology Ltd
Client Address: Unit 23
Abbey Park
Stareton, Kenilworth, Warwickshire, CV8 2LY
Contact: Sarah Treacy
Site Name: Howes Lane, Bicester AG2373-18
Site Address: Not Given

Client Reference: 18-13497
Job Number: 18-13497
Date Sampled: 27/09/2018
Date Received: 01/10/2018
Date Tested: 16/10/2018
Sampled By: Not Given

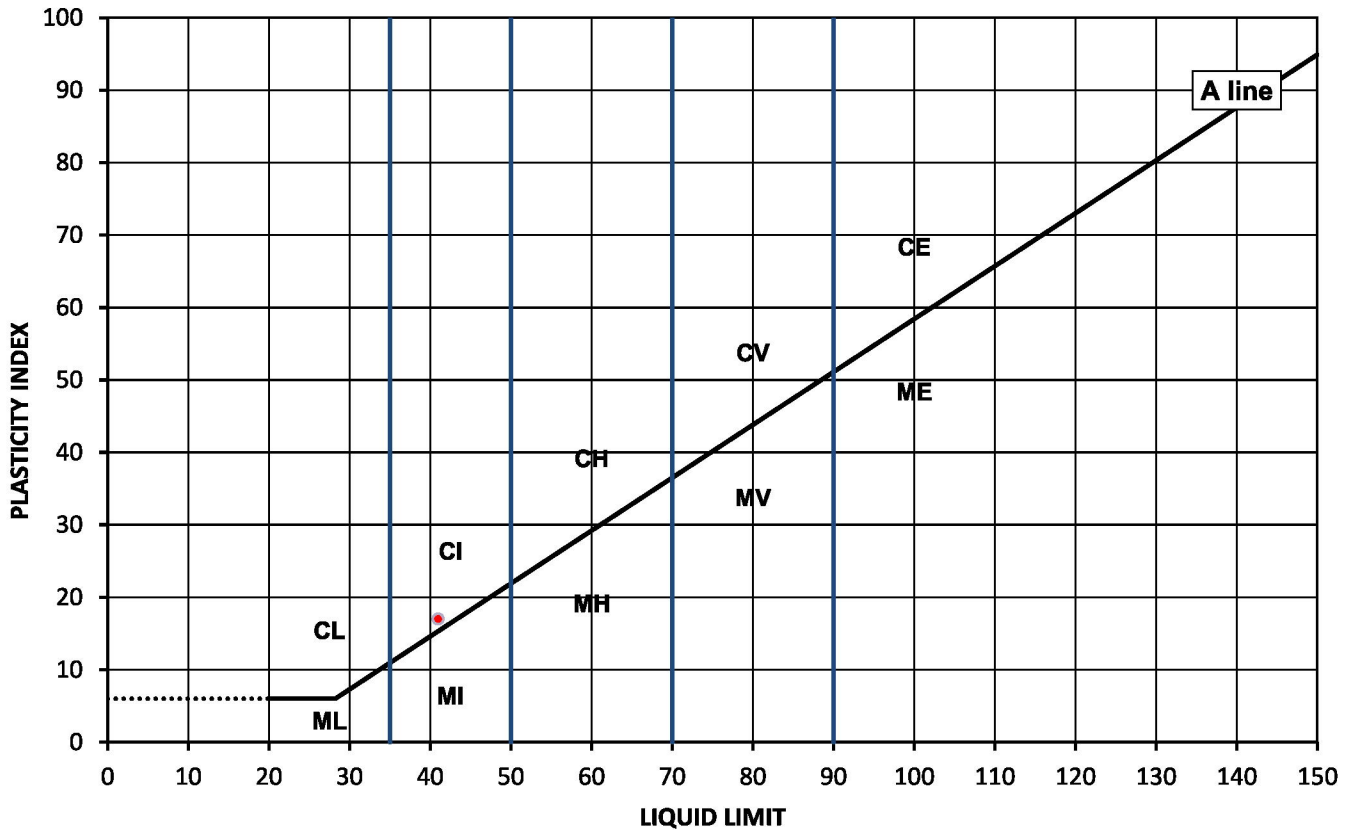
Test Results

Laboratory Reference: 1063630
Hole No.: TP14
Sample Reference: Not Given
Soil Description: Grey slightly gravelly sandy CLAY

Depth Top [m]: 0.70
Depth Base [m]: Not Given
Sample Type: B

Sample Preparation: Tested after washing to remove >425um

| As Received Moisture Content [%] | Liquid Limit [%] | Plastic Limit [%] | Plasticity Index [%] | % Passing 425µm BS Test Sieve |
|----------------------------------|------------------|-------------------|----------------------|-------------------------------|
| 15 | 41 | 24 | 17 | 98 |



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

| | | | |
|---|---------|------------|--|
| C | Clay | Plasticity | Liquid Limit |
| M | Silt | L | below 35 |
| | | 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: 23/10/2018

Signed: Darren Berrill
Geotechnical General Manager

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