

Sketchley Lane, Burbage

# REMEDIATION STRATEGY & ENABLING WORKS



Version 1.0

Project no: BSH2226

Date: 5<sup>th</sup> August 2024

**BSH Remediation Limited**  
66 Lightwoods Hill  
Bearwood  
West Midlands  
B67 5EB  
Tel: 0121 434 4509

## QUALITY MANAGEMENT

|                       |                                       |                                                                                       |
|-----------------------|---------------------------------------|---------------------------------------------------------------------------------------|
| <b>REPORT NUMBER:</b> | BSH2226                               |                                                                                       |
| <b>REPORT STATUS:</b> | FINAL                                 |                                                                                       |
| <b>REPORT TYPE:</b>   | REMEDIATION STRATEGY & ENABLING WORKS | REVISION 0                                                                            |
| <b>REPORT DATE:</b>   | AUGUST 2024                           |                                                                                       |
| <b>SITE:</b>          | LAND OFF SKETCHLEY LANE,<br>BURBAGE   |                                                                                       |
| <b>PREPARED FOR:</b>  | PERSIMMON HOMES NORTH<br>MIDLANDS     |                                                                                       |
| <b>PREPARED BY:</b>   | STEPHEN HAYES                         |   |
| <b>REVIEWED BY:</b>   | BRENDAN SMITH                         |  |

This report is written for the sole use of Persimmon Homes and their appointed agents. No other third party may rely on or reproduce the contents of this report without the written approval of BSH Remediation Limited. If any unauthorised third party comes into possession of this report, they rely upon it entirely at their own risk and the authors do not owe them any Duty of Care or Skill.



# REMEDIATION STRATEGY & ENABLING WORKS REPORT FOR REMEDIAL AND PREPARATORY EARTHWORKS

for the site off

SKETCHLEY LANE, BURBAGE

prepared for

PERSIMMON HOMES NORTH MIDLANDS

|            |                                                               |           |
|------------|---------------------------------------------------------------|-----------|
| <b>1.0</b> | <b>INTRODUCTION.....</b>                                      | <b>1</b>  |
| 1.1        | Background .....                                              | 1         |
| 1.2        | Terms of Reference .....                                      | 1         |
| 1.3        | Objectives of the Remediation Strategy & Enabling Works ..... | 1         |
| 1.4        | Parties to the Works .....                                    | 2         |
| <b>2.0</b> | <b>SITE CHARACTERISATION .....</b>                            | <b>3</b>  |
| 2.1        | Introduction.....                                             | 3         |
| 2.2        | Site Description .....                                        | 3         |
| 2.3        | Site History .....                                            | 4         |
| 2.4        | Recorded Geology.....                                         | 4         |
| 2.5        | Hydrology and Hydrogeology .....                              | 4         |
| 2.6        | Sensitive Receptors.....                                      | 5         |
| 2.7        | Radon Risk.....                                               | 5         |
| 2.8        | Site Investigation Reports.....                               | 5         |
| <b>3.0</b> | <b>SITE INVESTIGATION WORKS.....</b>                          | <b>6</b>  |
| 3.1        | Proven Ground Conditions .....                                | 6         |
| 3.2        | Groundwater.....                                              | 6         |
| 3.3        | Contamination Assessment.....                                 | 7         |
| 3.4        | Hazardous Ground Gases / Vapours.....                         | 7         |
| 3.5        | Remediation Recommendations .....                             | 7         |
| <b>4.0</b> | <b>OUTLINE REMEDIATION STRATEGY AND OBJECTIVES.....</b>       | <b>9</b>  |
| 4.1        | Remediation Objectives.....                                   | 9         |
| 4.2        | Regulatory Consultation .....                                 | 9         |
| 4.3        | Earthworks .....                                              | 9         |
| 4.4        | Watching Brief for Contamination .....                        | 10        |
| <b>5.0</b> | <b>GENERAL SITE REQUIREMENTS.....</b>                         | <b>12</b> |
| 5.1        | Health and Safety .....                                       | 12        |
| 5.2        | Mobile Plant.....                                             | 13        |
| 5.3        | Dust.....                                                     | 14        |
| 5.4        | Odour .....                                                   | 14        |
| 5.5        | Noise .....                                                   | 15        |
| 5.6        | Off-site Disposal .....                                       | 15        |

|                                                    |           |
|----------------------------------------------------|-----------|
| <b>6.0 MATERIALS MANAGEMENT PLAN (MMP)</b>         | <b>16</b> |
| 6.1 General                                        | 16        |
| 6.2 Materials permitted for re-use under the MMP   | 16        |
| 6.3 Record keeping for the MMP verification report | 16        |
| <b>7.0 CONTRACTOR'S RESPONSIBILITIES</b>           | <b>18</b> |
| 7.1 Introduction                                   | 18        |
| 7.2 Surveying                                      | 18        |
| 7.3 Testing                                        | 18        |
| 7.4 General                                        | 19        |
| <b>8.0 VALIDATION AND REPORTING</b>                | <b>20</b> |
| <b>9.0 CLEAN COVER SYSTEM VALIDATION</b>           | <b>21</b> |
| 9.1 Clean Cover System Requirements                | 21        |
| 9.2 Chemical Suitability                           | 21        |
| 9.3 Verification of Required Depth                 | 22        |
| <b>10.0 POST RECLAMATION REQUIREMENTS</b>          | <b>23</b> |
| 10.1 Validation Reporting                          | 23        |
| <b>11.0 REGULATORY APPROVAL</b>                    | <b>24</b> |

## TABLES

|                  |                                         |    |
|------------------|-----------------------------------------|----|
| <b>Table 3.1</b> | Summary of Ground Conditions            | 6  |
| <b>Table 3.2</b> | Summary of Groundwater Encountered      | 6  |
| <b>Table 9.1</b> | Clean Cover Layer Thickness             | 21 |
| <b>Table 9.2</b> | Sampling and Testing for Imported Soils | 22 |

## APPENDICES

### APPENDIX A DRAWINGS

| Drawing No.   | Title                          | Scale       |
|---------------|--------------------------------|-------------|
| BSH2226 - 001 | Site Location Plan             | NTS         |
| 234-CP-01     | Charter Plan (Site Layout)     | 1:500 @ A0  |
| P0866-01-002  | Exploratory Hole Location Plan | 1:2500 @ A3 |

### APPENDIX B GEO-ENVIRONMENTAL AND GEOTECHNICAL SITE INVESTIGATIONS

### APPENDIX C CLEAN COVER SCREENING VALUES



## **1.0 INTRODUCTION**

### **1.1 Background**

BSH Remediation Limited were commissioned by Persimmon Homes North Midlands (the “Client”) to prepare a Geoenvironmental appraisal and Remediation Strategy & Enabling Works required to facilitate their proposed residential development of land off Sketchley Lane, Burbage (the “site”). A Site Location Plan is presented as Drawing No. BSH2226-001 within Appendix A.

It is understood that the client is intending to develop the site with 127 No. low-rise residential properties with private gardens and associated infrastructure and parking. The proposed site layout is presented as Drawing No. 234-CP-01 within Appendix A.

### **1.2 Terms of Reference**

The site has been subject to previous site investigations, as detailed below:

- T & P Regeneration Limited, Ground Investigation Report, Sketchley Lane, Burbage Report Reference P0866/CS-1745 dated 28/03/2023; and
- T & P Regeneration Limited, Interpretative Ground Investigation Report, Sketchley Lane, Burbage Report Reference P0866/CS-2132 dated 15/03/2024.

The documents above are the principal sources of information used in the preparation of this Geoenvironmental appraisal and Remediation Strategy and Enabling Works report and should be read in conjunction with this document.

This document summarises the investigative works undertaken to date and details the reclamation works required to provide a site considered suitable for the proposed residential development.

### **1.3 Objectives of the Remediation Strategy & Enabling Works**

The main aims of this Strategy are summarised as follows:

- To characterise the ground conditions at the site and ensure that the ground to be prepared to a condition ready for development which is suitable for the proposed end use (residential properties with gardens and associated infrastructure) whilst ensuring construction workers and environmental receptors are not put at an unacceptable short-term risk during the remediation and redevelopment of the site;
- Construct a development platform suitable for the proposed foundation solutions; and

- To satisfy the Local Planning Authority (LPA) environmental health department and National House Building Council (NHBC), or other insurer, that the remedial works will provide a site ready and suitable for the proposed development.

#### 1.4 Parties to the Works

The Principal Parties to the works include:

- **Client:** Persimmon Homes North Midlands
- **Developer:** Persimmon Homes
- **Contractor for the Remediation Works:** C3 Construction Limited
- **Consultant and Validation for the Works:** BSH Remediation Limited
- **Local Planning Authority:** Hinckley and Bosworth Borough Council
- **National House Building Council (NHBC)**

This document is written for the use of Persimmon Homes and their appointed agents only. No other third party may rely on or reproduce the contents of this report without the prior written approval of BSH Remediation Limited. If any unauthorised third party comes into possession of this report, they rely on it at their own risk and the authors do not owe them a Duty of Care or Skill.

## 2.0 SITE CHARACTERISATION

### 2.1 Introduction

The Site is located 2km south of Hinckley Town Centre, within a mixed agricultural / industrial / residential setting. Sketchley Grange Hotel and an industrial estate are located to the north of the site, to the south-west the site is bounded by the A5, beyond which are agricultural fields. The town of Burbage with residential properties are located to the East. The site is centred on National Grid Reference 442476, 291913.

It is now proposed to redevelop the site for a residential end use and therefore, a review of the existing information for the site is necessary in order to determine the remedial actions required to facilitate a residential end use.

The summary information in the following sections has been derived from the sources listed in Section 1.0 and describes the work undertaken to date at the site / adjacent to the site and the context under which it was undertaken.

### 2.2 Site Description

The site is irregular in shape measuring approximately 310m north to south and 620m east to west, coving approximately 12.73 hectares. The site is bounded by mature vegetation, post and wire fencing and electric fencing.

The plan below shows the context of the site and adjacent land uses.



## 2.3 Site History

From the earliest maps the majority of the site has remained undeveloped agricultural land. A small building, likely an animal shelter, is depicted in the earlier maps in the northeastern area of the site but is no longer present by the 1950s. A second small structure located in the north-western area remains to the present day. A small pond is featured on the early maps in the south-eastern field but is no longer shown post 1924. Development of the current farmyard area is first recorded on the 1993 map with a square structure at the eastern end of the current hay barn/ cattle shed/ storage area.

The Sketchley Lane Industrial Estate is first recorded on OS mapping of 1984; expansion southwards in the 1990s brought it to the site boundary. The Sketchley Grange Hotel complex is first recorded on the 1999 OS map edition. Post 1999 residential development to the east of the site has taken place.

## 2.4 Recorded Geology

The site is underlain by four different glacial superficial deposits;

- Dunsmore Gravel – outcropping north east corner,
- Oadby Till Member – outcropping northern portion and beneath Dunsmore Gravel,
- Wolston Sand and Gravel - outcropping in western and southern areas.
- Wolston Clay – outcropping eastern area

Underlying these deposits is bedrock geology of the Mercia Mudstone Group.

## 2.5 Hydrology and Hydrogeology

The four superficial deposits encountered on site have been identified as:

- Dunsmore Gravel – Secondary A Aquifer.
- Oadby Till Member - Secondary Undifferentiated Aquifer.
- Wolston Sand and Gravel – Secondary A Aquifer.
- Wolston Clay – Unproductive.

The underlying Mercia Mudstone Group is classified as a Secondary B Aquifer. The site is not located within a groundwater Source Protection Zone. There are no licensed surface water or groundwater abstractions within 500m of the site. Groundwater vulnerability is classified by the Environment

Agency as medium vulnerability. The nearest surface water feature is the Sketchley Brook located along the southern boundary.

## 2.6 Sensitive Receptors

On-site potential sources of contamination identified in a Phase 1 Report completed by others but summarised in the T & P Regeneration site investigation reports comprise of:

- Made Ground of unknown origin used to construct the plateau on which the modern era farmyard has been constructed.
- Local spillage of fuels/ oils/ agrochemicals from machinery stored within the farmyard area, and from a red diesel fuel tank.
- Past and current farming practice (including operation of the poultry house).

Off-site potential sources of contamination identified in the Phase 1 Report comprise of:

- The potential for contamination arising from off-site land use activities is very low.

## 2.7 Radon Risk

No radon protection measures are required.

## 2.8 Site Investigation Reports

The full Site Investigation Reports completed by T & P Regeneration are presented within Appendix B for reference purposes.

### 3.0 SITE INVESTIGATION WORKS

The site has been extensively investigated by T & P Regeneration. Conditions at the site have not changed across the majority of the site ie. fields / agricultural land however all the farm buildings have now been demolished down to slab / ground level. A summary of the site investigation findings are presented in the following sections. A combined exploratory hole location plan is presented as Drawing No. P0866-01-002 within Appendix A.

#### 3.1 Proven Ground Conditions

The ground conditions as reported within the site investigation report summarised within Table 3.1.

**Table 3.1** Summary of Ground Conditions

| Lithology             | Description                                   | Area of Site | Recorded Thickness (m) |
|-----------------------|-----------------------------------------------|--------------|------------------------|
| Topsoil               | Clayey SAND                                   | General      | 0.3 – 0.5              |
| Made Ground           | ASPHALT                                       | Poultry Shed | 0.1                    |
|                       | Sandy gravelly CLAY                           | Farmyard     | 0.1 – 1.0              |
|                       | Clayey sandy GRAVEL                           | Farmyard     | 0.4                    |
| Oadby Member          | Interbedded sandy CLAY and clayey SAND / SAND | General      | 2.0 – 16.5             |
| Mercia Mudstone Group | Firm to very stiff silty CLAY                 | General      | 9 - >27                |

#### 3.2 Groundwater

Groundwater strikes encountered during the ground investigation are summarised in Table 3.2, below.

**Table 3.2** Summary of Groundwater Encountered

| Exploratory Hole | Depth Encountered (m bgl) | Description | Stratum      |
|------------------|---------------------------|-------------|--------------|
| WS02             | 4.6                       | Groundwater | Oadby Member |
| WS03             | 5.0                       | Groundwater | Oadby Member |

### 3.3 Contamination Assessment

#### Made Ground

With the exception of made ground within WS01 to WS03 and BH03, no significant visible or olfactory evidence of any contamination was noted during the ground investigation.

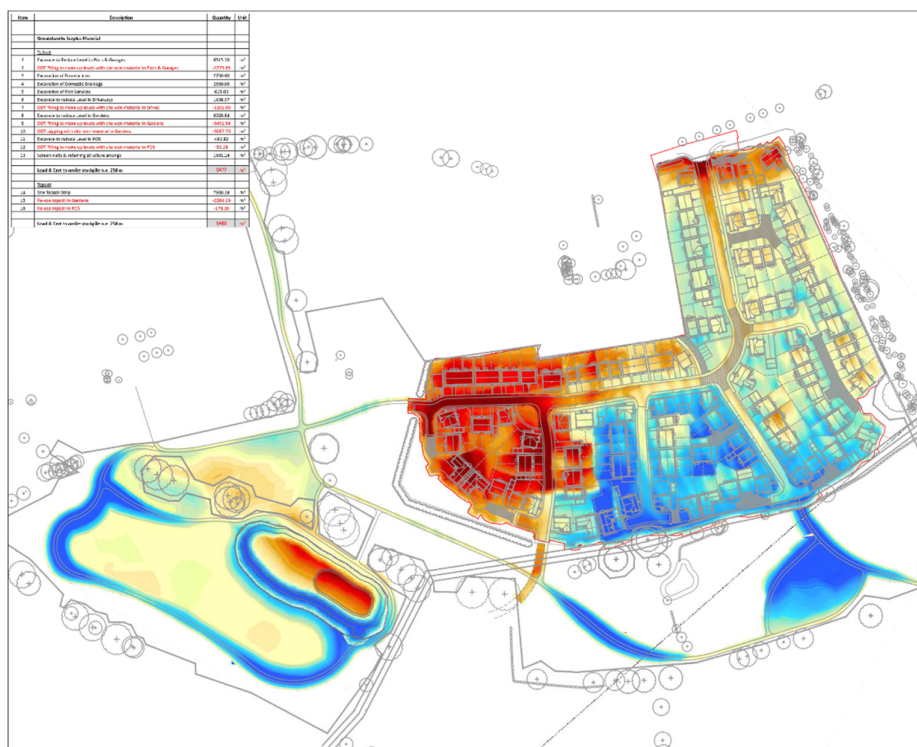
A review of soil data has not identified any contaminants soil concentrations to be elevated against adopted human health screening levels for a 'residential with homegrown produce' end use, or the adopted phytotoxic screening criteria.

### 3.4 Hazardous Ground Gases / Vapours

No significant on-site ground gas sources were identified on site with the exception of the made ground in the farmyard area. Ground gas monitoring concluded that based upon the calculated GSVs a Characteristic Situation 1 (CS1) classification is recommended for the site, which is broadly equivalent to a "Green" classification in accordance with the NHBC traffic light system.

### 3.5 Remediation Recommendations

The made ground in the farmyard area is the only potential source of contamination identified on the site. The farmyard area is generally in an area of cut in terms of the earthworks cut / fill as illustrated below:





As such any made ground present on site will be cut and could be placed in an area of public open space under a 150mm capping layer.

Should significant made ground or putrescible material different to that encountered during the course of the site investigation be encountered within the farmyard area during the development, further remediation works maybe required.

As an additional precaution any areas of made ground present in rear gardens of any plots will be capped with a minimum 450mm of clean subsoil / topsoil. Site won subsoil / topsoil based on the site investigation data is considered suitable for use.



## **4.0 OUTLINE REMEDIATION STRATEGY AND OBJECTIVES**

### **4.1 Remediation Objectives**

The primary objective of the remediation works is to render the site suitable for the proposed residential development, whilst mitigating any potentially unacceptable transient and long-term risks to human health and the environment. The proposed remediation approach is summarised below:

- No made ground has been identified with contaminants above adopted human health screening levels for a 'residential with homegrown produce' end use, or the adopted phytotoxic screening criteria, as such Made ground located in the farmyard area is located in an area of cut and as such can be relocated and placed in an area of public open space under a nominal capping system ie. 150mm topsoil;
- Any made ground present in rear gardens to be capped with 450mm subsoil / topsoil; and
- Watching brief during the excavation of made ground to ensure no unidentified made ground or putrescible material is identified.

Provision/ placement of the cover system is beyond the scope of works for BSH Remediation Limited. Due to the practicalities and logistics of construction, the placement of the cover system would most effectively be installed during the construction phase of the project and managed by C3.

BSH Remediation are therefore proposing a remediation strategy comprising provision of a cover system whilst adopting LQM 'S4UL' GAC's.

The remediation works will be undertaken under a CL:AIRE Development Industry Code of Practice Materials Management Plan (MMP); the MMP will need to be declared to CL:AIRE prior to commencement of earthworks – See Section 6.0 below.

### **4.2 Regulatory Consultation**

All works will be undertaken following consultation and agreement with Hinckley and Bosworth Borough Council and the NHBC.

### **4.3 Earthworks**

It is understood the earthworks cut / fill is being undertaken in accordance with an earthworks specification written by other. The contractor needs to ensure that all geotechnical testing / NHBC requirements in terms of Engineered fill are adhered too.

#### 4.4 Watching Brief for Contamination

During the earthworks operations, C3 will undertake a detailed watching brief for contamination during any significant ground disturbance which takes place at the site below surface level in the farmyard area. This will ensure all reasonable steps are taken to identify any previously unidentified sources of contamination potentially present within the site.

The watching brief shall include:

- Detailed observation of all ground disturbing works by the contractor;
- Any significant changes in made ground is reported to the client and BSH Remediation for further assessment; and
- Undertaking validation sampling where required or considered necessary.

In the event that unexpected contamination is identified during the course of the earthworks, these shall be excavated and removed from site to an appropriately licensed waste disposal facility.

Following the removal of the impacted soils, and prior to any infilling works, validation samples for chemical analysis shall be taken by BSH from the exposed surfaces (i.e. base and sidewalls) on a nominal 5m grid to confirm that all potentially hazardous contamination has been removed. Samples shall be tested for a suite of analytes appropriate to the contamination observed at a UKAS and MCERTS-accredited laboratory, and the results compared to the criteria listed in Appendix C of this Strategy.

Where the results of laboratory testing are found to exceed the specified criteria, BSH shall advise the contractor, and additional soils shall be excavated from the sidewalls or base of the excavation, following which, further validation samples shall be recovered and tested in accordance with the method described above. This shall be an iterative process until validation test results confirm concentrations of contaminants fall below the criteria across the entire face and base of the excavation.

Any contaminated materials designated for removal from site shall be placed in temporary stockpiles on hardstanding or heavy-duty Visqueen sheeting, suitably covered and banded with appropriate signage and identification. The earthworks contractor shall undertake sampling and analysis of this material sufficient to classify it for disposal.

Unsuitable materials shall be exported from site to a suitably licensed landfill facility, in accordance with the requirements of the Landfill Directive and the Duty of Care Regulations, 1991 and where appropriate the Hazardous Waste Regulations, 2005, or any superseding legislation.

## 5.0 GENERAL SITE REQUIREMENTS

### 5.1 Health and Safety

The earthworks shall be undertaken in accordance with all relevant legislation including, but not limited to:

- The Health and Safety at Work etc. Act, 1974;
- The Construction (Design and Management) Regulations, 2015;
- Construction (Health Safety and Welfare) Regulations, 1996;
- The Control of Substances Hazardous to Health Regulations, 2002, and,
- The Control of Asbestos at Work Regulations, 2012.

Contaminated materials maybe present on site. During the remediation and construction, it will be necessary to protect the health and safety of site personnel. General guidance on these matters is given in the Health and Safety Executive (HSE) document 'Protection of Workers and the General Public during the Redevelopment of Contaminated Land (HS(G)66)'. In summary, the following measures are suggested to provide a minimum level of protection.

- All ground workers should be issued with high visibility clothing, hard hats, protective footwear and impermeable heavy-duty gloves. Personnel should be instructed as to how they are to be used;
- Hand washing and boot cleaning facilities shall be provided;
- No smoking on site other than in designated areas if any are present on site; and,
- Good practices relating to personal hygiene shall be adopted.

Before site operations are commenced the necessary COSHH Assessment, Method Statements and Health and Safety Plans should be completed and issued by the client in accordance with the CDM Regulations 2015.

All site personnel shall undergo a site specific health and safety induction prior to commencement of work on site.

Gas monitoring of deep confined excavations, where man entry is required (including plant operators), shall be undertaken prior to commencement of work each day or after short-term suspension of works and shall be continuous throughout the working day.

Gas monitoring shall include:

- Methane;
- Carbon dioxide;
- Oxygen; and,
- Volatile organic compounds.

The results of the gas monitoring shall be recorded in the site diary. The gas monitor shall emit both audible and visual warnings. Alarm levels shall be set with due regard to the Occupational Exposure Limits provided in EH40/2005 (2011).

In the event of a gas alarm sounding, all personnel shall immediately evacuate the area. No personnel shall return to the area until advised by the site manager.

C3 shall provide details of emergency procedures. Emergency Services shall be informed of the site operations prior to commencement.

## **5.2 Mobile Plant**

Mobile plant shall be operated by competent personnel for each item of plant. When not in use all plant shall be locked to prevent unauthorised access.

All traffic entering or working on site shall obey a maximum 10mph speed limit.

Fuelling of any plant shall be undertaken in a designated area and all above ground fuel storage tanks shall comply with the requirements of the Pollution Prevention Guidelines PPG2 (August 2011).

Specifically, any fuel storage tanks should:

- Be situated within an oil-tight secondary containment system such as an impermeable bund;
- The secondary containment must provide storage of at least 110% of the tanks maximum capacity;

- Be located within a secured area; and,
- All taps and valves should be fitted with a lock and be adequately secured when not in use.

Waste oil, hydraulic fluid etc. should not be tipped directly or otherwise discharged onto site. Such materials shall be stored separately, in a secure bunded area, for off site disposal. Waste oil is a Hazardous Waste, and disposal shall be undertaken by a registered carrier in accordance with the Duty of Care (DoC) Regulations (2006) and the Waste (England and Wales) Regulations (2011).

Contractors shall provide a fuel spill kit, to be kept on site in an accessible place near to the designated refuelling area.

### **5.3 Dust**

Appropriate measures shall be implemented at all times during the remediation works, to minimise any dust emissions.

Any haul roads shall, where practical to do so, be constructed of crushed hardcore products. These haul roads shall be maintained for the duration of their use to minimise any build-up of mud, loose spoil etc. Mobile water bowsers and sprayers shall be made available to dampen unpaved haul roads and working areas. An adequate supply of clean water shall be maintained on site at all times to allow dust suppression activities to be carried out at short notice.

Traffic both entering and working on the site shall obey a maximum speed limit of 10 mph.

Regular inspections of the public highway adjacent to the site entrance shall be carried out by C3. If deemed necessary, the highway shall be swept regularly to remove any mud, slurry or dust deposited by vehicles entering or departing the site, and a wheel wash provided for exiting vehicles if required.

If C3 considers that significant amounts of any detritus have been deposited on the public highway then operations shall be temporarily suspended until appropriate cleaning operations have been undertaken.

Any wagons that are to be used for the haulage of potentially contaminated material from the site shall be sheeted to prevent the release of fugitive dust.

### **5.4 Odour**

No significant odorous materials are likely to be encountered however, if highly odorous materials are encountered which may give rise to nuisance to neighbouring properties, odour control measures can be considered at that time and an appropriate method statement supplied by C3.

Any odorous materials shall be covered at the end of each working day and any stockpiles will be located away from any residential properties. This shall be continually assessed through the programmed works.

## **5.5 Noise**

The requirements of BS 5228:2009 'Noise and vibration control on construction sites' shall be adhered to at all times.

All machinery shall be fitted with effective silencers and shall be serviced at regular intervals. No items of plant shall be operated with engine covers raised.

The location of any crushing plant shall take into consideration the location of neighbouring properties and other noise sensitive receptors and shall be located away from these areas and located adjacent to proposed stockpile locations, where possible and practicable.

## **5.6 Off-site Disposal**

Any materials encountered during the works designated for off-site disposal shall be safely stockpiled, sampled and analysed, by the Contractor, at rates sufficient to allow the material to be adequately categorised to the satisfaction of the receiving landfill operator in accordance with the Hazardous Waste Regulations (HWR) 2005.

All unsuitable materials shall be exported from site to a suitably licensed landfill facility, in accordance with the requirements of the Duty of Care (DoC) Regulations, April 2006 and where appropriate, the HWR, 2005 or any superseding legislation.

Material exported from site to landfill shall be hauled by a registered waste carrier in accordance with the HWR and DoC regulations. A waste transfer or consignment note shall be completed, signed and retained by all parties involved. The waste transfer or consignment note shall state the volume of waste, a physical description of the waste and statement of its chemical composition. These notes shall be kept by the Contractor for a period of at least two years.

## **6.0 MATERIALS MANAGEMENT PLAN (MMP)**

### **6.1 General**

The construction works is to be undertaken in accordance with the waste legislation. It is the responsibility of all parties involved in the construction process to ensure this is adhered to. A Materials Management Plan (MMP) must be prepared and declared to CL:AIRE (working on behalf of the Environment Agency), in accordance with the Definition of Waste: Development Industry Code of Practice (DoWCoP).

### **6.2 Materials permitted for re-use under the MMP**

The use of the MMP allows the re-use of certain soils on site which would otherwise be deemed as waste once excavated from the ground, providing they are used appropriately in accordance with the MMP. The soils must be environmentally and geotechnically suitable for use in the intended location for re-use.

These materials include:

- Site won topsoil.
- Site won clays, sands and gravels.

All natural soil arisings may be re-used on site and fall outside the scope of the MMP when re-used on site. The surplus topsoil arisings may be transferred to other development sites under an MMP or a U1 Exemption as appropriate to that receiving site. However, the made ground may only be re-used on the Sketchley Lane site and cannot be re-used on another development site. Any surplus made ground would be regarded as waste and would require disposal at a permitted waste management facility. All material types must therefore be kept segregated.

Consideration also needs to be given to the length of time a stockpile is retained on site. In accordance with DoWCoP, stockpiles should not be retained for more than 12 months. Otherwise they may fall outside the scope of the MMP, unless specific justification can be provided directly to the Environment Agency and their approval gained for the extended storage time.

### **6.3 Record keeping for the MMP verification report**

In accordance with the MMP, it is necessary to ensure records are maintained relating to the re-use of soils either won on site or imported to site and the natural site won soils. In so doing the materials balance can be followed. These records will need to be presented in a verification report at the end of the development for submission to CL:AIRE as confirmation that materials have been



used in accordance with DoWCoP. In so doing this will confirm the removal of the definition of the materials, which have been re-used on site, as waste.

As part of the record keeping process, the materials will require tracking. All stockpiles will need to be recorded. The contractor will be undertake periodic drone surveys of the stockpiles. In particular for the MMP, the following materials will require tracking by the contractor to identify the source of the materials, the stockpile locations, volumes and the destination location on site:

- Excavated topsoil
- The made ground
- Site won clay, sand and gravels.
- Any imported soils to site.

Tracking forms should be completed to aid the record keeping. These should be completed by the contractor on a weekly basis. Persimmon will require the provision of the data records to aid in the completion of the verification report to be submitted to CL:AIRE at the end of the development.

## **7.0 CONTRACTOR'S RESPONSIBILITIES**

### **7.1 Introduction**

The following regulations, guidance and legislation relating to the works shall be complied with at all times:

- Health and Safety Executive “Protection of Workers and the General Public during Redevelopment of Contaminated Land”, HS(G)66, HMSO 1991;
- The Construction, Design and Management Regulations 2015 and the Pre-tender and Construction Phase Health and safety Plans;
- The Control of Substances Hazardous to Health Regulations 2002; and,
- The Control of Asbestos at Work Regulations, 2012.

### **7.2 Surveying**

The contractor shall be responsible for the following survey work:

- Establishment of profile boards;
- Setting out of building footprints;
- Surveying the base and extent of all excavations following proof rolling and prior to placement of any fill to be engineered;
- Areas of localised overdig, i.e. any areas required to remove deep relic structures / areas of POS;
- Deposition of soils (made ground) are recorded;
- The finished surface (remediation level) prior to handover to Persimmon Homes;
- Interim surveys to be undertaken during the infilling works to provide information on issues such as progress, earthworks quantities, base/top of made ground etc.; and,
- The location and elevation of test and sample locations.

### **7.3 Testing**

The contractor shall be responsible for undertaking all geotechnical and chemical testing necessary to satisfy the NHBC / regulators that the works have been carried out in accordance with and comply with the specification.

All soils and chemical testing shall be carried out by a UKAS and MCERTS accredited laboratory to the approval of the client.

#### **7.4 General**

The contractor shall also be responsible for the following:

- See Section 6.0 – Provision of Verification Information to discharge the MMP.
- Provision of method statements and reports;
- Environmental Permits (waste and remediation) are in place prior to works commencing;
- Adhering to all recommendations relating to ecology issues;
- The provision of health and welfare facilities;
- Obtaining all relevant permits/ consents/ licenses i.e. treatment licenses, discharge consents etc.;
- Environmental monitoring; and,
- Mitigation measures.

## 8.0 VALIDATION AND REPORTING

The contractor / or site manager will maintain records of the works to include the following:

- Daily record sheets to include a summary of the day's activities;
- Weather conditions;
- Plant, personnel and visitors present;
- Aspects relating to Health and Safety, environmental control or non-compliance with the General Specification or BSH's Remediation Method Statement; and,
- Test results.

On satisfactory completion of all the remediation works, the contractor will provide an initial validation report, comprising relevant site records and act as certification that the remedial and ground preparation works have been carried out in accordance with this Strategy.

The validation report shall include the following:

- A description of the works undertaken;
- Records of the works;
- Progress photographs;
- Waste transfer notes;
- Chemical and geotechnical validation test results;
- As built surveys, including base of excavation and final level survey, base and top of made ground; and,
- A statement that the works have been undertaken in accordance with the agreed specification.

Subsequent validation reports will be required following the final placement of any growing medium, in order to confirm its suitability both chemically and textually as well as its thickness. This needs to be carried out at the frequencies stated within Section 8.

## 9.0 CLEAN COVER SYSTEM VALIDATION

### 9.1 Clean Cover System Requirements

No elevated made ground concentration have been identified at the site above generic screening criteria. Made ground deposits are generally in areas of cut and as such can be relocated on site to non sensitive areas ie. POS and placed under a capping system as outlined in Table 9.1. Any made ground present in rear gardens as an additional precaution to protect future site users will also be placed below a capping system.

**Table 9.1** Clean Cover Layer Thickness

| Area                          | Subsoil (mm) | Topsoil (mm) | Total (mm) |
|-------------------------------|--------------|--------------|------------|
| Garden Areas (front and rear) | 300          | 150          | 450        |
| Soft Landscaping Areas        | -            | 150          | 150        |

### 9.2 Chemical Suitability

All imported materials required to complete the cover soils shall be tested following importation in accordance with the guidance given in the Yorkshire and Humberside Pollution Advisory Council (YAHFAC) document 'Verification Requirements for Cover Systems', Version 3.2 dated October 2014. These are summarised in Table 9.2 below.

**Table 9.2** Sampling and Testing for Imported Soils

| Type                           | Number of Samples                                           | Testing Schedule                                                                                                                                                            | Assessment Criteria                                          |
|--------------------------------|-------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------|
| Virgin Quarried Material       | 1 or 2 depending on the type of stone used                  | Standard metals/metalloids<br>(As, Cd, Cr, Cr(VI), Cu, Hg, Ni, Pb, Se, Zn)                                                                                                  | As per BSH Ltd Clean Cover Criteria for Gardens (Appendix C) |
| Crushed Hardcore, Stone, Brick | Minimum 1 per 2500m <sup>3</sup>                            | Standard metals/metalloids (as above)<br>PAH (16 USEPA speciation)<br>Asbestos                                                                                              |                                                              |
| Greenfield/ Manufactured Soils | Minimum 3 or 1 per 250m <sup>3</sup> (whichever is greater) | Standard metals / metalloids (As above)<br>PAH (16 USEPA speciation)<br>Asbestos                                                                                            |                                                              |
| Brownfield/ Screened Soils     | Minimum 6 or 1 per 100m <sup>3</sup> (whichever is greater) | Standard metals / metalloids (As above)<br>PAH (16 USEPA speciation)<br>TPH (CWG banded)<br>Asbestos<br>Any additional analysis dependant on the history of the donor site. |                                                              |

The test results or other pertinent information regarding the source shall be made available to BSH prior to any material being delivered to site.

The analytical testing will be undertaken on a seven day turnaround and shall be forwarded to BSH as they become available.

The results shall be compared with the threshold guideline values given in Appendix C. Should any analyte exceed the concentrations, then the soil should be considered unsuitable for use within the clean cover.

The contractor shall ensure that any soils which are proposed for re-use as clean cover shall be subject to careful management in order to avoid potential cross contamination. All clean cover materials not immediately placed should be stockpiled at agreed locations away from working areas and lightly rolled or 'sealed'.

### 9.3 Verification of Required Depth

Verification of depth of topsoil and subsoil shall be carried out by a suitably qualified geo-environmental engineer by excavation of a small trial pit. Trial pits shall be excavated within gardens and soft landscaping areas at a frequency agreed with the LPA Environmental Health Department.

## **10.0 POST RECLAMATION REQUIREMENTS**

### **10.1 Validation Reporting**

A validation report will be provided to Persimmon Homes on satisfactory completion of the remediation works.

Persimmon Homes and their sub-contractors shall be responsible for all construction works following handover of the works. Elements that need to be included in any subsequent method statements shall include:

- Compliance with on-going environmental issues;
- Construction of foundations;
- Placement of growing medium in soft landscaping areas;
- The provision of gas/vapour preventative measures as determined by post remediation monitoring;
- Health and Safety;
- Appropriate protection of underground services; and,
- Disposal of any contaminated arisings which cannot be accommodated onsite.

Persimmon Homes and their sub-contractors shall be responsible for the placement of the clean cover layer as required. The placement, final thickness, chemical suitability etc. of this capping layer will require validation.

Should any excavation of foundations, drainage and services etc. extend below any placed “clean” capping layer, and therefore encounter underlying made ground materials, then there is a potential for cross-contamination. This should be avoided where possible. Detailed risk assessments and method statements outlining the soil management for the site shall be provided for this work by Persimmon Homes and their specialist sub-contractors.

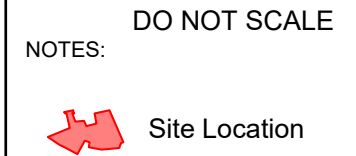
## **11.0 REGULATORY APPROVAL**

A copy of this Strategy shall be forwarded to the Local Planning Authority, and other regulators as appropriate for their approval, prior to the works.

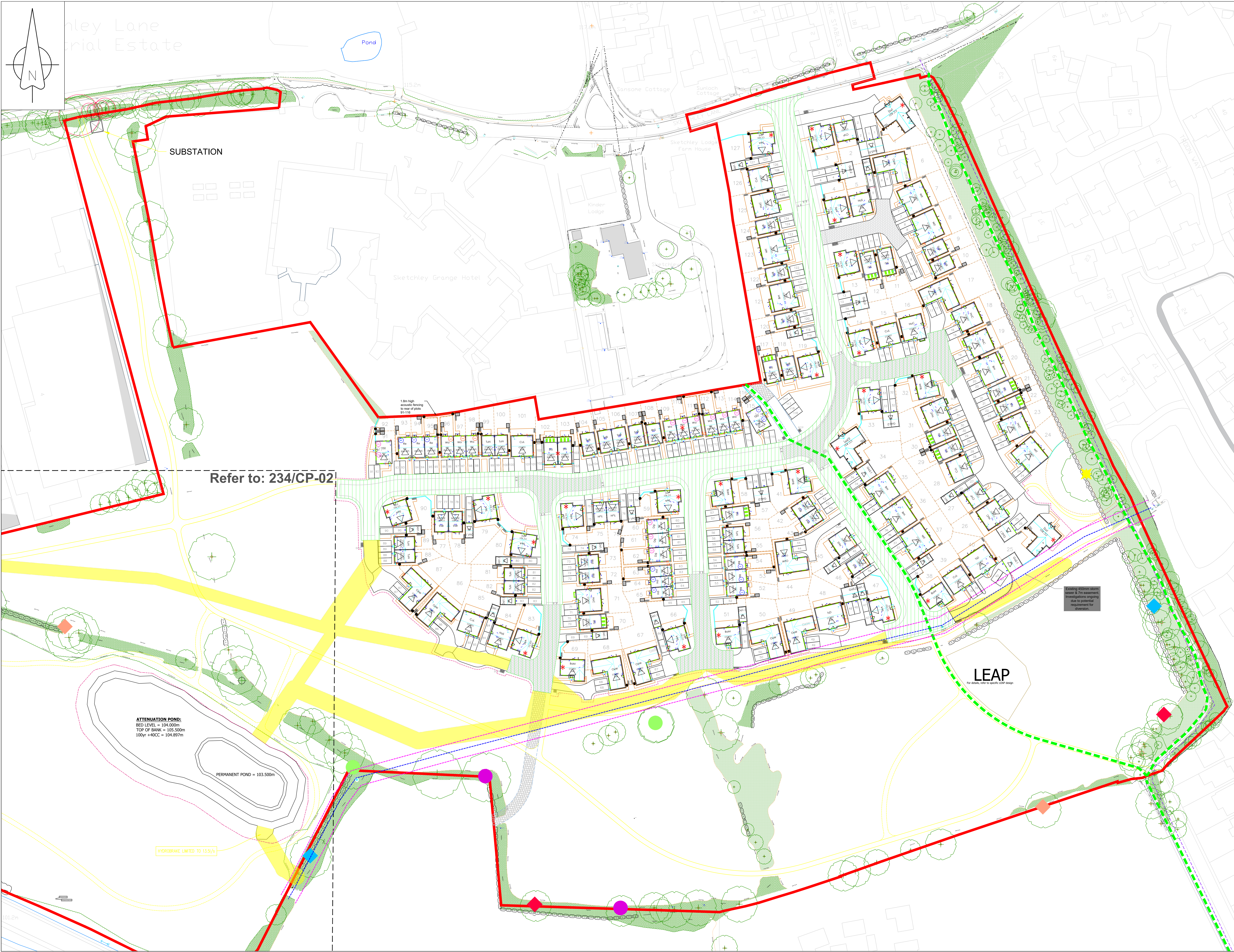
**BSH Remediation Ltd**



# APPENDIX A - DRAWINGS







**Key:**

- 1.8m High Brick Wall
- 1.8m High Close Boarded Fence
- 1.2m Timber Post & Rail Fence
- Gate
- Stalled Footpath
- Block Paving
- Grasscrete Surfacing
- Adaptable Highway
- Easement
- Existing 400mm Storm Sewer & 7m Easement
- Bin Day Collection Point (BCP) / Bin Store Point (800x600mm Slab)
- Belt Storage Shed
- Chimney
- POS Footpaths
- Social Rent Units
- Intermediate Units (Shared Ownership)
- Reduced Open Market Sale Units
- USA FROW (route through development to be stopped up during construction)
- USF FROW
- Tree Protection Fencing
- Veteran Tree with 17.25m buffer zone

**Engineering Key:**

- Proposed Plot Finished Floor Level
- Banking
- Garden Gradient
- External Spot Level
- Retaining Feature
- Step in Plot
- Underbuild
- Tanking
- Double DPC
- Steps

**Bird and Bat Box Key:**

Please refer to Biodiversity Enhancement Plan (Reference - edg8343\_d005)

**Proposed Bat Boxes:**

- Schwegler 2F
- Schwegler 2FN
- Schwegler 1FF

**Proposed Bird Boxes:**

- Schwegler 1B (200mm hole)
- Schwegler 1B (320mm hole)

**Proposed Reptile Habitat:**

- Reptilium/Hibernaculum

**Patio Notes:**

- Rear garden patio specification: Affordable/Intermediate/AHO to receive 1.8m x 1.8m patio area.
- 2-3 bedroom open market units to receive 2.4m x 4.2m patio area.
- 4-5 bedroom open market units to receive 2.4m x full plot width patio area.

|     |                                                                                                                                                                                                                                                                        |          |
|-----|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------|
| C   | Plot 127 garage moved forward 1.93m to avoid clash with tree group G27.                                                                                                                                                                                                | 17.07.24 |
| B   | Plot 15-20 flipped due to levels. Plot 67-68 moved to the left to allow for ref. structures. Garages amended to show side front gable as per planning layout. Re-plan in area of plots 51-44, 33-26 due to easement clash. AP                                          | 24.06.24 |
| A   | Bike storage sheds added to all plots without a garage. Footpaths amended around Yellowwood house/eye due to canopy detail. Existing 400mm storm sewer and 7m easement added, along with a note confirming ongoing investigations to understand if diversion required. | 17.05.24 |
| Rev | Description                                                                                                                                                                                                                                                            | Date     |

**CHARLES CHURCH**

Charles Church (NM), Davidson House, Meridian East,  
Meridian Business Park, Leicester, LE19 1WZ  
Tel: 0116 2894520 Fax: 0116 2815601

Development

Sketchley Grange,  
Burbage

Drawing No

Charter Plan  
1 of 2

|            |            |       |
|------------|------------|-------|
| Date       | Author     | Drawn |
| April 2024 | JM         | JM    |
| Drawn By   | Scale      | Rev   |
| 234-CP-01  | 1:500 @ A0 | C     |



- Site Boundary
- T&P Investigation**
- Trial Pit Locations (TP01 - TP25)
  - Windowless Sampling Locations (WS01 - WS05)
- ▲ Borehole Locations (BH01 – BH04)
- Window Sample Locations (WS201 – WS203)



**Base Map**  
Company: - Autodesk License  
DWG Title: -  
DWG Number: -  
Date: -

|       |         |                       |          |        |
|-------|---------|-----------------------|----------|--------|
| RC    | RG      | Site Boundary Updated | 10/03/23 | A      |
| AW    | RG      | Site Boundary Updated | 24/03/23 | B      |
| Drawn | Checked | Amendment             | Date     | Rev.   |
|       |         |                       |          | Client |

|                                |          |          |          |      |
|--------------------------------|----------|----------|----------|------|
| Barwood Land                   |          |          |          |      |
| Sketchley Lane, Burbage        |          |          |          |      |
| Exploratory Hole Location Plan |          |          |          |      |
| Scale                          | Date     | Drawn by | Check by | Rev. |
| 1:2500@A3                      | 21/02/23 | AW       | RG       | B    |

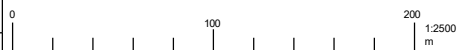


**T&P**  
Regen

Unit 4 Brunel Lock Development, Smeaton Road, Bristol, BS1 6SE

Tel: 0117 927 7756  
Email: info@tp-regen.co.uk

|             |              |
|-------------|--------------|
| Drawing No. | P0866-01-002 |
|-------------|--------------|





# APPENDIX B - SITE INVESTIGATION REPORTS



## **Sketchley Lane, Burgage**

# **Interpretative Ground Investigation Report**



### **Report for:**

Persimmon Homes North Midlands

### **Reference:**

P0866/CS-2132

T & P Regeneration Ltd  
Unit 5, Septimus  
Hawkfield Business Park  
Bristol  
BS14 0BN  
Tel: 0117 927 7756

## Document Revision

|              |            |                                |                              |                   |               |
|--------------|------------|--------------------------------|------------------------------|-------------------|---------------|
| Client       |            | Persimmon Homes North Midlands |                              | Project Reference | P0866/CS-2132 |
| Site Address |            | Sketchley Lane, Burgage        |                              |                   |               |
| Issue        | Date       | Revision Details               | Prepared by                  | Checked by        | Approved by   |
| 01           | 15/03/2024 | Draft                          | Rachel Gilbert / Jack Oliver | James Dodd        | Jon Adams     |
|              |            |                                |                              |                   |               |
|              |            |                                |                              |                   |               |
|              |            |                                |                              |                   |               |
|              |            |                                |                              |                   |               |

The information and advice contained within this report is provided by T&P Regeneration Ltd for sole use and reliance by its Client in performance of T&P Regeneration Ltd's duties under its contract with the Client. Any advice, opinions or recommendations within this report should be read and relied upon only in the context of the report as a whole. The advice within the reports is based upon the information made available to T&P Regeneration Ltd within the financial and timeframe constraints imposed. The report is based on UK standards, codes and common practice current at time of writing. When considering this report regard should be given to the terms and conditions of T&P Regeneration Ltd's contract with the Client under which the report was prepared. The copyright of this report is held by T&P Regeneration Ltd. Should the Client wish to release this report to a Third Party for that party's reliance, T&P Regeneration Ltd may agree to such release provided that: (i) T&P Regeneration Ltd's written agreement to such release is obtained (ii) By release of the report, T&P Regeneration Ltd assumes no duties, liabilities or obligations to the Third Party and that the Third Party does not acquire any rights whatsoever against T&P Regeneration Ltd (iii) T&P Regeneration Ltd accepts no responsibility for any loss incurred by the Client through the Client's release of the report to the Third Party. Following final issue of this report, T&P Regeneration Ltd has no further obligation to advise the Client on any matters such as changes in legislation or codes of practice that may affect the advice contained within the report.

## CONTENTS

|           |                                                         |           |
|-----------|---------------------------------------------------------|-----------|
| <b>1</b>  | <b>INTRODUCTION .....</b>                               | <b>1</b>  |
| 1.1       | CONTRACT DETAILS                                        | 1         |
| 1.2       | PROPOSED DEVELOPMENT                                    | 1         |
| 1.3       | PREVIOUS REPORTS                                        | 1         |
| 1.4       | OBJECTIVES                                              | 1         |
| 1.5       | SCOPE OF WORKS                                          | 1         |
| 1.6       | REPORT LIMITATIONS                                      | 1         |
| <b>2</b>  | <b>SITE INFORMATION .....</b>                           | <b>2</b>  |
| 2.1       | SITE LOCATION                                           | 2         |
| 2.2       | SITE DESCRIPTION                                        | 2         |
| 2.3       | ENVIRONMENTAL SETTING                                   | 3         |
| <b>3</b>  | <b>PRELIMINARY CONCEPTUAL SITE MODEL.....</b>           | <b>4</b>  |
| 3.1       | BACKGROUND                                              | 4         |
| 3.2       | POTENTIAL CONTAMINATION SOURCES                         | 4         |
| 3.3       | EXPOSURE PATHWAYS                                       | 4         |
| 3.4       | POTENTIAL RECEPTORS                                     | 4         |
| 3.5       | PRELIMINARY QUALITATIVE RISK ASSESSMENT                 | 4         |
| <b>4</b>  | <b>SCOPE OF WORK.....</b>                               | <b>6</b>  |
| 4.1       | SUMMARY OF FIELDWORK                                    | 6         |
| 4.2       | SOIL SAMPLING                                           | 6         |
| <b>5</b>  | <b>SUMMARY OF GROUND CONDITIONS .....</b>               | <b>7</b>  |
| 5.1       | ENCOUNTERED STRATA                                      | 7         |
| 5.2       | EVIDENCE OF CONTAMINATION                               | 8         |
| 5.3       | BELOW GROUND STRUCTURES AND OBSTRUCTIONS                | 8         |
| 5.4       | GROUNDWATER                                             | 8         |
| <b>6</b>  | <b>SUMMARY OF LABORATORY ANALYSES.....</b>              | <b>9</b>  |
| 6.1       | GEOTECHNICAL TESTING                                    | 9         |
| 6.2       | CHEMICAL TESTING                                        | 9         |
| <b>7</b>  | <b>HUMAN HEALTH AND PHYTOTOXIC RISK ASSESSMENT.....</b> | <b>10</b> |
| 7.1       | INTRODUCTION                                            | 10        |
| 7.2       | DETERMINATION OF AVERAGING AREAS/ZONES                  | 10        |
| 7.3       | HUMAN HEALTH AND PHYTOTOXIC SCREENING ASSESSMENT        | 10        |
| 7.4       | DISCUSSION                                              | 10        |
| <b>8</b>  | <b>CONTROLLED WATERS RISK ASSESSMENT .....</b>          | <b>11</b> |
| 8.1       | OVERVIEW OF HYDROGEOLOGICAL SETTING                     | 11        |
| 8.2       | RISK EVALUATION                                         | 11        |
| <b>9</b>  | <b>POTABLE SUPPLY PIPEWORK RISK ASSESSMENT.....</b>     | <b>12</b> |
| <b>10</b> | <b>REFINED CONCEPTUAL SITE MODEL.....</b>               | <b>13</b> |
| 10.1      | OVERVIEW                                                | 13        |
| 10.2      | SOURCES                                                 | 13        |
| 10.3      | RISK EVALUATION                                         | 13        |
| <b>11</b> | <b>PRELIMINARY WASTE ASSESSMENT .....</b>               | <b>15</b> |
| 11.1      | WASTE HIERARCHY                                         | 15        |
| 11.2      | ON-SITE RE-USE OF MATERIALS                             | 15        |
| 11.3      | WASTE DISPOSAL TO LANDFILL                              | 15        |
| 11.4      | RECOMMENDATIONS                                         | 16        |
| <b>12</b> | <b>COMMENTS ON ENGINEERING DESIGN .....</b>             | <b>18</b> |



|      |                             |    |
|------|-----------------------------|----|
| 12.1 | GENERAL                     | 18 |
| 12.2 | CONSTRUCTION CONSIDERATIONS | 18 |

DRAFT

## APPENDICES

|          |                                                  |
|----------|--------------------------------------------------|
| <b>A</b> | <b>DRAWINGS</b>                                  |
| <b>B</b> | <b>PHOTOGRAPHS</b>                               |
| <b>C</b> | <b>EXPLORATORY LOGS</b>                          |
| <b>D</b> | <b>GEOTECHNICAL RESULTS</b>                      |
| <b>E</b> | <b>CHEMICAL RESULTS AND SCREENING ASSESSMENT</b> |
| <b>F</b> | <b>HAZWASTE REPORT</b>                           |

DRAFT

## 1 INTRODUCTION

### 1.1 Contract Details

Following instruction from Persimmon Homes North Midlands (the 'client'), this report presents the results of a Supplementary Ground Investigation undertaken for a proposed residential development at Sketchley Lane, Burgage (the 'site').

### 1.2 Proposed Development

Information presented to T&P Regeneration Ltd (T&P) indicates that the proposed development is intended to comprise the construction of 150N<sup>o</sup> traditional two storey residential dwellings with associated areas of communal and private soft landscaping with hard landscaped access and parking. A development layout plan is included in Appendix A.

### 1.3 Previous Reports

Previous reports pertaining to the site are listed in Table 1.1. Pertinent information is summarised in this report where appropriate. However, reference should be made to these reports directly for further detail.

Table 1.1 Summary of Previous Reports

| Date       | Title                                     | Reference     | Author           |
|------------|-------------------------------------------|---------------|------------------|
| March 2024 | Ground Investigation Report               | P0866/CS-1745 | T&P Regeneration |
| March 2024 | Supplementary Ground Investigation Report | P0866/CS-1842 |                  |

### 1.4 Objectives

Following completion of previous investigation, the purpose of this investigation is to further assess the environmental and geotechnical conditions of soils beneath previously inaccessible areas of the site in a farmyard area as requested by the client, confirm an absence of gross contamination, and to derive piling design parameters.

### 1.5 Scope of Works

The scope of works to fulfil the purpose of the assessment has included the following:

- Intrusive ground investigation comprising windowless dynamic sampling and rotary drilling;
- Collection of soil samples for chemical and geotechnical laboratory analysis;
- Assessment of chemical and geotechnical test results;
- Refinement of conceptual site model and update to environmental risk assessment; and,
- Presentation of geotechnical information to assist with piled foundation design.

### 1.6 Report Limitations

The recommendations, interpretations and conclusions of this report are based on the historical and current site conditions reported by database and mapping sources as supplemented with information gathered during on-site visits. No responsibility can be accepted for the accuracy of third party information including reference data contained within site specific database reports. Due to the inherent variability of ground conditions between exploratory hole positions, these conditions can only be interpreted and are accurate only for the date of the investigation works.

## 2 SITE INFORMATION

### 2.1 Site Location

Site location information is summarised in Table 2.1. A Site Location Plan is presented within Appendix A.

**Table 2.1 Site Location Information**

| Information                   | Description                                                           |
|-------------------------------|-----------------------------------------------------------------------|
| Full postal address           | Sketchley Lodge,<br>Sketchley Lane,<br>Burbage, Hinckley,<br>LE10 3HU |
| National Grid Reference (NGR) | 442476, 291913                                                        |

### 2.2 Site Description

A summary of pertinent site information is provided in Table 2.2 with reference to information in previous reports

**Table 2.2 Summary of Site Information**

| Information                                                          | Description                                                                                                                                                                                                                                                                                                                                                                                                        |
|----------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Site access                                                          | The site is accessed via an electric gate located off the adjacent Sketchley Lane, which runs parallel to the northern boundary.                                                                                                                                                                                                                                                                                   |
| Site description including current site use and dimensions/area (ha) | The site is irregular in shape measuring approximately 310m north to south and 620m east to west, coving approximately 12.73 ha.<br>The site contains the current farmyard located in the northern site area and comprises an open sided hay barn, cattle shed, machinery area and a disused poultry barn. The majority of the site is spread across 8No agricultural fields located to the south of the farmyard. |
| Site elevation and topography                                        | The site elevation ranges between 118 and 102 metres Above Ordnance Datum (mAOD). The site is generally level in the northern region of the site and becomes sloped down towards the south.                                                                                                                                                                                                                        |
| Ground cover (%)                                                     | The site ground cover comprises: <ul style="list-style-type: none"> <li>• Soft landscaping (grass/planting) - 75%</li> <li>• Hard landscaping (tarmacadam/concrete/ buildings) - 15%</li> <li>• Dense vegetation - 5%</li> <li>• Buildings - 5%</li> </ul>                                                                                                                                                         |
| Site boundaries                                                      | North                                                                                                                                                                                                                                                                                                                                                                                                              |
|                                                                      | South                                                                                                                                                                                                                                                                                                                                                                                                              |
|                                                                      | East                                                                                                                                                                                                                                                                                                                                                                                                               |
|                                                                      | West                                                                                                                                                                                                                                                                                                                                                                                                               |
|                                                                      | Mature vegetation, post and wire fencing and electric fencing.                                                                                                                                                                                                                                                                                                                                                     |
| Surrounding land uses                                                | North                                                                                                                                                                                                                                                                                                                                                                                                              |
|                                                                      | East                                                                                                                                                                                                                                                                                                                                                                                                               |
|                                                                      | South                                                                                                                                                                                                                                                                                                                                                                                                              |
|                                                                      | West                                                                                                                                                                                                                                                                                                                                                                                                               |
|                                                                      | Sketchley Grange Hotel and an industrial estate to the north.                                                                                                                                                                                                                                                                                                                                                      |
|                                                                      | The town of Burbage with residential properties to the east.                                                                                                                                                                                                                                                                                                                                                       |
|                                                                      | To the south-west the site is bounded by the A5, beyond which are agricultural fields                                                                                                                                                                                                                                                                                                                              |



## 2.3 Environmental Setting

Pertinent environmental information within the available previous T&P Desk Study report has been reviewed and is summarised in Table 2.3.

**Table 2.3 Summary of Site Setting from Desk Study Information**

| Information                     | Description                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |
|---------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Site history                    | <p>From the earliest maps the majority of the site has remained undeveloped agricultural land.</p> <p>A small building, likely an animal shelter, is depicted in the earlier maps in the northeastern area of the site but is no longer present by the 1950s. A second small structure located in the north-western area remains to the present day. A small pond is featured on the early maps in the south-eastern field but is no longer shown post 1924.</p> <p>Development of the current farmyard area is first recorded on the 1993 map with a square structure at the eastern end of the current hay barn/ cattle shed/ storage area.</p> <p>Available aerial imagery infers this barn was extended firstly between 1999 and 2006, and then again post 2016.</p>                                          |
| Geology                         | <p>The site is shown to be underlain by four different glacial superficial deposits;</p> <ul style="list-style-type: none"> <li>• Dunsmore Gravel – outcropping north east corner,</li> <li>• Oadby Till Member – outcropping northern portion and beneath Dunsmore Gravel,</li> <li>• Wolston Sand and Gravel - outcropping in western and southern areas.</li> <li>• Wolston Clay – outcropping eastern area</li> </ul> <p>Underlying these deposits is bedrock geology of the Mercia Mudstone Group.</p>                                                                                                                                                                                                                                                                                                       |
| Mining and geotechnical hazards | <p>The site is located within an area that is unlikely to be affected by coal mining.</p> <p>Compressible ground stability is assessed as moderate risk across the southern portion of the site. All remaining land stability hazards are rated low to negligible risk.</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |
| Hydrology and hydrogeology      | <p>The four superficial deposits encountered on site have been identified as:</p> <ul style="list-style-type: none"> <li>• Dunsmore Gravel – Secondary A Aquifer.</li> <li>• Oadby Till Member - Secondary Undifferentiated Aquifer.</li> <li>• Wolston Sand and Gravel – Secondary A Aquifer.</li> <li>• Wolston Clay – Unproductive.</li> </ul> <p>The underlying Mercia Mudstone Group is classified as a Secondary B Aquifer.</p> <p>The site is not located within a groundwater Source Protection Zone. There are no licensed surface water or groundwater abstractions within 500m of the site.</p> <p>Groundwater vulnerability is classified by the Environment Agency as medium vulnerability.</p> <p>The nearest surface water feature is the Sketchley Brook located along the southern boundary.</p> |
| Environmental designations      | <p>There are no sensitive environmental designations on or near the site.</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |
| Radon                           | <p>No radon protection measures are required.</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |
| Background soil geochemistry    | <p>The site is not located in an area of where naturally elevated soil metal concentrations are anticipated.</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |
| Flood risk                      | <p>The site is located in a Flood Risk Zone 1. However, due to the size of the site (&gt;1ha), a Flood Risk Assessment is likely to be required to support redevelopment.</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |
| UXO                             | <p>The site is located in a low UXO risk area.</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |

### 3 PRELIMINARY CONCEPTUAL SITE MODEL

#### 3.1 Background

A risk assessment has been carried out under the governing terms set by Part 2A of the Environmental Protection Act 1990, statutory guidance entitled 'Contaminated Land Statutory Guidance (April 2012)' and in accordance with UK's risk assessment framework<sup>1</sup>.

The conceptual site model for the site has been developed with consideration of national guidance<sup>2</sup> which provides a framework for risk estimation and evaluation of plausible source-pathway-receptor linkages identified in the context of a proposed residential development.

#### 3.2 Potential Contamination Sources

Following completion of the previous intrusive works, only a single potential contamination source was considered to remain; made ground within the former farmyard area. As such, no other conceptual areas of potential concern have been considered within this report, and the assessments contained herein are presented in the context of refining outstanding potential risks to human health, flora, fauna and controlled waters associated with ground conditions in the former farmyard only.

Based upon the above, the following potential contaminants have been identified for consideration:

- Metals.
- Hydrocarbons.

#### 3.3 Exposure Pathways

With consideration of the site setting and proposed development, potentially active exposure pathways are included in Table 3.1.

#### 3.4 Potential Receptors

Identified receptors with regard to the current site setting and future proposed development are included in Table 3.1. The following receptors have been discounted from further consideration:

- Construction workers – it is considered that risks during the construction works will be managed appropriately to mitigate short term risks through measures such as use of Personal Protective Equipment (PPE), hygiene practices and other on-site controls as outlined in their Construction Phase Health and Safety Plan and method statements/risk assessments.
- Current site users – in the context of the proposed development for the site, future residents represent a more sensitive receptor than current site users, and as such, consideration of potential risks to future residents will be suitably protective of current site users. As such, current site users will not be considered separately within have been identified.

#### 3.5 Preliminary Qualitative Risk Assessment

A preliminary conceptual site model was developed previously, based on T&P Desk Study information. Table 3.1 summarises those source-pathway-receptor relationships or "contaminant linkages" that have been considered further as part of this assessment.

<sup>1</sup> Land contamination risk management - <https://www.gov.uk/government/publications/land-contamination-risk-management-lcrm>.

<sup>2</sup> Annex 4 - Guidance for the Safe Development of Housing on land Affected by Contamination R&D66. NHBC. 2008.

**Table 3.1 Summary of Source-Pathway-Receptor Relationships**

| APC<br>N° | Source                                             | Pathway (s)                                                                                                                             | Receptor                                                                      | Consequence | Probability    | Risk*               |                                                                                                                          |
|-----------|----------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------|-------------|----------------|---------------------|--------------------------------------------------------------------------------------------------------------------------|
| 1         | <u>On-site</u><br>Made ground in<br>farmyard area. | Oral ingestion                                                                                                                          | Future residents and<br>maintenance workers                                   | Medium      | Low likelihood | <b>Moderate/Low</b> | Access within<br>the footprint of<br>the farmyard<br>buildings was<br>not permitted<br>during previous<br>investigation. |
|           |                                                    | Vegetable uptake                                                                                                                        | Future residents                                                              | Medium      | Low likelihood | <b>Moderate/Low</b> |                                                                                                                          |
|           |                                                    | Dermal contact                                                                                                                          | Future residents and<br>maintenance workers                                   | Medium      | Low likelihood | <b>Moderate/Low</b> |                                                                                                                          |
|           |                                                    | Dust migration/inhalation                                                                                                               | Future residents,<br>maintenance workers<br>and off-site<br>residents/workers | Medium      | Low likelihood | <b>Moderate/Low</b> |                                                                                                                          |
|           |                                                    | Leaching/dissolution with<br>vertical migration to<br>groundwater                                                                       | Groundwater                                                                   | Medium      | Low likelihood | <b>Moderate/Low</b> |                                                                                                                          |
|           |                                                    | Leaching/dissolution with<br>vertical migration to<br>groundwater, and lateral<br>migration in groundwater                              | Surface water                                                                 | Medium      | Low likelihood | <b>Moderate/Low</b> |                                                                                                                          |
|           |                                                    | Overland flow                                                                                                                           | Surface water                                                                 | Medium      | Low likelihood | <b>Moderate/Low</b> |                                                                                                                          |
|           |                                                    | Migration via existing service<br>trenches                                                                                              | Groundwater/surface<br>water                                                  | Medium      | Low likelihood | <b>Moderate/Low</b> |                                                                                                                          |
|           |                                                    | Leaching/dissolution with<br>vertical migration to<br>groundwater, lateral migration in<br>groundwater and subsequent<br>volatilisation | Future residents,<br>maintenance workers<br>and off-site<br>residents/workers | Medium      | Low likelihood | <b>Moderate/Low</b> |                                                                                                                          |
|           |                                                    | Uptake via root system                                                                                                                  | On-site flora                                                                 | Medium      | Low likelihood | <b>Moderate/Low</b> |                                                                                                                          |

*\*Where multiple receptors exist the risk classification is based on most sensitive receptor for conservatism.*

## 4 SCOPE OF WORK

### 4.1 Summary of Fieldwork

An intrusive ground investigation was undertaken between 15<sup>th</sup> and 30<sup>th</sup> January 2024 and is summarised in Table 4.1.

**Table 4.1 Summary of Exploratory Locations**

| Hole ID     | Exploratory Location Type | Investigation Method | Depth (mbgl) |       | Comment                                                       |
|-------------|---------------------------|----------------------|--------------|-------|---------------------------------------------------------------|
|             |                           |                      | Min          | Max   |                                                               |
| WS01 – WS03 | Borehole                  | Windowless sampler   | -            | 5.00  | Targeting the footprint of previously inaccessible buildings. |
| RC01 – RC03 | Borehole                  | Rotary cored         | 15.00        | 27.00 | To support derivation of piling parameters.                   |

All holes were logged in accordance with BS5930<sup>3</sup>.

An exploratory hole location plan is presented within Appendix A and the exploratory hole logs are presented as Appendix C.

### 4.2 Soil Sampling

Representative soil samples were collected for geotechnical and environmental analysis at appropriate intervals during the investigation, in line with the client's specification/Supervising Engineer's instruction, and in general accordance with requirements of BS5930, BS18400 and other UK standards as relevant.

<sup>3</sup> BS 5930:2015+A1:2020. Code of Practice for Ground Investigations. 2020.



## 5 SUMMARY OF GROUND CONDITIONS

### 5.1 Encountered Strata

The geological sequence encountered during the ground investigation is summarised in Table 5.1 and described further in the following sub-sections. Ground conditions were found to broadly correspond with published geological information and previous investigation findings. Exploratory logs are included in Appendix C.

**Table 5.1 Summary of Ground Conditions**

| Stratum               | Top depth range (mbgl) | Base depth range (mbgl) | Exploratory holes       | Area of site | General description/ comments          |
|-----------------------|------------------------|-------------------------|-------------------------|--------------|----------------------------------------|
| Topsoil               | 0.00                   | 0.30 – 0.50             | BH01, BH02, BH04        | General      | Clayey SAND                            |
| Made ground           | 0.00                   | 0.10                    | WS03                    | Poultry shed | ASPHALT                                |
|                       | 0.00                   | 0.10 – 1.00             | BH03, WS01, WS02        | Farmyard     | Sandy gravelly CLAY                    |
|                       | 0.10                   | 0.40                    | WS03                    | Farmyard     | Clayey sandy GRAVEL                    |
| Oadby Member          | 0.10 – 1.00            | 2.00 – 9.50             | All Holes               | General      | Interbedded sandy CLAY and clayey SAND |
|                       | 5.20 – 9.50            | 7.00 – 16.50            | BH01 - BH03, WS02, WS03 | General      | SAND                                   |
| Mercia Mudstone Group | 6.00                   | 9.00                    | BH04                    | South        | Firm silty CLAY                        |
|                       | 7.00 - 16.50           | > 27.00                 | BH01 – BH04             | General      | Stiff to very stiff CLAY               |

#### 5.1.1 Made ground

Made ground was only encountered in BH03 and all three window samples, which were located near the farm buildings, with a reported thickness of up to 1.0m. Made ground was found to typically comprise a sandy gravelly clay which included red brick and limestone fragments. Surrounding the poultry shed area and within WS03 made ground locally comprised asphalt and a subbase of clayey sandy gravel.

#### 5.1.2 Topsoil

Topsoil was encountered with a thickness of 0.3 to 0.5m. In general, the topsoil was found to comprise dark brown fine clayey sand which, given the agricultural setting of the site, is likely to have been reworked through ploughing and crop cultivation.

#### 5.1.3 Superficial Geology – Oadby Member

The upper layers of the superficial Oadby Deposits comprised interbedded loose to medium dense sand and firm to stiff clay. These deposits were encountered between 0.30 and 9.50mbgl across the site.

Underlying the interbedded deposits a uniform sand was encountered in the majority of locations, which is considered to be the basal layer of the Oadby Member deposits.

#### 5.1.4 *Bedrock Geology – Mercia Mudstone Group*

The Mercia Mudstone Group was typically encountered as stiff to very stiff clay the depth of which varied across site from 6.00 to 16.50mbgl. Within BH04 this was initially encountered as firm clay from 6.0m to 9.0m where it was noted to become very stiff.

### 5.2 Evidence of Contamination

With the exception of made ground within WS01 to WS03 and BH03, no significant visible or olfactory evidence of any contamination was noted during the ground investigation.

### 5.3 Below Ground Structures and Obstructions

No below ground structures or obstructions were encountered during the ground investigation.

### 5.4 Groundwater

Groundwater was encountered within WS02 and WS03 during the ground investigation, with depths to groundwater strike ranging between 4.60 and 5.00mbgl, corresponding with the superficial sand. Recorded water levels after 20mins were noted to be stable.

## 6 SUMMARY OF LABORATORY ANALYSES

### 6.1 Geotechnical Testing

The geotechnical testing undertaken to support the derivation of pile parameters is summarised in Table 6.1.

Samples from the investigation were forwarded to a UKAS accredited laboratory. Complete results are provided in Appendix D.

**Table 6.1 Summary of Geotechnical Testing**

| Test                                   | Notes                                                                                 | Quantity |
|----------------------------------------|---------------------------------------------------------------------------------------|----------|
| Atterberg limits                       | -                                                                                     | 4 soils  |
| Particle size distribution (wet sieve) | -                                                                                     | 2 soils  |
| Triaxial compression                   | -                                                                                     | 8 soils  |
| Geochemical analysis BRE SD1 Suite     | pH, sulphur, chloride, nitrate, 2:1 water soluble sulphate, magnesium, total sulphate | 4 soils  |

### 6.2 Chemical Testing

The soil testing undertaken on samples recovered from the farmyard area is summarised in Table 6.2.

Samples from the investigation were forwarded to a UKAS and MCERTS accredited laboratory. Complete chemical results are provided in Appendix E.

**Table 6.2 Summary of Chemical Testing**

| Test type                                                                                                                                                      | Quantity |
|----------------------------------------------------------------------------------------------------------------------------------------------------------------|----------|
| Arsenic, Boron, Beryllium, Cadmium, Chromium, Lead, Mercury, Nickel, Copper, Zinc, Selenium, Vanadium, Phenols and US EPA 16 Polycyclic Aromatic Hydrocarbons. | 7 soils  |

## 7 HUMAN HEALTH AND PHYTOTOXIC RISK ASSESSMENT

### 7.1 Introduction

A human health generic quantitative risk assessment (GQRA) has been undertaken in accordance with the UK regulatory framework and current guidance on assessment of risks presented by land affected by contamination<sup>4</sup>.

When considering phytotoxic risks, contaminants selected are those listed within Annex 3 of 'Guidance for the Safe Development of Housing on Land Affected by Contamination. R&D66: 2008 Volume 2' as being 'phytotoxic'.

Where available, assessment values have been chosen based on the criteria within (in priority order) SGV Documents, ICRCL 59/83 phytotoxic threshold levels, Dutch RIVM Serious Risk Concentrations (SRC) for ecological receptors (amended for a UK soil of 10% clay and 2% soil organic matter) and US EPA Soil Screening Levels for plants.

### 7.2 Determination of Averaging Areas/Zones

For the purposes of investigation and assessment a site can be divided into zones based on historical uses or proposed end use. These zones can be further divided into averaging areas, which can be used to assess different soil types or different potential exposure pathways etc. for the purposes of risk evaluation. Each averaging area can be considered independently for human health exposure assessment.

Based upon the scope of this investigation, it is proposed that a single zone with two averaging areas is appropriate for the site as follows:

- Farmyard – made ground.
- Farmyard – natural soils.

### 7.3 Human Health and Phytotoxic Screening Assessment

For each averaging area, the analytical data has been evaluated directly against adopted screening levels<sup>5</sup> for phytotoxicity and a 'residential with consumption of home-grown produce' end use. A copy of the screening assessment is included in Appendix E.

### 7.4 Discussion

A review of soil data from this phase of investigation has not identified any contaminants soil concentrations to be elevated against adopted human health and phytotoxic screening levels for a 'residential with homegrown produce' end use.

However, it should be noted that endemically elevated levels of Polyaromatic Hydrocarbons (PAHs) were identified within the made ground during the previous investigation and this material is also considered physically unsuitable to provide a growth medium. As such, it is still considered that this material will not be suitable to remain at shallow depth within areas of soft landscaping.

---

<sup>4</sup> Environmental Protection Act 1990.

Contaminated Land Statutory Guidance (April 2012).

Land contamination risk management - <https://www.gov.uk/government/publications/land-contamination-risk-management-lcrm>.

<sup>5</sup> The LQM/CIEH S4ULs for Human Health Risk Assessment. 2015.

SP1010 – Development of Category 4 Screening Levels for Assessment of Land Affected by Contamination. CL:AIRE. 2013.



## 8 CONTROLLED WATERS RISK ASSESSMENT

### 8.1 Overview of Hydrogeological Setting

The Superficial Dunsmore Gravel and Wolston Sand and Gravel Members are designated as Secondary A aquifers. The Oadby Till Member is designated as a Secondary Undifferentiated aquifer and the Wolston Clay member as Unproductive.

The underlying Mercia Mudstone Group is designated as a Secondary B Aquifer. The site is not recorded to lie within an SPZ and nor are there any licensed abstractions recorded within a 500m radius.

The nearest surface water feature is the Sketchley Brook which is located on the southern boundary of the site, which flows from south to west. The Sketchley Brook is a tributary of the River Anker and therefore hydraulic connectivity is likely.

Groundwater flow is interpreted to be towards the south with consideration of topography and local surface water features.

On the basis of the above, the sensitive Controlled Waters receptors relating to the site are considered to be:

- Groundwater in the superficial deposits - Dunsmore Gravel and Wolston Sand and Gravel Members (Secondary A Aquifers); and;
- Sketchley Brook.

### 8.2 Risk Evaluation

Ground investigations to date have identified natural soils, comprising topsoil over clay or sand across the site. Made ground was encountered in the farmyard in the north central region of the site.

No significant visual or olfactory evidence of gross contamination was observed and the findings of this investigation are considered to reflect those encountered previously. While slightly elevated levels of PAHs above background concentrations were previously encountered within the made ground in the farmyard, these were not found to extend to the natural ground directly beneath. As such, no significant leaching pathway is considered to be present between the made ground and identified controlled waters receptors and the risk to controlled waters as a result is considered to be acceptably low.

In addition, it is considered likely that much of the proposed development will comprise buildings/hardstanding which will further decrease the likelihood of leaching. No further work is considered to be required, although vigilance for unexpected contamination should be maintained during demolition/construction.

## 9 POTABLE SUPPLY PIPEWORK RISK ASSESSMENT

Water industry guidance<sup>6</sup> states that only organic contaminants pose a potential risk to plastic pipe materials. The UKWIR report provides threshold values for polyethylene (PE) and polyvinyl chloride (PVC) pipes for the organic contaminants of concern. The results are summarised in Table 9.1 with exceedances highlighted in **bold**.

**Table 9.1 Summary of Soil Screening Against UKWIR Criteria**

| Determinant                                                                                                                         | Pipe material Generic Assessment Criteria (mg/kg) |          | Min (mg/kg) | Max (mg/kg) |
|-------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------|----------|-------------|-------------|
|                                                                                                                                     | PE                                                | PVC      |             |             |
| Extended VOC suite <sup>2</sup>                                                                                                     | 0.5                                               | 0.125    | <0.05       | 0.1         |
| BTEX + MTBE <sup>1</sup>                                                                                                            | 0.1                                               | 0.03     | -           | -           |
| SVOCs TIC by purge and trap or head space and GC-MS with TIC (aliphatic and aromatic C <sub>5</sub> -C <sub>10</sub> ) <sup>1</sup> | 2                                                 | 1.4      | -           | -           |
| Phenols <sup>1</sup>                                                                                                                | 2                                                 | 0.4      | <1.0        | <1.0        |
| Cresols and chlorinated phenols <sup>3</sup>                                                                                        | 2                                                 | 0.04     | <1.0        | <1.0        |
| Mineral oil C <sub>11</sub> -C <sub>20</sub> <sup>1</sup>                                                                           | 10                                                | Suitable | -           | -           |
| Mineral oil C <sub>21</sub> – C <sub>40</sub> <sup>1</sup>                                                                          | 500                                               | Suitable | -           | -           |
| Corrosive (conductivity, redox and pH) <sup>1</sup>                                                                                 | Suitable                                          | Suitable | -           | -           |

1. Determinant not tested.

2. Based upon recorded BaP concentrations.

3. Total Monohydric Phenols – Limit of Detection (LOD) is 5.0mg/kg. All speciated phenols are below LOD of 1.0mg/kg.

Given no visual or olfactory evidence of hydrocarbon or solvent based contamination was encountered on-site during the ground investigation, and the greenfield history of the site, most of the determinants of concern in relation to water supply pipework were not tested.

No significantly elevated concentrations of benzo(a)pyrene (BaP) were identified in topsoil or natural soil results. Therefore, it is considered that standard pipework will be suitable for the buried potable water supply network across the majority of the site.

Soil concentrations of benzo(a)pyrene (BaP) have been found to be endemically elevated within made ground in the farmyard during previous investigation. As such, upgraded water supply pipework should be utilised if installed within the made ground.

It is advised that statutory water provider is consulted to confirm that no specialist potable pipework is required.

<sup>6</sup> Guidance for the selection of water supply pipes to be used in brownfield sites (UK Water Industry Research Limited (UKWIR) - Ref: 10/WM/03/21) - 2010

## 10 REFINED CONCEPTUAL SITE MODEL

### 10.1 Overview

Following completion of the ground investigation, collection and interrogation of site data with consideration of the outcome of generic quantitative risk assessment discussed in preceding sections of this report, the conceptual site model has been revised.

### 10.2 Sources

Further to completion of ground investigation, the sources identified within the preliminary conceptual model to require further consideration include:

- On-site made ground in former farmyard area.

No further potential sources of impact were identified during the subsequent ground investigation works.

### 10.3 Risk Evaluation

SPRs identified for further consideration within Section 3 have been further interrogated in accordance with UK national guidance and regulatory framework<sup>7</sup> following completion of ground investigation and risk assessment. Table 10.1 presents the revised SPRs with associated classification of risk as appropriate following re-evaluation of risks.

---

<sup>7</sup> Annex 4 - Guidance for the Safe Development of Housing on land Affected by Contamination R&D66: 2008.  
Land contamination risk management - <https://www.gov.uk/government/publications/land-contamination-risk-management-lcrm>.

**Table 10.1 Revised Source-Pathway-Receptor Relationships**

| APC N° | Source                                   | Pathway (s)                                                                                                                 | Receptor                                                             | Consequence | Probability    | Risk*               | Comment                                                                                                                                                    |
|--------|------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------|-------------|----------------|---------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 1      | On-site<br>Made ground in farmyard area. | Oral ingestion                                                                                                              | Future residents and maintenance workers                             | Medium      | Low likelihood | <b>Moderate/Low</b> | No elevated determinants were identified within made ground during this phase of investigation. However, endemically elevated PAHs previously encountered. |
|        |                                          | Vegetable uptake                                                                                                            | Future residents                                                     | Medium      | Low likelihood | <b>Moderate/Low</b> |                                                                                                                                                            |
|        |                                          | Dermal contact                                                                                                              | Future residents and maintenance workers                             | Medium      | Low likelihood | <b>Moderate/Low</b> |                                                                                                                                                            |
|        |                                          | Dust migration/inhalation                                                                                                   | Future residents, maintenance workers and off-site residents/workers | Medium      | Low likelihood | <b>Moderate/Low</b> |                                                                                                                                                            |
|        |                                          | Permeation into drinking water supplies                                                                                     | Future residents                                                     | Medium      | Low likelihood | <b>Moderate/Low</b> |                                                                                                                                                            |
|        |                                          | Uptake via root system                                                                                                      | On-site flora                                                        | Medium      | Low likelihood | <b>Moderate/Low</b> | Due to its poor physical characteristics made ground is an considered unsuitable growth medium.                                                            |
|        |                                          | Leaching/dissolution with vertical migration to groundwater                                                                 | Groundwater                                                          | Medium      | Unlikely       | <b>Low</b>          | No gross contamination identified and soil results show no evidence of significant leaching pathway.                                                       |
|        |                                          | Leaching/dissolution with vertical migration to groundwater, and lateral migration in groundwater                           | Surface water                                                        | Medium      | Unlikely       | <b>Low</b>          |                                                                                                                                                            |
|        |                                          | Overland flow                                                                                                               | Surface water                                                        | Medium      | Unlikely       | <b>Low</b>          |                                                                                                                                                            |
|        |                                          | Migration via existing service trenches                                                                                     | Groundwater/surface water                                            | Medium      | Unlikely       | <b>Low</b>          |                                                                                                                                                            |
|        |                                          | Leaching/dissolution with vertical migration to groundwater, lateral migration in groundwater and subsequent volatilisation | Future residents, maintenance workers and off-site residents/workers | Medium      | Unlikely       | <b>Low</b>          |                                                                                                                                                            |

\*Where multiple receptors exist the risk classification is based on most sensitive receptor for conservatism.



## 11 PRELIMINARY WASTE ASSESSMENT

### 11.1 Waste Hierarchy

In line with the requirements of the Waste Framework Directive, the principles of the “waste hierarchy” should be applied to management options for on-site generated wastes, giving priority to the prevention of waste in the first instance, before considering re-use, recycling, recovery and lastly disposal. Principal considerations are set out in subsequent sections, although it is recommended that advice of a geo-environmental/waste specialists is sought at an early stage in the development process to ensure opportunities for minimisation of waste volumes are maximised.

### 11.2 On-site Re-Use of Materials

It may be possible to demonstrate through application of the CL:AIRE Definition of Waste Code of Practice (DoW CoP) that site won excavated soils are not classified as waste, and in doing so, permit this material to be re-used as part of proposed site redevelopment works. The DoW CoP may also apply to source segregated material arising from demolition activities. In determining the suitability of this approach, early consideration should be given to being able to demonstrate a specific planning requirement for the re-use of the excavated material. It is noted this approach cannot be applied retrospectively.

It should be noted that on-site re-use of “uncontaminated soil or other naturally occurring material” excavated as part of construction works for the purposes of construction is excluded from waste regulation.

Alternative mechanisms for on-site re-use of soils or aggregate may also be appropriate, on a site specific basis, depending on the volume/nature of the materials, and their intended use, such as:

- Waste exemptions under the Environmental Permitting (England and Wales) Regulations 2010, which are operations which are exempt from requiring permits, providing certain conditions are met. This typically applies to small volumes of non-hazardous soils although may also apply to other material types.
- Environmental permit under the Environmental Permitting (England and Wales) Regulations 2010 (standard or bespoke depending on the material and the activity).
- WRAP Aggregates Quality protocol<sup>8</sup> for the production and use of aggregates from inert waste, providing certain criteria are met.

### 11.3 Waste Disposal to Landfill

When waste is intended for disposal at a suitably licensed landfill site it is necessary for the waste producer (i.e. the developer or consultant on their behalf) to have completed a basic waste characterisation assessment, including:

- Description of the waste;
- List of Waste (LoW) code or codes if mixed waste;
- Determine the chemical composition to identify if waste has hazardous properties or Persistent Organic Pollutants (POPs) are present;
- Determination of hazardous properties;
- Waste Acceptance Criteria (WAC) testing (if required) to determine landfill acceptance.

---

<sup>8</sup> Aggregates from inert waste. End of waste criteria for the production of aggregates from inert waste. WRAP.

Relevant information on the above can be found in WM3<sup>9</sup> and is discussed further in the context of ground investigation findings in subsequent sections.

It should be noted that alternative off-site disposal routes may be available, such as recycling/treatment facilities and that in these instances, waste classification would not be appropriate. Instead, it will be necessary to confirm with the destination facility that the material complies with their permit criteria. Further testing in addition to the available ground investigation data may be required by them.

#### 11.3.1 Waste Classification

A preliminary waste classification exercise has been undertaken with reference to available ground investigation data from this phase of investigation. Hazardous properties of the soils have been assessed using the HazWaste program. A copy of the HazWaste report is included in Appendix F, which revealed all results to be classified as non-hazardous.

#### 11.3.2 Landfill Waste Acceptance

If a waste classification assessment determines that disposal to landfill is the appropriate option for the waste then WAC testing must be undertaken for wastes destined for inert, stable non-reactive hazardous or hazardous classes of landfill. WAC testing may not be required if the material falls into the list of waste material identified in The Landfill Directive assumed to fulfil the criteria for inert waste, as detailed in Article 2(e) of the Landfill Directive. This includes soils and stone with an EWC code 17 05 04 but excludes topsoil, peat and soil from contaminated sites. Additionally if waste has been classified as non-hazardous and is going to be disposed of to a non-hazardous landfill rather than an inert non-hazardous landfill then WAC testing may not be required. In all cases consultation with the receiving facility to confirm testing and acceptance of waste classification prior to disposal is advised.

#### 11.3.3 Landfill Tax

Unless specifically exempt landfill tax applies to disposal of material at a landfill that's covered by a permit under specific environmental legislation and at any unauthorised waste site. Currently this tax rate is set at £102.10/tonne (2023/2024).

There are some circumstances where material placed within a landfill cell is excepted from the charge to Landfill Tax, including use of material for creation of capping, drainage or otherwise meets conditions of other Landfill Tax exemptions e.g. dredgings, mining and quarrying materials.

A lower rate of landfill tax set at £3.25/tonne does apply to less polluting material listed in the landfill tax (qualifying material) order 2011<sup>10</sup>, including naturally occurring rocks and soils, excluding topsoil (group 1) and ceramic or concrete (group 2).

### 11.4 Recommendations

- Waste management options should be considered in line with the Waste Hierarchy, with priority placed on prevention, re-use, recycling and recovery in order to reduce off-site disposal volumes. Sorting and segregation of excavated soils/materials may also enable reduction in off-site disposal volumes.
- In the event that off-site disposal of surplus excavated soils to landfill is intended, chemical results should be supplied to the receiving facility to confirm they will be able to accept the material. Supplementary testing may be required by the receiving facility, including WAC

<sup>9</sup> Guidance on the classification and assessment of waste - Technical Guidance WM3. Environment Agency 2015.

<sup>10</sup> Landfill Tax (Qualifying Material) Order 2011 can be found at <http://www.legislation.gov.uk/ukxi/2011/1017/contents/made>

testing, to confirm the preliminary waste characterisation assessment and to ensure WM3 requirements have been met.

DRAFT

## 12 COMMENTS ON ENGINEERING DESIGN

### 12.1 General

Eurocode 7 (Section 2)<sup>11</sup> advocates the use of geotechnical categorisation of the proposed structures to establish the design requirements. Information presented to T&P indicates that the proposed development is to comprise 150N° traditional two storey residential dwellings with associated areas of communal and private soft landscaping and hard landscaped access and parking. It has been assumed that the dwellings will be of masonry construction with line loads of between 50-70kN/m.

In consideration of the available information on the development proposals, for the purposes of this investigation the proposed structures have been classified as follows:

- Geotechnical category 1: Small and relatively simple buildings (houses) with strip or piled foundations, roads, pavements, car parks, retaining walls below 2m, small excavations for drainage works, with the proposed housing development considered to be within this category.

### 12.2 Construction Considerations

#### 12.2.1 Subsurface Concrete

Based on the pH values, water soluble sulphate and SD1 suite concentrations recorded during this and the previous investigation, a DS-4 AC-4 design mix concrete is recommended for buried structures when compared against the BRE<sup>12</sup> assessment levels.

#### 12.2.2 Pile Design Parameters

The previously completed ground investigation showed considerable lateral and vertical variability in the ground conditions with numerous areas of poor-quality soils which could not be readily delineated. As such, it was considered that ground improvement or piled foundations would be required.

The ground investigation identified superficial deposits to a maximum depth of 6.00 – 16.50m. The superficial deposits were noted to be variable in nature, comprising both granular (loose to medium dense) and cohesive (firm to very stiff) soils. The bedrock geology of the Mercia Mudstone Group was encountered beneath the superficial material typically as a stiff to very stiff clay.

Given the above, for the purpose of preliminary design it has been assumed that the superficial deposits will offer no significant friction and that the majority of pile resistance will be derived from the clay of the Mercia Mudstone Group.

Undrained shear strengths obtained from triaxial testing revealed values in the range 11kPa to 165kPa. However, it is considered that the lower shear strength values of 11 to 38kPa are likely due to pre-existing shear planes within the samples and unlikely to be representative of in situ characteristics, given the observations of stiff to very stiff consistency. Nevertheless, conservative shear strength design values have been adopted as detailed below.

Preliminary pile capacities are given in Table 12.1, based on an average undrained shear strength along the embedded length of the pile of 100kPa, an undrained shear strength at the base of the pile of 150kPa, an adhesion factor ( $\alpha$ ) of 0.45 and a factor of safety of 2.5.

<sup>11</sup> BS EN 1997 – Part 2. Geotechnical Design.

<sup>12</sup> BRE Special Digest 1:2005 – Third edition – Concrete in aggressive ground.

**Table 12.1 Preliminary Pile Capacities (kN)**

| Pile Diameter (mm) | Embedded Length within Mercia Mudstone Group (m) |       |       |
|--------------------|--------------------------------------------------|-------|-------|
|                    | 6.0                                              | 8.0   | 10.0  |
| 150                | 150kN                                            | 190kN | 235kN |
| 300                | 350kN                                            | 430kN | 725kN |
| 450                | 575kN                                            | 725kN | 850kN |

Note that the preliminary pile capacities derived above are based on the embedded length with the clay of the Mercia Mudstone Group and are not total pile lengths. As previously noted, the shallow ground conditions are highly variable, as such a pile with an embedded length of 6.0m in the area of BH01 will have a total length of 19.5m whereas a pile with an embedded length of 6.0m in the area of BH04 will have a total length of 12.0m.

In the event that greater pile capacities are required piles should be taken to greater depth. The advice of specialist piling contractors should be sought to determine the most suitable and cost-effective piling method.

### 12.2.3 Temporary Working Platforms

In order for piles to be formed across the site, the construction of a temporary working platform will be necessary to enable safe tracking and set up of the piling rig. For preliminary cost planning purposes, estimated platform thicknesses are summarised in Table 12.2 and Table 12.3, using an example rig.

**Table 12.2 Estimated Platform Thicknesses – Cohesive Subgrade**

| Example Rig Loading |              |             |                  |              |             | Subgrade shear strength | Platform thickness |
|---------------------|--------------|-------------|------------------|--------------|-------------|-------------------------|--------------------|
| Case Load 1         |              |             | Case Load 2      |              |             |                         |                    |
| Bearing pressure    | Track length | Track width | Bearing pressure | Track length | Track width |                         |                    |
| 90kPa               | 3.0m         | 0.5m        | 240kPa           | 1.75m        | 0.5m        | 20kPa                   | 800mm              |
|                     |              |             |                  |              |             | 30kPa                   | 650mm              |
|                     |              |             |                  |              |             | 40kPa                   | 500mm              |
|                     |              |             |                  |              |             | 50kPa                   | 300mm              |

**Table 12.3 Estimated Platform Thicknesses – Granular Subgrade**

| Example Rig Loading |                 |                |                     |                 |                | Subgrade<br>angle of<br>shearing<br>resistance $\phi$ | Platform<br>thickness |
|---------------------|-----------------|----------------|---------------------|-----------------|----------------|-------------------------------------------------------|-----------------------|
| Case Load 1         |                 |                | Case Load 2         |                 |                |                                                       |                       |
| Bearing<br>pressure | Track<br>length | Track<br>width | Bearing<br>pressure | Track<br>length | Track<br>width |                                                       |                       |
| 90kPa               | 3.0m            | 0.5m           | 240kPa              | 1.75m           | 0.5m           | 25°                                                   | 950mm                 |
|                     |                 |                |                     |                 |                | 30°                                                   | 850mm                 |
|                     |                 |                |                     |                 |                | 35°                                                   | 500mm                 |
|                     |                 |                |                     |                 |                | 40°                                                   | 300mm                 |

The working platform thickness should be designed on a case-by-case basis in accordance with BRE guidance<sup>13</sup>, in consideration of selected platform materials, local ground conditions and the selected piling rig.

<sup>13</sup> BR470. Working platforms for tracked plant. 2004.



## Appendix A – Drawings



- Site Boundary - 12.74ha
- Illustrative Residential Blocks  
4.07ha NDA - up to 150 dwellings
- Residential Ridge Heights limited up to 7.5m
- Proposed Vehicular Access Point
- Proposed New Pedestrian and Cycle Access Point
- Primary Access Route
- Indicative Internal Streets
- Existing Retained Trees and Hedgerows/  
Woodlands
- Indicative Structural Woodland and Parkland  
Planting
- Proposed Native Hedgerow Planting
- Indicative Street Tree Planting
- Indicative Pond Features (Wet/Dry)
- Public Open Space
- Agricultural Land
- 0.5m Contours
- Area Reserved for Agricultural Track
- Stormwater Drain with 7m Easement
- Pumping Station
- Informal/Natural Children's Play Area
- PROW - Existing Footpath
- PROW - Existing Bridleway
- Proposed Pedestrian Trail

client  
**Barwood Development Securities Limited**

project title  
**Sketchley Lane, Sketchley**

drawing title  
**Illustrative Masterplan**

|                |                       |          |              |
|----------------|-----------------------|----------|--------------|
| date           | <b>17 AUGUST 2021</b> | drawn by | <b>PW/CG</b> |
| drawing number | <b>edp4824_d041a</b>  | checked  | <b>BR</b>    |
| scale          | <b>1:2,500 @ A3</b>   | QA       | <b>RB</b>    |

**edp** the environmental  
dimension partnership

Registered office: 01285 740427 - [www.edp-uk.co.uk](http://www.edp-uk.co.uk) - [info@edp-uk.co.uk](mailto:info@edp-uk.co.uk)



— Site Boundary

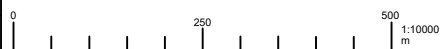


**Base Map**  
Company: - Autodesk License  
DWG Title: -  
DWG Number: -  
Date: -

|                         |          |                       |          |      |
|-------------------------|----------|-----------------------|----------|------|
| RC                      | RG       | Site Boundary Updated | 10/03/23 | A    |
| AW                      | RG       | Site Boundary Updated | 24/03/23 | B    |
| Drawn                   | Checked  | Amendment             | Date     | Rev. |
| Barwood Land            |          |                       |          |      |
| Sketchley Lane, Burbage |          |                       |          |      |
| Site Location Plan      |          |                       |          |      |
| Scale                   | Date     | Drawn by              | Check by | Rev. |
| 1:10000@A4              | 21/02/23 | AW                    | RG       | B    |



Unit 4 Brunel Lock Development, Smeaton  
Road, Bristol, BS1 6SE  
Tel: 0117 927 7756  
Email: [Info@TP-regen.co.uk](mailto:Info@TP-regen.co.uk)





— Site Boundary

**T&P Investigation**

- Windowless Sampling Locations  
(WS201 - WS203)
- Borehole Locations  
(BH01 - BH04)



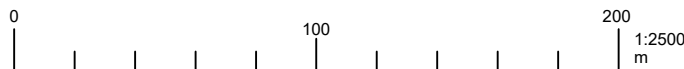
**Base Map**  
Company: Bing Maps Autodesk Licence  
DWG Title: -  
DWG Number: -  
Date: -

| Drawn                          | Checked  | Amendment | Date     | Rev. |
|--------------------------------|----------|-----------|----------|------|
|                                |          |           |          |      |
| Persimmon Homes North Midlands |          |           |          |      |
| Sketchley Lane, Burbage        |          |           |          |      |
| Exploratory Hole Location Plan |          |           |          |      |
| Scale                          | Date     | Drawn by  | Check by | Rev. |
| 1:2500@A3                      | 14/03/24 | HL        | RG       | -    |



**Unit 4 Brunel Lock Development, Smeaton Road, Bristol, BS1 6SE**  
Tel: 0117 927 7756  
Email: [Info@TP-regen.co.uk](mailto:Info@TP-regen.co.uk)

|           |          |          |          |      |              |
|-----------|----------|----------|----------|------|--------------|
| Scale     | Date     | Drawn by | Check by | Rev. | Drawing No.  |
| 1:2500@A3 | 14/03/24 | HL       | RG       | -    | P0866-01-006 |





## Appendix B – Photographs





**PLATE 01 – Site Overview – Looking North.**



**PLATE 02 – Site Overview – Looking East.**



**PLATE 03 – Site Overview – Looking South.**



**PLATE 04 – Site Overview – Looking West.**



**PLATE 05 – Dynamic Windowless Sample Cores – WS01.**



**PLATE 06 – Dynamic Windowless Sample Cores – WS02.**



**PLATE 09 – Dynamic Windowless Sample Cores – WS03.**



**PLATE 10 – Borehole Core – BH01.**





PLATE 11 – Borehole Core – BH01.



PLATE 12 – Borehole Core – BH01.



PLATE 13 – Borehole Core – BH02.



PLATE 14 – Borehole Core – BH02.





PLATE 15 – Borehole Core – BH02.



PLATE 16 – Borehole Core – BH03.



PLATE 17 – Borehole Core – BH03.



PLATE 18 – Borehole Core – BH03.





**PLATE 19 – Borehole Core – BH04.**



**PLATE 20 – Borehole Core – BH04.**



**PLATE 21 – Borehole Core – BH04.**

## Appendix C – Exploratory Logs



SPT Hammer: AR3695 Energy Ratio: 81%

|        |
|--------|
| Scale: |
|--------|

Groundwater

Sample Key: B = Bulk Disturbed D = Small Disturbed C = Core Subsample U = Undisturbed Open-Drive W = Water G = Gas ES = Environmental Soil EW = Environmental Water

Groundwater not encountered

| Water Strikes |     |
|---------------|-----|
| 1             | 1   |
| 2             | 2   |
| 3             | 3   |
| 4             | 4   |
| 5             | 5   |
| 6             | 6   |
| 7             | 7   |
| 8             | 8   |
| 9             | 9   |
| 10            | 10  |
| 11            | 11  |
| 12            | 12  |
| 13            | 13  |
| 14            | 14  |
| 15            | 15  |
| 16            | 16  |
| 17            | 17  |
| 18            | 18  |
| 19            | 19  |
| 20            | 20  |
| 21            | 21  |
| 22            | 22  |
| 23            | 23  |
| 24            | 24  |
| 25            | 25  |
| 26            | 26  |
| 27            | 27  |
| 28            | 28  |
| 29            | 29  |
| 30            | 30  |
| 31            | 31  |
| 32            | 32  |
| 33            | 33  |
| 34            | 34  |
| 35            | 35  |
| 36            | 36  |
| 37            | 37  |
| 38            | 38  |
| 39            | 39  |
| 40            | 40  |
| 41            | 41  |
| 42            | 42  |
| 43            | 43  |
| 44            | 44  |
| 45            | 45  |
| 46            | 46  |
| 47            | 47  |
| 48            | 48  |
| 49            | 49  |
| 50            | 50  |
| 51            | 51  |
| 52            | 52  |
| 53            | 53  |
| 54            | 54  |
| 55            | 55  |
| 56            | 56  |
| 57            | 57  |
| 58            | 58  |
| 59            | 59  |
| 60            | 60  |
| 61            | 61  |
| 62            | 62  |
| 63            | 63  |
| 64            | 64  |
| 65            | 65  |
| 66            | 66  |
| 67            | 67  |
| 68            | 68  |
| 69            | 69  |
| 70            | 70  |
| 71            | 71  |
| 72            | 72  |
| 73            | 73  |
| 74            | 74  |
| 75            | 75  |
| 76            | 76  |
| 77            | 77  |
| 78            | 78  |
| 79            | 79  |
| 80            | 80  |
| 81            | 81  |
| 82            | 82  |
| 83            | 83  |
| 84            | 84  |
| 85            | 85  |
| 86            | 86  |
| 87            | 87  |
| 88            | 88  |
| 89            | 89  |
| 90            | 90  |
| 91            | 91  |
| 92            | 92  |
| 93            | 93  |
| 94            | 94  |
| 95            | 95  |
| 96            | 96  |
| 97            | 97  |
| 98            | 98  |
| 99            | 99  |
| 100           | 100 |

| Strike (m) | Casing (m) | Sealed (m) | Time (mins) | Rose to (m) | Remarks |
|------------|------------|------------|-------------|-------------|---------|
|------------|------------|------------|-------------|-------------|---------|

|                                                                                      |  |                 |  |                       |  |
|--------------------------------------------------------------------------------------|--|-----------------|--|-----------------------|--|
| Fracture spacing reported as min, avg and max values. TCR, SCR and RQD reported as % |  |                 |  |                       |  |
| T&P Regeneration RC Template                                                         |  | Issue Number: 1 |  | Issue Date: June 2016 |  |

Fracture spacing reported as min, avg and max values. TCR, SCR and RQD reported as %

|                              |                 |                       |
|------------------------------|-----------------|-----------------------|
| T&P Regeneration RC Template | Issue Number: 1 | Issue Date: June 2016 |
|------------------------------|-----------------|-----------------------|











Issue Date: June 2016







BH03

FINAL

Sheet 2 of 2

|        |
|--------|
| Scale: |
|--------|

1:50

SPT Hammer: AR3695 Energy Ratio: 81%

|                                                                                                                                                                     |          |            |            |              |                   |          |                 |          |                                                                                      |            |            |             |             |         |
|---------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------|------------|------------|--------------|-------------------|----------|-----------------|----------|--------------------------------------------------------------------------------------|------------|------------|-------------|-------------|---------|
| Sample Key: B = Bulk Disturbed D = Small Disturbed C = Core Subsample U = Undisturbed Open-Drive W = Water G = Gas ES = Environmental Soil EW = Environmental Water |          |            |            |              |                   |          |                 |          |                                                                                      |            |            |             |             |         |
| Start & End of Shift Observations                                                                                                                                   |          |            |            |              | Borehole Diameter |          | Casing Diameter |          | Remarks:<br><br>Groundwater not encountered.                                         |            |            |             |             |         |
| Date                                                                                                                                                                | Time     | Depth (m)  | Casing (m) | Water (m)    | Depth (m)         | Dia (mm) | Depth           | Dia (mm) |                                                                                      |            |            |             |             |         |
| 24-01-2024                                                                                                                                                          | 16:30    | 12.00      | 10.50      |              |                   |          |                 |          |                                                                                      |            |            |             |             |         |
| 25-01-2024                                                                                                                                                          | 16:00    | 20.00      | 10.50      |              |                   |          |                 |          |                                                                                      |            |            |             |             |         |
|                                                                                                                                                                     |          |            |            |              |                   |          |                 |          | Water Strikes                                                                        |            |            |             |             |         |
| Flush Information                                                                                                                                                   |          |            |            |              | Installation      |          |                 |          | Strike (m)                                                                           | Casing (m) | Sealed (m) | Time (mins) | Rose to (m) | Remarks |
| Top (m)                                                                                                                                                             | Base (m) | Flush Type | Return     | Flush Colour | Top (m)           | Base (m) | Type            | Dia (mm) |                                                                                      |            |            |             |             |         |
|                                                                                                                                                                     |          |            |            |              |                   |          |                 |          |                                                                                      |            |            |             |             |         |
|                                                                                                                                                                     |          |            |            |              |                   |          |                 |          | Fracture spacing reported as min, avg and max values. TCR, SCR and RQD reported as % |            |            |             |             |         |
|                                                                                                                                                                     |          |            |            |              |                   |          |                 |          | T&P Regeneration RC Template Issue Number: 1 Issue Date: June 2016                   |            |            |             |             |         |





Sheet 2 of 2

|        |
|--------|
| Scale: |
|--------|

SPT Hammer: AR3695 Energy Ratio: 81%

Sample Key: B = Bulk Disturbed D = Small Disturbed C = Core Subsample U = Undisturbed Open-Drive W = Water G = Gas ES = Environmental Soil EW = Environmental Water

## Remarks:

Groundwater not encountered.

