

4.1.3 Pathway

End users will be isolated from direct contact with any contaminants present within the near surface soils by the presence of the proposed building or hardstanding, which will effectively form a barrier between any contaminants within the near-surface soils and end-users or infiltration of surface water. There is, however, a potential for a pathway to exist through direct contact between end users and any contaminants present within the near-surface soils in any proposed gardens or areas of soft landscaping, and a potential for uptake through vegetation which may also result in ingestion of any contaminants present through consumption of fruit or vegetables grown on the site. Soluble contaminants within the made ground could also potentially migrate onto adjacent sites as a result of infiltration of surface run-off, this pathway is also already in existence. Except for the pathway of direct contact for site workers, no new pathways will be created by the basement excavation.

Buried services may be exposed to any contaminants present within the soil through direct contact and site workers will come into contact with the soils during construction works.

There is the potential for vapours to enter the building from any hydrocarbons migrating from the filling station to the northwest, but in view of the low permeability of the London Clay a pathway is considered unlikely.

There is thus considered to be limited potential for a significant contaminant pathway to be present between any potential contaminant source and a target for the particular contaminant beneath the new building and extent of any hardstanding and a moderate potential exists within any proposed soft landscaped or garden areas.

4.1.4 Preliminary Risk Appraisal

In accordance with the guidelines provided by CIRIA³, the following table summarises possible pollution linkages for the site.

| SOURCE | RECEPTOR | PATHWAY | PROBABILITY | CONSEQUENCE |
|---|--------------------------|--|----------------|-------------|
| Contamination within near surface soils on site | End users | Ingestion of contaminated soil or dust, through skin contact or inhalation | Unlikely | Mild |
| | Near-surface groundwater | Percolation and leaching of surface run-off | Unlikely | Mild |
| | Site workers | Ingestion of contaminated soil or dust, through skin contact or inhalation | Low Likelihood | Mild |
| | Buried services | Direct contact | Low Likelihood | Minor |
| | Adjacent sites | Surface water flow or drain runs | Low Likelihood | Mild |

This method of risk evaluation involves classification of the magnitude of the potential **consequence** (severity) and **probability** (likelihood) of the risk. The method by which these factors are classified is detailed in the Appendix. On the basis of the consequence and probability the site can be attributed a level of risk, ranging from very low to very high and the procedure for making this assessment is shown in the Appendix, together with a description of each level of assessed risk and the actions that may be required to mitigate the risk.

On the basis of the above it is considered that there is a **LOW RISK** of there being a contaminant

3 Rudland, DJ, Lancefield, RM and Mayell, PN (2001) *Contaminated land risk assessment. A guide to good practice.* CIRIA Pub C552

linkage at this site which would result in a requirement for remediation work. Such remediation would be limited to the garden areas, since there is a limited potential for any contamination pathway to exist beneath the proposed buildings. As there is no evidence of filled ground within the vicinity there should be no need to consider soil gas exclusion systems.

It would be prudent, and is likely to be a requirement of the local authority planning consent, to test samples of the shallow soil from any areas which will remain uncovered following the proposed redevelopment, in particular gardens, for a range of common contaminants, in order to determine whether any contamination is present and if any remediation will be required prior to develop the site. The analysis should include a range of metals, total petroleum hydrocarbons (TPH) and polycyclic aromatic hydrocarbons (PAH). Such analysis will also provide a preliminary indication of the Waste Acceptance Criteria (WAC) classification of any soil that is to be removed from site.

4.2 Development Issues

The site is expected to be underlain by London Clay and spread foundations bearing in the London Clay may be appropriate, although the magnitude of imposed loads may be such that relatively large foundations may be required. Piled foundations may therefore be the most appropriate solution and consideration will need to be given to the effects of pile construction and loading on the nearby underground tunnels.

5.0 CONCLUSIONS

On the basis of the findings of the research carried out there is considered to be a **LOW** risk from contamination at this site and therefore remediation in order to protect end users is not considered likely to be required.

