



GEO-ENVIRONMENTAL PHASE 1 DESK STUDY

26 HARTLAND ROAD

**LONDON
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On behalf of:

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We have prepared this report in our professional capacity using reasonable skill, care and diligence. The assessments, conclusions and recommendations within this report pertain to the study site (the extents of which are in Figure 1, below) and the immediate area in continuity with the Site. They are based on the established historical uses, information available at the time of writing and the proposed use of the Site. Where any information supplied by the client or other sources have been utilised, it has been assumed that the information is correct. No responsibility can be accepted by Adeptus for inaccuracies in data supplied by any other party.

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1.0 INTRODUCTION

1.0 Report Context

Adeptus was appointed by Tina Lareo in May 2020 to undertake a Geo-Environmental Phase 1 Desk Study in support of a planning application for residential development of the site known as 26 Hartland Road. This report details the findings of the study, with conclusions and recommendations relating to the potential risks to human health and the environment identified, and any suggestions for further investigation.

1.1 Objectives and Methodology

This Phase 1 Desk Study report is intended to address the requirements of a Preliminary Investigation under British Standard 10175:2011 'Investigation of Potentially Contaminated Sites – Code of Practice', and a Preliminary Risk Assessment as defined by CIRIA publication C553 'Contaminated land risk assessment - a guide to good practice'. Information on the site history, geology and environmental setting is assessed to identify possible contamination risks associated with soil, groundwater and ground gas conditions at and in proximity to the site.

The objectives of the desk study are to:

- Summarise historical land use on and in the vicinity of the site
- Assess the likelihood of contamination, as well as its potential nature and extent
- Evaluate the geological and environmental setting of the site and immediate surrounds
- Identify potentially significant contaminant linkages
- Develop an initial conceptual site model
- Provide a preliminary assessment of risks in the context of the planned use of the site

1.2 Regulatory Framework

Land contamination is a material consideration under the National Planning Policy Framework (2012). This means that local authorities must take the potential or actual presence of contamination into account when considering planning applications.

"Contamination" is defined in BS 10175:2011 as:

presence of a substance or agent, as a result of human activity, in, on or under land, which has the potential to cause harm or to cause pollution.

"Contaminated Land" is defined in Section 78A(2) of the Environmental Protection Act 1990 as:

any land which appears to the local authority in whose area it is situated to be in such a condition, by reason of substances in, on or under the land, that—

(a) significant harm is being caused or there is a significant possibility of such harm being caused; or

(b) significant pollution of controlled waters is being caused, or there is a significant possibility of such pollution being caused

Contaminated Land Report 11 'Model Procedures for the Management of Land Contamination', sets out three essential elements of risk in the context of land contamination, which together are described as a pollutant or contaminant linkage.

Preliminary risk assessment is required to qualitatively assess the significance of potential pollutant linkages affecting the site, and establish the requirement or otherwise for further investigation.

1.3 Information Sources and Structure

The following information and data sources are utilised in compiling this report:

- Site reconnaissance (satellite imagery)
- Environmental Database (Appendix A)
- Geological maps of the vicinity
- Environment Agency and Local Authority registers and permissions
- Historical Ordnance Survey Maps

The report consists of five main sections; below is an outline of their contents for ease of navigation:

- Section 1: Introduction
- Section 2: Describes the site, its surroundings and findings of any site reconnaissance
- Section 3: Provides a review of historical development on and around the site
- Section 4: Provides an assessment of the site's environmental setting
- Section 5: Describes Initial Conceptual Site Model and Preliminary Risk Assessment
- Section 6: Summarises findings of the assessment and provides any pertinent recommendations

1.4 Previous Reports/Investigations

At the time of writing, no previous reports for the Site have been made available.

2.0 SITE DETAILS

This section provides a review of the land use on and in the vicinity of the Site, with the purpose of identifying potential contaminant sources and environmental constraints.

2.1 Location and Description

Table 2-1: Site Summary

Full Address	26 Hartland Road, London NW1 8DD
Grid Reference	528660 184344 (centred on, approx.)
Area & Shape	0.01ha – roughly rectangular.
Development Proposals	Prior Approval for the Change of use B1 to a D1 (day nursery).

3 HISTORICAL DEVELOPMENT

3.1 Historical Map Review

Historical Ordnance (OS) Survey map extracts have been examined to provide a summary of relevant land use on and in proximity to the site, including industrial features within 100m and potential landfills within 250m.

Maps dating from 1851 to 1990 and in the 1:1,250, 1:2,500 and 1:10,560 scales have been reviewed. Potentially significant findings are summarised in Table 3-3, below.