## Water Strikes

| Strike (m) | Casing (m) | Sealed (m) | Time (mins) | Rose to (m) | Remarks |
|------------|------------|------------|-------------|-------------|---------|
|------------|------------|------------|-------------|-------------|---------|

Fracture spacing reported as min. avg and max values. TCR, SCR and RQD reported as %

T&amp;P Regeneration RC Template

Issue Number: 1

Issue Date: June 2016





|                                                                                                                                                  |                                                     |                            |                                                             |                                           |                            |                                       |                                                                                                                                                                        |          |                                                                                                             |              |                         |
|--------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------|----------------------------|-------------------------------------------------------------|-------------------------------------------|----------------------------|---------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------|-------------------------------------------------------------------------------------------------------------|--------------|-------------------------|
| <div><div>T&amp;P</div><div>Regen</div><div>www.tandpregeneration.co.uk</div></div>                                                              | Contract Name:<br>Sketchley Lane, Burbage - Supp GI |                            |                                                             | Client:<br>Persimmon Homes North Midlands |                            |                                       | Borehole ID:<br>WS02                                                                                                                                                   |          |                                                                                                             |              |                         |
|                                                                                                                                                  | Contract Number:<br>P0866 / CS-2132                 |                            | Date Started:<br>19/01/2024                                 |                                           | Logged By:<br>RG           |                                       | Checked By:<br>SH                                                                                                                                                      |          | Status:<br>FINAL                                                                                            |              |                         |
|                                                                                                                                                  | Easting:<br>442443.00                               |                            | Northing:<br>291938.00                                      |                                           | Ground Level:<br>113.14mOD |                                       | Plant Used:<br>GTR FSX                                                                                                                                                 |          | Scale:<br>1:25                                                                                              |              |                         |
| Windowless Sample Borehole Log                                                                                                                   |                                                     |                            |                                                             |                                           |                            |                                       |                                                                                                                                                                        |          |                                                                                                             |              |                         |
| Weather: Clear                                                                                                                                   |                                                     |                            | Termination: Engineers Instruction                          |                                           |                            | SPT Hammer: GTR FSX Energy Ratio: 73% |                                                                                                                                                                        |          |                                                                                                             |              |                         |
| Samples & In Situ Testing                                                                                                                        |                                                     |                            |                                                             |                                           | Strata Details             |                                       |                                                                                                                                                                        |          |                                                                                                             | Groundwater  |                         |
| Depth                                                                                                                                            | Sample ID                                           | Windowless Sample Recovery | Test Result                                                 | Level (mAOD)                              | Depth (m) (Thickness)      | Legend                                | Strata Description                                                                                                                                                     |          |                                                                                                             | Water Strike | Backfill / Installation |
| 0.10 - 0.20<br>0.10 - 0.20                                                                                                                       | ES1<br>ES2                                          |                            |                                                             | 113.04                                    | 0.10                       |                                       | MADE GROUND: Greyish brown slightly sandy slightly gravelly CLAY. Gravel is subangular fine to coarse of limestone and brick. Firm to stiff brown CLAY. (OADBY MEMBER) |          |                                                                                                             |              |                         |
| 0.50 - 0.60<br>0.50 - 0.60                                                                                                                       | D1<br>ES3                                           |                            |                                                             |                                           |                            |                                       |                                                                                                                                                                        |          |                                                                                                             |              |                         |
|                                                                                                                                                  |                                                     | 1.00 - 2.00<br>= 90%       | SPT(S) 1.00m, N=8<br>(1,1/1,2,2,3)                          |                                           | (2.00)                     |                                       |                                                                                                                                                                        |          |                                                                                                             | 1            |                         |
| 1.50 - 1.60<br>1.50 - 1.60                                                                                                                       | D2                                                  |                            |                                                             |                                           |                            |                                       |                                                                                                                                                                        |          |                                                                                                             |              |                         |
|                                                                                                                                                  |                                                     | 2.00 - 3.00<br>= 85%       | SPT(S) 2.00m, N=12<br>(2,2/2,3,3,4)<br>HV 2.00m, 70 / 30kPa | 111.04                                    | 2.10                       |                                       | Reddish brown SAND.<br>(OADBY MEMBER)                                                                                                                                  |          |                                                                                                             | 2            |                         |
| 2.50 - 2.60<br>2.50 - 2.60                                                                                                                       | D3                                                  |                            |                                                             |                                           | (0.80)                     |                                       |                                                                                                                                                                        |          |                                                                                                             |              |                         |
|                                                                                                                                                  |                                                     | 3.00 - 4.00<br>= 85%       | SPT(S) 3.00m, N=11<br>(2,2/2,2,3,4)                         | 110.24                                    | 2.90                       |                                       | Medium dense reddish brown silty SAND.<br>(OADBY MEMBER)                                                                                                               |          |                                                                                                             | 3            |                         |
| 3.50 - 3.60<br>3.50 - 3.60                                                                                                                       | D4                                                  |                            |                                                             | 109.84                                    | 3.30                       |                                       | Reddish brown SAND.<br>(OADBY MEMBER)                                                                                                                                  |          |                                                                                                             |              |                         |
|                                                                                                                                                  |                                                     | 4.00 - 5.00<br>= 60%       | SPT(S) 4.00m, N=11<br>(1,1/2,3,3,3)                         |                                           | (1.70)                     |                                       | 4.00mbgl: Medium dense.                                                                                                                                                |          |                                                                                                             | 4            |                         |
| 4.50 - 4.60<br>4.50 - 4.60                                                                                                                       | D5                                                  |                            |                                                             |                                           |                            |                                       |                                                                                                                                                                        |          |                                                                                                             |              |                         |
|                                                                                                                                                  |                                                     |                            | SPT(S) 5.00m, N=4<br>(1,1/1,1,1,1)                          | 108.14                                    | 5.00                       |                                       | End of Borehole at 5.00m                                                                                                                                               |          |                                                                                                             | 5            |                         |
| Sample Key: B = Bulk Disturbed D = Small Disturbed U = Undisturbed Open-Drive W = Water G = Gas ES = Environmental Soil EW = Environmental Water |                                                     |                            |                                                             |                                           |                            |                                       |                                                                                                                                                                        |          |                                                                                                             |              |                         |
| Start & End of Shift Observations                                                                                                                |                                                     |                            |                                                             |                                           | Borehole Diameter          |                                       | Casing Diameter                                                                                                                                                        |          | Remarks:                                                                                                    |              |                         |
| Date                                                                                                                                             | Time                                                | Depth (m)                  | Casing (m)                                                  | Water (m)                                 | Depth (m)                  | Dia (mm)                              | Depth                                                                                                                                                                  | Dia (mm) | Groundwater encountered at 5.00mbgl. Coordinates inferred due to location of window sample within building. |              |                         |
|                                                                                                                                                  |                                                     |                            |                                                             |                                           |                            |                                       |                                                                                                                                                                        |          |                                                                                                             |              |                         |
| Water Strikes                                                                                                                                    |                                                     |                            |                                                             |                                           | Installation               |                                       |                                                                                                                                                                        |          |                                                                                                             |              |                         |
| Strike (m)                                                                                                                                       | Casing (m)                                          | Sealed (m)                 | Time (mins)                                                 | Rose to (m)                               | Remarks                    | Top (m)                               | Base (m)                                                                                                                                                               | Type     | Dia (mm)                                                                                                    |              |                         |
| 5.00                                                                                                                                             |                                                     |                            | 0                                                           | 2.00                                      |                            |                                       |                                                                                                                                                                        |          |                                                                                                             |              |                         |
|                                                                                                                                                  |                                                     |                            |                                                             |                                           |                            |                                       |                                                                                                                                                                        |          |                                                                                                             |              |                         |
| T&P Regeneration WS Template Issue Number: 1 Issue Date: June 2016                                                                               |                                                     |                            |                                                             |                                           |                            |                                       |                                                                                                                                                                        |          |                                                                                                             |              |                         |

|                                                                                                                                                  |                                                     |                            |                                                      |                                           |                            |          |                                                                                                        |                                       |                                                                                                            |              |                         |
|--------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------|----------------------------|------------------------------------------------------|-------------------------------------------|----------------------------|----------|--------------------------------------------------------------------------------------------------------|---------------------------------------|------------------------------------------------------------------------------------------------------------|--------------|-------------------------|
| <div><div>T&amp;P</div><div>Regen</div><div>www.tandpregeneration.co.uk</div></div>                                                              | Contract Name:<br>Sketchley Lane, Burbage - Supp GI |                            |                                                      | Client:<br>Persimmon Homes North Midlands |                            |          | Borehole ID:<br>WS03                                                                                   |                                       |                                                                                                            |              |                         |
|                                                                                                                                                  | Contract Number:<br>P0866 / CS-2132                 |                            | Date Started:<br>19/01/2024                          |                                           | Logged By:<br>RG           |          | Checked By:<br>SH                                                                                      |                                       | Status:<br>FINAL                                                                                           |              |                         |
|                                                                                                                                                  | Easting:<br>442453.00                               |                            | Northing:<br>291897.00                               |                                           | Ground Level:<br>111.23mOD |          | Plant Used:<br>GTR FSX                                                                                 |                                       | Scale:<br>1:25                                                                                             |              |                         |
| Windowless Sample Borehole Log                                                                                                                   |                                                     |                            |                                                      |                                           |                            |          |                                                                                                        |                                       |                                                                                                            |              |                         |
| Weather: Clear                                                                                                                                   |                                                     |                            |                                                      | Termination: Engineers Instruction        |                            |          |                                                                                                        | SPT Hammer: GTR FSX Energy Ratio: 73% |                                                                                                            |              |                         |
| Samples & In Situ Testing                                                                                                                        |                                                     |                            |                                                      | Strata Details                            |                            |          |                                                                                                        |                                       |                                                                                                            | Groundwater  |                         |
| Depth                                                                                                                                            | Sample ID                                           | Windowless Sample Recovery | Test Result                                          | Level (mAOD)                              | Depth (m) (Thickness)      | Legend   | Strata Description                                                                                     |                                       |                                                                                                            | Water Strike | Backfill / Installation |
| 0.20 - 0.30                                                                                                                                      | ES1                                                 |                            |                                                      | 111.13                                    | 0.10                       |          | MADE GROUND: Grey ASPHALT.                                                                             |                                       |                                                                                                            |              |                         |
| 0.20 - 0.30                                                                                                                                      | ES2                                                 |                            |                                                      | 110.83                                    | (0.30)                     |          | MADE GROUND: Dark grey slightly clayey sandy GRAVEL. Gravel is subangular fine to coarse of limestone. |                                       |                                                                                                            |              |                         |
| 0.50 - 0.60                                                                                                                                      | ES3                                                 |                            |                                                      | 110.83                                    | 0.40                       |          | Firm very sandy very gravelly CLAY. (OADBY MEMBER)                                                     |                                       |                                                                                                            |              |                         |
| 0.60 - 0.70                                                                                                                                      | D1                                                  |                            |                                                      |                                           | (0.60)                     |          |                                                                                                        |                                       |                                                                                                            |              |                         |
| 1.50 - 1.60                                                                                                                                      | D2                                                  | 1.00 - 2.00 = 50%          | SPT(S) 1.00m, N=9 (2,2/2,2,2,3) HV 1.00m, 65 / 20kPa | 110.23                                    | 1.00                       |          | Loose brown silty SAND. (OADBY MEMBER)                                                                 |                                       |                                                                                                            | 1            |                         |
|                                                                                                                                                  |                                                     |                            |                                                      | (1.00)                                    |                            |          |                                                                                                        |                                       |                                                                                                            |              |                         |
| 2.50 - 2.60                                                                                                                                      | D3                                                  | 2.00 - 3.00 = 45%          | SPT(S) 2.00m, N=5 (1,1/1,1,1,2)                      | 109.23                                    | 2.00                       |          | Loose brown SAND. (OADBY MEMBER)                                                                       |                                       |                                                                                                            | 2            |                         |
|                                                                                                                                                  |                                                     |                            |                                                      |                                           |                            |          |                                                                                                        |                                       |                                                                                                            |              |                         |
| 3.50 - 3.60                                                                                                                                      | D4                                                  | 3.00 - 4.00 = 80%          | SPT(S) 3.00m, N=4 (1,1/1,1,1,1)                      |                                           | (3.00)                     |          |                                                                                                        |                                       |                                                                                                            | 3            |                         |
|                                                                                                                                                  |                                                     |                            |                                                      |                                           |                            |          |                                                                                                        |                                       |                                                                                                            |              |                         |
| 4.50 - 4.60                                                                                                                                      | D5                                                  | 4.00 - 5.00 = 100%         | SPT(S) 4.00m, N=7 (1,1/1,2,2,2)                      |                                           |                            |          |                                                                                                        |                                       |                                                                                                            | 4            |                         |
|                                                                                                                                                  |                                                     |                            |                                                      |                                           |                            |          |                                                                                                        |                                       |                                                                                                            |              |                         |
|                                                                                                                                                  |                                                     |                            | SPT(S) 5.00m, N=2 (1,0/1,0,1,0)                      | 106.23                                    | 5.00                       |          | End of Borehole at 5.00m                                                                               |                                       |                                                                                                            | 5            |                         |
| Sample Key: B = Bulk Disturbed D = Small Disturbed U = Undisturbed Open-Drive W = Water G = Gas ES = Environmental Soil EW = Environmental Water |                                                     |                            |                                                      |                                           |                            |          |                                                                                                        |                                       |                                                                                                            |              |                         |
| Start & End of Shift Observations                                                                                                                |                                                     |                            |                                                      |                                           | Borehole Diameter          |          | Casing Diameter                                                                                        |                                       | Remarks:                                                                                                   |              |                         |
| Date                                                                                                                                             | Time                                                | Depth (m)                  | Casing (m)                                           | Water (m)                                 | Depth (m)                  | Dia (mm) | Depth                                                                                                  | Dia (mm)                              | Groundwater encountered at 4.6mbgl. Coordinates inferred due to location of window sample within building. |              |                         |
|                                                                                                                                                  |                                                     |                            |                                                      |                                           |                            |          |                                                                                                        |                                       |                                                                                                            |              |                         |
| Water Strikes                                                                                                                                    |                                                     |                            |                                                      |                                           | Installation               |          |                                                                                                        |                                       |                                                                                                            |              |                         |
| Strike (m)                                                                                                                                       | Casing (m)                                          | Sealed (m)                 | Time (mins)                                          | Rose to (m)                               | Remarks                    | Top (m)  | Base (m)                                                                                               | Type                                  | Dia (mm)                                                                                                   |              |                         |
| 4.60                                                                                                                                             |                                                     |                            | 0                                                    | 2.00                                      |                            |          |                                                                                                        |                                       |                                                                                                            |              |                         |
| T&P Regeneration WS Template Issue Number: 1 Issue Date: June 2016                                                                               |                                                     |                            |                                                      |                                           |                            |          |                                                                                                        |                                       |                                                                                                            |              |                         |

## Appendix D – Geotechnical Results



## TEST CERTIFICATE

### DETERMINATION OF LIQUID AND PLASTIC LIMITS

Tested in Accordance with: BS EN ISO 17892-12:2018+A2:2022,  
cl 5.3.14, 5.5, Fall Cone Method, 1 Pt Test, BS 1377-2:2022,  
cl 5.3, 6

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



Environmental Science

4041

Client: T&P Regeneration  
Client Address: Unit 5, Septimus,  
Hawkfield Business Park, BS14 0BN

Contact: Sam Hogg  
Site Address: Sketchley Lane Burbage Supp GI

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

Client Reference: P0866-CS-2132

Job Number: 24-001599-1

Date Sampled: 19/01/2024

Date Received: 01/02/2024

Date Tested: 09/02/2024

Sampled By: Not Given

#### Test Results:

Laboratory Reference: 110157  
Hole No.: BH02  
Sample Reference: 14  
Sample Description: Brown slightly sandy CLAY

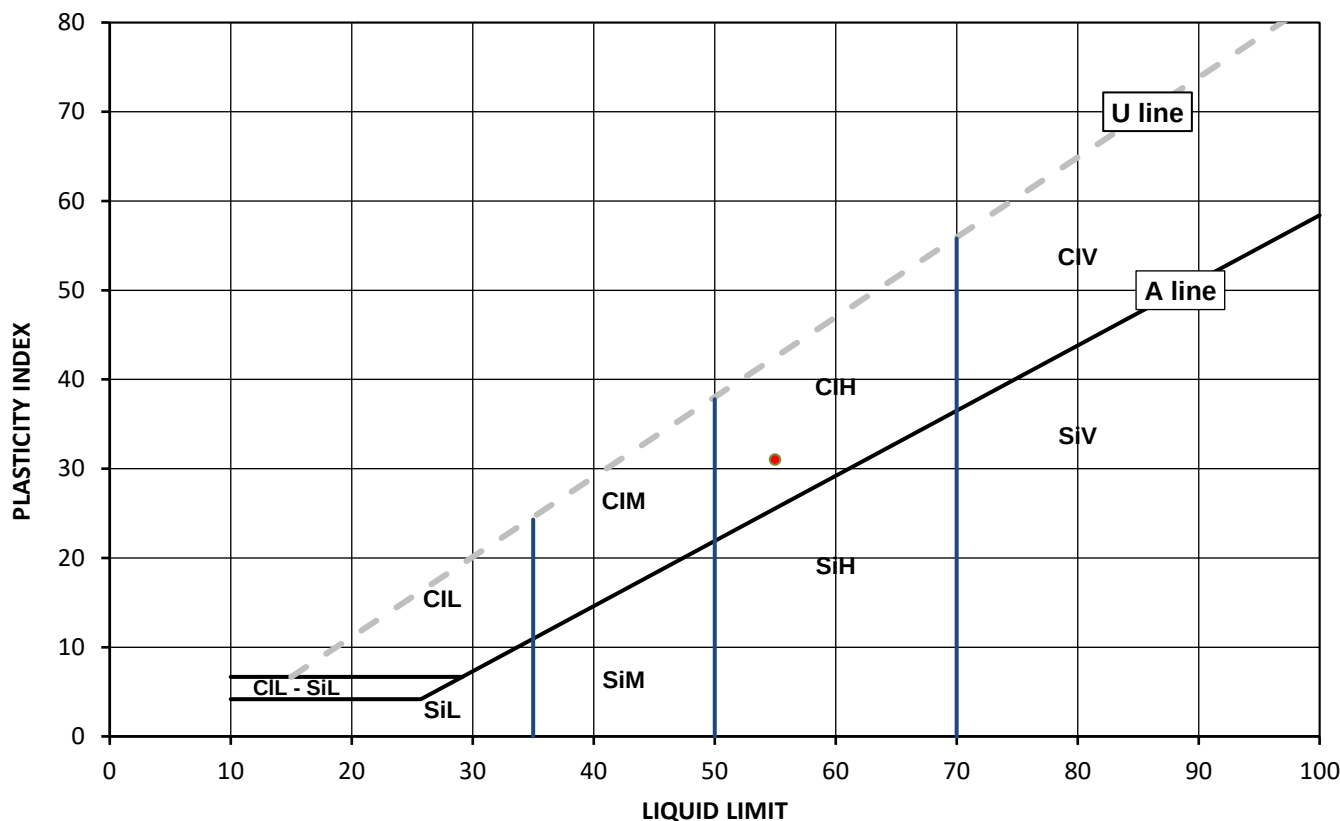
Depth Top [m]: 18.90

Depth Base [m]: 19.20

Sample Type: D

Sample Preparation: Tested in natural condition;  
Cone Type: 80g/30deg

| As Received Water Content [W] % | Corrected Liquid Limit [WL] % | Correlation Factor | Plastic Limit [Wp] % | Plasticity Index [Ip] % | Liquidity index [IL] % # | Consistency index [IC] % # | % Passing 425µm BS Test Sieve |
|---------------------------------|-------------------------------|--------------------|----------------------|-------------------------|--------------------------|----------------------------|-------------------------------|
| 21.9                            | 55                            | 1.054              | 24                   | 31                      | -0.06                    | 1.06                       | 100                           |



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

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

Note: Water Content by BS EN 17892-1: 2014; Correlation Factor by Clayton C.R.I and Jukes A.W (1978); # Non accredited

Remarks:

Signed:

Katarzyna Banys

Katarzyna Banys  
Junior Reporting Specialist  
for and on behalf of i2 Analytical Ltd

Opinions and interpretations expressed herein are outside of the scope of the UKAS Accreditation. This report may not be reproduced other than in full without the prior written approval of the issuing laboratory. The results included within the report relate only to the sample(s) submitted for testing.





## TEST CERTIFICATE

### DETERMINATION OF LIQUID AND PLASTIC LIMITS

Tested in Accordance with: BS EN ISO 17892-12:2018+A2:2022,  
cl 5.3.14, 5.5, Fall Cone Method, 1 Pt Test, BS 1377-2:2022,  
cl 5.3, 6

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



Environmental Science

4041

Client: T&P Regeneration  
Client Address: Unit 5, Septimus,  
Hawkfield Business Park, BS14 0BN

Contact: Sam Hogg  
Site Address: Sketchley Lane Burbage Supp GI

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

Client Reference: P0866-CS-2132

Job Number: 24-001599-1

Date Sampled: 19/01/2024

Date Received: 01/02/2024

Date Tested: 09/02/2024

Sampled By: Not Given

#### Test Results:

Laboratory Reference: 110158  
Hole No.: BH02  
Sample Reference: 18  
Sample Description: Brown slightly sandy CLAY

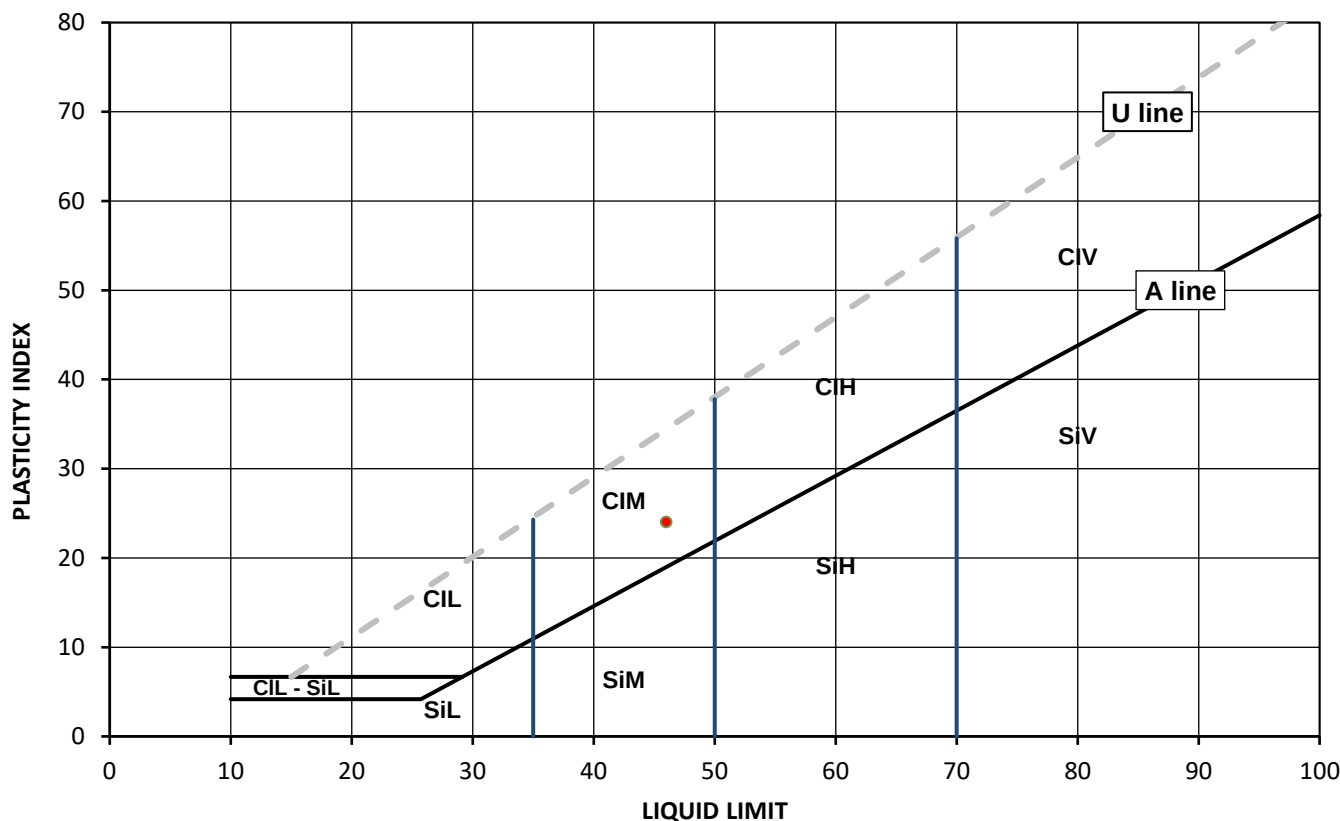
Depth Top [m]: 24.30

Depth Base [m]: 24.60

Sample Type: D

Sample Preparation: Tested in natural condition;  
Cone Type: 80g/30deg

| As Received Water Content [W] % | Corrected Liquid Limit [WL] % | Correlation Factor | Plastic Limit [Wp] % | Plasticity Index [Ip] % | Liquidity index [IL] % # | Consistency index [IC] % # | % Passing 425µm BS Test Sieve |
|---------------------------------|-------------------------------|--------------------|----------------------|-------------------------|--------------------------|----------------------------|-------------------------------|
| 21.0                            | 46                            | 1.020              | 22                   | 24                      | -0.04                    | 1.04                       | 100                           |



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

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

Note: Water Content by BS EN 17892-1: 2014; Correlation Factor by Clayton C.R.I and Jukes A.W (1978); # Non accredited

Remarks:

Signed:

Katarzyna Banys

Katarzyna Banys  
Junior Reporting Specialist  
for and on behalf of i2 Analytical Ltd

Opinions and interpretations expressed herein are outside of the scope of the UKAS Accreditation. This report may not be reproduced other than in full without the prior written approval of the issuing laboratory. The results included within the report relate only to the sample(s) submitted for testing.



## TEST CERTIFICATE

### DETERMINATION OF LIQUID AND PLASTIC LIMITS

Tested in Accordance with: BS EN ISO 17892-12:2018+A2:2022,  
cl 5.3.14, 5.5, Fall Cone Method, 1 Pt Test, BS 1377-2:2022,  
cl 5.3, 6

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



Environmental Science

4041

Client: T&P Regeneration  
Client Address: Unit 5, Septimus,  
Hawkfield Business Park, BS14 0BN

Contact: Sam Hogg  
Site Address: Sketchley Lane Burbage Supp GI

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

Client Reference: P0866-CS-2132

Job Number: 24-001599-1

Date Sampled: 19/01/2024

Date Received: 01/02/2024

Date Tested: 09/02/2024

Sampled By: Not Given

#### Test Results:

Laboratory Reference: 110164  
Hole No.: WS01  
Sample Reference: 3  
Sample Description: Brown slightly gravelly very sandy CLAY

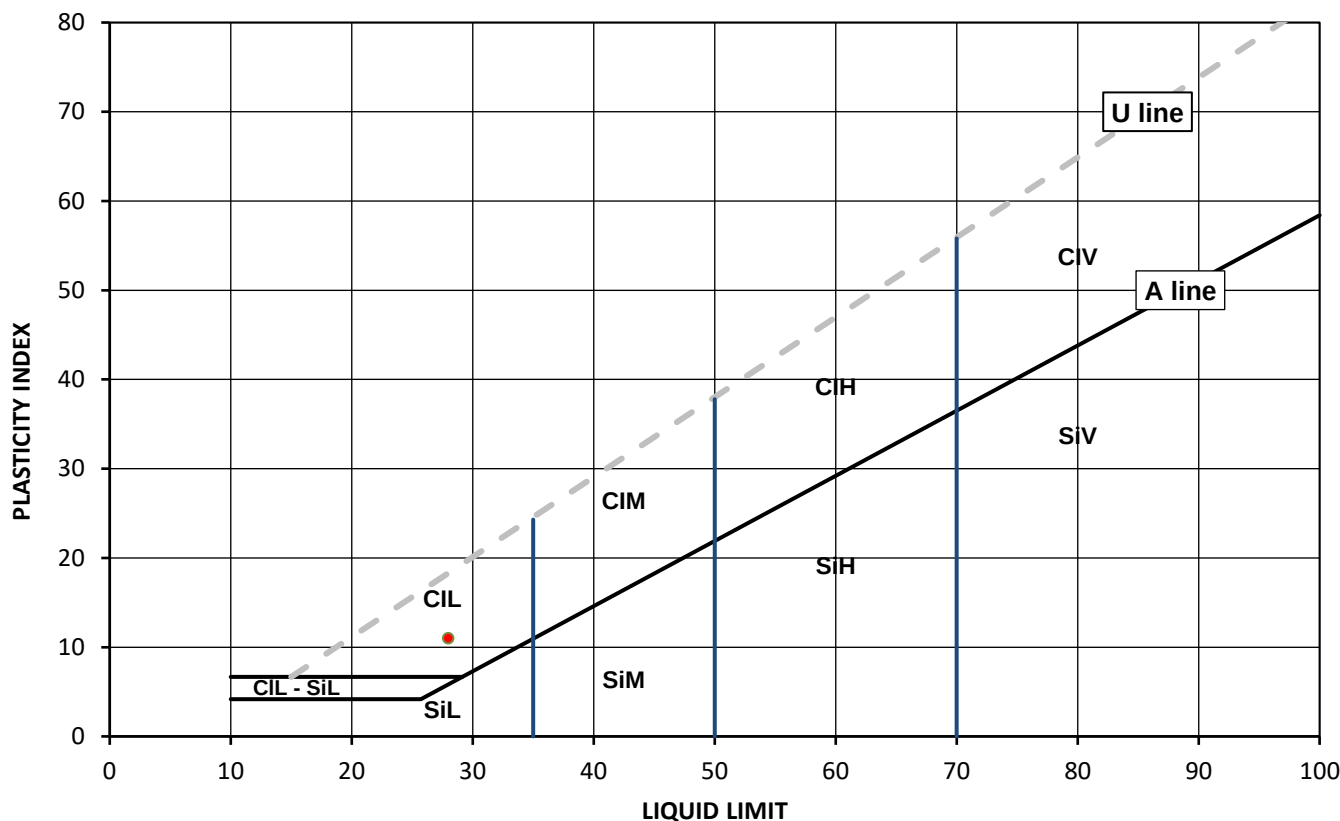
Depth Top [m]: 2.50

Depth Base [m]: 2.60

Sample Type: D

Sample Preparation: Tested after >0.425 mm removed by hand;  
Cone Type: 80g/30deg

| As Received Water Content [W] % | Corrected Liquid Limit [WL] % | Correlation Factor | Plastic Limit [Wp] % | Plasticity Index [Ip] % | Liquidity index [IL] % # | Consistency index [IC] % # | % Passing 425µm BS Test Sieve |
|---------------------------------|-------------------------------|--------------------|----------------------|-------------------------|--------------------------|----------------------------|-------------------------------|
| 20.5                            | 28                            | 0.961              | 17                   | 11                      | 0.36                     | 0.64                       | 96                            |



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

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

Note: Water Content by BS EN 17892-1: 2014; Correlation Factor by Clayton C.R.I and Jukes A.W (1978); # Non accredited

Remarks:

Signed:

Katarzyna Banys

Katarzyna Banys  
Junior Reporting Specialist  
for and on behalf of i2 Analytical Ltd

Opinions and interpretations expressed herein are outside of the scope of the UKAS Accreditation. This report may not be reproduced other than in full without the prior written approval of the issuing laboratory. The results included within the report relate only to the sample(s) submitted for testing.



## TEST CERTIFICATE

### DETERMINATION OF LIQUID AND PLASTIC LIMITS

Tested in Accordance with: BS EN ISO 17892-12:2018+A2:2022,  
cl 5.3.14, 5.5, Fall Cone Method, 1 Pt Test, BS 1377-2:2022,  
cl 5.3, 6

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



Environmental Science

4041

Client: T&P Regeneration  
Client Address: Unit 5, Septimus,  
Hawkfield Business Park, BS14 0BN

Contact: Sam Hogg  
Site Address: Sketchley Lane Burbage Supp GI

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

Client Reference: P0866-CS-2132

Job Number: 24-001599-1

Date Sampled: 19/01/2024

Date Received: 01/02/2024

Date Tested: 09/02/2024

Sampled By: Not Given

#### Test Results:

Laboratory Reference: 110165  
Hole No.: WS02  
Sample Reference: 2  
Sample Description: Brown slightly gravelly sandy CLAY

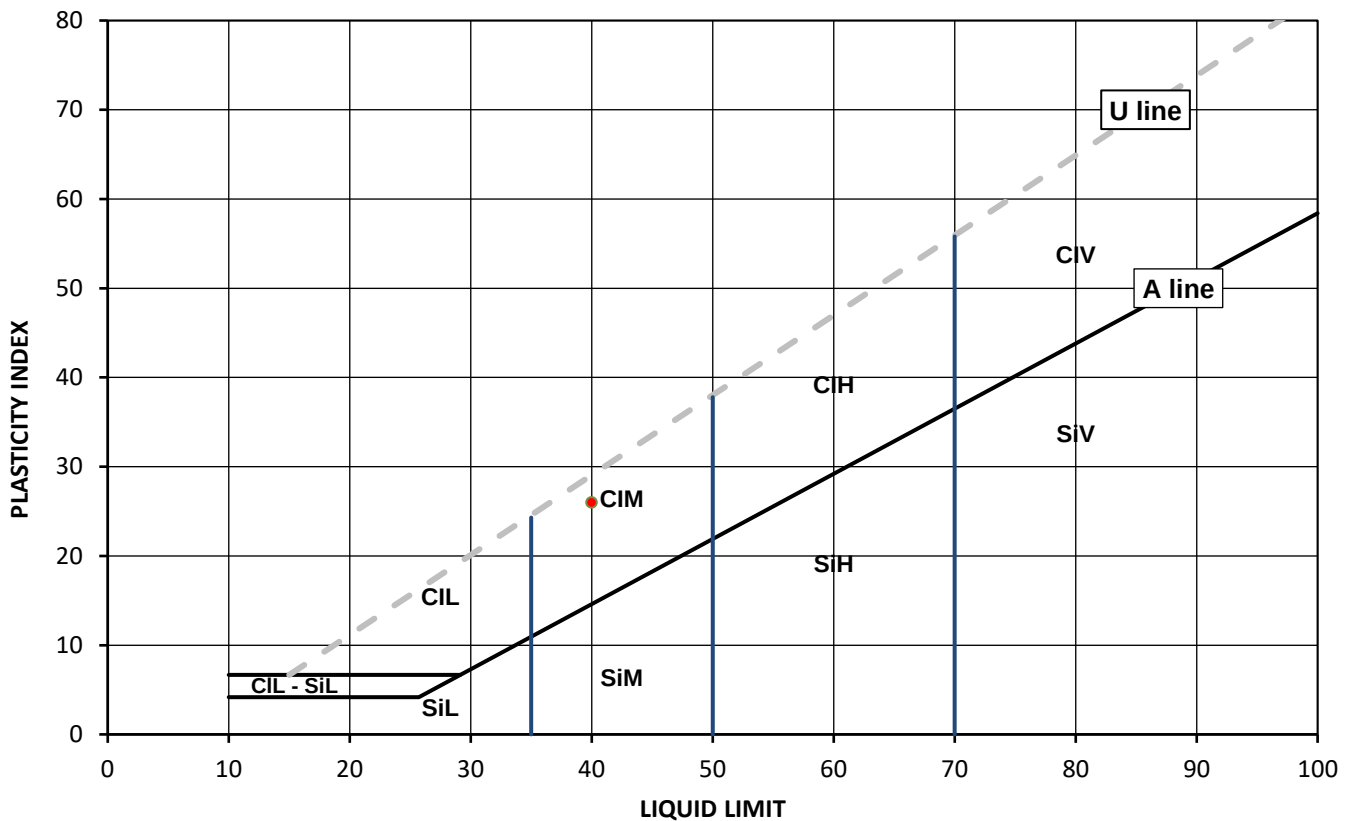
Depth Top [m]: 1.50

Depth Base [m]: 1.60

Sample Type: D

Sample Preparation: Tested after >0.425 mm removed by hand;  
Cone Type: 80g/30deg

| As Received Water Content [W] % | Corrected Liquid Limit [WL] % | Correlation Factor | Plastic Limit [Wp] % | Plasticity Index [Ip] % | Liquidity index [IL] % # | Consistency index [IC] % # | % Passing 425µm BS Test Sieve |
|---------------------------------|-------------------------------|--------------------|----------------------|-------------------------|--------------------------|----------------------------|-------------------------------|
| 17.8                            | 40                            | 1.039              | 14                   | 26                      | 0.15                     | 0.85                       | 98                            |



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

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

Note: Water Content by BS EN 17892-1: 2014; Correlation Factor by Clayton C.R.I and Jukes A.W (1978); # Non accredited

Remarks:

Signed:

Katarzyna Banys

Katarzyna Banys  
Junior Reporting Specialist  
for and on behalf of i2 Analytical Ltd

Opinions and interpretations expressed herein are outside of the scope of the UKAS Accreditation. This report may not be reproduced other than in full without the prior written approval of the issuing laboratory. The results included within the report relate only to the sample(s) submitted for testing.



# SUMMARY REPORT

## SUMMARY OF CLASSIFICATION TEST RESULTS

Tested in Accordance with:

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



Environmental Science

4041

Client: T&P Regeneration  
Client Address: Unit 5, Septimus,  
Hawkfield Business Park, BS14 0BN

W by BS EN 17892-1: 2014; Liquid and Plastic Limit by BS EN ISO 17892-12:2018+A1:2021: Clause 5.3 (4 Point Test), Clause 5.3.14 (1 Point Test) and 5.5; Correlation Factor by Clayton C.R.I and Jukes A.W (1978)

Client Reference: P0866-CS-2132

Job Number: 24-001599-1

Date Sampled: 19/01/2024

Date Received: 02/01/2024

Date Tested: 02/09/2024

Sampled By: Not Given

Contact: Sam Hogg  
Site Address: Sketchley Lane Burbage Supp GI

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

### Test results

| Laboratory Reference | Hole No. | Sample    |           |            |      | Description                             | Remarks           | W    | Liquid & Plastic Limit |     |                    |    |    |            |                    | Density |     |    |
|----------------------|----------|-----------|-----------|------------|------|-----------------------------------------|-------------------|------|------------------------|-----|--------------------|----|----|------------|--------------------|---------|-----|----|
|                      |          | Reference | Depth Top | Depth Base | Type |                                         |                   |      | % Passing 425um        | WL* | Correlation Factor | Wp | Ip | Cone type  | Sample Preparation | bulk    | dry | PD |
|                      |          |           | m         | m          |      |                                         |                   |      |                        |     |                    |    |    |            |                    |         |     |    |
| 110157               | BH02     | 14        | 18.90     | 19.20      | D    | Brown slightly sandy CLAY               | Atterberg 1 Point | 21.9 | 100                    | 55  | 1.054              | 24 | 31 | 80g/30 deg | N                  |         |     |    |
| 110158               | BH02     | 18        | 24.30     | 24.60      | D    | Brown slightly sandy CLAY               | Atterberg 1 Point | 21.0 | 100                    | 46  | 1.020              | 22 | 24 | 80g/30 deg | N                  |         |     |    |
| 110164               | WS01     | 3         | 2.50      | 2.60       | D    | Brown slightly gravelly very sandy CLAY | Atterberg 1 Point | 20.5 | 96                     | 28  | 0.961              | 17 | 11 | 80g/30 deg | R                  |         |     |    |
| 110165               | WS02     | 2         | 1.50      | 1.60       | D    | Brown slightly gravelly sandy CLAY      | Atterberg 1 Point | 17.8 | 98                     | 40  | 1.039              | 14 | 26 | 80g/30 deg | R                  |         |     |    |
|                      |          |           |           |            |      |                                         |                   |      |                        |     |                    |    |    |            |                    |         |     |    |
|                      |          |           |           |            |      |                                         |                   |      |                        |     |                    |    |    |            |                    |         |     |    |
|                      |          |           |           |            |      |                                         |                   |      |                        |     |                    |    |    |            |                    |         |     |    |
|                      |          |           |           |            |      |                                         |                   |      |                        |     |                    |    |    |            |                    |         |     |    |
|                      |          |           |           |            |      |                                         |                   |      |                        |     |                    |    |    |            |                    |         |     |    |
|                      |          |           |           |            |      |                                         |                   |      |                        |     |                    |    |    |            |                    |         |     |    |

Note: # Non accredited; NP - Non plastic; N - Tested in natural condition, R - Tested after >0.425mm removed by hand, W - Tested after washing to remove >425mm; \* - One point liquid limit corrected as per the report Correlation Factor by Clayton C.R.I and Jukes A.W (1978)

Comments:

Opinions and interpretations expressed herein are outside of the scope of the UKAS Accreditation. This report may not be reproduced other than in full without the prior written approval of the issuing laboratory. The results included within the report relate only to the sample(s) submitted for testing.

Signed:

Katarzyna Banyas

Katarzyna Banyas  
Junior Reporting Specialist  
for and on behalf of i2 Analytical Ltd





4041

## TEST CERTIFICATE

### DETERMINATION OF PARTICLE SIZE DISTRIBUTION

Tested in Accordance with: BS 1377-2: 1990

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



Environmental Science

Client: T&P Regeneration  
Client Address: Unit 5, Septimus,  
Hawkfield Business Park, BS14 0BN

Contact: Sam Hogg  
Site Address: Sketchley Lane Burbage Supp GI

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

Client Reference: P0866-CS-2132

Job Number: 24-001599-1

Date Sampled: 19/01/2024

Date Received: 01/02/2024

Date Tested: 12/02/2024

Sampled By: Not Given

#### Test Results:

Laboratory Reference: 109870

Hole No.: BH01

Sample Reference: 1

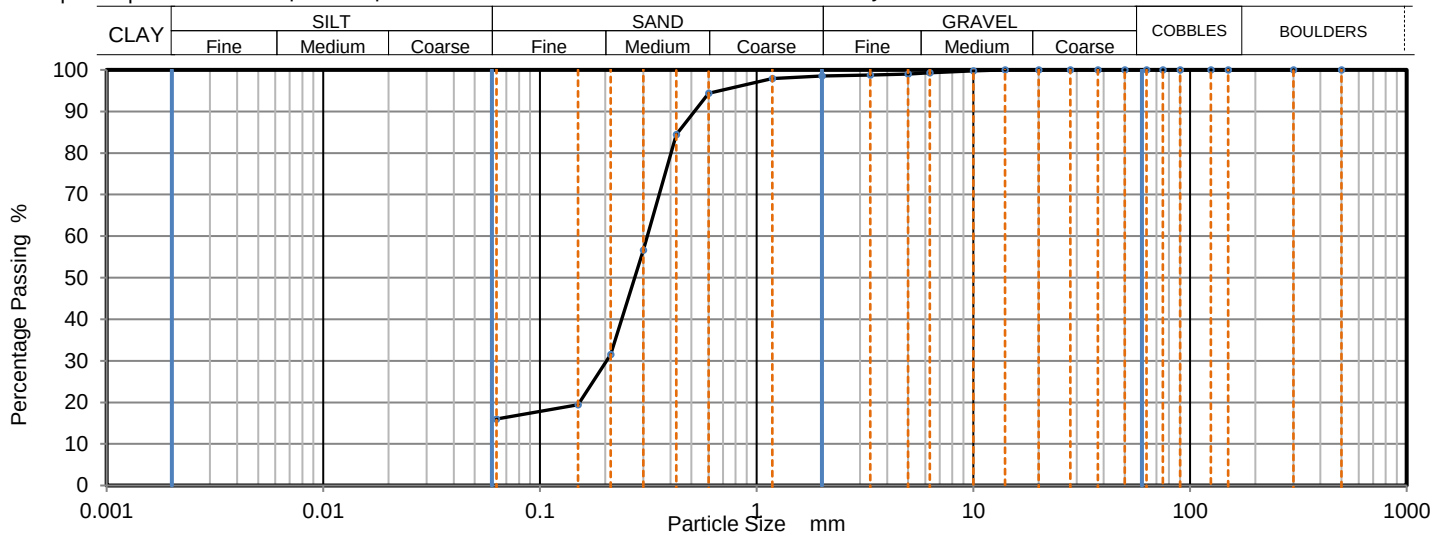
Sample Description: Brown slightly clayey SAND

Sample Preparation: Sample was quartered, oven dried at 108.2 °C and broken down by hand.

Depth Top [m]: 9.00

Depth Base [m]: 11.00

Sample Type: B



| Sieving          |           | Sedimentation    |           |
|------------------|-----------|------------------|-----------|
| Particle Size mm | % Passing | Particle Size mm | % Passing |
| 500              | 100       |                  |           |
| 300              | 100       |                  |           |
| 150              | 100       |                  |           |
| 125              | 100       |                  |           |
| 90               | 100       |                  |           |
| 75               | 100       |                  |           |
| 63               | 100       |                  |           |
| 50               | 100       |                  |           |
| 37.5             | 100       |                  |           |
| 28               | 100       |                  |           |
| 20               | 100       |                  |           |
| 14               | 100       |                  |           |
| 10               | 100       |                  |           |
| 6.3              | 99        |                  |           |
| 5                | 99        |                  |           |
| 3.35             | 99        |                  |           |
| 2                | 99        |                  |           |
| 1.18             | 98        |                  |           |
| 0.6              | 94        |                  |           |
| 0.425            | 84        |                  |           |
| 0.3              | 57        |                  |           |
| 0.212            | 32        |                  |           |
| 0.15             | 19        |                  |           |
| 0.063            | 16        |                  |           |

| Sample Proportions | % dry mass |
|--------------------|------------|
| Very coarse        | 0          |
| Gravel             | 1          |
| Sand               | 82         |
| Fines <0.063mm     | 16         |

| Grading Analysis       |     |
|------------------------|-----|
| D100                   | mm  |
| D60                    | mm  |
| D30                    | mm  |
| D10                    | mm  |
| Uniformity Coefficient | > 5 |
| Curvature Coefficient  |     |

Uniformity and Curvature Coefficient calculated in accordance with BS EN ISO 14688-2:2018

Note: Tested in Accordance with BS1377:Part 2:1990, clause 9.2

Remarks:

Signed:

Katarzyna Banys

Katarzyna Banys  
Junior Reporting Specialist  
for and on behalf of i2 Analytical Ltd

Opinions and interpretations expressed herein are outside of the scope of the UKAS Accreditation. This report may not be reproduced other than in full without the prior written approval of the issuing laboratory. The results included within the report relate only to the sample(s) submitted for testing.



4041

**TEST CERTIFICATE****DETERMINATION OF PARTICLE SIZE DISTRIBUTION**

Tested in Accordance with: BS 1377-2: 1990

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



Environmental Science

Client: T&P Regeneration  
Client Address: Unit 5, Septimus,  
Hawkfield Business Park, BS14 0BN

Contact: Sam Hogg  
Site Address: Sketchley Lane Burbage Supp GI

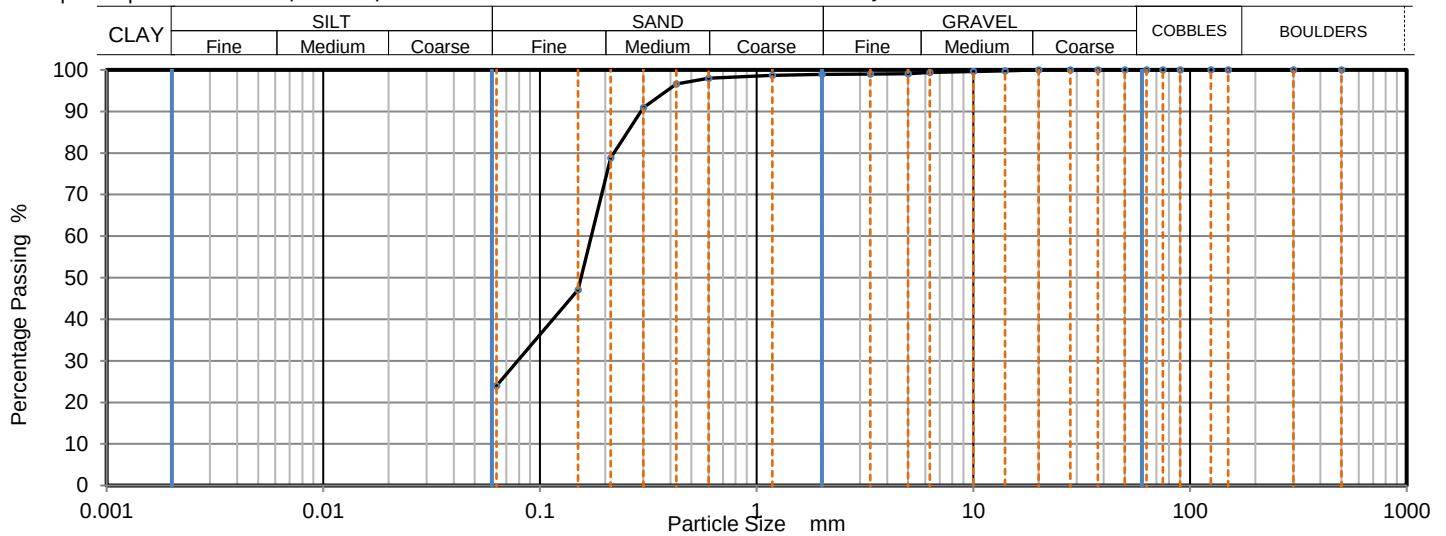
Testing carried out at i2 Analytical Limited, ul. Pionierow, 41-711 Ruda Slaska, Poland

Client Reference: P0866-CS-2132  
Job Number: 24-001599-1  
Date Sampled: 19/01/2024  
Date Received: 01/02/2024  
Date Tested: 12/02/2024  
Sampled By: Not Given

**Test Results:**

Laboratory Reference: 110155  
Hole No.: BH02  
Sample Reference: 2  
Sample Description: Brown very clayey SAND  
Sample Preparation: Sample was quartered, oven dried at 108.2 °C and broken down by hand.

Depth Top [m]: 16.00  
Depth Base [m]: 16.50  
Sample Type: U



| Sieving          |           | Sedimentation    |           |
|------------------|-----------|------------------|-----------|
| Particle Size mm | % Passing | Particle Size mm | % Passing |
| 500              | 100       |                  |           |
| 300              | 100       |                  |           |
| 150              | 100       |                  |           |
| 125              | 100       |                  |           |
| 90               | 100       |                  |           |
| 75               | 100       |                  |           |
| 63               | 100       |                  |           |
| 50               | 100       |                  |           |
| 37.5             | 100       |                  |           |
| 28               | 100       |                  |           |
| 20               | 100       |                  |           |
| 14               | 100       |                  |           |
| 10               | 100       |                  |           |
| 6.3              | 99        |                  |           |
| 5                | 99        |                  |           |
| 3.35             | 99        |                  |           |
| 2                | 99        |                  |           |
| 1.18             | 99        |                  |           |
| 0.6              | 98        |                  |           |
| 0.425            | 97        |                  |           |
| 0.3              | 91        |                  |           |
| 0.212            | 79        |                  |           |
| 0.15             | 47        |                  |           |
| 0.063            | 25        |                  |           |

| Sample Proportions | % dry mass |
|--------------------|------------|
| Very coarse        | 0          |
| Gravel             | 1          |
| Sand               | 74         |
| Fines <0.063mm     | 25         |

| Grading Analysis       |           |
|------------------------|-----------|
| D100                   | mm 20     |
| D60                    | mm 0.173  |
| D30                    | mm 0.0769 |
| D10                    | mm        |
| Uniformity Coefficient | > 2.7     |
| Curvature Coefficient  |           |

Uniformity and Curvature Coefficient calculated in accordance with BS EN ISO 14688-2:2018

Note: Tested in Accordance with BS1377:Part 2:1990, clause 9.2

**Remarks:****Signed:**

Katarzyna Banys  
Junior Reporting Specialist  
for and on behalf of i2 Analytical Ltd

Opinions and interpretations expressed herein are outside of the scope of the UKAS Accreditation. This report may not be reproduced other than in full without the prior written approval of the issuing laboratory. The results included within the report relate only to the sample(s) submitted for testing.



4041

## TEST CERTIFICATE

### DETERMINATION OF THE UNDRAINED SHEAR STRENGTH IN TRIAXIAL COMPRESSION WITHOUT MEASUREMENT OF PORE PRESSURE

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



Environmental Science

Tested in Accordance with: BS 1377-7: 1990: Clause 8

Client: T&P Regeneration  
Client Address: Unit 5, Septimus,  
Hawkfield Business Park, BS14 0BN

Contact: Sam Hogg  
Site Address: Sketchley Lane Burbage Supp GI

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

Client Reference: P0866-CS-2132

Job Number: 24-001599-1

Date Sampled: 19/01/2024

Date Received: 01/02/2024

Date Tested: 16/02/2024

Sampled By: Not Given

#### Test Results:

Laboratory Reference: 109871

Hole No.: BH01

Sample Reference: 1

Sample Description: Brown sandy CLAY

Sample Preparation: Sample prepared in accordance with BS 1377-1:2016 Clause 9.1.1.

Depth Top [m]: 13.50

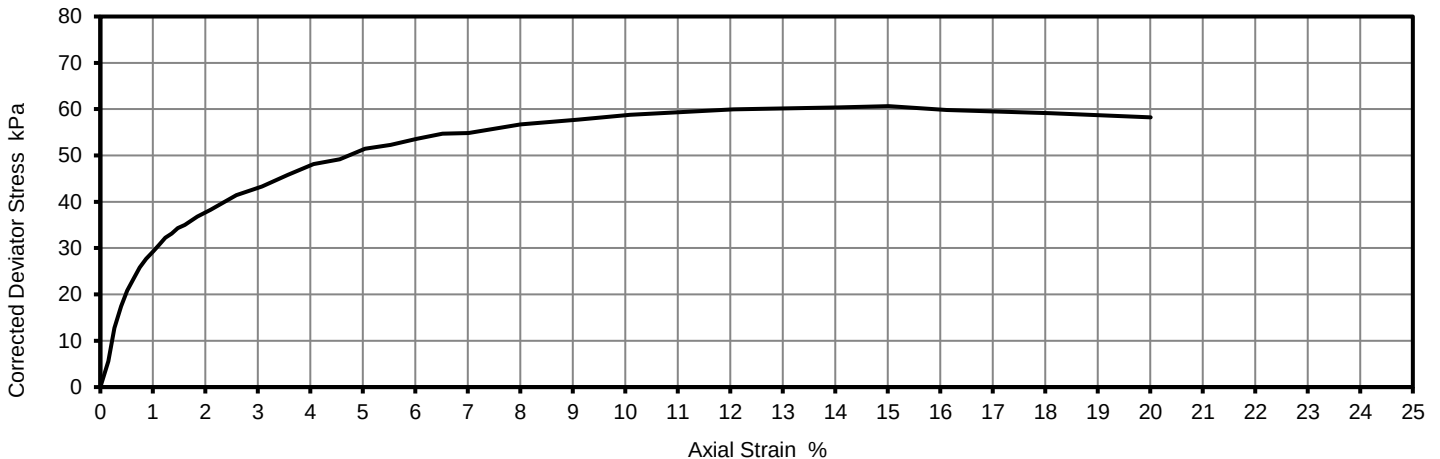
Depth Base [m]: 13.95

Sample Type: U

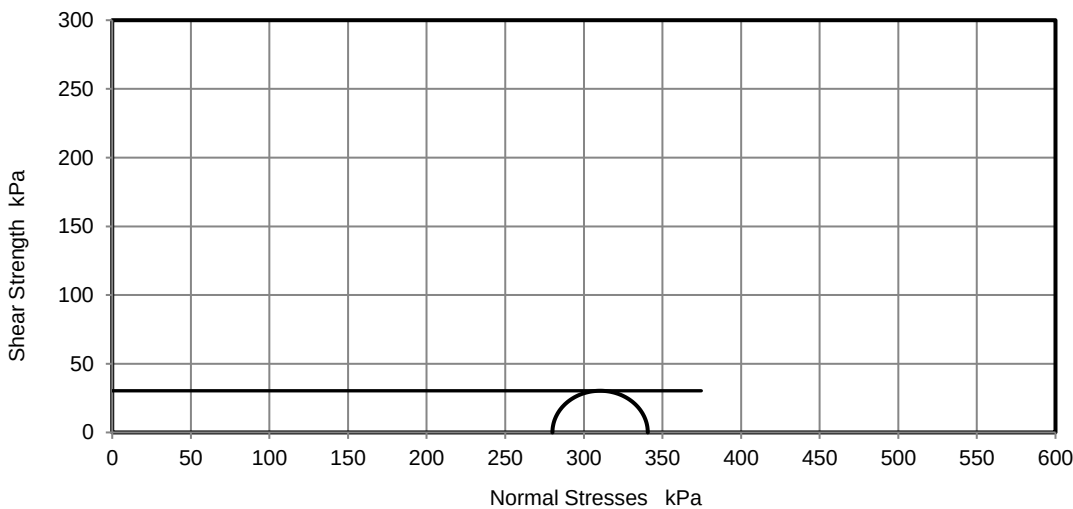
|                     |                        |
|---------------------|------------------------|
| Test Number         | 1                      |
| Length              | 200.44 mm              |
| Diameter            | 101.55 mm              |
| Bulk Density        | 2.00 Mg/m <sup>3</sup> |
| Moisture Content    | 31 %                   |
| Dry Density         | 1.53 Mg/m <sup>3</sup> |
| Membrane Correction | 0.84 kPa               |

|                                                         |                                             |
|---------------------------------------------------------|---------------------------------------------|
| Rate of Strain                                          | 1.50 %/min                                  |
| Cell Pressure                                           | 280 kPa                                     |
| Axial Strain at failure                                 | 15.0 %                                      |
| Deviator Stress, ( $\sigma_1 - \sigma_3$ ) <sub>f</sub> | 61 kPa                                      |
| Undrained Shear Strength, $c_u$                         | 30 kPa $\frac{1}{2}(\sigma_1 - \sigma_3)_f$ |
| Mode of Failure                                         | Compound                                    |
| Latex membrane thickness                                | 0.28 mm                                     |

#### Deviator Stress v Axial Strain



#### Mohr Circles



Position within sample



Note: Deviator stress corrected for area change and membrane effects. Mohr circles and their interpretation is not covered by BS1377.  
This is provided for information only.

#### Remarks:

Opinions and interpretations expressed herein are outside of the scope of the UKAS Accreditation. This report may not be reproduced other than in full without the prior written approval of the issuing laboratory. The results included within the report relate only to the sample(s) submitted for testing.

Signed:

Katarzyna Banys

Katarzyna Banys  
Junior Reporting Specialist  
for and on behalf of i2 Analytical Ltd



# TEST CERTIFICATE

## DETERMINATION OF THE UNDRAINED SHEAR STRENGTH IN TRIAXIAL COMPRESSION WITHOUT MEASUREMENT OF PORE PRESSURE

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



Environmental Science

4041

Tested in Accordance with: BS 1377-7: 1990: Clause 8

Client: T&P Regeneration  
Client Address: Unit 5, Septimus,  
Hawkfield Business Park, BS14 0BN

Contact: Sam Hogg  
Site Address: Sketchley Lane Burbage Supp GI

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

Client Reference: P0866-CS-2132  
Job Number: 24-001599-1  
Date Sampled: 19/01/2024  
Date Received: 01/02/2024  
Date Tested: 19/02/2024  
Sampled By: Not Given

### Test Results:

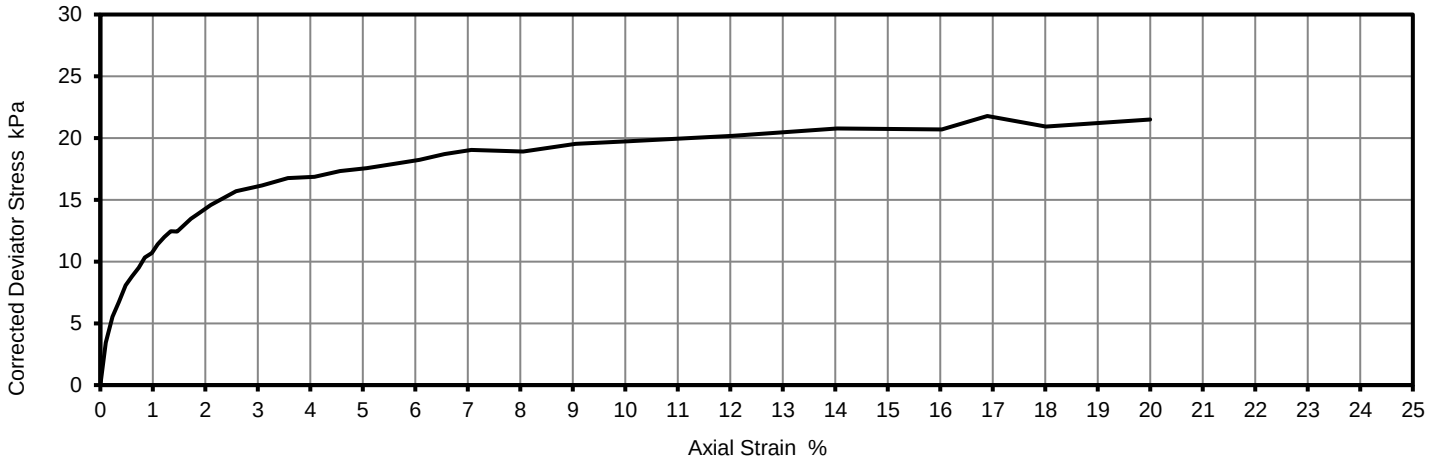
Laboratory Reference: 110153  
Hole No.: BH01  
Sample Reference: 2  
Sample Description: Brown CLAY  
Sample Preparation: Sample prepared in accordance with BS 1377-1:2016 Clause 9.1.1.

Depth Top [m]: 16.50  
Depth Base [m]: 16.95  
Sample Type: U

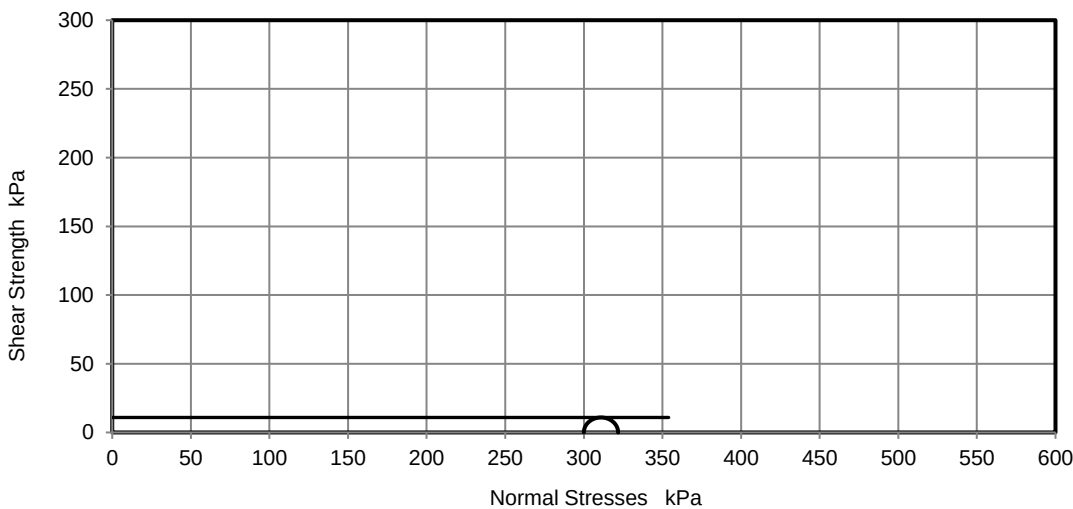
|                     |            |
|---------------------|------------|
| Test Number         | 1          |
| Length              | 201.39 mm  |
| Diameter            | 101.57 mm  |
| Bulk Density        | 1.96 Mg/m3 |
| Moisture Content    | 27.6 %     |
| Dry Density         | 1.53 Mg/m3 |
| Membrane Correction | 0.89 kPa   |

|                                                         |                                             |
|---------------------------------------------------------|---------------------------------------------|
| Rate of Strain                                          | 1.50 %/min                                  |
| Cell Pressure                                           | 300 kPa                                     |
| Axial Strain at failure                                 | 16.9 %                                      |
| Deviator Stress, ( $\sigma_1 - \sigma_3$ ) <sub>f</sub> | 22 kPa                                      |
| Undrained Shear Strength, $c_u$                         | 11 kPa $\frac{1}{2}(\sigma_1 - \sigma_3)_f$ |
| Mode of Failure                                         | Compound                                    |
| Latex membrane thickness                                | 0.27 mm                                     |

### Deviator Stress v Axial Strain



### Mohr Circles



Position within sample



Note: Deviator stress corrected for area change and membrane effects. Mohr circles and their interpretation is not covered by BS1377.  
This is provided for information only.

### Remarks:

Opinions and interpretations expressed herein are outside of the scope of the UKAS Accreditation. This report may not be reproduced other than in full without the prior written approval of the issuing laboratory. The results included within the report relate only to the sample(s) submitted for testing.

Signed:

Katarzyna Banys

Katarzyna Banys  
Junior Reporting Specialist  
for and on behalf of i2 Analytical Ltd





4041

## TEST CERTIFICATE

### DETERMINATION OF THE UNDRAINED SHEAR STRENGTH IN TRIAXIAL COMPRESSION WITHOUT MEASUREMENT OF PORE PRESSURE

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



Environmental Science

Tested in Accordance with: BS 1377-7: 1990: Clause 8

Client: T&P Regeneration  
Client Address: Unit 5, Septimus,  
Hawkfield Business Park, BS14 0BN

Contact: Sam Hogg  
Site Address: Sketchley Lane Burbage Supp GI

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

Client Reference: P0866-CS-2132  
Job Number: 24-001599-1  
Date Sampled: 19/01/2024  
Date Received: 01/02/2024  
Date Tested: 16/02/2024  
Sampled By: Not Given

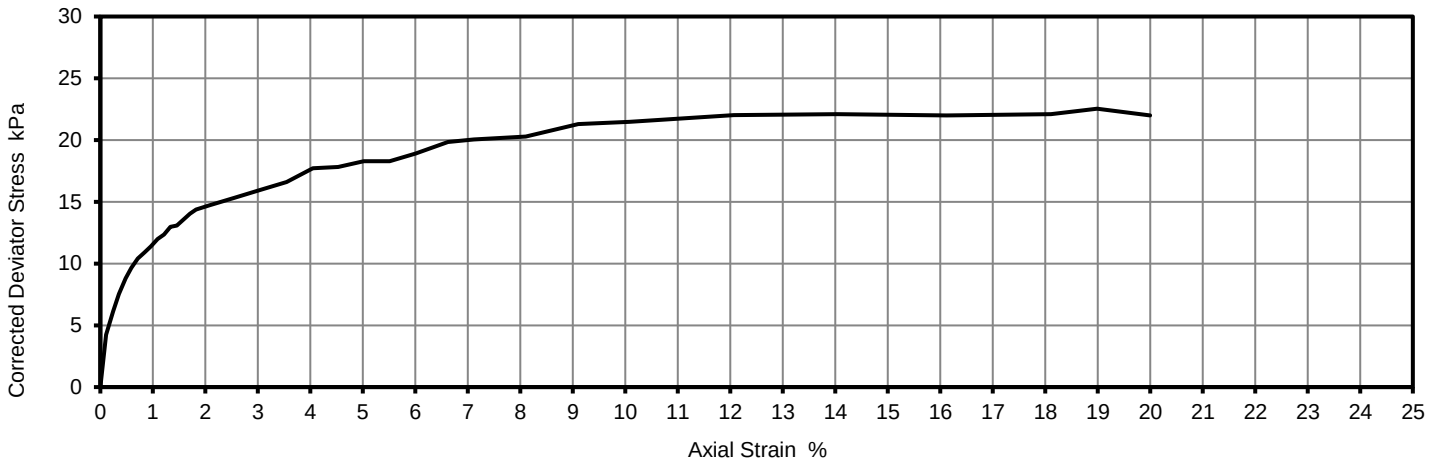
#### Test Results:

Laboratory Reference: 110154  
Hole No.: BH01  
Sample Reference: 3  
Sample Description: Brown CLAY  
Sample Preparation: Sample prepared in accordance with BS 1377-1:2016 Clause 9.1.1.

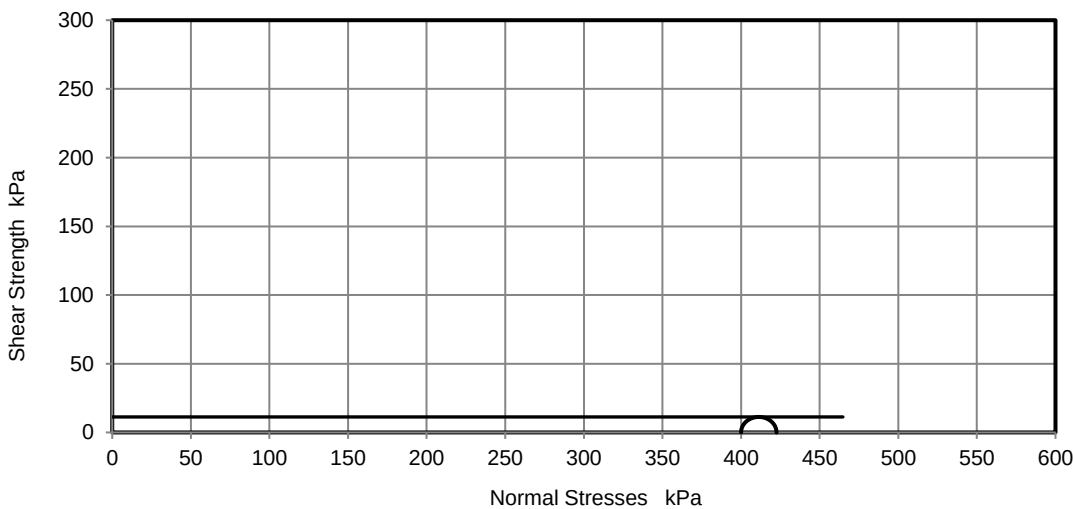
Depth Top [m]: 20.00  
Depth Base [m]: 20.30  
Sample Type: U

|                     |        |                                                         |          |                                          |
|---------------------|--------|---------------------------------------------------------|----------|------------------------------------------|
| Test Number         | 1      | Rate of Strain                                          | 1.50     | %/min                                    |
| Length              | 202.19 | Cell Pressure                                           | 400      | kPa                                      |
| Diameter            | 99.53  | Axial Strain at failure                                 | 19.0     | %                                        |
| Bulk Density        | 2.00   | Deviator Stress, ( $\sigma_1 - \sigma_3$ ) <sub>f</sub> | 23       | kPa                                      |
| Moisture Content    | 37     | Undrained Shear Strength, $c_u$                         | 11       | kPa $\frac{1}{2}(\sigma_1 - \sigma_3)_f$ |
| Dry Density         | 1.46   | Mode of Failure                                         | Compound |                                          |
| Membrane Correction | 1.00   | Latex membrane thickness                                | 0.27     | mm                                       |

#### Deviator Stress v Axial Strain



#### Mohr Circles



Position within sample



Note: Deviator stress corrected for area change and membrane effects. Mohr circles and their interpretation is not covered by BS1377.  
This is provided for information only.

#### Remarks:

Opinions and interpretations expressed herein are outside of the scope of the UKAS Accreditation. This report may not be reproduced other than in full without the prior written approval of the issuing laboratory. The results included within the report relate only to the sample(s) submitted for testing.

Signed:

Katarzyna Banys

Katarzyna Banys  
Junior Reporting Specialist  
for and on behalf of i2 Analytical Ltd

Tested in Accordance with: BS 1377-7: 1990: Clause 8

Client: T&P Regeneration  
Client Address: Unit 5, Septimus,  
Hawkfield Business Park, BS14 0BN

Contact: Sam Hogg  
Site Address: Sketchley Lane Burbage Supp GI

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

Client Reference: P0866-CS-2132  
Job Number: 24-001599-1  
Date Sampled: 19/01/2024  
Date Received: 01/02/2024  
Date Tested: 16/02/2024  
Sampled By: Not Given

**Test Results:**

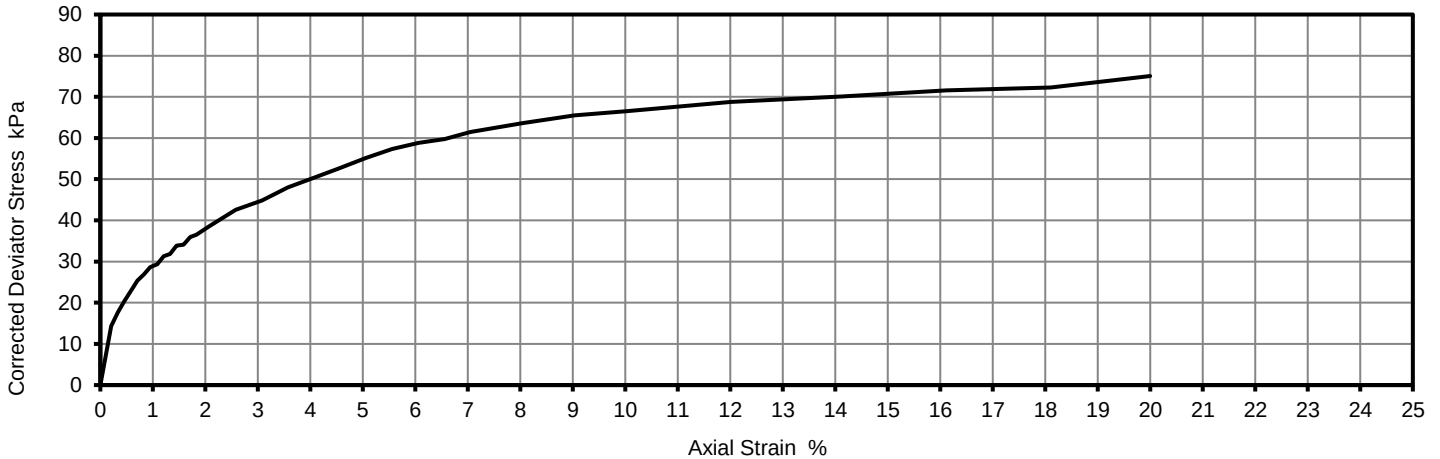
Laboratory Reference: 110159  
Hole No.: BH03  
Sample Reference: 1  
Sample Description: Brown CLAY  
Sample Preparation: Sample prepared in accordance with BS 1377-1:2016 Clause 9.1.1.

Depth Top [m]: 13.50  
Depth Base [m]: 13.95  
Sample Type: U

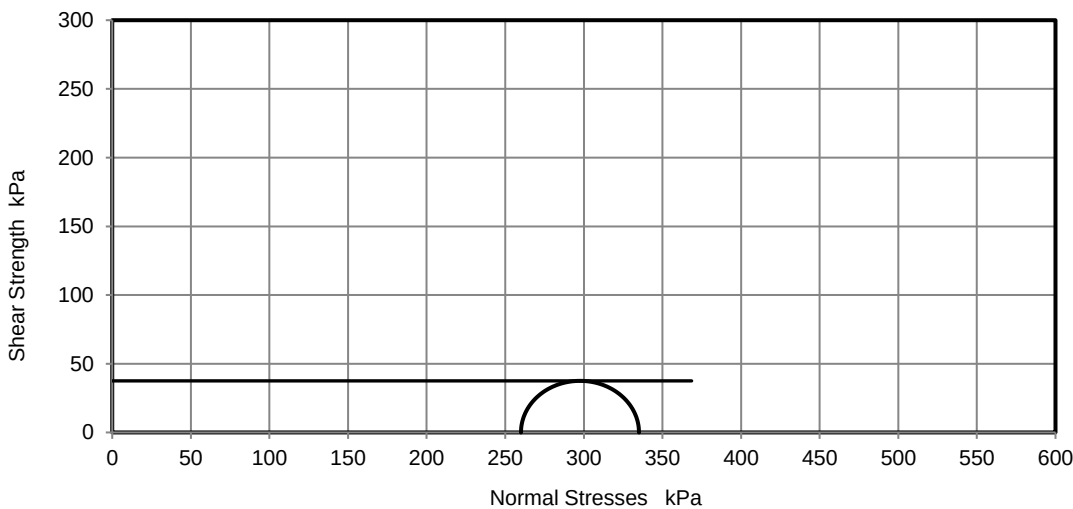
|                     |            |
|---------------------|------------|
| Test Number         | 1          |
| Length              | 201.49 mm  |
| Diameter            | 98.74 mm   |
| Bulk Density        | 2.14 Mg/m3 |
| Moisture Content    | 29 %       |
| Dry Density         | 1.67 Mg/m3 |
| Membrane Correction | 1.01 kPa   |

|                                                         |                                             |
|---------------------------------------------------------|---------------------------------------------|
| Rate of Strain                                          | 1.50 %/min                                  |
| Cell Pressure                                           | 260 kPa                                     |
| Axial Strain at failure                                 | 20.0 %                                      |
| Deviator Stress, ( $\sigma_1 - \sigma_3$ ) <sub>f</sub> | 75 kPa                                      |
| Undrained Shear Strength, $c_u$                         | 38 kPa $\frac{1}{2}(\sigma_1 - \sigma_3)_f$ |
| Mode of Failure                                         | Compound                                    |
| Latex membrane thickness                                | 0.26 mm                                     |

**Deviator Stress v Axial Strain**



**Mohr Circles**



Position within sample



Note: Deviator stress corrected for area change and membrane effects. Mohr circles and their interpretation is not covered by BS1377.  
This is provided for information only.

**Remarks:**

Opinions and interpretations expressed herein are outside of the scope of the UKAS Accreditation. This report may not be reproduced other than in full without the prior written approval of the issuing laboratory. The results included within the report relate only to the sample(s) submitted for testing.

Signed:

Katarzyna Banys

Katarzyna Banys  
Junior Reporting Specialist  
for and on behalf of i2 Analytical Ltd



# TEST CERTIFICATE

## DETERMINATION OF THE UNDRAINED SHEAR STRENGTH IN TRIAXIAL COMPRESSION WITHOUT MEASUREMENT OF PORE PRESSURE

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



Environmental Science

4041

Tested in Accordance with: BS 1377-7: 1990: Clause 8

Client: T&P Regeneration  
Client Address: Unit 5, Septimus,  
Hawkfield Business Park, BS14 0BN

Contact: Sam Hogg  
Site Address: Sketchley Lane Burbage Supp GI

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

Client Reference: P0866-CS-2132  
Job Number: 24-001599-1  
Date Sampled: 19/01/2024  
Date Received: 01/02/2024  
Date Tested: 16/02/2024  
Sampled By: Not Given

### Test Results:

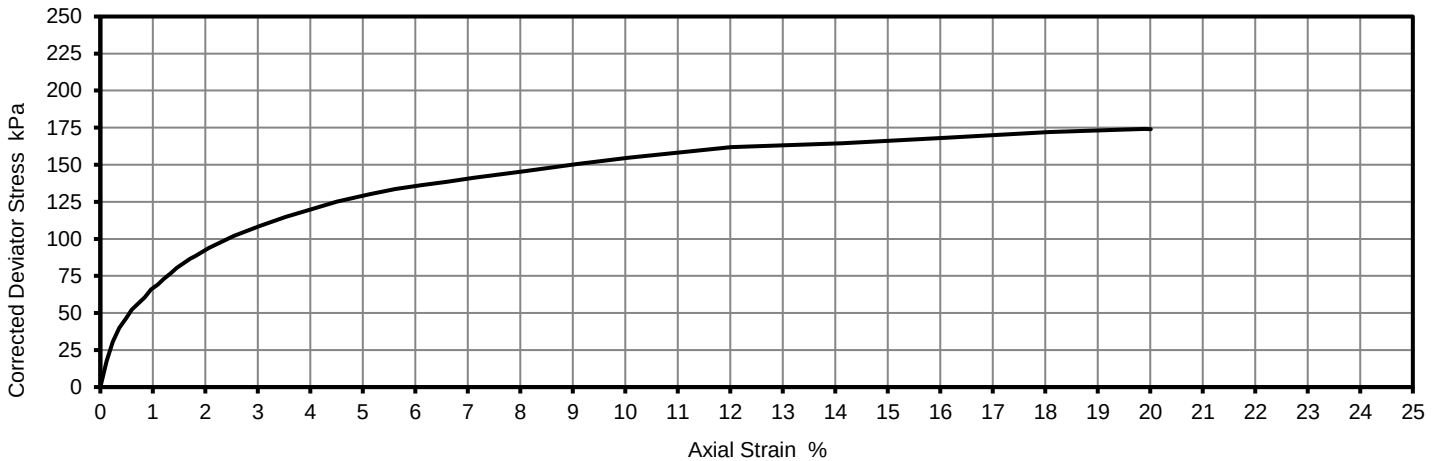
Laboratory Reference: 110160  
Hole No.: BH03  
Sample Reference: 2  
Sample Description: Brown silty CLAY  
Sample Preparation: Sample prepared in accordance with BS 1377-1:2016 Clause 9.1.1.

Depth Top [m]: 16.10  
Depth Base [m]: 16.50  
Sample Type: U

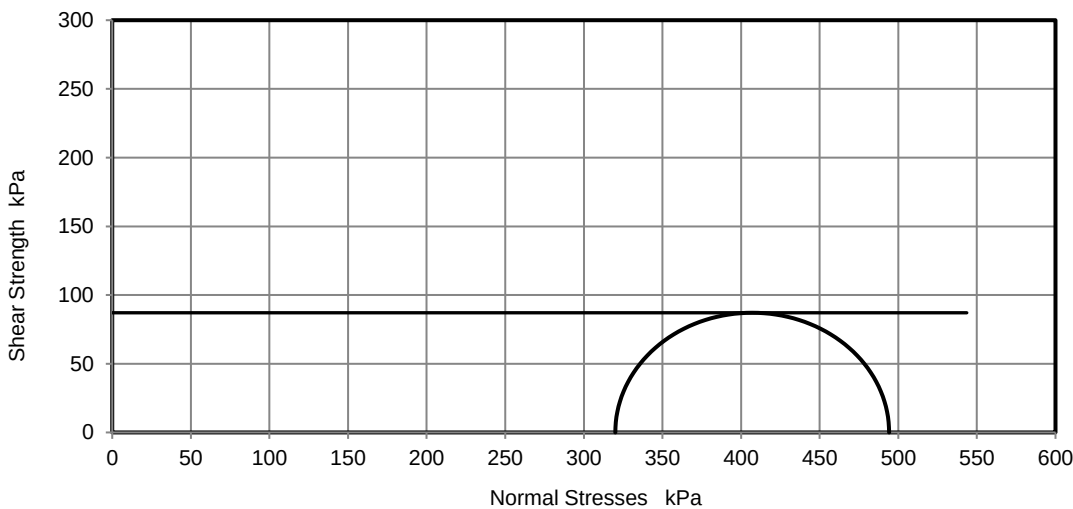
|                     |            |
|---------------------|------------|
| Test Number         | 1          |
| Length              | 139.99 mm  |
| Diameter            | 69.02 mm   |
| Bulk Density        | 2.06 Mg/m3 |
| Moisture Content    | 23 %       |
| Dry Density         | 1.67 Mg/m3 |
| Membrane Correction | 1.39 kPa   |

|                                                         |                                             |
|---------------------------------------------------------|---------------------------------------------|
| Rate of Strain                                          | 1.50 %/min                                  |
| Cell Pressure                                           | 320 kPa                                     |
| Axial Strain at failure                                 | 19.9 %                                      |
| Deviator Stress, ( $\sigma_1 - \sigma_3$ ) <sub>f</sub> | 174 kPa                                     |
| Undrained Shear Strength, $c_u$                         | 87 kPa $\frac{1}{2}(\sigma_1 - \sigma_3)_f$ |
| Mode of Failure                                         | Brittle                                     |
| Latex membrane thickness                                | 0.25 mm                                     |

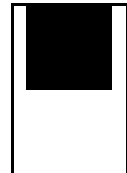
### Deviator Stress v Axial Strain



### Mohr Circles



Position within sample



Note: Deviator stress corrected for area change and membrane effects. Mohr circles and their interpretation is not covered by BS1377.  
This is provided for information only.

### Remarks:

Opinions and interpretations expressed herein are outside of the scope of the UKAS Accreditation. This report may not be reproduced other than in full without the prior written approval of the issuing laboratory. The results included within the report relate only to the sample(s) submitted for testing.

Signed:

Katarzyna Banys

Katarzyna Banys  
Junior Reporting Specialist  
for and on behalf of i2 Analytical Ltd



4041

## TEST CERTIFICATE

### DETERMINATION OF THE UNDRAINED SHEAR STRENGTH IN TRIAXIAL COMPRESSION WITHOUT MEASUREMENT OF PORE PRESSURE

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



Environmental Science

Tested in Accordance with: BS 1377-7: 1990: Clause 8

Client: T&P Regeneration  
Client Address: Unit 5, Septimus,  
Hawkfield Business Park, BS14 0BN

Contact: Sam Hogg  
Site Address: Sketchley Lane Burbage Supp GI

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

Client Reference: P0866-CS-2132

Job Number: 24-001599-1

Date Sampled: 19/01/2024

Date Received: 01/02/2024

Date Tested: 16/02/2024

Sampled By: Not Given

#### Test Results:

Laboratory Reference: 110161

Hole No.: BH03

Sample Reference: 3

Sample Description: Brown CLAY

Sample Preparation: Sample prepared in accordance with BS 1377-1:2016 Clause 9.1.1.

Depth Top [m]: 19.60

Depth Base [m]: 20.00

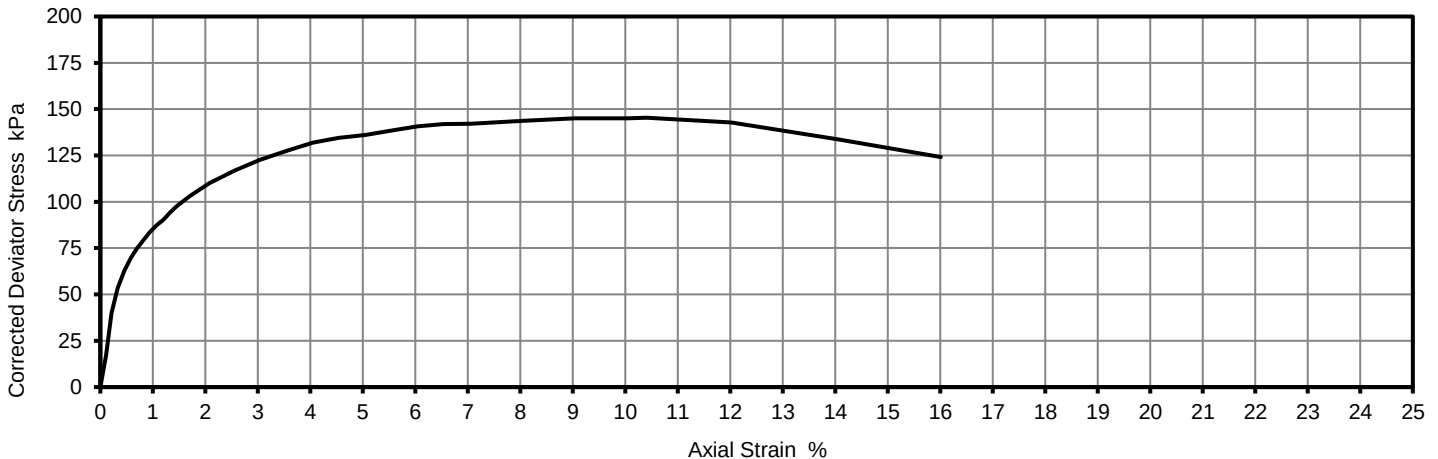
Sample Type: U

|                     |                        |
|---------------------|------------------------|
| Test Number         | 1                      |
| Length              | 140.61 mm              |
| Diameter            | 69.29 mm               |
| Bulk Density        | 2.05 Mg/m <sup>3</sup> |
| Moisture Content    | 26 %                   |
| Dry Density         | 1.62 Mg/m <sup>3</sup> |
| Membrane Correction | 0.76 kPa               |

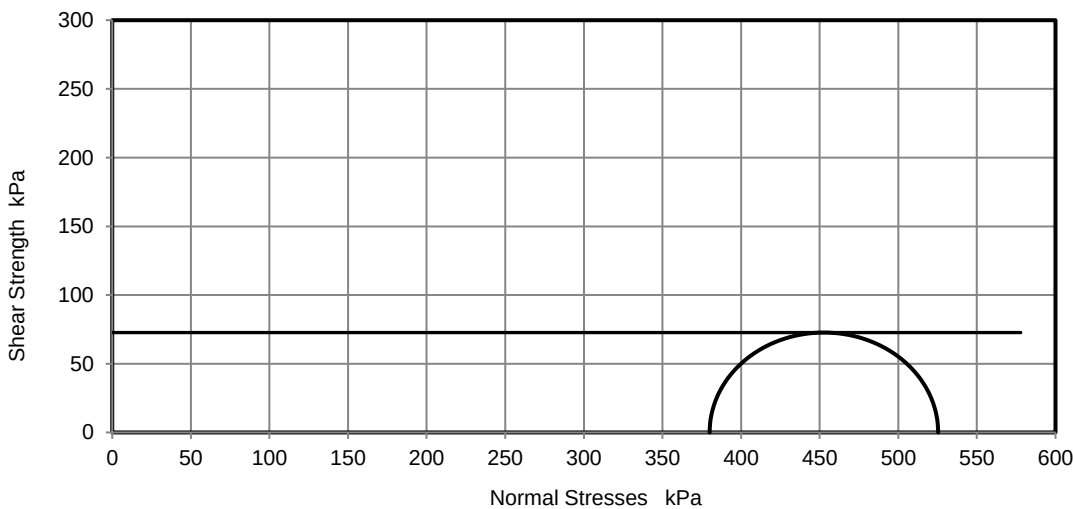
|                                                         |                                             |
|---------------------------------------------------------|---------------------------------------------|
| Rate of Strain                                          | 1.50 %/min                                  |
| Cell Pressure                                           | 380 kPa                                     |
| Axial Strain at failure                                 | 10.4 %                                      |
| Deviator Stress, ( $\sigma_1 - \sigma_3$ ) <sub>f</sub> | 145 kPa                                     |
| Undrained Shear Strength, $c_u$                         | 73 kPa $\frac{1}{2}(\sigma_1 - \sigma_3)_f$ |
| Mode of Failure                                         | Compound                                    |
| Latex membrane thickness                                | 0.23 mm                                     |

|          |                                          |
|----------|------------------------------------------|
| 1.50     | %/min                                    |
| 380      | kPa                                      |
| 10.4     | %                                        |
| 145      | kPa                                      |
| 73       | kPa $\frac{1}{2}(\sigma_1 - \sigma_3)_f$ |
| Compound |                                          |
| 0.23     | mm                                       |

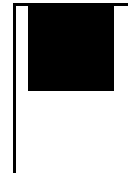
#### Deviator Stress v Axial Strain



#### Mohr Circles



Position within sample



Note: Deviator stress corrected for area change and membrane effects. Mohr circles and their interpretation is not covered by BS1377.  
This is provided for information only.

#### Remarks:

Signed:

Katarzyna Banys

Katarzyna Banys  
Junior Reporting Specialist  
for and on behalf of i2 Analytical Ltd

Opinions and interpretations expressed herein are outside of the scope of the UKAS Accreditation. This report may not be reproduced other than in full without the prior written approval of the issuing laboratory. The results included within the report relate only to the sample(s) submitted for testing.





# TEST CERTIFICATE

## DETERMINATION OF THE UNDRAINED SHEAR STRENGTH IN TRIAXIAL COMPRESSION WITHOUT MEASUREMENT OF PORE PRESSURE

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



Environmental Science

4041

Tested in Accordance with: BS 1377-7: 1990: Clause 8

Client: T&P Regeneration  
Client Address: Unit 5, Septimus,  
Hawkfield Business Park, BS14 0BN

Contact: Sam Hogg  
Site Address: Sketchley Lane Burbage Supp GI

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

Client Reference: P0866-CS-2132

Job Number: 24-001599-1

Date Sampled: 19/01/2024

Date Received: 01/02/2024

Date Tested: 16/02/2024

Sampled By: Not Given

### Test Results:

Laboratory Reference: 110162

Hole No.: BH04

Sample Reference: 2

Sample Description: Brown clayey SILT

Sample Preparation: Sample prepared in accordance with BS 1377-1:2016 Clause 9.1.1.

Depth Top [m]: 9.00

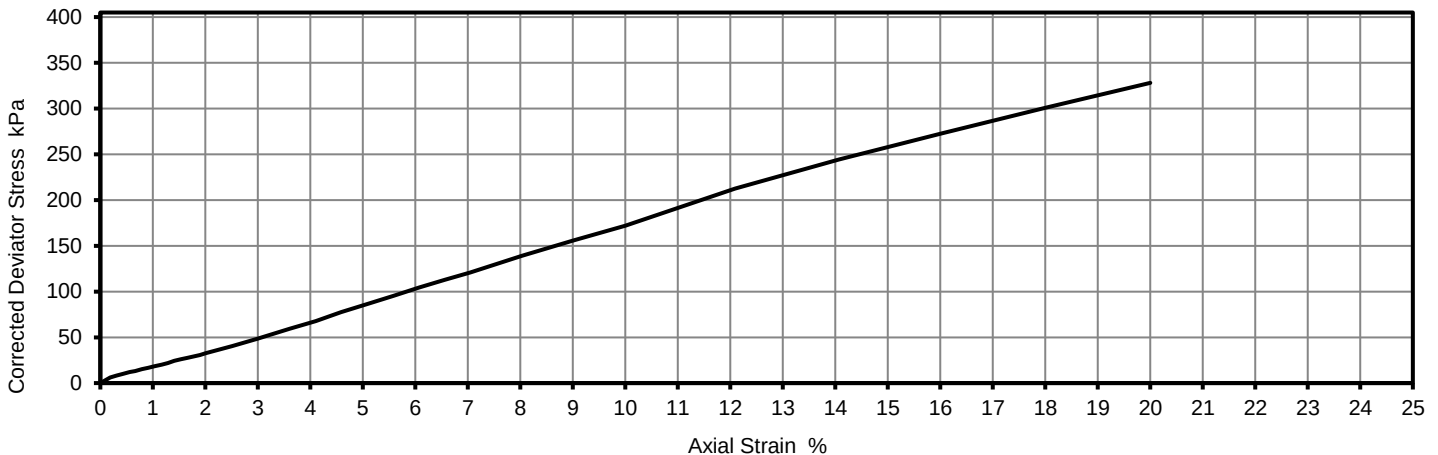
Depth Base [m]: 9.45

Sample Type: U

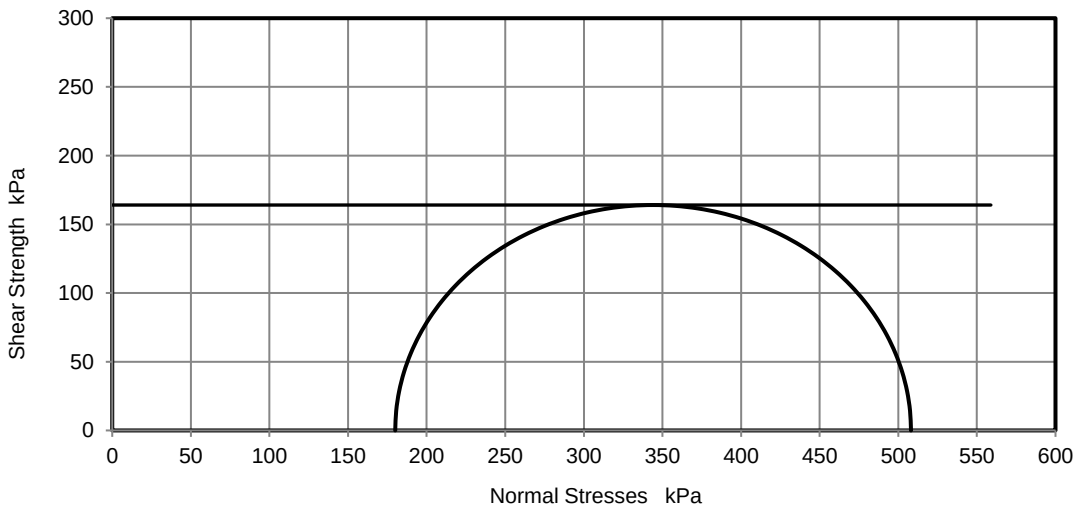
|                     |            |
|---------------------|------------|
| Test Number         | 1          |
| Length              | 144.61 mm  |
| Diameter            | 67.78 mm   |
| Bulk Density        | 2.12 Mg/m3 |
| Moisture Content    | 25 %       |
| Dry Density         | 1.70 Mg/m3 |
| Membrane Correction | 1.36 kPa   |

|                                                         |                                              |
|---------------------------------------------------------|----------------------------------------------|
| Rate of Strain                                          | 1.50 %/min                                   |
| Cell Pressure                                           | 180 kPa                                      |
| Axial Strain at failure                                 | 20.0 %                                       |
| Deviator Stress, ( $\sigma_1 - \sigma_3$ ) <sub>f</sub> | 328 kPa                                      |
| Undrained Shear Strength, $c_u$                         | 164 kPa $\frac{1}{2}(\sigma_1 - \sigma_3)_f$ |
| Mode of Failure                                         | Compound                                     |
| Latex membrane thickness                                | 0.24 mm                                      |

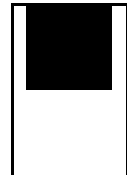
### Deviator Stress v Axial Strain



### Mohr Circles



Position within sample



Note: Deviator stress corrected for area change and membrane effects. Mohr circles and their interpretation is not covered by BS1377.  
This is provided for information only.

### Remarks:

Opinions and interpretations expressed herein are outside of the scope of the UKAS Accreditation. This report may not be reproduced other than in full without the prior written approval of the issuing laboratory. The results included within the report relate only to the sample(s) submitted for testing.

Signed:

Katarzyna Banys

Katarzyna Banys  
Junior Reporting Specialist  
for and on behalf of i2 Analytical Ltd



4041

## TEST CERTIFICATE

### DETERMINATION OF THE UNDRAINED SHEAR STRENGTH IN TRIAXIAL COMPRESSION WITHOUT MEASUREMENT OF PORE PRESSURE

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



Environmental Science

Tested in Accordance with: BS 1377-7: 1990: Clause 8

Client: T&P Regeneration  
Client Address: Unit 5, Septimus,  
Hawkfield Business Park, BS14 0BN

Contact: Sam Hogg  
Site Address: Sketchley Lane Burbage Supp GI

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

Client Reference: P0866-CS-2132

Job Number: 24-001599-1

Date Sampled: 19/01/2024

Date Received: 01/02/2024

Date Tested: 16/02/2024

Sampled By: Not Given

#### Test Results:

Laboratory Reference: 110163

Hole No.: BH04

Sample Reference: 3

Sample Description: Brown CLAY

Sample Preparation: Sample prepared in accordance with BS 1377-1:2016 Clause 9.1.1.

Depth Top [m]: 15.00

Depth Base [m]: 15.45

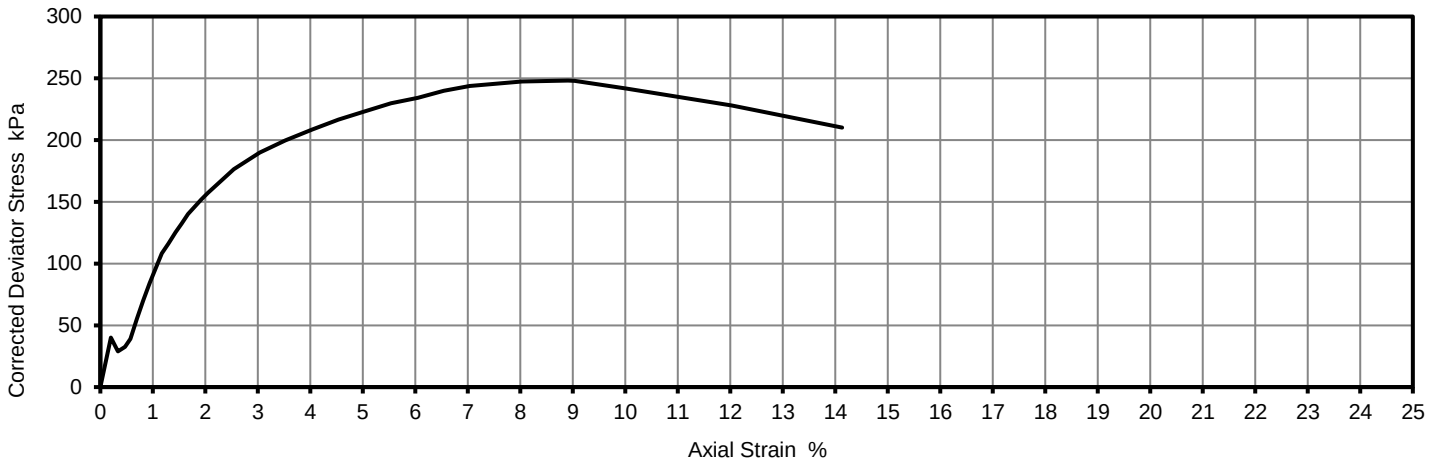
Sample Type: U

|                     |                        |
|---------------------|------------------------|
| Test Number         | 1                      |
| Length              | 141.27 mm              |
| Diameter            | 70.13 mm               |
| Bulk Density        | 2.05 Mg/m <sup>3</sup> |
| Moisture Content    | 23 %                   |
| Dry Density         | 1.67 Mg/m <sup>3</sup> |
| Membrane Correction | 0.67 kPa               |

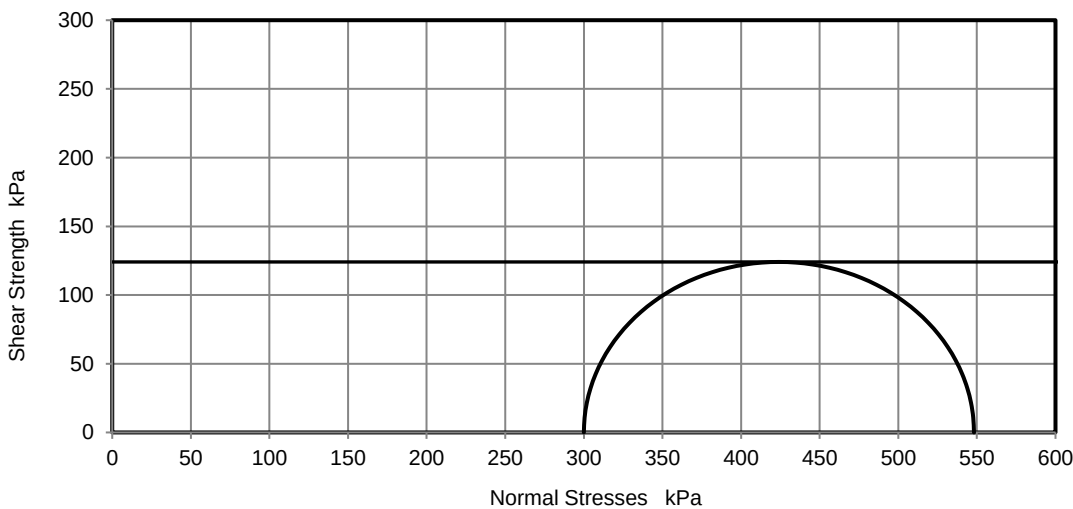
|                                                         |                                              |
|---------------------------------------------------------|----------------------------------------------|
| Rate of Strain                                          | 1.50 %/min                                   |
| Cell Pressure                                           | 300 kPa                                      |
| Axial Strain at failure                                 | 8.9 %                                        |
| Deviator Stress, ( $\sigma_1 - \sigma_3$ ) <sub>f</sub> | 248 kPa                                      |
| Undrained Shear Strength, $c_u$                         | 124 kPa $\frac{1}{2}(\sigma_1 - \sigma_3)_f$ |
| Mode of Failure                                         | Brittle                                      |
| Latex membrane thickness                                | 0.23 mm                                      |

|         |                                          |
|---------|------------------------------------------|
| 1.50    | %/min                                    |
| 300     | kPa                                      |
| 8.9     | %                                        |
| 248     | kPa                                      |
| 124     | kPa $\frac{1}{2}(\sigma_1 - \sigma_3)_f$ |
| Brittle |                                          |
| 0.23    | mm                                       |

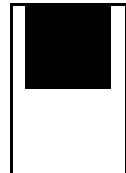
#### Deviator Stress v Axial Strain



#### Mohr Circles



Position within sample



Note: Deviator stress corrected for area change and membrane effects. Mohr circles and their interpretation is not covered by BS1377.  
This is provided for information only.

#### Remarks:

Opinions and interpretations expressed herein are outside of the scope of the UKAS Accreditation. This report may not be reproduced other than in full without the prior written approval of the issuing laboratory. The results included within the report relate only to the sample(s) submitted for testing.

