

Phase II Site Appraisal

10569 – Albany Road, Chorlton
Greater Manchester

for

Bowsall Developments Ltd
ARC-PPC-00-XX-RP-G-0002

July 2023

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Revision	Date of issue	Comments	Prepared By	Checked By
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Summary of Recommendations for Albany Road, Chorlton	
Risk to End-Users	Elevated PAHs have been identified. Remediation in the form of clean capping will be required to break the pathway between source and receptor in all soft landscaped areas.
Risk to Controlled Waters	Low risk to controlled waters identified. No remediation required.
Ground Gases	Gas precautions in line with CS2 conditions will be required for the proposed development. Subject to completion to the monitoring programme.
Concrete Specification	FND2 concrete will be sufficient for buried concrete at the site.
Water Pipe Specification	PVC not PE will be required for the proposed development (to be confirmed by utility provider).
Engineering Ground Treatment	Not required.
Likely Foundation Types	Traditional pad foundations maybe suitable for the proposed development, deepening in areas of significant Made Ground will be required.
Likely Foundation Depths	Foundations should be carried through any Made Ground and soft or loose natural deposits. Borehole data from site investigation indicate that foundation depths are likely to be around 1.00m begl across the central and western half of the site with deepening across the eastern boundary up to depths of 3.00m begl.
Bearing Strata	Medium dense /firm superficial deposits
Allowable Bearing Pressure	Allowable bearing pressure of 120kN/m2 for traditional pad foundations.
Volume Change Potential	Medium. Minimum 0.90m foundation depth.
Tree Influence	Not required
Floor Slabs	Suspended floor slabs are likely required provided due to raising of site levels the likely requirement for gas protection measures.
Slope Stability Risk	N/A
Retaining Walls	Metrolink railway cutting to eastern boundary will require liaison with Metrolink. Loading above retaining structures during construction should be avoided.
SUDs	May be suitable within the granular geology, shallow groundwater and deep Made Ground was recorded on site and may limit the adoption of a soakaway drainage strategy. Should be confirmed based on testing carried out in accordance with BRE-365.
Roads	CBR values of greater than 5% should be achievable across the proposed parking areas. In-situ testing once final levels have been reached across the parking area is recommended.
Likely Waste Classification	Soils will require disposal as non-hazardous / inert waste subject to confirmation from the receiving waste site.
Other Comments	None

The above summary should not be used in isolation and reference should be made the full report which provides a detailed assessment of the risks affecting the development.

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1.0 Introduction

1.1 Commission

Patrick Parsons (PP) have been appointed by Bowsall Developments (client) to produce a Phase II Site Appraisal for their site known as 'Albany Road, Chorlton'.

1.2 Proposed Development

It is understood that the site is to be developed to provide a four-storey apartment block with parking and soft landscaping. A plan showing the general layout of the proposed development is in Appendix A.

1.3 Limitations

This report has been prepared for the client and their appointed agents only and should not be relied upon by any third party without the written permission of PP.

If any unauthorised third party comes into possession of this report, they rely on it at their own risk and the authors do not owe them any Duty of Care or Skill. It is based on and limited to an assessment of the information and ground conditions identified here. PP is not responsible for ground conditions located between exploratory hole locations and not revealed during investigations.

1.4 Aim of Phase II Site Appraisal

The client's specific requirements were to undertake a Phase II Site Appraisal. The principal objectives are as follows:

- Obtain information about the soil and groundwater conditions within the area of the site.
- Determine the ground related geotechnical and contamination hazards within the site boundaries that may affect the proposed development.
- Define the Phase I conceptual model and refine to form a Phase II conceptual model.
- Provide development recommendations.
- Provide advice on further works if required.

1.5 Information Sources

This Phase II Site Appraisal is based on the findings of the investigation, chemical analysis and geotechnical testing undertaken during the course of the assessment. The results have been used to refine the conceptual model and initial recommendations outlined in the following documents:

- Phase I Site Appraisal Report undertaken by E3P Ltd, ref: 15-843-R1-1, dated April 2022.

2.0 Summary of Phase I Site Appraisal

The following is a summary of the findings of the Phase I Site Appraisal Report undertaken by E3P in April 2022 and should not be read in isolation. For full details reference should be made to the report outlined in section 1.5.

- The site is a rectangular shaped parcel of land covering 0.20ha located approximately 4.3km south-west of Manchester city centre, centred at OS grid reference 381776, 394269 and the nearest postcode is M21 0AZ. The site is occupied by a commercial building in the northern half of the site with a concrete carpark in the southern half. Soft landscaping forms the western and northern site boundaries with a concrete pathway along the eastern site boundary. The immediate surrounding area consists of commercial buildings to the south, a railway line to the east and residential properties to the north and west. The site is approximately 1m lower than the adjacent Albany Road with a slope present along the western boundary. A site location plan is in Appendix A
- The earliest mapping reviewed (1848-49) showed the site to be undeveloped agricultural land with a pond encroaching onto the north-eastern corner of the site. The 1881 mapping shows the pond to have been infilled, whilst the eastern part of the site seems to have been cut forming an embankment with a railway line and signal post along the eastern boundary. The 1907 map shows a small structure in the east of the site and Albany Road bounds the site to the west. The 1922 map shows the western half of the site as a tennis ground, which is no longer present on the 1933 map. A boundary is shown running east west across the site and two further small buildings are shown in the northern half of the site in 1933. The 1950 map shows that the east west boundary has moved south, the two northern buildings have been expanded, a large L shaped building is now present in the southern half of the site, and an additional small structure is shown in the south-east of the site. The 1959 map shows several further buildings have been constructed in the northern half of the site and the L shaped building has been extended and is now labelled 'Works'. The 1981-1986 map shows that all buildings have been removed from the site, as has the boundary and the railway with only the embankment remaining. The 1985 map shows that the embankment is no longer present with the eastern side appearing to have been risen. A large building is shown in the western half of the site. The 1992 map shows the building has been extended across the entire northern half of the site. No further changes are recorded onsite up until the present day.
- In the wider vicinity the historical mapping has shown the following potentially contaminative uses within 250m of the site:
 - A railway line adjacent to the site from pre 1881 to the present day though is described as dismantled between 2003 to 2022.
 - Works adjacent to the site from 1959 to 1980, demolished at between 1980-1985 and then part of the Albany Road Trading estate from 1985 to the present day.
 - A pond adjacent to the north-eastern site boundary between 1849 and 1881.
 - A goods shed 70m south-east of the site between 1881-1981.
 - A garage 80m north-west of the site from 1950 to the present day.
 - An electricity substation 80m north-east of the site from 1950 to the present day.
 - A builder's yard 95m north of the site between 1980-1985.
 - A depot 95m west of the site from 1980-2022.
 - A garage 100m north-west of the site between 1950-1985.

- Whitworth Hospital 75m south-west of the site from the 1898 mapping to the present day.
- A furniture depository/warehouse 110m north between 1950-1981.
- A tramway 150m west of the site between 1930-1950.
- A dairy, then builder's yard 150m south between 1950-1992.
- Marl pits 175m west of the site between 1849-1905.
- A depot, then car parking 175m north of the site from 1980 to the present day.
- An ice cream factory 200m south of the site between 1950-1959.
- A station 200m south-east of the site from 1881 to the present day.
- A set of garages are mapped 200m south-east of the site between 1950-1980.
- The site is recorded to be underlain by superficial deposits of Glaciofluvial Deposits. The bedrock geology beneath the site is recorded to comprise the Wilmslow Sandstone Formation;
- The site is not within a Radon Affected Area, as less than 1% of properties are above the action level; radon protection measures are therefore not required for new properties.
- The superficial deposits of Glaciofluvial Deposits are recorded as Secondary A Aquifer, the Wilmslow Sandstone Formation bedrock is recorded as being a Principal Aquifer.
- There are no records of groundwater or potable water abstractions within 1000m of the site. The site is not recorded to be within any Source Protection Zone;
- A canal is recorded 164m north of the site. The site is not recorded to be in a Flood Zone 2 or Flood Zone 3;
- There are no EA/NRW/BGS or LA recorded historical landfill sites within 500m of the site;
- There are 2no. records of authorised industrial processes within 250m of the site. These are located 121m north-west and 139m west of the site are associated with Tesco Chorlton service station and Village Dry Cleaners respectfully.
- There is 1no. record of fuel stations within 250m of the site. This is located 111m north-west and associated with an ESSO service station.
- There are 6no. records of recent industrial land use within 250m of the site. The nearest record is onsite and for electronic equipment.

Contaminants of concern associated with the potential sources are likely to include heavy metals, polyaromatic hydrocarbons (PAHs), fuel/oil hydrocarbons (TPHs), asbestos, polychlorinated biphenyls (PCBs) and volatile and semi-volatile organic compounds (VOCs and SVOCs).

3.0 Preliminary Conceptual Site Model

Based on a review of the previous Phase I, PP have produced an updated conceptual site model in accordance with the Land Contamination Risk Management (LCRM) guidance document.

Contaminants of concern associated with the potential sources are likely to include heavy metals, polyaromatic hydrocarbons (PAHs), fuel/oil hydrocarbons (TPHs), asbestos, polychlorinated biphenyls (PCBs) and volatile and semi-volatile organic compounds (VOCs and SVOCs).

The potential pathways for migration of contamination sources to potential receptors relevant to this site are as follows:

Human Health

- Direct contact with and/or incidental ingestion of contaminated soils;
- Dermal contact, inhalation and/or ingestion of dust derived from contaminated soils;
- Migration of hazardous soil-gases via permeable strata or ducts/drains into future buildings with subsequent asphyxiation or explosion.

Controlled Waters

- Leaching of contamination with subsequent vertical and / or lateral migration of mobile contaminants into controlled water receptors;

Buried Services / Property

- Direct contact of contaminants with existing or future buried services;
- Migration of hazardous soil-gases via permeable strata or ducts/drains into enclosed spaces with subsequent asphyxiation or explosion.

The following site-specific receptors are considered relevant:

Human Health

- Site users – end-users of the proposed high-rise residential development;
- Construction workers – personnel involved in the redevelopment works;
- Off-site residential and commercial properties.

Controlled Waters

- Underlying Secondary A Aquifer within the superficial deposits and Principal Aquifer within the bedrock.

Buried Services / Property

- Building fabric and foundations/piles.

A preliminary qualitative assessment of the identified PCLs and associated risk ratings was completed and a summary is provided in the Table on the next page.



Source	Pathway	Receptor	Consequence	Probability	Risk Assessment and Justification
On-site sources - Made Ground and residual contamination from past land usage including heavy metals, PAHs, TPHs, VOCs/SVOCs, PCBs and asbestos. Infilling material of the former pond and the building up of the site, likely to include heavy metals, PAHs and ACM.	Dermal contact, inhalation and ingestion of contaminants in soil and soil derived dust	Future site user/worker	Medium	Likely	Moderate Risk - Potential for the presence of heavy metals and non-volatile PAHs in Made Ground associated with infilling of the pond on the north-eastern corner of the site and within the eastern sector of the site in the vicinity of the former railway and embankment. Historical demolition and construction works will also provide a potential source of Made Ground which may contain heavy metals and non-volatile PAHs.
		Site construction worker	Medium	Unlikely	Low Risk - Construction workers have a shorter exposure period and risks shall be adequately mitigated by law, specifically the Construction Design Management (CDM) Regulations, 2015.
	Inhalation of volatile soil vapours and ground gas	Future site user/worker	Medium	Likely	Moderate Risk –Proposed end users may be exposed to volatile vapour via inhalation and accumulation of vapours in indoor space, representing a long-term risk. Made Ground on site, and materials utilised for former infilling in the east and of the pond at the north-east corner of the site, may be a source of carbon dioxide and methane ground gas. Carbon dioxide and methane have asphyxiation and explosive risks, respectively, and should the underlying Made Ground soils be actively gassing the risk to construction workers can be mitigated through appropriate management of confined space entry, whereas the risk to future end users can be mitigated through the adoption of appropriate gas protection measures in accordance with BS8485 (Code of practice for the design of protective measures for methane and carbon dioxide ground gases for new buildings (2015+A1:2019)).
		Off-site residential and commercial properties	Medium		
		Site construction worker	Medium		
Off-site sources – Historic land uses including adjacent railway and works.	Inhalation of asbestos free fibres	Site user/worker	Severe	Likely	High Risk - Due to the age of the building there is a likelihood that ACM is present within the building fabric however, it was constructed around the time in which asbestos was banned in the UK. A survey is likely to be required to be confirmed. ACM is potentially present within the underlying Made Ground due to the former construction and demolition of buildings on site.
	Leaching of contaminants from soil and vertical migration into groundwater	Groundwater within superficial deposits	Mild	Likely	Moderate / Low Risk: Moderate mobility contamination could impact the shallow groundwater with the underlying superficial deposits via percolation and lateral migration pathways. Risk assessed as Low due to the limited or local potential designation for superficial deposits and given that highly unlikely that the shallow groundwater is unlikely ever to be utilised for potable abstraction purposes given the historical land-uses of the site and surrounding area resulting in a degraded water body
		Groundwater within bedrock	Medium	Unlikely	Low Risk –Shallow contamination likely to be intercepted by shallow groundwater within the superficial deposits beneath the site which is likely to migrate towards and be in hydraulic conductivity with the River Clyde.
	Permeation through water pipes of	Future site user/worker	Medium	Likely	Moderate Risk: There is potential for hydrocarbon-based contamination to permeate through potable water supply pipes and impact future site users. In



	shallow contamination.				turn, if contamination enters the potable water distribution network, the potable water supply of adjacent properties could also be affected
		Building structure.	Medium		Moderate Risk: Organic contaminants may be present at the proposed pipeline depth (0.75 m – 1.35 m) associated with the former railway and historical industrial land use.
	Sulphate (potential ash within Made Ground)	Building structure.	Mild	Likely	Moderate/low Risk: Presence of pH and sulphate within Made Ground deposits may result in corrosion of buried concrete within the proposed development. Assessment must be undertaken to confirm the levels of pH and sulphate within the underlying strata and in particular any Made Ground deposits so that a concrete classification can be determine.

4.0 Phase II Ground Investigation – (Patrick Parsons 2023)

4.1 Fieldwork

The ground investigation (including fieldwork, sampling and laboratory analysis) has been designed in accordance with BS10175:2001 + A2:2017 and the primary objectives were to identify and assess potential ground related problems and to allow cost-effective solutions to be advised. It has been planned based on the desk study. All fieldwork and soil descriptions were carried out in general accordance with relevant British Standards.

The exploratory holes have been positioned to determine the general ground/groundwater conditions below the site, with representative samples obtained for geotechnical and environmental laboratory analysis. The resultant exploratory hole density is considered to be appropriate with the complexity of the site conditions revealed in the desk study and detail of information required for this phase of the investigation.

The ground investigation was undertaken on 19th May 2023 and comprised a total of seven window sample boreholes to a maximum depth of 5.00m below existing ground level (begl) and three hand dug pits to a maximum depth of 1.00m begl. The exploratory hole location plan and exploratory hole logs are presented in Appendix B.

4.2 Ground Conditions

Across all window sample boreholes surface cover of concrete was recorded to a maximum depth 0.20m begl. Below the concrete and from surface within the hand dug pits HP01-HP02, and within exploratory hole locations WS01, WS02, WS05-WS07, variable Made Ground was encountered comprising light brown slightly sandy gravel or soft dark grey slightly gravelly sandy to very sandy silt or a medium dense dark grey gravel or a medium dense dark grey slightly gravelly silty sand, to a maximum depth 2.75m begl (WS05) though was not fully penetrated within HP01. Gravel comprised brick, concrete, ash, wood, slag, glass, plastic, mudstone, sandstone, quartzite, limestone and granite. It should be noted that a secondary concrete slab, potentially an extension of the existing car park slab, was encountered in boreholes WS06 and WS07 at between 0.37m and 0.45m begl. The slab could not be penetrated within WS07 and was present to 0.50m begl within WS06.

Below the concrete / Made Ground and from surface within HP03, superficial deposits were encountered comprising either a loose to medium dense variable brown slightly gravelly sand or a firm to stiff dark reddish brown locally slightly gravelly sandy to very sandy clay were recorded to a maximum proven depth of 5.00m begl (WS02). Gravel comprised quartzite, mudstone and sandstone.

Corrected SPT-N60 values within the superficial deposits were recorded between 9.6 and 23.5 at 1.00m begl, 5.3 and 20.3 at 2.00m begl, 10.7 and 20.3 at 3.00m begl and between 8.5 and 21.3 at 4.00m begl.

4.3 Groundwater

Groundwater strikes were recorded within the Glaciofluvial Deposits in boreholes WS04 and WS06 at 2.00m begl during the site investigation. Groundwater levels of 1.60m begl were recorded within WS04 during the first round of gas and groundwater monitoring.

4.4 Contamination Observations

Hydrocarbon odours were noted in boreholes WS01, WS02 and WS05 within the Made Ground soils. No other visual or olfactory evidence of contamination was identified during the ground investigation.

4.5 Buried Obstructions

A secondary concrete slab was encountered within the boreholes WS06 and WS07 inside the warehouse section of the existing building, believed to be a former floor surface.

4.6 Chemical Analysis

Chemical laboratory analyses were selected to provide the parameters necessary to assess the suitability for the re-use of soils on the site as well as to inform risk assessment for end users and controlled waters. The choice of contamination testing was based on the commonly occurring potential contaminants as identified within the Phase I Site Appraisal and on-site visual observations of contaminated soils. The chemical analysis results are presented in Appendix C. In summary the following testing has been completed:

- 8no. soil samples for a suite of contaminants including heavy metals, inorganics, PAH, TPH-CWG and asbestos screen.
- 2no. soil samples for VOC and SVOC.
- 3no. soil samples for TPH-CWG.
- 3no soil leachate samples for heavy metals, inorganics and PAHs.

4.7 Geotechnical Testing

Geotechnical soils testing has been undertaken as part of the ground investigation to provide the parameters necessary for the budgetary design of the development. The geotechnical test results are presented in Appendix C. In summary the following testing has been completed:

- 3no. for pH and water-soluble sulphate
- 3no. for Atterberg Limit tests
- 2no. for remoulded laboratory CBRs

5.0 Human Health Risk Assessment (Ground Gas)

Gas/groundwater monitoring standpipes have been installed in three of the window sample exploratory holes across the site (WS02, WS04 and WS05). Response zones were targeted in the Made Ground or natural soils.

Data is available from the first ground gas monitoring visit, which was completed using a GA5000 Multi-Function Gas Analyser. A separate addendum gas risk assessment will be issued following completion of the full monitoring programme.

The results of the ground gas monitoring programme recorded to date were assessed using the classification system contained within BS 8485:2015+A1:2019 and CIRIA C665. The classification system uses gas concentrations and recorded flow rates for CH₄ and CO₂ to determine a borehole hazardous gas flow rate (Q_{hg}). Q_{hg} is used to assign a Characteristic Situation (CS) for each borehole, based on Table 2 in BS 8485:2015+A1:2019 and the Q_{hg} has been calculated using the equation below:

$$Q_{hg} = q \left(\frac{C_{hg}}{100} \right)$$

where:

q is the measured flow rate of combined gases from the monitoring standpipe (l/hr)

C_{hg} is the measured hazardous gas concentration (% v/v)

The recorded concentrations of ground gas and flow rate during the periodic monitoring undertaken to date are summarised in the table below:

Borehole	Max Steady Flow	Max. CH ₄ (% v/v)	Max. CO ₂ (% v/v)	CH ₄ Q _{hg} (l/hr)	CO ₂ Q _{hg} (l/hr)	CS
WS02	<0.1	21.9	2.3	0.0219	0.0023	1
WS04	<0.1	0.2	1.5	0.0002	0.0015	1
WS05	0.1	0.1	6.7	0.0001	0.0067	1

The monitoring to date has recorded a maximum carbon dioxide concentration of 6.7% v/v, a maximum methane concentration of 21.9% v/v and a minimum oxygen concentration of 0.40% v/v. Hydrogen sulphide was recorded at 1ppm and carbon monoxide was recorded at 2ppm. A maximum steady flow of 0.1 l/hr was recorded.

A plausible worst case Q_{hg} has been calculated for carbon dioxide (0.0067 l/hr) and methane (0.0219 l/hr) using the maximum steady flow rate of 0.10 l/hr and a maximum carbon dioxide concentration of 6.7% v/v and a maximum methane concentration of 21.9% v/v. The 'worst case' Q_{hg} for methane and carbon dioxide would classify the site as Characteristic Situation 1 (CS1) in accordance with BS 8485:2015+A1:2019. However, it is noted that due to carbon dioxide readings <5% and methane readings <1%, consideration should be given to increasing the classification of the site to a Characteristic Situation 2. As such, at this stage it is recommended that gas precautions are allowed for in the proposed development and the gas risk assessment will be reviewed on completion of the four monitoring visits.

6.0 Human Health Risk Assessment (Soil)

6.1 Introduction

It is understood that the site is to be developed to provide a four-storey apartment block with parking and soft landscaping.

The Phase II investigation works has revealed the presence of up to 2.75m begl of Made Ground across the site and olfactory hydrocarbon contamination within the Made Ground as outlined within Section 4.4. As such, it is considered that there is a possible risk to end users of the proposed development and construction workers from potential contamination within the Made Ground deposits and hydrocarbon impacted soils.

Representative samples of Made Ground and natural strata encountered were collected for further examination and/or potential testing.

The Generic Assessment Criteria (GAC) used by Patrick Parsons are presented in Appendix E. For this site the chemical analysis results are being compared against the GAC for residential end-use without homegrown produce with a soil organic matter (SOM) content of 1%. This is considered to be the most appropriate GAC based on the total organic carbon (TOC) recorded within the analysis and the most sensitive future end-use receptor.

6.2 Risk to End-Users

The chemical analyses of the Made Ground have recorded widespread exceedances of PAHs when compared to the GAC for residential end-use without homegrown produce. Asbestos was not detected in any of the 8no soil samples analysed. The recorded exceedances of the GAC are tabulated below:

Location	Determinand	GAC (mg/kg)	Exceedance (mg/kg)
HDP01 at 0.20m	Benzo(b)fluoranthene	3.9	10
	Benzo(a)pyrene	3.2	9.4
	Dibenz(a,h)anthracene	0.31	1.4
WS01 at 0.40m	Naphthalene	2.3	2.7
	Benzo(a)anthracene	11	18
	Benzo(b)fluoranthene	3.9	18
	Benzo(a)pyrene	3.2	15
	Dibenz(a,h)anthracene	0.31	2.1
WS05 at 0.30m	Naphthalene	2.3	4.4
	Benzo(a)anthracene	11	21
	Benzo(b)fluoranthene	3.9	24
	Benzo(a)pyrene	3.2	19
	Dibenz(a,h)anthracene	0.31	2.4
WS02 at 2.20m	Naphthalene	2.3	28
	Benzo(a)anthracene	11	13
	Benzo(b)fluoranthene	3.9	15
	Benzo(a)pyrene	3.2	11
	Dibenz(a,h)anthracene	0.31	1.8
WS06 0.25m	Dibenz(a,h)anthracene	0.31	0.48

In addition to thIn addition to the above, the chemical analysis has identified concentrations of VOCs or SVOCs above the laboratory detection limit in certain samples. Most of the elevations relate to PAHs which have been considered in earlier sections, however other identified SVOCs and their concentrations are tabulated below:

Location	Determinand	Lab LOD (mg/kg)	Concentration (mg/kg)
WS01 at 0.4m	2-Methylnaphthalene	0.1	2.3
	Dibenzofuran	0.2	2.8
	Carbazole	0.3	2.4
	Anthraquinone	0.3	1
WS0.5 at 0.30m	2-Methylnaphthalene	0.1	4
	Dibenzofuran	0.2	3.6
	Carbazole	0.3	2.8

While concentrations of SVOCs have been recorded above their respective laboratory limit of detections, no specific GACs exist for the identified SVOCs. However, given the marginal nature of the exceedances and the similar characteristics to PAHs, it is considered that the same remediation measures for the PAH exceedances will be suitable for the SVOCs present in the soil.

The identified exceedances / elevations are all located beneath the footprint of the proposed apartment block which would break the dermal contact, inhalation and ingestion pathways between the source of contamination and future on-site human health receptors. However, given that all samples of Made Ground tested returned PAH exceedances it should be assumed that Made Ground soils also pose a risk to human health in areas of soft landscaping not underlain by parking areas / structures. Therefore, remediation will be required to break the pathway between source and receptor in these areas.

6.3 Risk to Construction Workers

During any future construction works that take place on site, risks associated with contaminated soils must be adequately mitigated by law, specifically the Construction Design Management (CDM) Regulations, 2015. Potential acute risks resulting from short term exposure to contamination by construction / maintenance workers involved with the proposed development and future intrusive maintenance works (i.e. repairing services) cannot be assessed using the aforementioned GAC because they relate to the long-term (chronic) risk.

In accordance with CDM, potential risks to human health and the environment from construction activities shall be appropriately identified and all necessary steps taken to eliminate/manage that risk with the use of appropriate risk assessments and safe systems of work. It has been assumed that any future construction works on-site will be undertaken in compliance with these requirements and therefore construction workers involved in any future development at the site and intrusive maintenance workers (e.g. for repair of underground services) have been discounted as a human receptor in this report.

However, it is recommended that the laboratory test results are included in the consideration of site-specific risk assessment for the ground workers that will be exposed to the soils beneath the site.

7.0 Controlled Waters Risk Assessment

7.1 Risk Assessment

Ground conditions encountered across the investigation comprise up to 2.75m begl of Made Ground, locally underlain by both cohesive and granular Glaciofluvial Deposits (Secondary A Aquifer). The site is not located within a Source Protection Zone and there are no groundwater abstractions within 1000m of the site.

Given the location of the site (mixed residential and commercial setting), shallow groundwater beneath the site is not considered to be a receptor as it is highly unlikely that this would ever be utilised for potable abstraction purposes given the historical land-uses of the site and surrounding area resulting in a degraded water body. On this basis, shallow groundwater should be considered as a potential pathway for contaminant migration rather than a receptor and therefore the risks are considered to be low, and no further assessment is considered necessary.

It is anticipated that groundwater in the deeper sandstone bedrock will be of a significant depth and consequently it is considered unlikely that contamination would migrate vertically to impact the deeper aquifer, given the presence of low permeability superficial deposits beneath the site and given that site sourced contamination likely to be “intercepted” by shallow groundwater in the superficial deposits. On this basis, the risk to groundwater in the bedrock aquifer is considered to be low and no further assessment or remedial action are considered necessary in relation to this receptor.

The closest surface water feature is a canal feeder located 164m north of the site and given the distance to the feature, and the likely impermeable nature of the associated man-made channel, it is considered highly unlikely that this feature would be impacted by site sourced contamination.

Three leachate samples have been tested as part of this assessment however it should be noted that soil leachate tests can be overly aggressive given that the test is carried out under onerous conditions, and as such the results may overestimate the amount of leachate derived from a soil, giving values that are not representative of actual hydro chemical conditions, particularly for organic contaminants.

Concentrations of certain PAHs and metals were identified above the England and Wales Drinking Water Standards (DWS) to assess risks to groundwater, and Environmental Quality Standards (EQS) to assess risks to surface water, however given the absence of potential receptors and the aggressive nature of leachate testing, it is not considered that these elevations present a risk to controlled waters. Furthermore, the site coverage will comprise predominantly hardstanding or building footprint which will limit the potential for leaching of contamination from the Made Ground beneath the site.

Therefore, In the absence of any major widespread contamination and any associated significant risks, no specific remediation is considered to be required with respect to controlled waters.

8.0 Construction Materials Risk Assessment

8.1 Water Supply Pipes

The chemical analysis results have been compared against UK Water Industry Research (UKWIR) Contamination Thresholds for sub-surface water pipes.

Based on the site history and the chemical analysis completed, it considered that the site will be suitable for PVC not PE water pipes subject to confirmation from the utility provider.

8.2 Buried Concrete

Based on the recorded water-soluble sulphate (13 mg/l - 773mg/l) and pH (7.3-9.2), the Made Ground and natural soils below the site (assuming mobile groundwater conditions) are characterised as DS-2 and the ACEC Class as AC-2 (in accordance with BRE Special Digest 1 (2005)). This equates to a DC-2 classification and as such in accordance with BS 8500 FND2 concrete would be suitable for unreinforced and reinforced concrete.

9.0 Phase II Updated Conceptual Model

The preceding information has been used to revise the conceptual model.

9.1 Human Health Risks

The chemical analysis has identified widespread exceedances of PAHs when compared against the relevant Patrick Parsons GAC.

On the basis of the above, it is considered that Made Ground soils pose a risk to human health in areas of soft landscaping however not in areas of proposed hardstanding and beneath the proposed building footprint. Therefore, remediation will be required to break the pathway between source and receptor in areas of soft landscaping.

The Phase I conceptual model identified a Moderate risk of harmful ground gases, based on the results of the ground gas monitoring to date, the site would classify as Characteristic Situation 2 (CS2) in accordance with BS 8485:2015+A1:2019. On this basis, gas protection will be required for the proposed development. A final gas risk assessment will be issued on completion of the monitoring programme. There is no requirement for radon precautions.

9.2 Controlled Waters Risks

Although some PAH and metals elevations were identified in the leachate testing, controlled waters are not considered to require further assessment based on the following:

- Shallow groundwater should be considered as a potential pathway for contaminant migration rather than a receptor given that it is unlikely to ever be utilised as a resource.
- Low permeability superficial deposits and shallow groundwater are likely to inhibit vertical migration into the underlying Principal Aquifer.
- There are no plausible surface water receptors in the vicinity of the site.

9.3 Conceptual Site Model

An updated assessment of relevant PCLs and associated risk ratings has been completed and a summary is provided in the Table on the next page.



