



# Land Science



**WALLED GARDEN, HITCHIN ROAD,  
PRESTON, HITCHIN, SG4 7TZ  
PHASE II CONTAMINATION  
ASSESSMENT  
SAT LALLY  
21<sup>ST</sup> OCTOBER 2022  
LS6199**

|                       |                                                               |                                                                                                      |
|-----------------------|---------------------------------------------------------------|------------------------------------------------------------------------------------------------------|
| <b>Site:</b>          | <b>WALLED GARDEN, HITCHIN ROAD, PRESTON, HITCHIN, SG4 7TZ</b> |                                                                                                      |
| <b>Title:</b>         | <b>PHASE II CONTAMINATION ASSESSMENT</b>                      |                                                                                                      |
| <b>Project:</b>       | <b>PASSIVHAUS DEVELOPMENT WITH BASEMENT</b>                   |                                                                                                      |
| <b>Client:</b>        | <b>SAT LALLY</b>                                              |                                                                                                      |
| <b>Contact:</b>       | <b>MODERN ARCHITECTURE WORKSHOP LTD.</b>                      |                                                                                                      |
| <b>Date:</b>          | <b>21<sup>ST</sup> OCTOBER 2022</b>                           |                                                                                                      |
| <b>Reference:</b>     | <b>LS6199</b>                                                 |                                                                                                      |
| <b>Version:</b>       | <b>A – final for issue</b>                                    |                                                                                                      |
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## 1.0 EXECUTIVE SUMMARY

*This summary is a brief precis of the main findings and conclusions of the investigation. For detailed information, the reader is referred to the main report.*

Describe the existing site... in one sentence. Describe the development... also in one sentence. The intrusive investigation included 6 hand pits.

| Strata                       | Base Depth range (m) | Summary                                                                                              |
|------------------------------|----------------------|------------------------------------------------------------------------------------------------------|
| Made Ground                  | 0.50-0.60            | Dark brown sandy, gravelly CLAY. Gravels are of flint, brick, asphalt, clinker, and chalk fragments. |
| Topsoil                      | 0.10-0.30            | Dark brown, slightly sandy, gravelly CLAY. Gravels are of flint and chalk.                           |
| Lowestoft Formation          | 0.60-1.20+           | Orangey brown gravelly, CLAY. Gravels are of flint and chalk.                                        |
| Undifferentiated White Chalk | 1.00-1.20+           | Off-white low density structureless chalk melange with gravel sized relic chalk clasts and flints.   |

No groundwater was encountered within a depth of 1.20m.

Buried structural concrete may be designed to DS-1 and AC-1 in accordance with BS8500. Water supply pipe work will not require protection from aggressive soil contaminants.

No Radon Protection Measures (RPM) are required for new dwellings and extensions at this location.

Soil testing has identified elevated levels of contamination and subsequent risks to human health and controlled waters. This would most cost effectively be remediated by the removal of any Made Ground and shallow topsoil and its replacement with clean imported materials.

Chemical results on all soils corresponded to a Non-Hazardous Waste classification. Natural soils are anticipated to generally be Inert Waste.

No immediate requirements for further ground investigation have been identified. However remediation is recommended and a Remediation Method Statement should be prepared. This report should be submitted to relevant authorities etc in good time for consideration and approval.

## 2.0 INTRODUCTION

### 2.1 General

Land Science was instructed to undertake a Phase II Contamination Assessment in relation to the proposed redevelopment at Walled Garden, Hitchin Road, Preston, Hitchin, SG4 7TZ. The location is shown on Figure 1, which is centred at grid reference TL 18229 25179.

### 2.2 Client

The Client for this appointment was Sat Lally, through their architect Modern Architecture Workshop Ltd. This report may only be used by this named client and their project team for the purposes set out and subject to the report conditions. It was understood that the Client already owned the property, and that this investigation was not a pre-purchase appraisal.

### 2.3 Area Under Investigation

The area under investigation comprised an old walled garden which is currently being used for the storage of various domestic items and building materials including kerbstones and bricks. The layout is indicated on Figure 2 and the area was approximately 0.48 hectares.

### 2.4 Proposed Development

The proposed development was understood to comprise the construction of a passivhaus with a basement, associated parking, garage and private gardens. It was understood that the findings of this report would support a future planning application. No proposed development plans were available at the time of writing; however, the assumed features of the development were based on the client's specification. The findings of this report may be not valid if the proposed development is altered.

### 2.5 Previous Investigations

The following previous investigations relevant to the site were made available:

- Phase I Geo-Environmental Investigation, Land Science, March 2022 (Ref: LS5881)

The phase II ground investigation has been carried out in accordance with the recommendations of the previous report and all reports must be read in conjunction with each other.

### 2.6 Scope of Work

The work carried out is described in detail in following sections but in summary included:

- An intrusive investigation comprising hand excavated trial pits.
- Preliminary chemical testing of selected soil samples in the field and laboratory.

The fieldwork was conducted on the 3<sup>rd</sup> of October 2022, under the supervision of Land Science.

## **2.7 Geo-Environmental Objectives**

A phase II intrusive investigation was required, to provide a generic quantitative risk assessment (GQRA).

The report was required to assess risks associated with end users, the proposed redevelopment, adjacent land uses, and the wider environment, in the context of the planning regime.

## **2.8 Standards**

Where practicable, the investigation was undertaken in accordance with the following primary standards and guidance:

- Land Contamination Risk Management (LCRM) Environment Agency 2020
- BS10175:2011+A1:2013, Investigation of Potentially Contaminated Sites.
- National Planning Policy Framework, July 2018.
- Building Regulations Approved Document C: Site preparation and resistance to contaminants and moisture, HM Government, July 2013.
- NHBC Standards Chapter 4.1: Land Quality - Managing Ground Conditions, 2019.

Other technical sources have been cited in respect of specific aspects of the investigation, as referenced throughout the text.

### 3.0 INTRUSIVE INVESTIGATION

#### 3.1 Investigation Strategy

Based on the findings of the conceptual site model, the intrusive investigation was based on the following strategy:

- Shallow hand excavated trial pits were positioned across the site to assess the composition and depth of any Made Ground and any field evidence of contamination which has transferred into the underlying soils.
- All positions were located to provide broad coverage across the site and the site boundaries.
- HP01-HP03 focussed on an area of ground disturbance identified during the site walkover and in historical satellite imagery.

| Position | Provisional Depth / strata | Existing Location         | Testing, installations etc |
|----------|----------------------------|---------------------------|----------------------------|
| HP01     | 1.20m/prove top of natural | Walled Garden - west      | PID                        |
| HP02     |                            |                           |                            |
| HP03     |                            | Walled Garden - northeast |                            |
| HP04     |                            | Walled garden - centre    |                            |
| HP05     |                            | Walled garden - southeast |                            |
| HP06     |                            |                           |                            |

The locations of the positions with regard to the proposed development are unknown at the time of writing given that no proposed plan has been finalised at this time.

#### 3.2 Hand Pits (HP)

Hand excavated trial pits provide a low cost and low impact method of sampling shallow soils.

#### 3.3 PID Screening (PID)

The samples of soil were screened for VOC's broadly in accordance with the methodology set out in CIRIA C682.

#### 3.4 Soil Sampling

Soil samples were recovered from the exploratory holes during the ground investigation and stored/transported in containers appropriate for the laboratory testing undertaken. Sample types and depths are recorded on the relevant exploratory hole records.

## 4.0 GROUND CONDITIONS

### 4.1 General

The expected ground conditions were anticipated to comprise Lowestoft Formation over White Chalk to depth. The investigation confirmed the anticipated ground conditions. A thin capping of topsoil and/or Made Ground was encountered at surface. A summary of the encountered conditions is presented below.

| Strata              | Base Depth (m) |       |       |       |       |       |
|---------------------|----------------|-------|-------|-------|-------|-------|
|                     | HP01           | HP02  | HP03  | HP04  | HP05  | HP06  |
| Made Ground         | -              | 0.60  | 0.50  | -     | -     | -     |
| Topsoil             | 0.10           | -     | -     | 0.30  | 0.15  | 0.15  |
| Lowestoft Formation | 0.80           | -     | 1.10+ | 1.00+ | 1.20+ | 0.60  |
| White Chalk         | 1.00+          | 1.20+ | -     | -     | -     | 1.20+ |

The naming of geological strata is tentative and should be used as a guide. Interpolation between or below investigation points should be treated with caution. The description of soils and rocks was in accordance with BS5930.

Topsoil can be distinguished from Made Ground, even though these may have been disturbed through human activity and may contain materials such as brick, pottery, or charcoal etc.

The description and classification of the chalk was in accordance with CIRIA guide C574, although the structure of chalk is difficult to identify once it has been disturbed by hand excavation.

### 4.2 Made Ground

Made Ground was encountered to depths of between 0.50-0.60m and in summary comprised a dark brown sandy, gravelly CLAY. Where gravels are of flint, brick, asphalt, clinker, and chalk fragments. With the exception of the top 0.20m of HP02 where the Made Ground comprised a reddish grey, clayey, very sandy, GRAVEL, where gravels are brick.

### 4.3 Topsoil

Topsoil was encountered in HP01, and HP04 to HP06 to depths of between 0.10-0.30m and generally comprised a dark brown, slightly sandy, gravelly CLAY, where gravels are flint and chalk.

### 4.4 Lowestoft Formation

Lowestoft Formation was encountered in all positions, with the exception of DS02, to depths of between 0.60-1.20m+ and generally comprised an orangey brown gravelly, CLAY, where gravels comprise flint and abundant chalk fragments.

### 4.5 Undifferentiated White Chalk

The White Chalk was encountered in HP01, HP02 and HP06 and was proved to a maximum depth of 1.20mbgl.

The chalk comprised off-white low density structureless chalk melange with gravel sized relic chalk clasts. Flint gravels were also present throughout the chalk. These materials were classified as grade Dm.

#### 4.6 Roots and Rootlets

A summary of the roots and rootlets encountered during the investigation is given below:

| Position | Roots                                  | Rootlets                                                       |
|----------|----------------------------------------|----------------------------------------------------------------|
| HP01     | -                                      | 0.00-0.10; abundant rootlets<br>0.10-0.80; occasional rootlets |
| HP02     | 0.00-0.20; abundant roots and rootlets |                                                                |
| HP03     | -                                      | 0.00-0.20; abundant rootlets                                   |
| HP04     | -                                      | 0.00-0.30; abundant rootlets<br>0.30-0.60; occasional rootlets |
| HP05     | -                                      | 0.00-0.15; abundant rootlets                                   |
| HP06     | -                                      | 0.00-0.15; abundant rootlets<br>0.15-0.60; occasional rootlets |

#### 4.7 Field Evidence of Contamination

No evidence of possible soil contamination (such as staining, malodours, or brightly coloured soils) was identified in the field.

Made Ground was identified in HP02 and HP03 to depths of 0.50m and 0.60m respectively, and such materials may be imported from an unknown source or mixed with hazardous materials, and as such may contain a wide range of potential contaminants. All such materials should be treated as suspect unless proven otherwise. Testing has been carried out, as described in section 6.0.

#### 4.8 Groundwater

Groundwater was not encountered during excavation of any of the investigative positions.

The level of water in a borehole can be affected by the drilling process and speed of infiltration; short-term rest levels should be used with caution.

## 5.0 FIELD TESTING

### 5.1 PID Screening (PID)

The samples of soil were screened for VOC's in headspace broadly in accordance with the methodology set-out in CIRIA C682. Due to interference from humidity and other factors, Land Science adopts a method detection limit of 1.0ppm to avoid reporting false positive readings. None of the samples exhibited VOC's above the detection limit, with the exception of the following tests.

| Position | Depth | Strata      | Result  | Notes |
|----------|-------|-------------|---------|-------|
| HP01     | 0.20m | Made Ground | 2.5ppm  | -     |
| HP02     | 0.10m | Made Ground | 26.2ppm | -     |

Overall, the readings were towards the lower end of the unit's detection limit (0.1ppm to 9999ppm).

The purpose of the screening was to identify samples which may be impacted by organic contaminants (such as VOC's, SVOC's, petroleum hydrocarbons, diesel, etc) and to assist in prioritising samples for laboratory analysis.

## 6.0 CONTAMINATION LABORATORY TESTING

### 6.1 Scheduled Testing

Samples were selected for geochemical (contamination) analysis, based on the following rationale:

- Made Ground was encountered, which may contain a wide range of contaminants. Selected samples from were tested for a routine screening suite (LS1) and were screened for Asbestos.
- Samples of Topsoil were also tested for the same Made Ground suite to assess the condition of the soils across the site.
- Elevated PID readings were detected (as described in section 5.0); sample HP01, 0.20m was tested for a TPH screen (TPH1), sample HP02, 0.10m was tested for speciated TPH (TPH7), volatile organic compounds and semi-volatile organic compounds (VOC/SVOCs).
- Waste classification testing on two samples was included in the scope of works, to provide a preliminary assessment for waste handling. In the absence of any areas to specifically target, two representative samples of Made Ground were selected for testing.
- Selected shallow samples were also tested for a herbicide and pesticide screen as a result of the previous use of the site as a walled garden.
- 

The scope and extent of testing was considered appropriate and in accordance with the Conceptual Site Model and preliminary risk assessment.

| Sample      | Strata                 | LS1 | Asbestos | TPH7 | TPH1 | VOC/SVOC | Herbicide/<br>Pesticide | LS2 |
|-------------|------------------------|-----|----------|------|------|----------|-------------------------|-----|
| HP01, 0.20m | Lowestoft<br>Formation |     |          |      | ✓    |          |                         |     |
| HP01, 0.50m |                        | ✓   | ✓        |      |      |          |                         |     |
| HP02, 0.10m | Made Ground            | ✓   | ✓        | ✓    |      | ✓        |                         | ✓   |
| HP03, 0.40m |                        | ✓   | ✓        |      |      |          |                         | ✓   |
| HP04, 0.20m | Topsoil                | ✓   | ✓        |      |      |          | ✓                       |     |
| HP05, 0.10m |                        | ✓   | ✓        |      |      |          | ✓                       |     |
| HP06, 0.10m |                        |     |          |      |      |          | ✓                       |     |
| HP06, 0.30m |                        | ✓   | ✓        |      |      |          |                         |     |

The relevant screening suites are defined below. Where duplicate analysis exists between suites, each test is performed only once:

| Suite      | Definition                                                                                                                                                                                                                                                      |
|------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| LS1 (soil) | Screening suite: pH, fraction of organic carbon, Metals and Non-Metals, water soluble Sulphate, Sulphide, total Cyanide, total Phenols, speciated PAH's.                                                                                                        |
| TPH1       | TPH screen: Total petroleum hydrocarbons EC10-EC40.                                                                                                                                                                                                             |
| TPH7       | Speciated TPH: Total petroleum hydrocarbons CWG banding incl. aliphatic and aromatic split plus BTEX and MTBE.                                                                                                                                                  |
| Asbestos   | Asbestos screen: Laboratory screening for fibres and Asbestos Containing Materials; identification where identified. Using polarising light and dispersion staining as described in HSG 248, HSE Contract Research Report No 83/1996 and in Davies et al, 1996. |

| Suite                   | Definition                                                                                                                                                                                                    |
|-------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Herbicide/<br>Pesticide | Analysis of unknown pesticides and herbicides by GC-MS                                                                                                                                                        |
| VOC/SVOC                | VOC: Determination of volatile organic compounds in soil by headspace GC-MS.<br>SVOC: Determination of semi-volatile organic compounds in soil by extraction in dichloromethane and hexane followed by GC-MS. |
| LS2                     | Waste Acceptance Criteria: Total Organic Carbon, Loss on Ignition, BTEX, speciated PCB's, Mineral Oil (EC10 – EC40), pH, Acid Neutralisation Capacity, speciated PAH's, 10:1 leachable Metals and Non Metals. |

The results are discussed in the relevant sections.

## 7.0 HUMAN HEALTH SCREENING

### 7.1 Screening Values

As the basis of a generic tier 1 screening assessment, the results have been compared directly against published standards for human health.

Several different partly overlapping schemes are currently in use in the UK, based on the Environment Agency's CLEA Model but with differing toxicological parameters. For this report, these schemes have been applied in the following hierarchy:

- Suitable For Use levels (S4UL) recently published by LQM in association with the CIEH.
- Category 4 Screening Levels (C4SL) recently published by the DEFRA and CL:AIRE.

Whilst other standards exist, such as the LQM Generic Assessment Criterion and the Environment Agency's Soil Guideline Values, these are deemed superseded by the above documents.

The soil chemical analysis results have been compared against respective screening values for residential land uses with plant uptake (i.e. residential properties with private gardens, where homegrown produce could form a proportion of dietary intake).

For contaminants where the respective screening value is dependent on Soil Organic Matter (SOM), the corresponding value for 2.50% was used (the arithmetic mean SOM value for the soils tested was 2.95%).

Where no standard exists, the contaminant is either not considered a priority in terms of human health (at least in the scenario being considered), or no screening value has been published.

### 7.2 Screening results

None of the results exceeded the screening criteria, with the exception of the following:

| Determinand | Screening value | Results exceeding the screening value                                                               |
|-------------|-----------------|-----------------------------------------------------------------------------------------------------|
| Arsenic     | 37 mg/kg        | HP03, 0.40m (60 mg/kg)                                                                              |
| Beryllium   | 1.7 mg/kg       | HP01, 0.50m (1.7 mg/kg); HP03, 0.40m (3.2 mg/kg); HP05, 0.10m (1.8 mg/kg); HP06, 0.30m (1.9 mg/kg). |

### 7.3 Bioaccessible Metals

The screening values for Arsenic and Beryllium assume all ingested contaminant will be fully soluble in stomach acid and therefore available to enter the body. However, this is seldom the case in practice, and can be measured through Physiological Based Extraction Testing (PBET). This data can then be applied as part of a detailed quantitative risk assessment. The current methodology adopted in the UK is known as BARGE testing. Whilst there are costs associated with this testing, the results may prove favourable.

#### 7.4 Speciated TPH

The risks from TPH's are assessed differently from other contaminants. The ratio of an individual group of carbon bands to the respective GAC is calculated (a Hazard Quotient) and these are totalled to derive a sample specific Hazard Index. A Hazard Index exceeding 1.0 suggests a potential significant risk to human health in the exposure scenario considered. The calculated Hazard Indexes are summarised below.

| Sample      | Total TPH | Hazard Index | Notes                                   |
|-------------|-----------|--------------|-----------------------------------------|
| HP02, 0.10m | <10mg/kg  | 0.05         | Not a significant risk to human health. |

#### 7.5 Volatile and Semi-Volatile Compounds

One sample was tested for the presence of VOCs and SVOCs (HP02, 0.10m), no screening values exist for volatile organic compounds, however none were found to exceed their respective detection limits.

#### 7.6 Asbestos

There are no published screening values for asbestos in soil. A total of 6 shallow samples were tested for asbestos. These included samples from the topsoil, Made Ground and Lowestoft Formation. No asbestos was detected in any of the samples tested.

#### 7.7 Herbicides & Pesticides

There are no published screening values for Herbicides and Pesticides. A total of three samples of topsoil were screened for the presence of. The full methodology is described in the analytical report.

None of the samples tested were found to contain herbicides or pesticides.

## 8.0 BUILT ENVIRONMENT SCREENING

### 8.1 Soft Landscaping

A number of documents include guidance on screening levels of phytotoxic contaminants within soils, including:

- BS3882:2015 "Specification for topsoil and requirements for use" (although stipulated as not to be used in contaminated land risk assessment).
- ICRL in publication 70/90 1990 'Notes on the Restoration and Aftercare of Metalliferous Mining Sites for Pasture and Grazing' (although indirectly withdrawn) (where marked \*).
- Code of Practice for Agricultural Use of Sewage Sludge (England and Wales 1996) for arable use (as opposed to grazing) and relating to priority phytotoxic elements only.

The results of the chemical analysis for determinands known to pose a potential phytotoxic risk to plant growth are summarised on the following table, together with the respective adopted screening values for plant growth. The results of the chemical analysis were evaluated singularly without the use of statistical tools.

| Element | Phytotoxicity Value (mg/kg) |            |         | Arable (grassland) | Results exceeding screening value  |
|---------|-----------------------------|------------|---------|--------------------|------------------------------------|
|         | pH <6.0                     | pH 6.0-7.0 | pH >7.0 | pH >5.2            |                                    |
| Zinc    | 200                         | 200        | 300     | 300 (300)          | None                               |
| Copper  | 100                         | 135        | 200     | 200 (330)          | None                               |
| Nickel  | 60                          | 75         | 110     | 110 (180)          | None                               |
| Cadmium | 50*                         |            |         | 3.0 (3.0)          | None                               |
| Arsenic | 1,000*                      |            |         | 50 (50)            | HP03, 0.40m (60mg/kg) <sup>1</sup> |

<sup>1</sup>The proposed development was not anticipated to comprise any arable land, nor was it anticipated that the soils would be reused for arable purposes.

### 8.2 Structural Concrete

It is noted that no onerous precautions with respect to sulphate and buried concrete are warranted.

### 8.3 Potable Water Supplies

The risk of chemical attack on water supply pipework has been assessed following the general Principles set out in the joint Water UK/HBF *Contaminated Land Assessment Guidance* dated January 2014. A summary of the main chemical criteria is reproduced below.

| Test group (in mg/kg)     | Poly-ethylene (PE) | Polyvinyl Chloride (PVC) | Metal or Barrier pipe | Results exceeding |
|---------------------------|--------------------|--------------------------|-----------------------|-------------------|
| VOC's                     | 0.5                | 0.125                    | No limit              | -                 |
| VOC's + BTEX & MTBE       | 0.1                | 0.03                     | No limit              | -                 |
| SVOC's (excl. PAH's etc.) | 2.0                | 1.4                      | No limit              | -                 |

| Test group<br>(in mg/kg)                        | Poly-<br>ethylene (PE) | Polyvinyl<br>Chloride (PVC) | Metal or<br>Barrier pipe | Results exceeding |
|-------------------------------------------------|------------------------|-----------------------------|--------------------------|-------------------|
| SVOC's +<br>Phenols                             | 2.0                    | 0.4                         | No limit                 | -                 |
| SVOC's +<br>Cresols &<br>Chlorinated<br>Phenols | 2.0                    | 0.04                        | No limit                 | -                 |
| Mineral oil<br>EC11-20                          | 10                     | No limit                    | No limit                 | -                 |
| Mineral oil<br>EC21-40                          | 500                    | No limit                    | No limit                 | -                 |

Redox potential and conductivity should be checked where metal pipework is to be installed. aluminium barrier pipework is acceptable under all conditions. No pipework should be laid where there is evidence of petrol, diesel etc.

## 9.0 CONTROLLED WATERS SCREENING

### 9.1 General

The relevant analytical results have been compared directly against the standard set out in the water framework directive for surface waters, and the current UK potable water supply regulations.

### 9.2 Soil leachate screening

In comparison to the adopted surface water standards, the following determinands exceeded the respective thresholds:

| Determinand | EQS    | Units | HP02, 0.10m | HP03, 0.40m |
|-------------|--------|-------|-------------|-------------|
| Arsenic     | 0.05   | mg/l  | 0.0093      | 0.0591      |
| Copper      | 0.001  | mg/l  | 0.027       | 0.0075      |
| Lead        | 0.0012 | mg/l  | 0.007       | 0.0048      |
| Nickel      | 0.004  | mg/l  | 0.0057      | 0.0058      |
| Zinc        | 0.0109 | mg/l  | 0.021       | 0.0055      |

In comparison to the adopted drinking water standards, the following determinands exceeded the respective thresholds:

| Determinand | DWS  | Units | HP02, 0.10m | HP03, 0.40m |
|-------------|------|-------|-------------|-------------|
| Fluoride    | 1.50 | mg/l  | 4.10        | <0.050      |
| Arsenic     | 0.01 | mg/l  | 0.0093      | 0.0591      |

Results of the leachate screening show that several heavy metals exceed their respective screening criteria for the adopted surface water and/or drinking water standards. These results are discussed below.

## 10.0 TIER 1 SOIL CONTAMINATION ASSESSMENT

### 10.1 End Users

The preliminary conceptual site model identified end users to comprise a residential development. The proposed development plans were not available at the time of writing this assessment however, it was understood that the development would include a single residential dwelling with a large private garden.

The chemical results identified elevated Arsenic in the Made Ground at HP03, and Beryllium in the Made Ground and Topsoil across the majority of the site. This is likely associated with previous land uses on site.

Consideration should be given to either conducting further investigation or proceeding straight to possible remediation measures. These are outlined below in section 10.8.

### 10.2 Adjacent Land Users

The site has not been identified as a risk of ongoing pollution to neighbouring land. Measures should always be taken to prevent and control any dust, run-off, and mud etc generated during groundworks, as part of good site management.

### 10.3 Soft Landscaping

Arsenic exceeded the phytotoxicity screening values in sample HP03 at 0.40m (60 mg/kg) for arable land, however it is understood that the soils would not be used for the growing of crops. Other phytotoxic scenarios were not exceeded. No evidence of potentially phytotoxic effects was noted during the site walkover survey inspection.

### 10.4 Concrete specification

Buried concrete cast in the ground as part of the new substructures may be susceptible to chemical degradation from Sulphates (exacerbated in low pH levels). Such adverse chemical conditions may arise from contamination and may also occur naturally.

Based on BS8500-1:2015+A1:2016, the results of the Sulphate and pH analyses in the Made Ground, Topsoil and Lowestoft Formation fell into Class DS-1 and an ACEC class AC-1 is appropriate. The advice of this publication should be taken for the design and specification of all sub surface concrete.

### 10.5 Potable Water Supplies

Evidence of potential fuel storage was identified on the northern portion of the site in the form of old jerry cans; no potable water supplies should be laid in contaminated ground or where there is evidence of hydrocarbons.