Signed:

Katarzyna Banys

Katarzyna Banys  
Junior Reporting Specialist  
for and on behalf of i2 Analytical Ltd



T&P Regeneration  
Unit 5  
Septimus  
Hawkfield Business Park  
BS14 0BN

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

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

e: rachel@tp-regen.co.uk

## **Analytical Report Number : 24-001600**

|                             |                                |                                                        |            |
|-----------------------------|--------------------------------|--------------------------------------------------------|------------|
| <b>Project / Site name:</b> | Sketchley Lane Burbage Supp GI | <b>Samples received on:</b>                            | 01/02/2024 |
| <b>Your job number:</b>     | P0866-CS-2132                  | <b>Samples instructed on/<br/>Analysis started on:</b> | 06/02/2024 |
| <b>Your order number:</b>   | 10674                          | <b>Analysis completed by:</b>                          | 16/02/2024 |
| <b>Report Issue Number:</b> | 1                              | <b>Report issued on:</b>                               | 21/02/2024 |
| <b>Samples Analysed:</b>    | 4 soil samples                 |                                                        |            |

**Signed:** *A. Czerwińska*

Agnieszka Czerwińska  
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: 24-001600  
 Project / Site name: Sketchley Lane Burbage Supp GI  
 Your Order No: 10674

|                                         |               |                    |                         |               |
|-----------------------------------------|---------------|--------------------|-------------------------|---------------|
| Lab Sample Number                       | 109872        | 110168             | 110169                  | 110170        |
| Sample Reference                        | BH01          | BH02               | BH03                    | BH04          |
| Sample Number                           | 7             | 9                  | 15                      | 11            |
| Depth (m)                               | 6.60-6.70     | 11.10-11.20        | 19.50-19.60             | 14.70-14.80   |
| Date Sampled                            | 19/01/2024    | 18/01/2024         | 23/01/2024              | 29/01/2024    |
| Time Taken                              | None Supplied | 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 | < 0.1 |
| Moisture Content              | %  | 0.01 | NONE | 14    | 14    | 19    | 15    |
| Total mass of sample received | kg | 0.1  | NONE | 1.1   | 1.1   | 1.2   | 1.2   |

#### General Inorganics

|                                                                         |          |       |        |       |         |       |       |
|-------------------------------------------------------------------------|----------|-------|--------|-------|---------|-------|-------|
| pH (L099)                                                               | pH Units | N/A   | MCERTS | 8.7   | 8.3     | 8.3   | 8.1   |
| Total Sulphate as SO <sub>4</sub>                                       | %        | 0.005 | MCERTS | 0.023 | 0.007   | 0.079 | 0.068 |
| Water Soluble Sulphate as SO <sub>4</sub> 16hr extraction (2:1)         | mg/kg    | 2.5   | MCERTS | 27    | 25      | 410   | 310   |
| Water Soluble SO <sub>4</sub> 16hr extraction (2:1 Leachate Equivalent) | mg/l     | 1.25  | MCERTS | 13.2  | 12.3    | 205   | 156   |
| Water Soluble Chloride (2:1) (leachate equivalent)                      | mg/l     | 0.5   | MCERTS | 1.2   | 1.5     | 10    | 6.1   |
| Total Sulphur                                                           | mg/kg    | 50    | MCERTS | 110   | < 50    | 7500  | 8700  |
| Total Sulphur                                                           | %        | 0.005 | MCERTS | 0.011 | < 0.005 | 0.749 | 0.865 |
| Water Soluble Nitrate (2:1) as N                                        | mg/kg    | 2     | NONE   | < 2.0 | < 2.0   | < 2.0 | < 2.0 |
| Water Soluble Nitrate (2:1) as N (leachate equivalent)                  | mg/l     | 2     | NONE   | < 2.0 | < 2.0   | < 2.0 | < 2.0 |

#### Heavy Metals / Metalloids

|                                 |       |     |      |     |   |    |    |
|---------------------------------|-------|-----|------|-----|---|----|----|
| Magnesium (leachate equivalent) | mg/l  | 2.5 | NONE | 3.9 | 4 | 27 | 23 |
| Magnesium (water soluble)       | mg/kg | 5   | NONE | 7.8 | 8 | 54 | 46 |

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



**Analytical Report Number : 24-001600**  
**Project / Site name: Sketchley Lane Burbage Supp GI**

\* 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 *         |
|-------------------|------------------|---------------|-------------|------------------------------|
| 109872            | BH01             | 7             | 6.60-6.70   | Brown sandy clay with gravel |
| 110168            | BH02             | 9             | 11.10-11.20 | Brown sand                   |
| 110169            | BH03             | 15            | 19.50-19.60 | Grey clay                    |
| 110170            | BH04             | 11            | 14.70-14.80 | Brown clay                   |

**Analytical Report Number : 24-001600**

**Project / Site name: Sketchley Lane Burbage Supp GI**

**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 |
|----------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------|---------------|--------------------|----------------------|
| Moisture Content                                   | Moisture content, determined gravimetrically (up to 30°C)                                                                  | In-house method                                                                                                        | L019B         | W                  | NONE                 |
| 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.                                             | L019B         | D                  | NONE                 |
| Magnesium, water soluble, in soil                  | Determination of water soluble magnesium by extraction with water followed by ICP-OES                                      | In-house method based on TRL 447                                                                                       | L038B         | D                  | NONE                 |
| Total sulphate (as SO <sub>4</sub> in soil)        | Determination of total sulphate in soil by extraction with 10% HCl followed by ICP-OES                                     | In-house method                                                                                                        | L038B         | D                  | MCERTS               |
| Sulphate, water soluble, in soil (16hr extraction) | Sulphate, water soluble, in soil (16hr extraction)                                                                         | In-house method                                                                                                        | L038B         | D                  | MCERTS               |
| Total Sulphur in soil                              | Determination of total sulphur in soil by extraction with aqua-regia, potassium bromide/bromate followed by ICP-OES        | In-house method                                                                                                        | L038B         | D                  | MCERTS               |
| Water Soluble Nitrate (2:1) as N in soil           | Determination of nitrate by reaction with sodium salicylate and colorimetry                                                | In-house method based on Examination of Water and Wastewater & Polish Standard Method PN-82/C-04579.08, 2:1 extraction | L078B         | D                  | NONE                 |
| Chloride, water soluble, in soil                   | Determination of Chloride colorimetrically by discrete analyser                                                            | In-house method                                                                                                        | L082B         | D                  | MCERTS               |
| pH in soil (automated)                             | Determination of pH in soil by addition of water followed by automated electrometric measurement                           | In-house method                                                                                                        | L099          | D                  | MCERTS               |

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

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

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

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

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

## Appendix E – Chemical Results and Screening Assessment



T&P Regeneration  
Unit 5  
Septimus Building  
BS14 0BL

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

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

e: rachel@tp-regen.co.uk

## **Analytical Report Number : 24-002119**

|                             |                                   |                                                        |            |
|-----------------------------|-----------------------------------|--------------------------------------------------------|------------|
| <b>Project / Site name:</b> | Sketchley Lane, Burbage - Supp GI | <b>Samples received on:</b>                            | 26/01/2024 |
| <b>Your job number:</b>     | PO 866 CS 2132                    | <b>Samples instructed on/<br/>Analysis started on:</b> | 06/02/2021 |
| <b>Your order number:</b>   | 10675                             | <b>Analysis completed by:</b>                          | 13/02/2024 |
| <b>Report Issue Number:</b> | 1                                 | <b>Report issued on:</b>                               | 13/02/2024 |
| <b>Samples Analysed:</b>    | 7 soil samples                    |                                                        |            |

**Signed:**

Adam Fenwick  
Technical Reviewer  
**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: 24-002119

Project / Site name: Sketchley Lane, Burbage - Supp GI

Your Order No: 10675

| Lab Sample Number                       |  |  |  | 112522        | 112523             | 112524               | 112525        | 112526        |
|-----------------------------------------|--|--|--|---------------|--------------------|----------------------|---------------|---------------|
| Sample Reference                        |  |  |  | BH03          | WS01               | WS01                 | WS02          | WS02          |
| Sample Number                           |  |  |  | None Supplied | None Supplied      | None Supplied        | None Supplied | None Supplied |
| Depth (m)                               |  |  |  | 0.20-0.30     | 0.10-0.20          | 1.10-1.20            | 0.10-0.20     | 0.50-0.60     |
| Date Sampled                            |  |  |  | 23/01/2023    | 19/01/2024         | 19/01/2024           | 19/01/2024    | 19/01/2024    |
| 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 | < 0.1 | < 0.1 | < 0.1 | < 0.1 |
| Moisture Content              | %  | 0.01 | NONE | 14    | 16    | 11    | 11    | 14    |
| Total mass of sample received | kg | 0.1  | NONE | 1.1   | 1.2   | 1.1   | 1.2   | 0.6   |

#### General Inorganics

|                                                                         |          |      |        |      |      |      |      |      |
|-------------------------------------------------------------------------|----------|------|--------|------|------|------|------|------|
| pH (L099)                                                               | pH Units | N/A  | MCERTS | 8    | 8    | 8.3  | 6.9  | 7.1  |
| Water Soluble Sulphate as SO <sub>4</sub> 16hr extraction (2:1)         | mg/kg    | 2.5  | MCERTS | 13   | 16   | 15   | 26   | 36   |
| Water Soluble SO <sub>4</sub> 16hr extraction (2:1 Leachate Equivalent) | mg/l     | 1.25 | MCERTS | 6.29 | 8.21 | 7.41 | 13.2 | 18.1 |
| Organic Matter (automated)                                              | %        | 0.1  | MCERTS | 1.7  | 1    | 0.5  | 0.5  | 0.5  |
| Total Organic Carbon (TOC) - Automated                                  | %        | 0.1  | MCERTS | 1    | 0.6  | 0.3  | 0.3  | 0.3  |

#### Total Phenols

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

#### Speciated PAHs

|                        |       |      |           |        |        |        |        |        |
|------------------------|-------|------|-----------|--------|--------|--------|--------|--------|
| Naphthalene            | mg/kg | 0.05 | MCERTS    | 0.06   | < 0.05 | 0.05   | < 0.05 | 0.09   |
| Acenaphthylene         | mg/kg | 0.05 | MCERTS    | < 0.05 | < 0.05 | < 0.05 | < 0.05 | < 0.05 |
| Acenaphthene           | mg/kg | 0.05 | MCERTS    | < 0.05 | < 0.05 | < 0.05 | < 0.05 | < 0.05 |
| Fluorene               | mg/kg | 0.05 | MCERTS    | < 0.05 | < 0.05 | < 0.05 | < 0.05 | < 0.05 |
| Phenanthrene           | mg/kg | 0.05 | MCERTS    | < 0.05 | < 0.05 | < 0.05 | < 0.05 | < 0.05 |
| Anthracene             | mg/kg | 0.05 | MCERTS    | < 0.05 | < 0.05 | < 0.05 | < 0.05 | < 0.05 |
| Fluoranthene           | mg/kg | 0.05 | MCERTS    | 0.08   | < 0.05 | < 0.05 | < 0.05 | < 0.05 |
| Pyrene                 | mg/kg | 0.05 | MCERTS    | 0.08   | < 0.05 | < 0.05 | < 0.05 | < 0.05 |
| Benzo(a)anthracene     | mg/kg | 0.05 | MCERTS    | < 0.05 | < 0.05 | < 0.05 | < 0.05 | < 0.05 |
| Chrysene               | mg/kg | 0.05 | MCERTS    | 0.07   | < 0.05 | < 0.05 | < 0.05 | < 0.05 |
| Benzo(b)fluoranthene   | mg/kg | 0.05 | ISO 17025 | 0.06   | < 0.05 | < 0.05 | < 0.05 | < 0.05 |
| Benzo(k)fluoranthene   | mg/kg | 0.05 | ISO 17025 | 0.1    | < 0.05 | < 0.05 | < 0.05 | < 0.05 |
| Benzo(a)pyrene         | mg/kg | 0.05 | MCERTS    | 0.1    | < 0.05 | < 0.05 | < 0.05 | < 0.05 |
| Indeno(1,2,3-cd)pyrene | mg/kg | 0.05 | MCERTS    | 0.08   | < 0.05 | < 0.05 | < 0.05 | < 0.05 |
| Dibenzo(a,h)anthracene | mg/kg | 0.05 | MCERTS    | < 0.05 | < 0.05 | < 0.05 | < 0.05 | < 0.05 |
| Benzo(ghi)perylene     | mg/kg | 0.05 | MCERTS    | 0.08   | < 0.05 | < 0.05 | < 0.05 | < 0.05 |

#### Total PAH

|                             |       |     |           |        |        |        |        |        |
|-----------------------------|-------|-----|-----------|--------|--------|--------|--------|--------|
| Speciated Total EPA-16 PAHs | mg/kg | 0.8 | ISO 17025 | < 0.80 | < 0.80 | < 0.80 | < 0.80 | < 0.80 |
|-----------------------------|-------|-----|-----------|--------|--------|--------|--------|--------|

Analytical Report Number: 24-002119

Project / Site name: Sketchley Lane, Burbage - Supp GI

Your Order No: 10675

|                                         |  |  |  |               |                    |                      |               |               |
|-----------------------------------------|--|--|--|---------------|--------------------|----------------------|---------------|---------------|
| Lab Sample Number                       |  |  |  | 112522        | 112523             | 112524               | 112525        | 112526        |
| Sample Reference                        |  |  |  | BH03          | WS01               | WS01                 | WS02          | WS02          |
| Sample Number                           |  |  |  | None Supplied | None Supplied      | None Supplied        | None Supplied | None Supplied |
| Depth (m)                               |  |  |  | 0.20-0.30     | 0.10-0.20          | 1.10-1.20            | 0.10-0.20     | 0.50-0.60     |
| Date Sampled                            |  |  |  | 23/01/2023    | 19/01/2024         | 19/01/2024           | 19/01/2024    | 19/01/2024    |
| Time Taken                              |  |  |  | None Supplied | None Supplied      | None Supplied        | None Supplied | None Supplied |
| Analytical Parameter<br>(Soil Analysis) |  |  |  | Units         | Limit of detection | Accreditation Status |               |               |

#### Heavy Metals / Metalloids

|                                    |       |      |        |       |       |       |       |       |
|------------------------------------|-------|------|--------|-------|-------|-------|-------|-------|
| Arsenic (aqua regia extractable)   | mg/kg | 1    | MCERTS | 12    | 15    | 14    | 3.6   | 6.8   |
| Beryllium (aqua regia extractable) | mg/kg | 0.06 | MCERTS | 0.71  | 1.2   | 0.73  | 0.42  | 0.99  |
| Boron (water soluble)              | mg/kg | 0.2  | MCERTS | 0.8   | 0.4   | 0.3   | 0.4   | 0.3   |
| Cadmium (aqua regia extractable)   | mg/kg | 0.2  | MCERTS | < 0.2 | < 0.2 | < 0.2 | < 0.2 | < 0.2 |
| Chromium (hexavalent)              | mg/kg | 1.8  | MCERTS | < 1.8 | < 1.8 | < 1.8 | < 1.8 | < 1.8 |
| Chromium (aqua regia extractable)  | mg/kg | 1    | MCERTS | 21    | 35    | 21    | 13    | 31    |
| Copper (aqua regia extractable)    | mg/kg | 1    | MCERTS | 17    | 21    | 20    | 12    | 18    |
| Lead (aqua regia extractable)      | mg/kg | 1    | MCERTS | 20    | 16    | 11    | 9.1   | 15    |
| Mercury (aqua regia extractable)   | mg/kg | 0.3  | MCERTS | < 0.3 | < 0.3 | < 0.3 | < 0.3 | < 0.3 |
| Nickel (aqua regia extractable)    | mg/kg | 1    | MCERTS | 16    | 33    | 22    | 8.8   | 24    |
| Selenium (aqua regia extractable)  | mg/kg | 1    | MCERTS | < 1.0 | < 1.0 | < 1.0 | < 1.0 | < 1.0 |
| Vanadium (aqua regia extractable)  | mg/kg | 1    | MCERTS | 32    | 51    | 32    | 19    | 40    |
| Zinc (aqua regia extractable)      | mg/kg | 1    | MCERTS | 59    | 64    | 56    | 46    | 71    |

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

Analytical Report Number: 24-002119

Project / Site name: Sketchley Lane, Burbage - Supp GI

Your Order No: 10675

|                                         |       |                    |                      |               |               |
|-----------------------------------------|-------|--------------------|----------------------|---------------|---------------|
| Lab Sample Number                       |       |                    |                      | 112527        | 112528        |
| Sample Reference                        |       |                    |                      | WS03          | WS03          |
| Sample Number                           |       |                    |                      | None Supplied | None Supplied |
| Depth (m)                               |       |                    |                      | 0.20-0.30     | 0.50-0.60     |
| Date Sampled                            |       |                    |                      | 19/01/2024    | 19/01/2024    |
| Time Taken                              |       |                    |                      | None Supplied | None Supplied |
| Analytical Parameter<br>(Soil Analysis) | Units | Limit of detection | Accreditation Status |               |               |
|                                         |       |                    |                      |               |               |

|                               |    |      |      |       |       |
|-------------------------------|----|------|------|-------|-------|
| Stone Content                 | %  | 0.1  | NONE | < 0.1 | < 0.1 |
| Moisture Content              | %  | 0.01 | NONE | 9.7   | 11    |
| Total mass of sample received | kg | 0.1  | NONE | 0.9   | 0.6   |

#### General Inorganics

|                                                                         |          |      |        |     |      |
|-------------------------------------------------------------------------|----------|------|--------|-----|------|
| pH (L099)                                                               | pH Units | N/A  | MCERTS | 7.6 | 6.7  |
| Water Soluble Sulphate as SO <sub>4</sub> 16hr extraction (2:1)         | mg/kg    | 2.5  | MCERTS | 710 | 170  |
| Water Soluble SO <sub>4</sub> 16hr extraction (2:1 Leachate Equivalent) | mg/l     | 1.25 | MCERTS | 353 | 83.8 |
| Organic Matter (automated)                                              | %        | 0.1  | MCERTS | 0.6 | 0.6  |
| Total Organic Carbon (TOC) - Automated                                  | %        | 0.1  | MCERTS | 0.3 | 0.3  |

#### 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 | < 0.05 |
| Anthracene             | mg/kg | 0.05 | MCERTS    | < 0.05 | < 0.05 |
| Fluoranthene           | mg/kg | 0.05 | MCERTS    | < 0.05 | < 0.05 |
| Pyrene                 | mg/kg | 0.05 | MCERTS    | < 0.05 | < 0.05 |
| Benzo(a)anthracene     | mg/kg | 0.05 | MCERTS    | < 0.05 | < 0.05 |
| Chrysene               | mg/kg | 0.05 | MCERTS    | < 0.05 | < 0.05 |
| Benzo(b)fluoranthene   | mg/kg | 0.05 | ISO 17025 | < 0.05 | < 0.05 |
| Benzo(k)fluoranthene   | mg/kg | 0.05 | ISO 17025 | < 0.05 | < 0.05 |
| Benzo(a)pyrene         | mg/kg | 0.05 | MCERTS    | < 0.05 | < 0.05 |
| Indeno(1,2,3-cd)pyrene | mg/kg | 0.05 | MCERTS    | < 0.05 | < 0.05 |
| Dibenzo(a,h)anthracene | mg/kg | 0.05 | MCERTS    | < 0.05 | < 0.05 |
| Benzo(ghi)perylene     | mg/kg | 0.05 | MCERTS    | < 0.05 | < 0.05 |

#### Total PAH

|                             |       |     |           |        |        |
|-----------------------------|-------|-----|-----------|--------|--------|
| Speciated Total EPA-16 PAHs | mg/kg | 0.8 | ISO 17025 | < 0.80 | < 0.80 |
|-----------------------------|-------|-----|-----------|--------|--------|

Analytical Report Number: 24-002119

Project / Site name: Sketchley Lane, Burbage - Supp GI

Your Order No: 10675

|                                         |  |  |  |                      |                    |
|-----------------------------------------|--|--|--|----------------------|--------------------|
| Lab Sample Number                       |  |  |  | 112527               | 112528             |
| Sample Reference                        |  |  |  | WS03                 | WS03               |
| Sample Number                           |  |  |  | None Supplied        | None Supplied      |
| Depth (m)                               |  |  |  | 0.20-0.30            | 0.50-0.60          |
| Date Sampled                            |  |  |  | 19/01/2024           | 19/01/2024         |
| Time Taken                              |  |  |  | None Supplied        | None Supplied      |
| Analytical Parameter<br>(Soil Analysis) |  |  |  | Units                | Limit of detection |
|                                         |  |  |  | Accreditation Status |                    |

#### Heavy Metals / Metalloids

|                                    |       |      |        |       |       |
|------------------------------------|-------|------|--------|-------|-------|
| Arsenic (aqua regia extractable)   | mg/kg | 1    | MCERTS | 5.4   | 5.3   |
| Beryllium (aqua regia extractable) | mg/kg | 0.06 | MCERTS | 0.71  | 0.47  |
| Boron (water soluble)              | mg/kg | 0.2  | MCERTS | 0.3   | 0.2   |
| Cadmium (aqua regia extractable)   | mg/kg | 0.2  | MCERTS | 0.2   | < 0.2 |
| Chromium (hexavalent)              | mg/kg | 1.8  | MCERTS | < 1.8 | < 1.8 |
| Chromium (aqua regia extractable)  | mg/kg | 1    | MCERTS | 110   | 18    |
| Copper (aqua regia extractable)    | mg/kg | 1    | MCERTS | 46    | 8.5   |
| Lead (aqua regia extractable)      | mg/kg | 1    | MCERTS | 11    | 9.3   |
| Mercury (aqua regia extractable)   | mg/kg | 0.3  | MCERTS | < 0.3 | < 0.3 |
| Nickel (aqua regia extractable)    | mg/kg | 1    | MCERTS | 55    | 12    |
| Selenium (aqua regia extractable)  | mg/kg | 1    | MCERTS | < 1.0 | < 1.0 |
| Vanadium (aqua regia extractable)  | mg/kg | 1    | MCERTS | 100   | 25    |
| Zinc (aqua regia extractable)      | mg/kg | 1    | MCERTS | 77    | 54    |

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



**Analytical Report Number : 24-002119**

**Project / Site name: Sketchley Lane, Burbage - Supp GI**

\* 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 *                           |
|-------------------|------------------|---------------|-----------|------------------------------------------------|
| 112522            | BH03             | None Supplied | 0.20-0.30 | Brown clay and loam with gravel and vegetation |
| 112523            | WS01             | None Supplied | 0.10-0.20 | Brown clay and loam with gravel and vegetation |
| 112524            | WS01             | None Supplied | 1.10-1.20 | Brown clay and sand with gravel                |
| 112525            | WS02             | None Supplied | 0.10-0.20 | Brown clay and sand with gravel                |
| 112526            | WS02             | None Supplied | 0.50-0.60 | Brown clay and sand with gravel                |
| 112527            | WS03             | None Supplied | 0.20-0.30 | Brown clay and sand with gravel and vegetation |
| 112528            | WS03             | None Supplied | 0.50-0.60 | Brown loam and sand with gravel and vegetation |

**Analytical Report Number : 24-002119**

**Project / Site name: Sketchley Lane, Burbage - Supp GI**

**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 |
|----------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------|---------------|--------------------|----------------------|
| Organic matter (Automated) in soil                                   | Determination of organic matter in soil by oxidising with potassium dichromate followed by titration with iron (II) sulphate (Walkley Black Method) | In-house method                                                                                        | L009B         | D                  | 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 (Walkley Black Method) | In-house method                                                                                        | L009B         | D                  | MCERTS               |
| Moisture Content                                                     | Moisture content, determined gravimetrically (up to 30°C)                                                                                           | In-house method                                                                                        | L019B         | W                  | NONE                 |
| 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.                             | L019B         | D                  | NONE                 |
| 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                    | L038B         | D                  | MCERTS               |
| 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                                              | L038B         | D                  | MCERTS               |
| Sulphate, water soluble, in soil (16hr extraction)                   | Sulphate, water soluble, in soil (16hr extraction)                                                                                                  | In-house method                                                                                        | L038B         | D                  | MCERTS               |
| Speciated EPA-16 PAHs and/or Semi-volatile organic compounds in soil | Determination of semi-volatile organic compounds (including PAH) in soil by extraction in dichloromethane and hexane followed by GC-MS              | In-house method based on USEPA 8270                                                                    | L064B         | D                  | MCERTS               |
| Hexavalent chromium in soil                                          | Determination of hexavalent chromium in soil by extraction in NaOH and addition of 1,5 diphenylcarbazide followed by colorimetry                    | In-house method                                                                                        | L080          | W                  | MCERTS               |
| 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 | L080          | W                  | MCERTS               |
| pH in soil (automated)                                               | Determination of pH in soil by addition of water followed by automated electrometric measurement                                                    | In-house method                                                                                        | L099          | D                  | MCERTS               |

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

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

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

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

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

## Sample Deviation Report



**Analytical Report Number : 24-002119**

**Project / Site name: Sketchley Lane, Burbage - Supp GI**

This deviation report indicates the sample and test deviations that apply to the samples submitted for analysis. Please note that the associated result(s) may be unreliable and should be interpreted with care.

Key: a - No sampling date b - Incorrect container c - Holding time d - Headspace e - Temperature

| Sample ID | Other ID | Sample Type | Lab Sample Number | Sample Deviation | Test Name                                                            | Test Ref | Test Deviation |
|-----------|----------|-------------|-------------------|------------------|----------------------------------------------------------------------|----------|----------------|
| BH03      | N/A      | S           | 112522            | c                | Hexavalent chromium in soil                                          | L080     | c              |
| BH03      | N/A      | S           | 112522            | c                | Monohydric phenols in soil                                           | L080     | c              |
| BH03      | N/A      | S           | 112522            | c                | Organic matter (Automated) in soil                                   | L009B    | c              |
| BH03      | N/A      | S           | 112522            | c                | Speciated EPA-16 PAHs and/or Semi-volatile organic compounds in soil | L064B    | c              |
| BH03      | N/A      | S           | 112522            | c                | Total organic carbon (Automated) in soil                             | L009B    | c              |
| BH03      | N/A      | S           | 112522            | c                | pH in soil (automated)                                               | L099     | c              |

| End Use Scenario                    | SOM  | Code    | (All) |
|-------------------------------------|------|---------|-------|
| Residential with Home Grown Produce | 1.0% | Code2   | (All) |
|                                     |      | St. Ref | (All) |

**CS-2132**  
**HUMAN HEALTH**  
**ASSESSMENT**



| Min     | Max     | Count  | No. of | Screen  | Location ID            |                   |                        | WS01  |       | WS03   |       | WS02  |       | BH03  |
|---------|---------|--------|--------|---------|------------------------|-------------------|------------------------|-------|-------|--------|-------|-------|-------|-------|
| Value   | Value   | Values | Exceed | Level   | Depth Top and Base (m) |                   |                        | 0.1   | 1.1   | 0.2    | 0.5   | 0.1   | 0.5   | 0.2   |
| (mg/kg) | (mg/kg) | -      | ances  | (mg/kg) | Ref.                   | Group             | Contaminant Reported   | 0.2   | 1.2   | 0.3    | 0.6   | 0.2   | 0.6   | 0.3   |
| 3.60    | 15.00   | 7      | -      | 37      | 1.01                   | Heavy Metals      | Arsenic                | 15.00 | 14.00 | 5.40   | 5.30  | 3.60  | 6.80  | 12.00 |
| 0.42    | 1.20    | 7      | -      | 1.7     | 1.02                   | Heavy Metals      | Beryllium              | 1.20  | 0.73  | 0.71   | 0.47  | 0.42  | 0.99  | 0.71  |
| 0.20    | 0.20    | 7      | -      | 22      | 1.03                   | Heavy Metals      | Cadmium                | 0.20  | 0.20  | 0.20   | 0.20  | 0.20  | 0.20  | 0.20  |
| 13.00   | 110.00  | 7      | -      | 910     | 1.04                   | Heavy Metals      | Chromium               | 35.00 | 21.00 | 110.00 | 18.00 | 13.00 | 31.00 | 21.00 |
| 9.10    | 20.00   | 7      | -      | 200     | 1.05                   | Heavy Metals      | Lead                   | 16.00 | 11.00 | 11.00  | 9.30  | 9.10  | 15.00 | 20.00 |
| 0.30    | 0.30    | 7      | -      | 40      | 1.06                   | Heavy Metals      | Mercury                | 0.30  | 0.30  | 0.30   | 0.30  | 0.30  | 0.30  | 0.30  |
| 8.80    | 55.00   | 7      | -      | 180     | 1.07                   | Heavy Metals      | Nickel                 | 33.00 | 22.00 | 55.00  | 12.00 | 8.80  | 24.00 | 16.00 |
| 1.00    | 1.00    | 7      | -      | 250     | 1.08                   | Heavy Metals      | Selenium               | 1.00  | 1.00  | 1.00   | 1.00  | 1.00  | 1.00  | 1.00  |
| 19.00   | 100.00  | 7      | -      | 410     | 1.09                   | Heavy Metals      | Vanadium               | 51.00 | 32.00 | 100.00 | 25.00 | 19.00 | 40.00 | 32.00 |
| 0.20    | 0.80    | 7      | -      | 290     | 2.01                   | Inorganics        | Water Soluble Boron    | 0.40  | 0.30  | 0.30   | 0.20  | 0.40  | 0.30  | 0.80  |
| 1.80    | 1.80    | 7      | -      | 21      | 2.02                   | Inorganics        | Hexavalent Chromium    | 1.80  | 1.80  | 1.80   | 1.80  | 1.80  | 1.80  | 1.80  |
| 8.50    | 46.00   | 7      | -      | 2400    | 3.01                   | Phytotoxic Metals | Copper                 | 21.00 | 20.00 | 46.00  | 8.50  | 12.00 | 18.00 | 17.00 |
| 46.00   | 77.00   | 7      | -      | 3700    | 3.02                   | Phytotoxic Metals | Zinc                   | 64.00 | 56.00 | 77.00  | 54.00 | 46.00 | 71.00 | 59.00 |
| 1.00    | 1.00    | 7      | -      | 280     | 4.01                   | Phenols           | Phenol                 | 1.00  | 1.00  | 1.00   | 1.00  | 1.00  | 1.00  | 1.00  |
| 0.05    | 0.09    | 7      | -      | 2.3     | 5.01                   | PAHs              | Naphthalene            | 0.05  | 0.05  | 0.05   | 0.05  | 0.05  | 0.09  | 0.06  |
| 0.05    | 0.05    | 7      | -      | 170     | 5.02                   | PAHs              | Acenaphthylene         | 0.05  | 0.05  | 0.05   | 0.05  | 0.05  | 0.05  | 0.05  |
| 0.05    | 0.05    | 7      | -      | 210     | 5.03                   | PAHs              | Acenaphthene           | 0.05  | 0.05  | 0.05   | 0.05  | 0.05  | 0.05  | 0.05  |
| 0.05    | 0.05    | 7      | -      | 170     | 5.04                   | PAHs              | Fluorene               | 0.05  | 0.05  | 0.05   | 0.05  | 0.05  | 0.05  | 0.05  |
| 0.05    | 0.05    | 7      | -      | 95      | 5.05                   | PAHs              | Phenanthrene           | 0.05  | 0.05  | 0.05   | 0.05  | 0.05  | 0.05  | 0.05  |
| 0.05    | 0.05    | 7      | -      | 2400    | 5.06                   | PAHs              | Anthracene             | 0.05  | 0.05  | 0.05   | 0.05  | 0.05  | 0.05  | 0.05  |
| 0.05    | 0.08    | 7      | -      | 280     | 5.07                   | PAHs              | Fluoranthene           | 0.05  | 0.05  | 0.05   | 0.05  | 0.05  | 0.05  | 0.08  |
| 0.05    | 0.08    | 7      | -      | 620     | 5.08                   | PAHs              | Pyrene                 | 0.05  | 0.05  | 0.05   | 0.05  | 0.05  | 0.05  | 0.08  |
| 0.05    | 0.05    | 7      | -      | 7.2     | 5.09                   | PAHs              | Benzo[a]anthracene     | 0.05  | 0.05  | 0.05   | 0.05  | 0.05  | 0.05  | 0.05  |
| 0.05    | 0.07    | 7      | -      | 15      | 5.10                   | PAHs              | Chrysene               | 0.05  | 0.05  | 0.05   | 0.05  | 0.05  | 0.05  | 0.07  |
| 0.05    | 0.06    | 7      | -      | 2.6     | 5.11                   | PAHs              | Benzo[b]fluoranthene   | 0.05  | 0.05  | 0.05   | 0.05  | 0.05  | 0.05  | 0.06  |
| 0.05    | 0.10    | 7      | -      | 77      | 5.12                   | PAHs              | Benzo[k]fluoranthene   | 0.05  | 0.05  | 0.05   | 0.05  | 0.05  | 0.05  | 0.10  |
| 0.05    | 0.10    | 7      | -      | 5       | 5.13                   | PAHs              | Benzo[a]pyrene         | 0.05  | 0.05  | 0.05   | 0.05  | 0.05  | 0.05  | 0.10  |
| 0.05    | 0.08    | 7      | -      | 27      | 5.14                   | PAHs              | Indeno[1,2,3-cd]pyrene | 0.05  | 0.05  | 0.05   | 0.05  | 0.05  | 0.05  | 0.08  |
| 0.05    | 0.05    | 7      | -      | 0.24    | 5.15                   | PAHs              | Dibenz[a,h]anthracene  | 0.05  | 0.05  | 0.05   | 0.05  | 0.05  | 0.05  | 0.05  |
| 0.05    | 0.08    | 7      | -      | 320     | 5.16                   | PAHs              | Benzo[ghi]perylene     | 0.05  | 0.05  | 0.05   | 0.05  | 0.05  | 0.05  | 0.08  |

| End Use Scenario |
|------------------|
| Phytotoxic       |

|         |       |
|---------|-------|
| Code    | (All) |
| Code2   | (All) |
| St. Ref | (All) |

CS-2132

PHYTOTOXIC

REPORT



| Min Value | Max Value | Count Values | No. of Exceed - ances | Screen Level | Location ID        |                   |                      | WS01  |       | WS03   |       | WS02  |       | BH03  |
|-----------|-----------|--------------|-----------------------|--------------|--------------------|-------------------|----------------------|-------|-------|--------|-------|-------|-------|-------|
|           |           |              |                       |              | Depth Top and Base |                   |                      | 0.1   | 1.1   | 0.2    | 0.5   | 0.1   | 0.5   | 0.2   |
|           |           |              |                       |              | Ref.               | Group             | Contaminant Reported | 0.2   | 1.2   | 0.3    | 0.6   | 0.2   | 0.6   | 0.3   |
| 0.20      | 0.20      | 7            | -                     | 8            | 1.03               | Heavy Metals      | Cadmium              | 0.20  | 0.20  | 0.20   | 0.20  | 0.20  | 0.20  | 0.20  |
| 13.00     | 110.00    | 7            | -                     | 154          | 1.04               | Heavy Metals      | Chromium             | 35.00 | 21.00 | 110.00 | 18.00 | 13.00 | 31.00 | 21.00 |
| 0.30      | 0.30      | 7            | -                     | 28           | 1.06               | Heavy Metals      | Mercury              | 0.30  | 0.30  | 0.30   | 0.30  | 0.30  | 0.30  | 0.30  |
| 8.80      | 55.00     | 7            | -                     | 70           | 1.07               | Heavy Metals      | Nickel               | 33.00 | 22.00 | 55.00  | 12.00 | 8.80  | 24.00 | 16.00 |
| 1.00      | 1.00      | 7            | -                     | 10           | 1.08               | Heavy Metals      | Selenium             | 1.00  | 1.00  | 1.00   | 1.00  | 1.00  | 1.00  | 1.00  |
| 0.20      | 0.80      | 7            | -                     | 3            | 2.01               | Inorganics        | Water Soluble Boron  | 0.40  | 0.30  | 0.30   | 0.20  | 0.40  | 0.30  | 0.80  |
| 8.50      | 46.00     | 7            | -                     | 130          | 3.01               | Phytotoxic Metals | Copper               | 21.00 | 20.00 | 46.00  | 8.50  | 12.00 | 18.00 | 17.00 |
| 46.00     | 77.00     | 7            | -                     | 300          | 3.02               | Phytotoxic Metals | Zinc                 | 64.00 | 56.00 | 77.00  | 54.00 | 46.00 | 71.00 | 59.00 |



## Appendix F – HazWaste

## 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)



P8YKV-LGP0T-EI0SI

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

### Job name

Sketchley Lane, Burbage

### Description/Comments

### Project

P0866

### Site

Sketchley Lane, Burbage

### Classified by

Name:

**Matthew Carr**

Date:

**14 Mar 2024 13:36 GMT**

Telephone:

**0117 927 7756**

Company:

**T&P Regeneration Ltd**

**Unit 5, Septimus**

**Hawkfield Business Park**

**Bristol**

**BS14 0BN**

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

**HazWasteOnline™ Certification:**

**CERTIFIED**

**Course**

**Hazardous Waste Classification**

**Date**

**09 Dec 2021**

Next 3 year Refresher due by Dec 2024

### Purpose of classification

7 - Disposal of Waste

### Address of the waste

Sketchley Lodge, Sketchley Lane, Burbage, Hinckley

**Post Code** LE103HU

### SIC for the process giving rise to the waste

41202 Construction of domestic buildings

### Description of industry/producer giving rise to the waste

Development of site.

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

Waste created during the excavation of soils for development.

### Description of the waste

Natural clay and made ground

## Job summary

| # | Sample name         | Depth [m] | Classification Result | Hazard properties | Page |
|---|---------------------|-----------|-----------------------|-------------------|------|
| 1 | BH03--23012023-0.20 |           | Non Hazardous         |                   | 3    |
| 2 | WS01--19012024-0.10 |           | Non Hazardous         |                   | 5    |
| 3 | WS01--19012024-1.10 |           | Non Hazardous         |                   | 7    |
| 4 | WS02--19012024-0.10 |           | Non Hazardous         |                   | 9    |
| 5 | WS02--19012024-0.50 |           | Non Hazardous         |                   | 11   |
| 6 | WS03--19012024-0.20 |           | Non Hazardous         |                   | 13   |
| 7 | WS03--19012024-0.50 |           | Non Hazardous         |                   | 15   |

## Related documents

| # | Name                | Description                                       |
|---|---------------------|---------------------------------------------------|
| 1 | 24-002119_HWOL.HWOL | i2 Analytical .hwol file used to populate the Job |

## Report

Created by: Matthew Carr

Created date: 14 Mar 2024 13:36 GMT

| Appendices                                                                 | Page |
|----------------------------------------------------------------------------|------|
| <a href="#">Appendix A: Classifier defined and non GB MCL determinands</a> | 17   |
| <a href="#">Appendix B: Rationale for selection of metal species</a>       | 18   |
| <a href="#">Appendix C: Version</a>                                        | 19   |

Classification of sample: BH03--23012023-0.20

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

### Sample details

|                            |                                                                                           |
|----------------------------|-------------------------------------------------------------------------------------------|
| Sample name:               | LoW Code:                                                                                 |
| <b>BH03--23012023-0.20</b> | Chapter:                                                                                  |
| Moisture content:          | 17: Construction and Demolition Wastes (including excavated soil from contaminated sites) |
| <b>14%</b>                 | 17 05 04 (Soil and stones other than those mentioned in 17 05 03)                         |
| (wet weight correction)    |                                                                                           |

### Hazard properties

None identified

### Determinands

Moisture content: 14% Wet Weight 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  | monohydric phenols                                                                                                                                                                                                                                                           |                                      |                                                   |          | <1 mg/kg          |              | <1 mg/kg       | <0.0001 %            |            | <LOD           |
|    |                                                                                                                                                                                                                                                                              |                                      | P1186                                             |          |                   |              |                |                      |            |                |
| 2  | chromium in chromium(VI) compounds { chromium (VI) compounds, with the exception of barium chromate and of compounds specified elsewhere in this Annex }                                                                                                                     |                                      |                                                   |          | <1.8 mg/kg        | 2.27         | <4.086 mg/kg   | <0.000409 %          |            | <LOD           |
|    | 024-017-00-8                                                                                                                                                                                                                                                                 |                                      |                                                   |          |                   |              |                |                      |            |                |
| 3  | pH                                                                                                                                                                                                                                                                           |                                      |                                                   |          | 8 pH              |              | 8 pH           | 8pH                  |            |                |
|    |                                                                                                                                                                                                                                                                              |                                      | PH                                                |          |                   |              |                |                      |            |                |
| 4  | boron { diboron trioxide }                                                                                                                                                                                                                                                   |                                      |                                                   |          | 0.8 mg/kg         | 3.22         | 2.215 mg/kg    | 0.000222 %           | ✓          |                |
|    | 005-008-00-8                                                                                                                                                                                                                                                                 | 215-125-8                            | 1303-86-2                                         |          |                   |              |                |                      |            |                |
| 5  | arsenic { arsenic compounds, with the exception of those specified elsewhere in this Annex }                                                                                                                                                                                 |                                      |                                                   | 1        | 12 mg/kg          |              | 10.32 mg/kg    | 0.00103 %            | ✓          |                |
|    | 033-002-00-5                                                                                                                                                                                                                                                                 |                                      |                                                   |          |                   |              |                |                      |            |                |
| 6  | beryllium { beryllium chloride }                                                                                                                                                                                                                                             |                                      |                                                   |          | 0.71 mg/kg        | 8.868        | 5.415 mg/kg    | 0.000541 %           | ✓          |                |
|    |                                                                                                                                                                                                                                                                              |                                      | 7787-47-5                                         |          |                   |              |                |                      |            |                |
| 7  | cadmium { cadmium compounds, with the exception of cadmium sulphoselenide (xCdS.yCdSe), reaction mass of cadmium sulphide with zinc sulphide (xCdS.yZnS), reaction mass of cadmium sulphide with mercury sulphide (xCdS.yHgS), and those specified elsewhere in this Annex } |                                      |                                                   | 1        | <0.2 mg/kg        |              | <0.2 mg/kg     | <0.00002 %           |            | <LOD           |
|    | 048-001-00-5                                                                                                                                                                                                                                                                 |                                      |                                                   |          |                   |              |                |                      |            |                |
| 8  | copper { copper(II) carbonate – copper(II) hydroxide (1:1) }                                                                                                                                                                                                                 |                                      |                                                   |          | 17 mg/kg          | 1.74         | 25.436 mg/kg   | 0.00254 %            | ✓          |                |
|    | 029-020-00-8                                                                                                                                                                                                                                                                 | 235-113-6                            | 12069-69-1                                        |          |                   |              |                |                      |            |                |
| 9  | mercury { inorganic compounds of mercury with the exception of mercuric sulphide and those specified elsewhere in this Annex }                                                                                                                                               |                                      |                                                   | 1        | <0.3 mg/kg        |              | <0.3 mg/kg     | <0.00003 %           |            | <LOD           |
|    | 080-002-00-6                                                                                                                                                                                                                                                                 |                                      |                                                   |          |                   |              |                |                      |            |                |
| 10 | nickel { nickel sulfide }                                                                                                                                                                                                                                                    |                                      |                                                   |          | 16 mg/kg          | 1.546        | 21.277 mg/kg   | 0.00213 %            | ✓          |                |
|    | 028-006-00-9                                                                                                                                                                                                                                                                 | 240-841-2 [1]<br>234-349-7 [2] - [3] | 16812-54-7 [1]<br>11113-75-0 [2]<br>1314-04-1 [3] |          |                   |              |                |                      |            |                |
| 11 | lead { lead compounds with the exception of those specified elsewhere in this Annex (worst case) }                                                                                                                                                                           |                                      |                                                   | 1        | 20 mg/kg          |              | 17.2 mg/kg     | 0.00172 %            | ✓          |                |
|    | 082-001-00-6                                                                                                                                                                                                                                                                 |                                      |                                                   |          |                   |              |                |                      |            |                |

| #      | 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                     |          |                   |              |                |              |                      |            |                |
| 12     | selenium { selenium compounds with the exception of cadmium sulphoselenide and those specified elsewhere in this Annex } |                                |                                |          | <1 mg/kg          | 1.405        | <1.405 mg/kg   | <0.000141 %  |                      |            | <LOD           |
|        | 034-002-00-8                                                                                                             |                                |                                |          |                   |              |                |              |                      |            |                |
| 13     | vanadium { divanadium pentaoxide; vanadium pentoxide }                                                                   |                                |                                |          | 32 mg/kg          | 1.785        | 49.128 mg/kg   | 0.00491 %    |                      | ✓          |                |
|        | 023-001-00-8                                                                                                             | 215-239-8                      | 1314-62-1                      |          |                   |              |                |              |                      |            |                |
| 14     | zinc { zinc sulphate }                                                                                                   |                                |                                |          | 59 mg/kg          | 2.469        | 125.292 mg/kg  | 0.0125 %     |                      | ✓          |                |
|        | 030-006-00-9                                                                                                             | 231-793-3 [1]<br>231-793-3 [2] | 7446-19-7 [1]<br>7733-02-0 [2] |          |                   |              |                |              |                      |            |                |
| 15     | naphthalene                                                                                                              |                                |                                |          | 0.06 mg/kg        |              | 0.0516 mg/kg   | 0.00000516 % |                      | ✓          |                |
|        | 601-052-00-2                                                                                                             | 202-049-5                      | 91-20-3                        |          |                   |              |                |              |                      |            |                |
| 16     | acenaphthylene                                                                                                           |                                |                                |          | <0.05 mg/kg       |              | <0.05 mg/kg    | <0.000005 %  |                      |            | <LOD           |
|        |                                                                                                                          | 205-917-1                      | 208-96-8                       |          |                   |              |                |              |                      |            |                |
| 17     | acenaphthene                                                                                                             |                                |                                |          | <0.05 mg/kg       |              | <0.05 mg/kg    | <0.000005 %  |                      |            | <LOD           |
|        |                                                                                                                          | 201-469-6                      | 83-32-9                        |          |                   |              |                |              |                      |            |                |
| 18     | fluorene                                                                                                                 |                                |                                |          | <0.05 mg/kg       |              | <0.05 mg/kg    | <0.000005 %  |                      |            | <LOD           |
|        |                                                                                                                          | 201-695-5                      | 86-73-7                        |          |                   |              |                |              |                      |            |                |
| 19     | phenanthrene                                                                                                             |                                |                                |          | <0.05 mg/kg       |              | <0.05 mg/kg    | <0.000005 %  |                      |            | <LOD           |
|        |                                                                                                                          | 201-581-5                      | 85-01-8                        |          |                   |              |                |              |                      |            |                |
| 20     | anthracene                                                                                                               |                                |                                |          | <0.05 mg/kg       |              | <0.05 mg/kg    | <0.000005 %  |                      |            | <LOD           |
|        |                                                                                                                          | 204-371-1                      | 120-12-7                       |          |                   |              |                |              |                      |            |                |
| 21     | fluoranthene                                                                                                             |                                |                                |          | 0.08 mg/kg        |              | 0.0688 mg/kg   | 0.00000688 % |                      | ✓          |                |
|        |                                                                                                                          | 205-912-4                      | 206-44-0                       |          |                   |              |                |              |                      |            |                |
| 22     | pyrene                                                                                                                   |                                |                                |          | 0.08 mg/kg        |              | 0.0688 mg/kg   | 0.00000688 % |                      | ✓          |                |
|        |                                                                                                                          | 204-927-3                      | 129-00-0                       |          |                   |              |                |              |                      |            |                |
| 23     | benzo[a]anthracene                                                                                                       |                                |                                |          | <0.05 mg/kg       |              | <0.05 mg/kg    | <0.000005 %  |                      |            | <LOD           |
|        | 601-033-00-9                                                                                                             | 200-280-6                      | 56-55-3                        |          |                   |              |                |              |                      |            |                |
| 24     | chrysene                                                                                                                 |                                |                                |          | 0.07 mg/kg        |              | 0.0602 mg/kg   | 0.00000602 % |                      | ✓          |                |
|        | 601-048-00-0                                                                                                             | 205-923-4                      | 218-01-9                       |          |                   |              |                |              |                      |            |                |
| 25     | benzo[a]pyrene; benzo[def]chrysene                                                                                       |                                |                                |          | 0.1 mg/kg         |              | 0.086 mg/kg    | 0.0000086 %  |                      | ✓          |                |
|        | 601-032-00-3                                                                                                             | 200-028-5                      | 50-32-8                        |          |                   |              |                |              |                      |            |                |
| 26     | indeno[123-cd]pyrene                                                                                                     |                                |                                |          | 0.08 mg/kg        |              | 0.0688 mg/kg   | 0.00000688 % |                      | ✓          |                |
|        |                                                                                                                          | 205-893-2                      | 193-39-5                       |          |                   |              |                |              |                      |            |                |
| 27     | 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                        |          |                   |              |                |              |                      |            |                |
| 28     | benzo[ghi]perylene                                                                                                       |                                |                                |          | 0.08 mg/kg        |              | 0.0688 mg/kg   | 0.00000688 % |                      | ✓          |                |
|        |                                                                                                                          | 205-883-8                      | 191-24-2                       |          |                   |              |                |              |                      |            |                |
| 29     | chromium in chromium(III) compounds { chromium(III) oxide (worst case) }                                                 |                                |                                |          | 21 mg/kg          | 1.462        | 30.693 mg/kg   | 0.00307 %    |                      |            |                |
|        |                                                                                                                          | 215-160-9                      | 1308-38-9                      |          |                   |              |                |              |                      |            |                |
| 30     | benzo[bk]fluoranthene                                                                                                    |                                |                                |          | 0.16 mg/kg        |              | 0.138 mg/kg    | 0.0000138 %  |                      | ✓          |                |
|        |                                                                                                                          | [1] 205-911-9 [2] 205-916-6    | [1] 205-99-2 [2] 207-08-9      |          |                   |              |                |              |                      |            |                |
| Total: |                                                                                                                          |                                |                                |          |                   |              |                |              | 0.0295 %             |            |                |

#### Key

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



Classification of sample: WS01--19012024-0.10

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

### Sample details

|                            |                                                                                           |
|----------------------------|-------------------------------------------------------------------------------------------|
| Sample name:               | LoW Code:                                                                                 |
| <b>WS01--19012024-0.10</b> | Chapter:                                                                                  |
| Moisture content:          | 17: Construction and Demolition Wastes (including excavated soil from contaminated sites) |
| <b>16%</b>                 | 17 05 04 (Soil and stones other than those mentioned in 17 05 03)                         |
| (wet weight correction)    |                                                                                           |

### Hazard properties

None identified

### Determinands

Moisture content: 16% Wet Weight 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  | monohydric phenols                                                                                                                                                                                                                                                           |                                      |                                                   |          | <1 mg/kg          |              | <1 mg/kg       | <0.0001 %            |            | <LOD           |
|    |                                                                                                                                                                                                                                                                              |                                      | P1186                                             |          |                   |              |                |                      |            |                |
| 2  | chromium in chromium(VI) compounds { chromium (VI) compounds, with the exception of barium chromate and of compounds specified elsewhere in this Annex }                                                                                                                     |                                      |                                                   |          | <1.8 mg/kg        | 2.27         | <4.086 mg/kg   | <0.000409 %          |            | <LOD           |
|    | 024-017-00-8                                                                                                                                                                                                                                                                 |                                      |                                                   |          |                   |              |                |                      |            |                |
| 3  | pH                                                                                                                                                                                                                                                                           |                                      |                                                   |          | 8 pH              |              | 8 pH           | 8pH                  |            |                |
|    |                                                                                                                                                                                                                                                                              |                                      | PH                                                |          |                   |              |                |                      |            |                |
| 4  | boron { diboron trioxide }                                                                                                                                                                                                                                                   |                                      |                                                   |          | 0.4 mg/kg         | 3.22         | 1.082 mg/kg    | 0.000108 %           | ✓          |                |
|    | 005-008-00-8                                                                                                                                                                                                                                                                 | 215-125-8                            | 1303-86-2                                         |          |                   |              |                |                      |            |                |
| 5  | arsenic { arsenic compounds, with the exception of those specified elsewhere in this Annex }                                                                                                                                                                                 |                                      |                                                   | 1        | 15 mg/kg          |              | 12.6 mg/kg     | 0.00126 %            | ✓          |                |
|    | 033-002-00-5                                                                                                                                                                                                                                                                 |                                      |                                                   |          |                   |              |                |                      |            |                |
| 6  | beryllium { beryllium chloride }                                                                                                                                                                                                                                             |                                      |                                                   |          | 1.2 mg/kg         | 8.868        | 8.939 mg/kg    | 0.000894 %           | ✓          |                |
|    |                                                                                                                                                                                                                                                                              |                                      | 7787-47-5                                         |          |                   |              |                |                      |            |                |
| 7  | cadmium { cadmium compounds, with the exception of cadmium sulphoselenide (xCdS.yCdSe), reaction mass of cadmium sulphide with zinc sulphide (xCdS.yZnS), reaction mass of cadmium sulphide with mercury sulphide (xCdS.yHgS), and those specified elsewhere in this Annex } |                                      |                                                   | 1        | <0.2 mg/kg        |              | <0.2 mg/kg     | <0.00002 %           |            | <LOD           |
|    | 048-001-00-5                                                                                                                                                                                                                                                                 |                                      |                                                   |          |                   |              |                |                      |            |                |
| 8  | copper { copper(II) carbonate – copper(II) hydroxide (1:1) }                                                                                                                                                                                                                 |                                      |                                                   |          | 21 mg/kg          | 1.74         | 30.69 mg/kg    | 0.00307 %            | ✓          |                |
|    | 029-020-00-8                                                                                                                                                                                                                                                                 | 235-113-6                            | 12069-69-1                                        |          |                   |              |                |                      |            |                |
| 9  | mercury { inorganic compounds of mercury with the exception of mercuric sulphide and those specified elsewhere in this Annex }                                                                                                                                               |                                      |                                                   | 1        | <0.3 mg/kg        |              | <0.3 mg/kg     | <0.00003 %           |            | <LOD           |
|    | 080-002-00-6                                                                                                                                                                                                                                                                 |                                      |                                                   |          |                   |              |                |                      |            |                |
| 10 | nickel { nickel sulfide }                                                                                                                                                                                                                                                    |                                      |                                                   |          | 33 mg/kg          | 1.546        | 42.864 mg/kg   | 0.00429 %            | ✓          |                |
|    | 028-006-00-9                                                                                                                                                                                                                                                                 | 240-841-2 [1]<br>234-349-7 [2] - [3] | 16812-54-7 [1]<br>11113-75-0 [2]<br>1314-04-1 [3] |          |                   |              |                |                      |            |                |
| 11 | lead { lead compounds with the exception of those specified elsewhere in this Annex (worst case) }                                                                                                                                                                           |                                      |                                                   | 1        | 16 mg/kg          |              | 13.44 mg/kg    | 0.00134 %            | ✓          |                |
|    | 082-001-00-6                                                                                                                                                                                                                                                                 |                                      |                                                   |          |                   |              |                |                      |            |                |

| #      | 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                     |          |                   |              |                |             |                      |            |                |
| 12     | selenium { selenium compounds with the exception of cadmium sulphoselenide and those specified elsewhere in this Annex } |                                |                                |          | <1 mg/kg          | 1.405        | <1.405 mg/kg   | <0.000141 % |                      |            | <LOD           |
|        | 034-002-00-8                                                                                                             |                                |                                |          |                   |              |                |             |                      |            |                |
| 13     | vanadium { divanadium pentaoxide; vanadium pentoxide }                                                                   |                                |                                |          | 51 mg/kg          | 1.785        | 76.477 mg/kg   | 0.00765 %   |                      | ✓          |                |
|        | 023-001-00-8                                                                                                             | 215-239-8                      | 1314-62-1                      |          |                   |              |                |             |                      |            |                |
| 14     | zinc { zinc sulphate }                                                                                                   |                                |                                |          | 64 mg/kg          | 2.469        | 132.749 mg/kg  | 0.0133 %    |                      | ✓          |                |
|        | 030-006-00-9                                                                                                             | 231-793-3 [1]<br>231-793-3 [2] | 7446-19-7 [1]<br>7733-02-0 [2] |          |                   |              |                |             |                      |            |                |
| 15     | naphthalene                                                                                                              |                                |                                |          | <0.05 mg/kg       |              | <0.05 mg/kg    | <0.000005 % |                      |            | <LOD           |
|        | 601-052-00-2                                                                                                             | 202-049-5                      | 91-20-3                        |          |                   |              |                |             |                      |            |                |
| 16     | acenaphthylene                                                                                                           |                                |                                |          | <0.05 mg/kg       |              | <0.05 mg/kg    | <0.000005 % |                      |            | <LOD           |
|        |                                                                                                                          | 205-917-1                      | 208-96-8                       |          |                   |              |                |             |                      |            |                |
| 17     | acenaphthene                                                                                                             |                                |                                |          | <0.05 mg/kg       |              | <0.05 mg/kg    | <0.000005 % |                      |            | <LOD           |
|        |                                                                                                                          | 201-469-6                      | 83-32-9                        |          |                   |              |                |             |                      |            |                |
| 18     | fluorene                                                                                                                 |                                |                                |          | <0.05 mg/kg       |              | <0.05 mg/kg    | <0.000005 % |                      |            | <LOD           |
|        |                                                                                                                          | 201-695-5                      | 86-73-7                        |          |                   |              |                |             |                      |            |                |
| 19     | phenanthrene                                                                                                             |                                |                                |          | <0.05 mg/kg       |              | <0.05 mg/kg    | <0.000005 % |                      |            | <LOD           |
|        |                                                                                                                          | 201-581-5                      | 85-01-8                        |          |                   |              |                |             |                      |            |                |
| 20     | anthracene                                                                                                               |                                |                                |          | <0.05 mg/kg       |              | <0.05 mg/kg    | <0.000005 % |                      |            | <LOD           |
|        |                                                                                                                          | 204-371-1                      | 120-12-7                       |          |                   |              |                |             |                      |            |                |
| 21     | fluoranthene                                                                                                             |                                |                                |          | <0.05 mg/kg       |              | <0.05 mg/kg    | <0.000005 % |                      |            | <LOD           |
|        |                                                                                                                          | 205-912-4                      | 206-44-0                       |          |                   |              |                |             |                      |            |                |
| 22     | pyrene                                                                                                                   |                                |                                |          | <0.05 mg/kg       |              | <0.05 mg/kg    | <0.000005 % |                      |            | <LOD           |
|        |                                                                                                                          | 204-927-3                      | 129-00-0                       |          |                   |              |                |             |                      |            |                |
| 23     | benzo[a]anthracene                                                                                                       |                                |                                |          | <0.05 mg/kg       |              | <0.05 mg/kg    | <0.000005 % |                      |            | <LOD           |
|        | 601-033-00-9                                                                                                             | 200-280-6                      | 56-55-3                        |          |                   |              |                |             |                      |            |                |
| 24     | chrysene                                                                                                                 |                                |                                |          | <0.05 mg/kg       |              | <0.05 mg/kg    | <0.000005 % |                      |            | <LOD           |
|        | 601-048-00-0                                                                                                             | 205-923-4                      | 218-01-9                       |          |                   |              |                |             |                      |            |                |
| 25     | 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                        |          |                   |              |                |             |                      |            |                |
| 26     | indeno[123-cd]pyrene                                                                                                     |                                |                                |          | <0.05 mg/kg       |              | <0.05 mg/kg    | <0.000005 % |                      |            | <LOD           |
|        |                                                                                                                          | 205-893-2                      | 193-39-5                       |          |                   |              |                |             |                      |            |                |
| 27     | 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                        |          |                   |              |                |             |                      |            |                |
| 28     | benzo[ghi]perylene                                                                                                       |                                |                                |          | <0.05 mg/kg       |              | <0.05 mg/kg    | <0.000005 % |                      |            | <LOD           |
|        |                                                                                                                          | 205-883-8                      | 191-24-2                       |          |                   |              |                |             |                      |            |                |
| 29     | chromium in chromium(III) compounds { chromium(III) oxide (worst case) }                                                 |                                |                                |          | 35 mg/kg          | 1.462        | 51.154 mg/kg   | 0.00512 %   |                      |            |                |
|        |                                                                                                                          | 215-160-9                      | 1308-38-9                      |          |                   |              |                |             |                      |            |                |
| 30     | benzo[bk]fluoranthene                                                                                                    |                                |                                |          | <0.1 mg/kg        |              | <0.1 mg/kg     | <0.00001 %  |                      |            | <LOD           |
|        |                                                                                                                          | [1] 205-911-9 [2] 205-916-6    | [1] 205-99-2 [2] 207-08-9      |          |                   |              |                |             |                      |            |                |
| Total: |                                                                                                                          |                                |                                |          |                   |              |                |             | 0.0378 %             |            |                |

#### Key

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

Classification of sample: WS01--19012024-1.10

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

### Sample details

|                            |                                                                                           |
|----------------------------|-------------------------------------------------------------------------------------------|
| Sample name:               | LoW Code:                                                                                 |
| <b>WS01--19012024-1.10</b> | Chapter:                                                                                  |
| Moisture content:          | 17: Construction and Demolition Wastes (including excavated soil from contaminated sites) |
| <b>11%</b>                 | 17 05 04 (Soil and stones other than those mentioned in 17 05 03)                         |
| (wet weight correction)    |                                                                                           |

### Hazard properties

None identified

### Determinands

Moisture content: 11% Wet Weight 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  | monohydric phenols                                                                                                                                                                                                                                                           |                                      |                                                   |          | <1 mg/kg          |              | <1 mg/kg       | <0.0001 %            |            | <LOD           |
|    |                                                                                                                                                                                                                                                                              |                                      | P1186                                             |          |                   |              |                |                      |            |                |
| 2  | chromium in chromium(VI) compounds { chromium (VI) compounds, with the exception of barium chromate and of compounds specified elsewhere in this Annex }                                                                                                                     |                                      |                                                   |          | <1.8 mg/kg        | 2.27         | <4.086 mg/kg   | <0.000409 %          |            | <LOD           |
|    | 024-017-00-8                                                                                                                                                                                                                                                                 |                                      |                                                   |          |                   |              |                |                      |            |                |
| 3  | pH                                                                                                                                                                                                                                                                           |                                      |                                                   |          | 8.3 pH            |              | 8.3 pH         | 8.3 pH               |            |                |
|    |                                                                                                                                                                                                                                                                              |                                      | PH                                                |          |                   |              |                |                      |            |                |
| 4  | boron { diboron trioxide }                                                                                                                                                                                                                                                   |                                      |                                                   |          | 0.3 mg/kg         | 3.22         | 0.86 mg/kg     | 0.000086 %           | ✓          |                |
|    | 005-008-00-8                                                                                                                                                                                                                                                                 | 215-125-8                            | 1303-86-2                                         |          |                   |              |                |                      |            |                |
| 5  | arsenic { arsenic compounds, with the exception of those specified elsewhere in this Annex }                                                                                                                                                                                 |                                      |                                                   | 1        | 14 mg/kg          |              | 12.46 mg/kg    | 0.00125 %            | ✓          |                |
|    | 033-002-00-5                                                                                                                                                                                                                                                                 |                                      |                                                   |          |                   |              |                |                      |            |                |
| 6  | beryllium { beryllium chloride }                                                                                                                                                                                                                                             |                                      |                                                   |          | 0.73 mg/kg        | 8.868        | 5.762 mg/kg    | 0.000576 %           | ✓          |                |
|    |                                                                                                                                                                                                                                                                              |                                      | 7787-47-5                                         |          |                   |              |                |                      |            |                |
| 7  | cadmium { cadmium compounds, with the exception of cadmium sulphoselenide (xCdS.yCdSe), reaction mass of cadmium sulphide with zinc sulphide (xCdS.yZnS), reaction mass of cadmium sulphide with mercury sulphide (xCdS.yHgS), and those specified elsewhere in this Annex } |                                      |                                                   | 1        | <0.2 mg/kg        |              | <0.2 mg/kg     | <0.00002 %           |            | <LOD           |
|    | 048-001-00-5                                                                                                                                                                                                                                                                 |                                      |                                                   |          |                   |              |                |                      |            |                |
| 8  | copper { copper(II) carbonate – copper(II) hydroxide (1:1) }                                                                                                                                                                                                                 |                                      |                                                   |          | 20 mg/kg          | 1.74         | 30.968 mg/kg   | 0.0031 %             | ✓          |                |
|    | 029-020-00-8                                                                                                                                                                                                                                                                 | 235-113-6                            | 12069-69-1                                        |          |                   |              |                |                      |            |                |
| 9  | mercury { inorganic compounds of mercury with the exception of mercuric sulphide and those specified elsewhere in this Annex }                                                                                                                                               |                                      |                                                   | 1        | <0.3 mg/kg        |              | <0.3 mg/kg     | <0.00003 %           |            | <LOD           |
|    | 080-002-00-6                                                                                                                                                                                                                                                                 |                                      |                                                   |          |                   |              |                |                      |            |                |
| 10 | nickel { nickel sulfide }                                                                                                                                                                                                                                                    |                                      |                                                   |          | 22 mg/kg          | 1.546        | 30.277 mg/kg   | 0.00303 %            | ✓          |                |
|    | 028-006-00-9                                                                                                                                                                                                                                                                 | 240-841-2 [1]<br>234-349-7 [2] - [3] | 16812-54-7 [1]<br>11113-75-0 [2]<br>1314-04-1 [3] |          |                   |              |                |                      |            |                |
| 11 | lead { lead compounds with the exception of those specified elsewhere in this Annex (worst case) }                                                                                                                                                                           |                                      |                                                   | 1        | 11 mg/kg          |              | 9.79 mg/kg     | 0.000979 %           | ✓          |                |
|    | 082-001-00-6                                                                                                                                                                                                                                                                 |                                      |                                                   |          |                   |              |                |                      |            |                |

| #      | 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                     |          |                   |              |                |              |                      |            |                |
| 12     | selenium { selenium compounds with the exception of cadmium sulphoselenide and those specified elsewhere in this Annex } |                                |                                |          | <1 mg/kg          | 1.405        | <1.405 mg/kg   | <0.000141 %  |                      |            | <LOD           |
|        | 034-002-00-8                                                                                                             |                                |                                |          |                   |              |                |              |                      |            |                |
| 13     | vanadium { divanadium pentaoxide; vanadium pentoxide }                                                                   |                                |                                |          | 32 mg/kg          | 1.785        | 50.842 mg/kg   | 0.00508 %    |                      | ✓          |                |
|        | 023-001-00-8                                                                                                             | 215-239-8                      | 1314-62-1                      |          |                   |              |                |              |                      |            |                |
| 14     | zinc { zinc sulphate }                                                                                                   |                                |                                |          | 56 mg/kg          | 2.469        | 123.07 mg/kg   | 0.0123 %     |                      | ✓          |                |
|        | 030-006-00-9                                                                                                             | 231-793-3 [1]<br>231-793-3 [2] | 7446-19-7 [1]<br>7733-02-0 [2] |          |                   |              |                |              |                      |            |                |
| 15     | naphthalene                                                                                                              |                                |                                |          | 0.05 mg/kg        |              | 0.0445 mg/kg   | 0.00000445 % |                      | ✓          |                |
|        | 601-052-00-2                                                                                                             | 202-049-5                      | 91-20-3                        |          |                   |              |                |              |                      |            |                |
| 16     | acenaphthylene                                                                                                           |                                |                                |          | <0.05 mg/kg       |              | <0.05 mg/kg    | <0.000005 %  |                      |            | <LOD           |
|        |                                                                                                                          | 205-917-1                      | 208-96-8                       |          |                   |              |                |              |                      |            |                |
| 17     | acenaphthene                                                                                                             |                                |                                |          | <0.05 mg/kg       |              | <0.05 mg/kg    | <0.000005 %  |                      |            | <LOD           |
|        |                                                                                                                          | 201-469-6                      | 83-32-9                        |          |                   |              |                |              |                      |            |                |
| 18     | fluorene                                                                                                                 |                                |                                |          | <0.05 mg/kg       |              | <0.05 mg/kg    | <0.000005 %  |                      |            | <LOD           |
|        |                                                                                                                          | 201-695-5                      | 86-73-7                        |          |                   |              |                |              |                      |            |                |
| 19     | phenanthrene                                                                                                             |                                |                                |          | <0.05 mg/kg       |              | <0.05 mg/kg    | <0.000005 %  |                      |            | <LOD           |
|        |                                                                                                                          | 201-581-5                      | 85-01-8                        |          |                   |              |                |              |                      |            |                |
| 20     | anthracene                                                                                                               |                                |                                |          | <0.05 mg/kg       |              | <0.05 mg/kg    | <0.000005 %  |                      |            | <LOD           |
|        |                                                                                                                          | 204-371-1                      | 120-12-7                       |          |                   |              |                |              |                      |            |                |
| 21     | fluoranthene                                                                                                             |                                |                                |          | <0.05 mg/kg       |              | <0.05 mg/kg    | <0.000005 %  |                      |            | <LOD           |
|        |                                                                                                                          | 205-912-4                      | 206-44-0                       |          |                   |              |                |              |                      |            |                |
| 22     | pyrene                                                                                                                   |                                |                                |          | <0.05 mg/kg       |              | <0.05 mg/kg    | <0.000005 %  |                      |            | <LOD           |
|        |                                                                                                                          | 204-927-3                      | 129-00-0                       |          |                   |              |                |              |                      |            |                |
| 23     | benzo[a]anthracene                                                                                                       |                                |                                |          | <0.05 mg/kg       |              | <0.05 mg/kg    | <0.000005 %  |                      |            | <LOD           |
|        | 601-033-00-9                                                                                                             | 200-280-6                      | 56-55-3                        |          |                   |              |                |              |                      |            |                |
| 24     | chrysene                                                                                                                 |                                |                                |          | <0.05 mg/kg       |              | <0.05 mg/kg    | <0.000005 %  |                      |            | <LOD           |
|        | 601-048-00-0                                                                                                             | 205-923-4                      | 218-01-9                       |          |                   |              |                |              |                      |            |                |
| 25     | 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                        |          |                   |              |                |              |                      |            |                |
| 26     | indeno[123-cd]pyrene                                                                                                     |                                |                                |          | <0.05 mg/kg       |              | <0.05 mg/kg    | <0.000005 %  |                      |            | <LOD           |
|        |                                                                                                                          | 205-893-2                      | 193-39-5                       |          |                   |              |                |              |                      |            |                |
| 27     | 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                        |          |                   |              |                |              |                      |            |                |
| 28     | benzo[ghi]perylene                                                                                                       |                                |                                |          | <0.05 mg/kg       |              | <0.05 mg/kg    | <0.000005 %  |                      |            | <LOD           |
|        |                                                                                                                          | 205-883-8                      | 191-24-2                       |          |                   |              |                |              |                      |            |                |
| 29     | chromium in chromium(III) compounds { chromium(III) oxide (worst case) }                                                 |                                |                                |          | 21 mg/kg          | 1.462        | 30.693 mg/kg   | 0.00307 %    |                      |            |                |
|        |                                                                                                                          | 215-160-9                      | 1308-38-9                      |          |                   |              |                |              |                      |            |                |
| 30     | benzo[bk]fluoranthene                                                                                                    |                                |                                |          | <0.1 mg/kg        |              | <0.1 mg/kg     | <0.00001 %   |                      |            | <LOD           |
|        |                                                                                                                          | [1] 205-911-9 [2]<br>205-916-6 | [1] 205-99-2 [2]<br>207-08-9   |          |                   |              |                |              |                      |            |                |
| Total: |                                                                                                                          |                                |                                |          |                   |              |                |              | 0.0303 %             |            |                |

#### Key

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

Classification of sample: WS02--19012024-0.10

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

### Sample details

|                            |                                                                                           |
|----------------------------|-------------------------------------------------------------------------------------------|
| Sample name:               | LoW Code:                                                                                 |
| <b>WS02--19012024-0.10</b> | Chapter:                                                                                  |
| Moisture content:          | 17: Construction and Demolition Wastes (including excavated soil from contaminated sites) |
| <b>11%</b>                 | 17 05 04 (Soil and stones other than those mentioned in 17 05 03)                         |
| (wet weight correction)    |                                                                                           |

### Hazard properties

None identified

### Determinands

Moisture content: 11% Wet Weight 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  | monohydric phenols                                                                                                                                                                                                                                                           |                                      |                                                   |          | <1 mg/kg          |              | <1 mg/kg       | <0.0001 %            |            | <LOD           |
|    |                                                                                                                                                                                                                                                                              |                                      | P1186                                             |          |                   |              |                |                      |            |                |
| 2  | chromium in chromium(VI) compounds { chromium (VI) compounds, with the exception of barium chromate and of compounds specified elsewhere in this Annex }                                                                                                                     |                                      |                                                   |          | <1.8 mg/kg        | 2.27         | <4.086 mg/kg   | <0.000409 %          |            | <LOD           |
|    | 024-017-00-8                                                                                                                                                                                                                                                                 |                                      |                                                   |          |                   |              |                |                      |            |                |
| 3  | pH                                                                                                                                                                                                                                                                           |                                      |                                                   |          | 6.9 pH            |              | 6.9 pH         | 6.9 pH               |            |                |
|    |                                                                                                                                                                                                                                                                              |                                      | PH                                                |          |                   |              |                |                      |            |                |
| 4  | boron { diboron trioxide }                                                                                                                                                                                                                                                   |                                      |                                                   |          | 0.4 mg/kg         | 3.22         | 1.146 mg/kg    | 0.000115 %           | ✓          |                |
|    | 005-008-00-8                                                                                                                                                                                                                                                                 | 215-125-8                            | 1303-86-2                                         |          |                   |              |                |                      |            |                |
| 5  | arsenic { arsenic compounds, with the exception of those specified elsewhere in this Annex }                                                                                                                                                                                 |                                      |                                                   | 1        | 3.6 mg/kg         |              | 3.204 mg/kg    | 0.00032 %            | ✓          |                |
|    | 033-002-00-5                                                                                                                                                                                                                                                                 |                                      |                                                   |          |                   |              |                |                      |            |                |
| 6  | beryllium { beryllium chloride }                                                                                                                                                                                                                                             |                                      |                                                   |          | 0.42 mg/kg        | 8.868        | 3.315 mg/kg    | 0.000331 %           | ✓          |                |
|    |                                                                                                                                                                                                                                                                              |                                      | 7787-47-5                                         |          |                   |              |                |                      |            |                |
| 7  | cadmium { cadmium compounds, with the exception of cadmium sulphoselenide (xCdS.yCdSe), reaction mass of cadmium sulphide with zinc sulphide (xCdS.yZnS), reaction mass of cadmium sulphide with mercury sulphide (xCdS.yHgS), and those specified elsewhere in this Annex } |                                      |                                                   | 1        | <0.2 mg/kg        |              | <0.2 mg/kg     | <0.00002 %           |            | <LOD           |
|    | 048-001-00-5                                                                                                                                                                                                                                                                 |                                      |                                                   |          |                   |              |                |                      |            |                |
| 8  | copper { copper(II) carbonate – copper(II) hydroxide (1:1) }                                                                                                                                                                                                                 |                                      |                                                   |          | 12 mg/kg          | 1.74         | 18.581 mg/kg   | 0.00186 %            | ✓          |                |
|    | 029-020-00-8                                                                                                                                                                                                                                                                 | 235-113-6                            | 12069-69-1                                        |          |                   |              |                |                      |            |                |
| 9  | mercury { inorganic compounds of mercury with the exception of mercuric sulphide and those specified elsewhere in this Annex }                                                                                                                                               |                                      |                                                   | 1        | <0.3 mg/kg        |              | <0.3 mg/kg     | <0.00003 %           |            | <LOD           |
|    | 080-002-00-6                                                                                                                                                                                                                                                                 |                                      |                                                   |          |                   |              |                |                      |            |                |
| 10 | nickel { nickel sulfide }                                                                                                                                                                                                                                                    |                                      |                                                   |          | 8.8 mg/kg         | 1.546        | 12.111 mg/kg   | 0.00121 %            | ✓          |                |
|    | 028-006-00-9                                                                                                                                                                                                                                                                 | 240-841-2 [1]<br>234-349-7 [2] - [3] | 16812-54-7 [1]<br>11113-75-0 [2]<br>1314-04-1 [3] |          |                   |              |                |                      |            |                |
| 11 | lead { lead compounds with the exception of those specified elsewhere in this Annex (worst case) }                                                                                                                                                                           |                                      |                                                   | 1        | 9.1 mg/kg         |              | 8.099 mg/kg    | 0.00081 %            | ✓          |                |
|    | 082-001-00-6                                                                                                                                                                                                                                                                 |                                      |                                                   |          |                   |              |                |                      |            |                |



| #      | 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                     |          |                   |              |                |             |                      |            |                |
| 12     | selenium { selenium compounds with the exception of cadmium sulphoselenide and those specified elsewhere in this Annex } |                                |                                |          | <1 mg/kg          | 1.405        | <1.405 mg/kg   | <0.000141 % |                      |            | <LOD           |
|        | 034-002-00-8                                                                                                             |                                |                                |          |                   |              |                |             |                      |            |                |
| 13     | vanadium { divanadium pentaoxide; vanadium pentoxide }                                                                   |                                |                                |          | 19 mg/kg          | 1.785        | 30.187 mg/kg   | 0.00302 %   |                      | ✓          |                |
|        | 023-001-00-8                                                                                                             | 215-239-8                      | 1314-62-1                      |          |                   |              |                |             |                      |            |                |
| 14     | zinc { zinc sulphate }                                                                                                   |                                |                                |          | 46 mg/kg          | 2.469        | 101.093 mg/kg  | 0.0101 %    |                      | ✓          |                |
|        | 030-006-00-9                                                                                                             | 231-793-3 [1]<br>231-793-3 [2] | 7446-19-7 [1]<br>7733-02-0 [2] |          |                   |              |                |             |                      |            |                |
| 15     | naphthalene                                                                                                              |                                |                                |          | <0.05 mg/kg       |              | <0.05 mg/kg    | <0.000005 % |                      |            | <LOD           |
|        | 601-052-00-2                                                                                                             | 202-049-5                      | 91-20-3                        |          |                   |              |                |             |                      |            |                |
| 16     | acenaphthylene                                                                                                           |                                |                                |          | <0.05 mg/kg       |              | <0.05 mg/kg    | <0.000005 % |                      |            | <LOD           |
|        |                                                                                                                          | 205-917-1                      | 208-96-8                       |          |                   |              |                |             |                      |            |                |
| 17     | acenaphthene                                                                                                             |                                |                                |          | <0.05 mg/kg       |              | <0.05 mg/kg    | <0.000005 % |                      |            | <LOD           |
|        |                                                                                                                          | 201-469-6                      | 83-32-9                        |          |                   |              |                |             |                      |            |                |
| 18     | fluorene                                                                                                                 |                                |                                |          | <0.05 mg/kg       |              | <0.05 mg/kg    | <0.000005 % |                      |            | <LOD           |
|        |                                                                                                                          | 201-695-5                      | 86-73-7                        |          |                   |              |                |             |                      |            |                |
| 19     | phenanthrene                                                                                                             |                                |                                |          | <0.05 mg/kg       |              | <0.05 mg/kg    | <0.000005 % |                      |            | <LOD           |
|        |                                                                                                                          | 201-581-5                      | 85-01-8                        |          |                   |              |                |             |                      |            |                |
| 20     | anthracene                                                                                                               |                                |                                |          | <0.05 mg/kg       |              | <0.05 mg/kg    | <0.000005 % |                      |            | <LOD           |
|        |                                                                                                                          | 204-371-1                      | 120-12-7                       |          |                   |              |                |             |                      |            |                |
| 21     | fluoranthene                                                                                                             |                                |                                |          | <0.05 mg/kg       |              | <0.05 mg/kg    | <0.000005 % |                      |            | <LOD           |
|        |                                                                                                                          | 205-912-4                      | 206-44-0                       |          |                   |              |                |             |                      |            |                |
| 22     | pyrene                                                                                                                   |                                |                                |          | <0.05 mg/kg       |              | <0.05 mg/kg    | <0.000005 % |                      |            | <LOD           |
|        |                                                                                                                          | 204-927-3                      | 129-00-0                       |          |                   |              |                |             |                      |            |                |
| 23     | benzo[a]anthracene                                                                                                       |                                |                                |          | <0.05 mg/kg       |              | <0.05 mg/kg    | <0.000005 % |                      |            | <LOD           |
|        | 601-033-00-9                                                                                                             | 200-280-6                      | 56-55-3                        |          |                   |              |                |             |                      |            |                |
| 24     | chrysene                                                                                                                 |                                |                                |          | <0.05 mg/kg       |              | <0.05 mg/kg    | <0.000005 % |                      |            | <LOD           |
|        | 601-048-00-0                                                                                                             | 205-923-4                      | 218-01-9                       |          |                   |              |                |             |                      |            |                |
| 25     | 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                        |          |                   |              |                |             |                      |            |                |
| 26     | indeno[123-cd]pyrene                                                                                                     |                                |                                |          | <0.05 mg/kg       |              | <0.05 mg/kg    | <0.000005 % |                      |            | <LOD           |
|        |                                                                                                                          | 205-893-2                      | 193-39-5                       |          |                   |              |                |             |                      |            |                |
| 27     | 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                        |          |                   |              |                |             |                      |            |                |
| 28     | benzo[ghi]perylene                                                                                                       |                                |                                |          | <0.05 mg/kg       |              | <0.05 mg/kg    | <0.000005 % |                      |            | <LOD           |
|        |                                                                                                                          | 205-883-8                      | 191-24-2                       |          |                   |              |                |             |                      |            |                |
| 29     | chromium in chromium(III) compounds { chromium(III) oxide (worst case) }                                                 |                                |                                |          | 13 mg/kg          | 1.462        | 19 mg/kg       | 0.0019 %    |                      |            |                |
|        |                                                                                                                          | 215-160-9                      | 1308-38-9                      |          |                   |              |                |             |                      |            |                |
| 30     | benzo[bk]fluoranthene                                                                                                    |                                |                                |          | <0.1 mg/kg        |              | <0.1 mg/kg     | <0.00001 %  |                      |            | <LOD           |
|        |                                                                                                                          | [1] 205-911-9 [2] 205-916-6    | [1] 205-99-2 [2] 207-08-9      |          |                   |              |                |             |                      |            |                |
| Total: |                                                                                                                          |                                |                                |          |                   |              |                |             | 0.0205 %             |            |                |

Key

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

Classification of sample: WS02--19012024-0.50

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

### Sample details

|                            |                                                                                           |
|----------------------------|-------------------------------------------------------------------------------------------|
| Sample name:               | LoW Code:                                                                                 |
| <b>WS02--19012024-0.50</b> | Chapter:                                                                                  |
| Moisture content:          | 17: Construction and Demolition Wastes (including excavated soil from contaminated sites) |
| <b>14%</b>                 | 17 05 04 (Soil and stones other than those mentioned in 17 05 03)                         |
| (wet weight correction)    |                                                                                           |

### Hazard properties

None identified

### Determinands

Moisture content: 14% Wet Weight 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  | monohydric phenols                                                                                                                                                                                                                                                           |                                      | P1186                                             |          | <1 mg/kg          |              | <1 mg/kg       | <0.0001 %            |            | <LOD           |
| 2  | chromium in chromium(VI) compounds { chromium (VI) compounds, with the exception of barium chromate and of compounds specified elsewhere in this Annex }                                                                                                                     |                                      |                                                   |          | <1.8 mg/kg        | 2.27         | <4.086 mg/kg   | <0.000409 %          |            | <LOD           |
|    | 024-017-00-8                                                                                                                                                                                                                                                                 |                                      |                                                   |          |                   |              |                |                      |            |                |
| 3  | pH                                                                                                                                                                                                                                                                           |                                      | PH                                                |          | 7.1 pH            |              | 7.1 pH         | 7.1 pH               |            |                |
| 4  | boron { diboron trioxide }                                                                                                                                                                                                                                                   |                                      |                                                   |          | 0.3 mg/kg         | 3.22         | 0.831 mg/kg    | 0.0000831 %          | ✓          |                |
|    | 005-008-00-8                                                                                                                                                                                                                                                                 | 215-125-8                            | 1303-86-2                                         |          |                   |              |                |                      |            |                |
| 5  | arsenic { arsenic compounds, with the exception of those specified elsewhere in this Annex }                                                                                                                                                                                 |                                      |                                                   | 1        | 6.8 mg/kg         |              | 5.848 mg/kg    | 0.000585 %           | ✓          |                |
|    | 033-002-00-5                                                                                                                                                                                                                                                                 |                                      |                                                   |          |                   |              |                |                      |            |                |
| 6  | beryllium { beryllium chloride }                                                                                                                                                                                                                                             |                                      |                                                   |          | 0.99 mg/kg        | 8.868        | 7.55 mg/kg     | 0.000755 %           | ✓          |                |
|    |                                                                                                                                                                                                                                                                              |                                      | 7787-47-5                                         |          |                   |              |                |                      |            |                |
| 7  | cadmium { cadmium compounds, with the exception of cadmium sulphoselenide (xCdS.yCdSe), reaction mass of cadmium sulphide with zinc sulphide (xCdS.yZnS), reaction mass of cadmium sulphide with mercury sulphide (xCdS.yHgS), and those specified elsewhere in this Annex } |                                      |                                                   | 1        | <0.2 mg/kg        |              | <0.2 mg/kg     | <0.00002 %           |            | <LOD           |
|    | 048-001-00-5                                                                                                                                                                                                                                                                 |                                      |                                                   |          |                   |              |                |                      |            |                |
| 8  | copper { copper(II) carbonate – copper(II) hydroxide (1:1) }                                                                                                                                                                                                                 |                                      |                                                   |          | 18 mg/kg          | 1.74         | 26.932 mg/kg   | 0.00269 %            | ✓          |                |
|    | 029-020-00-8                                                                                                                                                                                                                                                                 | 235-113-6                            | 12069-69-1                                        |          |                   |              |                |                      |            |                |
| 9  | mercury { inorganic compounds of mercury with the exception of mercuric sulphide and those specified elsewhere in this Annex }                                                                                                                                               |                                      |                                                   | 1        | <0.3 mg/kg        |              | <0.3 mg/kg     | <0.00003 %           |            | <LOD           |
|    | 080-002-00-6                                                                                                                                                                                                                                                                 |                                      |                                                   |          |                   |              |                |                      |            |                |
| 10 | nickel { nickel sulfide }                                                                                                                                                                                                                                                    |                                      |                                                   |          | 24 mg/kg          | 1.546        | 31.916 mg/kg   | 0.00319 %            | ✓          |                |
|    | 028-006-00-9                                                                                                                                                                                                                                                                 | 240-841-2 [1]<br>234-349-7 [2] - [3] | 16812-54-7 [1]<br>11113-75-0 [2]<br>1314-04-1 [3] |          |                   |              |                |                      |            |                |
| 11 | lead { lead compounds with the exception of those specified elsewhere in this Annex (worst case) }                                                                                                                                                                           |                                      |                                                   | 1        | 15 mg/kg          |              | 12.9 mg/kg     | 0.00129 %            | ✓          |                |
|    | 082-001-00-6                                                                                                                                                                                                                                                                 |                                      |                                                   |          |                   |              |                |                      |            |                |

| #      | 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                     |          |                   |              |                |              |                      |            |                |
| 12     | selenium { selenium compounds with the exception of cadmium sulphoselenide and those specified elsewhere in this Annex } |                                |                                |          | <1 mg/kg          | 1.405        | <1.405 mg/kg   | <0.000141 %  |                      |            | <LOD           |
|        | 034-002-00-8                                                                                                             |                                |                                |          |                   |              |                |              |                      |            |                |
| 13     | vanadium { divanadium pentaoxide; vanadium pentoxide }                                                                   |                                |                                |          | 40 mg/kg          | 1.785        | 61.41 mg/kg    | 0.00614 %    |                      | ✓          |                |
|        | 023-001-00-8                                                                                                             | 215-239-8                      | 1314-62-1                      |          |                   |              |                |              |                      |            |                |
| 14     | zinc { zinc sulphate }                                                                                                   |                                |                                |          | 71 mg/kg          | 2.469        | 150.775 mg/kg  | 0.0151 %     |                      | ✓          |                |
|        | 030-006-00-9                                                                                                             | 231-793-3 [1]<br>231-793-3 [2] | 7446-19-7 [1]<br>7733-02-0 [2] |          |                   |              |                |              |                      |            |                |
| 15     | naphthalene                                                                                                              |                                |                                |          | 0.09 mg/kg        |              | 0.0774 mg/kg   | 0.00000774 % |                      | ✓          |                |
|        | 601-052-00-2                                                                                                             | 202-049-5                      | 91-20-3                        |          |                   |              |                |              |                      |            |                |
| 16     | acenaphthylene                                                                                                           |                                |                                |          | <0.05 mg/kg       |              | <0.05 mg/kg    | <0.000005 %  |                      |            | <LOD           |
|        |                                                                                                                          | 205-917-1                      | 208-96-8                       |          |                   |              |                |              |                      |            |                |
| 17     | acenaphthene                                                                                                             |                                |                                |          | <0.05 mg/kg       |              | <0.05 mg/kg    | <0.000005 %  |                      |            | <LOD           |
|        |                                                                                                                          | 201-469-6                      | 83-32-9                        |          |                   |              |                |              |                      |            |                |
| 18     | fluorene                                                                                                                 |                                |                                |          | <0.05 mg/kg       |              | <0.05 mg/kg    | <0.000005 %  |                      |            | <LOD           |
|        |                                                                                                                          | 201-695-5                      | 86-73-7                        |          |                   |              |                |              |                      |            |                |
| 19     | phenanthrene                                                                                                             |                                |                                |          | <0.05 mg/kg       |              | <0.05 mg/kg    | <0.000005 %  |                      |            | <LOD           |
|        |                                                                                                                          | 201-581-5                      | 85-01-8                        |          |                   |              |                |              |                      |            |                |
| 20     | anthracene                                                                                                               |                                |                                |          | <0.05 mg/kg       |              | <0.05 mg/kg    | <0.000005 %  |                      |            | <LOD           |
|        |                                                                                                                          | 204-371-1                      | 120-12-7                       |          |                   |              |                |              |                      |            |                |
| 21     | fluoranthene                                                                                                             |                                |                                |          | <0.05 mg/kg       |              | <0.05 mg/kg    | <0.000005 %  |                      |            | <LOD           |
|        |                                                                                                                          | 205-912-4                      | 206-44-0                       |          |                   |              |                |              |                      |            |                |
| 22     | pyrene                                                                                                                   |                                |                                |          | <0.05 mg/kg       |              | <0.05 mg/kg    | <0.000005 %  |                      |            | <LOD           |
|        |                                                                                                                          | 204-927-3                      | 129-00-0                       |          |                   |              |                |              |                      |            |                |
| 23     | benzo[a]anthracene                                                                                                       |                                |                                |          | <0.05 mg/kg       |              | <0.05 mg/kg    | <0.000005 %  |                      |            | <LOD           |
|        | 601-033-00-9                                                                                                             | 200-280-6                      | 56-55-3                        |          |                   |              |                |              |                      |            |                |
| 24     | chrysene                                                                                                                 |                                |                                |          | <0.05 mg/kg       |              | <0.05 mg/kg    | <0.000005 %  |                      |            | <LOD           |
|        | 601-048-00-0                                                                                                             | 205-923-4                      | 218-01-9                       |          |                   |              |                |              |                      |            |                |
| 25     | 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                        |          |                   |              |                |              |                      |            |                |
| 26     | indeno[123-cd]pyrene                                                                                                     |                                |                                |          | <0.05 mg/kg       |              | <0.05 mg/kg    | <0.000005 %  |                      |            | <LOD           |
|        |                                                                                                                          | 205-893-2                      | 193-39-5                       |          |                   |              |                |              |                      |            |                |
| 27     | 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                        |          |                   |              |                |              |                      |            |                |
| 28     | benzo[ghi]perylene                                                                                                       |                                |                                |          | <0.05 mg/kg       |              | <0.05 mg/kg    | <0.000005 %  |                      |            | <LOD           |
|        |                                                                                                                          | 205-883-8                      | 191-24-2                       |          |                   |              |                |              |                      |            |                |
| 29     | chromium in chromium(III) compounds { chromium(III) oxide (worst case) }                                                 |                                |                                |          | 31 mg/kg          | 1.462        | 45.308 mg/kg   | 0.00453 %    |                      |            |                |
|        |                                                                                                                          | 215-160-9                      | 1308-38-9                      |          |                   |              |                |              |                      |            |                |
| 30     | benzo[bk]fluoranthene                                                                                                    |                                |                                |          | <0.1 mg/kg        |              | <0.1 mg/kg     | <0.00001 %   |                      |            | <LOD           |
|        |                                                                                                                          | [1] 205-911-9 [2] 205-916-6    | [1] 205-99-2 [2] 207-08-9      |          |                   |              |                |              |                      |            |                |
| Total: |                                                                                                                          |                                |                                |          |                   |              |                |              | 0.0351 %             |            |                |

#### Key

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

Classification of sample: WS03--19012024-0.20

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

### Sample details

Sample name: **WS03--19012024-0.20** LoW Code: **17: Construction and Demolition Wastes (including excavated soil from contaminated sites)**  
Moisture content: **9.7%** Chapter: **17 05 04 (Soil and stones other than those mentioned in 17 05 03)**  
(wet weight correction) Entry:

### Hazard properties

None identified

### Determinands

Moisture content: 9.7% Wet Weight 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  | monohydric phenols                                                                                                                                                                                                                                                           |                                      | P1186                                             |          | <1 mg/kg          |              | <1 mg/kg       | <0.0001 %            |            | <LOD           |
| 2  | chromium in chromium(VI) compounds { chromium (VI) compounds, with the exception of barium chromate and of compounds specified elsewhere in this Annex }                                                                                                                     |                                      |                                                   |          | <1.8 mg/kg        | 2.27         | <4.086 mg/kg   | <0.000409 %          |            | <LOD           |
|    | 024-017-00-8                                                                                                                                                                                                                                                                 |                                      |                                                   |          |                   |              |                |                      |            |                |
| 3  | pH                                                                                                                                                                                                                                                                           |                                      | PH                                                |          | 7.6 pH            |              | 7.6 pH         | 7.6 pH               |            |                |
| 4  | boron { diboron trioxide }                                                                                                                                                                                                                                                   |                                      |                                                   |          | 0.3 mg/kg         | 3.22         | 0.872 mg/kg    | 0.0000872 %          | ✓          |                |
|    | 005-008-00-8                                                                                                                                                                                                                                                                 | 215-125-8                            | 1303-86-2                                         |          |                   |              |                |                      |            |                |
| 5  | arsenic { arsenic compounds, with the exception of those specified elsewhere in this Annex }                                                                                                                                                                                 |                                      |                                                   | 1        | 5.4 mg/kg         |              | 4.876 mg/kg    | 0.000488 %           | ✓          |                |
|    | 033-002-00-5                                                                                                                                                                                                                                                                 |                                      |                                                   |          |                   |              |                |                      |            |                |
| 6  | beryllium { beryllium chloride }                                                                                                                                                                                                                                             |                                      |                                                   |          | 0.71 mg/kg        | 8.868        | 5.686 mg/kg    | 0.000569 %           | ✓          |                |
|    |                                                                                                                                                                                                                                                                              |                                      | 7787-47-5                                         |          |                   |              |                |                      |            |                |
| 7  | cadmium { cadmium compounds, with the exception of cadmium sulphoselenide (xCdS.yCdSe), reaction mass of cadmium sulphide with zinc sulphide (xCdS.yZnS), reaction mass of cadmium sulphide with mercury sulphide (xCdS.yHgS), and those specified elsewhere in this Annex } |                                      |                                                   | 1        | 0.2 mg/kg         |              | 0.181 mg/kg    | 0.0000181 %          | ✓          |                |
|    | 048-001-00-5                                                                                                                                                                                                                                                                 |                                      |                                                   |          |                   |              |                |                      |            |                |
| 8  | copper { copper(II) carbonate – copper(II) hydroxide (1:1) }                                                                                                                                                                                                                 |                                      |                                                   |          | 46 mg/kg          | 1.74         | 72.267 mg/kg   | 0.00723 %            | ✓          |                |
|    | 029-020-00-8                                                                                                                                                                                                                                                                 | 235-113-6                            | 12069-69-1                                        |          |                   |              |                |                      |            |                |
| 9  | mercury { inorganic compounds of mercury with the exception of mercuric sulphide and those specified elsewhere in this Annex }                                                                                                                                               |                                      |                                                   | 1        | <0.3 mg/kg        |              | <0.3 mg/kg     | <0.00003 %           |            | <LOD           |
|    | 080-002-00-6                                                                                                                                                                                                                                                                 |                                      |                                                   |          |                   |              |                |                      |            |                |
| 10 | nickel { nickel sulfide }                                                                                                                                                                                                                                                    |                                      |                                                   |          | 55 mg/kg          | 1.546        | 76.798 mg/kg   | 0.00768 %            | ✓          |                |
|    | 028-006-00-9                                                                                                                                                                                                                                                                 | 240-841-2 [1]<br>234-349-7 [2] - [3] | 16812-54-7 [1]<br>11113-75-0 [2]<br>1314-04-1 [3] |          |                   |              |                |                      |            |                |
| 11 | lead { lead compounds with the exception of those specified elsewhere in this Annex (worst case) }                                                                                                                                                                           |                                      |                                                   | 1        | 11 mg/kg          |              | 9.933 mg/kg    | 0.000993 %           | ✓          |                |
|    | 082-001-00-6                                                                                                                                                                                                                                                                 |                                      |                                                   |          |                   |              |                |                      |            |                |

| #      | 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                     |          |                   |              |                |             |                      |            |                |
| 12     | selenium { selenium compounds with the exception of cadmium sulphoselenide and those specified elsewhere in this Annex } |                                |                                |          | <1 mg/kg          | 1.405        | <1.405 mg/kg   | <0.000141 % |                      |            | <LOD           |
|        | 034-002-00-8                                                                                                             |                                |                                |          |                   |              |                |             |                      |            |                |
| 13     | vanadium { divanadium pentaoxide; vanadium pentoxide }                                                                   |                                |                                |          | 100 mg/kg         | 1.785        | 161.202 mg/kg  | 0.0161 %    |                      | ✓          |                |
|        | 023-001-00-8                                                                                                             | 215-239-8                      | 1314-62-1                      |          |                   |              |                |             |                      |            |                |
| 14     | zinc { zinc sulphate }                                                                                                   |                                |                                |          | 77 mg/kg          | 2.469        | 171.693 mg/kg  | 0.0172 %    |                      | ✓          |                |
|        | 030-006-00-9                                                                                                             | 231-793-3 [1]<br>231-793-3 [2] | 7446-19-7 [1]<br>7733-02-0 [2] |          |                   |              |                |             |                      |            |                |
| 15     | naphthalene                                                                                                              |                                |                                |          | <0.05 mg/kg       |              | <0.05 mg/kg    | <0.000005 % |                      |            | <LOD           |
|        | 601-052-00-2                                                                                                             | 202-049-5                      | 91-20-3                        |          |                   |              |                |             |                      |            |                |
| 16     | acenaphthylene                                                                                                           |                                |                                |          | <0.05 mg/kg       |              | <0.05 mg/kg    | <0.000005 % |                      |            | <LOD           |
|        |                                                                                                                          | 205-917-1                      | 208-96-8                       |          |                   |              |                |             |                      |            |                |
| 17     | acenaphthene                                                                                                             |                                |                                |          | <0.05 mg/kg       |              | <0.05 mg/kg    | <0.000005 % |                      |            | <LOD           |
|        |                                                                                                                          | 201-469-6                      | 83-32-9                        |          |                   |              |                |             |                      |            |                |
| 18     | fluorene                                                                                                                 |                                |                                |          | <0.05 mg/kg       |              | <0.05 mg/kg    | <0.000005 % |                      |            | <LOD           |
|        |                                                                                                                          | 201-695-5                      | 86-73-7                        |          |                   |              |                |             |                      |            |                |
| 19     | phenanthrene                                                                                                             |                                |                                |          | <0.05 mg/kg       |              | <0.05 mg/kg    | <0.000005 % |                      |            | <LOD           |
|        |                                                                                                                          | 201-581-5                      | 85-01-8                        |          |                   |              |                |             |                      |            |                |
| 20     | anthracene                                                                                                               |                                |                                |          | <0.05 mg/kg       |              | <0.05 mg/kg    | <0.000005 % |                      |            | <LOD           |
|        |                                                                                                                          | 204-371-1                      | 120-12-7                       |          |                   |              |                |             |                      |            |                |
| 21     | fluoranthene                                                                                                             |                                |                                |          | <0.05 mg/kg       |              | <0.05 mg/kg    | <0.000005 % |                      |            | <LOD           |
|        |                                                                                                                          | 205-912-4                      | 206-44-0                       |          |                   |              |                |             |                      |            |                |
| 22     | pyrene                                                                                                                   |                                |                                |          | <0.05 mg/kg       |              | <0.05 mg/kg    | <0.000005 % |                      |            | <LOD           |
|        |                                                                                                                          | 204-927-3                      | 129-00-0                       |          |                   |              |                |             |                      |            |                |
| 23     | benzo[a]anthracene                                                                                                       |                                |                                |          | <0.05 mg/kg       |              | <0.05 mg/kg    | <0.000005 % |                      |            | <LOD           |
|        | 601-033-00-9                                                                                                             | 200-280-6                      | 56-55-3                        |          |                   |              |                |             |                      |            |                |
| 24     | chrysene                                                                                                                 |                                |                                |          | <0.05 mg/kg       |              | <0.05 mg/kg    | <0.000005 % |                      |            | <LOD           |
|        | 601-048-00-0                                                                                                             | 205-923-4                      | 218-01-9                       |          |                   |              |                |             |                      |            |                |
| 25     | 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                        |          |                   |              |                |             |                      |            |                |
| 26     | indeno[123-cd]pyrene                                                                                                     |                                |                                |          | <0.05 mg/kg       |              | <0.05 mg/kg    | <0.000005 % |                      |            | <LOD           |
|        |                                                                                                                          | 205-893-2                      | 193-39-5                       |          |                   |              |                |             |                      |            |                |
| 27     | 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                        |          |                   |              |                |             |                      |            |                |
| 28     | benzo[ghi]perylene                                                                                                       |                                |                                |          | <0.05 mg/kg       |              | <0.05 mg/kg    | <0.000005 % |                      |            | <LOD           |
|        |                                                                                                                          | 205-883-8                      | 191-24-2                       |          |                   |              |                |             |                      |            |                |
| 29     | chromium in chromium(III) compounds { chromium(III) oxide (worst case) }                                                 |                                |                                |          | 110 mg/kg         | 1.462        | 160.771 mg/kg  | 0.0161 %    |                      |            |                |
|        |                                                                                                                          | 215-160-9                      | 1308-38-9                      |          |                   |              |                |             |                      |            |                |
| 30     | benzo[bk]fluoranthene                                                                                                    |                                |                                |          | <0.1 mg/kg        |              | <0.1 mg/kg     | <0.00001 %  |                      |            | <LOD           |
|        |                                                                                                                          | [1] 205-911-9 [2] 205-916-6    | [1] 205-99-2 [2] 207-08-9      |          |                   |              |                |             |                      |            |                |
| Total: |                                                                                                                          |                                |                                |          |                   |              |                |             | 0.0672 %             |            |                |

#### Key

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



Classification of sample: WS03--19012024-0.50

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

### Sample details

|                            |                                                                                           |
|----------------------------|-------------------------------------------------------------------------------------------|
| Sample name:               | LoW Code:                                                                                 |
| <b>WS03--19012024-0.50</b> | Chapter:                                                                                  |
| Moisture content:          | 17: Construction and Demolition Wastes (including excavated soil from contaminated sites) |
| <b>11%</b>                 | 17 05 04 (Soil and stones other than those mentioned in 17 05 03)                         |
| (wet weight correction)    |                                                                                           |

### Hazard properties

None identified

### Determinands

Moisture content: 11% Wet Weight 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  | monohydric phenols                                                                                                                                                                                                                                                           |                                      |                                                   |          | <1 mg/kg          |              | <1 mg/kg       | <0.0001 %            |            | <LOD           |
|    |                                                                                                                                                                                                                                                                              |                                      | P1186                                             |          |                   |              |                |                      |            |                |
| 2  | chromium in chromium(VI) compounds { chromium (VI) compounds, with the exception of barium chromate and of compounds specified elsewhere in this Annex }                                                                                                                     |                                      |                                                   |          | <1.8 mg/kg        | 2.27         | <4.086 mg/kg   | <0.000409 %          |            | <LOD           |
|    | 024-017-00-8                                                                                                                                                                                                                                                                 |                                      |                                                   |          |                   |              |                |                      |            |                |
| 3  | pH                                                                                                                                                                                                                                                                           |                                      |                                                   |          | 6.7 pH            |              | 6.7 pH         | 6.7 pH               |            |                |
|    |                                                                                                                                                                                                                                                                              |                                      | PH                                                |          |                   |              |                |                      |            |                |
| 4  | boron { diboron trioxide }                                                                                                                                                                                                                                                   |                                      |                                                   |          | 0.2 mg/kg         | 3.22         | 0.573 mg/kg    | 0.0000573 %          | ✓          |                |
|    | 005-008-00-8                                                                                                                                                                                                                                                                 | 215-125-8                            | 1303-86-2                                         |          |                   |              |                |                      |            |                |
| 5  | arsenic { arsenic compounds, with the exception of those specified elsewhere in this Annex }                                                                                                                                                                                 |                                      |                                                   | 1        | 5.3 mg/kg         |              | 4.717 mg/kg    | 0.000472 %           | ✓          |                |
|    | 033-002-00-5                                                                                                                                                                                                                                                                 |                                      |                                                   |          |                   |              |                |                      |            |                |
| 6  | beryllium { beryllium chloride }                                                                                                                                                                                                                                             |                                      |                                                   |          | 0.47 mg/kg        | 8.868        | 3.709 mg/kg    | 0.000371 %           | ✓          |                |
|    |                                                                                                                                                                                                                                                                              |                                      | 7787-47-5                                         |          |                   |              |                |                      |            |                |
| 7  | cadmium { cadmium compounds, with the exception of cadmium sulphoselenide (xCdS.yCdSe), reaction mass of cadmium sulphide with zinc sulphide (xCdS.yZnS), reaction mass of cadmium sulphide with mercury sulphide (xCdS.yHgS), and those specified elsewhere in this Annex } |                                      |                                                   | 1        | <0.2 mg/kg        |              | <0.2 mg/kg     | <0.00002 %           |            | <LOD           |
|    | 048-001-00-5                                                                                                                                                                                                                                                                 |                                      |                                                   |          |                   |              |                |                      |            |                |
| 8  | copper { copper(II) carbonate – copper(II) hydroxide (1:1) }                                                                                                                                                                                                                 |                                      |                                                   |          | 8.5 mg/kg         | 1.74         | 13.162 mg/kg   | 0.00132 %            | ✓          |                |
|    | 029-020-00-8                                                                                                                                                                                                                                                                 | 235-113-6                            | 12069-69-1                                        |          |                   |              |                |                      |            |                |
| 9  | mercury { inorganic compounds of mercury with the exception of mercuric sulphide and those specified elsewhere in this Annex }                                                                                                                                               |                                      |                                                   | 1        | <0.3 mg/kg        |              | <0.3 mg/kg     | <0.00003 %           |            | <LOD           |
|    | 080-002-00-6                                                                                                                                                                                                                                                                 |                                      |                                                   |          |                   |              |                |                      |            |                |
| 10 | nickel { nickel sulfide }                                                                                                                                                                                                                                                    |                                      |                                                   |          | 12 mg/kg          | 1.546        | 16.515 mg/kg   | 0.00165 %            | ✓          |                |
|    | 028-006-00-9                                                                                                                                                                                                                                                                 | 240-841-2 [1]<br>234-349-7 [2] - [3] | 16812-54-7 [1]<br>11113-75-0 [2]<br>1314-04-1 [3] |          |                   |              |                |                      |            |                |
| 11 | lead { lead compounds with the exception of those specified elsewhere in this Annex (worst case) }                                                                                                                                                                           |                                      |                                                   | 1        | 9.3 mg/kg         |              | 8.277 mg/kg    | 0.000828 %           | ✓          |                |
|    | 082-001-00-6                                                                                                                                                                                                                                                                 |                                      |                                                   |          |                   |              |                |                      |            |                |

| #      | 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                     |          |                   |              |                |              |                      |            |                |
| 12     | selenium { selenium compounds with the exception of cadmium sulphoselenide and those specified elsewhere in this Annex } |                                |                                |          | <1 mg/kg          | 1.405        | <1.405 mg/kg   | <0.000141 %  |                      |            | <LOD           |
|        | 034-002-00-8                                                                                                             |                                |                                |          |                   |              |                |              |                      |            |                |
| 13     | vanadium { divanadium pentaoxide; vanadium pentoxide }                                                                   |                                |                                |          | 25 mg/kg          | 1.785        | 39.72 mg/kg    | 0.00397 %    |                      | ✓          |                |
|        | 023-001-00-8                                                                                                             | 215-239-8                      | 1314-62-1                      |          |                   |              |                |              |                      |            |                |
| 14     | zinc { zinc sulphate }                                                                                                   |                                |                                |          | 54 mg/kg          | 2.469        | 118.674 mg/kg  | 0.0119 %     |                      | ✓          |                |
|        | 030-006-00-9                                                                                                             | 231-793-3 [1]<br>231-793-3 [2] | 7446-19-7 [1]<br>7733-02-0 [2] |          |                   |              |                |              |                      |            |                |
| 15     | naphthalene                                                                                                              |                                |                                |          | 0.05 mg/kg        |              | 0.0445 mg/kg   | 0.00000445 % |                      | ✓          |                |
|        | 601-052-00-2                                                                                                             | 202-049-5                      | 91-20-3                        |          |                   |              |                |              |                      |            |                |
| 16     | acenaphthylene                                                                                                           |                                |                                |          | <0.05 mg/kg       |              | <0.05 mg/kg    | <0.000005 %  |                      |            | <LOD           |
|        |                                                                                                                          | 205-917-1                      | 208-96-8                       |          |                   |              |                |              |                      |            |                |
| 17     | acenaphthene                                                                                                             |                                |                                |          | <0.05 mg/kg       |              | <0.05 mg/kg    | <0.000005 %  |                      |            | <LOD           |
|        |                                                                                                                          | 201-469-6                      | 83-32-9                        |          |                   |              |                |              |                      |            |                |
| 18     | fluorene                                                                                                                 |                                |                                |          | <0.05 mg/kg       |              | <0.05 mg/kg    | <0.000005 %  |                      |            | <LOD           |
|        |                                                                                                                          | 201-695-5                      | 86-73-7                        |          |                   |              |                |              |                      |            |                |
| 19     | phenanthrene                                                                                                             |                                |                                |          | <0.05 mg/kg       |              | <0.05 mg/kg    | <0.000005 %  |                      |            | <LOD           |
|        |                                                                                                                          | 201-581-5                      | 85-01-8                        |          |                   |              |                |              |                      |            |                |
| 20     | anthracene                                                                                                               |                                |                                |          | <0.05 mg/kg       |              | <0.05 mg/kg    | <0.000005 %  |                      |            | <LOD           |
|        |                                                                                                                          | 204-371-1                      | 120-12-7                       |          |                   |              |                |              |                      |            |                |
| 21     | fluoranthene                                                                                                             |                                |                                |          | <0.05 mg/kg       |              | <0.05 mg/kg    | <0.000005 %  |                      |            | <LOD           |
|        |                                                                                                                          | 205-912-4                      | 206-44-0                       |          |                   |              |                |              |                      |            |                |
| 22     | pyrene                                                                                                                   |                                |                                |          | <0.05 mg/kg       |              | <0.05 mg/kg    | <0.000005 %  |                      |            | <LOD           |
|        |                                                                                                                          | 204-927-3                      | 129-00-0                       |          |                   |              |                |              |                      |            |                |
| 23     | benzo[a]anthracene                                                                                                       |                                |                                |          | <0.05 mg/kg       |              | <0.05 mg/kg    | <0.000005 %  |                      |            | <LOD           |
|        | 601-033-00-9                                                                                                             | 200-280-6                      | 56-55-3                        |          |                   |              |                |              |                      |            |                |
| 24     | chrysene                                                                                                                 |                                |                                |          | <0.05 mg/kg       |              | <0.05 mg/kg    | <0.000005 %  |                      |            | <LOD           |
|        | 601-048-00-0                                                                                                             | 205-923-4                      | 218-01-9                       |          |                   |              |                |              |                      |            |                |
| 25     | 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                        |          |                   |              |                |              |                      |            |                |
| 26     | indeno[123-cd]pyrene                                                                                                     |                                |                                |          | <0.05 mg/kg       |              | <0.05 mg/kg    | <0.000005 %  |                      |            | <LOD           |
|        |                                                                                                                          | 205-893-2                      | 193-39-5                       |          |                   |              |                |              |                      |            |                |
| 27     | 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                        |          |                   |              |                |              |                      |            |                |
| 28     | benzo[ghi]perylene                                                                                                       |                                |                                |          | <0.05 mg/kg       |              | <0.05 mg/kg    | <0.000005 %  |                      |            | <LOD           |
|        |                                                                                                                          | 205-883-8                      | 191-24-2                       |          |                   |              |                |              |                      |            |                |
| 29     | chromium in chromium(III) compounds { chromium(III) oxide (worst case) }                                                 |                                |                                |          | 18 mg/kg          | 1.462        | 26.308 mg/kg   | 0.00263 %    |                      |            |                |
|        |                                                                                                                          | 215-160-9                      | 1308-38-9                      |          |                   |              |                |              |                      |            |                |
| 30     | benzo[bk]fluoranthene                                                                                                    |                                |                                |          | <0.1 mg/kg        |              | <0.1 mg/kg     | <0.00001 %   |                      |            | <LOD           |
|        |                                                                                                                          | [1] 205-911-9 [2] 205-916-6    | [1] 205-99-2 [2] 207-08-9      |          |                   |              |                |              |                      |            |                |
| Total: |                                                                                                                          |                                |                                |          |                   |              |                |              | 0.0239 %             |            |                |

Key

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

## Appendix A: Classifier defined and non GB MCL determinands

### monohydric phenols (CAS Number: P1186)

Description/Comments: Combined hazards statements from harmonised entries in CLP for phenol, cresols and xylenols (604-001-00-2, 604-004-00-9, 604-006-00-X)

Data source: CLP combined data

Data source date: 26 Mar 2019

Hazard Statements: Muta. 2; H341, Acute Tox. 3; H331, Acute Tox. 3; H311, Acute Tox. 3; H301, STOT RE 2; H373, Skin Corr. 1B; H314, Skin Corr. 1B; H314 >= 3 %, Skin Irrit. 2; H315 1 <= conc. < 3 %, Eye Irrit. 2; H319 1 <= conc. < 3 %, Aquatic Chronic 2; H411

### pH (CAS Number: PH)

Description/Comments: Appendix C4

Data source: WM3 1st Edition 2015

Data source date: 25 May 2015

Hazard Statements: None.