Table 3-3: Summary of Historical Map Features

On-site	Map Years Present	Comments	
Buildings/dwelling	1873 - today	The buildings appear to be of the same general layout as the site today. Use of the site as a dwelling and possibly a shop or office is not considered significant.	
Off-site	Location (approx.)	Map Years Present	Comments
Motor Body Works/ Garage	50m W	1954 OS map to 1999 aerial photo	The site extends south to include further buildings labelled Garage, and is labeled Works from 1963.
Chalk Farm Bus Depot/ Garage	75m W	1954 onwards	The large bus depot is labeled as a Garage from 1963.
Unspecified Works	50m E	1963 onwards	A small triangular site east of the railway is labelled Works.

The three sites identified above have been redeveloped for housing, with the most recent redevelopment being between 199 and 2008. It is therefore it is considered that any potential sources associated with the sites have been addressed and are not significant to the development.

3.2 Further Historical Land Use and Industrial Features

Further industrial features highlighted in the environmental data report and not located on the maps reviewed in 3.1 are listed under the headings below.

3.2.1 Historical Tank Database entries within 100m: 0

3.2.2 Historical Energy Features Database entries within 100m: 0

3.2.3 Historical Petrol and Fuel Site Database entries within 100m: 0

3.2.4 Historical Garage and Motor Vehicle Repair Database entries within 100m: 5

The records relate to the sites identified as labelled garage in Table 3-3.

3.3 Regulatory Records, Licences and Authorisations

The following is a summary of regulated industrial activities potentially indicating an increased likelihood of the presence of contamination, pollution incidents, and sites determined as contaminated land - as contained in the environmental data report.

3.3.1 Records of historic IPC Authorisations within 100m: 0

3.3.2 Records of Part A(1) and IPPC Authorised Activities within 100m: 0

3.3.3 Records of Red List Discharge Consents within 100m: 0

3.3.4 Records of List 1 Dangerous Substance Inventory Sites within 100m: 0

3.3.5 Records of List 2 Dangerous Substance Inventory Sites within 100m: 0

3.3.6 Records of Part A(2) and Part B Activities (and Enforcements) within 100m: 1

- Esso 29, Chalk Farm Road, London, NW1 8AG – 100m S
 - Process: Unloading of Petrol into Storage at Service Stations
 - Status: Historical Permit
 - No Enforcement Notified
 - As there are no enforcements or incidents recorded, this feature is not considered significant

3.3.7 Records of Category 3 or 4 Radioactive Substances Authorisations within 100m: 0

3.3.8 Records of Licensed Discharge Consents within 100m: 0

3.3.9 Records of Water Industry Referrals within 100m: 0

3.3.10 Records of Planning Hazardous Substance Consents and Enforcements within 100m: 0

3.3.11 Records of COMAH & NIHHS sites within 100m: 0

3.3.12 Environment Agency Recorded Pollution Incidents within 100m: 0

3.3.13 Records of National Incidents Recording System, List 1 within 100m: 0

3.3.14 Sites Determined as Contaminated Land under Part 2A EPA 1990 within 100m: 0

3.4 Landfill & Waste Site Records

With reference to the environmental data report, the following landfill and waste sites are identified via historical records, mapping and contemporary regulatory records.

3.4.1 Environment Agency landfill data entries within 250m: 0

3.4.2 Environment Agency historic landfill data entries within 250m: 0

3.4.3 Records of BGS/DoE records of non-operational landfill sites within 250m: 0

3.4.4 Records of landfills from Local Authority and Historical Mapping records within 250m: 0

3.4.5 Records of Waste Treatment, Transfer or Disposal Sites within 100m: 0

3.4.6 Records of Environment Agency Licensed Waste Sites within 100m: 0

3.5 Current Land Use

Contemporary local land uses listed in the environmental data report and with the potential for significant impact on the site are described below.

3.5.1 Records of potentially contaminative industrial sites within 100m: 1

- Depot - Transport, Storage and Delivery - 23m NE
 - The building appears to be a dwelling with a small side yard, so is not considered significant.

3.5.2 Records of Petrol or Fuel Sites within 100m: 0

3.5.3 Records of National Grid High Voltage Underground Electricity Transmission Cables within 100m: 0

3.5.4 National Grid High Pressure Gas Transmission Pipelines within 100m: 0

4 ENVIRONMENTAL SETTING

The site's setting is reviewed to provide an assessment of receptors potentially affected, and ways in which the environment may act as a pathway for exposure, or contaminant source.

4.1 Geology & Hydrogeology

4.1.1 Published Geology

British Geological Survey (BGS) mapping indicates the site is underlain by the geological sequence summarised in table 4-1, below.