Source	Pathway	Receptor	Consequence	Probability	Risk Assessment and Justification
On-site sources - Made Ground and residual contamination from past land usage	Dermal contact, inhalation and ingestion of contaminants in soil and soil derived dust	Future site user/worker	Medium	Low Likelihood	Moderate / Low Risk – In soft landscaped areas. Remediation required to break pathway between identified contamination and end users.
	Inhalation of volatile soil vapours and ground gas	Site construction worker	Mild		Low Risk - Construction workers have a shorter exposure period and risks shall be adequately mitigated by law, specifically the Construction Design Management (CDM) Regulations, 2015.
	Leaching of contaminants from soil and vertical migration into groundwater	Future site user/worker	Medium	Likely	Moderate Risk – Site characterised as CS2 and therefore it is considered that gas precaution measures in line with CS2 conditions will be required for the proposed development. A final gas risk assessment will be issued on completion of the monitoring programme.
		Groundwater within superficial deposits	Mild	Low likelihood	Low Risk: Risk assessed as Low due given that highly unlikely that the shallow groundwater is unlikely ever to be utilised for potable abstraction purposes given the historical land-uses of the site and surrounding area resulting in a degraded water body.
		Groundwater within bedrock	Medium	Unlikely	Low Risk –Shallow contamination likely to be intercepted by shallow groundwater within the superficial deposits beneath the site.
	Permeation through water pipes of shallow contamination.	Future site user/worker	Medium	Unlikely	Low Risk: All potable water supply pipes should be PVC pipes and subject to confirmation by the relevant utility supplier.

10.0 Remediation

10.1 Protection of End-Users

Laboratory analysis has confirmed that soils in the current state may pose a risk to the end-user of the site in areas of soft landscaping. As such remedial action will need to be taken to mitigate the recorded elevated PAHs, above the GAC for residential without homegrown produce end use. It is considered that the most appropriate form of remediation would be placement of clean capping in soft landscaping areas which would act to break the source-pathway-receptor linkage.

10.2 Clean Cover System

Guidance on suitable thicknesses of topsoil and subsoil are given within BS 3882:2015 Specification for topsoil, and BS 8601:2013 Specification for subsoil, which state:

“The depth of topsoil spread should not normally exceed 300 mm. Suitable (loosened) subsoil should provide the remainder of the minimum rooting depth. The minimum rooting depth should be normally 450mm for grass, 600mm for shrubs and 900mm for trees.”

It is considered based on the levels of the exceedances of the relevant GACs that 300mm of clean capping in any areas of soft landscaping would be the most appropriate remedial measure sufficient to break the source-pathway-receptor linkage and thus remove the risk to human-health. The 300mm capping layer may be comprised of 150mm of subsoil and a minimum of 150mm of topsoil as a growing medium if required.

10.3 Imported Material

Suitable topsoil and subsoil are not present onsite and will need to be imported to form the capping system. All imported soils will need to be chemically validated to ensure it is suitable for a residential without homegrown produce end-use at the rates shown in the table below:

Source and Validation Rate	Chemical Analysis Suite		
	General Soil Suite	Asbestos	Hydrocarbons (TPHCWG)
Greenfield Source 1 per 150m ³	✓		
Brownfield Source 1 per 100m ³	✓	✓	✓
Generated Soil 1 per 50m ³	✓	✓	✓

The results of the chemical validation should be compared to the GACs for a residential without homegrown produce end-use as included in Appendix E and should comply with BS3882 Specification for topsoil and BS 8601:2013 Specification for subsoil.

10.3.1 Capping Validation

The above remedial measures above should be independently validated to confirm that they have been completed in line with the recommendations. This will include:

- Capping validation report which will include a photographic record confirming the required thickness of capping has been placed.

- Testing of the imported materials at the rates described above and comparison to the relevant GACs to demonstrate that the soils are suitable for use.

10.4 Ground Gas

Based on the results of the ground gas monitoring to date the site, a Characteristic Situation 2 (CS2) classification in accordance with BS 8485:2015+A1:2019 should be considered for budgetary design purposes, although a separate addendum gas risk assessment will be issued following completion of the full monitoring programme. This should be confirmed with the Local Authority before any irrevocable site works are undertaken.

For CS2 conditions, in accordance with BS 8485:2015+A1:2019, the proposed development classifies as a Type B Building and as such the design of the mitigation measures in line with Table 4 of the guidance would require a minimum point score of 3.5. The appropriate combination of elements should be chosen from Tables 5, 6 and 7 of the guidance to achieve the required point score (or greater). No more than one element of each type (i.e. each table) should be combined to achieve the recommended minimum level of mitigation. An example of how this score may be achieved is as follows:

Element	Score
Precast suspended segmental floor (i.e. beam and block)	0
Passive sub floor dispersal layer with minimum good performance	2.5
Gas resistant membrane	2
Total	3.5

Radon precautions are not required.

10.4.1 Ground Gas Protection Measure Verification

The gas membrane selected should be resistant to carbon dioxide and methane and to achieve the 2 points assigned to the membrane in BS8485, the installed gas protection measures will need validated in accordance with CIRIA C735. As outlined in Annex 1 of C735 where membranes are installed by a groundworker they will need to be visually validated by an independent 3rd party to ensure it has been correctly installed to a high standard. The visual inspection should include, but should not be limited to, the following checks:

- Visual inspection to check for presence of tears and holes in the membrane.
- Inspection of service entries to make sure a full seal has been achieved.
- Checking of joints to ensure correct tape and minimum overlap has been achieved.
- Checking of air bricks to ensure underfloor venting has been provided.

The local authority may require minimum qualifications of the installing personnel and photographic evidence should be collected during the validation process.

A validation letter report will be produced following the satisfactory installation of the gas protection membrane and will include a photographic record.

The above recommendations are subject to completion of the gas monitoring and approval of the Local Authority.

10.5 Unrecorded or Unexpected Contamination Discovery Strategy

During future site redevelopment, groundworkers should remain vigilant for previously unrecorded or unexpected visual and/or olfactory evidence of contamination, or ground conditions which appear inconsistent with those identified during the ground investigation completed by PP.

Examples of contamination may include, but may not be limited to oil-stained soils, free phase oily liquid within soils, buried waste materials, fibrous materials, strong odours or marked variation in soil colour and should any unexpected ground conditions be encountered during construction, the following procedures should be adopted:

- All works in the area should be ceased and cordoned off;
- Patrick Parsons or similar geo-environmental consultant should attend site to inspect the area and if necessary, collect samples for chemical analysis;
- If the inspection and/or chemical testing confirm the presence of additional contamination, the results will be shared with the LA EHO and any changes to the remedial strategy agreed. No works in the area will be undertaken to agreement has been reached;
- If the inspection and/or chemical testing confirm that no additional contamination is present, then works can proceed with no alteration to the remedial strategy.

10.6 Protection of Construction Workers

Specific remediation to protect construction workers is not required. However, during future construction works on site, risks associated with the identified impacted soils must be adequately mitigated by law, specifically the Construction Design Management (CDM) Regulations, 2015. In accordance with CDM, potential risks to human health and the environment from construction activities shall be appropriately identified and all necessary steps are taken to eliminate/manage that risk with the use of appropriate risk assessments and safe systems of work, including using suitable personal protective equipment (PPE) in line with the ground workers risk assessment.

10.7 Protection of Controlled Waters

The site is not considered to pose a risk to controlled waters and thus, no remediation is needed.

10.8 Protection of Construction Materials

Standard PVC not PE water pipes will suffice, subject to approval from the utility provider. In accordance with BS 8500, FND2 concrete would be suitable for unreinforced and reinforced concrete.

10.9 Waste Disposal Classification

The results of the chemical analysis were subject to an online Hazwaste Assessment. The online Hazwaste assessment has confirmed that all ten samples that underwent chemical analysis, have been classified as non-hazardous. As such, it is considered that should any material require removal from site it may be suitable for disposal as non-hazardous to an inert waste landfill subject to confirmation by the receiving landfill site.

The full Hazwaste assessment can be found in Appendix F.

11.0 Geotechnical Appraisal

11.1 Introduction

It is understood that the site is to be developed to provide a four-storey apartment block with parking and soft landscaping.

11.2 Excavation Conditions

Shallow excavations in the soils encountered during the ground investigation should be easily achieved using conventional hydraulic equipment. Trench support may be required due to the site being underlain by locally granular strata. Full support should be provided to any excavation where person entry is required.

Groundwater ingress was encountered during the investigation at a depth of 2.00m begl in WS04 and WS06, and groundwater was identified at 1.60m begl during the subsequent monitoring programme. Should groundwater be encountered upon excavation, sump pumping techniques should be adequate to control any ingress. Foundations should be constructed as soon as possible after excavation to reduce loosening of the formation horizon.

Foundations should be constructed as soon as possible after excavation in order to reduce loosening of the formation horizon.

11.3 Foundations

Based on development proposals it is considered that a traditional pad foundation solution may be feasible providing abnormally high loadings are not anticipated. An allowable bearing pressure of 125kN/m² should be achievable within the underlying medium dense/firm superficial soils with settlements not exceeding 25mm. Foundations should be deepened to extend through any Made Ground, soft or loose superficial soils to at least 200mm into minimum medium dense or firm natural soils.

Deepening along the eastern extents of the proposed development to 3.00m begl is likely to be required due to the depth to the base of the Made Ground encountered in this area.

Should higher bearing capacities be required, a deeper cable percussive borehole may be needed to provide information for a piled foundation solution.

The cohesive soils recorded across the site are of medium volume change potential and as such, in accordance with NHBC Chapter 4.2 minimum foundation depths of 0.90m begl should be adopted where shallow cohesive soils are encountered.

The ground conditions encountered indicated the soils to be a mix of cohesive and granular soils. If foundations span both cohesive and granular soils the risk of differential settlement should be mitigated by inclusion of reinforcement within the proposed foundations should the nett benefit not be outweighed by the mass of concrete. Soft spots may be present where buried obstructions were encountered, and foundations should penetrate through the base level of where previous obstructions were encountered as well as any disturbed ground associated.

Due to the depth of the Made Ground recorded onsite and the potential requirement for gas protection measures it is considered that a ground bearing floor slab would not be feasible for the proposed development.

11.4 New Access Roads and Car Parking

The proposed development includes parking areas and access roads. Laboratory CBR testing has been carried out in the locations of HDP01 and HDP03 in locations of proposed parking areas. The results are tabulated below.

Location	Depth (m)	Result (%)
HDP01	0.50	15-24
HDP03	0.60	13-22

Based on the above results the near-surface natural superficial and Made Ground soils beneath the site are likely to provide CBR values of >5%, subject to verification by in-situ testing at formation level.

11.5 Soakaway Drainage

Based on the extent of the granular strata underlying the site, it is considered that soakaway drainage may be suitable in areas where shallow residual soils of granular strata have been identified. However, it is noted that shallow groundwater has been recorded across the site. If soakaway testing is required due to planning conditions, then soakaway testing in accordance with BRE-365 should be undertaken to determine the suitability of the site for SUDs.

Soakaways should not discharge into Made Ground, and in areas of deep Made Ground the use of soakaways may be precluded.

11.6 Slope Stability

Based on the current site gradients it is considered unlikely that the site will present any slope stability issues within the site boundary.

It is considered likely that permissions from Metrolink will be required for any works in proximity to Metrolink Land and early consultation is recommended.

11.7 Retaining Structures

The ownership of the retaining structure adjacent to the Metrolink land should be established and it would be prudent for this to be inspected by a competent Structural Engineer.

Care should be taken to ensure the design of the proposed structures does not negatively affect the stability of the retaining structure. Should any remedial works to the retaining structure be required it is likely that consultation with Metrolink would be necessary.

12.0 Further Investigation

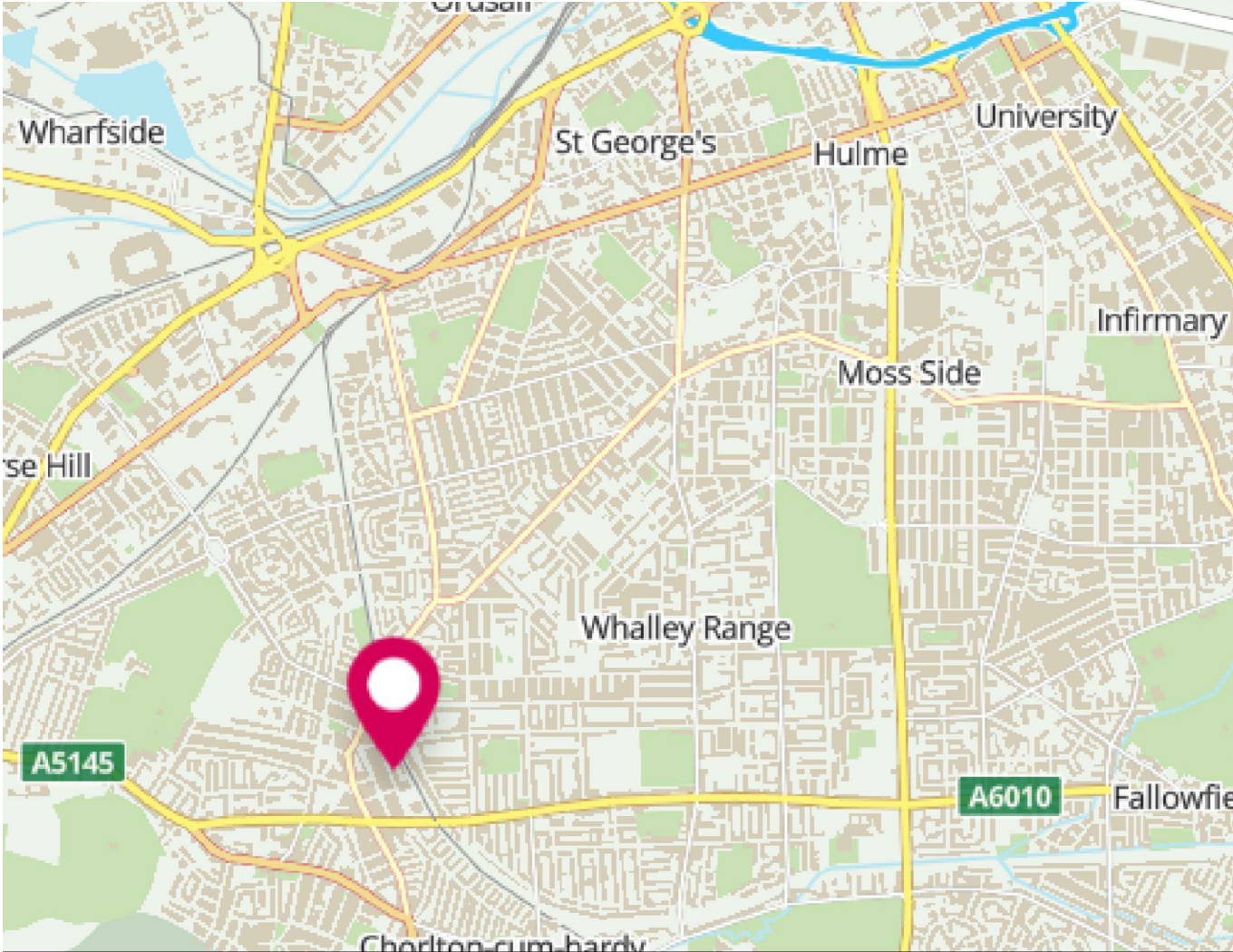
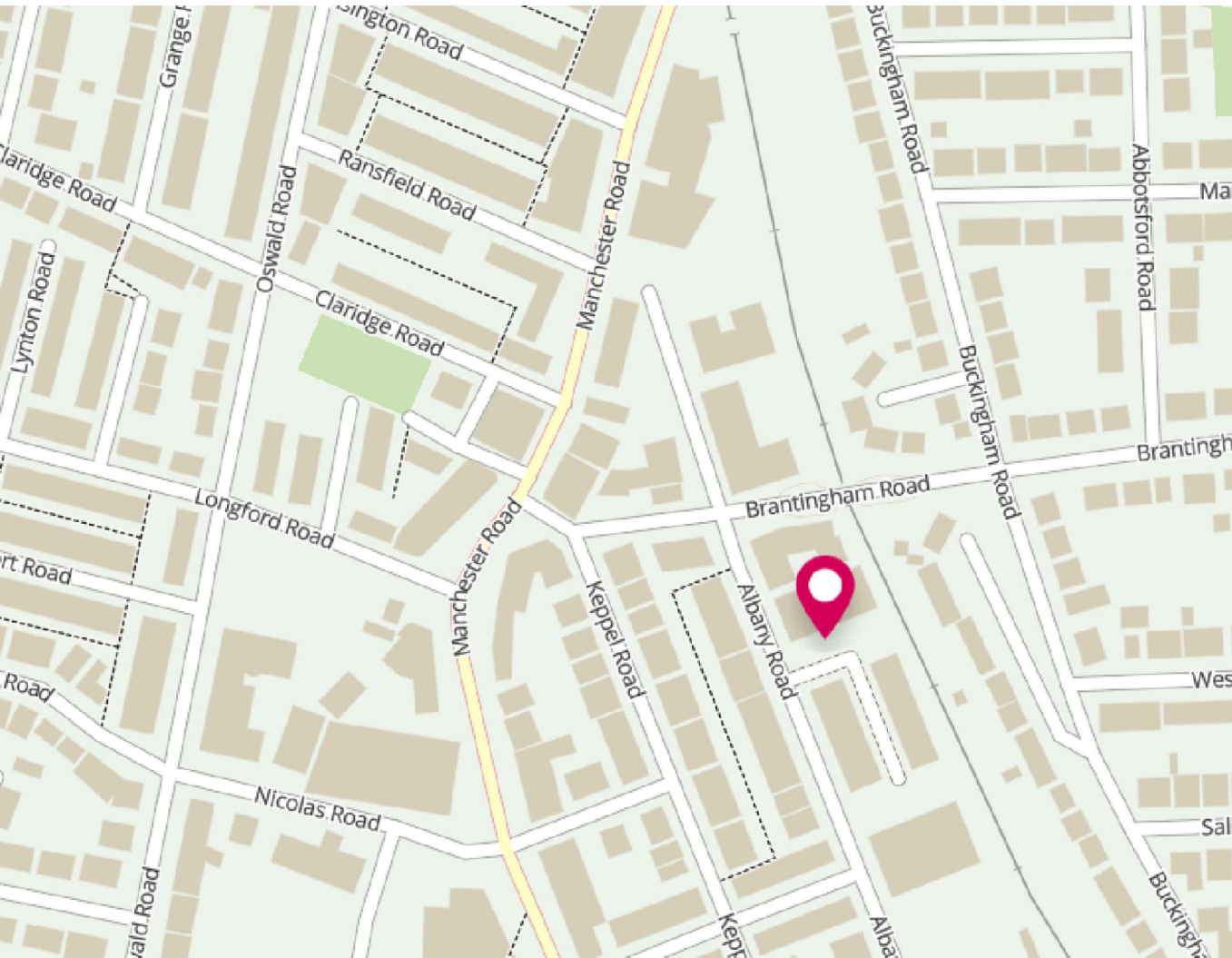
Based on the ground conditions encountered in the site investigation it is considered that the following further works are or may be required to assess contamination and geotechnical risks at the site.

- Completion of the gas monitoring programme and the production of a final gas risk assessment report once completed.
- Deeper cable percussive boreholes for pile design should an increased bearing capacity be required.
- Soakaway testing in selected areas once the site has been cleared if a soakaway drainage strategy is proposed.

Following review of this report a copy of it should be submitted to the Local Authority planning department prior to any development works as this is often a condition of planning.

Appendix A

Figures



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Rev.	Amendments	Date	Dr	Chk
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Revisions

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Client
Bowsall Developments

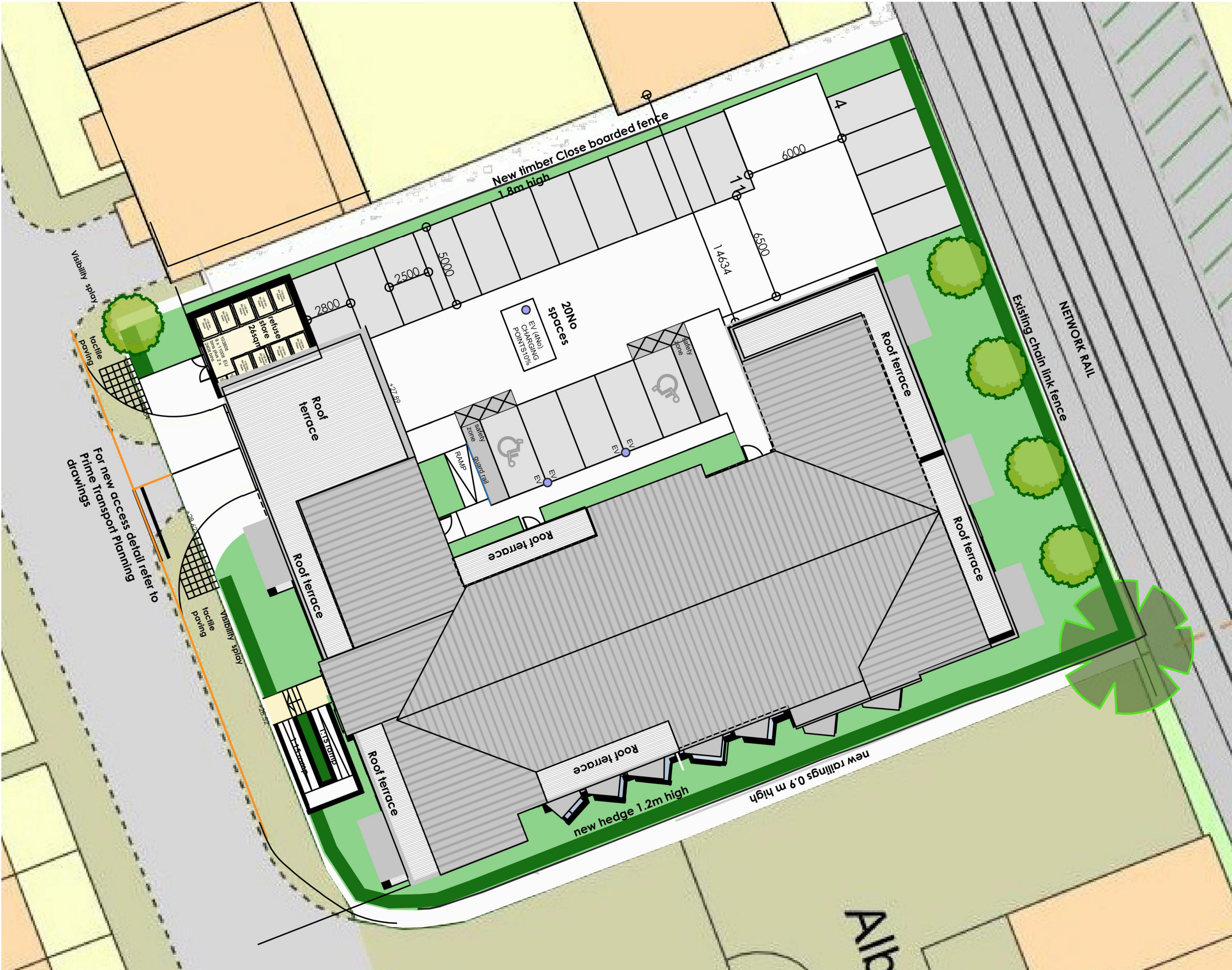
Project
10569 - Albany Road, Chorlton

Drawing
Site Location Plan

Scales	NTS	At original size	A1
Date	06/06/2023	Drawn by PGS	Checked by NAM

Status
Draft

Drawing No. ARC-PPC-00-XX-DR-G-701 Rev.



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Rev.	Amendments	Date	Org	Chk
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Client
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Project
Albany Road, Chorlton

Drawing
Proposed Development Layout Plan

Scales NTS At original size A1

Date	03/07/2023	Drawn by	HA	Checked by	NAM
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Status Draft

Drawing No. ARC-PPC-00-XX-DR-G-702 Rev.

Appendix B

Exploratory Hole Location Plan and Logs



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Rev.	Amendments	Date	Drg	Chk
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Revisions



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Client

Bowsall Developments Ltd

Project
Albany Road, Chorlton

Drawing
Proposed Exploratory Hole Location
Plan

Scales	NTS	At original size	A1
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Date	08/03/2023	Drawn by	Checked by
		HA	JPB

Status	Preliminary
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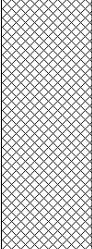
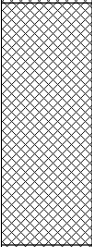
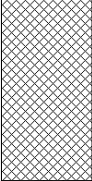
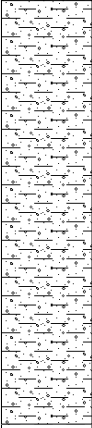
Drawing No. **ARC-PPC-00-XX-DR-G-703** Rev.

				Trial Pit Log			Trial Pit No HDP01 Sheet 1 of 1	
Project Name: Albany Road				Project No. 10569		Co-ords: - Level:		Date 19/05/2023
Location: Chorlton				Dimensions (m):		0.40 0.40		Scale 1:25
Client: Bowsall Developments				Depth 0.80				Logged OB
Water Strike	Samples & In Situ Testing			Depth (m)	Level (m)	Legend	Stratum Description	
	Depth	Type	Results					
	0.20	ES		0.80			MADE GROUND: Dark brown mottled black slightly gravelly slightly silty sand with a low cobble content. Gravel is angular to subrounded fine to coarse concrete, brick, textile, ceramic, ash, quartzite, plastic and wood. Cobbles are subangular concrete.	
	0.50	B					End of Pit at 0.80m	
							1	
							2	
							3	
							4	
							5	
Remarks: 1) Location CAT scanned prior to ground being broken. 2) No groundwater encountered during excavation. 3) Pit backfilled with arisings on completion.								
Stability: Stable								

				Trial Pit Log			Trial Pit No HDP02 Sheet 1 of 1	
Project Name: Albany Road				Project No. 10569		Co-ords: - Level:		Date 19/05/2023
Location: Chorlton				Dimensions (m):		0.40		Scale 1:25
Client: Bowsall Developments				Depth 1.00				Logged OB
Water Strike	Samples & In Situ Testing			Depth (m)	Level (m)	Legend	Stratum Description	
	Depth	Type	Results					
	0.30	ES		0.30			MADE GROUND: Dark brown mottled black slightly gravelly slightly silty sand with a low cobble content. Gravel is angular to subrounded fine to coarse concrete, brick, ash, quartzite, and wood. Cobbles are subangular concrete.	
				1.00			Orangish brown slightly gravelly medium to coarse SAND. Gravel is subangular to subrounded fine to coarse quartzite. (GLACIOFLUVIAL DEPOSITS) <i>Below 0.40m begl light brown.</i>	
							End of Pit at 1.00m	
								1
								2
								3
								4
								5
Remarks: 1) Location CAT scanned prior to ground being broken. 2) No groundwater encountered during excavation. 3) Pit backfilled with arisings on completion.								
Stability: Stable								

				Trial Pit Log			TrialPit No HDP03 Sheet 1 of 1	
Project Name: Albany Road				Project No. 10569		Co-ords: - Level:		Date 19/05/2023
Location: Chorlton				Dimensions (m): 0.40 0.40 Depth 1.00		Scale 1:25		
Client: Bowsall Developments						Logged OB		
Water Strike	Samples & In Situ Testing			Depth (m)	Level (m)	Legend	Stratum Description	
	Depth	Type	Results					
	0.10	ES		1.00			Light brown slightly gravelly medium to coarse SAND. Gravel is subangular to subrounded fine to coarse quartzite. (GLACIOFLUVIAL DEPOSITS) <i>Below 0.40m begl brown.</i>	
	0.60	B					End of Pit at 1.00m	
							1	
							2	
							3	
							4	
							5	
Remarks: 1) Location CAT scanned prior to ground being broken. 2) No groundwater encountered during excavation. 3) Pit backfilled with arisings on completion.								
Stability: Stable								

				Borehole Log				Borehole No. WS01 Sheet 1 of 1	
Project Name: Albany Road				Project No. 10569		Co-ords:		Hole Type WS	
Location: Chorlton				Level:		Scale 1:25		Logged By PGS	
Client: Bowsall Developments				Dates: 19/05/2023					

Well	Water Strikes	Sample and In Situ Testing			Depth (m)	Level (m)	Legend	Stratum Description	
		Depth (m)	Type	Results					
					0.16			MADE GROUND: Concrete	
					0.27			MADE GROUND: Light brown slightly sandy angular to subangular fine to coarse gravel of limestone, granite and sandstone.	
		0.40	ES					MADE GROUND: Dark grey slightly gravelly silty sand with a moderate hydrocarbon odour. Gravel is angular to subangular fine to coarse brick and concrete	
		1.20	SPT	N=12 (3,3/2,3,3,4)	1.20				
		1.30	ES					MADE GROUND: Soft dark grey slightly gravelly sandy silt with a slight hydrocarbon odour. Gravel is angular to subrounded fine to coarse brick, wood, concrete and quartzite.	
		2.00	SPT	N=20 (6,5/4,3,7,6)	2.00				
		2.70	ES		2.60			MADE GROUND: Medium dense dark grey angular to subangular fine to coarse gravel of concrete and brick with a slight hydrocarbon odour.	
		2.95		HVP=76				Firm dark reddish brown slightly sandy slightly gravelly CLAY. Gravel is subangular to subrounded fine to coarse sandstone.	
		3.00	D					(GLACIOFLUVIAL DEPOSITS)	
		3.00	SPT	N=12 (2,2/2,2,4,4)					
		3.95		HVP=70	4.00				
		4.00	SPT	N=17 (3,3/4,4,4,5)			End of Borehole at 4.00m		

Remarks

1) Location CAT scanned at inspection pit due to 1.20m begl prior to drilling. 2) No groundwater encountered during drilling. 3) Borehole terminated at 4.00m begl due to collapse. 4) Borehole back filled with arisings.





Borehole Log

Borehole No.

