

VALIDATION REPORT

Site Address:	Former Garages at Bury Road, Wood Green, London N22 6HS
Report Date:	March 2023
Project No.:	18109
Prepared for:	NFC Homes Ltd
Planning Application	Haringey Council - HGY/2021/0059



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LIST OF ABBREVIATIONS

BGS	British Geological Society
CIRIA	Construction Industry Research and Information Association
EA	Environment Agency
GL	Ground Level
GW	Groundwater
HESI	Herts & Essex Site Investigations
LAPPC	Local Authority Pollution Prevention and Control
NOS	Not Otherwise Specified (waste material)
NHBC	National House-Building Council
OS	Ordnance Survey
PAH	Poly Aromatic Hydrocarbons
SPZ	Source Protection Zone
TPH	Total Petroleum Hydrocarbons
UFST	Underground Fuel Storage Tanks

DOCUMENT INFORMATION AND CONTROL SHEET

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Qualifications

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- ONC - Civil Engineering.
- HNC – Civil Engineering.
- P.G. Certificate – Geotechnical Engineering, (Inc. Environmental Engineering)
- P.G. Diploma – Geotechnical Engineering, (Inc. Environmental Engineering)
- Master of Science, (Geotechnical Engineering), (Inc. Environmental Engineering)
- SNIFFER modelling course.
- CONSIM Groundwater Assessment Course.
- (30 Years in Geotechnical and Environmental Engineering)
- Asbestos Awareness Course.
- Non-Licensed Work with Asbestos Including>NNLW.
- Site Supervisors Safety Training Scheme, (SSSTS).
- First Aid Course in Construction – 3 Day Course – 3 years.
- CSCS Labourer Card.

Document Status and Approval Schedule

<i>Issue No</i>	<i>Status</i>	<i>Date</i>	<i>Prepared by: Rebecca Chamberlain Signature / Date</i>	<i>Technical review by: Chris Gray Signature / Date</i>
1	Final	March 2023		

PHASE 4 – VALIDATION REPORT

1 Context and Objectives of this report

1.1 Introduction

At the request of NFC Homes Ltd, Herts & Essex Site Investigations have been employed to undertake validation works within the site to provide evidence and documentation to support the removal of any risk from the site development as a result of site investigation works undertaken and risk assessments completed as a result of these investigations. This has been completed based on the proposed land use of the site is residential land with areas of soft landscaping and private gardens.

2 Report Objectives

The main objective of the remediation works, and validation works undertaken are as follows:

- To anticipate regulatory action and provide necessary data to remove risk.
- To assess the site for Part IIA.
- To ensure development is 'suitable for use' status, (status being residential land use).
- To assess the site in other regulatory contexts.
- To inform acquisition, transfer, or sale plans.
- To support funding decisions.
- For valuation purposes.
- For insurance purposes

2.1 Limitations

The opinions expressed within this document and the comments and recommendations given, are based on the information gained, to date within a desktop study previously undertaken on the site. The interpretation of the data has been made by Herts & Essex Site Investigations.

Within any site investigation, materials sampled represent only a small proportion of the materials present on site. It is therefore possible that other conditions prevailing at the site which have not been revealed within the scope of this report, have not been considered. Where suspect materials are encountered during any further or future works within the site, additional specialist advice should be sought to assess whether any new information will materially affect the recommendations given within any physical ground investigation.

2.2 Planning Condition

From a review of the Haringey Council planning website we can confirm that the following applications is in place :-

Planning Application Number : HGY/2021/0059

Proposal : Demolition of existing garages adjacent to 67 Bury Road. Erection of one x three-bed five person, two-storey property with associated front and rear gardens, refuse/recycling and cycle storage.

Condition 9

Before development commences other than for investigative work:

- a. Using the information already submitted in Desk Study/Preliminary Risk Assessment Report with reference P2855J2051/TE by Jomas Associates, an intrusive site investigation shall be conducted for the site using information obtained from the desktop study and Conceptual Model. The site investigation must be comprehensive enough to enable; a risk assessment to be undertaken, refinement of the Conceptual Model, and the development of a Method Statement detailing the remediation requirements.
- b. The risk assessment and refined Conceptual Model shall be submitted, along with the site investigation report, to the Local Planning Authority which shall be submitted to, and approved in writing by, the Local Planning Authority prior to that remediation being carried out on site
- c. Where remediation of contamination on the site is required, completion of the remediation detailed in the method statement shall be carried out and;
- d. A report that provides verification that the required works have been carried out, shall be submitted to, and approved in writing by the Local Planning Authority before the development is occupied. Reason: To ensure the development can be implemented and occupied with adequate regard for environmental and public safety.

Condition 10.

If, during development, contamination not previously identified is found to be present at the site then no further development (unless otherwise agreed in writing with the Local Planning Authority) shall be carried out until a remediation strategy detailing how this contamination will be dealt with has been submitted to and approved in writing by the Local Planning Authority. The remediation strategy shall be implemented as approved.

Reasons: To ensure that the development is not put at unacceptable risk from, or adversely affected by, unacceptable levels water pollution from previously unidentified contamination sources at the development site in line with paragraph 109 of the National Planning Policy Framework.

3 *Site Location and National Grid Reference*

The site is located within a residential area of Haringey, North London, the details of which are summarised in Table 1 with the location plan of the site shown in Appendix 2, Sheet 1.

Table 1 **Site Detail**

Site Address:	Former Garages at Bury Road, Wood Green, London N22 6HS
Site assessed under	Site Owners Request - Aid as part of planning application number : HGY/2021/0059
Current use of land:	Former private vehicle garages
Previous use of site, (if known)	Former private vehicle garages
Grid Reference	NGR 531440,189887
	0.0165 Hectares
Local Authority	Haringey Council
Gradient of the site	The site forms a level area of land.
Proximity of Controlled Waters, (if known)	None.

4 **Review of Previous Reports or Documents Relating to the Site**

4.1 **Reports**

The extent of former report which has been undertaken relating to the site is confirmed as follows :-

Table 2 **Report Details**

Report	Developed by with Reference	Date	Submitted to Local Authority	Approved by Local Authority
Planning Application Number : Haringey Council - HGY/2021/0059				
Desk Top Study	Jomas Engineering	November 2020	Yes	Yes
Environmental Report	Jomas Engineering	May 2021	Yes	Yes
Remediation Report	Go Contaminated Land Solutions	December 2021	Yes	Yes

In order to gain a full understanding of the site and site history, a review of these documents should be made.

4.2 **Review of DTS**

4.2.1 **Site Description**

The site is occupied by 7No lock-up style garages, 2No of which are fully boarded up. Areas of hardstanding are recorded to the front of the garages. Tyres and wood have been stored on the roof of some units.

The site is entirely occupied by the footprint of the garage structures and concrete hardstanding to the front.

No significant vegetation observed on site. Trees up to 5m in height observed in close proximity to the NE of site.

4.2.2 *Brief Site History*

A review of earliest available (1864) historical maps indicates that the site was undeveloped agricultural land at that time. By the 1896 map edition, the site is occupied by residential style properties. The 1952 map edition indicates that the site had been cleared and is devoid of structures. No further changes are shown until the 1972-82 mapping period, by which time a row of seven structures is shown on the Bury Road site, resembling the current garages. No further significant changes are shown on site up to the most recent 2020 map edition.

The surrounding areas have been largely residential in use throughout the mapped history, with unidentified commercial style structures shown opposite the site since 1935. Other features of note include garages within 150m of the site, a coal yard and disused railway 100m north-east of the site.

4.2.3 *Desk Top Study Findings*

- The proposed development is understood to comprise demolition of the garages and construction of 2-storey residential properties. No proposed development plans have been provided at the time of writing.
- The British Geological Survey indicates that the site is directly underlain by solid deposits of the London Clay Formation, identified as Unproductive Strata.
- A review of the Enviro+Geosight Report indicates that the site is within a Source Protection Zone 1.
- The nearest active potable abstraction is reported 841m south-west for potable supply.
- There are no Environment Agency Zone 2 or 3 floodplains reported within 250m of the site.

