### Human Health - Construction Workers

The localised presence of contaminants (arsenic, lead and benzo[a]pyrene) within the made ground soils indicates that there is a moderate risk that a pathway could develop affecting groundworkers during the construction phase of development.

No special precautions would be required during the development of the site by workers who may come into contact with the soil during groundworks, providing standard precautions are adopted which should generally include the procedures given by the Health and Safety Executive (The Blue Book) HS(G)66.

For the protection of workers during groundworks the following is recommended:

- a) Limit repeated or prolonged skin contact with soils by wearing gloves with sleeves rolled down.
- b) Washing facilities should be made available to groundworkers, so as to minimise the potential for inadvertent ingestion of soil.
- c) If any soils are revealed which are different to those encountered by this ground investigation, the advice of a specialist should be sought in view of classifying the material and ascertaining its risk to groundworkers.

Dust suppression measures such as 'damping down', should also be adopted to prevent spread of soil contaminants.

### Human Health - Users of Completed Development

In light of the complete removal of the made ground beneath the basement site during construction there would be no risk of the encountered ground contamination affecting the site users. This is because it would be unlikely that the general site users would normally be able to penetrate building/basement floors and walls, and surrounding permanent areas of hardstanding necessary in order to uncover any potentially contaminated soils beneath the site.

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The gas monitoring has determined that a Wilson and Card Characteristic Situation 1 would apply and that no special precautions are required to protect the proposed development from ingress of soil gases.

### Water Environment

Significant soil or hydrocarbon contamination was not identified by the investigative works and the groundwater is present some 10m below existing ground level. It is considered unlikely that the proposed development, including the installation of piles if adopted, would impact the quality of the water environment.

### Off-Site Disposal of Soil Arisings

A single sample was tested and the results compared with the Waste Acceptance Criteria detailed in the Interim Landfill (England and Wales) Regulations (Amendment) 2005 for waste. The laboratory test results are presented to the rear of this report and are summarised below in Table 9.

Location	Depth (m)	Soil Description	Inert Waste Landfill	Stable non- reactive hazardous waste in non- hazardous landfill	Hazardous waste landfili
TP 3	0.30	Made Ground: Firm brown slightly gravelly, slightly sandy CLAY. Gravel of angular brick, flint, asphalt and ceramic.	Leachate limit values not exceeded. Limit value for Total Organic Carbon (TOC) exceeded	Limit values not exceeded	Limit values not exceeded

Table 9

The leachate test results indicate the sample of made ground tested would have fallen into the inert waste category but the TOC result of 4.6% exceeds the 3.0% threshold for this category of waste. Consequently the clay fill would need to be disposed of as stable non-reactive hazardous waste in non-hazardous landfill due to its organic content.

Excavated material and excess spoil should always be classified prior to removal from site as required by 'Duty of Care' (Environmental Protection Act, 1990) legislation. This

means that material has to be given a proper description and waste classification prior to removal. The certificates of chemical analysis should be sent to the Environmental Agency or a suitably licensed waste disposal contractor for classification of the material prior to disposal off-site during the development works.

The asphalt surface layer and sub-base materials should be stockpiled separately and may need to be disposed of as special waste due to their elevated hydrocarbon content.

It is expected that clean arisings from the basement excavation into the natural soils across this site would also fall into the inert category under the European Waste Catalogue description 'Soil and Stones', EWC code 17 05 04 with restrictions excluding topsoil and peat.