### arsenic compounds, with the exception of those specified elsewhere in this Annex

GB MCL index number: 033-002-00-5

Description/Comments: Worst Case: IARC considers arsenic compounds Group 1; Carcinogenic to humans

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

### beryllium chloride (CAS Number: 7787-47-5)

Description/Comments: Data from C&L Inventory Database; No entries in Registered Substances Database, IARC or Pesticide Properties Database

Data source: <http://clp-inventory.echa.europa.eu/SummaryOfClassAndLabelling.aspx?SubstanceID=27264&HarmOnly=no?fc=true&lang=en>

Data source date: 02 Jun 2014

Hazard Statements: Acute Tox. 3; H301, Eye Irrit. 2; H319, STOT SE 3; H335, Skin Irrit. 2; H315, Skin Sens. 1; H317, Carc. 1B; H350, STOT RE 1; H372, Aquatic Acute 1; H400, Aquatic Chronic 1; H410

### cadmium compounds, with the exception of cadmium sulphoselenide (xCdS.yCdSe), reaction mass of cadmium sulphide with zinc sulphide (xCdS.yZnS), reaction mass of cadmium sulphide with mercury sulphide (xCdS.yHgS), and those specified elsewhere in this Annex

GB MCL index number: 048-001-00-5

Description/Comments: Worst Case: IARC considers cadmium compounds Group 1; Carcinogenic to humans

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

### lead compounds with the exception of those specified elsewhere in this Annex (worst case)

GB MCL index number: 082-001-00-6

Description/Comments: Worst Case: IARC considers lead compounds Group 2A; Probably carcinogenic to humans; Lead REACH Consortium, following MCL protocols, considers lead compounds from smelting industries, flue dust and similar to be Carcinogenic category 1A

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 2A (Sup 7, 87) 2006; Lead REACH Consortium [www.reach-lead.eu/substanceinformation.html](http://www.reach-lead.eu/substanceinformation.html) (worst case lead compounds). Review date 29/09/2015

### 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

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

Description/Comments: Data from C&L Inventory Database

Data source: <https://echa.europa.eu/information-on-chemicals/cl-inventory-database/-/discli/details/33806>

Data source date: 17 Jul 2015

Hazard Statements: Acute Tox. 4; H332 , Acute Tox. 4; H302 , Eye Irrit. 2; H319 , STOT SE 3; H335 , Skin Irrit. 2; H315 , Resp. Sens. 1; H334 , Skin Sens. 1; H317 , Repr. 1B; H360FD , Aquatic Acute 1; H400 , Aquatic Chronic 1; H410

■ **benzo[bk]fluoranthene** (EC Number: [1] 205-911-9 [2] 205-916-6, CAS Number: [1] 205-99-2 [2] 207-08-9)

Description/Comments: Combined data from harmonised entries in CLP for benzo[b] and benzo[k]fluoranthene; C&L Inventory Database

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

Data source date: 02 Mar 2017

Hazard Statements: Carc. 1B; H350 , Aquatic Acute 1; H400 , Aquatic Chronic 1; H410

## Appendix B: Rationale for selection of metal species

**chromium in chromium(VI) compounds {chromium (VI) compounds, with the exception of barium chromate and of compounds specified elsewhere in this Annex}**

Worst case.

**boron {diboron trioxide}**

Based upon material type it is considered to be the most likely worst case compound.

**arsenic {arsenic compounds, with the exception of those specified elsewhere in this Annex}**

Most likely based upon material type and environmental conditions.

**beryllium {beryllium chloride}**

Worst case.

**cadmium {cadmium compounds, with the exception of cadmium sulphoselenide (xCdS.yCdSe), reaction mass of cadmium sulphide with zinc sulphide (xCdS.yZnS), reaction mass of cadmium sulphide with mercury sulphide (xCdS.yHgS), and those specified elsewhere in this Annex}**

Most likely based upon the material type and environmental conditions.

**copper {copper(II) carbonate – copper(II) hydroxide (1:1)}**

Based upon material type it is considered to be the most likely worst case compound.

**mercury {inorganic compounds of mercury with the exception of mercuric sulphide and those specified elsewhere in this Annex}**

Based upon material type it is considered to be the most likely worst case compound.

**nickel {nickel sulfide}**

Based upon material type it is considered to be the most likely worst case compound.

**lead {lead compounds with the exception of those specified elsewhere in this Annex (worst case)}**

Based upon material type it is considered to be the most likely worst case compound.

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

Based upon material type it is considered to be the most likely worst case compound.

**vanadium {divanadium pentaoxide; vanadium pentoxide}**

Based upon material type it is considered to be the most likely worst case compound.

**zinc {zinc sulphate}**

Based upon material type it is considered to be the most likely worst case compound.

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

Worst case.

## Appendix C: Version

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

HazWasteOnline Classification Engine Version: 2024.73.5982.11058 (13 Mar 2024)

HazWasteOnline Database: 2024.68.5980.11054 (09 Mar 2024)

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

**GB MCL List v2.0** - version 2.0 of 20th October 2023



# **Sketchley Lane, Burbage**

## **Ground Investigation Report**



### **Report for:**

Barwood Land

### **Reference:**

P0866/CS-1745

T & P Regeneration Ltd  
Unit 4, Brunel Lock Development  
Smeaton Road  
Bristol  
BS1 6SE  
Tel: 0117 927 7756

## Document Revision

|              |            |                           |                |                               |               |
|--------------|------------|---------------------------|----------------|-------------------------------|---------------|
| Client       |            | Barwood Land              |                | Project Reference             | P0866/CS-1745 |
| Site Address |            | Sketchley Lane, Burbage   |                |                               |               |
| Issue        | Date       | Revision Details          | Prepared by    | Checked by                    | Approved by   |
| 01           | 24/03/2023 | Original Issue            | Rachel Gilbert | John Flannery/<br>Sam Butcher | Jon Adams     |
| 02           | 28/03/2023 | Update to Section 13.4.2. | Rachel Gilbert | John Flannery/<br>Sam Butcher | Jon Adams     |
|              |            |                           |                |                               |               |
|              |            |                           |                |                               |               |
|              |            |                           |                |                               |               |

The information and advice contained within this report is provided by T&P Regeneration Ltd for sole use and reliance by its Client in performance of T&P Regeneration Ltd's duties under its contract with the Client. Any advice, opinions or recommendations within this report should be read and relied upon only in the context of the report as a whole. The advice within the reports is based upon the information made available to T&P Regeneration Ltd within the financial and timeframe constraints imposed. The report is based on UK standards, codes and common practice current at time of writing. When considering this report regard should be given to the terms and conditions of T&P Regeneration Ltd's contract with the Client under which the report was prepared. The copyright of this report is held by T&P Regeneration Ltd. Should the Client wish to release this report to a Third Party for that party's reliance, T&P Regeneration Ltd may agree to such release provided that: (i) T&P Regeneration Ltd's written agreement to such release is obtained (ii) By release of the report, T&P Regeneration Ltd assumes no duties, liabilities or obligations to the Third Party and that the Third Party does not acquire any rights whatsoever against T&P Regeneration Ltd (iii) T&P Regeneration Ltd accepts no responsibility for any loss incurred by the Client through the Client's release of the report to the Third Party. Following final issue of this report, T&P Regeneration Ltd has no further obligation to advise the Client on any matters such as changes in legislation or codes of practice that may affect the advice contained within the report.

## EXECUTIVE SUMMARY

| Project Information                                   |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |
|-------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Project details</b>                                | This Ground Investigation report has been prepared by T&P Regeneration Ltd (T&P) on behalf of Barwood Land for Sketchley Lane, Burbage LE10 3HU/ NGR: 442476, 291913.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |
| <b>Site description and current land use</b>          | The site is irregular in shape measuring approximately 310m north to south and 620m east to west, coving approximately 12.73 ha. The site contains the current farmyard located in the northern site area and comprises an open sided hay barn, cattle shed, machinery area and a disused poultry barn. The majority of the site is spread across 8No agricultural fields located to the south of the farmyard. An above ground diesel tank is adjacent to the barn.                                                                                                                                                                                                                                                                                                                                                                                                           |
| <b>Proposed development</b>                           | The proposed development comprises the construction of up to 150N° traditional two storey residential dwellings with associated areas of communal and private soft landscaping with hard landscaped access, parking and public open space.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |
| <b>Previous reports</b>                               | This report has been prepared with reference to an available previous desk study report (Stantec. August 2021).                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |
| Site Setting                                          |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |
| <b>Environmental setting</b>                          | <p>The environmental setting is summarised from previous third party desk study information. The site is underlain by four different glacial superficial deposits which overlie the Mercia Mudstone Group.</p> <p>The underlying superficial deposits are classified as an Unproductive Aquifer, Secondary Undifferentiated Aquifer and Secondary A Aquifer with the Mercia Mudstone Group classified as a Secondary B Aquifer. There are no licensed groundwater, or surface water abstractions within 500m of the site. The site is not located within a Source Protection Zone.</p> <p>the nearest surface water feature to the site is Sketchley Brook which is located along the site's southern boundary.</p> <p>The site is in a Flood Zone 1 with a low probability of flooding. However, as the site is over 1 hectare, a Flood Risk Assessment will be required.</p> |
| <b>Site history</b>                                   | <p>From the earliest maps the majority of the site has remained undeveloped agricultural land. A small building, likely an animal shelter, is depicted in the earlier maps in the north-eastern area of the site but is no longer present by the 1950s. A second small structure located in the north-western area remains to the present day. A small pond is featured on the early maps in the south-eastern field but is no longer shown post 1924. Development of the current farmyard area is first recorded on the 1993 map with a square structure at the eastern end of the current hay barn/ cattle shed/ storage area. Available aerial imagery infers this barn was extended firstly between 1999 and 2006, and then again post 2016.</p>                                                                                                                           |
| <b>Areas of potential concern at desk study stage</b> | <ul style="list-style-type: none"> <li>• Potential made ground from agricultural buildings.</li> <li>• Agricultural pest/weed control associated with former agricultural practice.</li> <li>• Potential Asbestos Containing Material (ACM) in on-site buildings.</li> <li>• Infilled features (pond observed in the south-east field).</li> <li>• Above ground fuel tank.</li> </ul>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |
| Ground Investigation                                  |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |
| <b>Scope of work</b>                                  | <p>An intrusive ground investigation was undertaken between 30<sup>th</sup> January and 2<sup>th</sup> February 2023, comprising the following:</p> <ul style="list-style-type: none"> <li>• Excavation of 25No trial pits;</li> <li>• Drilling of 5No dynamic windowless soil sampling boreholes;</li> <li>• Installation of each borehole as an environmental monitoring well.</li> </ul>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |
| <b>Ground conditions</b>                              | <p>Topsoil was encountered in all exploratory locations with a typical thickness of 0.20m. In general, the topsoil was found to comprise clayey gravelly sand or sandy gravelly clay. Beneath the topsoil, superficial glacial deposits were encountered within all the exploratory holes. The superficial deposits were found to exhibit significant vertical and spatial variation between locations, changing rapidly from granular to cohesive soils with varying strength/density.</p>                                                                                                                                                                                                                                                                                                                                                                                    |
| <b>Groundwater</b>                                    | <p>Groundwater was only encountered within 2N° exploratory holes during the ground investigation, with strike depths ranging between 2.5 and 3.0mbgl. Water depths within monitoring wells were subsequently recorded between 2.02 and 4.60mbgl.</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |

| Principal Findings and Conclusions                  |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |
|-----------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Human health and plant growth                       | All soil concentrations in topsoil and natural soils were recorded below adopted human health and phytotoxic screening criteria.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |
| Controlled waters                                   | With consideration of the ground investigation findings which did not identify any significant on-site sources of contamination, the risk to Controlled Waters is considered to be low.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |
| Gas protection                                      | Radon protection measures are not considered necessary for the proposed development. Ground gas data from the monitoring rounds indicates no ground gas protection measures are required within the proposed development.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |
| Potable supply pipework                             | Based on the low soil contaminant concentrations encountered upgraded water supply pipework is unlikely to be required by the local water authority.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |
| Waste                                               | The encountered soils are classified as non-hazardous waste. Based on the initial chemical data the natural soils are anticipated to be treated as inert. However, further Waste Acceptance Criteria (WAC) testing may be required by the receiving site.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |
| Engineering design                                  | <p>A DS-4 AC-4 design mix concrete is recommended for buried structures.</p> <p>Due to the medium volume change potential of the cohesive soils, it is recommended floor slabs should be designed with a minimum 250mm void space based on NHBC guidance. It may be possible to use a combination of ground bearing and suspended floor slabs for the proposed development although further investigation will be necessary to support this.</p> <p>Water ingress into excavations is likely to be variable and may cause instability of granular soils. However, sump pumping will likely be sufficient to keep excavations &lt;2.50mbgl dry. More rapid water entry at depths below 2.50m may be problematic, especially due to the combined stability issues, and deep well pumping may be needed.</p> <p>In situ testing in the underlying soils indicated highly variable strength/density with no obvious spatial pattern. As such, based upon the current understanding of the underlying ground conditions the use of traditional foundations on a site-wide basis is not recommended due to the risk of excessive or differential settlement. Therefore, it is recommended that further investigation is undertaken to obtain additional <i>in situ</i> strength/density data of the superficial soils to ascertain where the use of traditional foundations may be locally feasible.</p> <p>Alternatively, other methods of providing support to structures should be considered, such as pile foundations or ground improvement (stone columns).</p>                       |
| Considerations and Recommendations for Further Work |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |
| Considerations                                      | <ul style="list-style-type: none"> <li>Access to the farm areas of the site was limited for the ground investigation. Further investigation works in this area is recommended to fully assess the site.</li> <li>Infiltration testing for drainage design was outside the scope of this ground investigation.</li> <li>In-situ CBR testing to assist with carriageway design was outside the scope of this ground investigation.</li> </ul>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |
| Recommendations                                     | <p><u>Human health/plant growth</u></p> <ul style="list-style-type: none"> <li>The farmyard area of the site has not been investigated, therefore further works should be completed once the area has been demolished to refine the environmental risk assessment presented within this report.</li> <li>Should significant made ground or putrescible material be encountered within the farmyard area, further gas monitoring will likely be required.</li> </ul> <p><u>Engineering</u></p> <ul style="list-style-type: none"> <li>Further ground investigation is recommended to address geotechnical data gaps impacting construction considerations.</li> <li>Infiltration testing is recommended prior to detailed soakaway design.</li> <li>In-situ CBR testing is recommended to determine carriageway design parameters.</li> </ul> <p><u>General</u></p> <ul style="list-style-type: none"> <li>Discussions should be held with local landfill/soil waste treatment facilities to agree material classification/pre-treatment required for any soils to be disposed off-site.</li> <li>Ground workers should remain vigilant for visible and olfactory signs of contamination following demolition of on-site buildings.</li> <li>A site-specific health and safety plan should be prepared to inform on risks posed from the previous site use and mitigations for ground workers developing the site.</li> <li>A copy of this report should be provided to the relevant regulatory authorities to confirm that they are in agreement with the report findings.</li> </ul> |

## CONTENTS

|           |                                                         |           |
|-----------|---------------------------------------------------------|-----------|
| <b>1</b>  | <b>INTRODUCTION .....</b>                               | <b>1</b>  |
| 1.1       | CONTRACT DETAILS                                        | 1         |
| 1.2       | PROPOSED DEVELOPMENT                                    | 1         |
| 1.3       | OBJECTIVES                                              | 1         |
| 1.4       | PREVIOUS REPORTS                                        | 1         |
| 1.5       | SCOPE OF WORKS                                          | 1         |
| 1.6       | REPORT LIMITATIONS                                      | 1         |
| <b>2</b>  | <b>SITE INFORMATION AND SETTING.....</b>                | <b>3</b>  |
| 2.1       | SITE LOCATION                                           | 3         |
| 2.2       | SITE DESCRIPTION                                        | 3         |
| 2.3       | ENVIRONMENTAL SETTING                                   | 4         |
| <b>3</b>  | <b>PRELIMINARY CONCEPTUAL SITE MODEL.....</b>           | <b>5</b>  |
| 3.1       | BACKGROUND                                              | 5         |
| 3.2       | POTENTIAL CONTAMINATION SOURCES                         | 5         |
| 3.3       | POTENTIAL RECEPTORS                                     | 5         |
| 3.4       | EXPOSURE AND MIGRATION PATHWAYS                         | 6         |
| 3.5       | PRELIMINARY QUALITATIVE RISK ASSESSMENT                 | 6         |
| <b>4</b>  | <b>SCOPE OF WORK.....</b>                               | <b>11</b> |
| 4.1       | SUMMARY OF FIELDWORK                                    | 11        |
| 4.2       | EXPLORATORY LOCATIONS AND ACCESS RESTRICTIONS           | 11        |
| 4.3       | TRIAL PITS                                              | 11        |
| 4.4       | DYNAMIC WINDOWLESS SOIL SAMPLING BOREHOLES              | 11        |
| 4.5       | ENVIRONMENTAL MONITORING                                | 11        |
| <b>5</b>  | <b>SUMMARY OF GROUND CONDITIONS .....</b>               | <b>12</b> |
| 5.1       | ENCOUNTERED STRATA                                      | 12        |
| 5.2       | EVIDENCE OF CONTAMINATION                               | 13        |
| 5.3       | BELOW GROUND STRUCTURES AND OBSTRUCTIONS                | 13        |
| 5.4       | GROUNDWATER                                             | 13        |
| <b>6</b>  | <b>SUMMARY OF LABORATORY ANALYSES.....</b>              | <b>14</b> |
| 6.1       | GEOTECHNICAL TESTING                                    | 14        |
| 6.2       | CHEMICAL TESTING                                        | 14        |
| <b>7</b>  | <b>HUMAN HEALTH AND PHYTOTOXIC RISK ASSESSMENT.....</b> | <b>15</b> |
| 7.1       | INTRODUCTION                                            | 15        |
| 7.2       | DETERMINATION OF AVERAGING AREAS/ZONES                  | 15        |
| 7.3       | HUMAN HEALTH AND PHYTOTOXIC SCREENING ASSESSMENT        | 15        |
| <b>8</b>  | <b>CONTROLLED WATERS RISK ASSESSMENT .....</b>          | <b>16</b> |
| 8.1       | OVERVIEW OF HYDROGEOLOGICAL SETTING                     | 16        |
| 8.2       | RISK EVALUATION                                         | 16        |
| <b>9</b>  | <b>GAS/VAPOUR RISK ASSESSMENT.....</b>                  | <b>17</b> |
| 9.1       | OVERVIEW OF CONCEPTUAL MODEL                            | 17        |
| 9.2       | GROUND GAS/VAPOUR MONITORING RESULTS                    | 17        |
| 9.3       | GAS SCREENING VALUES                                    | 17        |
| 9.4       | DISCUSSION AND RISK EVALUATION                          | 19        |
| <b>10</b> | <b>POTABLE SUPPLY PIPEWORK RISK ASSESSMENT.....</b>     | <b>20</b> |
| <b>11</b> | <b>REFINED CONCEPTUAL SITE MODEL.....</b>               | <b>21</b> |
| 11.1      | OVERVIEW                                                | 21        |
| 11.2      | SOURCES                                                 | 21        |
| 11.3      | RISK EVALUATION                                         | 21        |
| <b>12</b> | <b>PRELIMINARY WASTE ASSESSMENT.....</b>                | <b>26</b> |



|             |                                                 |           |
|-------------|-------------------------------------------------|-----------|
| <b>12.1</b> | <b>WASTE HIERARCHY</b>                          | <b>26</b> |
| <b>12.2</b> | <b>ON-SITE RE-USE OF MATERIALS</b>              | <b>26</b> |
| <b>12.3</b> | <b>WASTE DISPOSAL TO LANDFILL</b>               | <b>26</b> |
| <b>12.4</b> | <b>RECOMMENDATIONS</b>                          | <b>27</b> |
| <b>13</b>   | <b>COMMENTS ON ENGINEERING DESIGN .....</b>     | <b>29</b> |
| <b>13.1</b> | <b>GENERAL</b>                                  | <b>29</b> |
| <b>13.2</b> | <b>SUMMARY OF GEOTECHNICAL PARAMETERS</b>       | <b>29</b> |
| <b>13.3</b> | <b>CONSTRUCTION CONSIDERATIONS</b>              | <b>30</b> |
| <b>13.4</b> | <b>PRELIMINARY FOUNDATION RECOMMENDATIONS</b>   | <b>31</b> |
| <b>14</b>   | <b>CONSIDERATIONS AND RECOMMENDATIONS .....</b> | <b>33</b> |
| <b>14.1</b> | <b>CONSIDERATIONS</b>                           | <b>33</b> |
| <b>14.2</b> | <b>RECOMMENDATIONS FOR FURTHER WORK</b>         | <b>33</b> |

## APPENDICES

|          |                               |
|----------|-------------------------------|
| <b>A</b> | <b>DRAWINGS</b>               |
| <b>B</b> | <b>PHOTOGRAPHS</b>            |
| <b>C</b> | <b>EXPLORATORY LOGS</b>       |
| <b>D</b> | <b>GEOTECHNICAL RESULTS</b>   |
| <b>E</b> | <b>CHEMICAL RESULTS</b>       |
| <b>F</b> | <b>GAS MONITORING RECORDS</b> |
| <b>G</b> | <b>HAZWASTE REPORT</b>        |
| <b>H</b> | <b>ASBESTOS SURVEY</b>        |

## **1 INTRODUCTION**

### **1.1 Contract Details**

Following instruction from Barwood Land (the 'client'), this report presents the results of a Ground Investigation undertaken for a proposed residential development at Sketchley Lane, Burbage (the 'site').

### **1.2 Proposed Development**

Information presented to T&P Regeneration Ltd (T&P) indicates that the proposed development is intended to comprise the construction of up to 150N<sup>o</sup> traditional two storey residential dwellings with associated areas of communal and private soft landscaping with hard landscaped access, parking and public open space. A development layout plan is included in Appendix A although it is understood this may be subject to change following completion of master planning.

### **1.3 Objectives**

The purpose of the assessment is to establish the environmental and geotechnical conditions of the site to support a future planning application. This report also considers the likely foundation options appropriate to the proposed development, along with requirements for any related ground improvement works and/or remediation considered necessary to mitigate potentially unacceptable risks resulting from current and/or or historical land uses.

### **1.4 Previous Reports**

A Phase 1 Desk Study was previously completed for the site by a third party<sup>1</sup>. Pertinent information from this report has been considered within this assessment and is summarised where relevant. Where possible, copies of this report should be made available to the reader.

### **1.5 Scope of Works**

The scope of works to fulfil the purpose of the assessment has included the following:

- Review of third party report;
- Presentation of a preliminary site conceptual model and environmental risk assessment based on previous desk study information;
- Intrusive ground investigation comprising trial pitting/windowless dynamic sampling;
- Collection of soil samples for chemical and geotechnical laboratory analysis;
- Groundwater and ground gas monitoring visits;
- Assessment of chemical and geotechnical test results;
- Interrogation of preliminary conceptual site model and update to environmental risk assessment; and,
- Presentation of geotechnical information to assist with foundation design.

### **1.6 Report Limitations**

The recommendations, interpretations and conclusions of this report are based on the historical and current site conditions reported by database and mapping sources as supplemented with information gathered during on-site visits. No responsibility can be accepted for the accuracy of

---

<sup>1</sup> Phase 1 Ground Condition Assessment (Desk Study). Stantec. August 2021.

third party information including reference data contained within site specific database reports. Due to the inherent variability of the ground conditions between exploratory hole positions interpretations are accurate only for the date of the investigation works.

## 2 SITE INFORMATION AND SETTING

### 2.1 Site Location

Site location information is summarised in Table 2.1. A Site Location Plan is presented within Appendix A.

**Table 2.1 Site Location Information**

| Information                   | Description                                                         |
|-------------------------------|---------------------------------------------------------------------|
| Full postal address           | Sketchley Lodge,<br>Sketchley Ln,<br>Burbage, Hinckley,<br>LE10 3HU |
| National Grid Reference (NGR) | 442476, 291913                                                      |

### 2.2 Site Description

A summary of pertinent site information is provided in Table 2.2 with reference to information in previous reports.

**Table 2.2 Summary of Site Information**

| Information                                                          | Description                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |       |                                                                |       |                                                              |       |                                                                                        |      |
|----------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------|----------------------------------------------------------------|-------|--------------------------------------------------------------|-------|----------------------------------------------------------------------------------------|------|
| Site access                                                          | The site is accessed via an electric gate located off the adjacent Sketchley Ln, which runs parallel to the northern boundary.                                                                                                                                                                                                                                                                                                                                                   |       |                                                                |       |                                                              |       |                                                                                        |      |
| Site description including current site use and dimensions/area (ha) | The site is irregular in shape measuring approximately 310m north to south and 620m east to west, coving approximately 12.73 ha.<br>The site contains the current farmyard located in the northern site area and comprises an open sided hay barn, cattle shed, machinery area and a disused poultry barn. The majority of the site is spread across 8No agricultural fields located to the south of the farmyard.<br>An above ground diesel tank is noted adjacent to the barn. |       |                                                                |       |                                                              |       |                                                                                        |      |
| Site elevation and topography                                        | The site elevation ranges between 118 and 102 metres Above Ordnance Datum (mAOD). The site is generally level in the northern region of the site and becomes sloped down towards the south.                                                                                                                                                                                                                                                                                      |       |                                                                |       |                                                              |       |                                                                                        |      |
| Ground cover (%)                                                     | The site ground cover comprises: <ul style="list-style-type: none"> <li>• Soft landscaping (grass/planting) - 75%</li> <li>• Hard landscaping (tarmacadam/concrete/ buildings) - 15%</li> <li>• Dense vegetation - 5%</li> <li>• Buildings - 5%</li> </ul>                                                                                                                                                                                                                       |       |                                                                |       |                                                              |       |                                                                                        |      |
| Site boundaries                                                      | <table border="1"> <tr> <td>North</td><td rowspan="4">Mature vegetation, post and wire fencing and electric fencing.</td></tr> <tr> <td>South</td></tr> <tr> <td>East</td></tr> <tr> <td>West</td></tr> </table>                                                                                                                                                                                                                                                                 | North | Mature vegetation, post and wire fencing and electric fencing. | South | East                                                         | West  |                                                                                        |      |
| North                                                                | Mature vegetation, post and wire fencing and electric fencing.                                                                                                                                                                                                                                                                                                                                                                                                                   |       |                                                                |       |                                                              |       |                                                                                        |      |
| South                                                                |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |       |                                                                |       |                                                              |       |                                                                                        |      |
| East                                                                 |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |       |                                                                |       |                                                              |       |                                                                                        |      |
| West                                                                 |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |       |                                                                |       |                                                              |       |                                                                                        |      |
| Surrounding land uses                                                | <table border="1"> <tr> <td>North</td><td>Sketchley Grange Hotel and an industrial estate to the north.</td></tr> <tr> <td>East</td><td>The town of Burbage with residential properties to the east.</td></tr> <tr> <td>South</td><td rowspan="2">To the south-west the site is bounded by the A5, beyond which are agricultural fields.</td></tr> <tr> <td>West</td></tr> </table>                                                                                              | North | Sketchley Grange Hotel and an industrial estate to the north.  | East  | The town of Burbage with residential properties to the east. | South | To the south-west the site is bounded by the A5, beyond which are agricultural fields. | West |
| North                                                                | Sketchley Grange Hotel and an industrial estate to the north.                                                                                                                                                                                                                                                                                                                                                                                                                    |       |                                                                |       |                                                              |       |                                                                                        |      |
| East                                                                 | The town of Burbage with residential properties to the east.                                                                                                                                                                                                                                                                                                                                                                                                                     |       |                                                                |       |                                                              |       |                                                                                        |      |
| South                                                                | To the south-west the site is bounded by the A5, beyond which are agricultural fields.                                                                                                                                                                                                                                                                                                                                                                                           |       |                                                                |       |                                                              |       |                                                                                        |      |
| West                                                                 |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |       |                                                                |       |                                                              |       |                                                                                        |      |
| Other significant on-site features                                   | <ul style="list-style-type: none"> <li>• On-site made ground from current agricultural buildings.</li> <li>• Potential Asbestos Containing Material (ACM) in on-site buildings.</li> <li>• Infilled features (pond observed in the south-east field).</li> <li>• Existing buried services (south end of site).</li> </ul>                                                                                                                                                        |       |                                                                |       |                                                              |       |                                                                                        |      |



## 2.3 Environmental Setting

Pertinent environmental information within the available third party Desk Study report has been reviewed and is summarised in Table 2.3.

**Table 2.3 Summary of Site Setting from Desk Study Information**

| Information                     | Description                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |
|---------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Site history                    | <p>From the earliest maps the majority of the site has remained undeveloped agricultural land.</p> <p>A small building, likely an animal shelter, is depicted in the earlier maps in the north-eastern area of the site but is no longer present by the 1950s. A second small structure located in the north-western area remains to the present day. A small pond is featured on the early maps in the south-eastern field but is no longer shown post 1924. Development of the current farmyard area is first recorded on the 1993 map with a square structure at the eastern end of the current hay barn/ cattle shed/ storage area. Available aerial imagery infers this barn was extended firstly between 1999 and 2006, and then again post 2016.</p>                                  |
| Geology                         | <p>The site is underlain by the four different glacial superficial deposits;</p> <ul style="list-style-type: none"> <li>• Dunsmore Gravel – outcropping north east corner,</li> <li>• Oadby Till Member – outcropping northern portion and beneath Dunsmore Gravel,</li> <li>• Wolston Sand and Gravel - outcropping in western and southern areas.</li> <li>• Wolston Clay – outcropping eastern area</li> </ul> <p>Underlying these are deposits of the Mercia Mudstone Group.</p>                                                                                                                                                                                                                                                                                                         |
| Mining and geotechnical hazards | <p>The site is located within an area that is unlikely to be affected by coal mining. Compressible ground stability is assessed as moderate risk across the southern portion of the site. All remaining land stability hazards are rated low to negligible risk.</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |
| Hydrology and hydrogeology      | <p>The four superficial deposits encountered on site have been identified as:</p> <ul style="list-style-type: none"> <li>• Dunsmore Gravel – Secondary A Aquifer.</li> <li>• Oadby Till Member - Secondary Undifferentiated Aquifer.</li> <li>• Wolston Sand and Gravel – Secondary A Aquifer.</li> <li>• Wolston Clay – Unproductive.</li> </ul> <p>The underlying Mercia Mudstone Group is classified as a Secondary B Aquifer. The site is not located within a groundwater Source Protection Zone. There are no licensed surface water or groundwater abstractions within 500m of the site. Groundwater vulnerability is classified by the Environment Agency as medium vulnerability. The nearest surface water feature is the Sketchley Brook located along the southern boundary.</p> |
| Environmental designations      | <p>There are no sensitive environmental designations on or near the site.</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |
| Radon                           | <p>No radon protection measures are required.</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |
| Background soil geochemistry    | <p>The site is not located in an area of where naturally elevated soil metal concentrations are anticipated.</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |
| Flood risk                      | <p>The site is located in a Flood Risk Zone 1. However, due to the size of the site (&gt;1ha), a Flood Risk Assessment is recommended to support redevelopment.</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |
| UXO                             | <p>The site is located in a low UXO risk area.</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |
| Areas of Potential Concern      | <ul style="list-style-type: none"> <li>• Potential Asbestos Containing Material (ACM) in on-site buildings</li> <li>• On-site made ground from current agricultural buildings</li> <li>• Infilled features (pond observed in the south-east field)</li> <li>• Above ground diesel fuel tank</li> <li>• Agricultural pest/weed control associated with former agricultural practices</li> </ul>                                                                                                                                                                                                                                                                                                                                                                                               |

### 3 PRELIMINARY CONCEPTUAL SITE MODEL

#### 3.1 Background

A risk assessment has been carried out under the governing terms set by Part 2A of the Environmental Protection Act 1990, statutory guidance entitled 'Contaminated Land Statutory Guidance (April 2012)' and in accordance with UK's risk assessment framework<sup>2</sup>.

The conceptual site model for the site has been developed with consideration of national guidance<sup>3</sup> which provides a framework for risk estimation and evaluation of plausible source-pathway-receptor linkages identified in the context of a proposed residential development.

#### 3.2 Potential Contamination Sources

Following the review of the previous report, potential on- and off-site sources of contamination have been identified as listed in Table 3.1.

**Table 3.1 Summary of Potential Contamination Sources**

| Areas of potential concern<br>(APC No)                                                                                        |                 | Source/hazard description                                                      | Source<br>contaminants                                                                        |
|-------------------------------------------------------------------------------------------------------------------------------|-----------------|--------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------|
| On-site<br>sources/hazards                                                                                                    | 1               | Potential made ground from agricultural buildings                              | Metals, hydrocarbons,<br>asbestos, pesticides<br>and herbicides, ground<br>gases and vapours. |
|                                                                                                                               | 2               | Agricultural pest/weed control associated with<br>former agricultural practice |                                                                                               |
|                                                                                                                               | 3*              | Potential Asbestos Containing Material (ACM) in<br>on-site buildings           |                                                                                               |
|                                                                                                                               | 4               | Infilled features (pond observed in the south-east<br>field)                   |                                                                                               |
|                                                                                                                               | 5               | Above ground fuel tank                                                         |                                                                                               |
| Off-site<br>sources/hazards                                                                                                   | None identified |                                                                                |                                                                                               |
| * An asbestos demolition survey report was undertaken alongside the ground investigation as is included within<br>Appendix H. |                 |                                                                                |                                                                                               |

#### 3.3 Potential Receptors

With regard to the site setting and future proposed development, the following receptors have been identified:

- Future residents.
- Future maintenance workers (including intrusive workers).
- Off-site residents/workers.

Groundwater – The underlying superficial deposits are classified as an Unproductive Aquifer, Secondary Undifferentiated Aquifer and Secondary A Aquifer with the Mercia Mudstone Group classified as a Secondary B Aquifer. The site is not recorded to lie within a SPZ and no potable water or groundwater abstraction points are recorded within a 500m radius. With

<sup>2</sup> Land contamination risk management - <https://www.gov.uk/government/publications/land-contamination-risk-management-lcrm>

<sup>3</sup> Annex 4 - Guidance for the Safe Development of Housing on land Affected by Contamination R&D66. NHBC. 2008

reference to national guidance<sup>4</sup>, the sensitivity of groundwater as a potential receptor to contaminant impact beneath the site is considered to be Moderate (M2).

- Surface water - the nearest surface water feature to the site is Sketchley Brook which is located along the site's southern boundary. No licensed abstractions are recorded within 500m. With reference to the same national guidance, the sensitivity of surface water as a potential receptor to contaminant impact beneath the site is considered to be Moderate (M2).
- Potable water supply pipework and buried concrete associated with the proposed development - Underground services associated with the proposed development may be affected by the chemical characteristics of the soil through direct chemical attack.
- Existing/future flora and fauna - The proposed development is shown to include private and communal areas of soft landscaping which will present viable flora receptors via plant root uptake.

The following receptors have been discounted from further consideration:

- Construction workers – it is considered that risks during the construction works will be managed appropriately to mitigate short term risks through measures such as use of Personal Protective Equipment (PPE), hygiene practices and other on-site controls as outlined in their Construction Phase Health and Safety Plan and method statements/risk assessments.

Current site users – in the context of the proposed development for the site, future residents represent a more sensitive receptor than current site users, and as such, consideration of potential risks to future residents will be suitably protective of current site users. As such, current site users will not be considered separately.

### 3.4 Exposure and Migration Pathways

With consideration of the site setting and proposed development, the following exposure pathways are considered to be potentially active:

- Direct contact with contaminated soils/water;
- Dust migration with inhalation;
- Oral ingestion including vegetable uptake;
- Vapour/gas inhalation (including gas explosion risk);
- Permeation into drinking water supplies;
- Leaching/dissolution with vertical migration to groundwater;
- Leaching/dissolution with lateral migration of dissolved phase contamination in groundwater to surface water;
- Soil erosion/overland flow to surface water;
- Uptake by flora; and,
- Migration via existing service trenches.

### 3.5 Preliminary Qualitative Risk Assessment

Table 3.2 highlights the source-pathway-receptor relationships or “contaminant linkages” that may potentially be active in consideration of both the site's current use and proposed future use. Those contaminant linkages assessed as low or very low risk at this stage will not be considered further.

---

<sup>4</sup> Annex 2 - Guidance for the Safe Development of Housing on land Affected by Contamination R&D66. NHBC. 2008

**Table 3.2 Summary of Source-Pathway-Receptor Relationships**

| APC N° | Source                                                       | Pathway (s)                                                                                                                 | Receptor                                                             | Consequence | Probability    | Risk*               | Comment |
|--------|--------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------|-------------|----------------|---------------------|---------|
| 1      | On-site<br>Potential made ground from agricultural buildings | Oral ingestion                                                                                                              | Future residents and maintenance workers                             | Medium      | Low likelihood | <b>Moderate/Low</b> | -       |
|        |                                                              | Vegetable uptake                                                                                                            | Future residents                                                     | Medium      | Low likelihood | <b>Moderate/Low</b> | -       |
|        |                                                              | Dermal contact                                                                                                              | Future residents and maintenance workers                             | Medium      | Low likelihood | <b>Moderate/Low</b> | -       |
|        |                                                              | Dust migration/inhalation                                                                                                   | Future residents, maintenance workers and off-site residents/workers | Medium      | Low likelihood | <b>Moderate/Low</b> | -       |
|        |                                                              | Gas / vapour inhalation/explosion                                                                                           | Future residents and maintenance workers                             | Medium      | Low likelihood | <b>Moderate/Low</b> | -       |
|        |                                                              | Permeation into drinking water supplies                                                                                     | Future residents                                                     | Medium      | Low likelihood | <b>Moderate/Low</b> | -       |
|        |                                                              | Leaching/dissolution with vertical migration to groundwater                                                                 | Groundwater                                                          | Medium      | Low likelihood | <b>Moderate/Low</b> | -       |
|        |                                                              | Leaching/dissolution with vertical migration to groundwater, and lateral migration in groundwater                           | Surface water                                                        | Medium      | Low likelihood | <b>Moderate/Low</b> | -       |
|        |                                                              | Overland flow                                                                                                               | Surface water                                                        | Medium      | Low likelihood | <b>Moderate/Low</b> | -       |
|        |                                                              | Migration via existing service trenches                                                                                     | Groundwater/surface water                                            | Medium      | Low likelihood | <b>Moderate/Low</b> | -       |
|        |                                                              | Leaching/dissolution with vertical migration to groundwater, lateral migration in groundwater and subsequent volatilisation | Future residents, maintenance workers and off-site residents/workers | Medium      | Low likelihood | <b>Moderate/Low</b> | -       |
|        |                                                              | Uptake via root system                                                                                                      | On-site flora                                                        | Medium      | Low likelihood | <b>Moderate/Low</b> | -       |

| APC N° | Source                                                                                        | Pathway (s)                                 | Receptor                                                             | Consequence | Probability    | Risk*                | Comment                                                                                                                                                                   |
|--------|-----------------------------------------------------------------------------------------------|---------------------------------------------|----------------------------------------------------------------------|-------------|----------------|----------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 2      | <u>On-site</u><br>Agricultural pest/weed control associated with former agricultural practice | Oral ingestion                              | Future residents and maintenance workers                             | Medium      | Low likelihood | <b>Moderate/Low</b>  | -                                                                                                                                                                         |
|        |                                                                                               | Vegetable uptake                            | Future residents                                                     | Medium      | Low likelihood | <b>Moderate/Low</b>  | -                                                                                                                                                                         |
|        |                                                                                               | Dermal contact                              | Future residents and maintenance workers                             | Medium      | Low likelihood | <b>Moderate/Low</b>  | -                                                                                                                                                                         |
|        |                                                                                               | Dust migration/inhalation                   | Future residents, maintenance workers and off-site residents/workers | Medium      | Low likelihood | <b>Moderate/Low</b>  | -                                                                                                                                                                         |
|        |                                                                                               | Permeation into drinking water supplies     | Future residents                                                     | Medium      | Low likelihood | <b>Moderate/Low</b>  | -                                                                                                                                                                         |
|        |                                                                                               | Uptake via root system                      | On-site flora                                                        | Medium      | Low likelihood | <b>Moderate/Low</b>  | -                                                                                                                                                                         |
| 3      | <u>On-site</u><br>Potential Asbestos Containing Material (ACM) in on-site buildings           | Inhalation                                  | Future residents and maintenance workers                             | Severe      | Unlikely       | <b>Low</b>           | Unlikely to present a significant risk in its bound form. However, should material need to be disturbed, appropriate precautions should be taken during removal/disposal. |
| 4      | <u>On-site</u><br>Infilled features (pond observed in the south-eastern field)                | Oral ingestion                              | Future residents and maintenance workers                             | Medium      | Low likelihood | <b>Moderate/ Low</b> | -                                                                                                                                                                         |
|        |                                                                                               | Vegetable uptake                            | Future residents                                                     | Medium      | Low likelihood | <b>Moderate/Low</b>  | -                                                                                                                                                                         |
|        |                                                                                               | Dermal contact                              | Future residents and maintenance workers                             | Medium      | Low likelihood | <b>Moderate/Low</b>  | -                                                                                                                                                                         |
|        |                                                                                               | Lateral dust migration                      | Future residents                                                     | Medium      | Low likelihood | <b>Moderate/Low</b>  | -                                                                                                                                                                         |
|        |                                                                                               | Lateral gas/vapour migration and inhalation | Future residents                                                     | Medium      | Low likelihood | <b>Moderate/Low</b>  | -                                                                                                                                                                         |



| APC N° | Source                                   | Pathway (s)                                                                                                                                   | Receptor                                                             | Consequence | Probability    | Risk*               | Comment |
|--------|------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------|-------------|----------------|---------------------|---------|
|        |                                          | Leaching/dissolution with vertical migration to groundwater, lateral migration in groundwater with subsequent volatilisation and inhalation   | Future residents and maintenance workers                             | Medium      | Low likelihood | <b>Moderate/Low</b> |         |
|        |                                          | Leaching/dissolution with vertical migration to groundwater, lateral migration in groundwater with subsequent vegetable uptake/direct contact | Future residents                                                     | Medium      | Low likelihood | <b>Moderate/Low</b> |         |
|        |                                          | Leaching/dissolution with vertical migration to groundwater, lateral migration in groundwater with permeation into drinking water supplies    | Future residents                                                     | Medium      | Low likelihood | <b>Moderate/Low</b> |         |
| 5      | On-site<br>Above ground diesel fuel tank | Oral ingestion                                                                                                                                | Future residents and maintenance workers                             | Medium      | Low likelihood | <b>Moderate/Low</b> | -       |
|        |                                          | Vegetable uptake                                                                                                                              | Future residents                                                     | Medium      | Low likelihood | <b>Moderate/Low</b> | -       |
|        |                                          | Dermal contact                                                                                                                                | Future residents and maintenance workers                             | Medium      | Low likelihood | <b>Moderate/Low</b> | -       |
|        |                                          | Dust migration/inhalation                                                                                                                     | Future residents, maintenance workers and off-site residents/workers | Medium      | Low likelihood | <b>Moderate/Low</b> | -       |
|        |                                          | Gas / vapour inhalation/explosion                                                                                                             | Future residents and maintenance workers                             | Medium      | Low likelihood | <b>Moderate/Low</b> | -       |
|        |                                          | Permeation into drinking water supplies                                                                                                       | Future residents                                                     | Medium      | Low likelihood | <b>Moderate/Low</b> | -       |
|        |                                          | Leakage from tank/Leaching/ dissolution from impacted soils with vertical migration to groundwater                                            | Groundwater                                                          | Medium      | Low likelihood | <b>Moderate/Low</b> | -       |

| APC N° | Source | Pathway (s)                                                                                                                                    | Receptor                                                             | Consequence | Probability    | Risk*               | Comment |
|--------|--------|------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------|-------------|----------------|---------------------|---------|
|        |        | Leakage from tank/Leaching/dissolution with vertical migration to groundwater, and lateral migration in groundwater                            | Surface water                                                        | Medium      | Low likelihood | <b>Moderate/Low</b> | -       |
|        |        | Leakage from tank and migration via service trenches                                                                                           | Groundwater/ surface water                                           | Medium      | Low likelihood | <b>Moderate/Low</b> | -       |
|        |        | Leakage from tank /Leaching/dissolution with vertical migration to groundwater, lateral migration in groundwater and subsequent volatilisation | Future residents, maintenance workers and off-site residents/workers | Medium      | Low likelihood | <b>Moderate/Low</b> | -       |
|        |        | Uptake via root system                                                                                                                         | On-site flora                                                        | Medium      | Low likelihood | <b>Moderate/Low</b> | -       |

\*Where multiple receptors exist the risk classification is based on most sensitive receptor for conservatism.

## 4 SCOPE OF WORK

### 4.1 Summary of Fieldwork

An intrusive ground investigation was undertaken by T&P across the site between 30<sup>th</sup> January and 2<sup>th</sup> February 2023, comprising the following:

- Excavation of 25N° trial pits;
- Drilling of 5N° dynamic windowless soil sampling boreholes;
- Installation of each borehole as an environmental monitoring well;
- Logging of ground conditions in accordance with BS5930<sup>5</sup>; and,
- Soil sampling.

An exploratory hole location plan is presented within Appendix A and the exploratory hole logs are presented as Appendix C.

### 4.2 Exploratory Locations and Access Restrictions

A summary of exploratory locations with supporting rationale is provided in Table 4.1.

**Table 4.1 Rationale for Exploratory Locations**

| Exploratory location(s) | Rationale/justification                              |
|-------------------------|------------------------------------------------------|
| TP01 – TP18             | General coverage within area of proposed development |
| TP19 – TP25             | Coverage within areas of proposed POS                |
| TP13                    | Area of potential infilled pond.                     |
| WS01 – WS05             | General coverage within area of proposed development |

Access to the operational parts of the site (farmyard) was restricted during the ground investigation.

### 4.3 Trial Pits

T&P supervised the excavation of 25N° trial pits (TP01 – TP25) using a wheeled JCB 3CX backhoe excavator. The trial pits were terminated at depths ranging between 2.50 and 3.00 metres below ground level (mbgl) either as directed by the T&P engineer or due to refusal.

### 4.4 Dynamic Windowless Soil Sampling Boreholes

T&P supervised the drilling of 5N° windowless sample boreholes (WS01 – WS05) which were each terminated at a depth at 5.0mbgl. *In situ* standard penetration testing (SPT) was undertaken at 1.0m intervals and at the base of each borehole.

### 4.5 Environmental Monitoring

Monitoring wells were installed to assess ground gases from potential on-/off-site sources within all boreholes. Measurements of ground gases were recorded on 3N° monitoring visits which were completed at bi-weekly intervals. Full details of monitoring installations are provided on exploratory logs included in Appendix C. Discussion on ground gas monitoring results is provided in later sections of this report.

<sup>5</sup> BS5930. Code of Practice for Ground Investigations. 2015.

## 5 SUMMARY OF GROUND CONDITIONS

### 5.1 Encountered Strata

The geological sequence encountered during the ground investigation is summarised in Table 5.1 and described further in the following sub-sections. Ground conditions were found to broadly correspond with published geological information. Due to the spatial and vertical variability of the superficial glacial deposits and the similarities between the individual formations, the superficial soils beneath the site have been grouped into either granular or cohesive soils. Exploratory logs are included in Appendix C.

**Table 5.1 Summary of Ground Conditions**

| Stratum                                 | Top depth range (mbgl)               | Base depth range (mbgl) | Exploratory holes                                                                    | Area of site | General description/ comments                                                                                                            |
|-----------------------------------------|--------------------------------------|-------------------------|--------------------------------------------------------------------------------------|--------------|------------------------------------------------------------------------------------------------------------------------------------------|
| Topsoil                                 | 0.00                                 | 0.20                    | TP19 – TP25, WS04, WS05                                                              | West         | Sandy gravelly CLAY                                                                                                                      |
|                                         | 0.00                                 | 0.20                    | TP01 – TP18, WS01 – WS03                                                             | East         | Clayey gravelly SAND                                                                                                                     |
| Superficial glacial deposits (granular) | 0.20 - 2.90                          | 0.50 - 5.00             | TP01, TP02, TP04-TP06, TP08, TP09, TP11, TP12, TP16-TP20 & TP25<br>WS01, WS03 & WS04 | General      | Very loose, loose, Medium dense gravelly clayey SAND/ SAND                                                                               |
|                                         | 1.80 - 2.00                          | 2.10 - 2.50             | TP01 & TP03                                                                          | North east   | Sandy Clayey GRAVEL                                                                                                                      |
| Superficial glacial deposits (cohesive) | 0.20 - 2.40                          | 0.70 - 5.00             | TP02-TP08, TP10, TP12-TP15, TP17, TP18 & TP20-TP25<br>WS02, WS03, WS04 & WS05        | General      | Very soft, soft, firm, stiff gravelly sandy CLAY<br>Very soft clay (TP01, TP18 & TP25)<br>Soft clay (TP13, TP17, TP21, TP22, TP23, WS03) |
| Mercia Mudstone Group                   | Not encountered during investigation |                         |                                                                                      |              |                                                                                                                                          |

#### 5.1.1 Made ground

Made ground was not encountered during the investigation. However, it should be noted access to the developed farmyard area was restricted during the investigation and made ground is likely to be present underlying this area.

#### 5.1.2 Topsoil

Topsoil was encountered in all exploratory locations with a typical thickness of 0.20m. In general, the topsoil was found to comprise dark brown clayey gravelly sand or sandy gravelly clay which, given the agricultural setting of the site, is likely to have been reworked through ploughing and crop cultivation.

#### 5.1.3 Superficial Geology

Beneath the topsoil, superficial glacial deposits were encountered within all the exploratory holes. The superficial deposits were found to exhibit significant vertical and spatial variation between locations, changing rapidly from granular to cohesive soils. Due to the observed

variability and the similarities between the glacial deposits these have been grouped into granular and cohesive categories.

Granular soils were found to outcrop beneath the topsoil and at depth beneath cohesive deposits and noted to contain varying amounts of gravel, clay and silt. *In situ* standard penetration testing within the granular soils has indicated that they are broadly of loose density.

The occurrence of the cohesive deposits was also found to vary with depth across the site, observed both at near surface and at depth. The cohesive deposits were also noted to contain varying amounts of sand and gravel between locations and tended to be of firm consistency. However, soft and very soft deposits were noted in several locations as highlighted within Table 5.1.

#### 5.1.4 Bedrock Geology - Mercia Mudstone Group

Mercia Mudstone was not encountered in any of the trial pits or window sample boreholes during the site investigation. It is likely that the Mercia Mudstone Group underlies the superficial strata at a depth greater than 5.00mbgl.

## 5.2 Evidence of Contamination

No significant visible or olfactory evidence of any contamination was noted during the ground investigation.

## 5.3 Below Ground Structures and Obstructions

No below ground structures or obstructions were encountered during the ground investigation.

## 5.4 Groundwater

Groundwater was only encountered within 1N° trial pit and 1N° windowless sample borehole during the ground investigation, with typical depths to groundwater strike ranging between 2.5 and 3.0mbgl in TP17 and WS03, corresponding with the superficial Wolston Sand and Gravel. Recorded water levels after 20mins were noted to be stable.

Groundwater levels were recorded during 3N° subsequent monitoring visits. Recorded groundwater elevation data is summarised in Table 5.2.

**Table 5.2 Summary of Groundwater Elevation Data**

| Monitoring Well ID | Screened Geological Unit | 15/02/23 |      | 02/03/23 |      | 12/03/23 |      |
|--------------------|--------------------------|----------|------|----------|------|----------|------|
|                    |                          | mAOD     | mbgl | mAOD     | mbgl | mAOD     | mbgl |
| WS01               | Superficial deposits     | N/A      | DRY  | N/A      | DRY  | N/A      | DRY  |
| WS02               |                          | N/A      | DRY  | N/A      | DRY  | 112.64   | 4.49 |
| WS03               |                          | 109.45   | 2.55 | 109.33   | 2.67 | 109.61   | 2.34 |
| WS04               |                          | 111.09   | 2.44 | N/A      | DRY  | 110.93   | 4.60 |
| WS05               |                          | 110.03   | 2.02 | 108.45   | 3.60 | 109.05   | 3.00 |



## 6 SUMMARY OF LABORATORY ANALYSES

### 6.1 Geotechnical Testing

The geotechnical testing deemed necessary to adequately characterise the site from a geotechnical perspective in the context of the proposed development is summarised in Table 6.1.

Samples from the investigation were forwarded to a UKAS accredited laboratory. Complete results are provided in Appendix D.

**Table 6.1 Summary of Geotechnical Testing**

| Test                                   | Notes                                                   | Quantity |
|----------------------------------------|---------------------------------------------------------|----------|
| Moisture content                       | -                                                       | 10 soils |
| Atterberg limits                       | -                                                       | 10 soils |
| Particle size distribution (wet sieve) | -                                                       | 4 soils  |
| Geochemical analysis BRE SD1 Suite B   | pH, sulphur, 2:1 water soluble sulphate, total sulphate | 10 soils |

### 6.2 Chemical Testing

The soil testing deemed necessary to adequately characterise the site from a contamination perspective in the context of the conceptual site model and proposed development is summarised in Table 6.2.

Samples from the investigation were forwarded to a UKAS and MCERTS accredited laboratory. Complete chemical results are provided in Appendix E.

**Table 6.2 Summary of Chemical Testing**

| Test                                                                                                                                                           | Quantity |
|----------------------------------------------------------------------------------------------------------------------------------------------------------------|----------|
| Arsenic, Boron, Beryllium, Cadmium, Chromium, Lead, Mercury, Nickel, Copper, Zinc, Selenium, Vanadium, Phenols and US EPA 16 Polycyclic Aromatic Hydrocarbons. | 14 soils |
| Pesticide / herbicide screen                                                                                                                                   | 2 soils  |

## 7 HUMAN HEALTH AND PHYTOTOXIC RISK ASSESSMENT

### 7.1 Introduction

A human health generic quantitative risk assessment (GQRA) has been undertaken in accordance with the UK regulatory framework and current guidance on assessment of risks presented by land affected by contamination<sup>6</sup>.

When considering phytotoxic risks, contaminants selected are those listed within Annex 3 of 'Guidance for the Safe Development of Housing on Land Affected by Contamination. R&D66: 2008 Volume 2' as being 'phytotoxic'.

Where available, assessment values have been chosen based on the criteria within (in priority order) SGV Documents, ICRCL 59/83 phytotoxic threshold levels, Dutch RIVM Serious Risk Concentrations (SRC) for ecological receptors (amended for a UK soil of 10% clay and 2% soil organic matter) and US EPA Soil Screening Levels for plants.

### 7.2 Determination of Averaging Areas/Zones

For the purposes of investigation and assessment a site can be divided into zones based on historical uses or proposed end use. These zones can be further divided into averaging areas, which can be used to assess different soil types or different potential exposure pathways etc. for the purposes of risk evaluation. Each averaging area can be considered independently for human health exposure assessment.

Based upon the proposed end use of the site and the findings of the ground investigation it is proposed that a single zone with one averaging area is appropriate for the site as follows:

Site wide – topsoil/natural soils.

### 7.3 Human Health and Phytotoxic Screening Assessment

A review of soil data has not identified any contaminants soil concentrations to be elevated against adopted human health screening levels for a 'residential with homegrown produce' end use, or the adopted phytotoxic screening criteria. A copy of the screening assessment is included within Appendix E.

In consideration of the outcome of the generic quantitative risk assessment, it is concluded that there are no unacceptable risks presented to flora or human health associated with on-site soils via direct contact/ingestion/inhalation pathways.

Potential risks associated with ground gas and permeation via drinking water supplies are considered later in Sections 10 and 11.

Access to the active farmyard was not possible as part of the investigation, therefore further investigation is recommended once the existing buildings have been demolished to assess the chemical quality of soils in this area, which will likely include made ground.

---

<sup>6</sup> Environmental Protection Act 1990.  
Contaminated Land Statutory Guidance (April 2012).  
Land contamination risk management - <https://www.gov.uk/government/publications/land-contamination-risk-management-lcrm>

## 8 CONTROLLED WATERS RISK ASSESSMENT

### 8.1 Overview of Hydrogeological Setting

The Superficial Dunsmore Gravel and Wolston Sand and Gravel Members are designated as Secondary A aquifers. The Oadby Till Member is designated as a Secondary Undifferentiated aquifer and the Wolston Clay member as Unproductive.

The underlying Mercia Mudstone Group is designated as a Secondary B Aquifer. The site is not recorded to lie within an SPZ and nor are there any licensed abstraction recorded within a 500m radius.

The nearest surface water feature is the Sketchley Brook which is located on the southern boundary of the site, which flows from south to west. The Sketchley Brook is a tributary of the River Anker and therefore hydraulic connectivity is likely.

Groundwater flow is interpreted to be towards the south with consideration of topography and local surface water features.

On the basis of the above, the sensitive Controlled Waters receptors relating to the site are considered to be:

- Groundwater in the superficial deposits - Dunsmore Gravel and Wolston Sand and Gravel Members (Secondary A Aquifers); and,
- Sketchley Brook.

### 8.2 Risk Evaluation

The ground investigation identified natural soils, comprising topsoil over clay or sand. No significant made ground was encountered on site.

No significant visual or olfactory evidence of gross contamination was observed. Furthermore, although leachate testing was not undertaken as part of the assessment, the encountered soil concentrations of all contaminants are considered to be below levels of concern.

As such, while a contaminant migration pathway may be present between the shallow soils and the underlying aquifers and nearby surface water, the risk is considered to be acceptably low owing to the low soil concentrations encountered.

Whilst the risk to controlled waters based upon the investigation to date is low, further investigation is recommended in the farm area as this was not accessible as part of this investigation.

## 9 GAS/VAPOUR RISK ASSESSMENT

### 9.1 Overview of Conceptual Model

Through the development of the preliminary conceptual model, the following potential sources of ground gas/vapour have been identified:

- Potential made ground from agricultural buildings;
- Infilled features (pond observed in the south-eastern field).

### 9.2 Ground Gas/Vapour Monitoring Results

Three ground gas monitoring visits were undertaken over a two month period between February and March 2023, utilising wells installed within WS01-WS05, the results of which are summarised in in Table 9.1. The full monitoring results are included in Appendix F.

### 9.3 Gas Screening Values

Guideline gas screening values (GSV) for methane and carbon dioxide concentrations recorded at the site can be considered in accordance with CIRIA 665<sup>7</sup>, BS8485<sup>8</sup> and NHBC guidance<sup>9</sup> using the following equation:

$$Q_{hg} = (C_{hg}/100) \times q$$

Where:

‘ $Q_{hg}$ ’ is the hazardous gas flow rate.

‘ $C_{hg}$ ’ is the gas concentration measured as a percentage.

‘ $q$ ’ is the peak flow rate.

This calculation is undertaken separately for both carbon dioxide and methane.

On the basis of the above, the maximum  $Q_{hg}$ , has been adopted as the GSV for each gas as detailed within Table 9.1. For conservatism, where no gas flow was detected the gas detector limit of 0.1l/hr has been employed in the calculation.

---

<sup>7</sup> Assessing risks posed by hazardous ground gases for buildings. CIRIA C665. 2007.

<sup>8</sup> Code of practice for the design of protective measures for methane and carbon dioxide ground gases for new buildings. BS8485:2015+A1:2019

<sup>9</sup> Guidance on evaluation of development proposals on sites where methane and carbon dioxide are present. Report edition No.4. NHBC. March 2007.

**Table 9.1 Summary of Gas Monitoring Results**

| Date                                                                                                                                                                                                     | Atmospheric Pressure (mB) and Preceding 24hr Trend | Maximum Gas Flow Rate <sup>1</sup> (l/h) |      | Peak Concentration <sup>2</sup> (% by vol) |                | Minimum Concentration <sup>2</sup> (% by vol) | Peak Concentration (ppm)     |                                |                  | Comments |
|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------|------------------------------------------|------|--------------------------------------------|----------------|-----------------------------------------------|------------------------------|--------------------------------|------------------|----------|
|                                                                                                                                                                                                          |                                                    | Steady                                   | Peak | Methane                                    | Carbon Dioxide | Oxygen                                        | Carbon Monoxide <sup>3</sup> | Hydrogen Sulphide <sup>3</sup> | VOC <sup>4</sup> |          |
| General Site (WS01 – WS05)                                                                                                                                                                               |                                                    |                                          |      |                                            |                |                                               |                              |                                |                  |          |
| 15/02/2023                                                                                                                                                                                               | 1016 (steady)                                      | <0.1                                     | <0.1 | 0.8                                        | 3.4            | 17.8                                          | <1                           | <1                             | 1.4              | -        |
| 02/03/2023                                                                                                                                                                                               | 1016 (falling)                                     | <0.1                                     | <0.1 | <0.1                                       | 2.9            | 19.0                                          | <1                           | <1                             | 0.7              | -        |
| 13/03/2022                                                                                                                                                                                               | 973 (steady)                                       | <0.1                                     | 0.4  | <0.1                                       | 3.1            | 17.7                                          | <1                           | <1                             | 0.7              | -        |
| Maximum (unless stated)                                                                                                                                                                                  |                                                    | <0.1                                     | 0.4  | 0.8                                        | 3.4            | 17.7 (minimum)                                | <1                           | <1                             | 1.4              | -        |
| GSV                                                                                                                                                                                                      |                                                    | n/a                                      | n/a  | 0.0032                                     | 0.0136         | n/a                                           | n/a                          | n/a                            | n/a              | -        |
| <sup>1</sup> Instrument detection level – 0.1l/h<br><sup>2</sup> Instrument detection level – 0.1%<br><sup>3</sup> Instrument detection level – 1ppm<br><sup>4</sup> Instrument detection level – 0.1ppm |                                                    |                                          |      |                                            |                |                                               |                              |                                |                  |          |



## 9.4 Discussion and Risk Evaluation

The site is considered to have had a largely green field history with limited potential for on-site ground gas sources. The on-site sources of ground gas are limited to potential made ground associated with agricultural buildings and made ground within potentially infilled features (ponds).

The ground investigation did not encounter significant made ground and no significant organic or putrescible material was recorded within any of the holes.

The monitoring comprised the recording of ground gas data from the network of 5N° boreholes over 3N° fortnightly visits through February and March 2023.

In general, the flow rates were found to be low (below 0.4l/hr) throughout the monitoring rounds.

In accordance with the current British Standards and CIRIA Guidance the GSV for carbon dioxide has been calculated using the steady flows from throughout the monitoring period. Whilst, as a conservative measure, the peak flow rate has been used in calculation of the Methane GSV. Based upon the calculated GSVs a Characteristic Situation 1 (CS1) classification is recommended for the site, which is broadly equivalent to a “Green” classification in accordance with the NHBC traffic light system.

Furthermore, no elevated concentrations of hazardous gases were identified during the gas monitoring. In consideration of the above results, it is considered that ground gases present a low risk to future users. As such, no ground gas protection measures are required in future development.

Should the recommended additional ground investigation works in area of the farm encounter significant made ground or potentially putrescible material, further gas monitoring should be undertaken in this area to fully classify the site.

In addition, the site is in a low risk radon area. Therefore, radon protection measures are not considered necessary for any new development.

## 10 POTABLE SUPPLY PIPEWORK RISK ASSESSMENT

Water industry guidance<sup>10</sup> states that only organic contaminants pose a potential risk to plastic pipe materials. The UKWIR report provides threshold values for polyethylene (PE) and polyvinyl chloride (PVC) pipes for the organic contaminants of concern. The results are summarised in Table 10.1 with exceedances highlighted in **bold**.

**Table 10.1 Summary of Soil Screening Against UKWIR Criteria**

| Determinant                                                                                                                         | Pipe material Generic Assessment Criteria (mg/kg) |          | Min (mg/kg) | Max (mg/kg) |
|-------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------|----------|-------------|-------------|
|                                                                                                                                     | PE                                                | PVC      |             |             |
| Extended VOC suite <sup>2</sup>                                                                                                     | 0.5                                               | 0.125    | <0.1        | <0.1        |
| BTEX + MTBE <sup>1</sup>                                                                                                            | 0.1                                               | 0.03     | -           | -           |
| SVOCs TIC by purge and trap or head space and GC-MS with TIC (aliphatic and aromatic C <sub>5</sub> -C <sub>10</sub> ) <sup>1</sup> | 2                                                 | 1.4      | -           | -           |
| Phenols                                                                                                                             | 2                                                 | 0.4      | <1          | <1          |
| Cresols and chlorinated phenols <sup>1 3</sup>                                                                                      | 2                                                 | 0.04     | -           | -           |
| Mineral oil C <sub>11</sub> -C <sub>20</sub> <sup>1</sup>                                                                           | 10                                                | Suitable | -           | -           |
| Mineral oil C <sub>21</sub> – C <sub>40</sub> <sup>1</sup>                                                                          | 500                                               | Suitable | -           | -           |
| Corrosive (conductivity, redox and pH) <sup>1</sup>                                                                                 | Suitable                                          | Suitable | -           | -           |

1. Determinant not tested.

2. Based upon recorded BaP concentrations.

3. Total Monohydric Phenols – Limit of Detection (LOD) is 5.0mg/kg. All speciated phenols are below LOD of 1.0mg/kg.

Given no visual or olfactory evidence of hydrocarbon or solvent based contamination was encountered on-site during the ground investigation, and the greenfield history of the site, most of the determinants of concern in relation to water supply pipework were not tested.

No significantly elevated concentrations of benzo(a)pyrene (BaP) were identified in topsoil or natural soil results. Therefore, it is considered that standard pipework will be suitable for the buried potable water supply network on site. It is advised that statutory water provider is consulted to confirm that no specialist potable pipework is required. This assessment should be updated once the recommended additional ground investigation works have been undertaken in the area of the farm.

<sup>10</sup> Guidance for the selection of water supply pipes to be used in brownfield sites (UK Water Industry Research Limited (UKWIR) - Ref: 10/WM/03/21) - 2010

## 11 REFINED CONCEPTUAL SITE MODEL

### 11.1 Overview

Following completion of the ground investigation, collection and interrogation of site data with consideration of the outcome of generic quantitative risk assessment discussed in preceding sections of this report, the conceptual site model has been revised.

### 11.2 Sources

Further to completion of ground investigation, the sources identified within the preliminary conceptual model to require further consideration include:

- Potential made ground from agricultural buildings;
- Agricultural pest/weed control associated with former agricultural practice;
- Infilled features (pond observed in the south-east field);
- Above ground fuel tank.

No further potential sources of impact were identified during the subsequent ground investigation works.

### 11.3 Risk Evaluation

Those SPRs identified within Table 3.2 as presenting a moderate/low or moderate risk have been further interrogated in accordance with UK national guidance and regulatory framework<sup>11</sup> following completion of ground investigation and risk assessment. Table 11.1 presents the revised SPRs with associated classification of risk as appropriate following re-evaluation of risks.

---

<sup>11</sup> Annex 4 - Guidance for the Safe Development of Housing on land Affected by Contamination R&D66: 2008.  
Land contamination risk management - <https://www.gov.uk/government/publications/land-contamination-risk-management-lcrm>.

**Table 11.1 Revised Source-Pathway-Receptor Relationships**

| APC N° | Source                                                              | Pathway (s)                                                                                                                 | Receptor                                                             | Consequence | Probability    | Risk*               | Comment                                                                                                     |
|--------|---------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------|-------------|----------------|---------------------|-------------------------------------------------------------------------------------------------------------|
| 1      | <u>On-site</u><br>Potential made ground from agricultural buildings | Oral ingestion                                                                                                              | Future residents and maintenance workers                             | Medium      | Low likelihood | <b>Moderate/Low</b> | Access to farm area was not permitted as part of the investigation. Further works recommended in this area. |
|        |                                                                     | Vegetable uptake                                                                                                            | Future residents                                                     | Medium      | Low likelihood | <b>Moderate/Low</b> |                                                                                                             |
|        |                                                                     | Dermal contact                                                                                                              | Future residents and maintenance workers                             | Medium      | Low likelihood | <b>Moderate/Low</b> |                                                                                                             |
|        |                                                                     | Dust migration/inhalation                                                                                                   | Future residents, maintenance workers and off-site residents/workers | Medium      | Low likelihood | <b>Moderate/Low</b> |                                                                                                             |
|        |                                                                     | Gas / vapour inhalation/explosion                                                                                           | Future residents and maintenance workers                             | Medium      | Unlikely       | <b>Moderate/Low</b> |                                                                                                             |
|        |                                                                     | Permeation into drinking water supplies                                                                                     | Future residents                                                     | Medium      | Unlikely       | <b>Moderate/Low</b> |                                                                                                             |
|        |                                                                     | Leaching/dissolution with vertical migration to groundwater                                                                 | Groundwater                                                          | Medium      | Low likelihood | <b>Moderate/Low</b> |                                                                                                             |
|        |                                                                     | Leaching/dissolution with vertical migration to groundwater, and lateral migration in groundwater                           | Surface water                                                        | Medium      | Low likelihood | <b>Moderate/Low</b> |                                                                                                             |
|        |                                                                     | Overland flow                                                                                                               | Surface water                                                        | Medium      | Unlikely       | <b>Moderate/Low</b> |                                                                                                             |
|        |                                                                     | Migration via existing service trenches                                                                                     | Groundwater/surface water                                            | Medium      | Unlikely       | <b>Moderate/Low</b> |                                                                                                             |
|        |                                                                     | Leaching/dissolution with vertical migration to groundwater, lateral migration in groundwater and subsequent volatilisation | Future residents, maintenance workers and off-site residents/workers | Medium      | Low likelihood | <b>Moderate/Low</b> |                                                                                                             |
|        |                                                                     | Uptake via root system                                                                                                      | On-site flora                                                        | Medium      | Low likelihood | <b>Moderate/Low</b> | -                                                                                                           |

| APC N° | Source                                                                                        | Pathway (s)                                                                                                                                 | Receptor                                                             | Consequence | Probability | Risk* | Comment                                                     |
|--------|-----------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------|-------------|-------------|-------|-------------------------------------------------------------|
| 2      | <u>On-site</u><br>Agricultural pest/weed control associated with former agricultural practice | Oral ingestion                                                                                                                              | Future residents and maintenance workers                             | Medium      | Unlikely    | Low   | No evidence of pesticides or herbicides within lab testing. |
|        |                                                                                               | Vegetable uptake                                                                                                                            | Future residents                                                     | Medium      | Unlikely    | Low   |                                                             |
|        |                                                                                               | Dermal contact                                                                                                                              | Future residents and maintenance workers                             | Medium      | Unlikely    | Low   |                                                             |
|        |                                                                                               | Dust migration/inhalation                                                                                                                   | Future residents, maintenance workers and off-site residents/workers | Medium      | Unlikely    | Low   |                                                             |
|        |                                                                                               | Permeation into drinking water supplies                                                                                                     | Future residents                                                     | Medium      | Unlikely    | Low   |                                                             |
|        |                                                                                               | Uptake via root system                                                                                                                      | On-site flora                                                        | Medium      | Unlikely    | Low   |                                                             |
| 4      | <u>On-site</u><br>Infilled features (pond observed in the south-eastern field)                | Oral ingestion                                                                                                                              | Future residents and maintenance workers                             | Medium      | Unlikely    | Low   | No evidence of infilled pond found.                         |
|        |                                                                                               | Vegetable uptake                                                                                                                            | Future residents                                                     | Medium      | Unlikely    | Low   |                                                             |
|        |                                                                                               | Dermal contact                                                                                                                              | Future residents and maintenance workers                             | Medium      | Unlikely    | Low   |                                                             |
|        |                                                                                               | Lateral dust migration                                                                                                                      | Future residents                                                     | Medium      | Unlikely    | Low   |                                                             |
|        |                                                                                               | Lateral gas/vapour migration and inhalation                                                                                                 | Future residents                                                     | Medium      | Unlikely    | Low   |                                                             |
|        |                                                                                               | Leaching/dissolution with vertical migration to groundwater, lateral migration in groundwater with subsequent volatilisation and inhalation | Future residents and maintenance workers                             | Medium      | Unlikely    | Low   |                                                             |



| APC N° | Source                                   | Pathway (s)                                                                                                                                   | Receptor                                                             | Consequence | Probability    | Risk*               | Comment                                                                                                     |
|--------|------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------|-------------|----------------|---------------------|-------------------------------------------------------------------------------------------------------------|
|        |                                          | Leaching/dissolution with vertical migration to groundwater, lateral migration in groundwater with subsequent vegetable uptake/direct contact | Future residents                                                     | Medium      | Unlikely       | <b>Low</b>          |                                                                                                             |
|        |                                          | Leaching/dissolution with vertical migration to groundwater, lateral migration in groundwater with permeation into drinking water supplies    | Future residents                                                     | Medium      | Unlikely       | <b>Low</b>          |                                                                                                             |
| 5      | On-site<br>Above ground diesel fuel tank | Oral ingestion                                                                                                                                | Future residents and maintenance workers                             | Medium      | Low likelihood | <b>Moderate/Low</b> | Access to farm area was not permitted as part of the investigation. Further works recommended in this area. |
|        |                                          | Vegetable uptake                                                                                                                              | Future residents                                                     | Medium      | Low likelihood | <b>Moderate/Low</b> |                                                                                                             |
|        |                                          | Dermal contact                                                                                                                                | Future residents and maintenance workers                             | Medium      | Low likelihood | <b>Moderate/Low</b> |                                                                                                             |
|        |                                          | Dust migration/inhalation                                                                                                                     | Future residents, maintenance workers and off-site residents/workers | Medium      | Low likelihood | <b>Moderate/Low</b> |                                                                                                             |
|        |                                          | Gas / vapour inhalation/explosion                                                                                                             | Future residents and maintenance workers                             | Medium      | Low likelihood | <b>Moderate/Low</b> |                                                                                                             |
|        |                                          | Permeation into drinking water supplies                                                                                                       | Future residents                                                     | Medium      | Low likelihood | <b>Moderate/Low</b> |                                                                                                             |
|        |                                          | Leakage from tank/Leaching/dissolution from impacted soils with vertical migration to groundwater                                             | Groundwater                                                          | Medium      | Low likelihood | <b>Moderate/Low</b> |                                                                                                             |
|        |                                          | Leakage from tank/Leaching/dissolution with vertical migration to groundwater, and lateral migration in groundwater                           | Surface water                                                        | Medium      | Low likelihood | <b>Moderate/Low</b> |                                                                                                             |

| APC N° | Source | Pathway (s)                                                                                                                                    | Receptor                                                             | Consequence | Probability    | Risk*               | Comment |
|--------|--------|------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------|-------------|----------------|---------------------|---------|
|        |        | Leakage from tank and migration via service trenches                                                                                           | Groundwater/<br>surface water                                        | Medium      | Low likelihood | <b>Moderate/Low</b> |         |
|        |        | Leakage from tank /Leaching/dissolution with vertical migration to groundwater, lateral migration in groundwater and subsequent volatilisation | Future residents, maintenance workers and off-site residents/workers | Medium      | Low likelihood | <b>Moderate/Low</b> |         |
|        |        | Uptake via root system                                                                                                                         | On-site flora                                                        | Medium      | Low likelihood | <b>Moderate/Low</b> |         |

*\*Where multiple receptors exist the risk classification is based on most sensitive receptor for conservatism*

## 12 PRELIMINARY WASTE ASSESSMENT

### 12.1 Waste Hierarchy

In line with the requirements of the Waste Framework Directive, the principles of the “waste hierarchy” should be applied to management options for on-site generated wastes, giving priority to the prevention of waste in the first instance, before considering re-use, recycling, recovery and lastly disposal. Principal considerations are set out in subsequent sections, although it is recommended that advice of a geo-environmental/waste specialist is sought at an early stage in the development process to ensure opportunities for minimisation of waste volumes are maximised.

### 12.2 On-site Re-Use of Materials

It may be possible to demonstrate through application of the CL:AIRE Definition of Waste Code of Practice (DoW CoP) that site won excavated soils are not classified as waste, and in doing so, permit this material to be re-used as part of proposed site redevelopment works. The DoW CoP may also apply to source segregated material arising from demolition activities. In determining the suitability of this approach, early consideration should be given to being able to demonstrate a specific planning requirement for the re-use of the excavated material. It is noted this approach cannot be applied retrospectively.

It should be noted that on-site re-use of “uncontaminated soil or other naturally occurring material” excavated as part of construction works for the purposes of construction is excluded from waste regulation.

Alternative mechanisms for on-site re-use of soils or aggregate may also be appropriate, on a site-specific basis, depending on the volume/nature of the materials, and their intended use, such as:

- Waste exemptions under the Environmental Permitting (England and Wales) Regulations 2010, which are operations which are exempt from requiring permits, providing certain conditions are met. This typically applies to small volumes of non-hazardous soils although may also apply to other material types.
- Environmental permit under the Environmental Permitting (England and Wales) Regulations 2010 (standard or bespoke depending on the material and the activity).
- WRAP Aggregates Quality protocol<sup>12</sup> for the production and use of aggregates from inert waste, providing certain criteria are met.

### 12.3 Waste Disposal to Landfill

When waste is intended for disposal at a suitably licensed landfill site it is necessary for the waste producer (i.e. the developer or consultant on their behalf) to have completed a basic waste characterisation assessment, including:

- Description of the waste;
- List of Waste (LoW) code or codes if mixed waste;
- Determine the chemical composition to identify if waste has hazardous properties or Persistent Organic Pollutants (POPs) are present;
- Determination of hazardous properties;
- Waste Acceptance Criteria (WAC) testing (if required) to determine landfill acceptance.

---

<sup>12</sup> Aggregates from inert waste. End of waste criteria for the production of aggregates from inert waste. WRAP.

Relevant information on the above can be found in WM3<sup>13</sup> and is discussed further in the context of ground investigation findings in subsequent sections.

It should be noted that alternative off-site disposal routes may be available, such as recycling/treatment facilities and that in these instances, waste classification would not be appropriate. Instead, it will be necessary to confirm with the destination facility that the material complies with their permit criteria. Further testing in addition to the available ground investigation data may be required by them.

#### 12.3.1 Waste Classification

A preliminary waste classification exercise has been undertaken with reference to available ground investigation data. Hazardous properties of the soils have been assessed using the HazWaste program. A copy of the HazWaste report is included in Appendix G. All results have been assessed as non-hazardous.

#### 12.3.2 Landfill Waste Acceptance

If a waste classification assessment determines that disposal to landfill is the appropriate option for the waste then WAC testing must be undertaken for wastes destined for inert, stable non-reactive hazardous or hazardous classes of landfill. WAC testing may not be required if the material falls into the list of waste material identified in The Landfill Directive assumed to fulfil the criteria for inert waste, as detailed in Article 2(e) of the Landfill Directive. This includes soils and stone with an EWC code 17 05 04 but excludes topsoil, peat and soil from contaminated sites. Additionally, if waste has been classified as non-hazardous and is going to be disposed of to a non-hazardous landfill rather than an inert non-hazardous landfill then WAC testing may not be required. In all cases consultation with the receiving facility to confirm testing and acceptance of waste classification prior to disposal is advised.

#### 12.3.3 Landfill Tax

Unless specifically exempt, landfill tax applies to disposal of material at a landfill that's covered by a permit under specific environmental legislation and at any unauthorised waste site. Currently this tax rate is set at £98.60/tonne (2022/2023).

There are some circumstances where material placed within a landfill cell is exempted from the charge to Landfill Tax, including use of material for creation of capping, drainage or otherwise meets conditions of other Landfill Tax exemptions e.g., dredgings, mining and quarrying materials.

A lower rate of landfill tax set at £3.15/tonne does apply to less polluting material listed in the landfill tax (qualifying material) order 2011<sup>14</sup>, including naturally occurring rocks and soils, excluding topsoil (group 1) and ceramic or concrete (group 2).

### 12.4 Recommendations

- Waste management options should be considered in line with the Waste Hierarchy, with priority placed on prevention, re-use, recycling and recovery in order to reduce off-site disposal volumes. Sorting and segregation of excavated soils/materials may also enable reduction in off-site disposal volumes.
- In the event that off-site disposal of surplus excavated soils to landfill is intended, chemical results should be supplied to the receiving facility to confirm they will be able to accept the material. Supplementary testing may be required by the receiving facility, including WAC

---

<sup>13</sup> Guidance on the classification and assessment of waste - Technical Guidance WM3. Environment Agency 2015.

<sup>14</sup> Landfill Tax (Qualifying Material) Order 2011 can be found at <http://www.legislation.gov.uk/ukxi/2011/1017/contents/made>

testing, to confirm the preliminary waste characterisation assessment and to ensure WM3 requirements have been met.

## 13 COMMENTS ON ENGINEERING DESIGN

### 13.1 General

Eurocode 7 (Section 2)<sup>15</sup> advocates the use of geotechnical categorisation of the proposed structures to establish the design requirements. Information presented to T&P indicates that the proposed development is to comprise 150N° traditional two storey residential dwellings with associated areas of communal and private soft landscaping and hard landscaped access and parking. It has been assumed that the dwellings will be of masonry construction with line loads of between 50-70kN/m.

In consideration of the available information on the development proposals, for the purposes of this investigation the proposed structures have been classified as follows:

- Geotechnical category 1: Small and relatively simple buildings (houses) with strip or piled foundations, roads, pavements, car parks, retaining walls below 2m, small excavations for drainage works, with the proposed housing development considered to be within this category.

### 13.2 Summary of Geotechnical Parameters

Stratum thicknesses and geotechnical parameters for the strata encountered in the investigation are summarised in the following sections. The level of confidence in the derived parameters is provided in Table 13.1.

**Table 13.1 Confidence Levels**

| Key   | Description                                                                     |
|-------|---------------------------------------------------------------------------------|
| value | High level of confidence - based on information from investigation.             |
| value | Medium level of confidence - based on published data.                           |
| value | Low level of confidence – more data required if parameter to be used in design. |

#### 13.2.1 Superficial deposits

The design thicknesses and geotechnical parameters for use in the superficial deposits are described in Table 13.2.

**Table 13.2 Summary of Geotechnical Parameters – Superficial deposits**

| Parameter             | Units | Min  | Max   | Design | Comments                                       |
|-----------------------|-------|------|-------|--------|------------------------------------------------|
| Top Depth             | mbgl  | 0.20 | 2.90  | -      | -                                              |
| Base Depth            | mbgl  | 0.50 | >5.00 | -      | Base not proven                                |
| Thickness             | m     | 0.30 | >5.00 | -      | Variable thickness.                            |
| Moisture Content      | %     | 14   | 28    | -      |                                                |
| Liquid Limit          | %     | NP   | 64    | -      |                                                |
| Plastic Limit         | %     | NP   | 25    | -      |                                                |
| Plasticity Index      | -     | -    | 39    | -      | Granular soils tested shown to be non-plastic. |
| % passing 425µm sieve | %     | 95   | 100   | -      | -                                              |

<sup>15</sup> BS EN 1997 – Part 2. Geotechnical Design.



| Parameter                                     | Units   | Min   | Max  | Design   | Comments                                                                                                                                                            |
|-----------------------------------------------|---------|-------|------|----------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Modified Plasticity Index                     | -       | -     | 39   | 20-40    | Based on current NHBC guidance, results are indicative of soils of a moderate volume change potential                                                               |
| Cobbles                                       | %       | 0     | 0    | Variable | Indicative of a material varying from a silty sand/ sandy gravel to slightly gravelly sandy clay. The grading tests are broadly reflective of the engineering logs. |
| Gravel                                        | %       | 2     | 23   |          |                                                                                                                                                                     |
| Sand                                          | %       | 36    | 60   |          |                                                                                                                                                                     |
| Silt/clay                                     | %       | 17    | 62   |          |                                                                                                                                                                     |
| Undrained shear strength                      | kPa     | 8     | 112  | Variable | Determined from hand shear vanes                                                                                                                                    |
| Standard Penetration Resistance               | N Value | 8     | 27   | Variable | Indicative of very loose to medium density granular soils.                                                                                                          |
| pH                                            | -       | 6.3   | 8.4  | -        |                                                                                                                                                                     |
| Water soluble sulphate ( $\text{SO}_4^{2-}$ ) | mg/l    | 13    | 247  | 213      | DS-4 AC-4<br>Design mix derived from mean of the highest 20% of results (Ref = BRE Special Digest 1).                                                               |
| Acid soluble sulphate ( $\text{SO}_4^{2-}$ )  | %       | <0.01 | 0.14 | 0.12     |                                                                                                                                                                     |
| Total Sulphur                                 | %       | <0.01 | 0.89 | 0.71     |                                                                                                                                                                     |
| Total Potential Sulphate                      | %       | <0.01 | 2.67 | 2.13     |                                                                                                                                                                     |
| Oxidisable Sulphide                           | %       | <0.1  | 2.53 | 2.02     |                                                                                                                                                                     |

### 13.3 Construction Considerations

#### 13.3.1 Subsurface Concrete

Based on the pH values, water soluble sulphate and SD1 suite concentrations recorded by the chemical and geotechnical laboratory analysis, together with the calculated oxidisable sulphide, a DS-4 AC-4 design mix concrete is recommended for buried structures placed within the shallow soils when compared against the BRE<sup>16</sup> assessment levels.

It should be noted elevated sulphur concentrations were only recorded within 2N<sup>o</sup> of the 10N<sup>o</sup> samples tested. Further sampling, analysis and assessment of the natural soils may therefore reduce the design sulphate class required for buried concrete.

#### 13.3.2 Floor Slabs

The shallow natural ground was found to be variable across the site and found to be both granular and cohesive. Granular soils will not be moisture sensitive or exhibit significant volume change and therefore likely to be suitable for ground bearing slabs.

However, due to the variability and the medium volume change potential of the cohesive soils, it is recommended floor slabs should be designed with a minimum 250mm void space based on NHBC guidance.

It may be possible to use a combination of ground bearing and suspended floor slabs for the proposed development although further investigation and testing is recommended to delineate the areas where near surface soils are either cohesive or granular. Alternatively, it may be more cost effective for the developer to use a suspended slab solution for all plots across the entire site.

<sup>16</sup> BRE Special Digest 1:2005 – Third edition – Concrete in aggressive ground.

### 13.3.3 Deep Excavations

The superficial cohesive soils were generally found to be stable during the intrusive ground investigation. However, excavations within the granular soils were occasionally found to be unstable with side wall collapses noted during trial pitting. Personnel entry into any excavations should therefore be avoided where possible. However, if entry is required, the excavation sides should be adequately shored and supported or battered back to a safe angle in accordance with appropriate temporary works design.

### 13.3.4 Groundwater

Groundwater was not encountered across the majority of the of the site during the ground investigation. Groundwater was only encountered in exploratory holes TP17 and WS03 at between 2.50 and 3.00mbgl, as outlined in Section 5.4. It is considered that groundwater beneath the site is likely to be discontinuous and perched within the granular fraction of the underlying superficial deposits.

As such, groundwater ingress into excavations is likely to be variable, and likely to cause instability of granular soils. Groundwater entry into excavations is likely to be dealt with via sump pumping.

However, more rapid water entry at depths below 2.50m may be problematic, especially due to the combined stability issues and deep well pumping may be needed. Advice from a specialist dewatering contractor should be sought to determine the most suitable dewatering method.

### 13.3.5 Buried Utilities

It is recommended that existing live services are accurately located by careful hand digging and liaison undertaken with the utility companies with regard to any required works in these areas. The services should be clearly marked and considered in the construction design process.

### 13.3.6 Earthworks and Material Handling

It is likely that re-use of existing soils will be required as part of redevelopment proposals. Should earthworks be required, an earthworks specification will be necessary to ensure the appropriate management and reuse of the existing soils.

## 13.4 Preliminary Foundation Recommendations

### 13.4.1 Building Near Trees

Due to the highly variable ground conditions encountered across the site, with granular and cohesive soils both underlying and overlying each other, the soils have been considered as medium volume change potential as a whole.

Based upon the volume change potential and in accordance with NHBC guidelines the minimum founding depth of traditional foundations would be 0.90mbgl. At this stage due to the medium volume change potential provision should be made for the use of void formers where shallow strip foundations are to be placed at a depth greater than 1.50mbgl due to the influence of existing/former trees. The impact of any new planting associated with future potential development of the site should also take into account the volume change potential of the soils.

Due to the medium volume change potential of the soils, foundations will be susceptible to the influence of trees. It is recommended the findings of this report are considered in conjunction with an arboricultural survey and the recommendations given by the NHBC regarding the over deepening of foundations in the vicinity of trees.

#### 13.4.2 Foundation Options

The proposed development is of mixed use, including residential, and areas of public open space. Line loads of between 50-70kN/m have been assumed adequate for the development, if alternative loads are required this will have to be considered and updated accordingly.

The ground investigation identified superficial glacial deposits up until termination (5.00mbgl). The superficial deposits were noted as variable in nature, comprising of both granular (very loose to medium dense) and cohesive (very soft to very stiff) soils.

*In situ* testing in the granular deposits identified SPT (N) values ranging between 0 to 27, indicating very loose to medium dense soils. Given that there is no obvious pattern in low density values or spatial distribution of granular soils, there is currently not enough data to consider it suitable for founding.

In addition, the cohesive deposits were also found to vary in consistency with depth and with no obvious spatial pattern. Broadly the cohesive superficial deposits were found to be firm or stiff. However, soft and very soft deposits were noted within TP01, TP13, TP17, TP18, TP21, TP22, TP23, TP25 and WS03 across the site and at various depths. Very soft and soft cohesive deposits are not considered suitable for founding due to the risk of excessive settlements and due to the variability in consistency, founding in cohesive deposits may also result in differential settlements.

As such, based upon the current understanding of the underlying ground conditions the use of traditional foundations to provide support for proposed structures on a site-wide basis is not recommended due to the risk of excessive or differential settlement. Additionally, poor stability of the granular deposits may prove problematic when attempting to excavate deeper trenches for foundations.

Therefore, it is recommended that further investigation is undertaken to obtain additional *in situ* strength/density data of the superficial soils to ascertain where the use of traditional foundations may be locally feasible. Alternatively, other methods of providing support to structures should be considered, such as pile foundations or ground improvement (stone columns). The advice of specialist contractors should be sought to determine the most suitable and cost-effective method.

A Foundation Zonal Plan, indicating where traditional foundations are considered most likely to be achievable, based on the current limited data and subject to further investigation, is presented in Appendix A. The plan also shows areas where traditional foundations, if adopted, may require overdeepening due to the influence of trees.

## 14 CONSIDERATIONS AND RECOMMENDATIONS

### 14.1 Considerations

The following uncertainties/data gaps have been identified which may require further consideration:

- Access to the farm areas of the site was limited for the ground investigation. Further investigation works in this area is recommended to fully assess the site.
- Infiltration testing for drainage design was outside the scope of this ground investigation.
- In-situ CBR testing to assist with carriageway design was outside the scope of this ground investigation.

### 14.2 Recommendations for Further Work

#### 14.2.1 Human Health

- The farmyard area of the site has not been investigated, therefore further works should be completed once the area has been demolished to refine the environmental risk assessment presented within this report.
- Should significant made ground or putrescible material be encountered within the farmyard area, further gas monitoring will likely be required.

#### 14.2.2 Engineering

- During the ground investigation a high variability was noted within the superficial deposits, varying from very loose to medium dense granular soils, to very soft to very stiff cohesive soils. As such, further ground investigation is recommended to address geotechnical data gaps impacting construction considerations.
- Further investigation of shallow superficial soils may also determine the extent of non-plastic areas, permitting ground-bearing slab design.
- Infiltration testing is recommended in full accordance with BRE Digest DG-365 (2016) prior to detailed soakaway design. Based upon the observed ground conditions, infiltration may prove locally viable for surface water management.
- The Design Sulphate Class for buried concrete is DS-4 AC-4 due to elevated concentrations of sulphur within 2No samples. Further sampling, analysis and assessment of the natural soils may reduce the design sulphate class required for buried concrete.
- In-situ CBR testing is recommended to determine carriageway design parameters.

#### 14.2.3 General

- Discussions should be held with local landfill/soil waste treatment facilities to agree material classification/pre-treatment required for any soils to be disposed off-site as a result of proposed construction works.
- Ground workers should remain vigilant for visible and olfactory signs of contamination following demolition of on-site buildings.
- A site-specific health and safety plan should be prepared to inform on risks posed from the previous site use and mitigations for ground workers developing the site e.g. requirements for appropriate PPE, hygiene practices, environmental monitoring and requirements for mitigation measures during construction works.
- A copy of this report should be provided to the relevant regulatory authorities to confirm that they are in agreement with the report findings.

## Appendix A – Drawings





- Site Boundary - 12.74ha
- Illustrative Residential Blocks  
4.07ha NDA - up to 150 dwellings
- Residential Ridge Heights limited up to 7.5m
- Proposed Vehicular Access Point
- Proposed New Pedestrian and Cycle Access Point
- Primary Access Route
- Indicative Internal Streets
- Existing Retained Trees and Hedgerows/  
Woodlands
- Indicative Structural Woodland and Parkland  
Planting
- Proposed Native Hedgerow Planting
- Indicative Street Tree Planting
- Indicative Pond Features (Wet/Dry)
- Public Open Space
- Agricultural Land
- 0.5m Contours
- Area Reserved for Agricultural Track
- Stormwater Drain with 7m Easement
- Pumping Station
- Informal/Natural Children's Play Area
- PROW - Existing Footpath
- PROW - Existing Bridleway
- Proposed Pedestrian Trail

client  
**Barwood Development Securities Limited**

project title  
**Sketchley Lane, Sketchley**

drawing title  
**Illustrative Masterplan**

|                |                       |          |              |
|----------------|-----------------------|----------|--------------|
| date           | <b>17 AUGUST 2021</b> | drawn by | <b>PW/CG</b> |
| drawing number | <b>edp4824_d041a</b>  | checked  | <b>BR</b>    |
| scale          | <b>1:2,500 @ A3</b>   | QA       | <b>RB</b>    |

**edp** the environmental  
dimension partnership

Registered office: 01285 740427 - [www.edp-uk.co.uk](http://www.edp-uk.co.uk) - [info@edp-uk.co.uk](mailto:info@edp-uk.co.uk)



— Site Boundary



**Base Map**  
Company: - Autodesk License  
DWG Title: -  
DWG Number: -  
Date: -

|                         |          |                       |          |      |
|-------------------------|----------|-----------------------|----------|------|
| RC                      | RG       | Site Boundary Updated | 10/03/23 | A    |
| AW                      | RG       | Site Boundary Updated | 24/03/23 | B    |
| Drawn                   | Checked  | Amendment             | Date     | Rev. |
| Barwood Land            |          |                       |          |      |
| Sketchley Lane, Burbage |          |                       |          |      |
| Site Location Plan      |          |                       |          |      |
| Scale                   | Date     | Drawn by              | Check by | Rev. |
| 1:10000@A4              | 21/02/23 | AW                    | RG       | B    |

T&P



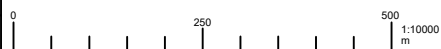
Unit 4 Brunel Lock Development, Smeaton Road, Bristol, BS1 6SE

Tel: 0117 927 7756

Email: [Info@TP-regen.co.uk](mailto:Info@TP-regen.co.uk)

Drawing No.