4.2.4 *Desk Top Study Conclusions*

Taken from Jomas Engineering Ltd report reference - P2855J2051c/TE

Source(s)	Pathway(s)	Receptor(s)
• Potential for contaminated ground associated with previous site use – on site (S1) ◦ Domestic garage use • Potential for Made Ground associated with previous development operations – on site (S2) • Current and previous industrial use – off site (S3) ◦ Garage 150m SW ◦ Unidentified commercial structures – possible shopping centre west of Bury Road ◦ Coal yard/former railway 100m north • Potential asbestos containing materials within existing buildings – on site (S4)	• Ingestion and dermal contact with contaminated soil (P1) • Inhalation or contact with potentially contaminated dust and vapours (P2) • Leaching through permeable soils, migration within the vadose zone (i.e., unsaturated soil above the water table) and/or lateral migration within surface water, as a result of cracked hardstanding or via service pipe/corridors and surface water runoff. (P3) • Horizontal and vertical migration of contaminants within groundwater (P4) • Accumulation and Migration of Soil Gases (P5) • Permeation of water pipes and attack on concrete foundations by aggressive soil conditions (P6)	• Construction workers (R1) • Maintenance workers (R2) • Neighbouring site users (R3) • Future site users (R4) • Building foundations and on site buried services (water mains, electricity and sewer) (R5)

Taken from Jomas Engineering Ltd report reference - P2855J2051c/TE

Sources	Pathways (P)	Receptors	Consequence of Impact	Probability of Impact	Risk Estimation	Hazard Assessment
• Potential for contaminated ground associated with previous site use – on site (S1) ◦ Domestic garage use • Potential for Made Ground associated with previous development operations – on site (S2) • Current and previous industrial use – off site (S3) ◦ Garage 150m SW ◦ Unidentified commercial structures – possible shopping centre west of Bury Road ◦ Coal yard/former railway 100m north • Potential asbestos containing materials within existing buildings – on site (S4)	• Ingestion and dermal contact with contaminated soil (P1) • Inhalation or contact with potentially contaminated dust and vapours (P2) • Permeation of water pipes and attack on concrete foundations by aggressive soil conditions (P6)	• Construction workers (R1) • Maintenance workers (R2) • Neighbouring site users (R3) • Future site users (R4) • Building foundations and on site buried services (water mains, electricity and sewer) (R5)	Medium	Low	Moderate	GI – Ground Investigation
	• Accumulation and migration of soil gases (P5)		Severe for Asbestos	Low	Moderate for Asbestos	
			Severe	Unlikely	Low	
		• Leaching through permeable soils, migration within the vadose zone (i.e., unsaturated soil above the water table) and/or lateral migration within surface water, as a result of cracked hardstanding or via service pipe/corridors and surface water runoff. (P3) • Horizontal and vertical migration of contaminants within groundwater (P4)	• Neighbouring site users (R3) • Building foundations and on site buried services (water mains, electricity and sewer) (R5) • Controlled waters – culverted Moselle Brook R6)	Medium	Unlikely	

4.3 *Review of Environmental Report*

4.3.1 *Site Investigation Works Completed*

The focus of the investigation was to confirm risks from the site which are detailed as follows: -

- Assessment of soils across the site area
- Targeted Sampling from history as domestic garage.
- Spatial sampling around the remainder of the site to provide a general assessment.

Initial Investigation – April 2021

The ground investigation was undertaken on 13th April 2021, and consisted of the following:

- 2No windowless sampling boreholes, drilled up to 5.45m below ground level (bgl), with associated in situ testing and sampling;
- Falling head permeability tests conducted within one borehole,
- Laboratory analysis for chemical and geotechnical purpose.

4.3.2 *Historic Investigation*

Prior to our involvement in the development of the site, no historic investigations are known to us.

4.3.3 *Description of Site Works and on/off Site Observations*

In order to provide an easy understanding of the proposed development, we can confirm that the site will assess as a single section of land with the same proposed residential land use with potential for home grown produce.

The site has been reviewed and we can confirm that the geology within the site is as follows: -

Table 3 *Geological Profile*

<i>Stratum</i>	<i>Description</i>	<i>Depth, Range</i>	<i>Thickness, Range</i>
MADE GROUND	Concrete	0.10m	0.10m
	Brown gravelly clay. Gravel consists of brick.	1.00-1.10m	0.90-1.00m
LONDON CLAY	Blue Clay	1.80m	0.70-0.80m
	Brown Clay	>5.45m	>3.65m

Ground Water : No groundwater has been identified within the scope of the site works.

4.3.4 *Human Health Source Conclusions*

Risk based on assessments of the site confirm that risk is in place as follows: -

Table 4 **Soil Contamination Risks**

<i>Risk Factor</i>	<i>Risks in place</i>	<i>Remediation</i>
Targeted Risks	None	None
Spatial Risks	Lead	Remediation action required. Assume as Widespread

4.3.5 **Ground and Surface Water Source**

A review of the Enviro+Geosight Report indicated that the site was within a Source Protection Zone 1.

The nearest active potable abstraction was reported 841m south-west for potable supply.

There were no Environment Agency Zone 2 or 3 floodplains reported within 250m of the site. Although the site was located with a Source Protection Zone 1, given that the site was reported to be directly underlain by unproductive deposits of the London Clay Formation, the risks to controlled waters were considered to be low.

Review of mapping suggested that the SPZ1 designation related to abstraction of groundwater at depth, below the London Clay Formation.

With respect to the Moselle Brook, this is a culverted river and was therefore considered unlikely to be in hydraulic conductivity with any groundwater underlying the site.

Considering the above, we can confirm that the likely current and historical impact of pollution on a groundwater system underlying the site will be minimal due to the presents of London clay and the absence of a groundwater system or controlled surface water features, and the EA consider the water environment at this site is of low environmental sensitivity.

4.3.6 **Land Gas Assessments**

No viable source of ground gas was identified by the Desk Study, and no evidence of extensive Made Ground or putrescible materials was reported during the investigation. On this basis, no formal ground gas protection measures are considered necessary.

4.3.7 **Vapour Risks**

Considering the potential for vapour risk to be in place from various source as noted below, the following risk are in place.

Table 5 **Vapour Risk Assessment - Response Zone**

<i>Feature</i>	<i>Targeted Response Zone</i>	<i>Location to Target</i>	<i>Vapour risk</i>
Domestic Garage	Made Ground	Site wide	TPH's, Naphthalene, PCB's, BTEX. MTBE, VOC's

Chemical testing has been completed and no elevated level of these vaporous contamination have been recorded in place also when logging and sub-sampling a visual and olfactoral assessment of the soils have been completed, and no contamination that promotes a vapour risk has been encountered within the assessment completed to date.

4.3.8 **Water Main Pipework**

New water main pipework can be laid in a conventional pipework system.

Any water main pipework should be laid in clean corridors in order to prevent future risk to workforce used in the maintenance and repair of any water main system.

4.3.9 **Building Risks**

Based on the information shown, we can confirm that the risk from explosive land gases is low based on the information identified. The justification for low ground gas risk has been identified and reviewed in Section 10.6.

Considering the risk from Sulphates to concrete we can confirm that the chemical testing has been completed.

Based on the information gained, we can confirm that a classification of DS1-AC1s should be adopted for the site. This would suggest that a conventional cement mix can be used for the development.

4.4 **General Source Risk Conclusions**

Following the ground investigation, the following is noted:

- It is understood that the proposed development will comprise redevelopment of the site for residential use. It is currently unknown whether the development will feature private soft landscaping.
- Following generic risk assessments, elevated concentrations of lead were detected in soils in excess of generic assessment criteria for the protection of human health within a "residential with plant uptake" end-use scenario.
- It is noted that the lead concentrations do not exceed generic assessment criteria for "residential without plant uptake" end use, and therefore the conclusions of this report may be revised on receipt of final development plans, if private gardens are not to be included within the proposed development.
- No asbestos fibres were detected in the samples analysed in the laboratory.
- Given the relatively small size of the site, it is likely that the majority of the plot will be covered by building footprint or hard standing post-development. Where this is the case, no formal remedial measures are considered necessary in terms of human health, as the building and hard surfacing are expected to provide a barrier to potential receptors. In areas of soft landscaping, it is recommended that made ground soils should be isolated beneath a cover layer comprising 450mm of topsoil and subsoil, placed over a geotextile membrane.