### **GROUND ENGINEERING**

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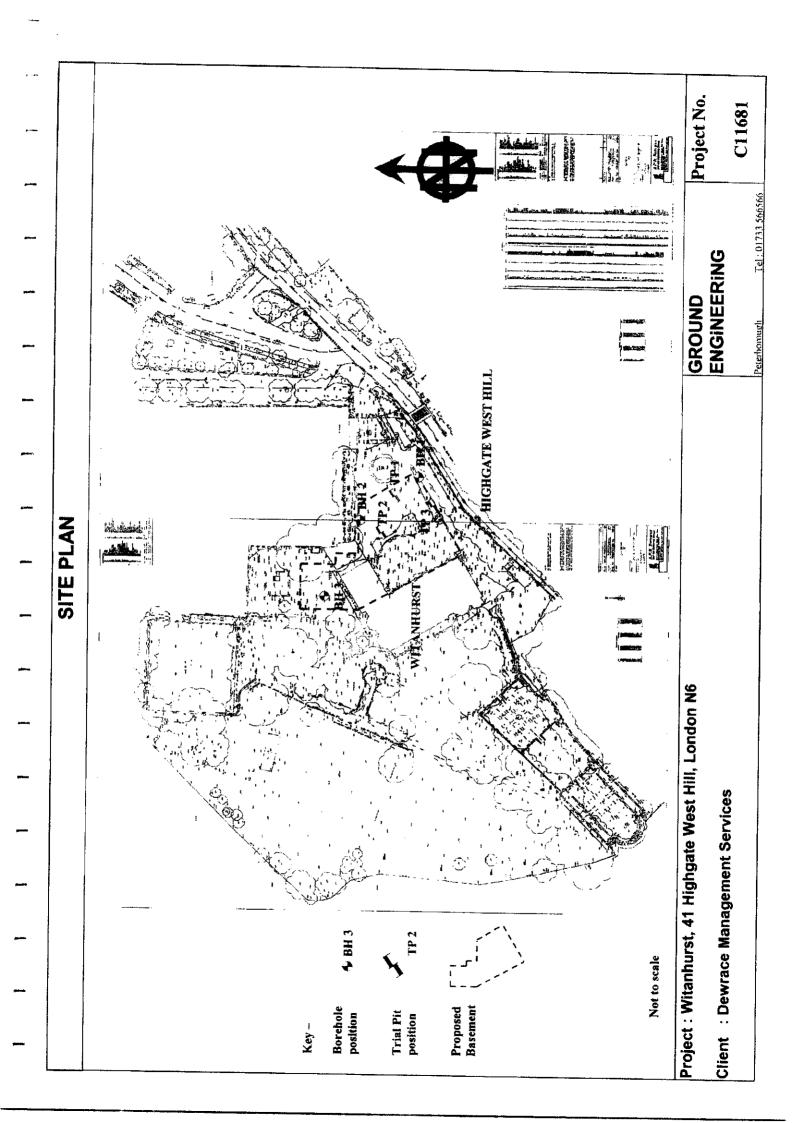
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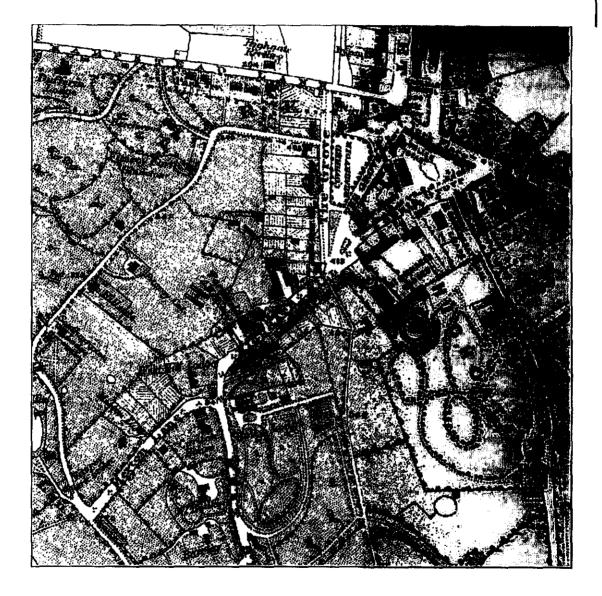
APPENDIX 1

HISTORICAL MAPS

Figure A

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Project : Witanhurst, 41 Highgate West Hill, London N6