This view can be confirmed through contamination testing as part of the ground investigation. The ground investigation would confirm the ground and groundwater conditions beneath the site, particularly the depth to groundwater. In addition, samples of the shallow soil will be tested for a range of typical contaminants, including metals and hydrocarbons, from across the site and in particular any garden areas.

APPENDIX

Envirocheck Report and Extracts

Site Sensitivity Maps

Historical Maps

London Underground Ltd Maps

Risk Assessment Description

Risk Assessment Classification

Envirocheck[®] Report:

Datasheet

Order Details:

Order Number:

49625686_1_1

Customer Reference:

J13299

National Grid Reference:

526510, 184520

Slice:

A

Site Area (Ha):

0.04

Search Buffer (m):

1000

Site Details:

9 - 12 New College Parade

Finchley Road

LONDON

NW3 5EP

Client Details:

Mr S Branch

GEA Ltd

Tyttenhanger House

Coursers Road

St Albans

Herts

AL4 0PG

Prepared For:

Brampton Investments

| Report Section | Page Number |
|-----------------------|-------------|
| Summary | - |
| Agency & Hydrological | 1 |
| Waste | 6 |
| Hazardous Substances | - |
| Geological | 7 |
| Industrial Land Use | 13 |
| Sensitive Land Use | - |
| Data Currency | 29 |
| Data Suppliers | 35 |
| Useful Contacts | 36 |

Introduction

The Environment Act 1995 has made site sensitivity a key issue, as the legislation pays as much attention to the pathways by which contamination could spread, and to the vulnerable targets of contamination, as it does the potential sources of contamination. For this reason, Landmark's Site Sensitivity maps and Datasheet(s) place great emphasis on statutory data provided by the Environment Agency and the Scottish Environment Protection Agency; it also incorporates data from Natural England (and the Scottish and Welsh equivalents) and Local Authorities; and highlights hydrogeological features required by environmental and geotechnical consultants. It does not include any information concerning past uses of land. The datasheet is produced by querying the Landmark database to a distance defined by the client from a site boundary provided by the client.

In the attached datasheet the National Grid References (NGRs) are rounded to the nearest 10m in accordance with Landmark's agreements with a number of Data Suppliers.

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Radon Potential dataset Copyright Notice

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Report Version v47.0

| Data Type | Page Number | On Site | 0 to 250m | 251 to 500m | 501 to 1000m (*up to 2000m) |
|---|-------------|---------|-----------|-------------|-----------------------------|
| Agency & Hydrological | | | | | |
| Contaminated Land Register Entries and Notices | | | | | |
| Discharge Consents | | | | | |
| Enforcement and Prohibition Notices | | | | | |
| Integrated Pollution Controls | | | | | |
| Integrated Pollution Prevention And Control | | | | | |
| Local Authority Integrated Pollution Prevention And Control | | | | | |
| Local Authority Pollution Prevention and Controls | pg 1 | | 2 | 6 | 9 |
| Local Authority Pollution Prevention and Control Enforcements | | | | | |
| Nearest Surface Water Feature | pg 3 | | | Yes | |
| Pollution Incidents to Controlled Waters | | | | | |
| Prosecutions Relating to Authorised Processes | | | | | |
| Prosecutions Relating to Controlled Waters | | | | | |
| Registered Radioactive Substances | | | | | |
| River Quality | | | | | |
| River Quality Biology Sampling Points | | | | | |
| River Quality Chemistry Sampling Points | | | | | |
| Substantiated Pollution Incident Register | | | | | |
| Water Abstractions | pg 3 | | | 1 | (*4) |
| Water Industry Act Referrals | | | | | |
| Groundwater Vulnerability | pg 4 | Yes | n/a | n/a | n/a |
| Bedrock Aquifer Designations | pg 4 | Yes | n/a | n/a | n/a |
| Superficial Aquifer Designations | | | n/a | n/a | n/a |
| Source Protection Zones | pg 4 | | 1 | | |
| Extreme Flooding from Rivers or Sea without Defences | | | | n/a | n/a |
| Flooding from Rivers or Sea without Defences | | | | n/a | n/a |
| Areas Benefiting from Flood Defences | | | | n/a | n/a |
| Flood Water Storage Areas | | | | n/a | n/a |
| Flood Defences | | | | n/a | n/a |
| Waste | | | | | |
| BGS Recorded Landfill Sites | | | | | |
| Historical Landfill Sites | pg 6 | | | | 1 |
| Integrated Pollution Control Registered Waste Sites | | | | | |
| Licensed Waste Management Facilities (Landfill Boundaries) | | | | | |
| Licensed Waste Management Facilities (Locations) | | | | | |
| Local Authority Recorded Landfill Sites | | | | | |
| Registered Landfill Sites | | | | | |
| Registered Waste Transfer Sites | pg 6 | | | 2 | |
| Registered Waste Treatment or Disposal Sites | | | | | |