P0866-01-001





— Site Boundary

**T&P Investigation**

- Trial Pit Locations (TP01 - TP25)
- Windowless Sampling Locations (WS01 - WS05)



**Base Map**  
Company: - Autodesk License  
DWG Title: -  
DWG Number: -  
Date: -

|        |         |                       |          |      |
|--------|---------|-----------------------|----------|------|
| RC     | RG      | Site Boundary Updated | 10/03/23 | A    |
| AW     | RG      | Site Boundary Updated | 24/03/23 | B    |
| Drawn  | Checked | Amendment             | Date     | Rev. |
| Client |         |                       |          |      |

Barwood Land

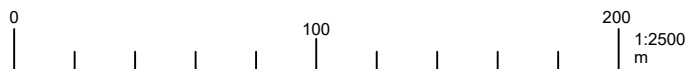
Sketchley Lane, Burbage

Exploratory Hole Location Plan

|           |          |          |          |      |              |
|-----------|----------|----------|----------|------|--------------|
| Scale     | Date     | Drawn by | Check by | Rev. | Drawing No.  |
| 1:2500@A3 | 21/02/23 | AW       | RG       | B    | P0866-01-002 |

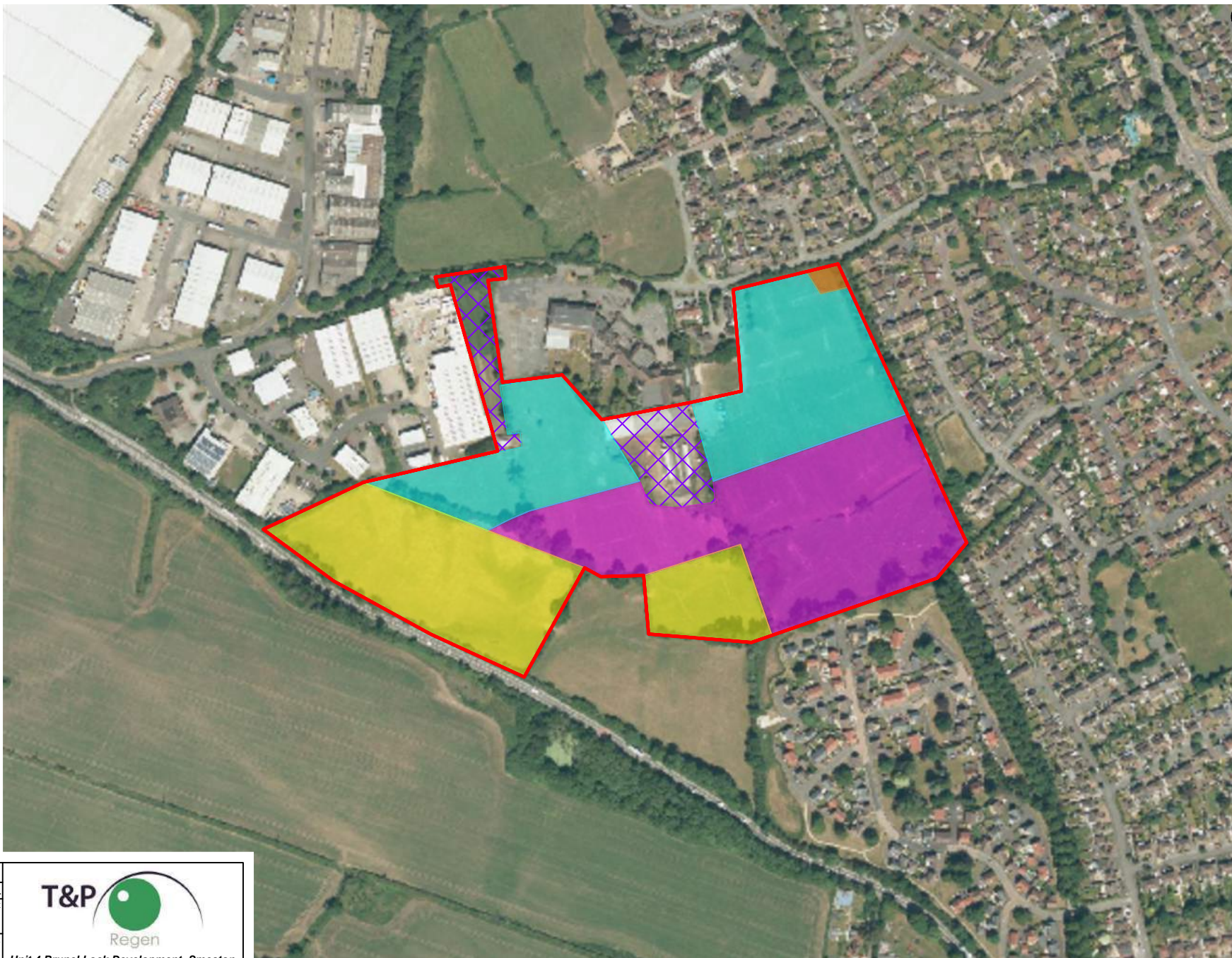


**Unit 4 Brunel Lock Development, Smeaton Road, Bristol, BS1 6SE**  
Tel: 0117 927 7756  
Email: [Info@TP-regen.co.uk](mailto:Info@TP-regen.co.uk)





- Site Boundary
- Bosworth Clay
- Dunsmore Gravel
- Oadby Member
- Wolston Sand and Gravel
- Area Not Investigated



**Base Map**  
 Company: - Autodesk License  
 DWG Title: -  
 DWG Number: -  
 Date: -

|                            |          |           |          |         |
|----------------------------|----------|-----------|----------|---------|
| Drawn                      | Checked  | Amendment | Date     | Rev.    |
| Barwood Land               |          |           |          | Client  |
| Sketchley Lane, Burbage    |          |           |          | Project |
| Geological Boundaries Plan |          |           |          | Title   |
| Scale                      | Date     | Drawn by  | Check by | Rev.    |
| 1:5000@A4                  | 22/03/23 | AW        | RG       | -       |

**T&P**   
 Unit 4 Brunel Lock Development, Smeaton  
 Road, Bristol, BS1 6SE  
 Tel: 0117 927 7756  
 Email: [Info@TP-regen.co.uk](mailto:Info@TP-regen.co.uk)









## Appendix B – Photographs



**PLATE 01 – Site Overview – Looking North.**



**PLATE 02 – Site Overview – Looking South.**



**PLATE 03 – Site Overview – Looking West.**



**PLATE 04 – Site Overview – Looking North.**





**PLATE 05 – Site Entrance – Looking South.**



**PLATE 06 – Site Overview – Looking West.**



**PLATE 07 – Trial Pit Excavation – TP01.**



**PLATE 08 – Trial Pit Spoil – TP01.**





**PLATE 09 – Trial Pit Excavation – TP02.**



**PLATE 10 – Trial Pit Spoil – TP02.**



**PLATE 11 – Trial Pit Excavation – TP03.**



**PLATE 12 – Trial Pit Spoil – TP03.**





**PLATE 13 – Trial Pit Excavation – TP04.**



**PLATE 14 – Trial Pit Spoil – TP04.**

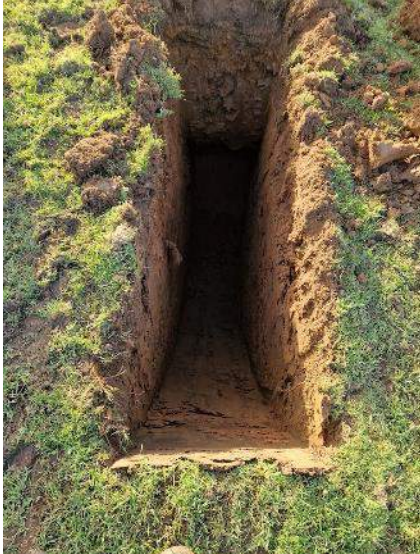


**PLATE 15 – Trial Pit Excavation – TP05.**



**PLATE 16 – Trial Pit Spoil – TP05.**





**PLATE 17 – Trial Pit Excavation – TP06.**



**PLATE 18 – Trial Pit Spoil – TP06.**

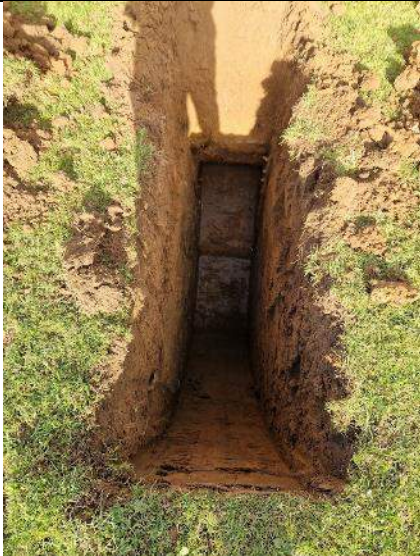


**PLATE 19 – Trial Pit Excavation – TP07.**



**PLATE 20 – Trial Pit Spoil – TP07.**





**PLATE 21 – Trial Pit Excavation – TP08.**



**PLATE 22 – Trial Pit Spoil – TP08.**



**PLATE 23 – Trial Pit Excavation – TP09.**



**PLATE 24 – Trial Pit Spoil – TP09.**





**PLATE 25 – Trial Pit Excavation – TP10.**



**PLATE 26 – Trial Pit Spoil – TP10.**



**PLATE 27 – Trial Pit Excavation – TP11.**



**PLATE 28 – Trial Pit Spoil – TP11.**





**PLATE 29 – Trial Pit Excavation – TP12.**



**PLATE 30 – Trial Pit Spoil – TP12.**



**PLATE 31 – Trial Pit Excavation – TP13.**



**PLATE 32 – Trial Pit Spoil – TP13.**





**PLATE 33 – Trial Pit Excavation – TP14.**



**PLATE 34 – Trial Pit Spoil – TP14.**



**PLATE 35 – Trial Pit Excavation – TP15.**



**PLATE 36 – Trial Pit Spoil – TP15.**





**PLATE 37 – Trial Pit Excavation – TP16.**



**PLATE 38 – Trial Pit Spoil – TP16**



**PLATE 39 – Trial Pit Excavation – TP17.**



**PLATE 40 – Trial Pit Spoil – TP17.**





**PLATE 41 – Trial Pit Excavation – TP18.**



**PLATE 42 – Trial Pit Spoil – TP18.**



**PLATE 43 – Trial Pit Excavation – TP19.**



**PLATE 44 – Trial Pit Spoil – TP19.**





**PLATE 45 – Trial Pit Excavation – TP20.**



**PLATE 46 – Trial Pit Spoil – TP20.**



**PLATE 47 – Trial Pit Excavation – TP21.**



**PLATE 48 – Trial Pit Spoil – TP21.**





**PLATE 49 – Trial Pit Excavation – TP22.**



**PLATE 50 – Trial Pit Spoil – TP22.**



**PLATE 51 – Trial Pit Excavation – TP23.**

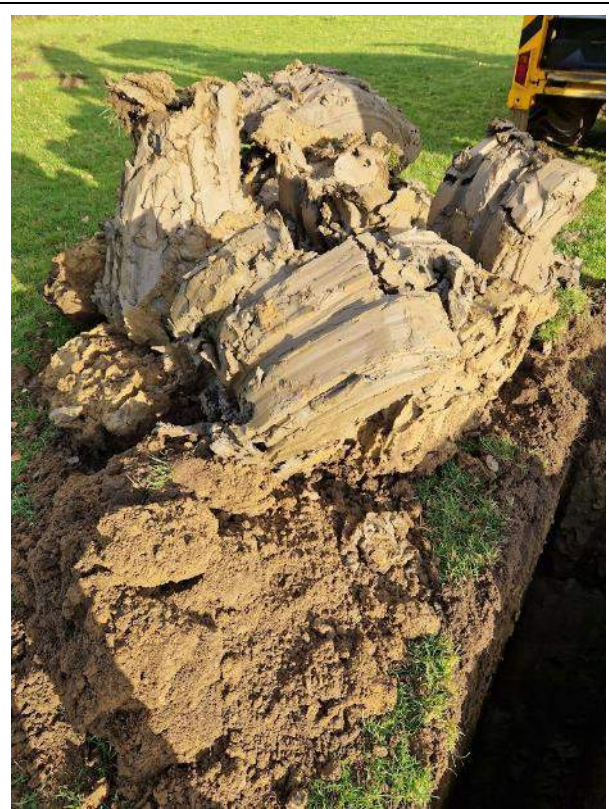


**PLATE 52 – Trial Pit Spoil – TP23.**





**PLATE 53 – Trial Pit Excavation – TP24.**



**PLATE 54 – Trial Pit Spoil – TP24.**



**PLATE 55 – Trial Pit Excavation – TP25.**



**PLATE 56 – Trial Pit Spoil – TP25.**





**PLATE 56 – Dynamic Windowless Sample Cores  
– WS01.**



**PLATE 57 – Dynamic Windowless Sample Cores – WS02.**



**PLATE 58 – Dynamic Windowless Sample Cores  
– WS03.**



**PLATE 59 – Dynamic Windowless Sample Cores – WS04.**





**PLATE 60 – Dynamic Windowless Sample Cores  
– WS05.**

## Appendix C – Exploratory Logs

|                                                                                                                                                  |                                     |                                    |                            |                        |                   |                                                                                                                                            |         |          |
|--------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------|------------------------------------|----------------------------|------------------------|-------------------|--------------------------------------------------------------------------------------------------------------------------------------------|---------|----------|
| <div>T&amp;P<br/>Regen</div> <div>www.tandpregeneration.co.uk</div>                                                                              | Contract Name:<br>Sketchley Lane    |                                    | Client:<br>Barwood Land    |                        |                   | Trial Pit ID:<br>TP01                                                                                                                      |         |          |
|                                                                                                                                                  | Contract Number:<br>P0866 / CS-1745 | Date Started:<br>01/02/2023        | Logged By:<br>RG           | Checked By:<br>TC      | Status:<br>FINAL  | Sheet 1 of 1                                                                                                                               |         |          |
|                                                                                                                                                  | Easting:<br>442583.72               | Northing:<br>292060.04             | Ground Level:<br>119.24mOD | Plant Used:<br>JCB 3CX |                   | Scale:<br>1:25                                                                                                                             |         |          |
| Trial Pit Log                                                                                                                                    |                                     |                                    |                            |                        |                   |                                                                                                                                            |         |          |
| Weather: Clear                                                                                                                                   |                                     | Termination: Engineers Instruction |                            |                        | Stability: Stable |                                                                                                                                            |         |          |
| Samples & In Situ Testing                                                                                                                        |                                     |                                    | Strata Details             |                        |                   |                                                                                                                                            | Water   | Backfill |
| Depth                                                                                                                                            | Sample ID                           | Test Result                        | Level (mAOD)               | Depth (m) (Thickness)  | Legend            | Strata Description                                                                                                                         |         |          |
| 0.10<br>0.10 - 0.20                                                                                                                              | ES<br>ES1                           |                                    | 119.04                     | 0.20                   |                   | Brown slightly clayey gravelly SAND. Gravel is subrounded to rounded fine to coarse of mudstone. (TOPSOIL)                                 |         |          |
| 0.50<br>0.50 - 0.60                                                                                                                              | ES<br>ES2                           |                                    |                            | (0.80)                 |                   | Reddish brown slightly clayey gravelly SAND. Gravel is subrounded to rounded fine to coarse of mudstone. (DUNSMORE GRAVEL)                 |         |          |
|                                                                                                                                                  |                                     |                                    | 118.24                     | 1.00                   |                   | Reddish brown gravelly clayey SAND. Gravel is subrounded to rounded fine to coarse of mudstone. (DUNSMORE GRAVEL)                          | 1       |          |
|                                                                                                                                                  |                                     |                                    |                            | (1.00)                 |                   |                                                                                                                                            |         |          |
|                                                                                                                                                  |                                     |                                    | 117.24                     | 2.00                   |                   | Reddish brown clayey very sandy GRAVEL. Gravel is subangular to rounded fine to coarse of sandstone, mudstone and flint. (DUNSMORE GRAVEL) | 2       |          |
|                                                                                                                                                  |                                     |                                    |                            | (0.50)                 |                   |                                                                                                                                            |         |          |
| 2.40 - 2.50                                                                                                                                      | D1                                  |                                    | 116.74                     | 2.50                   |                   | End of Trial Pit at 2.50m                                                                                                                  |         |          |
|                                                                                                                                                  |                                     |                                    |                            |                        |                   |                                                                                                                                            | 3       |          |
|                                                                                                                                                  |                                     |                                    |                            |                        |                   |                                                                                                                                            | 4       |          |
|                                                                                                                                                  |                                     |                                    |                            |                        |                   |                                                                                                                                            | 5       |          |
| Sample Key: B = Bulk Disturbed D = Small Disturbed U = Undisturbed Open-Drive W = Water G = Gas ES = Environmental Soil EW = Environmental Water |                                     |                                    |                            |                        |                   |                                                                                                                                            |         |          |
| Remarks:<br>Groundwater not encountered.                                                                                                         |                                     |                                    |                            |                        |                   | Dimensions:                                                                                                                                |         |          |
|                                                                                                                                                  |                                     |                                    |                            |                        |                   | Length: 2.50m                                                                                                                              |         |          |
|                                                                                                                                                  |                                     |                                    |                            |                        |                   | Width: 0.60m                                                                                                                               |         |          |
|                                                                                                                                                  |                                     |                                    |                            |                        |                   | Orientation: °                                                                                                                             |         |          |
|                                                                                                                                                  |                                     |                                    |                            |                        |                   |                                                                                                                                            |         |          |
|                                                                                                                                                  |                                     |                                    |                            |                        |                   | Groundwater Details                                                                                                                        |         |          |
|                                                                                                                                                  |                                     |                                    |                            |                        |                   | Depth encountered (m)                                                                                                                      | Remarks |          |
|                                                                                                                                                  |                                     |                                    |                            |                        |                   |                                                                                                                                            |         |          |
| T&P Regeneration TP Template Issue Number: 1 Issue Date: June 2016                                                                               |                                     |                                    |                            |                        |                   |                                                                                                                                            |         |          |

|                                                                                                                                                  |                                  |             |                          |                                    |                                                                                   |                                                                                                                                        |                     |                   |               |          |  |
|--------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------|-------------|--------------------------|------------------------------------|-----------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------|---------------------|-------------------|---------------|----------|--|
| <div><div>T&amp;P</div><div>Regen</div><div>www.tandpregeneration.co.uk</div></div>                                                              | Contract Name: Sketchley Lane    |             |                          | Client: Barwood Land               |                                                                                   |                                                                                                                                        | Trial Pit ID: TP02  |                   |               |          |  |
|                                                                                                                                                  | Contract Number: P0866 / CS-1745 |             | Date Started: 01/02/2023 |                                    | Logged By: RG                                                                     |                                                                                                                                        | Checked By: TC      |                   | Status: FINAL |          |  |
|                                                                                                                                                  | Easting: 442539.45               |             | Northing: 292051.18      |                                    | Ground Level: 118.47mOD                                                           |                                                                                                                                        | Plant Used: JCB 3CX |                   | Scale: 1:25   |          |  |
| Trial Pit Log                                                                                                                                    |                                  |             |                          |                                    |                                                                                   |                                                                                                                                        |                     |                   |               |          |  |
| Weather: Clear                                                                                                                                   |                                  |             |                          | Termination: Engineers Instruction |                                                                                   |                                                                                                                                        |                     | Stability: Stable |               |          |  |
| Samples & In Situ Testing                                                                                                                        |                                  |             | Strata Details           |                                    |                                                                                   |                                                                                                                                        |                     |                   | Water         | Backfill |  |
| Depth                                                                                                                                            | Sample ID                        | Test Result | Level (mAOD)             | Depth (m) (Thickness)              | Legend                                                                            | Strata Description                                                                                                                     |                     |                   |               |          |  |
| 0.10<br>0.10 - 0.20                                                                                                                              | ES<br>ES1                        |             | 118.27                   | 0.20                               |  | Brown slightly clayey gravelly SAND. Gravel is subrounded to rounded fine to coarse of mudstone. (TOPSOIL)                             |                     |                   |               |          |  |
| 0.50<br>0.50 - 0.60                                                                                                                              | ES<br>ES2                        |             |                          | (0.80)                             |  | Very soft reddish brown gravelly very sandy CLAY. Gravel is subrounded to rounded fine to coarse of mudstone and chalk. (OADBY MEMBER) |                     |                   |               |          |  |
|                                                                                                                                                  |                                  |             | 117.47                   | 1.00                               |  | Reddish brown SAND. (OADBY MEMBER)                                                                                                     |                     | 1                 |               |          |  |
|                                                                                                                                                  |                                  |             |                          | (1.50)                             |  |                                                                                                                                        |                     | 2                 |               |          |  |
| 2.40 - 2.50                                                                                                                                      | D1                               |             | 115.97                   | 2.50                               |  | End of Trial Pit at 2.50m                                                                                                              |                     | 3                 |               |          |  |
|                                                                                                                                                  |                                  |             |                          |                                    |                                                                                   |                                                                                                                                        |                     | 4                 |               |          |  |
|                                                                                                                                                  |                                  |             |                          |                                    |                                                                                   |                                                                                                                                        |                     | 5                 |               |          |  |
| Sample Key: B = Bulk Disturbed D = Small Disturbed U = Undisturbed Open-Drive W = Water G = Gas ES = Environmental Soil EW = Environmental Water |                                  |             |                          |                                    |                                                                                   |                                                                                                                                        |                     |                   |               |          |  |
| Remarks:<br>Groundwater not encountered.                                                                                                         |                                  |             |                          |                                    |                                                                                   | Dimensions:                                                                                                                            |                     |                   |               |          |  |
|                                                                                                                                                  |                                  |             |                          |                                    |                                                                                   | Length: 2.50m                                                                                                                          |                     | Orientation: °    |               |          |  |
|                                                                                                                                                  |                                  |             |                          |                                    |                                                                                   | Width: 0.60m                                                                                                                           |                     |                   |               |          |  |
|                                                                                                                                                  |                                  |             |                          |                                    |                                                                                   | Groundwater Details                                                                                                                    |                     |                   |               |          |  |
|                                                                                                                                                  |                                  |             |                          |                                    |                                                                                   | Depth encountered (m)                                                                                                                  |                     | Remarks           |               |          |  |
| T&P Regeneration TP Template Issue Number: 1 Issue Date: June 2016                                                                               |                                  |             |                          |                                    |                                                                                   |                                                                                                                                        |                     |                   |               |          |  |



|                                                                                                                                                  |                                     |                      |                             |                                    |                            |                                                                                                                                                                                                                           |                                                                                                                                          |                   |                  |  |       |                       |         |  |  |
|--------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------|----------------------|-----------------------------|------------------------------------|----------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------|-------------------|------------------|--|-------|-----------------------|---------|--|--|
| <div>T&amp;P<br/>Regen</div> <div>www.tandpregeneration.co.uk</div>                                                                              | Contract Name:<br>Sketchley Lane    |                      |                             | Client:<br>Barwood Land            |                            |                                                                                                                                                                                                                           | Trial Pit ID:<br>TP03                                                                                                                    |                   |                  |  |       |                       |         |  |  |
|                                                                                                                                                  | Contract Number:<br>P0866 / CS-1745 |                      | Date Started:<br>01/02/2023 |                                    | Logged By:<br>RG           |                                                                                                                                                                                                                           | Checked By:<br>TC                                                                                                                        |                   | Status:<br>FINAL |  |       |                       |         |  |  |
|                                                                                                                                                  | Easting:<br>442573.13               |                      | Northing:<br>292015.34      |                                    | Ground Level:<br>118.44mOD |                                                                                                                                                                                                                           | Plant Used:<br>JCB 3CX                                                                                                                   |                   | Scale:<br>1:25   |  |       |                       |         |  |  |
| Trial Pit Log                                                                                                                                    |                                     |                      |                             |                                    |                            |                                                                                                                                                                                                                           |                                                                                                                                          |                   |                  |  |       |                       |         |  |  |
| Weather: Clear                                                                                                                                   |                                     |                      |                             | Termination: Engineers Instruction |                            |                                                                                                                                                                                                                           |                                                                                                                                          | Stability: Stable |                  |  |       |                       |         |  |  |
| Samples & In Situ Testing                                                                                                                        |                                     |                      |                             | Strata Details                     |                            |                                                                                                                                                                                                                           |                                                                                                                                          |                   |                  |  | Water | Backfill              |         |  |  |
| Depth                                                                                                                                            | Sample ID                           | Test Result          | Level (mAOD)                | Depth (m) (Thickness)              | Legend                     | Strata Description                                                                                                                                                                                                        |                                                                                                                                          |                   |                  |  |       |                       |         |  |  |
| 0.10<br>0.10 - 0.20                                                                                                                              | ES<br>ES1                           | HV 1.50m, 70 / 46kPa | 118.24                      | 0.20                               |                            | Brown slightly clayey gravelly SAND. Gravel is subrounded to rounded fine to coarse of mudstone. (TOPSOIL)                                                                                                                |                                                                                                                                          |                   |                  |  |       |                       |         |  |  |
|                                                                                                                                                  |                                     |                      |                             |                                    | (0.30)                     |                                                                                                                                                                                                                           | Reddish brown slightly clayey gravelly SAND. Gravel is subrounded to rounded fine to coarse of mudstone, flint and chalk. (OADBY MEMBER) |                   |                  |  |       |                       |         |  |  |
| 0.50<br>0.50 - 0.60                                                                                                                              | ES<br>ES2                           |                      |                             | 117.94                             | 0.50                       |                                                                                                                                                                                                                           | Firm reddish brown slightly gravelly CLAY. Gravel is subrounded to rounded fine to coarse of mudstone. (OADBY MEMBER)                    |                   |                  |  |       |                       |         |  |  |
|                                                                                                                                                  |                                     |                      |                             | (1.30)                             |                            |                                                                                                                                                                                                                           |                                                                                                                                          |                   | 1                |  |       |                       |         |  |  |
| 1.90 - 2.00<br>1.90 - 2.00                                                                                                                       | B1<br>D1                            | HV 2.20m, 80 / 60kPa | 116.64                      | 1.80                               |                            | Reddish brown clayey very sandy GRAVEL. Gravel is subangular to rounded fine to coarse of sandstone, mudstone, flint and chalk. (OADBY MEMBER)                                                                            |                                                                                                                                          |                   | 2                |  |       |                       |         |  |  |
|                                                                                                                                                  |                                     |                      |                             | 116.34                             | 2.10                       |                                                                                                                                                                                                                           | Stiff reddish brown slightly gravelly CLAY. Gravel is subrounded to rounded fine to coarse of mudstone and chalk. (OADBY MEMBER)         |                   |                  |  |       |                       |         |  |  |
|                                                                                                                                                  |                                     |                      |                             |                                    | (0.40)                     |                                                                                                                                                                                                                           |                                                                                                                                          |                   |                  |  |       |                       |         |  |  |
| 2.40 - 2.50                                                                                                                                      | D2                                  |                      | 115.94                      | 2.50                               | End of Trial Pit at 2.50m  |                                                                                                                                                                                                                           |                                                                                                                                          |                   |                  |  |       |                       |         |  |  |
|                                                                                                                                                  |                                     |                      |                             |                                    |                            |                                                                                                                                                                                                                           |                                                                                                                                          |                   | 3                |  |       |                       |         |  |  |
|                                                                                                                                                  |                                     |                      |                             |                                    |                            |                                                                                                                                                                                                                           |                                                                                                                                          |                   | 4                |  |       |                       |         |  |  |
|                                                                                                                                                  |                                     |                      |                             |                                    |                            |                                                                                                                                                                                                                           |                                                                                                                                          |                   | 5                |  |       |                       |         |  |  |
| Sample Key: B = Bulk Disturbed D = Small Disturbed U = Undisturbed Open-Drive W = Water G = Gas ES = Environmental Soil EW = Environmental Water |                                     |                      |                             |                                    |                            |                                                                                                                                                                                                                           |                                                                                                                                          |                   |                  |  |       |                       |         |  |  |
| Remarks:<br>Groundwater not encountered.                                                                                                         |                                     |                      |                             |                                    |                            | <div>Dimensions:<br/>Length: 2.50m<br/>Width: 0.60m</div> <div>Orientation: °<br/></div> <div>Groundwater Details</div> <table><tr><td>Depth encountered (m)</td><td>Remarks</td></tr><tr><td></td><td></td></tr></table> |                                                                                                                                          |                   |                  |  |       | Depth encountered (m) | Remarks |  |  |
| Depth encountered (m)                                                                                                                            | Remarks                             |                      |                             |                                    |                            |                                                                                                                                                                                                                           |                                                                                                                                          |                   |                  |  |       |                       |         |  |  |
|                                                                                                                                                  |                                     |                      |                             |                                    |                            |                                                                                                                                                                                                                           |                                                                                                                                          |                   |                  |  |       |                       |         |  |  |
| T&P Regeneration TP Template Issue Number: 1 Issue Date: June 2016                                                                               |                                     |                      |                             |                                    |                            |                                                                                                                                                                                                                           |                                                                                                                                          |                   |                  |  |       |                       |         |  |  |

|                                                                                                                                                              |                                  |                      |                          |                       |                           |                                                                                                                                                                |                     |                |                   |          |  |
|--------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------|----------------------|--------------------------|-----------------------|---------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------|----------------|-------------------|----------|--|
| <div><div>T&amp;P</div><div>Regen</div><div>www.tandpregeneration.co.uk</div></div>                                                                          | Contract Name: Sketchley Lane    |                      |                          | Client: Barwood Land  |                           |                                                                                                                                                                | Trial Pit ID: TP04  |                |                   |          |  |
|                                                                                                                                                              | Contract Number: P0866 / CS-1745 |                      | Date Started: 01/02/2023 |                       | Logged By: RG             |                                                                                                                                                                | Checked By: TC      |                | Status: FINAL     |          |  |
|                                                                                                                                                              | Easting: 442539.47               |                      | Northing: 291981.61      |                       | Ground Level: 117.35mOD   |                                                                                                                                                                | Plant Used: JCB 3CX |                | Scale: 1:25       |          |  |
| Trial Pit Log                                                                                                                                                |                                  |                      | Weather: Clear           |                       |                           | Termination: Engineers Instruction                                                                                                                             |                     |                | Stability: Stable |          |  |
| Samples & In Situ Testing                                                                                                                                    |                                  |                      | Strata Details           |                       |                           |                                                                                                                                                                |                     |                | Water             | Backfill |  |
| Depth                                                                                                                                                        | Sample ID                        | Test Result          | Level (mAOD)             | Depth (m) (Thickness) | Legend                    | Strata Description                                                                                                                                             |                     |                |                   |          |  |
| 0.10<br>0.10 - 0.20                                                                                                                                          | ES<br>ES1                        | HV 1.00m, 52 / 42kPa | 117.15                   | 0.20                  |                           | Brown slightly gravelly clayey SAND. Gravel is subrounded to rounded fine to coarse of mudstone. (TOPSOIL)                                                     |                     | 1              |                   |          |  |
| 0.50<br>0.50 - 0.60                                                                                                                                          | ES<br>ES2                        |                      |                          | (1.10)                |                           | Firm orangish brown slightly gravelly slightly sandy CLAY. Gravel is subangular to rounded fine to coarse of mudstone and chalk. (OADBY MEMBER)                |                     |                |                   |          |  |
| 2.20 - 2.30                                                                                                                                                  | D1                               |                      | 116.05                   | 1.30                  |                           | Firm reddish brown slightly gravelly friable CLAY with grey concretions. Gravel is subangular to rounded fine to coarse of mudstone and chalk. (OADBY MEMBER ) |                     | 2              |                   |          |  |
|                                                                                                                                                              |                                  |                      |                          | (1.20)                |                           |                                                                                                                                                                |                     |                |                   |          |  |
|                                                                                                                                                              |                                  | 114.85               | 2.50                     |                       | End of Trial Pit at 2.50m |                                                                                                                                                                | 3                   |                |                   |          |  |
|                                                                                                                                                              |                                  |                      |                          |                       |                           |                                                                                                                                                                | 4                   |                |                   |          |  |
|                                                                                                                                                              |                                  |                      |                          |                       |                           |                                                                                                                                                                | 5                   |                |                   |          |  |
| Sample Key: B = Bulk Disturbed   D = Small Disturbed   U = Undisturbed Open-Drive   W = Water   G = Gas   ES = Environmental Soil   EW = Environmental Water |                                  |                      |                          |                       |                           |                                                                                                                                                                |                     |                |                   |          |  |
| Remarks:<br>Groundwater not encountered.                                                                                                                     |                                  |                      |                          |                       |                           | Dimensions:                                                                                                                                                    |                     |                |                   |          |  |
|                                                                                                                                                              |                                  |                      |                          |                       |                           | Length: 2.50m                                                                                                                                                  |                     | Orientation: ° |                   |          |  |
|                                                                                                                                                              |                                  |                      |                          |                       |                           | Width: 0.60m                                                                                                                                                   |                     |                |                   |          |  |
|                                                                                                                                                              |                                  |                      |                          |                       |                           | Groundwater Details                                                                                                                                            |                     |                |                   |          |  |
|                                                                                                                                                              |                                  |                      |                          |                       |                           | Depth encountered (m)                                                                                                                                          |                     | Remarks        |                   |          |  |
| T&P Regeneration TP Template   Issue Number: 1   Issue Date: June 2016                                                                                       |                                  |                      |                          |                       |                           |                                                                                                                                                                |                     |                |                   |          |  |

|                                                                                                                                                  |                                     |                             |                                    |                        |                                                                                                                                                                                                                           |                                                                                                                                                                |  |       |          |                       |         |  |  |
|--------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------|-----------------------------|------------------------------------|------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------|--|-------|----------|-----------------------|---------|--|--|
| <div>T&amp;P<br/>Regen</div> <div>www.tandpregeneration.co.uk</div>                                                                              | Contract Name:<br>Sketchley Lane    |                             | Client:<br>Barwood Land            |                        |                                                                                                                                                                                                                           | Trial Pit ID:<br>TP05                                                                                                                                          |  |       |          |                       |         |  |  |
|                                                                                                                                                  | Contract Number:<br>P0866 / CS-1745 | Date Started:<br>01/02/2023 | Logged By:<br>RG                   | Checked By:<br>TC      | Status:<br>FINAL                                                                                                                                                                                                          | Sheet 1 of 1                                                                                                                                                   |  |       |          |                       |         |  |  |
|                                                                                                                                                  | Easting:<br>442625.26               | Northing:<br>291977.42      | Ground Level:<br>117.94mOD         | Plant Used:<br>JCB 3CX |                                                                                                                                                                                                                           | Scale:<br>1:25                                                                                                                                                 |  |       |          |                       |         |  |  |
| Trial Pit Log                                                                                                                                    |                                     |                             |                                    |                        |                                                                                                                                                                                                                           |                                                                                                                                                                |  |       |          |                       |         |  |  |
| Weather: Clear                                                                                                                                   |                                     |                             | Termination: Engineers Instruction |                        |                                                                                                                                                                                                                           | Stability: Stable                                                                                                                                              |  |       |          |                       |         |  |  |
| Samples & In Situ Testing                                                                                                                        |                                     |                             | Strata Details                     |                        |                                                                                                                                                                                                                           |                                                                                                                                                                |  | Water | Backfill |                       |         |  |  |
| Depth                                                                                                                                            | Sample ID                           | Test Result                 | Level (mAOD)                       | Depth (m) (Thickness)  | Legend                                                                                                                                                                                                                    | Strata Description                                                                                                                                             |  |       |          |                       |         |  |  |
| 0.10<br>0.10 - 0.20                                                                                                                              | ES<br>ES1                           |                             | 117.74                             | 0.20                   |                                                                                                                                                                                                                           | Brown slightly clayey slightly gravelly SAND. Gravel is subrounded to rounded fine to coarse of mudstone. (TOPSOIL)                                            |  | 1     |          |                       |         |  |  |
| 0.50<br>0.50 - 0.60                                                                                                                              | ES<br>ES2                           |                             |                                    |                        |                                                                                                                                                                                                                           | Reddish brown slightly clayey gravelly SAND. Gravel is subrounded to rounded fine to coarse of mudstone and chalk. (OADBY MEMBER)                              |  |       |          |                       |         |  |  |
| 1.90 - 2.00                                                                                                                                      | D1                                  |                             |                                    | (2.20)                 |                                                                                                                                                                                                                           |                                                                                                                                                                |  | 2     |          |                       |         |  |  |
|                                                                                                                                                  |                                     |                             |                                    |                        |                                                                                                                                                                                                                           |                                                                                                                                                                |  |       |          |                       |         |  |  |
|                                                                                                                                                  |                                     |                             | 115.54<br>115.44                   | 2.40<br>2.50           |                                                                                                                                                                                                                           | Firm reddish brown gravelly very sandy CLAY with moderate cobble content. Gravel is subrounded to rounded fine to coarse of mudstone and chalk. (OADBY MEMBER) |  | 3     |          |                       |         |  |  |
|                                                                                                                                                  |                                     |                             |                                    |                        |                                                                                                                                                                                                                           | End of Trial Pit at 2.50m                                                                                                                                      |  |       |          |                       |         |  |  |
|                                                                                                                                                  |                                     |                             |                                    |                        |                                                                                                                                                                                                                           |                                                                                                                                                                |  | 4     |          |                       |         |  |  |
|                                                                                                                                                  |                                     |                             |                                    |                        |                                                                                                                                                                                                                           |                                                                                                                                                                |  |       |          |                       |         |  |  |
|                                                                                                                                                  |                                     |                             |                                    |                        |                                                                                                                                                                                                                           |                                                                                                                                                                |  | 5     |          |                       |         |  |  |
|                                                                                                                                                  |                                     |                             |                                    |                        |                                                                                                                                                                                                                           |                                                                                                                                                                |  |       |          |                       |         |  |  |
| Sample Key: B = Bulk Disturbed D = Small Disturbed U = Undisturbed Open-Drive W = Water G = Gas ES = Environmental Soil EW = Environmental Water |                                     |                             |                                    |                        |                                                                                                                                                                                                                           |                                                                                                                                                                |  |       |          |                       |         |  |  |
| Remarks:<br>Groundwater not encountered.                                                                                                         |                                     |                             |                                    |                        | <div>Dimensions:<br/>Length: 2.50m<br/>Width: 0.60m</div> <div>Orientation: °<br/></div> <div>Groundwater Details</div> <table><tr><td>Depth encountered (m)</td><td>Remarks</td></tr><tr><td></td><td></td></tr></table> |                                                                                                                                                                |  |       |          | Depth encountered (m) | Remarks |  |  |
| Depth encountered (m)                                                                                                                            | Remarks                             |                             |                                    |                        |                                                                                                                                                                                                                           |                                                                                                                                                                |  |       |          |                       |         |  |  |
|                                                                                                                                                  |                                     |                             |                                    |                        |                                                                                                                                                                                                                           |                                                                                                                                                                |  |       |          |                       |         |  |  |
| T&P Regeneration TP Template Issue Number: 1 Issue Date: June 2016                                                                               |                                     |                             |                                    |                        |                                                                                                                                                                                                                           |                                                                                                                                                                |  |       |          |                       |         |  |  |

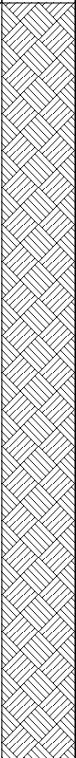
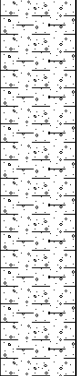
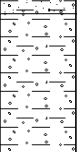
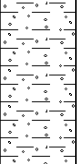
|                                                                                                                                                  |                                     |                                    |                            |                        |                   |                                                                                                                                                    |         |          |
|--------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------|------------------------------------|----------------------------|------------------------|-------------------|----------------------------------------------------------------------------------------------------------------------------------------------------|---------|----------|
| <div>T&amp;P<br/>Regen</div> <div>www.tandpregeneration.co.uk</div>                                                                              | Contract Name:<br>Sketchley Lane    |                                    | Client:<br>Barwood Land    |                        |                   | Trial Pit ID:<br>TP06                                                                                                                              |         |          |
|                                                                                                                                                  | Contract Number:<br>P0866 / CS-1745 | Date Started:<br>01/02/2023        | Logged By:<br>RG           | Checked By:<br>TC      | Status:<br>FINAL  | Sheet 1 of 1                                                                                                                                       |         |          |
|                                                                                                                                                  | Easting:<br>442569.93               | Northing:<br>291930.99             | Ground Level:<br>116.20mOD | Plant Used:<br>JCB 3CX |                   | Scale:<br>1:25                                                                                                                                     |         |          |
| Trial Pit Log                                                                                                                                    |                                     |                                    |                            |                        |                   |                                                                                                                                                    |         |          |
| Weather: Clear                                                                                                                                   |                                     | Termination: Engineers Instruction |                            |                        | Stability: Stable |                                                                                                                                                    |         |          |
| Samples & In Situ Testing                                                                                                                        |                                     |                                    | Strata Details             |                        |                   |                                                                                                                                                    | Water   | Backfill |
| Depth                                                                                                                                            | Sample ID                           | Test Result                        | Level (mAOD)               | Depth (m) (Thickness)  | Legend            | Strata Description                                                                                                                                 |         |          |
| 0.10<br>0.10 - 0.20                                                                                                                              | ES<br>ES1                           | HV 1.00m, 78 / 58kPa               | 116.00                     | 0.20                   |                   | Brown slightly gravelly clayey SAND. Gravel is subrounded to rounded fine to coarse of mudstone.<br>(TOPSOIL)                                      | 1       |          |
| 0.50<br>0.50 - 0.60                                                                                                                              | ES<br>ES2                           |                                    |                            | (1.30)                 |                   | Stiff reddish brown slightly sandy slightly gravelly CLAY. Gravel is subrounded to rounded fine to coarse of mudstone and chalk.<br>(OADBY MEMBER) |         |          |
|                                                                                                                                                  |                                     |                                    |                            |                        |                   |                                                                                                                                                    |         |          |
|                                                                                                                                                  |                                     |                                    | 114.70                     | 1.50                   |                   | Reddish brown slightly gravelly clayey SAND. Gravel is subrounded to rounded fine to coarse of mudstone and chalk.<br>(OADBY MEMBER)               | 2       |          |
|                                                                                                                                                  |                                     |                                    |                            | (1.00)                 |                   |                                                                                                                                                    |         |          |
| 2.40 - 2.50                                                                                                                                      | D1                                  |                                    | 113.70                     | 2.50                   |                   | End of Trial Pit at 2.50m                                                                                                                          | 3       |          |
|                                                                                                                                                  |                                     |                                    |                            |                        |                   |                                                                                                                                                    | 4       |          |
|                                                                                                                                                  |                                     |                                    |                            |                        |                   |                                                                                                                                                    | 5       |          |
| Sample Key: B = Bulk Disturbed D = Small Disturbed U = Undisturbed Open-Drive W = Water G = Gas ES = Environmental Soil EW = Environmental Water |                                     |                                    |                            |                        |                   |                                                                                                                                                    |         |          |
| Remarks:<br>Groundwater not encountered.                                                                                                         |                                     |                                    |                            |                        |                   | Dimensions:                                                                                                                                        |         |          |
|                                                                                                                                                  |                                     |                                    |                            |                        |                   | Length: 2.50m                                                                                                                                      |         |          |
|                                                                                                                                                  |                                     |                                    |                            |                        |                   | Width: 0.60m                                                                                                                                       |         |          |
|                                                                                                                                                  |                                     |                                    |                            |                        |                   | Orientation: °                                                                                                                                     |         |          |
|                                                                                                                                                  |                                     |                                    |                            |                        |                   |                                                                                                                                                    |         |          |
|                                                                                                                                                  |                                     |                                    |                            |                        |                   | Groundwater Details                                                                                                                                |         |          |
|                                                                                                                                                  |                                     |                                    |                            |                        |                   | Depth encountered (m)                                                                                                                              | Remarks |          |
|                                                                                                                                                  |                                     |                                    |                            |                        |                   |                                                                                                                                                    |         |          |
|                                                                                                                                                  |                                     |                                    |                            |                        |                   | T&P Regeneration TP Template Issue Number: 1 Issue Date: June 2016                                                                                 |         |          |



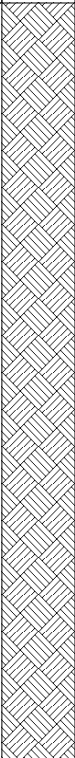
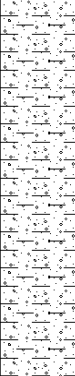
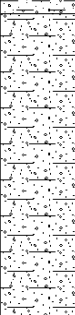
|                                                                                                                                                  |                                     |                             |                                    |                        |                  |                                                                                                                                                                                 |   |                       |          |
|--------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------|-----------------------------|------------------------------------|------------------------|------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---|-----------------------|----------|
| <div>T&amp;P<br/>Regen</div> <div>www.tandpregeneration.co.uk</div>                                                                              | Contract Name:<br>Sketchley Lane    |                             | Client:<br>Barwood Land            |                        |                  | Trial Pit ID:<br>TP07                                                                                                                                                           |   |                       |          |
|                                                                                                                                                  | Contract Number:<br>P0866 / CS-1745 | Date Started:<br>01/02/2023 | Logged By:<br>RG                   | Checked By:<br>TC      | Status:<br>FINAL | Sheet 1 of 1                                                                                                                                                                    |   |                       |          |
|                                                                                                                                                  | Easting:<br>442515.14               | Northing:<br>291931.87      | Ground Level:<br>115.08mOD         | Plant Used:<br>JCB 3CX |                  | Scale:<br>1:25                                                                                                                                                                  |   |                       |          |
| Trial Pit Log                                                                                                                                    |                                     |                             |                                    |                        |                  |                                                                                                                                                                                 |   |                       |          |
| Weather: Clear                                                                                                                                   |                                     |                             | Termination: Engineers Instruction |                        |                  | Stability: Stable                                                                                                                                                               |   |                       |          |
| Samples & In Situ Testing                                                                                                                        |                                     |                             | Strata Details                     |                        |                  |                                                                                                                                                                                 |   | Water                 | Backfill |
| Depth                                                                                                                                            | Sample ID                           | Test Result                 | Level (mAOD)                       | Depth (m) (Thickness)  | Legend           | Strata Description                                                                                                                                                              |   |                       |          |
| 0.10<br>0.10 - 0.20                                                                                                                              | ES<br>ES1                           | HV 1.00m, 50 / 36kPa        | 114.88                             | 0.20                   |                  | Brown slightly gravelly clayey SAND. Gravel is subrounded to rounded fine to coarse of mudstone.<br>(TOPSOIL)                                                                   | 1 |                       |          |
| 0.50<br>0.50 - 0.60                                                                                                                              | ES<br>ES2                           |                             | 113.58                             | 1.50                   |                  | Firm reddish brown slightly sandy slightly gravelly friable CLAY with grey concretions. Gravel is subrounded to rounded fine to coarse of mudstone and chalk.<br>(OADBY MEMBER) |   |                       |          |
| 1.90 - 2.00                                                                                                                                      | D1                                  |                             |                                    |                        |                  | (1.30)                                                                                                                                                                          |   |                       | (1.00)   |
|                                                                                                                                                  |                                     |                             | 112.58                             | 2.50                   |                  | End of Trial Pit at 2.50m                                                                                                                                                       |   |                       | 2        |
|                                                                                                                                                  |                                     |                             |                                    |                        |                  |                                                                                                                                                                                 | 3 |                       |          |
|                                                                                                                                                  |                                     |                             |                                    |                        |                  |                                                                                                                                                                                 | 4 |                       |          |
|                                                                                                                                                  |                                     |                             |                                    |                        |                  |                                                                                                                                                                                 | 5 |                       |          |
| Sample Key: B = Bulk Disturbed D = Small Disturbed U = Undisturbed Open-Drive W = Water G = Gas ES = Environmental Soil EW = Environmental Water |                                     |                             |                                    |                        |                  |                                                                                                                                                                                 |   |                       |          |
| Remarks:<br>Groundwater not encountered.                                                                                                         |                                     |                             |                                    |                        |                  | Dimensions:                                                                                                                                                                     |   |                       |          |
|                                                                                                                                                  |                                     |                             |                                    |                        |                  | Length: 2.50m                                                                                                                                                                   |   |                       |          |
|                                                                                                                                                  |                                     |                             |                                    |                        |                  | Width: 0.60m                                                                                                                                                                    |   |                       |          |
|                                                                                                                                                  |                                     |                             |                                    |                        |                  | Orientation: °                                                                                                                                                                  |   |                       |          |
|                                                                                                                                                  |                                     |                             |                                    |                        |                  |                                                                                                                                                                                 |   |                       |          |
|                                                                                                                                                  |                                     |                             |                                    |                        |                  | Groundwater Details                                                                                                                                                             |   |                       |          |
|                                                                                                                                                  |                                     |                             |                                    |                        |                  | Depth encountered (m) Remarks                                                                                                                                                   |   |                       |          |
|                                                                                                                                                  |                                     |                             |                                    |                        |                  |                                                                                                                                                                                 |   |                       |          |
|                                                                                                                                                  |                                     |                             |                                    |                        |                  |                                                                                                                                                                                 |   |                       |          |
| T&P Regeneration TP Template                                                                                                                     |                                     |                             |                                    |                        |                  | Issue Number: 1                                                                                                                                                                 |   | Issue Date: June 2016 |          |

|                                                                                                                                                  |                                     |                                    |                            |                        |                                                                    |                                                                                                                       |                |       |          |
|--------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------|------------------------------------|----------------------------|------------------------|--------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------|----------------|-------|----------|
| <div>T&amp;P<br/>Regen</div> <div>www.tandpregeneration.co.uk</div>                                                                              | Contract Name:<br>Sketchley Lane    |                                    | Client:<br>Barwood Land    |                        |                                                                    | Trial Pit ID:<br>TP08                                                                                                 |                |       |          |
|                                                                                                                                                  | Contract Number:<br>P0866 / CS-1745 | Date Started:<br>01/02/2023        | Logged By:<br>RG           | Checked By:<br>TC      | Status:<br>FINAL                                                   | Sheet 1 of 1                                                                                                          |                |       |          |
|                                                                                                                                                  | Easting:<br>442640.03               | Northing:<br>291942.34             | Ground Level:<br>116.51mOD | Plant Used:<br>JCB 3CX |                                                                    | Scale:<br>1:25                                                                                                        |                |       |          |
| Trial Pit Log                                                                                                                                    |                                     |                                    |                            |                        |                                                                    |                                                                                                                       |                |       |          |
| Weather: Clear                                                                                                                                   |                                     | Termination: Engineers Instruction |                            |                        | Stability: Stable                                                  |                                                                                                                       |                |       |          |
| Samples & In Situ Testing                                                                                                                        |                                     |                                    | Strata Details             |                        |                                                                    |                                                                                                                       |                | Water | Backfill |
| Depth                                                                                                                                            | Sample ID                           | Test Result                        | Level (mAOD)               | Depth (m) (Thickness)  | Legend                                                             | Strata Description                                                                                                    |                |       |          |
| 0.10<br>0.10 - 0.20                                                                                                                              | ES<br>ES1                           | HV 1.20m, 112 / 88kPa              | 116.31                     | 0.20                   |                                                                    | Brown slightly gravelly clayey SAND. Gravel is subrounded to rounded fine to coarse of mudstone. (TOPSOIL)            | 1              |       |          |
| 0.50<br>0.50 - 0.60                                                                                                                              | ES<br>ES2                           |                                    | 115.81                     | 0.70                   |                                                                    | Brown gravelly very clayey SAND. Gravel is subrounded to rounded fine to coarse of mudstone and chalk. (OADBY MEMBER) |                |       |          |
|                                                                                                                                                  |                                     |                                    |                            | 0.70                   |                                                                    | Stiff brown sandy gravelly CLAY. Gravel is subrounded to rounded fine to coarse of mudstone and chalk. (OADBY MEMBER) |                |       |          |
|                                                                                                                                                  |                                     |                                    |                            | (1.80)                 |                                                                    |                                                                                                                       | 2              |       |          |
| 2.40 - 2.50                                                                                                                                      | D1                                  | HV 2.50m, 82 / 26kPa               | 114.01                     | 2.50                   |                                                                    | End of Trial Pit at 2.50m                                                                                             | 3              |       |          |
|                                                                                                                                                  |                                     |                                    |                            |                        |                                                                    |                                                                                                                       | 4              |       |          |
|                                                                                                                                                  |                                     |                                    |                            |                        |                                                                    |                                                                                                                       | 5              |       |          |
| Sample Key: B = Bulk Disturbed D = Small Disturbed U = Undisturbed Open-Drive W = Water G = Gas ES = Environmental Soil EW = Environmental Water |                                     |                                    |                            |                        |                                                                    |                                                                                                                       |                |       |          |
| Remarks:<br>Groundwater not encountered.                                                                                                         |                                     |                                    |                            |                        | Dimensions:                                                        |                                                                                                                       |                |       |          |
|                                                                                                                                                  |                                     |                                    |                            |                        | Length: 2.50m                                                      |                                                                                                                       | Orientation: ° |       |          |
|                                                                                                                                                  |                                     |                                    |                            |                        | Width: 0.60m                                                       |                                                                                                                       |                |       |          |
|                                                                                                                                                  |                                     |                                    |                            |                        | Groundwater Details                                                |                                                                                                                       |                |       |          |
|                                                                                                                                                  |                                     |                                    |                            |                        | Depth encountered (m)                                              |                                                                                                                       | Remarks        |       |          |
|                                                                                                                                                  |                                     |                                    |                            |                        |                                                                    |                                                                                                                       |                |       |          |
|                                                                                                                                                  |                                     |                                    |                            |                        | T&P Regeneration TP Template Issue Number: 1 Issue Date: June 2016 |                                                                                                                       |                |       |          |



|                                                                                                                                                  |                                     |                                    |                            |                        |                                                                                    |                                                                                                                                                                        |                |                                                                                      |          |
|--------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------|------------------------------------|----------------------------|------------------------|------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------|--------------------------------------------------------------------------------------|----------|
| <div>T&amp;P<br/>Regen</div> <div>www.tandpregeneration.co.uk</div>                                                                              | Contract Name:<br>Sketchley Lane    |                                    | Client:<br>Barwood Land    |                        |                                                                                    | Trial Pit ID:<br>TP10                                                                                                                                                  |                |                                                                                      |          |
|                                                                                                                                                  | Contract Number:<br>P0866 / CS-1745 | Date Started:<br>01/02/2023        | Logged By:<br>RG           | Checked By:<br>TC      | Status:<br>FINAL                                                                   | Sheet 1 of 1                                                                                                                                                           |                |                                                                                      |          |
|                                                                                                                                                  | Easting:<br>442510.34               | Northing:<br>291903.13             | Ground Level:<br>113.85mOD | Plant Used:<br>JCB 3CX |                                                                                    | Scale:<br>1:25                                                                                                                                                         |                |                                                                                      |          |
| Trial Pit Log                                                                                                                                    |                                     |                                    |                            |                        |                                                                                    |                                                                                                                                                                        |                |                                                                                      |          |
| Weather: Clear                                                                                                                                   |                                     | Termination: Engineers Instruction |                            |                        | Stability: Stable                                                                  |                                                                                                                                                                        |                |                                                                                      |          |
| Samples & In Situ Testing                                                                                                                        |                                     |                                    | Strata Details             |                        |                                                                                    |                                                                                                                                                                        |                | Water                                                                                | Backfill |
| Depth                                                                                                                                            | Sample ID                           | Test Result                        | Level (mAOD)               | Depth (m) (Thickness)  | Legend                                                                             | Strata Description                                                                                                                                                     |                |                                                                                      |          |
| 0.10<br>0.10 - 0.20                                                                                                                              | ES<br>ES1                           | HV 1.50m, 70 / 24kPa               | 113.65                     | 0.20                   |   | Brown slightly gravelly clayey SAND. Gravel is subrounded to rounded fine to coarse of mudstone. (TOPSOIL)                                                             | 1              |  |          |
| 0.50<br>0.50 - 0.60                                                                                                                              | ES<br>ES2                           |                                    | (1.30)                     |                        |   | Firm reddish brown slightly sandy slightly gravelly CLAY with low cobble content. Gravel is subrounded to rounded fine to coarse of mudstone and chalk. (OADBY MEMBER) |                |                                                                                      |          |
| 1.90 - 2.00<br>1.90 - 2.00                                                                                                                       | B1<br>D1                            |                                    | 112.35                     | 1.50                   |   | Firm reddish brown slightly gravelly friable CLAY with grey concretions. Gravel is subrounded to rounded fine to coarse of mudstone. and chalk (OADBY MEMBER)          |                |                                                                                      |          |
|                                                                                                                                                  |                                     |                                    | (1.00)                     |                        |  |                                                                                                                                                                        |                |                                                                                      |          |
|                                                                                                                                                  |                                     |                                    | 111.35                     | 2.50                   | End of Trial Pit at 2.50m                                                          |                                                                                                                                                                        |                | 2                                                                                    |          |
|                                                                                                                                                  |                                     |                                    |                            |                        |                                                                                    |                                                                                                                                                                        | 3              |                                                                                      |          |
|                                                                                                                                                  |                                     |                                    |                            |                        |                                                                                    |                                                                                                                                                                        | 4              |                                                                                      |          |
|                                                                                                                                                  |                                     |                                    |                            |                        |                                                                                    |                                                                                                                                                                        | 5              |                                                                                      |          |
| Sample Key: B = Bulk Disturbed D = Small Disturbed U = Undisturbed Open-Drive W = Water G = Gas ES = Environmental Soil EW = Environmental Water |                                     |                                    |                            |                        |                                                                                    |                                                                                                                                                                        |                |                                                                                      |          |
| Remarks:<br>Groundwater not encountered.                                                                                                         |                                     |                                    |                            |                        | Dimensions:                                                                        |                                                                                                                                                                        |                |                                                                                      |          |
|                                                                                                                                                  |                                     |                                    |                            |                        | Length: 2.50m                                                                      |                                                                                                                                                                        | Orientation: ° |                                                                                      |          |
|                                                                                                                                                  |                                     |                                    |                            |                        | Width: 0.60m                                                                       |                                                                                                                                                                        |                |                                                                                      |          |
|                                                                                                                                                  |                                     |                                    |                            |                        | Groundwater Details                                                                |                                                                                                                                                                        |                |                                                                                      |          |
|                                                                                                                                                  |                                     |                                    |                            |                        | Depth encountered (m)                                                              |                                                                                                                                                                        | Remarks        |                                                                                      |          |
|                                                                                                                                                  |                                     |                                    |                            |                        |                                                                                    |                                                                                                                                                                        |                |                                                                                      |          |
|                                                                                                                                                  |                                     |                                    |                            |                        | T&P Regeneration TP Template Issue Number: 1 Issue Date: June 2016                 |                                                                                                                                                                        |                |                                                                                      |          |



|                                                                                                                                                  |                                     |                     |                             |                                    |                                                                                   |                                                                                                                                                                 |                                                                                                                                         |                       |                  |   |                                                                                      |          |
|--------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------|---------------------|-----------------------------|------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------|-----------------------|------------------|---|--------------------------------------------------------------------------------------|----------|
| <div>T&amp;P<br/>Regen</div> <div>www.tandpregeneration.co.uk</div>                                                                              | Contract Name:<br>Sketchley Lane    |                     |                             | Client:<br>Barwood Land            |                                                                                   |                                                                                                                                                                 | Trial Pit ID:<br>TP11                                                                                                                   |                       |                  |   |                                                                                      |          |
|                                                                                                                                                  | Contract Number:<br>P0866 / CS-1745 |                     | Date Started:<br>01/02/2023 |                                    | Logged By:<br>RG                                                                  |                                                                                                                                                                 | Checked By:<br>TC                                                                                                                       |                       | Status:<br>FINAL |   |                                                                                      |          |
|                                                                                                                                                  | Easting:<br>442656.34               |                     | Northing:<br>291906.19      |                                    | Ground Level:<br>114.66mOD                                                        |                                                                                                                                                                 | Plant Used:<br>JCB 3CX                                                                                                                  |                       | Scale:<br>1:25   |   |                                                                                      |          |
| Trial Pit Log                                                                                                                                    |                                     |                     |                             |                                    |                                                                                   |                                                                                                                                                                 |                                                                                                                                         |                       |                  |   |                                                                                      |          |
| Weather: Clear                                                                                                                                   |                                     |                     |                             | Termination: Engineers Instruction |                                                                                   |                                                                                                                                                                 |                                                                                                                                         | Stability: Stable     |                  |   |                                                                                      |          |
| Samples & In Situ Testing                                                                                                                        |                                     |                     |                             | Strata Details                     |                                                                                   |                                                                                                                                                                 |                                                                                                                                         |                       |                  |   | Water                                                                                | Backfill |
| Depth                                                                                                                                            | Sample ID                           | Test Result         | Level (mAOD)                | Depth (m) (Thickness)              | Legend                                                                            | Strata Description                                                                                                                                              |                                                                                                                                         |                       |                  |   |                                                                                      |          |
| 0.10<br>0.10 - 0.20                                                                                                                              | ES<br>ES1                           | HV 1.50m, 10 / 6kPa | 114.46                      | 0.20                               |  | Brown slightly gravelly clayey SAND. Gravel is subrounded to rounded fine to coarse of mudstone. (TOPSOIL)                                                      |                                                                                                                                         |                       |                  | 1 |  |          |
| 0.50<br>0.50 - 0.60                                                                                                                              | ES<br>ES2                           |                     | (1.30)                      |                                    |  | Reddish brown slightly gravelly very clayey SAND with low cobble content. Gravel is subrounded to rounded fine to coarse of mudstone. (WOLSTON SAND AND GRAVEL) |                                                                                                                                         |                       |                  |   |                                                                                      |          |
| 2.40 - 2.50<br>2.40 - 2.50                                                                                                                       | B1<br>D1                            |                     | 113.16                      | 1.50                               | (1.00)                                                                            |                                                                               | Reddish brown slightly gravelly very clayey SAND. Gravel is subrounded to rounded fine to coarse of mudstone. (WOLSTON SAND AND GRAVEL) |                       |                  |   |                                                                                      |          |
|                                                                                                                                                  |                                     |                     | 112.16                      | 2.50                               |                                                                                   | End of Trial Pit at 2.50m                                                                                                                                       |                                                                                                                                         |                       |                  | 3 |                                                                                      |          |
|                                                                                                                                                  |                                     |                     |                             |                                    |                                                                                   |                                                                                                                                                                 |                                                                                                                                         |                       |                  | 4 |                                                                                      |          |
|                                                                                                                                                  |                                     |                     |                             |                                    |                                                                                   |                                                                                                                                                                 |                                                                                                                                         |                       |                  | 5 |                                                                                      |          |
| Sample Key: B = Bulk Disturbed D = Small Disturbed U = Undisturbed Open-Drive W = Water G = Gas ES = Environmental Soil EW = Environmental Water |                                     |                     |                             |                                    |                                                                                   |                                                                                                                                                                 |                                                                                                                                         |                       |                  |   |                                                                                      |          |
| Remarks:<br>Groundwater not encountered.                                                                                                         |                                     |                     |                             |                                    |                                                                                   | Dimensions:                                                                                                                                                     |                                                                                                                                         |                       |                  |   |                                                                                      |          |
|                                                                                                                                                  |                                     |                     |                             |                                    |                                                                                   | Length: 2.50m                                                                                                                                                   |                                                                                                                                         | Orientation: °        |                  |   |                                                                                      |          |
|                                                                                                                                                  |                                     |                     |                             |                                    |                                                                                   | Width: 0.60m                                                                                                                                                    |                                                                                                                                         |                       |                  |   |                                                                                      |          |
|                                                                                                                                                  |                                     |                     |                             |                                    |                                                                                   | Groundwater Details                                                                                                                                             |                                                                                                                                         |                       |                  |   |                                                                                      |          |
|                                                                                                                                                  |                                     |                     |                             |                                    |                                                                                   | Depth encountered (m)                                                                                                                                           |                                                                                                                                         | Remarks               |                  |   |                                                                                      |          |
|                                                                                                                                                  |                                     |                     |                             |                                    |                                                                                   |                                                                                                                                                                 |                                                                                                                                         |                       |                  |   |                                                                                      |          |
| T&P Regeneration TP Template                                                                                                                     |                                     |                     |                             |                                    |                                                                                   | Issue Number: 1                                                                                                                                                 |                                                                                                                                         | Issue Date: June 2016 |                  |   |                                                                                      |          |

|                                                                                                                                                  |                                     |             |                             |                                    |                            |                                                                                                                               |                        |                           |                  |   |       |          |
|--------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------|-------------|-----------------------------|------------------------------------|----------------------------|-------------------------------------------------------------------------------------------------------------------------------|------------------------|---------------------------|------------------|---|-------|----------|
| <div>T&amp;P<br/>Regen</div> <div>www.tandpregeneration.co.uk</div>                                                                              | Contract Name:<br>Sketchley Lane    |             |                             | Client:<br>Barwood Land            |                            |                                                                                                                               | Trial Pit ID:<br>TP12  |                           |                  |   |       |          |
|                                                                                                                                                  | Contract Number:<br>P0866 / CS-1745 |             | Date Started:<br>01/02/2023 |                                    | Logged By:<br>RG           |                                                                                                                               | Checked By:<br>TC      |                           | Status:<br>FINAL |   |       |          |
|                                                                                                                                                  | Easting:<br>442539.31               |             | Northing:<br>291854.45      |                                    | Ground Level:<br>111.59mOD |                                                                                                                               | Plant Used:<br>JCB 3CX |                           | Scale:<br>1:25   |   |       |          |
| Trial Pit Log                                                                                                                                    |                                     |             |                             |                                    |                            |                                                                                                                               |                        |                           |                  |   |       |          |
| Weather: Clear                                                                                                                                   |                                     |             |                             | Termination: Engineers Instruction |                            |                                                                                                                               |                        | Stability: Stable         |                  |   |       |          |
| Samples & In Situ Testing                                                                                                                        |                                     |             |                             | Strata Details                     |                            |                                                                                                                               |                        |                           |                  |   | Water | Backfill |
| Depth                                                                                                                                            | Sample ID                           | Test Result | Level (mAOD)                | Depth (m) (Thickness)              | Legend                     | Strata Description                                                                                                            |                        |                           |                  |   |       |          |
| 0.10<br>0.10 - 0.20                                                                                                                              | ES<br>ES1                           |             | 111.39                      | 0.20                               |                            | Brown slightly gravelly clayey SAND. Gravel is subrounded to rounded fine to coarse of mudstone.<br>(TOPSOIL)                 |                        |                           |                  |   |       |          |
| 0.50<br>0.50 - 0.60                                                                                                                              | ES<br>ES2                           |             |                             | (1.80)                             |                            | Brown clayey gravelly SAND. Gravel is subrounded to rounded fine to coarse of mudstone.<br>(WOLSTON SAND AND GRAVEL)          |                        |                           |                  | 1 |       |          |
| 2.40 - 2.50                                                                                                                                      | D1                                  |             | 109.59                      | 2.00                               |                            | Soft brown gravelly very sandy CLAY. Gravel is subrounded to rounded fine to coarse of mudstone.<br>(WOLSTON SAND AND GRAVEL) |                        |                           |                  | 2 |       |          |
|                                                                                                                                                  |                                     |             | 109.09                      | 2.50                               |                            | End of Trial Pit at 2.50m                                                                                                     |                        |                           |                  | 3 |       |          |
|                                                                                                                                                  |                                     |             |                             |                                    |                            |                                                                                                                               |                        |                           |                  | 4 |       |          |
|                                                                                                                                                  |                                     |             |                             |                                    |                            |                                                                                                                               |                        |                           |                  | 5 |       |          |
| Sample Key: B = Bulk Disturbed D = Small Disturbed U = Undisturbed Open-Drive W = Water G = Gas ES = Environmental Soil EW = Environmental Water |                                     |             |                             |                                    |                            |                                                                                                                               |                        |                           |                  |   |       |          |
| Remarks:<br>Groundwater not encountered.                                                                                                         |                                     |             |                             |                                    |                            | Dimensions:                                                                                                                   |                        |                           |                  |   |       |          |
|                                                                                                                                                  |                                     |             |                             |                                    |                            | Length: 2.50m                                                                                                                 |                        | <div>Orientation: °</div> |                  |   |       |          |
|                                                                                                                                                  |                                     |             |                             |                                    |                            | Width: 0.60m                                                                                                                  |                        |                           |                  |   |       |          |
|                                                                                                                                                  |                                     |             |                             |                                    |                            | Groundwater Details                                                                                                           |                        |                           |                  |   |       |          |
|                                                                                                                                                  |                                     |             |                             |                                    |                            | Depth encountered (m)                                                                                                         |                        | Remarks                   |                  |   |       |          |
| T&P Regeneration TP Template Issue Number: 1 Issue Date: June 2016                                                                               |                                     |             |                             |                                    |                            |                                                                                                                               |                        |                           |                  |   |       |          |

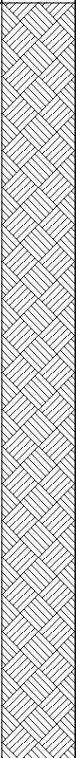
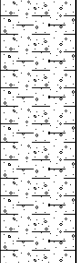
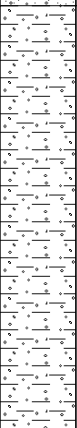


Issue Date: June 2016



Issue Date: June 2016



|                                                                                                                                                  |                                     |                                    |                            |                                                                                   |                                                                                                                                                             |                                                                                                               |         |                                                                                      |          |
|--------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------|------------------------------------|----------------------------|-----------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------|---------|--------------------------------------------------------------------------------------|----------|
| <div>T&amp;P<br/>Regen</div> <div>www.tandpregeneration.co.uk</div>                                                                              | Contract Name:<br>Sketchley Lane    |                                    | Client:<br>Barwood Land    |                                                                                   |                                                                                                                                                             | Trial Pit ID:<br>TP15                                                                                         |         |                                                                                      |          |
|                                                                                                                                                  | Contract Number:<br>P0866 / CS-1745 | Date Started:<br>31/01/2023        | Logged By:<br>RG           | Checked By:<br>TC                                                                 | Status:<br>FINAL                                                                                                                                            | Sheet 1 of 1                                                                                                  |         |                                                                                      |          |
|                                                                                                                                                  | Easting:<br>442377.45               | Northing:<br>291895.70             | Ground Level:<br>112.24mOD | Plant Used:<br>JCB 3CX                                                            |                                                                                                                                                             | Scale:<br>1:25                                                                                                |         |                                                                                      |          |
| Trial Pit Log                                                                                                                                    |                                     |                                    |                            |                                                                                   |                                                                                                                                                             |                                                                                                               |         |                                                                                      |          |
| Weather: Clear                                                                                                                                   |                                     | Termination: Engineers Instruction |                            |                                                                                   | Stability: Stable                                                                                                                                           |                                                                                                               |         |                                                                                      |          |
| Samples & In Situ Testing                                                                                                                        |                                     |                                    | Strata Details             |                                                                                   |                                                                                                                                                             |                                                                                                               |         | Water                                                                                | Backfill |
| Depth                                                                                                                                            | Sample ID                           | Test Result                        | Level (mAOD)               | Depth (m) (Thickness)                                                             | Legend                                                                                                                                                      | Strata Description                                                                                            |         |                                                                                      |          |
| 0.10<br>0.10 - 0.20                                                                                                                              | ES<br>ES1                           | HV 1.00m, 80 / 68kPa               | 112.04                     | 0.20                                                                              |                                                                            | Brown slightly gravelly clayey SAND. Gravel is subrounded to rounded fine to coarse of mudstone.<br>(TOPSOIL) | 1       |  |          |
| 0.50<br>0.50 - 0.60                                                                                                                              | ES<br>ES2                           |                                    | (0.90)                     |  | Stiff brown slightly sandy slightly gravelly CLAY. Gravel is subrounded to rounded fine to coarse of mudstone.<br>(OADBY MEMBER)                            |                                                                                                               |         |                                                                                      |          |
|                                                                                                                                                  |                                     |                                    | 1.10                       |                                                                                   | Stiff reddish brown mottled grey gravelly friable CLAY with grey concretions. Gravel is subrounded to rounded fine to coarse of mudstone.<br>(OADBY MEMBER) |                                                                                                               |         |                                                                                      |          |
|                                                                                                                                                  |                                     |                                    | 111.14                     | (1.40)                                                                            |                                                                           |                                                                                                               | 2       |                                                                                      |          |
| 2.40 - 2.50                                                                                                                                      | D1                                  |                                    | 109.74                     | 2.50                                                                              |                                                                                                                                                             | End of Trial Pit at 2.50m                                                                                     | 3       |                                                                                      |          |
|                                                                                                                                                  |                                     |                                    |                            |                                                                                   |                                                                                                                                                             |                                                                                                               | 4       |                                                                                      |          |
|                                                                                                                                                  |                                     |                                    |                            |                                                                                   |                                                                                                                                                             |                                                                                                               | 5       |                                                                                      |          |
| Sample Key: B = Bulk Disturbed D = Small Disturbed U = Undisturbed Open-Drive W = Water G = Gas ES = Environmental Soil EW = Environmental Water |                                     |                                    |                            |                                                                                   |                                                                                                                                                             |                                                                                                               |         |                                                                                      |          |
| Remarks:<br>Groundwater not encountered.                                                                                                         |                                     |                                    |                            |                                                                                   |                                                                                                                                                             | Dimensions:                                                                                                   |         |                                                                                      |          |
|                                                                                                                                                  |                                     |                                    |                            |                                                                                   |                                                                                                                                                             | Length: 2.50m                                                                                                 |         |                                                                                      |          |
|                                                                                                                                                  |                                     |                                    |                            |                                                                                   |                                                                                                                                                             | Width: 0.60m                                                                                                  |         |                                                                                      |          |
|                                                                                                                                                  |                                     |                                    |                            |                                                                                   |                                                                                                                                                             | Orientation: °                                                                                                |         |                                                                                      |          |
|                                                                                                                                                  |                                     |                                    |                            |                                                                                   |                                                                                                                                                             |                                                                                                               |         |                                                                                      |          |
|                                                                                                                                                  |                                     |                                    |                            |                                                                                   |                                                                                                                                                             | Groundwater Details                                                                                           |         |                                                                                      |          |
|                                                                                                                                                  |                                     |                                    |                            |                                                                                   |                                                                                                                                                             | Depth encountered (m)                                                                                         | Remarks |                                                                                      |          |
|                                                                                                                                                  |                                     |                                    |                            |                                                                                   |                                                                                                                                                             |                                                                                                               |         |                                                                                      |          |
|                                                                                                                                                  |                                     |                                    |                            |                                                                                   |                                                                                                                                                             | T&P Regeneration TP Template Issue Number: 1 Issue Date: June 2016                                            |         |                                                                                      |          |

|                                                                                                                                                  |                                  |             |                          |                       |                         |                                                                                                                            |                     |                       |                   |          |  |
|--------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------|-------------|--------------------------|-----------------------|-------------------------|----------------------------------------------------------------------------------------------------------------------------|---------------------|-----------------------|-------------------|----------|--|
| <div><div>T&amp;P</div><div>Regen</div><div>www.tandpregeneration.co.uk</div></div>                                                              | Contract Name: Sketchley Lane    |             |                          | Client: Barwood Land  |                         |                                                                                                                            | Trial Pit ID: TP16  |                       |                   |          |  |
|                                                                                                                                                  | Contract Number: P0866 / CS-1745 |             | Date Started: 31/01/2023 |                       | Logged By: RG           |                                                                                                                            | Checked By: TC      |                       | Status: FINAL     |          |  |
|                                                                                                                                                  | Easting: 442647.04               |             | Northing: 291828.76      |                       | Ground Level: 112.97mOD |                                                                                                                            | Plant Used: JCB 3CX |                       | Scale: 1:25       |          |  |
| Trial Pit Log                                                                                                                                    |                                  |             | Weather: Clear           |                       |                         | Termination: Engineers Instruction                                                                                         |                     |                       | Stability: Stable |          |  |
| Samples & In Situ Testing                                                                                                                        |                                  |             | Strata Details           |                       |                         |                                                                                                                            |                     |                       | Water             | Backfill |  |
| Depth                                                                                                                                            | Sample ID                        | Test Result | Level (mAOD)             | Depth (m) (Thickness) | Legend                  | Strata Description                                                                                                         |                     |                       |                   |          |  |
| 0.10<br>0.10 - 0.20                                                                                                                              | ES<br>ES1                        |             | 112.77                   | 0.20                  |                         | Brown slightly gravelly clayey SAND. Gravel is subrounded to rounded fine to coarse of mudstone. (TOPSOIL)                 |                     |                       |                   |          |  |
| 0.50<br>0.50 - 0.60                                                                                                                              | ES<br>ES2                        |             |                          |                       |                         | Brown slightly gravelly clayey SAND. Gravel is subrounded to rounded fine to coarse of mudstone. (WOLSTON SAND AND GRAVEL) |                     |                       |                   |          |  |
|                                                                                                                                                  |                                  |             |                          | (2.80)                |                         |                                                                                                                            |                     |                       | 1                 |          |  |
|                                                                                                                                                  |                                  |             |                          |                       |                         |                                                                                                                            |                     |                       | 2                 |          |  |
| 2.90 - 3.00                                                                                                                                      | D1                               |             | 109.97                   | 3.00                  |                         | End of Trial Pit at 3.00m                                                                                                  |                     |                       | 3                 |          |  |
|                                                                                                                                                  |                                  |             |                          |                       |                         |                                                                                                                            |                     |                       | 4                 |          |  |
|                                                                                                                                                  |                                  |             |                          |                       |                         |                                                                                                                            |                     |                       | 5                 |          |  |
| Sample Key: B = Bulk Disturbed D = Small Disturbed U = Undisturbed Open-Drive W = Water G = Gas ES = Environmental Soil EW = Environmental Water |                                  |             |                          |                       |                         |                                                                                                                            |                     |                       |                   |          |  |
| Remarks:<br>Groundwater not encountered.                                                                                                         |                                  |             |                          |                       |                         | Dimensions:                                                                                                                |                     |                       |                   |          |  |
|                                                                                                                                                  |                                  |             |                          |                       |                         | Length: 2.50m                                                                                                              |                     | Orientation: °        |                   |          |  |
|                                                                                                                                                  |                                  |             |                          |                       |                         | Width: 0.60m                                                                                                               |                     |                       |                   |          |  |
|                                                                                                                                                  |                                  |             |                          |                       |                         | Groundwater Details                                                                                                        |                     |                       |                   |          |  |
|                                                                                                                                                  |                                  |             |                          |                       |                         | Depth encountered (m)                                                                                                      |                     | Remarks               |                   |          |  |
|                                                                                                                                                  |                                  |             |                          |                       |                         |                                                                                                                            |                     |                       |                   |          |  |
| T&P Regeneration TP Template                                                                                                                     |                                  |             |                          |                       |                         | Issue Number: 1                                                                                                            |                     | Issue Date: June 2016 |                   |          |  |

|                                                                                                                                                  |                                  |             |                          |                       |                         |                                                                                                                                                      |                     |                 |                   |          |  |
|--------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------|-------------|--------------------------|-----------------------|-------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------|-----------------|-------------------|----------|--|
| <div><div>T&amp;P</div><div>Regen</div><div>www.tandpregeneration.co.uk</div></div>                                                              | Contract Name: Sketchley Lane    |             |                          | Client: Barwood Land  |                         |                                                                                                                                                      | Trial Pit ID: TP17  |                 |                   |          |  |
|                                                                                                                                                  | Contract Number: P0866 / CS-1745 |             | Date Started: 31/01/2023 |                       | Logged By: RG           |                                                                                                                                                      | Checked By: TC      |                 | Status: FINAL     |          |  |
|                                                                                                                                                  | Easting: 442582.20               |             | Northing: 291792.97      |                       | Ground Level: 112.10mOD |                                                                                                                                                      | Plant Used: JCB 3CX |                 | Scale: 1:25       |          |  |
| Trial Pit Log                                                                                                                                    |                                  |             | Weather: Clear           |                       |                         | Termination: Engineers Instruction                                                                                                                   |                     |                 | Stability: Stable |          |  |
| Samples & In Situ Testing                                                                                                                        |                                  |             | Strata Details           |                       |                         |                                                                                                                                                      |                     |                 | Water             | Backfill |  |
| Depth                                                                                                                                            | Sample ID                        | Test Result | Level (mAOD)             | Depth (m) (Thickness) | Legend                  | Strata Description                                                                                                                                   |                     |                 |                   |          |  |
| 0.10<br>0.10 - 0.20                                                                                                                              | ES<br>ES1                        |             | 111.90                   | 0.20                  |                         | Brown slightly gravelly clayey SAND. Gravel is subrounded to rounded fine to coarse of mudstone. (TOPSOIL)                                           |                     |                 |                   |          |  |
| 0.50<br>0.50 - 0.60                                                                                                                              | ES<br>ES2                        |             | 111.40                   | (0.50)<br><br>0.70    |                         | Soft brown very sandy CLAY. (WOLSTON SAND AND GRAVEL)                                                                                                |                     |                 |                   |          |  |
|                                                                                                                                                  |                                  |             |                          | (1.80)                |                         | Grey mottled reddish brown slightly gravelly very clayey SAND. Gravel is subrounded to rounded fine to coarse of mudstone. (WOLSTON SAND AND GRAVEL) |                     | 1               |                   |          |  |
|                                                                                                                                                  |                                  |             |                          |                       |                         |                                                                                                                                                      |                     | 2               |                   |          |  |
| 2.40 - 2.50                                                                                                                                      | D1                               |             | 109.60                   | 2.50                  |                         | End of Trial Pit at 2.50m                                                                                                                            |                     | 3               |                   |          |  |
|                                                                                                                                                  |                                  |             |                          |                       |                         |                                                                                                                                                      |                     | 4               |                   |          |  |
|                                                                                                                                                  |                                  |             |                          |                       |                         |                                                                                                                                                      |                     | 5               |                   |          |  |
| Sample Key: B = Bulk Disturbed D = Small Disturbed U = Undisturbed Open-Drive W = Water G = Gas ES = Environmental Soil EW = Environmental Water |                                  |             |                          |                       |                         |                                                                                                                                                      |                     |                 |                   |          |  |
| Remarks: Groundwater not encountered.                                                                                                            |                                  |             |                          |                       |                         | Dimensions:                                                                                                                                          |                     |                 |                   |          |  |
|                                                                                                                                                  |                                  |             |                          |                       |                         | Length: 2.50m                                                                                                                                        |                     |                 |                   |          |  |
|                                                                                                                                                  |                                  |             |                          |                       |                         | Width: 0.60m                                                                                                                                         |                     |                 |                   |          |  |
|                                                                                                                                                  |                                  |             |                          |                       |                         | Orientation: °                                                                                                                                       |                     |                 |                   |          |  |
|                                                                                                                                                  |                                  |             |                          |                       |                         | Groundwater Details                                                                                                                                  |                     |                 |                   |          |  |
|                                                                                                                                                  |                                  |             |                          |                       |                         | Depth encountered (m)                                                                                                                                |                     | Remarks         |                   |          |  |
|                                                                                                                                                  |                                  |             |                          |                       |                         | 2.50                                                                                                                                                 |                     | Slight seepage. |                   |          |  |
| T&P Regeneration TP Template Issue Number: 1 Issue Date: June 2016                                                                               |                                  |             |                          |                       |                         |                                                                                                                                                      |                     |                 |                   |          |  |

|                                                                                                                                                  |                                     |                                    |                            |                        |                   |                                                                                                                          |         |          |
|--------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------|------------------------------------|----------------------------|------------------------|-------------------|--------------------------------------------------------------------------------------------------------------------------|---------|----------|
| <div>T&amp;P<br/>Regen</div> <div>www.tandpregeneration.co.uk</div>                                                                              | Contract Name:<br>Sketchley Lane    |                                    | Client:<br>Barwood Land    |                        |                   | Trial Pit ID:<br>TP18                                                                                                    |         |          |
|                                                                                                                                                  | Contract Number:<br>P0866 / CS-1745 | Date Started:<br>31/01/2023        | Logged By:<br>RG           | Checked By:<br>TC      | Status:<br>FINAL  | Sheet 1 of 1                                                                                                             |         |          |
|                                                                                                                                                  | Easting:<br>442465.32               | Northing:<br>291781.88             | Ground Level:<br>106.19mOD | Plant Used:<br>JCB 3CX |                   | Scale:<br>1:25                                                                                                           |         |          |
| Trial Pit Log                                                                                                                                    |                                     |                                    |                            |                        |                   |                                                                                                                          |         |          |
| Weather: Clear                                                                                                                                   |                                     | Termination: Engineers Instruction |                            |                        | Stability: Stable |                                                                                                                          |         |          |
| Samples & In Situ Testing                                                                                                                        |                                     |                                    | Strata Details             |                        |                   |                                                                                                                          | Water   | Backfill |
| Depth                                                                                                                                            | Sample ID                           | Test Result                        | Level (mAOD)               | Depth (m) (Thickness)  | Legend            | Strata Description                                                                                                       |         |          |
| 0.10<br>0.10 - 0.20                                                                                                                              | ES<br>ES1                           |                                    | 105.99                     | 0.20                   |                   | Brown slightly gravelly clayey SAND. Gravel is subrounded to rounded fine to coarse of mudstone. (TOPSOIL)               |         |          |
| 0.50<br>0.50 - 0.60                                                                                                                              | ES<br>ES2                           |                                    | 105.69                     | 0.50                   |                   | Greyish brown clayey sandy GRAVEL. Gravel is subangular to rounded fine to coarse of mudstone. (WOLSTON SAND AND GRAVEL) |         |          |
| 1.30 - 1.40                                                                                                                                      | D1                                  |                                    |                            | (2.00)                 |                   | Very soft to firm grey silty CLAY. (BOSWORTH CLAY MEMBER )                                                               |         |          |
|                                                                                                                                                  |                                     | HV 2.00m, 18 / 12kPa               |                            |                        |                   |                                                                                                                          | 1       |          |
|                                                                                                                                                  |                                     |                                    |                            |                        |                   |                                                                                                                          | 2       |          |
|                                                                                                                                                  |                                     | HV 2.50m, 58 / 44kPa               | 103.69                     | 2.50                   |                   | End of Trial Pit at 2.50m                                                                                                | 3       |          |
|                                                                                                                                                  |                                     |                                    |                            |                        |                   |                                                                                                                          | 4       |          |
|                                                                                                                                                  |                                     |                                    |                            |                        |                   |                                                                                                                          | 5       |          |
| Sample Key: B = Bulk Disturbed D = Small Disturbed U = Undisturbed Open-Drive W = Water G = Gas ES = Environmental Soil EW = Environmental Water |                                     |                                    |                            |                        |                   |                                                                                                                          |         |          |
| Remarks:<br>Groundwater not encountered.                                                                                                         |                                     |                                    |                            |                        |                   | Dimensions:                                                                                                              |         |          |
|                                                                                                                                                  |                                     |                                    |                            |                        |                   | Length: 2.50m                                                                                                            |         |          |
|                                                                                                                                                  |                                     |                                    |                            |                        |                   | Width: 0.60m                                                                                                             |         |          |
|                                                                                                                                                  |                                     |                                    |                            |                        |                   | Orientation: °                                                                                                           |         |          |
|                                                                                                                                                  |                                     |                                    |                            |                        |                   |                                                                                                                          |         |          |
|                                                                                                                                                  |                                     |                                    |                            |                        |                   | Groundwater Details                                                                                                      |         |          |
|                                                                                                                                                  |                                     |                                    |                            |                        |                   | Depth encountered (m)                                                                                                    | Remarks |          |
|                                                                                                                                                  |                                     |                                    |                            |                        |                   |                                                                                                                          |         |          |
|                                                                                                                                                  |                                     |                                    |                            |                        |                   | T&P Regeneration TP Template Issue Number: 1 Issue Date: June 2016                                                       |         |          |



|                                                                                                                                                  |                                     |                             |                                    |                        |                  |                                                                                                                                                |   |                       |          |
|--------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------|-----------------------------|------------------------------------|------------------------|------------------|------------------------------------------------------------------------------------------------------------------------------------------------|---|-----------------------|----------|
| <div>T&amp;P<br/>Regen</div> <div>www.tandpregeneration.co.uk</div>                                                                              | Contract Name:<br>Sketchley Lane    |                             | Client:<br>Barwood Land            |                        |                  | Trial Pit ID:<br>TP19                                                                                                                          |   |                       |          |
|                                                                                                                                                  | Contract Number:<br>P0866 / CS-1745 | Date Started:<br>31/01/2023 | Logged By:<br>RG                   | Checked By:<br>TC      | Status:<br>FINAL | Sheet 1 of 1                                                                                                                                   |   |                       |          |
|                                                                                                                                                  | Easting:<br>442344.67               | Northing:<br>291842.36      | Ground Level:<br>109.17mOD         | Plant Used:<br>JCB 3CX |                  | Scale:<br>1:25                                                                                                                                 |   |                       |          |
| Trial Pit Log                                                                                                                                    |                                     |                             |                                    |                        |                  |                                                                                                                                                |   |                       |          |
| Weather: Clear                                                                                                                                   |                                     |                             | Termination: Engineers Instruction |                        |                  | Stability: Unstable                                                                                                                            |   |                       |          |
| Samples & In Situ Testing                                                                                                                        |                                     |                             | Strata Details                     |                        |                  |                                                                                                                                                |   | Water                 | Backfill |
| Depth                                                                                                                                            | Sample ID                           | Test Result                 | Level (mAOD)                       | Depth (m) (Thickness)  | Legend           | Strata Description                                                                                                                             |   |                       |          |
| 0.10<br>0.10 - 0.20                                                                                                                              | ES<br>ES1                           |                             | 108.97                             | 0.20                   |                  | Dark brown slightly sandy slightly gravelly CLAY with frequent rootlets. Gravel is subrounded to rounded fine to coarse of mudstone. (TOPSOIL) |   |                       |          |
| 0.50<br>0.50 - 0.60                                                                                                                              | ES<br>ES2                           |                             |                                    | (0.80)                 |                  | Brown slightly clayey SAND. (WOLSTON SAND AND GRAVEL)                                                                                          |   |                       |          |
|                                                                                                                                                  |                                     |                             | 108.17                             | 1.00                   |                  | Brown SAND. (WOLSTON SAND AND GRAVEL)                                                                                                          | 1 |                       |          |
|                                                                                                                                                  |                                     |                             |                                    | (2.00)                 |                  |                                                                                                                                                | 2 |                       |          |
| 2.90 - 3.00                                                                                                                                      | D1                                  |                             | 106.17                             | 3.00                   |                  | End of Trial Pit at 3.00m                                                                                                                      | 3 |                       |          |
|                                                                                                                                                  |                                     |                             |                                    |                        |                  |                                                                                                                                                | 4 |                       |          |
|                                                                                                                                                  |                                     |                             |                                    |                        |                  |                                                                                                                                                | 5 |                       |          |
| Sample Key: B = Bulk Disturbed D = Small Disturbed U = Undisturbed Open-Drive W = Water G = Gas ES = Environmental Soil EW = Environmental Water |                                     |                             |                                    |                        |                  |                                                                                                                                                |   |                       |          |
| Remarks:<br>Groundwater not encountered.                                                                                                         |                                     |                             |                                    |                        |                  | Dimensions:                                                                                                                                    |   |                       |          |
|                                                                                                                                                  |                                     |                             |                                    |                        |                  | Length: 2.50m                                                                                                                                  |   |                       |          |
|                                                                                                                                                  |                                     |                             |                                    |                        |                  | Width: 0.60m                                                                                                                                   |   |                       |          |
|                                                                                                                                                  |                                     |                             |                                    |                        |                  | Orientation: °                                                                                                                                 |   |                       |          |
|                                                                                                                                                  |                                     |                             |                                    |                        |                  |                                                                                                                                                |   |                       |          |
|                                                                                                                                                  |                                     |                             |                                    |                        |                  | Groundwater Details                                                                                                                            |   |                       |          |
|                                                                                                                                                  |                                     |                             |                                    |                        |                  | Depth encountered (m)                                                                                                                          |   | Remarks               |          |
|                                                                                                                                                  |                                     |                             |                                    |                        |                  |                                                                                                                                                |   |                       |          |
| T&P Regeneration TP Template                                                                                                                     |                                     |                             |                                    |                        |                  | Issue Number: 1                                                                                                                                |   | Issue Date: June 2016 |          |

|                                                                                                                                                  |                                  |                      |                                    |                       |                         |                                                                                                                                                |                     |  |               |          |  |
|--------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------|----------------------|------------------------------------|-----------------------|-------------------------|------------------------------------------------------------------------------------------------------------------------------------------------|---------------------|--|---------------|----------|--|
| <div><div>T&amp;P</div><div>Regen</div><div>www.tandpregeneration.co.uk</div></div>                                                              | Contract Name: Sketchley Lane    |                      |                                    | Client: Barwood Land  |                         |                                                                                                                                                | Trial Pit ID: TP20  |  |               |          |  |
|                                                                                                                                                  | Contract Number: P0866 / CS-1745 |                      | Date Started: 31/01/2023           |                       | Logged By: RG           |                                                                                                                                                | Checked By: TC      |  | Status: FINAL |          |  |
|                                                                                                                                                  | Easting: 442315.62               |                      | Northing: 291895.71                |                       | Ground Level: 109.16mOD |                                                                                                                                                | Plant Used: JCB 3CX |  | Scale: 1:25   |          |  |
| Trial Pit Log                                                                                                                                    |                                  |                      |                                    |                       |                         |                                                                                                                                                |                     |  |               |          |  |
| Weather: Clear                                                                                                                                   |                                  |                      | Termination: Engineers Instruction |                       |                         | Stability: Stable                                                                                                                              |                     |  |               |          |  |
| Samples & In Situ Testing                                                                                                                        |                                  |                      | Strata Details                     |                       |                         |                                                                                                                                                |                     |  | Water         | Backfill |  |
| Depth                                                                                                                                            | Sample ID                        | Test Result          | Level (mAOD)                       | Depth (m) (Thickness) | Legend                  | Strata Description                                                                                                                             |                     |  |               |          |  |
| 0.10<br>0.10 - 0.20                                                                                                                              | ES<br>ES1                        |                      | 108.96                             | 0.20                  |                         | Dark brown slightly sandy slightly gravelly CLAY with frequent rootlets. Gravel is subrounded to rounded fine to coarse of mudstone. (TOPSOIL) |                     |  |               |          |  |
| 0.50<br>0.50 - 0.60                                                                                                                              | ES<br>ES2                        |                      |                                    | (0.80)                |                         | Light brown slightly gravelly very clayey SAND. (WOLSTON SAND AND GRAVEL)                                                                      |                     |  |               |          |  |
| 1.20 - 1.30                                                                                                                                      | D1                               |                      | 108.16                             | 1.00                  |                         | Stiff grey CLAY. (BOSWORTH CLAY MEMBER )                                                                                                       |                     |  | 1             |          |  |
|                                                                                                                                                  |                                  |                      |                                    | (1.80)                |                         |                                                                                                                                                |                     |  | 2             |          |  |
| 2.50<br>2.50 - 2.60<br>2.50 - 2.60                                                                                                               | ES<br>D2<br>ES3                  |                      |                                    |                       |                         | At 2.5mbgl: stained black SAND with a sulphurous odour.                                                                                        |                     |  |               |          |  |
|                                                                                                                                                  |                                  | HV 2.80m, 78 / 66kPa | 106.36                             | 2.80                  |                         | End of Trial Pit at 2.80m                                                                                                                      |                     |  | 3             |          |  |
|                                                                                                                                                  |                                  |                      |                                    |                       |                         |                                                                                                                                                |                     |  | 4             |          |  |
|                                                                                                                                                  |                                  |                      |                                    |                       |                         |                                                                                                                                                |                     |  | 5             |          |  |
| Sample Key: B = Bulk Disturbed D = Small Disturbed U = Undisturbed Open-Drive W = Water G = Gas ES = Environmental Soil EW = Environmental Water |                                  |                      |                                    |                       |                         |                                                                                                                                                |                     |  |               |          |  |
| Remarks: Groundwater not encountered.                                                                                                            |                                  |                      |                                    |                       |                         | Dimensions:                                                                                                                                    |                     |  |               |          |  |
|                                                                                                                                                  |                                  |                      |                                    |                       |                         | Length: 2.50m                                                                                                                                  |                     |  |               |          |  |
|                                                                                                                                                  |                                  |                      |                                    |                       |                         | Width: 0.60m                                                                                                                                   |                     |  |               |          |  |
|                                                                                                                                                  |                                  |                      |                                    |                       |                         | Orientation: °                                                                                                                                 |                     |  |               |          |  |
|                                                                                                                                                  |                                  |                      |                                    |                       |                         | Groundwater Details                                                                                                                            |                     |  |               |          |  |
|                                                                                                                                                  |                                  |                      |                                    |                       |                         | Depth encountered (m)                                                                                                                          |                     |  |               |          |  |
|                                                                                                                                                  |                                  |                      |                                    |                       |                         | Remarks                                                                                                                                        |                     |  |               |          |  |
|                                                                                                                                                  |                                  |                      |                                    |                       |                         | T&P Regeneration TP Template Issue Number: 1 Issue Date: June 2016                                                                             |                     |  |               |          |  |

|                                                                                                                                                  |                                     |                                    |                            |                        |                   |                                                                                                                                                |   |       |          |
|--------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------|------------------------------------|----------------------------|------------------------|-------------------|------------------------------------------------------------------------------------------------------------------------------------------------|---|-------|----------|
| <div>T&amp;P<br/>Regen</div> <div>www.tandpregeneration.co.uk</div>                                                                              | Contract Name:<br>Sketchley Lane    |                                    | Client:<br>Barwood Land    |                        |                   | Trial Pit ID:<br>TP21                                                                                                                          |   |       |          |
|                                                                                                                                                  | Contract Number:<br>P0866 / CS-1745 | Date Started:<br>31/01/2023        | Logged By:<br>RG           | Checked By:<br>TC      | Status:<br>FINAL  | Sheet 1 of 1                                                                                                                                   |   |       |          |
|                                                                                                                                                  | Easting:<br>442334.58               | Northing:<br>291961.95             | Ground Level:<br>112.36mOD | Plant Used:<br>JCB 3CX |                   | Scale:<br>1:25                                                                                                                                 |   |       |          |
| Trial Pit Log                                                                                                                                    |                                     |                                    |                            |                        |                   |                                                                                                                                                |   |       |          |
| Weather: Clear                                                                                                                                   |                                     | Termination: Engineers Instruction |                            |                        | Stability: Stable |                                                                                                                                                |   |       |          |
| Samples & In Situ Testing                                                                                                                        |                                     |                                    | Strata Details             |                        |                   |                                                                                                                                                |   | Water | Backfill |
| Depth                                                                                                                                            | Sample ID                           | Test Result                        | Level (mAOD)               | Depth (m) (Thickness)  | Legend            | Strata Description                                                                                                                             |   |       |          |
| 0.10<br>0.10 - 0.20                                                                                                                              | ES<br>ES1                           | HV 1.20m, 84 / 48kPa               | 112.16                     | 0.20                   |                   | Dark brown slightly sandy slightly gravelly CLAY with frequent rootlets. Gravel is subrounded to rounded fine to coarse of mudstone. (TOPSOIL) |   |       |          |
| 0.50<br>0.50 - 0.60                                                                                                                              | ES<br>ES2                           |                                    | (0.80)                     |                        |                   | Soft brown slightly gravelly CLAY. Gravel is subrounded to rounded fine to coarse of mudstone. (OADBY MEMBER)                                  |   |       |          |
|                                                                                                                                                  |                                     |                                    | 111.36                     | 1.00                   |                   | Stiff brown CLAY. (OADBY MEMBER)                                                                                                               | 1 |       |          |
|                                                                                                                                                  |                                     |                                    | (1.30)                     |                        |                   |                                                                                                                                                | 2 |       |          |
| 2.30 - 2.40                                                                                                                                      | D1                                  |                                    | 110.06                     | 2.30                   |                   | Brown SAND. (OADBY MEMBER)                                                                                                                     |   |       |          |
|                                                                                                                                                  |                                     |                                    | 109.76                     | 2.60                   |                   | End of Trial Pit at 2.60m                                                                                                                      |   |       |          |
|                                                                                                                                                  |                                     |                                    |                            |                        |                   |                                                                                                                                                | 3 |       |          |
|                                                                                                                                                  |                                     |                                    |                            |                        |                   |                                                                                                                                                | 4 |       |          |
|                                                                                                                                                  |                                     |                                    |                            |                        |                   |                                                                                                                                                | 5 |       |          |
| Sample Key: B = Bulk Disturbed D = Small Disturbed U = Undisturbed Open-Drive W = Water G = Gas ES = Environmental Soil EW = Environmental Water |                                     |                                    |                            |                        |                   |                                                                                                                                                |   |       |          |
| Remarks:<br>Groundwater not encountered.                                                                                                         |                                     |                                    |                            |                        |                   | Dimensions:<br>Length: 2.50m<br>Width: 0.60m<br>Orientation: °<br>                                                                             |   |       |          |
|                                                                                                                                                  |                                     |                                    |                            |                        |                   | Groundwater Details                                                                                                                            |   |       |          |
|                                                                                                                                                  |                                     |                                    |                            |                        |                   | Depth encountered (m) Remarks                                                                                                                  |   |       |          |
|                                                                                                                                                  |                                     |                                    |                            |                        |                   |                                                                                                                                                |   |       |          |
| T&P Regeneration TP Template Issue Number: 1 Issue Date: June 2016                                                                               |                                     |                                    |                            |                        |                   |                                                                                                                                                |   |       |          |

|                                                                                                                                                  |                                     |                                    |                            |                        |                                                                    |                                                                                                                                                |       |          |                                                                     |
|--------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------|------------------------------------|----------------------------|------------------------|--------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------|-------|----------|---------------------------------------------------------------------|
| <div>T&amp;P<br/>Regen</div> <div>www.tandpregeneration.co.uk</div>                                                                              | Contract Name:<br>Sketchley Lane    |                                    | Client:<br>Barwood Land    |                        |                                                                    | Trial Pit ID:<br>TP22                                                                                                                          |       |          |                                                                     |
|                                                                                                                                                  | Contract Number:<br>P0866 / CS-1745 | Date Started:<br>31/01/2023        | Logged By:<br>RG           | Checked By:<br>TC      | Status:<br>FINAL                                                   | Sheet 1 of 1                                                                                                                                   |       |          |                                                                     |
|                                                                                                                                                  | Easting:<br>442307.67               | Northing:<br>291713.99             | Ground Level:<br>102.82mOD | Plant Used:<br>JCB 3CX |                                                                    | Scale:<br>1:25                                                                                                                                 |       |          |                                                                     |
| Trial Pit Log                                                                                                                                    |                                     |                                    |                            |                        |                                                                    |                                                                                                                                                |       |          |                                                                     |
| Weather: Clear                                                                                                                                   |                                     | Termination: Engineers Instruction |                            |                        | Stability: Stable                                                  |                                                                                                                                                |       |          |                                                                     |
| Samples & In Situ Testing                                                                                                                        |                                     |                                    | Strata Details             |                        |                                                                    |                                                                                                                                                | Water | Backfill |                                                                     |
| Depth                                                                                                                                            | Sample ID                           | Test Result                        | Level (mAOD)               | Depth (m) (Thickness)  | Legend                                                             | Strata Description                                                                                                                             |       |          |                                                                     |
| 0.10<br>0.10 - 0.20                                                                                                                              | ES<br>ES1                           | HV 1.20m, 58 / 46kPa               | 102.62                     | 0.20                   |                                                                    | Dark brown slightly sandy slightly gravelly CLAY with frequent rootlets. Gravel is subrounded to rounded fine to coarse of mudstone. (TOPSOIL) | 1     |          |                                                                     |
| 0.50<br>0.50 - 0.60                                                                                                                              | ES<br>ES2                           |                                    |                            | (0.70)                 |                                                                    | Soft brown slightly gravelly very sandy CLAY. Gravel is subrounded to rounded fine to coarse of mudstone. (BOSWORTH CLAY MEMBER)               |       |          |                                                                     |
| 0.90 - 1.00                                                                                                                                      | D1                                  |                                    |                            | 101.92                 | 0.90                                                               |                                                                                                                                                |       |          | Soft reddish brown gravelly very sandy CLAY. (BOSWORTH CLAY MEMBER) |
|                                                                                                                                                  |                                     |                                    |                            | 101.72                 | 1.10                                                               |                                                                                                                                                |       |          | Firm grey CLAY. (BOSWORTH CLAY MEMBER)                              |
|                                                                                                                                                  |                                     | HV 2.00m, 66 / 32kPa               |                            | (1.40)                 |                                                                    |                                                                                                                                                | 2     |          |                                                                     |
| 2.40 - 2.50<br>2.40 - 2.50                                                                                                                       | B2<br>D2                            | HV 2.50m, 62 / 40kPa               | 100.32                     | 2.50                   |                                                                    | End of Trial Pit at 2.50m                                                                                                                      | 3     |          |                                                                     |
|                                                                                                                                                  |                                     |                                    |                            |                        |                                                                    |                                                                                                                                                | 4     |          |                                                                     |
|                                                                                                                                                  |                                     |                                    |                            |                        |                                                                    |                                                                                                                                                | 5     |          |                                                                     |
| Sample Key: B = Bulk Disturbed D = Small Disturbed U = Undisturbed Open-Drive W = Water G = Gas ES = Environmental Soil EW = Environmental Water |                                     |                                    |                            |                        |                                                                    |                                                                                                                                                |       |          |                                                                     |
| Remarks:<br>Groundwater not encountered.                                                                                                         |                                     |                                    |                            |                        | Dimensions:<br>Length: 2.50m<br>Width: 0.60m<br>Orientation: °<br> |                                                                                                                                                |       |          |                                                                     |
|                                                                                                                                                  |                                     |                                    |                            |                        | Groundwater Details                                                |                                                                                                                                                |       |          |                                                                     |
|                                                                                                                                                  |                                     |                                    |                            |                        | Depth encountered (m) Remarks                                      |                                                                                                                                                |       |          |                                                                     |
|                                                                                                                                                  |                                     |                                    |                            |                        |                                                                    |                                                                                                                                                |       |          |                                                                     |
|                                                                                                                                                  |                                     |                                    |                            |                        | T&P Regeneration TP Template Issue Number: 1 Issue Date: June 2016 |                                                                                                                                                |       |          |                                                                     |



|                                                                                                                                                  |                                  |                      |                          |                       |                                        |                                                                                                                                                         |                     |                           |                   |          |   |
|--------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------|----------------------|--------------------------|-----------------------|----------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------|---------------------------|-------------------|----------|---|
| <div><div>T&amp;P</div><div>Regen</div><div>www.tandpregeneration.co.uk</div></div>                                                              | Contract Name: Sketchley Lane    |                      |                          | Client: Barwood Land  |                                        |                                                                                                                                                         | Trial Pit ID: TP23  |                           |                   |          |   |
|                                                                                                                                                  | Contract Number: P0866 / CS-1745 |                      | Date Started: 31/01/2023 |                       | Logged By: RG                          |                                                                                                                                                         | Checked By: TC      |                           | Status: FINAL     |          |   |
|                                                                                                                                                  | Easting: 442247.69               |                      | Northing: 291809.09      |                       | Ground Level: 103.68mOD                |                                                                                                                                                         | Plant Used: JCB 3CX |                           | Scale: 1:25       |          |   |
| Trial Pit Log                                                                                                                                    |                                  |                      | Weather: Clear           |                       |                                        | Termination: Engineers Instruction                                                                                                                      |                     |                           | Stability: Stable |          |   |
| Samples & In Situ Testing                                                                                                                        |                                  |                      | Strata Details           |                       |                                        |                                                                                                                                                         |                     |                           | Water             | Backfill |   |
| Depth                                                                                                                                            | Sample ID                        | Test Result          | Level (mAOD)             | Depth (m) (Thickness) | Legend                                 | Strata Description                                                                                                                                      |                     |                           |                   |          |   |
| 0.10<br>0.10 - 0.20                                                                                                                              | ES<br>ES1                        | HV 0.70m, 72 / 46kPa | 103.48                   | 0.20                  |                                        | Dark brown slightly sandy slightly gravelly CLAY with frequent rootlets. Gravel is subrounded to rounded fine to coarse of mudstone. (TOPSOIL)          |                     |                           | 1                 |          |   |
| 0.50<br>0.50 - 0.60                                                                                                                              | ES<br>ES2                        |                      | 103.08                   | 0.60                  |                                        | Soft orangish brown slightly gravelly very sandy CLAY. Gravel is subangular to rounded fine to coarse of mudstone and sandstone. (BOSWORTH CLAY MEMBER) |                     |                           |                   |          |   |
|                                                                                                                                                  |                                  |                      | (1.90)                   |                       | Firm grey CLAY. (BOSWORTH CLAY MEMBER) |                                                                                                                                                         |                     |                           |                   |          |   |
| 2.40 - 2.50                                                                                                                                      | D1                               | HV 2.50m, 64 / 26kPa |                          |                       | 101.18                                 | 2.50                                                                                                                                                    |                     | End of Trial Pit at 2.50m |                   |          | 2 |
|                                                                                                                                                  |                                  |                      |                          |                       |                                        |                                                                                                                                                         |                     |                           | 3                 |          |   |
|                                                                                                                                                  |                                  |                      |                          |                       |                                        |                                                                                                                                                         |                     |                           | 4                 |          |   |
|                                                                                                                                                  |                                  |                      |                          |                       |                                        |                                                                                                                                                         |                     |                           | 5                 |          |   |
| Sample Key: B = Bulk Disturbed D = Small Disturbed U = Undisturbed Open-Drive W = Water G = Gas ES = Environmental Soil EW = Environmental Water |                                  |                      |                          |                       |                                        |                                                                                                                                                         |                     |                           |                   |          |   |
| Remarks:<br>Groundwater not encountered.                                                                                                         |                                  |                      |                          |                       |                                        | Dimensions:                                                                                                                                             |                     |                           |                   |          |   |
|                                                                                                                                                  |                                  |                      |                          |                       |                                        | Length: 2.50m                                                                                                                                           |                     |                           |                   |          |   |
|                                                                                                                                                  |                                  |                      |                          |                       |                                        | Width: 0.60m                                                                                                                                            |                     |                           |                   |          |   |
|                                                                                                                                                  |                                  |                      |                          |                       |                                        | Orientation: °                                                                                                                                          |                     |                           |                   |          |   |
|                                                                                                                                                  |                                  |                      |                          |                       |                                        |                                                                                                                                                         |                     |                           |                   |          |   |
|                                                                                                                                                  |                                  |                      |                          |                       |                                        | Groundwater Details                                                                                                                                     |                     |                           |                   |          |   |
|                                                                                                                                                  |                                  |                      |                          |                       |                                        | Depth encountered (m)                                                                                                                                   |                     |                           |                   |          |   |
|                                                                                                                                                  |                                  |                      |                          |                       |                                        | Remarks                                                                                                                                                 |                     |                           |                   |          |   |
|                                                                                                                                                  |                                  |                      |                          |                       |                                        |                                                                                                                                                         |                     |                           |                   |          |   |
|                                                                                                                                                  |                                  |                      |                          |                       |                                        | T&P Regeneration TP Template Issue Number: 1 Issue Date: June 2016                                                                                      |                     |                           |                   |          |   |

|                                                                                                                                                  |                                     |                                    |                            |                        |                                                                    |                                                                                                                                                |                |       |          |
|--------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------|------------------------------------|----------------------------|------------------------|--------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------|----------------|-------|----------|
| <div>T&amp;P<br/>Regen</div> <div>www.tandpregeneration.co.uk</div>                                                                              | Contract Name:<br>Sketchley Lane    |                                    | Client:<br>Barwood Land    |                        |                                                                    | Trial Pit ID:<br>TP24                                                                                                                          |                |       |          |
|                                                                                                                                                  | Contract Number:<br>P0866 / CS-1745 | Date Started:<br>31/01/2023        | Logged By:<br>RG           | Checked By:<br>TC      | Status:<br>FINAL                                                   | Sheet 1 of 1                                                                                                                                   |                |       |          |
|                                                                                                                                                  | Easting:<br>442123.25               | Northing:<br>291827.64             | Ground Level:<br>100.70mOD | Plant Used:<br>JCB 3CX |                                                                    | Scale:<br>1:25                                                                                                                                 |                |       |          |
| Trial Pit Log                                                                                                                                    |                                     |                                    |                            |                        |                                                                    |                                                                                                                                                |                |       |          |
| Weather: Clear                                                                                                                                   |                                     | Termination: Engineers Instruction |                            |                        | Stability: Stable                                                  |                                                                                                                                                |                |       |          |
| Samples & In Situ Testing                                                                                                                        |                                     |                                    | Strata Details             |                        |                                                                    |                                                                                                                                                |                | Water | Backfill |
| Depth                                                                                                                                            | Sample ID                           | Test Result                        | Level (mAOD)               | Depth (m) (Thickness)  | Legend                                                             | Strata Description                                                                                                                             |                |       |          |
| 0.10<br>0.10 - 0.20                                                                                                                              | ES<br>ES1                           | HV 1.50m, 76 / 66kPa               | 100.40                     | (0.30)                 |                                                                    | Dark brown slightly sandy slightly gravelly CLAY with frequent rootlets. Gravel is subrounded to rounded fine to coarse of mudstone. (TOPSOIL) |                | 1     |          |
| 0.50<br>0.50 - 0.60                                                                                                                              | ES<br>ES2                           |                                    |                            | 0.30                   |                                                                    | Stiff light brown mottled grey CLAY. (BOSWORTH CLAY MEMBER)                                                                                    |                |       |          |
| 1.90 - 2.00                                                                                                                                      | D1                                  | HV 2.50m, 74 / 28kPa               | 98.20                      | (2.20)                 |                                                                    | End of Trial Pit at 2.50m                                                                                                                      |                | 2     |          |
|                                                                                                                                                  |                                     |                                    |                            | 2.50                   |                                                                    |                                                                                                                                                |                |       |          |
|                                                                                                                                                  |                                     |                                    |                            |                        |                                                                    |                                                                                                                                                |                | 3     |          |
|                                                                                                                                                  |                                     |                                    |                            |                        |                                                                    |                                                                                                                                                |                | 4     |          |
|                                                                                                                                                  |                                     |                                    |                            |                        |                                                                    |                                                                                                                                                |                | 5     |          |
| Sample Key: B = Bulk Disturbed D = Small Disturbed U = Undisturbed Open-Drive W = Water G = Gas ES = Environmental Soil EW = Environmental Water |                                     |                                    |                            |                        |                                                                    |                                                                                                                                                |                |       |          |
| Remarks:<br>Groundwater not encountered.                                                                                                         |                                     |                                    |                            |                        | Dimensions:                                                        |                                                                                                                                                |                |       |          |
|                                                                                                                                                  |                                     |                                    |                            |                        | Length: 2.50m                                                      |                                                                                                                                                | Orientation: ° |       |          |
|                                                                                                                                                  |                                     |                                    |                            |                        | Width: 0.60m                                                       |                                                                                                                                                |                |       |          |
|                                                                                                                                                  |                                     |                                    |                            |                        | Groundwater Details                                                |                                                                                                                                                |                |       |          |
|                                                                                                                                                  |                                     |                                    |                            |                        | Depth encountered (m)                                              |                                                                                                                                                | Remarks        |       |          |
|                                                                                                                                                  |                                     |                                    |                            |                        |                                                                    |                                                                                                                                                |                |       |          |
|                                                                                                                                                  |                                     |                                    |                            |                        | T&P Regeneration TP Template Issue Number: 1 Issue Date: June 2016 |                                                                                                                                                |                |       |          |

|                                                                                                                                                  |                                     |                      |                                    |                         |                            |                                                                                                                                                |                        |                                                                  |                  |          |  |  |
|--------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------|----------------------|------------------------------------|-------------------------|----------------------------|------------------------------------------------------------------------------------------------------------------------------------------------|------------------------|------------------------------------------------------------------|------------------|----------|--|--|
| <div>T&amp;P<br/>Regen</div> <div>www.tandpregeneration.co.uk</div>                                                                              | Contract Name:<br>Sketchley Lane    |                      |                                    | Client:<br>Barwood Land |                            |                                                                                                                                                | Trial Pit ID:<br>TP25  |                                                                  |                  |          |  |  |
|                                                                                                                                                  | Contract Number:<br>P0866 / CS-1745 |                      | Date Started:<br>31/01/2023        |                         | Logged By:<br>RG           |                                                                                                                                                | Checked By:<br>TC      |                                                                  | Status:<br>FINAL |          |  |  |
|                                                                                                                                                  | Easting:<br>442266.40               |                      | Northing:<br>291879.37             |                         | Ground Level:<br>107.20mOD |                                                                                                                                                | Plant Used:<br>JCB 3CX |                                                                  | Scale:<br>1:25   |          |  |  |
| Trial Pit Log                                                                                                                                    |                                     |                      |                                    |                         |                            |                                                                                                                                                |                        |                                                                  |                  |          |  |  |
| Weather: Clear                                                                                                                                   |                                     |                      | Termination: Engineers Instruction |                         |                            | Stability: Stable                                                                                                                              |                        |                                                                  |                  |          |  |  |
| Samples & In Situ Testing                                                                                                                        |                                     |                      | Strata Details                     |                         |                            |                                                                                                                                                |                        |                                                                  | Water            | Backfill |  |  |
| Depth                                                                                                                                            | Sample ID                           | Test Result          | Level (mAOD)                       | Depth (m) (Thickness)   | Legend                     | Strata Description                                                                                                                             |                        |                                                                  |                  |          |  |  |
| 0.10<br>0.10 - 0.20                                                                                                                              | ES<br>ES1                           | HV 1.90m, 12 / 8kPa  | 107.00                             | 0.20                    |                            | Dark brown slightly sandy slightly gravelly CLAY with frequent rootlets. Gravel is subrounded to rounded fine to coarse of mudstone. (TOPSOIL) |                        |                                                                  | 1                |          |  |  |
| 0.50<br>0.50 - 0.60                                                                                                                              | ES<br>ES2                           |                      | 105.70                             | 1.50<br>(0.50)          |                            | Brown slightly clayey slightly gravelly SAND. Gravel is subrounded to rounded fine to coarse of mudstone. (WOLSTON SAND AND GRAVEL)            |                        |                                                                  |                  |          |  |  |
| 2.40 - 2.50                                                                                                                                      | D1                                  |                      |                                    |                         |                            | 105.20                                                                                                                                         | 2.00<br>(0.50)         | Very soft orangish brown very sandy CLAY. (BOSWORTH CLAY MEMBER) |                  |          |  |  |
|                                                                                                                                                  |                                     |                      |                                    |                         |                            |                                                                                                                                                |                        | Firm greyish brown sandy CLAY. (BOSWORTH CLAY MEMBER)            |                  |          |  |  |
|                                                                                                                                                  |                                     | HV 2.50m, 46 / 28kPa | 104.70                             | 2.50                    | End of Trial Pit at 2.50m  |                                                                                                                                                |                        | 2                                                                |                  |          |  |  |
|                                                                                                                                                  |                                     |                      |                                    |                         |                            |                                                                                                                                                |                        |                                                                  | 3                |          |  |  |
|                                                                                                                                                  |                                     |                      |                                    |                         |                            |                                                                                                                                                |                        |                                                                  | 4                |          |  |  |
|                                                                                                                                                  |                                     |                      |                                    |                         |                            |                                                                                                                                                |                        |                                                                  | 5                |          |  |  |
| Sample Key: B = Bulk Disturbed D = Small Disturbed U = Undisturbed Open-Drive W = Water G = Gas ES = Environmental Soil EW = Environmental Water |                                     |                      |                                    |                         |                            |                                                                                                                                                |                        |                                                                  |                  |          |  |  |
| Remarks:<br>Groundwater not encountered.                                                                                                         |                                     |                      |                                    |                         |                            | Dimensions:                                                                                                                                    |                        |                                                                  |                  |          |  |  |
|                                                                                                                                                  |                                     |                      |                                    |                         |                            | Length: 2.50m                                                                                                                                  |                        |                                                                  |                  |          |  |  |
|                                                                                                                                                  |                                     |                      |                                    |                         |                            | Width: 0.60m                                                                                                                                   |                        |                                                                  |                  |          |  |  |
|                                                                                                                                                  |                                     |                      |                                    |                         |                            | Orientation: °                                                                                                                                 |                        |                                                                  |                  |          |  |  |
|                                                                                                                                                  |                                     |                      |                                    |                         |                            | Groundwater Details                                                                                                                            |                        |                                                                  |                  |          |  |  |
|                                                                                                                                                  |                                     |                      |                                    |                         |                            | Depth encountered (m)                                                                                                                          |                        |                                                                  |                  |          |  |  |
|                                                                                                                                                  |                                     |                      |                                    |                         |                            | Remarks                                                                                                                                        |                        |                                                                  |                  |          |  |  |
| T&P Regeneration TP Template Issue Number: 1 Issue Date: June 2016                                                                               |                                     |                      |                                    |                         |                            |                                                                                                                                                |                        |                                                                  |                  |          |  |  |