GROUND ENGINEERING Project No. C11681

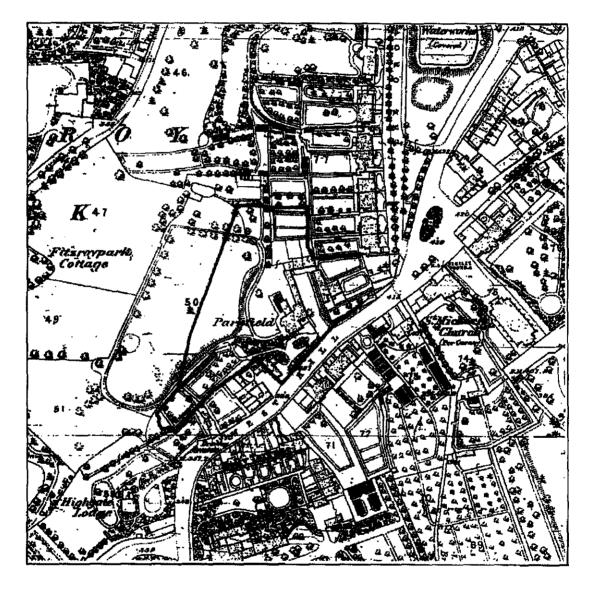
Client : Dewrace Management Services

Figure B

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GROUND ENGINEERING Project No. C11681

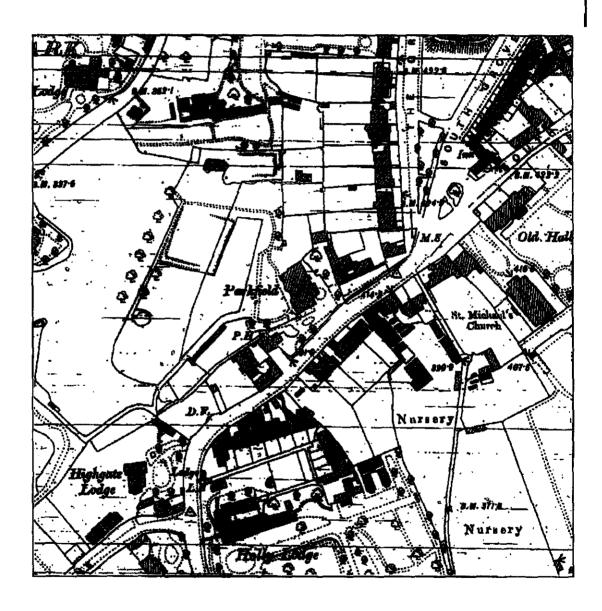
Client : Dewrace Management Services

Figure C

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GROUND ENGINEERING Project No. C11681

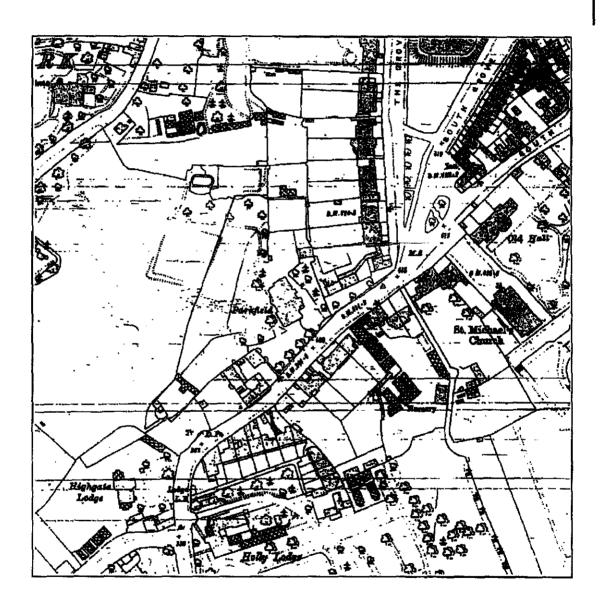
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Figure D