No organic contaminants exceeding the screening values were identified. Subject to confirmation from the water utility, it appears there is no restriction on pipework material selection.

## 10.6 Ground Water Protection

The preliminary conceptual site model identified possible source pathway-receptor-linkages with respect to groundwater. The site overlies a principal bedrock aquifer and a secondary A superficial aquifer, and the site is also located inside an SPZ III. Contamination may be mobilised through the infiltration and percolation of water downwards through the soil column and into the water table. This may then in turn migrate with the water table and impact directly on abstraction points.

Comparing the soil-leachate data directly to drinking water standards, Fluoride and Arsenic exceeded the respective standards from samples HP02, 0.10m and HP03, 0.40m, respectively. Overall, the screening suggests a possible impact on groundwater quality.

## 10.7 Surface Water Protection

No surface water bodies were identified in the local area, and therefore no source-pathway-receptor linkages exist in this regard.

## 10.8 Conclusions

The updated conceptual site model has identified the following potential risks:

- End users: inhalation, ingestion, dermal contact with soils, soil borne dusts, consumption of homegrown produce.
- Groundwater: risk of contamination in Made Ground migrating into the water table and impacting on background quality.

Given that no finalised proposed site plans are available at the time of writing, it has been assumed that all positions will be within the soft landscaping.

Further BARGE testing could be considered to evaluate the bioaccessible proportion of Arsenic and Beryllium identified in the soils. This would eliminate the risks to human health; however, it would leave a remaining risk to controlled waters given the results of the leachate analysis. A further WAC Leachate test on the topsoil may prove that the topsoil is clean and there is no outstanding risk to controlled waters. In this case, only the Made Ground would need to be removed subject to the results of the BARGE testing.

In the absence of either BARGE or leachate testing, based on a preliminary remediation options appraisal, it was considered that the risks to both human health and controlled waters would most cost effectively mitigated by:

- Complete removal of Made Ground and any shallow topsoil and reinstatement with clean topsoil/subsoil as required by the landscape designer (minimum 150mm).

These recommendations should be revised once the proposed site layout has been finalised.

A copy of this report should be submitted to the relevant authorities for approval in sufficient time prior to commencement on site.

A suitably qualified Environmental Consultant should prepare a full *Implementation, Verification Monitoring and Maintenance Plan*. An appropriate level of supervision and testing will be required, to form part of a formal *Verification Report*.

## 11.0 PRELIMINARY WASTE ASSESSMENT

### 11.1 General

Waste may be defined as any substance or object in Annex 1 of the Waste Framework Directive which the holder discards, intends to discard, or is required to discard. Subject to certain provisions, soils may either be handled as either:

- Non-Waste, and re-used (on or off-site), or
- Waste, and disposed of (to a waste management facility).

The waste producer has a legal duty of care to ensure that waste materials are handled properly and sent to the appropriate licenced facility. Further inspection, testing, segregation etc will be required on site, and the advice of a suitably qualified consultant sought wherever necessary. Substantial tax penalties and fines are being levied by the regulators. The advice contained in this section is preliminary only.

### 11.2 Non-Waste

Soils may potentially be handled as Non-Waste and re-used on site (or on other sites) in accordance with various protocols such as those published by the EA or CL:AIRE. Typical requirements include:

- That the re-use of material will not endanger human health, cause nuisance, or harm the wider environment (controlled waters, ecosystems, etc.)
- That there is there a clear Environmental benefit from the activity, and that the waste is being used as a substitute for non-waste material.
- The materials are suitable for use in terms of chemical and geotechnical parameters without further treatment.
- The holder is certain that the materials will be used in a safe manner, and only the necessary quantities of materials are being used.
- Where the activities do not require a waste management licence (e.g. landfilling).
- A Waste Recovery Plan (EA) or Materials Management Plan (CL:AIRE) are produced and followed, and audited in a Verification Plan.

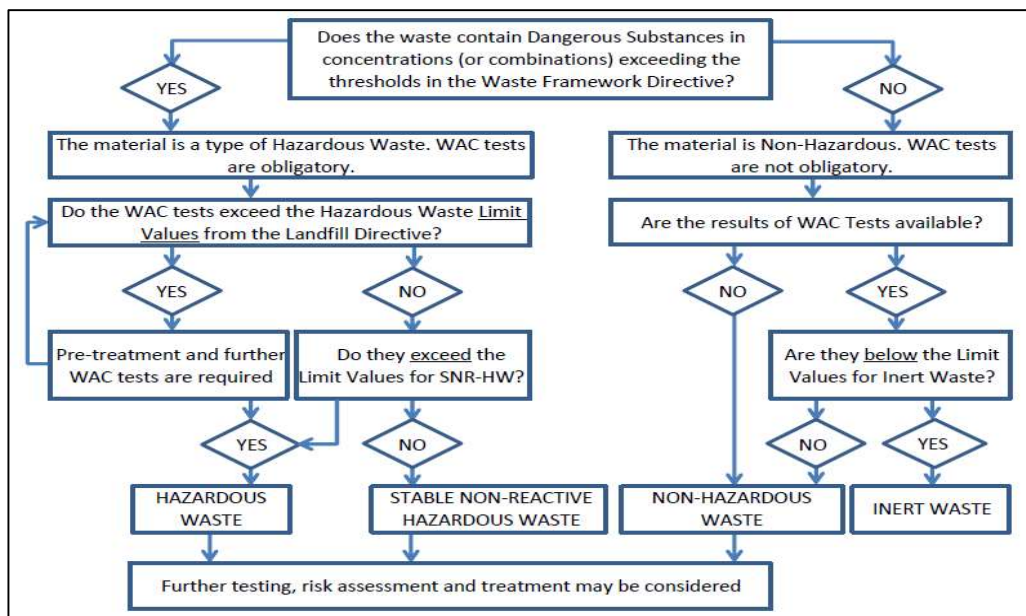
The Topsoil is considered to be potentially suitable for re-use on site. The chemical analysis suggests these materials may be suitable for use in soft landscaped areas (subject to landscaping specifications), or under hardstandings such as roads or slabs (subject to geotechnical considerations).

The Made Ground is considered to be unsuitable for re-use on site on account of its physical composition.

| Soil        | Suitability for re-use on site |            |              | Notes                                                               |
|-------------|--------------------------------|------------|--------------|---------------------------------------------------------------------|
|             | Landscaping                    | Hard cover | Not suitable |                                                                     |
| Topsoil     | ✓                              | ✓          |              | No significant risks identified                                     |
| Made Ground |                                |            | ✓            | No suitable due to physical composition and leachable contaminants. |

### 11.3 Waste Disposal

Where materials are not re-used, they must be handled as Waste, and must be sent to a licenced waste management facility. The classification of waste is prescribed under the Waste Framework Directive and the Landfill Directive, as summarised below. Different waste management facilities may also have specific acceptance criteria, and their advice should be sought.



The results of the soil analysis have been classified as follows:

| Soil                                           | Hazardous |                     | Non-Hazardous |       | Details                                                                                                                                                                                                |
|------------------------------------------------|-----------|---------------------|---------------|-------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|                                                | Hazardous | Stable Non-Reactive | Non-Hazardous | Inert |                                                                                                                                                                                                        |
| Made Ground (HP02, 0.10m)                      |           |                     | ✓             |       | The soil analysis was not identified as hazardous, but the WAC test did not meet the requirements for Inert waste. Interpretation: Non-Hazardous waste. The tests failing the criteria were: Fluoride. |
| Made Ground (HP03, 0.40m)                      |           |                     |               | ✓     | The soil analysis was not identified as hazardous, and the WAC test met the requirements for Inert. Interpretation: Inert Waste.                                                                       |
| Topsoil (HP04, 0.20m; HP05, 0.10m)             |           |                     | ✓             |       | The soil analysis was not identified as hazardous. No WAC test was undertaken, interpretation: Non-Hazardous Waste.                                                                                    |
| Lowestoft Formation (HP01, 0.50m; HP06, 0.30m) |           |                     | ✓             |       |                                                                                                                                                                                                        |

Further WAC testing may be considered for soils identified as Non-Hazardous, as the tests may enable those materials to be re-classified as Inert and therefore represent a potential saving on disposal costs.

With reference to the current List of Wastes (formerly European Waste Catalogue), waste soils and stone derived from construction and demolition sites may be disposed of under either of the following codes as appropriate:

| Waste         | Code      | Description                                            |
|---------------|-----------|--------------------------------------------------------|
| Hazardous     | 17 05 03* | soil and stones containing dangerous substances        |
| Non-Hazardous | 17 05 04  | soil and stones other than those mentioned in 17 05 03 |

(Note, the asterix is a Mirror Entry, as defined in the List of Wastes, conferring the relationship with the non-hazardous code 17-05-04).

## REFERENCES

A number of technical references have been referred to in the preparation of this document, including:

- Smith, I. (2014) Smith's Elements of Soil Mechanics. Chichester. Wiley Blackwell. 9<sup>th</sup> Edition.
- Highways England 2009. Interim Advice Note 73/06 revision 1: Design Guidance for Road Pavement foundations (draft HD25)
- BRE Design Guide 365. Soakaway design ("DG365")
- Radon: Guidance on protective measures for new buildings, BRE Report BR 211, 2015 2ND edition
- Groundwater protection: Principles and practice (GP3) August 2013 Version 1.1
- Revised EU Waste Framework Directive 2008 2008/98/EC [transposed into English law under The Waste (England and Wales) Regulations 2011]
- European Community (EC) Directive 1999/31/EC [transposed into English law under the Landfill (England and Wales) Regulations 2002]
- Defining Waste Recovery - Permanent Deposit of Waste on Land, EPR13 v1.0, EA 2010
- The definition of waste: Development Industry Code of Practice, v2, CL:AIRE 2011
- Guidance on the classification and assessment of waste Technical Guidance WM3 ("WM3") EA publication (1st edition 2015)

## REPORT CONDITIONS

### The Client

This report may also be used only by the client named in section 1 and their appointed project team for the purpose of design, obtaining planning, building regulations approval, and in connection with finance. This report must not be used by any other persons or for other purposes without express written agreement of Land Science.

### General

Land Science takes all reasonable professional care in preparation of this report, using current standards and industry practice. However, the evaluation of ground conditions depends on an interpretation and extrapolation of the conditions revealed by a limited data set. The level of risk is related to the extent of investigation and no site is ever free of risk. The client should understand their risks and liabilities. We accept no liability whatsoever in respect of:

- The scope, extent or design of an investigation.
- Any conditions not directly revealed by the investigation.
- Published standards or methodologies used or adopted in this report.
- The opinion of any other party including any regulator, authority or stakeholder.
- Any dispute, claim or consequential loss arising from any findings of this report.
- Third party information and data.

This report relates solely to ground-related matters as set out in the objectives and makes no representation on other matters such as ecology, arboriculture, invasive plant species, the condition of buildings and structures, hazardous building materials such as insulation or asbestos, the locations of boundaries, unexploded ordnance, and or planning constraints etc. Further reports should be commissioned in this respect as appropriate.

### Regulators and Approvals

This (and any other) report should be submitted to relevant authorities for their own assessments and to provide their approval or comments accordingly. This should be in good time before commencing on site in case additional work is to be carried out.

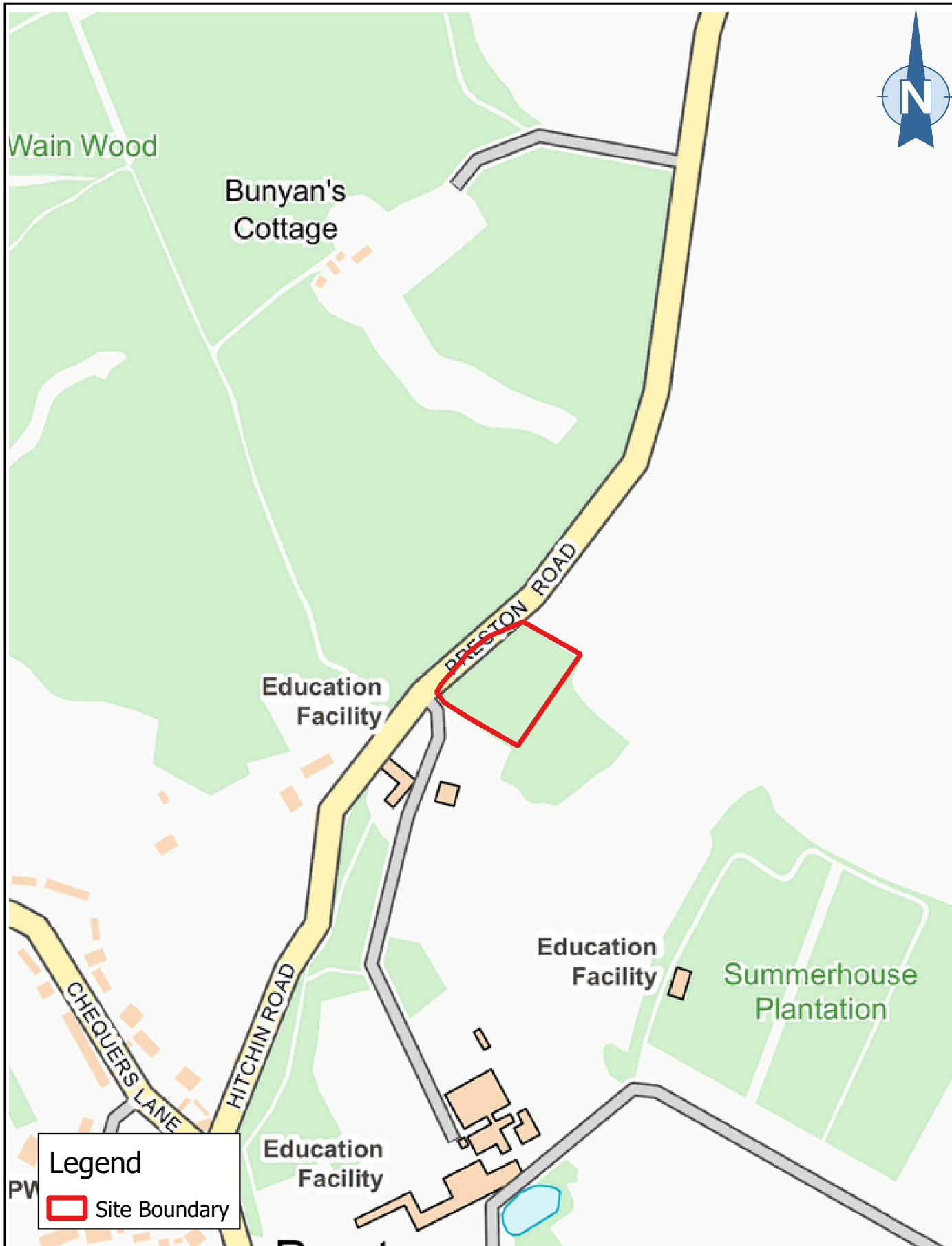
Standards, technical guidance and regulatory positions change over time and which may therefore affect the findings and recommendations made in this report; this should be verified by the client prior to any critical project milestones. Where this information is used in design, the designer should verify that the information is appropriate and has been used correctly.

### Variations with time

The report relates to conditions revealed at the time of the investigation and any monitoring visits. Some parameters may vary over time or seasonally; groundwater levels, ground gas compositions, or concentrations of contaminants are particularly variable in this respect. Further monitoring or verification should be considered as appropriate.

## GLOSSARY OF TERMS

|            |                                                            |
|------------|------------------------------------------------------------|
| ACM        | Asbestos Containing Material                               |
| BGS        | British Geological Survey                                  |
| BRE        | Building Research Establishment                            |
| BS         | British Standard                                           |
| C4SL       | Category 4 Screening Level                                 |
| CBR        | California Bearing Ratio                                   |
| CDM        | Construction Design and Management regulations             |
| CIRIA      | Construction Industry Research and Information Association |
| CL:AIRE    | Contaminated Land: Applications in Real Environments       |
| CLEA       | Contaminated Land Exposure Assessment model                |
| CSM        | Conceptual Site Model                                      |
| EA         | Environment Agency                                         |
| EQS        | Environmental Quality Standards                            |
| FOC        | Fraction of Organic Carbon                                 |
| GAC        | Generic Assessment Criterion                               |
| GQRA       | Generic Quantitative Risk Assessment                       |
| mbgl       | Meters Below Ground Level                                  |
| NHBC       | National House Building Council                            |
| mOD        | Metres above Ordnance Datum                                |
| PAH's      | Polycyclic Aromatic Hydrocarbons                           |
| PHE        | Public Health England                                      |
| PID        | Photo-Ionisation Detector                                  |
| PQRA       | Preliminary Quantitative Risk Assessment                   |
| PSD        | Particle Size Distribution Test                            |
| RMS        | Remediation Method Statement                               |
| S4UL       | Suitable for Use Level                                     |
| SOM        | Soil Organic Matter                                        |
| SPZ        | Source Protection Zone                                     |
| SPT        | Standard Penetration Test                                  |
| SSSI       | Sites of Special Scientific Interest                       |
| ST-WEL     | Short Term Workplace Exposure Limit                        |
| SVOC's     | Semi-Volatile Organic Compounds                            |
| TPH        | Total Petroleum Hydrocarbons                               |
| TRRL / TRL | Transport Road Research Laboratory                         |
| TWA-WEL    | Time Weighted Average Workplace Exposure Limit             |
| UK HBF     | United Kingdom House Building Federation                   |
| VOC's      | Volatile Organic Compounds                                 |
| WAC        | Waste Acceptance Criteria                                  |



**Legend**

Site Boundary

|                                                                                     |                                               |                |             |                   |
|-------------------------------------------------------------------------------------|-----------------------------------------------|----------------|-------------|-------------------|
|  | Title: Site Location                          |                |             | Reference: LS6199 |
|                                                                                     | Project: Walled Garden, Hitchin Road, Preston |                |             | Figure: 1         |
|                                                                                     | Client: Sat Lally                             |                |             | Date: 22/09/2022  |
|                                                                                     | Prepared by: EP                               | Checked by: ET | Version: 01 | Sheet: 1 of 1     |



Legend

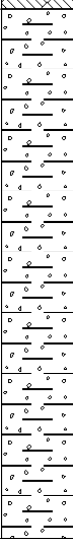
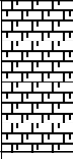
 Site Layout

 Hand Pits

|                                                                                     |                                                        |                |             |                   |
|-------------------------------------------------------------------------------------|--------------------------------------------------------|----------------|-------------|-------------------|
|  | Title: Exploratory Hole Location Plan                  |                |             | Reference: LS6199 |
|                                                                                     | Project: Walled Garden, Hitchin Road, Preston, SG4 7TZ |                |             | Figure: 2         |
|                                                                                     | Client: Sat Lally                                      |                |             | Date: 05/10/2022  |
|                                                                                     | Prepared by: EP                                        | Checked by: ET | Version: 01 | Sheet: 1 of 1     |

## **APPENDIX A**

|                                       |  |                                      |  |                            |  |                                           |  |                             |  |
|---------------------------------------|--|--------------------------------------|--|----------------------------|--|-------------------------------------------|--|-----------------------------|--|
| <b>Excavation Method</b><br>Trial Pit |  | <b>Dimensions</b>                    |  | <b>Ground Level (mOD)</b>  |  | <b>Client</b><br>Sat Lally                |  | <b>Job Number</b><br>LS6199 |  |
|                                       |  | <b>Location</b><br>518213 E 225197 N |  | <b>Dates</b><br>03/10/2022 |  | <b>Project Contractor</b><br>Land Science |  | <b>Sheet</b><br>1/1         |  |

| Depth (m) | Sample / Tests | Water Depth (m) | Field Records | Level (mOD) | Depth (m) (Thickness)  | Description                                                                                                                                                                                                                                                                      | Legend                                                                                | Water |
|-----------|----------------|-----------------|---------------|-------------|------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------|-------|
| 0.20      | D              |                 | PID = 2.5ppm  |             | (0.10)<br>0.10         | Grass over dark brown, slightly sandy, gravelly CLAY. Sands are fine to medium. Gravels are occasional, fine to medium, subangular to subrounded flint and chalk. Abundant rootlets noted throughout. (TOPSOIL)                                                                  |    |       |
| 0.50      | D              |                 | PID < 1.0ppm  |             | (0.70)                 | Orangey brown, gravelly, CLAY. Gravels are fine to medium, subangular to subrounded flint and abundant chalk fragments. Occasional rootlets noted throughout. (LOWESTOFT FORMATION)                                                                                              |   |       |
| 0.90      | D              |                 | PID < 1.0ppm  |             | 0.80<br>(0.20)<br>1.00 | Off white slightly grey, CHALK. Recovered as a structureless chalk melange, where matrix comprises an off white clayey chalk putty and clasts comprise flint and fine to medium, subangular to subrounded medium density chalk clasts. (UNDIFFERENTIATED WHITE CHALK - Grade Dm) |  |       |
|           |                |                 |               |             |                        | Complete at 1.00m                                                                                                                                                                                                                                                                |                                                                                       |       |

|             |  |  |  |  |                                                                                                                                                                                                                                               |  |                        |                                  |
|-------------|--|--|--|--|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--|------------------------|----------------------------------|
| <b>Plan</b> |  |  |  |  | <b>Remarks</b><br><br>GROUNDWATER: No groundwater encountered.<br>STABILITY: No instability encountered.<br>BACKFILL: Hand pit backfilled with arisings.<br>DIMENSIONS: 0.30m (l) 0.30m (w) (approx).<br>NOTES: Trial hole complete at 1.00m. |  |                        |                                  |
|             |  |  |  |  |                                                                                                                                                                                                                                               |  |                        |                                  |
|             |  |  |  |  | <b>Scale (approx)</b><br>1:10                                                                                                                                                                                                                 |  | <b>Logged By</b><br>JT | <b>Figure No.</b><br>LS6199.HP01 |

|                                       |  |                                      |  |                            |  |                                           |  |                             |  |
|---------------------------------------|--|--------------------------------------|--|----------------------------|--|-------------------------------------------|--|-----------------------------|--|
| <b>Excavation Method</b><br>Trial Pit |  | <b>Dimensions</b>                    |  | <b>Ground Level (mOD)</b>  |  | <b>Client</b><br>Sat Lally                |  | <b>Job Number</b><br>LS6199 |  |
|                                       |  | <b>Location</b><br>518199 E 225176 N |  | <b>Dates</b><br>03/10/2022 |  | <b>Project Contractor</b><br>Land Science |  | <b>Sheet</b><br>1/1         |  |

| Depth (m) | Sample / Tests | Water Depth (m) | Field Records | Level (mOD) | Depth (m) (Thickness) | Description                                                                                                                                                                                                                                                                                   | Legend | Water |
|-----------|----------------|-----------------|---------------|-------------|-----------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------|-------|
| 0.10      | D              |                 | PID = 26.2ppm |             | (0.20)                | Grass over reddish brown, clayey, very sandy, GRAVEL. Sands are fine to coarse. Gravels are abundant, medium to coarse, subangular to subrounded brick. Abundant roots and rootlets noted throughout. (MADE GROUND)<br>... Large brick cobble noted at 0.10mbgl.                              |        |       |
| 0.40      | D              |                 | PID < 1.0ppm  |             | (0.40)                | Brown mottled red and off white, slightly sandy, gravelly, CLAY. Sands are fine to coarse. Gravels are occasional, fine to medium, subangular to subrounded flint, chalk, brick and charcoal. (MADE GROUND)<br>... Membrane noted at 0.20mbgl.<br><br>... Colour becomes white from 0.40mbgl. |        |       |
| 0.50      | D              |                 | PID < 1.0ppm  |             | 0.60                  | Off white slightly creamy, slightly grey CHALK. Recovered as a structureless chalk melange. Matrix comprises a creamy soft chalk putty. Clasts comprise fine to medium, subangular to subrounded flints and medium density chalk clasts. (UNDIFFERENTIATED WHITE CHALK - Grade Dm)            |        |       |
| 0.80      | D              |                 | PID < 1.0ppm  |             | (0.60)                |                                                                                                                                                                                                                                                                                               |        |       |
| 1.20      | D              |                 | PID < 1.0ppm  |             | 1.20                  | Complete at 1.20m                                                                                                                                                                                                                                                                             |        |       |