WS02

Sheet 1 of 1

Project Name: Albany Road

Project No. 10569

Co-ords:

Hole Type

WS

Location: Chorlton

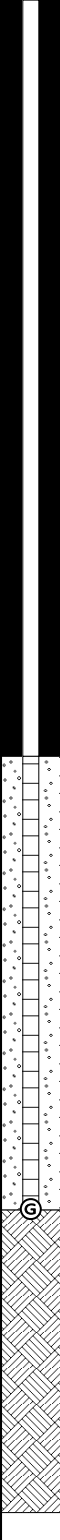
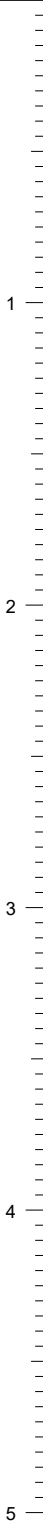
Level:

Scale 1:25

Client: Bowsall Developments

Dates: 19/05/2023

Logged By PGS

Well	Water Strikes	Sample and In Situ Testing			Depth (m)	Level (m)	Legend	Stratum Description	
		Depth (m)	Type	Results					
					0.21		MADE GROUND: Concrete		
					0.37		MADE GROUND: Grey mottled brown slightly gravelly sand. Gravel is angular to subangular fine to coarse concrete and brick.		
		0.50	ES				MADE GROUND: Dark grey slightly gravelly silty sand with a moderate hydrocarbon odour. Gravel is angular to subangular fine to coarse brick, glass and concrete		
		1.20	SPT	N=15 (3,4/4,5,3,3)			Below 1.20, begl medium dense.		
		1.60							
		1.70	ES				MADE GROUND: Grey slightly gravelly very sandy silt with a slight hydrocarbon odour. Gravel is subangular to subrounded fine to coarse brick, concrete, plastic and quartzite.		
		2.00	SPT	N=5 (4,2/2,2,1,0)	2.00		MADE GROUND: Loose dark grey angular to subangular fine to coarse gravel of concrete and brick with a slight hydrocarbon odour.		
		2.20	ES						
		2.50					Firm dark reddish brown sandy CLAY. (GLACIOFLUVIAL DEPOSITS)		
		2.70	ES						
		2.90							
		3.00	SPT	HVP=72 N=19 (2,3/3,5,5,6)					
	3.50	D							
	4.00								
	4.00	SPT	HVP=58 N=11 (1,1/2,3,3,3)						
	5.00	SPT	N=5 (1,1/1,1,1,2)	5.00			End of Borehole at 5.00m	5	

Remarks

1) Location CAT scanned at inspection pit due to 1.20m begl prior to drilling. 2) No groundwater encountered during drilling. 3) Borehole installed with ground gas and groundwater monitoring point.



Borehole Log

Borehole No.

WS03

Sheet 1 of 1

Project Name: Albany Road

Project No.
10569

Co-ords:

Hole Type
WS

Location: Chorlton

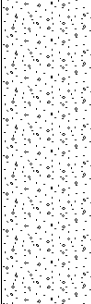
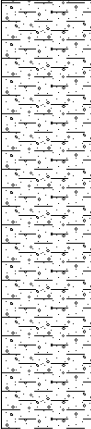
Level:

Scale
1:25

Client: Bowsall Developments

Dates: 19/05/2023

Logged By
PGS

Well	Water Strikes	Sample and In Situ Testing			Depth (m)	Level (m)	Legend	Stratum Description	
		Depth (m)	Type	Results					
		0.20	ES		0.16			MADE GROUND: Concrete	
		0.80	D					Light brown occasionally mottled orangish brown slightly gravelly medium to coarse SAND. Gravel is subangular to subrounded fine to coarse quartzite. (GLACIOFLUVIAL DEPOSITS)	1
		1.20	SPT	N=9 (4,3/3,3,1,2)				<i>Below 1.20m begl loose</i>	
		2.00	SPT	N=19 (3,4/4,5,5,5)	2.10			<i>Below 2.00m begl medium dense</i>	2
		3.00 3.00	SPT	HVP=74 N=14 (3,3/3,3,3,5)				Firm dark reddish brown slightly gravelly sandy CLAY. Gravel is subangular to subrounded fine to coarse sandstone. (GLACIOFLUVIAL DEPOSITS)	3
		4.00 4.00	SPT	HVP=110 N=20 (3,3/3,5,5,7)				<i>Below 3.50m begl stiff.</i>	4
		4.90 5.00	SPT	HVP=92 N=24 (3,4/5,5,6,8)	5.00				5
								End of Borehole at 5.00m	

Remarks

1) Location CAT scanned at inspection pit due to 1.20m begl prior to drilling. 2) No groundwater encountered during drilling. 3) Borehole back filled with arisings.

Borehole Log

Borehole No.

WS04

Sheet 1 of 1

Project Name: Albany Road

Project No.
10569

Co-ords:

Hole Type
WS

Location: Chorlton

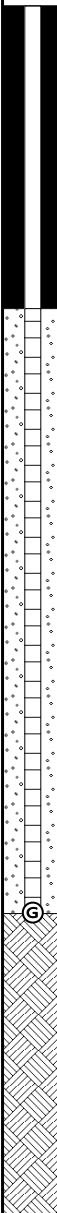
Level:

Scale
1:25

Client: Bowsall Developments

Dates: 19/05/2023

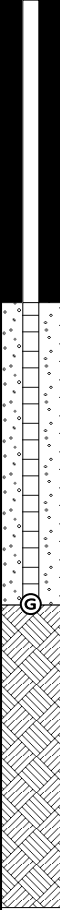
Logged By
PGS

Well	Water Strikes	Sample and In Situ Testing			Depth (m)	Level (m)	Legend	Stratum Description	
		Depth (m)	Type	Results					
					0.18			MADE GROUND: Concrete	
		0.40	ES					Brown slightly gravelly SAND. Gravel is subangular to subrounded fine to coarse quartzite.	
		0.60	D					(GLACIOFLUVIAL DEPOSITS) <i>Below 0.45m begl light brown.</i>	
		1.20	SPT	N=22 (4,4/7,5,6,4)				<i>Below 1.20, begl medium dense.</i>	1
		2.00 2.00	SPT	HVP=72 N=5 (1,1/1,1,1,2)	1.75			Firm dark reddish brown slightly gravelly sandy CLAY. Gravel is subangular to subrounded fine to coarse sandstone. (GLACIOFLUVIAL DEPOSITS)	2
		2.90 3.00	SPT	HVP=102 N=17 (2,2/3,4,5,5)	3.00			Medium dense brown slightly gravelly medium to coarse SAND. Gravel is subangular to subrounded fine to coarse quartzite. (GLACIOFLUVIAL DEPOSITS)	3
		4.00	SPT	N=8 (1,1/1,2,2,3)	4.00			End of Borehole at 4.00m	4
									5

Remarks

1) Location CAT scanned at inspection pit due to 1.20m begl prior to drilling. 2) Groundwater encountered during at 2.00m begl. 3) Borehole terminated at 4.00m begl due to collapse. 4) Borehole installed with ground gas and ground water monitoring point..

				Borehole Log			Borehole No. WS05 Sheet 1 of 1	
Project Name: Albany Road				Project No. 10569		Co-ords:		Hole Type WS
Location: Chorlton				Level:		Scale 1:25		
Client: Bowsall Developments				Dates: 19/05/2023		Logged By PGS		

Well	Water Strikes	Sample and In Situ Testing			Depth (m)	Level (m)	Legend	Stratum Description	
		Depth (m)	Type	Results					
					0.11		MADE GROUND: Concrete		
		0.30	ES		0.20		MADE GROUND: Light brown slightly sandy angular to subangular fine to coarse gravel of limestone, granite and sandstone.		
		1.00	SPT	N=12 (1,3/4,3,3,2)			MADE GROUND: Dark brown mottled orangish brown gravely slightly silty sand with a moderate cobble content and a slight hydrocarbon odour. Gravel is angular to subrounded fine to coarse brick, concrete and quartzite. Cobbles are brick.	1	
		1.30	ES				Below 1.20, begl medium dense.		
		2.00	SPT	N=30 (5,7/6,13,9,2)				2	
		3.00	SPT	N=15 (3,3/3,4,4,4)	2.75	3.00	Dark brown slightly gravelly medium to coarse SAND. Gravel is subangular to subrounded fine to coarse quartzite.	3	
							(GLACIOFLUVIAL DEPOSITS) End of Borehole at 3.00m	4	
								5	

Remarks

1) Location CAT scanned at inspection pit due to 1.20m begl prior to drilling. 2) No groundwater encountered during drilling. 3) Borehole terminated at 3.00m begl due to collapse. 4) Borehole installed with ground gas and ground water monitoring point..



Borehole Log

Borehole No.

WS06

Sheet 1 of 1

Project Name: Albany Road

Project No.
10569

Co-ords:

Hole Type
WS

Location: Chorlton

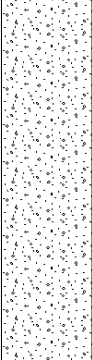
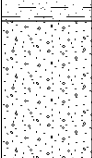
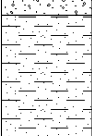
Level:

Scale
1:25

Client: Bowsall Developments

Dates: 19/05/2023

Logged By
PGS

Well	Water Strikes	Sample and In Situ Testing			Depth (m)	Level (m)	Legend	Stratum Description	
		Depth (m)	Type	Results					
					0.15			MADE GROUND: Concrete	1
		0.25	ES		0.37			MADE GROUND: Brown slightly gravelly slightly silty sand. Gravel is angular to subrounded fine to coarse brick, concrete, sandstone, mudstone and quartzite.	
		0.50	B		0.50			MADE GROUND: Concrete	
								Brown slightly gravelly medium to coarse SAND. Gravel is subangular to subrounded fine to coarse quartzite. (GLACIOFLUVIAL DEPOSITS)	2
		1.00	SPT	N=11 (4,5/3,3,3,2)	1.72			Firm dark reddish brown very sandy CLAY. (GLACIOFLUVIAL DEPOSITS)	
		1.20	D		2.00			Medium dense brown slightly gravelly medium to coarse SAND. Gravel is subangular to subrounded fine to coarse quartzite. (GLACIOFLUVIAL DEPOSITS)	
					2.50			Stiff dark reddish brown very sandy CLAY. (GLACIOFLUVIAL DEPOSITS)	
		2.90	D		3.00			End of Borehole at 3.00m	3
		2.90	SPT	HVP=52 N=10 (2,2/2,2,3,3)					4
		3.00		HVP=102 N=10 (2,1/2,2,3,3)					5

Remarks

1) Location CAT scanned at inspection pit due to 1.20m begl prior to drilling. 2) Groundwater encountered at 2.00m begl during drilling. 3) Borehole terminated at 3.00m begl due to collapse. 4) Borehole back filled with arisings.

					Borehole Log			Borehole No. WS07 Sheet 1 of 1	
Project Name: Albany Road					Project No. 10569		Co-ords:		Hole Type WS
Location: Chorlton					Level:			Scale 1:25	
Client: Bowsall Developments					Dates: 19/05/2023			Logged By PGS	
Well	Water Strikes	Sample and In Situ Testing			Depth (m)	Level (m)	Legend	Stratum Description	
		Depth (m)	Type	Results					
		0.30	ES		0.12			MADE GROUND: Concrete	1 2 3 4 5
					0.45			MADE GROUND: Brown slightly gravelly slightly silty sand. Gravel is angular to subrounded fine to coarse brick, concrete, sandstone, mudstone and quartzite.	
					0.65			MADE GROUND: Concrete	
					End of Borehole at 0.65m				
Remarks 1) Location CAT scanned at inspection pit due to 1.20m begl prior to drilling. 2) No groundwater encountered during drilling. 3) Borehole terminated at 0.65m begl due to concrete obstruction. 4) Borehole back filled with arisings.									

Appendix C

Laboratory Test Results

Peter Searing
Patrick Parson
40 St. Paul's Square
Birmingham
B3 1FQ

i2 Analytical Ltd.
7 Woodshots Meadow,
Croxley Green
Business Park,
Watford,
Herts,
WD18 8YS

t: 01923 225404
f: 01923 237404
e: reception@i2analytical.com

e: Patrick Parsons

Analytical Report Number : 23-35412

Project / Site name:	Albany Road, Chorlton	Samples received on:	23/05/2023
Your job number:	10569	Samples instructed on/ Analysis started on:	23/05/2023
Your order number:	2165	Analysis completed by:	31/05/2023
Report Issue Number:	1	Report issued on:	31/05/2023
Samples Analysed:	3 leachate samples - 12 soil samples		



Signed:

Anna Goc
Reporting Specialist
For & on behalf of i2 Analytical Ltd.

Standard Geotechnical, Asbestos and Chemical Testing Laboratory located at: ul. Pionierów 39, 41-711 Ruda Śląska, Poland.

Accredited tests are defined within the report, opinions and interpretations expressed herein are outside the scope of accreditation.

Standard sample disposal times, unless otherwise agreed with the laboratory, are :

soils - 4 weeks from reporting
leachates - 2 weeks from reporting
waters - 2 weeks from reporting
asbestos - 6 months from reporting

Excel copies of reports are only valid when accompanied by this PDF certificate.

Any assessments of compliance with specifications are based on actual analytical results with no contribution from uncertainty of measurement.
Application of uncertainty of measurement would provide a range within which the true result lies.
An estimate of measurement uncertainty can be provided on request.

Analytical Report Number: 23-35412
Project / Site name: Albany Road, Chorlton
Your Order No: 2165

Lab Sample Number				2689267	2689268	2689269	2689270	2689271
Sample Reference				WS03	WS06	WS01	WS01	WS02
Sample Number				None Supplied	None Supplied	None Supplied	None Supplied	None Supplied
Depth (m)				0.80	1.20	2.70	1.30	2.70
Date Sampled				22/05/2023	22/05/2023	22/05/2023	22/05/2023	22/05/2023
Time Taken				None Supplied	None Supplied	None Supplied	None Supplied	None Supplied
Analytical Parameter (Soil Analysis)	Units	Limit of detection	Accreditation Status					
Stone Content	%	0.1	NONE	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1
Moisture Content	%	0.01	NONE	2.8	10	14	13	10
Total mass of sample received	kg	0.001	NONE	0.5	0.5	0.8	0.8	0.8

Asbestos in Soil	Type	N/A	ISO 17025	-	-	-	-	-
Asbestos Analyst ID	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A

General Inorganics

pH - Automated	pH Units	N/A	MCERTS	8.4	8.5	8.2	-	-
Total Cyanide	mg/kg	1	MCERTS	-	-	-	-	-
Free Cyanide	mg/kg	1	MCERTS	-	-	-	-	-
Total Sulphate as SO ₄	%	0.005	MCERTS	-	-	-	-	-
Water Soluble Sulphate as SO ₄ 16hr extraction (2:1)	mg/kg	2.5	MCERTS	-	-	-	-	-
Water Soluble SO ₄ 16hr extraction (2:1 Leachate Equivalent)	g/l	0.00125	MCERTS	0.013	0.17	0.052	-	-
Water Soluble SO ₄ 16hr extraction (2:1 Leachate Equivalent)	mg/l	1.25	MCERTS	-	-	-	-	-
Total Organic Carbon (TOC) - Automated	%	0.1	MCERTS	-	-	-	-	-

Total Phenols

Total Phenols (monohydric)	mg/kg	1	MCERTS	-	-	-	-	-
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Speciated PAHs

Naphthalene	mg/kg	0.05	NONE	-	-	-	-	-
Acenaphthylene	mg/kg	0.05	NONE	-	-	-	-	-
Acenaphthene	mg/kg	0.05	NONE	-	-	-	-	-
Fluorene	mg/kg	0.05	NONE	-	-	-	-	-
Phenanthrene	mg/kg	0.05	NONE	-	-	-	-	-
Anthracene	mg/kg	0.05	NONE	-	-	-	-	-
Fluoranthene	mg/kg	0.05	NONE	-	-	-	-	-
Pyrene	mg/kg	0.05	NONE	-	-	-	-	-
Benzo(a)anthracene	mg/kg	0.05	NONE	-	-	-	-	-
Chrysene	mg/kg	0.05	NONE	-	-	-	-	-
Benzo(b)fluoranthene	mg/kg	0.05	NONE	-	-	-	-	-
Benzo(k)fluoranthene	mg/kg	0.05	NONE	-	-	-	-	-
Benzo(a)pyrene	mg/kg	0.05	NONE	-	-	-	-	-
Indeno(1,2,3-cd)pyrene	mg/kg	0.05	NONE	-	-	-	-	-
Dibenz(a,h)anthracene	mg/kg	0.05	NONE	-	-	-	-	-
Benzo(ghi)perylene	mg/kg	0.05	NONE	-	-	-	-	-

Total PAH

Speciated Total EPA-16 PAHs	mg/kg	0.8	NONE	-	-	-	-	-
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Analytical Report Number: 23-35412
Project / Site name: Albany Road, Chorlton
Your Order No: 2165

Lab Sample Number	2689267	2689268	2689269	2689270	2689271
Sample Reference	WS03	WS06	WS01	WS01	WS02
Sample Number	None Supplied	None Supplied	None Supplied	None Supplied	None Supplied
Depth (m)	0.80	1.20	2.70	1.30	2.70
Date Sampled	22/05/2023	22/05/2023	22/05/2023	22/05/2023	22/05/2023
Time Taken	None Supplied	None Supplied	None Supplied	None Supplied	None Supplied
Analytical Parameter (Soil Analysis)	Units	Limit of detection	Accreditation Status		

Heavy Metals / Metalloids

Arsenic (aqua regia extractable)	mg/kg	1	MCERTS	-	-	-	-	-
Cadmium (aqua regia extractable)	mg/kg	0.2	MCERTS	-	-	-	-	-
Chromium (hexavalent)	mg/kg	1.2	NONE	-	-	-	-	-
Chromium (aqua regia extractable)	mg/kg	1	MCERTS	-	-	-	-	-
Copper (aqua regia extractable)	mg/kg	1	MCERTS	-	-	-	-	-
Lead (aqua regia extractable)	mg/kg	1	MCERTS	-	-	-	-	-
Mercury (aqua regia extractable)	mg/kg	0.3	MCERTS	-	-	-	-	-
Nickel (aqua regia extractable)	mg/kg	1	MCERTS	-	-	-	-	-
Selenium (aqua regia extractable)	mg/kg	1	MCERTS	-	-	-	-	-
Zinc (aqua regia extractable)	mg/kg	1	MCERTS	-	-	-	-	-

Monoaromatics & Oxygenates

Benzene	µg/kg	5	NONE	-	-	< 5.0	< 5.0	< 5.0
Toluene	µg/kg	5	NONE	-	-	< 5.0	< 5.0	< 5.0
Ethylbenzene	µg/kg	5	NONE	-	-	< 5.0	< 5.0	< 5.0
p & m-xylene	µg/kg	5	NONE	-	-	< 5.0	< 5.0	< 5.0
o-xylene	µg/kg	5	NONE	-	-	< 5.0	< 5.0	< 5.0
MTBE (Methyl Tertiary Butyl Ether)	µg/kg	5	NONE	-	-	< 5.0	< 5.0	< 5.0

Petroleum Hydrocarbons

TPH-CWG - Aliphatic >EC5 - EC6 HS 1D AL	mg/kg	0.001	NONE	-	-	< 0.001	< 0.001	< 0.001
TPH-CWG - Aliphatic >EC6 - EC8 HS 1D AL	mg/kg	0.001	NONE	-	-	< 0.001	< 0.001	< 0.001
TPH-CWG - Aliphatic >EC8 - EC10 HS 1D AL	mg/kg	0.001	NONE	-	-	< 0.001	< 0.001	< 0.001
TPH-CWG - Aliphatic >EC10 - EC12 EH CU 1D AL	mg/kg	1	NONE	-	-	< 1.0	< 1.0	< 1.0
TPH-CWG - Aliphatic >EC12 - EC16 EH CU 1D AL	mg/kg	2	NONE	-	-	< 2.0	4.2	< 2.0
TPH-CWG - Aliphatic >EC16 - EC21 EH CU 1D AL	mg/kg	8	NONE	-	-	< 8.0	< 8.0	< 8.0
TPH-CWG - Aliphatic >EC21 - EC35 EH CU 1D AL	mg/kg	8	NONE	-	-	< 8.0	21	< 8.0
TPH-CWG - Aliphatic >EC35 - EC40 EH CU 1D AL	mg/kg	10	NONE	-	-	< 10	< 10	< 10
TPH-CWG - Aliphatic (EC5 - EC35) EH CU+HS 1D AL	mg/kg	10	NONE	-	-	-	-	-

TPH-CWG - Aromatic >EC5 - EC7 HS 1D AR	mg/kg	0.001	NONE	-	-	< 0.001	< 0.001	< 0.001
TPH-CWG - Aromatic >EC7 - EC8 HS 1D AR	mg/kg	0.001	NONE	-	-	< 0.001	< 0.001	< 0.001
TPH-CWG - Aromatic >EC8 - EC10 HS 1D AR	mg/kg	0.001	NONE	-	-	< 0.001	< 0.001	< 0.001
TPH-CWG - Aromatic >EC10 - EC12 EH CU 1D AR	mg/kg	1	NONE	-	-	< 1.0	< 1.0	< 1.0
TPH-CWG - Aromatic >EC12 - EC16 EH CU 1D AR	mg/kg	2	NONE	-	-	5.2	19	< 2.0
TPH-CWG - Aromatic >EC16 - EC21 EH CU 1D AR	mg/kg	10	NONE	-	-	14	81	< 10
TPH-CWG - Aromatic >EC21 - EC35 EH CU 1D AR	mg/kg	10	NONE	-	-	30	160	< 10
TPH-CWG - Aromatic >EC35 - EC40 EH CU 1D AR	mg/kg	10	NONE	-	-	< 10	25	< 10
TPH-CWG - Aromatic (EC5 - EC35) EH CU+HS 1D AR	mg/kg	10	NONE	-	-	-	-	-
TPH Total C5 - C40 EH CU+HS 1D TOTAL	mg/kg	10	NONE	-	-	58	330	< 10

VOCs#%

Chloromethane	µg/kg	5	NONE	-	-	-	-	-
Chloroethane	µg/kg	5	NONE	-	-	-	-	-
Bromomethane	µg/kg	5	NONE	-	-	-	-	-
Vinyl Chloride	µg/kg	5	NONE	-	-	-	-	-
Trichlorofluoromethane	µg/kg	5	NONE	-	-	-	-	-
1,1-Dichloroethene	µg/kg	5	NONE	-	-	-	-	-
1,1,2-Trichloro 1,2,2-Trifluoroethane	µg/kg	5	NONE	-	-	-	-	-
Cis-1,2-dichloroethene	µg/kg	5	NONE	-	-	-	-	-
MTBE (Methyl Tertiary Butyl Ether)	µg/kg	5	NONE	-	-	-	-	-

Analytical Report Number: 23-35412
Project / Site name: Albany Road, Chorlton
Your Order No: 2165

Lab Sample Number				2689267	2689268	2689269	2689270	2689271
Sample Reference				WS03	WS06	WS01	WS01	WS02
Sample Number				None Supplied	None Supplied	None Supplied	None Supplied	None Supplied
Depth (m)				0.80	1.20	2.70	1.30	2.70
Date Sampled				22/05/2023	22/05/2023	22/05/2023	22/05/2023	22/05/2023
Time Taken				None Supplied	None Supplied	None Supplied	None Supplied	None Supplied
Analytical Parameter (Soil Analysis)	Units	Limit of detection	Accreditation Status					
1,1-Dichloroethane	µg/kg	5	NONE	-	-	-	-	-
2,2-Dichloropropane	µg/kg	5	NONE	-	-	-	-	-
Trichloromethane	µg/kg	5	NONE	-	-	-	-	-
1,1,1-Trichloroethane	µg/kg	5	NONE	-	-	-	-	-
1,2-Dichloroethane	µg/kg	5	NONE	-	-	-	-	-
1,1-Dichloropropene	µg/kg	5	NONE	-	-	-	-	-
Trans-1,2-dichloroethene	µg/kg	5	NONE	-	-	-	-	-
Benzene	µg/kg	5	NONE	-	-	-	-	-
Tetrachloromethane	µg/kg	5	NONE	-	-	-	-	-
1,2-Dichloropropane	µg/kg	5	NONE	-	-	-	-	-
Trichloroethene	µg/kg	5	NONE	-	-	-	-	-
Dibromomethane	µg/kg	5	NONE	-	-	-	-	-
Bromodichloromethane	µg/kg	5	NONE	-	-	-	-	-
Cis-1,3-dichloropropene	µg/kg	5	NONE	-	-	-	-	-
Trans-1,3-dichloropropene	µg/kg	5	NONE	-	-	-	-	-
Toluene	µg/kg	5	NONE	-	-	-	-	-
1,1,2-Trichloroethane	µg/kg	5	NONE	-	-	-	-	-
1,3-Dichloropropane	µg/kg	5	NONE	-	-	-	-	-
Dibromochloromethane	µg/kg	5	NONE	-	-	-	-	-
Tetrachloroethene	µg/kg	5	NONE	-	-	-	-	-
1,2-Dibromoethane	µg/kg	5	NONE	-	-	-	-	-
Chlorobenzene	µg/kg	5	NONE	-	-	-	-	-
1,1,1,2-Tetrachloroethane	µg/kg	5	NONE	-	-	-	-	-
Ethylbenzene	µg/kg	5	NONE	-	-	-	-	-
p & m-Xylene	µg/kg	5	NONE	-	-	-	-	-
Styrene	µg/kg	5	NONE	-	-	-	-	-
Tribromomethane	µg/kg	5	NONE	-	-	-	-	-
o-Xylene	µg/kg	5	NONE	-	-	-	-	-
1,1,2,2-Tetrachloroethane	µg/kg	5	NONE	-	-	-	-	-
Isopropylbenzene	µg/kg	5	NONE	-	-	-	-	-
Bromobenzene	µg/kg	5	NONE	-	-	-	-	-
n-Propylbenzene	µg/kg	5	NONE	-	-	-	-	-
2-Chlorotoluene	µg/kg	5	NONE	-	-	-	-	-
4-Chlorotoluene	µg/kg	5	NONE	-	-	-	-	-
1,3,5-Trimethylbenzene	µg/kg	5	NONE	-	-	-	-	-
tert-Butylbenzene	µg/kg	5	NONE	-	-	-	-	-
1,2,4-Trimethylbenzene	µg/kg	5	NONE	-	-	-	-	-
sec-Butylbenzene	µg/kg	5	NONE	-	-	-	-	-
1,3-Dichlorobenzene	µg/kg	5	NONE	-	-	-	-	-
p-Isopropyltoluene	µg/kg	5	NONE	-	-	-	-	-
1,2-Dichlorobenzene	µg/kg	5	NONE	-	-	-	-	-
1,4-Dichlorobenzene	µg/kg	5	NONE	-	-	-	-	-
Butylbenzene	µg/kg	5	NONE	-	-	-	-	-
1,2-Dibromo-3-chloropropane	µg/kg	5	NONE	-	-	-	-	-
1,2,4-Trichlorobenzene	µg/kg	5	NONE	-	-	-	-	-
Hexachlorobutadiene	µg/kg	5	NONE	-	-	-	-	-
1,2,3-Trichlorobenzene	µg/kg	5	NONE	-	-	-	-	-

SVOCs

Aniline	mg/kg	0.1	NONE	-	-	-	-	-
Phenol	mg/kg	0.2	NONE	-	-	-	-	-
2-Chlorophenol	mg/kg	0.1	NONE	-	-	-	-	-

Analytical Report Number: 23-35412
 Project / Site name: Albany Road, Chorlton
 Your Order No: 2165

Lab Sample Number				2689267	2689268	2689269	2689270	2689271
Sample Reference				WS03	WS06	WS01	WS01	WS02
Sample Number				None Supplied	None Supplied	None Supplied	None Supplied	None Supplied
Depth (m)				0.80	1.20	2.70	1.30	2.70
Date Sampled				22/05/2023	22/05/2023	22/05/2023	22/05/2023	22/05/2023
Time Taken				None Supplied	None Supplied	None Supplied	None Supplied	None Supplied
Analytical Parameter (Soil Analysis)	Units	Limit of detection	Accreditation Status					
Bis(2-chloroethyl)ether	mg/kg	0.2	NONE	-	-	-	-	-
1,3-Dichlorobenzene	mg/kg	0.2	NONE	-	-	-	-	-
1,2-Dichlorobenzene	mg/kg	0.1	NONE	-	-	-	-	-
1,4-Dichlorobenzene	mg/kg	0.2	NONE	-	-	-	-	-
Bis(2-chloroisopropyl)ether	mg/kg	0.1	NONE	-	-	-	-	-
2-Methylphenol	mg/kg	0.3	NONE	-	-	-	-	-
Hexachloroethane	mg/kg	0.05	NONE	-	-	-	-	-
Nitrobenzene	mg/kg	0.3	NONE	-	-	-	-	-
4-Methylphenol	mg/kg	0.2	NONE	-	-	-	-	-
Isophorone	mg/kg	0.2	NONE	-	-	-	-	-
2-Nitrophenol	mg/kg	0.3	NONE	-	-	-	-	-
2,4-Dimethylphenol	mg/kg	0.3	NONE	-	-	-	-	-
Bis(2-chloroethoxy)methane	mg/kg	0.3	NONE	-	-	-	-	-
1,2,4-Trichlorobenzene	mg/kg	0.3	NONE	-	-	-	-	-
Naphthalene	mg/kg	0.05	NONE	-	-	-	-	-
2,4-Dichlorophenol	mg/kg	0.3	NONE	-	-	-	-	-
4-Chloroaniline	mg/kg	0.1	NONE	-	-	-	-	-
Hexachlorobutadiene	mg/kg	0.1	NONE	-	-	-	-	-
4-Chloro-3-methylphenol	mg/kg	0.1	NONE	-	-	-	-	-
2,4,6-Trichlorophenol	mg/kg	0.1	NONE	-	-	-	-	-
2,4,5-Trichlorophenol	mg/kg	0.2	NONE	-	-	-	-	-
2-Methylnaphthalene	mg/kg	0.1	NONE	-	-	-	-	-
2-Chloronaphthalene	mg/kg	0.1	NONE	-	-	-	-	-
Dimethylphthalate	mg/kg	0.1	NONE	-	-	-	-	-
2,6-Dinitrotoluene	mg/kg	0.1	NONE	-	-	-	-	-
Acenaphthylene	mg/kg	0.05	NONE	-	-	-	-	-
Acenaphthene	mg/kg	0.05	NONE	-	-	-	-	-
2,4-Dinitrotoluene	mg/kg	0.2	NONE	-	-	-	-	-
Dibenzofuran	mg/kg	0.2	NONE	-	-	-	-	-
4-Chlorophenyl phenyl ether	mg/kg	0.3	NONE	-	-	-	-	-
Diethyl phthalate	mg/kg	0.2	NONE	-	-	-	-	-
4-Nitroaniline	mg/kg	0.2	NONE	-	-	-	-	-
Fluorene	mg/kg	0.05	NONE	-	-	-	-	-
Azobenzene	mg/kg	0.3	NONE	-	-	-	-	-
Bromophenyl phenyl ether	mg/kg	0.2	NONE	-	-	-	-	-
Hexachlorobenzene	mg/kg	0.3	NONE	-	-	-	-	-
Phenanthrene	mg/kg	0.05	NONE	-	-	-	-	-
Anthracene	mg/kg	0.05	NONE	-	-	-	-	-
Carbazole	mg/kg	0.3	NONE	-	-	-	-	-
Dibutyl phthalate	mg/kg	0.2	NONE	-	-	-	-	-
Anthraquinone	mg/kg	0.3	NONE	-	-	-	-	-
Fluoranthene	mg/kg	0.05	NONE	-	-	-	-	-
Pyrene	mg/kg	0.05	NONE	-	-	-	-	-
Butyl benzyl phthalate	mg/kg	0.3	NONE	-	-	-	-	-
Benzo(a)anthracene	mg/kg	0.05	NONE	-	-	-	-	-
Chrysene	mg/kg	0.05	NONE	-	-	-	-	-
Benzo(b)fluoranthene	mg/kg	0.05	NONE	-	-	-	-	-
Benzo(k)fluoranthene	mg/kg	0.05	NONE	-	-	-	-	-
Benzo(a)pyrene	mg/kg	0.05	NONE	-	-	-	-	-
Indeno(1,2,3-cd)pyrene	mg/kg	0.05	NONE	-	-	-	-	-
Dibenz(a,h)anthracene	mg/kg	0.05	NONE	-	-	-	-	-
Benzo(ghi)perylene	mg/kg	0.05	NONE	-	-	-	-	-