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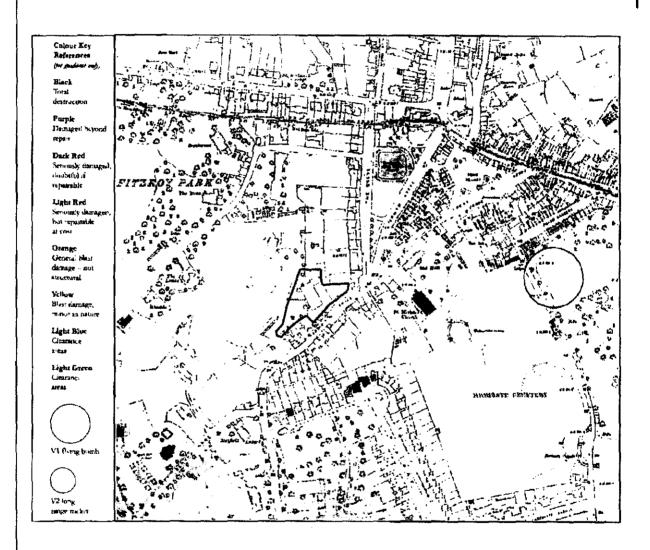
Project No.

Client : Dewrace Management Services

Figure E

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Figure F

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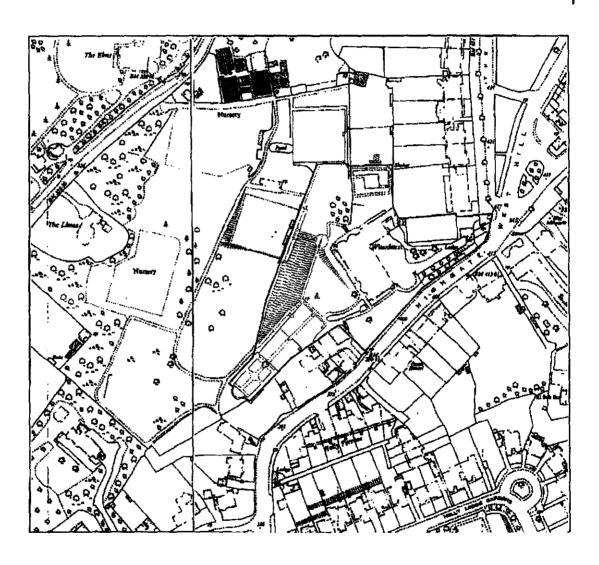
GROUND ENGINEERING Project No. C11681

Client : Dewrace Management Services

Figure G

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GROUND ENGINEERING

C11681

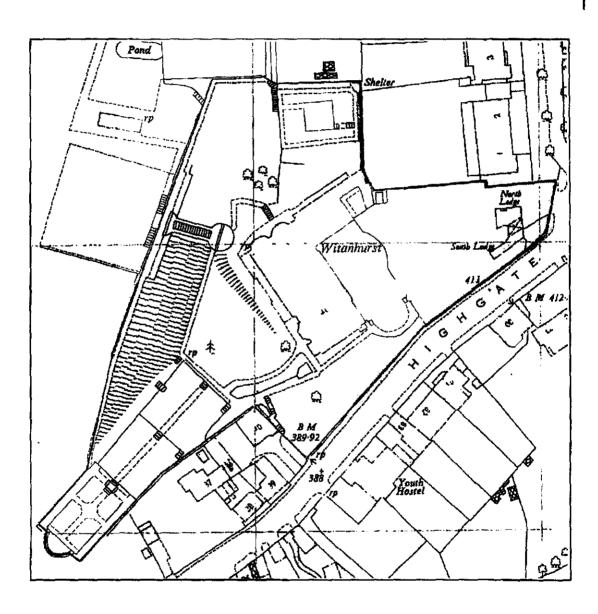
Project No.

