Intelligent Ground Solutions

Remediation and Verification Strategy

Land off Bridge Road

Wrexham Industrial Estate, Wrexham, LL13 9PS

For Hero Future Energies

14 January 2025

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1.0 Introduction & Objectives

Geo^2 Limited were commissioned by Hero Future Energies to compile a Remediation and Verification Strategy for the site located at Wrexham Industrial Estate, Wrexham, LL13 9PS. The site is approximately 0.32 hectares in area and located at grid reference 338120, 349550.

This report provides guidance on appropriate steps which should be taken to mitigate risks, and upon the collection of appropriate evidence, to demonstrate that these works have been undertaken successfully. Collated evidence should be retained to allow a Verification Completion Report to be written by Geo^2.

This report does not provide any engineering or geotechnical guidance, this does not aim to address the health and safety implications of any system of work, nor does it inform the CDM Construction Phase Health, Safety and Environmental Plans.

1.1 Purpose

The purpose of this document is to:

- Summarise the pertinent previous work at the site;
- Summarise the likely scope of remediation requirements to facilitate the proposed development at the site;
- Present the likely verification requirements; and
- Support the discharge of potential planning conditions relating to land contamination remediation.

1.2 Previous Work

The following previous report has been reviewed in preparation of this strategy:

- Geo-Environmental Assessment, by Geo^2, Ref. 24/4219.A, dated 1st October 2024.

For full details of the site and intrusive investigations undertaken at the site, this strategy should be read in conjunction with the aforementioned report. The report is summarised in Section 2.

2.0 Site Information

2.1 Site Description

The site is located south of Bridge Road, Wrexham Industrial Estate, Wrexham LL13, 9PS approximately 2.5 km south of the A534 road and approximately 5.2 km southeast of Wrexham train station. The area shown within the red site boundary on Plate A below, will be referred to throughout this document as 'the site'.

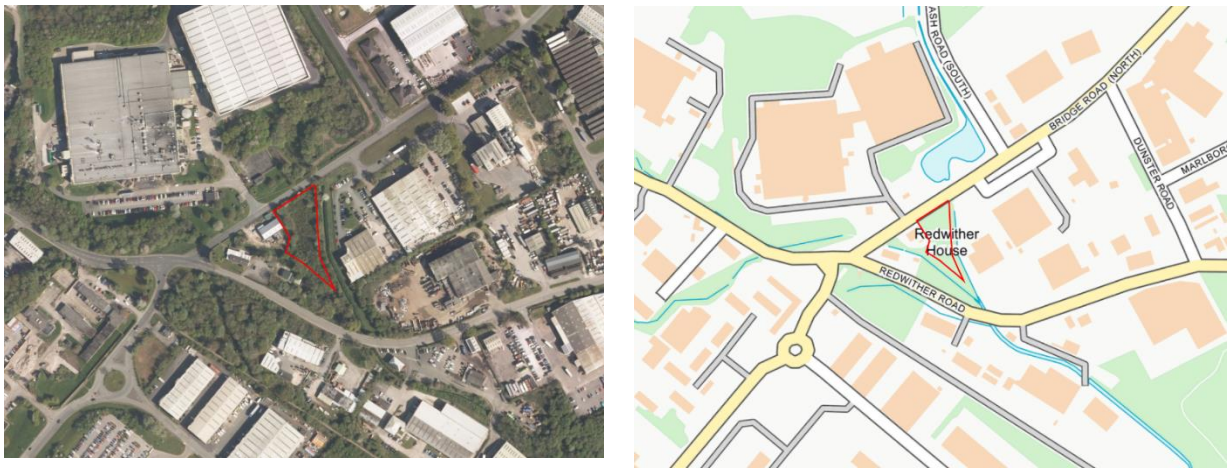


Plate A: Site Location Plan. Red is the site boundary.
Extract from Envirocheck report (Appendix C of the previous GEA report ref. 24/4419.A).

2.2 Desk Study Data

The information in the table below is summarised from the previous reports detailed in Section 1.2.