- A pollutant linkage to controlled waters is not considered to exist.
- No viable source of ground gas was identified by the Desk Study, and no evidence of extensive Made Ground or putrescible materials was reported during the investigation. On this basis, no formal ground gas protection measures are considered necessary.
- As with any ground investigation, the presence of further hotspots between sampling points cannot be ruled out. Should any contamination be encountered, a suitably qualified environmental consultant should be informed immediately, so that adequate measures may be recommended.
- A remedial strategy will be required for the proposed development. The above conclusions are made subject to approval by the statutory regulatory bodies.

4.5 Collection of Additional Data

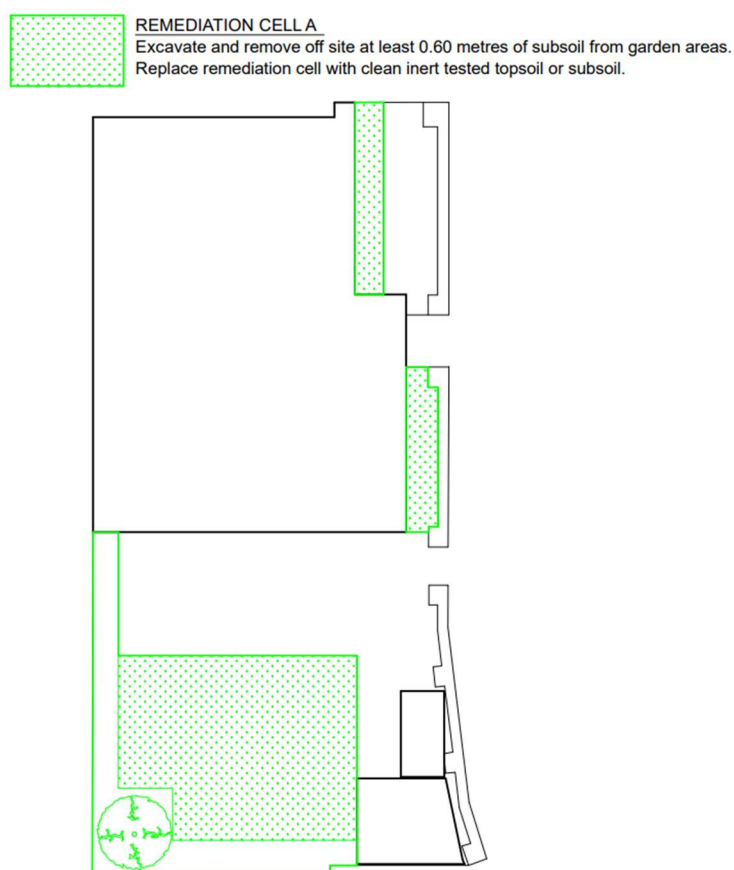
No additional works are required, the site investigation works within the site are sufficient to classify the soil and groundwater risk in place within the site and enable a remediation plan to be written.

5 Review of Remediation Strategy

5.1 Remediation Proposals

This section provides summary of the remediation proposals set out in the Remediation Strategy Report. Remediation will be required where contamination has been identified in place, as detailed in Figure 1.

Figure 1 Remediation Plan



The strategy adopted for the remediation of the site are defined as follows :-

5.2 Soft Landscaping Areas

- All spoil arisings should be removed from the site and taken to an appropriate landfill facility.
- All soft landscaping will undergo a simple cover system comprising a layer of clean topsoil which will provide a suitable growth medium for plants and encapsulate any soils at depth.
- For private gardens, a barrier should be placed between the site users and any made ground in the form of 600mm of clean soil
- Where the depth of made ground is less than the specified depth it is not necessary to remove the underlying system.
- Clean soils from invasive plants and complying with the relevant criteria shall be used to replace excavated material and bring the soft landscaping to the finished site level.

5.3 Semi Permanent Landscaping, (Patio Areas)

As the site is not underlain by an aquifer underlying the made ground can remain in place.

5.4 Water Main Pipework

Appropriate water supply pipe should be installed in accordance with the requirements of the water supplier. Unless confirmation is received from the water supplier that a standard pipe is suitable, protecta-line barrier pipe should be used.

5.5 Below Buildings

Vapour Risk

No vaporous contamination has been recorded within the site area. No further action required.

Land Gas

No land gas risks have been recorded within or surrounding the site area. No further action required.

5.6 Permanent Hard Landscaping, (Main Driveway)

Permanent hard landscaping forms the main driveway and parking area which can not be removed by the residents.

The hard standing will cap off any contamination and removed the pathway, no additional works are required.

5.7 Workforce

- All Site Staff and visitors to the site should be made aware of the contamination risk within the site area from Lead within the upper made ground.
- Appropriate PPE should be worn at all times.
- Washing facilities should be made available for washing hands prior to consumption of any food or water within the site area.

5.8 Groundwater Risk

No groundwater risks are recorded within the site.

6 Validation

6.1 Amendments to the Proposed Remediation Plan

Within the proposed plan for the site, it is confirmed that soft landscaped garden area is proposed within the site area. Some small areas of shrub planting are also in place to the front of the dwelling, which are to be remediated.

6.2 Validation Works Completed

Via the remediation report Go Contaminated Land Solutions Ltd have informed the client of the validation requirements for the validation works. HESI have not inspected the site not undertaken any physical verification ourselves and have formulated all information which has been provided by the client solely. The reliance for supply and verification of the information contained within this report is the sole responsibility of NFC Homes LTD.

6.2.1 Soft Landscaping Area– REMEDIATION CELL A

From the information provided by NFC Homes Ltd, we can confirm that the site was excavated to a depth of 0.60 metres within the proposed private garden areas and also landscaping area which exposed a relatively clean orange brown CLAY soil.

All remediation cells have been removed up to the boundary line of either hard landscaping which has been developed within the site as per the attached plans, or up to the site boundary of the site which confirms up to the boundary of the site risk is removed.

Within the private garden areas, a demarcation barrier has been laid across the cell to warn against future excavation as a deter to dig barrier.

Imported soils have been brought onto the site and laid and developed in the remediation cell to remove risk. Approximately 40 tonnes of topsoil have been brought onto the site. This would equate to a depth of approximately 8.5m x 8.5m at a depth of 0.60 metres in depth.

Topsoil testing has been provided by the client which confirms that the topsoil meets a human health criteria. This test report was dated November 2022.

No verification testing outside the topsoil analysis has been completed.

6.2.2 Site Reconnaissance – Photos

Print 1



Print 2



Print 3



Print 4



Print 5



Print 6



Print 7



Print 8



Print 9



Print 10



6.3 Validation Testing

With the exception of the topsoil test which came with the topsoil, no validation testing has been completed.

The full depth of proposed capping of 0.60m+ has been installed within the site area and natural clean clay was recorded as the base of the remediation cells as shown with the above photos, therefore no validation testing was required.

6.4 Excavated Soils

Any excavated soils were disposed off-site to a suitable landfill via an external haulier. Muck Away certificates have been included within this report.

6.5 Topsoil Importing

Topsoil has been brought onto the site and placed in areas of soft landscaping.

By examination of the results obtained from the analytical chemist with the criteria set out in the remediation report, it can be confirmed that the topsoil samples fell below the allowable level for residential or sensitive land uses and as such, the material is suitable for use in the site.

6.6 Semi Permanent Landscaping, (Patio Areas)

Where these are in place, they have been reduced as part of the remediation cell and have been backfilled with hardcore as a base of the patios and pathways.

6.7 Water Main Pipework

Within the site protective water main pipework has been installed.

Print 11



Print 12



6.8 Below Buildings

6.8.1 Vapour Risk

No risk in place

6.8.2 Land Gas

No risk in place

6.9 Permanent Hard Landscaping, (Main Driveway)

These will form permanent features that cannot be removed by the site occupants. Although the majority of these areas were excavated and back filled with hardcore, within the front of the site and along the eastern boundary low level of lead may remain in place. The hardcover will remove the pathway for these to impact on any receptors.