Analytical Report Number: 23-35412
 Project / Site name: Albany Road, Chorlton
 Your Order No: 2165

Lab Sample Number				2689267	2689268	2689269	2689270	2689271
Sample Reference				WS03	WS06	WS01	WS01	WS02
Sample Number				None Supplied	None Supplied	None Supplied	None Supplied	None Supplied
Depth (m)				0.80	1.20	2.70	1.30	2.70
Date Sampled				22/05/2023	22/05/2023	22/05/2023	22/05/2023	22/05/2023
Time Taken				None Supplied	None Supplied	None Supplied	None Supplied	None Supplied
Analytical Parameter (Soil Analysis)				Units	Limit of detection	Accreditation Status		

U/S = Unsuitable Sample I/S = Insufficient Sample ND = Not detected

Analytical Report Number: 23-35412
Project / Site name: Albany Road, Chorlton
Your Order No: 2165

Lab Sample Number				2689272	2689273	2689274	2689275	2689276
Sample Reference				HDP01	HDP03	WS01	WS05	WS02
Sample Number				None Supplied	None Supplied	None Supplied	None Supplied	None Supplied
Depth (m)				0.20	0.10	0.40	0.30	2.20
Date Sampled				22/05/2023	22/05/2023	22/05/2023	22/05/2023	22/05/2023
Time Taken				None Supplied	None Supplied	None Supplied	None Supplied	None Supplied
Analytical Parameter (Soil Analysis)	Units	Limit of detection	Accreditation Status					
Stone Content	%	0.1	NONE	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1
Moisture Content	%	0.01	NONE	8.6	6.8	9.8	9	25
Total mass of sample received	kg	0.001	NONE	0.8	0.8	0.8	0.8	0.8

Asbestos in Soil	Type	N/A	ISO 17025	Not-detected	Not-detected	Not-detected	Not-detected	Not-detected
Asbestos Analyst ID	N/A	N/A	N/A	WEM	WEM	WEM	WEM	WEM

General Inorganics

pH - Automated	pH Units	N/A	MCERTS	8	7.9	8.3	8.9	7.3
Total Cyanide	mg/kg	1	MCERTS	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Free Cyanide	mg/kg	1	MCERTS	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Total Sulphate as SO ₄	%	0.005	MCERTS	0.028	0.01	0.077	0.118	0.138
Water Soluble Sulphate as SO ₄ 16hr extraction (2:1)	mg/kg	2.5	MCERTS	21	8.7	590	910	1000
Water Soluble SO ₄ 16hr extraction (2:1 Leachate Equivalent)	g/l	0.00125	MCERTS	0.01	0.0044	0.29	0.46	0.5
Water Soluble SO ₄ 16hr extraction (2:1 Leachate Equivalent)	mg/l	1.25	MCERTS	10.4	4.4	295	457	500
Total Organic Carbon (TOC) - Automated	%	0.1	MCERTS	1.2	0.2	1.7	1.3	5.1

Total Phenols

Total Phenols (monohydric)	mg/kg	1	MCERTS	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
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Speciated PAHs

Naphthalene	mg/kg	0.05	NONE	0.71	< 0.05	2.7	4.4	28
Acenaphthylene	mg/kg	0.05	NONE	0.26	< 0.05	0.28	0.71	< 0.05
Acenaphthene	mg/kg	0.05	NONE	1.2	< 0.05	5.6	5.7	48
Fluorene	mg/kg	0.05	NONE	0.77	< 0.05	4.6	6	29
Phenanthrene	mg/kg	0.05	NONE	9.2	0.18	29	36	39
Anthracene	mg/kg	0.05	NONE	2.2	< 0.05	7.5	9.8	24
Fluoranthene	mg/kg	0.05	NONE	18	0.35	36	41	36
Pyrene	mg/kg	0.05	NONE	17	0.35	32	37	31
Benzo(a)anthracene	mg/kg	0.05	NONE	8.8	0.21	18	21	13
Chrysene	mg/kg	0.05	NONE	8.1	0.21	14	18	12
Benzo(b)fluoranthene	mg/kg	0.05	NONE	10	0.26	18	24	15
Benzo(k)fluoranthene	mg/kg	0.05	NONE	4.2	0.06	6.8	6.8	5.1
Benzo(a)pyrene	mg/kg	0.05	NONE	9.4	0.21	15	19	11
Indeno(1,2,3-cd)pyrene	mg/kg	0.05	NONE	5.2	0.12	7.9	10	6
Dibenz(a,h)anthracene	mg/kg	0.05	NONE	1.4	< 0.05	2.1	2.4	1.8
Benzo(ghi)perylene	mg/kg	0.05	NONE	5.8	0.13	8.9	11	6.2

Total PAH

Speciated Total EPA-16 PAHs	mg/kg	0.8	NONE	102	2.08	210	255	305
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Analytical Report Number: 23-35412
Project / Site name: Albany Road, Chorlton
Your Order No: 2165

Lab Sample Number				2689272	2689273	2689274	2689275	2689276
Sample Reference				HDP01	HDP03	WS01	WS05	WS02
Sample Number				None Supplied	None Supplied	None Supplied	None Supplied	None Supplied
Depth (m)				0.20	0.10	0.40	0.30	2.20
Date Sampled				22/05/2023	22/05/2023	22/05/2023	22/05/2023	22/05/2023
Time Taken				None Supplied	None Supplied	None Supplied	None Supplied	None Supplied
Analytical Parameter (Soil Analysis)	Units	Limit of detection	Accreditation Status					
Heavy Metals / Metalloids								
Arsenic (aqua regia extractable)	mg/kg	1	MCERTS	7.1	2.5	12	12	39
Cadmium (aqua regia extractable)	mg/kg	0.2	MCERTS	0.3	< 0.2	< 0.2	0.5	< 0.2
Chromium (hexavalent)	mg/kg	1.2	NONE	< 1.2	< 1.2	< 1.2	< 1.2	< 1.2
Chromium (aqua regia extractable)	mg/kg	1	MCERTS	13	3.6	10	13	19
Copper (aqua regia extractable)	mg/kg	1	MCERTS	57	11	37	41	120
Lead (aqua regia extractable)	mg/kg	1	MCERTS	79	15	98	130	300
Mercury (aqua regia extractable)	mg/kg	0.3	MCERTS	< 0.3	< 0.3	< 0.3	< 0.3	< 0.3
Nickel (aqua regia extractable)	mg/kg	1	MCERTS	12	3.9	13	15	27
Selenium (aqua regia extractable)	mg/kg	1	MCERTS	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Zinc (aqua regia extractable)	mg/kg	1	MCERTS	180	19	82	85	130

Monoaromatics & Oxygenates

Benzene	µg/kg	5	NONE	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0
Toluene	µg/kg	5	NONE	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0
Ethylbenzene	µg/kg	5	NONE	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0
p & m-xylene	µg/kg	5	NONE	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0
o-xylene	µg/kg	5	NONE	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0
MTBE (Methyl Tertiary Butyl Ether)	µg/kg	5	NONE	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0

Petroleum Hydrocarbons

TPH-CWG - Aliphatic >EC5 - EC6 HS_1D_AL	mg/kg	0.001	NONE	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
TPH-CWG - Aliphatic >EC6 - EC8 HS_1D_AL	mg/kg	0.001	NONE	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
TPH-CWG - Aliphatic >EC8 - EC10 HS_1D_AL	mg/kg	0.001	NONE	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
TPH-CWG - Aliphatic >EC10 - EC12 EH_CU_1D_AL	mg/kg	1	NONE	< 1.0	< 1.0	< 1.0	< 1.0	2
TPH-CWG - Aliphatic >EC12 - EC16 EH_CU_1D_AL	mg/kg	2	NONE	2	< 2.0	12	2.1	9.9
TPH-CWG - Aliphatic >EC16 - EC21 EH_CU_1D_AL	mg/kg	8	NONE	< 8.0	< 8.0	16	< 8.0	28
TPH-CWG - Aliphatic >EC21 - EC35 EH_CU_1D_AL	mg/kg	8	NONE	31	< 8.0	16	13	130
TPH-CWG - Aliphatic >EC35 - EC40 EH_CU_1D_AL	mg/kg	10	NONE	12	< 10	< 10	< 10	30
TPH-CWG - Aliphatic (EC5 - EC35) EH_CU+HS_1D_AL	mg/kg	10	NONE	39	< 10	45	20	170

TPH-CWG - Aromatic >EC5 - EC7 HS_1D_AR	mg/kg	0.001	NONE	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
TPH-CWG - Aromatic >EC7 - EC8 HS_1D_AR	mg/kg	0.001	NONE	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
TPH-CWG - Aromatic >EC8 - EC10 HS_1D_AR	mg/kg	0.001	NONE	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
TPH-CWG - Aromatic >EC10 - EC12 EH_CU_1D_AR	mg/kg	1	NONE	< 1.0	< 1.0	2.7	2.5	3
TPH-CWG - Aromatic >EC12 - EC16 EH_CU_1D_AR	mg/kg	2	NONE	8.4	< 2.0	19	20	54
TPH-CWG - Aromatic >EC16 - EC21 EH_CU_1D_AR	mg/kg	10	NONE	48	< 10	83	94	150
TPH-CWG - Aromatic >EC21 - EC35 EH_CU_1D_AR	mg/kg	10	NONE	180	13	170	170	220
TPH-CWG - Aromatic >EC35 - EC40 EH_CU_1D_AR	mg/kg	10	NONE	54	< 10	25	25	40
TPH-CWG - Aromatic (EC5 - EC35) EH_CU+HS_1D_AR	mg/kg	10	NONE	240	16	280	290	430
TPH Total C5 - C40 EH_CU+HS_1D_TOTAL	mg/kg	10	NONE	340	16	350	330	670

VOCs#%

Chloromethane	µg/kg	5	NONE	-	-	< 5.0	< 5.0	-
Chloroethane	µg/kg	5	NONE	-	-	< 5.0	< 5.0	-
Bromomethane	µg/kg	5	NONE	-	-	< 5.0	< 5.0	-
Vinyl Chloride	µg/kg	5	NONE	-	-	< 5.0	< 5.0	-
Trichlorofluoromethane	µg/kg	5	NONE	-	-	< 5.0	< 5.0	-
1,1-Dichloroethene	µg/kg	5	NONE	-	-	< 5.0	< 5.0	-
1,1,2-Trichloro 1,2,2-Trifluoroethane	µg/kg	5	NONE	-	-	< 5.0	< 5.0	-
Cis-1,2-dichloroethene	µg/kg	5	NONE	-	-	< 5.0	< 5.0	-
MTBE (Methyl Tertiary Butyl Ether)	µg/kg	5	NONE	-	-	< 5.0	< 5.0	-

Analytical Report Number: 23-35412
 Project / Site name: Albany Road, Chorlton
 Your Order No: 2165

Lab Sample Number				2689272	2689273	2689274	2689275	2689276
Sample Reference				HDP01	HDP03	WS01	WS05	WS02
Sample Number				None Supplied	None Supplied	None Supplied	None Supplied	None Supplied
Depth (m)				0.20	0.10	0.40	0.30	2.20
Date Sampled				22/05/2023	22/05/2023	22/05/2023	22/05/2023	22/05/2023
Time Taken				None Supplied	None Supplied	None Supplied	None Supplied	None Supplied
Analytical Parameter (Soil Analysis)	Units	Limit of detection	Accreditation Status					
1,1-Dichloroethane	µg/kg	5	NONE	-	-	< 5.0	< 5.0	-
2,2-Dichloropropane	µg/kg	5	NONE	-	-	< 5.0	< 5.0	-
Trichloromethane	µg/kg	5	NONE	-	-	< 5.0	< 5.0	-
1,1,1-Trichloroethane	µg/kg	5	NONE	-	-	< 5.0	< 5.0	-
1,2-Dichloroethane	µg/kg	5	NONE	-	-	< 5.0	< 5.0	-
1,1-Dichloropropene	µg/kg	5	NONE	-	-	< 5.0	< 5.0	-
Trans-1,2-dichloroethene	µg/kg	5	NONE	-	-	< 5.0	< 5.0	-
Benzene	µg/kg	5	NONE	-	-	< 5.0	< 5.0	-
Tetrachloromethane	µg/kg	5	NONE	-	-	< 5.0	< 5.0	-
1,2-Dichloropropane	µg/kg	5	NONE	-	-	< 5.0	< 5.0	-
Trichloroethene	µg/kg	5	NONE	-	-	< 5.0	< 5.0	-
Dibromomethane	µg/kg	5	NONE	-	-	< 5.0	< 5.0	-
Bromodichloromethane	µg/kg	5	NONE	-	-	< 5.0	< 5.0	-
Cis-1,3-dichloropropene	µg/kg	5	NONE	-	-	< 5.0	< 5.0	-
Trans-1,3-dichloropropene	µg/kg	5	NONE	-	-	< 5.0	< 5.0	-
Toluene	µg/kg	5	NONE	-	-	< 5.0	< 5.0	-
1,1,2-Trichloroethane	µg/kg	5	NONE	-	-	< 5.0	< 5.0	-
1,3-Dichloropropane	µg/kg	5	NONE	-	-	< 5.0	< 5.0	-
Dibromochloromethane	µg/kg	5	NONE	-	-	< 5.0	< 5.0	-
Tetrachloroethene	µg/kg	5	NONE	-	-	< 5.0	< 5.0	-
1,2-Dibromoethane	µg/kg	5	NONE	-	-	< 5.0	< 5.0	-
Chlorobenzene	µg/kg	5	NONE	-	-	< 5.0	< 5.0	-
1,1,1,2-Tetrachloroethane	µg/kg	5	NONE	-	-	< 5.0	< 5.0	-
Ethylbenzene	µg/kg	5	NONE	-	-	< 5.0	< 5.0	-
p & m-Xylene	µg/kg	5	NONE	-	-	< 5.0	< 5.0	-
Styrene	µg/kg	5	NONE	-	-	< 5.0	< 5.0	-
Tribromomethane	µg/kg	5	NONE	-	-	< 5.0	< 5.0	-
o-Xylene	µg/kg	5	NONE	-	-	< 5.0	< 5.0	-
1,1,2,2-Tetrachloroethane	µg/kg	5	NONE	-	-	< 5.0	< 5.0	-
Isopropylbenzene	µg/kg	5	NONE	-	-	< 5.0	< 5.0	-
Bromobenzene	µg/kg	5	NONE	-	-	< 5.0	< 5.0	-
n-Propylbenzene	µg/kg	5	NONE	-	-	< 5.0	< 5.0	-
2-Chlorotoluene	µg/kg	5	NONE	-	-	< 5.0	< 5.0	-
4-Chlorotoluene	µg/kg	5	NONE	-	-	< 5.0	< 5.0	-
1,3,5-Trimethylbenzene	µg/kg	5	NONE	-	-	< 5.0	< 5.0	-
tert-Butylbenzene	µg/kg	5	NONE	-	-	< 5.0	< 5.0	-
1,2,4-Trimethylbenzene	µg/kg	5	NONE	-	-	< 5.0	< 5.0	-
sec-Butylbenzene	µg/kg	5	NONE	-	-	< 5.0	< 5.0	-
1,3-Dichlorobenzene	µg/kg	5	NONE	-	-	< 5.0	< 5.0	-
p-Isopropyltoluene	µg/kg	5	NONE	-	-	< 5.0	< 5.0	-
1,2-Dichlorobenzene	µg/kg	5	NONE	-	-	< 5.0	< 5.0	-
1,4-Dichlorobenzene	µg/kg	5	NONE	-	-	< 5.0	< 5.0	-
Butylbenzene	µg/kg	5	NONE	-	-	< 5.0	< 5.0	-
1,2-Dibromo-3-chloropropane	µg/kg	5	NONE	-	-	< 5.0	< 5.0	-
1,2,4-Trichlorobenzene	µg/kg	5	NONE	-	-	< 5.0	< 5.0	-
Hexachlorobutadiene	µg/kg	5	NONE	-	-	< 5.0	< 5.0	-
1,2,3-Trichlorobenzene	µg/kg	5	NONE	-	-	< 5.0	< 5.0	-

SVOCs

Aniline	mg/kg	0.1	NONE	-	-	< 0.1	< 0.1	-
Phenol	mg/kg	0.2	NONE	-	-	< 0.2	< 0.2	-
2-Chlorophenol	mg/kg	0.1	NONE	-	-	< 0.1	< 0.1	-

Analytical Report Number: 23-35412
 Project / Site name: Albany Road, Chorlton
 Your Order No: 2165

Lab Sample Number				2689272	2689273	2689274	2689275	2689276
Sample Reference				HDP01	HDP03	WS01	WS05	WS02
Sample Number				None Supplied	None Supplied	None Supplied	None Supplied	None Supplied
Depth (m)				0.20	0.10	0.40	0.30	2.20
Date Sampled				22/05/2023	22/05/2023	22/05/2023	22/05/2023	22/05/2023
Time Taken				None Supplied	None Supplied	None Supplied	None Supplied	None Supplied
Analytical Parameter (Soil Analysis)	Units	Limit of detection	Accreditation Status					
Bis(2-chloroethyl)ether	mg/kg	0.2	NONE	-	-	< 0.2	< 0.2	-
1,3-Dichlorobenzene	mg/kg	0.2	NONE	-	-	< 0.2	< 0.2	-
1,2-Dichlorobenzene	mg/kg	0.1	NONE	-	-	< 0.1	< 0.1	-
1,4-Dichlorobenzene	mg/kg	0.2	NONE	-	-	< 0.2	< 0.2	-
Bis(2-chloroisopropyl)ether	mg/kg	0.1	NONE	-	-	< 0.1	< 0.1	-
2-Methylphenol	mg/kg	0.3	NONE	-	-	< 0.3	< 0.3	-
Hexachloroethane	mg/kg	0.05	NONE	-	-	< 0.05	< 0.05	-
Nitrobenzene	mg/kg	0.3	NONE	-	-	< 0.3	< 0.3	-
4-Methylphenol	mg/kg	0.2	NONE	-	-	< 0.2	< 0.2	-
Isophorone	mg/kg	0.2	NONE	-	-	< 0.2	< 0.2	-
2-Nitrophenol	mg/kg	0.3	NONE	-	-	< 0.3	< 0.3	-
2,4-Dimethylphenol	mg/kg	0.3	NONE	-	-	< 0.3	< 0.3	-
Bis(2-chloroethoxy)methane	mg/kg	0.3	NONE	-	-	< 0.3	< 0.3	-
1,2,4-Trichlorobenzene	mg/kg	0.3	NONE	-	-	< 0.3	< 0.3	-
Naphthalene	mg/kg	0.05	NONE	-	-	2.7	4.4	-
2,4-Dichlorophenol	mg/kg	0.3	NONE	-	-	< 0.3	< 0.3	-
4-Chloroaniline	mg/kg	0.1	NONE	-	-	< 0.1	< 0.1	-
Hexachlorobutadiene	mg/kg	0.1	NONE	-	-	< 0.1	< 0.1	-
4-Chloro-3-methylphenol	mg/kg	0.1	NONE	-	-	< 0.1	< 0.1	-
2,4,6-Trichlorophenol	mg/kg	0.1	NONE	-	-	< 0.1	< 0.1	-
2,4,5-Trichlorophenol	mg/kg	0.2	NONE	-	-	< 0.2	< 0.2	-
2-Methylnaphthalene	mg/kg	0.1	NONE	-	-	2.3	4	-
2-Chloronaphthalene	mg/kg	0.1	NONE	-	-	< 0.1	< 0.1	-
Dimethylphthalate	mg/kg	0.1	NONE	-	-	< 0.1	< 0.1	-
2,6-Dinitrotoluene	mg/kg	0.1	NONE	-	-	< 0.1	< 0.1	-
Acenaphthylene	mg/kg	0.05	NONE	-	-	0.28	0.71	-
Acenaphthene	mg/kg	0.05	NONE	-	-	5.6	5.7	-
2,4-Dinitrotoluene	mg/kg	0.2	NONE	-	-	< 0.2	< 0.2	-
Dibenzofuran	mg/kg	0.2	NONE	-	-	2.8	3.6	-
4-Chlorophenyl phenyl ether	mg/kg	0.3	NONE	-	-	< 0.3	< 0.3	-
Diethyl phthalate	mg/kg	0.2	NONE	-	-	< 0.2	< 0.2	-
4-Nitroaniline	mg/kg	0.2	NONE	-	-	< 0.2	< 0.2	-
Fluorene	mg/kg	0.05	NONE	-	-	4.6	6	-
Azobenzene	mg/kg	0.3	NONE	-	-	< 0.3	< 0.3	-
Bromophenyl phenyl ether	mg/kg	0.2	NONE	-	-	< 0.2	< 0.2	-
Hexachlorobenzene	mg/kg	0.3	NONE	-	-	< 0.3	< 0.3	-
Phenanthrene	mg/kg	0.05	NONE	-	-	29	36	-
Anthracene	mg/kg	0.05	NONE	-	-	7.5	9.8	-
Carbazole	mg/kg	0.3	NONE	-	-	2.4	2.8	-
Dibutyl phthalate	mg/kg	0.2	NONE	-	-	< 0.2	< 0.2	-
Anthraquinone	mg/kg	0.3	NONE	-	-	1	< 0.3	-
Fluoranthene	mg/kg	0.05	NONE	-	-	36	41	-
Pyrene	mg/kg	0.05	NONE	-	-	32	37	-
Butyl benzyl phthalate	mg/kg	0.3	NONE	-	-	< 0.3	< 0.3	-
Benzo(a)anthracene	mg/kg	0.05	NONE	-	-	18	21	-
Chrysene	mg/kg	0.05	NONE	-	-	14	18	-
Benzo(b)fluoranthene	mg/kg	0.05	NONE	-	-	18	24	-
Benzo(k)fluoranthene	mg/kg	0.05	NONE	-	-	6.8	6.8	-
Benzo(a)pyrene	mg/kg	0.05	NONE	-	-	15	19	-
Indeno(1,2,3-cd)pyrene	mg/kg	0.05	NONE	-	-	7.9	10	-
Dibenz(a,h)anthracene	mg/kg	0.05	NONE	-	-	2.1	2.4	-
Benzo(ghi)perylene	mg/kg	0.05	NONE	-	-	8.9	11	-

Analytical Report Number: 23-35412
 Project / Site name: Albany Road, Chorlton
 Your Order No: 2165

Lab Sample Number				2689272	2689273	2689274	2689275	2689276
Sample Reference				HDP01	HDP03	WS01	WS05	WS02
Sample Number				None Supplied	None Supplied	None Supplied	None Supplied	None Supplied
Depth (m)				0.20	0.10	0.40	0.30	2.20
Date Sampled				22/05/2023	22/05/2023	22/05/2023	22/05/2023	22/05/2023
Time Taken				None Supplied	None Supplied	None Supplied	None Supplied	None Supplied
Analytical Parameter (Soil Analysis)				Units	Limit of detection	Accreditation Status		

U/S = Unsuitable Sample I/S = Insufficient Sample ND = Not detected

Analytical Report Number: 23-35412
Project / Site name: Albany Road, Chorlton
Your Order No: 2165

Lab Sample Number				2689277	2689278
Sample Reference				WS04	WS06
Sample Number				None Supplied	None Supplied
Depth (m)				0.40	0.25
Date Sampled				22/05/2023	22/05/2023
Time Taken				None Supplied	None Supplied
Analytical Parameter (Soil Analysis)	Units	Limit of detection	Accreditation Status		
Stone Content	%	0.1	NONE	< 0.1	< 0.1
Moisture Content	%	0.01	NONE	5.9	8.7
Total mass of sample received	kg	0.001	NONE	0.8	0.8

Asbestos in Soil	Type	N/A	ISO 17025	Not-detected	Not-detected
Asbestos Analyst ID	N/A	N/A	N/A	WEM	WEM

General Inorganics

pH - Automated	pH Units	N/A	MCERTS	8.4	9.2
Total Cyanide	mg/kg	1	MCERTS	< 1.0	< 1.0
Free Cyanide	mg/kg	1	MCERTS	< 1.0	< 1.0
Total Sulphate as SO ₄	%	0.005	MCERTS	0.006	0.206
Water Soluble Sulphate as SO ₄ 16hr extraction (2:1)	mg/kg	2.5	MCERTS	36	1500
Water Soluble SO ₄ 16hr extraction (2:1 Leachate Equivalent)	g/l	0.00125	MCERTS	0.018	0.73
Water Soluble SO ₄ 16hr extraction (2:1 Leachate Equivalent)	mg/l	1.25	MCERTS	18	733
Total Organic Carbon (TOC) - Automated	%	0.1	MCERTS	0.1	0.5

Total Phenols

Total Phenols (monohydric)	mg/kg	1	MCERTS	< 1.0	< 1.0
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Speciated PAHs

Naphthalene	mg/kg	0.05	NONE	< 0.05	0.12
Acenaphthylene	mg/kg	0.05	NONE	< 0.05	0.07
Acenaphthene	mg/kg	0.05	NONE	< 0.05	0.22
Fluorene	mg/kg	0.05	NONE	< 0.05	0.14
Phenanthrene	mg/kg	0.05	NONE	< 0.05	1.8
Anthracene	mg/kg	0.05	NONE	< 0.05	0.41
Fluoranthene	mg/kg	0.05	NONE	< 0.05	4.4
Pyrene	mg/kg	0.05	NONE	< 0.05	4.4
Benzo(a)anthracene	mg/kg	0.05	NONE	< 0.05	2.6
Chrysene	mg/kg	0.05	NONE	< 0.05	2.5
Benzo(b)fluoranthene	mg/kg	0.05	NONE	< 0.05	3.3
Benzo(k)fluoranthene	mg/kg	0.05	NONE	< 0.05	1.3
Benzo(a)pyrene	mg/kg	0.05	NONE	< 0.05	3
Indeno(1,2,3-cd)pyrene	mg/kg	0.05	NONE	< 0.05	1.7
Dibenz(a,h)anthracene	mg/kg	0.05	NONE	< 0.05	0.48
Benzo(ghi)perylene	mg/kg	0.05	NONE	< 0.05	2

Total PAH

Speciated Total EPA-16 PAHs	mg/kg	0.8	NONE	< 0.80	28.5
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Analytical Report Number: 23-35412
Project / Site name: Albany Road, Chorlton
Your Order No: 2165

Lab Sample Number				2689277	2689278
Sample Reference				WS04	WS06
Sample Number				None Supplied	None Supplied
Depth (m)				0.40	0.25
Date Sampled				22/05/2023	22/05/2023
Time Taken				None Supplied	None Supplied
Analytical Parameter (Soil Analysis)	Units	Limit of detection	Accreditation Status		
Heavy Metals / Metalloids					
Arsenic (aqua regia extractable)	mg/kg	1	MCERTS	5.3	4.7
Cadmium (aqua regia extractable)	mg/kg	0.2	MCERTS	< 0.2	0.4
Chromium (hexavalent)	mg/kg	1.2	NONE	< 1.2	< 1.2
Chromium (aqua regia extractable)	mg/kg	1	MCERTS	4.9	10
Copper (aqua regia extractable)	mg/kg	1	MCERTS	19	16
Lead (aqua regia extractable)	mg/kg	1	MCERTS	9.3	55
Mercury (aqua regia extractable)	mg/kg	0.3	MCERTS	< 0.3	< 0.3
Nickel (aqua regia extractable)	mg/kg	1	MCERTS	6.6	9
Selenium (aqua regia extractable)	mg/kg	1	MCERTS	< 1.0	< 1.0
Zinc (aqua regia extractable)	mg/kg	1	MCERTS	15	48