Site Geology, Hydrogeology and Hydrology	BGS data indicates that the site is underlain by superficial deposits of fAlluvium (Secondary A Aquifer) along the eastern, southern and western boundary of the site, underlain by Till, Devensian (Secondary (Undifferentiated)). The underlying bedrock is the Salop Formation (Secondary A Aquifer). Ground conditions encountered during the site investigation comprised Made Ground to depths between 2.00 and 3.00 m bgl (where proven) in the northern and central area of the site. The underlying ground conditions generally comprised sparse vegetation over Alluvium to depths between 2.00 and 2.20 m bgl. The superficial deposits of Till, Devensian were encountered below to a maximum drilled depth of 4.00 m bgl. Perched groundwater was encountered during drilling at depths between 1.00 and 2.00 m bgl (24.55 and 24.08 m AOD) within the Made Ground. Subsequent groundwater level monitoring recorded perched groundwater within DS101, DS102 and DS104 at depths between 1.20 and 3.66 m bgl (24.24 to 21.64 m bgl). The site is not located within a Source Protection Zone. A Zone III SPZ is located approximately 280 m southeast which indicates a regional southeast groundwater flow direction. The Envirocheck report records eleven licensed groundwater abstractions within 1 km of the site. The closest groundwater abstraction is located approximately 370 m southeast of the site relating to food and drink: process water with the remaining licenses used for process water by the same operation.

	Two streams are located adjacent to the eastern and western boundary with the tributary located adjacent to the south which runs into the Redwither Brook. The streams are indicated to flow in a southeasterly direction towards the River Clywedog. The River Clywedog is located approximately 533 m south of the site and has a grade B water quality. The Envirocheck report records two licensed surface water abstractions located approximately 955 m north of the site relating to metal: non-evaporative cooling.
Site History	From the earliest map edition dated 1873 the site was mapped to be undeveloped, likely to be agricultural. By circa. 1939 during the use of the site and the wider area as Royal Ordnance Factory (ROF) Wrexham, a small reservoir was located in the northern area of the site which became vacant circa. 1949 and demolished circa. 1961. Between 1961 and present day the site has been a vacant area of land. The wider area generally comprised undeveloped/ agricultural land until the construction of ROF Wrexham in circa. 1939. Between 1961 to present day the surrounding land has comprised the following works; factories, electrical sub-stations, depot, and commercial buildings with associated tanks. By circa. 1988 to present day an attenuation pond has been located approximately 50 m northeast of the site.

2.3 Existing Reports

The following sections summarise the pertinent parts of the report, in relation to this remediation strategy, as referenced in Section 1.2

Geo-Environmental Assessment, by Geo^2, Ref. 24/4219.A, dated 1st October 2024.

Geo^2 considered the site to be of moderate environmental sensitivity given the proximity of tributary streams to the east and west, the underlying Second A and Secondary undifferentiated Aquifers, the absence of a Source Protection Zone on-site and the sites location within an industrial area.

Potential sources of contamination were identified associated with the historical use of the site and wider area as part of ROF Wrexham.

Pertinent information from the Geo^2 report is detailed below:

- Marginally elevated concentrations of benzo(a)pyrene and benzo(b)fluoranthene were recorded within one location (DS103) in the central area of the site. Asbestos fragments and loose fibres were also identified within shallow materials of DS103, located beneath proposed hardstanding areas;
- Asbestos fragments were identified on the site surfacing in the western area of the site, beneath proposed hardstanding areas; and
- Results from the four rounds of ground gas monitoring did not identify significantly elevated concentrations of methane or carbon dioxide and as such the site was classified as a Characteristic Situation 1 (CS1).

2.4 Conceptual Site Model

The sources, pathways and receptors that have been previously confirmed as being relevant to the proposed development requiring remediation are detailed in the table below.

Source	Pathway	Receptor
Elevated concentrations of Benzo(a)pyrene and Benzo(b)fluoranthene central to the site.	Ingestion and/or inhalation of soil/dust	Human health – future site users
		Human health – construction workers
	Direct infiltration in water supply pipes	Drinking water supply pipes
Asbestos fibres and fragments within near surface Made Ground central to the site.	Ingestion and/or inhalation of soil/dust	Human health – future site users
		Human health – construction workers
Potentially unidentified areas of contamination.	Direct contact, inhalation of vapours and ingestion	Construction workers

3.0 Remedial Objectives

The Remediation Strategy had been devised based on the intrusive investigations undertaken by Geo^2 in October 2024 in order to:

- Mitigate the risks posed by the identified contaminants of concern and break potential contaminant linkages allowing the redevelopment of the site for a commercial end use; and
- To ensure the redevelopment works themselves are undertaken in such a fashion as to prevent the introduction of contaminated materials or may pose a risk to future site users, neighbours or the environment.