## Windowless Sample Borehole Log

## Sketchley Lane

## Barwood Land

P0866 / CS-1745

02/02/2023

RG

TC

FINAL

WS01

Sheet 1 of 1

Scale:

1:25

Weather: Overcast

Termination: Engineers Instruction

SPT Hammer: 110.120 Energy Ratio: 70%

|                                                                                                                                                                       |            |            |             |             |                   |          |                 |          |                                              |  |  |          |
|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------|------------|-------------|-------------|-------------------|----------|-----------------|----------|----------------------------------------------|--|--|----------|
| Sample Key:    B = Bulk Disturbed    D = Small Disturbed    U = Undisturbed Open-Drive    W = Water    G = Gas    ES = Environmental Soil    EW = Environmental Water |            |            |             |             |                   |          |                 |          |                                              |  |  |          |
| Start & End of Shift Observations                                                                                                                                     |            |            |             |             | Borehole Diameter |          | Casing Diameter |          | Remarks:<br><br>Groundwater not encountered. |  |  |          |
| Date                                                                                                                                                                  | Time       | Depth (m)  | Casing (m)  | Water (m)   | Depth (m)         | Dia (mm) | Depth           | Dia (mm) |                                              |  |  |          |
|                                                                                                                                                                       |            |            |             |             |                   |          |                 |          |                                              |  |  |          |
|                                                                                                                                                                       |            |            |             |             |                   |          |                 |          |                                              |  |  |          |
| Water Strikes                                                                                                                                                         |            |            |             |             | Installation      |          |                 |          |                                              |  |  |          |
| Strike (m)                                                                                                                                                            | Casing (m) | Sealed (m) | Time (mins) | Rose to (m) | Remarks           | Top (m)  | Base (m)        | Type     |                                              |  |  | Dia (mm) |
|                                                                                                                                                                       |            |            |             |             |                   | 0.00     | 1.00            | PLAIN    |                                              |  |  | 63       |
|                                                                                                                                                                       |            |            |             |             |                   | 1.00     | 5.00            | SLOTTED  |                                              |  |  | 63       |
| T&P Regeneration WS Template      Issue Number: 1      Issue Date: June 2016                                                                                          |            |            |             |             |                   |          |                 |          |                                              |  |  |          |



|                                                                                                                                                  |                                     |                            |                                     |                         |                                                                                                                               |                                    |                                                                                                                                                 |          |                                       |                         |  |
|--------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------|----------------------------|-------------------------------------|-------------------------|-------------------------------------------------------------------------------------------------------------------------------|------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------|----------|---------------------------------------|-------------------------|--|
| <div><div>T&amp;P</div><div>Regen</div><div>www.tandpregeneration.co.uk</div></div>                                                              | Contract Name:<br>Sketchley Lane    |                            |                                     | Client:<br>Barwood Land |                                                                                                                               |                                    | Borehole ID:<br>WS02                                                                                                                            |          |                                       |                         |  |
|                                                                                                                                                  | Contract Number:<br>P0866 / CS-1745 |                            | Date Started:<br>02/02/2023         |                         | Logged By:<br>RG                                                                                                              |                                    | Checked By:<br>TC                                                                                                                               |          | Status:<br>FINAL                      |                         |  |
|                                                                                                                                                  | Easting:<br>442536.72               |                            | Northing:<br>291978.41              |                         | Ground Level:<br>117.12mOD                                                                                                    |                                    | Plant Used:<br>Competitor Dart 131                                                                                                              |          | Scale:<br>1:25                        |                         |  |
| Windowless Sample Borehole Log                                                                                                                   |                                     |                            | Weather: Overcast                   |                         |                                                                                                                               | Termination: Engineers Instruction |                                                                                                                                                 |          | SPT Hammer: 110.120 Energy Ratio: 70% |                         |  |
| Samples & In Situ Testing                                                                                                                        |                                     |                            |                                     |                         | Strata Details                                                                                                                |                                    |                                                                                                                                                 |          |                                       | Groundwater             |  |
| Depth                                                                                                                                            | Sample ID                           | Windowless Sample Recovery | Test Result                         | Level (mAOD)            | Depth (m) (Thickness)                                                                                                         | Legend                             | Strata Description                                                                                                                              |          | Water Strike                          | Backfill / Installation |  |
| 1.00 - 1.20                                                                                                                                      | D1                                  | 0.00 - 1.00 = 50%          | SPT(S) 1.20m, N=11<br>(1,1/2,3,3,3) | 116.92                  | 0.20                                                                                                                          |                                    | Dark brown slightly clayey slightly gravelly SAND with frequent rootlets. Gravel is subrounded to rounded fine to coarse of mudstone. (TOPSOIL) | 1        |                                       |                         |  |
|                                                                                                                                                  |                                     | (1.70)                     |                                     |                         | Stiff brown slightly sandy slightly gravelly CLAY. Gravel is subrounded to rounded fine to coarse of mudstone. (OADBY MEMBER) |                                    |                                                                                                                                                 |          |                                       |                         |  |
| 2.00 - 2.20                                                                                                                                      | D2                                  | 2.00 - 3.00 = 95%          | SPT(S) 2.00m, N=20<br>(4,5/5,5,5,5) | 115.22                  | 1.90                                                                                                                          |                                    | Very stiff brown gravelly CLAY. Gravel is subrounded to rounded fine to coarse of mudstone. (OADBY MEMBER)                                      | 2        |                                       |                         |  |
|                                                                                                                                                  |                                     | (1.10)                     |                                     |                         |                                                                                                                               |                                    |                                                                                                                                                 |          |                                       |                         |  |
| 3.00 - 3.20                                                                                                                                      | D3                                  | 3.00 - 4.00 = 85%          | SPT(S) 3.00m, N=26<br>(2,4/6,6,7,7) | 114.12                  | 3.00                                                                                                                          |                                    | Very stiff reddish brown slightly gravelly sandy CLAY. Gravel is subrounded to rounded fine to coarse of mudstone. (OADBY MEMBER)               | 3        |                                       |                         |  |
| 4.00 - 4.20                                                                                                                                      | D4                                  | 4.00 - 5.00 = 95%          | SPT(S) 4.00m, N=27<br>(5,5/6,7,7,7) | 112.12                  | (2.00)                                                                                                                        |                                    | End of Borehole at 5.00m                                                                                                                        | 5        |                                       |                         |  |
| 5.00 - 5.20                                                                                                                                      | D5                                  |                            | SPT(S) 5.00m, N=13<br>(2,2/4,3,3,3) |                         | 5.00                                                                                                                          |                                    |                                                                                                                                                 |          |                                       |                         |  |
| Sample Key: B = Bulk Disturbed D = Small Disturbed U = Undisturbed Open-Drive W = Water G = Gas ES = Environmental Soil EW = Environmental Water |                                     |                            |                                     |                         |                                                                                                                               |                                    |                                                                                                                                                 |          |                                       |                         |  |
| Start & End of Shift Observations                                                                                                                |                                     |                            |                                     |                         | Borehole Diameter                                                                                                             |                                    | Casing Diameter                                                                                                                                 |          | Remarks:                              |                         |  |
| Date                                                                                                                                             | Time                                | Depth (m)                  | Casing (m)                          | Water (m)               | Depth (m)                                                                                                                     | Dia (mm)                           | Depth                                                                                                                                           | Dia (mm) | Groundwater not encountered.          |                         |  |
|                                                                                                                                                  |                                     |                            |                                     |                         |                                                                                                                               |                                    |                                                                                                                                                 |          |                                       |                         |  |
| Water Strikes                                                                                                                                    |                                     |                            |                                     |                         | Installation                                                                                                                  |                                    |                                                                                                                                                 |          |                                       |                         |  |
| Strike (m)                                                                                                                                       | Casing (m)                          | Sealed (m)                 | Time (mins)                         | Rose to (m)             | Remarks                                                                                                                       | Top (m)                            | Base (m)                                                                                                                                        | Type     | Dia (mm)                              |                         |  |
|                                                                                                                                                  |                                     |                            |                                     |                         |                                                                                                                               | 0.00                               | 1.00                                                                                                                                            | PLAIN    | 63                                    |                         |  |
|                                                                                                                                                  |                                     |                            |                                     |                         |                                                                                                                               | 1.00                               | 5.00                                                                                                                                            | SLOTTED  | 63                                    |                         |  |
| T&P Regeneration WS Template Issue Number: 1 Issue Date: June 2016                                                                               |                                     |                            |                                     |                         |                                                                                                                               |                                    |                                                                                                                                                 |          |                                       |                         |  |

[www.tandpregeneration.co.uk](http://www.tandpregeneration.co.uk)

## Windowless Sample Borehole Log

Contract Name:

Sketchley Lane

Contract Number:

P0866 / CS-1745

Date Started:

02/02/2023

|            |  |
|------------|--|
| Logged By: |  |
|------------|--|

RG

|             |
|-------------|
| Checked By: |
|-------------|

## Barwood Land

TC

|         |
|---------|
| Status: |
|---------|

FINAL

Borehole ID:

WS03

Sheet 1 of 1

Scale:

1.25

Weather: Overcast

Termination: Engineers Instruction

SPT Hammer: 110.120 Energy Ratio: 70%

| Samples & In Situ Testing |           |                            |                                     | Strata Details |                       |                                                                                                                          |                                                                                                                                                 | Groundwater  |                         |
|---------------------------|-----------|----------------------------|-------------------------------------|----------------|-----------------------|--------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------|--------------|-------------------------|
| Depth                     | Sample ID | Windowless Sample Recovery | Test Result                         | Level (mAOD)   | Depth (m) (Thickness) | Legend                                                                                                                   | Strata Description                                                                                                                              | Water Strike | Backfill / Installation |
| -1.00 - 1.20              | D1        | 0.00 - 1.00<br>= 90%       | SPT(S) 1.20m, N=4<br>(0,1/1,1,1,1)  | 113.13         | 0.20                  |                                                                                                                          | Dark brown slightly clayey slightly gravelly SAND with frequent rootlets. Gravel is subrounded to rounded fine to coarse of mudstone. (TOPSOIL) | 1            |                         |
|                           |           |                            |                                     | (0.90)         |                       | Soft brown slightly gravelly very sandy CLAY. Gravel is subrounded to rounded fine to coarse of mudstone. (OADBY MEMBER) |                                                                                                                                                 |              |                         |
| -2.00 - 2.20              | D2        | 1.00 - 2.00<br>= 65%       | SPT(S) 2.00m, N=12<br>(3,3/3,3,3,3) | 112.23         | 1.10                  |                                                                                                                          | Very loose brown slightly gravelly very clayey SAND. Gravel is subrounded to rounded fine to coarse of mudstone. (WOLSTON SAND AND GRAVEL)      | 2            |                         |
| -3.00 - 3.20              | D3        | 2.00 - 3.00<br>= 70%       | SPT(S) 3.00m, N=4<br>(1,1/1,1,1,1)  |                | (2.20)                |                                                                                                                          |                                                                                                                                                 | 3            |                         |
| -4.00 - 4.20              | D4        | 3.00 - 4.00<br>= 50%       | SPT(S) 4.00m, N=4<br>(1,1/1,1,1,1)  | 110.03         | 3.30                  |                                                                                                                          | Very loose brown SAND. (WOLSTON SAND AND GRAVEL)                                                                                                | 4            |                         |
| -5.00 - 5.20              | D5        | 4.00 - 5.00<br>= 20%       | SPT(S) 5.00m, N=2<br>(0,0/0,0,1,1)  |                | (1.70)                |                                                                                                                          |                                                                                                                                                 | 5            |                         |
|                           |           |                            |                                     | 108.33         | 5.00                  |                                                                                                                          | End of Borehole at 5.00m                                                                                                                        |              |                         |

Sample Key: B = Bulk Disturbed D = Small Disturbed U = Undisturbed Open-Drive W = Water G = Gas ES = Environmental Soil EW = Environmental Water

**Start & End of Shift Observations**

|                          |  |
|--------------------------|--|
| <b>Borehole Diameter</b> |  |
|--------------------------|--|

**Casing Diameter**

Remarks:

Groundwater encountered at 3.0mbgl.

## Water Strikes

|  |              |
|--|--------------|
|  |              |
|  | Installation |

| Strike (m) | Casing (m) | Sealed (m) | Time (mins) | Rose to (m) | Remarks | Top (m) | Base (m) | Type    | Dia (mm) |
|------------|------------|------------|-------------|-------------|---------|---------|----------|---------|----------|
| 3.00       |            |            | 0           | 2.00        |         | 0.00    | 1.00     | PLAIN   | 63       |
|            |            |            |             |             |         | 1.00    | 5.00     | SLOTTED | 63       |

|                                                                                                                                                  |                                  |                            |                                     |                      |                         |                                                                                                                              |                                                                                                                                                   |          |                                       |                         |  |
|--------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------|----------------------------|-------------------------------------|----------------------|-------------------------|------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------|----------|---------------------------------------|-------------------------|--|
| <div><div>T&amp;P</div><div>Regen</div><div>www.tandpregeneration.co.uk</div></div>                                                              | Contract Name: Sketchley Lane    |                            |                                     | Client: Barwood Land |                         |                                                                                                                              | Borehole ID: WS04                                                                                                                                 |          |                                       |                         |  |
|                                                                                                                                                  | Contract Number: P0866 / CS-1745 |                            | Date Started: 02/02/2023            |                      | Logged By: RG           |                                                                                                                              | Checked By: TC                                                                                                                                    |          | Status: FINAL                         |                         |  |
|                                                                                                                                                  | Easting: 442514.41               |                            | Northing: 291902.27                 |                      | Ground Level: 113.53mOD |                                                                                                                              | Plant Used: Competitor Dart 133                                                                                                                   |          | Scale: 1:25                           |                         |  |
| Windowless Sample Borehole Log                                                                                                                   |                                  |                            | Weather: Overcast                   |                      |                         | Termination: Engineers Instruction                                                                                           |                                                                                                                                                   |          | SPT Hammer: 110.120 Energy Ratio: 70% |                         |  |
| Samples & In Situ Testing                                                                                                                        |                                  |                            |                                     |                      | Strata Details          |                                                                                                                              |                                                                                                                                                   |          |                                       | Groundwater             |  |
| Depth                                                                                                                                            | Sample ID                        | Windowless Sample Recovery | Test Result                         | Level (mAOD)         | Depth (m) (Thickness)   | Legend                                                                                                                       | Strata Description                                                                                                                                |          | Water Strike                          | Backfill / Installation |  |
| 1.00 - 1.20                                                                                                                                      | D1                               | 0.00 - 1.00 = 90%          | SPT(S) 1.20m, N=15<br>(2,2/3,4,4,4) | 113.33               | 0.20                    |                                                                                                                              | Dark brown slightly sandy slightly gravelly CLAY with frequent rootlets. Gravel is subrounded to rounded fine to coarse of mudstone.<br>(TOPSOIL) | 1        |                                       |                         |  |
|                                                                                                                                                  |                                  | (2.70)                     |                                     |                      |                         | Very stiff brown slightly sandy gravelly CLAY. Gravel is subrounded to rounded fine to coarse of mudstone.<br>(OADBY MEMBER) |                                                                                                                                                   |          |                                       |                         |  |
| 2.00 - 2.20                                                                                                                                      | D2                               | 2.00 - 3.00 = 80%          | SPT(S) 2.00m, N=18<br>(3,3/3,5,5,5) | 110.63               | 2.90                    |                                                                                                                              | Loose brown SAND.<br>(WOLSTON SAND AND GRAVEL)                                                                                                    | 2        |                                       |                         |  |
| 3.00 - 3.20                                                                                                                                      | D3                               | 3.00 - 4.00 = 20%          | SPT(S) 3.00m, N=7<br>(2,2/1,2,2,2)  |                      |                         |                                                                                                                              |                                                                                                                                                   | 3        |                                       |                         |  |
| 4.00 - 4.20                                                                                                                                      | D4                               | 4.00 - 5.00 = 50%          | SPT(S) 4.00m, N=8<br>(2,2/2,2,2,2)  | 108.53               | 5.00                    |                                                                                                                              | End of Borehole at 5.00m                                                                                                                          | 4        |                                       |                         |  |
| 5.00 - 5.20                                                                                                                                      | D5                               |                            | SPT(S) 5.00m, N=8<br>(2,1/2,2,2,2)  |                      |                         |                                                                                                                              |                                                                                                                                                   | 5        |                                       |                         |  |
| Sample Key: B = Bulk Disturbed D = Small Disturbed U = Undisturbed Open-Drive W = Water G = Gas ES = Environmental Soil EW = Environmental Water |                                  |                            |                                     |                      |                         |                                                                                                                              |                                                                                                                                                   |          |                                       |                         |  |
| Start & End of Shift Observations                                                                                                                |                                  |                            |                                     |                      | Borehole Diameter       |                                                                                                                              | Casing Diameter                                                                                                                                   |          | Remarks:                              |                         |  |
| Date                                                                                                                                             | Time                             | Depth (m)                  | Casing (m)                          | Water (m)            | Depth (m)               | Dia (mm)                                                                                                                     | Depth                                                                                                                                             | Dia (mm) | Groundwater not encountered.          |                         |  |
|                                                                                                                                                  |                                  |                            |                                     |                      |                         |                                                                                                                              |                                                                                                                                                   |          |                                       |                         |  |
| Water Strikes                                                                                                                                    |                                  |                            |                                     |                      | Installation            |                                                                                                                              |                                                                                                                                                   |          |                                       |                         |  |
| Strike (m)                                                                                                                                       | Casing (m)                       | Sealed (m)                 | Time (mins)                         | Rose to (m)          | Remarks                 | Top (m)                                                                                                                      | Base (m)                                                                                                                                          | Type     | Dia (mm)                              |                         |  |
|                                                                                                                                                  |                                  |                            |                                     |                      |                         | 0.00                                                                                                                         | 1.00                                                                                                                                              | PLAIN    | 63                                    |                         |  |
|                                                                                                                                                  |                                  |                            |                                     |                      |                         | 1.00                                                                                                                         | 5.00                                                                                                                                              | SLOTTED  | 63                                    |                         |  |
| T&P Regeneration WS Template Issue Number: 1 Issue Date: June 2016                                                                               |                                  |                            |                                     |                      |                         |                                                                                                                              |                                                                                                                                                   |          |                                       |                         |  |

|                                                                                                                                                  |                                  |                            |                                  |                      |                         |                                                                                                                               |                                                                                                                                                |          |                                       |                         |  |
|--------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------|----------------------------|----------------------------------|----------------------|-------------------------|-------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------|----------|---------------------------------------|-------------------------|--|
| <div><div>T&amp;P</div><div>Regen</div><div>www.tandpregeneration.co.uk</div></div>                                                              | Contract Name: Sketchley Lane    |                            |                                  | Client: Barwood Land |                         |                                                                                                                               | Borehole ID: WS05                                                                                                                              |          |                                       |                         |  |
|                                                                                                                                                  | Contract Number: P0866 / CS-1745 |                            | Date Started: 02/02/2023         |                      | Logged By: RG           |                                                                                                                               | Checked By: TC                                                                                                                                 |          | Status: FINAL                         |                         |  |
|                                                                                                                                                  | Easting: 442400.82               |                            | Northing: 291890.71              |                      | Ground Level: 112.05mOD |                                                                                                                               | Plant Used: Competitor Dart 134                                                                                                                |          | Scale: 1:25                           |                         |  |
| Windowless Sample Borehole Log                                                                                                                   |                                  |                            | Weather: Overcast                |                      |                         | Termination: Engineers Instruction                                                                                            |                                                                                                                                                |          | SPT Hammer: 110.120 Energy Ratio: 70% |                         |  |
| Samples & In Situ Testing                                                                                                                        |                                  |                            |                                  |                      | Strata Details          |                                                                                                                               |                                                                                                                                                |          |                                       | Groundwater             |  |
| Depth                                                                                                                                            | Sample ID                        | Windowless Sample Recovery | Test Result                      | Level (mAOD)         | Depth (m) (Thickness)   | Legend                                                                                                                        | Strata Description                                                                                                                             |          | Water Strike                          | Backfill / Installation |  |
| 1.00 - 1.20                                                                                                                                      | D1                               | 0.00 - 1.00 = 80%          | SPT(S) 1.20m, N=14 (1,2/2,3,4,5) | 111.85               | 0.20                    |                                                                                                                               | Dark brown slightly sandy slightly gravelly CLAY with frequent rootlets. Gravel is subrounded to rounded fine to coarse of mudstone. (TOPSOIL) | 1        |                                       |                         |  |
|                                                                                                                                                  |                                  |                            |                                  | (0.90)               |                         | Stiff brown slightly sandy slightly gravelly CLAY. Gravel is subrounded to rounded fine to coarse of mudstone. (OADBY MEMBER) |                                                                                                                                                |          |                                       |                         |  |
| 2.00 - 2.20                                                                                                                                      | D2                               | 2.00 - 3.00 = 90%          | SPT(S) 2.00m, N=11 (2,2/2,2,3,4) | 110.95               | 1.10                    |                                                                                                                               | Stiff reddish brown slightly gravelly CLAY. Gravel is subrounded to rounded fine to coarse of mudstone. (OADBY MEMBER)                         | 2        |                                       |                         |  |
| 3.00 - 3.20                                                                                                                                      | D3                               | 3.00 - 4.00 = 100%         | SPT(S) 3.00m, N=25 (3,5/5,6,7,7) |                      | (3.90)                  |                                                                                                                               |                                                                                                                                                | 3        |                                       |                         |  |
| 4.00 - 4.20                                                                                                                                      | D4                               | 4.00 - 5.00 = 95%          | SPT(S) 4.00m, N=20 (4,5/5,5,5,5) |                      |                         |                                                                                                                               |                                                                                                                                                | 4        |                                       |                         |  |
| 5.00 - 5.20                                                                                                                                      | D5                               |                            | SPT(S) 5.00m, N=26 (5,5/5,7,7,7) | 107.05               | 5.00                    |                                                                                                                               | End of Borehole at 5.00m                                                                                                                       | 5        |                                       |                         |  |
| Sample Key: B = Bulk Disturbed D = Small Disturbed U = Undisturbed Open-Drive W = Water G = Gas ES = Environmental Soil EW = Environmental Water |                                  |                            |                                  |                      |                         |                                                                                                                               |                                                                                                                                                |          |                                       |                         |  |
| Start & End of Shift Observations                                                                                                                |                                  |                            |                                  |                      | Borehole Diameter       |                                                                                                                               | Casing Diameter                                                                                                                                |          | Remarks:                              |                         |  |
| Date                                                                                                                                             | Time                             | Depth (m)                  | Casing (m)                       | Water (m)            | Depth (m)               | Dia (mm)                                                                                                                      | Depth                                                                                                                                          | Dia (mm) | Groundwater not encountered.          |                         |  |
|                                                                                                                                                  |                                  |                            |                                  |                      |                         |                                                                                                                               |                                                                                                                                                |          |                                       |                         |  |
| Water Strikes                                                                                                                                    |                                  |                            |                                  |                      | Installation            |                                                                                                                               |                                                                                                                                                |          |                                       |                         |  |
| Strike (m)                                                                                                                                       | Casing (m)                       | Sealed (m)                 | Time (mins)                      | Rose to (m)          | Remarks                 | Top (m)                                                                                                                       | Base (m)                                                                                                                                       | Type     | Dia (mm)                              |                         |  |
|                                                                                                                                                  |                                  |                            |                                  |                      |                         | 0.00                                                                                                                          | 1.00                                                                                                                                           | PLAIN    | 63                                    |                         |  |
|                                                                                                                                                  |                                  |                            |                                  |                      |                         | 1.00                                                                                                                          | 5.00                                                                                                                                           | SLOTTED  | 63                                    |                         |  |
| T&P Regeneration WS Template Issue Number: 1 Issue Date: June 2016                                                                               |                                  |                            |                                  |                      |                         |                                                                                                                               |                                                                                                                                                |          |                                       |                         |  |



## Appendix D – Geotechnical Results



# Laboratory Report



## Contract Number: 64419

Client Ref: **P0866**

Client PO: **9236 CS-1745**

Date Received: **07-02-2023**

Date Completed: **27-02-2023**

Report Date: **27-02-2023**

Client: **T&P Regeneration**

**Unit 4**

**Brunel Lock Development**

**Smeaton Road**

**Bristol**

**BS1 6SE**

This report has been checked and approved by:

**Brendan Evans**

Office Administrator

Contract Title: **Sketchley Lane**

For the attention of: **Rachel Gilbert**

| Test Description                                                                                                                                      | Qty |
|-------------------------------------------------------------------------------------------------------------------------------------------------------|-----|
| <b>Moisture Content</b><br>BS 1377:1990 - Part 2 : 3.2 - * UKAS                                                                                       | 10  |
| <b>4 Point Liquid &amp; Plastic Limit</b><br>BS 1377:1990 - Part 2 : 4.3 & 5.3 - * UKAS                                                               | 10  |
| <b>PSD Wet Sieve method</b><br>BS 1377:1990 - Part 2 : 9.2 - * UKAS                                                                                   | 4   |
| <b>BRE Suite B Greenfield Site (pyrite present)</b><br><b>includes pH, water &amp; acid soluble sulphate and total sulphur</b><br>Sub-contracted Test | 10  |
| <b>Samples Received</b><br>- @ Non Accredited Test                                                                                                    | 6   |
| <b>Disposal of samples for job</b>                                                                                                                    | 1   |

Notes: **Observations and Interpretations are outside the UKAS Accreditation**

\* - denotes test included in laboratory scope of accreditation

# - denotes test carried out by approved contractor

@ - denotes non accredited tests

This certificate is issued in accordance with the accreditation requirements of the United Kingdom Accreditation Service. The results reported herein relate only to the material supplied to the laboratory. This test report/certificate shall not be reproduced except in full, without the approval of GEO Site & Testing Services Ltd. Any opinions or interpretations stated - within this report/certificate are excluded from the laboratories UKAS accreditation.

#### Approved Signatories:

Brendan Evans (Office Administrator) - Darren Bourne (Quality Senior Technician) - Paul Evans (Director)

Richard John (Quality/Technical Manager) - Shaun Jones (Laboratory manager) - Shaun Thomas (Site Manager)

Wayne Honey (Human Resources/ Health and Safety Manager)

GEO Site & Testing Services Ltd

Units 3-4, Heol Aur, Dafen, Llanelli, Carmarthenshire, Wales SA14 8QN

Tel: 01554 784040 Fax: 01554 784041 info@gstl.co.uk gstl.co.uk



**NATURAL MOISTURE, LIQUID LIMIT, PLASTIC LIMIT AND  
PLASTICITY INDEX  
( BS 1377:1990 - Part 2 : 4.3 & 5.3 )**

|                 |                     |  |
|-----------------|---------------------|--|
| Contract Number | 64419               |  |
| Project Name    | Sketchley Lane      |  |
| Date Tested     | 16/02/2023          |  |
|                 | <b>DESCRIPTIONS</b> |  |

[illegible]

Operator

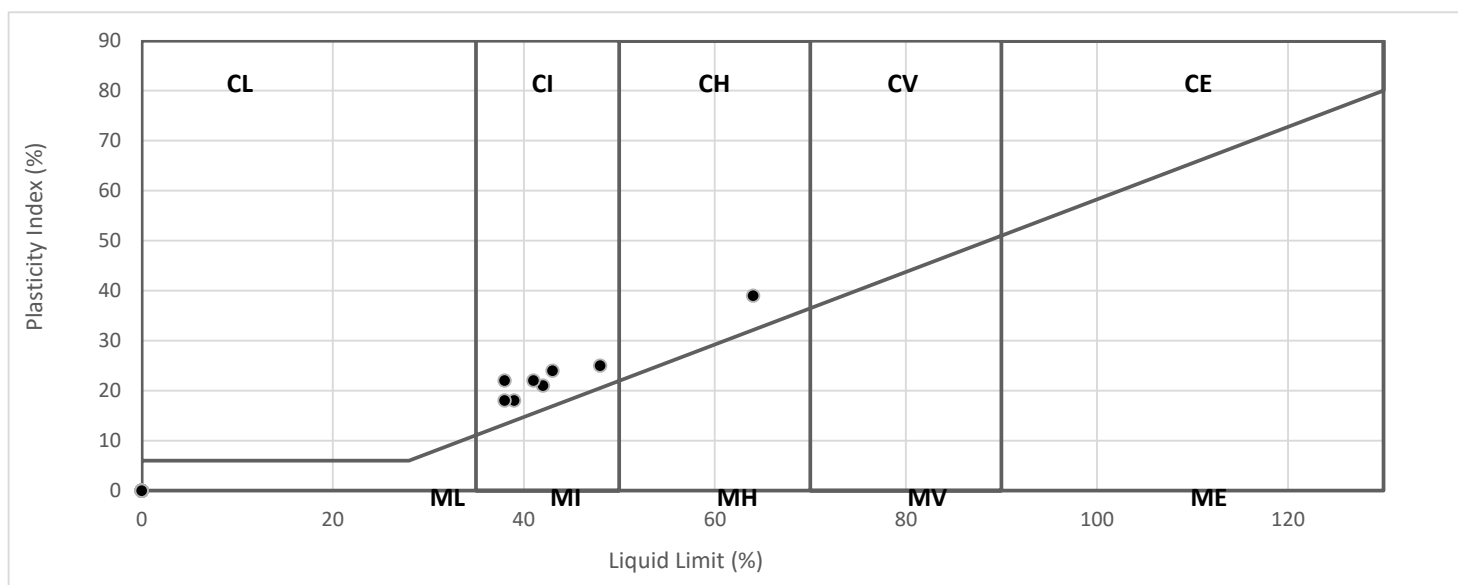
Ethan Harper

|                 |                |  |
|-----------------|----------------|--|
| Contract Number | 64419          |  |
| Project Name    | Sketchley Lane |  |
| Date Tested     | 16/02/2023     |  |

[illegible]

Symbols: NP : Non Plastic # : Liquid Limit and Plastic Limit Wet Sieved

### PLASTICITY CHART FOR CASAGRANDE CLASSIFICATION BS 5930:2015+A1:2020



|              |
|--------------|
| Operator     |
| Ethan Harper |



**PARTICLE SIZE DISTRIBUTION**  
**BS 1377 Part 2:1990**  
**Wet Sieve, Clause 9.2**

Contract Number 64419

Borehole/Pit No. TP03

Project Name Sketchley Lane

Sample No. 1

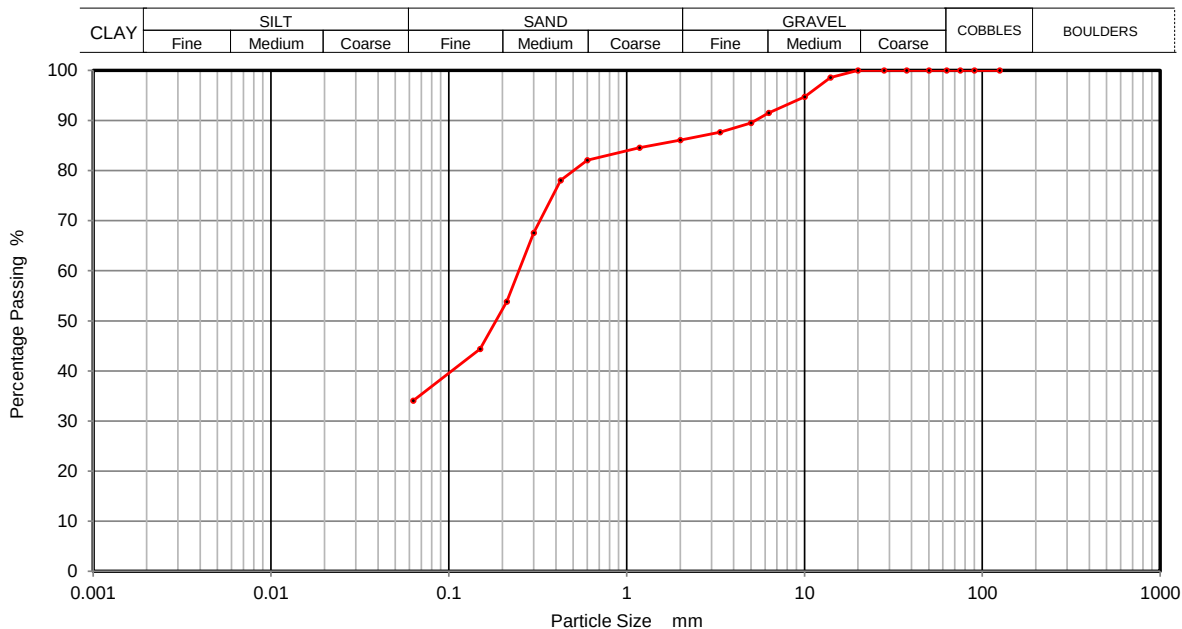
Soil Description Brown fine to coarse gravelly silty/ clayey fine to coarse SAND

Depth Top 1.90

Depth Base 2.00

Date Tested 19/02/2023

Sample Type B



| Sieving          |           | Sedimentation    |           |
|------------------|-----------|------------------|-----------|
| Particle Size mm | % Passing | Particle Size mm | % Passing |
| 125              | 100       |                  |           |
| 90               | 100       |                  |           |
| 75               | 100       |                  |           |
| 63               | 100       |                  |           |
| 50               | 100       |                  |           |
| 37.5             | 100       |                  |           |
| 28               | 100       |                  |           |
| 20               | 100       |                  |           |
| 14               | 99        |                  |           |
| 10               | 95        |                  |           |
| 6.3              | 92        |                  |           |
| 5                | 90        |                  |           |
| 3.35             | 88        |                  |           |
| 2                | 86        |                  |           |
| 1.18             | 85        |                  |           |
| 0.6              | 82        |                  |           |
| 0.425            | 78        |                  |           |
| 0.3              | 68        |                  |           |
| 0.212            | 54        |                  |           |
| 0.15             | 44        |                  |           |
| 0.063            | 34        |                  |           |

| Sample Proportions | % dry mass |
|--------------------|------------|
| Cobbles            | 0          |
| Gravel             | 14         |
| Sand               | 52         |
| Silt and Clay      | 34         |
|                    |            |
|                    |            |

Remarks

Preparation and testing in accordance with BS1377 unless noted below

Operator

David Edwards



2788





**PARTICLE SIZE DISTRIBUTION  
BS 1377 Part 2:1990  
Wet Sieve, Clause 9.2**

Contract Number 64419

Borehole/Pit No. TP05

Project Name Sketchley Lane

Sample No. 1

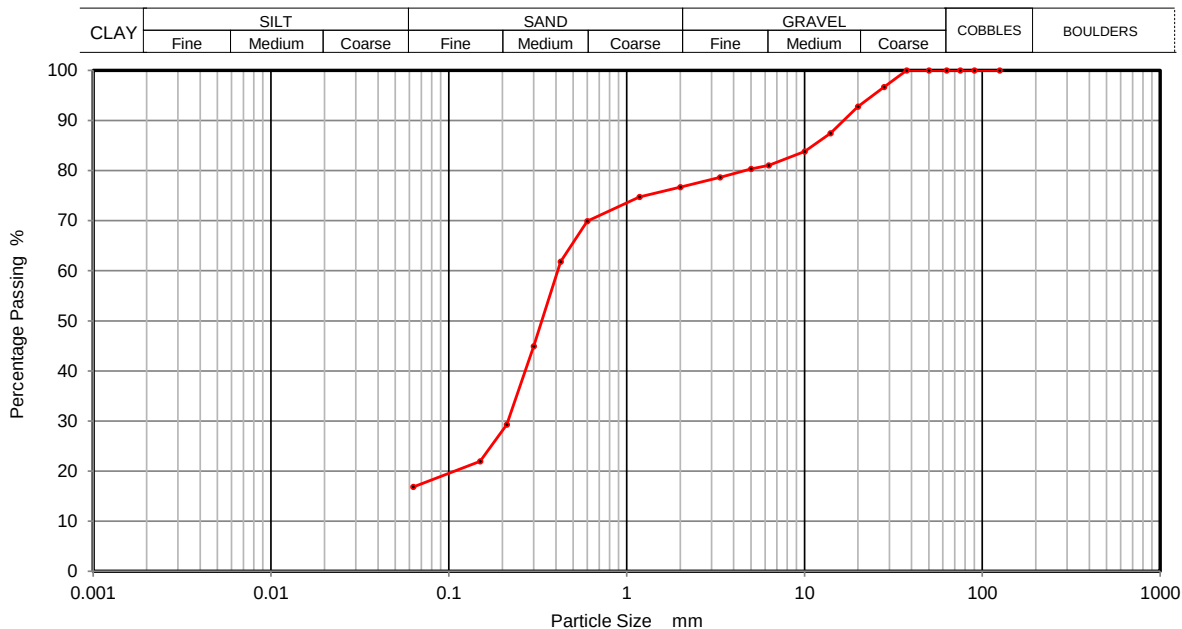
Soil Description Brown silty/ clayey fine to coarse gravelly fine to coarse SAND

Depth Top 1.90

Depth Base 2.00

Date Tested 19/02/2023

Sample Type B



| Sieving          |           | Sedimentation    |           |
|------------------|-----------|------------------|-----------|
| Particle Size mm | % Passing | Particle Size mm | % Passing |
| 125              | 100       |                  |           |
| 90               | 100       |                  |           |
| 75               | 100       |                  |           |
| 63               | 100       |                  |           |
| 50               | 100       |                  |           |
| 37.5             | 100       |                  |           |
| 28               | 97        |                  |           |
| 20               | 93        |                  |           |
| 14               | 87        |                  |           |
| 10               | 84        |                  |           |
| 6.3              | 81        |                  |           |
| 5                | 80        |                  |           |
| 3.35             | 79        |                  |           |
| 2                | 77        |                  |           |
| 1.18             | 75        |                  |           |
| 0.6              | 70        |                  |           |
| 0.425            | 62        |                  |           |
| 0.3              | 45        |                  |           |
| 0.212            | 29        |                  |           |
| 0.15             | 22        |                  |           |
| 0.063            | 17        |                  |           |

| Sample Proportions | % dry mass |
|--------------------|------------|
| Cobbles            | 0          |
| Gravel             | 23         |
| Sand               | 60         |
| Silt and Clay      | 17         |
|                    |            |
|                    |            |

Remarks  
Preparation and testing in accordance with BS1377 unless noted below

|               |
|---------------|
| Operator      |
| David Edwards |





**PARTICLE SIZE DISTRIBUTION  
BS 1377 Part 2:1990  
Wet Sieve, Clause 9.2**

Contract Number 64419

Borehole/Pit No. TP10

Project Name Sketchley Lane

Sample No. 1

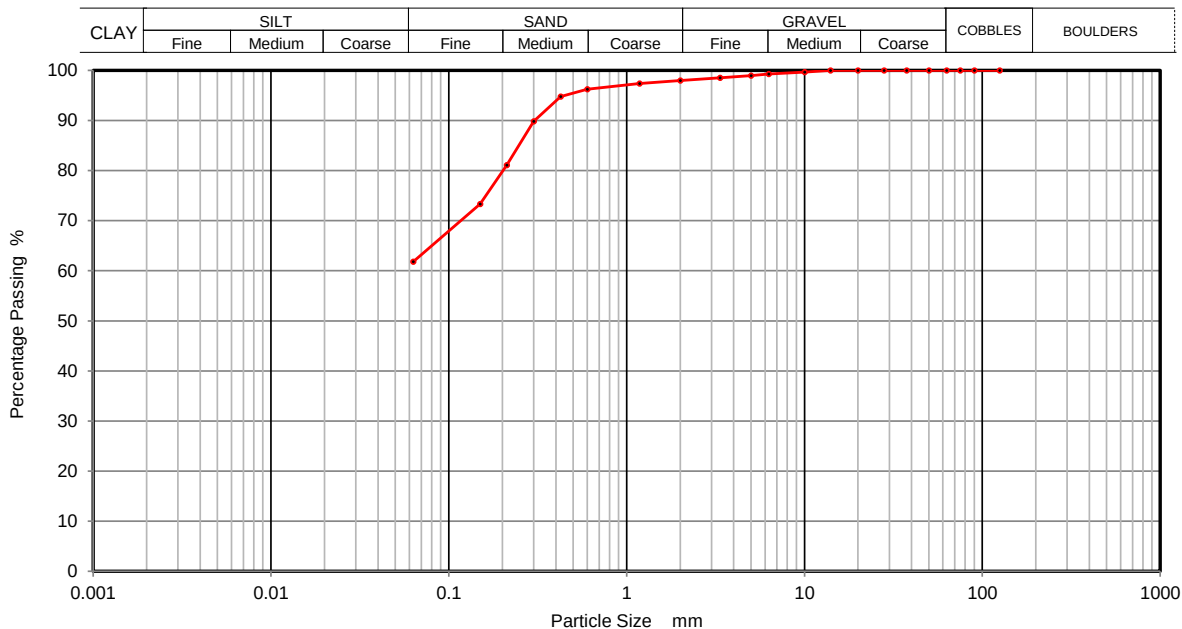
Soil Description Brown slightly gravelly fine to coarse sandy SILT/ CLAY

Depth Top 1.90

Depth Base 2.00

Date Tested 19/02/2023

Sample Type B



| Sieving          |           | Sedimentation    |           |
|------------------|-----------|------------------|-----------|
| Particle Size mm | % Passing | Particle Size mm | % Passing |
| 125              | 100       |                  |           |
| 90               | 100       |                  |           |
| 75               | 100       |                  |           |
| 63               | 100       |                  |           |
| 50               | 100       |                  |           |
| 37.5             | 100       |                  |           |
| 28               | 100       |                  |           |
| 20               | 100       |                  |           |
| 14               | 100       |                  |           |
| 10               | 100       |                  |           |
| 6.3              | 99        |                  |           |
| 5                | 99        |                  |           |
| 3.35             | 99        |                  |           |
| 2                | 98        |                  |           |
| 1.18             | 97        |                  |           |
| 0.6              | 96        |                  |           |
| 0.425            | 95        |                  |           |
| 0.3              | 90        |                  |           |
| 0.212            | 81        |                  |           |
| 0.15             | 73        |                  |           |
| 0.063            | 62        |                  |           |

| Sample Proportions | % dry mass |
|--------------------|------------|
| Cobbles            | 0          |
| Gravel             | 2          |
| Sand               | 36         |
| Silt and Clay      | 62         |
|                    |            |
|                    |            |

**Remarks**

Preparation and testing in accordance with BS1377 unless noted below

|               |
|---------------|
| Operator      |
| David Edwards |



2788

**PARTICLE SIZE DISTRIBUTION  
BS 1377 Part 2:1990  
Wet Sieve, Clause 9.2**

Contract Number 64419

Borehole/Pit No. TP11

Project Name Sketchley Lane

Sample No. 1

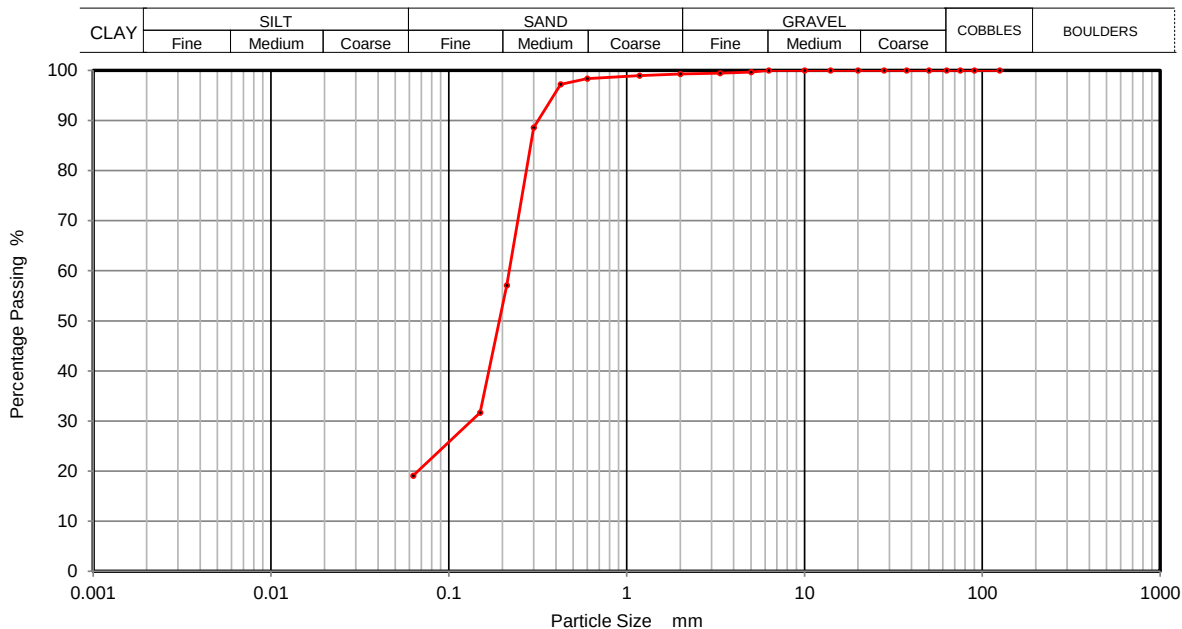
Soil Description Brown slightly gravelly silty/ clayey fine to coarse SAND

Depth Top 2.40

Depth Base 2.50

Date Tested 19/02/2023

Sample Type B



| Sieving          |           | Sedimentation    |           |
|------------------|-----------|------------------|-----------|
| Particle Size mm | % Passing | Particle Size mm | % Passing |
| 125              | 100       |                  |           |
| 90               | 100       |                  |           |
| 75               | 100       |                  |           |
| 63               | 100       |                  |           |
| 50               | 100       |                  |           |
| 37.5             | 100       |                  |           |
| 28               | 100       |                  |           |
| 20               | 100       |                  |           |
| 14               | 100       |                  |           |
| 10               | 100       |                  |           |
| 6.3              | 100       |                  |           |
| 5                | 100       |                  |           |
| 3.35             | 99        |                  |           |
| 2                | 99        |                  |           |
| 1.18             | 99        |                  |           |
| 0.6              | 98        |                  |           |
| 0.425            | 97        |                  |           |
| 0.3              | 89        |                  |           |
| 0.212            | 57        |                  |           |
| 0.15             | 32        |                  |           |
| 0.063            | 19        |                  |           |

| Sample Proportions | % dry mass |
|--------------------|------------|
| Cobbles            | 0          |
| Gravel             | 1          |
| Sand               | 80         |
| Silt and Clay      | 19         |
|                    |            |
|                    |            |

**Remarks**

Preparation and testing in accordance with BS1377 unless noted below

|               |
|---------------|
| Operator      |
| David Edwards |



## ANALYTICAL TEST REPORT

**Contract no:** 119270(1)

**Contract name:** Sketchley Lane

**Client reference:** P0866

**Clients name:** Geo Site and Testing Services

**Clients address:** Unit 3 and 4 Heol Aur  
Dafen Industrial Estate, Dafen  
Llanelli, Carmarthenshire  
SA14 8QN

**Samples received:** 16 February 2023

**Analysis started:** 16 February 2023

**Analysis completed:** 23 February 2023

**Report issued:** 09 March 2023

**Key**

|     |                                               |
|-----|-----------------------------------------------|
| U   | UKAS accredited test                          |
| M   | MCERTS & UKAS accredited test                 |
| \$  | Test carried out by an approved subcontractor |
| I/S | Insufficient sample to carry out test         |
| N/S | Sample not suitable for testing               |

**Approved by:**

Abbie Neasham-Bourn  
Senior Reporting Administrator

# Chemtech Environmental Limited

## SOILS

|                              |                    |                       |            |            |            |            |            |            |
|------------------------------|--------------------|-----------------------|------------|------------|------------|------------|------------|------------|
| <b>Lab number</b>            |                    |                       | 119270-1   | 119270-2   | 119270-3   | 119270-4   | 119270-5   | 119270-6   |
| <b>Sample id</b>             |                    |                       | TP05       | TP10       | TP18       | TP20       | TP22       | TP25       |
| <b>Depth (m)</b>             |                    |                       | 1.90-2.00  | 1.90-2.00  | 1.30-1.40  | 1.20-1.30  | 0.90-1.00  | 2.40-2.50  |
| <b>Sample Type</b>           |                    |                       | D1         | D1         | D1         | D1         | D1         | D1         |
| <b>Date sampled</b>          |                    |                       | 01/02/2023 | 01/02/2023 | 31/01/2023 | 31/01/2023 | 31/01/2023 | 31/01/2023 |
| <b>Test</b>                  | <b>Method</b>      | <b>Units</b>          |            |            |            |            |            |            |
| pH                           | CE004 <sup>U</sup> | units                 | 6.3        | 6.3        | 8.2        | 7.4        | 8.1        | 8.0        |
| Sulphate (2:1 water soluble) | CE061 <sup>U</sup> | mg/l SO <sub>4</sub>  | 69         | 14         | 247        | 38         | 13         | 179        |
| Sulphate (acid extractable)  | CE062 <sup>U</sup> | mg/kg SO <sub>4</sub> | <100       | <100       | 1393       | 104        | 128        | 948        |
| Sulphate (acid extractable)  | CE062 <sup>U</sup> | % w/w SO <sub>4</sub> | <0.01      | <0.01      | 0.14       | 0.01       | 0.01       | 0.09       |
| Sulphur (total)              | CE119              | mg/kg S               | <100       | <100       | 8931       | 187        | 104        | 5344       |
| Sulphur (total)              | CE119              | % w/w S               | <0.01      | <0.01      | 0.89       | 0.02       | 0.01       | 0.53       |



# Chemtech Environmental Limited

## SOILS

|                              |                    |                       |            |            |            |            |
|------------------------------|--------------------|-----------------------|------------|------------|------------|------------|
| <b>Lab number</b>            |                    |                       | 119270-7   | 119270-8   | 119270-9   | 119270-10  |
| <b>Sample id</b>             |                    |                       | WS01       | WS03       | WS04       | WS05       |
| <b>Depth (m)</b>             |                    |                       | 1.00-1.20  | 1.00-1.20  | 1.00-1.20  | 1.00-1.20  |
| <b>Sample Type</b>           |                    |                       | D1         | D1         | D1         | D1         |
| <b>Date sampled</b>          |                    |                       | 02/02/2023 | 02/02/2023 | 02/02/2023 | 02/02/2023 |
| <b>Test</b>                  | <b>Method</b>      | <b>Units</b>          |            |            |            |            |
| pH                           | CE004 <sup>U</sup> | units                 | 7.4        | 7.2        | 8.4        | 8.4        |
| Sulphate (2:1 water soluble) | CE061 <sup>U</sup> | mg/l SO <sub>4</sub>  | 37         | 14         | 25         | 15         |
| Sulphate (acid extractable)  | CE062 <sup>U</sup> | mg/kg SO <sub>4</sub> | 123        | <100       | 319        | 230        |
| Sulphate (acid extractable)  | CE062 <sup>U</sup> | % w/w SO <sub>4</sub> | 0.01       | <0.01      | 0.03       | 0.02       |
| Sulphur (total)              | CE119              | mg/kg S               | 707        | 102        | 191        | 203        |
| Sulphur (total)              | CE119              | % w/w S               | 0.07       | 0.01       | 0.02       | 0.02       |

# Chemtech Environmental Limited

## METHOD DETAILS

| METHOD | SOILS                        | METHOD SUMMARY                         | SAMPLE      | STATUS | LOD  | UNITS                 |
|--------|------------------------------|----------------------------------------|-------------|--------|------|-----------------------|
| CE004  | pH                           | Based on BS 1377, pH Meter             | As received | U      | -    | units                 |
| CE061  | Sulphate (2:1 water soluble) | Aqueous extraction, ICP-OES            | Dry         | U      | 10   | mg/l SO <sub>4</sub>  |
| CE062  | Sulphate (acid extractable)  | HCl extract, analysed by ICP-OES       | Dry         | U      | 100  | mg/kg SO <sub>4</sub> |
| CE062  | Sulphate (acid extractable)  | HCl extract, analysed by ICP-OES       | Dry         | U      | 0.01 | % w/w SO <sub>4</sub> |
| CE119  | Sulphur (total)              | Aqua regia digest, analysed by ICP-OES | Dry         |        | 100  | mg/kg S               |
| CE119  | Sulphur (total)              | Aqua regia digest, analysed by ICP-OES | Dry         |        | 0.01 | % w/w S               |

# Chemtech Environmental Limited

## DEVIATING SAMPLE INFORMATION

### Comments

Sample deviation is determined in accordance with the UKAS note "Guidance on Deviating Samples" and based on reference standards and laboratory trials.

For samples identified as deviating, test result(s) may be compromised and may not be representative of the sample at the time of sampling.

Chemtech Environmental Ltd cannot be held responsible for the integrity of sample(s) received if Chemtech Environmental Ltd did not undertake the sampling. Such samples may be deviating.

### Key

|     |                                                 |
|-----|-------------------------------------------------|
| N   | No (not deviating sample)                       |
| Y   | Yes (deviating sample)                          |
| NSD | Sampling date not provided                      |
| NST | Sampling time not provided (waters only)        |
| EHT | Sample exceeded holding time(s)                 |
| IC  | Sample not received in appropriate containers   |
| HP  | Headspace present in sample container           |
| NCF | Sample not chemically fixed (where appropriate) |
| OR  | Other (specify)                                 |

| Lab ref   | Sample id | Depth (m) | Deviating | Tests (Reason for deviation) |
|-----------|-----------|-----------|-----------|------------------------------|
| 119270-1  | TP05      | 1.90-2.00 | N         |                              |
| 119270-2  | TP10      | 1.90-2.00 | N         |                              |
| 119270-3  | TP18      | 1.30-1.40 | N         |                              |
| 119270-4  | TP20      | 1.20-1.30 | N         |                              |
| 119270-5  | TP22      | 0.90-1.00 | N         |                              |
| 119270-6  | TP25      | 2.40-2.50 | N         |                              |
| 119270-7  | WS01      | 1.00-1.20 | N         |                              |
| 119270-8  | WS03      | 1.00-1.20 | N         |                              |
| 119270-9  | WS04      | 1.00-1.20 | N         |                              |
| 119270-10 | WS05      | 1.00-1.20 | N         |                              |

# Chemtech Environmental Limited

## ADDITIONAL INFORMATION

### Notes

Opinions and interpretations expressed herein are outside the UKAS accreditation scope.

Unless otherwise stated, Chemtech Environmental Ltd was not responsible for sampling.

All testing carried out at Unit 6 Parkhead, Stanley, DH9 7YB, except for subcontracted testing.

Methods, procedures and performance data are available on request.

Results reported herein relate only to the material supplied to the laboratory.

This report shall not be reproduced except in full, without prior written approval.

Samples will be disposed of 4 weeks from initial receipt unless otherwise instructed.

For soils and solids, all results are reported on a dry basis. Samples dried at no more than 30°C in a drying cabinet.

Analytical results are inclusive of stones, where applicable.

# Chemtech Environmental Limited

## TEST REPORT REVISIONS

The table below identifies ammendments that have been made to this test report for each revision.

| Test Report Reference | Details of amendments to test report | Issue Date       |
|-----------------------|--------------------------------------|------------------|
| 119270                | Original report issued               | 23 February 2023 |
| 119270(1)             | Sampling dates added.                | 09 March 2023    |



## Appendix E – Chemical Results



Unit A2  
Windmill Road  
Ponswood Industrial Estate  
St Leonards on Sea  
East Sussex  
TN38 9BY  
Telephone: (01424) 718618

[cs@elab-uk.co.uk](mailto:cs@elab-uk.co.uk)  
[info@elab-uk.co.uk](mailto:info@elab-uk.co.uk)

---

## THE ENVIRONMENTAL LABORATORY LTD

---

**Analytical Report Number:** 23-46591

**Issue:** 1

**Date of Issue:** 16/02/2023

**Contact:** Rachel Gilbert

**Customer Details:** T & P Regeneration Ltd (Smeaton Road)  
Unit 4  
Brunel Lock Development  
Bristol  
BS1 6SE

**Quotation No:** Q22-03474

**Order No:** 9233 CS-J-1745

**Customer Reference:** P0866

**Date Received:** 06/02/2023

**Date Approved:** 16/02/2023

**Details:** Sketchley Lane

**Approved by:** 

Mike Varley, General Manager

---

Any comments, opinions or interpretations expressed herein are outside the scope of UKAS accreditation (Accreditation Number 2683)

---

This report may only be reproduced in full

---

---

## Sample Summary

Report No.: 23-46591, issue number 1

| Elab No. | Client's Ref.    | Date Sampled | Date Scheduled | Description      | Deviations |
|----------|------------------|--------------|----------------|------------------|------------|
| 311162   | TP01 0.10 - 0.20 | 01/02/2023   | 06/02/2023     | Sandy loam       |            |
| 311163   | TP01 0.50 - 0.60 | 01/02/2023   | 06/02/2023     | Sand             |            |
| 311164   | TP02 0.10 - 0.20 | 01/02/2023   | 06/02/2023     |                  |            |
| 311165   | TP02 0.50 - 0.60 | 01/02/2023   | 06/02/2023     |                  |            |
| 311166   | TP03 0.10 - 0.20 | 01/02/2023   | 06/02/2023     |                  |            |
| 311167   | TP03 0.50 - 0.60 | 01/02/2023   | 06/02/2023     |                  |            |
| 311168   | TP04 0.10 - 0.20 | 01/02/2023   | 06/02/2023     |                  |            |
| 311169   | TP04 0.50 - 0.60 | 01/02/2023   | 06/02/2023     |                  |            |
| 311170   | TP05 0.10 - 0.20 | 01/02/2023   | 06/02/2023     |                  |            |
| 311171   | TP05 0.50 - 0.60 | 01/02/2023   | 06/02/2023     |                  |            |
| 311172   | TP06 0.10 - 0.20 | 01/02/2023   | 06/02/2023     |                  |            |
| 311173   | TP06 0.50 - 0.60 | 01/02/2023   | 06/02/2023     | Sandy loam       |            |
| 311174   | TP07 0.10 - 0.20 | 01/02/2023   | 06/02/2023     |                  |            |
| 311175   | TP07 0.50 - 0.60 | 01/02/2023   | 06/02/2023     |                  |            |
| 311176   | TP08 0.10 - 0.20 | 01/02/2023   | 06/02/2023     |                  |            |
| 311177   | TP08 0.50 - 0.60 | 01/02/2023   | 06/02/2023     |                  |            |
| 311178   | TP09 0.10 - 0.20 | 01/02/2023   | 06/02/2023     | Sandy loam       |            |
| 311179   | TP09 0.50 - 0.60 | 01/02/2023   | 06/02/2023     | Sand             |            |
| 311180   | TP10 0.10 - 0.20 | 01/02/2023   | 06/02/2023     |                  |            |
| 311181   | TP10 0.50 - 0.60 | 01/02/2023   | 06/02/2023     |                  |            |
| 311182   | TP11 0.10 - 0.20 | 01/02/2023   | 06/02/2023     |                  |            |
| 311183   | TP11 0.50 - 0.60 | 01/02/2023   | 06/02/2023     |                  |            |
| 311184   | TP12 0.10 - 0.20 | 01/02/2023   | 06/02/2023     |                  |            |
| 311185   | TP12 0.50 - 0.60 | 01/02/2023   | 06/02/2023     |                  |            |
| 311186   | TP13 0.10 - 0.20 | 31/01/2023   | 06/02/2023     |                  |            |
| 311187   | TP13 0.50 - 0.60 | 31/01/2023   | 06/02/2023     |                  |            |
| 311188   | TP14 0.10 - 0.20 | 31/01/2023   | 06/02/2023     |                  |            |
| 311189   | TP14 0.50 - 0.60 | 31/01/2023   | 06/02/2023     | Sandy silty loam |            |
| 311190   | TP15 0.10 - 0.20 | 31/01/2023   | 06/02/2023     |                  |            |
| 311191   | TP15 0.50 - 0.60 | 31/01/2023   | 06/02/2023     |                  |            |
| 311192   | TP16 0.10 - 0.20 | 31/01/2023   | 06/02/2023     | Sandy loam       |            |
| 311193   | TP16 0.50 - 0.60 | 31/01/2023   | 06/02/2023     |                  |            |
| 311194   | TP17 0.10 - 0.20 | 31/01/2023   | 06/02/2023     |                  |            |
| 311195   | TP17 0.50 - 0.60 | 31/01/2023   | 06/02/2023     |                  |            |
| 311196   | TP18 0.10 - 0.20 | 31/01/2023   | 06/02/2023     |                  |            |
| 311197   | TP18 0.50 - 0.60 | 31/01/2023   | 06/02/2023     |                  |            |
| 311198   | TP19 0.10 - 0.20 | 31/01/2023   | 06/02/2023     |                  |            |
| 311199   | TP19 0.50 - 0.60 | 31/01/2023   | 06/02/2023     |                  |            |
| 311200   | TP20 0.10 - 0.20 | 31/01/2023   | 06/02/2023     | Sandy silty loam |            |
| 311201   | TP20 0.50 - 0.60 | 31/01/2023   | 06/02/2023     | Sandy loam       |            |
| 311202   | TP20 2.50 - 2.60 | 31/01/2023   | 06/02/2023     | Sand             |            |
| 311203   | TP21 0.10 - 0.20 | 31/01/2023   | 06/02/2023     | Sandy loam       |            |
| 311204   | TP21 0.50 - 0.60 | 31/01/2023   | 06/02/2023     |                  |            |
| 311205   | TP22 0.10 - 0.20 | 31/01/2023   | 06/02/2023     |                  |            |
| 311206   | TP22 0.50 - 0.60 | 31/01/2023   | 06/02/2023     | Sandy silty loam |            |
| 311207   | TP23 0.10 - 0.20 | 31/01/2023   | 06/02/2023     | Sandy silty loam |            |
| 311208   | TP23 0.50 - 0.60 | 31/01/2023   | 06/02/2023     |                  |            |
| 311209   | TP24 0.10 - 0.20 | 31/01/2023   | 06/02/2023     |                  |            |
| 311210   | TP24 0.50 - 0.60 | 31/01/2023   | 06/02/2023     | Silty loam       |            |
| 311211   | TP25 0.10 - 0.20 | 31/01/2023   | 06/02/2023     | Sandy loam       |            |
| 311212   | TP25 0.50 - 0.60 | 31/01/2023   | 06/02/2023     | Loamy sand       |            |

# Results Summary

2683

Report No.: 23-46591, issue number 1

|                                           |       |          |      |             |             |             |             |             |
|-------------------------------------------|-------|----------|------|-------------|-------------|-------------|-------------|-------------|
| ELAB Reference                            |       |          |      | 311162      | 311163      | 311173      | 311178      | 311179      |
| Customer Reference                        |       |          |      |             |             |             |             |             |
| Sample ID                                 |       |          |      |             |             |             |             |             |
| Sample Type                               |       |          |      | SOIL        | SOIL        | SOIL        | SOIL        | SOIL        |
| Sample Location                           |       |          |      | TP01        | TP01        | TP06        | TP09        | TP09        |
| Sample Depth (m)                          |       |          |      | 0.10 - 0.20 | 0.50 - 0.60 | 0.50 - 0.60 | 0.10 - 0.20 | 0.50 - 0.60 |
| Sampling Date                             |       |          |      | 01/02/2023  | 01/02/2023  | 01/02/2023  | 01/02/2023  | 01/02/2023  |
| Determinand                               | Codes | Units    | LOD  |             |             |             |             |             |
| <b>Soil sample preparation parameters</b> |       |          |      |             |             |             |             |             |
| Moisture Content                          | N     | %        | 0.1  | 10.5        | 10.1        | n/t         | 17.3        | 7.8         |
| Material removed                          | N     | %        | 0.1  | 5.2         | 6.2         | n/t         | 3.5         | 2.3         |
| Description of Inert material removed     | N     |          | 0    | Stones      | Stones      | n/t         | Stones      | Stones      |
| <b>Metals</b>                             |       |          |      |             |             |             |             |             |
| Arsenic                                   | M     | mg/kg    | 1    | 16.4        | 35.1        | n/t         | 16.7        | 23.3        |
| Beryllium                                 | U     | mg/kg    | 1    | < 1.0       | 1.1         | n/t         | < 1.0       | 1.4         |
| Cadmium                                   | M     | mg/kg    | 0.5  | < 0.5       | < 0.5       | n/t         | < 0.5       | < 0.5       |
| Chromium                                  | M     | mg/kg    | 5    | 23.0        | 28.5        | n/t         | 22.8        | 27.7        |
| Copper                                    | M     | mg/kg    | 5    | 26.2        | 45.6        | n/t         | 30.8        | 33.3        |
| Lead                                      | M     | mg/kg    | 5    | 39.5        | 29.7        | n/t         | 49.4        | 26.0        |
| Mercury                                   | M     | mg/kg    | 0.5  | < 0.5       | < 0.5       | n/t         | < 0.5       | < 0.5       |
| Nickel                                    | M     | mg/kg    | 5    | 18.6        | 34.0        | n/t         | 21.2        | 34.4        |
| Selenium                                  | M     | mg/kg    | 1    | < 1.0       | < 1.0       | n/t         | < 1.0       | < 1.0       |
| Vanadium                                  | M     | mg/kg    | 5    | 33.2        | 52.2        | n/t         | 33.4        | 35.2        |
| Zinc                                      | M     | mg/kg    | 5    | 97.4        | 149         | n/t         | 110         | 108         |
| <b>Anions</b>                             |       |          |      |             |             |             |             |             |
| Water Soluble Sulphate                    | M     | g/l      | 0.02 | < 0.02      | < 0.02      | n/t         | < 0.02      | < 0.02      |
| <b>Inorganics</b>                         |       |          |      |             |             |             |             |             |
| Hexavalent Chromium                       | N     | mg/kg    | 0.8  | < 0.8       | < 0.8       | n/t         | < 0.8       | < 0.8       |
| Water Soluble Boron                       | N     | mg/kg    | 0.5  | < 0.5       | < 0.5       | n/t         | < 0.5       | < 0.5       |
| <b>Miscellaneous</b>                      |       |          |      |             |             |             |             |             |
| pH                                        | M     | pH units | 0.1  | 6.3         | 6.3         | n/t         | 6.1         | 6.8         |
| Total Organic Carbon                      | N     | %        | 0.01 | 0.80        | 0.14        | n/t         | 1.7         | 0.15        |
| <b>Phenols</b>                            |       |          |      |             |             |             |             |             |
| Phenol                                    | M     | mg/kg    | 1    | < 1         | < 1         | n/t         | < 1         | < 1         |
| M,P-Cresol                                | N     | mg/kg    | 1    | < 1         | < 1         | n/t         | < 1         | < 1         |
| O-Cresol                                  | N     | mg/kg    | 1    | < 1         | < 1         | n/t         | < 1         | < 1         |
| 3,4-Dimethylphenol                        | N     | mg/kg    | 1    | < 1         | < 1         | n/t         | < 1         | < 1         |
| 2,3-Dimethylphenol                        | M     | mg/kg    | 1    | < 1         | < 1         | n/t         | < 1         | < 1         |
| 2,3,5-trimethylphenol                     | M     | mg/kg    | 1    | < 1         | < 1         | n/t         | < 1         | < 1         |
| Total Monohydric Phenols                  | N     | mg/kg    | 5    | < 5         | < 5         | n/t         | < 5         | < 5         |
| <b>Polyaromatic hydrocarbons</b>          |       |          |      |             |             |             |             |             |
| Naphthalene                               | N     | mg/kg    | 0.1  | < 0.1       | < 0.1       | n/t         | < 0.1       | < 0.1       |
| Acenaphthylene                            | N     | mg/kg    | 0.1  | < 0.1       | < 0.1       | n/t         | < 0.1       | < 0.1       |
| Acenaphthene                              | N     | mg/kg    | 0.1  | < 0.1       | < 0.1       | n/t         | < 0.1       | < 0.1       |
| Fluorene                                  | N     | mg/kg    | 0.1  | < 0.1       | < 0.1       | n/t         | < 0.1       | < 0.1       |
| Phenanthrene                              | N     | mg/kg    | 0.1  | < 0.1       | < 0.1       | n/t         | < 0.1       | < 0.1       |
| Anthracene                                | N     | mg/kg    | 0.1  | < 0.1       | < 0.1       | n/t         | < 0.1       | < 0.1       |
| Fluoranthene                              | N     | mg/kg    | 0.1  | < 0.1       | < 0.1       | n/t         | < 0.1       | < 0.1       |
| Pyrene                                    | N     | mg/kg    | 0.1  | < 0.1       | < 0.1       | n/t         | < 0.1       | < 0.1       |
| Benzo(a)anthracene                        | N     | mg/kg    | 0.1  | < 0.1       | < 0.1       | n/t         | < 0.1       | < 0.1       |
| Chrysene                                  | N     | mg/kg    | 0.1  | < 0.1       | < 0.1       | n/t         | < 0.1       | < 0.1       |
| Benzo(b)fluoranthene                      | N     | mg/kg    | 0.1  | < 0.1       | < 0.1       | n/t         | < 0.1       | < 0.1       |
| Benzo(k)fluoranthene                      | N     | mg/kg    | 0.1  | < 0.1       | < 0.1       | n/t         | < 0.1       | < 0.1       |
| Benzo(a)pyrene                            | N     | mg/kg    | 0.1  | < 0.1       | < 0.1       | n/t         | < 0.1       | < 0.1       |
| Indeno(1,2,3-cd)pyrene                    | N     | mg/kg    | 0.1  | < 0.1       | < 0.1       | n/t         | < 0.1       | < 0.1       |
| Dibenzo(a,h)anthracene                    | N     | mg/kg    | 0.1  | < 0.1       | < 0.1       | n/t         | < 0.1       | < 0.1       |
| Benzo[g,h,i]perylene                      | N     | mg/kg    | 0.1  | < 0.1       | < 0.1       | n/t         | < 0.1       | < 0.1       |
| Total PAH(16)                             | N     | mg/kg    | 0.4  | < 0.4       | < 0.4       | n/t         | < 0.4       | < 0.4       |



## Results Summary

Report No.: 23-46591, issue number 1

| ELAB Reference                     |       |       |       | 311162      | 311163      | 311173      | 311178      | 311179      |
|------------------------------------|-------|-------|-------|-------------|-------------|-------------|-------------|-------------|
| Customer Reference                 |       |       |       |             |             |             |             |             |
| Sample ID                          |       |       |       |             |             |             |             |             |
| Sample Type                        |       |       |       | SOIL        | SOIL        | SOIL        | SOIL        | SOIL        |
| Sample Location                    |       |       |       | TP01        | TP01        | TP06        | TP09        | TP09        |
| Sample Depth (m)                   |       |       |       | 0.10 - 0.20 | 0.50 - 0.60 | 0.50 - 0.60 | 0.10 - 0.20 | 0.50 - 0.60 |
| Sampling Date                      |       |       |       | 01/02/2023  | 01/02/2023  | 01/02/2023  | 01/02/2023  | 01/02/2023  |
| Determinand                        | Codes | Units | LOD   |             |             |             |             |             |
| <b>OrganoChlorine Pesticides</b>   |       |       |       |             |             |             |             |             |
| alpha-HCH                          | N     | mg/kg | 0.01  | n/t         | n/t         | < 0.01      | n/t         | n/t         |
| beta_HCH                           | N     | mg/kg | 0.01  | n/t         | n/t         | < 0.01      | n/t         | n/t         |
| gamma-HCH                          | N     | mg/kg | 0.01  | n/t         | n/t         | < 0.01      | n/t         | n/t         |
| delta-HCH                          | N     | mg/kg | 0.01  | n/t         | n/t         | < 0.01      | n/t         | n/t         |
| Heptachlor                         | N     | mg/kg | 0.01  | n/t         | n/t         | < 0.01      | n/t         | n/t         |
| Aldrin                             | N     | mg/kg | 0.01  | n/t         | n/t         | < 0.01      | n/t         | n/t         |
| Heptachlor expoxide                | N     | mg/kg | 0.01  | n/t         | n/t         | < 0.01      | n/t         | n/t         |
| trans-Chlordane                    | N     | mg/kg | 0.01  | n/t         | n/t         | < 0.01      | n/t         | n/t         |
| alpha cis-Chlordane                | N     | mg/kg | 0.01  | n/t         | n/t         | < 0.01      | n/t         | n/t         |
| p,p-DDE                            | N     | mg/kg | 0.01  | n/t         | n/t         | < 0.01      | n/t         | n/t         |
| Dieldrin                           | N     | mg/kg | 0.01  | n/t         | n/t         | < 0.01      | n/t         | n/t         |
| Endrin                             | N     | mg/kg | 0.01  | n/t         | n/t         | < 0.01      | n/t         | n/t         |
| p,p-DDD                            | N     | mg/kg | 0.01  | n/t         | n/t         | < 0.01      | n/t         | n/t         |
| Endosulfan II                      | N     | mg/kg | 0.01  | n/t         | n/t         | < 0.01      | n/t         | n/t         |
| Endrin aldehyde                    | N     | mg/kg | 0.01  | n/t         | n/t         | < 0.01      | n/t         | n/t         |
| p,p-DDT                            | N     | mg/kg | 0.01  | n/t         | n/t         | < 0.01      | n/t         | n/t         |
| Endosulphan sulphate               | N     | mg/kg | 0.01  | n/t         | n/t         | < 0.01      | n/t         | n/t         |
| Methoxychlor                       | N     | mg/kg | 0.01  | n/t         | n/t         | < 0.01      | n/t         | n/t         |
| Endrin ketone                      | N     | mg/kg | 0.01  | n/t         | n/t         | < 0.01      | n/t         | n/t         |
| <b>OrganoPhosphorus Pesticides</b> |       |       |       |             |             |             |             |             |
| Acephate                           | N     | mg/kg | 0.1   | n/t         | n/t         | < 0.1       | n/t         | n/t         |
| Aziniphos-methyl                   | N     | mg/kg | 0.1   | n/t         | n/t         | < 0.1       | n/t         | n/t         |
| Chlorpyrifos                       | N     | mg/kg | 0.1   | n/t         | n/t         | < 0.1       | n/t         | n/t         |
| Demeton-s-methyl                   | N     | mg/kg | 0.1   | n/t         | n/t         | < 0.1       | n/t         | n/t         |
| Dichlorvos                         | N     | mg/kg | 0.032 | n/t         | n/t         | < 0.032     | n/t         | n/t         |
| Dimethoate                         | N     | mg/kg | 0.1   | n/t         | n/t         | < 0.1       | n/t         | n/t         |
| Ethion                             | N     | mg/kg | 0.1   | n/t         | n/t         | < 0.1       | n/t         | n/t         |
| Malathion                          | N     | mg/kg | 0.1   | n/t         | n/t         | < 0.1       | n/t         | n/t         |
| Mathidathion                       | N     | mg/kg | 0.1   | n/t         | n/t         | < 0.1       | n/t         | n/t         |
| Methamidophos                      | N     | mg/kg | 0.1   | n/t         | n/t         | < 0.1       | n/t         | n/t         |
| Omethoate                          | N     | mg/kg | 0.1   | n/t         | n/t         | < 0.1       | n/t         | n/t         |
| Pirimifos-methyl                   | N     | mg/kg | 0.1   | n/t         | n/t         | < 0.1       | n/t         | n/t         |
| Profenofos                         | N     | mg/kg | 0.1   | n/t         | n/t         | < 0.1       | n/t         | n/t         |
| Pyrazophos                         | N     | mg/kg | 0.1   | n/t         | n/t         | < 0.1       | n/t         | n/t         |
| Tokuthion                          | N     | mg/kg | 0.1   | n/t         | n/t         | < 0.1       | n/t         | n/t         |
| Tolclofos-methyl                   | N     | mg/kg | 0.1   | n/t         | n/t         | < 0.1       | n/t         | n/t         |



# Results Summary

Report No.: 23-46591, issue number 1

|                                           |       |          |      |             |             |             |             |             |
|-------------------------------------------|-------|----------|------|-------------|-------------|-------------|-------------|-------------|
| ELAB Reference                            |       |          |      | 311189      | 311192      | 311200      | 311201      | 311202      |
| Customer Reference                        |       |          |      |             |             |             |             |             |
| Sample ID                                 |       |          |      |             |             |             |             |             |
| Sample Type                               |       |          |      | SOIL        | SOIL        | SOIL        | SOIL        | SOIL        |
| Sample Location                           |       |          |      | TP14        | TP16        | TP20        | TP20        | TP20        |
| Sample Depth (m)                          |       |          |      | 0.50 - 0.60 | 0.10 - 0.20 | 0.10 - 0.20 | 0.50 - 0.60 | 2.50 - 2.60 |
| Sampling Date                             |       |          |      | 31/01/2023  | 31/01/2023  | 31/01/2023  | 31/01/2023  | 31/01/2023  |
| Determinand                               | Codes | Units    | LOD  |             |             |             |             |             |
| <b>Soil sample preparation parameters</b> |       |          |      |             |             |             |             |             |
| Moisture Content                          | N     | %        | 0.1  | 17.1        | 22.2        | 19.1        | 12.8        | 13.5        |
| Material removed                          | N     | %        | 0.1  | 4.7         | 3.6         | 6.5         | 6.5         | 2.0         |
| Description of Inert material removed     | N     |          | 0    | Stones      | Stones      | Stones      | Stones      | Stones      |
| <b>Metals</b>                             |       |          |      |             |             |             |             |             |
| Arsenic                                   | M     | mg/kg    | 1    | 14.2        | 13.5        | 11.7        | 9.0         | 12.2        |
| Beryllium                                 | U     | mg/kg    | 1    | 1.5         | < 1.0       | 1.1         | < 1.0       | 1.7         |
| Cadmium                                   | M     | mg/kg    | 0.5  | < 0.5       | < 0.5       | < 0.5       | < 0.5       | < 0.5       |
| Chromium                                  | M     | mg/kg    | 5    | 32.8        | 20.3        | 23.0        | 20.2        | 38.6        |
| Copper                                    | M     | mg/kg    | 5    | 26.9        | 25.5        | 23.8        | 18.2        | 46.0        |
| Lead                                      | M     | mg/kg    | 5    | 24.0        | 51.2        | 35.4        | 26.5        | 27.1        |
| Mercury                                   | M     | mg/kg    | 0.5  | < 0.5       | < 0.5       | < 0.5       | < 0.5       | < 0.5       |
| Nickel                                    | M     | mg/kg    | 5    | 33.8        | 20.2        | 21.6        | 13.6        | 48.1        |
| Selenium                                  | M     | mg/kg    | 1    | < 1.0       | < 1.0       | < 1.0       | < 1.0       | < 1.0       |
| Vanadium                                  | M     | mg/kg    | 5    | 43.7        | 28.4        | 33.4        | 29.7        | 56.4        |
| Zinc                                      | M     | mg/kg    | 5    | 77.4        | 107         | 102         | 75.0        | 121         |
| <b>Anions</b>                             |       |          |      |             |             |             |             |             |
| Water Soluble Sulphate                    | M     | g/l      | 0.02 | < 0.02      | < 0.02      | < 0.02      | < 0.02      | < 0.02      |
| <b>Inorganics</b>                         |       |          |      |             |             |             |             |             |
| Hexavalent Chromium                       | N     | mg/kg    | 0.8  | < 0.8       | < 0.8       | < 0.8       | < 0.8       | < 0.8       |
| Water Soluble Boron                       | N     | mg/kg    | 0.5  | < 0.5       | 0.6         | 0.6         | < 0.5       | < 0.5       |
| <b>Miscellaneous</b>                      |       |          |      |             |             |             |             |             |
| pH                                        | M     | pH units | 0.1  | 6.6         | 6.5         | 7.3         | 7.4         | 7.0         |
| Total Organic Carbon                      | N     | %        | 0.01 | 0.94        | 2.7         | 2.1         | 0.49        | 0.32        |
| <b>Phenols</b>                            |       |          |      |             |             |             |             |             |
| Phenol                                    | M     | mg/kg    | 1    | < 1         | < 1         | < 1         | < 1         | < 1         |
| M,P-Cresol                                | N     | mg/kg    | 1    | < 1         | < 1         | < 1         | < 1         | < 1         |
| O-Cresol                                  | N     | mg/kg    | 1    | < 1         | < 1         | < 1         | < 1         | < 1         |
| 3,4-Dimethylphenol                        | N     | mg/kg    | 1    | < 1         | < 1         | < 1         | < 1         | < 1         |
| 2,3-Dimethylphenol                        | M     | mg/kg    | 1    | < 1         | < 1         | < 1         | < 1         | < 1         |
| 2,3,5-trimethylphenol                     | M     | mg/kg    | 1    | < 1         | < 1         | < 1         | < 1         | < 1         |
| Total Monohydric Phenols                  | N     | mg/kg    | 5    | < 5         | < 5         | < 5         | < 5         | < 5         |
| <b>Polyaromatic hydrocarbons</b>          |       |          |      |             |             |             |             |             |
| Naphthalene                               | N     | mg/kg    | 0.1  | < 0.1       | < 0.1       | < 0.1       | < 0.1       | < 0.1       |
| Acenaphthylene                            | N     | mg/kg    | 0.1  | < 0.1       | < 0.1       | < 0.1       | < 0.1       | < 0.1       |
| Acenaphthene                              | N     | mg/kg    | 0.1  | < 0.1       | < 0.1       | < 0.1       | < 0.1       | < 0.1       |
| Fluorene                                  | N     | mg/kg    | 0.1  | < 0.1       | < 0.1       | < 0.1       | < 0.1       | < 0.1       |
| Phenanthrene                              | N     | mg/kg    | 0.1  | < 0.1       | < 0.1       | < 0.1       | < 0.1       | < 0.1       |
| Anthracene                                | N     | mg/kg    | 0.1  | < 0.1       | < 0.1       | < 0.1       | < 0.1       | < 0.1       |
| Fluoranthene                              | N     | mg/kg    | 0.1  | < 0.1       | < 0.1       | < 0.1       | < 0.1       | < 0.1       |
| Pyrene                                    | N     | mg/kg    | 0.1  | < 0.1       | < 0.1       | < 0.1       | < 0.1       | < 0.1       |
| Benzo(a)anthracene                        | N     | mg/kg    | 0.1  | < 0.1       | < 0.1       | < 0.1       | < 0.1       | < 0.1       |
| Chrysene                                  | N     | mg/kg    | 0.1  | < 0.1       | < 0.1       | < 0.1       | < 0.1       | < 0.1       |
| Benzo(b)fluoranthene                      | N     | mg/kg    | 0.1  | < 0.1       | < 0.1       | < 0.1       | < 0.1       | < 0.1       |
| Benzo(k)fluoranthene                      | N     | mg/kg    | 0.1  | < 0.1       | < 0.1       | < 0.1       | < 0.1       | < 0.1       |
| Benzo(a)pyrene                            | N     | mg/kg    | 0.1  | < 0.1       | < 0.1       | < 0.1       | < 0.1       | < 0.1       |
| Indeno(1,2,3-cd)pyrene                    | N     | mg/kg    | 0.1  | < 0.1       | < 0.1       | < 0.1       | < 0.1       | < 0.1       |
| Dibenzo(a,h)anthracene                    | N     | mg/kg    | 0.1  | < 0.1       | < 0.1       | < 0.1       | < 0.1       | < 0.1       |
| Benzo[g,h,i]perylene                      | N     | mg/kg    | 0.1  | < 0.1       | < 0.1       | < 0.1       | < 0.1       | < 0.1       |
| Total PAH(16)                             | N     | mg/kg    | 0.4  | < 0.4       | < 0.4       | < 0.4       | < 0.4       | < 0.4       |



## Results Summary

Report No.: 23-46591, issue number 1

| ELAB Reference                     |       |       |       | 311189      | 311192      | 311200      | 311201      | 311202      |
|------------------------------------|-------|-------|-------|-------------|-------------|-------------|-------------|-------------|
| Customer Reference                 |       |       |       |             |             |             |             |             |
| Sample ID                          |       |       |       |             |             |             |             |             |
| Sample Type                        |       |       |       | SOIL        | SOIL        | SOIL        | SOIL        | SOIL        |
| Sample Location                    |       |       |       | TP14        | TP16        | TP20        | TP20        | TP20        |
| Sample Depth (m)                   |       |       |       | 0.50 - 0.60 | 0.10 - 0.20 | 0.10 - 0.20 | 0.50 - 0.60 | 2.50 - 2.60 |
| Sampling Date                      |       |       |       | 31/01/2023  | 31/01/2023  | 31/01/2023  | 31/01/2023  | 31/01/2023  |
| Determinand                        | Codes | Units | LOD   |             |             |             |             |             |
| <b>OrganoChlorine Pesticides</b>   |       |       |       |             |             |             |             |             |
| alpha-HCH                          | N     | mg/kg | 0.01  | n/t         | n/t         | n/t         | n/t         | n/t         |
| beta_HCH                           | N     | mg/kg | 0.01  | n/t         | n/t         | n/t         | n/t         | n/t         |
| gamma-HCH                          | N     | mg/kg | 0.01  | n/t         | n/t         | n/t         | n/t         | n/t         |
| delta-HCH                          | N     | mg/kg | 0.01  | n/t         | n/t         | n/t         | n/t         | n/t         |
| Heptachlor                         | N     | mg/kg | 0.01  | n/t         | n/t         | n/t         | n/t         | n/t         |
| Aldrin                             | N     | mg/kg | 0.01  | n/t         | n/t         | n/t         | n/t         | n/t         |
| Heptachlor expoxide                | N     | mg/kg | 0.01  | n/t         | n/t         | n/t         | n/t         | n/t         |
| trans-Chlordane                    | N     | mg/kg | 0.01  | n/t         | n/t         | n/t         | n/t         | n/t         |
| alpha cis-Chlordane                | N     | mg/kg | 0.01  | n/t         | n/t         | n/t         | n/t         | n/t         |
| p,p-DDE                            | N     | mg/kg | 0.01  | n/t         | n/t         | n/t         | n/t         | n/t         |
| Dieldrin                           | N     | mg/kg | 0.01  | n/t         | n/t         | n/t         | n/t         | n/t         |
| Endrin                             | N     | mg/kg | 0.01  | n/t         | n/t         | n/t         | n/t         | n/t         |
| p,p-DDD                            | N     | mg/kg | 0.01  | n/t         | n/t         | n/t         | n/t         | n/t         |
| Endosulfan II                      | N     | mg/kg | 0.01  | n/t         | n/t         | n/t         | n/t         | n/t         |
| Endrin aldehyde                    | N     | mg/kg | 0.01  | n/t         | n/t         | n/t         | n/t         | n/t         |
| p,p-DDT                            | N     | mg/kg | 0.01  | n/t         | n/t         | n/t         | n/t         | n/t         |
| Endosulphan sulphate               | N     | mg/kg | 0.01  | n/t         | n/t         | n/t         | n/t         | n/t         |
| Methoxychlor                       | N     | mg/kg | 0.01  | n/t         | n/t         | n/t         | n/t         | n/t         |
| Endrin ketone                      | N     | mg/kg | 0.01  | n/t         | n/t         | n/t         | n/t         | n/t         |
| <b>OrganoPhosphorus Pesticides</b> |       |       |       |             |             |             |             |             |
| Acephate                           | N     | mg/kg | 0.1   | n/t         | n/t         | n/t         | n/t         | n/t         |
| Aziniphos-methyl                   | N     | mg/kg | 0.1   | n/t         | n/t         | n/t         | n/t         | n/t         |
| Chlorpyrifos                       | N     | mg/kg | 0.1   | n/t         | n/t         | n/t         | n/t         | n/t         |
| Demeton-s-methyl                   | N     | mg/kg | 0.1   | n/t         | n/t         | n/t         | n/t         | n/t         |
| Dichlorvos                         | N     | mg/kg | 0.032 | n/t         | n/t         | n/t         | n/t         | n/t         |
| Dimethoate                         | N     | mg/kg | 0.1   | n/t         | n/t         | n/t         | n/t         | n/t         |
| Ethion                             | N     | mg/kg | 0.1   | n/t         | n/t         | n/t         | n/t         | n/t         |
| Malathion                          | N     | mg/kg | 0.1   | n/t         | n/t         | n/t         | n/t         | n/t         |
| Mathidathion                       | N     | mg/kg | 0.1   | n/t         | n/t         | n/t         | n/t         | n/t         |
| Methamidophos                      | N     | mg/kg | 0.1   | n/t         | n/t         | n/t         | n/t         | n/t         |
| Omethoate                          | N     | mg/kg | 0.1   | n/t         | n/t         | n/t         | n/t         | n/t         |
| Pirimifos-methyl                   | N     | mg/kg | 0.1   | n/t         | n/t         | n/t         | n/t         | n/t         |
| Profenofos                         | N     | mg/kg | 0.1   | n/t         | n/t         | n/t         | n/t         | n/t         |
| Pyrazophos                         | N     | mg/kg | 0.1   | n/t         | n/t         | n/t         | n/t         | n/t         |
| Tokuthion                          | N     | mg/kg | 0.1   | n/t         | n/t         | n/t         | n/t         | n/t         |
| Tolclofos-methyl                   | N     | mg/kg | 0.1   | n/t         | n/t         | n/t         | n/t         | n/t         |

# Results Summary

Report No.: 23-46591, issue number 1

|                                           |       |          |      |             |             |             |             |             |
|-------------------------------------------|-------|----------|------|-------------|-------------|-------------|-------------|-------------|
| ELAB Reference                            |       |          |      | 311203      | 311206      | 311207      | 311210      | 311211      |
| Customer Reference                        |       |          |      |             |             |             |             |             |
| Sample ID                                 |       |          |      |             |             |             |             |             |
| Sample Type                               |       |          |      | SOIL        | SOIL        | SOIL        | SOIL        | SOIL        |
| Sample Location                           |       |          |      | TP21        | TP22        | TP23        | TP24        | TP25        |
| Sample Depth (m)                          |       |          |      | 0.10 - 0.20 | 0.50 - 0.60 | 0.10 - 0.20 | 0.50 - 0.60 | 0.10 - 0.20 |
| Sampling Date                             |       |          |      | 31/01/2023  | 31/01/2023  | 31/01/2023  | 31/01/2023  | 31/01/2023  |
| Determinand                               | Codes | Units    | LOD  |             |             |             |             |             |
| <b>Soil sample preparation parameters</b> |       |          |      |             |             |             |             |             |
| Moisture Content                          | N     | %        | 0.1  | 15.2        | 15.8        | 22.7        | 21.1        | 16.0        |
| Material removed                          | N     | %        | 0.1  | 6.5         | 8.5         | 5.8         | 6.1         | 6.9         |
| Description of Inert material removed     | N     |          | 0    | Stones      | Stones      | Stones      | Stones      | Stones      |
| <b>Metals</b>                             |       |          |      |             |             |             |             |             |
| Arsenic                                   | M     | mg/kg    | 1    | 9.0         | 32.1        | 19.7        | 15.3        | 11.2        |
| Beryllium                                 | U     | mg/kg    | 1    | < 1.0       | < 1.0       | 1.2         | 1.3         | < 1.0       |
| Cadmium                                   | M     | mg/kg    | 0.5  | < 0.5       | < 0.5       | < 0.5       | < 0.5       | < 0.5       |
| Chromium                                  | M     | mg/kg    | 5    | 20.9        | 25.8        | 38.3        | 29.6        | 26.0        |
| Copper                                    | M     | mg/kg    | 5    | 21.3        | 18.1        | 34.0        | 25.7        | 25.2        |
| Lead                                      | M     | mg/kg    | 5    | 36.0        | 23.9        | 43.0        | 47.8        | 42.2        |
| Mercury                                   | M     | mg/kg    | 0.5  | < 0.5       | < 0.5       | < 0.5       | < 0.5       | < 0.5       |
| Nickel                                    | M     | mg/kg    | 5    | 15.9        | 25.2        | 22.7        | 23.4        | 17.6        |
| Selenium                                  | M     | mg/kg    | 1    | < 1.0       | 1.3         | < 1.0       | < 1.0       | < 1.0       |
| Vanadium                                  | M     | mg/kg    | 5    | 25.9        | 34.2        | 40.6        | 41.0        | 31.1        |
| Zinc                                      | M     | mg/kg    | 5    | 80.1        | 68.9        | 139         | 79.2        | 90.9        |
| <b>Anions</b>                             |       |          |      |             |             |             |             |             |
| Water Soluble Sulphate                    | M     | g/l      | 0.02 | < 0.02      | < 0.02      | < 0.02      | < 0.02      | < 0.02      |
| <b>Inorganics</b>                         |       |          |      |             |             |             |             |             |
| Hexavalent Chromium                       | N     | mg/kg    | 0.8  | < 0.8       | < 0.8       | < 0.8       | < 0.8       | < 0.8       |
| Water Soluble Boron                       | N     | mg/kg    | 0.5  | < 0.5       | < 0.5       | 0.7         | < 0.5       | < 0.5       |
| <b>Miscellaneous</b>                      |       |          |      |             |             |             |             |             |
| pH                                        | M     | pH units | 0.1  | 6.1         | 7.5         | 7.2         | 7.3         | 6.3         |
| Total Organic Carbon                      | N     | %        | 0.01 | 1.6         | 0.70        | 2.5         | 1.5         | 1.3         |
| <b>Phenols</b>                            |       |          |      |             |             |             |             |             |
| Phenol                                    | M     | mg/kg    | 1    | < 1         | < 1         | < 1         | < 1         | < 1         |
| M,P-Cresol                                | N     | mg/kg    | 1    | < 1         | < 1         | < 1         | < 1         | < 1         |
| O-Cresol                                  | N     | mg/kg    | 1    | < 1         | < 1         | < 1         | < 1         | < 1         |
| 3,4-Dimethylphenol                        | N     | mg/kg    | 1    | < 1         | < 1         | < 1         | < 1         | < 1         |
| 2,3-Dimethylphenol                        | M     | mg/kg    | 1    | < 1         | < 1         | < 1         | < 1         | < 1         |
| 2,3,5-trimethylphenol                     | M     | mg/kg    | 1    | < 1         | < 1         | < 1         | < 1         | < 1         |
| Total Monohydric Phenols                  | N     | mg/kg    | 5    | < 5         | < 5         | < 5         | < 5         | < 5         |
| <b>Polyaromatic hydrocarbons</b>          |       |          |      |             |             |             |             |             |
| Naphthalene                               | N     | mg/kg    | 0.1  | < 0.1       | < 0.1       | < 0.1       | < 0.1       | < 0.1       |
| Acenaphthylene                            | N     | mg/kg    | 0.1  | < 0.1       | < 0.1       | < 0.1       | < 0.1       | < 0.1       |
| Acenaphthene                              | N     | mg/kg    | 0.1  | < 0.1       | < 0.1       | < 0.1       | < 0.1       | < 0.1       |
| Fluorene                                  | N     | mg/kg    | 0.1  | < 0.1       | < 0.1       | < 0.1       | < 0.1       | < 0.1       |
| Phenanthrene                              | N     | mg/kg    | 0.1  | < 0.1       | < 0.1       | < 0.1       | < 0.1       | < 0.1       |
| Anthracene                                | N     | mg/kg    | 0.1  | < 0.1       | < 0.1       | < 0.1       | < 0.1       | < 0.1       |
| Fluoranthene                              | N     | mg/kg    | 0.1  | < 0.1       | < 0.1       | < 0.1       | < 0.1       | < 0.1       |
| Pyrene                                    | N     | mg/kg    | 0.1  | < 0.1       | < 0.1       | < 0.1       | < 0.1       | < 0.1       |
| Benzo(a)anthracene                        | N     | mg/kg    | 0.1  | < 0.1       | < 0.1       | < 0.1       | < 0.1       | < 0.1       |
| Chrysene                                  | N     | mg/kg    | 0.1  | < 0.1       | < 0.1       | < 0.1       | < 0.1       | < 0.1       |
| Benzo(b)fluoranthene                      | N     | mg/kg    | 0.1  | < 0.1       | < 0.1       | < 0.1       | < 0.1       | < 0.1       |
| Benzo(k)fluoranthene                      | N     | mg/kg    | 0.1  | < 0.1       | < 0.1       | < 0.1       | < 0.1       | < 0.1       |
| Benzo(a)pyrene                            | N     | mg/kg    | 0.1  | < 0.1       | < 0.1       | < 0.1       | < 0.1       | < 0.1       |
| Indeno(1,2,3-cd)pyrene                    | N     | mg/kg    | 0.1  | < 0.1       | < 0.1       | < 0.1       | < 0.1       | < 0.1       |
| Dibenzo(a,h)anthracene                    | N     | mg/kg    | 0.1  | < 0.1       | < 0.1       | < 0.1       | < 0.1       | < 0.1       |
| Benzo[g,h,i]perylene                      | N     | mg/kg    | 0.1  | < 0.1       | < 0.1       | < 0.1       | < 0.1       | < 0.1       |
| Total PAH(16)                             | N     | mg/kg    | 0.4  | < 0.4       | < 0.4       | < 0.4       | < 0.4       | < 0.4       |