Table 4-1: Summary of Published Geology

Geological Unit	Description	Composition	Location	Aquifer Designation
Superficial/drift	None recorded	-	On site and within 500m	N/A
Solid/bedrock	Thames Group	Clay, Silt, Sand and Gravel	On site	Unproductive

4.1.2 Ground Gas Conditions

- The natural geological strata identified above are not considered a significant source of permanent ground gases such as methane or carbon dioxide.

4.1.3 Coal Mining

- The site is not located within 75m of a Coal Authority identified mining area.

4.2 Abstraction Licenses and Source Protection Zones

4.2.1 Groundwater Abstraction Licenses within 250m: 0

4.2.2 Surface Water Abstraction Licenses within 250m: 0

4.2.3 Potable Water Abstraction Licenses within 250m: 0

4.2.4 Source Protection Zones within 500m: 0

4.3 Hydrology

Table 4-4 provides details of mapped watercourses and water bodies in the vicinity of the site.

Table 4-4: Mapped Surface Water Features

Name/Description	Distance/ Direction	Comments
Grand Union Canal	224m SE	-

4.4 River and Coastal Flooding

Distances to the Environment Agency/Natural Resources Wales Zone 2 and 3 floodplains are given in Table 4-5.

Table 4-5: Flood

Zone 2 Floodplain	Zone 3 Floodplain	Comments
None within 50m	None within 50m	-

4.5 Ecology & Designated Environmentally Sensitive Sites

Designated Ecological or Heritage Sites within 250m: 0

4.6 Site Sensitivity – Environmental Setting and Proposed Use

4.6.1 Site Setting

Table 4-6: Site Sensitivity Assessment

Characteristic	Comments	Sensitivity
Land use in proximity to the site	Predominantly residential	High
Environmental/Ecology Designations	None within 250m	Low
Groundwater Source Protection Zone	None within 500m	Low
Groundwater/surface water abstraction points	None within 250m	Low
Aquifer designation in superficial deposits	N/A	Low
Aquifer designation in bedrock	Unproductive	Low
Proximity to surface water features	Ca. 240m	Low
Overall Environmental Sensitivity:		Moderate

4.6.2 Proposed Use

Characteristic	Comments	Sensitivity
Proposed site use	Day nursery	High

5 INITIAL CONCEPTUAL SITE MODEL

For a conceptual risk of harm to human health or the environment to exist within the context of CLR11, all of the following elements must be present:

- a source – i.e., a substance (contaminant(s)) that is capable of causing pollution or adverse health effects;
- a receptor - i.e., something which could be adversely affected by the source; and
- a pathway – i.e., a route by which the contaminant could come into contact with, or affect, the receptor.

These three elements are collectively referred to as a pollutant linkage. Risk Assessment is the formal process of evaluating potential source, pathway and receptor characteristics to determine the degree of risk potentially posed.

5.1 Pollutant Linkage Assessment

Based on the information presented in sections 2 and 3, the following potential sources, receptors and relevant pathways for exposure are identified in relation to the development.

5.1.1 On-Site Potential Sources of Contamination

- No potentially significant on-site sources of contamination have been identified.

5.1.2 Off-Site Potential Sources of Contamination

- No potentially significant on-site sources of contamination have been identified.

5.1.3 Potential Receptors

- In the absence of any identified potentially significant source of contamination, a pollutant linkage cannot exist, and consideration of receptors is not necessary.

5.1.4 Potential Pathways

- In the absence of any identified potentially significant source of contamination, a pollutant linkage cannot exist, and consideration of pathways is not necessary.

5.2 Preliminary Risk Assessment

As no potentially significant pollutant linkages have been identified, no further risk assessment is undertaken, in line with the requirements of CLR11.

6 SUMMARY

6.1 Conclusions

On the basis of the available information, no potentially significant pollutant linkages have been identified and the proposed development is therefore considered potentially to present a low risk to human health and the environment.

The site remained undeveloped before development of what is thought to be the dwelling present today and those surrounding between 1851 and 1873.

A handful of works and garages were located within ca. 50m of the site from the 1950s onward. However, their sites have since been redeveloped, with the most recent redevelopment appearing to take place between 1999 and 2008. Given their distances, nature and subsequent redevelopment, these sites are not considered significant as potential sources.

As summarised in Table 4-4, the site setting is considered moderately sensitive due to the adjacent residential use, unproductive bedrock strata and lack of abstractions or other designations.

N.B.: This summary forms part of the overall desk study and preliminary risk assessment and should not be viewed or used as an independent report.

6.2 Recommendations

Adeptus considers that no further action is required at this stage.

APPENDIX A – ENVIRONMENTAL DATABASE

Forwarded with supporting information.