Monoaromatics & Oxygenates

Benzene	µg/kg	5	NONE	< 5.0	< 5.0
Toluene	µg/kg	5	NONE	< 5.0	< 5.0
Ethylbenzene	µg/kg	5	NONE	< 5.0	< 5.0
p & m-xylene	µg/kg	5	NONE	< 5.0	< 5.0
o-xylene	µg/kg	5	NONE	< 5.0	< 5.0
MTBE (Methyl Tertiary Butyl Ether)	µg/kg	5	NONE	< 5.0	< 5.0

Petroleum Hydrocarbons

TPH-CWG - Aliphatic >EC5 - EC6 HS 1D AL	mg/kg	0.001	NONE	< 0.001	< 0.001
TPH-CWG - Aliphatic >EC6 - EC8 HS 1D AL	mg/kg	0.001	NONE	< 0.001	< 0.001
TPH-CWG - Aliphatic >EC8 - EC10 HS 1D AL	mg/kg	0.001	NONE	< 0.001	< 0.001
TPH-CWG - Aliphatic >EC10 - EC12 EH CU 1D AL	mg/kg	1	NONE	< 1.0	< 1.0
TPH-CWG - Aliphatic >EC12 - EC16 EH CU 1D AL	mg/kg	2	NONE	< 2.0	< 2.0
TPH-CWG - Aliphatic >EC16 - EC21 EH CU 1D AL	mg/kg	8	NONE	< 8.0	< 8.0
TPH-CWG - Aliphatic >EC21 - EC35 EH CU 1D AL	mg/kg	8	NONE	< 8.0	< 8.0
TPH-CWG - Aliphatic >EC35 - EC40 EH CU 1D AL	mg/kg	10	NONE	< 10	< 10
TPH-CWG - Aliphatic (EC5 - EC35) EH CU+HS 1D AL	mg/kg	10	NONE	< 10	< 10

TPH-CWG - Aromatic >EC5 - EC7 HS 1D AR	mg/kg	0.001	NONE	< 0.001	< 0.001
TPH-CWG - Aromatic >EC7 - EC8 HS 1D AR	mg/kg	0.001	NONE	< 0.001	< 0.001
TPH-CWG - Aromatic >EC8 - EC10 HS 1D AR	mg/kg	0.001	NONE	< 0.001	< 0.001
TPH-CWG - Aromatic >EC10 - EC12 EH CU 1D AR	mg/kg	1	NONE	< 1.0	< 1.0
TPH-CWG - Aromatic >EC12 - EC16 EH CU 1D AR	mg/kg	2	NONE	< 2.0	< 2.0
TPH-CWG - Aromatic >EC16 - EC21 EH CU 1D AR	mg/kg	10	NONE	< 10	15
TPH-CWG - Aromatic >EC21 - EC35 EH CU 1D AR	mg/kg	10	NONE	< 10	49
TPH-CWG - Aromatic >EC35 - EC40 EH CU 1D AR	mg/kg	10	NONE	< 10	11
TPH-CWG - Aromatic (EC5 - EC35) EH CU+HS 1D AR	mg/kg	10	NONE	< 10	65
TPH Total C5 - C40 EH CU+HS 1D TOTAL	mg/kg	10	NONE	< 10	76

VOCs#%

Chloromethane	µg/kg	5	NONE	-	-
Chloroethane	µg/kg	5	NONE	-	-
Bromomethane	µg/kg	5	NONE	-	-
Vinyl Chloride	µg/kg	5	NONE	-	-
Trichlorofluoromethane	µg/kg	5	NONE	-	-
1,1-Dichloroethene	µg/kg	5	NONE	-	-
1,1,2-Trichloro 1,2,2-Trifluoroethane	µg/kg	5	NONE	-	-
Cis-1,2-dichloroethene	µg/kg	5	NONE	-	-
MTBE (Methyl Tertiary Butyl Ether)	µg/kg	5	NONE	-	-

Analytical Report Number: 23-35412
Project / Site name: Albany Road, Chorlton
Your Order No: 2165

Lab Sample Number				2689277	2689278
Sample Reference				WS04	WS06
Sample Number				None Supplied	None Supplied
Depth (m)				0.40	0.25
Date Sampled				22/05/2023	22/05/2023
Time Taken				None Supplied	None Supplied
Analytical Parameter (Soil Analysis)	Units	Limit of detection	Accreditation Status		
1,1-Dichloroethane	µg/kg	5	NONE	-	-
2,2-Dichloropropane	µg/kg	5	NONE	-	-
Trichloromethane	µg/kg	5	NONE	-	-
1,1,1-Trichloroethane	µg/kg	5	NONE	-	-
1,2-Dichloroethane	µg/kg	5	NONE	-	-
1,1-Dichloropropene	µg/kg	5	NONE	-	-
Trans-1,2-dichloroethene	µg/kg	5	NONE	-	-
Benzene	µg/kg	5	NONE	-	-
Tetrachloromethane	µg/kg	5	NONE	-	-
1,2-Dichloropropane	µg/kg	5	NONE	-	-
Trichloroethene	µg/kg	5	NONE	-	-
Dibromomethane	µg/kg	5	NONE	-	-
Bromodichloromethane	µg/kg	5	NONE	-	-
Cis-1,3-dichloropropene	µg/kg	5	NONE	-	-
Trans-1,3-dichloropropene	µg/kg	5	NONE	-	-
Toluene	µg/kg	5	NONE	-	-
1,1,2-Trichloroethane	µg/kg	5	NONE	-	-
1,3-Dichloropropane	µg/kg	5	NONE	-	-
Dibromochloromethane	µg/kg	5	NONE	-	-
Tetrachloroethene	µg/kg	5	NONE	-	-
1,2-Dibromoethane	µg/kg	5	NONE	-	-
Chlorobenzene	µg/kg	5	NONE	-	-
1,1,1,2-Tetrachloroethane	µg/kg	5	NONE	-	-
Ethylbenzene	µg/kg	5	NONE	-	-
p & m-Xylene	µg/kg	5	NONE	-	-
Styrene	µg/kg	5	NONE	-	-
Tribromomethane	µg/kg	5	NONE	-	-
o-Xylene	µg/kg	5	NONE	-	-
1,1,2,2-Tetrachloroethane	µg/kg	5	NONE	-	-
Isopropylbenzene	µg/kg	5	NONE	-	-
Bromobenzene	µg/kg	5	NONE	-	-
n-Propylbenzene	µg/kg	5	NONE	-	-
2-Chlorotoluene	µg/kg	5	NONE	-	-
4-Chlorotoluene	µg/kg	5	NONE	-	-
1,3,5-Trimethylbenzene	µg/kg	5	NONE	-	-
tert-Butylbenzene	µg/kg	5	NONE	-	-
1,2,4-Trimethylbenzene	µg/kg	5	NONE	-	-
sec-Butylbenzene	µg/kg	5	NONE	-	-
1,3-Dichlorobenzene	µg/kg	5	NONE	-	-
p-Isopropyltoluene	µg/kg	5	NONE	-	-
1,2-Dichlorobenzene	µg/kg	5	NONE	-	-
1,4-Dichlorobenzene	µg/kg	5	NONE	-	-
Butylbenzene	µg/kg	5	NONE	-	-
1,2-Dibromo-3-chloropropane	µg/kg	5	NONE	-	-
1,2,4-Trichlorobenzene	µg/kg	5	NONE	-	-
Hexachlorobutadiene	µg/kg	5	NONE	-	-
1,2,3-Trichlorobenzene	µg/kg	5	NONE	-	-

SVOCs

Aniline	mg/kg	0.1	NONE	-	-
Phenol	mg/kg	0.2	NONE	-	-
2-Chlorophenol	mg/kg	0.1	NONE	-	-

Analytical Report Number: 23-35412
 Project / Site name: Albany Road, Chorlton
 Your Order No: 2165

Lab Sample Number				2689277	2689278
Sample Reference				WS04	WS06
Sample Number				None Supplied	None Supplied
Depth (m)				0.40	0.25
Date Sampled				22/05/2023	22/05/2023
Time Taken				None Supplied	None Supplied
Analytical Parameter (Soil Analysis)	Units	Limit of detection	Accreditation Status		
Bis(2-chloroethyl)ether	mg/kg	0.2	NONE	-	-
1,3-Dichlorobenzene	mg/kg	0.2	NONE	-	-
1,2-Dichlorobenzene	mg/kg	0.1	NONE	-	-
1,4-Dichlorobenzene	mg/kg	0.2	NONE	-	-
Bis(2-chloroisopropyl)ether	mg/kg	0.1	NONE	-	-
2-Methylphenol	mg/kg	0.3	NONE	-	-
Hexachloroethane	mg/kg	0.05	NONE	-	-
Nitrobenzene	mg/kg	0.3	NONE	-	-
4-Methylphenol	mg/kg	0.2	NONE	-	-
Isophorone	mg/kg	0.2	NONE	-	-
2-Nitrophenol	mg/kg	0.3	NONE	-	-
2,4-Dimethylphenol	mg/kg	0.3	NONE	-	-
Bis(2-chloroethoxy)methane	mg/kg	0.3	NONE	-	-
1,2,4-Trichlorobenzene	mg/kg	0.3	NONE	-	-
Naphthalene	mg/kg	0.05	NONE	-	-
2,4-Dichlorophenol	mg/kg	0.3	NONE	-	-
4-Chloroaniline	mg/kg	0.1	NONE	-	-
Hexachlorobutadiene	mg/kg	0.1	NONE	-	-
4-Chloro-3-methylphenol	mg/kg	0.1	NONE	-	-
2,4,6-Trichlorophenol	mg/kg	0.1	NONE	-	-
2,4,5-Trichlorophenol	mg/kg	0.2	NONE	-	-
2-Methylnaphthalene	mg/kg	0.1	NONE	-	-
2-Chloronaphthalene	mg/kg	0.1	NONE	-	-
Dimethylphthalate	mg/kg	0.1	NONE	-	-
2,6-Dinitrotoluene	mg/kg	0.1	NONE	-	-
Acenaphthylene	mg/kg	0.05	NONE	-	-
Acenaphthene	mg/kg	0.05	NONE	-	-
2,4-Dinitrotoluene	mg/kg	0.2	NONE	-	-
Dibenzofuran	mg/kg	0.2	NONE	-	-
4-Chlorophenyl phenyl ether	mg/kg	0.3	NONE	-	-
Diethyl phthalate	mg/kg	0.2	NONE	-	-
4-Nitroaniline	mg/kg	0.2	NONE	-	-
Fluorene	mg/kg	0.05	NONE	-	-
Azobenzene	mg/kg	0.3	NONE	-	-
Bromophenyl phenyl ether	mg/kg	0.2	NONE	-	-
Hexachlorobenzene	mg/kg	0.3	NONE	-	-
Phenanthrene	mg/kg	0.05	NONE	-	-
Anthracene	mg/kg	0.05	NONE	-	-
Carbazole	mg/kg	0.3	NONE	-	-
Dibutyl phthalate	mg/kg	0.2	NONE	-	-
Anthraquinone	mg/kg	0.3	NONE	-	-
Fluoranthene	mg/kg	0.05	NONE	-	-
Pyrene	mg/kg	0.05	NONE	-	-
Butyl benzyl phthalate	mg/kg	0.3	NONE	-	-
Benzo(a)anthracene	mg/kg	0.05	NONE	-	-
Chrysene	mg/kg	0.05	NONE	-	-
Benzo(b)fluoranthene	mg/kg	0.05	NONE	-	-
Benzo(k)fluoranthene	mg/kg	0.05	NONE	-	-
Benzo(a)pyrene	mg/kg	0.05	NONE	-	-
Indeno(1,2,3-cd)pyrene	mg/kg	0.05	NONE	-	-
Dibenz(a,h)anthracene	mg/kg	0.05	NONE	-	-
Benzo(ghi)perylene	mg/kg	0.05	NONE	-	-

Analytical Report Number: 23-35412
 Project / Site name: Albany Road, Chorlton
 Your Order No: 2165

Lab Sample Number				2689277	2689278
Sample Reference				WS04	WS06
Sample Number				None Supplied	None Supplied
Depth (m)				0.40	0.25
Date Sampled				22/05/2023	22/05/2023
Time Taken				None Supplied	None Supplied
Analytical Parameter (Soil Analysis)	Units	Limit of detection	Accreditation Status		

U/S = Unsuitable Sample I/S = Insufficient Sample ND = Not detected

Analytical Report Number: 23-35412
Project / Site name: Albany Road, Chorlton

Your Order No: 2165

Lab Sample Number				2689279	2689280	2689281
Sample Reference				WS01	WS05	WS02
Sample Number				None Supplied	None Supplied	None Supplied
Depth (m)				0.40	0.30	2.20
Date Sampled				22/05/2023	22/05/2023	22/05/2023
Time Taken				None Supplied	None Supplied	None Supplied
Analytical Parameter (Leachate Analysis)	Units	Limit of detection	Accreditation Status			

General Inorganics

pH (automated)	pH Units	N/A	ISO 17025	7.8	8.5	7.8
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Speciated PAHs

Naphthalene	µg/l	0.01	ISO 17025	< 0.01	1	< 0.01
Acenaphthylene	µg/l	0.01	ISO 17025	< 0.01	< 0.01	0.23
Acenaphthene	µg/l	0.01	ISO 17025	1.9	2.1	14
Fluorene	µg/l	0.01	ISO 17025	0.94	< 0.01	1.5
Phenanthrene	µg/l	0.01	ISO 17025	1.9	< 0.01	< 0.01
Anthracene	µg/l	0.01	ISO 17025	0.34	< 0.01	0.57
Fluoranthene	µg/l	0.01	ISO 17025	0.77	< 0.01	0.38
Pyrene	µg/l	0.01	ISO 17025	0.61	< 0.01	0.23
Benzo(a)anthracene	µg/l	0.01	ISO 17025	< 0.01	< 0.01	< 0.01
Chrysene	µg/l	0.01	ISO 17025	< 0.01	< 0.01	< 0.01
Benzo(b)fluoranthene	µg/l	0.01	ISO 17025	< 0.01	< 0.01	< 0.01
Benzo(k)fluoranthene	µg/l	0.01	ISO 17025	< 0.01	< 0.01	< 0.01
Benzo(a)pyrene	µg/l	0.01	ISO 17025	< 0.01	< 0.01	< 0.01
Indeno(1,2,3-cd)pyrene	µg/l	0.01	NONE	< 0.01	< 0.01	< 0.01
Dibenz(a,h)anthracene	µg/l	0.01	NONE	< 0.01	< 0.01	< 0.01
Benzo(ghi)perylene	µg/l	0.01	NONE	< 0.01	< 0.01	< 0.01

Total PAH

Total EPA-16 PAHs	µg/l	0.2	NONE	6.5	3.2	17
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Heavy Metals / Metalloids

Arsenic (dissolved)	µg/l	1	ISO 17025	6.1	< 1.0	< 1.0
Cadmium (dissolved)	µg/l	0.08	ISO 17025	< 0.08	< 0.08	< 0.08
Chromium (hexavalent)	µg/l	5	ISO 17025	< 5.0	< 5.0	< 5.0
Chromium (dissolved)	µg/l	0.4	ISO 17025	3.7	3.4	< 0.4
Copper (dissolved)	µg/l	0.7	ISO 17025	26	6.8	7.6
Lead (dissolved)	µg/l	1	ISO 17025	12	2.6	< 1.0
Mercury (dissolved)	µg/l	0.5	ISO 17025	< 0.5	< 0.5	< 0.5
Nickel (dissolved)	µg/l	0.3	ISO 17025	4.2	< 0.3	1.3
Selenium (dissolved)	µg/l	4	ISO 17025	< 4.0	< 4.0	< 4.0
Zinc (dissolved)	µg/l	0.4	ISO 17025	26	4.1	11

U/S = Unsuitable Sample I/S = Insufficient Sample ND = Not detected

Analytical Report Number : 23-35412

Project / Site name: Albany Road, Chorlton

* These descriptions are only intended to act as a cross check if sample identities are questioned. The major constituent of the sample is intended to act with respect to MCERTS validation. The laboratory is accredited for sand, clay and loam (MCERTS) soil types. Data for unaccredited types of solid should be interpreted with care.

Stone content of a sample is calculated as the % weight of the stones not passing a 10 mm sieve. Results are not corrected for stone content.

Lab Sample Number	Sample Reference	Sample Number	Depth (m)	Sample Description *
2689267	WS03	None Supplied	0.8	Brown sand with gravel.
2689268	WS06	None Supplied	1.2	Brown sand with gravel.
2689269	WS01	None Supplied	2.7	Brown clay.
2689270	WS01	None Supplied	1.3	Brown loam and clay with gravel.
2689271	WS02	None Supplied	2.7	Brown clay and sand.
2689272	HDP01	None Supplied	0.2	Brown sandy loam with gravel and vegetation.
2689273	HDP03	None Supplied	0.1	Light brown sand with gravel.
2689274	WS01	None Supplied	0.4	Brown loam with gravel and brick.
2689275	WS05	None Supplied	0.3	Brown loam and sand with gravel and rubble.
2689276	WS02	None Supplied	2.2	Brown loam and clay with gravel and vegetation.
2689277	WS04	None Supplied	0.4	Light brown sand.
2689278	WS06	None Supplied	0.25	Brown loam and sand with rubble and gravel

Analytical Report Number : 23-35412

Project / Site name: Albany Road, Chorlton

Water matrix abbreviations:

Surface Water (SW) Potable Water (PW) Ground Water (GW) Process Waters (PrW) Final Sewage Effluent (FSE) Landfill Leachate (LL)

Analytical Test Name	Analytical Method Description	Analytical Method Reference	Method number	Wet / Dry Analysis	Accreditation Status
Metals in soil by ICP-OES	Determination of metals in soil by aqua-regia digestion followed by ICP-OES.	In-house method based on MEWAM 2006 Methods for the Determination of Metals in Soil.	L038-PL	D	MCERTS
Sulphate, water soluble, in soil (16hr extraction)	Determination of water soluble sulphate by ICP-OES. Results reported directly (leachate equivalent) and corrected for extraction ratio (soil equivalent).	In house method.	L038-PL	D	MCERTS
BS EN 12457-2 (10:1) Leachate Prep	10:1 (as recieved, moisture adjusted) end over end extraction with water for 24 hours. Eluate filtered prior to analysis.	In-house method based on BSEN12457-2.	L043-PL	W	NONE
Asbestos identification in soil	Asbestos Identification with the use of polarised light microscopy in conjunction with dispersion staining techniques.	In house method based on HSG 248	A001-PL	D	ISO 17025
Metals by ICP-OES in leachate	Determination of metals in leachate by acidification followed by ICP-OES.	In-house method based on MEWAM 2006 Methods for the Determination of Metals in Soil.	L039-PL	W	ISO 17025
Hexavalent chromium in leachate	Determination of hexavalent chromium in leachate by acidification, addition of 1,5 diphenylcarbazide followed by colorimetry.	In-house method	L080-PL	W	ISO 17025
Free cyanide in soil	Determination of free cyanide by distillation followed by colorimetry.	In-house method based on Examination of Water and Wastewater 20th Edition: Clesceri, Greenberg & Eaton (Skalar)	L080-PL	W	MCERTS
Moisture Content	Moisture content, determined gravimetrically. (30 oC)	In house method.	L019-UK/PL	W	NONE
Monohydric phenols in soil	Determination of phenols in soil by extraction with sodium hydroxide followed by distillation followed by colorimetry.	In-house method based on Examination of Water and Wastewater 20th Edition: Clesceri, Greenberg & Eaton (skalar)	L080-PL	W	MCERTS
Speciated EPA-16 PAHs in leachate	Determination of PAH compounds in leachate by extraction in dichloromethane followed by GC-MS with the use of surrogate and internal standards.	In-house method based on USEPA 8270	L102B-PL	W	ISO 17025
Speciated EPA-16 PAHs in soil	Determination of PAH compounds in soil by extraction in dichloromethane and hexane followed by GC-MS with the use of surrogate and internal standards.	In-house method based on USEPA 8270	L064-PL	D	NONE
pH in soil (automated)	Determination of pH in soil by addition of water followed by automated electrometric measurement.	In house method.	L099-PL	D	MCERTS
pH at 20oC in leachate (automated)	Determination of pH in leachate by electrometric measurement.	In house method.	L099B	W	ISO 17025
Stones content of soil	Standard preparation for all samples unless otherwise detailed. Gravimetric determination of stone > 10 mm as % dry weight.	In-house method based on British Standard Methods and MCERTS requirements.	L019-UK/PL	D	NONE
Semi-volatile organic compounds in soil	Determination of semi-volatile organic compounds in soil by extraction in dichloromethane and hexane followed by GC-MS.	In-house method based on USEPA 8270	L064-PL	D	NONE
Total cyanide in soil	Determination of total cyanide by distillation followed by colorimetry.	In-house method based on Examination of Water and Wastewater 20th Edition: Clesceri, Greenberg & Eaton (Skalar)	L080-PL	W	MCERTS

Analytical Report Number : 23-35412
Project / Site name: Albany Road, Chorlton

Water matrix abbreviations:

Surface Water (SW) Potable Water (PW) Ground Water (GW) Process Waters (PrW) Final Sewage Effluent (FSE) Landfill Leachate (LL)

Analytical Test Name	Analytical Method Description	Analytical Method Reference	Method number	Wet / Dry Analysis	Accreditation Status
Total organic carbon (Automated) in soil	Determination of organic matter in soil by oxidising with potassium dichromate followed by titration with iron (II) sulphate.	In house method.	L009-PL	D	MCERTS
Volatile organic compounds in soil	Determination of volatile organic compounds in soil by headspace GC-MS.	In-house method based on USEPA8260	L073B-PL	W	NONE
BTEX and MTBE in soil (Monoaromatics)	Determination of BTEX in soil by headspace GC-MS. Individual components MCERTS accredited	In-house method based on USEPA8260	L073B-PL	W	NONE
TPH in (Soil)	Determination of TPH bands by HS-GC-MS/GC-FID	In-house method, TPH with carbon banding and silica gel split/cleanup.	L076-PL	D	NONE
TPHCWG (Soil)	Determination of hexane extractable hydrocarbons in soil by GC-MS/GC-FID.	In-house method with silica gel split/clean up.	L088/76-PL	W	NONE
Hexavalent chromium in soil (Lower Level)	Determination of hexavalent chromium in soil by extraction in water then by acidification, addition of 1,5 diphenylcarbazide followed by colorimetry.	In-house method	L080-PL	W	NONE
Total Sulphate in soil as %	Determination of total sulphate in soil by extraction with 10% HCl followed by ICP-OES.	In house method.	L038-PL	D	MCERTS
Sulphate, water soluble, in soil	Determination of water soluble sulphate by ICP-OES. Results reported directly (leachate equivalent) and corrected for extraction ratio (soil equivalent).	In house method.	L038-PL	D	MCERTS

For method numbers ending in 'UK or A' analysis have been carried out in our laboratory in the United Kingdom (WATFORD).

For method numbers ending in 'F' analysis have been carried out in our laboratory in the United Kingdom (East Kilbride).

For method numbers ending in 'PL or B' analysis have been carried out in our laboratory in Poland.

Soil analytical results are expressed on a dry weight basis. Where analysis is carried out on as-received the results obtained are multiplied by a moisture correction factor that is determined gravimetrically using the moisture content which is carried out at a maximum of 30°C.

Unless otherwise indicated, site information, order number, project number, sampling date, time, sample reference and depth are provided by the client. The instructed on date indicates the date on which this information was provided to the laboratory.

Information in Support of Analytical Results

List of HWOL Acronyms and Operators

Acronym	Descriptions
HS	Headspace Analysis
MS	Mass spectrometry
FID	Flame Ionisation Detector
GC	Gas Chromatography
EH	Extractable Hydrocarbons (i.e. everything extracted by the solvent(s))
CU	Clean-up - e.g. by Florisil®, silica gel
1D	GC - Single coil/column gas chromatography
2D	GC-GC - Double coil/column gas chromatography
Total	Aliphatics & Aromatics
AL	Aliphatics
AR	Aromatics
#1	EH_2D_Total but with humics mathematically subtracted
#2	EH_2D_Total but with fatty acids mathematically subtracted
-	Operator - understore to separate acronyms (exception for +)
+	Operator to indicate cumulative e.g. EH+HS_Total or EH_CU+HS_Total

Quality control parameter failure associated with this result. The result should be considered as being deviating and may be compromised.

TEST CERTIFICATE

DETERMINATION OF LIQUID AND PLASTIC LIMITS

Tested in Accordance with: BS 1377-2:1990: Clause 4.4 and 5

i2 Analytical Ltd
Unit 8 Harrowden Road
Brackmills Industrial Estate
Northampton NN4 7EB

Client: Patrick Parson
Client Address: 40 St. Paul's Square, Birmingham,
B3 1FQ

Contact: Peter Searing
Site Address: Albany Road Chorlton

Testing carried out at i2 Analytical Limited, ul. Pionierow 39, 41-711 Ruda Slaska, Poland

Client Reference: 10569
Job Number: 23-35437-1
Date Sampled: 22/05/2023
Date Received: 23/05/2023
Date Tested: 29/05/2023
Sampled By: Not Given

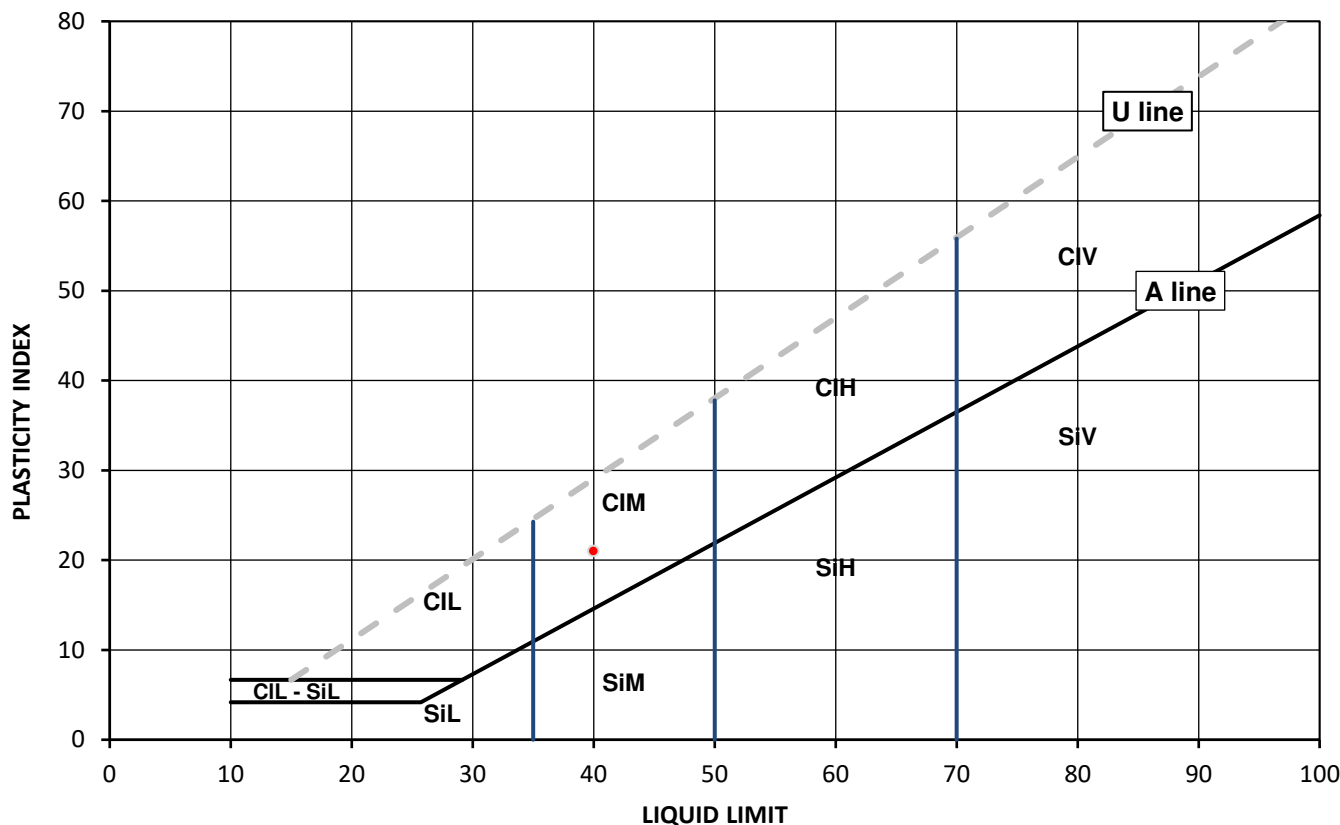
Test Results:

Laboratory Reference: 2689370
Hole No.: WS01
Sample Reference: Not Given
Sample Description: Brown sandy CLAY

Depth Top [m]: 3.00
Depth Base [m]: Not Given
Sample Type: D

Sample Preparation: Tested in natural condition

As Received Water Content [W] %	Liquid Limit [WL] %	Plastic Limit [Wp] %	Plasticity Index [Ip] %	% Passing 425µm BS Test Sieve
18	40	19	21	100



Legend, based on BS EN ISO 14688 2:2018 Geotechnical investigation and testing – Identification and classification of soil

	Plasticity	Liquid Limit
Cl Clay	L Low	below 35
Si Silt	M Medium	35 to 50
	H High	50 to 70
	V Very high	exceeding 70
	O Organic	append to classification for organic material (eg CIHO)

Note: Water Content by BS 1377-2: 1990: Clause 3.2

Remarks:

Signed:

Katarzyna Koziel

Katarzyna Koziel
Reporting Specialist
for and on behalf of i2 Analytical Ltd

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TEST CERTIFICATE

DETERMINATION OF LIQUID AND PLASTIC LIMITS

Tested in Accordance with: BS 1377-2:1990: Clause 4.4 and 5

i2 Analytical Ltd
Unit 8 Harrowden Road
Brackmills Industrial Estate
Northampton NN4 7EB