6.10 Workforce

Through out the development a site induction was completed for anyone coming onto the site and where required the visitors and workers were informed of the potential risks from the soil in place within the site area.

Appropriate PPE was worn by all personnel on site with hand washing facilities were made available.

6.11 **Groundwater Risk**

Groundwater risk has been identified as low based on the assessments completed.

7 **Conclusions**

This report forms a validation report for the completion of the site area and includes validation that the soft landscaped communal space and private gardens have undergone specific remediation to remove the risk from the identified Lead contamination.

The remediation formed the excavation of the made ground within the site area as part of the site set up by a minimum of 0.60m which exposed an orange brown clay soil.

The excavated soils were removal from the site to a landfill through a licensed haulier. Photos of the remediation cells have then been recovered and are recorded within this report to provide lines of evidence that all contamination has been removed from the soft landscaped areas of the site. Clean topsoil has been imported to the site area and therefore no further risk to human health is in place.

It is not proposed to undertake any long term monitoring or maintenance programmes within the site.

CERTIFICATE OF COMPLETION

Development: Former Garages at Bury Road, Wood Green, London N22 6HS

Planning Application Ref:: HGY/2021/0059

Undertaken Between the Dates of: November 2020 and March 2023

PHASE 1 - Desk Top Study

Confirmation that an acceptable Phase I Assessment has been undertaken for the above development, detailed in the Phase I report(s):

Title:	Ref:	Author:	Date:
Desk Top Study	P2855J2051c/TE	Jomas	November 2020

PHASE 2 - Intrusive Investigation

Confirmation that an acceptable Phase II Assessment has been undertaken for the above development, detailed in the Phase II report(s):

Title:	Ref:	Author:	Date:
Environmental Report	P2855J2051c	Jomas - Tom Elbourne	May 2021

PHASE 3 - Remediation Proposals

Confirmation that acceptable remediation measures to afford protection from identified risks have been proposed for the above development, detailed in the report(s):

Title:	Ref:	Author:	Date:
Remediation Report	GO Contaminated Land Solutions	Unknwon	13 December 2021

PHASE 4 - Implementation of Remediation

Confirmation that proposed remedial measures were satisfactorily implemented, as per the agreed report(s), & detailed in the Validation Documentation:

Title:	Ref:	Author:	Date:
Validation Report	CSG / 18109	HESI – CS Gray	March 2023

IMPORTED TOPSOIL CLARIFICATION

Confirmation that Topsoil has been imported into the site.

TESTING COMPLETED	Ref:	Author:	Date:
Validation Report	CSG / 18109	HESI – CS Gray	March 2023

DECLARATION

SIGNED

CHRIS GRAY, M.Sc.



Date:
March 2023

IS THE SITE FIT FOR PURPOSE ?

YES.

APPENDIX A

CONCEPTUAL MODEL

Former Garages at Bury Road, Wood Green, London N22 6HS

Site Conceptual Model - Proposed Site Plan

Potential Pathways

Human Health

- ① Direct contact with contaminants in soil/dust or water
- ② Inhalation of contaminants through soil/dust/particles
- ③ Dermal Contact
- ④ Ingestion of home grown produce
- ⑤ Ingestion of contaminated water through water main pipework
- ⑥ Inhalation of Vapours From Soils
- ⑦ Inhalation of Vapours from Groundwater
- ⑧ Migration to off site Adjoining Land Owners

Flora

- ⑨ Plant uptake & direct contact with soil

Controlled Surface Water, Ground Water & Abstraction Well

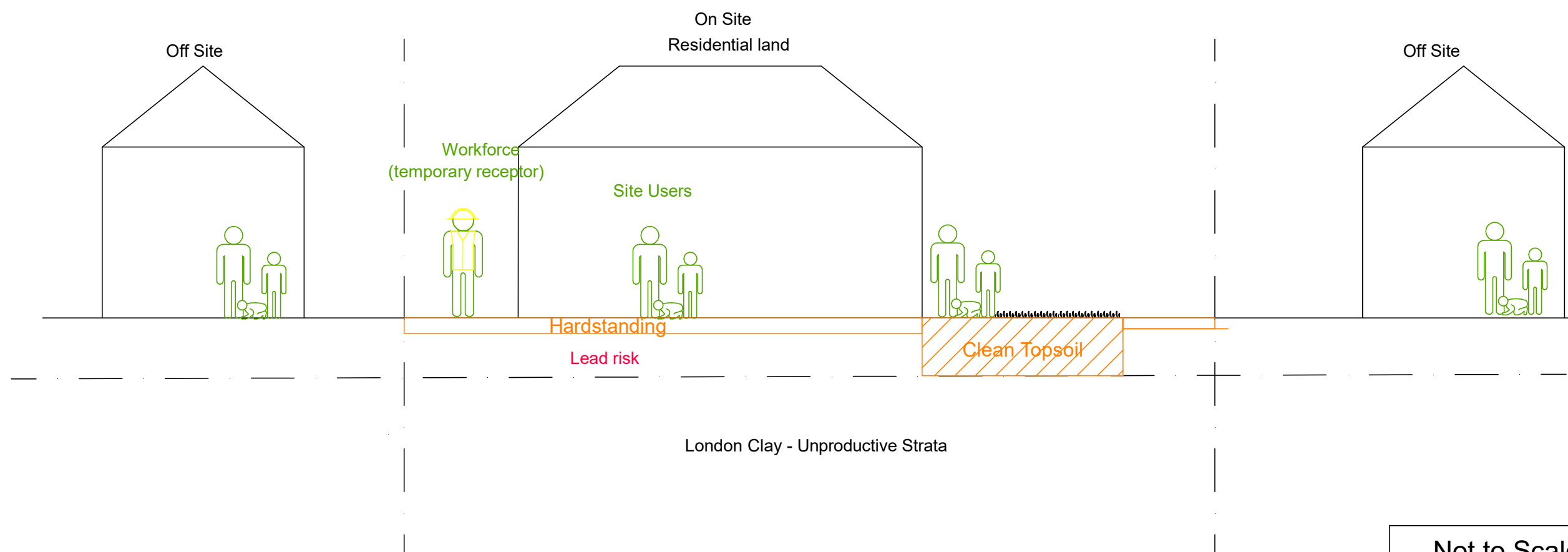
- ⑩ Leaching, lateral migration of shallow groundwater to a target receptor

Off Site Sources

- (A) Migration of contamination to the site area
- (B) Migration of land gases/ vapours to the site area
- (C) Migration of contaminated groundwater to the site area

Key

- Purple** =Potential **pathways** applicable to site
- Green** =Potential **receptors** applicable to site
- Red** =Potential **sources** applicable to site
- Blue** =Potential pathway/source/receptor
- Orange** = **Remedial measure** put in place to remove either pathway/source/receptor



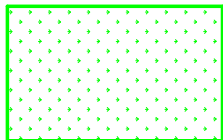
Not to Scale
Sketch No. : VAL / 18109 / A / 01