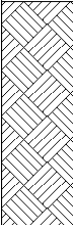
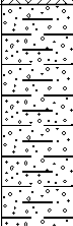
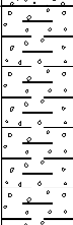
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|-------------|---|---|---|---|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--|------------------|-------------------|
| <b>Plan</b> |   |   |   |   | <b>Remarks</b>                                                                                                                                                                                                          |  |                  |                   |
| .           | . | . | . | . | GROUNDWATER: No groundwater encountered.<br>STABILITY: No instability encountered.<br>BACKFILL: Hand pit backfilled with arisings.<br>DIMENSIONS: 0.30m (l) 0.30m (w) (approx).<br>NOTES: Trial hole complete at 1.20m. |  |                  |                   |
| .           | . | . | . | . |                                                                                                                                                                                                                         |  |                  |                   |
| .           | . | . | . | . |                                                                                                                                                                                                                         |  |                  |                   |
| .           | . | . | . | . |                                                                                                                                                                                                                         |  |                  |                   |
| .           | . | . | . | . |                                                                                                                                                                                                                         |  |                  |                   |
| .           | . | . | . | . |                                                                                                                                                                                                                         |  |                  |                   |
|             |   |   |   |   | <b>Scale (approx)</b>                                                                                                                                                                                                   |  | <b>Logged By</b> | <b>Figure No.</b> |
|             |   |   |   |   | 1:10                                                                                                                                                                                                                    |  | JT               | LS6199.HP02       |

|                                       |  |                                      |  |                            |  |                                           |  |                             |  |
|---------------------------------------|--|--------------------------------------|--|----------------------------|--|-------------------------------------------|--|-----------------------------|--|
| <b>Excavation Method</b><br>Trial Pit |  | <b>Dimensions</b>                    |  | <b>Ground Level (mOD)</b>  |  | <b>Client</b><br>Sat Lally                |  | <b>Job Number</b><br>LS6199 |  |
|                                       |  | <b>Location</b><br>518243 E 225201 N |  | <b>Dates</b><br>01/10/2022 |  | <b>Project Contractor</b><br>Land Science |  | <b>Sheet</b><br>1/1         |  |

| Depth (m) | Sample / Tests | Water Depth (m) | Field Records | Level (mOD) | Depth (m) (Thickness) | Description                                                                                                                                                                                                                            | Legend | Water |
|-----------|----------------|-----------------|---------------|-------------|-----------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------|-------|
| 0.10      | D              |                 | PID < 1.0ppm  |             | (0.10)                | Grass over dark brown, slightly sandy, gravelly CLAY. Sands are fine to coarse. Gravels are occasional, fine to medium, subangular to subrounded flint, brick and asphalt fragments. Abundant rootlets noted throughout. (MADE GROUND) |        |       |
| 0.40      | D              |                 | PID < 1.0ppm  |             | (0.40)                | Brown, gravelly, CLAY. Gravels are occasional fine to medium, subangular to subrounded flint, chalk, clinker and brick. Occasional rootlets noted throughout. (MADE GROUND)<br>... Abundant rootlets noted to 0.20mbgl.                |        |       |
| 0.60      | D              |                 | PID < 1.0ppm  |             | (0.60)                | Light orange brown, mottled off white, gravelly, silty, CLAY. Gravels are fine to coarse, subangular to subrounded flint and chalk. (LOWESTOFT FORMATION)                                                                              |        |       |
| 1.00      | D              |                 | PID < 1.0ppm  |             | 1.10                  | Complete at 1.10m                                                                                                                                                                                                                      |        |       |

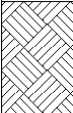
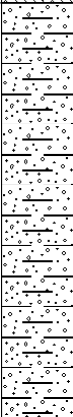
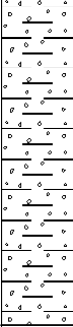
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| <div>Plan</div> <div><div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div></div></div> | <div>Remarks</div> <div>GROUNDWATER: No groundwater encountered.</div> <div>STABILITY: No instability encountered.</div> <div>BACKFILL: Hand pit backfilled with arisings.</div> <div>DIMENSIONS: 0.30m (l) 0.30m (w) (approx).</div> <div>NOTES: Trial hole complete at 1.10m.</div> |                                    |                                              |
|                                                                                                                                                                 |                                                                                                                                                                                                                                                                                       |                                    |                                              |
|                                                                                                                                                                 |                                                                                                                                                                                                                                                                                       |                                    |                                              |
|                                                                                                                                                                 |                                                                                                                                                                                                                                                                                       |                                    |                                              |
|                                                                                                                                                                 |                                                                                                                                                                                                                                                                                       |                                    |                                              |
|                                                                                                                                                                 |                                                                                                                                                                                                                                                                                       |                                    |                                              |
|                                                                                                                                                                 | <div>Scale (approx)</div> <div>1:10</div>                                                                                                                                                                                                                                             | <div>Logged By</div> <div>JT</div> | <div>Figure No.</div> <div>LS6199.HP03</div> |

|                                       |  |                                      |  |                            |  |                                           |  |                             |  |
|---------------------------------------|--|--------------------------------------|--|----------------------------|--|-------------------------------------------|--|-----------------------------|--|
| <b>Excavation Method</b><br>Trial Pit |  | <b>Dimensions</b>                    |  | <b>Ground Level (mOD)</b>  |  | <b>Client</b><br>Sat Lally                |  | <b>Job Number</b><br>LS6199 |  |
|                                       |  | <b>Location</b><br>518220 E 225168 N |  | <b>Dates</b><br>01/10/2022 |  | <b>Project Contractor</b><br>Land Science |  | <b>Sheet</b><br>1/1         |  |

| Depth (m) | Sample / Tests | Water Depth (m) | Field Records | Level (mOD) | Depth (m) (Thickness) | Description                                                                                                                                                                                                    | Legend                                                                                | Water |
|-----------|----------------|-----------------|---------------|-------------|-----------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------|-------|
| 0.20      | D              |                 | PID < 1.0ppm  |             | (0.30)                | Grass over, dark brown, slightly sandy, gravelly CLAY. Sands are fine to coarse. Gravels are fine to coarse, subangular to subrounded flint, chalk and charcoal. Abundant rootlets noted throughout. (TOPSOIL) |    |       |
| 0.50      | D              |                 | PID < 1.0ppm  |             | 0.30 (0.30)           | Slightly orangey brown, sandy, gravelly, CLAY. Sands are fine to medium. Gravels are fine to medium, subangular to subrounded flint and chalk. Occasional rootlets noted throughout. (LOWESTOFT FORMATION)     |    |       |
| 0.70      | D              |                 | PID < 1.0ppm  |             | 0.60 (0.40)           | Orangey brown, gravelly CLAY. Gravels are fine to medium, subangular to subrounded flint. (LOWESTOFT FORMATION)                                                                                                |   |       |
| 1.00      | D              |                 | PID < 1.0ppm  |             | 1.00                  | Complete at 1.00m                                                                                                                                                                                              |  |       |

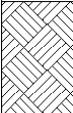
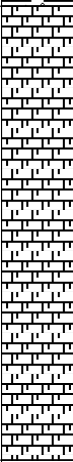
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| <div>Plan</div> <div><div><div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div></div></div></div> | <div>Remarks</div> <div>GROUNDWATER: No groundwater encountered.<br/>STABILITY: No instability encountered.<br/>BACKFILL: Hand pit backfilled with arisings.<br/>DIMENSIONS: 0.30m (l) 0.30m (w) (approx).<br/>NOTES: Trial hole complete at 1.00m.</div> |                                    |                                              |
|                                                                                                                                                                            |                                                                                                                                                                                                                                                           |                                    |                                              |
|                                                                                                                                                                            |                                                                                                                                                                                                                                                           |                                    |                                              |
|                                                                                                                                                                            |                                                                                                                                                                                                                                                           |                                    |                                              |
|                                                                                                                                                                            |                                                                                                                                                                                                                                                           |                                    |                                              |
|                                                                                                                                                                            |                                                                                                                                                                                                                                                           |                                    |                                              |
|                                                                                                                                                                            | <div>Scale (approx)</div> <div>1:10</div>                                                                                                                                                                                                                 | <div>Logged By</div> <div>JT</div> | <div>Figure No.</div> <div>LS6199.HP04</div> |

|                                       |  |                                      |  |                            |  |                                           |  |                             |  |
|---------------------------------------|--|--------------------------------------|--|----------------------------|--|-------------------------------------------|--|-----------------------------|--|
| <b>Excavation Method</b><br>Trial Pit |  | <b>Dimensions</b>                    |  | <b>Ground Level (mOD)</b>  |  | <b>Client</b><br>Sat Lally                |  | <b>Job Number</b><br>LS6199 |  |
|                                       |  | <b>Location</b><br>518233 E 225135 N |  | <b>Dates</b><br>01/10/2022 |  | <b>Project Contractor</b><br>Land Science |  | <b>Sheet</b><br>1/1         |  |

| Depth (m) | Sample / Tests | Water Depth (m) | Field Records | Level (mOD) | Depth (m) (Thickness) | Description                                                                                                                                                                                                                     | Legend                                                                                | Water |
|-----------|----------------|-----------------|---------------|-------------|-----------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------|-------|
| 0.10      | D              |                 | PID < 1.0ppm  |             | (0.15)                | Grass over dark brown, slightly sandy, gravelly, CLAY. Sands are fine to coarse. Gravels are fine to medium, subangular to subrounded flint, brick, charcoal and chalk fragments. Abundant rootlets noted throughout. (TOPSOIL) |    |       |
| 0.30      | D              |                 | PID < 1.0ppm  |             | (0.55)                | Orangey brown, slightly sandy, gravelly CLAY. Sands are fine to coarse. Gravels are fine to medium, subangular to subrounded flint and chalk. Occasional rootlets noted throughout. (LOWESTOFT FORMATION)                       |    |       |
| 0.60      | D              |                 | PID < 1.0ppm  |             | 0.70                  | ... Colour becomes chalky white from 0.60-0.70mbgl.                                                                                                                                                                             |   |       |
| 0.80      | D              |                 | PID < 1.0ppm  |             | (0.50)                | Orange brown, mottled off white, gravelly, CLAY. Gravels are fine to medium, subangular to subrounded flint and chalk. (LOWESTOFT FORMATION)                                                                                    |  |       |
| 1.20      | D              |                 | PID < 1.0ppm  |             | 1.20                  | Complete at 1.20m                                                                                                                                                                                                               |                                                                                       |       |

|                                                                                                                                                                            |                                                                                                                                                                                                                                                           |  |                                    |                                              |
|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--|------------------------------------|----------------------------------------------|
| <div>Plan</div> <div><div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div></div></div> | <div>Remarks</div> <div>GROUNDWATER: No groundwater encountered.<br/>STABILITY: No instability encountered.<br/>BACKFILL: Hand pit backfilled with arisings.<br/>DIMENSIONS: 0.30m (l) 0.30m (w) (approx).<br/>NOTES: Trial hole complete at 1.20m.</div> |  |                                    |                                              |
|                                                                                                                                                                            |                                                                                                                                                                                                                                                           |  |                                    |                                              |
|                                                                                                                                                                            |                                                                                                                                                                                                                                                           |  |                                    |                                              |
|                                                                                                                                                                            |                                                                                                                                                                                                                                                           |  |                                    |                                              |
|                                                                                                                                                                            |                                                                                                                                                                                                                                                           |  |                                    |                                              |
|                                                                                                                                                                            |                                                                                                                                                                                                                                                           |  |                                    |                                              |
|                                                                                                                                                                            |                                                                                                                                                                                                                                                           |  |                                    |                                              |
| <div>Scale (approx)</div> <div>1:10</div>                                                                                                                                  |                                                                                                                                                                                                                                                           |  | <div>Logged By</div> <div>JT</div> | <div>Figure No.</div> <div>LS6199.HP05</div> |

|                                       |  |                                      |  |                            |  |                                           |                             |
|---------------------------------------|--|--------------------------------------|--|----------------------------|--|-------------------------------------------|-----------------------------|
| <b>Excavation Method</b><br>Trial Pit |  | <b>Dimensions</b>                    |  | <b>Ground Level (mOD)</b>  |  | <b>Client</b><br>Sat Lally                | <b>Job Number</b><br>LS6199 |
|                                       |  | <b>Location</b><br>518259 E 225178 N |  | <b>Dates</b><br>03/10/2022 |  | <b>Project Contractor</b><br>Land Science | <b>Sheet</b><br>1/1         |

| Depth (m) | Sample / Tests | Water Depth (m) | Field Records | Level (mOD) | Depth (m) (Thickness) | Description                                                                                                                                                                                                                                                                      | Legend                                                                               | Water |
|-----------|----------------|-----------------|---------------|-------------|-----------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------|-------|
| 0.10      | D              |                 | PID < 1.0ppm  |             | (0.15)                | Grass over dark brown, gravelly, slightly sandy, CLAY. Sands are fine to coarse. Gravels are occasional fine to medium, subangular to subrounded brick, flint, chalk and charcoal. Abundant rootlets noted throughout. (TOPSOIL)                                                 |   |       |
| 0.30      | D              |                 | PID < 1.0ppm  |             | (0.45)                | Orangey brown, gravelly, CLAY. Gravels are fine to medium, subangular to subrounded flint and charcoal. Occasional rootlets noted throughout. (LOWESTOFT FORMATION)                                                                                                              |   |       |
| 0.50      | D              |                 | PID < 1.0ppm  |             | 0.60                  | ... Colour becomes off white from 0.50mbgl.                                                                                                                                                                                                                                      |  |       |
| 0.80      | D              |                 | PID < 1.0ppm  |             | (0.60)                | Creamy off white CHALK. Recovered as a structureless chalk melange. Matrix comprises an off white soft chalk putty, resembling a silty clay. Clasts comprises off white fine to medium, subangular to subrounded medium density chalk. (UNDIFFERENTIATED WHITE CHALK - Grade Dm) |                                                                                      |       |
| 1.20      | D              |                 | PID < 1.0ppm  |             | 1.20                  | Complete at 1.20m                                                                                                                                                                                                                                                                |                                                                                      |       |

|                                                                                                                                                 |  |  |  |  |  |  |  |  |  |  |                                                                                                                                                                                                                                                           |           |             |
|-------------------------------------------------------------------------------------------------------------------------------------------------|--|--|--|--|--|--|--|--|--|--|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------|-------------|
| <div><div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div></div></div> |  |  |  |  |  |  |  |  |  |  | <div>Remarks</div> <div>GROUNDWATER: No groundwater encountered.<br/>STABILITY: No instability encountered.<br/>BACKFILL: Hand pit backfilled with arisings.<br/>DIMENSIONS: 0.30m (l) 0.30m (w) (approx).<br/>NOTES: Trial hole complete at 1.20m.</div> |           |             |
|                                                                                                                                                 |  |  |  |  |  |  |  |  |  |  |                                                                                                                                                                                                                                                           |           |             |
|                                                                                                                                                 |  |  |  |  |  |  |  |  |  |  |                                                                                                                                                                                                                                                           |           |             |
|                                                                                                                                                 |  |  |  |  |  |  |  |  |  |  |                                                                                                                                                                                                                                                           |           |             |
|                                                                                                                                                 |  |  |  |  |  |  |  |  |  |  |                                                                                                                                                                                                                                                           |           |             |
|                                                                                                                                                 |  |  |  |  |  |  |  |  |  |  |                                                                                                                                                                                                                                                           |           |             |
|                                                                                                                                                 |  |  |  |  |  |  |  |  |  |  | Scale (approx)                                                                                                                                                                                                                                            | Logged By | Figure No.  |
|                                                                                                                                                 |  |  |  |  |  |  |  |  |  |  | 1:10                                                                                                                                                                                                                                                      | JT        | LS6199.HP06 |

## **APPENDIX B**

**Results**

Land Science  
Unit 10  
19 Albert Drive  
Burgess Hill  
West Sussex  
RH15 9TN

i2 Analytical Ltd.  
7 Woodshots Meadow,  
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**e:** reception@i2analytical.com

**e:** results@landscience.co.uk

## **Analytical Report Number : 22-88092**

|                             |                                                  |                                                        |            |
|-----------------------------|--------------------------------------------------|--------------------------------------------------------|------------|
| <b>Project / Site name:</b> | Hitchin Road, Preston, Hertfordshire,<br>SG4 7TZ | <b>Samples received on:</b>                            | 04/10/2022 |
| <b>Your job number:</b>     | LS6199                                           | <b>Samples instructed on/<br/>Analysis started on:</b> | 04/10/2022 |
| <b>Your order number:</b>   |                                                  | <b>Analysis completed by:</b>                          | 13/10/2022 |
| <b>Report Issue Number:</b> | 1                                                | <b>Report issued on:</b>                               | 13/10/2022 |
| <b>Samples Analysed:</b>    | 2 leachate samples - 8 soil samples              |                                                        |            |



**Signed:**

Anna Goc  
Junior 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: 22-88092

Project / Site name: Hitchin Road, Preston, Hertfordshire, SG4 7TZ

| Lab Sample Number                       |       |                    |                      | 2448616       | 2448617       | 2448618       | 2448619       | 2448620       |
|-----------------------------------------|-------|--------------------|----------------------|---------------|---------------|---------------|---------------|---------------|
| Sample Reference                        |       |                    |                      | HP01          | HP01          | HP02          | HP03          | HP04          |
| Sample Number                           |       |                    |                      | None Supplied | None Supplied | None Supplied | None Supplied | None Supplied |
| Depth (m)                               |       |                    |                      | 0.20          | 0.50          | 0.10          | 0.40          | 0.20          |
| Date Sampled                            |       |                    |                      | 03/10/2022    | 03/10/2022    | 03/10/2022    | 03/10/2022    | 03/10/2022    |
| Time Taken                              |       |                    |                      | None Supplied | None Supplied | None Supplied | None Supplied | None Supplied |
| Analytical Parameter<br>(Soil Analysis) | Units | Limit of detection | Accreditation Status |               |               |               |               |               |
| Stone Content                           | %     | 0.1                | NONE                 | < 0.1         | 26            | < 0.1         | < 0.1         | < 0.1         |
| Moisture Content                        | %     | 0.01               | NONE                 | 19            | 13            | 10            | 20            | 12            |
| Total mass of sample received           | kg    | 0.001              | NONE                 | 0.8           | 1             | 0.8           | 0.8           | 1             |

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

#### General Inorganics

|                                                                         |          |         |        |   |        |       |        |       |
|-------------------------------------------------------------------------|----------|---------|--------|---|--------|-------|--------|-------|
| pH - Manual                                                             | pH Units | N/A     | MCERTS | - | -      | 8     | 8.2    | -     |
| pH - Automated                                                          | pH Units | N/A     | MCERTS | - | 8.1    | 8.2   | 8      | 7.9   |
| Total Cyanide                                                           | mg/kg    | 1       | MCERTS | - | < 1.0  | < 1.0 | < 1.0  | < 1.0 |
| Water Soluble SO <sub>4</sub> 16hr extraction (2:1 Leachate Equivalent) | g/l      | 0.00125 | MCERTS | - | 0.0033 | 0.032 | 0.0034 | 0.03  |
| Sulphide                                                                | mg/kg    | 1       | MCERTS | - | < 1.0  | 2.1   | 1.7    | 4     |
| Fraction Organic Carbon (FOC) Automated                                 | N/A      | 0.001   | MCERTS | - | 0.0047 | 0.014 | 0.011  | 0.034 |
| Total Organic Carbon (TOC) - Automated                                  | %        | 0.1     | MCERTS | - | -      | 1.4   | 1.1    | -     |
| Loss on Ignition @ 450oC                                                | %        | 0.2     | MCERTS | - | -      | 2.9   | 5.4    | -     |
| Acid Neutralisation Capacity                                            | mmol/kg  | -999    | NONE   | - | -      | 6.8   | 4.7    | -     |

#### Total Phenols

|                            |       |   |        |   |       |       |       |       |
|----------------------------|-------|---|--------|---|-------|-------|-------|-------|
| Total Phenols (monohydric) | mg/kg | 1 | MCERTS | - | < 1.0 | < 1.0 | < 1.0 | < 1.0 |
|----------------------------|-------|---|--------|---|-------|-------|-------|-------|

#### Speciated PAHs

|                        |       |      |        |   |        |        |        |        |
|------------------------|-------|------|--------|---|--------|--------|--------|--------|
| Naphthalene            | mg/kg | 0.05 | MCERTS | - | < 0.05 | < 0.05 | < 0.05 | < 0.05 |
| Acenaphthylene         | mg/kg | 0.05 | MCERTS | - | < 0.05 | < 0.05 | < 0.05 | < 0.05 |
| Acenaphthene           | mg/kg | 0.05 | MCERTS | - | < 0.05 | < 0.05 | < 0.05 | < 0.05 |
| Fluorene               | mg/kg | 0.05 | MCERTS | - | < 0.05 | < 0.05 | < 0.05 | < 0.05 |
| Phenanthrene           | mg/kg | 0.05 | MCERTS | - | < 0.05 | < 0.05 | < 0.05 | < 0.05 |
| Anthracene             | mg/kg | 0.05 | MCERTS | - | < 0.05 | < 0.05 | < 0.05 | < 0.05 |
| Fluoranthene           | mg/kg | 0.05 | MCERTS | - | < 0.05 | 0.26   | < 0.05 | 0.51   |
| Pyrene                 | mg/kg | 0.05 | MCERTS | - | < 0.05 | 0.34   | < 0.05 | 0.47   |
| Benzo(a)anthracene     | mg/kg | 0.05 | MCERTS | - | < 0.05 | < 0.05 | < 0.05 | 0.39   |
| Chrysene               | mg/kg | 0.05 | MCERTS | - | < 0.05 | < 0.05 | < 0.05 | 0.4    |
| Benzo(b)fluoranthene   | mg/kg | 0.05 | MCERTS | - | < 0.05 | < 0.05 | < 0.05 | 0.59   |
| Benzo(k)fluoranthene   | mg/kg | 0.05 | MCERTS | - | < 0.05 | < 0.05 | < 0.05 | 0.23   |
| Benzo(a)pyrene         | mg/kg | 0.05 | MCERTS | - | < 0.05 | < 0.05 | < 0.05 | 0.58   |
| Indeno(1,2,3-cd)pyrene | mg/kg | 0.05 | MCERTS | - | < 0.05 | < 0.05 | < 0.05 | 0.3    |
| Dibenz(a,h)anthracene  | mg/kg | 0.05 | MCERTS | - | < 0.05 | < 0.05 | < 0.05 | < 0.05 |
| Benzo(ghi)perylene     | mg/kg | 0.05 | MCERTS | - | < 0.05 | < 0.05 | < 0.05 | 0.41   |
| Coronene               | mg/kg | 0.05 | NONE   | - | < 0.05 | < 0.05 | < 0.05 | < 0.05 |

#### Total PAH

|                   |       |      |      |   |        |        |        |      |
|-------------------|-------|------|------|---|--------|--------|--------|------|
| Total WAC-17 PAHs | mg/kg | 0.85 | NONE | - | < 0.85 | < 0.85 | < 0.85 | 3.88 |
|-------------------|-------|------|------|---|--------|--------|--------|------|

Analytical Report Number: 22-88092

Project / Site name: Hitchin Road, Preston, Hertfordshire, SG4 7TZ

| Lab Sample Number                    |  |  |  | 2448616       | 2448617            | 2448618              | 2448619       | 2448620       |
|--------------------------------------|--|--|--|---------------|--------------------|----------------------|---------------|---------------|
| Sample Reference                     |  |  |  | HP01          | HP01               | HP02                 | HP03          | HP04          |
| Sample Number                        |  |  |  | None Supplied | None Supplied      | None Supplied        | None Supplied | None Supplied |
| Depth (m)                            |  |  |  | 0.20          | 0.50               | 0.10                 | 0.40          | 0.20          |
| Date Sampled                         |  |  |  | 03/10/2022    | 03/10/2022         | 03/10/2022           | 03/10/2022    | 03/10/2022    |
| 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 | - | 10    | 9.7   | 60    | 20    |
| Barium (aqua regia extractable)    | mg/kg | 1    | MCERTS | - | 62    | 83    | 140   | 110   |
| Beryllium (aqua regia extractable) | mg/kg | 0.06 | MCERTS | - | 1.7   | 1.1   | 3.2   | 1.6   |
| Boron (water soluble)              | mg/kg | 0.2  | MCERTS | - | 0.8   | 1.3   | 2.7   | 2.7   |
| Cadmium (aqua regia extractable)   | mg/kg | 0.2  | MCERTS | - | < 0.2 | 0.4   | < 0.2 | < 0.2 |
| Chromium (hexavalent)              | mg/kg | 1.2  | NONE   | - | < 1.2 | < 1.2 | < 1.2 | < 1.2 |
| Chromium (aqua regia extractable)  | mg/kg | 1    | MCERTS | - | 39    | 26    | 53    | 29    |
| Copper (aqua regia extractable)    | mg/kg | 1    | MCERTS | - | 17    | 19    | 33    | 30    |
| Lead (aqua regia extractable)      | mg/kg | 1    | MCERTS | - | 20    | 43    | 54    | 140   |
| Mercury (aqua regia extractable)   | mg/kg | 0.3  | MCERTS | - | < 0.3 | < 0.3 | < 0.3 | < 0.3 |
| Nickel (aqua regia extractable)    | mg/kg | 1    | MCERTS | - | 34    | 18    | 93    | 32    |
| Selenium (aqua regia extractable)  | mg/kg | 1    | MCERTS | - | < 1.0 | < 1.0 | < 1.0 | < 1.0 |
| Vanadium (aqua regia extractable)  | mg/kg | 1    | MCERTS | - | 52    | 41    | 85    | 46    |
| Zinc (aqua regia extractable)      | mg/kg | 1    | MCERTS | - | 62    | 140   | 130   | 210   |

#### Monoaromatics & Oxygenates

|                                    |       |   |        |   |   |       |       |   |
|------------------------------------|-------|---|--------|---|---|-------|-------|---|
| Benzene                            | µg/kg | 1 | MCERTS | - | - | < 1.0 | < 1.0 | - |
| Toluene                            | µg/kg | 1 | MCERTS | - | - | < 1.0 | < 1.0 | - |
| Ethylbenzene                       | µg/kg | 1 | MCERTS | - | - | < 1.0 | < 1.0 | - |
| p & m-xylene                       | µg/kg | 1 | MCERTS | - | - | < 1.0 | < 1.0 | - |
| o-xylene                           | µg/kg | 1 | MCERTS | - | - | < 1.0 | < 1.0 | - |
| MTBE (Methyl Tertiary Butyl Ether) | µg/kg | 1 | MCERTS | - | - | < 1.0 | -     | - |

|            |       |    |        |   |   |      |      |   |
|------------|-------|----|--------|---|---|------|------|---|
| Total BTEX | µg/kg | 10 | MCERTS | - | - | < 10 | < 10 | - |
|------------|-------|----|--------|---|---|------|------|---|