Client: Patrick Parson
Client Address: 40 St. Paul's Square, Birmingham,
B3 1FQ

Contact: Peter Searing
Site Address: Albany Road Chorlton

Testing carried out at i2 Analytical Limited, ul. Pionierow 39, 41-711 Ruda Slaska, Poland

Client Reference: 10569
Job Number: 23-35437-1
Date Sampled: 22/05/2023
Date Received: 23/05/2023
Date Tested: 29/05/2023
Sampled By: Not Given

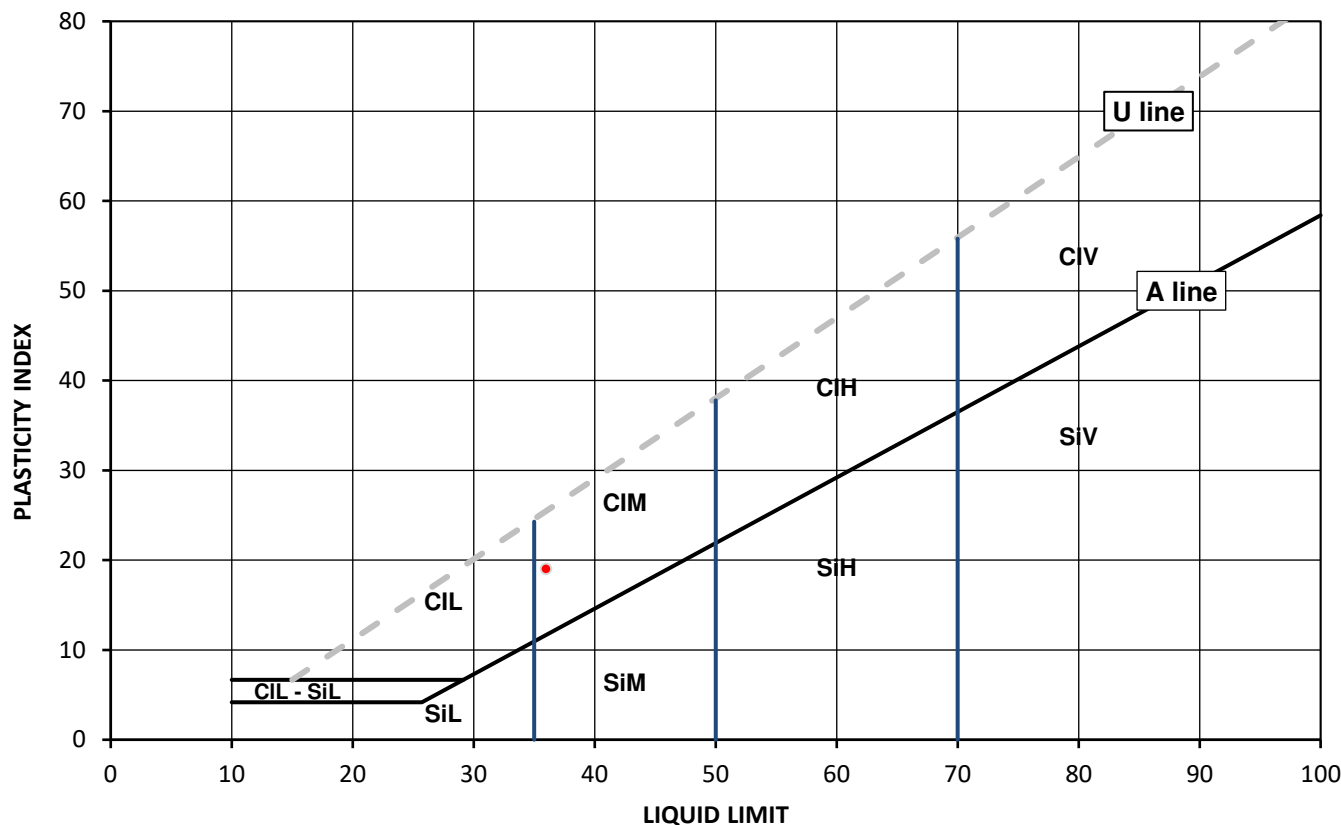
Test Results:

Laboratory Reference: 2689371
Hole No.: WS02
Sample Reference: Not Given
Sample Description: Brown slightly gravelly sandy CLAY

Depth Top [m]: 3.50
Depth Base [m]: Not Given
Sample Type: D

Sample Preparation: Tested after >425um removed by hand

As Received Water Content [W] %	Liquid Limit [WL] %	Plastic Limit [Wp] %	Plasticity Index [Ip] %	% Passing 425µm BS Test Sieve
19	36	17	19	92



Legend, based on BS EN ISO 14688 2:2018 Geotechnical investigation and testing – Identification and classification of soil

	Plasticity	Liquid Limit
Cl Clay	L Low	below 35
Si Silt	M Medium	35 to 50
	H High	50 to 70
	V Very high	exceeding 70
	O Organic	append to classification for organic material (eg CIHO)

Note: Water Content by BS 1377-2: 1990: Clause 3.2

Remarks:

Signed:

Katarzyna Koziel

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Reporting Specialist
for and on behalf of i2 Analytical Ltd

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DETERMINATION OF LIQUID AND PLASTIC LIMITS

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i2 Analytical Ltd
Unit 8 Harrowden Road
Brackmills Industrial Estate
Northampton NN4 7EB

Client: Patrick Parson
Client Address: 40 St. Paul's Square, Birmingham,
B3 1FQ

Contact: Peter Searing
Site Address: Albany Road Chorlton

Testing carried out at i2 Analytical Limited, ul. Pionierow 39, 41-711 Ruda Slaska, Poland

Client Reference: 10569
Job Number: 23-35437-1
Date Sampled: 22/05/2023
Date Received: 23/05/2023
Date Tested: 29/05/2023
Sampled By: Not Given

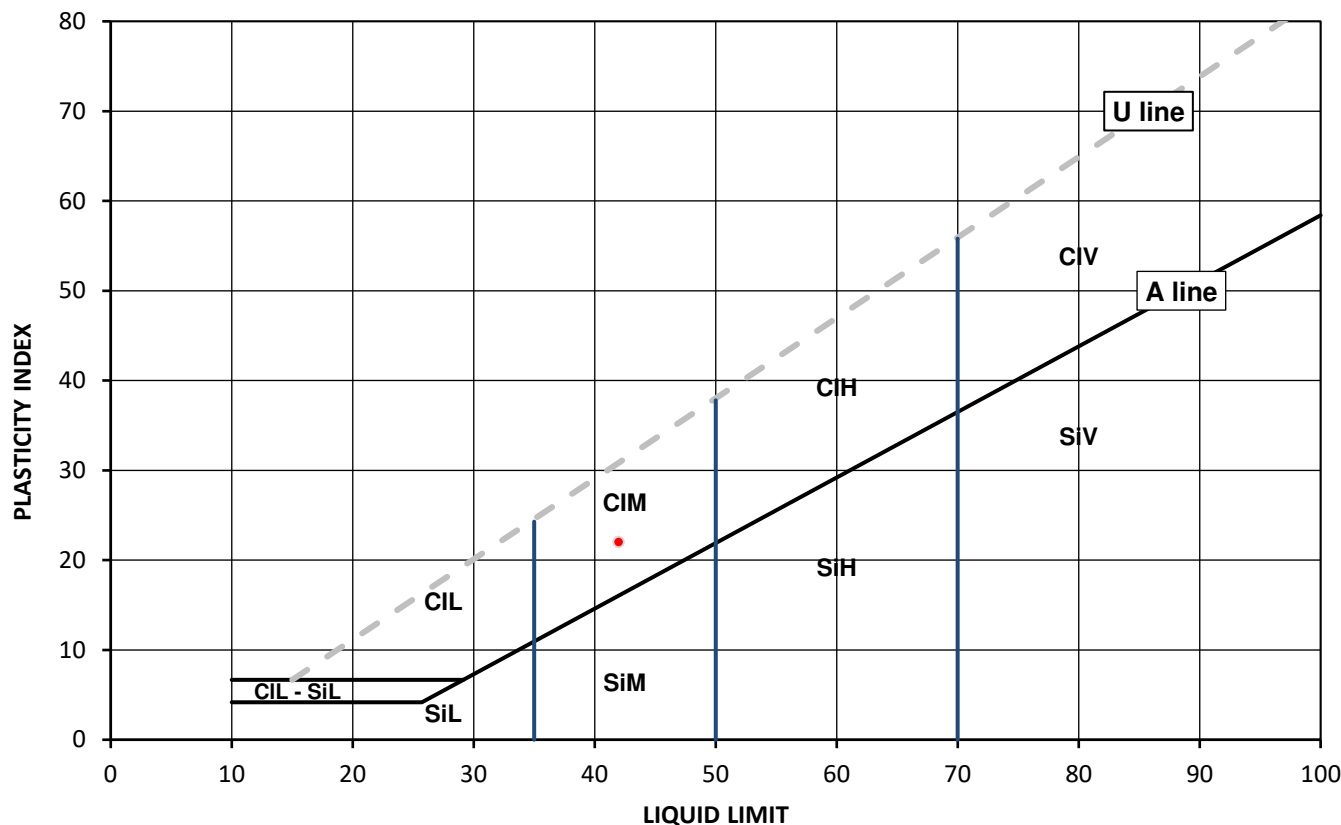
Test Results:

Laboratory Reference: 2689372
Hole No.: WS06
Sample Reference: Not Given
Sample Description: Brown slightly gravelly sandy CLAY

Depth Top [m]: 1.90
Depth Base [m]: Not Given
Sample Type: D

Sample Preparation: Tested after >425um removed by hand

As Received Water Content [W] %	Liquid Limit [WL] %	Plastic Limit [Wp] %	Plasticity Index [Ip] %	% Passing 425µm BS Test Sieve
22	42	20	22	99



Legend, based on BS EN ISO 14688 2:2018 Geotechnical investigation and testing – Identification and classification of soil

	Plasticity	Liquid Limit
Cl Clay	L Low	below 35
Si Silt	M Medium	35 to 50
	H High	50 to 70
	V Very high	exceeding 70
	O Organic	append to classification for organic material (eg CIHO)

Note: Water Content by BS 1377-2: 1990: Clause 3.2

Remarks:

Signed:

Katarzyna Koziel

Katarzyna Koziel
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for and on behalf of i2 Analytical Ltd

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SUMMARY REPORT

SUMMARY OF CLASSIFICATION TEST RESULTS

Tested in Accordance with:

i2 Analytical Ltd
Unit 8 Harrowden Road
Brackmills Industrial Estate
Northampton NN4 7EB



Environmental Science

4041

Client: Patrick Parson
Client Address: 40 St. Paul's Square, Birmingham,
B3 1FQ

Water Content by BS 1377-2:1990: Clause 3.2 Atterberg by BS 1377-2: 1990:
Clause 4.3 (4 Point Test), Clause 4.4 (1 Point Test) and 5

Client Reference: 10569
Job Number: 23-35437-1
Date Sampled: 22/05/2023
Date Received: 23/05/2023
Date Tested: 29/05/2023
Sampled By: Not Given

Contact: Peter Searing
Site Address: Albany Road Chorlton

Testing carried out at i2 Analytical Limited, ul. Pionierow 39, 41-711 Ruda Slaska, Poland

Test results

Laboratory Reference	Hole No.	Sample				Description	Remarks	Water Content BS 1377-2 [W] %	Water Content BS EN ISO 17892-1 [W] %	Atterberg				Density			Total Porosity# %		
		Reference	Depth Top m	Depth Base m	Type					% Passing 425um %	WL %	Wp %	Ip %	bulk Mg/m3	dry Mg/m3	PD Mg/m3			
2689370	WS01	Not Given	3.00	Not Given	D	Brown sandy CLAY	Atterberg 1 Point	18		100	40	19	21						
2689371	WS02	Not Given	3.50	Not Given	D	Brown slightly gravelly sandy CLAY	Atterberg 1 Point	19		92	36	17	19						
2689372	WS06	Not Given	1.90	Not Given	D	Brown slightly gravelly sandy CLAY	Atterberg 1 Point	22		99	42	20	22						

Note: # Non accredited; NP - Non plastic

Comments:

Signed:

Katarzyna Koziel

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Reporting Specialist
for and on behalf of i2 Analytical Ltd

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4041

Client: Patrick Parson

Client Address: 40 St. Paul's Square, Birmingham,
B3 1FQ

Contact: Peter Searing

Site Address: Albany Road Chorlton

Testing carried out at i2 Analytical Limited, ul. Pionierow 39, 41-711 Ruda Slaska, Poland

SUMMARY REPORT

DETERMINATION OF WATER CONTENT

Tested in Accordance with: BS 1377-2: 1990: Clause 3.2

i2 Analytical Ltd
Unit 8 Harrowden Road
Brackmills Industrial Estate
Northampton NN4 7EB



Environmental Science

Client Reference: 10569

Job Number: 23-35437-1

Date Sampled: 22/05/2023

Date Received: 23/05/2023

Date Tested: 29/05/2023

Sampled By: Not Given

Test results

Laboratory Reference	Hole No.	Sample				Description	Remarks	WC	Sample preparation / Oven temperature at the time of testing			
		Reference	Depth Top m	Depth Base m	Type							
2689370	WS01	Not Given	3.00	Not Given	D	Brown sandy CLAY		18	Sample was quartered, oven dried at 108 °C			
2689371	WS02	Not Given	3.50	Not Given	D	Brown slightly gravelly sandy CLAY		19	Sample was quartered, oven dried at 108 °C			
2689372	WS06	Not Given	1.90	Not Given	D	Brown slightly gravelly sandy CLAY		22	Sample was quartered, oven dried at 108 °C			

Comments:

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Signed:

Katarzyna Koziel

Katarzyna Koziel
Reporting Specialist
for and on behalf of i2 Analytical Ltd

TEST CERTIFICATE

DETERMINATION OF THE CALIFORNIA BEARING RATIO (CBR)

Tested in Accordance with: BS 1377-4: 1990: Clause 7

i2 Analytical Ltd
Unit 8 Harrowden Road
Brackmills Industrial Estate
Northampton NN4 7EB

Client: Patrick Parson
Client Address: 40 St. Paul's Square, Birmingham,
B3 1FQ

Contact: Peter Searing
Site Address: Albany Road Chorlton

Testing carried out at i2 Analytical Limited, ul. Pionierow 39, 41-711 Ruda Slaska, Poland

Client Reference: 10569
Job Number: 23-35437-1
Date Sampled: 22/05/2023
Date Received: 23/05/2023
Date Tested: 12/06/2023
Sampled By: Not Given

Test Results:

Laboratory Reference: 2689368
Hole No.: HDP01
Sample Reference: Not Given
Sample Description: Mottled brown very gravelly SAND

Depth Top [m]: 0.50
Depth Base [m]: Not Given
Sample Type: B

Specimen Preparation:

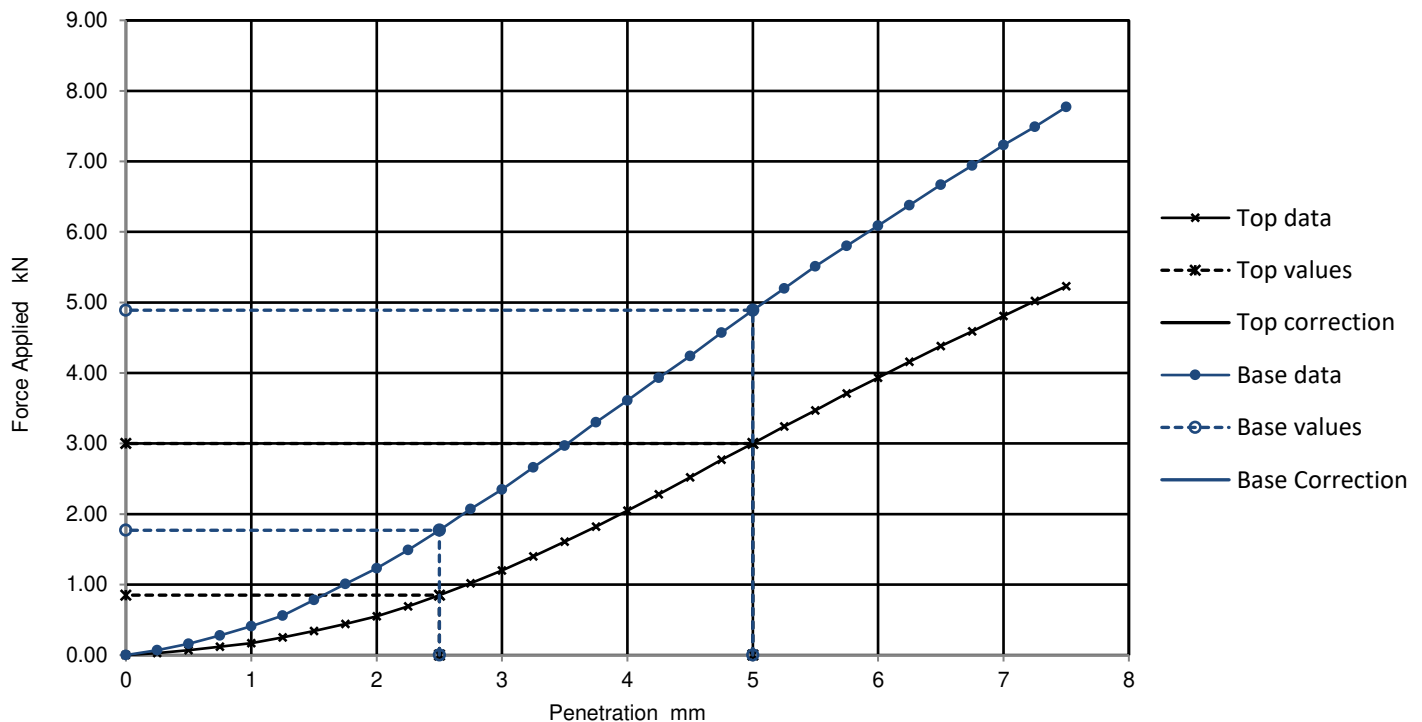
Condition Remoulded
Details Recompacted with specified standard effort using 2.5kg rammer

Soaking details Not soaked
Period of soaking days
Time to surface days
Amount of swell recorded mm
Dry density after soaking Mg/m3

Material retained on 20mm sieve removed 11 %

Initial Specimen details Bulk density 2.12 Mg/m3
Dry density 1.87 Mg/m3
Moisture content 13 %
Surcharge applied 8 kg
4.9 kPa

Force v Penetration Plots



Results

TOP
BASE

Curve correction applied	CBR Values, %			
	2.5mm	5mm	Highest	Average
No	6.4	15	15	
No	13	24	24	

Moisture Content %
13
14

Remarks:

Test/ Specimen specific remarks:

Signed:

Katarzyna Koziel

Katarzyna Koziel
Reporting Specialist
for and on behalf of i2 Analytical Ltd

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TEST CERTIFICATE

DETERMINATION OF THE CALIFORNIA BEARING RATIO (CBR)

Tested in Accordance with: BS 1377-4: 1990: Clause 7

i2 Analytical Ltd
Unit 8 Harrowden Road
Brackmills Industrial Estate
Northampton NN4 7EB

Client: Patrick Parson
Client Address: 40 St. Paul's Square, Birmingham,
B3 1FQ

Contact: Peter Searing
Site Address: Albany Road Chorlton

Testing carried out at i2 Analytical Limited, ul. Pionierow 39, 41-711 Ruda Slaska, Poland

Client Reference: 10569
Job Number: 23-35437-1
Date Sampled: 22/05/2023
Date Received: 23/05/2023
Date Tested: 12/06/2023
Sampled By: Not Given

Test Results:

Laboratory Reference: 2689369
Hole No.: HDP03
Sample Reference: Not Given
Sample Description: Brownish grey slightly gravelly SAND

Depth Top [m]: 0.60
Depth Base [m]: Not Given
Sample Type: B

Specimen Preparation:

Condition Remoulded
Details Recompacted with specified standard effort using 2.5kg rammer

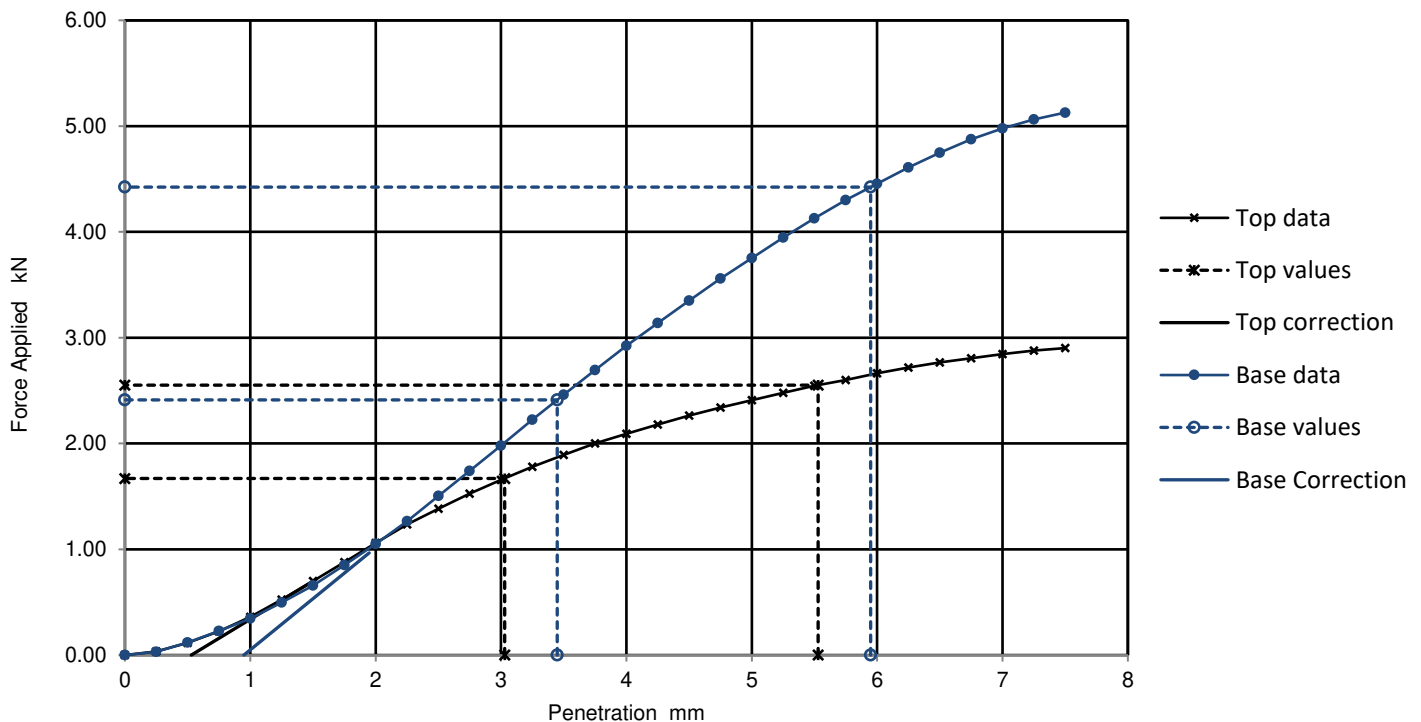
Soaking details Not soaked
Period of soaking days
Time to surface days
Amount of swell recorded mm
Dry density after soaking Mg/m3

Material retained on 20mm sieve removed 1 %

Initial Specimen details Bulk density 1.88 Mg/m3
Dry density 1.72 Mg/m3
Moisture content 9.2 %

Surcharge applied 8 kg
4.8 kPa

Force v Penetration Plots



Results

TOP
BASE

Curve correction applied	CBR Values, %			
	2.5mm	5mm	Highest	Average
Yes	13	13	13	
Yes	18	22	22	

Moisture Content %
8.9
8.8

Remarks:

Test/ Specimen specific remarks:

Signed:

Katarzyna Koziel
Reporting Specialist
for and on behalf of i2 Analytical Ltd

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Appendix D

Monitoring results

Appendix E

Patrick Parsons Generic Assessment Criteria (GAC)

Generic Assessment Criteria

		Residential with Homegrown Produce			Residential without Homegrown Produce			Allotments			Commercial			Public Open Space Near Residential Housing			Public Open Space Park		
SOM %		1	2.5	6	1	2.5	6	1	2.5	6	1	2.5	6	1	2.5	6	1	2.5	6
Metals and Inorganics (non SOM dependent)	Arsenic		37			40			43			640			79			170	
	Beryllium		1.7			1.7			35			12			2.2			63	
	Boron		290			11000			45			240000			21000			46000	
	Cadmium		11			85			1.9			190			120			555	
	Chromium (III)		910			910			18000			8600			1500			33000	
	Chromium (VI) (Hexavalent)		6			6			1.8			33			7.7			220	
	Copper		2400			7100			520			68000			12000			44000	
	Elemental Mercury		1.2			1.2			21			58			16			30	
	Inorganic Mercury		40			56			19			1100			120			240	
	Methylmercury		11			15			6			320			40			68	
	Lead		200			310			80			2300			630			1300	
	Nickel		130			180			53			980			230			800	
	Selenium		250			430			88			12000			1100			1800	
	Vanadium		410			1200			91			9000			2000			5000	
	Zinc		3700			40000			620			730000			81000			170000	
Polyaromatic Hydrocarbons	Acenaphthene	210	510	1100	3000	4700	6000	34	85	200	84000	97000	100000	15000	15000	15000	29000	30000	30000
	Acenaphthylene	170	420	920	2900	4600	6000	28	69	160	83000	97000	100000	15000	15000	15000	29000	30000	30000
	Anthracene	2400	5400	11000	31000	35000	37000	380	950	2200	520000	540000	540000	74000	74000	74000	150000	150000	150000
	Benzo[a]anthracene	7.2	11	13	11	14	15	2.9	6.5	13	170	170	180	29	29	29	49	56	62
	Benzo[a]pyrene	2.2	2.7	3	3.2	3.2	3.2	0.97	2.0	3.5	35	35	36	5.7	5.7	5.7	11	12	13
	Benzo[b]fluoranthene	2.6	3.3	3.7	3.9	4.0	4.0	0.99	2.1	3.9	44	44	45	7.1	7.2	7.2	13	15	16
	Benzo[ghi]perylene	320	340	350	360	360	360	290	470	640	3900	4000	4000	640	640	640	1400	1500	1600
	Benzo[k]fluoranthene	77	93	100	110	110	110	37	75	130	1200	1200	1200	190	190	190	370	410	440
	Chrysene	15	22	27	30	31	32	4.1	9.4	19	350	350	350	57	57	57	93	110	120
	Dibenz[ah]anthracene	0.24	0.28	0.3	0.31	0.32	0.32	0.14	0.27	0.43	3.5	3.6	3.6	0.57	0.57	0.58	1.1	1.3	1.4
	Fluoranthene	280	560	890	1500	1600	1600	52	130	290	23000	23000	23000	3100	3100	3100	6300	6300	6400
	Fluorene	170	400	860	2800	3800	4500	27	67	160	63000	68000	71000	9900	9900	9900	20000	20000	20000
	Indeno[123-cd]pyrene	27	36	41	45	46	46	9.5	21	39	500	510	510	82	82	82	150	170	180
	Naphthalene	2.3	5.6	13	2.3	5.6	13	4.1	10	24	190	460	1100	4900	4900	4900	1200	1900	3000
	Phenanthrene	95	220	440	1300	1500	1500	15	38	90	22000	22000	23000	3100	3100	3100	6200	6200	6300
	Pyrene	620	1200	2000	3700	3800	3800	110	270	620	54000	54000	54000	7400	7400	7400	15000	15000	15000
	Coal Tar (B[a]P as surrogate marker)	0.79	0.98	1.1	1.2	1.2	1.2	0.32	0.67	1.2	15	15	15	2.2	2.2	2.2	4.4	4.7	4.8
Petroleum Hydrocarbons	Benzene	0.087	0.17	0.37	0.38	0.7	1.4	0.017	0.034	0.075	27	47	90	72	72	73	90	100	110
	Toluene	130	290	660	880	1900	3900	22	51	120	56000	110000	180000	56000	56000	56000	87000	95000	100000
	Ethylbenzene	47	110	260	83	190	440	16	39	91	5700	13000	27000	24000	24000	25000	17000	22000	27000
	m-Xylene	59	140	320	82	190	450	31	74	170	6200	14000	31000	41000	42000	43000	17000	24000	32000
	o-Xylene	60	140	330	88	210	480	28	67	160	6600	15000	33000	41000	42000	43000	17000	24000	33000
	p-Xylene	56	130	310	79	180	430	29	69	160	5900	14000	30000	41000	42000	43000	17000	23000	31000
	Aliphatic EC 5-6	42	78	160	42	78	160	730	1700	3900	3200	5900	12000	570000	590000	600000	95000	130000	180000
	Aliphatic EC >6-8	100	230	530	100	230	530	2300	5600	13000	7800	17000	40000	600000	610000	620000	150000	220000	320000
	Aliphatic EC >8-10	27	65	150	27	65	150	320	770	1700	2000	4800	11000	13000	13000	13000	14000	18000	21000
	Aliphatic EC >10-12	130	330	760	130	330	770	2200	4400	7300	9700	23000	47000	13000	13000	13000	21000	23000	24000
	Aliphatic EC >12-16	1100	2400	4300	1100	2400	4400	11000	13000	13000	59000	82000	90000	13000	13000	13000	25000	25000	26000
	Aliphatic EC >16-35	65000	92000	110000	65000	92000	110000	260000	270000	270000	1600000	1700000	1800000	250000	250000	250000	450000	480000	490000
	Aliphatic EC >35-44	65000	92000	110000	65000	92000	110000	260000	270000	270000	1600000	1700000	1800000	250000	250000	250000	450000	480000	490000
	Aromatic EC 5-7 (benzene)	70	140	300	370	690	1400	13	27	57	26000	46000	86000	56000	56000	56000	76000	84000	92000
	Aromatic EC >7-8 (toluene)	130	290	660	860	1800	3900	22	51	120	56000	110000	180000	56000	56000	56000	87000	95000	100000
	Aromatic EC >8-10	34	83	190	47	110	270	8.6	21	51	3500	8100	17000	5000	5000	5000	7200	8500	9300
	Aromatic EC >10-12	74	180	380	250	590	1200	13	31	74	16000	28000	34000	5000	5000	5000	9200	9700	10000
	Aromatic EC >12-16	140	330	660	1800	2300	2500	23	57	130	36000	37000	38000	5100	5100	5000	10000	10000	10000
	Aromatic EC >16-21	260	540	930	1900	1900	1900	46	110	260	28000	28000	28000	3800	3800	3800	7600	7700	7800
	Aromatic EC >21-35	1100	1500	1700	1900	1900	1900	370	820	1600	28000	28000	28000	3800	3800	3800	7800	7800	7900
	Aromatic EC >35-44	1100	1500	1700	1900	1900	1900	370	820	1600	28000	28000	28000	3800	3800	3800	7800	7800	7900
	Petroleum Hydrocarbons EC >44-70	1600	1800	1900	1900	1900	1900	1200	2100	3000	28000	28000	28000	3800	3800	3800	7800	7800	7900

Appendix F

Online Hazwaste results

Waste Classification Report

HazWasteOnline™ classifies waste as either **hazardous** or **non-hazardous** based on its chemical composition, related legislation and the rules and data defined in the current UK or EU technical guidance (Appendix C) (note that HP 9 Infectious is not assessed). It is the responsibility of the classifier named below to:

- understand the origin of the waste
- select the correct List of Waste code(s)
- confirm that the list of determinands, results and sampling plan are fit for purpose
- select and justify the chosen metal species (Appendix B)
- correctly apply moisture correction and other available corrections
- add the meta data for their user-defined substances (Appendix A)
- check that the classification engine is suitable with respect to the national destination of the waste (Appendix C)



8IHCM-G166R-4SL2G

To aid the reviewer, the laboratory results, assumptions and justifications managed by the classifier are highlighted in pale yellow.