APPENDIX ONE

VALIDATION PLAN

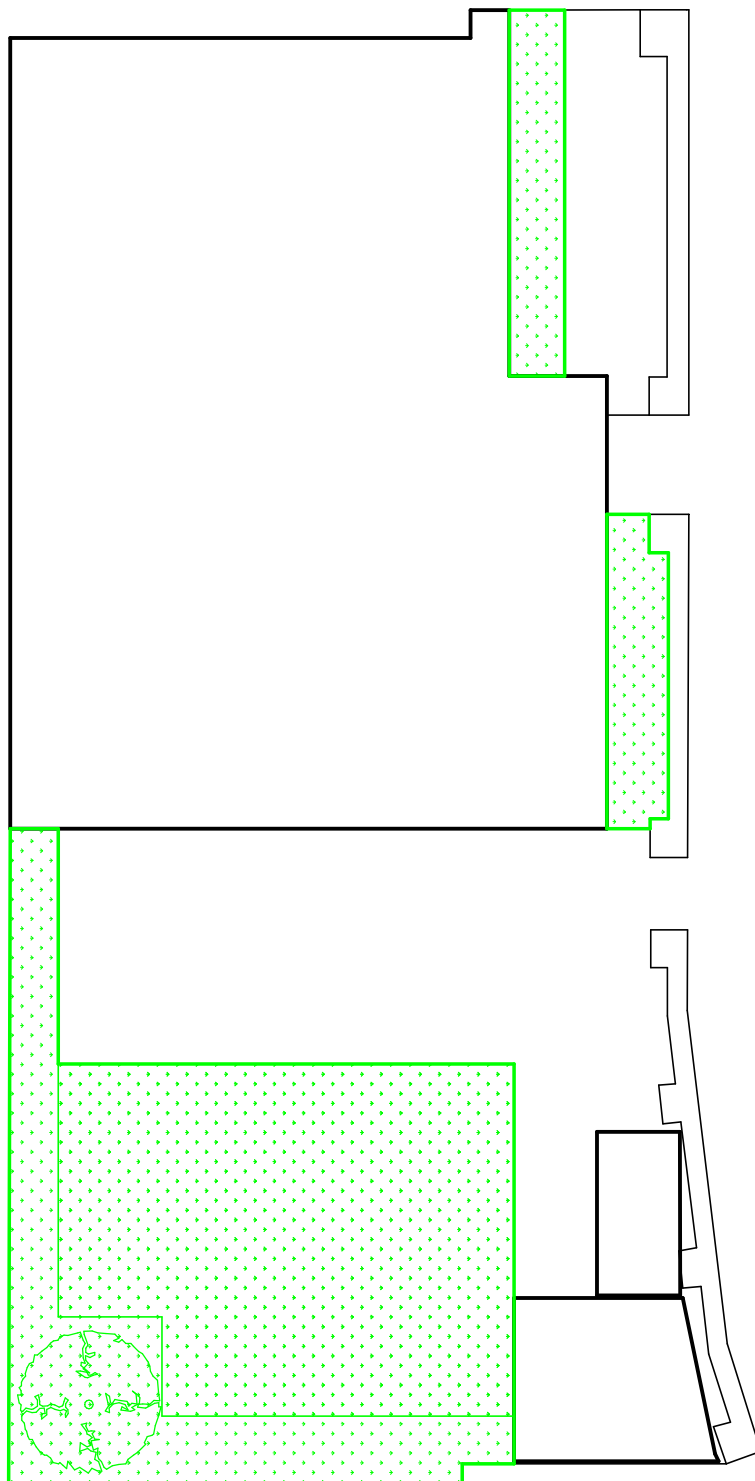
Former Garages at Bury Road, Wood Green, London N22 6HS

Site Plan



REMEDIATION CELL A

Excavate and removal of at least 0.60 metres of subsoil from garden areas.
Replaced remediation cell with clean inert tested topsoil or subsoil.



APPENDIX TWO

MUCK AWAY TICKETS

REIS GRAB HIRE LTD

137B Roundwood Road, London NW10 9UL

Telephone 020 8459 1475, Mobile 07951 179590

Registered Waste Carrier, CEADWAC Carrier No. CBDU94091

LORRY INFORMATION

CONTRACT NO. PO-010489

09859

Registration:

GF144YR

☒ Grab ☐ Tipper ☐ Bin

CUSTOMER DETAILS (PRODUCER)

ALL HIRES ARE SUBJECT TO CPA TERMS & CONDITIONS

On behalf of:

NFC LTD

Date: 19.01.2023

Site address:

BURRY ROAD N22

Time on site:

08:00

Time off site:

08:20

☐ Waiting time ☐ Cancelled job

DESCRIPTION OF WASTE

☒ Soil & Stones EWC 17.05.04

☐ Clean Hardcore EWC 17.01.07

☐ Tarmac/Bitumen EWC 17.03.02

☐ Mixed Construction Waste EWC 17.09.04

☐ Other (Please specify) EWC

☐ Materials Delivery SIC code

Quantity ☒ 8 Wheel load ☐ WeightTonnes Waste is ☒ Loose ☐ Other

ROLONOF BINS

CASH RECEIVED

☐ 20 yd ☐ 40 yd ☐ Del ☐ Exc ☐ Coll

Amount:

I certify that the above particulars are true and relate to the waste being conveyed or disposed of, or materials being delivered, in pursuance of the sale. I am aware of and accept the conditions detailed on this note. By signing below I confirm that I have fulfilled my duty to apply the waste hierarchy as required by Regulation 12 of the Waste (England and Wales) Regulations 2011.

Customer name:

NICK

Driver name:

SEB

Customer signature:

[Signature]

Driver signature:

[Signature]

DISPOSAL / TRANSFER POINT

☐ Haulage only

Site name:

P.M.

Ticket No:

Site address:

☐ Ticket Attached

☐ Waste management license no:

☐ Exempt from license

Disposer signature:

Date:

1. Accounts 2. Customer 3. Keep In Book 4. Tip

REIS GRAB HIRE LTD

137B Roundwood Road, London NW10 9UL

Telephone 020 8459 1475, Mobile 07951 179590

Registered Waste Carrier, CEADWAC Carrier No. CBDU94091

LORRY INFORMATION

CONTRACT NO.

PO-10489

10630

Registration:

G766 PFD

☐ Grab ☐ Tipper ☐ Bin

CUSTOMER DETAILS (PRODUCER)

ALL HIRES ARE SUBJECT TO CPA TERMS & CONDITIONS

On behalf of:

NFC HOMES

Date:

17.01.23

Site address:

65 BURY RD. NOEL PARK N22 6HS

Time on site:

Time off site:

☐ Waiting time ☐ Cancelled job

DESCRIPTION OF WASTE

☒ Soil & Stones EWC 17.05.04

☐ Clean Hardcore EWC 17.01.07

☐ Tarmac/Bitumen EWC 17.03.02

☐ Mixed Construction Waste EWC 17.09.04

☐ Other (Please specify) EWC

☐ Materials Delivery SIC code

Quantity ☒ Wheel load ☐ WeightTonnes Waste is ☒ Loose ☐ Other

ROLONOF BINS

CASH RECEIVED

☐ 20 yd ☐ 40 yd ☐ Del ☒ Exc ☐ Coll

Amount:

I certify that the above particulars are true and relate to the waste being conveyed or disposed of, or materials being delivered, in pursuance of the sale. I am aware of and accept the conditions detailed on this note. By signing below I confirm that I have fulfilled my duty to apply the waste hierarchy as required by Regulation 12 of the Waste (England and Wales) Regulations 2011.

Customer name:

Driver name: MARIUS

Customer signature:

Driver signature:

[Signature]

DISPOSAL / TRANSFER POINT

☐ Haulage only

Site name:

PREMIER

Ticket No:

Site address:

☐ Ticket Attached

☐ Waste management license no:

☐ Exempt from license

Disposer signature:

[Signature]

Date:

1. Accounts 2. Customer 3. Keep In Book 4. Tip

REIS GRAB HIRE LTD

137B Roundwood Road, London NW10 9UL

Telephone 020 8459 1475, Mobile 07951 179590

Registered Waste Carrier, CEADWAC Carrier No. CBDU94091

09959

LORRY INFORMATION

CONTRACT NO.

PD-010316

Registration:

KEGSTER

☒ Grab ☐ Tipper ☐ Bin

CUSTOMER DETAILS (PRODUCER)

ALL HIRES ARE SUBJECT TO CPA TERMS & CONDITIONS

On behalf of:

NFC LTD

Date:

16/12/22

Site address:

65 BURY RD ; H22 6AS

Time on site:

Time off site:

☐ Waiting time ☐ Cancelled job

DESCRIPTION OF WASTE

- ☒ Soil & Stones EWC 17.05.04 ☐ Clean Hardcore EWC 17.01.07
☐ Tarmac/Bitumen EWC 17.03.02 ☐ Mixed Construction Waste EWC 17.09.04
☐ Other (Please specify) EWC
☐ Materials Delivery SIC code

Quantity ☒ Wheel load ☐ WeightTonnes Waste is ☒ Loose ☐ Other

ROLONOF BINS

CASH RECEIVED

☐ 20 yd ☐ 40 yd ☐ Del ☐ Exc ☐ Coll

Amount:

I certify that the above particulars are true and relate to the waste being conveyed or disposed of, or materials being delivered, in pursuance of the sale. I am aware of and accept the conditions detailed on this note. By signing below I confirm that I have fulfilled my duty to apply the waste hierarchy as required by Regulation 12 of the Waste (England and Wales) Regulations 2011.