| Data Type | Page Number | On Site | 0 to 250m | 251 to 500m | 501 to 1000m (*up to 2000m) |
|---|-------------|---------|-----------|-------------|--------------------------------|
| Hazardous Substances | | | | | |
| Control of Major Accident Hazards Sites (COMAH) | | | | | |
| Explosive Sites | | | | | |
| Notification of Installations Handling Hazardous Substances (NIHHS) | | | | | |
| Planning Hazardous Substance Consents | | | | | |
| Planning Hazardous Substance Enforcements | | | | | |
| Geological | | | | | |
| BGS 1:625,000 Solid Geology | pg 7 | Yes | n/a | n/a | n/a |
| BGS Estimated Soil Chemistry | pg 7 | Yes | | Yes | Yes |
| BGS Recorded Mineral Sites | | | | | |
| BGS Urban Soil Chemistry | pg 9 | | Yes | Yes | Yes |
| BGS Urban Soil Chemistry Averages | pg 11 | Yes | | | |
| Brine Compensation Area | | | n/a | n/a | n/a |
| Coal Mining Affected Areas | | | n/a | n/a | n/a |
| Mining Instability | | | n/a | n/a | n/a |
| Man-Made Mining Cavities | | | | | |
| Natural Cavities | | | | | |
| Non Coal Mining Areas of Great Britain | | | | n/a | n/a |
| Potential for Collapsible Ground Stability Hazards | pg 12 | Yes | | n/a | n/a |
| Potential for Compressible Ground Stability Hazards | | | | n/a | n/a |
| Potential for Ground Dissolution Stability Hazards | | | | n/a | n/a |
| Potential for Landslide Ground Stability Hazards | pg 12 | Yes | | n/a | n/a |
| Potential for Running Sand Ground Stability Hazards | | | | n/a | n/a |
| Potential for Shrinking or Swelling Clay Ground Stability Hazards | pg 12 | Yes | | n/a | n/a |
| Radon Potential - Radon Affected Areas | | | n/a | n/a | n/a |
| Radon Potential - Radon Protection Measures | | | n/a | n/a | n/a |
| Industrial Land Use | | | | | |
| Contemporary Trade Directory Entries | pg 13 | | 22 | 43 | 120 |
| Fuel Station Entries | pg 28 | | 1 | | 3 |

| Data Type | Page Number | On Site | 0 to 250m | 251 to 500m | 501 to 1000m (*up to 2000m) |
|--------------------------------------|-------------|---------|-----------|-------------|-----------------------------|
| Sensitive Land Use | | | | | |
| Areas of Adopted Green Belt | | | | | |
| Areas of Unadopted Green Belt | | | | | |
| Areas of Outstanding Natural Beauty | | | | | |
| Environmentally Sensitive Areas | | | | | |
| Forest Parks | | | | | |
| Local Nature Reserves | | | | | |
| Marine Nature Reserves | | | | | |
| National Nature Reserves | | | | | |
| National Parks | | | | | |
| Nitrate Sensitive Areas | | | | | |
| Nitrate Vulnerable Zones | | | | | |
| Ramsar Sites | | | | | |
| Sites of Special Scientific Interest | | | | | |
| Special Areas of Conservation | | | | | |
| Special Protection Areas | | | | | |