#### Petroleum Hydrocarbons

|                                                    |       |    |      |   |   |      |      |   |
|----------------------------------------------------|-------|----|------|---|---|------|------|---|
| Mineral Oil (C10 - C40) <small>EH_CU_1D_AL</small> | mg/kg | 10 | NONE | - | - | < 10 | < 10 | - |
|----------------------------------------------------|-------|----|------|---|---|------|------|---|

|                                             |       |    |        |      |   |   |   |   |
|---------------------------------------------|-------|----|--------|------|---|---|---|---|
| TPH C10 - C40 <small>EH_CU_1D_TOTAL</small> | mg/kg | 10 | MCERTS | < 10 | - | - | - | - |
|---------------------------------------------|-------|----|--------|------|---|---|---|---|

|                                                                |       |       |        |   |   |         |   |   |
|----------------------------------------------------------------|-------|-------|--------|---|---|---------|---|---|
| TPH-CWG - Aliphatic >EC5 - EC6 <small>HS_1D_AL</small>         | mg/kg | 0.001 | MCERTS | - | - | < 0.001 | - | - |
| TPH-CWG - Aliphatic >EC6 - EC8 <small>HS_1D_AL</small>         | mg/kg | 0.001 | MCERTS | - | - | < 0.001 | - | - |
| TPH-CWG - Aliphatic >EC8 - EC10 <small>HS_1D_AL</small>        | mg/kg | 0.001 | MCERTS | - | - | < 0.001 | - | - |
| TPH-CWG - Aliphatic >EC10 - EC12 <small>EH_CU_1D_AL</small>    | mg/kg | 1     | MCERTS | - | - | < 1.0   | - | - |
| TPH-CWG - Aliphatic >EC12 - EC16 <small>EH_CU_1D_AL</small>    | mg/kg | 2     | MCERTS | - | - | < 2.0   | - | - |
| TPH-CWG - Aliphatic >EC16 - EC21 <small>EH_CU_1D_AL</small>    | mg/kg | 8     | MCERTS | - | - | < 8.0   | - | - |
| TPH-CWG - Aliphatic >EC21 - EC35 <small>EH_CU_1D_AL</small>    | mg/kg | 8     | MCERTS | - | - | < 8.0   | - | - |
| TPH-CWG - Aliphatic (EC5 - EC35) <small>EH_CU+HS_1D_AL</small> | mg/kg | 10    | MCERTS | - | - | < 10    | - | - |

|                                                               |       |       |        |   |   |         |   |   |
|---------------------------------------------------------------|-------|-------|--------|---|---|---------|---|---|
| TPH-CWG - Aromatic >EC5 - EC7 <small>HS_1D_AR</small>         | mg/kg | 0.001 | MCERTS | - | - | < 0.001 | - | - |
| TPH-CWG - Aromatic >EC7 - EC8 <small>HS_1D_AR</small>         | mg/kg | 0.001 | MCERTS | - | - | < 0.001 | - | - |
| TPH-CWG - Aromatic >EC8 - EC10 <small>HS_1D_AR</small>        | mg/kg | 0.001 | MCERTS | - | - | < 0.001 | - | - |
| TPH-CWG - Aromatic >EC10 - EC12 <small>EH_CU_1D_AR</small>    | mg/kg | 1     | MCERTS | - | - | < 1.0   | - | - |
| TPH-CWG - Aromatic >EC12 - EC16 <small>EH_CU_1D_AR</small>    | mg/kg | 2     | MCERTS | - | - | < 2.0   | - | - |
| TPH-CWG - Aromatic >EC16 - EC21 <small>EH_CU_1D_AR</small>    | mg/kg | 10    | MCERTS | - | - | < 10    | - | - |
| TPH-CWG - Aromatic >EC21 - EC35 <small>EH_CU_1D_AR</small>    | mg/kg | 10    | MCERTS | - | - | < 10    | - | - |
| TPH-CWG - Aromatic (EC5 - EC35) <small>EH_CU+HS_1D_AR</small> | mg/kg | 10    | MCERTS | - | - | < 10    | - | - |

Analytical Report Number: 22-88092

Project / Site name: Hitchin Road, Preston, Hertfordshire, SG4 7TZ

| Lab Sample Number                       |  |  |  | 2448616       | 2448617            | 2448618              | 2448619       | 2448620       |
|-----------------------------------------|--|--|--|---------------|--------------------|----------------------|---------------|---------------|
| Sample Reference                        |  |  |  | HP01          | HP01               | HP02                 | HP03          | HP04          |
| Sample Number                           |  |  |  | None Supplied | None Supplied      | None Supplied        | None Supplied | None Supplied |
| Depth (m)                               |  |  |  | 0.20          | 0.50               | 0.10                 | 0.40          | 0.20          |
| Date Sampled                            |  |  |  | 03/10/2022    | 03/10/2022         | 03/10/2022           | 03/10/2022    | 03/10/2022    |
| Time Taken                              |  |  |  | None Supplied | None Supplied      | None Supplied        | None Supplied | None Supplied |
| Analytical Parameter<br>(Soil Analysis) |  |  |  | Units         | Limit of detection | Accreditation Status |               |               |

#### VOCs

|                                       |       |   |           |   |   |       |   |   |
|---------------------------------------|-------|---|-----------|---|---|-------|---|---|
| Chloromethane                         | µg/kg | 1 | ISO 17025 | - | - | < 1.0 | - | - |
| Chloroethane                          | µg/kg | 1 | NONE      | - | - | < 1.0 | - | - |
| Bromomethane                          | µg/kg | 1 | ISO 17025 | - | - | < 1.0 | - | - |
| Vinyl Chloride                        | µg/kg | 1 | NONE      | - | - | < 1.0 | - | - |
| Trichlorofluoromethane                | µg/kg | 1 | NONE      | - | - | < 1.0 | - | - |
| 1,1-Dichloroethene                    | µg/kg | 1 | NONE      | - | - | < 1.0 | - | - |
| 1,1,2-Trichloro 1,2,2-Trifluoroethane | µg/kg | 1 | ISO 17025 | - | - | < 1.0 | - | - |
| Cis-1,2-dichloroethene                | µg/kg | 1 | MCERTS    | - | - | < 1.0 | - | - |
| MTBE (Methyl Tertiary Butyl Ether)    | µg/kg | 1 | MCERTS    | - | - | < 1.0 | - | - |
| 1,1-Dichloroethane                    | µg/kg | 1 | MCERTS    | - | - | < 1.0 | - | - |
| 2,2-Dichloropropane                   | µg/kg | 1 | MCERTS    | - | - | < 1.0 | - | - |
| Trichloromethane                      | µg/kg | 1 | MCERTS    | - | - | < 1.0 | - | - |
| 1,1,1-Trichloroethane                 | µg/kg | 1 | MCERTS    | - | - | < 1.0 | - | - |
| 1,2-Dichloroethane                    | µg/kg | 1 | MCERTS    | - | - | < 1.0 | - | - |
| 1,1-Dichloropropene                   | µg/kg | 1 | MCERTS    | - | - | < 1.0 | - | - |
| Trans-1,2-dichloroethene              | µg/kg | 1 | NONE      | - | - | < 1.0 | - | - |
| Benzene                               | µg/kg | 1 | MCERTS    | - | - | < 1.0 | - | - |
| Tetrachloromethane                    | µg/kg | 1 | MCERTS    | - | - | < 1.0 | - | - |
| 1,2-Dichloropropane                   | µg/kg | 1 | MCERTS    | - | - | < 1.0 | - | - |
| Trichloroethene                       | µg/kg | 1 | MCERTS    | - | - | < 1.0 | - | - |
| Dibromomethane                        | µg/kg | 1 | MCERTS    | - | - | < 1.0 | - | - |
| Bromodichloromethane                  | µg/kg | 1 | MCERTS    | - | - | < 1.0 | - | - |
| Cis-1,3-dichloropropene               | µg/kg | 1 | ISO 17025 | - | - | < 1.0 | - | - |
| Trans-1,3-dichloropropene             | µg/kg | 1 | ISO 17025 | - | - | < 1.0 | - | - |
| Toluene                               | µg/kg | 1 | MCERTS    | - | - | < 1.0 | - | - |
| 1,1,2-Trichloroethane                 | µg/kg | 1 | MCERTS    | - | - | < 1.0 | - | - |
| 1,3-Dichloropropane                   | µg/kg | 1 | ISO 17025 | - | - | < 1.0 | - | - |
| Dibromochloromethane                  | µg/kg | 1 | ISO 17025 | - | - | < 1.0 | - | - |
| Tetrachloroethene                     | µg/kg | 1 | NONE      | - | - | < 1.0 | - | - |
| 1,2-Dibromoethane                     | µg/kg | 1 | ISO 17025 | - | - | < 1.0 | - | - |
| Chlorobenzene                         | µg/kg | 1 | MCERTS    | - | - | < 1.0 | - | - |
| 1,1,1,2-Tetrachloroethane             | µg/kg | 1 | MCERTS    | - | - | < 1.0 | - | - |
| Ethylbenzene                          | µg/kg | 1 | MCERTS    | - | - | < 1.0 | - | - |
| p & m-Xylene                          | µg/kg | 1 | MCERTS    | - | - | < 1.0 | - | - |
| Styrene                               | µg/kg | 1 | MCERTS    | - | - | < 1.0 | - | - |
| Tribromomethane                       | µg/kg | 1 | NONE      | - | - | < 1.0 | - | - |
| o-Xylene                              | µg/kg | 1 | MCERTS    | - | - | < 1.0 | - | - |
| 1,1,2,2-Tetrachloroethane             | µg/kg | 1 | MCERTS    | - | - | < 1.0 | - | - |
| Isopropylbenzene                      | µg/kg | 1 | MCERTS    | - | - | < 1.0 | - | - |
| Bromobenzene                          | µg/kg | 1 | MCERTS    | - | - | < 1.0 | - | - |
| n-Propylbenzene                       | µg/kg | 1 | ISO 17025 | - | - | < 1.0 | - | - |
| 2-Chlorotoluene                       | µg/kg | 1 | MCERTS    | - | - | < 1.0 | - | - |
| 4-Chlorotoluene                       | µg/kg | 1 | MCERTS    | - | - | < 1.0 | - | - |
| 1,3,5-Trimethylbenzene                | µg/kg | 1 | ISO 17025 | - | - | < 1.0 | - | - |
| tert-Butylbenzene                     | µg/kg | 1 | MCERTS    | - | - | < 1.0 | - | - |
| 1,2,4-Trimethylbenzene                | µg/kg | 1 | ISO 17025 | - | - | < 1.0 | - | - |
| sec-Butylbenzene                      | µg/kg | 1 | MCERTS    | - | - | < 1.0 | - | - |
| 1,3-Dichlorobenzene                   | µg/kg | 1 | ISO 17025 | - | - | < 1.0 | - | - |
| p-Isopropyltoluene                    | µg/kg | 1 | ISO 17025 | - | - | < 1.0 | - | - |
| 1,2-Dichlorobenzene                   | µg/kg | 1 | MCERTS    | - | - | < 1.0 | - | - |
| 1,4-Dichlorobenzene                   | µg/kg | 1 | MCERTS    | - | - | < 1.0 | - | - |
| Butylbenzene                          | µg/kg | 1 | MCERTS    | - | - | < 1.0 | - | - |

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Project / Site name: Hitchin Road, Preston, Hertfordshire, SG4 7TZ

| Lab Sample Number                       |       |                    |                         | 2448616       | 2448617       | 2448618       | 2448619       | 2448620       |
|-----------------------------------------|-------|--------------------|-------------------------|---------------|---------------|---------------|---------------|---------------|
| Sample Reference                        |       |                    |                         | HP01          | HP01          | HP02          | HP03          | HP04          |
| Sample Number                           |       |                    |                         | None Supplied | None Supplied | None Supplied | None Supplied | None Supplied |
| Depth (m)                               |       |                    |                         | 0.20          | 0.50          | 0.10          | 0.40          | 0.20          |
| Date Sampled                            |       |                    |                         | 03/10/2022    | 03/10/2022    | 03/10/2022    | 03/10/2022    | 03/10/2022    |
| Time Taken                              |       |                    |                         | None Supplied | None Supplied | None Supplied | None Supplied | None Supplied |
| Analytical Parameter<br>(Soil Analysis) | Units | Limit of detection | Accreditation<br>Status |               |               |               |               |               |
| 1,2-Dibromo-3-chloropropane             | µg/kg | 1                  | ISO 17025               | -             | -             | < 1.0         | -             | -             |
| 1,2,4-Trichlorobenzene                  | µg/kg | 1                  | MCERTS                  | -             | -             | < 1.0         | -             | -             |
| Hexachlorobutadiene                     | µg/kg | 1                  | MCERTS                  | -             | -             | < 1.0         | -             | -             |
| 1,2,3-Trichlorobenzene                  | µg/kg | 1                  | ISO 17025               | -             | -             | < 1.0         | -             | -             |

Analytical Report Number: 22-88092

Project / Site name: Hitchin Road, Preston, Hertfordshire, SG4 7TZ

| Lab Sample Number                       |       |                    |                         | 2448616       | 2448617       | 2448618       | 2448619       | 2448620       |
|-----------------------------------------|-------|--------------------|-------------------------|---------------|---------------|---------------|---------------|---------------|
| Sample Reference                        |       |                    |                         | HP01          | HP01          | HP02          | HP03          | HP04          |
| Sample Number                           |       |                    |                         | None Supplied | None Supplied | None Supplied | None Supplied | None Supplied |
| Depth (m)                               |       |                    |                         | 0.20          | 0.50          | 0.10          | 0.40          | 0.20          |
| Date Sampled                            |       |                    |                         | 03/10/2022    | 03/10/2022    | 03/10/2022    | 03/10/2022    | 03/10/2022    |
| Time Taken                              |       |                    |                         | None Supplied | None Supplied | None Supplied | None Supplied | None Supplied |
| Analytical Parameter<br>(Soil Analysis) | Units | Limit of detection | Accreditation<br>Status |               |               |               |               |               |

#### SVOCS

|                             |       |      |           |   |   |        |   |   |
|-----------------------------|-------|------|-----------|---|---|--------|---|---|
| Aniline                     | mg/kg | 0.1  | NONE      | - | - | < 0.1  | - | - |
| Phenol                      | mg/kg | 0.2  | ISO 17025 | - | - | < 0.2  | - | - |
| 2-Chlorophenol              | mg/kg | 0.1  | MCERTS    | - | - | < 0.1  | - | - |
| Bis(2-chloroethyl)ether     | mg/kg | 0.2  | MCERTS    | - | - | < 0.2  | - | - |
| 1,3-Dichlorobenzene         | mg/kg | 0.2  | MCERTS    | - | - | < 0.2  | - | - |
| 1,2-Dichlorobenzene         | mg/kg | 0.1  | MCERTS    | - | - | < 0.1  | - | - |
| 1,4-Dichlorobenzene         | mg/kg | 0.2  | MCERTS    | - | - | < 0.2  | - | - |
| Bis(2-chloroisopropyl)ether | mg/kg | 0.1  | MCERTS    | - | - | < 0.1  | - | - |
| 2-Methylphenol              | mg/kg | 0.3  | MCERTS    | - | - | < 0.3  | - | - |
| Hexachloroethane            | mg/kg | 0.05 | MCERTS    | - | - | < 0.05 | - | - |
| Nitrobenzene                | mg/kg | 0.3  | MCERTS    | - | - | < 0.3  | - | - |
| 4-Methylphenol              | mg/kg | 0.2  | NONE      | - | - | < 0.2  | - | - |
| Isophorone                  | mg/kg | 0.2  | MCERTS    | - | - | < 0.2  | - | - |
| 2-Nitrophenol               | mg/kg | 0.3  | MCERTS    | - | - | < 0.3  | - | - |
| 2,4-Dimethylphenol          | mg/kg | 0.3  | MCERTS    | - | - | < 0.3  | - | - |
| Bis(2-chloroethoxy)methane  | mg/kg | 0.3  | MCERTS    | - | - | < 0.3  | - | - |
| 1,2,4-Trichlorobenzene      | mg/kg | 0.3  | MCERTS    | - | - | < 0.3  | - | - |
| Naphthalene                 | mg/kg | 0.05 | MCERTS    | - | - | < 0.05 | - | - |
| 2,4-Dichlorophenol          | mg/kg | 0.3  | MCERTS    | - | - | < 0.3  | - | - |
| 4-Chloroaniline             | mg/kg | 0.1  | NONE      | - | - | < 0.1  | - | - |
| Hexachlorobutadiene         | mg/kg | 0.1  | MCERTS    | - | - | < 0.1  | - | - |
| 4-Chloro-3-methylphenol     | mg/kg | 0.1  | NONE      | - | - | < 0.1  | - | - |
| 2,4,6-Trichlorophenol       | mg/kg | 0.1  | MCERTS    | - | - | < 0.1  | - | - |
| 2,4,5-Trichlorophenol       | mg/kg | 0.2  | MCERTS    | - | - | < 0.2  | - | - |
| 2-Methylnaphthalene         | mg/kg | 0.1  | NONE      | - | - | < 0.1  | - | - |
| 2-Chloronaphthalene         | mg/kg | 0.1  | MCERTS    | - | - | < 0.1  | - | - |
| Dimethylphthalate           | mg/kg | 0.1  | MCERTS    | - | - | < 0.1  | - | - |
| 2,6-Dinitrotoluene          | mg/kg | 0.1  | MCERTS    | - | - | < 0.1  | - | - |
| Acenaphthylene              | mg/kg | 0.05 | MCERTS    | - | - | < 0.05 | - | - |
| Acenaphthene                | mg/kg | 0.05 | MCERTS    | - | - | < 0.05 | - | - |
| 2,4-Dinitrotoluene          | mg/kg | 0.2  | MCERTS    | - | - | < 0.2  | - | - |
| Dibenzofuran                | mg/kg | 0.2  | MCERTS    | - | - | < 0.2  | - | - |
| 4-Chlorophenyl phenyl ether | mg/kg | 0.3  | ISO 17025 | - | - | < 0.3  | - | - |
| Diethyl phthalate           | mg/kg | 0.2  | MCERTS    | - | - | < 0.2  | - | - |
| 4-Nitroaniline              | mg/kg | 0.2  | MCERTS    | - | - | < 0.2  | - | - |
| Fluorene                    | mg/kg | 0.05 | MCERTS    | - | - | < 0.05 | - | - |
| Azobenzene                  | mg/kg | 0.3  | MCERTS    | - | - | < 0.3  | - | - |
| Bromophenyl phenyl ether    | mg/kg | 0.2  | MCERTS    | - | - | < 0.2  | - | - |
| Hexachlorobenzene           | mg/kg | 0.3  | MCERTS    | - | - | < 0.3  | - | - |
| Phenanthrene                | mg/kg | 0.05 | MCERTS    | - | - | < 0.05 | - | - |
| Anthracene                  | mg/kg | 0.05 | MCERTS    | - | - | < 0.05 | - | - |
| Carbazole                   | mg/kg | 0.3  | MCERTS    | - | - | < 0.3  | - | - |
| Dibutyl phthalate           | mg/kg | 0.2  | MCERTS    | - | - | < 0.2  | - | - |
| Anthraquinone               | mg/kg | 0.3  | MCERTS    | - | - | < 0.3  | - | - |
| Fluoranthene                | mg/kg | 0.05 | MCERTS    | - | - | 0.26   | - | - |
| Pyrene                      | mg/kg | 0.05 | MCERTS    | - | - | 0.34   | - | - |
| Butyl benzyl phthalate      | mg/kg | 0.3  | ISO 17025 | - | - | < 0.3  | - | - |
| Benzo(a)anthracene          | mg/kg | 0.05 | MCERTS    | - | - | < 0.05 | - | - |
| Chrysene                    | mg/kg | 0.05 | MCERTS    | - | - | < 0.05 | - | - |
| Benzo(b)fluoranthene        | mg/kg | 0.05 | MCERTS    | - | - | < 0.05 | - | - |
| Benzo(k)fluoranthene        | mg/kg | 0.05 | MCERTS    | - | - | < 0.05 | - | - |
| Benzo(a)pyrene              | mg/kg | 0.05 | MCERTS    | - | - | < 0.05 | - | - |

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Project / Site name: Hitchin Road, Preston, Hertfordshire, SG4 7TZ

| Lab Sample Number                       |       |                    |                         | 2448616       | 2448617       | 2448618       | 2448619       | 2448620       |
|-----------------------------------------|-------|--------------------|-------------------------|---------------|---------------|---------------|---------------|---------------|
| Sample Reference                        |       |                    |                         | HP01          | HP01          | HP02          | HP03          | HP04          |
| Sample Number                           |       |                    |                         | None Supplied | None Supplied | None Supplied | None Supplied | None Supplied |
| Depth (m)                               |       |                    |                         | 0.20          | 0.50          | 0.10          | 0.40          | 0.20          |
| Date Sampled                            |       |                    |                         | 03/10/2022    | 03/10/2022    | 03/10/2022    | 03/10/2022    | 03/10/2022    |
| Time Taken                              |       |                    |                         | None Supplied | None Supplied | None Supplied | None Supplied | None Supplied |
| Analytical Parameter<br>(Soil Analysis) | Units | Limit of detection | Accreditation<br>Status |               |               |               |               |               |
| Indeno(1,2,3-cd)pyrene                  | mg/kg | 0.05               | MCERTS                  | -             | -             | < 0.05        | -             | -             |
| Dibenz(a,h)anthracene                   | mg/kg | 0.05               | MCERTS                  | -             | -             | < 0.05        | -             | -             |
| Benzo(ghi)perylene                      | mg/kg | 0.05               | MCERTS                  | -             | -             | < 0.05        | -             | -             |

#### PCBs by GC-MS

|                  |       |       |        |   |   |         |         |   |
|------------------|-------|-------|--------|---|---|---------|---------|---|
| PCB Congener 28  | mg/kg | 0.001 | MCERTS | - | - | < 0.001 | < 0.001 | - |
| PCB Congener 52  | mg/kg | 0.001 | MCERTS | - | - | < 0.001 | < 0.001 | - |
| PCB Congener 101 | mg/kg | 0.001 | MCERTS | - | - | < 0.001 | < 0.001 | - |
| PCB Congener 118 | mg/kg | 0.001 | MCERTS | - | - | < 0.001 | < 0.001 | - |
| PCB Congener 138 | mg/kg | 0.001 | MCERTS | - | - | < 0.001 | < 0.001 | - |
| PCB Congener 153 | mg/kg | 0.001 | MCERTS | - | - | < 0.001 | < 0.001 | - |
| PCB Congener 180 | mg/kg | 0.001 | MCERTS | - | - | < 0.001 | < 0.001 | - |

#### Total PCBs by GC-MS

|            |       |       |        |   |   |         |         |   |
|------------|-------|-------|--------|---|---|---------|---------|---|
| Total PCBs | mg/kg | 0.007 | MCERTS | - | - | < 0.007 | < 0.007 | - |
|------------|-------|-------|--------|---|---|---------|---------|---|

#### Pesticide and Herbicide Screen

|                       |  |     |      |   |   |   |   |               |
|-----------------------|--|-----|------|---|---|---|---|---------------|
| GCMS Pesticide Screen |  | N/A | NONE | - | - | - | - | None Detected |
|-----------------------|--|-----|------|---|---|---|---|---------------|

U/S = Unsuitable Sample I/S = Insufficient Sample

Analytical Report Number: 22-88092

Project / Site name: Hitchin Road, Preston, Hertfordshire, SG4 7TZ

| Lab Sample Number                       |       |                    |                         | 2448621       | 2448622       | 2448623       |
|-----------------------------------------|-------|--------------------|-------------------------|---------------|---------------|---------------|
| Sample Reference                        |       |                    |                         | HP05          | HP06          | HP06          |
| Sample Number                           |       |                    |                         | None Supplied | None Supplied | None Supplied |
| Depth (m)                               |       |                    |                         | 0.10          | 0.10          | 0.30          |
| Date Sampled                            |       |                    |                         | 03/10/2022    | 03/10/2022    | 03/10/2022    |
| Time Taken                              |       |                    |                         | None Supplied | None Supplied | None Supplied |
| Analytical Parameter<br>(Soil Analysis) | Units | Limit of detection | Accreditation<br>Status |               |               |               |
| Stone Content                           | %     | 0.1                | NONE                    | < 0.1         | < 0.1         | < 0.1         |
| Moisture Content                        | %     | 0.01               | NONE                    | 15            | 17            | 20            |
| Total mass of sample received           | kg    | 0.001              | NONE                    | 1             | 1             | 1             |

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

#### General Inorganics

|                                                                         |          |         |        |        |   |       |
|-------------------------------------------------------------------------|----------|---------|--------|--------|---|-------|
| pH - Manual                                                             | pH Units | N/A     | MCERTS | -      | - | -     |
| pH - Automated                                                          | pH Units | N/A     | MCERTS | 8      | - | 7.7   |
| Total Cyanide                                                           | mg/kg    | 1       | MCERTS | < 1.0  | - | < 1.0 |
| Water Soluble SO <sub>4</sub> 16hr extraction (2:1 Leachate Equivalent) | g/l      | 0.00125 | MCERTS | 0.0067 | - | 0.034 |
| Sulphide                                                                | mg/kg    | 1       | MCERTS | < 1.0  | - | 1.9   |
| Fraction Organic Carbon (FOC) Automated                                 | N/A      | 0.001   | MCERTS | 0.022  | - | 0.017 |
| Total Organic Carbon (TOC) - Automated                                  | %        | 0.1     | MCERTS | -      | - | -     |
| Loss on Ignition @ 450°C                                                | %        | 0.2     | MCERTS | -      | - | -     |
| Acid Neutralisation Capacity                                            | mmol/kg  | -999    | NONE   | -      | - | -     |

#### Total Phenols

|                            |       |   |        |       |   |       |
|----------------------------|-------|---|--------|-------|---|-------|
| Total Phenols (monohydric) | mg/kg | 1 | MCERTS | < 1.0 | - | < 1.0 |
|----------------------------|-------|---|--------|-------|---|-------|