The following remediation measures are therefore proposed and detailed further in the following sections:

- Preconstruction works – Section 4
- Clean and inert cover system – Section 5
- Imported materials – Section 6

Other items which may arise as the development progresses which are also discussed in this report include:

- Services upgrade and corridors – Section 7
- Waste and Material Management – Section 8
- Unexpected contamination – Section 9
- Health and safety considerations – Section 10

Upon completion of the development works, a Verification Completion Report will be required to be produced in line with anticipated contaminated land planning conditions. This Verification Report will confirm that the development works have been undertaken in line with the agreed Remediation and Verification Strategy and confirm, with evidence, that the site as completed does not present a contamination risk to human health for the site end users or controlled waters. Evidence required is detailed within Section 11.

4.0 Preconstruction Works

4.1 Site Clearance

Based on the ground conditions encountered during the intrusive investigation, relict foundations may be present, which may require removal. All natural or man-made hard materials including concrete slabs, hardstanding, brickwork, foundations, utilities (as appropriate) etc. at or below the surface shall be broken out from beneath the development platform.

All materials recovered during the works which are intended for re-use shall be processed and stockpiled for chemical testing to demonstrate they are suitable for re-use within the proposed redevelopment.

4.2 Asbestos Removal

Asbestos fragments were identified during the ground investigation. It is recommended that a handpicking exercise be undertaken to reduce the risk of exposure to asbestos, to be undertaken by a suitably licensed contractor with appropriate risk assessments in place. Records of the exercise including quantities of asbestos removed and waste transfer notes including the receiving landfill/waste treatment centre should be included within the verification report.

Safe working procedures need to be adopted. The groundworks Contractor should be made aware of the possibility of encountering potential Asbestos Containing Materials (ACM) within the Made Ground and an appropriate protocol to mitigate exposure of the workforce and general public should be in place with due respect to his duties under the Control of Asbestos Regulations 2012 and with reference to the Joint Industry Working Group Asbestos in Soil and Construction & Demolition (C&D) Materials guidance (published by CL:AIRE) titled “Control of Asbestos Regulations 2012: Interpretation for Managing and Working with Asbestos in Soil and Construction & Demolition materials: Industry Guidance” (shortened name CAR-SOILTM).

The Contractor will need to prepare a risk assessment which identifies a safe system of work to handle the asbestos containing soils which is likely to include asbestos awareness training, a protocol for unexpected finds (should gross asbestos material be identified) and a handpicking exercise to remove the identified ACMs identified on the surface area. The Contractor should determine the need for appropriate levels of PPE and/or RPE and any associated air monitoring as required. The Contractor shall be responsible for providing appropriate documentation for inclusion within the Verification Report including details of any significant asbestos material encountered.

4.3 Excess or Unsuitable Material

Where excess or unsuitable materials are produced, such as site won material that cannot be processed, if material is found to be contaminated or if it is unsuitable for geotechnical reasons then this material will need to be removed from site following the appropriate procedures and all relevant transfer notes and consignment notes should be retained.

4.4 Material Management Plan

Made Ground soils may be suitable for reuse onsite as part of the site's development. Should the developer choose to retain site won materials, it should be ensured that this material cannot be considered a waste product. This can be achieved by complying with the CL:AIRE Definition of Waste: Code or Practice (DoWCoP), or through use of an appropriate exemption. Advice should be sought with respect to either circumstance to ensure compliance.

To enable material to be reused under the CL:AIRE DoWCoP, it is recommended that a Materials Management Plan (MMP) is put in place before redevelopment works commence (it is not possible to produce an MMP once works have commenced). Guidance and relevant forms are available from the industry body CL:AIRE at www.claire.co.uk.

5.0 Clean and Inert Cover System

Localised soil contamination exceeding the relevant screening criteria was identified at one location comprising PAHs. Asbestos was also identified within the Made Ground at this location and within the proximity of the location. The principal pathways for exposure are direct contact and ingestion, and therefore the localised concentrations are not considered to pose a risk at their position given the proposed hardstanding across this area of the development.