## Results Summary

Report No.: 23-46591, issue number 1

| ELAB Reference                     |       |       |       | 311203      | 311206      | 311207      | 311210      | 311211      |
|------------------------------------|-------|-------|-------|-------------|-------------|-------------|-------------|-------------|
| Customer Reference                 |       |       |       |             |             |             |             |             |
| Sample ID                          |       |       |       |             |             |             |             |             |
| Sample Type                        |       |       |       | SOIL        | SOIL        | SOIL        | SOIL        | SOIL        |
| Sample Location                    |       |       |       | TP21        | TP22        | TP23        | TP24        | TP25        |
| Sample Depth (m)                   |       |       |       | 0.10 - 0.20 | 0.50 - 0.60 | 0.10 - 0.20 | 0.50 - 0.60 | 0.10 - 0.20 |
| Sampling Date                      |       |       |       | 31/01/2023  | 31/01/2023  | 31/01/2023  | 31/01/2023  | 31/01/2023  |
| Determinand                        | Codes | Units | LOD   |             |             |             |             |             |
| <b>OrganoChlorine Pesticides</b>   |       |       |       |             |             |             |             |             |
| alpha-HCH                          | N     | mg/kg | 0.01  | n/t         | n/t         | n/t         | n/t         | n/t         |
| beta_HCH                           | N     | mg/kg | 0.01  | n/t         | n/t         | n/t         | n/t         | n/t         |
| gamma-HCH                          | N     | mg/kg | 0.01  | n/t         | n/t         | n/t         | n/t         | n/t         |
| delta-HCH                          | N     | mg/kg | 0.01  | n/t         | n/t         | n/t         | n/t         | n/t         |
| Heptachlor                         | N     | mg/kg | 0.01  | n/t         | n/t         | n/t         | n/t         | n/t         |
| Aldrin                             | N     | mg/kg | 0.01  | n/t         | n/t         | n/t         | n/t         | n/t         |
| Heptachlor expoxide                | N     | mg/kg | 0.01  | n/t         | n/t         | n/t         | n/t         | n/t         |
| trans-Chlordane                    | N     | mg/kg | 0.01  | n/t         | n/t         | n/t         | n/t         | n/t         |
| alpha cis-Chlordane                | N     | mg/kg | 0.01  | n/t         | n/t         | n/t         | n/t         | n/t         |
| p,p-DDE                            | N     | mg/kg | 0.01  | n/t         | n/t         | n/t         | n/t         | n/t         |
| Dieldrin                           | N     | mg/kg | 0.01  | n/t         | n/t         | n/t         | n/t         | n/t         |
| Endrin                             | N     | mg/kg | 0.01  | n/t         | n/t         | n/t         | n/t         | n/t         |
| p,p-DDD                            | N     | mg/kg | 0.01  | n/t         | n/t         | n/t         | n/t         | n/t         |
| Endosulfan II                      | N     | mg/kg | 0.01  | n/t         | n/t         | n/t         | n/t         | n/t         |
| Endrin aldehyde                    | N     | mg/kg | 0.01  | n/t         | n/t         | n/t         | n/t         | n/t         |
| p,p-DDT                            | N     | mg/kg | 0.01  | n/t         | n/t         | n/t         | n/t         | n/t         |
| Endosulphan sulphate               | N     | mg/kg | 0.01  | n/t         | n/t         | n/t         | n/t         | n/t         |
| Methoxychlor                       | N     | mg/kg | 0.01  | n/t         | n/t         | n/t         | n/t         | n/t         |
| Endrin ketone                      | N     | mg/kg | 0.01  | n/t         | n/t         | n/t         | n/t         | n/t         |
| <b>OrganoPhosphorus Pesticides</b> |       |       |       |             |             |             |             |             |
| Acephate                           | N     | mg/kg | 0.1   | n/t         | n/t         | n/t         | n/t         | n/t         |
| Aziniphos-methyl                   | N     | mg/kg | 0.1   | n/t         | n/t         | n/t         | n/t         | n/t         |
| Chlorpyrifos                       | N     | mg/kg | 0.1   | n/t         | n/t         | n/t         | n/t         | n/t         |
| Demeton-s-methyl                   | N     | mg/kg | 0.1   | n/t         | n/t         | n/t         | n/t         | n/t         |
| Dichlorvos                         | N     | mg/kg | 0.032 | n/t         | n/t         | n/t         | n/t         | n/t         |
| Dimethoate                         | N     | mg/kg | 0.1   | n/t         | n/t         | n/t         | n/t         | n/t         |
| Ethion                             | N     | mg/kg | 0.1   | n/t         | n/t         | n/t         | n/t         | n/t         |
| Malathion                          | N     | mg/kg | 0.1   | n/t         | n/t         | n/t         | n/t         | n/t         |
| Mathidathion                       | N     | mg/kg | 0.1   | n/t         | n/t         | n/t         | n/t         | n/t         |
| Methamidophos                      | N     | mg/kg | 0.1   | n/t         | n/t         | n/t         | n/t         | n/t         |
| Omethoate                          | N     | mg/kg | 0.1   | n/t         | n/t         | n/t         | n/t         | n/t         |
| Pirimifos-methyl                   | N     | mg/kg | 0.1   | n/t         | n/t         | n/t         | n/t         | n/t         |
| Profenofos                         | N     | mg/kg | 0.1   | n/t         | n/t         | n/t         | n/t         | n/t         |
| Pyrazophos                         | N     | mg/kg | 0.1   | n/t         | n/t         | n/t         | n/t         | n/t         |
| Tokuthion                          | N     | mg/kg | 0.1   | n/t         | n/t         | n/t         | n/t         | n/t         |
| Tolclofos-methyl                   | N     | mg/kg | 0.1   | n/t         | n/t         | n/t         | n/t         | n/t         |



## Results Summary

2683

Report No.: 23-46591, issue number 1

|                    |             |
|--------------------|-------------|
| ELAB Reference     | 311212      |
| Customer Reference |             |
| Sample ID          |             |
| Sample Type        | SOIL        |
| Sample Location    | TP25        |
| Sample Depth (m)   | 0.50 - 0.60 |
| Sampling Date      | 31/01/2023  |

| Determinand                               | Codes | Units    | LOD  |     |
|-------------------------------------------|-------|----------|------|-----|
| <b>Soil sample preparation parameters</b> |       |          |      |     |
| Moisture Content                          | N     | %        | 0.1  | n/t |
| Material removed                          | N     | %        | 0.1  | n/t |
| Description of Inert material removed     | N     |          | 0    | n/t |
| <b>Metals</b>                             |       |          |      |     |
| Arsenic                                   | M     | mg/kg    | 1    | n/t |
| Beryllium                                 | U     | mg/kg    | 1    | n/t |
| Cadmium                                   | M     | mg/kg    | 0.5  | n/t |
| Chromium                                  | M     | mg/kg    | 5    | n/t |
| Copper                                    | M     | mg/kg    | 5    | n/t |
| Lead                                      | M     | mg/kg    | 5    | n/t |
| Mercury                                   | M     | mg/kg    | 0.5  | n/t |
| Nickel                                    | M     | mg/kg    | 5    | n/t |
| Selenium                                  | M     | mg/kg    | 1    | n/t |
| Vanadium                                  | M     | mg/kg    | 5    | n/t |
| Zinc                                      | M     | mg/kg    | 5    | n/t |
| <b>Anions</b>                             |       |          |      |     |
| Water Soluble Sulphate                    | M     | g/l      | 0.02 | n/t |
| <b>Inorganics</b>                         |       |          |      |     |
| Hexavalent Chromium                       | N     | mg/kg    | 0.8  | n/t |
| Water Soluble Boron                       | N     | mg/kg    | 0.5  | n/t |
| <b>Miscellaneous</b>                      |       |          |      |     |
| pH                                        | M     | pH units | 0.1  | n/t |
| Total Organic Carbon                      | N     | %        | 0.01 | n/t |
| <b>Phenols</b>                            |       |          |      |     |
| Phenol                                    | M     | mg/kg    | 1    | n/t |
| M,P-Cresol                                | N     | mg/kg    | 1    | n/t |
| O-Cresol                                  | N     | mg/kg    | 1    | n/t |
| 3,4-Dimethylphenol                        | N     | mg/kg    | 1    | n/t |
| 2,3-Dimethylphenol                        | M     | mg/kg    | 1    | n/t |
| 2,3,5-trimethylphenol                     | M     | mg/kg    | 1    | n/t |
| Total Monohydric Phenols                  | N     | mg/kg    | 5    | n/t |
| <b>Polyaromatic hydrocarbons</b>          |       |          |      |     |
| Naphthalene                               | N     | mg/kg    | 0.1  | n/t |
| Acenaphthylene                            | N     | mg/kg    | 0.1  | n/t |
| Acenaphthene                              | N     | mg/kg    | 0.1  | n/t |
| Fluorene                                  | N     | mg/kg    | 0.1  | n/t |
| Phenanthrene                              | N     | mg/kg    | 0.1  | n/t |
| Anthracene                                | N     | mg/kg    | 0.1  | n/t |
| Fluoranthene                              | N     | mg/kg    | 0.1  | n/t |
| Pyrene                                    | N     | mg/kg    | 0.1  | n/t |
| Benzo(a)anthracene                        | N     | mg/kg    | 0.1  | n/t |
| Chrysene                                  | N     | mg/kg    | 0.1  | n/t |
| Benzo(b)fluoranthene                      | N     | mg/kg    | 0.1  | n/t |
| Benzo(k)fluoranthene                      | N     | mg/kg    | 0.1  | n/t |
| Benzo(a)pyrene                            | N     | mg/kg    | 0.1  | n/t |
| Indeno(1,2,3-cd)pyrene                    | N     | mg/kg    | 0.1  | n/t |
| Dibenzo(a,h)anthracene                    | N     | mg/kg    | 0.1  | n/t |
| Benzo[g,h,i]perylene                      | N     | mg/kg    | 0.1  | n/t |
| Total PAH(16)                             | N     | mg/kg    | 0.4  | n/t |





## Results Summary

2683

Report No.: 23-46591, issue number 1

|                    |             |
|--------------------|-------------|
| ELAB Reference     | 311212      |
| Customer Reference |             |
| Sample ID          |             |
| Sample Type        | SOIL        |
| Sample Location    | TP25        |
| Sample Depth (m)   | 0.50 - 0.60 |
| Sampling Date      | 31/01/2023  |

| Determinand                        | Codes | Units | LOD   |         |
|------------------------------------|-------|-------|-------|---------|
| <b>OrganoChlorine Pesticides</b>   |       |       |       |         |
| alpha-HCH                          | N     | mg/kg | 0.01  | < 0.01  |
| beta_HCH                           | N     | mg/kg | 0.01  | < 0.01  |
| gamma-HCH                          | N     | mg/kg | 0.01  | < 0.01  |
| delta-HCH                          | N     | mg/kg | 0.01  | < 0.01  |
| Heptachlor                         | N     | mg/kg | 0.01  | < 0.01  |
| Aldrin                             | N     | mg/kg | 0.01  | < 0.01  |
| Heptachlor epoxide                 | N     | mg/kg | 0.01  | < 0.01  |
| trans-Chlordane                    | N     | mg/kg | 0.01  | < 0.01  |
| alpha cis-Chlordane                | N     | mg/kg | 0.01  | < 0.01  |
| p,p-DDE                            | N     | mg/kg | 0.01  | < 0.01  |
| Dieldrin                           | N     | mg/kg | 0.01  | < 0.01  |
| Endrin                             | N     | mg/kg | 0.01  | < 0.01  |
| p,p-DDD                            | N     | mg/kg | 0.01  | < 0.01  |
| Endosulfan II                      | N     | mg/kg | 0.01  | < 0.01  |
| Endrin aldehyde                    | N     | mg/kg | 0.01  | < 0.01  |
| p,p-DDT                            | N     | mg/kg | 0.01  | < 0.01  |
| Endosulphan sulphate               | N     | mg/kg | 0.01  | < 0.01  |
| Methoxychlor                       | N     | mg/kg | 0.01  | < 0.01  |
| Endrin ketone                      | N     | mg/kg | 0.01  | < 0.01  |
| <b>OrganoPhosphorus Pesticides</b> |       |       |       |         |
| Acephate                           | N     | mg/kg | 0.1   | < 0.1   |
| Aziniphos-methyl                   | N     | mg/kg | 0.1   | < 0.1   |
| Chlorpyrifos                       | N     | mg/kg | 0.1   | < 0.1   |
| Demeton-s-methyl                   | N     | mg/kg | 0.1   | < 0.1   |
| Dichlorvos                         | N     | mg/kg | 0.032 | < 0.032 |
| Dimethoate                         | N     | mg/kg | 0.1   | < 0.1   |
| Ethion                             | N     | mg/kg | 0.1   | < 0.1   |
| Malathion                          | N     | mg/kg | 0.1   | < 0.1   |
| Mathidathion                       | N     | mg/kg | 0.1   | < 0.1   |
| Methamidophos                      | N     | mg/kg | 0.1   | < 0.1   |
| Omethoate                          | N     | mg/kg | 0.1   | < 0.1   |
| Pirimifos-methyl                   | N     | mg/kg | 0.1   | < 0.1   |
| Profenofos                         | N     | mg/kg | 0.1   | < 0.1   |
| Pyrazophos                         | N     | mg/kg | 0.1   | < 0.1   |
| Tokuthion                          | N     | mg/kg | 0.1   | < 0.1   |
| Tolclofos-methyl                   | N     | mg/kg | 0.1   | < 0.1   |



## Results Summary

2683

Report No.: 23-46591, issue number 1

|                    |       |       |      |               |               |
|--------------------|-------|-------|------|---------------|---------------|
| ELAB Reference     |       |       |      | 311173        | 311212        |
| Customer Reference |       |       |      |               |               |
| Sample ID          |       |       |      |               |               |
| Sample Type        |       |       |      | SOIL          | SOIL          |
| Sample Location    |       |       |      | TP06          | TP25          |
| Sample Depth (m)   |       |       |      | 0.50 - 0.60   | 0.50 - 0.60   |
| Sampling Date      |       |       |      | 01/02/2023    | 31/01/2023    |
| Determinand        | Codes | Units | LOD  |               |               |
| <b>SVOCTIC</b>     |       |       |      |               |               |
| Various            | N     | mg/kg | 0.01 | None Detected | None Detected |
| <b>TIC</b>         |       |       |      |               |               |

## Method Summary

Report No.: 23-46591, issue number 1

| Parameter                             | Codes | Analysis Undertaken On | Date Tested | Method Number | Technique          |
|---------------------------------------|-------|------------------------|-------------|---------------|--------------------|
| <b>Soil</b>                           |       |                        |             |               |                    |
| Hexavalent chromium                   | N     | As submitted sample    | 08/02/2023  | 110           | Colorimetry        |
| pH                                    | M     | Air dried sample       | 10/02/2023  | 113           | Electromeric       |
| Aqua regia extractable metals         | M     | Air dried sample       | 08/02/2023  | 118           | ICPMS              |
| Phenols in solids                     | M     | As submitted sample    | 08/02/2023  | 121           | HPLC               |
| PAH (GC-FID)                          | N     | As submitted sample    | 09/02/2023  | 133           | GC-FID             |
| SVOC in solids                        | N     | As submitted sample    | 09/02/2023  | 167           | GC-MS              |
| Water soluble anions                  | M     | Air dried sample       | 08/02/2023  | 172           | Ion Chromatography |
| Organochlorine Pesticides in solids   | N     | As submitted sample    | 09/02/2023  | 173           | GC-MS              |
| Organophosphorus Pesticides in solids | N     | As submitted sample    | 09/02/2023  | 173           | GC-MS              |
| Water soluble boron                   | N     | Air dried sample       | 08/02/2023  | 202           | Colorimetry        |
| Total organic carbon/Total sulphur    | N     | Air dried sample       | 09/02/2023  | 210           | IR                 |

Tests marked N are not UKAS accredited

## Report Information

Report No.: 23-46591, issue number 1

### Key

|     |                                                                             |
|-----|-----------------------------------------------------------------------------|
| U   | hold UKAS accreditation                                                     |
| M   | hold MCERTS and UKAS accreditation                                          |
| N   | do not currently hold UKAS accreditation                                    |
| ^   | MCERTS accreditation not applicable for sample matrix                       |
| *   | UKAS accreditation not applicable for sample matrix                         |
| S   | Subcontracted to approved laboratory UKAS Accredited for the test           |
| SM  | Subcontracted to approved laboratory MCERTS/UKAS Accredited for the test    |
| NS  | Subcontracted to approved laboratory. UKAS accreditation is not applicable. |
| I/S | Insufficient Sample                                                         |
| U/S | Unsuitable sample                                                           |
| n/t | Not tested                                                                  |
| <   | means "less than"                                                           |
| >   | means "greater than"                                                        |

LOD LOD refers to limit of detection, except in the case of pH soils and pH waters where it means limit of discrimination.  
Soil sample results are expressed on an air dried basis (dried at < 30°C), and are uncorrected for inert material removed.  
ELAB are unable to provide an interpretation or opinion on the content of this report.  
The results relate only to the sample received.  
PCB congener results may include any coeluting PCBs  
Uncertainty of measurement for the determinands tested are available upon request  
Unless otherwise stated, sample information has been provided by the client. This may affect the validity of the results.

### Deviation Codes

|   |                                                          |
|---|----------------------------------------------------------|
| a | No date of sampling supplied                             |
| b | No time of sampling supplied (Waters Only)               |
| c | Sample not received in appropriate containers            |
| d | Sample not received in cooled condition                  |
| e | The container has been incorrectly filled                |
| f | Sample age exceeds stability time (sampling to receipt)  |
| g | Sample age exceeds stability time (sampling to analysis) |

Where a sample has a deviation code, the applicable test result may be invalid.

### Sample Retention and Disposal

All soil samples will be retained for a period of one month  
All water samples will be retained for 7 days following the date of the test report  
Charges may apply to extended sample storage

### TPH Classification - HWOL Acronym System

|       |                                                                     |
|-------|---------------------------------------------------------------------|
| HS    | Headspace analysis                                                  |
| EH    | Extractable Hydrocarbons - i.e. everything extracted by the solvent |
| CU    | Clean-up - e.g. by florisil, silica gel                             |
| 1D    | GC - Single coil gas chromatography                                 |
| Total | Aliphatics & Aromatics                                              |
| AL    | Aliphatics only                                                     |
| AR    | Aromatics only                                                      |
| 2D    | GC-GC - Double coil gas chromatography                              |
| #1    | EH_Total but with humics mathematically subtracted                  |
| #2    | EH_Total but with fatty acids mathematically subtracted             |
| _     | Operator - underscore to separate acronyms (exception for +)        |
| +     | Operator to indicate cumulative e.g. EH+HS_Total or EH_CU+HS_Total  |
| MS    | Mass Spectrometry                                                   |

| End Use Scenario                    | SOM  | Code    | (All) |
|-------------------------------------|------|---------|-------|
| Residential with Home Grown Produce | 1.0% | Code2   | (All) |
|                                     |      | St. Ref | (All) |

CS-1745  
HUMAN HEALTH  
ASSESSMENT



| Min Value | Max Value | Count Values | No. of Exceed - ances | Screen Level | Location ID            |                   |                        | TP01  |        | TP06 | TP14  | TP16   | TP09   |        |        | TP20  |        |       | TP21  | TP22  | TP25 |
|-----------|-----------|--------------|-----------------------|--------------|------------------------|-------------------|------------------------|-------|--------|------|-------|--------|--------|--------|--------|-------|--------|-------|-------|-------|------|
| (mg/kg)   | (mg/kg)   |              |                       | (mg/kg)      | Depth Top and Base (m) |                   |                        | 0.1   | 0.5    | 0.5  | 0.5   | 0.1    | 0.1    | 0.5    | 0.1    | 0.5   | 2.5    | 0.1   | 0.5   | 0.1   |      |
|           |           |              |                       |              | Ref.                   | Group             | Contaminant            | 0.2   | 0.6    | 0.6  | 0.6   | 0.2    | 0.2    | 0.6    | 0.2    | 0.6   | 2.6    | 0.2   | 0.6   | 0.2   |      |
| 9.00      | 35.10     | 14           | -                     | 37           | 1.01                   | Heavy Metals      | Arsenic                | 16.40 | 35.10  |      | 14.20 | 13.50  | 16.70  | 23.30  | 11.70  | 9.00  | 12.20  | 9.00  | 32.10 | 11.20 |      |
| 1.00      | 1.70      | 14           | -                     | 1.7          | 1.02                   | Heavy Metals      | Beryllium              | 1.00  | 1.10   |      | 1.50  | 1.00   | 1.00   | 1.40   | 1.10   | 1.00  | 1.70   | 1.00  | 1.00  | 1.00  |      |
| 0.50      | 0.50      | 14           | -                     | 22           | 1.03                   | Heavy Metals      | Cadmium                | 0.50  | 0.50   |      | 0.50  | 0.50   | 0.50   | 0.50   | 0.50   | 0.50  | 0.50   | 0.50  | 0.50  | 0.50  |      |
| 20.20     | 38.60     | 14           | -                     | 910          | 1.04                   | Heavy Metals      | Chromium               | 23.00 | 28.50  |      | 32.80 | 20.30  | 22.80  | 27.70  | 23.00  | 20.20 | 38.60  | 20.90 | 25.80 | 26.00 |      |
| 23.90     | 51.20     | 14           | -                     | 200          | 1.05                   | Heavy Metals      | Lead                   | 39.50 | 29.70  |      | 24.00 | 51.20  | 49.40  | 26.00  | 35.40  | 26.50 | 27.10  | 36.00 | 23.90 | 42.20 |      |
| 0.50      | 0.50      | 14           | -                     | 40           | 1.06                   | Heavy Metals      | Mercury                | 0.50  | 0.50   |      | 0.50  | 0.50   | 0.50   | 0.50   | 0.50   | 0.50  | 0.50   | 0.50  | 0.50  | 0.50  |      |
| 13.60     | 48.10     | 14           | -                     | 180          | 1.07                   | Heavy Metals      | Nickel                 | 18.60 | 34.00  |      | 33.80 | 20.20  | 21.20  | 34.40  | 21.60  | 13.60 | 48.10  | 15.90 | 25.20 | 17.60 |      |
| 1.00      | 1.30      | 14           | -                     | 250          | 1.08                   | Heavy Metals      | Selenium               | 1.00  | 1.00   |      | 1.00  | 1.00   | 1.00   | 1.00   | 1.00   | 1.00  | 1.00   | 1.00  | 1.30  | 1.00  |      |
| 25.90     | 56.40     | 14           | -                     | 410          | 1.09                   | Heavy Metals      | Vanadium               | 33.20 | 52.20  |      | 43.70 | 28.40  | 33.40  | 35.20  | 33.40  | 29.70 | 56.40  | 25.90 | 34.20 | 31.10 |      |
| 0.50      | 0.70      | 14           | -                     | 290          | 2.01                   | Inorganics        | Water Soluble Boron    | 0.50  | 0.50   |      | 0.50  | 0.60   | 0.50   | 0.50   | 0.60   | 0.50  | 0.50   | 0.50  | 0.50  | 0.50  |      |
| 0.80      | 0.80      | 14           | -                     | 21           | 2.02                   | Inorganics        | Hexavalent Chromium    | 0.80  | 0.80   |      | 0.80  | 0.80   | 0.80   | 0.80   | 0.80   | 0.80  | 0.80   | 0.80  | 0.80  | 0.80  |      |
| 18.10     | 46.00     | 14           | -                     | 2400         | 3.01                   | Phytotoxic Metals | Copper                 | 26.20 | 45.60  |      | 26.90 | 25.50  | 30.80  | 33.30  | 23.80  | 18.20 | 46.00  | 21.30 | 18.10 | 25.20 |      |
| 68.90     | 149.00    | 14           | -                     | 3700         | 3.02                   | Phytotoxic Metals | Zinc                   | 97.40 | 149.00 |      | 77.40 | 107.00 | 110.00 | 108.00 | 102.00 | 75.00 | 121.00 | 80.10 | 68.90 | 90.90 |      |
| 1.00      | 1.00      | 14           | -                     | 280          | 4.01                   | Phenols           | Phenol                 | 1.00  | 1.00   |      | 1.00  | 1.00   | 1.00   | 1.00   | 1.00   | 1.00  | 1.00   | 1.00  | 1.00  | 1.00  |      |
| 0.10      | 0.10      | 14           | -                     | 2.3          | 5.01                   | PAHs              | Naphthalene            | 0.10  | 0.10   |      | 0.10  | 0.10   | 0.10   | 0.10   | 0.10   | 0.10  | 0.10   | 0.10  | 0.10  | 0.10  |      |
| 0.10      | 0.10      | 14           | -                     | 170          | 5.02                   | PAHs              | Acenaphthylene         | 0.10  | 0.10   |      | 0.10  | 0.10   | 0.10   | 0.10   | 0.10   | 0.10  | 0.10   | 0.10  | 0.10  | 0.10  |      |
| 0.10      | 0.10      | 14           | -                     | 210          | 5.03                   | PAHs              | Acenaphthene           | 0.10  | 0.10   |      | 0.10  | 0.10   | 0.10   | 0.10   | 0.10   | 0.10  | 0.10   | 0.10  | 0.10  | 0.10  |      |
| 0.10      | 0.10      | 14           | -                     | 170          | 5.04                   | PAHs              | Fluorene               | 0.10  | 0.10   |      | 0.10  | 0.10   | 0.10   | 0.10   | 0.10   | 0.10  | 0.10   | 0.10  | 0.10  | 0.10  |      |
| 0.10      | 0.10      | 14           | -                     | 95           | 5.05                   | PAHs              | Phenanthrene           | 0.10  | 0.10   |      | 0.10  | 0.10   | 0.10   | 0.10   | 0.10   | 0.10  | 0.10   | 0.10  | 0.10  | 0.10  |      |
| 0.10      | 0.10      | 14           | -                     | 2400         | 5.06                   | PAHs              | Anthracene             | 0.10  | 0.10   |      | 0.10  | 0.10   | 0.10   | 0.10   | 0.10   | 0.10  | 0.10   | 0.10  | 0.10  | 0.10  |      |
| 0.10      | 0.10      | 14           | -                     | 280          | 5.07                   | PAHs              | Fluoranthene           | 0.10  | 0.10   |      | 0.10  | 0.10   | 0.10   | 0.10   | 0.10   | 0.10  | 0.10   | 0.10  | 0.10  | 0.10  |      |
| 0.10      | 0.10      | 14           | -                     | 620          | 5.08                   | PAHs              | Pyrene                 | 0.10  | 0.10   |      | 0.10  | 0.10   | 0.10   | 0.10   | 0.10   | 0.10  | 0.10   | 0.10  | 0.10  | 0.10  |      |
| 0.10      | 0.10      | 14           | -                     | 7.2          | 5.09                   | PAHs              | Benzo(a)anthracene     | 0.10  | 0.10   |      | 0.10  | 0.10   | 0.10   | 0.10   | 0.10   | 0.10  | 0.10   | 0.10  | 0.10  | 0.10  |      |
| 0.10      | 0.10      | 14           | -                     | 15           | 5.10                   | PAHs              | Chrysene               | 0.10  | 0.10   |      | 0.10  | 0.10   | 0.10   | 0.10   | 0.10   | 0.10  | 0.10   | 0.10  | 0.10  | 0.10  |      |
| 0.10      | 0.10      | 14           | -                     | 2.6          | 5.11                   | PAHs              | Benzo(b)fluoranthene   | 0.10  | 0.10   |      | 0.10  | 0.10   | 0.10   | 0.10   | 0.10   | 0.10  | 0.10   | 0.10  | 0.10  | 0.10  |      |
| 0.10      | 0.10      | 14           | -                     | 77           | 5.12                   | PAHs              | Benzo(k)fluoranthene   | 0.10  | 0.10   |      | 0.10  | 0.10   | 0.10   | 0.10   | 0.10   | 0.10  | 0.10   | 0.10  | 0.10  | 0.10  |      |
| 0.10      | 0.10      | 14           | -                     | 5            | 5.13                   | PAHs              | Benzo(a)pyrene         | 0.10  | 0.10   |      | 0.10  | 0.10   | 0.10   | 0.10   | 0.10   | 0.10  | 0.10   | 0.10  | 0.10  | 0.10  |      |
| 0.10      | 0.10      | 14           | -                     | 27           | 5.14                   | PAHs              | Indeno(1,2,3-cd)pyrene | 0.10  | 0.10   |      | 0.10  | 0.10   | 0.10   | 0.10   | 0.10   | 0.10  | 0.10   | 0.10  | 0.10  | 0.10  |      |
| 0.10      | 0.10      | 14           | -                     | 0.24         | 5.15                   | PAHs              | Dibenzo(a,h)anthracene | 0.10  | 0.10   |      | 0.10  | 0.10   | 0.10   | 0.10   | 0.10   | 0.10  | 0.10   | 0.10  | 0.10  | 0.10  |      |
| 0.10      | 0.10      | 14           | -                     | 320          | 5.16                   | PAHs              | Benzo[g,h,i]perylene   | 0.10  | 0.10   |      | 0.10  | 0.10   | 0.10   | 0.10   | 0.10   | 0.10  | 0.10   | 0.10  | 0.10  | 0.10  |      |
| 0.01      | 0.01      | 2            | -                     | 5.7          | 7.01                   | Pesticides        | Aldrin                 |       |        | 0.01 |       |        |        |        |        |       |        |       |       |       |      |
| 0.01      | 0.01      | 2            | -                     | 0.97         | 7.02                   | Pesticides        | Dieldrin               |       |        | 0.01 |       |        |        |        |        |       |        |       |       |       |      |
| 0.03      | 0.03      | 2            | -                     | 0.032        | 7.04                   | Pesticides        | Dichlorvos             |       |        | 0.03 |       |        |        |        |        |       |        |       |       |       |      |
| 0.01      | 0.01      | 2            | -                     | 7.4          | 7.05                   | Pesticides        | Endosulfan II          |       |        | 0.01 |       |        |        |        |        |       |        |       |       |       |      |



| End Use Scenario                    | SOM  | Code    | (All) |
|-------------------------------------|------|---------|-------|
| Residential with Home Grown Produce | 1.0% | Code2   | (All) |
|                                     |      | St. Ref | (All) |

**CS-1745  
HUMAN HEALTH  
ASSESSMENT**

| Min Value | Max Value | Count Values | No. of Exceed - ances | Screen Level (mg/kg) | Location ID            |                   |                        | TP25 | TP23   | TP24  |
|-----------|-----------|--------------|-----------------------|----------------------|------------------------|-------------------|------------------------|------|--------|-------|
|           |           |              |                       |                      | Depth Top and Base (m) |                   |                        | 0.5  | 0.1    | 0.5   |
| (mg/kg)   | (mg/kg)   |              |                       |                      | Ref.                   | Group             | Contaminant            | 0.6  | 0.2    | 0.6   |
| 9.00      | 35.10     | 14           | -                     | 37                   | 1.01                   | Heavy Metals      | Arsenic                |      | 19.70  | 15.30 |
| 1.00      | 1.70      | 14           | -                     | 1.7                  | 1.02                   | Heavy Metals      | Beryllium              |      | 1.20   | 1.30  |
| 0.50      | 0.50      | 14           | -                     | 22                   | 1.03                   | Heavy Metals      | Cadmium                |      | 0.50   | 0.50  |
| 20.20     | 38.60     | 14           | -                     | 910                  | 1.04                   | Heavy Metals      | Chromium               |      | 38.30  | 29.60 |
| 23.90     | 51.20     | 14           | -                     | 200                  | 1.05                   | Heavy Metals      | Lead                   |      | 43.00  | 47.80 |
| 0.50      | 0.50      | 14           | -                     | 40                   | 1.06                   | Heavy Metals      | Mercury                |      | 0.50   | 0.50  |
| 13.60     | 48.10     | 14           | -                     | 180                  | 1.07                   | Heavy Metals      | Nickel                 |      | 22.70  | 23.40 |
| 1.00      | 1.30      | 14           | -                     | 250                  | 1.08                   | Heavy Metals      | Selenium               |      | 1.00   | 1.00  |
| 25.90     | 56.40     | 14           | -                     | 410                  | 1.09                   | Heavy Metals      | Vanadium               |      | 40.60  | 41.00 |
| 0.50      | 0.70      | 14           | -                     | 290                  | 2.01                   | Inorganics        | Water Soluble Boron    |      | 0.70   | 0.50  |
| 0.80      | 0.80      | 14           | -                     | 21                   | 2.02                   | Inorganics        | Hexavalent Chromium    |      | 0.80   | 0.80  |
| 18.10     | 46.00     | 14           | -                     | 2400                 | 3.01                   | Phytotoxic Metals | Copper                 |      | 34.00  | 25.70 |
| 68.90     | 149.00    | 14           | -                     | 3700                 | 3.02                   | Phytotoxic Metals | Zinc                   |      | 139.00 | 79.20 |
| 1.00      | 1.00      | 14           | -                     | 280                  | 4.01                   | Phenols           | Phenol                 |      | 1.00   | 1.00  |
| 0.10      | 0.10      | 14           | -                     | 2.3                  | 5.01                   | PAHs              | Naphthalene            |      | 0.10   | 0.10  |
| 0.10      | 0.10      | 14           | -                     | 170                  | 5.02                   | PAHs              | Acenaphthylene         |      | 0.10   | 0.10  |
| 0.10      | 0.10      | 14           | -                     | 210                  | 5.03                   | PAHs              | Acenaphthene           |      | 0.10   | 0.10  |
| 0.10      | 0.10      | 14           | -                     | 170                  | 5.04                   | PAHs              | Fluorene               |      | 0.10   | 0.10  |
| 0.10      | 0.10      | 14           | -                     | 95                   | 5.05                   | PAHs              | Phenanthrene           |      | 0.10   | 0.10  |
| 0.10      | 0.10      | 14           | -                     | 2400                 | 5.06                   | PAHs              | Anthracene             |      | 0.10   | 0.10  |
| 0.10      | 0.10      | 14           | -                     | 280                  | 5.07                   | PAHs              | Fluoranthene           |      | 0.10   | 0.10  |
| 0.10      | 0.10      | 14           | -                     | 620                  | 5.08                   | PAHs              | Pyrene                 |      | 0.10   | 0.10  |
| 0.10      | 0.10      | 14           | -                     | 7.2                  | 5.09                   | PAHs              | Benzo(a)anthracene     |      | 0.10   | 0.10  |
| 0.10      | 0.10      | 14           | -                     | 15                   | 5.10                   | PAHs              | Chrysene               |      | 0.10   | 0.10  |
| 0.10      | 0.10      | 14           | -                     | 2.6                  | 5.11                   | PAHs              | Benzo(b)fluoranthene   |      | 0.10   | 0.10  |
| 0.10      | 0.10      | 14           | -                     | 77                   | 5.12                   | PAHs              | Benzo(k)fluoranthene   |      | 0.10   | 0.10  |
| 0.10      | 0.10      | 14           | -                     | 5                    | 5.13                   | PAHs              | Benzo(a)pyrene         |      | 0.10   | 0.10  |
| 0.10      | 0.10      | 14           | -                     | 27                   | 5.14                   | PAHs              | Indeno(1,2,3-cd)pyrene |      | 0.10   | 0.10  |
| 0.10      | 0.10      | 14           | -                     | 0.24                 | 5.15                   | PAHs              | Dibenzo(a,h)anthracene |      | 0.10   | 0.10  |
| 0.10      | 0.10      | 14           | -                     | 320                  | 5.16                   | PAHs              | Benzo[g,h,i]perylene   |      | 0.10   | 0.10  |
| 0.01      | 0.01      | 2            | -                     | 5.7                  | 7.01                   | Pesticides        | Aldrin                 | 0.01 |        |       |
| 0.01      | 0.01      | 2            | -                     | 0.97                 | 7.02                   | Pesticides        | Dieldrin               | 0.01 |        |       |
| 0.03      | 0.03      | 2            | -                     | 0.032                | 7.04                   | Pesticides        | Dichlorvos             | 0.03 |        |       |
| 0.01      | 0.01      | 2            | -                     | 7.4                  | 7.05                   | Pesticides        | Endosulfan II          | 0.01 |        |       |

| End Use Scenario |
|------------------|
| Phytotoxic       |

|         |       |
|---------|-------|
| Code    | (All) |
| Code2   | (All) |
| St. Ref | (All) |

**CS-1745  
PHYTOTOXIC  
REPORT**



| Min Value | Max Value | Count Values | No. of Exceed - ances | Screen Level | Location ID        |                   |                     | TP01  |        | TP14  | TP16   | TP09   |        | TP20   |       |        | TP21  | TP22  | TP25  | TP23   |
|-----------|-----------|--------------|-----------------------|--------------|--------------------|-------------------|---------------------|-------|--------|-------|--------|--------|--------|--------|-------|--------|-------|-------|-------|--------|
|           |           |              |                       |              | Depth Top and Base |                   |                     | 0.1   | 0.5    | 0.5   | 0.1    | 0.1    | 0.5    | 0.1    | 0.5   | 2.5    | 0.1   | 0.5   | 0.1   | 0.1    |
|           |           |              |                       |              | Ref.               | Group             | Contaminant         | 0.2   | 0.6    | 0.6   | 0.2    | 0.2    | 0.6    | 0.2    | 0.6   | 2.6    | 0.2   | 0.6   | 0.2   | 0.2    |
| 0.50      | 0.50      | 14           | -                     | 8            | 1.03               | Heavy Metals      | Cadmium             | 0.50  | 0.50   | 0.50  | 0.50   | 0.50   | 0.50   | 0.50   | 0.50  | 0.50   | 0.50  | 0.50  | 0.50  | 0.50   |
| 20.20     | 38.60     | 14           | -                     | 154          | 1.04               | Heavy Metals      | Chromium            | 23.00 | 28.50  | 32.80 | 20.30  | 22.80  | 27.70  | 23.00  | 20.20 | 38.60  | 20.90 | 25.80 | 26.00 | 38.30  |
| 0.50      | 0.50      | 14           | -                     | 28           | 1.06               | Heavy Metals      | Mercury             | 0.50  | 0.50   | 0.50  | 0.50   | 0.50   | 0.50   | 0.50   | 0.50  | 0.50   | 0.50  | 0.50  | 0.50  | 0.50   |
| 13.60     | 48.10     | 14           | -                     | 70           | 1.07               | Heavy Metals      | Nickel              | 18.60 | 34.00  | 33.80 | 20.20  | 21.20  | 34.40  | 21.60  | 13.60 | 48.10  | 15.90 | 25.20 | 17.60 | 22.70  |
| 1.00      | 1.30      | 14           | -                     | 10           | 1.08               | Heavy Metals      | Selenium            | 1.00  | 1.00   | 1.00  | 1.00   | 1.00   | 1.00   | 1.00   | 1.00  | 1.00   | 1.00  | 1.30  | 1.00  | 1.00   |
| 0.50      | 0.70      | 14           | -                     | 3            | 2.01               | Inorganics        | Water Soluble Boron | 0.50  | 0.50   | 0.50  | 0.60   | 0.50   | 0.50   | 0.60   | 0.50  | 0.50   | 0.50  | 0.50  | 0.50  | 0.70   |
| 18.10     | 46.00     | 14           | -                     | 130          | 3.01               | Phytotoxic Metals | Copper              | 26.20 | 45.60  | 26.90 | 25.50  | 30.80  | 33.30  | 23.80  | 18.20 | 46.00  | 21.30 | 18.10 | 25.20 | 34.00  |
| 68.90     | 149.00    | 14           | -                     | 300          | 3.02               | Phytotoxic Metals | Zinc                | 97.40 | 149.00 | 77.40 | 107.00 | 110.00 | 108.00 | 102.00 | 75.00 | 121.00 | 80.10 | 68.90 | 90.90 | 139.00 |

| End Use Scenario |
|------------------|
| Phytotoxic       |

|         |       |
|---------|-------|
| Code    | (All) |
| Code2   | (All) |
| St. Ref | (All) |

CS-1745

PHYTOTOXIC

REPORT

| Min Value | Max Value | Count Values | No. of Exceed - ances | Screen Level | Location ID        |                   |                     | TP24  |
|-----------|-----------|--------------|-----------------------|--------------|--------------------|-------------------|---------------------|-------|
|           |           |              |                       |              | Depth Top and Base |                   |                     | 0.5   |
|           |           |              |                       |              | Ref.               | Group             | Contaminant         | 0.6   |
| 0.50      | 0.50      | 14           | -                     | 8            | 1.03               | Heavy Metals      | Cadmium             | 0.50  |
| 20.20     | 38.60     | 14           | -                     | 154          | 1.04               | Heavy Metals      | Chromium            | 29.60 |
| 0.50      | 0.50      | 14           | -                     | 28           | 1.06               | Heavy Metals      | Mercury             | 0.50  |
| 13.60     | 48.10     | 14           | -                     | 70           | 1.07               | Heavy Metals      | Nickel              | 23.40 |
| 1.00      | 1.30      | 14           | -                     | 10           | 1.08               | Heavy Metals      | Selenium            | 1.00  |
| 0.50      | 0.70      | 14           | -                     | 3            | 2.01               | Inorganics        | Water Soluble Boron | 0.50  |
| 18.10     | 46.00     | 14           | -                     | 130          | 3.01               | Phytotoxic Metals | Copper              | 25.70 |
| 68.90     | 149.00    | 14           | -                     | 300          | 3.02               | Phytotoxic Metals | Zinc                | 79.20 |

|                   |       |
|-------------------|-------|
| Geology Code      | (All) |
| Geology Code2     | (All) |
| Stratum Reference | (All) |

**CS-1745**  
**NO ASBESTOS TESTING**  
**RESULTS AVAILABLE**



## Appendix F – Gas Monitoring Records



# GAS MONITORING RECORD



**Client:** Barwood Land  
**Site:** Sketchley Lane  
**Date:** 15/02/2023

**Job No:** P0866  
**Visit No:** 1 of 3  
**Operator:** RG  
**Project Manager:** RG

| Monitoring Location | VOLATILES | FLOW DATA        |        |                                     |                                 | GAS CONCENTRATIONS |        |      |        |                       |        |                        |        |                          |        |               |        | WELL AND WATER DATA |                     |                   |                   |                    |                    |                     |                               | Comments |
|---------------------|-----------|------------------|--------|-------------------------------------|---------------------------------|--------------------|--------|------|--------|-----------------------|--------|------------------------|--------|--------------------------|--------|---------------|--------|---------------------|---------------------|-------------------|-------------------|--------------------|--------------------|---------------------|-------------------------------|----------|
|                     |           | Flow rate (l/hr) |        | Differential borehole Pressure (Pa) | Time for flow to equalise (sec) | Methane (%w/v)     |        | %LEL |        | Carbon dioxide (%w/v) |        | Carbon monoxide (ppmv) |        | Hydrogen sulphide (ppmv) |        | Oxygen (%w/v) |        | Run time (min)      | Ground Level (mAOD) | NAPL Level (mbgl) | NAPL level (mAOD) | Water level (mbgl) | Water level (mAOD) | Base of well (mbgl) | Response zone depth range (m) |          |
|                     |           | Peak             | Steady |                                     |                                 | Peak               | Steady | Peak | Steady | Peak                  | Steady | Peak                   | Steady | Peak                     | Steady | Min.          | Steady |                     |                     |                   |                   |                    |                    |                     |                               |          |
| WS01                | 0.00      | 0                | 0      | -2.72                               | 20                              | <0.1               | <0.1   |      |        | 1.7                   | 1.7    | <1                     | <1     | <1                       | <1     | 19.7          | 19.7   | 3                   | 118.61              | ND                | ND                | DRY                | N/A                | 5.00                | 1.0-5.0                       |          |
| WS02                | 1.40      | 0                | 0      | -0.05                               | 20                              | <0.1               | <0.1   |      |        | 2.7                   | 2.7    | <1                     | <1     | <1                       | <1     | 19.6          | 19.6   | 3                   | 117.12              | ND                | ND                | DRY                | N/A                | 4.50                | 1.0-4.5                       |          |
| WS03                | 0.20      | -0.1             | -0.1   | -0.12                               | 20                              | <0.1               | <0.1   |      |        | 2.7                   | 2.7    | <1                     | <1     | <1                       | <1     | 19.6          | 19.6   | 3                   | 112.00              | ND                | ND                | 2.55               | 109.45             | 3.64                | 1.0-4.0                       |          |
| WS04                | 0.30      | -0.1             | -0.1   | -0.03                               | 20                              | <0.1               | <0.1   |      |        | 3.4                   | 3.4    | <1                     | <1     | <1                       | <1     | 17.8          | 17.8   | 3                   | 113.53              | ND                | ND                | 2.44               | 111.09             | 4.50                | 1.0-4.5                       |          |
| WS05                | 1.30      | -0.2             | -0.2   | -0.1                                | 20                              | 0.8                | 0.8    |      |        | 1.2                   | 1.2    | <1                     | <1     | <1                       | <1     | 20.6          | 20.6   | 3                   | 112.05              | ND                | ND                | 2.02               | 110.03             | 4.60                | 1.0-5.0                       |          |
|                     |           |                  |        |                                     |                                 |                    |        |      |        |                       |        |                        |        |                          |        |               |        |                     |                     |                   |                   |                    |                    |                     |                               |          |
|                     |           |                  |        |                                     |                                 |                    |        |      |        |                       |        |                        |        |                          |        |               |        |                     |                     |                   |                   |                    |                    |                     |                               |          |
|                     |           |                  |        |                                     |                                 |                    |        |      |        |                       |        |                        |        |                          |        |               |        |                     |                     |                   |                   |                    |                    |                     |                               |          |
|                     |           |                  |        |                                     |                                 |                    |        |      |        |                       |        |                        |        |                          |        |               |        |                     |                     |                   |                   |                    |                    |                     |                               |          |
|                     |           |                  |        |                                     |                                 |                    |        |      |        |                       |        |                        |        |                          |        |               |        |                     |                     |                   |                   |                    |                    |                     |                               |          |
| Max                 | 1.40      | 0.0              | 0.0    | 0.0                                 |                                 | 0.8                | 0.8    | 0.0  | 0.0    | 3.4                   | 3.4    | 0.0                    | 0.0    | 0.0                      | 0.0    | 20.6          | 20.6   |                     |                     |                   |                   |                    |                    |                     |                               |          |
| Min                 | 0.00      | -0.2             | -0.2   | -2.7                                |                                 | 0.8                | 0.8    | 0.0  | 0.0    | 1.2                   | 1.2    | 0.0                    | 0.0    | 0.0                      | 0.0    | 17.8          | 17.8   |                     |                     |                   |                   |                    |                    |                     |                               |          |

ND - Not detected

**METEOROLOGICAL AND SITE INFORMATION:**

|                                    |         |        |          |          |        |
|------------------------------------|---------|--------|----------|----------|--------|
| State of ground:                   | Dry     | Moist  | Wet      | Snow     | Frozen |
| Wind:                              | Calm    | Light  | Moderate | Strong   |        |
| Cloud cover:                       | None    | Slight | Cloudy   | Overcast |        |
| Precipitation:                     | None    | Slight | Moderate | Heavy    |        |
| Time monitoring performed:         | Start   | 10:20  | End      | 11:06    |        |
| Barometric pressure (mbar):        | Start   | 1008   | End      | 1016     |        |
| Pressure trend (Preceding 3 days): | Falling | Steady | Rising   |          |        |
| Air temperature (degree C):        | Before  | 10     | After    | 12       |        |

**INSTRUMENTATION TECHNICAL SPECIFICATIONS:**

**Ground gas meter:** Geotech G5000  
**Gas range:** CH4: 0 - 100% CO2: 0 - 100% O2: 0 -25%  
H2S 0 - 50ppm CO: 0 -500ppm  
**Gas flow range:** 0-200 l/hr  
**Date of last calibration:** 26/01/2023  
**Date of next calibration:** 26/07/2023

**PID:** Mini Rae Lite  
**Calibrated range:** 0-99 ppm  
**Calibration gas:** Isobutylene  
**Response time:** 2 seconds  
**Accuracy:** 0.1 ppm  
**Date of last calibration:** 31/10/2022  
**Date of next calibration:** 31/10/2023

# GAS MONITORING RECORD



**Client:** Barwood Land  
**Site:** Sketchley Lane  
**Date:** 02/03/2023

**Job No:** P0866  
**Visit No:** 2 of 3  
**Operator:** JSB  
**Project Manager:** RG

| Monitoring Location | VOLATILES | FLOW DATA        |        |                                     |                                 | GAS CONCENTRATIONS |        |      |        |                       |        |                        |        |                          |        |               |        | WELL AND WATER DATA |                     |                   |                   |                    |                    |                     |                               | Comments |
|---------------------|-----------|------------------|--------|-------------------------------------|---------------------------------|--------------------|--------|------|--------|-----------------------|--------|------------------------|--------|--------------------------|--------|---------------|--------|---------------------|---------------------|-------------------|-------------------|--------------------|--------------------|---------------------|-------------------------------|----------|
|                     |           | Flow rate (l/hr) |        | Differential borehole Pressure (Pa) | Time for flow to equalise (sec) | Methane (%v/v)     |        | %LEL |        | Carbon dioxide (%v/v) |        | Carbon monoxide (ppmv) |        | Hydrogen sulphide (ppmv) |        | Oxygen (%v/v) |        | Run time (min)      | Ground Level (mAOD) | NAPL Level (mbgl) | NAPL level (mAOD) | Water level (mbgl) | Water level (mAOD) | Base of well (mbgl) | Response zone depth range (m) |          |
|                     |           | Peak             | Steady |                                     |                                 | Peak               | Steady | Peak | Steady | Peak                  | Steady | Peak                   | Steady | Peak                     | Steady | Min.          | Steady |                     |                     |                   |                   |                    |                    |                     |                               |          |
| WS01                | 0.2       | 0                | 0      | -0.03                               | -                               | <0.1               | <0.1   | -    | -      | 0.4                   | 0.4    | <1                     | <1     | <1                       | <1     | 20.8          | 20.8   | 2                   | 118.61              | ND                | ND                | DRY                | N/A                | 5.00                | 1.0-5.0                       |          |
| WS02                | 0.7       | 0                | 0      | 0.03                                | -                               | <0.1               | <0.1   | -    | -      | 2.5                   | 2.5    | <1                     | <1     | <1                       | <1     | 19.3          | 19.3   | 2                   | 117.12              | ND                | ND                | DRY                | N/A                | 4.50                | 1.0-4.5                       |          |
| WS03                | 0.3       | 0                | 0      | -0.02                               | -                               | <0.1               | <0.1   | -    | -      | 2.9                   | 2.9    | <1                     | <1     | <1                       | <1     | 19            | 19     | 2                   | 112.00              | ND                | ND                | 2.67               | 109.33             | 3.64                | 1.0-4.0                       |          |
| WS04                | 0.3       | 0                | 0      | -0.1                                | -                               | <0.1               | <0.1   | -    | -      | 0.4                   | 0.4    | <1                     | <1     | <1                       | <1     | 20.7          | 20.7   | 2                   | 113.53              | ND                | ND                | DRY                | N/A                | 4.60                | 1.0-5.0                       |          |
| WS05                | 0.2       | 0                | 0      | 0.09                                | -                               | <0.1               | <0.1   | -    | -      | 0.3                   | 0.3    | <1                     | <1     | <1                       | <1     | 21.2          | 21.3   | 2                   | 112.05              | ND                | ND                | 3.60               | 108.45             | 4.60                | 1.0-5.0                       |          |
|                     |           |                  |        |                                     |                                 |                    |        |      |        |                       |        |                        |        |                          |        |               |        |                     |                     |                   |                   |                    |                    |                     |                               |          |
|                     |           |                  |        |                                     |                                 |                    |        |      |        |                       |        |                        |        |                          |        |               |        |                     |                     |                   |                   |                    |                    |                     |                               |          |
|                     |           |                  |        |                                     |                                 |                    |        |      |        |                       |        |                        |        |                          |        |               |        |                     |                     |                   |                   |                    |                    |                     |                               |          |
|                     |           |                  |        |                                     |                                 |                    |        |      |        |                       |        |                        |        |                          |        |               |        |                     |                     |                   |                   |                    |                    |                     |                               |          |
|                     |           |                  |        |                                     |                                 |                    |        |      |        |                       |        |                        |        |                          |        |               |        |                     |                     |                   |                   |                    |                    |                     |                               |          |
| Max                 | 0.7       | 0.0              | 0.0    | 0.1                                 |                                 | 0.0                | 0.0    | 0.0  | 0.0    | 2.9                   | 2.9    | 0.0                    | 0.0    | 0.0                      | 0.0    | 21.2          | 21.3   |                     |                     |                   |                   |                    |                    |                     |                               |          |
| Min                 | 0.2       | 0.0              | 0.0    | -0.1                                |                                 | 0.0                | 0.0    | 0.0  | 0.0    | 0.3                   | 0.3    | 0.0                    | 0.0    | 0.0                      | 0.0    | 19.0          | 19.0   |                     |                     |                   |                   |                    |                    |                     |                               |          |

ND - Not detected

## METEOROLOGICAL AND SITE INFORMATION:

|                                    |         |        |          |          |        |
|------------------------------------|---------|--------|----------|----------|--------|
| State of ground:                   | Dry     | Moist  | Wet      | Snow     | Frozen |
| Wind:                              | Calm    | Light  | Moderate | Strong   |        |
| Cloud cover:                       | None    | Slight | Cloudy   | Overcast |        |
| Precipitation:                     | None    | Slight | Moderate | Heavy    |        |
| Time monitoring performed:         | Start   | 11:30  | End      | 12:45    |        |
| Barometric pressure (mbar):        | Start   | 1014   | End      | 1016     |        |
| Pressure trend (Preceding 3 days): | Falling | Steady | Rising   |          |        |
| Air temperature (degree C):        | Before  | 12     | After    | 12       |        |

## INSTRUMENTATION TECHNICAL SPECIFICATIONS:

**Ground gas meter:** Geotech G5000  
**Gas range:** CH4: 0 - 100% CO2: 0 - 100% O2: 0 -25%  
H2S 0 - 50ppm CO: 0 -500ppm  
**Gas flow range:** 0-200 l/hr  
**Date of last calibration:** 26/01/2023  
**Date of next calibration:** 26/07/2023

**PID:** Mini Rae Lite  
**Calibrated range:** 0-99 ppm  
**Calibration gas:** Isobutylene  
**Response time:** 2 seconds  
**Accuracy:** 0.1 ppm  
**Date of last calibration:** 31/10/2022  
**Date of next calibration:** 31/10/2023

# GAS MONITORING RECORD



**Client:** Barwood Land  
**Site:** Sketchley Lane  
**Date:** 13/03/2023

**Job No:** P0866  
**Visit No:** 3 of 3  
**Operator:** JO  
**Project Manager:** RG

| Monitoring Location | VOLATILES | FLOW DATA        |        |                                     |                                 | GAS CONCENTRATIONS |        |      |        |                       |        |                        |        |                          |        |               |        |                | WELL AND WATER DATA |                   |                   |                    |                    |                     |                               |             | Comments |
|---------------------|-----------|------------------|--------|-------------------------------------|---------------------------------|--------------------|--------|------|--------|-----------------------|--------|------------------------|--------|--------------------------|--------|---------------|--------|----------------|---------------------|-------------------|-------------------|--------------------|--------------------|---------------------|-------------------------------|-------------|----------|
|                     |           | Flow rate (l/hr) |        | Differential borehole Pressure (Pa) | Time for flow to equalise (sec) | Methane (%v/v)     |        | %LEL |        | Carbon dioxide (%v/v) |        | Carbon monoxide (ppmv) |        | Hydrogen sulphide (ppmv) |        | Oxygen (%v/v) |        | Run time (min) | Ground Level (mAOD) | NAPL Level (mbgl) | NAPL level (mAOD) | Water level (mbgl) | Water level (mAOD) | Base of well (mbgl) | Response zone depth range (m) |             |          |
|                     |           | Peak             | Steady |                                     |                                 | Peak               | Steady | Peak | Steady | Peak                  | Steady | Peak                   | Steady | Peak                     | Steady | Min.          | Steady |                |                     |                   |                   |                    |                    |                     |                               |             |          |
| WS01                | 0.3       | 0.4              | 0.4    | 0.53                                | 60                              | <0.1               | <0.1   |      |        | 1.5                   | 1.5    | <1                     | <1     | <1                       | <1     | 19.4          | 19.4   | 2              | 118.61              | ND                | ND                | DRY                | N/A                | 5.00                | 1.0-5.0                       |             |          |
| WS02                | 0.5       | 0                | 0      | -0.04                               | 60                              | <0.1               | <0.1   |      |        | 2.6                   | 2.6    | <1                     | <1     | <1                       | <1     | 18.6          | 18.6   | 2              | 117.12              | ND                | ND                | 4.48               | 112.64             | 4.50                | 1.0-4.5                       |             |          |
| WS03                | 0.5       | 0                | 0      | -0.09                               | 60                              | <0.1               | <0.1   |      |        | 3                     | 3      | <1                     | <1     | <1                       | <1     | 17.8          | 17.8   | 2              | 112.00              | ND                | ND                | 2.39               | 109.61             | 3.59                | 1.0-4.0                       | Silted      |          |
| WS04                | 0.3       | 0                | 0      | 0.1                                 | 60                              | <0.1               | <0.1   |      |        | 3.1                   | 3.1    | <1                     | <1     | <1                       | <1     | 17.7          | 17.7   | 2              | 113.53              | ND                | ND                | 2.60               | 110.93             | 4.62                | 1.0-5.0                       | Wet at base |          |
| WS05                | 0.7       | 0.1              | 0.1    | -4.1                                | 10                              | <0.1               | <0.1   |      |        | 0.4                   | 0.4    | <1                     | <1     | <1                       | <1     | 20.4          | 20.4   | 2              | 112.05              | ND                | ND                | 3.00               | 109.05             | 4.60                | 1.0-5.0                       |             |          |
|                     |           |                  |        |                                     |                                 |                    |        |      |        |                       |        |                        |        |                          |        |               |        |                |                     |                   |                   |                    |                    |                     |                               |             |          |
|                     |           |                  |        |                                     |                                 |                    |        |      |        |                       |        |                        |        |                          |        |               |        |                |                     |                   |                   |                    |                    |                     |                               |             |          |
|                     |           |                  |        |                                     |                                 |                    |        |      |        |                       |        |                        |        |                          |        |               |        |                |                     |                   |                   |                    |                    |                     |                               |             |          |
|                     |           |                  |        |                                     |                                 |                    |        |      |        |                       |        |                        |        |                          |        |               |        |                |                     |                   |                   |                    |                    |                     |                               |             |          |
|                     |           |                  |        |                                     |                                 |                    |        |      |        |                       |        |                        |        |                          |        |               |        |                |                     |                   |                   |                    |                    |                     |                               |             |          |
| Max                 | 0.5       | 0.4              | 0.4    | 0.5                                 |                                 | 0.0                | 0.0    | 0.0  | 0.0    | 3.1                   | 3.1    | 0.0                    | 0.0    | 0.0                      | 0.0    | 20.4          | 20.4   |                |                     |                   |                   |                    |                    |                     |                               |             |          |
| Min                 | 0.3       | 0.0              | 0.0    | -4.1                                |                                 | 0.0                | 0.0    | 0.0  | 0.0    | 0.4                   | 0.4    | 0.0                    | 0.0    | 0.0                      | 0.0    | 17.7          | 17.7   |                |                     |                   |                   |                    |                    |                     |                               |             |          |

ND - Not detected

## METEOROLOGICAL AND SITE INFORMATION:

|                                    |         |        |          |          |        |
|------------------------------------|---------|--------|----------|----------|--------|
| State of ground:                   | Dry     | Moist  | Wet      | Snow     | Frozen |
| Wind:                              | Calm    | Light  | Moderate | Strong   |        |
| Cloud cover:                       | None    | Slight | Cloudy   | Overcast |        |
| Precipitation:                     | None    | Slight | Moderate | Heavy    |        |
| Time monitoring performed:         | Start   | 11:40  | End      | 13:30    |        |
| Barometric pressure (mbar):        | Start   | 973    | End      | 973      |        |
| Pressure trend (Preceding 3 days): | Falling | Steady | Rising   |          |        |
| Air temperature (degree C):        | Before  | 12     | After    | 12       |        |

## INSTRUMENTATION TECHNICAL SPECIFICATIONS:

**Ground gas meter:** Geotech G5000  
**Gas range:** CH4: 0 - 100% CO2: 0 - 100% O2: 0 -25%  
H2S 0 - 50ppm CO: 0 -500ppm  
**Gas flow range:** 0-200 l/hr  
**Date of last calibration:** 26/01/2023  
**Date of next calibration:** 26/07/2023

**PID:** Mini Rae Lite  
**Calibrated range:** 0-99 ppm  
**Calibration gas:** Isobutylene  
**Response time:** 2 seconds  
**Accuracy:** 0.1 ppm  
**Date of last calibration:** 31/10/2022  
**Date of next calibration:** 31/10/2023

## Appendix G – HazWaste Report

## 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)



TPZPT-MOTTT-VJWN7

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

### Job name

Sketchley Lane

### Description/Comments

### Project

P0866

### Site

Sketchley Lane

### Classified by

Name: **Matthew Carr**  
 Date: **08 Mar 2023 14:26 GMT**  
 Telephone: **0117 927 7756**  
 Company: **T&P Regeneration Ltd**  
**Unit 4, Brunel Lock Development**  
**Smeaton Road**

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

**HazWasteOnline™ Certification:**

**CERTIFIED**

**Course**

Hazardous Waste Classification

**Date**

09 Dec 2021

Next 3 year Refresher due by Dec 2024

### Purpose of classification

2 - Material Characterisation

### Address of the waste

Sketchley Ln, Burbage, Hinckley

Post Code **LE10 3HU**

### SIC for the process giving rise to the waste

### Description of industry/producer giving rise to the waste

Development of site.

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

Waste created during the excavation of soils for development.

### Description of the waste

Natural clay



## Job summary

| #  | Sample name | Depth [m]   | Classification Result | Hazard properties | Page |
|----|-------------|-------------|-----------------------|-------------------|------|
| 1  | TP01        | 0.10 - 0.20 | Non Hazardous         |                   | 3    |
| 2  | TP01[2]     | 0.50 - 0.60 | Non Hazardous         |                   | 5    |
| 3  | TP09        | 0.10 - 0.20 | Non Hazardous         |                   | 7    |
| 4  | TP09[2]     | 0.50 - 0.60 | Non Hazardous         |                   | 9    |
| 5  | TP14        | 0.50 - 0.60 | Non Hazardous         |                   | 11   |
| 6  | TP16        | 0.10 - 0.20 | Non Hazardous         |                   | 13   |
| 7  | TP20        | 0.10 - 0.20 | Non Hazardous         |                   | 15   |
| 8  | TP20[2]     | 0.50 - 0.60 | Non Hazardous         |                   | 17   |
| 9  | TP20[3]     | 2.50 - 2.60 | Non Hazardous         |                   | 19   |
| 10 | TP21        | 0.10 - 0.20 | Non Hazardous         |                   | 21   |
| 11 | TP22        | 0.50 - 0.60 | Non Hazardous         |                   | 23   |
| 12 | TP23        | 0.10 - 0.20 | Non Hazardous         |                   | 25   |
| 13 | TP24        | 0.50 - 0.60 | Non Hazardous         |                   | 27   |
| 14 | TP25        | 0.10 - 0.20 | Non Hazardous         |                   | 29   |

## Related documents

| # | Name                   | Description                                   |
|---|------------------------|-----------------------------------------------|
| 1 | New T&P Standard Suite | waste stream template used to create this Job |

## Report

Created by: Matthew Carr

Created date: 08 Mar 2023 14:26 GMT

| Appendices                                                                 | Page |
|----------------------------------------------------------------------------|------|
| <a href="#">Appendix A: Classifier defined and non GB MCL determinands</a> | 31   |
| <a href="#">Appendix B: Rationale for selection of metal species</a>       | 32   |
| <a href="#">Appendix C: Version</a>                                        | 33   |

Classification of sample: TP01

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

Sample details

|                      |                                                                                           |
|----------------------|-------------------------------------------------------------------------------------------|
| Sample name:         | LoW Code:                                                                                 |
| <b>TP01</b>          | Chapter:                                                                                  |
| Sample Depth:        | 17: Construction and Demolition Wastes (including excavated soil from contaminated sites) |
| <b>0.10 - 0.20 m</b> | Entry:                                                                                    |
| Moisture content:    | 17 05 04 (Soil and stones other than those mentioned in 17 05 03)                         |
| <b>10.5%</b>         |                                                                                           |
| (no correction)      |                                                                                           |

Hazard properties

None identified

Determinands

Moisture content: 10.5% 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  | arsenic { arsenic trioxide }                                                                                             |                                |                                  |          | 16.4 mg/kg        | 1.32         | 21.653 mg/kg   | 0.00217 %    |                      |            |                |
|    | 033-003-00-0                                                                                                             | 215-481-4                      | 1327-53-3                        |          |                   |              |                |              |                      |            |                |
| 2  | beryllium { beryllium oxide }                                                                                            |                                |                                  |          | <1 mg/kg          | 2.775        | <2.775 mg/kg   | <0.000278 %  |                      |            | <LOD           |
|    | 004-003-00-8                                                                                                             | 215-133-1                      | 1304-56-9                        |          |                   |              |                |              |                      |            |                |
| 3  | cadmium { cadmium sulfide }                                                                                              |                                |                                  | 1        | <0.5 mg/kg        | 1.285        | <0.643 mg/kg   | <0.00005 %   |                      |            | <LOD           |
|    | 048-010-00-4                                                                                                             | 215-147-8                      | 1306-23-6                        |          |                   |              |                |              |                      |            |                |
| 4  | chromium { chromium(III) oxide (worst case) }                                                                            |                                |                                  |          | 23 mg/kg          | 1.462        | 33.616 mg/kg   | 0.00336 %    |                      |            |                |
|    |                                                                                                                          | 215-160-9                      | 1308-38-9                        |          |                   |              |                |              |                      |            |                |
| 5  | copper { dicopper oxide; copper (I) oxide }                                                                              |                                |                                  |          | 26.2 mg/kg        | 1.126        | 29.498 mg/kg   | 0.00295 %    |                      |            |                |
|    | 029-002-00-X                                                                                                             | 215-270-7                      | 1317-39-1                        |          |                   |              |                |              |                      |            |                |
| 6  | lead { lead compounds with the exception of those specified elsewhere in this Annex (worst case) }                       |                                |                                  | 1        | 39.5 mg/kg        |              | 39.5 mg/kg     | 0.00395 %    |                      |            |                |
|    | 082-001-00-6                                                                                                             |                                |                                  |          |                   |              |                |              |                      |            |                |
| 7  | mercury { mercury dichloride }                                                                                           |                                |                                  |          | <0.5 mg/kg        | 1.353        | <0.677 mg/kg   | <0.0000677 % |                      |            | <LOD           |
|    | 080-010-00-X                                                                                                             | 231-299-8                      | 7487-94-7                        |          |                   |              |                |              |                      |            |                |
| 8  | nickel { nickel dihydroxide }                                                                                            |                                |                                  |          | 18.6 mg/kg        | 1.579        | 29.379 mg/kg   | 0.00294 %    |                      |            |                |
|    | 028-008-00-X                                                                                                             | 235-008-5 [1]<br>234-348-1 [2] | 12054-48-7 [1]<br>11113-74-9 [2] |          |                   |              |                |              |                      |            |                |
| 9  | selenium { selenium compounds with the exception of cadmium sulphoselenide and those specified elsewhere in this Annex } |                                |                                  |          | <1 mg/kg          | 1.405        | <1.405 mg/kg   | <0.000141 %  |                      |            | <LOD           |
|    | 034-002-00-8                                                                                                             |                                |                                  |          |                   |              |                |              |                      |            |                |
| 10 | vanadium { divanadium pentaoxide; vanadium pentoxide }                                                                   |                                |                                  |          | 33.2 mg/kg        | 1.785        | 59.268 mg/kg   | 0.00593 %    |                      |            |                |
|    | 023-001-00-8                                                                                                             | 215-239-8                      | 1314-62-1                        |          |                   |              |                |              |                      |            |                |
| 11 | zinc { zinc sulphate }                                                                                                   |                                |                                  |          | 97.4 mg/kg        | 2.469        | 240.509 mg/kg  | 0.0241 %     |                      |            |                |
|    | 030-006-00-9                                                                                                             | 231-793-3 [1]<br>231-793-3 [2] | 7446-19-7 [1]<br>7733-02-0 [2]   |          |                   |              |                |              |                      |            |                |
| 12 | pH                                                                                                                       |                                |                                  |          | 6.3 pH            |              | 6.3 pH         | 6.3 pH       |                      |            |                |
|    |                                                                                                                          |                                |                                  |          |                   |              |                |              |                      |            |                |
| 13 | phenol                                                                                                                   |                                |                                  |          | <1 mg/kg          |              | <1 mg/kg       | <0.0001 %    |                      |            | <LOD           |
|    | 604-001-00-2                                                                                                             | 203-632-7                      | 108-95-2                         |          |                   |              |                |              |                      |            |                |
| 14 | naphthalene                                                                                                              |                                |                                  |          | <0.1 mg/kg        |              | <0.1 mg/kg     | <0.00001 %   |                      |            | <LOD           |
|    | 601-052-00-2                                                                                                             | 202-049-5                      | 91-20-3                          |          |                   |              |                |              |                      |            |                |

| #      | 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 |          |                   |              |                |                      |            |                |
| 15     | acenaphthylene                     | 205-917-1    | 208-96-8   |          | <0.1 mg/kg        |              | <0.1 mg/kg     | <0.00001 %           |            | <LOD           |
| 16     | acenaphthene                       | 201-469-6    | 83-32-9    |          | <0.1 mg/kg        |              | <0.1 mg/kg     | <0.00001 %           |            | <LOD           |
| 17     | fluorene                           | 201-695-5    | 86-73-7    |          | <0.1 mg/kg        |              | <0.1 mg/kg     | <0.00001 %           |            | <LOD           |
| 18     | phenanthrene                       | 201-581-5    | 85-01-8    |          | <0.1 mg/kg        |              | <0.1 mg/kg     | <0.00001 %           |            | <LOD           |
| 19     | anthracene                         | 204-371-1    | 120-12-7   |          | <0.1 mg/kg        |              | <0.1 mg/kg     | <0.00001 %           |            | <LOD           |
| 20     | fluoranthene                       | 205-912-4    | 206-44-0   |          | <0.1 mg/kg        |              | <0.1 mg/kg     | <0.00001 %           |            | <LOD           |
| 21     | pyrene                             | 204-927-3    | 129-00-0   |          | <0.1 mg/kg        |              | <0.1 mg/kg     | <0.00001 %           |            | <LOD           |
| 22     | benzo[a]anthracene                 | 601-033-00-9 | 200-280-6  |          | <0.1 mg/kg        |              | <0.1 mg/kg     | <0.00001 %           |            | <LOD           |
| 23     | chrysene                           | 601-048-00-0 | 205-923-4  |          | <0.1 mg/kg        |              | <0.1 mg/kg     | <0.00001 %           |            | <LOD           |
| 24     | benzo[b]fluoranthene               | 601-034-00-4 | 205-911-9  |          | <0.1 mg/kg        |              | <0.1 mg/kg     | <0.00001 %           |            | <LOD           |
| 25     | benzo[k]fluoranthene               | 601-036-00-5 | 205-916-6  |          | <0.1 mg/kg        |              | <0.1 mg/kg     | <0.00001 %           |            | <LOD           |
| 26     | benzo[a]pyrene; benzo[def]chrysene | 601-032-00-3 | 200-028-5  |          | <0.1 mg/kg        |              | <0.1 mg/kg     | <0.00001 %           |            | <LOD           |
| 27     | indeno[123-cd]pyrene               | 205-893-2    | 193-39-5   |          | <0.1 mg/kg        |              | <0.1 mg/kg     | <0.00001 %           |            | <LOD           |
| 28     | dibenz[a,h]anthracene              | 601-041-00-2 | 200-181-8  |          | <0.1 mg/kg        |              | <0.1 mg/kg     | <0.00001 %           |            | <LOD           |
| 29     | benzo[ghi]perylene                 | 205-883-8    | 191-24-2   |          | <0.1 mg/kg        |              | <0.1 mg/kg     | <0.00001 %           |            | <LOD           |
| Total: |                                    |              |            |          |                   |              |                | 0.0461 %             |            |                |

#### 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: TP01[2]

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

**Sample details**

|                      |                                                                                           |
|----------------------|-------------------------------------------------------------------------------------------|
| Sample name:         | LoW Code:                                                                                 |
| <b>TP01[2]</b>       | Chapter:                                                                                  |
| Sample Depth:        | 17: Construction and Demolition Wastes (including excavated soil from contaminated sites) |
| <b>0.50 - 0.60 m</b> | Entry:                                                                                    |
| Moisture content:    | 17 05 04 (Soil and stones other than those mentioned in 17 05 03)                         |
| <b>10.1%</b>         |                                                                                           |
| (no correction)      |                                                                                           |

**Hazard properties**

None identified

**Determinands**

Moisture content: 10.1% 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  | arsenic { arsenic trioxide }                                                                                             |                                |                                  |          | 35.1 mg/kg        | 1.32         | 46.343 mg/kg   | 0.00463 %    |                      |            |                |
|    | 033-003-00-0                                                                                                             | 215-481-4                      | 1327-53-3                        |          |                   |              |                |              |                      |            |                |
| 2  | beryllium { beryllium oxide }                                                                                            |                                |                                  |          | 1.1 mg/kg         | 2.775        | 3.053 mg/kg    | 0.000305 %   |                      |            |                |
|    | 004-003-00-8                                                                                                             | 215-133-1                      | 1304-56-9                        |          |                   |              |                |              |                      |            |                |
| 3  | cadmium { cadmium sulfide }                                                                                              |                                |                                  | 1        | <0.5 mg/kg        | 1.285        | <0.643 mg/kg   | <0.00005 %   |                      |            | <LOD           |
|    | 048-010-00-4                                                                                                             | 215-147-8                      | 1306-23-6                        |          |                   |              |                |              |                      |            |                |
| 4  | chromium { chromium(III) oxide (worst case) }                                                                            |                                |                                  |          | 28.5 mg/kg        | 1.462        | 41.654 mg/kg   | 0.00417 %    |                      |            |                |
|    |                                                                                                                          | 215-160-9                      | 1308-38-9                        |          |                   |              |                |              |                      |            |                |
| 5  | copper { dicopper oxide; copper (I) oxide }                                                                              |                                |                                  |          | 45.6 mg/kg        | 1.126        | 51.341 mg/kg   | 0.00513 %    |                      |            |                |
|    | 029-002-00-X                                                                                                             | 215-270-7                      | 1317-39-1                        |          |                   |              |                |              |                      |            |                |
| 6  | lead { lead compounds with the exception of those specified elsewhere in this Annex (worst case) }                       |                                |                                  | 1        | 29.7 mg/kg        |              | 29.7 mg/kg     | 0.00297 %    |                      |            |                |
|    | 082-001-00-6                                                                                                             |                                |                                  |          |                   |              |                |              |                      |            |                |
| 7  | mercury { mercury dichloride }                                                                                           |                                |                                  |          | <0.5 mg/kg        | 1.353        | <0.677 mg/kg   | <0.0000677 % |                      |            | <LOD           |
|    | 080-010-00-X                                                                                                             | 231-299-8                      | 7487-94-7                        |          |                   |              |                |              |                      |            |                |
| 8  | nickel { nickel dihydroxide }                                                                                            |                                |                                  |          | 34 mg/kg          | 1.579        | 53.703 mg/kg   | 0.00537 %    |                      |            |                |
|    | 028-008-00-X                                                                                                             | 235-008-5 [1]<br>234-348-1 [2] | 12054-48-7 [1]<br>11113-74-9 [2] |          |                   |              |                |              |                      |            |                |
| 9  | selenium { selenium compounds with the exception of cadmium sulphoselenide and those specified elsewhere in this Annex } |                                |                                  |          | <1 mg/kg          | 1.405        | <1.405 mg/kg   | <0.000141 %  |                      |            | <LOD           |
|    | 034-002-00-8                                                                                                             |                                |                                  |          |                   |              |                |              |                      |            |                |
| 10 | vanadium { divanadium pentaoxide; vanadium pentoxide }                                                                   |                                |                                  |          | 52.2 mg/kg        | 1.785        | 93.187 mg/kg   | 0.00932 %    |                      |            |                |
|    | 023-001-00-8                                                                                                             | 215-239-8                      | 1314-62-1                        |          |                   |              |                |              |                      |            |                |
| 11 | zinc { zinc sulphate }                                                                                                   |                                |                                  |          | 149 mg/kg         | 2.469        | 367.925 mg/kg  | 0.0368 %     |                      |            |                |
|    | 030-006-00-9                                                                                                             | 231-793-3 [1]<br>231-793-3 [2] | 7446-19-7 [1]<br>7733-02-0 [2]   |          |                   |              |                |              |                      |            |                |
| 12 | pH                                                                                                                       |                                |                                  |          | 6.3 pH            |              | 6.3 pH         | 6.3 pH       |                      |            |                |
|    |                                                                                                                          |                                |                                  |          |                   |              |                |              |                      |            |                |
| 13 | phenol                                                                                                                   |                                |                                  |          | <1 mg/kg          |              | <1 mg/kg       | <0.0001 %    |                      |            | <LOD           |
|    | 604-001-00-2                                                                                                             | 203-632-7                      | 108-95-2                         |          |                   |              |                |              |                      |            |                |
| 14 | naphthalene                                                                                                              |                                |                                  |          | <0.1 mg/kg        |              | <0.1 mg/kg     | <0.00001 %   |                      |            | <LOD           |
|    | 601-052-00-2                                                                                                             | 202-049-5                      | 91-20-3                          |          |                   |              |                |              |                      |            |                |

| #      | 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 |          |                   |              |                |                      |            |                |
| 15     | acenaphthylene                     | 205-917-1    | 208-96-8   |          | <0.1 mg/kg        |              | <0.1 mg/kg     | <0.00001 %           |            | <LOD           |
| 16     | acenaphthene                       | 201-469-6    | 83-32-9    |          | <0.1 mg/kg        |              | <0.1 mg/kg     | <0.00001 %           |            | <LOD           |
| 17     | fluorene                           | 201-695-5    | 86-73-7    |          | <0.1 mg/kg        |              | <0.1 mg/kg     | <0.00001 %           |            | <LOD           |
| 18     | phenanthrene                       | 201-581-5    | 85-01-8    |          | <0.1 mg/kg        |              | <0.1 mg/kg     | <0.00001 %           |            | <LOD           |
| 19     | anthracene                         | 204-371-1    | 120-12-7   |          | <0.1 mg/kg        |              | <0.1 mg/kg     | <0.00001 %           |            | <LOD           |
| 20     | fluoranthene                       | 205-912-4    | 206-44-0   |          | <0.1 mg/kg        |              | <0.1 mg/kg     | <0.00001 %           |            | <LOD           |
| 21     | pyrene                             | 204-927-3    | 129-00-0   |          | <0.1 mg/kg        |              | <0.1 mg/kg     | <0.00001 %           |            | <LOD           |
| 22     | benzo[a]anthracene                 | 601-033-00-9 | 200-280-6  |          | <0.1 mg/kg        |              | <0.1 mg/kg     | <0.00001 %           |            | <LOD           |
| 23     | chrysene                           | 601-048-00-0 | 205-923-4  |          | <0.1 mg/kg        |              | <0.1 mg/kg     | <0.00001 %           |            | <LOD           |
| 24     | benzo[b]fluoranthene               | 601-034-00-4 | 205-911-9  |          | <0.1 mg/kg        |              | <0.1 mg/kg     | <0.00001 %           |            | <LOD           |
| 25     | benzo[k]fluoranthene               | 601-036-00-5 | 205-916-6  |          | <0.1 mg/kg        |              | <0.1 mg/kg     | <0.00001 %           |            | <LOD           |
| 26     | benzo[a]pyrene; benzo[def]chrysene | 601-032-00-3 | 200-028-5  |          | <0.1 mg/kg        |              | <0.1 mg/kg     | <0.00001 %           |            | <LOD           |
| 27     | indeno[123-cd]pyrene               | 205-893-2    | 193-39-5   |          | <0.1 mg/kg        |              | <0.1 mg/kg     | <0.00001 %           |            | <LOD           |
| 28     | dibenz[a,h]anthracene              | 601-041-00-2 | 200-181-8  |          | <0.1 mg/kg        |              | <0.1 mg/kg     | <0.00001 %           |            | <LOD           |
| 29     | benzo[ghi]perylene                 | 205-883-8    | 191-24-2   |          | <0.1 mg/kg        |              | <0.1 mg/kg     | <0.00001 %           |            | <LOD           |
| Total: |                                    |              |            |          |                   |              |                | 0.0692 %             |            |                |

#### 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: TP09

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

Sample details

|                      |                                                                                           |
|----------------------|-------------------------------------------------------------------------------------------|
| Sample name:         | LoW Code:                                                                                 |
| <b>TP09</b>          | Chapter:                                                                                  |
| Sample Depth:        | 17: Construction and Demolition Wastes (including excavated soil from contaminated sites) |
| <b>0.10 - 0.20 m</b> | Entry:                                                                                    |
| Moisture content:    | 17 05 04 (Soil and stones other than those mentioned in 17 05 03)                         |
| <b>17.3%</b>         |                                                                                           |
| (no correction)      |                                                                                           |

Hazard properties

None identified

Determinands

Moisture content: 17.3% 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  | arsenic { arsenic trioxide }                                                                                             |                                |                                  |          | 16.7 mg/kg        | 1.32         | 22.049 mg/kg   | 0.0022 %     |                      |            |                |
|    | 033-003-00-0                                                                                                             | 215-481-4                      | 1327-53-3                        |          |                   |              |                |              |                      |            |                |
| 2  | beryllium { beryllium oxide }                                                                                            |                                |                                  |          | <1 mg/kg          | 2.775        | <2.775 mg/kg   | <0.000278 %  |                      |            | <LOD           |
|    | 004-003-00-8                                                                                                             | 215-133-1                      | 1304-56-9                        |          |                   |              |                |              |                      |            |                |
| 3  | cadmium { cadmium sulfide }                                                                                              |                                |                                  | 1        | <0.5 mg/kg        | 1.285        | <0.643 mg/kg   | <0.00005 %   |                      |            | <LOD           |
|    | 048-010-00-4                                                                                                             | 215-147-8                      | 1306-23-6                        |          |                   |              |                |              |                      |            |                |
| 4  | chromium { chromium(III) oxide (worst case) }                                                                            |                                |                                  |          | 22.8 mg/kg        | 1.462        | 33.323 mg/kg   | 0.00333 %    |                      |            |                |
|    |                                                                                                                          | 215-160-9                      | 1308-38-9                        |          |                   |              |                |              |                      |            |                |
| 5  | copper { dicopper oxide; copper (I) oxide }                                                                              |                                |                                  |          | 30.8 mg/kg        | 1.126        | 34.677 mg/kg   | 0.00347 %    |                      |            |                |
|    | 029-002-00-X                                                                                                             | 215-270-7                      | 1317-39-1                        |          |                   |              |                |              |                      |            |                |
| 6  | lead { lead compounds with the exception of those specified elsewhere in this Annex (worst case) }                       |                                |                                  | 1        | 49.4 mg/kg        |              | 49.4 mg/kg     | 0.00494 %    |                      |            |                |
|    | 082-001-00-6                                                                                                             |                                |                                  |          |                   |              |                |              |                      |            |                |
| 7  | mercury { mercury dichloride }                                                                                           |                                |                                  |          | <0.5 mg/kg        | 1.353        | <0.677 mg/kg   | <0.0000677 % |                      |            | <LOD           |
|    | 080-010-00-X                                                                                                             | 231-299-8                      | 7487-94-7                        |          |                   |              |                |              |                      |            |                |
| 8  | nickel { nickel dihydroxide }                                                                                            |                                |                                  |          | 21.2 mg/kg        | 1.579        | 33.485 mg/kg   | 0.00335 %    |                      |            |                |
|    | 028-008-00-X                                                                                                             | 235-008-5 [1]<br>234-348-1 [2] | 12054-48-7 [1]<br>11113-74-9 [2] |          |                   |              |                |              |                      |            |                |
| 9  | selenium { selenium compounds with the exception of cadmium sulphoselenide and those specified elsewhere in this Annex } |                                |                                  |          | <1 mg/kg          | 1.405        | <1.405 mg/kg   | <0.000141 %  |                      |            | <LOD           |
|    | 034-002-00-8                                                                                                             |                                |                                  |          |                   |              |                |              |                      |            |                |
| 10 | vanadium { divanadium pentaoxide; vanadium pentoxide }                                                                   |                                |                                  |          | 33.4 mg/kg        | 1.785        | 59.625 mg/kg   | 0.00596 %    |                      |            |                |
|    | 023-001-00-8                                                                                                             | 215-239-8                      | 1314-62-1                        |          |                   |              |                |              |                      |            |                |
| 11 | zinc { zinc sulphate }                                                                                                   |                                |                                  |          | 110 mg/kg         | 2.469        | 271.623 mg/kg  | 0.0272 %     |                      |            |                |
|    | 030-006-00-9                                                                                                             | 231-793-3 [1]<br>231-793-3 [2] | 7446-19-7 [1]<br>7733-02-0 [2]   |          |                   |              |                |              |                      |            |                |
| 12 | pH                                                                                                                       |                                |                                  |          | 6.1 pH            |              | 6.1 pH         | 6.1 pH       |                      |            |                |
|    |                                                                                                                          |                                |                                  |          |                   |              |                |              |                      |            |                |
| 13 | phenol                                                                                                                   |                                |                                  |          | <1 mg/kg          |              | <1 mg/kg       | <0.0001 %    |                      |            | <LOD           |
|    | 604-001-00-2                                                                                                             | 203-632-7                      | 108-95-2                         |          |                   |              |                |              |                      |            |                |
| 14 | naphthalene                                                                                                              |                                |                                  |          | <0.1 mg/kg        |              | <0.1 mg/kg     | <0.00001 %   |                      |            | <LOD           |
|    | 601-052-00-2                                                                                                             | 202-049-5                      | 91-20-3                          |          |                   |              |                |              |                      |            |                |

| #      | 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 |          |                   |              |                |                      |            |                |
| 15     | acenaphthylene                     | 205-917-1    | 208-96-8   |          | <0.1 mg/kg        |              | <0.1 mg/kg     | <0.00001 %           |            | <LOD           |
| 16     | acenaphthene                       | 201-469-6    | 83-32-9    |          | <0.1 mg/kg        |              | <0.1 mg/kg     | <0.00001 %           |            | <LOD           |
| 17     | fluorene                           | 201-695-5    | 86-73-7    |          | <0.1 mg/kg        |              | <0.1 mg/kg     | <0.00001 %           |            | <LOD           |
| 18     | phenanthrene                       | 201-581-5    | 85-01-8    |          | <0.1 mg/kg        |              | <0.1 mg/kg     | <0.00001 %           |            | <LOD           |
| 19     | anthracene                         | 204-371-1    | 120-12-7   |          | <0.1 mg/kg        |              | <0.1 mg/kg     | <0.00001 %           |            | <LOD           |
| 20     | fluoranthene                       | 205-912-4    | 206-44-0   |          | <0.1 mg/kg        |              | <0.1 mg/kg     | <0.00001 %           |            | <LOD           |
| 21     | pyrene                             | 204-927-3    | 129-00-0   |          | <0.1 mg/kg        |              | <0.1 mg/kg     | <0.00001 %           |            | <LOD           |
| 22     | benzo[a]anthracene                 | 601-033-00-9 | 200-280-6  |          | <0.1 mg/kg        |              | <0.1 mg/kg     | <0.00001 %           |            | <LOD           |
| 23     | chrysene                           | 601-048-00-0 | 205-923-4  |          | <0.1 mg/kg        |              | <0.1 mg/kg     | <0.00001 %           |            | <LOD           |
| 24     | benzo[b]fluoranthene               | 601-034-00-4 | 205-911-9  |          | <0.1 mg/kg        |              | <0.1 mg/kg     | <0.00001 %           |            | <LOD           |
| 25     | benzo[k]fluoranthene               | 601-036-00-5 | 205-916-6  |          | <0.1 mg/kg        |              | <0.1 mg/kg     | <0.00001 %           |            | <LOD           |
| 26     | benzo[a]pyrene; benzo[def]chrysene | 601-032-00-3 | 200-028-5  |          | <0.1 mg/kg        |              | <0.1 mg/kg     | <0.00001 %           |            | <LOD           |
| 27     | indeno[123-cd]pyrene               | 205-893-2    | 193-39-5   |          | <0.1 mg/kg        |              | <0.1 mg/kg     | <0.00001 %           |            | <LOD           |
| 28     | dibenz[a,h]anthracene              | 601-041-00-2 | 200-181-8  |          | <0.1 mg/kg        |              | <0.1 mg/kg     | <0.00001 %           |            | <LOD           |
| 29     | benzo[ghi]perylene                 | 205-883-8    | 191-24-2   |          | <0.1 mg/kg        |              | <0.1 mg/kg     | <0.00001 %           |            | <LOD           |
| Total: |                                    |              |            |          |                   |              |                | 0.0512 %             |            |                |

#### 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: TP09[2]

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

**Sample details**

|                      |                                                                                           |
|----------------------|-------------------------------------------------------------------------------------------|
| Sample name:         | LoW Code:                                                                                 |
| <b>TP09[2]</b>       | Chapter:                                                                                  |
| Sample Depth:        | 17: Construction and Demolition Wastes (including excavated soil from contaminated sites) |
| <b>0.50 - 0.60 m</b> | Entry:                                                                                    |
| Moisture content:    | 17 05 04 (Soil and stones other than those mentioned in 17 05 03)                         |
| <b>7.8%</b>          |                                                                                           |
| (no correction)      |                                                                                           |

**Hazard properties**

None identified

**Determinands**

Moisture content: 7.8% No Moisture Correction applied (MC)

| #  | Determinand                                                                                                              |                                |                                  | CLP Note | User entered data | Conv. Factor | Compound conc. |              | Classification value | MC Applied | Conc. Not Used |
|----|--------------------------------------------------------------------------------------------------------------------------|--------------------------------|----------------------------------|----------|-------------------|--------------|----------------|--------------|----------------------|------------|----------------|
|    | EU CLP index number                                                                                                      | EC Number                      | CAS Number                       |          |                   |              |                |              |                      |            |                |
| 1  | arsenic { arsenic trioxide }                                                                                             |                                |                                  |          | 23.3 mg/kg        | 1.32         | 30.764 mg/kg   | 0.00308 %    |                      |            |                |
|    | 033-003-00-0                                                                                                             | 215-481-4                      | 1327-53-3                        |          |                   |              |                |              |                      |            |                |
| 2  | beryllium { beryllium oxide }                                                                                            |                                |                                  |          | 1.4 mg/kg         | 2.775        | 3.885 mg/kg    | 0.000389 %   |                      |            |                |
|    | 004-003-00-8                                                                                                             | 215-133-1                      | 1304-56-9                        |          |                   |              |                |              |                      |            |                |
| 3  | cadmium { cadmium sulfide }                                                                                              |                                |                                  | 1        | <0.5 mg/kg        | 1.285        | <0.643 mg/kg   | <0.00005 %   |                      |            | <LOD           |
|    | 048-010-00-4                                                                                                             | 215-147-8                      | 1306-23-6                        |          |                   |              |                |              |                      |            |                |
| 4  | chromium { chromium(III) oxide (worst case) }                                                                            |                                |                                  |          | 27.7 mg/kg        | 1.462        | 40.485 mg/kg   | 0.00405 %    |                      |            |                |
|    |                                                                                                                          | 215-160-9                      | 1308-38-9                        |          |                   |              |                |              |                      |            |                |
| 5  | copper { dicopper oxide; copper (I) oxide }                                                                              |                                |                                  |          | 33.3 mg/kg        | 1.126        | 37.492 mg/kg   | 0.00375 %    |                      |            |                |
|    | 029-002-00-X                                                                                                             | 215-270-7                      | 1317-39-1                        |          |                   |              |                |              |                      |            |                |
| 6  | lead { lead compounds with the exception of those specified elsewhere in this Annex (worst case) }                       |                                |                                  | 1        | 26 mg/kg          |              | 26 mg/kg       | 0.0026 %     |                      |            |                |
|    | 082-001-00-6                                                                                                             |                                |                                  |          |                   |              |                |              |                      |            |                |
| 7  | mercury { mercury dichloride }                                                                                           |                                |                                  |          | <0.5 mg/kg        | 1.353        | <0.677 mg/kg   | <0.0000677 % |                      |            | <LOD           |
|    | 080-010-00-X                                                                                                             | 231-299-8                      | 7487-94-7                        |          |                   |              |                |              |                      |            |                |
| 8  | nickel { nickel dihydroxide }                                                                                            |                                |                                  |          | 34.4 mg/kg        | 1.579        | 54.335 mg/kg   | 0.00543 %    |                      |            |                |
|    | 028-008-00-X                                                                                                             | 235-008-5 [1]<br>234-348-1 [2] | 12054-48-7 [1]<br>11113-74-9 [2] |          |                   |              |                |              |                      |            |                |
| 9  | selenium { selenium compounds with the exception of cadmium sulphoselenide and those specified elsewhere in this Annex } |                                |                                  |          | <1 mg/kg          | 1.405        | <1.405 mg/kg   | <0.000141 %  |                      |            | <LOD           |
|    | 034-002-00-8                                                                                                             |                                |                                  |          |                   |              |                |              |                      |            |                |
| 10 | vanadium { divanadium pentaoxide; vanadium pentoxide }                                                                   |                                |                                  |          | 35.2 mg/kg        | 1.785        | 62.839 mg/kg   | 0.00628 %    |                      |            |                |
|    | 023-001-00-8                                                                                                             | 215-239-8                      | 1314-62-1                        |          |                   |              |                |              |                      |            |                |
| 11 | zinc { zinc sulphate }                                                                                                   |                                |                                  |          | 108 mg/kg         | 2.469        | 266.684 mg/kg  | 0.0267 %     |                      |            |                |
|    | 030-006-00-9                                                                                                             | 231-793-3 [1]<br>231-793-3 [2] | 7446-19-7 [1]<br>7733-02-0 [2]   |          |                   |              |                |              |                      |            |                |
| 12 | pH                                                                                                                       |                                |                                  |          | 6.8 pH            |              | 6.8 pH         | 6.8 pH       |                      |            |                |
|    |                                                                                                                          |                                |                                  |          |                   |              |                |              |                      |            |                |
| 13 | phenol                                                                                                                   |                                |                                  |          | <1 mg/kg          |              | <1 mg/kg       | <0.0001 %    |                      |            | <LOD           |
|    | 604-001-00-2                                                                                                             | 203-632-7                      | 108-95-2                         |          |                   |              |                |              |                      |            |                |
| 14 | naphthalene                                                                                                              |                                |                                  |          | <0.1 mg/kg        |              | <0.1 mg/kg     | <0.00001 %   |                      |            | <LOD           |
|    | 601-052-00-2                                                                                                             | 202-049-5                      | 91-20-3                          |          |                   |              |                |              |                      |            |                |

| #      | 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 |          |                   |              |                |                      |            |                |
| 15     | acenaphthylene                     | 205-917-1    | 208-96-8   |          | <0.1 mg/kg        |              | <0.1 mg/kg     | <0.00001 %           |            | <LOD           |
| 16     | acenaphthene                       | 201-469-6    | 83-32-9    |          | <0.1 mg/kg        |              | <0.1 mg/kg     | <0.00001 %           |            | <LOD           |
| 17     | fluorene                           | 201-695-5    | 86-73-7    |          | <0.1 mg/kg        |              | <0.1 mg/kg     | <0.00001 %           |            | <LOD           |
| 18     | phenanthrene                       | 201-581-5    | 85-01-8    |          | <0.1 mg/kg        |              | <0.1 mg/kg     | <0.00001 %           |            | <LOD           |
| 19     | anthracene                         | 204-371-1    | 120-12-7   |          | <0.1 mg/kg        |              | <0.1 mg/kg     | <0.00001 %           |            | <LOD           |
| 20     | fluoranthene                       | 205-912-4    | 206-44-0   |          | <0.1 mg/kg        |              | <0.1 mg/kg     | <0.00001 %           |            | <LOD           |
| 21     | pyrene                             | 204-927-3    | 129-00-0   |          | <0.1 mg/kg        |              | <0.1 mg/kg     | <0.00001 %           |            | <LOD           |
| 22     | benzo[a]anthracene                 | 601-033-00-9 | 200-280-6  |          | <0.1 mg/kg        |              | <0.1 mg/kg     | <0.00001 %           |            | <LOD           |
| 23     | chrysene                           | 601-048-00-0 | 205-923-4  |          | <0.1 mg/kg        |              | <0.1 mg/kg     | <0.00001 %           |            | <LOD           |
| 24     | benzo[b]fluoranthene               | 601-034-00-4 | 205-911-9  |          | <0.1 mg/kg        |              | <0.1 mg/kg     | <0.00001 %           |            | <LOD           |
| 25     | benzo[k]fluoranthene               | 601-036-00-5 | 205-916-6  |          | <0.1 mg/kg        |              | <0.1 mg/kg     | <0.00001 %           |            | <LOD           |
| 26     | benzo[a]pyrene; benzo[def]chrysene | 601-032-00-3 | 200-028-5  |          | <0.1 mg/kg        |              | <0.1 mg/kg     | <0.00001 %           |            | <LOD           |
| 27     | indeno[123-cd]pyrene               | 205-893-2    | 193-39-5   |          | <0.1 mg/kg        |              | <0.1 mg/kg     | <0.00001 %           |            | <LOD           |
| 28     | dibenz[a,h]anthracene              | 601-041-00-2 | 200-181-8  |          | <0.1 mg/kg        |              | <0.1 mg/kg     | <0.00001 %           |            | <LOD           |
| 29     | benzo[ghi]perylene                 | 205-883-8    | 191-24-2   |          | <0.1 mg/kg        |              | <0.1 mg/kg     | <0.00001 %           |            | <LOD           |
| Total: |                                    |              |            |          |                   |              |                | 0.0528 %             |            |                |

#### 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: TP14

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

**Sample details**

|                      |                                                                                           |
|----------------------|-------------------------------------------------------------------------------------------|
| Sample name:         | LoW Code:                                                                                 |
| <b>TP14</b>          | Chapter:                                                                                  |
| Sample Depth:        | 17: Construction and Demolition Wastes (including excavated soil from contaminated sites) |
| <b>0.50 - 0.60 m</b> | Entry:                                                                                    |
| Moisture content:    | 17 05 04 (Soil and stones other than those mentioned in 17 05 03)                         |
| <b>17.1%</b>         |                                                                                           |
| (no correction)      |                                                                                           |

**Hazard properties**

None identified

**Determinands**

Moisture content: 17.1% 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  | arsenic { arsenic trioxide }                                                                                             |                                |                                  |          | 14.2 mg/kg        | 1.32         | 18.749 mg/kg   | 0.00187 %    |                      |            |                |
|    | 033-003-00-0                                                                                                             | 215-481-4                      | 1327-53-3                        |          |                   |              |                |              |                      |            |                |
| 2  | beryllium { beryllium oxide }                                                                                            |                                |                                  |          | 1.5 mg/kg         | 2.775        | 4.163 mg/kg    | 0.000416 %   |                      |            |                |
|    | 004-003-00-8                                                                                                             | 215-133-1                      | 1304-56-9                        |          |                   |              |                |              |                      |            |                |
| 3  | cadmium { cadmium sulfide }                                                                                              |                                |                                  | 1        | <0.5 mg/kg        | 1.285        | <0.643 mg/kg   | <0.00005 %   |                      |            | <LOD           |
|    | 048-010-00-4                                                                                                             | 215-147-8                      | 1306-23-6                        |          |                   |              |                |              |                      |            |                |
| 4  | chromium { chromium(III) oxide (worst case) }                                                                            |                                |                                  |          | 32.8 mg/kg        | 1.462        | 47.939 mg/kg   | 0.00479 %    |                      |            |                |
|    |                                                                                                                          | 215-160-9                      | 1308-38-9                        |          |                   |              |                |              |                      |            |                |
| 5  | copper { dicopper oxide; copper (I) oxide }                                                                              |                                |                                  |          | 26.9 mg/kg        | 1.126        | 30.286 mg/kg   | 0.00303 %    |                      |            |                |
|    | 029-002-00-X                                                                                                             | 215-270-7                      | 1317-39-1                        |          |                   |              |                |              |                      |            |                |
| 6  | lead { lead compounds with the exception of those specified elsewhere in this Annex (worst case) }                       |                                |                                  | 1        | 24 mg/kg          |              | 24 mg/kg       | 0.0024 %     |                      |            |                |
|    | 082-001-00-6                                                                                                             |                                |                                  |          |                   |              |                |              |                      |            |                |
| 7  | mercury { mercury dichloride }                                                                                           |                                |                                  |          | <0.5 mg/kg        | 1.353        | <0.677 mg/kg   | <0.0000677 % |                      |            | <LOD           |
|    | 080-010-00-X                                                                                                             | 231-299-8                      | 7487-94-7                        |          |                   |              |                |              |                      |            |                |
| 8  | nickel { nickel dihydroxide }                                                                                            |                                |                                  |          | 33.8 mg/kg        | 1.579        | 53.387 mg/kg   | 0.00534 %    |                      |            |                |
|    | 028-008-00-X                                                                                                             | 235-008-5 [1]<br>234-348-1 [2] | 12054-48-7 [1]<br>11113-74-9 [2] |          |                   |              |                |              |                      |            |                |
| 9  | selenium { selenium compounds with the exception of cadmium sulphoselenide and those specified elsewhere in this Annex } |                                |                                  |          | <1 mg/kg          | 1.405        | <1.405 mg/kg   | <0.000141 %  |                      |            | <LOD           |
|    | 034-002-00-8                                                                                                             |                                |                                  |          |                   |              |                |              |                      |            |                |
| 10 | vanadium { divanadium pentaoxide; vanadium pentoxide }                                                                   |                                |                                  |          | 43.7 mg/kg        | 1.785        | 78.013 mg/kg   | 0.0078 %     |                      |            |                |
|    | 023-001-00-8                                                                                                             | 215-239-8                      | 1314-62-1                        |          |                   |              |                |              |                      |            |                |
| 11 | zinc { zinc sulphate }                                                                                                   |                                |                                  |          | 77.4 mg/kg        | 2.469        | 191.124 mg/kg  | 0.0191 %     |                      |            |                |
|    | 030-006-00-9                                                                                                             | 231-793-3 [1]<br>231-793-3 [2] | 7446-19-7 [1]<br>7733-02-0 [2]   |          |                   |              |                |              |                      |            |                |
| 12 | pH                                                                                                                       |                                |                                  |          | 6.6 pH            |              | 6.6 pH         | 6.6 pH       |                      |            |                |
|    |                                                                                                                          |                                |                                  |          |                   |              |                |              |                      |            |                |
| 13 | phenol                                                                                                                   |                                |                                  |          | <1 mg/kg          |              | <1 mg/kg       | <0.0001 %    |                      |            | <LOD           |
|    | 604-001-00-2                                                                                                             | 203-632-7                      | 108-95-2                         |          |                   |              |                |              |                      |            |                |
| 14 | naphthalene                                                                                                              |                                |                                  |          | <0.1 mg/kg        |              | <0.1 mg/kg     | <0.00001 %   |                      |            | <LOD           |
|    | 601-052-00-2                                                                                                             | 202-049-5                      | 91-20-3                          |          |                   |              |                |              |                      |            |                |



| #      | 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 |          |                   |              |                |                      |            |                |
| 15     | • acenaphthylene                   | 205-917-1    | 208-96-8   |          | <0.1 mg/kg        |              | <0.1 mg/kg     | <0.00001 %           |            | <LOD           |
| 16     | • acenaphthene                     | 201-469-6    | 83-32-9    |          | <0.1 mg/kg        |              | <0.1 mg/kg     | <0.00001 %           |            | <LOD           |
| 17     | • fluorene                         | 201-695-5    | 86-73-7    |          | <0.1 mg/kg        |              | <0.1 mg/kg     | <0.00001 %           |            | <LOD           |
| 18     | • phenanthrene                     | 201-581-5    | 85-01-8    |          | <0.1 mg/kg        |              | <0.1 mg/kg     | <0.00001 %           |            | <LOD           |
| 19     | • anthracene                       | 204-371-1    | 120-12-7   |          | <0.1 mg/kg        |              | <0.1 mg/kg     | <0.00001 %           |            | <LOD           |
| 20     | • fluoranthene                     | 205-912-4    | 206-44-0   |          | <0.1 mg/kg        |              | <0.1 mg/kg     | <0.00001 %           |            | <LOD           |
| 21     | • pyrene                           | 204-927-3    | 129-00-0   |          | <0.1 mg/kg        |              | <0.1 mg/kg     | <0.00001 %           |            | <LOD           |
| 22     | benzo[a]anthracene                 | 601-033-00-9 | 200-280-6  |          | <0.1 mg/kg        |              | <0.1 mg/kg     | <0.00001 %           |            | <LOD           |
| 23     | chrysene                           | 601-048-00-0 | 205-923-4  |          | <0.1 mg/kg        |              | <0.1 mg/kg     | <0.00001 %           |            | <LOD           |
| 24     | benzo[b]fluoranthene               | 601-034-00-4 | 205-911-9  |          | <0.1 mg/kg        |              | <0.1 mg/kg     | <0.00001 %           |            | <LOD           |
| 25     | benzo[k]fluoranthene               | 601-036-00-5 | 205-916-6  |          | <0.1 mg/kg        |              | <0.1 mg/kg     | <0.00001 %           |            | <LOD           |
| 26     | benzo[a]pyrene; benzo[def]chrysene | 601-032-00-3 | 200-028-5  |          | <0.1 mg/kg        |              | <0.1 mg/kg     | <0.00001 %           |            | <LOD           |
| 27     | • indeno[123-cd]pyrene             | 205-893-2    | 193-39-5   |          | <0.1 mg/kg        |              | <0.1 mg/kg     | <0.00001 %           |            | <LOD           |
| 28     | dibenz[a,h]anthracene              | 601-041-00-2 | 200-181-8  |          | <0.1 mg/kg        |              | <0.1 mg/kg     | <0.00001 %           |            | <LOD           |
| 29     | • benzo[ghi]perylene               | 205-883-8    | 191-24-2   |          | <0.1 mg/kg        |              | <0.1 mg/kg     | <0.00001 %           |            | <LOD           |
| Total: |                                    |              |            |          |                   |              |                | 0.0453 %             |            |                |