#### Speciated PAHs

|                        |       |      |        |        |   |        |
|------------------------|-------|------|--------|--------|---|--------|
| Naphthalene            | mg/kg | 0.05 | MCERTS | < 0.05 | - | < 0.05 |
| Acenaphthylene         | mg/kg | 0.05 | MCERTS | < 0.05 | - | < 0.05 |
| Acenaphthene           | mg/kg | 0.05 | MCERTS | < 0.05 | - | < 0.05 |
| Fluorene               | mg/kg | 0.05 | MCERTS | < 0.05 | - | < 0.05 |
| Phenanthrene           | mg/kg | 0.05 | MCERTS | < 0.05 | - | 0.3    |
| Anthracene             | mg/kg | 0.05 | MCERTS | < 0.05 | - | < 0.05 |
| Fluoranthene           | mg/kg | 0.05 | MCERTS | 0.34   | - | 0.59   |
| Pyrene                 | mg/kg | 0.05 | MCERTS | 0.29   | - | 0.54   |
| Benzo(a)anthracene     | mg/kg | 0.05 | MCERTS | 0.24   | - | 0.39   |
| Chrysene               | mg/kg | 0.05 | MCERTS | 0.22   | - | 0.39   |
| Benzo(b)fluoranthene   | mg/kg | 0.05 | MCERTS | < 0.05 | - | 0.44   |
| Benzo(k)fluoranthene   | mg/kg | 0.05 | MCERTS | < 0.05 | - | 0.26   |
| Benzo(a)pyrene         | mg/kg | 0.05 | MCERTS | < 0.05 | - | 0.48   |
| Indeno(1,2,3-cd)pyrene | mg/kg | 0.05 | MCERTS | < 0.05 | - | 0.22   |
| Dibenz(a,h)anthracene  | mg/kg | 0.05 | MCERTS | < 0.05 | - | < 0.05 |
| Benzo(ghi)perylene     | mg/kg | 0.05 | MCERTS | < 0.05 | - | 0.27   |
| Coronene               | mg/kg | 0.05 | NONE   | < 0.05 | - | < 0.05 |

#### Total PAH

|                   |       |      |      |      |   |      |
|-------------------|-------|------|------|------|---|------|
| Total WAC-17 PAHs | mg/kg | 0.85 | NONE | 1.09 | - | 3.88 |
|-------------------|-------|------|------|------|---|------|

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Project / Site name: Hitchin Road, Preston, Hertfordshire, SG4 7TZ

| Lab Sample Number                       |       |                    |                         | 2448621       | 2448622       | 2448623       |
|-----------------------------------------|-------|--------------------|-------------------------|---------------|---------------|---------------|
| Sample Reference                        |       |                    |                         | HP05          | HP06          | HP06          |
| Sample Number                           |       |                    |                         | None Supplied | None Supplied | None Supplied |
| Depth (m)                               |       |                    |                         | 0.10          | 0.10          | 0.30          |
| Date Sampled                            |       |                    |                         | 03/10/2022    | 03/10/2022    | 03/10/2022    |
| Time Taken                              |       |                    |                         | None Supplied | None Supplied | None Supplied |
| Analytical Parameter<br>(Soil Analysis) | Units | Limit of detection | Accreditation<br>Status |               |               |               |
| <b>Heavy Metals / Metalloids</b>        |       |                    |                         |               |               |               |
| Arsenic (aqua regia extractable)        | mg/kg | 1                  | MCERTS                  | 19            | -             | 18            |
| Barium (aqua regia extractable)         | mg/kg | 1                  | MCERTS                  | 140           | -             | 190           |
| Beryllium (aqua regia extractable)      | mg/kg | 0.06               | MCERTS                  | 1.8           | -             | 1.9           |
| Boron (water soluble)                   | mg/kg | 0.2                | MCERTS                  | 3.1           | -             | 2             |
| Cadmium (aqua regia extractable)        | mg/kg | 0.2                | MCERTS                  | 0.7           | -             | 0.6           |
| Chromium (hexavalent)                   | mg/kg | 1.2                | NONE                    | < 1.2         | -             | < 1.2         |
| Chromium (aqua regia extractable)       | mg/kg | 1                  | MCERTS                  | 34            | -             | 35            |
| Copper (aqua regia extractable)         | mg/kg | 1                  | MCERTS                  | 34            | -             | 53            |
| Lead (aqua regia extractable)           | mg/kg | 1                  | MCERTS                  | 180           | -             | 120           |
| Mercury (aqua regia extractable)        | mg/kg | 0.3                | MCERTS                  | < 0.3         | -             | < 0.3         |
| Nickel (aqua regia extractable)         | mg/kg | 1                  | MCERTS                  | 36            | -             | 39            |
| Selenium (aqua regia extractable)       | mg/kg | 1                  | MCERTS                  | < 1.0         | -             | < 1.0         |
| Vanadium (aqua regia extractable)       | mg/kg | 1                  | MCERTS                  | 53            | -             | 54            |
| Zinc (aqua regia extractable)           | mg/kg | 1                  | MCERTS                  | 150           | -             | 120           |

#### Monoaromatics & Oxygenates

|                                    |       |   |        |   |   |   |
|------------------------------------|-------|---|--------|---|---|---|
| Benzene                            | µg/kg | 1 | MCERTS | - | - | - |
| Toluene                            | µg/kg | 1 | MCERTS | - | - | - |
| Ethylbenzene                       | µg/kg | 1 | MCERTS | - | - | - |
| p & m-xylene                       | µg/kg | 1 | MCERTS | - | - | - |
| o-xylene                           | µg/kg | 1 | MCERTS | - | - | - |
| MTBE (Methyl Tertiary Butyl Ether) | µg/kg | 1 | MCERTS | - | - | - |

|            |       |    |        |   |   |   |
|------------|-------|----|--------|---|---|---|
| Total BTEX | µg/kg | 10 | MCERTS | - | - | - |
|------------|-------|----|--------|---|---|---|

#### Petroleum Hydrocarbons

|                                                    |       |    |      |   |   |   |
|----------------------------------------------------|-------|----|------|---|---|---|
| Mineral Oil (C10 - C40) <small>EH_CU_1D_AL</small> | mg/kg | 10 | NONE | - | - | - |
|----------------------------------------------------|-------|----|------|---|---|---|

|                                             |       |    |        |   |   |   |
|---------------------------------------------|-------|----|--------|---|---|---|
| TPH C10 - C40 <small>EH_CU_1D_TOTAL</small> | mg/kg | 10 | MCERTS | - | - | - |
|---------------------------------------------|-------|----|--------|---|---|---|

|                                                                |       |       |        |   |   |   |
|----------------------------------------------------------------|-------|-------|--------|---|---|---|
| TPH-CWG - Aliphatic >EC5 - EC6 <small>HS_1D_AL</small>         | mg/kg | 0.001 | MCERTS | - | - | - |
| TPH-CWG - Aliphatic >EC6 - EC8 <small>HS_1D_AL</small>         | mg/kg | 0.001 | MCERTS | - | - | - |
| TPH-CWG - Aliphatic >EC8 - EC10 <small>HS_1D_AL</small>        | mg/kg | 0.001 | MCERTS | - | - | - |
| TPH-CWG - Aliphatic >EC10 - EC12 <small>EH_CU_1D_AL</small>    | mg/kg | 1     | MCERTS | - | - | - |
| TPH-CWG - Aliphatic >EC12 - EC16 <small>EH_CU_1D_AL</small>    | mg/kg | 2     | MCERTS | - | - | - |
| TPH-CWG - Aliphatic >EC16 - EC21 <small>EH_CU_1D_AL</small>    | mg/kg | 8     | MCERTS | - | - | - |
| TPH-CWG - Aliphatic >EC21 - EC35 <small>EH_CU_1D_AL</small>    | mg/kg | 8     | MCERTS | - | - | - |
| TPH-CWG - Aliphatic (EC5 - EC35) <small>EH_CU+HS_1D_AL</small> | mg/kg | 10    | MCERTS | - | - | - |

|                                                               |       |       |        |   |   |   |
|---------------------------------------------------------------|-------|-------|--------|---|---|---|
| TPH-CWG - Aromatic >EC5 - EC7 <small>HS_1D_AR</small>         | mg/kg | 0.001 | MCERTS | - | - | - |
| TPH-CWG - Aromatic >EC7 - EC8 <small>HS_1D_AR</small>         | mg/kg | 0.001 | MCERTS | - | - | - |
| TPH-CWG - Aromatic >EC8 - EC10 <small>HS_1D_AR</small>        | mg/kg | 0.001 | MCERTS | - | - | - |
| TPH-CWG - Aromatic >EC10 - EC12 <small>EH_CU_1D_AR</small>    | mg/kg | 1     | MCERTS | - | - | - |
| TPH-CWG - Aromatic >EC12 - EC16 <small>EH_CU_1D_AR</small>    | mg/kg | 2     | MCERTS | - | - | - |
| TPH-CWG - Aromatic >EC16 - EC21 <small>EH_CU_1D_AR</small>    | mg/kg | 10    | MCERTS | - | - | - |
| TPH-CWG - Aromatic >EC21 - EC35 <small>EH_CU_1D_AR</small>    | mg/kg | 10    | MCERTS | - | - | - |
| TPH-CWG - Aromatic (EC5 - EC35) <small>EH_CU+HS_1D_AR</small> | mg/kg | 10    | MCERTS | - | - | - |

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| Lab Sample Number                       |       |                    |                         | 2448621       | 2448622       | 2448623       |
|-----------------------------------------|-------|--------------------|-------------------------|---------------|---------------|---------------|
| Sample Reference                        |       |                    |                         | HP05          | HP06          | HP06          |
| Sample Number                           |       |                    |                         | None Supplied | None Supplied | None Supplied |
| Depth (m)                               |       |                    |                         | 0.10          | 0.10          | 0.30          |
| Date Sampled                            |       |                    |                         | 03/10/2022    | 03/10/2022    | 03/10/2022    |
| Time Taken                              |       |                    |                         | None Supplied | None Supplied | None Supplied |
| Analytical Parameter<br>(Soil Analysis) | Units | Limit of detection | Accreditation<br>Status |               |               |               |
| <b>VOCs</b>                             |       |                    |                         |               |               |               |
| Chloromethane                           | µg/kg | 1                  | ISO 17025               | -             | -             | -             |
| Chloroethane                            | µg/kg | 1                  | NONE                    | -             | -             | -             |
| Bromomethane                            | µg/kg | 1                  | ISO 17025               | -             | -             | -             |
| Vinyl Chloride                          | µg/kg | 1                  | NONE                    | -             | -             | -             |
| Trichlorofluoromethane                  | µg/kg | 1                  | NONE                    | -             | -             | -             |
| 1,1-Dichloroethene                      | µg/kg | 1                  | NONE                    | -             | -             | -             |
| 1,1,2-Trichloro 1,2,2-Trifluoroethane   | µg/kg | 1                  | ISO 17025               | -             | -             | -             |
| Cis-1,2-dichloroethene                  | µg/kg | 1                  | MCERTS                  | -             | -             | -             |
| MTBE (Methyl Tertiary Butyl Ether)      | µg/kg | 1                  | MCERTS                  | -             | -             | -             |
| 1,1-Dichloroethane                      | µg/kg | 1                  | MCERTS                  | -             | -             | -             |
| 2,2-Dichloropropane                     | µg/kg | 1                  | MCERTS                  | -             | -             | -             |
| Trichloromethane                        | µg/kg | 1                  | MCERTS                  | -             | -             | -             |
| 1,1,1-Trichloroethane                   | µg/kg | 1                  | MCERTS                  | -             | -             | -             |
| 1,2-Dichloroethane                      | µg/kg | 1                  | MCERTS                  | -             | -             | -             |
| 1,1-Dichloropropene                     | µg/kg | 1                  | MCERTS                  | -             | -             | -             |
| Trans-1,2-dichloroethene                | µg/kg | 1                  | NONE                    | -             | -             | -             |
| Benzene                                 | µg/kg | 1                  | MCERTS                  | -             | -             | -             |
| Tetrachloromethane                      | µg/kg | 1                  | MCERTS                  | -             | -             | -             |
| 1,2-Dichloropropane                     | µg/kg | 1                  | MCERTS                  | -             | -             | -             |
| Trichloroethene                         | µg/kg | 1                  | MCERTS                  | -             | -             | -             |
| Dibromomethane                          | µg/kg | 1                  | MCERTS                  | -             | -             | -             |
| Bromodichloromethane                    | µg/kg | 1                  | MCERTS                  | -             | -             | -             |
| Cis-1,3-dichloropropene                 | µg/kg | 1                  | ISO 17025               | -             | -             | -             |
| Trans-1,3-dichloropropene               | µg/kg | 1                  | ISO 17025               | -             | -             | -             |
| Toluene                                 | µg/kg | 1                  | MCERTS                  | -             | -             | -             |
| 1,1,2-Trichloroethane                   | µg/kg | 1                  | MCERTS                  | -             | -             | -             |
| 1,3-Dichloropropane                     | µg/kg | 1                  | ISO 17025               | -             | -             | -             |
| Dibromochloromethane                    | µg/kg | 1                  | ISO 17025               | -             | -             | -             |
| Tetrachloroethene                       | µg/kg | 1                  | NONE                    | -             | -             | -             |
| 1,2-Dibromoethane                       | µg/kg | 1                  | ISO 17025               | -             | -             | -             |
| Chlorobenzene                           | µg/kg | 1                  | MCERTS                  | -             | -             | -             |
| 1,1,1,2-Tetrachloroethane               | µg/kg | 1                  | MCERTS                  | -             | -             | -             |
| Ethylbenzene                            | µg/kg | 1                  | MCERTS                  | -             | -             | -             |
| p & m-Xylene                            | µg/kg | 1                  | MCERTS                  | -             | -             | -             |
| Styrene                                 | µg/kg | 1                  | MCERTS                  | -             | -             | -             |
| Tribromomethane                         | µg/kg | 1                  | NONE                    | -             | -             | -             |
| o-Xylene                                | µg/kg | 1                  | MCERTS                  | -             | -             | -             |
| 1,1,2,2-Tetrachloroethane               | µg/kg | 1                  | MCERTS                  | -             | -             | -             |
| Isopropylbenzene                        | µg/kg | 1                  | MCERTS                  | -             | -             | -             |
| Bromobenzene                            | µg/kg | 1                  | MCERTS                  | -             | -             | -             |
| n-Propylbenzene                         | µg/kg | 1                  | ISO 17025               | -             | -             | -             |
| 2-Chlorotoluene                         | µg/kg | 1                  | MCERTS                  | -             | -             | -             |
| 4-Chlorotoluene                         | µg/kg | 1                  | MCERTS                  | -             | -             | -             |
| 1,3,5-Trimethylbenzene                  | µg/kg | 1                  | ISO 17025               | -             | -             | -             |
| tert-Butylbenzene                       | µg/kg | 1                  | MCERTS                  | -             | -             | -             |
| 1,2,4-Trimethylbenzene                  | µg/kg | 1                  | ISO 17025               | -             | -             | -             |
| sec-Butylbenzene                        | µg/kg | 1                  | MCERTS                  | -             | -             | -             |
| 1,3-Dichlorobenzene                     | µg/kg | 1                  | ISO 17025               | -             | -             | -             |
| p-Isopropyltoluene                      | µg/kg | 1                  | ISO 17025               | -             | -             | -             |
| 1,2-Dichlorobenzene                     | µg/kg | 1                  | MCERTS                  | -             | -             | -             |
| 1,4-Dichlorobenzene                     | µg/kg | 1                  | MCERTS                  | -             | -             | -             |
| Butylbenzene                            | µg/kg | 1                  | MCERTS                  | -             | -             | -             |

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| Lab Sample Number                       |       |                    |                         | 2448621       | 2448622       | 2448623       |
|-----------------------------------------|-------|--------------------|-------------------------|---------------|---------------|---------------|
| Sample Reference                        |       |                    |                         | HP05          | HP06          | HP06          |
| Sample Number                           |       |                    |                         | None Supplied | None Supplied | None Supplied |
| Depth (m)                               |       |                    |                         | 0.10          | 0.10          | 0.30          |
| Date Sampled                            |       |                    |                         | 03/10/2022    | 03/10/2022    | 03/10/2022    |
| Time Taken                              |       |                    |                         | None Supplied | None Supplied | None Supplied |
| Analytical Parameter<br>(Soil Analysis) | Units | Limit of detection | Accreditation<br>Status |               |               |               |
| 1,2-Dibromo-3-chloropropane             | µg/kg | 1                  | ISO 17025               | -             | -             | -             |
| 1,2,4-Trichlorobenzene                  | µg/kg | 1                  | MCERTS                  | -             | -             | -             |
| Hexachlorobutadiene                     | µg/kg | 1                  | MCERTS                  | -             | -             | -             |
| 1,2,3-Trichlorobenzene                  | µg/kg | 1                  | ISO 17025               | -             | -             | -             |

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| Lab Sample Number                       |       |                    |                         | 2448621       | 2448622       | 2448623       |
|-----------------------------------------|-------|--------------------|-------------------------|---------------|---------------|---------------|
| Sample Reference                        |       |                    |                         | HP05          | HP06          | HP06          |
| Sample Number                           |       |                    |                         | None Supplied | None Supplied | None Supplied |
| Depth (m)                               |       |                    |                         | 0.10          | 0.10          | 0.30          |
| Date Sampled                            |       |                    |                         | 03/10/2022    | 03/10/2022    | 03/10/2022    |
| Time Taken                              |       |                    |                         | None Supplied | None Supplied | None Supplied |
| Analytical Parameter<br>(Soil Analysis) | Units | Limit of detection | Accreditation<br>Status |               |               |               |
| <b>SVOCs</b>                            |       |                    |                         |               |               |               |
| Aniline                                 | mg/kg | 0.1                | NONE                    | -             | -             | -             |
| Phenol                                  | mg/kg | 0.2                | ISO 17025               | -             | -             | -             |
| 2-Chlorophenol                          | mg/kg | 0.1                | MCERTS                  | -             | -             | -             |
| Bis(2-chloroethyl)ether                 | mg/kg | 0.2                | MCERTS                  | -             | -             | -             |
| 1,3-Dichlorobenzene                     | mg/kg | 0.2                | MCERTS                  | -             | -             | -             |
| 1,2-Dichlorobenzene                     | mg/kg | 0.1                | MCERTS                  | -             | -             | -             |
| 1,4-Dichlorobenzene                     | mg/kg | 0.2                | MCERTS                  | -             | -             | -             |
| Bis(2-chloroisopropyl)ether             | mg/kg | 0.1                | MCERTS                  | -             | -             | -             |
| 2-Methylphenol                          | mg/kg | 0.3                | MCERTS                  | -             | -             | -             |
| Hexachloroethane                        | mg/kg | 0.05               | MCERTS                  | -             | -             | -             |
| Nitrobenzene                            | mg/kg | 0.3                | MCERTS                  | -             | -             | -             |
| 4-Methylphenol                          | mg/kg | 0.2                | NONE                    | -             | -             | -             |
| Isophorone                              | mg/kg | 0.2                | MCERTS                  | -             | -             | -             |
| 2-Nitrophenol                           | mg/kg | 0.3                | MCERTS                  | -             | -             | -             |
| 2,4-Dimethylphenol                      | mg/kg | 0.3                | MCERTS                  | -             | -             | -             |
| Bis(2-chloroethoxy)methane              | mg/kg | 0.3                | MCERTS                  | -             | -             | -             |
| 1,2,4-Trichlorobenzene                  | mg/kg | 0.3                | MCERTS                  | -             | -             | -             |
| Naphthalene                             | mg/kg | 0.05               | MCERTS                  | -             | -             | -             |
| 2,4-Dichlorophenol                      | mg/kg | 0.3                | MCERTS                  | -             | -             | -             |
| 4-Chloroaniline                         | mg/kg | 0.1                | NONE                    | -             | -             | -             |
| Hexachlorobutadiene                     | mg/kg | 0.1                | MCERTS                  | -             | -             | -             |
| 4-Chloro-3-methylphenol                 | mg/kg | 0.1                | NONE                    | -             | -             | -             |
| 2,4,6-Trichlorophenol                   | mg/kg | 0.1                | MCERTS                  | -             | -             | -             |
| 2,4,5-Trichlorophenol                   | mg/kg | 0.2                | MCERTS                  | -             | -             | -             |
| 2-Methylnaphthalene                     | mg/kg | 0.1                | NONE                    | -             | -             | -             |
| 2-Chloronaphthalene                     | mg/kg | 0.1                | MCERTS                  | -             | -             | -             |
| Dimethylphthalate                       | mg/kg | 0.1                | MCERTS                  | -             | -             | -             |
| 2,6-Dinitrotoluene                      | mg/kg | 0.1                | MCERTS                  | -             | -             | -             |
| Acenaphthylene                          | mg/kg | 0.05               | MCERTS                  | -             | -             | -             |
| Acenaphthene                            | mg/kg | 0.05               | MCERTS                  | -             | -             | -             |
| 2,4-Dinitrotoluene                      | mg/kg | 0.2                | MCERTS                  | -             | -             | -             |
| Dibenzofuran                            | mg/kg | 0.2                | MCERTS                  | -             | -             | -             |
| 4-Chlorophenyl phenyl ether             | mg/kg | 0.3                | ISO 17025               | -             | -             | -             |
| Diethyl phthalate                       | mg/kg | 0.2                | MCERTS                  | -             | -             | -             |
| 4-Nitroaniline                          | mg/kg | 0.2                | MCERTS                  | -             | -             | -             |
| Fluorene                                | mg/kg | 0.05               | MCERTS                  | -             | -             | -             |
| Azobenzene                              | mg/kg | 0.3                | MCERTS                  | -             | -             | -             |
| Bromophenyl phenyl ether                | mg/kg | 0.2                | MCERTS                  | -             | -             | -             |
| Hexachlorobenzene                       | mg/kg | 0.3                | MCERTS                  | -             | -             | -             |
| Phenanthrene                            | mg/kg | 0.05               | MCERTS                  | -             | -             | -             |
| Anthracene                              | mg/kg | 0.05               | MCERTS                  | -             | -             | -             |
| Carbazole                               | mg/kg | 0.3                | MCERTS                  | -             | -             | -             |
| Dibutyl phthalate                       | mg/kg | 0.2                | MCERTS                  | -             | -             | -             |
| Anthraquinone                           | mg/kg | 0.3                | MCERTS                  | -             | -             | -             |
| Fluoranthene                            | mg/kg | 0.05               | MCERTS                  | -             | -             | -             |
| Pyrene                                  | mg/kg | 0.05               | MCERTS                  | -             | -             | -             |
| Butyl benzyl phthalate                  | mg/kg | 0.3                | ISO 17025               | -             | -             | -             |
| Benzo(a)anthracene                      | mg/kg | 0.05               | MCERTS                  | -             | -             | -             |
| Chrysene                                | mg/kg | 0.05               | MCERTS                  | -             | -             | -             |
| Benzo(b)fluoranthene                    | mg/kg | 0.05               | MCERTS                  | -             | -             | -             |
| Benzo(k)fluoranthene                    | mg/kg | 0.05               | MCERTS                  | -             | -             | -             |
| Benzo(a)pyrene                          | mg/kg | 0.05               | MCERTS                  | -             | -             | -             |

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| Lab Sample Number                       |       |                    |                         | 2448621       | 2448622       | 2448623       |
|-----------------------------------------|-------|--------------------|-------------------------|---------------|---------------|---------------|
| Sample Reference                        |       |                    |                         | HP05          | HP06          | HP06          |
| Sample Number                           |       |                    |                         | None Supplied | None Supplied | None Supplied |
| Depth (m)                               |       |                    |                         | 0.10          | 0.10          | 0.30          |
| Date Sampled                            |       |                    |                         | 03/10/2022    | 03/10/2022    | 03/10/2022    |
| Time Taken                              |       |                    |                         | None Supplied | None Supplied | None Supplied |
| Analytical Parameter<br>(Soil Analysis) | Units | Limit of detection | Accreditation<br>Status |               |               |               |
| Indeno(1,2,3-cd)pyrene                  | mg/kg | 0.05               | MCERTS                  | -             | -             | -             |
| Dibenz(a,h)anthracene                   | mg/kg | 0.05               | MCERTS                  | -             | -             | -             |
| Benzo(ghi)perylene                      | mg/kg | 0.05               | MCERTS                  | -             | -             | -             |

#### PCBs by GC-MS

|                  |       |       |        |   |   |   |
|------------------|-------|-------|--------|---|---|---|
| PCB Congener 28  | mg/kg | 0.001 | MCERTS | - | - | - |
| PCB Congener 52  | mg/kg | 0.001 | MCERTS | - | - | - |
| PCB Congener 101 | mg/kg | 0.001 | MCERTS | - | - | - |
| PCB Congener 118 | mg/kg | 0.001 | MCERTS | - | - | - |
| PCB Congener 138 | mg/kg | 0.001 | MCERTS | - | - | - |
| PCB Congener 153 | mg/kg | 0.001 | MCERTS | - | - | - |
| PCB Congener 180 | mg/kg | 0.001 | MCERTS | - | - | - |

#### Total PCBs by GC-MS

|            |       |       |        |   |   |   |
|------------|-------|-------|--------|---|---|---|
| Total PCBs | mg/kg | 0.007 | MCERTS | - | - | - |
|------------|-------|-------|--------|---|---|---|

#### Pesticide and Herbicide Screen

|                       |  |     |      |               |               |   |
|-----------------------|--|-----|------|---------------|---------------|---|
| GCMS Pesticide Screen |  | N/A | NONE | None Detected | None Detected | - |
|-----------------------|--|-----|------|---------------|---------------|---|