| Map ID | Details | Quadrant Reference (Compass Direction) | Estimated Distance From Site | Contact | NGR |
|--------|--|--|------------------------------|---------|------------------|
| 1 | Local Authority Pollution Prevention and Controls Name: B P Harmony Location: 104a Finchley Road, London, NW3 5EY Authority: London Borough of Camden, Pollution Projects Team Permit Reference: Not Given Dated: 1st July 1999 Process Type: Local Authority Air Pollution Control Description: PG1/14 Petrol filling station Status: Authorised Positional Accuracy: Automatically positioned to the address | A13NW (NW) | 46 | 1 | 526471 184554 |
| 1 | Local Authority Pollution Prevention and Controls Name: Bp Harmony Location: 104a Finchley Road, LONDON, NW3 5EY Authority: London Borough of Camden, Pollution Projects Team Permit Reference: PPC18 Dated: 1st July 1999 Process Type: Local Authority Pollution Prevention and Control Description: PG1/14 Petrol filling station Status: Permitted Positional Accuracy: Automatically positioned to the address | A13NW (NW) | 46 | 1 | 526471 184554 |
| 2 | Local Authority Pollution Prevention and Controls Name: Swiss Cottage Dry Cleaners Location: 121 Finchley Road, London, Nw3 6hy Authority: London Borough of Camden, Pollution Projects Team Permit Reference: PPC/DC10 Dated: 12th January 2007 Process Type: Local Authority Pollution Prevention and Control Description: PG6/46 Dry cleaning Status: Permitted Positional Accuracy: Located by supplier to within 10m | A13SE (SE) | 258 | 1 | 526626 184270 |
| 3 | Local Authority Pollution Prevention and Controls Name: Is Dry Cleaners Location: 6 Canfield Gardens, London, Nw6 3bs Authority: London Borough of Camden, Pollution Projects Team Permit Reference: PPC/DC18 Dated: 5th February 2007 Process Type: Local Authority Pollution Prevention and Control Description: PG6/46 Dry cleaning Status: Permitted Positional Accuracy: Located by supplier to within 10m | A13NW (NW) | 284 | 1 | 526257 184662 |
| 4 | Local Authority Pollution Prevention and Controls Name: Kings Dry Cleaners Location: 25 Winchester Road, London, E4 Authority: London Borough of Waltham Forest, Environmental Health Department Permit Reference: DC05 Dated: 6th July 2007 Process Type: Local Authority Pollution Prevention and Control Description: PG6/46 Dry cleaning Status: Permitted Positional Accuracy: Manually positioned to the address or location | A13SE (SE) | 352 | 2 | 526812 184310 |
| 5 | Local Authority Pollution Prevention and Controls Name: Connoisseur Dry Cleaners Location: 3-5 Fairhazel Gardens, London, Nw6 3qe Authority: London Borough of Camden, Pollution Projects Team Permit Reference: PPC/DC11 Dated: 12th January 2007 Process Type: Local Authority Pollution Prevention and Control Description: PG6/46 Dry cleaning Status: Permitted Positional Accuracy: Located by supplier to within 10m | A8NW (SW) | 464 | 1 | 526262 184119 |
| 5 | Local Authority Pollution Prevention and Controls Name: Sqweaky Clean Professional Dry Cleaners Location: 13 Fairhazel Gardens, London, Nw6 3qe Authority: London Borough of Camden, Pollution Projects Team Permit Reference: PPC/DC37 Dated: 12th January 2007 Process Type: Local Authority Pollution Prevention and Control Description: PG6/46 Dry cleaning Status: Permitted Positional Accuracy: Located by supplier to within 10m | A8NW (SW) | 465 | 1 | 526237 184134 |