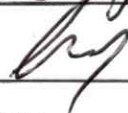
Customer name:

Geoff

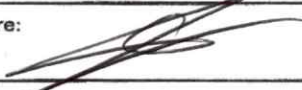
Driver name:

Chris

Customer signature:



Driver signature:



DISPOSAL / TRANSFER POINT

☐ Haulage only

Site name:

Ticket No:

Site address:

☐ Ticket Attached

☐ Waste management license no:

☐ Exempt from license

Disposer signature:

Date:

1. Accounts 2. Customer 3. Keep In Book 4. Tip

APPENDIX THREE

TOPSOIL TICKETS

REIS GRAB HIRE LTD

137B Roundwood Road, London NW10 9UL

Telephone 020 8459 1475, Mobile 07951 179590

Registered Waste Carrier, CEADWAC Carrier No. CBDU94091

LORRY INFORMATION

CONTRACT NO. 010519

10103

Registration:

DL66 BOH

☒ Grab ☐ Tipper ☐ Bin

CUSTOMER DETAILS (PRODUCER)

ALL HIRES ARE SUBJECT TO CPA TERMS & CONDITIONS

On behalf of:

NTC

Date: 20.1.23

Site address:

65 BURY ROAD, H22 6HS

Time on site:

Time off site:

☐ Waiting time ☐ Cancelled job

DESCRIPTION OF WASTE

☐ Soil & Stones EWC 17.05.04

☐ Clean Hardcore EWC 17.01.07

☐ Tarmac/Bitumen EWC 17.03.02

☐ Mixed Construction Waste EWC 17.09.04

☐ Other (Please specify)

EWC

☒ Materials Delivery 1 FULL LOAD SIC code TOP SOIL

Quantity ☒ 8 Wheel load ☐ WeightTonnes

Waste is ☒ Loose ☐ Other

ROLONOF BINS

CASH RECEIVED

☐ 20 yd ☐ 40 yd ☐ Del ☐ Exc ☐ Coll

Amount:

I certify that the above particulars are true and relate to the waste being conveyed or disposed of, or materials being delivered, in pursuance of the sale. I am aware of and accept the conditions detailed on this note. By signing below I confirm that I have fulfilled my duty to apply the waste hierarchy as required by Regulation 12 of the Waste (England and Wales) Regulations 2011.

Customer name:

NTC

Driver name:

PAUL

Customer signature:

[Signature]

Driver signature:

[Signature]

DISPOSAL / TRANSFER POINT

☐ Haulage only

Site name:

Ticket No:

Site address:

☐ Ticket Attached

☐ Waste management license no:

☐ Exempt from license

Disposer signature:

Date:

1. Accounts 2. Customer 3. Keep In Book 4. Tip

REIS GRAB HIRE LTD

137B Roundwood Road, London NW10 9UL

Telephone 020 8459 1475, Mobile 07951 179590

Registered Waste Carrier, CEADWAC Carrier No. CBDU94091

LORRY INFORMATION

CONTRACT NO.

PO-010529

10181

Registration:

SA19UK6

☒ Grab ☐ Tipper ☐ Bin

CUSTOMER DETAILS (PRODUCER)

ALL HIRES ARE SUBJECT TO CPA TERMS & CONDITIONS

On behalf of:

NFC HOMES

Date:

27/01/2023

Site address:

65 BURY ROAD

H22 GHS

Time on site:

Time off site:

☐ Waiting time ☐ Cancelled job

DESCRIPTION OF WASTE

☐ Soil & Stones EWC 17.05.04

☐ Clean Hardcore EWC 17.01.07

☐ Tarmac/Bitumen EWC 17.03.02

☐ Mixed Construction Waste EWC 17.09.04

☐ Other (Please specify)

EWC

☐ Materials Delivery

10T

TOP SOIL

SIC code

Quantity

☒ 8 Wheel load

☐ Weight

Tonnes

Waste is

☐ Loose

☐ Other

ROLONOF BINS

CASH RECEIVED

☐ 20 yd

☐ 40 yd

☒ Del

☐ Exc

☐ Coll

Amount:

I certify that the above particulars are true and relate to the waste being conveyed or disposed of, or materials being delivered, in pursuance of the sale. I am aware of and accept the conditions detailed on this note. By signing below I confirm that I have fulfilled my duty to apply the waste hierarchy as required by Regulation 12 of the Waste (England and Wales) Regulations 2011.

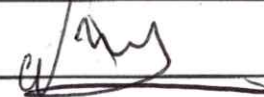
Customer name:

NFC HOMES

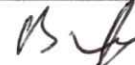
Driver name:

MAH AUN

Customer signature:



Driver signature:



DISPOSAL / TRANSFER POINT

☐ Haulage only

Site name:

Ticket No:

Site address:

☐ Ticket Attached

☐ Waste management license no:

☐ Exempt from license

Disposer signature:

Date:

1. Accounts 2. Customer 3. Keep In Book 4. Tip

REIS GRAB HIRE LTD

137B Roundwood Road, London NW10 9UL

Telephone 020 8459 1475, Mobile 07951 179590

Registered Waste Carrier, CEADWAC Carrier No. CBDU94091

LORRY INFORMATION

CONTRACT NO.

PO-010477

7712

Registration:

DL66BOH

☒ Grab ☐ Tipper ☐ Bin

CUSTOMER DETAILS (PRODUCER)

ALL HIRES ARE SUBJECT TO CPA TERMS & CONDITIONS

On behalf of:

NFC

Date:

16.1.23

Site address:

65 BURY ROAD, H22 6HS

Time on site:

Time off site:

☐ Waiting time ☐ Cancelled job

DESCRIPTION OF WASTE

☐ Soil & Stones EWC 17.05.04

☐ Clean Hardcore EWC 17.01.07

☐ Tarmac/Bitumen EWC 17.03.02

☐ Mixed Construction Waste EWC 17.09.04

☐ Other (Please specify)

EWC

☒ Materials Delivery

BAGGED TOP SOIL X10

Quantity

☐ 8 Wheel load

☐ Weight

Tonnes

Waste is

☐ Loose

☒ Other

BAGGED

ROLONOF BINS

CASH RECEIVED

☐ 20 yd ☐ 40 yd

☐ Del

☐ Exc

☐ Coll

Amount:

I certify that the above particulars are true and relate to the waste being conveyed or disposed of, or materials being delivered, in pursuance of the sale. I am aware of and accept the conditions detailed on this note. By signing below I confirm that I have fulfilled my duty to apply the waste hierarchy as required by Regulation 12 of the Waste (England and Wales) Regulations 2011.

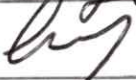
Customer name:

George

Driver name:

PAUL

Customer signature:



Driver signature:



DISPOSAL / TRANSFER POINT

☐ Haulage only

Site name:

Ticket No:

Site address:

☐ Ticket Attached

☐ Waste management license no:

☐ Exempt from license

Disposer signature:

Date:

REIS GRAB HIRE LTD

137B Roundwood Road, London NW10 9UL

Telephone 020 8459 1475, Mobile 07951 179590

Registered Waste Carrier, CEADWAC Carrier No. CBDU94091

LORRY INFORMATION

CONTRACT NO.