U/S = Unsuitable Sample I/S = Insufficient Sample



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|                                             |       |                    |                      |               |               |
|---------------------------------------------|-------|--------------------|----------------------|---------------|---------------|
| Lab Sample Number                           |       |                    |                      | 2448624       | 2448625       |
| Sample Reference                            |       |                    |                      | HP02          | HP03          |
| Sample Number                               |       |                    |                      | None Supplied | None Supplied |
| Depth (m)                                   |       |                    |                      | 0.10          | 0.40          |
| Date Sampled                                |       |                    |                      | 03/10/2022    | 03/10/2022    |
| Time Taken                                  |       |                    |                      | None Supplied | None Supplied |
| Analytical Parameter<br>(Leachate Analysis) | Units | Limit of detection | Accreditation Status |               |               |

#### 10:1 WAC Leachate

|                          |      |         |           |          |          |
|--------------------------|------|---------|-----------|----------|----------|
| Arsenic                  | mg/l | 0.001   | ISO 17025 | 0.0093   | 0.0591   |
| Barium                   | mg/l | 0.00005 | ISO 17025 | 0.0147   | 0.0077   |
| Cadmium                  | mg/l | 0.0001  | ISO 17025 | < 0.0001 | < 0.0001 |
| Chromium                 | mg/l | 0.0004  | ISO 17025 | 0.0009   | 0.0006   |
| Copper                   | mg/l | 0.0007  | ISO 17025 | 0.027    | 0.0075   |
| Mercury                  | mg/l | 0.0005  | ISO 17025 | < 0.0005 | < 0.0005 |
| Molybdenum               | mg/l | 0.0004  | ISO 17025 | 0.002    | 0.0035   |
| Nickel                   | mg/l | 0.0003  | ISO 17025 | 0.0057   | 0.0058   |
| Lead                     | mg/l | 0.001   | ISO 17025 | 0.007    | 0.0048   |
| Antimony                 | mg/l | 0.0017  | ISO 17025 | < 0.0017 | < 0.0017 |
| Selenium                 | mg/l | 0.004   | ISO 17025 | < 0.0040 | < 0.0040 |
| Zinc                     | mg/l | 0.0004  | ISO 17025 | 0.021    | 0.0055   |
| Chloride                 | mg/l | 0.15    | ISO 17025 | 1.1      | 1.2      |
| Fluoride                 | mg/l | 0.05    | ISO 17025 | 4.1      | < 0.050  |
| Sulphate                 | mg/l | 0.1     | ISO 17025 | 5        | 1.5      |
| Total dissolved solids   | mg/l | 4       | ISO 17025 | 64       | 56       |
| Total monohydric phenols | mg/l | 0.01    | ISO 17025 | < 0.010  | < 0.010  |
| Dissolved organic carbon | mg/l | 0.1     | NONE      | 25.2     | 26.8     |

#### 10:1 WAC Leachate

|                          |       |        |           |          |          |
|--------------------------|-------|--------|-----------|----------|----------|
| Arsenic                  | mg/kg | 0.01   | NONE      | 0.0848   | 0.468    |
| Barium                   | mg/kg | 0.0005 | NONE      | 0.134    | 0.0608   |
| Cadmium                  | mg/kg | 0.0008 | NONE      | < 0.0008 | < 0.0008 |
| Chromium                 | mg/kg | 0.004  | NONE      | 0.0078   | 0.0047   |
| Copper                   | mg/kg | 0.007  | NONE      | 0.25     | 0.06     |
| Mercury                  | mg/kg | 0.005  | NONE      | < 0.0050 | < 0.0050 |
| Molybdenum               | mg/kg | 0.004  | NONE      | 0.0179   | 0.028    |
| Nickel                   | mg/kg | 0.003  | NONE      | 0.052    | 0.046    |
| Lead                     | mg/kg | 0.01   | NONE      | 0.064    | 0.038    |
| Antimony                 | mg/kg | 0.017  | NONE      | < 0.017  | < 0.017  |
| Selenium                 | mg/kg | 0.04   | NONE      | < 0.040  | < 0.040  |
| Zinc                     | mg/kg | 0.004  | NONE      | 0.19     | 0.044    |
| Chloride                 | mg/kg | 1.5    | NONE      | 9.8      | 9.9      |
| Fluoride                 | mg/kg | 0.5    | NONE      | 38       | < 0.50   |
| Sulphate                 | mg/kg | 1      | NONE      | 45       | 12       |
| Total dissolved solids   | mg/kg | 40     | ISO 17025 | 590      | 450      |
| Total monohydric phenols | mg/kg | 0.1    | NONE      | < 0.10   | < 0.10   |
| Dissolved organic carbon | mg/kg | 1      | NONE      | 229      | 213      |

U/S = Unsuitable Sample I/S = Insufficient Sample

**Analytical Report Number : 22-88092**

**Project / Site name: Hitchin Road, Preston, Hertfordshire, SG4 7TZ**

\* 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 *                            |
|-------------------|------------------|---------------|-----------|-------------------------------------------------|
| 2448616           | HP01             | None Supplied | 0.2       | Brown clay and sand with chalk.                 |
| 2448617           | HP01             | None Supplied | 0.5       | Brown clay and sand with chalk and stones.      |
| 2448618           | HP02             | None Supplied | 0.1       | Brown loam and clay with brick and vegetation.  |
| 2448619           | HP03             | None Supplied | 0.4       | Brown loam and clay with gravel and vegetation. |
| 2448620           | HP04             | None Supplied | 0.2       | Brown loam and clay with gravel and vegetation. |
| 2448621           | HP05             | None Supplied | 0.1       | Brown clay and loam with gravel and vegetation. |
| 2448622           | HP06             | None Supplied | 0.1       | Brown loam and clay with gravel and vegetation. |
| 2448623           | HP06             | None Supplied | 0.3       | Brown clay and loam with gravel and vegetation. |

**Analytical Report Number : 22-88092**

**Project / Site name: Hitchin Road, Preston, Hertfordshire, SG4 7TZ**

**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                 |
| Acid neutralisation capacity of soil               | Determination of acid neutralisation capacity by addition of acid or alkali followed by electronic probe.                                                              | In-house method based on Guidance an Sampling and Testing of Wastes to Meet Landfill Waste Acceptance"          | L046-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            |
| Boron, water soluble, in soil                      | Determination of water soluble boron in soil by hot water extract followed by ICP-OES.                                                                                 | In-house method based on Second Site Properties version 3                                                       | L038-PL       | D                  | MCERTS               |
| Loss on ignition of soil @ 450oC                   | Determination of loss on ignition in soil by gravimetrically with the sample being ignited in a muffle furnace.                                                        | In house method.                                                                                                | L047-PL       | D                  | MCERTS               |
| Mineral Oil (Soil) C10 - C40                       | Determination of mineral oil fraction extractable hydrocarbons in soil by GC-MS/GC-FID.                                                                                | In-house method with silica gel split/clean up.                                                                 | L076-PL       | D                  | NONE                 |
| 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 WAC-17 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. MCERTS accredited except Coronene.                                         | L064-PL       | D                  | MCERTS               |
| PCB's By GC-MS in soil                             | Determination of PCB by extraction with acetone and hexane followed by GC-MS.                                                                                          | In-house method based on USEPA 8082                                                                             | L027-PL       | D                  | MCERTS               |
| 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 soil                                 | Determination of pH in soil by addition of water followed by electrometric measurement.                                                                                | In house method.                                                                                                | L005-PL       | W                  | MCERTS               |
| Sulphide in soil                                   | Determination of sulphide in soil by acidification and heating to liberate hydrogen sulphide, trapped in an alkaline solution then assayed by ion selective electrode. | In-house method                                                                                                 | L010-PL       | D                  | MCERTS               |
| 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                  | MCERTS               |

**Analytical Report Number : 22-88092**

**Project / Site name: Hitchin Road, Preston, Hertfordshire, SG4 7TZ**

**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 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               |
| 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                  | MCERTS               |
| BTEX in soil (Monoaromatics)                     | Determination of BTEX in soil by headspace GC-MS.                                                                                                     | In-house method based on USEPA8260                                                                              | L073B-PL      | W                  | MCERTS               |
| BTEX and MTBE in soil (Monoaromatics)            | Determination of BTEX in soil by headspace GC-MS.                                                                                                     | In-house method based on USEPA8260                                                                              | L073B-PL      | W                  | MCERTS               |
| 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                  | MCERTS               |
| GC Pesticide Screen (TIC)                        | Analysis of unknown pesticides by GCMS                                                                                                                | GC Pesticide Screen (TIC)                                                                                       | L064B         | D                  | NONE                 |
| TPH Banding in Soil by FID                       | Determination of hexane extractable hydrocarbons in soil by GC-FID.                                                                                   | In-house method, TPH with carbon banding and silica gel split/clean up.                                         | L076-PL       | D                  | MCERTS               |
| Total BTEX in soil (Poland)                      | Determination of BTEX in soil by headspace GC-MS.                                                                                                     | In-house method based on USEPA8260                                                                              | L073-PL       | W                  | MCERTS               |
| Fraction Organic Carbon FOC Automated            | Determination of fraction of organic carbon in soil by oxidising with potassium dichromate followed by titration with iron (II) sulphate.             | In house method                                                                                                 | L009          | D                  | MCERTS               |
| 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                 |
| D.O. for Gravimetric Quant if Screen/ID positive | Dependent option for Gravimetric Quant if Screen/ID positive scheduled.                                                                               | In house asbestos methods A001 & A006.                                                                          | A006-PL       | D                  | NONE                 |
| Metals in leachate by ICP-OES                    | 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            |
| Chloride 10:1 WAC                                | Determination of Chloride colorimetrically by discrete analyser.                                                                                      | In house based on MEWAM Method ISBN 0117516260.                                                                 | L082-PL       | W                  | ISO 17025            |
| Fluoride 10:1 WAC                                | Determination of fluoride in leachate by 1:1ratio with a buffer solution followed by Ion Selective Electrode.                                         | In-house method based on Use of Total Ionic Strength Adjustment Buffer for Electrode Determination"             | L033B-PL      | W                  | ISO 17025            |
| Sulphate 10:1 WAC                                | Determination of sulphate in leachate by ICP-OES                                                                                                      | In-house method based on MEWAM 1986 Methods for the Determination of Metals in Soil""                           | L039-PL       | W                  | ISO 17025            |
| Total dissolved solids 10:1 WAC                  | Determination of total dissolved solids in water by EC probe using a factor of 0.6.                                                                   | In-house method based on Examination of Water and Wastewater 20th Edition: Clesceri, Greenberg & Eaton          | L031          | W                  | ISO 17025            |

**Analytical Report Number : 22-88092**

**Project / Site name: Hitchin Road, Preston, Hertfordshire, SG4 7TZ**

**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 |
|-----------------------------------|-----------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------|---------------|--------------------|----------------------|
| Monohydric phenols 10:1 WAC       | Determination of phenols in leachate by distillation followed by colorimetry.     | In-house method based on Examination of Water and Wastewater 20th Edition: Clesceri, Greenberg & Eaton | L080-PL       | W                  | ISO 17025            |
| Dissolved organic carbon 10:1 WAC | Determination of dissolved inorganic carbon in leachate by TOC/DOC NDIR Analyser. | In-house method based on Examination of Water and Wastewater 20th Edition: Clesceri, Greenberg & Eaton | L037-PL       | W                  | NONE                 |

**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 30oC.**

**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     |

# 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)



YMBUU-6FWVZ-54BQE

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

## Job name

Hitchin Road, Preston

## Description/Comments

## Project

LS6199

## Site

Hitchin Road, Preston

## Classified by

Name: **Tom Kistruck**  
 Date: **21 Oct 2022 08:26 GMT**  
 Telephone: **01444 882 084**  
 Company: **Land Science**  
**Unit 10**  
**19 Albert Drive**  
**Burgess Hill**  
**RH15 9TN**

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:

Course  
 Hazardous Waste Classification

Date

## Job summary

| # | Sample name | Depth [m] | Classification Result | Hazard properties | Page |
|---|-------------|-----------|-----------------------|-------------------|------|
| 1 | HP01        | 0.50      | Non Hazardous         |                   | 2    |
| 2 | HP02        | 0.10      | Non Hazardous         |                   | 4    |
| 3 | HP03        | 0.40      | Non Hazardous         |                   | 6    |
| 4 | HP04        | 0.20      | Non Hazardous         |                   | 8    |
| 5 | HP05        | 0.10      | Non Hazardous         |                   | 10   |
| 6 | HP06        | 0.30      | Non Hazardous         |                   | 12   |

## Related documents

| # | Name                             | Description                                   |
|---|----------------------------------|-----------------------------------------------|
| 1 | Land Science Template WM3 v1.2GB | waste stream template used to create this Job |

## Report

Created by: Tom Kistruck

Created date: 21 Oct 2022 08:26 GMT

| Appendices                                                 | Page |
|------------------------------------------------------------|------|
| Appendix A: Classifier defined and non GB MCL determinands | 14   |
| Appendix B: Rationale for selection of metal species       | 15   |
| Appendix C: Version                                        | 16   |

## Classification of sample: HP01

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

## Sample details

|                   |                                                                                           |
|-------------------|-------------------------------------------------------------------------------------------|
| Sample name:      | LoW Code:                                                                                 |
| <b>HP01</b>       | Chapter:                                                                                  |
| Sample Depth:     | 17: Construction and Demolition Wastes (including excavated soil from contaminated sites) |
| <b>0.50 m</b>     | Entry:                                                                                    |
| Moisture content: | 17 05 04 (Soil and stones other than those mentioned in 17 05 03)                         |
| <b>13%</b>        |                                                                                           |
| (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  | pH                                 |           |            |          | 8.1 pH            |              | 8.1 pH         | 8.1 pH               |            |                |
| 2  | phenol                             |           |            |          | <1 mg/kg          |              | <1 mg/kg       | <0.0001 %            |            | <LOD           |
|    | 604-001-00-2                       | 203-632-7 | 108-95-2   |          |                   |              |                |                      |            |                |
| 3  | naphthalene                        |           |            |          | <0.05 mg/kg       |              | <0.05 mg/kg    | <0.000005 %          |            | <LOD           |
|    | 601-052-00-2                       | 202-049-5 | 91-20-3    |          |                   |              |                |                      |            |                |
| 4  | acenaphthylene                     |           |            |          | <0.05 mg/kg       |              | <0.05 mg/kg    | <0.000005 %          |            | <LOD           |
|    |                                    | 205-917-1 | 208-96-8   |          |                   |              |                |                      |            |                |
| 5  | acenaphthene                       |           |            |          | <0.05 mg/kg       |              | <0.05 mg/kg    | <0.000005 %          |            | <LOD           |
|    |                                    | 201-469-6 | 83-32-9    |          |                   |              |                |                      |            |                |
| 6  | fluorene                           |           |            |          | <0.05 mg/kg       |              | <0.05 mg/kg    | <0.000005 %          |            | <LOD           |
|    |                                    | 201-695-5 | 86-73-7    |          |                   |              |                |                      |            |                |
| 7  | phenanthrene                       |           |            |          | <0.05 mg/kg       |              | <0.05 mg/kg    | <0.000005 %          |            | <LOD           |
|    |                                    | 201-581-5 | 85-01-8    |          |                   |              |                |                      |            |                |
| 8  | anthracene                         |           |            |          | <0.05 mg/kg       |              | <0.05 mg/kg    | <0.000005 %          |            | <LOD           |
|    |                                    | 204-371-1 | 120-12-7   |          |                   |              |                |                      |            |                |
| 9  | fluoranthene                       |           |            |          | <0.05 mg/kg       |              | <0.05 mg/kg    | <0.000005 %          |            | <LOD           |
|    |                                    | 205-912-4 | 206-44-0   |          |                   |              |                |                      |            |                |
| 10 | pyrene                             |           |            |          | <0.05 mg/kg       |              | <0.05 mg/kg    | <0.000005 %          |            | <LOD           |
|    |                                    | 204-927-3 | 129-00-0   |          |                   |              |                |                      |            |                |
| 11 | benzo[a]anthracene                 |           |            |          | <0.05 mg/kg       |              | <0.05 mg/kg    | <0.000005 %          |            | <LOD           |
|    | 601-033-00-9                       | 200-280-6 | 56-55-3    |          |                   |              |                |                      |            |                |
| 12 | chrysene                           |           |            |          | <0.05 mg/kg       |              | <0.05 mg/kg    | <0.000005 %          |            | <LOD           |
|    | 601-048-00-0                       | 205-923-4 | 218-01-9   |          |                   |              |                |                      |            |                |
| 13 | benzo[b]fluoranthene               |           |            |          | <0.05 mg/kg       |              | <0.05 mg/kg    | <0.000005 %          |            | <LOD           |
|    | 601-034-00-4                       | 205-911-9 | 205-99-2   |          |                   |              |                |                      |            |                |
| 14 | benzo[k]fluoranthene               |           |            |          | <0.05 mg/kg       |              | <0.05 mg/kg    | <0.000005 %          |            | <LOD           |
|    | 601-036-00-5                       | 205-916-6 | 207-08-9   |          |                   |              |                |                      |            |                |
| 15 | benzo[a]pyrene; benzo[def]chrysene |           |            |          | <0.05 mg/kg       |              | <0.05 mg/kg    | <0.000005 %          |            | <LOD           |
|    | 601-032-00-3                       | 200-028-5 | 50-32-8    |          |                   |              |                |                      |            |                |
| 16 | indeno[123-cd]pyrene               |           |            |          | <0.05 mg/kg       |              | <0.05 mg/kg    | <0.000005 %          |            | <LOD           |
|    |                                    | 205-893-2 | 193-39-5   |          |                   |              |                |                      |            |                |
| 17 | dibenz[a,h]anthracene              |           |            |          | <0.05 mg/kg       |              | <0.05 mg/kg    | <0.000005 %          |            | <LOD           |
|    | 601-041-00-2                       | 200-181-8 | 53-70-3    |          |                   |              |                |                      |            |                |

| #      | 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 |          |                   |              |                |                      |            |                |
| 18     | benzo[ghi]perylene                                                                                                       | 205-883-8    | 191-24-2   |          | <0.05 mg/kg       |              | <0.05 mg/kg    | <0.000005 %          |            | <LOD           |
| 19     | coronene                                                                                                                 | 205-881-7    | 191-07-1   |          | <0.05 mg/kg       |              | <0.05 mg/kg    | <0.000005 %          |            | <LOD           |
| 20     | arsenic { arsenic trioxide }                                                                                             | 033-003-00-0 | 215-481-4  |          | 10 mg/kg          | 1.32         | 13.203 mg/kg   | 0.00132 %            |            |                |
| 21     | barium { barium carbonate }                                                                                              | 056-003-00-2 | 208-167-3  |          | 62 mg/kg          | 1.437        | 89.093 mg/kg   | 0.00891 %            |            |                |
| 22     | beryllium { beryllium oxide }                                                                                            | 004-003-00-8 | 215-133-1  |          | 1.7 mg/kg         | 2.775        | 4.718 mg/kg    | 0.000472 %           |            |                |
| 23     | boron { diboron trioxide; boric oxide }                                                                                  | 005-008-00-8 | 215-125-8  |          | 0.8 mg/kg         | 3.22         | 2.576 mg/kg    | 0.000258 %           |            |                |
| 24     | cadmium { cadmium oxide }                                                                                                | 048-002-00-0 | 215-146-2  |          | <0.2 mg/kg        | 1.142        | <0.228 mg/kg   | <0.0000228 %         |            | <LOD           |
| 25     | chromium in chromium(VI) compounds { chromium(VI) oxide }                                                                | 024-001-00-0 | 215-607-8  |          | <1.2 mg/kg        | 1.923        | <2.308 mg/kg   | <0.000231 %          |            | <LOD           |
| 26     | copper { dicopper oxide; copper (I) oxide }                                                                              | 029-002-00-X | 215-270-7  |          | 17 mg/kg          | 1.126        | 19.14 mg/kg    | 0.00191 %            |            |                |
| 27     | lead { lead chromate }                                                                                                   | 082-004-00-2 | 231-846-0  | 1        | 20 mg/kg          | 1.56         | 31.196 mg/kg   | 0.002 %              |            |                |
| 28     | mercury { mercury dichloride }                                                                                           | 080-010-00-X | 231-299-8  |          | <0.3 mg/kg        | 1.353        | <0.406 mg/kg   | <0.0000406 %         |            | <LOD           |
| 29     | nickel { nickel chromate }                                                                                               | 028-035-00-7 | 238-766-5  |          | 34 mg/kg          | 2.976        | 101.193 mg/kg  | 0.0101 %             |            |                |
| 30     | selenium { selenium compounds with the exception of cadmium sulphoselenide and those specified elsewhere in this Annex } | 034-002-00-8 |            |          | <1 mg/kg          | 1.405        | <1.405 mg/kg   | <0.000141 %          |            | <LOD           |
| 31     | vanadium { divanadium pentaoxide; vanadium pentoxide }                                                                   | 023-001-00-8 | 215-239-8  |          | 52 mg/kg          | 1.785        | 92.83 mg/kg    | 0.00928 %            |            |                |
| 32     | zinc { zinc chromate }                                                                                                   | 024-007-00-3 | 236-878-9  |          | 62 mg/kg          | 2.774        | 171.997 mg/kg  | 0.0172 %             |            |                |
| Total: |                                                                                                                          |              |            |          |                   |              |                | 0.0521 %             |            |                |

#### 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
- ND Not detected
- CLP: Note 1 Only the metal concentration has been used for classification

## Classification of sample: HP02

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

## Sample details

|                   |                                                                                                    |
|-------------------|----------------------------------------------------------------------------------------------------|
| Sample name:      | LoW Code:                                                                                          |
| <b>HP02</b>       | 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)                           |
| <b>0.10 m</b>     |                                                                                                    |
| Moisture content: |                                                                                                    |
| <b>10%</b>        |                                                                                                    |
| (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  | pH                                 |           |            |          | 8.2               | pH    |              | 8.2            | pH    | 8.2 pH               |            |                |
| 2  | phenol                             |           |            |          | <1                | mg/kg |              | <1             | mg/kg | <0.0001 %            |            | <LOD           |
|    | 604-001-00-2                       | 203-632-7 | 108-95-2   |          |                   |       |              |                |       |                      |            |                |
| 3  | naphthalene                        |           |            |          | <0.05             | mg/kg |              | <0.05          | mg/kg | <0.000005 %          |            | <LOD           |
|    | 601-052-00-2                       | 202-049-5 | 91-20-3    |          |                   |       |              |                |       |                      |            |                |
| 4  | acenaphthylene                     |           |            |          | <0.05             | mg/kg |              | <0.05          | mg/kg | <0.000005 %          |            | <LOD           |
|    |                                    | 205-917-1 | 208-96-8   |          |                   |       |              |                |       |                      |            |                |
| 5  | acenaphthene                       |           |            |          | <0.05             | mg/kg |              | <0.05          | mg/kg | <0.000005 %          |            | <LOD           |
|    |                                    | 201-469-6 | 83-32-9    |          |                   |       |              |                |       |                      |            |                |
| 6  | fluorene                           |           |            |          | <0.05             | mg/kg |              | <0.05          | mg/kg | <0.000005 %          |            | <LOD           |
|    |                                    | 201-695-5 | 86-73-7    |          |                   |       |              |                |       |                      |            |                |
| 7  | phenanthrene                       |           |            |          | <0.05             | mg/kg |              | <0.05          | mg/kg | <0.000005 %          |            | <LOD           |
|    |                                    | 201-581-5 | 85-01-8    |          |                   |       |              |                |       |                      |            |                |
| 8  | anthracene                         |           |            |          | <0.05             | mg/kg |              | <0.05          | mg/kg | <0.000005 %          |            | <LOD           |
|    |                                    | 204-371-1 | 120-12-7   |          |                   |       |              |                |       |                      |            |                |
| 9  | fluoranthene                       |           |            |          | 0.26              | mg/kg |              | 0.26           | mg/kg | 0.000026 %           |            |                |
|    |                                    | 205-912-4 | 206-44-0   |          |                   |       |              |                |       |                      |            |                |
| 10 | pyrene                             |           |            |          | 0.34              | mg/kg |              | 0.34           | mg/kg | 0.000034 %           |            |                |
|    |                                    | 204-927-3 | 129-00-0   |          |                   |       |              |                |       |                      |            |                |
| 11 | benzo[a]anthracene                 |           |            |          | <0.05             | mg/kg |              | <0.05          | mg/kg | <0.000005 %          |            | <LOD           |
|    | 601-033-00-9                       | 200-280-6 | 56-55-3    |          |                   |       |              |                |       |                      |            |                |
| 12 | chrysene                           |           |            |          | <0.05             | mg/kg |              | <0.05          | mg/kg | <0.000005 %          |            | <LOD           |
|    | 601-048-00-0                       | 205-923-4 | 218-01-9   |          |                   |       |              |                |       |                      |            |                |
| 13 | benzo[b]fluoranthene               |           |            |          | <0.05             | mg/kg |              | <0.05          | mg/kg | <0.000005 %          |            | <LOD           |
|    | 601-034-00-4                       | 205-911-9 | 205-99-2   |          |                   |       |              |                |       |                      |            |                |
| 14 | benzo[k]fluoranthene               |           |            |          | <0.05             | mg/kg |              | <0.05          | mg/kg | <0.000005 %          |            | <LOD           |
|    | 601-036-00-5                       | 205-916-6 | 207-08-9   |          |                   |       |              |                |       |                      |            |                |
| 15 | benzo[a]pyrene; benzo[def]chrysene |           |            |          | <0.05             | mg/kg |              | <0.05          | mg/kg | <0.000005 %          |            | <LOD           |
|    | 601-032-00-3                       | 200-028-5 | 50-32-8    |          |                   |       |              |                |       |                      |            |                |
| 16 | indeno[123-cd]pyrene               |           |            |          | <0.05             | mg/kg |              | <0.05          | mg/kg | <0.000005 %          |            | <LOD           |
|    |                                    | 205-893-2 | 193-39-5   |          |                   |       |              |                |       |                      |            |                |
| 17 | dibenz[a,h]anthracene              |           |            |          | <0.05             | mg/kg |              | <0.05          | mg/kg | <0.000005 %          |            | <LOD           |
|    | 601-041-00-2                       | 200-181-8 | 53-70-3    |          |                   |       |              |                |       |                      |            |                |