Based on the proposed development, the southern area of the site is to remain as vegetated landscaping, however, given the existing vegetation no access was available during the investigation. This area has remained undeveloped throughout historical mapping, however, it is recommended that the unexpected contamination (Section 9) watching brief be implement across the site and especially the southern area. Should contamination be identified within the southern area the recommendations for a clean cover system should be re-visited by the environmental consultant.

6.0 Imported Materials

Should there be a requirement to import soils for use in a cover system for whatever reason, chemical analysis of imported material will be required to confirm that the material is clean and inert and will not present a risk to site end users or the local environment. Sampling and testing requirements are set out below.

6.1 Sampling Criteria

Imported materials must be able to demonstrate suitability for use; this should include information demonstrating the source of the materials origin and suitable chemical analysis.

Sampling of imported material should be undertaken at the following frequencies;

- Greenfield/Manufactured source- A minimum frequency of three samples, or one per 250 m^3 (whichever is greater);
- Brownfield source – A minimum frequency of six samples, or one sample per 100 m^3 (whichever is greater); and
- Imported crushed hardcore/stone – A minimum frequency of three samples, or one per 1,000 m^3 (whichever is greater).

Sampling should be undertaken for each separate source of material.

6.2 Laboratory Analysis

Soils analysis should include the following:

- **Imported crushed stone aggregate** – Heavy metals suite, speciated Polyaromatic Hydrocarbons (PAH) and asbestos identification for reused crushed materials;
- **Imported subsoil / topsoil soils -** Heavy metals suite, speciated PAH, speciated Total Petroleum Hydrocarbons (TPH-CWG) asbestos identification, pH and soil organic matter. Plus any additional relevant analysis if deemed appropriate when materials are imported from a brownfield source, such as BTEX, phenols, cyanides etc.

Sampling should be undertaken for each separate source of material.

It is strongly recommended that all soils/materials are tested prior to importation as failures identified on site post placement will require excavation and removal of those materials. It should be noted that regional guidance may expect verification of materials after import to site.

All samples will be submitted to an appropriative MCERTS and UKAS accredited laboratory for analysis. All samples will be collected and submitted in line with best practice guidelines. All analysis should consider the required target concentrations and ensure a suitable level of detection is specified.

All environmental chemical analysis should be compared to appropriate generic screening criteria (GACs) for a conservative residential with home grown produce end use, drawn from the following sources:

- Environment Agency SGV Values.
- LQM / CIEH's Suitable for Use Levels (S4ULs)
- DEFRA Category 4 Screening Levels (C4SLs).
- EIC Soil Generic Assessment Criteria for Human Health.

Results of the analysis, if not undertaken by the Environmental Consultant, shall be provided to the Environmental Consultant for screening against the residential with home grown produce GACs and confirmation sought as to acceptability prior to import to site.

7.0 Services Upgrade and Corridors

7.1 Upgraded Water Pipe Material

Organic contaminants in soils may represent a risk to standard plastic water supply pipes. The client has confirmed that Welsh Water have indicated that upgraded Barrier Pipe will be required for new potable pipes. Delivery note for the upgraded barrier pipe and photographs during the installation will be required.

7.2 Service Corridors

Installation of clean site won materials within service corridors should be undertaken. If service corridors are backfilled with imported materials, then all material imported should be tested on a ratio of 1 sample per 250 m^3 (minimum three samples) for a range of contaminants appropriate to the source of the material but to include testing for the presence of asbestos and hydrocarbons as a minimum.

8.0 Waste and Material Management

Wastes should be managed according to the waste hierarchy shown in Figure B below and following appropriate duty of care protocols. The amount of waste created through a project should be minimised as much as possible. Materials on-site should be clearly separated into different waste streams to allow for re-use and recycling.



Figure B. Waste Hierarchy Diagram.

8.1 Laboratory Analysis and Materials Classification

A number of soil samples were collected from across the site during the site investigation and subject to laboratory chemical analysis. It should be noted, however, that the results may not be fully representative of waste excavation arisings generated during the construction phase, and therefore further sampling and laboratory analysis, including Waste Acceptance Criteria (WAC), may be required for excavation arisings to be managed off-site for disposal.