Job name

10569 - Albany Road, Chorlton

Description/Comments

Project

Albany Road, Chorlton

Site

Albany Road, Chorlton

Classified by

Name: **Hugh Adler**
 Date: **06 Jun 2023 10:26 GMT**
 Telephone: **0121 592 0000**
 Company: **PPCP Ltd t/a Patrick Parsons**
40 St Pauls Square
Birmingham
B3 1FQ

HazWasteOnline™ provides a two day, hazardous waste classification course that covers the use of the software and both basic and advanced waste classification techniques. Certification has to be renewed every 3 years.

HazWasteOnline™ Certification:

CERTIFIED

Course

Hazardous Waste Classification

Date

10 Feb 2022

Next 3 year Refresher due by Feb 2025

Purpose of classification

2 - Material Characterisation

Address of the waste

Albany Road, Chorlton

Post Code M21 0AW

SIC for the process giving rise to the waste

41202 Construction of domestic buildings

Description of industry/producer giving rise to the waste

Redevelopment of commercial units to residential buildings.

Description of the specific process, sub-process and/or activity that created the waste

Waste created during the excavation of foundations and site levelling.

Description of the waste

Made ground and natural soils of gravelly slightly silty sand and sandy silt with concrete, red brick and quartzite.

Job summary

#	Sample name	Depth [m]	Classification Result	Hazard properties	Page
1	HDP01	0.2	Non Hazardous		3
2	HDP03	0.1	Non Hazardous		5
3	WS01	0.4	Non Hazardous		7
4	WS05	0.3	Non Hazardous		9
5	WS02	2.2	Non Hazardous		11
6	WS04	0.4	Non Hazardous		13
7	WS06	0.25	Non Hazardous		15
8	WS01[2]	2.7	Non Hazardous		17
9	WS01[3]	1.3	Non Hazardous		18
10	WS02[2]	2.7	Non Hazardous		19

Related documents

#	Name	Description
1	PP Standard Suite	waste stream template used to create this Job

Report

Created by: Hugh Adler

Created date: 06 Jun 2023 10:26 GMT

Appendices	Page
Appendix A: Classifier defined and non GB MCL determinands	20
Appendix B: Rationale for selection of metal species	21
Appendix C: Version	21

Classification of sample: HDP01

 **Non Hazardous Waste**
 Classified as **17 05 04**
 in the List of Waste

Sample details

Sample name:	LoW Code:
HDP01	Chapter:
Sample Depth:	17: Construction and Demolition Wastes (including excavated soil from contaminated sites)
0.2 m	Entry:
Moisture content:	17 05 04 (Soil and stones other than those mentioned in 17 05 03)
8.6%	
(no correction)	

Hazard properties

None identified

Determinands

Moisture content: 8.6% No Moisture Correction applied (MC)

#	Determinand			CLP Note	User entered data	Conv. Factor	Compound conc.	Classification value	MC Applied	Conc. Not Used
	EU CLP index number	EC Number	CAS Number							
1	pH				8 pH		8 pH	8pH		
2	arsenic { arsenic trioxide }				7.1 mg/kg	1.32	9.374 mg/kg	0.000937 %		
	033-003-00-0	215-481-4	1327-53-3							
3	cadmium { cadmium sulfide }			1	0.3 mg/kg	1.285	0.386 mg/kg	0.00003 %		
	048-010-00-4	215-147-8	1306-23-6							
4	chromium in chromium(III) compounds { chromium(III) oxide (worst case) }				13 mg/kg	1.462	19 mg/kg	0.0019 %		
		215-160-9	1308-38-9							
5	copper { copper sulphate pentahydrate }				57 mg/kg	3.929	223.956 mg/kg	0.0224 %		
	029-023-00-4	231-847-6	7758-99-8							
6	lead { lead chromate }			1	79 mg/kg	1.56	123.225 mg/kg	0.0079 %		
	082-004-00-2	231-846-0	7758-97-6							
7	mercury { mercury dichloride }				<0.3 mg/kg	1.353	<0.406 mg/kg	<0.0000406 %		<LOD
	080-010-00-X	231-299-8	7487-94-7							
8	nickel { nickel chromate }				12 mg/kg	2.976	35.715 mg/kg	0.00357 %		
	028-035-00-7	238-766-5	14721-18-7							
9	selenium { selenium compounds with the exception of cadmium sulphoselenide and those specified elsewhere in this Annex }				<1 mg/kg	1.405	<1.405 mg/kg	<0.000141 %		<LOD
	034-002-00-8									
10	zinc { zinc chromate }				180 mg/kg	2.774	499.346 mg/kg	0.0499 %		
	024-007-00-3	236-878-9	13530-65-9							
11	chromium in chromium(VI) compounds { chromium(VI) oxide }				<1.2 mg/kg	1.923	<2.308 mg/kg	<0.000231 %		<LOD
	024-001-00-0	215-607-8	1333-82-0							
12	TPH (C6 to C40) petroleum group				340 mg/kg		340 mg/kg	0.034 %		
			TPH							
13	acenaphthene				1.2 mg/kg		1.2 mg/kg	0.00012 %		
		201-469-6	83-32-9							
14	acenaphthylene				0.26 mg/kg		0.26 mg/kg	0.000026 %		
		205-917-1	208-96-8							
15	anthracene				2.2 mg/kg		2.2 mg/kg	0.00022 %		
		204-371-1	120-12-7							

#	Determinand			CLP Note	User entered data	Conv. Factor	Compound conc.	Classification value	MC Applied	Conc. Not Used
	EU CLP index number	EC Number	CAS Number							
16	benzo[a]anthracene 601-033-00-9	200-280-6	56-55-3		8.8 mg/kg		8.8 mg/kg	0.00088 %		
17	benzo[a]pyrene; benzo[def]chrysene 601-032-00-3	200-028-5	50-32-8		9.4 mg/kg		9.4 mg/kg	0.00094 %		
18	benzo[b]fluoranthene 601-034-00-4	205-911-9	205-99-2		10 mg/kg		10 mg/kg	0.001 %		
19	benzo[ghi]perylene 205-883-8		191-24-2		5.8 mg/kg		5.8 mg/kg	0.00058 %		
20	benzo[k]fluoranthene 601-036-00-5	205-916-6	207-08-9		4.2 mg/kg		4.2 mg/kg	0.00042 %		
21	chrysene 601-048-00-0	205-923-4	218-01-9		8.1 mg/kg		8.1 mg/kg	0.00081 %		
22	dibenz[a,h]anthracene 601-041-00-2	200-181-8	53-70-3		1.4 mg/kg		1.4 mg/kg	0.00014 %		
23	fluoranthene 205-912-4		206-44-0		18 mg/kg		18 mg/kg	0.0018 %		
24	fluorene 201-695-5		86-73-7		0.77 mg/kg		0.77 mg/kg	0.000077 %		
25	indeno[123-cd]pyrene 205-893-2		193-39-5		5.2 mg/kg		5.2 mg/kg	0.00052 %		
26	phenanthrene 201-581-5		85-01-8		9.2 mg/kg		9.2 mg/kg	0.00092 %		
27	naphthalene 601-052-00-2	202-049-5	91-20-3		0.71 mg/kg		0.71 mg/kg	0.000071 %		
28	pyrene 204-927-3		129-00-0		17 mg/kg		17 mg/kg	0.0017 %		
Total:								0.131 %		

Key

	User supplied data
	Determinand values ignored for classification, see column 'Conc. Not Used' for reason
•	Determinand defined or amended by HazWasteOnline (see Appendix A)
•	Speciated Determinand - Unless the Determinand is Note 1, the Conversion Factor is used to calculate the compound concentration
<LOD	Below limit of detection
CLP: Note 1	Only the metal concentration has been used for classification

Supplementary Hazardous Property Information

HP 3(i): Flammable "flammable liquid waste: liquid waste having a flash point below 60°C or waste gas oil, diesel and light heating oils having a flash point > 55°C and ≤ 75°C"

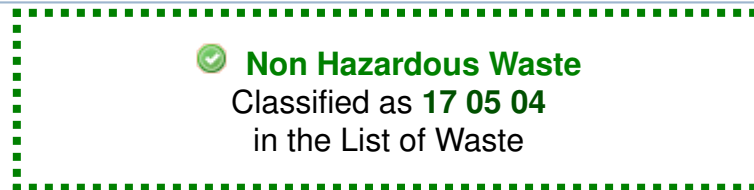
Force this Hazardous property to non hazardous because No free product hydrocarbons recorded within soil samples collected.

Hazard Statements hit:

Flam. Liq. 3; H226 "Flammable liquid and vapour."

Because of determinand:

TPH (C6 to C40) petroleum group: (conc.: 0.034%)

Classification of sample: HDP03

Sample details

Sample name:	LoW Code:
HDP03	Chapter:
Sample Depth:	17: Construction and Demolition Wastes (including excavated soil from contaminated sites)
0.1 m	Entry:
Moisture content:	17 05 04 (Soil and stones other than those mentioned in 17 05 03)
6.8%	
(no correction)	

Hazard properties

None identified

Determinands

Moisture content: 6.8% No Moisture Correction applied (MC)

#	Determinand			CLP Note	User entered data	Conv. Factor	Compound conc.		Classification value	MC Applied	Conc. Not Used
	EU CLP index number	EC Number	CAS Number								
1	pH				7.9 pH		7.9	pH	7.9 pH		
2	arsenic { arsenic trioxide }				2.5 mg/kg	1.32	3.301	mg/kg	0.00033 %		
	033-003-00-0	215-481-4	1327-53-3								
3	cadmium { cadmium sulfide }			1	<0.2 mg/kg	1.285	<0.257	mg/kg	<0.00002 %		<LOD
	048-010-00-4	215-147-8	1306-23-6								
4	chromium in chromium(III) compounds { chromium(III) oxide (worst case) }				3.6 mg/kg	1.462	5.262	mg/kg	0.000526 %		
		215-160-9	1308-38-9								
5	copper { copper sulphate pentahydrate }				11 mg/kg	3.929	43.22	mg/kg	0.00432 %		
	029-023-00-4	231-847-6	7758-99-8								
6	lead { lead chromate }			1	15 mg/kg	1.56	23.397	mg/kg	0.0015 %		
	082-004-00-2	231-846-0	7758-97-6								
7	mercury { mercury dichloride }				<0.3 mg/kg	1.353	<0.406	mg/kg	<0.0000406 %		<LOD
	080-010-00-X	231-299-8	7487-94-7								
8	nickel { nickel chromate }				3.9 mg/kg	2.976	11.607	mg/kg	0.00116 %		
	028-035-00-7	238-766-5	14721-18-7								
9	selenium { selenium compounds with the exception of cadmium sulphoselenide and those specified elsewhere in this Annex }				<1 mg/kg	1.405	<1.405	mg/kg	<0.000141 %		<LOD
	034-002-00-8										
10	zinc { zinc chromate }				19 mg/kg	2.774	52.709	mg/kg	0.00527 %		
	024-007-00-3	236-878-9	13530-65-9								
11	chromium in chromium(VI) compounds { chromium(VI) oxide }				<1.2 mg/kg	1.923	<2.308	mg/kg	<0.000231 %		<LOD
	024-001-00-0	215-607-8	1333-82-0								
12	TPH (C6 to C40) petroleum group				16 mg/kg		16	mg/kg	0.0016 %		
			TPH								
13	acenaphthene				<0.05 mg/kg		<0.05	mg/kg	<0.000005 %		<LOD
		201-469-6	83-32-9								
14	acenaphthylene				<0.05 mg/kg		<0.05	mg/kg	<0.000005 %		<LOD
		205-917-1	208-96-8								
15	anthracene				<0.05 mg/kg		<0.05	mg/kg	<0.000005 %		<LOD
		204-371-1	120-12-7								

#	Determinand			CLP Note	User entered data	Conv. Factor	Compound conc.	Classification value	MC Applied	Conc. Not Used
	EU CLP index number	EC Number	CAS Number							
16	benzo[a]anthracene 601-033-00-9	200-280-6	56-55-3		0.21 mg/kg		0.21 mg/kg	0.000021 %		
17	benzo[a]pyrene; benzo[def]chrysene 601-032-00-3	200-028-5	50-32-8		0.21 mg/kg		0.21 mg/kg	0.000021 %		
18	benzo[b]fluoranthene 601-034-00-4	205-911-9	205-99-2		0.26 mg/kg		0.26 mg/kg	0.000026 %		
19	benzo[ghi]perylene 205-883-8		191-24-2		0.13 mg/kg		0.13 mg/kg	0.000013 %		
20	benzo[k]fluoranthene 601-036-00-5	205-916-6	207-08-9		0.06 mg/kg		0.06 mg/kg	0.000006 %		
21	chrysene 601-048-00-0	205-923-4	218-01-9		0.21 mg/kg		0.21 mg/kg	0.000021 %		
22	dibenz[a,h]anthracene 601-041-00-2	200-181-8	53-70-3		<0.05 mg/kg		<0.05 mg/kg	<0.000005 %		<LOD
23	fluoranthene 205-912-4		206-44-0		0.35 mg/kg		0.35 mg/kg	0.000035 %		
24	fluorene 201-695-5		86-73-7		<0.05 mg/kg		<0.05 mg/kg	<0.000005 %		<LOD
25	indeno[123-cd]pyrene 205-893-2		193-39-5		0.12 mg/kg		0.12 mg/kg	0.000012 %		
26	phenanthrene 201-581-5		85-01-8		0.18 mg/kg		0.18 mg/kg	0.000018 %		
27	naphthalene 601-052-00-2	202-049-5	91-20-3		<0.05 mg/kg		<0.05 mg/kg	<0.000005 %		<LOD
28	pyrene 204-927-3		129-00-0		0.35 mg/kg		0.35 mg/kg	0.000035 %		
Total:								0.0154 %		

Key

	User supplied data
	Determinand values ignored for classification, see column 'Conc. Not Used' for reason
•	Determinand defined or amended by HazWasteOnline (see Appendix A)
•	Speciated Determinand - Unless the Determinand is Note 1, the Conversion Factor is used to calculate the compound concentration
<LOD	Below limit of detection
CLP: Note 1	Only the metal concentration has been used for classification

Supplementary Hazardous Property Information

HP 3(i): Flammable "flammable liquid waste: liquid waste having a flash point below 60°C or waste gas oil, diesel and light heating oils having a flash point > 55°C and ≤ 75°C"

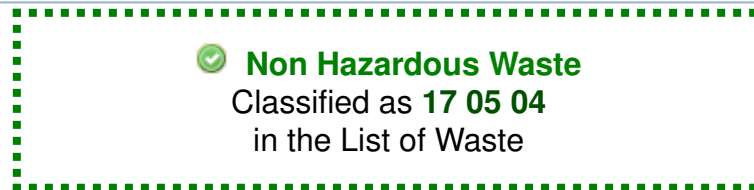
Force this Hazardous property to non hazardous because No free product hydrocarbons recorded within soil samples collected.

Hazard Statements hit:

Flam. Liq. 3; H226 "Flammable liquid and vapour."

Because of determinand:

TPH (C6 to C40) petroleum group: (conc.: 0.0016%)

Classification of sample: WS01

Sample details

Sample name:	LoW Code:
WS01	Chapter:
Sample Depth:	17: Construction and Demolition Wastes (including excavated soil from contaminated sites)
0.4 m	Entry:
Moisture content:	17 05 04 (Soil and stones other than those mentioned in 17 05 03)
9.8%	
(no correction)	

Hazard properties

None identified

Determinands

Moisture content: 9.8% No Moisture Correction applied (MC)

#	Determinand			CLP Note	User entered data		Conv. Factor	Compound conc.		Classification value	MC Applied	Conc. Not Used
	EU CLP index number	EC Number	CAS Number									
1	pH				8.3	pH		8.3	pH	8.3 pH		
2	arsenic { arsenic trioxide }				12	mg/kg	1.32	15.844	mg/kg	0.00158 %		
	033-003-00-0	215-481-4	1327-53-3									
3	cadmium { cadmium sulfide }			1	<0.2	mg/kg	1.285	<0.257	mg/kg	<0.00002 %		<LOD
	048-010-00-4	215-147-8	1306-23-6									
4	chromium in chromium(III) compounds { chromium(III) oxide (worst case) }				10	mg/kg	1.462	14.616	mg/kg	0.00146 %		
		215-160-9	1308-38-9									
5	copper { copper sulphate pentahydrate }				37	mg/kg	3.929	145.375	mg/kg	0.0145 %		
	029-023-00-4	231-847-6	7758-99-8									
6	lead { lead chromate }			1	98	mg/kg	1.56	152.862	mg/kg	0.0098 %		
	082-004-00-2	231-846-0	7758-97-6									
7	mercury { mercury dichloride }				<0.3	mg/kg	1.353	<0.406	mg/kg	<0.0000406 %		<LOD
	080-010-00-X	231-299-8	7487-94-7									
8	nickel { nickel chromate }				13	mg/kg	2.976	38.691	mg/kg	0.00387 %		
	028-035-00-7	238-766-5	14721-18-7									
9	selenium { selenium compounds with the exception of cadmium sulphoselenide and those specified elsewhere in this Annex }				<1	mg/kg	1.405	<1.405	mg/kg	<0.000141 %		<LOD
	034-002-00-8											
10	zinc { zinc chromate }				82	mg/kg	2.774	227.48	mg/kg	0.0227 %		
	024-007-00-3	236-878-9	13530-65-9									
11	chromium in chromium(VI) compounds { chromium(VI) oxide }				<1.2	mg/kg	1.923	<2.308	mg/kg	<0.000231 %		<LOD
	024-001-00-0	215-607-8	1333-82-0									
12	TPH (C6 to C40) petroleum group				350	mg/kg		350	mg/kg	0.035 %		
			TPH									
13	acenaphthene				5.6	mg/kg		5.6	mg/kg	0.00056 %		
		201-469-6	83-32-9									
14	acenaphthylene				0.28	mg/kg		0.28	mg/kg	0.000028 %		
		205-917-1	208-96-8									
15	anthracene				7.5	mg/kg		7.5	mg/kg	0.00075 %		
		204-371-1	120-12-7									

#	Determinand			CLP Note	User entered data	Conv. Factor	Compound conc.	Classification value	MC Applied	Conc. Not Used
	EU CLP index number	EC Number	CAS Number							
16	benzo[a]anthracene 601-033-00-9	200-280-6	56-55-3		18 mg/kg		18 mg/kg	0.0018 %		
17	benzo[a]pyrene; benzo[def]chrysene 601-032-00-3	200-028-5	50-32-8		15 mg/kg		15 mg/kg	0.0015 %		
18	benzo[b]fluoranthene 601-034-00-4	205-911-9	205-99-2		18 mg/kg		18 mg/kg	0.0018 %		
19	benzo[ghi]perylene 205-883-8	191-24-2			8.9 mg/kg		8.9 mg/kg	0.00089 %		
20	benzo[k]fluoranthene 601-036-00-5	205-916-6	207-08-9		6.8 mg/kg		6.8 mg/kg	0.00068 %		
21	chrysene 601-048-00-0	205-923-4	218-01-9		14 mg/kg		14 mg/kg	0.0014 %		
22	dibenz[a,h]anthracene 601-041-00-2	200-181-8	53-70-3		2.1 mg/kg		2.1 mg/kg	0.00021 %		
23	fluoranthene 205-912-4	206-44-0			36 mg/kg		36 mg/kg	0.0036 %		
24	fluorene 201-695-5	86-73-7			4.6 mg/kg		4.6 mg/kg	0.00046 %		
25	indeno[123-cd]pyrene 205-893-2	193-39-5			7.9 mg/kg		7.9 mg/kg	0.00079 %		
26	phenanthrene 201-581-5	85-01-8			29 mg/kg		29 mg/kg	0.0029 %		
27	naphthalene 601-052-00-2	202-049-5	91-20-3		2.7 mg/kg		2.7 mg/kg	0.00027 %		
28	pyrene 204-927-3	129-00-0			32 mg/kg		32 mg/kg	0.0032 %		
Total:								0.11 %		

Key

	User supplied data
	Determinand values ignored for classification, see column 'Conc. Not Used' for reason
•	Determinand defined or amended by HazWasteOnline (see Appendix A)
•	Speciated Determinand - Unless the Determinand is Note 1, the Conversion Factor is used to calculate the compound concentration
<LOD	Below limit of detection
CLP: Note 1	Only the metal concentration has been used for classification

Supplementary Hazardous Property Information

HP 3(i): Flammable "flammable liquid waste: liquid waste having a flash point below 60°C or waste gas oil, diesel and light heating oils having a flash point > 55°C and ≤ 75°C"

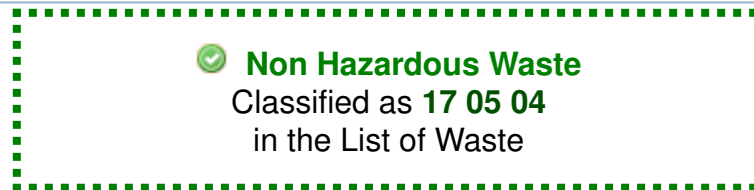
Force this Hazardous property to non hazardous because No free product hydrocarbons recorded within soil samples collected.

Hazard Statements hit:

Flam. Liq. 3; H226 "Flammable liquid and vapour."

Because of determinand:

TPH (C6 to C40) petroleum group: (conc.: 0.035%)

Classification of sample: WS05

Sample details

Sample name:	WS05	LoW Code:	Chapter:	17: Construction and Demolition Wastes (including excavated soil from contaminated sites)
Sample Depth:	0.3 m	Entry:		17 05 04 (Soil and stones other than those mentioned in 17 05 03)
Moisture content:	9%			
	(no correction)			

Hazard properties

None identified

Determinands

Moisture content: 9% No Moisture Correction applied (MC)

#	Determinand			CLP Note	User entered data	Conv. Factor	Compound conc.		Classification value	MC Applied	Conc. Not Used
	EU CLP index number	EC Number	CAS Number								
1	pH				8.9 pH		8.9	pH	8.9 pH		
2	arsenic { arsenic trioxide }				12 mg/kg	1.32	15.844	mg/kg	0.00158 %		
	033-003-00-0	215-481-4	1327-53-3								
3	cadmium { cadmium sulfide }			1	0.5 mg/kg	1.285	0.643	mg/kg	0.00005 %		
	048-010-00-4	215-147-8	1306-23-6								
4	chromium in chromium(III) compounds { chromium(III) oxide (worst case) }				13 mg/kg	1.462	19	mg/kg	0.0019 %		
		215-160-9	1308-38-9								
5	copper { copper sulphate pentahydrate }				41 mg/kg	3.929	161.091	mg/kg	0.0161 %		
	029-023-00-4	231-847-6	7758-99-8								
6	lead { lead chromate }			1	130 mg/kg	1.56	202.776	mg/kg	0.013 %		
	082-004-00-2	231-846-0	7758-97-6								
7	mercury { mercury dichloride }				<0.3 mg/kg	1.353	<0.406	mg/kg	<0.0000406 %		<LOD
	080-010-00-X	231-299-8	7487-94-7								
8	nickel { nickel chromate }				15 mg/kg	2.976	44.644	mg/kg	0.00446 %		
	028-035-00-7	238-766-5	14721-18-7								
9	selenium { selenium compounds with the exception of cadmium sulphoselenide and those specified elsewhere in this Annex }				<1 mg/kg	1.405	<1.405	mg/kg	<0.000141 %		<LOD
	034-002-00-8										
10	zinc { zinc chromate }				85 mg/kg	2.774	235.802	mg/kg	0.0236 %		
	024-007-00-3	236-878-9	13530-65-9								
11	chromium in chromium(VI) compounds { chromium(VI) oxide }				<1.2 mg/kg	1.923	<2.308	mg/kg	<0.000231 %		<LOD
	024-001-00-0	215-607-8	1333-82-0								
12	TPH (C6 to C40) petroleum group				330 mg/kg		330	mg/kg	0.033 %		
			TPH								
13	acenaphthene				5.7 mg/kg		5.7	mg/kg	0.00057 %		
		201-469-6	83-32-9								
14	acenaphthylene				0.71 mg/kg		0.71	mg/kg	0.000071 %		
		205-917-1	208-96-8								
15	anthracene				9.8 mg/kg		9.8	mg/kg	0.00098 %		
		204-371-1	120-12-7								

#	Determinand			CLP Note	User entered data	Conv. Factor	Compound conc.	Classification value	MC Applied	Conc. Not Used
	EU CLP index number	EC Number	CAS Number							
16	benzo[a]anthracene 601-033-00-9	200-280-6	56-55-3		21 mg/kg		21 mg/kg	0.0021 %		
17	benzo[a]pyrene; benzo[def]chrysene 601-032-00-3	200-028-5	50-32-8		19 mg/kg		19 mg/kg	0.0019 %		
18	benzo[b]fluoranthene 601-034-00-4	205-911-9	205-99-2		24 mg/kg		24 mg/kg	0.0024 %		
19	benzo[ghi]perylene 205-883-8	191-24-2			11 mg/kg		11 mg/kg	0.0011 %		
20	benzo[k]fluoranthene 601-036-00-5	205-916-6	207-08-9		6.8 mg/kg		6.8 mg/kg	0.00068 %		
21	chrysene 601-048-00-0	205-923-4	218-01-9		18 mg/kg		18 mg/kg	0.0018 %		
22	dibenz[a,h]anthracene 601-041-00-2	200-181-8	53-70-3		2.4 mg/kg		2.4 mg/kg	0.00024 %		
23	fluoranthene 205-912-4	206-44-0			41 mg/kg		41 mg/kg	0.0041 %		
24	fluorene 201-695-5	86-73-7			6 mg/kg		6 mg/kg	0.0006 %		
25	indeno[123-cd]pyrene 205-893-2	193-39-5			10 mg/kg		10 mg/kg	0.001 %		
26	phenanthrene 201-581-5	85-01-8			36 mg/kg		36 mg/kg	0.0036 %		
27	naphthalene 601-052-00-2	202-049-5	91-20-3		4.4 mg/kg		4.4 mg/kg	0.00044 %		
28	pyrene 204-927-3	129-00-0			37 mg/kg		37 mg/kg	0.0037 %		
Total:								0.119 %		

Key

	User supplied data
	Determinand values ignored for classification, see column 'Conc. Not Used' for reason
•	Determinand defined or amended by HazWasteOnline (see Appendix A)
•	Speciated Determinand - Unless the Determinand is Note 1, the Conversion Factor is used to calculate the compound concentration
<LOD	Below limit of detection
CLP: Note 1	Only the metal concentration has been used for classification

Supplementary Hazardous Property Information

HP 3(i): Flammable "flammable liquid waste: liquid waste having a flash point below 60°C or waste gas oil, diesel and light heating oils having a flash point > 55°C and ≤ 75°C"

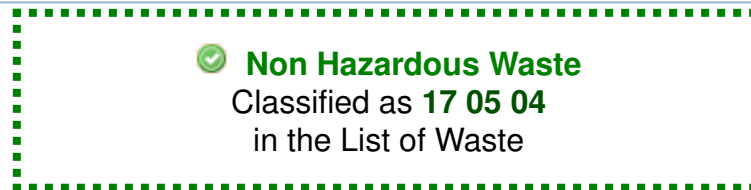
Force this Hazardous property to non hazardous because No free product hydrocarbons recorded within soil samples collected.

Hazard Statements hit:

Flam. Liq. 3; H226 "Flammable liquid and vapour."