10591

Registration:

SD19UKH

☒ Grab ☐ Tipper ☐ Bin

CUSTOMER DETAILS (PRODUCER)

ALL HIRES ARE SUBJECT TO CPA TERMS & CONDITIONS

On behalf of:

NFC

Date:

16.1.23

Site address:

65 BURY ROAD, H22 6HS

Time on site:

Time off site:

☐ Waiting time ☐ Cancelled job

DESCRIPTION OF WASTE

☐ Soil & Stones EWC 17.05.04

☐ Clean Hardcore EWC 17.01.07

☐ Tarmac/Bitumen EWC 17.03.02

☐ Mixed Construction Waste EWC 17.09.04

☐ Other (Please specify)

EWC

☒ Materials Delivery

BAGGED TOP SOIL X10

Quantity

☒ 8 Wheel load

☐ Weight

Tonnes

Waste is

☐ Loose

☒ Other

BAGGED

ROLONOF BINS

CASH RECEIVED

☐ 20 yd

☐ 40 yd

☐ Del

☐ Exc

☐ Coll

Amount:

I certify that the above particulars are true and relate to the waste being conveyed or disposed of, or materials being delivered, in pursuance of the sale. I am aware of and accept the conditions detailed on this note. By signing below I confirm that I have fulfilled my duty to apply the waste hierarchy as required by Regulation 12 of the Waste (England and Wales) Regulations 2011.

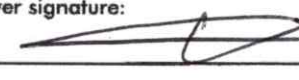
Customer name:

Driver name:

PAUL

Customer signature:

Driver signature:



DISPOSAL / TRANSFER POINT

☐ Haulage only

Site name:

Ticket No:

Site address:

☐ Ticket Attached

☐ Waste management license no:

☐ Exempt from license

Disposer signature:

Date:

1. Accounts 2. Customer 3. Keep In Book 4. Tip

1. Accounts 2. Customer 3. Keep In Book 4. Tip



Amended Report

Report No.:	22-41703-2		
Initial Date of Issue:	15-Nov-2022	Date of Re-Issue:	16-Nov-2022
Client	Springbridge Direct Ltd		
Client Address:	Oxford Road Denham Middlesex UB9 4DF		
Contact(s):	Ellissa Dunn Tom Hawkins		
Project	Springbridge Yard		
Quotation No.:	Q22-26866	Date Received:	01-Nov-2022
Order No.:	128114	Date Instructed:	01-Nov-2022
No. of Samples:	2		
Turnaround (Wkdays):	10	Results Due:	14-Nov-2022
Date Approved:	15-Nov-2022		
Approved By:			

Details: Stuart Henderson, Technical Manager

Results - Soil

Project: Springbridge Yard

Client: Springbridge Direct Ltd	Chemtest Job No.:		22-41703		
Quotation No.: Q22-26866	Chemtest Sample ID.:		1535848		
Order No.: 128114	Client Sample Ref.:		Topsoil		
	Client Sample ID.:		Top		
	Sample Type:		SOIL		
	Date Sampled:		27-Oct-2022		
	Asbestos Lab:		COVENTRY		
Determinand	Accred.	SOP	Units	LOD	
ACM Type	U	2192		N/A	-
Asbestos Identification	U	2192		N/A	No Asbestos Detected
Moisture	N	2030	%	0.020	13
Soil Colour	N	2040		N/A	Brown
Other Material	N	2040		N/A	Stones
Soil Texture	N	2040		N/A	Sand
Boron (Hot Water Soluble)	M	2120	mg/kg	0.40	3.6
Cyanide (Total)	M	2300	mg/kg	0.50	< 0.50
Arsenic	M	2455	mg/kg	0.5	7.1
Cadmium	M	2455	mg/kg	0.10	0.12
Chromium	M	2455	mg/kg	0.5	8.9
Copper	M	2455	mg/kg	0.50	13
Mercury	M	2455	mg/kg	0.05	< 0.05
Nickel	M	2455	mg/kg	0.50	5.2
Lead	M	2455	mg/kg	0.50	19
Selenium	M	2455	mg/kg	0.25	< 0.25
Zinc	M	2455	mg/kg	0.50	48
Chromium (Hexavalent)	N	2490	mg/kg	0.50	< 0.50
Aliphatic TPH >C5-C6	N	2680	mg/kg	1.0	< 1.0
Aliphatic TPH >C6-C8	N	2680	mg/kg	1.0	< 1.0
Aliphatic TPH >C8-C10	N	2680	mg/kg	1.0	< 1.0
Aliphatic TPH >C10-C12	N	2680	mg/kg	1.0	< 1.0
Aliphatic TPH >C12-C16	N	2680	mg/kg	1.0	< 1.0
Aliphatic TPH >C16-C21	N	2680	mg/kg	1.0	< 1.0
Aliphatic TPH >C21-C35	N	2680	mg/kg	1.0	< 1.0
Aliphatic TPH >C35-C44	N	2680	mg/kg	1.0	< 1.0
Total Aliphatic Hydrocarbons	N	2680	mg/kg	5.0	< 5.0
Aromatic TPH >C5-C7	N	2680	mg/kg	1.0	< 1.0
Aromatic TPH >C7-C8	N	2680	mg/kg	1.0	< 1.0
Aromatic TPH >C8-C10	N	2680	mg/kg	1.0	< 1.0
Aromatic TPH >C10-C12	N	2680	mg/kg	1.0	< 1.0
Aromatic TPH >C12-C16	N	2680	mg/kg	1.0	< 1.0
Aromatic TPH >C16-C21	N	2680	mg/kg	1.0	< 1.0
Aromatic TPH >C21-C35	N	2680	mg/kg	1.0	< 1.0
Aromatic TPH >C35-C44	N	2680	mg/kg	1.0	< 1.0
Total Aromatic Hydrocarbons	N	2680	mg/kg	5.0	< 5.0
Total Petroleum Hydrocarbons	N	2680	mg/kg	10.0	< 10
Naphthalene	N	2700	mg/kg	0.010	< 0.010

Results - Soil

Project: Springbridge Yard

Client: Springbridge Direct Ltd	Chemtest Job No.:		22-41703		
Quotation No.: Q22-26866	Chemtest Sample ID.:		1535848		
Order No.: 128114	Client Sample Ref.:		Topsoil		
	Client Sample ID.:		Top		
	Sample Type:		SOIL		
	Date Sampled:		27-Oct-2022		
	Asbestos Lab:		COVENTRY		
Determinand	Accred.	SOP	Units	LOD	
Acenaphthylene	N	2700	mg/kg	0.010	< 0.010
Acenaphthene	N	2700	mg/kg	0.010	< 0.010
Fluorene	N	2700	mg/kg	0.010	< 0.010
Phenanthrene	N	2700	mg/kg	0.010	< 0.010
Anthracene	N	2700	mg/kg	0.010	< 0.010
Fluoranthene	N	2700	mg/kg	0.010	8.0
Pyrene	N	2700	mg/kg	0.010	1.0
Benzo[a]anthracene	N	2700	mg/kg	0.010	0.40
Chrysene	N	2700	mg/kg	0.010	0.87
Benzo[b]fluoranthene	N	2700	mg/kg	0.010	0.81
Benzo[k]fluoranthene	N	2700	mg/kg	0.010	0.96
Benzo[a]pyrene	N	2700	mg/kg	0.010	0.67
Indeno(1,2,3-c,d)Pyrene	N	2700	mg/kg	0.010	< 0.010
Dibenz(a,h)Anthracene	N	2700	mg/kg	0.010	< 0.010
Benzo[g,h,i]perylene	N	2700	mg/kg	0.010	< 0.010
Total Of 16 PAH's	N	2700	mg/kg	0.20	13
Benzene	M	2760	µg/kg	1.0	< 1.0
Toluene	M	2760	µg/kg	1.0	< 1.0
Ethylbenzene	M	2760	µg/kg	1.0	< 1.0
m & p-Xylene	M	2760	µg/kg	1.0	< 1.0
o-Xylene	M	2760	µg/kg	1.0	< 1.0
Total Phenols	M	2920	mg/kg	0.10	0.33