| #      | 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                                                       |          |                   |              |                |                      |            |                |
| 18     | benzo[ghi]perylene                                                                                                       | 205-883-8    | 191-24-2                                                         |          | <0.05 mg/kg       |              | <0.05 mg/kg    | <0.000005 %          |            | <LOD           |
| 19     | coronene                                                                                                                 | 205-881-7    | 191-07-1                                                         |          | <0.05 mg/kg       |              | <0.05 mg/kg    | <0.000005 %          |            | <LOD           |
| 20     | arsenic { arsenic trioxide }                                                                                             | 033-003-00-0 | 215-481-4                                                        |          | 9.7 mg/kg         | 1.32         | 12.807 mg/kg   | 0.00128 %            |            |                |
| 21     | barium { barium carbonate }                                                                                              | 056-003-00-2 | 208-167-3                                                        |          | 83 mg/kg          | 1.437        | 119.269 mg/kg  | 0.0119 %             |            |                |
| 22     | beryllium { beryllium oxide }                                                                                            | 004-003-00-8 | 215-133-1                                                        |          | 1.1 mg/kg         | 2.775        | 3.053 mg/kg    | 0.000305 %           |            |                |
| 23     | boron { diboron trioxide; boric oxide }                                                                                  | 005-008-00-8 | 215-125-8                                                        |          | 1.3 mg/kg         | 3.22         | 4.186 mg/kg    | 0.000419 %           |            |                |
| 24     | cadmium { cadmium oxide }                                                                                                | 048-002-00-0 | 215-146-2                                                        |          | 0.4 mg/kg         | 1.142        | 0.457 mg/kg    | 0.0000457 %          |            |                |
| 25     | chromium in chromium(VI) compounds { chromium(VI) oxide }                                                                | 024-001-00-0 | 215-607-8                                                        |          | <1.2 mg/kg        | 1.923        | <2.308 mg/kg   | <0.000231 %          |            | <LOD           |
| 26     | copper { dicopper oxide; copper (I) oxide }                                                                              | 029-002-00-X | 215-270-7                                                        |          | 19 mg/kg          | 1.126        | 21.392 mg/kg   | 0.00214 %            |            |                |
| 27     | lead { lead chromate }                                                                                                   | 082-004-00-2 | 231-846-0                                                        | 1        | 43 mg/kg          | 1.56         | 67.072 mg/kg   | 0.0043 %             |            |                |
| 28     | mercury { mercury dichloride }                                                                                           | 080-010-00-X | 231-299-8                                                        |          | <0.3 mg/kg        | 1.353        | <0.406 mg/kg   | <0.0000406 %         |            | <LOD           |
| 29     | nickel { nickel chromate }                                                                                               | 028-035-00-7 | 238-766-5                                                        |          | 18 mg/kg          | 2.976        | 53.573 mg/kg   | 0.00536 %            |            |                |
| 30     | selenium { selenium compounds with the exception of cadmium sulphoselenide and those specified elsewhere in this Annex } | 034-002-00-8 |                                                                  |          | <1 mg/kg          | 1.405        | <1.405 mg/kg   | <0.000141 %          |            | <LOD           |
| 31     | vanadium { divanadium pentaoxide; vanadium pentoxide }                                                                   | 023-001-00-8 | 215-239-8                                                        |          | 41 mg/kg          | 1.785        | 73.193 mg/kg   | 0.00732 %            |            |                |
| 32     | zinc { zinc chromate }                                                                                                   | 024-007-00-3 | 236-878-9                                                        |          | 140 mg/kg         | 2.774        | 388.381 mg/kg  | 0.0388 %             |            |                |
| 33     | benzene                                                                                                                  | 601-020-00-8 | 200-753-7                                                        |          | <1 mg/kg          |              | <1 mg/kg       | <0.0001 %            |            | <LOD           |
| 34     | toluene                                                                                                                  | 601-021-00-3 | 203-625-9                                                        |          | <1 mg/kg          |              | <1 mg/kg       | <0.0001 %            |            | <LOD           |
| 35     | ethylbenzene                                                                                                             | 601-023-00-4 | 202-849-4                                                        |          | <1 mg/kg          |              | <1 mg/kg       | <0.0001 %            |            | <LOD           |
| 36     | o-xylene; [1] p-xylene; [2] m-xylene; [3] xylene [4]                                                                     | 601-022-00-9 | 202-422-2 [1]<br>203-396-5 [2]<br>203-576-3 [3]<br>215-535-7 [4] |          | <1 mg/kg          |              | <1 mg/kg       | <0.0001 %            |            | <LOD           |
| 37     | polychlorobiphenyls; PCB                                                                                                 | 602-039-00-4 | 215-648-1                                                        |          | <0.007 mg/kg      |              | <0.007 mg/kg   | <0.0000007 %         |            | <LOD           |
| Total: |                                                                                                                          |              |                                                                  |          |                   |              |                | 0.073 %              |            |                |

#### 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                                                                                                        |
| ND          | Not detected                                                                                                                    |
| CLP: Note 1 | Only the metal concentration has been used for classification                                                                   |

## Classification of sample: HP03

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

## Sample details

|                   |                                                                                                    |
|-------------------|----------------------------------------------------------------------------------------------------|
| Sample name:      | LoW Code:                                                                                          |
| <b>HP03</b>       | 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)                           |
| <b>0.40 m</b>     |                                                                                                    |
| Moisture content: |                                                                                                    |
| <b>20%</b>        |                                                                                                    |
| (no correction)   |                                                                                                    |

## Hazard properties

None identified

## Determinands

Moisture content: 20% 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  | phenol                             |           |            |          | <1 mg/kg          |              | <1 mg/kg       | <0.0001 %            |            | <LOD           |
|    | 604-001-00-2                       | 203-632-7 | 108-95-2   |          |                   |              |                |                      |            |                |
| 3  | naphthalene                        |           |            |          | <0.05 mg/kg       |              | <0.05 mg/kg    | <0.000005 %          |            | <LOD           |
|    | 601-052-00-2                       | 202-049-5 | 91-20-3    |          |                   |              |                |                      |            |                |
| 4  | acenaphthylene                     |           |            |          | <0.05 mg/kg       |              | <0.05 mg/kg    | <0.000005 %          |            | <LOD           |
|    |                                    | 205-917-1 | 208-96-8   |          |                   |              |                |                      |            |                |
| 5  | acenaphthene                       |           |            |          | <0.05 mg/kg       |              | <0.05 mg/kg    | <0.000005 %          |            | <LOD           |
|    |                                    | 201-469-6 | 83-32-9    |          |                   |              |                |                      |            |                |
| 6  | fluorene                           |           |            |          | <0.05 mg/kg       |              | <0.05 mg/kg    | <0.000005 %          |            | <LOD           |
|    |                                    | 201-695-5 | 86-73-7    |          |                   |              |                |                      |            |                |
| 7  | phenanthrene                       |           |            |          | <0.05 mg/kg       |              | <0.05 mg/kg    | <0.000005 %          |            | <LOD           |
|    |                                    | 201-581-5 | 85-01-8    |          |                   |              |                |                      |            |                |
| 8  | anthracene                         |           |            |          | <0.05 mg/kg       |              | <0.05 mg/kg    | <0.000005 %          |            | <LOD           |
|    |                                    | 204-371-1 | 120-12-7   |          |                   |              |                |                      |            |                |
| 9  | fluoranthene                       |           |            |          | <0.05 mg/kg       |              | <0.05 mg/kg    | <0.000005 %          |            | <LOD           |
|    |                                    | 205-912-4 | 206-44-0   |          |                   |              |                |                      |            |                |
| 10 | pyrene                             |           |            |          | <0.05 mg/kg       |              | <0.05 mg/kg    | <0.000005 %          |            | <LOD           |
|    |                                    | 204-927-3 | 129-00-0   |          |                   |              |                |                      |            |                |
| 11 | benzo[a]anthracene                 |           |            |          | <0.05 mg/kg       |              | <0.05 mg/kg    | <0.000005 %          |            | <LOD           |
|    | 601-033-00-9                       | 200-280-6 | 56-55-3    |          |                   |              |                |                      |            |                |
| 12 | chrysene                           |           |            |          | <0.05 mg/kg       |              | <0.05 mg/kg    | <0.000005 %          |            | <LOD           |
|    | 601-048-00-0                       | 205-923-4 | 218-01-9   |          |                   |              |                |                      |            |                |
| 13 | benzo[b]fluoranthene               |           |            |          | <0.05 mg/kg       |              | <0.05 mg/kg    | <0.000005 %          |            | <LOD           |
|    | 601-034-00-4                       | 205-911-9 | 205-99-2   |          |                   |              |                |                      |            |                |
| 14 | benzo[k]fluoranthene               |           |            |          | <0.05 mg/kg       |              | <0.05 mg/kg    | <0.000005 %          |            | <LOD           |
|    | 601-036-00-5                       | 205-916-6 | 207-08-9   |          |                   |              |                |                      |            |                |
| 15 | benzo[a]pyrene; benzo[def]chrysene |           |            |          | <0.05 mg/kg       |              | <0.05 mg/kg    | <0.000005 %          |            | <LOD           |
|    | 601-032-00-3                       | 200-028-5 | 50-32-8    |          |                   |              |                |                      |            |                |
| 16 | indeno[123-cd]pyrene               |           |            |          | <0.05 mg/kg       |              | <0.05 mg/kg    | <0.000005 %          |            | <LOD           |
|    |                                    | 205-893-2 | 193-39-5   |          |                   |              |                |                      |            |                |
| 17 | dibenz[a,h]anthracene              |           |            |          | <0.05 mg/kg       |              | <0.05 mg/kg    | <0.000005 %          |            | <LOD           |
|    | 601-041-00-2                       | 200-181-8 | 53-70-3    |          |                   |              |                |                      |            |                |

| #      | 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                                                       |          |                   |              |                |              |                      |            |                |
| 18     | benzo[ghi]perylene                                                                                                       | 205-883-8    | 191-24-2                                                         |          | <0.05 mg/kg       |              | <0.05 mg/kg    | <0.000005 %  |                      |            | <LOD           |
| 19     | coronene                                                                                                                 | 205-881-7    | 191-07-1                                                         |          | <0.05 mg/kg       |              | <0.05 mg/kg    | <0.000005 %  |                      |            | <LOD           |
| 20     | arsenic { arsenic trioxide }                                                                                             | 033-003-00-0 | 215-481-4                                                        |          | 60 mg/kg          | 1.32         | 79.22 mg/kg    | 0.00792 %    |                      |            |                |
| 21     | barium { barium carbonate }                                                                                              | 056-003-00-2 | 208-167-3                                                        |          | 140 mg/kg         | 1.437        | 201.177 mg/kg  | 0.0201 %     |                      |            |                |
| 22     | beryllium { beryllium oxide }                                                                                            | 004-003-00-8 | 215-133-1                                                        |          | 3.2 mg/kg         | 2.775        | 8.881 mg/kg    | 0.000888 %   |                      |            |                |
| 23     | boron { diboron trioxide; boric oxide }                                                                                  | 005-008-00-8 | 215-125-8                                                        |          | 2.7 mg/kg         | 3.22         | 8.694 mg/kg    | 0.000869 %   |                      |            |                |
| 24     | cadmium { cadmium oxide }                                                                                                | 048-002-00-0 | 215-146-2                                                        |          | <0.2 mg/kg        | 1.142        | <0.228 mg/kg   | <0.0000228 % |                      |            | <LOD           |
| 25     | chromium in chromium(VI) compounds { chromium(VI) oxide }                                                                | 024-001-00-0 | 215-607-8                                                        |          | <1.2 mg/kg        | 1.923        | <2.308 mg/kg   | <0.000231 %  |                      |            | <LOD           |
| 26     | copper { dicopper oxide; copper (I) oxide }                                                                              | 029-002-00-X | 215-270-7                                                        |          | 33 mg/kg          | 1.126        | 37.154 mg/kg   | 0.00372 %    |                      |            |                |
| 27     | lead { lead chromate }                                                                                                   | 082-004-00-2 | 231-846-0                                                        | 1        | 54 mg/kg          | 1.56         | 84.23 mg/kg    | 0.0054 %     |                      |            |                |
| 28     | mercury { mercury dichloride }                                                                                           | 080-010-00-X | 231-299-8                                                        |          | <0.3 mg/kg        | 1.353        | <0.406 mg/kg   | <0.0000406 % |                      |            | <LOD           |
| 29     | nickel { nickel chromate }                                                                                               | 028-035-00-7 | 238-766-5                                                        |          | 93 mg/kg          | 2.976        | 276.793 mg/kg  | 0.0277 %     |                      |            |                |
| 30     | selenium { selenium compounds with the exception of cadmium sulphoselenide and those specified elsewhere in this Annex } | 034-002-00-8 |                                                                  |          | <1 mg/kg          | 1.405        | <1.405 mg/kg   | <0.000141 %  |                      |            | <LOD           |
| 31     | vanadium { divanadium pentaoxide; vanadium pentoxide }                                                                   | 023-001-00-8 | 215-239-8                                                        |          | 85 mg/kg          | 1.785        | 151.741 mg/kg  | 0.0152 %     |                      |            |                |
| 32     | zinc { zinc chromate }                                                                                                   | 024-007-00-3 | 236-878-9                                                        |          | 130 mg/kg         | 2.774        | 360.639 mg/kg  | 0.0361 %     |                      |            |                |
| 33     | benzene                                                                                                                  | 601-020-00-8 | 200-753-7                                                        |          | <1 mg/kg          |              | <1 mg/kg       | <0.0001 %    |                      |            | <LOD           |
| 34     | toluene                                                                                                                  | 601-021-00-3 | 203-625-9                                                        |          | <1 mg/kg          |              | <1 mg/kg       | <0.0001 %    |                      |            | <LOD           |
| 35     | ethylbenzene                                                                                                             | 601-023-00-4 | 202-849-4                                                        |          | <1 mg/kg          |              | <1 mg/kg       | <0.0001 %    |                      |            | <LOD           |
| 36     | o-xylene; [1] p-xylene; [2] m-xylene; [3] xylene [4]                                                                     | 601-022-00-9 | 202-422-2 [1]<br>203-396-5 [2]<br>203-576-3 [3]<br>215-535-7 [4] |          | <1 mg/kg          |              | <1 mg/kg       | <0.0001 %    |                      |            | <LOD           |
| 37     | polychlorobiphenyls; PCB                                                                                                 | 602-039-00-4 | 215-648-1                                                        |          | <0.007 mg/kg      |              | <0.007 mg/kg   | <0.0000007 % |                      |            | <LOD           |
| 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                                                                                                        |
| ND          | Not detected                                                                                                                    |
| CLP: Note 1 | Only the metal concentration has been used for classification                                                                   |

## Classification of sample: HP04

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

## Sample details

|                   |                                                                                                    |
|-------------------|----------------------------------------------------------------------------------------------------|
| Sample name:      | LoW Code:                                                                                          |
| <b>HP04</b>       | 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)                           |
| <b>0.20 m</b>     |                                                                                                    |
| Moisture content: |                                                                                                    |
| <b>12%</b>        |                                                                                                    |
| (no correction)   |                                                                                                    |

## Hazard properties

None identified

## Determinands

Moisture content: **12% 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  | phenol                             |           |            |          | <1 mg/kg          |              | <1             | mg/kg | <0.0001 %            |            | <LOD           |
|    | 604-001-00-2                       | 203-632-7 | 108-95-2   |          |                   |              |                |       |                      |            |                |
| 3  | naphthalene                        |           |            |          | <0.05 mg/kg       |              | <0.05          | mg/kg | <0.000005 %          |            | <LOD           |
|    | 601-052-00-2                       | 202-049-5 | 91-20-3    |          |                   |              |                |       |                      |            |                |
| 4  | • acenaphthylene                   |           |            |          | <0.05 mg/kg       |              | <0.05          | mg/kg | <0.000005 %          |            | <LOD           |
|    |                                    | 205-917-1 | 208-96-8   |          |                   |              |                |       |                      |            |                |
| 5  | • acenaphthene                     |           |            |          | <0.05 mg/kg       |              | <0.05          | mg/kg | <0.000005 %          |            | <LOD           |
|    |                                    | 201-469-6 | 83-32-9    |          |                   |              |                |       |                      |            |                |
| 6  | • fluorene                         |           |            |          | <0.05 mg/kg       |              | <0.05          | mg/kg | <0.000005 %          |            | <LOD           |
|    |                                    | 201-695-5 | 86-73-7    |          |                   |              |                |       |                      |            |                |
| 7  | • phenanthrene                     |           |            |          | <0.05 mg/kg       |              | <0.05          | mg/kg | <0.000005 %          |            | <LOD           |
|    |                                    | 201-581-5 | 85-01-8    |          |                   |              |                |       |                      |            |                |
| 8  | • anthracene                       |           |            |          | <0.05 mg/kg       |              | <0.05          | mg/kg | <0.000005 %          |            | <LOD           |
|    |                                    | 204-371-1 | 120-12-7   |          |                   |              |                |       |                      |            |                |
| 9  | • fluoranthene                     |           |            |          | 0.51 mg/kg        |              | 0.51           | mg/kg | 0.000051 %           |            |                |
|    |                                    | 205-912-4 | 206-44-0   |          |                   |              |                |       |                      |            |                |
| 10 | • pyrene                           |           |            |          | 0.47 mg/kg        |              | 0.47           | mg/kg | 0.000047 %           |            |                |
|    |                                    | 204-927-3 | 129-00-0   |          |                   |              |                |       |                      |            |                |
| 11 | benzo[a]anthracene                 |           |            |          | 0.39 mg/kg        |              | 0.39           | mg/kg | 0.000039 %           |            |                |
|    | 601-033-00-9                       | 200-280-6 | 56-55-3    |          |                   |              |                |       |                      |            |                |
| 12 | chrysene                           |           |            |          | 0.4 mg/kg         |              | 0.4            | mg/kg | 0.00004 %            |            |                |
|    | 601-048-00-0                       | 205-923-4 | 218-01-9   |          |                   |              |                |       |                      |            |                |
| 13 | benzo[b]fluoranthene               |           |            |          | 0.59 mg/kg        |              | 0.59           | mg/kg | 0.000059 %           |            |                |
|    | 601-034-00-4                       | 205-911-9 | 205-99-2   |          |                   |              |                |       |                      |            |                |
| 14 | benzo[k]fluoranthene               |           |            |          | 0.23 mg/kg        |              | 0.23           | mg/kg | 0.000023 %           |            |                |
|    | 601-036-00-5                       | 205-916-6 | 207-08-9   |          |                   |              |                |       |                      |            |                |
| 15 | benzo[a]pyrene; benzo[def]chrysene |           |            |          | 0.58 mg/kg        |              | 0.58           | mg/kg | 0.000058 %           |            |                |
|    | 601-032-00-3                       | 200-028-5 | 50-32-8    |          |                   |              |                |       |                      |            |                |
| 16 | • indeno[123-cd]pyrene             |           |            |          | 0.3 mg/kg         |              | 0.3            | mg/kg | 0.00003 %            |            |                |
|    |                                    | 205-893-2 | 193-39-5   |          |                   |              |                |       |                      |            |                |
| 17 | dibenz[a,h]anthracene              |           |            |          | <0.05 mg/kg       |              | <0.05          | mg/kg | <0.000005 %          |            | <LOD           |
|    | 601-041-00-2                       | 200-181-8 | 53-70-3    |          |                   |              |                |       |                      |            |                |

| #      | 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 |            |                   |              |                |                      |            |                |
| 18     | benzo[ghi]perylene                                                                                                       | 205-883-8    | 191-24-2   |            | 0.41 mg/kg        |              | 0.41 mg/kg     | 0.000041 %           |            |                |
| 19     | coronene                                                                                                                 | 205-881-7    | 191-07-1   |            | <0.05 mg/kg       |              | <0.05 mg/kg    | <0.000005 %          |            | <LOD           |
| 20     | arsenic { arsenic trioxide }                                                                                             | 033-003-00-0 | 215-481-4  | 1327-53-3  | 20 mg/kg          | 1.32         | 26.407 mg/kg   | 0.00264 %            |            |                |
| 21     | barium { barium carbonate }                                                                                              | 056-003-00-2 | 208-167-3  | 513-77-9   | 110 mg/kg         | 1.437        | 158.068 mg/kg  | 0.0158 %             |            |                |
| 22     | beryllium { beryllium oxide }                                                                                            | 004-003-00-8 | 215-133-1  | 1304-56-9  | 1.6 mg/kg         | 2.775        | 4.441 mg/kg    | 0.000444 %           |            |                |
| 23     | boron { diboron trioxide; boric oxide }                                                                                  | 005-008-00-8 | 215-125-8  | 1303-86-2  | 2.7 mg/kg         | 3.22         | 8.694 mg/kg    | 0.000869 %           |            |                |
| 24     | cadmium { cadmium oxide }                                                                                                | 048-002-00-0 | 215-146-2  | 1306-19-0  | <0.2 mg/kg        | 1.142        | <0.228 mg/kg   | <0.0000228 %         |            | <LOD           |
| 25     | chromium in chromium(VI) compounds { chromium(VI) oxide }                                                                | 024-001-00-0 | 215-607-8  | 1333-82-0  | <1.2 mg/kg        | 1.923        | <2.308 mg/kg   | <0.000231 %          |            | <LOD           |
| 26     | copper { dicopper oxide; copper (I) oxide }                                                                              | 029-002-00-X | 215-270-7  | 1317-39-1  | 30 mg/kg          | 1.126        | 33.777 mg/kg   | 0.00338 %            |            |                |
| 27     | lead { lead chromate }                                                                                                   | 082-004-00-2 | 231-846-0  | 7758-97-6  | 140 mg/kg         | 1.56         | 218.374 mg/kg  | 0.014 %              |            |                |
| 28     | mercury { mercury dichloride }                                                                                           | 080-010-00-X | 231-299-8  | 7487-94-7  | <0.3 mg/kg        | 1.353        | <0.406 mg/kg   | <0.0000406 %         |            | <LOD           |
| 29     | nickel { nickel chromate }                                                                                               | 028-035-00-7 | 238-766-5  | 14721-18-7 | 32 mg/kg          | 2.976        | 95.24 mg/kg    | 0.00952 %            |            |                |
| 30     | selenium { selenium compounds with the exception of cadmium sulphoselenide and those specified elsewhere in this Annex } | 034-002-00-8 |            |            | <1 mg/kg          | 1.405        | <1.405 mg/kg   | <0.000141 %          |            | <LOD           |
| 31     | vanadium { divanadium pentaoxide; vanadium pentoxide }                                                                   | 023-001-00-8 | 215-239-8  | 1314-62-1  | 46 mg/kg          | 1.785        | 82.119 mg/kg   | 0.00821 %            |            |                |
| 32     | zinc { zinc chromate }                                                                                                   | 024-007-00-3 | 236-878-9  | 13530-65-9 | 210 mg/kg         | 2.774        | 582.571 mg/kg  | 0.0583 %             |            |                |
| Total: |                                                                                                                          |              |            |            |                   |              |                | 0.114 %              |            |                |

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                                                                                                        |
| ND          | Not detected                                                                                                                    |
| CLP: Note 1 | Only the metal concentration has been used for classification                                                                   |

## Classification of sample: HP05

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

## Sample details

|                   |                                                                                           |
|-------------------|-------------------------------------------------------------------------------------------|
| Sample name:      | LoW Code:                                                                                 |
| <b>HP05</b>       | Chapter:                                                                                  |
| Sample Depth:     | 17: Construction and Demolition Wastes (including excavated soil from contaminated sites) |
| <b>0.10 m</b>     | Entry:                                                                                    |
| Moisture content: | 17 05 04 (Soil and stones other than those mentioned in 17 05 03)                         |
| <b>15%</b>        |                                                                                           |
| (no correction)   |                                                                                           |