Before excavation arisings (and other materials) leave site as waste, they should be classified appropriately. Each type of waste which a site produces will have an individual European Waste Code (EWC). This is a six-digit code which is unique to the waste stream. For example:

17-05-04 = Mixed Soil and Stones

Some codes can also be hazardous and marked by an asterisk (*)

13-05-07* = Oily water from oil/water separators

8.2 Key Documents

All relevant waste transfer notes and consignment notes should be retained by the contractors and provided in a timely and well-organised manner to Geo^2 for inclusion within the Verification Report.

9.0 Unexpected Contamination

It is recommended that contractors should remain vigilant for encountering contaminated soils or waters during the preconstruction and construction works. Contractors should be trained in identifying potential areas of contamination and a site-specific briefing provided on areas of potential contamination in advance of construction-phase works commencing on site.

Unexpected contamination may comprise impacted Made Ground or underlying natural soils, or unexpected structures such as storage tanks, subsurface features, pipes, sumps or chambers with associated contamination.

As a guide, potential contamination in soils or waters may comprise visually impacted materials (stained, coloured) and/or distinctly odorous material. Encountered odours could be petrol, diesel, solvents or oil-like.

In the event that materials of this or similar description are encountered, and the material is considered to be previously unidentified, then Geo^2 should be contacted. In such circumstances, the affected area should be isolated and work in the area stopped, pending the Geo^2 consultant visit to sample or assess the soil/water. The area should remain isolated whilst the samples are analysed at an appropriate laboratory and the mitigation measures are confirmed, if considered necessary.

Based on a comparison of analysis results against adopted screening criteria, Geo^2 will assess whether the identified materials present an environmental risk that needs treatment or removal from site. Validation samples will be collected from the edge and base of the excavation by a Geo^2 engineer. The number of validation samples required should be decided by the Geo^2 engineer, based upon the excavation size and depth, material types and contamination distribution, but will be a minimum of six with at least one sample per 5m length of excavation face and 10m^2 of excavation base.

All waste soils/materials should be appropriately segregated and stored to prevent spreading contamination across the site (such as placing on and being covered by plastic sheeting). Waste should then be appropriately classified and disposed of in accordance with the applicable waste management regulations under full duty of care documentation. The potential exists for materials which could be classified as hazardous waste to be present, and this should also be dealt with in accordance with the relevant legislation.

Should unidentified underground features be encountered, such as fuel tanks or chambers etc, that require removal in line with the proposed development, they should be appropriately decommissioned. Decommissioning may comprise pumping and removal of wastewater and any sediment in accordance with the applicable waste management regulations under full duty of care documentation. Water and sediment waste may need to be sampled and analysed to determine whether it needs to be disposed of as hazardous. Should suspected contaminated material be identified beneath or adjacent to the structure, Geo^2 should be contacted to undertake further

sampling and analysis with the appropriate validation sampling undertaken. All results will be included in the Validation Completion Report.

Should any structure encountered remain in situ, Geo^2 should be contacted to ensure that any potential impact that may be associated with this feature can be appropriately addressed, if necessary. This process may entail additional sampling works, which would require the identified area to be isolated until a Geo^2 engineer is able to attend site.

The relevant planning authorities should be notified should any unexpected contamination be identified. Remedial actions that are identified as necessary as a result of encountered materials should be agreed prior to the work being carried out.

A method statement for a watching brief is included as Appendix A.

10.0 Health and Safety Considerations

The Principal Contractor is required to have appropriate risk assessments and method statements in place under the Construction (Design and Management) Regulations, 2015. These should recognise and address the construction-phase hazards presented by ground conditions on site.

Groundworkers should be made aware of the possibility of encountering contaminated soils through toolbox talks and in particular the potential presence of asbestos and an appropriate protocol to mitigate exposure of the workforce and general public should be in place with due respect to his duties under the Control of Asbestos Regulations 2012 given the known presence of asbestos fibres and fragments within the Made Ground.