Results - Topsoil Report

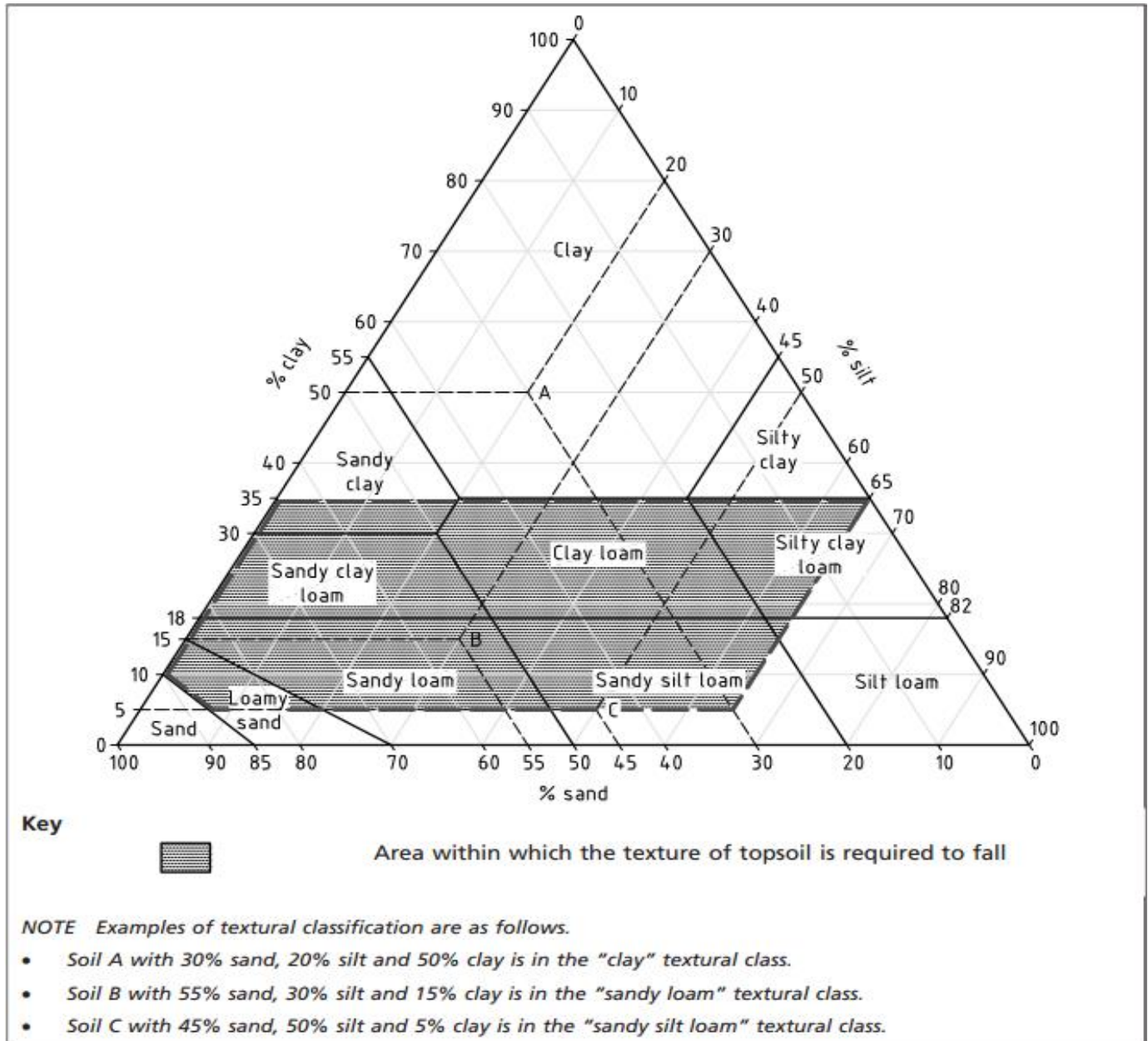
BS3882:2015

Chemtest Job No.: 22-41703
Chemtest Sample ID.: 1535848
 Client Sample Ref.: Topsoil
 Sample Location:
Client Sample ID.: Top
 Top Depth (m):
 Bottom Depth (m):
 Date Sampled: 27-Oct-2022
 Time Sampled:

Parameter	Units	Multipurpose Range	Result	Compliant with Multipurpose Range? (Y/N)	Compliant with Specific Purpose Range? (Y/N)		
Texture					Acid	Low F	Calc.
Clay content	%		8.1				
Silt content	%		8.1				
Sand content	%		84				
Soil texture class		See Attached Chart	Loamy Sand	YES			
Mass Loss on Ignition							
Clay 5-20%		3.0-20	7.3	YES	YES	YES	YES
Clay 20-35%		5.0-20					
Stone Content	% m/m						
>2mm		0-30	22	YES			
>20mm		0-10	< 0.020	YES			
>50mm		0	< 0.020	YES			
Soil pH value		5.5-8.5	8.0	YES	NO	YES	YES
Carbonate (Calcareous only)	%		4.1				YES
Electrical Conductivity	µS/cm	If >3300 do ESP	3200	YES			
Available Nutrient Content							
Nitrogen %		>0.15	0.33	YES	YES		YES
Extractable phosphorus	mg/l	16-140	17	YES	YES	YES	YES
Extractable potassium	mg/l	121-1500	230	YES	YES		YES
Extractable magnesium	mg/l	51-600	58	YES	YES		YES
Carbon : Nitrogen Ratio		<20:1	13.1/1	YES	YES	YES	YES
Exchangeable sodium	%	<15	7.9				
Available Calcium	mg/l		580				
Available Sodium	mg/l		310				
Phytotoxic Contaminants (by soil pH)		< 6.0	6.0-7.0	> 7.0			
Zinc (Nitric Acid extract)	mg/kg	<200	<200	<300	33	YES	
Copper (Nitric Acid extract)	mg/kg	<100	<135	<200	10	YES	
Nickel (Nitric Acid extract)	mg/kg	<60	<75	<110	6.2	YES	
Visible Contaminants	% mm						
>2mm		<0.5	0.000	YES			
..... of which plastics		<0.25	0.000	YES			
..... man-made sharps		zero in 1kg	0.000	YES			

Topsoil: Texture Classification Chart

BS3882:2015



Permission to reproduce extracts from BS 3882:2015 is granted by BSI.
British Standards can be obtained in PDF or hard copy formats from the BSI online shop: www.bsigroup.com/Shop or by contacting BSI Customer Services for hardcopies only: Tel: +44 (0)20 8996 9001, Email: cservices@bsigroup.com.

Test Methods

SOP	Title	Parameters included	Method summary
2010	pH Value of Soils	pH	pH Meter
2020	Electrical Conductivity	Electrical conductivity (EC) of aqueous extract or calcium sulphate solution for topsoil	Measurement of the electrical resistance of a 2:1 water/soil extract.
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
2115	Total Nitrogen in Soils	Nitrogen	Determination by elemental analyser
2120	Water Soluble Boron, Sulphate, Magnesium & Chromium	Boron; Sulphate; Magnesium; Chromium	Aqueous extraction / ICP-OES
2192	Asbestos	Asbestos	Polarised light microscopy / Gravimetry
2260	Carbonate	Carbonate	Titration
2300	Cyanides & Thiocyanate in Soils	Free (or easy liberatable) Cyanide; total Cyanide; complex Cyanide; Thiocyanate	Alkaline extraction followed by colorimetric determination using Automated Flow Injection Analyser.
2400	Cations	Cations	ICP-MS
2420	Phosphate	Phosphate	Spectrophotometry - Discrete analyser
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.
2455	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.
2490	Hexavalent Chromium in Soils	Chromium [VI]	Soil extracts are prepared by extracting dried and ground soil samples into boiling water. Chromium [VI] is determined by 'Aquakem 600' Discrete Analyser using 1,5-diphenylcarbazide.
2620	LOI 440	LOI 440 Trommel Fines	Determination of the proportion by mass that is lost from a soil by ignition at 440°C.
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 (GC-FID detection is non-selective and can be subject to interference from co-eluting compounds)
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.

Test Methods

SOP	Title	Parameters included	Method summary
2920	Phenols in Soils by HPLC	Phenolic compounds including Resorcinol, Phenol, Methylphenols, Dimethylphenols, 1-Naphthol and TrimethylphenolsNote: chlorophenols are excluded.	60:40 methanol/water mixture extraction, followed by HPLC determination using electrochemical 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"
SOP	Standard operating procedure
LOD	Limit of detection

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 30 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