## Hazard properties

None identified

## Determinands

Moisture content: **15% 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  | phenol                             |           |            |          | <1 mg/kg          |              | <1 mg/kg       | <0.0001 %            |            | <LOD           |
|    | 604-001-00-2                       | 203-632-7 | 108-95-2   |          |                   |              |                |                      |            |                |
| 3  | naphthalene                        |           |            |          | <0.05 mg/kg       |              | <0.05 mg/kg    | <0.000005 %          |            | <LOD           |
|    | 601-052-00-2                       | 202-049-5 | 91-20-3    |          |                   |              |                |                      |            |                |
| 4  | acenaphthylene                     |           |            |          | <0.05 mg/kg       |              | <0.05 mg/kg    | <0.000005 %          |            | <LOD           |
|    |                                    | 205-917-1 | 208-96-8   |          |                   |              |                |                      |            |                |
| 5  | acenaphthene                       |           |            |          | <0.05 mg/kg       |              | <0.05 mg/kg    | <0.000005 %          |            | <LOD           |
|    |                                    | 201-469-6 | 83-32-9    |          |                   |              |                |                      |            |                |
| 6  | fluorene                           |           |            |          | <0.05 mg/kg       |              | <0.05 mg/kg    | <0.000005 %          |            | <LOD           |
|    |                                    | 201-695-5 | 86-73-7    |          |                   |              |                |                      |            |                |
| 7  | phenanthrene                       |           |            |          | <0.05 mg/kg       |              | <0.05 mg/kg    | <0.000005 %          |            | <LOD           |
|    |                                    | 201-581-5 | 85-01-8    |          |                   |              |                |                      |            |                |
| 8  | anthracene                         |           |            |          | <0.05 mg/kg       |              | <0.05 mg/kg    | <0.000005 %          |            | <LOD           |
|    |                                    | 204-371-1 | 120-12-7   |          |                   |              |                |                      |            |                |
| 9  | fluoranthene                       |           |            |          | 0.34 mg/kg        |              | 0.34 mg/kg     | 0.000034 %           |            |                |
|    |                                    | 205-912-4 | 206-44-0   |          |                   |              |                |                      |            |                |
| 10 | pyrene                             |           |            |          | 0.29 mg/kg        |              | 0.29 mg/kg     | 0.000029 %           |            |                |
|    |                                    | 204-927-3 | 129-00-0   |          |                   |              |                |                      |            |                |
| 11 | benzo[a]anthracene                 |           |            |          | 0.24 mg/kg        |              | 0.24 mg/kg     | 0.000024 %           |            |                |
|    | 601-033-00-9                       | 200-280-6 | 56-55-3    |          |                   |              |                |                      |            |                |
| 12 | chrysene                           |           |            |          | 0.22 mg/kg        |              | 0.22 mg/kg     | 0.000022 %           |            |                |
|    | 601-048-00-0                       | 205-923-4 | 218-01-9   |          |                   |              |                |                      |            |                |
| 13 | benzo[b]fluoranthene               |           |            |          | <0.05 mg/kg       |              | <0.05 mg/kg    | <0.000005 %          |            | <LOD           |
|    | 601-034-00-4                       | 205-911-9 | 205-99-2   |          |                   |              |                |                      |            |                |
| 14 | benzo[k]fluoranthene               |           |            |          | <0.05 mg/kg       |              | <0.05 mg/kg    | <0.000005 %          |            | <LOD           |
|    | 601-036-00-5                       | 205-916-6 | 207-08-9   |          |                   |              |                |                      |            |                |
| 15 | benzo[a]pyrene; benzo[def]chrysene |           |            |          | <0.05 mg/kg       |              | <0.05 mg/kg    | <0.000005 %          |            | <LOD           |
|    | 601-032-00-3                       | 200-028-5 | 50-32-8    |          |                   |              |                |                      |            |                |
| 16 | indeno[123-cd]pyrene               |           |            |          | <0.05 mg/kg       |              | <0.05 mg/kg    | <0.000005 %          |            | <LOD           |
|    |                                    | 205-893-2 | 193-39-5   |          |                   |              |                |                      |            |                |
| 17 | dibenz[a,h]anthracene              |           |            |          | <0.05 mg/kg       |              | <0.05 mg/kg    | <0.000005 %          |            | <LOD           |
|    | 601-041-00-2                       | 200-181-8 | 53-70-3    |          |                   |              |                |                      |            |                |

| #      | 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 |          |                   |              |                |                      |            |                |
| 18     | benzo[ghi]perylene                                                                                                       | 205-883-8    | 191-24-2   |          | <0.05 mg/kg       |              | <0.05 mg/kg    | <0.000005 %          |            | <LOD           |
| 19     | coronene                                                                                                                 | 205-881-7    | 191-07-1   |          | <0.05 mg/kg       |              | <0.05 mg/kg    | <0.000005 %          |            | <LOD           |
| 20     | arsenic { arsenic trioxide }                                                                                             | 033-003-00-0 | 215-481-4  |          | 19 mg/kg          | 1.32         | 25.086 mg/kg   | 0.00251 %            |            |                |
| 21     | barium { barium carbonate }                                                                                              | 056-003-00-2 | 208-167-3  |          | 140 mg/kg         | 1.437        | 201.177 mg/kg  | 0.0201 %             |            |                |
| 22     | beryllium { beryllium oxide }                                                                                            | 004-003-00-8 | 215-133-1  |          | 1.8 mg/kg         | 2.775        | 4.996 mg/kg    | 0.0005 %             |            |                |
| 23     | boron { diboron trioxide; boric oxide }                                                                                  | 005-008-00-8 | 215-125-8  |          | 3.1 mg/kg         | 3.22         | 9.982 mg/kg    | 0.000998 %           |            |                |
| 24     | cadmium { cadmium oxide }                                                                                                | 048-002-00-0 | 215-146-2  |          | 0.7 mg/kg         | 1.142        | 0.8 mg/kg      | 0.00008 %            |            |                |
| 25     | chromium in chromium(VI) compounds { chromium(VI) oxide }                                                                | 024-001-00-0 | 215-607-8  |          | <1.2 mg/kg        | 1.923        | <2.308 mg/kg   | <0.000231 %          |            | <LOD           |
| 26     | copper { dicopper oxide; copper (I) oxide }                                                                              | 029-002-00-X | 215-270-7  |          | 34 mg/kg          | 1.126        | 38.28 mg/kg    | 0.00383 %            |            |                |
| 27     | lead { lead chromate }                                                                                                   | 082-004-00-2 | 231-846-0  | 1        | 180 mg/kg         | 1.56         | 280.767 mg/kg  | 0.018 %              |            |                |
| 28     | mercury { mercury dichloride }                                                                                           | 080-010-00-X | 231-299-8  |          | <0.3 mg/kg        | 1.353        | <0.406 mg/kg   | <0.0000406 %         |            | <LOD           |
| 29     | nickel { nickel chromate }                                                                                               | 028-035-00-7 | 238-766-5  |          | 36 mg/kg          | 2.976        | 107.146 mg/kg  | 0.0107 %             |            |                |
| 30     | selenium { selenium compounds with the exception of cadmium sulphoselenide and those specified elsewhere in this Annex } | 034-002-00-8 |            |          | <1 mg/kg          | 1.405        | <1.405 mg/kg   | <0.000141 %          |            | <LOD           |
| 31     | vanadium { divanadium pentaoxide; vanadium pentoxide }                                                                   | 023-001-00-8 | 215-239-8  |          | 53 mg/kg          | 1.785        | 94.615 mg/kg   | 0.00946 %            |            |                |
| 32     | zinc { zinc chromate }                                                                                                   | 024-007-00-3 | 236-878-9  |          | 150 mg/kg         | 2.774        | 416.122 mg/kg  | 0.0416 %             |            |                |
| Total: |                                                                                                                          |              |            |          |                   |              |                | 0.109 %              |            |                |

#### 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
- ND Not detected
- CLP: Note 1 Only the metal concentration has been used for classification

## Classification of sample: HP06

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

## Sample details

|                   |                                                                                                    |
|-------------------|----------------------------------------------------------------------------------------------------|
| Sample name:      | LoW Code:                                                                                          |
| <b>HP06</b>       | 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)                           |
| <b>0.30 m</b>     |                                                                                                    |
| Moisture content: |                                                                                                    |
| <b>20%</b>        |                                                                                                    |
| (no correction)   |                                                                                                    |

## Hazard properties

None identified

## Determinands

Moisture content: 20% 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                                 |           |            |          | 7.7 pH            |              | 7.7 pH         | 7.7 pH               |            |                |
| 2  | phenol                             |           |            |          | <1 mg/kg          |              | <1 mg/kg       | <0.0001 %            |            | <LOD           |
|    | 604-001-00-2                       | 203-632-7 | 108-95-2   |          |                   |              |                |                      |            |                |
| 3  | naphthalene                        |           |            |          | <0.05 mg/kg       |              | <0.05 mg/kg    | <0.000005 %          |            | <LOD           |
|    | 601-052-00-2                       | 202-049-5 | 91-20-3    |          |                   |              |                |                      |            |                |
| 4  | acenaphthylene                     |           |            |          | <0.05 mg/kg       |              | <0.05 mg/kg    | <0.000005 %          |            | <LOD           |
|    |                                    | 205-917-1 | 208-96-8   |          |                   |              |                |                      |            |                |
| 5  | acenaphthene                       |           |            |          | <0.05 mg/kg       |              | <0.05 mg/kg    | <0.000005 %          |            | <LOD           |
|    |                                    | 201-469-6 | 83-32-9    |          |                   |              |                |                      |            |                |
| 6  | fluorene                           |           |            |          | <0.05 mg/kg       |              | <0.05 mg/kg    | <0.000005 %          |            | <LOD           |
|    |                                    | 201-695-5 | 86-73-7    |          |                   |              |                |                      |            |                |
| 7  | phenanthrene                       |           |            |          | 0.3 mg/kg         |              | 0.3 mg/kg      | 0.00003 %            |            |                |
|    |                                    | 201-581-5 | 85-01-8    |          |                   |              |                |                      |            |                |
| 8  | anthracene                         |           |            |          | <0.05 mg/kg       |              | <0.05 mg/kg    | <0.000005 %          |            | <LOD           |
|    |                                    | 204-371-1 | 120-12-7   |          |                   |              |                |                      |            |                |
| 9  | fluoranthene                       |           |            |          | 0.59 mg/kg        |              | 0.59 mg/kg     | 0.000059 %           |            |                |
|    |                                    | 205-912-4 | 206-44-0   |          |                   |              |                |                      |            |                |
| 10 | pyrene                             |           |            |          | 0.54 mg/kg        |              | 0.54 mg/kg     | 0.000054 %           |            |                |
|    |                                    | 204-927-3 | 129-00-0   |          |                   |              |                |                      |            |                |
| 11 | benzo[a]anthracene                 |           |            |          | 0.39 mg/kg        |              | 0.39 mg/kg     | 0.000039 %           |            |                |
|    | 601-033-00-9                       | 200-280-6 | 56-55-3    |          |                   |              |                |                      |            |                |
| 12 | chrysene                           |           |            |          | 0.39 mg/kg        |              | 0.39 mg/kg     | 0.000039 %           |            |                |
|    | 601-048-00-0                       | 205-923-4 | 218-01-9   |          |                   |              |                |                      |            |                |
| 13 | benzo[b]fluoranthene               |           |            |          | 0.44 mg/kg        |              | 0.44 mg/kg     | 0.000044 %           |            |                |
|    | 601-034-00-4                       | 205-911-9 | 205-99-2   |          |                   |              |                |                      |            |                |
| 14 | benzo[k]fluoranthene               |           |            |          | 0.26 mg/kg        |              | 0.26 mg/kg     | 0.000026 %           |            |                |
|    | 601-036-00-5                       | 205-916-6 | 207-08-9   |          |                   |              |                |                      |            |                |
| 15 | benzo[a]pyrene; benzo[def]chrysene |           |            |          | 0.48 mg/kg        |              | 0.48 mg/kg     | 0.000048 %           |            |                |
|    | 601-032-00-3                       | 200-028-5 | 50-32-8    |          |                   |              |                |                      |            |                |
| 16 | indeno[123-cd]pyrene               |           |            |          | 0.22 mg/kg        |              | 0.22 mg/kg     | 0.000022 %           |            |                |
|    |                                    | 205-893-2 | 193-39-5   |          |                   |              |                |                      |            |                |
| 17 | dibenz[a,h]anthracene              |           |            |          | <0.05 mg/kg       |              | <0.05 mg/kg    | <0.000005 %          |            | <LOD           |
|    | 601-041-00-2                       | 200-181-8 | 53-70-3    |          |                   |              |                |                      |            |                |

| #      | 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 |            |                   |              |                |                      |            |                |
| 18     | benzo[ghi]perylene                                                                                                       | 205-883-8    | 191-24-2   |            | 0.27 mg/kg        |              | 0.27 mg/kg     | 0.000027 %           |            |                |
| 19     | coronene                                                                                                                 | 205-881-7    | 191-07-1   |            | <0.05 mg/kg       |              | <0.05 mg/kg    | <0.000005 %          |            | <LOD           |
| 20     | arsenic { arsenic trioxide }                                                                                             | 033-003-00-0 | 215-481-4  | 1327-53-3  | 18 mg/kg          | 1.32         | 23.766 mg/kg   | 0.00238 %            |            |                |
| 21     | barium { barium carbonate }                                                                                              | 056-003-00-2 | 208-167-3  | 513-77-9   | 190 mg/kg         | 1.437        | 273.026 mg/kg  | 0.0273 %             |            |                |
| 22     | beryllium { beryllium oxide }                                                                                            | 004-003-00-8 | 215-133-1  | 1304-56-9  | 1.9 mg/kg         | 2.775        | 5.273 mg/kg    | 0.000527 %           |            |                |
| 23     | boron { diboron trioxide; boric oxide }                                                                                  | 005-008-00-8 | 215-125-8  | 1303-86-2  | 2 mg/kg           | 3.22         | 6.44 mg/kg     | 0.000644 %           |            |                |
| 24     | cadmium { cadmium oxide }                                                                                                | 048-002-00-0 | 215-146-2  | 1306-19-0  | 0.6 mg/kg         | 1.142        | 0.685 mg/kg    | 0.0000685 %          |            |                |
| 25     | chromium in chromium(VI) compounds { chromium(VI) oxide }                                                                | 024-001-00-0 | 215-607-8  | 1333-82-0  | <1.2 mg/kg        | 1.923        | <2.308 mg/kg   | <0.000231 %          |            | <LOD           |
| 26     | copper { dicopper oxide; copper (I) oxide }                                                                              | 029-002-00-X | 215-270-7  | 1317-39-1  | 53 mg/kg          | 1.126        | 59.672 mg/kg   | 0.00597 %            |            |                |
| 27     | lead { lead chromate }                                                                                                   | 082-004-00-2 | 231-846-0  | 7758-97-6  | 120 mg/kg         | 1.56         | 187.178 mg/kg  | 0.012 %              |            |                |
| 28     | mercury { mercury dichloride }                                                                                           | 080-010-00-X | 231-299-8  | 7487-94-7  | <0.3 mg/kg        | 1.353        | <0.406 mg/kg   | <0.0000406 %         |            | <LOD           |
| 29     | nickel { nickel chromate }                                                                                               | 028-035-00-7 | 238-766-5  | 14721-18-7 | 39 mg/kg          | 2.976        | 116.074 mg/kg  | 0.0116 %             |            |                |
| 30     | selenium { selenium compounds with the exception of cadmium sulphoselenide and those specified elsewhere in this Annex } | 034-002-00-8 |            |            | <1 mg/kg          | 1.405        | <1.405 mg/kg   | <0.000141 %          |            | <LOD           |
| 31     | vanadium { divanadium pentaoxide; vanadium pentoxide }                                                                   | 023-001-00-8 | 215-239-8  | 1314-62-1  | 54 mg/kg          | 1.785        | 96.4 mg/kg     | 0.00964 %            |            |                |
| 32     | zinc { zinc chromate }                                                                                                   | 024-007-00-3 | 236-878-9  | 13530-65-9 | 120 mg/kg         | 2.774        | 332.898 mg/kg  | 0.0333 %             |            |                |
| Total: |                                                                                                                          |              |            |            |                   |              |                | 0.104 %              |            |                |

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                                                                                                        |
| ND          | Not detected                                                                                                                    |
| CLP: Note 1 | Only the metal concentration has been used for classification                                                                   |

## 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.

### • 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

### • 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

### • 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

### • 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

### • 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

### • 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

### • 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

### • 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

### • 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

• **coronene** (EC Number: 205-881-7, CAS Number: 191-07-1)

Description/Comments: Data from C&L Inventory Database; no entries in Registered Substances or Pesticides Properties databases; SDS: Sigma Aldrich, 1907/2006 compliant, dated 2012 - no entries; IARC – Group 3, not carcinogenic.

Data source: <http://clp-inventory.echa.europa.eu/SummaryOfClassAndLabelling.aspx?SubstanceID=17010&HarmOnly=no?fc=true&lang=en>

Data source date: 16 Jun 2014

Hazard Statements: STOT SE 2; H371

• **divanadium pentaoxide; vanadium pentoxide** (EC Number: 215-239-8, CAS Number: 1314-62-1)

GB MCL index number: 023-001-00-8

Description/Comments:

Additional Hazard Statement(s): Carc. 1B; H350 , Acute Tox. 3; H301 , Acute Tox. 2; H330

Reason for additional Hazards Statement(s):

20 Sep 2022 - Carc. 1B; H350 hazard statement sourced from: ATP 18 (Regulation (EU) 2022/692) considers vanadium pentoxide to be Carc. 1B; H350. The GB MCL Agency has reached the same opinion [but is yet to formerly make this change to the MCL List].

Substance has therefore been self-classified.

28 Sep 2022 - Acute Tox. 3; H301 hazard statement sourced from: ATP 18 (Regulation (EU) 2022/692) considers vanadium pentoxide to be "Acute tox 3; H301". The GB MCL Agency has reached the same opinion [but is yet to formerly make this change to the MCL List].

Substance has therefore been self-classified.

28 Sep 2022 - Acute Tox. 2; H330 hazard statement sourced from: ATP 18 (Regulation (EU) 2022/692) considers vanadium pentoxide to be "Acute tox 2; H330". The GB MCL Agency has reached the same opinion [but is yet to formerly make this change to the MCL List].

Substance has therefore been self-classified.

• **ethylbenzene** (EC Number: 202-849-4, CAS Number: 100-41-4)

GB MCL index number: 601-023-00-4

Description/Comments:

Additional Hazard Statement(s): Carc. 2; H351

Reason for additional Hazards Statement(s):

20 Nov 2021 - Carc. 2; H351 hazard statement sourced from: IARC Group 2B (77) 2000

• **polychlorobiphenyls; PCB** (EC Number: 215-648-1, CAS Number: 1336-36-3)

GB MCL index number: 602-039-00-4

Description/Comments: Worst Case: IARC considers PCB Group 1; Carcinogenic to humans; POP specific threshold from ATP1 (Regulation 756/2010/EU) to POPs Regulation (Regulation 850/2004/EC). Where applicable, the calculation method laid down in European standards EN 12766-1 and EN 12766-2 shall be applied.

Additional Hazard Statement(s): Carc. 1A; H350

Reason for additional Hazards Statement(s):

20 Nov 2021 - Carc. 1A; H350 hazard statement sourced from: IARC Group 1 (23, Sup 7, 100C) 2012

## Appendix B: Rationale for selection of metal species

### arsenic {arsenic trioxide}

Reasonable case CLP species based on hazard statements/molecular weight and most common (stable) oxide of arsenic. Industrial sources include: smelting; main precursor to other arsenic compounds (edit as required)

### barium {barium carbonate}

No hexavalent chromium detected.

### beryllium {beryllium oxide}

Reasonable case CLP species based on hazard statements/molecular weight. Industrial sources include: most common (non alloy) form, used in ceramics (edit as required)

### boron {diboron trioxide; boric oxide}

Reasonable case CLP species based on hazard statements/ molecular weight, physical form and low solubility. Industrial sources include: fluxing agent for glass/enamels; additive for fibre optics, borosilicate glass (edit as required)

### cadmium {cadmium oxide}

Reasonable case CLP species based on hazard statements/molecular weight, very low solubility in water. Industrial sources include: electroplating baths, electrodes for storage batteries, catalysts, ceramic glazes, phosphors, pigments and nematocides. (edit as required) Worst case compounds in CLP: cadmium sulphate, chloride, fluoride & iodide not expected as either very soluble and/or compound's industrial usage not related to site history (edit as required)

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

Worst case CLP species based on hazard statements/molecular weight. Industrial sources include: production stainless steel, electroplating, wood preservation, anti-corrosion agents or coatings, pigments (edit as required)

### copper {dicopper oxide; copper (I) oxide}

Reasonable case CLP species based on hazard statements/molecular weight and insolubility in water. Industrial sources include: oxidised copper metal, brake pads, pigments, antifouling paints, fungicide. (edit as required) Worse case copper sulphate is very soluble and likely to have been leached away if ever present and/or not enough soluble sulphate detected. (edit as required)

#### lead {lead chromate}

Worst case CLP species based on hazard statements/molecular weight (edit as required)

#### mercury {mercury dichloride}

Worst case CLP species based on hazard statements/molecular weight (edit as required)

#### nickel {nickel chromate}

Worst case CLP species based on hazard statements/molecular weight (edit as required)

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

Harmonised group entry used as most reasonable case. Pigment cadmium sulphoselenide not likely to be present in this soil. No evidence for the other CLP entries: sodium selenite, nickel II selenite and nickel selenide, to be present in this soil. (edit as required)

#### vanadium {divanadium pentaoxide; vanadium pentoxide}

Worst case CLP species based on hazard statements/molecular weight (edit as required)

#### zinc {zinc chromate}

Worst case CLP species based on hazard statements/molecular weight (edit as required)

### Appendix C: Version

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

HazWasteOnline Classification Engine Version: 2022.263.5340.9974 (20 Sep 2022)

HazWasteOnline Database: 2022.273.5362.10003 (03 Oct 2022)

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

**WASTE ACCEPTANCE CRITERIA  
(WAC) ASSESSMENT**

Site: LS6199 - Hitchin Road, Preston  
Date: 21/10/2022



| Assesment Criteria | Inert Waste Landfill | SNRHW Landfill  | Hazardous Waste Landfill | Sample                                        | Position                              | HP02          | HP03          | - | - | - | - | - |
|--------------------|----------------------|-----------------|--------------------------|-----------------------------------------------|---------------------------------------|---------------|---------------|---|---|---|---|---|
|                    |                      |                 |                          |                                               | Depth                                 | 0.10          | 0.40          | - | - | - | - | - |
|                    |                      |                 |                          |                                               | Sample ref                            | None Supplied | None Supplied | - | - | - | - | - |
|                    |                      |                 |                          |                                               | Preliminary Hazardous Assessment*     | Non-Hazardous | Non-Hazardous |   |   |   |   |   |
|                    | --                   | 6.0             | --                       | Solid Analysis                                | pH (units)                            | 8             | 8.2           | - | - | - | - | - |
|                    | 3                    | 5               | 6                        |                                               | Total Organic Carbon (TOC) (%)        | 1.4           | 1.1           | - | - | - | - | - |
|                    | --                   | --              | 10                       |                                               | Loss on Ignition @ 450oC (%)          | 2.9           | 5.4           | - | - | - | - | - |
|                    | --                   | to be evaluated |                          |                                               | Acid Neutralisation Capacity (mol/kg) | 6.8           | 4.7           | - | - | - | - | - |
|                    | 6000                 | --              | --                       |                                               | BTEX (µg/kg)                          | 0             | 0             | - | - | - | - | - |
|                    | 1                    | --              | --                       |                                               | Total PCB's (mg/kg)                   | < 0.007       | < 0.007       | - | - | - | - | - |
|                    | 500                  | --              | --                       |                                               | Mineral Oil (mg/kg)                   | < 0.001       | < 0.001       | - | - | - | - | - |
|                    | 100                  | --              | --                       |                                               | Total PAH (mg/kg)                     | < 0.85        | < 0.85        | - | - | - | - | - |
|                    | 0.50                 | 2               | 25                       | 10:1 WAC Leachate Analysis (mg/kg equivalent) | Arsenic                               | 0.0848        | 0.468         | - | - | - | - | - |
|                    | 20                   | 100             | 300                      |                                               | Barium                                | 0.134         | 0.0608        | - | - | - | - | - |
|                    | 0.0400               | 1               | 5                        |                                               | Cadmium                               | < 0.0008      | < 0.0008      | - | - | - | - | - |
|                    | 0.5                  | 10              | 70                       |                                               | Chromium                              | 0.0078        | 0.0047        | - | - | - | - | - |
|                    | 2                    | 50              | 100                      |                                               | Copper                                | 0.25          | 0.06          | - | - | - | - | - |
|                    | 0.01                 | 0.2             | 2                        |                                               | Mercury                               | < 0.0050      | < 0.0050      | - | - | - | - | - |
|                    | 0.500                | 10              | 30                       |                                               | Molybdenum                            | 0.0179        | 0.028         | - | - | - | - | - |
|                    | 0.400                | 10              | 40                       |                                               | Nickel                                | 0.052         | 0.046         | - | - | - | - | - |
| 0.5                | 10                   | 50              | Lead                     |                                               | 0.064                                 | 0.038         | -             | - | - | - | - |   |
| 0.060              | 0.7                  | 5               | Antimony                 |                                               | < 0.017                               | < 0.017       | -             | - | - | - | - |   |
| 0.10               | 0.5                  | 7               | Selenium                 |                                               | < 0.040                               | < 0.040       | -             | - | - | - | - |   |
| 4                  | 50                   | 200             | Zinc                     |                                               | 0.19                                  | 0.044         | -             | - | - | - | - |   |
| 800                | 15000                | 25000           | Chloride                 |                                               | 9.8                                   | 9.9           | -             | - | - | - | - |   |
| 10                 | 150                  | 500             | Fluoride                 |                                               | 38                                    | < 0.50        | -             | - | - | - | - |   |
| 1000               | 20000                | 50000           | Sulphate                 |                                               | 45                                    | 12            | -             | - | - | - | - |   |
| 4000               | 60000                | 100000          | Total dissolved solids   |                                               | 590                                   | 450           | -             | - | - | - | - |   |
| 1                  | --                   | --              | Total monohydric phenols |                                               | < 0.10                                | < 0.10        | -             | - | - | - | - |   |
| 500                | 800                  | 1000            | Dissolved organic carbon |                                               | 229                                   | 213           | -             | - | - | - | - |   |
|                    |                      |                 |                          |                                               | Classification                        | Non-Hazardous | Inert         |   |   |   |   |   |

Soils are classified as Hazardous or Non-Hazardous based on the total soils analysis. The WAC test is then used to potentially sub-classify as Inert or Stable Non-Reactive Hazardous Waste (SNRHW). Where a material is Hazardous, a WAC test is mandatory, and where it **exceeds** the Hazardous waste limit, the material must be pre-treated to reduce the hazardous constituents to be below the

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