Client : Dewrace Management Services

Figure H

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GROUND ENGINEERING

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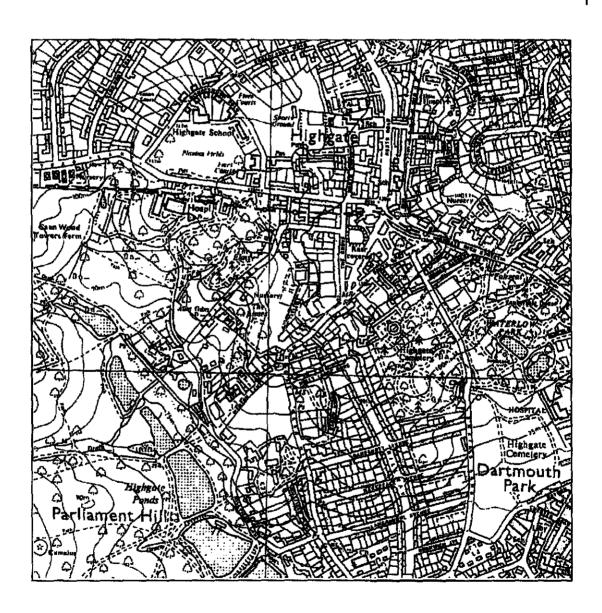
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Client : Dewrace Management Services

Figure l

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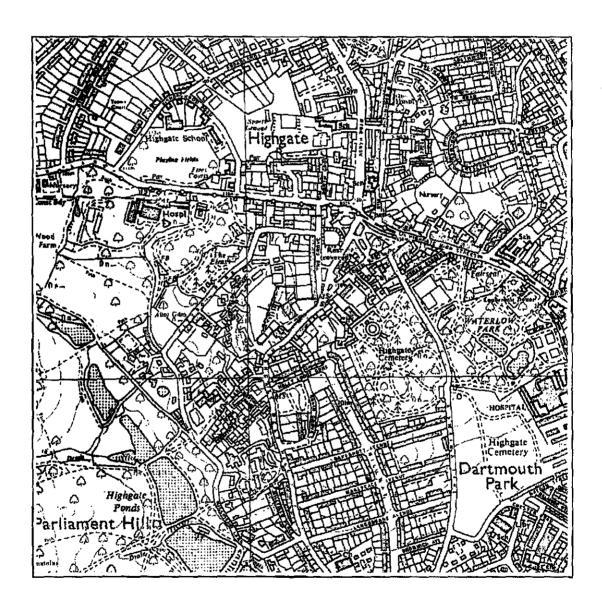
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Client: Dewrace Management Services

Figure J

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GROUND ENGINEERING Project No. C11681

Client : Dewrace Management Services

**APPENDIX 2** 

**ENVIRONMENTAL SEARCHES** 



Report on: 41 Highgate West Hill LONDON N6 6LS

Prepared For: Xplor Ltd (Ground Engineering) Unit 7 Laureate Paddocks Newmarket Suffolk CB8 0AP

Report Reference: SCPRO-27123204-1-1

Report Date: 22nd January 2009

Your Reference: SJF/11681\_SCD

Report Centre National Grid Reference: 528120, 187170





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### Contents of the Report

This report is divided into eleven sections

### Aerial Photo

The aerual photo gives an overall view of the area. The smaller large-scale Ordnance Survey map includes the site boundary and search zone buffer used throughout the report (250m).

### Location Map

The accurate large-scale Ordnance Survey map confirms the boundary of the subject site. The descriptive text may identify other features which could be of relevance but not reported. The smaller aerial photo includes the site boundary.

### Summary of Site

This section comprises source, pailway and receptor information found on site. Other factors which may affect the site are also included.

### Summary

This section comprises of a summary table of the information found on site and in its vicinity.

### Current Land Use

This section contains a map, which shows current land use features. The following pages detail these features and identify the Reference Number and direction.

### Historical Land Use

This section contains a map, which shows historical land use features. The following pages detail these features and identify the Reference Number and direction. A table listing all the maps used to source this information is included.

### Sensitivity

This section contains a map, which shows pathway and receptor features. The following pages detail these features and identify the Reference Number and direction. The section also contains a separate Flood Map.

### Other Factors

This section contains information on other factors which may affect the site and its vicinity.

### Useful Information

This section contains information which may be of use when interpreting the report.

#### Useful Contacts

All textual information is linked by the "Contact Ref" to this quick reference list of contacts. These contacts may be able to supply additional information or answer any subsequent query relating to that record.