Other health and safety factors that should be considered, but are not limited to:

- **Dusts**: To minimise risks from dusts (including potentially containing asbestos fibres) damping down or covering of stockpiles may be considered necessary. Movement of potential contamination off site on vehicle wheels shall be minimised by cleaning of vehicle wheels and/or use of a road sweeper, as required.
- **Welfare**: Washing facilities and a clean canteen room from which work boots and overalls are excluded. Provision must be allowed to permit adequate hygiene to be maintained and to ensure provision of appropriate personal protective equipment (PPE).

11.0 Verification Completion Report

Upon completion of the development works, a Verification Completion Report will be required.

The aim of the Verification Completion Report will be to demonstrate that the measures proposed in this Remediation and Verification Strategy have been undertaken.

To ensure that the Verification Completion Report can be completed, the following information detailed in the table below should be requested from suppliers or retained for inclusion in the report.

Remediation Report Section	Item	Examples of Information Required (not an exhaustive list)
Section 4	Preconstruction Works	Information on the material recovered from the clearance works including suitability for re-use, if applicable. Documentation of all relevant transfer notes and consignment notes provided, if applicable. Details of the MMP and implementation, if applicable. Documentation from the licenced contractor of any asbestos containing material removal.
Section 6	Imported Materials	Name and address of the source sites for imported hard core, subsoil and topsoil materials. Volumes of each material imported and delivery notes provided. Minimum three soil samples collected by Geo^2 on site for each material / source site, or testing as per Section 10. Chemical testing results for all imported hard core / soils.
Section 7	Services Upgrade and Corridors	Details of any upgraded pipework included within the final development. Delivery note and photographs during installation will be required. Documentation associated with the testing of the imported service trench fill, if applicable.
Section 8	Waste and Material Management	Records of waste transfer notes. Details of receiving facility.
Section 9	Unexpected Contamination	If any unexpected contamination is encountered then the relevant information, testing certificates, validation exercise and tickets indicating volumes of off-site removal of soils should be obtained. If unexpected contamination encountered, evidence should be provided to demonstrate its classification, volume, how it was treated/disposed, and the appropriate verification testing undertaken. If no unexpected contamination is encountered, the Principal Contractor is to provide a statement on a headed letter confirming this.

12.0 Limitations

This Report was prepared by Geo^2 for the sole and exclusive use of the Client and for the specific purpose for which Geo^2 was instructed. Unless explicitly agreed otherwise, in writing, this Report has been prepared under Geo^2's Standard Terms and Conditions.

Geo^2 does not intend, without its written consent through a formal letter of reliance or warranty, for this Report to be disseminated to any party other than the named Client or to be used or relied upon by any party other than the named Client. Use of the Report by any other party is unauthorised and such use is at the sole risk of the user. Any party using or relying upon this Report, other than the Client, agrees by virtue of its use to indemnify and hold harmless Geo^2 from and against all claims, losses and damages (of whatsoever nature and howsoever or whensoever arising), arising out of or resulting from the performance of the work by Geo^2.

The recommendations contained within this Report represent Geo^2's professional opinions, based upon the information detailed within the Report, exercising the reasonable skill and care to be expected of a professional consultant holding itself out as having the competence, experience, and resources necessary for the purpose of carrying out similar work in scope and character to the services performed. The Report needs to be considered in the light of the proposal and associated limitations of scope. The Report needs to be read and considered in full and isolated sections cannot be used without full reference to other elements of the Report and any previous works referenced within the Report.

13.0 References

Yorkshire and Lincolnshire Pollution Advisory Group, Verification Requirements for Cover Systems, Version 4.1, June 2021

CIRIA, 2001, Contaminated Land Risk Assessment, a guide to good practise, C552

CL:AIRE Definition of Waste : Code or Practice (DoWCoP)

Appendix A – Watching Brief Method Statement

Watching Brief Method Statement: Land off Bridge Road, Wrexham

This method statement aims to establish a structure by which site works / development contractors will be able to effectively meet the requirements of a watching brief. A watching brief is frequently proposed as part of planning conditions imposed onto any brownfield site, or a site potentially affected by contaminants. This methodology proposed a strategy which allows the site workers to effectively undertake these works themselves without the need for a full time environmental specialist.

Requirements of a Nominated Competent Person (CP)

The party undertaking the site works will nominate a Competent Person (CP) who will be responsible for providing a watching brief over all excavation, soil handling works associated with construction and for ensuring site workers conform to appropriate PPE requirements at all times. The CP will be on-site during all enabling, and construction works.