Because of determinand:

TPH (C6 to C40) petroleum group: (conc.: 0.033%)

Classification of sample: WS02

Sample details

Sample name:	LoW Code:
WS02	Chapter:
Sample Depth:	17: Construction and Demolition Wastes (including excavated soil from contaminated sites)
2.2 m	Entry:
Moisture content:	17 05 04 (Soil and stones other than those mentioned in 17 05 03)
25%	
(no correction)	

Hazard properties

None identified

Determinands

Moisture content: 25% No Moisture Correction applied (MC)

#	Determinand			CLP Note	User entered data	Conv. Factor	Compound conc.	Classification value	MC Applied	Conc. Not Used
	EU CLP index number	EC Number	CAS Number							
1	pH				7.3 pH		7.3 pH	7.3 pH		
2	arsenic { arsenic trioxide }				39 mg/kg	1.32	51.493 mg/kg	0.00515 %		
	033-003-00-0	215-481-4	1327-53-3							
3	cadmium { cadmium sulfide }			1	<0.2 mg/kg	1.285	<0.257 mg/kg	<0.00002 %		<LOD
	048-010-00-4	215-147-8	1306-23-6							
4	chromium in chromium(III) compounds { chromium(III) oxide (worst case) }				19 mg/kg	1.462	27.77 mg/kg	0.00278 %		
		215-160-9	1308-38-9							
5	copper { copper sulphate pentahydrate }				120 mg/kg	3.929	471.486 mg/kg	0.0471 %		
	029-023-00-4	231-847-6	7758-99-8							
6	lead { lead chromate }			1	300 mg/kg	1.56	467.945 mg/kg	0.03 %		
	082-004-00-2	231-846-0	7758-97-6							
7	mercury { mercury dichloride }				<0.3 mg/kg	1.353	<0.406 mg/kg	<0.0000406 %		<LOD
	080-010-00-X	231-299-8	7487-94-7							
8	nickel { nickel chromate }				27 mg/kg	2.976	80.359 mg/kg	0.00804 %		
	028-035-00-7	238-766-5	14721-18-7							
9	selenium { selenium compounds with the exception of cadmium sulphoselenide and those specified elsewhere in this Annex }				<1 mg/kg	1.405	<1.405 mg/kg	<0.000141 %		<LOD
	034-002-00-8									
10	zinc { zinc chromate }				130 mg/kg	2.774	360.639 mg/kg	0.0361 %		
	024-007-00-3	236-878-9	13530-65-9							
11	chromium in chromium(VI) compounds { chromium(VI) oxide }				<1.2 mg/kg	1.923	<2.308 mg/kg	<0.000231 %		<LOD
	024-001-00-0	215-607-8	1333-82-0							
12	TPH (C6 to C40) petroleum group				670 mg/kg		670 mg/kg	0.067 %		
			TPH							
13	acenaphthene				48 mg/kg		48 mg/kg	0.0048 %		
		201-469-6	83-32-9							
14	acenaphthylene				<0.05 mg/kg		<0.05 mg/kg	<0.000005 %		<LOD
		205-917-1	208-96-8							
15	anthracene				24 mg/kg		24 mg/kg	0.0024 %		
		204-371-1	120-12-7							

#	Determinand			CLP Note	User entered data	Conv. Factor	Compound conc.	Classification value	MC Applied	Conc. Not Used
	EU CLP index number	EC Number	CAS Number							
16	benzo[a]anthracene 601-033-00-9	200-280-6	56-55-3		13 mg/kg		13 mg/kg	0.0013 %		
17	benzo[a]pyrene; benzo[def]chrysene 601-032-00-3	200-028-5	50-32-8		11 mg/kg		11 mg/kg	0.0011 %		
18	benzo[b]fluoranthene 601-034-00-4	205-911-9	205-99-2		15 mg/kg		15 mg/kg	0.0015 %		
19	benzo[ghi]perylene 205-883-8		191-24-2		6.2 mg/kg		6.2 mg/kg	0.00062 %		
20	benzo[k]fluoranthene 601-036-00-5	205-916-6	207-08-9		5.1 mg/kg		5.1 mg/kg	0.00051 %		
21	chrysene 601-048-00-0	205-923-4	218-01-9		12 mg/kg		12 mg/kg	0.0012 %		
22	dibenz[a,h]anthracene 601-041-00-2	200-181-8	53-70-3		1.8 mg/kg		1.8 mg/kg	0.00018 %		
23	fluoranthene 205-912-4		206-44-0		36 mg/kg		36 mg/kg	0.0036 %		
24	fluorene 201-695-5		86-73-7		29 mg/kg		29 mg/kg	0.0029 %		
25	indeno[123-cd]pyrene 205-893-2		193-39-5		6 mg/kg		6 mg/kg	0.0006 %		
26	phenanthrene 201-581-5		85-01-8		39 mg/kg		39 mg/kg	0.0039 %		
27	naphthalene 601-052-00-2	202-049-5	91-20-3		28 mg/kg		28 mg/kg	0.0028 %		
28	pyrene 204-927-3		129-00-0		31 mg/kg		31 mg/kg	0.0031 %		
Total:								0.227 %		

Key

	User supplied data
	Determinand values ignored for classification, see column 'Conc. Not Used' for reason
•	Determinand defined or amended by HazWasteOnline (see Appendix A)
•	Speciated Determinand - Unless the Determinand is Note 1, the Conversion Factor is used to calculate the compound concentration
<LOD	Below limit of detection
CLP: Note 1	Only the metal concentration has been used for classification

Supplementary Hazardous Property Information

HP 3(i): Flammable "flammable liquid waste: liquid waste having a flash point below 60°C or waste gas oil, diesel and light heating oils having a flash point > 55°C and ≤ 75°C"

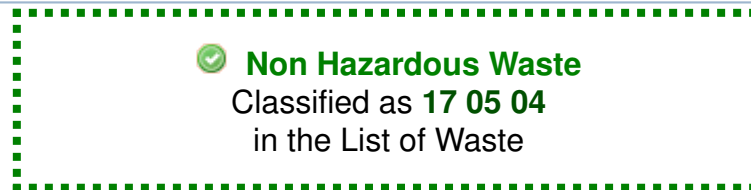
Force this Hazardous property to non hazardous because No free product hydrocarbons recorded within soil samples collected.

Hazard Statements hit:

Flam. Liq. 3; H226 "Flammable liquid and vapour."

Because of determinand:

TPH (C6 to C40) petroleum group: (conc.: 0.067%)

Classification of sample: WS04

Sample details

Sample name:	LoW Code:
WS04	Chapter:
Sample Depth:	17: Construction and Demolition Wastes (including excavated soil from contaminated sites)
0.4 m	Entry:
Moisture content:	17 05 04 (Soil and stones other than those mentioned in 17 05 03)
5.9%	
(no correction)	

Hazard properties

None identified

Determinands

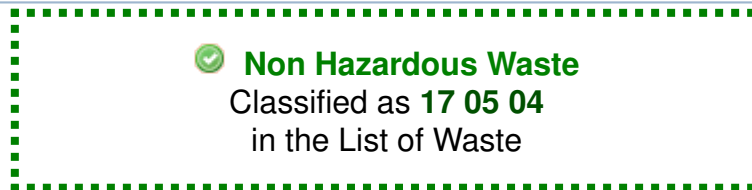
Moisture content: 5.9% No Moisture Correction applied (MC)

#	Determinand			CLP Note	User entered data		Conv. Factor	Compound conc.		Classification value	MC Applied	Conc. Not Used
	EU CLP index number	EC Number	CAS Number									
1	pH				8.4	pH		8.4	pH	8.4 pH		
2	arsenic { arsenic trioxide }				5.3	mg/kg	1.32	6.998	mg/kg	0.0007 %		
	033-003-00-0	215-481-4	1327-53-3									
3	cadmium { cadmium sulfide }			1	<0.2	mg/kg	1.285	<0.257	mg/kg	<0.00002 %		<LOD
	048-010-00-4	215-147-8	1306-23-6									
4	chromium in chromium(III) compounds { chromium(III) oxide (worst case) }				4.9	mg/kg	1.462	7.162	mg/kg	0.000716 %		
		215-160-9	1308-38-9									
5	copper { copper sulphate pentahydrate }				19	mg/kg	3.929	74.652	mg/kg	0.00747 %		
	029-023-00-4	231-847-6	7758-99-8									
6	lead { lead chromate }			1	9.3	mg/kg	1.56	14.506	mg/kg	0.00093 %		
	082-004-00-2	231-846-0	7758-97-6									
7	mercury { mercury dichloride }				<0.3	mg/kg	1.353	<0.406	mg/kg	<0.0000406 %		<LOD
	080-010-00-X	231-299-8	7487-94-7									
8	nickel { nickel chromate }				6.6	mg/kg	2.976	19.643	mg/kg	0.00196 %		
	028-035-00-7	238-766-5	14721-18-7									
9	selenium { selenium compounds with the exception of cadmium sulphoselenide and those specified elsewhere in this Annex }				<1	mg/kg	1.405	<1.405	mg/kg	<0.000141 %		<LOD
	034-002-00-8											
10	zinc { zinc chromate }				15	mg/kg	2.774	41.612	mg/kg	0.00416 %		
	024-007-00-3	236-878-9	13530-65-9									
11	chromium in chromium(VI) compounds { chromium(VI) oxide }				<1.2	mg/kg	1.923	<2.308	mg/kg	<0.000231 %		<LOD
	024-001-00-0	215-607-8	1333-82-0									
12	TPH (C6 to C40) petroleum group				<10	mg/kg		<10	mg/kg	<0.001 %		<LOD
			TPH									
13	acenaphthene				<0.05	mg/kg		<0.05	mg/kg	<0.000005 %		<LOD
		201-469-6	83-32-9									
14	acenaphthylene				<0.05	mg/kg		<0.05	mg/kg	<0.000005 %		<LOD
		205-917-1	208-96-8									
15	anthracene				<0.05	mg/kg		<0.05	mg/kg	<0.000005 %		<LOD
		204-371-1	120-12-7									

#	Determinand			CLP Note	User entered data	Conv. Factor	Compound conc.	Classification value	MC Applied	Conc. Not Used
	EU CLP index number	EC Number	CAS Number							
16	benzo[a]anthracene 601-033-00-9	200-280-6	56-55-3		<0.05 mg/kg		<0.05 mg/kg	<0.000005 %		<LOD
17	benzo[a]pyrene; benzo[def]chrysene 601-032-00-3	200-028-5	50-32-8		<0.05 mg/kg		<0.05 mg/kg	<0.000005 %		<LOD
18	benzo[b]fluoranthene 601-034-00-4	205-911-9	205-99-2		<0.05 mg/kg		<0.05 mg/kg	<0.000005 %		<LOD
19	benzo[ghi]perylene 205-883-8		191-24-2		<0.05 mg/kg		<0.05 mg/kg	<0.000005 %		<LOD
20	benzo[k]fluoranthene 601-036-00-5	205-916-6	207-08-9		<0.05 mg/kg		<0.05 mg/kg	<0.000005 %		<LOD
21	chrysene 601-048-00-0	205-923-4	218-01-9		<0.05 mg/kg		<0.05 mg/kg	<0.000005 %		<LOD
22	dibenz[a,h]anthracene 601-041-00-2	200-181-8	53-70-3		<0.05 mg/kg		<0.05 mg/kg	<0.000005 %		<LOD
23	fluoranthene 205-912-4		206-44-0		<0.05 mg/kg		<0.05 mg/kg	<0.000005 %		<LOD
24	fluorene 201-695-5		86-73-7		<0.05 mg/kg		<0.05 mg/kg	<0.000005 %		<LOD
25	indeno[123-cd]pyrene 205-893-2		193-39-5		<0.05 mg/kg		<0.05 mg/kg	<0.000005 %		<LOD
26	phenanthrene 201-581-5		85-01-8		<0.05 mg/kg		<0.05 mg/kg	<0.000005 %		<LOD
27	naphthalene 601-052-00-2	202-049-5	91-20-3		<0.05 mg/kg		<0.05 mg/kg	<0.000005 %		<LOD
28	pyrene 204-927-3		129-00-0		<0.05 mg/kg		<0.05 mg/kg	<0.000005 %		<LOD
Total:								0.0174 %		

Key

	User supplied data
	Determinand values ignored for classification, see column 'Conc. Not Used' for reason
•	Determinand defined or amended by HazWasteOnline (see Appendix A)
•	Speciated Determinand - Unless the Determinand is Note 1, the Conversion Factor is used to calculate the compound concentration
<LOD	Below limit of detection
CLP: Note 1	Only the metal concentration has been used for classification

Classification of sample: WS06

Sample details

Sample name:	LoW Code:
WS06	Chapter:
Sample Depth:	17: Construction and Demolition Wastes (including excavated soil from contaminated sites)
0.25 m	Entry:
Moisture content:	17 05 04 (Soil and stones other than those mentioned in 17 05 03)
8.7%	
(no correction)	

Hazard properties

None identified

Determinands

Moisture content: 8.7% No Moisture Correction applied (MC)

#	Determinand			CLP Note	User entered data		Conv. Factor	Compound conc.		Classification value	MC Applied	Conc. Not Used
	EU CLP index number	EC Number	CAS Number									
1	pH				9.2	pH		9.2	pH	9.2 pH		
2	arsenic { arsenic trioxide }				4.7	mg/kg	1.32	6.206	mg/kg	0.000621 %		
	033-003-00-0	215-481-4	1327-53-3									
3	cadmium { cadmium sulfide }			1	0.4	mg/kg	1.285	0.514	mg/kg	0.00004 %		
	048-010-00-4	215-147-8	1306-23-6									
4	chromium in chromium(III) compounds { chromium(III) oxide (worst case) }				10	mg/kg	1.462	14.616	mg/kg	0.00146 %		
		215-160-9	1308-38-9									
5	copper { copper sulphate pentahydrate }				16	mg/kg	3.929	62.865	mg/kg	0.00629 %		
	029-023-00-4	231-847-6	7758-99-8									
6	lead { lead chromate }			1	55	mg/kg	1.56	85.79	mg/kg	0.0055 %		
	082-004-00-2	231-846-0	7758-97-6									
7	mercury { mercury dichloride }				<0.3	mg/kg	1.353	<0.406	mg/kg	<0.0000406 %		<LOD
	080-010-00-X	231-299-8	7487-94-7									
8	nickel { nickel chromate }				9	mg/kg	2.976	26.786	mg/kg	0.00268 %		
	028-035-00-7	238-766-5	14721-18-7									
9	selenium { selenium compounds with the exception of cadmium sulphoselenide and those specified elsewhere in this Annex }				<1	mg/kg	1.405	<1.405	mg/kg	<0.000141 %		<LOD
	034-002-00-8											
10	zinc { zinc chromate }				48	mg/kg	2.774	133.159	mg/kg	0.0133 %		
	024-007-00-3	236-878-9	13530-65-9									
11	chromium in chromium(VI) compounds { chromium(VI) oxide }				<1.2	mg/kg	1.923	<2.308	mg/kg	<0.000231 %		<LOD
	024-001-00-0	215-607-8	1333-82-0									
12	TPH (C6 to C40) petroleum group				76	mg/kg		76	mg/kg	0.0076 %		
			TPH									
13	acenaphthene				0.22	mg/kg		0.22	mg/kg	0.000022 %		
		201-469-6	83-32-9									
14	acenaphthylene				0.07	mg/kg		0.07	mg/kg	0.000007 %		
		205-917-1	208-96-8									
15	anthracene				0.41	mg/kg		0.41	mg/kg	0.000041 %		
		204-371-1	120-12-7									

#	Determinand			CLP Note	User entered data	Conv. Factor	Compound conc.	Classification value	MC Applied	Conc. Not Used
	EU CLP index number	EC Number	CAS Number							
16	benzo[a]anthracene 601-033-00-9	200-280-6	56-55-3		2.6 mg/kg		2.6 mg/kg	0.00026 %		
17	benzo[a]pyrene; benzo[def]chrysene 601-032-00-3	200-028-5	50-32-8		3 mg/kg		3 mg/kg	0.0003 %		
18	benzo[b]fluoranthene 601-034-00-4	205-911-9	205-99-2		3.3 mg/kg		3.3 mg/kg	0.00033 %		
19	benzo[ghi]perylene 205-883-8	191-24-2			2 mg/kg		2 mg/kg	0.0002 %		
20	benzo[k]fluoranthene 601-036-00-5	205-916-6	207-08-9		1.3 mg/kg		1.3 mg/kg	0.00013 %		
21	chrysene 601-048-00-0	205-923-4	218-01-9		2.5 mg/kg		2.5 mg/kg	0.00025 %		
22	dibenz[a,h]anthracene 601-041-00-2	200-181-8	53-70-3		0.48 mg/kg		0.48 mg/kg	0.000048 %		
23	fluoranthene 205-912-4	206-44-0			4.4 mg/kg		4.4 mg/kg	0.00044 %		
24	fluorene 201-695-5	86-73-7			0.14 mg/kg		0.14 mg/kg	0.000014 %		
25	indeno[123-cd]pyrene 205-893-2	193-39-5			1.7 mg/kg		1.7 mg/kg	0.00017 %		
26	phenanthrene 201-581-5	85-01-8			1.8 mg/kg		1.8 mg/kg	0.00018 %		
27	naphthalene 601-052-00-2	202-049-5	91-20-3		0.12 mg/kg		0.12 mg/kg	0.000012 %		
28	pyrene 204-927-3	129-00-0			4.4 mg/kg		4.4 mg/kg	0.00044 %		
Total:								0.0408 %		

Key

	User supplied data
	Determinand values ignored for classification, see column 'Conc. Not Used' for reason
•	Determinand defined or amended by HazWasteOnline (see Appendix A)
•	Speciated Determinand - Unless the Determinand is Note 1, the Conversion Factor is used to calculate the compound concentration
<LOD	Below limit of detection
CLP: Note 1	Only the metal concentration has been used for classification

Supplementary Hazardous Property Information

HP 3(i): Flammable "flammable liquid waste: liquid waste having a flash point below 60°C or waste gas oil, diesel and light heating oils having a flash point > 55°C and ≤ 75°C"

Force this Hazardous property to non hazardous because No free product hydrocarbons recorded within soil samples collected.

Hazard Statements hit:

Flam. Liq. 3; H226 "Flammable liquid and vapour."

Because of determinand:

TPH (C6 to C40) petroleum group: (conc.: 0.0076%)

Classification of sample: WS01[2]

 **Non Hazardous Waste**
 Classified as **17 05 04**
 in the List of Waste

Sample details

Sample name:	LoW Code:	
WS01[2]	Chapter:	17: Construction and Demolition Wastes (including excavated soil from contaminated sites)
Sample Depth:	Entry:	17 05 04 (Soil and stones other than those mentioned in 17 05 03)
2.7 m		
Moisture content:		
14%		
(no correction)		

Hazard properties

None identified

Determinands

Moisture content: 14% No Moisture Correction applied (MC)

#	Determinand			CLP Note	User entered data	Conv. Factor	Compound conc.	Classification value	MC Applied	Conc. Not Used
	EU CLP index number	EC Number	CAS Number							
1	TPH (C6 to C40) petroleum group				58 mg/kg		58 mg/kg	0.0058 %		
			TPH							
Total:								0.0058 %		

Key

- User supplied data
- Determinand defined or amended by HazWasteOnline (see Appendix A)

Supplementary Hazardous Property Information

HP 3(i): Flammable "flammable liquid waste: liquid waste having a flash point below 60°C or waste gas oil, diesel and light heating oils having a flash point > 55°C and <= 75°C"

Force this Hazardous property to non hazardous because No free product hydrocarbons recorded within soil samples collected.

Hazard Statements hit:

Flam. Liq. 3; H226 "Flammable liquid and vapour."

Because of determinand:

TPH (C6 to C40) petroleum group: (conc.: 0.0058%)

Classification of sample: WS01[3]


Non Hazardous Waste
 Classified as **17 05 04**
 in the List of Waste

Sample details

Sample name:	LoW Code:	
WS01[3]	Chapter:	17: Construction and Demolition Wastes (including excavated soil from contaminated sites)
Sample Depth:	Entry:	17 05 04 (Soil and stones other than those mentioned in 17 05 03)
1.3 m		
Moisture content:		
13%		
(no correction)		

Hazard properties

None identified

Determinands

Moisture content: **13% No Moisture Correction applied (MC)**

#	Determinand			CLP Note	User entered data	Conv. Factor	Compound conc.	Classification value	MC Applied	Conc. Not Used
	EU CLP index number	EC Number	CAS Number							
1	TPH (C6 to C40) petroleum group				330 mg/kg		330 mg/kg	0.033 %		
			TPH							
Total:								0.033 %		

Key

	User supplied data
●	Determinand defined or amended by HazWasteOnline (see Appendix A)

Supplementary Hazardous Property Information

HP 3(i): Flammable "flammable liquid waste: liquid waste having a flash point below 60°C or waste gas oil, diesel and light heating oils having a flash point > 55°C and ≤ 75°C"

Force this Hazardous property to non hazardous because No free product hydrocarbons recorded within soil samples collected.

Hazard Statements hit:

Flam. Liq. 3; H226 "Flammable liquid and vapour."

Because of determinand:

TPH (C6 to C40) petroleum group: (conc.: 0.033%)

Classification of sample: WS02[2]

 **Non Hazardous Waste**
 Classified as **17 05 04**
 in the List of Waste

Sample details

Sample name:	LoW Code:	
WS02[2]	Chapter:	17: Construction and Demolition Wastes (including excavated soil from contaminated sites)
Sample Depth:	Entry:	17 05 04 (Soil and stones other than those mentioned in 17 05 03)
2.7 m		
Moisture content:		
10%		
(no correction)		

Hazard properties

None identified

Determinands

Moisture content: 10% No Moisture Correction applied (MC)

#		Determinand			CLP Note	User entered data	Conv. Factor	Compound conc.	Classification value	MC Applied	Conc. Not Used
		EU CLP index number	EC Number	CAS Number							
1	TPH (C6 to C40) petroleum group					<10 mg/kg		<10 mg/kg	<0.001 %		<LOD
			TPH								
Total:									0.001 %		

Key

	User supplied data
	Determinand values ignored for classification, see column 'Conc. Not Used' for reason
•	Determinand defined or amended by HazWasteOnline (see Appendix A)
<LOD	Below limit of detection

Appendix A: Classifier defined and non GB MCL determinands

■ pH (CAS Number: PH)

Description/Comments: Appendix C4
Data source: WM3 1st Edition 2015
Data source date: 25 May 2015
Hazard Statements: None.

■ chromium(III) oxide (worst case) (EC Number: 215-160-9, CAS Number: 1308-38-9)

Description/Comments: Data from C&L Inventory Database
Data source: <https://echa.europa.eu/information-on-chemicals/cl-inventory-database/-/discli/details/33806>
Data source date: 17 Jul 2015
Hazard Statements: Acute Tox. 4; H332 , Acute Tox. 4; H302 , Eye Irrit. 2; H319 , STOT SE 3; H335 , Skin Irrit. 2; H315 , Resp. Sens. 1; H334 , Skin Sens. 1; H317 , Repr. 1B; H360FD , Aquatic Acute 1; H400 , Aquatic Chronic 1; H410

■ TPH (C6 to C40) petroleum group (CAS Number: TPH)

Description/Comments: Hazard statements taken from WM3 1st Edition 2015; Risk phrases: WM2 3rd Edition 2013
Data source: WM3 1st Edition 2015
Data source date: 25 May 2015
Hazard Statements: Flam. Liq. 3; H226 , Asp. Tox. 1; H304 , STOT RE 2; H373 , Muta. 1B; H340 , Carc. 1B; H350 , Repr. 2; H361d , Aquatic Chronic 2; H411

■ acenaphthene (EC Number: 201-469-6, CAS Number: 83-32-9)

Description/Comments: Data from C&L Inventory Database
Data source: <http://echa.europa.eu/web/guest/information-on-chemicals/cl-inventory-database>
Data source date: 17 Jul 2015
Hazard Statements: Eye Irrit. 2; H319 , STOT SE 3; H335 , Skin Irrit. 2; H315 , Aquatic Acute 1; H400 , Aquatic Chronic 1; H410 , Aquatic Chronic 2; H411

■ acenaphthylene (EC Number: 205-917-1, CAS Number: 208-96-8)

Description/Comments: Data from C&L Inventory Database
Data source: <http://echa.europa.eu/web/guest/information-on-chemicals/cl-inventory-database>
Data source date: 17 Jul 2015
Hazard Statements: Acute Tox. 4; H302 , Acute Tox. 1; H330 , Acute Tox. 1; H310 , Eye Irrit. 2; H319 , STOT SE 3; H335 , Skin Irrit. 2; H315

■ anthracene (EC Number: 204-371-1, CAS Number: 120-12-7)

Description/Comments: Data from C&L Inventory Database
Data source: <http://echa.europa.eu/web/guest/information-on-chemicals/cl-inventory-database>
Data source date: 17 Jul 2015
Hazard Statements: Eye Irrit. 2; H319 , STOT SE 3; H335 , Skin Irrit. 2; H315 , Skin Sens. 1; H317 , Aquatic Acute 1; H400 , Aquatic Chronic 1; H410

■ benzo[ghi]perylene (EC Number: 205-883-8, CAS Number: 191-24-2)

Description/Comments: Data from C&L Inventory Database; SDS Sigma Aldrich 28/02/2015
Data source: <http://echa.europa.eu/web/guest/information-on-chemicals/cl-inventory-database>
Data source date: 23 Jul 2015
Hazard Statements: Aquatic Acute 1; H400 , Aquatic Chronic 1; H410

■ fluoranthene (EC Number: 205-912-4, CAS Number: 206-44-0)

Description/Comments: Data from C&L Inventory Database
Data source: <http://echa.europa.eu/web/guest/information-on-chemicals/cl-inventory-database>
Data source date: 21 Aug 2015
Hazard Statements: Acute Tox. 4; H302 , Aquatic Acute 1; H400 , Aquatic Chronic 1; H410

■ fluorene (EC Number: 201-695-5, CAS Number: 86-73-7)

Description/Comments: Data from C&L Inventory Database
Data source: <http://echa.europa.eu/web/guest/information-on-chemicals/cl-inventory-database>
Data source date: 06 Aug 2015
Hazard Statements: Aquatic Acute 1; H400 , Aquatic Chronic 1; H410

■ indeno[123-cd]pyrene (EC Number: 205-893-2, CAS Number: 193-39-5)

Description/Comments: Data from C&L Inventory Database
Data source: <http://echa.europa.eu/web/guest/information-on-chemicals/cl-inventory-database>
Data source date: 06 Aug 2015
Hazard Statements: Carc. 2; H351

▪ **phenanthrene** (EC Number: 201-581-5, CAS Number: 85-01-8)

Description/Comments: Data from C&L Inventory Database

Data source: <http://echa.europa.eu/web/guest/information-on-chemicals/cl-inventory-database>

Data source date: 06 Aug 2015

Hazard Statements: Acute Tox. 4; H302 , Eye Irrit. 2; H319 , STOT SE 3; H335 , Carc. 2; H351 , Skin Sens. 1; H317 , Aquatic Acute 1; H400 , Aquatic Chronic 1; H410 , Skin Irrit. 2; H315

▪ **pyrene** (EC Number: 204-927-3, CAS Number: 129-00-0)

Description/Comments: Data from C&L Inventory Database; SDS Sigma Aldrich 2014

Data source: <http://echa.europa.eu/web/guest/information-on-chemicals/cl-inventory-database>

Data source date: 21 Aug 2015

Hazard Statements: Skin Irrit. 2; H315 , Eye Irrit. 2; H319 , STOT SE 3; H335 , Aquatic Acute 1; H400 , Aquatic Chronic 1; H410

Appendix B: Rationale for selection of metal species

arsenic {arsenic trioxide}

(enter justification for selecting this species)

cadmium {cadmium sulfide}

(enter justification for selecting this species)

chromium in chromium(III) compounds {chromium(III) oxide (worst case)}

(enter justification for selecting this species)

copper {copper sulphate pentahydrate}

(enter justification for selecting this species)

lead {lead chromate}

(enter justification for selecting this species)

mercury {mercury dichloride}

(enter justification for selecting this species)

nickel {nickel chromate}

(enter justification for selecting this species)

selenium {selenium compounds with the exception of cadmium sulphoselenide and those specified elsewhere in this Annex}

(enter justification for selecting this species)

zinc {zinc chromate}

(enter justification for selecting this species)

chromium in chromium(VI) compounds {chromium(VI) oxide}

(enter justification for selecting this species)

Appendix C: Version

HazWasteOnline Classification Engine: **WM3 1st Edition v1.2.GB - Oct 2021**

HazWasteOnline Classification Engine Version: 2023.111.5569.10274 (22 Apr 2023)

HazWasteOnline Database: 2023.111.5569.10274 (22 Apr 2023)

This classification utilises the following guidance and legislation:

WM3 v1.2.GB - Waste Classification - 1st Edition v1.2.GB - Oct 2021

CLP Regulation - Regulation 1272/2008/EC of 16 December 2008

1st ATP - Regulation 790/2009/EC of 10 August 2009

2nd ATP - Regulation 286/2011/EC of 10 March 2011

3rd ATP - Regulation 618/2012/EU of 10 July 2012

4th ATP - Regulation 487/2013/EU of 8 May 2013

Correction to 1st ATP - Regulation 758/2013/EU of 7 August 2013

5th ATP - Regulation 944/2013/EU of 2 October 2013

6th ATP - Regulation 605/2014/EU of 5 June 2014

WFD Annex III replacement - Regulation 1357/2014/EU of 18 December 2014

Revised List of Waste 2014 - Decision 2014/955/EU of 18 December 2014

7th ATP - Regulation 2015/1221/EU of 24 July 2015

8th ATP - Regulation (EU) 2016/918 of 19 May 2016

9th ATP - Regulation (EU) 2016/1179 of 19 July 2016

10th ATP - Regulation (EU) 2017/776 of 4 May 2017

HP14 amendment - Regulation (EU) 2017/997 of 8 June 2017

13th ATP - Regulation (EU) 2018/1480 of 4 October 2018

14th ATP - Regulation (EU) 2020/217 of 4 October 2019

15th ATP - Regulation (EU) 2020/1182 of 19 May 2020

The Chemicals (Health and Safety) and Genetically Modified Organisms (Contained Use)(Amendment etc.) (EU Exit)

Regulations 2020 - UK: 2020 No. 1567 of 16th December 2020

The Waste and Environmental Permitting etc. (Legislative Functions and Amendment etc.) (EU Exit) Regulations 2020 - UK:

2020 No. 1540 of 16th December 2020

GB MCL List - version 1.1 of 09 June 2021

UK Locations

Ash Vale
Birmingham
London
Wakefield