| Map ID | Details | Quadrant Reference (Compass Direction) | Estimated Distance From Site | Contact | NGR |
|--------|---|--|------------------------------|---------|------------------|
| 6 | <p>Local Authority Pollution Prevention and Controls</p> <p>Name: Hampstead Express Dry Cleaning Location: 279a Finchley Road, London, Nw3 6lt Authority: London Borough of Camden, Pollution Projects Team Permit Reference: PPC/DC6 Dated: 12th January 2007 Process Type: Local Authority Pollution Prevention and Control Description: PG6/46 Dry cleaning Status: Permitted Positional Accuracy: Located by supplier to within 10m</p> | A18SW (NW) | 500 | 1 | 526178 184902 |
| 6 | <p>Local Authority Pollution Prevention and Controls</p> <p>Name: Janets Hand Laundry Ltd Location: 281a Finchley Road, London, Nw3 6nd Authority: London Borough of Camden, Pollution Projects Team Permit Reference: PPC/DC14 Dated: 12th January 2007 Process Type: Local Authority Pollution Prevention and Control Description: PG6/46 Dry cleaning Status: Permitted Positional Accuracy: Located by supplier to within 10m</p> | A17SE (NW) | 524 | 1 | 526167 184924 |
| 7 | <p>Local Authority Pollution Prevention and Controls</p> <p>Name: Masterclean Dry Cleaners Location: 6 Langtry Walk, London, Nw8 0du Authority: London Borough of Camden, Pollution Projects Team Permit Reference: PPC/DC38 Dated: 12th January 2007 Process Type: Local Authority Pollution Prevention and Control Description: PG6/46 Dry cleaning Status: Permitted Positional Accuracy: Located by supplier to within 10m</p> | A8NW (S) | 529 | 1 | 526352 184004 |
| 8 | <p>Local Authority Pollution Prevention and Controls</p> <p>Name: Pyramid Cleaners Location: 52 Besize Lane, London, Nw3 5ar Authority: London Borough of Camden, Pollution Projects Team Permit Reference: PPC/DC8 Dated: 1st January 2007 Process Type: Local Authority Pollution Prevention and Control Description: PG6/46 Dry cleaning Status: Permitted Positional Accuracy: Located by supplier to within 10m</p> | A19SW (NE) | 582 | 1 | 526872 184985 |
| 9 | <p>Local Authority Pollution Prevention and Controls</p> <p>Name: William J Humpage Location: 12-13 West Hampstead Mews, LONDON, NW6 3BB Authority: London Borough of Camden, Pollution Projects Team Permit Reference: Not Given Dated: Not Supplied Process Type: Local Authority Air Pollution Control Description: Part B process (no specific reference) Status: Application Withdrawn Positional Accuracy: Manually positioned to the address or location</p> | A12NW (W) | 934 | 1 | 525567 184544 |
| 10 | <p>Local Authority Pollution Prevention and Controls</p> <p>Name: Belsize Park Service Station Location: 215 Haverstock Hill, LONDON, NW3 4RE Authority: London Borough of Camden, Pollution Projects Team Permit Reference: PPC21 Dated: 2nd January 1999 Process Type: Local Authority Pollution Prevention and Control Description: PG1/14 Petrol filling station Status: Permitted Positional Accuracy: Automatically positioned to the address</p> | A19NW (NE) | 970 | 1 | 527187 185227 |
| 11 | <p>Local Authority Pollution Prevention and Controls</p> <p>Name: Chequers Textile Care Ltd Location: 48 Englands Lane, London, Nw3 4ue Authority: London Borough of Camden, Pollution Projects Team Permit Reference: PPC/DC47 Dated: 5th December 2006 Process Type: Local Authority Pollution Prevention and Control Description: PG6/46 Dry cleaning Status: Permitted Positional Accuracy: Located by supplier to within 10m</p> | A14NE (E) | 973 | 1 | 527498 184580 |