The CP will be briefed by Geo^2 on environmental management during or in advance of the groundworks at an on-site meeting to be held prior to the commencement of works. This would typically address the following issues;

- A review of any existing site information with regard to areas of potential contamination both identified and unidentified,
- Types of contamination which may be encountered and also potential for unexpected contamination, and means of identification,
- Potential risks associated with contaminants, with regard to health and safety concerns of construction workers,
- Potential for waste disposal issues,
- Ensuring that the CP is confident and capable of undertaking the practical responsibilities identified,
- Any additional site-specific concerns or factors which may prove relevant to works, such as any visual monitoring / inspection requirements (e.g. daily observations of adjacent streams etc).

The CP would be required to maintain records of any issues, as detailed above, which would be encountered during the programme of works. Records should detail the time and date, nature of any incident, or detail of potentially contaminated soils encountered, location of this material, where possible extent and the actions undertaken to ensure this was appropriately classified. These would be required to be submitted to the Client and Geo^2 to ensure that an appropriate validation report could be complied to enable the planning conditions to be lifted. Records should be available on-site at all times for inspection as required.

The CP is also responsible for contacting Geo^2 in the event of encountering situations requiring environmental management.

Unexpected Contamination

Unexpected contamination may comprise impacted sub-soil, or structures such as underground storage tanks (UST), subsurface features, pipes, sumps or chambers with associated contamination observed beneath the site during the redevelopment works.

Where apparently contaminated sub-soils (or waters) are encountered, the permanent nominated CP should be contacted for assessment.

As a guide, apparently contaminated sub-soils or waters may comprise visually impacted and strongly odorous material. Encountered odours could be petrol, diesel, solvents or oil-like. Should materials of this description, or other description following a site-specific briefing, be encountered and this material be considered to be unidentified, Geo^2 should be contacted. In such circumstances, the affected area should be isolated and work in the area stopped, pending the Geo^2 consultant visit to sample or assess the soil. The area should remain isolated whilst the samples are analysed at an appropriate laboratory, if considered necessary.

Additionally, the Local Planning Authority (LPA) may need to be informed in writing upon the contractor encountering unexpected contamination. If necessary, following consultation with Geo^2, works are to stop in the area, with the exception of investigative works, until an updated Remediation Strategy can be updated, reissued and agreed by the LPA.

Based on the results, and in comparison with adopted screening criteria, Geo^2 will determine whether the identified materials present a significant environmental risk. Should the soil need to be removed in line with the proposed development programme, or as a result of a risk-based analysis, validation samples will be collected from the edge and base, if appropriate, of the excavation by a Geo^2 site engineer.

All waste should be appropriately isolated and stored to prevent spreading contamination across the site. Waste should then be classified and disposed of in accordance with the applicable waste management regulations under full duty of care documentation. Potential exists for hazardous waste to be present, and this should also be dealt with in accordance with the relevant legislation.

Should unidentified underground features be encountered, such as tanks or fuel delivery lines, that require removal in line with the proposed development, they should be appropriately decommissioned. Decommissioning should comprise pumping and removal of wastewater and any sediment in accordance with the applicable waste management regulations under full duty of care documentation. Water and sediment waste may need to be sampled and analysed to determine whether it needs to be disposed of as hazardous.

Should any structure encountered remain in situ, Geo^2 should be contacted to ensure that any potential impact that may be associated with this feature can be appropriately addressed, if necessary. This process may entail additional sampling works, which would require the identified area to be isolated until Geo^2 site staff are able to attend site.

Following removal of any such structure, the CP should inspect the excavations for apparently impacted materials. Should apparently contaminated material be identified beneath or adjacent to the structure, Geo^2 should be contacted to undertake further sampling and analysis. All results will be included in the Validation Report.

The relevant planning authorities will be notified should any unexpected contamination be identified and any remedial actions that are required as a result of encountered materials will be agreed prior to the work being carried out.

Sampling Procedure

All samples obtained by Geo^2 will be stored in appropriate vessels for the required analysis and stored in controlled conditions prior to submission to an appropriately accredited laboratory. All samples will be obtained in line with standard industry guidance.

Geo^2 Contact

A Geo^2 contact will be prescribed to the site upon implementation of the watching brief.