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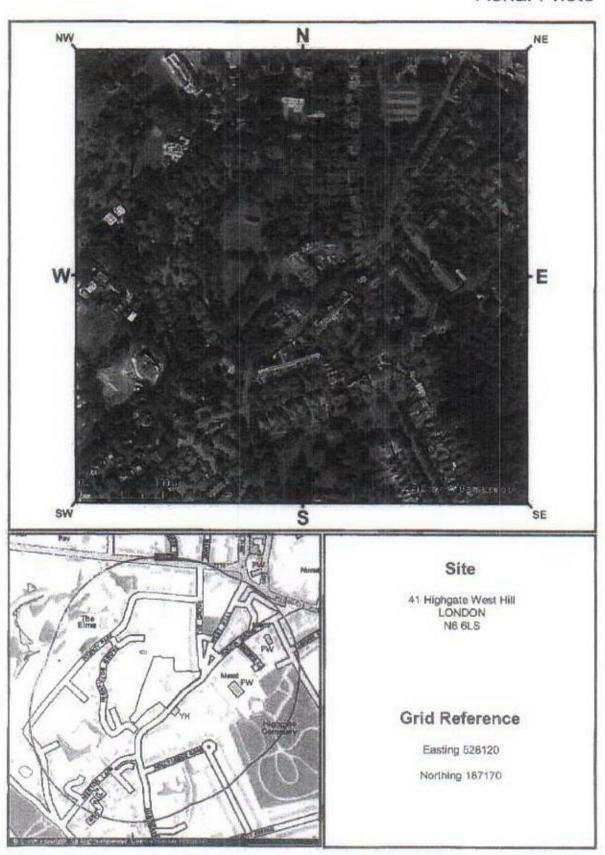
The Shecheck Data User guide is available free of charge from our website www.landmark-information.co.uk

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Report Reference: SCPRO-27123204-1-1 Date: 22nd January 2009



## Aerial Photo

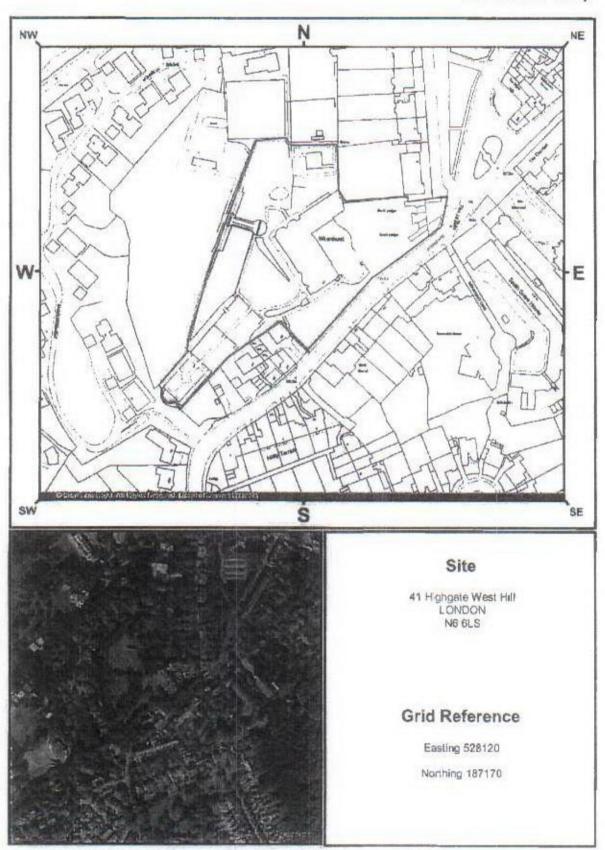


Report Referenca: SCPRQ-27123204-1-1 Date: 22nd January 2009 sitscheck v40.0

Page 3



## Location Map



Report Reference: SCPRO-27123204-1-1 Date: 22nd January 2009

sitecheck v40.0

Page 4



41 Highgate West Hill LONDON, N6 6LS

Sources

**Current Land Use** 

Waste/Landfill Sites

Local Authority Landfill Coverage

London Borough of Camden, - Has no landfill data to supply. Contact ref: 1

Historical Land Use

No features were found on the site for this section.