#### 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: TP16

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

Sample details

|                   |                          |           |          |                                                                                           |
|-------------------|--------------------------|-----------|----------|-------------------------------------------------------------------------------------------|
| Sample name:      | TP16                     | LoW Code: | Chapter: | 17: Construction and Demolition Wastes (including excavated soil from contaminated sites) |
| Sample Depth:     | 0.10 - 0.20 m            | Entry:    |          | 17 05 04 (Soil and stones other than those mentioned in 17 05 03)                         |
| Moisture content: | 22.2%<br>(no correction) |           |          |                                                                                           |

Hazard properties

None identified

Determinands

Moisture content: 22.2% 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  | arsenic { arsenic trioxide }                                                                                             | 033-003-00-0 | 215-481-4                      | 1327-53-3                        | 13.5 mg/kg        | 1.32         | 17.824 mg/kg   | 0.00178 %    |                      |            |                |
| 2  | beryllium { beryllium oxide }                                                                                            | 004-003-00-8 | 215-133-1                      | 1304-56-9                        | <1 mg/kg          | 2.775        | <2.775 mg/kg   | <0.000278 %  |                      |            | <LOD           |
| 3  | cadmium { cadmium sulfide }                                                                                              | 048-010-00-4 | 215-147-8                      | 1306-23-6                        | <0.5 mg/kg        | 1.285        | <0.643 mg/kg   | <0.00005 %   |                      |            | <LOD           |
| 4  | chromium { chromium(III) oxide (worst case) }                                                                            | 215-160-9    | 1308-38-9                      |                                  | 20.3 mg/kg        | 1.462        | 29.67 mg/kg    | 0.00297 %    |                      |            |                |
| 5  | copper { dicopper oxide; copper (I) oxide }                                                                              | 029-002-00-X | 215-270-7                      | 1317-39-1                        | 25.5 mg/kg        | 1.126        | 28.71 mg/kg    | 0.00287 %    |                      |            |                |
| 6  | lead { lead compounds with the exception of those specified elsewhere in this Annex (worst case) }                       | 082-001-00-6 |                                |                                  | 51.2 mg/kg        |              | 51.2 mg/kg     | 0.00512 %    |                      |            |                |
| 7  | mercury { mercury dichloride }                                                                                           | 080-010-00-X | 231-299-8                      | 7487-94-7                        | <0.5 mg/kg        | 1.353        | <0.677 mg/kg   | <0.0000677 % |                      |            | <LOD           |
| 8  | nickel { nickel dihydroxide }                                                                                            | 028-008-00-X | 235-008-5 [1]<br>234-348-1 [2] | 12054-48-7 [1]<br>11113-74-9 [2] | 20.2 mg/kg        | 1.579        | 31.906 mg/kg   | 0.00319 %    |                      |            |                |
| 9  | 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           |
| 10 | vanadium { divanadium pentaoxide; vanadium pentoxide }                                                                   | 023-001-00-8 | 215-239-8                      | 1314-62-1                        | 28.4 mg/kg        | 1.785        | 50.699 mg/kg   | 0.00507 %    |                      |            |                |
| 11 | zinc { zinc sulphate }                                                                                                   | 030-006-00-9 | 231-793-3 [1]<br>231-793-3 [2] | 7446-19-7 [1]<br>7733-02-0 [2]   | 107 mg/kg         | 2.469        | 264.215 mg/kg  | 0.0264 %     |                      |            |                |
| 12 | pH                                                                                                                       |              | PH                             |                                  | 6.5 pH            |              | 6.5 pH         | 6.5 pH       |                      |            |                |
| 13 | phenol                                                                                                                   | 604-001-00-2 | 203-632-7                      | 108-95-2                         | <1 mg/kg          |              | <1 mg/kg       | <0.0001 %    |                      |            | <LOD           |
| 14 | naphthalene                                                                                                              | 601-052-00-2 | 202-049-5                      | 91-20-3                          | <0.1 mg/kg        |              | <0.1 mg/kg     | <0.00001 %   |                      |            | <LOD           |

| #      | 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 |          |                   |              |                |                      |            |                |
| 15     | acenaphthylene                     | 205-917-1    | 208-96-8   |          | <0.1 mg/kg        |              | <0.1 mg/kg     | <0.00001 %           |            | <LOD           |
| 16     | acenaphthene                       | 201-469-6    | 83-32-9    |          | <0.1 mg/kg        |              | <0.1 mg/kg     | <0.00001 %           |            | <LOD           |
| 17     | fluorene                           | 201-695-5    | 86-73-7    |          | <0.1 mg/kg        |              | <0.1 mg/kg     | <0.00001 %           |            | <LOD           |
| 18     | phenanthrene                       | 201-581-5    | 85-01-8    |          | <0.1 mg/kg        |              | <0.1 mg/kg     | <0.00001 %           |            | <LOD           |
| 19     | anthracene                         | 204-371-1    | 120-12-7   |          | <0.1 mg/kg        |              | <0.1 mg/kg     | <0.00001 %           |            | <LOD           |
| 20     | fluoranthene                       | 205-912-4    | 206-44-0   |          | <0.1 mg/kg        |              | <0.1 mg/kg     | <0.00001 %           |            | <LOD           |
| 21     | pyrene                             | 204-927-3    | 129-00-0   |          | <0.1 mg/kg        |              | <0.1 mg/kg     | <0.00001 %           |            | <LOD           |
| 22     | benzo[a]anthracene                 | 601-033-00-9 | 200-280-6  |          | <0.1 mg/kg        |              | <0.1 mg/kg     | <0.00001 %           |            | <LOD           |
| 23     | chrysene                           | 601-048-00-0 | 205-923-4  |          | <0.1 mg/kg        |              | <0.1 mg/kg     | <0.00001 %           |            | <LOD           |
| 24     | benzo[b]fluoranthene               | 601-034-00-4 | 205-911-9  |          | <0.1 mg/kg        |              | <0.1 mg/kg     | <0.00001 %           |            | <LOD           |
| 25     | benzo[k]fluoranthene               | 601-036-00-5 | 205-916-6  |          | <0.1 mg/kg        |              | <0.1 mg/kg     | <0.00001 %           |            | <LOD           |
| 26     | benzo[a]pyrene; benzo[def]chrysene | 601-032-00-3 | 200-028-5  |          | <0.1 mg/kg        |              | <0.1 mg/kg     | <0.00001 %           |            | <LOD           |
| 27     | indeno[123-cd]pyrene               | 205-893-2    | 193-39-5   |          | <0.1 mg/kg        |              | <0.1 mg/kg     | <0.00001 %           |            | <LOD           |
| 28     | dibenz[a,h]anthracene              | 601-041-00-2 | 200-181-8  |          | <0.1 mg/kg        |              | <0.1 mg/kg     | <0.00001 %           |            | <LOD           |
| 29     | benzo[ghi]perylene                 | 205-883-8    | 191-24-2   |          | <0.1 mg/kg        |              | <0.1 mg/kg     | <0.00001 %           |            | <LOD           |
| Total: |                                    |              |            |          |                   |              |                | 0.0482 %             |            |                |

#### 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: TP20

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

Sample details

|                   |                          |           |          |                                                                                           |
|-------------------|--------------------------|-----------|----------|-------------------------------------------------------------------------------------------|
| Sample name:      | TP20                     | LoW Code: | Chapter: | 17: Construction and Demolition Wastes (including excavated soil from contaminated sites) |
| Sample Depth:     | 0.10 - 0.20 m            | Entry:    |          | 17 05 04 (Soil and stones other than those mentioned in 17 05 03)                         |
| Moisture content: | 19.1%<br>(no correction) |           |          |                                                                                           |

Hazard properties

None identified

Determinands

Moisture content: 19.1% 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  | arsenic { arsenic trioxide }                                                                                             | 033-003-00-0 | 215-481-4                      | 1327-53-3                        | 11.7 mg/kg        | 1.32         | 15.448 mg/kg   | 0.00154 %    |                      |            |                |
| 2  | beryllium { beryllium oxide }                                                                                            | 004-003-00-8 | 215-133-1                      | 1304-56-9                        | 1.1 mg/kg         | 2.775        | 3.053 mg/kg    | 0.000305 %   |                      |            |                |
| 3  | cadmium { cadmium sulfide }                                                                                              | 048-010-00-4 | 215-147-8                      | 1306-23-6                        | <0.5 mg/kg        | 1.285        | <0.643 mg/kg   | <0.00005 %   |                      |            | <LOD           |
| 4  | chromium { chromium(III) oxide (worst case) }                                                                            | 215-160-9    | 1308-38-9                      |                                  | 23 mg/kg          | 1.462        | 33.616 mg/kg   | 0.00336 %    |                      |            |                |
| 5  | copper { dicopper oxide; copper (I) oxide }                                                                              | 029-002-00-X | 215-270-7                      | 1317-39-1                        | 23.8 mg/kg        | 1.126        | 26.796 mg/kg   | 0.00268 %    |                      |            |                |
| 6  | lead { lead compounds with the exception of those specified elsewhere in this Annex (worst case) }                       | 082-001-00-6 |                                |                                  | 35.4 mg/kg        |              | 35.4 mg/kg     | 0.00354 %    |                      |            |                |
| 7  | mercury { mercury dichloride }                                                                                           | 080-010-00-X | 231-299-8                      | 7487-94-7                        | <0.5 mg/kg        | 1.353        | <0.677 mg/kg   | <0.0000677 % |                      |            | <LOD           |
| 8  | nickel { nickel dihydroxide }                                                                                            | 028-008-00-X | 235-008-5 [1]<br>234-348-1 [2] | 12054-48-7 [1]<br>11113-74-9 [2] | 21.6 mg/kg        | 1.579        | 34.117 mg/kg   | 0.00341 %    |                      |            |                |
| 9  | 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           |
| 10 | vanadium { divanadium pentaoxide; vanadium pentoxide }                                                                   | 023-001-00-8 | 215-239-8                      | 1314-62-1                        | 33.4 mg/kg        | 1.785        | 59.625 mg/kg   | 0.00596 %    |                      |            |                |
| 11 | zinc { zinc sulphate }                                                                                                   | 030-006-00-9 | 231-793-3 [1]<br>231-793-3 [2] | 7446-19-7 [1]<br>7733-02-0 [2]   | 102 mg/kg         | 2.469        | 251.868 mg/kg  | 0.0252 %     |                      |            |                |
| 12 | pH                                                                                                                       |              |                                |                                  | 7.3 pH            |              | 7.3 pH         | 7.3 pH       |                      |            |                |
| 13 | phenol                                                                                                                   | 604-001-00-2 | 203-632-7                      | 108-95-2                         | <1 mg/kg          |              | <1 mg/kg       | <0.0001 %    |                      |            | <LOD           |
| 14 | naphthalene                                                                                                              | 601-052-00-2 | 202-049-5                      | 91-20-3                          | <0.1 mg/kg        |              | <0.1 mg/kg     | <0.00001 %   |                      |            | <LOD           |

| #      | 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 |          |                   |              |                |                      |            |                |
| 15     | acenaphthylene                     | 205-917-1    | 208-96-8   |          | <0.1 mg/kg        |              | <0.1 mg/kg     | <0.00001 %           |            | <LOD           |
| 16     | acenaphthene                       | 201-469-6    | 83-32-9    |          | <0.1 mg/kg        |              | <0.1 mg/kg     | <0.00001 %           |            | <LOD           |
| 17     | fluorene                           | 201-695-5    | 86-73-7    |          | <0.1 mg/kg        |              | <0.1 mg/kg     | <0.00001 %           |            | <LOD           |
| 18     | phenanthrene                       | 201-581-5    | 85-01-8    |          | <0.1 mg/kg        |              | <0.1 mg/kg     | <0.00001 %           |            | <LOD           |
| 19     | anthracene                         | 204-371-1    | 120-12-7   |          | <0.1 mg/kg        |              | <0.1 mg/kg     | <0.00001 %           |            | <LOD           |
| 20     | fluoranthene                       | 205-912-4    | 206-44-0   |          | <0.1 mg/kg        |              | <0.1 mg/kg     | <0.00001 %           |            | <LOD           |
| 21     | pyrene                             | 204-927-3    | 129-00-0   |          | <0.1 mg/kg        |              | <0.1 mg/kg     | <0.00001 %           |            | <LOD           |
| 22     | benzo[a]anthracene                 | 601-033-00-9 | 200-280-6  |          | <0.1 mg/kg        |              | <0.1 mg/kg     | <0.00001 %           |            | <LOD           |
| 23     | chrysene                           | 601-048-00-0 | 205-923-4  |          | <0.1 mg/kg        |              | <0.1 mg/kg     | <0.00001 %           |            | <LOD           |
| 24     | benzo[b]fluoranthene               | 601-034-00-4 | 205-911-9  |          | <0.1 mg/kg        |              | <0.1 mg/kg     | <0.00001 %           |            | <LOD           |
| 25     | benzo[k]fluoranthene               | 601-036-00-5 | 205-916-6  |          | <0.1 mg/kg        |              | <0.1 mg/kg     | <0.00001 %           |            | <LOD           |
| 26     | benzo[a]pyrene; benzo[def]chrysene | 601-032-00-3 | 200-028-5  |          | <0.1 mg/kg        |              | <0.1 mg/kg     | <0.00001 %           |            | <LOD           |
| 27     | indeno[123-cd]pyrene               | 205-893-2    | 193-39-5   |          | <0.1 mg/kg        |              | <0.1 mg/kg     | <0.00001 %           |            | <LOD           |
| 28     | dibenz[a,h]anthracene              | 601-041-00-2 | 200-181-8  |          | <0.1 mg/kg        |              | <0.1 mg/kg     | <0.00001 %           |            | <LOD           |
| 29     | benzo[ghi]perylene                 | 205-883-8    | 191-24-2   |          | <0.1 mg/kg        |              | <0.1 mg/kg     | <0.00001 %           |            | <LOD           |
| Total: |                                    |              |            |          |                   |              |                | 0.0465 %             |            |                |

#### 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: TP20[2]

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

**Sample details**

|                      |                                                                                           |
|----------------------|-------------------------------------------------------------------------------------------|
| Sample name:         | LoW Code:                                                                                 |
| <b>TP20[2]</b>       | Chapter:                                                                                  |
| Sample Depth:        | 17: Construction and Demolition Wastes (including excavated soil from contaminated sites) |
| <b>0.50 - 0.60 m</b> | Entry:                                                                                    |
| Moisture content:    | 17 05 04 (Soil and stones other than those mentioned in 17 05 03)                         |
| <b>12.8%</b>         |                                                                                           |
| (no correction)      |                                                                                           |

**Hazard properties**

None identified

**Determinands**

Moisture content: 12.8% No Moisture Correction applied (MC)

| #  | Determinand                                                                                                              |                                |                                  | CLP Note | User entered data | Conv. Factor | Compound conc. |              | Classification value | MC Applied | Conc. Not Used |
|----|--------------------------------------------------------------------------------------------------------------------------|--------------------------------|----------------------------------|----------|-------------------|--------------|----------------|--------------|----------------------|------------|----------------|
|    | EU CLP index number                                                                                                      | EC Number                      | CAS Number                       |          |                   |              |                |              |                      |            |                |
| 1  | arsenic { arsenic trioxide }                                                                                             |                                |                                  |          | 9 mg/kg           | 1.32         | 11.883 mg/kg   | 0.00119 %    |                      |            |                |
|    | 033-003-00-0                                                                                                             | 215-481-4                      | 1327-53-3                        |          |                   |              |                |              |                      |            |                |
| 2  | beryllium { beryllium oxide }                                                                                            |                                |                                  |          | <1 mg/kg          | 2.775        | <2.775 mg/kg   | <0.000278 %  |                      |            | <LOD           |
|    | 004-003-00-8                                                                                                             | 215-133-1                      | 1304-56-9                        |          |                   |              |                |              |                      |            |                |
| 3  | cadmium { cadmium sulfide }                                                                                              |                                |                                  | 1        | <0.5 mg/kg        | 1.285        | <0.643 mg/kg   | <0.00005 %   |                      |            | <LOD           |
|    | 048-010-00-4                                                                                                             | 215-147-8                      | 1306-23-6                        |          |                   |              |                |              |                      |            |                |
| 4  | chromium { chromium(III) oxide (worst case) }                                                                            |                                |                                  |          | 20.2 mg/kg        | 1.462        | 29.523 mg/kg   | 0.00295 %    |                      |            |                |
|    |                                                                                                                          | 215-160-9                      | 1308-38-9                        |          |                   |              |                |              |                      |            |                |
| 5  | copper { dicopper oxide; copper (I) oxide }                                                                              |                                |                                  |          | 18.2 mg/kg        | 1.126        | 20.491 mg/kg   | 0.00205 %    |                      |            |                |
|    | 029-002-00-X                                                                                                             | 215-270-7                      | 1317-39-1                        |          |                   |              |                |              |                      |            |                |
| 6  | lead { lead compounds with the exception of those specified elsewhere in this Annex (worst case) }                       |                                |                                  | 1        | 26.5 mg/kg        |              | 26.5 mg/kg     | 0.00265 %    |                      |            |                |
|    | 082-001-00-6                                                                                                             |                                |                                  |          |                   |              |                |              |                      |            |                |
| 7  | mercury { mercury dichloride }                                                                                           |                                |                                  |          | <0.5 mg/kg        | 1.353        | <0.677 mg/kg   | <0.0000677 % |                      |            | <LOD           |
|    | 080-010-00-X                                                                                                             | 231-299-8                      | 7487-94-7                        |          |                   |              |                |              |                      |            |                |
| 8  | nickel { nickel dihydroxide }                                                                                            |                                |                                  |          | 13.6 mg/kg        | 1.579        | 21.481 mg/kg   | 0.00215 %    |                      |            |                |
|    | 028-008-00-X                                                                                                             | 235-008-5 [1]<br>234-348-1 [2] | 12054-48-7 [1]<br>11113-74-9 [2] |          |                   |              |                |              |                      |            |                |
| 9  | selenium { selenium compounds with the exception of cadmium sulphoselenide and those specified elsewhere in this Annex } |                                |                                  |          | <1 mg/kg          | 1.405        | <1.405 mg/kg   | <0.000141 %  |                      |            | <LOD           |
|    | 034-002-00-8                                                                                                             |                                |                                  |          |                   |              |                |              |                      |            |                |
| 10 | vanadium { divanadium pentaoxide; vanadium pentoxide }                                                                   |                                |                                  |          | 29.7 mg/kg        | 1.785        | 53.02 mg/kg    | 0.0053 %     |                      |            |                |
|    | 023-001-00-8                                                                                                             | 215-239-8                      | 1314-62-1                        |          |                   |              |                |              |                      |            |                |
| 11 | zinc { zinc sulphate }                                                                                                   |                                |                                  |          | 75 mg/kg          | 2.469        | 185.197 mg/kg  | 0.0185 %     |                      |            |                |
|    | 030-006-00-9                                                                                                             | 231-793-3 [1]<br>231-793-3 [2] | 7446-19-7 [1]<br>7733-02-0 [2]   |          |                   |              |                |              |                      |            |                |
| 12 | pH                                                                                                                       |                                |                                  |          | 7.4 pH            |              | 7.4 pH         | 7.4 pH       |                      |            |                |
|    |                                                                                                                          |                                |                                  |          |                   |              |                |              |                      |            |                |
| 13 | phenol                                                                                                                   |                                |                                  |          | <1 mg/kg          |              | <1 mg/kg       | <0.0001 %    |                      |            | <LOD           |
|    | 604-001-00-2                                                                                                             | 203-632-7                      | 108-95-2                         |          |                   |              |                |              |                      |            |                |
| 14 | naphthalene                                                                                                              |                                |                                  |          | <0.1 mg/kg        |              | <0.1 mg/kg     | <0.00001 %   |                      |            | <LOD           |
|    | 601-052-00-2                                                                                                             | 202-049-5                      | 91-20-3                          |          |                   |              |                |              |                      |            |                |

| #      | 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 |          |                   |              |                |                      |            |                |
| 15     | acenaphthylene                     | 205-917-1    | 208-96-8   |          | <0.1 mg/kg        |              | <0.1 mg/kg     | <0.00001 %           |            | <LOD           |
| 16     | acenaphthene                       | 201-469-6    | 83-32-9    |          | <0.1 mg/kg        |              | <0.1 mg/kg     | <0.00001 %           |            | <LOD           |
| 17     | fluorene                           | 201-695-5    | 86-73-7    |          | <0.1 mg/kg        |              | <0.1 mg/kg     | <0.00001 %           |            | <LOD           |
| 18     | phenanthrene                       | 201-581-5    | 85-01-8    |          | <0.1 mg/kg        |              | <0.1 mg/kg     | <0.00001 %           |            | <LOD           |
| 19     | anthracene                         | 204-371-1    | 120-12-7   |          | <0.1 mg/kg        |              | <0.1 mg/kg     | <0.00001 %           |            | <LOD           |
| 20     | fluoranthene                       | 205-912-4    | 206-44-0   |          | <0.1 mg/kg        |              | <0.1 mg/kg     | <0.00001 %           |            | <LOD           |
| 21     | pyrene                             | 204-927-3    | 129-00-0   |          | <0.1 mg/kg        |              | <0.1 mg/kg     | <0.00001 %           |            | <LOD           |
| 22     | benzo[a]anthracene                 | 601-033-00-9 | 200-280-6  |          | <0.1 mg/kg        |              | <0.1 mg/kg     | <0.00001 %           |            | <LOD           |
| 23     | chrysene                           | 601-048-00-0 | 205-923-4  |          | <0.1 mg/kg        |              | <0.1 mg/kg     | <0.00001 %           |            | <LOD           |
| 24     | benzo[b]fluoranthene               | 601-034-00-4 | 205-911-9  |          | <0.1 mg/kg        |              | <0.1 mg/kg     | <0.00001 %           |            | <LOD           |
| 25     | benzo[k]fluoranthene               | 601-036-00-5 | 205-916-6  |          | <0.1 mg/kg        |              | <0.1 mg/kg     | <0.00001 %           |            | <LOD           |
| 26     | benzo[a]pyrene; benzo[def]chrysene | 601-032-00-3 | 200-028-5  |          | <0.1 mg/kg        |              | <0.1 mg/kg     | <0.00001 %           |            | <LOD           |
| 27     | indeno[123-cd]pyrene               | 205-893-2    | 193-39-5   |          | <0.1 mg/kg        |              | <0.1 mg/kg     | <0.00001 %           |            | <LOD           |
| 28     | dibenz[a,h]anthracene              | 601-041-00-2 | 200-181-8  |          | <0.1 mg/kg        |              | <0.1 mg/kg     | <0.00001 %           |            | <LOD           |
| 29     | benzo[ghi]perylene                 | 205-883-8    | 191-24-2   |          | <0.1 mg/kg        |              | <0.1 mg/kg     | <0.00001 %           |            | <LOD           |
| Total: |                                    |              |            |          |                   |              |                | 0.0356 %             |            |                |

#### 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: TP20[3]

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

**Sample details**

|                      |                                                                                           |
|----------------------|-------------------------------------------------------------------------------------------|
| Sample name:         | LoW Code:                                                                                 |
| <b>TP20[3]</b>       | Chapter:                                                                                  |
| Sample Depth:        | 17: Construction and Demolition Wastes (including excavated soil from contaminated sites) |
| <b>2.50 - 2.60 m</b> | Entry:                                                                                    |
| Moisture content:    | 17 05 04 (Soil and stones other than those mentioned in 17 05 03)                         |
| <b>13.5%</b>         |                                                                                           |
| (no correction)      |                                                                                           |

**Hazard properties**

None identified

**Determinands**

Moisture content: 13.5% 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  | arsenic { arsenic trioxide }                                                                                             |                                |                                  |          | 12.2 mg/kg        | 1.32         | 16.108 mg/kg   | 0.00161 %    |                      |            |                |
|    | 033-003-00-0                                                                                                             | 215-481-4                      | 1327-53-3                        |          |                   |              |                |              |                      |            |                |
| 2  | beryllium { beryllium oxide }                                                                                            |                                |                                  |          | 1.7 mg/kg         | 2.775        | 4.718 mg/kg    | 0.000472 %   |                      |            |                |
|    | 004-003-00-8                                                                                                             | 215-133-1                      | 1304-56-9                        |          |                   |              |                |              |                      |            |                |
| 3  | cadmium { cadmium sulfide }                                                                                              |                                |                                  | 1        | <0.5 mg/kg        | 1.285        | <0.643 mg/kg   | <0.00005 %   |                      |            | <LOD           |
|    | 048-010-00-4                                                                                                             | 215-147-8                      | 1306-23-6                        |          |                   |              |                |              |                      |            |                |
| 4  | chromium { chromium(III) oxide (worst case) }                                                                            |                                |                                  |          | 38.6 mg/kg        | 1.462        | 56.416 mg/kg   | 0.00564 %    |                      |            |                |
|    |                                                                                                                          | 215-160-9                      | 1308-38-9                        |          |                   |              |                |              |                      |            |                |
| 5  | copper { dicopper oxide; copper (I) oxide }                                                                              |                                |                                  |          | 46 mg/kg          | 1.126        | 51.791 mg/kg   | 0.00518 %    |                      |            |                |
|    | 029-002-00-X                                                                                                             | 215-270-7                      | 1317-39-1                        |          |                   |              |                |              |                      |            |                |
| 6  | lead { lead compounds with the exception of those specified elsewhere in this Annex (worst case) }                       |                                |                                  | 1        | 27.1 mg/kg        |              | 27.1 mg/kg     | 0.00271 %    |                      |            |                |
|    | 082-001-00-6                                                                                                             |                                |                                  |          |                   |              |                |              |                      |            |                |
| 7  | mercury { mercury dichloride }                                                                                           |                                |                                  |          | <0.5 mg/kg        | 1.353        | <0.677 mg/kg   | <0.0000677 % |                      |            | <LOD           |
|    | 080-010-00-X                                                                                                             | 231-299-8                      | 7487-94-7                        |          |                   |              |                |              |                      |            |                |
| 8  | nickel { nickel dihydroxide }                                                                                            |                                |                                  |          | 48.1 mg/kg        | 1.579        | 75.974 mg/kg   | 0.0076 %     |                      |            |                |
|    | 028-008-00-X                                                                                                             | 235-008-5 [1]<br>234-348-1 [2] | 12054-48-7 [1]<br>11113-74-9 [2] |          |                   |              |                |              |                      |            |                |
| 9  | selenium { selenium compounds with the exception of cadmium sulphoselenide and those specified elsewhere in this Annex } |                                |                                  |          | <1 mg/kg          | 1.405        | <1.405 mg/kg   | <0.000141 %  |                      |            | <LOD           |
|    | 034-002-00-8                                                                                                             |                                |                                  |          |                   |              |                |              |                      |            |                |
| 10 | vanadium { divanadium pentaoxide; vanadium pentoxide }                                                                   |                                |                                  |          | 56.4 mg/kg        | 1.785        | 100.684 mg/kg  | 0.0101 %     |                      |            |                |
|    | 023-001-00-8                                                                                                             | 215-239-8                      | 1314-62-1                        |          |                   |              |                |              |                      |            |                |
| 11 | zinc { zinc sulphate }                                                                                                   |                                |                                  |          | 121 mg/kg         | 2.469        | 298.785 mg/kg  | 0.0299 %     |                      |            |                |
|    | 030-006-00-9                                                                                                             | 231-793-3 [1]<br>231-793-3 [2] | 7446-19-7 [1]<br>7733-02-0 [2]   |          |                   |              |                |              |                      |            |                |
| 12 | pH                                                                                                                       |                                |                                  |          | 7 pH              |              | 7 pH           | 7pH          |                      |            |                |
|    |                                                                                                                          |                                |                                  |          |                   |              |                |              |                      |            |                |
| 13 | phenol                                                                                                                   |                                |                                  |          | <1 mg/kg          |              | <1 mg/kg       | <0.0001 %    |                      |            | <LOD           |
|    | 604-001-00-2                                                                                                             | 203-632-7                      | 108-95-2                         |          |                   |              |                |              |                      |            |                |
| 14 | naphthalene                                                                                                              |                                |                                  |          | <0.1 mg/kg        |              | <0.1 mg/kg     | <0.00001 %   |                      |            | <LOD           |
|    | 601-052-00-2                                                                                                             | 202-049-5                      | 91-20-3                          |          |                   |              |                |              |                      |            |                |

| #      | 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 |          |                   |              |                |                      |            |                |
| 15     | acenaphthylene                     | 205-917-1    | 208-96-8   |          | <0.1 mg/kg        |              | <0.1 mg/kg     | <0.00001 %           |            | <LOD           |
| 16     | acenaphthene                       | 201-469-6    | 83-32-9    |          | <0.1 mg/kg        |              | <0.1 mg/kg     | <0.00001 %           |            | <LOD           |
| 17     | fluorene                           | 201-695-5    | 86-73-7    |          | <0.1 mg/kg        |              | <0.1 mg/kg     | <0.00001 %           |            | <LOD           |
| 18     | phenanthrene                       | 201-581-5    | 85-01-8    |          | <0.1 mg/kg        |              | <0.1 mg/kg     | <0.00001 %           |            | <LOD           |
| 19     | anthracene                         | 204-371-1    | 120-12-7   |          | <0.1 mg/kg        |              | <0.1 mg/kg     | <0.00001 %           |            | <LOD           |
| 20     | fluoranthene                       | 205-912-4    | 206-44-0   |          | <0.1 mg/kg        |              | <0.1 mg/kg     | <0.00001 %           |            | <LOD           |
| 21     | pyrene                             | 204-927-3    | 129-00-0   |          | <0.1 mg/kg        |              | <0.1 mg/kg     | <0.00001 %           |            | <LOD           |
| 22     | benzo[a]anthracene                 | 601-033-00-9 | 200-280-6  |          | <0.1 mg/kg        |              | <0.1 mg/kg     | <0.00001 %           |            | <LOD           |
| 23     | chrysene                           | 601-048-00-0 | 205-923-4  |          | <0.1 mg/kg        |              | <0.1 mg/kg     | <0.00001 %           |            | <LOD           |
| 24     | benzo[b]fluoranthene               | 601-034-00-4 | 205-911-9  |          | <0.1 mg/kg        |              | <0.1 mg/kg     | <0.00001 %           |            | <LOD           |
| 25     | benzo[k]fluoranthene               | 601-036-00-5 | 205-916-6  |          | <0.1 mg/kg        |              | <0.1 mg/kg     | <0.00001 %           |            | <LOD           |
| 26     | benzo[a]pyrene; benzo[def]chrysene | 601-032-00-3 | 200-028-5  |          | <0.1 mg/kg        |              | <0.1 mg/kg     | <0.00001 %           |            | <LOD           |
| 27     | indeno[123-cd]pyrene               | 205-893-2    | 193-39-5   |          | <0.1 mg/kg        |              | <0.1 mg/kg     | <0.00001 %           |            | <LOD           |
| 28     | dibenz[a,h]anthracene              | 601-041-00-2 | 200-181-8  |          | <0.1 mg/kg        |              | <0.1 mg/kg     | <0.00001 %           |            | <LOD           |
| 29     | benzo[ghi]perylene                 | 205-883-8    | 191-24-2   |          | <0.1 mg/kg        |              | <0.1 mg/kg     | <0.00001 %           |            | <LOD           |
| Total: |                                    |              |            |          |                   |              |                | 0.0637 %             |            |                |

#### 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: TP21

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

**Sample details**

|                      |                                                                                           |
|----------------------|-------------------------------------------------------------------------------------------|
| Sample name:         | LoW Code:                                                                                 |
| <b>TP21</b>          | Chapter:                                                                                  |
| Sample Depth:        | 17: Construction and Demolition Wastes (including excavated soil from contaminated sites) |
| <b>0.10 - 0.20 m</b> | Entry:                                                                                    |
| Moisture content:    | 17 05 04 (Soil and stones other than those mentioned in 17 05 03)                         |
| <b>15.2%</b>         |                                                                                           |
| (no correction)      |                                                                                           |

**Hazard properties**

None identified

**Determinands**

Moisture content: 15.2% 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  | arsenic { arsenic trioxide }                                                                                             |                                |                                  |          | 9 mg/kg           | 1.32         | 11.883 mg/kg   | 0.00119 %    |                      |            |                |
|    | 033-003-00-0                                                                                                             | 215-481-4                      | 1327-53-3                        |          |                   |              |                |              |                      |            |                |
| 2  | beryllium { beryllium oxide }                                                                                            |                                |                                  |          | <1 mg/kg          | 2.775        | <2.775 mg/kg   | <0.000278 %  |                      |            | <LOD           |
|    | 004-003-00-8                                                                                                             | 215-133-1                      | 1304-56-9                        |          |                   |              |                |              |                      |            |                |
| 3  | cadmium { cadmium sulfide }                                                                                              |                                |                                  | 1        | <0.5 mg/kg        | 1.285        | <0.643 mg/kg   | <0.00005 %   |                      |            | <LOD           |
|    | 048-010-00-4                                                                                                             | 215-147-8                      | 1306-23-6                        |          |                   |              |                |              |                      |            |                |
| 4  | chromium { chromium(III) oxide (worst case) }                                                                            |                                |                                  |          | 20.9 mg/kg        | 1.462        | 30.547 mg/kg   | 0.00305 %    |                      |            |                |
|    |                                                                                                                          | 215-160-9                      | 1308-38-9                        |          |                   |              |                |              |                      |            |                |
| 5  | copper { dicopper oxide; copper (I) oxide }                                                                              |                                |                                  |          | 21.3 mg/kg        | 1.126        | 23.981 mg/kg   | 0.0024 %     |                      |            |                |
|    | 029-002-00-X                                                                                                             | 215-270-7                      | 1317-39-1                        |          |                   |              |                |              |                      |            |                |
| 6  | lead { lead compounds with the exception of those specified elsewhere in this Annex (worst case) }                       |                                |                                  | 1        | 36 mg/kg          |              | 36 mg/kg       | 0.0036 %     |                      |            |                |
|    | 082-001-00-6                                                                                                             |                                |                                  |          |                   |              |                |              |                      |            |                |
| 7  | mercury { mercury dichloride }                                                                                           |                                |                                  |          | <0.5 mg/kg        | 1.353        | <0.677 mg/kg   | <0.0000677 % |                      |            | <LOD           |
|    | 080-010-00-X                                                                                                             | 231-299-8                      | 7487-94-7                        |          |                   |              |                |              |                      |            |                |
| 8  | nickel { nickel dihydroxide }                                                                                            |                                |                                  |          | 15.9 mg/kg        | 1.579        | 25.114 mg/kg   | 0.00251 %    |                      |            |                |
|    | 028-008-00-X                                                                                                             | 235-008-5 [1]<br>234-348-1 [2] | 12054-48-7 [1]<br>11113-74-9 [2] |          |                   |              |                |              |                      |            |                |
| 9  | selenium { selenium compounds with the exception of cadmium sulphoselenide and those specified elsewhere in this Annex } |                                |                                  |          | <1 mg/kg          | 1.405        | <1.405 mg/kg   | <0.000141 %  |                      |            | <LOD           |
|    | 034-002-00-8                                                                                                             |                                |                                  |          |                   |              |                |              |                      |            |                |
| 10 | vanadium { divanadium pentaoxide; vanadium pentoxide }                                                                   |                                |                                  |          | 25.9 mg/kg        | 1.785        | 46.236 mg/kg   | 0.00462 %    |                      |            |                |
|    | 023-001-00-8                                                                                                             | 215-239-8                      | 1314-62-1                        |          |                   |              |                |              |                      |            |                |
| 11 | zinc { zinc sulphate }                                                                                                   |                                |                                  |          | 80.1 mg/kg        | 2.469        | 197.791 mg/kg  | 0.0198 %     |                      |            |                |
|    | 030-006-00-9                                                                                                             | 231-793-3 [1]<br>231-793-3 [2] | 7446-19-7 [1]<br>7733-02-0 [2]   |          |                   |              |                |              |                      |            |                |
| 12 | pH                                                                                                                       |                                |                                  |          | 6.1 pH            |              | 6.1 pH         | 6.1 pH       |                      |            |                |
|    |                                                                                                                          |                                |                                  |          |                   |              |                |              |                      |            |                |
| 13 | phenol                                                                                                                   |                                |                                  |          | <1 mg/kg          |              | <1 mg/kg       | <0.0001 %    |                      |            | <LOD           |
|    | 604-001-00-2                                                                                                             | 203-632-7                      | 108-95-2                         |          |                   |              |                |              |                      |            |                |
| 14 | naphthalene                                                                                                              |                                |                                  |          | <0.1 mg/kg        |              | <0.1 mg/kg     | <0.00001 %   |                      |            | <LOD           |
|    | 601-052-00-2                                                                                                             | 202-049-5                      | 91-20-3                          |          |                   |              |                |              |                      |            |                |



| #      | 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 |          |                   |              |                |                      |            |                |
| 15     | acenaphthylene                     | 205-917-1    | 208-96-8   |          | <0.1 mg/kg        |              | <0.1 mg/kg     | <0.00001 %           |            | <LOD           |
| 16     | acenaphthene                       | 201-469-6    | 83-32-9    |          | <0.1 mg/kg        |              | <0.1 mg/kg     | <0.00001 %           |            | <LOD           |
| 17     | fluorene                           | 201-695-5    | 86-73-7    |          | <0.1 mg/kg        |              | <0.1 mg/kg     | <0.00001 %           |            | <LOD           |
| 18     | phenanthrene                       | 201-581-5    | 85-01-8    |          | <0.1 mg/kg        |              | <0.1 mg/kg     | <0.00001 %           |            | <LOD           |
| 19     | anthracene                         | 204-371-1    | 120-12-7   |          | <0.1 mg/kg        |              | <0.1 mg/kg     | <0.00001 %           |            | <LOD           |
| 20     | fluoranthene                       | 205-912-4    | 206-44-0   |          | <0.1 mg/kg        |              | <0.1 mg/kg     | <0.00001 %           |            | <LOD           |
| 21     | pyrene                             | 204-927-3    | 129-00-0   |          | <0.1 mg/kg        |              | <0.1 mg/kg     | <0.00001 %           |            | <LOD           |
| 22     | benzo[a]anthracene                 | 601-033-00-9 | 200-280-6  |          | <0.1 mg/kg        |              | <0.1 mg/kg     | <0.00001 %           |            | <LOD           |
| 23     | chrysene                           | 601-048-00-0 | 205-923-4  |          | <0.1 mg/kg        |              | <0.1 mg/kg     | <0.00001 %           |            | <LOD           |
| 24     | benzo[b]fluoranthene               | 601-034-00-4 | 205-911-9  |          | <0.1 mg/kg        |              | <0.1 mg/kg     | <0.00001 %           |            | <LOD           |
| 25     | benzo[k]fluoranthene               | 601-036-00-5 | 205-916-6  |          | <0.1 mg/kg        |              | <0.1 mg/kg     | <0.00001 %           |            | <LOD           |
| 26     | benzo[a]pyrene; benzo[def]chrysene | 601-032-00-3 | 200-028-5  |          | <0.1 mg/kg        |              | <0.1 mg/kg     | <0.00001 %           |            | <LOD           |
| 27     | indeno[123-cd]pyrene               | 205-893-2    | 193-39-5   |          | <0.1 mg/kg        |              | <0.1 mg/kg     | <0.00001 %           |            | <LOD           |
| 28     | dibenz[a,h]anthracene              | 601-041-00-2 | 200-181-8  |          | <0.1 mg/kg        |              | <0.1 mg/kg     | <0.00001 %           |            | <LOD           |
| 29     | benzo[ghi]perylene                 | 205-883-8    | 191-24-2   |          | <0.1 mg/kg        |              | <0.1 mg/kg     | <0.00001 %           |            | <LOD           |
| Total: |                                    |              |            |          |                   |              |                | 0.038 %              |            |                |

#### 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: TP22

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

**Sample details**

|                   |                          |           |          |                                                                                           |
|-------------------|--------------------------|-----------|----------|-------------------------------------------------------------------------------------------|
| Sample name:      | TP22                     | LoW Code: | Chapter: | 17: Construction and Demolition Wastes (including excavated soil from contaminated sites) |
| Sample Depth:     | 0.50 - 0.60 m            | Entry:    |          | 17 05 04 (Soil and stones other than those mentioned in 17 05 03)                         |
| Moisture content: | 15.8%<br>(no correction) |           |          |                                                                                           |

**Hazard properties**

None identified

**Determinands**

Moisture content: 15.8% No Moisture Correction applied (MC)

| #  | Determinand                                                                                                              |              |                                | CLP Note                         | User entered data | Conv. Factor | Compound conc. |              | Classification value | MC Applied | Conc. Not Used |
|----|--------------------------------------------------------------------------------------------------------------------------|--------------|--------------------------------|----------------------------------|-------------------|--------------|----------------|--------------|----------------------|------------|----------------|
|    | EU CLP index number                                                                                                      | EC Number    | CAS Number                     |                                  |                   |              |                |              |                      |            |                |
| 1  | arsenic { arsenic trioxide }                                                                                             | 033-003-00-0 | 215-481-4                      | 1327-53-3                        | 32.1 mg/kg        | 1.32         | 42.382 mg/kg   | 0.00424 %    |                      |            |                |
| 2  | beryllium { beryllium oxide }                                                                                            | 004-003-00-8 | 215-133-1                      | 1304-56-9                        | <1 mg/kg          | 2.775        | <2.775 mg/kg   | <0.000278 %  |                      |            | <LOD           |
| 3  | cadmium { cadmium sulfide }                                                                                              | 048-010-00-4 | 215-147-8                      | 1306-23-6                        | <0.5 mg/kg        | 1.285        | <0.643 mg/kg   | <0.00005 %   |                      |            | <LOD           |
| 4  | chromium { chromium(III) oxide (worst case) }                                                                            | 215-160-9    | 1308-38-9                      |                                  | 25.8 mg/kg        | 1.462        | 37.708 mg/kg   | 0.00377 %    |                      |            |                |
| 5  | copper { dicopper oxide; copper (I) oxide }                                                                              | 029-002-00-X | 215-270-7                      | 1317-39-1                        | 18.1 mg/kg        | 1.126        | 20.379 mg/kg   | 0.00204 %    |                      |            |                |
| 6  | lead { lead compounds with the exception of those specified elsewhere in this Annex (worst case) }                       | 082-001-00-6 |                                |                                  | 23.9 mg/kg        |              | 23.9 mg/kg     | 0.00239 %    |                      |            |                |
| 7  | mercury { mercury dichloride }                                                                                           | 080-010-00-X | 231-299-8                      | 7487-94-7                        | <0.5 mg/kg        | 1.353        | <0.677 mg/kg   | <0.0000677 % |                      |            | <LOD           |
| 8  | nickel { nickel dihydroxide }                                                                                            | 028-008-00-X | 235-008-5 [1]<br>234-348-1 [2] | 12054-48-7 [1]<br>11113-74-9 [2] | 25.2 mg/kg        | 1.579        | 39.803 mg/kg   | 0.00398 %    |                      |            |                |
| 9  | selenium { selenium compounds with the exception of cadmium sulphoselenide and those specified elsewhere in this Annex } | 034-002-00-8 |                                |                                  | 1.3 mg/kg         | 1.405        | 1.827 mg/kg    | 0.000183 %   |                      |            |                |
| 10 | vanadium { divanadium pentaoxide; vanadium pentoxide }                                                                   | 023-001-00-8 | 215-239-8                      | 1314-62-1                        | 34.2 mg/kg        | 1.785        | 61.053 mg/kg   | 0.00611 %    |                      |            |                |
| 11 | zinc { zinc sulphate }                                                                                                   | 030-006-00-9 | 231-793-3 [1]<br>231-793-3 [2] | 7446-19-7 [1]<br>7733-02-0 [2]   | 68.9 mg/kg        | 2.469        | 170.135 mg/kg  | 0.017 %      |                      |            |                |
| 12 | pH                                                                                                                       |              |                                |                                  | 7.5 pH            |              | 7.5 pH         | 7.5 pH       |                      |            |                |
| 13 | phenol                                                                                                                   | 604-001-00-2 | 203-632-7                      | 108-95-2                         | <1 mg/kg          |              | <1 mg/kg       | <0.0001 %    |                      |            | <LOD           |
| 14 | naphthalene                                                                                                              | 601-052-00-2 | 202-049-5                      | 91-20-3                          | <0.1 mg/kg        |              | <0.1 mg/kg     | <0.00001 %   |                      |            | <LOD           |

| #      | 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 |          |                   |              |                |                      |            |                |
| 15     | acenaphthylene                     | 205-917-1    | 208-96-8   |          | <0.1 mg/kg        |              | <0.1 mg/kg     | <0.00001 %           |            | <LOD           |
| 16     | acenaphthene                       | 201-469-6    | 83-32-9    |          | <0.1 mg/kg        |              | <0.1 mg/kg     | <0.00001 %           |            | <LOD           |
| 17     | fluorene                           | 201-695-5    | 86-73-7    |          | <0.1 mg/kg        |              | <0.1 mg/kg     | <0.00001 %           |            | <LOD           |
| 18     | phenanthrene                       | 201-581-5    | 85-01-8    |          | <0.1 mg/kg        |              | <0.1 mg/kg     | <0.00001 %           |            | <LOD           |
| 19     | anthracene                         | 204-371-1    | 120-12-7   |          | <0.1 mg/kg        |              | <0.1 mg/kg     | <0.00001 %           |            | <LOD           |
| 20     | fluoranthene                       | 205-912-4    | 206-44-0   |          | <0.1 mg/kg        |              | <0.1 mg/kg     | <0.00001 %           |            | <LOD           |
| 21     | pyrene                             | 204-927-3    | 129-00-0   |          | <0.1 mg/kg        |              | <0.1 mg/kg     | <0.00001 %           |            | <LOD           |
| 22     | benzo[a]anthracene                 | 601-033-00-9 | 200-280-6  |          | <0.1 mg/kg        |              | <0.1 mg/kg     | <0.00001 %           |            | <LOD           |
| 23     | chrysene                           | 601-048-00-0 | 205-923-4  |          | <0.1 mg/kg        |              | <0.1 mg/kg     | <0.00001 %           |            | <LOD           |
| 24     | benzo[b]fluoranthene               | 601-034-00-4 | 205-911-9  |          | <0.1 mg/kg        |              | <0.1 mg/kg     | <0.00001 %           |            | <LOD           |
| 25     | benzo[k]fluoranthene               | 601-036-00-5 | 205-916-6  |          | <0.1 mg/kg        |              | <0.1 mg/kg     | <0.00001 %           |            | <LOD           |
| 26     | benzo[a]pyrene; benzo[def]chrysene | 601-032-00-3 | 200-028-5  |          | <0.1 mg/kg        |              | <0.1 mg/kg     | <0.00001 %           |            | <LOD           |
| 27     | indeno[123-cd]pyrene               | 205-893-2    | 193-39-5   |          | <0.1 mg/kg        |              | <0.1 mg/kg     | <0.00001 %           |            | <LOD           |
| 28     | dibenz[a,h]anthracene              | 601-041-00-2 | 200-181-8  |          | <0.1 mg/kg        |              | <0.1 mg/kg     | <0.00001 %           |            | <LOD           |
| 29     | benzo[ghi]perylene                 | 205-883-8    | 191-24-2   |          | <0.1 mg/kg        |              | <0.1 mg/kg     | <0.00001 %           |            | <LOD           |
| Total: |                                    |              |            |          |                   |              |                | 0.0404 %             |            |                |

#### 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: TP23

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

Sample details

|                      |                                                                                           |
|----------------------|-------------------------------------------------------------------------------------------|
| Sample name:         | LoW Code:                                                                                 |
| <b>TP23</b>          | Chapter:                                                                                  |
| Sample Depth:        | 17: Construction and Demolition Wastes (including excavated soil from contaminated sites) |
| <b>0.10 - 0.20 m</b> | Entry:                                                                                    |
| Moisture content:    | 17 05 04 (Soil and stones other than those mentioned in 17 05 03)                         |
| <b>22.7%</b>         |                                                                                           |
| (no correction)      |                                                                                           |

Hazard properties

None identified

Determinands

Moisture content: 22.7% No Moisture Correction applied (MC)

| #  | Determinand                                                                                                              |                                |                                  | CLP Note | User entered data | Conv. Factor | Compound conc. |              | Classification value | MC Applied | Conc. Not Used |
|----|--------------------------------------------------------------------------------------------------------------------------|--------------------------------|----------------------------------|----------|-------------------|--------------|----------------|--------------|----------------------|------------|----------------|
|    | EU CLP index number                                                                                                      | EC Number                      | CAS Number                       |          |                   |              |                |              |                      |            |                |
| 1  | arsenic { arsenic trioxide }                                                                                             |                                |                                  |          | 19.7 mg/kg        | 1.32         | 26.01 mg/kg    | 0.0026 %     |                      |            |                |
|    | 033-003-00-0                                                                                                             | 215-481-4                      | 1327-53-3                        |          |                   |              |                |              |                      |            |                |
| 2  | beryllium { beryllium oxide }                                                                                            |                                |                                  |          | 1.2 mg/kg         | 2.775        | 3.33 mg/kg     | 0.000333 %   |                      |            |                |
|    | 004-003-00-8                                                                                                             | 215-133-1                      | 1304-56-9                        |          |                   |              |                |              |                      |            |                |
| 3  | cadmium { cadmium sulfide }                                                                                              |                                |                                  | 1        | <0.5 mg/kg        | 1.285        | <0.643 mg/kg   | <0.00005 %   |                      |            | <LOD           |
|    | 048-010-00-4                                                                                                             | 215-147-8                      | 1306-23-6                        |          |                   |              |                |              |                      |            |                |
| 4  | chromium { chromium(III) oxide (worst case) }                                                                            |                                |                                  |          | 38.3 mg/kg        | 1.462        | 55.978 mg/kg   | 0.0056 %     |                      |            |                |
|    |                                                                                                                          | 215-160-9                      | 1308-38-9                        |          |                   |              |                |              |                      |            |                |
| 5  | copper { dicopper oxide; copper (I) oxide }                                                                              |                                |                                  |          | 34 mg/kg          | 1.126        | 38.28 mg/kg    | 0.00383 %    |                      |            |                |
|    | 029-002-00-X                                                                                                             | 215-270-7                      | 1317-39-1                        |          |                   |              |                |              |                      |            |                |
| 6  | lead { lead compounds with the exception of those specified elsewhere in this Annex (worst case) }                       |                                |                                  | 1        | 43 mg/kg          |              | 43 mg/kg       | 0.0043 %     |                      |            |                |
|    | 082-001-00-6                                                                                                             |                                |                                  |          |                   |              |                |              |                      |            |                |
| 7  | mercury { mercury dichloride }                                                                                           |                                |                                  |          | <0.5 mg/kg        | 1.353        | <0.677 mg/kg   | <0.0000677 % |                      |            | <LOD           |
|    | 080-010-00-X                                                                                                             | 231-299-8                      | 7487-94-7                        |          |                   |              |                |              |                      |            |                |
| 8  | nickel { nickel dihydroxide }                                                                                            |                                |                                  |          | 22.7 mg/kg        | 1.579        | 35.855 mg/kg   | 0.00359 %    |                      |            |                |
|    | 028-008-00-X                                                                                                             | 235-008-5 [1]<br>234-348-1 [2] | 12054-48-7 [1]<br>11113-74-9 [2] |          |                   |              |                |              |                      |            |                |
| 9  | selenium { selenium compounds with the exception of cadmium sulphoselenide and those specified elsewhere in this Annex } |                                |                                  |          | <1 mg/kg          | 1.405        | <1.405 mg/kg   | <0.000141 %  |                      |            | <LOD           |
|    | 034-002-00-8                                                                                                             |                                |                                  |          |                   |              |                |              |                      |            |                |
| 10 | vanadium { divanadium pentaoxide; vanadium pentoxide }                                                                   |                                |                                  |          | 40.6 mg/kg        | 1.785        | 72.479 mg/kg   | 0.00725 %    |                      |            |                |
|    | 023-001-00-8                                                                                                             | 215-239-8                      | 1314-62-1                        |          |                   |              |                |              |                      |            |                |
| 11 | zinc { zinc sulphate }                                                                                                   |                                |                                  |          | 139 mg/kg         | 2.469        | 343.232 mg/kg  | 0.0343 %     |                      |            |                |
|    | 030-006-00-9                                                                                                             | 231-793-3 [1]<br>231-793-3 [2] | 7446-19-7 [1]<br>7733-02-0 [2]   |          |                   |              |                |              |                      |            |                |
| 12 | pH                                                                                                                       |                                |                                  |          | 7.2 pH            |              | 7.2 pH         | 7.2 pH       |                      |            |                |
|    |                                                                                                                          |                                |                                  |          |                   |              |                |              |                      |            |                |
| 13 | phenol                                                                                                                   |                                |                                  |          | <1 mg/kg          |              | <1 mg/kg       | <0.0001 %    |                      |            | <LOD           |
|    | 604-001-00-2                                                                                                             | 203-632-7                      | 108-95-2                         |          |                   |              |                |              |                      |            |                |
| 14 | naphthalene                                                                                                              |                                |                                  |          | <0.1 mg/kg        |              | <0.1 mg/kg     | <0.00001 %   |                      |            | <LOD           |
|    | 601-052-00-2                                                                                                             | 202-049-5                      | 91-20-3                          |          |                   |              |                |              |                      |            |                |

| #      | 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 |          |                   |              |                |                      |            |                |
| 15     | acenaphthylene                     | 205-917-1    | 208-96-8   |          | <0.1 mg/kg        |              | <0.1 mg/kg     | <0.00001 %           |            | <LOD           |
| 16     | acenaphthene                       | 201-469-6    | 83-32-9    |          | <0.1 mg/kg        |              | <0.1 mg/kg     | <0.00001 %           |            | <LOD           |
| 17     | fluorene                           | 201-695-5    | 86-73-7    |          | <0.1 mg/kg        |              | <0.1 mg/kg     | <0.00001 %           |            | <LOD           |
| 18     | phenanthrene                       | 201-581-5    | 85-01-8    |          | <0.1 mg/kg        |              | <0.1 mg/kg     | <0.00001 %           |            | <LOD           |
| 19     | anthracene                         | 204-371-1    | 120-12-7   |          | <0.1 mg/kg        |              | <0.1 mg/kg     | <0.00001 %           |            | <LOD           |
| 20     | fluoranthene                       | 205-912-4    | 206-44-0   |          | <0.1 mg/kg        |              | <0.1 mg/kg     | <0.00001 %           |            | <LOD           |
| 21     | pyrene                             | 204-927-3    | 129-00-0   |          | <0.1 mg/kg        |              | <0.1 mg/kg     | <0.00001 %           |            | <LOD           |
| 22     | benzo[a]anthracene                 | 601-033-00-9 | 200-280-6  |          | <0.1 mg/kg        |              | <0.1 mg/kg     | <0.00001 %           |            | <LOD           |
| 23     | chrysene                           | 601-048-00-0 | 205-923-4  |          | <0.1 mg/kg        |              | <0.1 mg/kg     | <0.00001 %           |            | <LOD           |
| 24     | benzo[b]fluoranthene               | 601-034-00-4 | 205-911-9  |          | <0.1 mg/kg        |              | <0.1 mg/kg     | <0.00001 %           |            | <LOD           |
| 25     | benzo[k]fluoranthene               | 601-036-00-5 | 205-916-6  |          | <0.1 mg/kg        |              | <0.1 mg/kg     | <0.00001 %           |            | <LOD           |
| 26     | benzo[a]pyrene; benzo[def]chrysene | 601-032-00-3 | 200-028-5  |          | <0.1 mg/kg        |              | <0.1 mg/kg     | <0.00001 %           |            | <LOD           |
| 27     | indeno[123-cd]pyrene               | 205-893-2    | 193-39-5   |          | <0.1 mg/kg        |              | <0.1 mg/kg     | <0.00001 %           |            | <LOD           |
| 28     | dibenz[a,h]anthracene              | 601-041-00-2 | 200-181-8  |          | <0.1 mg/kg        |              | <0.1 mg/kg     | <0.00001 %           |            | <LOD           |
| 29     | benzo[ghi]perylene                 | 205-883-8    | 191-24-2   |          | <0.1 mg/kg        |              | <0.1 mg/kg     | <0.00001 %           |            | <LOD           |
| Total: |                                    |              |            |          |                   |              |                | 0.0623 %             |            |                |

#### 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: TP24

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

**Sample details**

|                      |                                                                                           |
|----------------------|-------------------------------------------------------------------------------------------|
| Sample name:         | LoW Code:                                                                                 |
| <b>TP24</b>          | Chapter:                                                                                  |
| Sample Depth:        | 17: Construction and Demolition Wastes (including excavated soil from contaminated sites) |
| <b>0.50 - 0.60 m</b> | Entry:                                                                                    |
| Moisture content:    | 17 05 04 (Soil and stones other than those mentioned in 17 05 03)                         |
| <b>21.1%</b>         |                                                                                           |
| (no correction)      |                                                                                           |

**Hazard properties**

None identified

**Determinands**

Moisture content: 21.1% 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  | arsenic { arsenic trioxide }                                                                                             |                                |                                  |          | 15.3 mg/kg        | 1.32         | 20.201 mg/kg   | 0.00202 %    |                      |            |                |
|    | 033-003-00-0                                                                                                             | 215-481-4                      | 1327-53-3                        |          |                   |              |                |              |                      |            |                |
| 2  | beryllium { beryllium oxide }                                                                                            |                                |                                  |          | 1.3 mg/kg         | 2.775        | 3.608 mg/kg    | 0.000361 %   |                      |            |                |
|    | 004-003-00-8                                                                                                             | 215-133-1                      | 1304-56-9                        |          |                   |              |                |              |                      |            |                |
| 3  | cadmium { cadmium sulfide }                                                                                              |                                |                                  | 1        | <0.5 mg/kg        | 1.285        | <0.643 mg/kg   | <0.00005 %   |                      |            | <LOD           |
|    | 048-010-00-4                                                                                                             | 215-147-8                      | 1306-23-6                        |          |                   |              |                |              |                      |            |                |
| 4  | chromium { chromium(III) oxide (worst case) }                                                                            |                                |                                  |          | 29.6 mg/kg        | 1.462        | 43.262 mg/kg   | 0.00433 %    |                      |            |                |
|    |                                                                                                                          | 215-160-9                      | 1308-38-9                        |          |                   |              |                |              |                      |            |                |
| 5  | copper { dicopper oxide; copper (I) oxide }                                                                              |                                |                                  |          | 25.7 mg/kg        | 1.126        | 28.935 mg/kg   | 0.00289 %    |                      |            |                |
|    | 029-002-00-X                                                                                                             | 215-270-7                      | 1317-39-1                        |          |                   |              |                |              |                      |            |                |
| 6  | lead { lead compounds with the exception of those specified elsewhere in this Annex (worst case) }                       |                                |                                  | 1        | 47.8 mg/kg        |              | 47.8 mg/kg     | 0.00478 %    |                      |            |                |
|    | 082-001-00-6                                                                                                             |                                |                                  |          |                   |              |                |              |                      |            |                |
| 7  | mercury { mercury dichloride }                                                                                           |                                |                                  |          | <0.5 mg/kg        | 1.353        | <0.677 mg/kg   | <0.0000677 % |                      |            | <LOD           |
|    | 080-010-00-X                                                                                                             | 231-299-8                      | 7487-94-7                        |          |                   |              |                |              |                      |            |                |
| 8  | nickel { nickel dihydroxide }                                                                                            |                                |                                  |          | 23.4 mg/kg        | 1.579        | 36.96 mg/kg    | 0.0037 %     |                      |            |                |
|    | 028-008-00-X                                                                                                             | 235-008-5 [1]<br>234-348-1 [2] | 12054-48-7 [1]<br>11113-74-9 [2] |          |                   |              |                |              |                      |            |                |
| 9  | selenium { selenium compounds with the exception of cadmium sulphoselenide and those specified elsewhere in this Annex } |                                |                                  |          | <1 mg/kg          | 1.405        | <1.405 mg/kg   | <0.000141 %  |                      |            | <LOD           |
|    | 034-002-00-8                                                                                                             |                                |                                  |          |                   |              |                |              |                      |            |                |
| 10 | vanadium { divanadium pentaoxide; vanadium pentoxide }                                                                   |                                |                                  |          | 41 mg/kg          | 1.785        | 73.193 mg/kg   | 0.00732 %    |                      |            |                |
|    | 023-001-00-8                                                                                                             | 215-239-8                      | 1314-62-1                        |          |                   |              |                |              |                      |            |                |
| 11 | zinc { zinc sulphate }                                                                                                   |                                |                                  |          | 79.2 mg/kg        | 2.469        | 195.568 mg/kg  | 0.0196 %     |                      |            |                |
|    | 030-006-00-9                                                                                                             | 231-793-3 [1]<br>231-793-3 [2] | 7446-19-7 [1]<br>7733-02-0 [2]   |          |                   |              |                |              |                      |            |                |
| 12 | pH                                                                                                                       |                                |                                  |          | 7.3 pH            |              | 7.3 pH         | 7.3 pH       |                      |            |                |
|    |                                                                                                                          |                                |                                  |          |                   |              |                |              |                      |            |                |
| 13 | phenol                                                                                                                   |                                |                                  |          | <1 mg/kg          |              | <1 mg/kg       | <0.0001 %    |                      |            | <LOD           |
|    | 604-001-00-2                                                                                                             | 203-632-7                      | 108-95-2                         |          |                   |              |                |              |                      |            |                |
| 14 | naphthalene                                                                                                              |                                |                                  |          | <0.1 mg/kg        |              | <0.1 mg/kg     | <0.00001 %   |                      |            | <LOD           |
|    | 601-052-00-2                                                                                                             | 202-049-5                      | 91-20-3                          |          |                   |              |                |              |                      |            |                |

| #      | 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 |          |                   |              |                |                      |            |                |
| 15     | acenaphthylene                     | 205-917-1    | 208-96-8   |          | <0.1 mg/kg        |              | <0.1 mg/kg     | <0.00001 %           |            | <LOD           |
| 16     | acenaphthene                       | 201-469-6    | 83-32-9    |          | <0.1 mg/kg        |              | <0.1 mg/kg     | <0.00001 %           |            | <LOD           |
| 17     | fluorene                           | 201-695-5    | 86-73-7    |          | <0.1 mg/kg        |              | <0.1 mg/kg     | <0.00001 %           |            | <LOD           |
| 18     | phenanthrene                       | 201-581-5    | 85-01-8    |          | <0.1 mg/kg        |              | <0.1 mg/kg     | <0.00001 %           |            | <LOD           |
| 19     | anthracene                         | 204-371-1    | 120-12-7   |          | <0.1 mg/kg        |              | <0.1 mg/kg     | <0.00001 %           |            | <LOD           |
| 20     | fluoranthene                       | 205-912-4    | 206-44-0   |          | <0.1 mg/kg        |              | <0.1 mg/kg     | <0.00001 %           |            | <LOD           |
| 21     | pyrene                             | 204-927-3    | 129-00-0   |          | <0.1 mg/kg        |              | <0.1 mg/kg     | <0.00001 %           |            | <LOD           |
| 22     | benzo[a]anthracene                 | 601-033-00-9 | 200-280-6  |          | <0.1 mg/kg        |              | <0.1 mg/kg     | <0.00001 %           |            | <LOD           |
| 23     | chrysene                           | 601-048-00-0 | 205-923-4  |          | <0.1 mg/kg        |              | <0.1 mg/kg     | <0.00001 %           |            | <LOD           |
| 24     | benzo[b]fluoranthene               | 601-034-00-4 | 205-911-9  |          | <0.1 mg/kg        |              | <0.1 mg/kg     | <0.00001 %           |            | <LOD           |
| 25     | benzo[k]fluoranthene               | 601-036-00-5 | 205-916-6  |          | <0.1 mg/kg        |              | <0.1 mg/kg     | <0.00001 %           |            | <LOD           |
| 26     | benzo[a]pyrene; benzo[def]chrysene | 601-032-00-3 | 200-028-5  |          | <0.1 mg/kg        |              | <0.1 mg/kg     | <0.00001 %           |            | <LOD           |
| 27     | indeno[123-cd]pyrene               | 205-893-2    | 193-39-5   |          | <0.1 mg/kg        |              | <0.1 mg/kg     | <0.00001 %           |            | <LOD           |
| 28     | dibenz[a,h]anthracene              | 601-041-00-2 | 200-181-8  |          | <0.1 mg/kg        |              | <0.1 mg/kg     | <0.00001 %           |            | <LOD           |
| 29     | benzo[ghi]perylene                 | 205-883-8    | 191-24-2   |          | <0.1 mg/kg        |              | <0.1 mg/kg     | <0.00001 %           |            | <LOD           |
| Total: |                                    |              |            |          |                   |              |                | 0.0455 %             |            |                |

#### 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: TP25

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

**Sample details**

|                      |                                                                                           |
|----------------------|-------------------------------------------------------------------------------------------|
| Sample name:         | LoW Code:                                                                                 |
| <b>TP25</b>          | Chapter:                                                                                  |
| Sample Depth:        | 17: Construction and Demolition Wastes (including excavated soil from contaminated sites) |
| <b>0.10 - 0.20 m</b> | Entry:                                                                                    |
| Moisture content:    | 17 05 04 (Soil and stones other than those mentioned in 17 05 03)                         |
| <b>16%</b>           |                                                                                           |
| (no correction)      |                                                                                           |

**Hazard properties**

None identified

**Determinands**

Moisture content: 16% 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  | arsenic { arsenic trioxide }                                                                                             |                                |                                  |          | 11.2 mg/kg        | 1.32         | 14.788 mg/kg   | 0.00148 %    |                      |            |                |
|    | 033-003-00-0                                                                                                             | 215-481-4                      | 1327-53-3                        |          |                   |              |                |              |                      |            |                |
| 2  | beryllium { beryllium oxide }                                                                                            |                                |                                  |          | <1 mg/kg          | 2.775        | <2.775 mg/kg   | <0.000278 %  |                      |            | <LOD           |
|    | 004-003-00-8                                                                                                             | 215-133-1                      | 1304-56-9                        |          |                   |              |                |              |                      |            |                |
| 3  | cadmium { cadmium sulfide }                                                                                              |                                |                                  | 1        | <0.5 mg/kg        | 1.285        | <0.643 mg/kg   | <0.00005 %   |                      |            | <LOD           |
|    | 048-010-00-4                                                                                                             | 215-147-8                      | 1306-23-6                        |          |                   |              |                |              |                      |            |                |
| 4  | chromium { chromium(III) oxide (worst case) }                                                                            |                                |                                  |          | 26 mg/kg          | 1.462        | 38 mg/kg       | 0.0038 %     |                      |            |                |
|    |                                                                                                                          | 215-160-9                      | 1308-38-9                        |          |                   |              |                |              |                      |            |                |
| 5  | copper { dicopper oxide; copper (I) oxide }                                                                              |                                |                                  |          | 25.2 mg/kg        | 1.126        | 28.372 mg/kg   | 0.00284 %    |                      |            |                |
|    | 029-002-00-X                                                                                                             | 215-270-7                      | 1317-39-1                        |          |                   |              |                |              |                      |            |                |
| 6  | lead { lead compounds with the exception of those specified elsewhere in this Annex (worst case) }                       |                                |                                  | 1        | 42.2 mg/kg        |              | 42.2 mg/kg     | 0.00422 %    |                      |            |                |
|    | 082-001-00-6                                                                                                             |                                |                                  |          |                   |              |                |              |                      |            |                |
| 7  | mercury { mercury dichloride }                                                                                           |                                |                                  |          | <0.5 mg/kg        | 1.353        | <0.677 mg/kg   | <0.0000677 % |                      |            | <LOD           |
|    | 080-010-00-X                                                                                                             | 231-299-8                      | 7487-94-7                        |          |                   |              |                |              |                      |            |                |
| 8  | nickel { nickel dihydroxide }                                                                                            |                                |                                  |          | 17.6 mg/kg        | 1.579        | 27.799 mg/kg   | 0.00278 %    |                      |            |                |
|    | 028-008-00-X                                                                                                             | 235-008-5 [1]<br>234-348-1 [2] | 12054-48-7 [1]<br>11113-74-9 [2] |          |                   |              |                |              |                      |            |                |
| 9  | selenium { selenium compounds with the exception of cadmium sulphoselenide and those specified elsewhere in this Annex } |                                |                                  |          | <1 mg/kg          | 1.405        | <1.405 mg/kg   | <0.000141 %  |                      |            | <LOD           |
|    | 034-002-00-8                                                                                                             |                                |                                  |          |                   |              |                |              |                      |            |                |
| 10 | vanadium { divanadium pentaoxide; vanadium pentoxide }                                                                   |                                |                                  |          | 31.1 mg/kg        | 1.785        | 55.519 mg/kg   | 0.00555 %    |                      |            |                |
|    | 023-001-00-8                                                                                                             | 215-239-8                      | 1314-62-1                        |          |                   |              |                |              |                      |            |                |
| 11 | zinc { zinc sulphate }                                                                                                   |                                |                                  |          | 90.9 mg/kg        | 2.469        | 224.459 mg/kg  | 0.0224 %     |                      |            |                |
|    | 030-006-00-9                                                                                                             | 231-793-3 [1]<br>231-793-3 [2] | 7446-19-7 [1]<br>7733-02-0 [2]   |          |                   |              |                |              |                      |            |                |
| 12 | pH                                                                                                                       |                                |                                  |          | 6.3 pH            |              | 6.3 pH         | 6.3 pH       |                      |            |                |
|    |                                                                                                                          |                                |                                  |          |                   |              |                |              |                      |            |                |
| 13 | phenol                                                                                                                   |                                |                                  |          | <1 mg/kg          |              | <1 mg/kg       | <0.0001 %    |                      |            | <LOD           |
|    | 604-001-00-2                                                                                                             | 203-632-7                      | 108-95-2                         |          |                   |              |                |              |                      |            |                |
| 14 | naphthalene                                                                                                              |                                |                                  |          | <0.1 mg/kg        |              | <0.1 mg/kg     | <0.00001 %   |                      |            | <LOD           |
|    | 601-052-00-2                                                                                                             | 202-049-5                      | 91-20-3                          |          |                   |              |                |              |                      |            |                |

| #      | 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 |          |                   |              |                |                      |            |                |
| 15     | acenaphthylene                     | 205-917-1    | 208-96-8   |          | <0.1 mg/kg        |              | <0.1 mg/kg     | <0.00001 %           |            | <LOD           |
| 16     | acenaphthene                       | 201-469-6    | 83-32-9    |          | <0.1 mg/kg        |              | <0.1 mg/kg     | <0.00001 %           |            | <LOD           |
| 17     | fluorene                           | 201-695-5    | 86-73-7    |          | <0.1 mg/kg        |              | <0.1 mg/kg     | <0.00001 %           |            | <LOD           |
| 18     | phenanthrene                       | 201-581-5    | 85-01-8    |          | <0.1 mg/kg        |              | <0.1 mg/kg     | <0.00001 %           |            | <LOD           |
| 19     | anthracene                         | 204-371-1    | 120-12-7   |          | <0.1 mg/kg        |              | <0.1 mg/kg     | <0.00001 %           |            | <LOD           |
| 20     | fluoranthene                       | 205-912-4    | 206-44-0   |          | <0.1 mg/kg        |              | <0.1 mg/kg     | <0.00001 %           |            | <LOD           |
| 21     | pyrene                             | 204-927-3    | 129-00-0   |          | <0.1 mg/kg        |              | <0.1 mg/kg     | <0.00001 %           |            | <LOD           |
| 22     | benzo[a]anthracene                 | 601-033-00-9 | 200-280-6  |          | <0.1 mg/kg        |              | <0.1 mg/kg     | <0.00001 %           |            | <LOD           |
| 23     | chrysene                           | 601-048-00-0 | 205-923-4  |          | <0.1 mg/kg        |              | <0.1 mg/kg     | <0.00001 %           |            | <LOD           |
| 24     | benzo[b]fluoranthene               | 601-034-00-4 | 205-911-9  |          | <0.1 mg/kg        |              | <0.1 mg/kg     | <0.00001 %           |            | <LOD           |
| 25     | benzo[k]fluoranthene               | 601-036-00-5 | 205-916-6  |          | <0.1 mg/kg        |              | <0.1 mg/kg     | <0.00001 %           |            | <LOD           |
| 26     | benzo[a]pyrene; benzo[def]chrysene | 601-032-00-3 | 200-028-5  |          | <0.1 mg/kg        |              | <0.1 mg/kg     | <0.00001 %           |            | <LOD           |
| 27     | indeno[123-cd]pyrene               | 205-893-2    | 193-39-5   |          | <0.1 mg/kg        |              | <0.1 mg/kg     | <0.00001 %           |            | <LOD           |
| 28     | dibenz[a,h]anthracene              | 601-041-00-2 | 200-181-8  |          | <0.1 mg/kg        |              | <0.1 mg/kg     | <0.00001 %           |            | <LOD           |
| 29     | benzo[ghi]perylene                 | 205-883-8    | 191-24-2   |          | <0.1 mg/kg        |              | <0.1 mg/kg     | <0.00001 %           |            | <LOD           |
| Total: |                                    |              |            |          |                   |              |                | 0.0439 %             |            |                |

#### 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

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

Description/Comments: Data from C&L Inventory Database

Data source: <https://echa.europa.eu/information-on-chemicals/cl-inventory-database/-/discli/details/33806>

Data source date: 17 Jul 2015

Hazard Statements: Acute Tox. 4; H332 , Acute Tox. 4; H302 , Eye Irrit. 2; H319 , STOT SE 3; H335 , Skin Irrit. 2; H315 , Resp. Sens. 1; H334 , Skin Sens. 1; H317 , Repr. 1B; H360FD , Aquatic Acute 1; H400 , Aquatic Chronic 1; H410

### ■ **lead compounds with the exception of those specified elsewhere in this Annex (worst case)**

GB MCL index number: 082-001-00-6

Description/Comments: Worst Case: IARC considers lead compounds Group 2A; Probably carcinogenic to humans; Lead REACH Consortium, following MCL protocols, considers lead compounds from smelting industries, flue dust and similar to be Carcinogenic category 1A

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 2A (Sup 7, 87) 2006; Lead REACH Consortium [www.reach-lead.eu/substanceinformation.html](http://www.reach-lead.eu/substanceinformation.html) (worst case lead compounds). Review date 29/09/2015

### ■ **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.

### ■ **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

## Appendix B: Rationale for selection of metal species

### arsenic {arsenic trioxide}

Worst case species based on risk phrases

### beryllium {beryllium oxide}

Based upon environmental conditions and site usage considered most likely compound to be present.

### cadmium {cadmium sulfide}

Worst case species based on risk phrases

### chromium {chromium(III) oxide (worst case)}

Chromium VI below detection

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

Most likely common species

### lead {lead compounds with the exception of those specified elsewhere in this Annex (worst case)}

Chromium VI absent to from chromate

### mercury {mercury dichloride}

Worst case species based on risk phrases

### nickel {nickel dihydroxide}

Worst case species based on risk phrases

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

Worst case species based on risk phrases

### vanadium {divanadium pentaoxide; vanadium pentoxide}

Worst Case

### zinc {zinc sulphate}

Chromium VI absent for forming chromate

---

## Appendix C: Version

---

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

HazWasteOnline Classification Engine Version: 2023.65.5540.10249 (06 Mar 2023)

HazWasteOnline Database: 2023.65.5540.10249 (06 Mar 2023)

This classification utilises the following guidance and legislation:

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

**The Waste and Environmental Permitting etc. (Legislative Functions and Amendment etc.) (EU Exit) Regulations 2020** - UK: 2020 No. 1540 of 16th December 2020

**GB MCL List** - version 1.1 of 09 June 2021

## Appendix H – Asbestos Survey

## ASBESTOS DEMOLITION SURVEY REPORT



|                                              |                                                           |
|----------------------------------------------|-----------------------------------------------------------|
| <b>Client</b>                                | Wring Group Ltd                                           |
| <b>Site</b>                                  | Sketchley Lane Farm, Burbage,<br>Leicestershire, LE10 3HU |
| <b>Date report issued</b>                    | 14th February 2023                                        |
| <b>Recommended Date for<br/>Reinspection</b> | 7th February 2024                                         |
| <b>Survey reference</b>                      | J838439                                                   |
| <b>Lead surveyor</b>                         | Gurpreet Aujla                                            |
| <b>Assistant surveyor</b>                    | N/A                                                       |
| <b>UPRN</b>                                  | N/A                                                       |

| No. of Asbestos Risks Identified                                                    |                                        |   |
|-------------------------------------------------------------------------------------|----------------------------------------|---|
|  | Category A                             | 0 |
|  | Category B                             | 0 |
|  | Category C                             | 0 |
|  | Category D                             | 2 |
|  | Areas not accessed (Presumed asbestos) | 0 |

CONTENTS

1.0 INTRODUCTION & SCOPE OF WORKS

2.0 EXECUTIVE SUMMARY & ACTION REGISTER

3.0 ASBESTOS SURVEY FINDINGS FOR SKETCHLEY LANE FARM

4.0 SAMPLE AND RISK ASSESSMENT INFORMATION

APPENDIX 1 - SURVEY METHODOLOGY, LIMITATIONS AND RISK ASSESSMENT

APPENDIX 2 - BULK ANALYSIS CERTIFICATE

APPENDIX 3 - ANNOTATED PLANS

Surveyor Signature:

  
Gurpreet Aujla

Approval Signature:

  
Shane Farrelly



## 1.0 INTRODUCTION

Tersus Consultancy Ltd of Red Mill House, Red Mill Estate, Wednesbury received instructions from of:

Wring Group Ltd, Vale Lane, Bedminster, Bristol, BS3 5RU

to undertake an asbestos demolition survey, to HSG 264 standard, of:

Sketchley Lane Farm, Burbage, Leicestershire, LE10 3HU

Works were carried out on-site during the period 7 Feb 2023 to 7 Feb 2023. The Lead Surveyor was Gurpreet Aujla

Records of previous surveys by Tersus:

| Job Number                                                   | Survey type | Date of survey |
|--------------------------------------------------------------|-------------|----------------|
| We have not completed any previous surveys to this building. |             |                |

### The agreed scope of works included:

A demolition survey was carried out to the cattle barn and chicken coop building only. This report should not be used for enabling any other demolition works on site. Only part of the cattle barn has been surveyed at the farm owners request. The first 5 bays on the right hand (chicken coop to left hand side) side have NOT been inspected and form no part of this survey.

### Building notes:

Commercial

The building was occupied during the time of the survey.

## 2.0 EXECUTIVE SUMMARY

The extent of this inspection was to undertake an asbestos demolition survey as defined in HSG264. The purpose of this survey is to assist the client in complying with requirements of the Control of Asbestos Regulations 2012.

A demolition survey is used to locate and describe, as far as is reasonably practical Asbestos containing materials (ACMs) in the building and may involve destructive inspection, as necessary, to gain access to all areas.

The survey inspection and this survey report are designed to be used as a basis for tendering the removal of ACMs from the building pre-demolition, and to assist "the dutyholder" to manage risk to any occupants prior to demolition work.

Information on the results of this inspection is detailed within report, including appendices and annotated drawings. The report and asbestos register must be maintained as one document, as all sections record information on the surveyor's opinions, findings and limitations.

This survey does not include priority assessments because it is presumed that all asbestos will be removed prior to the demolition works.

Within the scope of this survey the findings were as follows:

### ACMs identified:

|                                  |   |
|----------------------------------|---|
| Total Number of ACMs identified: | 2 |
|----------------------------------|---|

### ACMs Recommendation summary:

|                       |   |
|-----------------------|---|
| Remove:               | 2 |
| Encapsulate & Manage: | 0 |
| Manage:               | 0 |

Full details of any ACMs requiring action, can also be found summarised within the 'Action Plan'. Details of all identified, presumed and strongly presumed asbestos can be found in the 'Asbestos register'.

### Non-accessed areas:

|                               |   |
|-------------------------------|---|
| Number of non-accessed areas: | 0 |
|-------------------------------|---|

Non-accessed areas are noted within the 'Non-accessible areas register'. Any areas or items not accessed must be presumed to contain asbestos until such a time as full access and inspection can be undertaken.

Tersus can assist in compiling asbestos management plans, on-going re-inspection and assisting with the management of asbestos remediation.

## Action Register

The following table summarises the asbestos-containing materials (ACMs) that require remediation prior to demolition, based on our assessment of the ACMs identified, strongly presumed and presumed at Sketchley Lane Farm.

The Control of Asbestos Regulations place a duty on the duty-holder, as the person with the best understanding of the building and its use, to ensure a suitable and sufficient assessment is undertaken so that the risks from asbestos can be mitigated.

The recommended actions are provided here to assist in that assessment and mitigation. As demolition has been scheduled for the survey areas, it is recommended all asbestos is safely removed. Please refer to Sections 3.0 and 4.0 for further details.

| Building            | Floor Level | Room         | Item/Inspection Reference | Item Description     | Risk Category | Recommended Action |
|---------------------|-------------|--------------|---------------------------|----------------------|---------------|--------------------|
| Sketchley Lane Farm | External    | Chicken Coop | #8                        | Reinforced Composite | D             | Remove             |
| Sketchley Lane Farm | External    | Chicken Coop | #9                        | Cement Corrugated    | D             | Remove             |

### Definition of Recommended Actions

|        |                                                                                                                                                                                                           |
|--------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Remove | Remove (Risk) - Removal of asbestos containing materials is recommended on the basis that its condition, location could result in exposure to persons, spread of asbestos, or release to the environment. |
|--------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|

For the above actions, there may be a requirement to prohibit access to a location that has been identified as containing damaged asbestos materials and poses a hazard. In addition, air testing may also be recommended to help ascertain if additional control measures are required.

Non-Accessed Areas Register

The following table summarises specific areas at the property that have not been inspected as part of the survey methodology. These areas should be presumed to contain asbestos until proven otherwise.

| Building                                                                 | Floor level | Room | Item / Inspection Reference | Item Description | Position | Comments |
|--------------------------------------------------------------------------|-------------|------|-----------------------------|------------------|----------|----------|
| All areas within the scope and limitations of this survey were accessed. |             |      |                             |                  |          |          |

### 3.0 Asbestos Survey Findings

The following table(s) list the areas included in the survey, whether asbestos was found or not and whether the area was accessible or not. For further details on room notes, the risk assessment scores, risk categorisation, recommendations and photographic records, refer to Section 4.0. Asbestos types marked with an (\*) are strongly presumed to be visually consistent with other asbestos items identified at the site.

| Priority Assessment undertaken? | Yes / No |
|---------------------------------|----------|
|                                 | No       |

| Building    | Sketchley Lane Farm |                            |                      |                           |                      |                   |               |                    | Room Notes                                                                                                                                                                   |
|-------------|---------------------|----------------------------|----------------------|---------------------------|----------------------|-------------------|---------------|--------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Floor Level | Room                | Item/ Inspection Reference | Item Description     | Item Location             | Asbestos Type        | Extent            | Risk Category | Recommended Action |                                                                                                                                                                              |
| External    | Cattle Barn         | #1                         | Cement               | Guttering                 | No Asbestos Detected |                   |               | None required      | Cement Corrugated Roof, Metal Horizontal & Vertical Beams, Concrete Floor, Concrete Walls With Metal Sheeting. Timber Cladding, Plastic Downpipe, Plastic & Cement Guttering |
| External    | Cattle Barn         | #2                         | Cement Corrugated    | To Roof                   | No Asbestos Detected |                   |               | None required      |                                                                                                                                                                              |
| External    | Cattle Barn         | #3                         | Cement Corrugated    | To Roof                   | No Asbestos Detected |                   |               | None required      |                                                                                                                                                                              |
| External    | Chicken Coop        | #4                         | Cement               | To Roof Gable Ends        | No Asbestos Detected |                   |               | None required      | Internal Metal Roof Sheets With External Cement Corrugated, Concrete And Brick Walls With Cement Cladding, Concrete Floor. Plastic Rainwater Goods                           |
| External    | Chicken Coop        | #5                         | Cement Corrugated    | To Roof                   | No Asbestos Detected |                   |               | None required      |                                                                                                                                                                              |
| External    | Chicken Coop        | #6                         | Cement Panels        | To Walls                  | No Asbestos Detected |                   |               | None required      |                                                                                                                                                                              |
| External    | Chicken Coop        | #7                         | Cement Sheeting      | Under Corrugated Roof     | No Asbestos Detected |                   |               | None required      |                                                                                                                                                                              |
| External    | Chicken Coop        | #8                         | Reinforced Composite | Toilet Cistern            | Amosite              | 1no.              | D             | Remove             |                                                                                                                                                                              |
| External    | Chicken Coop        | #9                         | Cement Corrugated    | Left Side Corrugated Roof | Chrysotile           | 300m <sup>2</sup> | D             | Remove             |                                                                                                                                                                              |
| External    | Egg Collection Area | #10                        | Cement Panels        | To Walls                  | No Asbestos Detected |                   |               | None required      | Metal Roof Sheeting, concrete Floor, Metal Beams. Foam Lining Within Timber Doors                                                                                            |



| Building    | Sketchley Lane Farm |                                  |                     |                     |                      |        |                  |                       | Room Notes |
|-------------|---------------------|----------------------------------|---------------------|---------------------|----------------------|--------|------------------|-----------------------|------------|
| Floor Level | Room                | Item/<br>Inspection<br>Reference | Item<br>Description | Item<br>Location    | Asbestos<br>Type     | Extent | Risk<br>Category | Recommended<br>Action |            |
| External    | Egg Collection Area | #11*                             | Cement Panel        | Between Metal Beams | No Asbestos Detected |        |                  | None required         |            |

**4.0 SAMPLE AND RISK ASSESSMENT INFORMATION** - For an explanation of the risk scoring process and risk code categorisations, please refer to Appendix 1 - Survey Methodology and Limitations.

|                          |                     |                        |                     |  |                                                                                     |
|--------------------------|---------------------|------------------------|---------------------|--|-------------------------------------------------------------------------------------|
| Item / Inspection Ref:   | #1                  | Material<br>Assessment | Product type:       |  |  |
| Sample Ref:              | KO016863            |                        | Condition / Damage: |  |                                                                                     |
| Survey date:             | 07/02/23            |                        | Surface Treatment:  |  |                                                                                     |
| Analysis date:           | February 14 2023    |                        | Asbestos Type:      |  |                                                                                     |
| Building:                | Sketchley Lane Farm |                        | Material Score:     |  |                                                                                     |
| Floor level:             | External            |                        | Extent/amount:      |  |                                                                                     |
| Room:                    | Cattle Barn         |                        |                     |  |                                                                                     |
| Position:                | Guttering           |                        |                     |  |                                                                                     |
| Item Description:        | Cement              |                        |                     |  |                                                                                     |
| Level of Identification: | SAMPLED             |                        |                     |  |                                                                                     |
| ACTION                   | None required       | RISK CODE:             | No Asbestos         |  |                                                                                     |
| Comments:                |                     |                        |                     |  |                                                                                     |

|                          |                     |                        |                     |  |                                                                                      |
|--------------------------|---------------------|------------------------|---------------------|--|--------------------------------------------------------------------------------------|
| Item / Inspection Ref:   | #2                  | Material<br>Assessment | Product type:       |  |  |
| Sample Ref:              | KO016864            |                        | Condition / Damage: |  |                                                                                      |
| Survey date:             | 07/02/23            |                        | Surface Treatment:  |  |                                                                                      |
| Analysis date:           | February 14 2023    |                        | Asbestos Type:      |  |                                                                                      |
| Building:                | Sketchley Lane Farm |                        | Material Score:     |  |                                                                                      |
| Floor level:             | External            |                        | Extent/amount:      |  |                                                                                      |
| Room:                    | Cattle Barn         |                        |                     |  |                                                                                      |
| Position:                | To Roof             |                        |                     |  |                                                                                      |
| Item Description:        | Cement Corrugated   |                        |                     |  |                                                                                      |
| Level of Identification: | SAMPLED             |                        |                     |  |                                                                                      |
| ACTION                   | None required       | RISK CODE:             | No Asbestos         |  |                                                                                      |
| Comments:                |                     |                        |                     |  |                                                                                      |

|                               |                          |                            |                        |  |
|-------------------------------|--------------------------|----------------------------|------------------------|--|
| <b>Item / Inspection Ref:</b> | #3                       | <b>Material Assessment</b> | Product type:          |  |
| <b>Sample Ref:</b>            | KO016865                 |                            | Condition / Damage:    |  |
| Survey date:                  | 07/02/23                 |                            | Surface Treatment:     |  |
| Analysis date:                | February 14 2023         |                            | Asbestos Type:         |  |
| Building:                     | Sketchley Lane Farm      |                            | <b>Material Score:</b> |  |
| Floor level:                  | External                 |                            | <b>Extent/amount:</b>  |  |
| Room:                         | Cattle Barn              |                            |                        |  |
| Position:                     | To Roof                  |                            |                        |  |
| <b>Item Description:</b>      | <b>Cement Corrugated</b> |                            |                        |  |
| Level of Identification:      | SAMPLED                  |                            |                        |  |
| <b>ACTION</b>                 | <b>None required</b>     | <b>RISK CODE:</b>          | <b>No Asbestos</b>     |  |
| Comments:                     |                          |                            |                        |  |



|                               |                      |                            |                        |  |
|-------------------------------|----------------------|----------------------------|------------------------|--|
| <b>Item / Inspection Ref:</b> | #4                   | <b>Material Assessment</b> | Product type:          |  |
| <b>Sample Ref:</b>            | KO016866             |                            | Condition / Damage:    |  |
| Survey date:                  | 07/02/23             |                            | Surface Treatment:     |  |
| Analysis date:                | February 14 2023     |                            | Asbestos Type:         |  |
| Building:                     | Sketchley Lane Farm  |                            | <b>Material Score:</b> |  |
| Floor level:                  | External             |                            | <b>Extent/amount:</b>  |  |
| Room:                         | Chicken Coop         |                            |                        |  |
| Position:                     | To Roof Gable Ends   |                            |                        |  |
| <b>Item Description:</b>      | <b>Cement</b>        |                            |                        |  |
| Level of Identification:      | SAMPLED              |                            |                        |  |
| <b>ACTION</b>                 | <b>None required</b> | <b>RISK CODE:</b>          | <b>No Asbestos</b>     |  |
| Comments:                     |                      |                            |                        |  |



|                               |                          |                            |                        |  |
|-------------------------------|--------------------------|----------------------------|------------------------|--|
| <b>Item / Inspection Ref:</b> | #5                       | <b>Material Assessment</b> | Product type:          |  |
| <b>Sample Ref:</b>            | KO016867                 |                            | Condition / Damage:    |  |
| Survey date:                  | 07/02/23                 |                            | Surface Treatment:     |  |
| Analysis date:                | February 14 2023         |                            | Asbestos Type:         |  |
| Building:                     | Sketchley Lane Farm      |                            | <b>Material Score:</b> |  |
| Floor level:                  | External                 |                            | <b>Extent/amount:</b>  |  |
| Room:                         | Chicken Coop             |                            |                        |  |
| Position:                     | To Roof                  |                            |                        |  |
| <b>Item Description:</b>      | <b>Cement Corrugated</b> |                            |                        |  |
| Level of Identification:      | SAMPLED                  |                            |                        |  |
| <b>ACTION</b>                 | <b>None required</b>     | <b>RISK CODE:</b>          | <b>No Asbestos</b>     |  |
| Comments:                     |                          |                            |                        |  |



|                               |                      |                            |                        |  |
|-------------------------------|----------------------|----------------------------|------------------------|--|
| <b>Item / Inspection Ref:</b> | #6                   | <b>Material Assessment</b> | Product type:          |  |
| <b>Sample Ref:</b>            | KO016868             |                            | Condition / Damage:    |  |
| Survey date:                  | 07/02/23             |                            | Surface Treatment:     |  |
| Analysis date:                | February 14 2023     |                            | Asbestos Type:         |  |
| Building:                     | Sketchley Lane Farm  |                            | <b>Material Score:</b> |  |
| Floor level:                  | External             |                            | <b>Extent/amount:</b>  |  |
| Room:                         | Chicken Coop         |                            |                        |  |
| Position:                     | To Walls             |                            |                        |  |
| <b>Item Description:</b>      | <b>Cement Panels</b> |                            |                        |  |
| Level of Identification:      | SAMPLED              |                            |                        |  |
| <b>ACTION</b>                 | <b>None required</b> | <b>RISK CODE:</b>          | <b>No Asbestos</b>     |  |
| Comments:                     |                      |                            |                        |  |



|                          |                       |                        |                     |  |
|--------------------------|-----------------------|------------------------|---------------------|--|
| Item / Inspection Ref:   | #7                    | Material<br>Assessment | Product type:       |  |
| Sample Ref:              | KO016869              |                        | Condition / Damage: |  |
| Survey date:             | 07/02/23              |                        | Surface Treatment:  |  |
| Analysis date:           | February 14 2023      |                        | Asbestos Type:      |  |
| Building:                | Sketchley Lane Farm   |                        | Material Score:     |  |
| Floor level:             | External              |                        | Extent/amount:      |  |
| Room:                    | Chicken Coop          |                        |                     |  |
| Position:                | Under Corrugated Roof |                        |                     |  |
| Item Description:        | Cement Sheetting      |                        |                     |  |
| Level of Identification: | SAMPLED               |                        |                     |  |
| ACTION                   | None required         | RISK CODE:             | No Asbestos         |  |
| Comments:                |                       |                        |                     |  |



|                          |                      |                        |                     |      |
|--------------------------|----------------------|------------------------|---------------------|------|
| Item / Inspection Ref:   | #8                   | Material<br>Assessment | Product type:       | 1    |
| Sample Ref:              | KO016870             |                        | Condition / Damage: | 1    |
| Survey date:             | 07/02/23             |                        | Surface Treatment:  | 0    |
| Analysis date:           | February 14 2023     |                        | Asbestos Type:      | 2    |
| Building:                | Sketchley Lane Farm  |                        | Material Score:     | 4    |
| Floor level:             | External             |                        | Extent/amount:      | 1no. |
| Room:                    | Chicken Coop         |                        |                     |      |
| Position:                | Toilet Cistern       |                        |                     |      |
| Item Description:        | Reinforced Composite |                        |                     |      |
| Level of Identification: | SAMPLED              |                        |                     |      |
| ACTION                   | Remove               | RISK CODE:             | D                   |      |
| Comments:                |                      |                        |                     |      |





|                          |                           |                        |                     |       |
|--------------------------|---------------------------|------------------------|---------------------|-------|
| Item / Inspection Ref:   | #9                        | Material<br>Assessment | Product type:       | 1     |
| Sample Ref:              | KO016871                  |                        | Condition / Damage: | 1     |
| Survey date:             | 07/02/23                  |                        | Surface Treatment:  | 1     |
| Analysis date:           | February 14 2023          |                        | Asbestos Type:      | 1     |
| Building:                | Sketchley Lane Farm       |                        | Material Score:     | 4     |
| Floor level:             | External                  |                        | Extent/amount:      | 300m² |
| Room:                    | Chicken Coop              |                        |                     |       |
| Position:                | Left Side Corrugated Roof |                        |                     |       |
| Item Description:        | Cement Corrugated         |                        |                     |       |
| Level of Identification: | SAMPLED                   |                        |                     |       |
| ACTION                   | Remove                    | RISK CODE:             |                     | D     |
| Comments:                |                           |                        |                     |       |



|                          |                     |                        |                     |             |
|--------------------------|---------------------|------------------------|---------------------|-------------|
| Item / Inspection Ref:   | #10                 | Material<br>Assessment | Product type:       |             |
| Sample Ref:              | KO016872            |                        | Condition / Damage: |             |
| Survey date:             | 07/02/23            |                        | Surface Treatment:  |             |
| Analysis date:           | February 14 2023    |                        | Asbestos Type:      |             |
| Building:                | Sketchley Lane Farm |                        | Material Score:     |             |
| Floor level:             | External            |                        | Extent/amount:      |             |
| Room:                    | Egg Collection Area |                        |                     |             |
| Position:                | To Walls            |                        |                     |             |
| Item Description:        | Cement Panels       |                        |                     |             |
| Level of Identification: | SAMPLED             |                        |                     |             |
| ACTION                   | None required       | RISK CODE:             |                     | No Asbestos |
| Comments:                |                     |                        |                     |             |



|                                 |                      |                            |                            |  |
|---------------------------------|----------------------|----------------------------|----------------------------|--|
| <b>Item / Inspection Ref:</b>   | #11                  | <b>Material Assessment</b> | <b>Product type:</b>       |  |
| <b>Sample Ref:</b>              | As Sample KO016872   |                            | <b>Condition / Damage:</b> |  |
| <b>Survey date:</b>             | 07/02/23             |                            | <b>Surface Treatment:</b>  |  |
| <b>Analysis date:</b>           |                      |                            | <b>Asbestos Type:</b>      |  |
| <b>Building:</b>                | Sketchley Lane Farm  |                            | <b>Material Score:</b>     |  |
| <b>Floor level:</b>             | External             |                            | <b>Extent/amount:</b>      |  |
| <b>Room:</b>                    | Egg Collection Area  |                            |                            |  |
| <b>Position:</b>                | Between Metal Beams  |                            |                            |  |
| <b>Item Description:</b>        | <b>Cement Panel</b>  |                            |                            |  |
| <b>Level of Identification:</b> | STRONGLY PRESUMED    |                            |                            |  |
| <b>ACTION</b>                   | <b>None required</b> | <b>RISK CODE:</b>          | <b>No Asbestos</b>         |  |
| <b>Comments:</b>                |                      |                            |                            |  |

## APPENDIX 1 - SURVEY METHODOLOGY AND LIMITATIONS

### Methodology

#### Asbestos Demolition Survey

This type of survey is used to locate and describe, as far as is reasonably practical Asbestos containing materials (ACMs) in the building and may involve destructive inspection, as necessary, to gain access to all areas, so far as reasonably practicable.

The survey inspection and this survey report are designed to be used as a basis for tendering the removal of ACMs from the building pre-demolition, and to assist "the dutyholder" to manage risk to any occupants prior to demolition work.

Pre demolition surveys require substantial disruption to the building, i.e. partial demolition of risers, ducts, opening of voids to walls, floor, ceiling, access hatches, locked or blocked doors, etc. This cannot be accomplished without safeguards being in place and the building being empty, otherwise limitations will have been employed and recorded in this report.

The material assessment scores reflect the surveyor's evaluation of risk from ACM identified and/or presumed, regardless of the demolition project plan: asbestos containing materials should be removed prior to the actual demolition. Any damage to ACM after our assessment, and prior to remediation, will elevate the potential risk.

If the survey has been undertaken to specific locations, then this will be clearly stated in the body of the report.

Methods used to carry out the survey were agreed with the client prior to any works being carried out. All reasonable attempts were made to access all areas within the scope of the survey. Areas not accessed are reported in the executive summary; further details are provided in sections 3.0 and 4.0. Our surveying work is carried out in line with published guidance and our in-house procedures.

#### Inspection Procedure

Each room or area is inspected individually noting relevant building materials and those which may contain asbestos. All heating, ventilation, services, riser, voids etc, are accessed where reasonably practicable. Occupied areas can impose restrictions on sampling, and on the type and level of inspection that can be undertaken. Any such limitations will be noted in section 3.0.

The surveyor will not go beyond asbestos containing materials but will record substrates to decorative finishes where possible.

Depending on the detailed scope agreed with the client, representative inspection will be undertaken where reasonably practicable. Where there is a limitation on access, this will be detailed in the report and asbestos should be assumed to be present unless proven otherwise.

#### Sampling

Sampling is carried in line with published guidance and in-house procedures. The number of samples collected is dependent on the extent and range of materials present and the extent of variation in those materials. In addition, the occupancy and operation of a site may also have an impact on the ability for sampling to take place safely. This being so, the surveyor will determine an appropriate and representative sampling strategy at site during the survey. Materials that are not obviously asbestos (e.g. brick, glass, wood) will not be sampled, but may be detailed in the room notes.

Findings with the survey report, including samples are referred to as follows:

**Sampled items** - these are identified by the following reference number format e.g. J999999#01. The item has been sampled and will have been analysed for asbestos using polarised light microscopy to determine whether asbestos is present and the type of asbestos fibre.

**Strongly Presumed** - these items are identified by the following reference number format e.g. As Sample J999999#01\*. Such items are observed to be visually consistent with a similar material sampled within this survey.

**Presumed** - these items are identified by the following reference number format e.g. J999999#Presumed. Such items have not been sampled but may contain asbestos and/or it is unsafe to obtain a sample. Asbestos may also be presumed to be present in inaccessible areas.

#### Samples of textured coating

The sampling of textured coating is undertaken carefully, in-line with published guidance and our in-house procedures. However, the asbestos fibres in textured coating are not uniformly present and this can make the positive identification of asbestos fibres in samples difficult. Therefore, it is recommended that where a building/area is proven to contain asbestos textured coating through sample analysis, that all textured coating in that building/area is assumed to contain asbestos, irrespective of any analysis that indicates otherwise.

#### Samples of dust

Unless specifically requested by the client the sampling of dust has not been undertaken. Guidance in HSG248 states that sampling and analysis of asbestos in settled dust is not recommended except in specific circumstances where the spread of asbestos from a substantial recent release incident is being investigated - it should not be routine or part of a bulk sampling programme.

Sampling is not advised due to the technical difficulties (e.g. efficacy of collection methods) and surface deposit/settled dust variability (i.e. representativeness) as well as uncertainties in the statistical relevance and in the assessment and evaluation of risk that arises from the detection of low numbers of fibres.

#### Soil and made ground

This report does not include any sampling for asbestos in soil and/or made ground.

#### Inaccessible areas within scope

Although every effort was made to access all areas of the building it is possible that concealed cavities, floor voids etc will only be accessible during actual demolition. The client's management plan should include arrangements to mitigate any latent risks relating resulting from areas not accessed.

**Potential asbestos containing materials or areas of the buildings that were inaccessible must be presumed to contain asbestos until proven otherwise.**

#### Miscellaneous

All quantities given are approximated without the use of measuring aids. The quantities are for guidance purposes only and Tersus do not take any responsibility for the accuracy of the quantities.

Materials have been referred to as Asbestos Insulating Board or Asbestos Cement based on content and visual appearance alone. Water absorption tests on materials have not been carried out unless otherwise stated.

The survey report remains the intellectual property of Tersus until full and final payment has been received. On settlement, the information in this report remains the property of the client only and does not allow for or imply any collateral warranty to third parties.

#### LIMITATIONS & RESTRICTIONS

These are general limitations, some of which may have been unforeseen during our review of your specific requirements.

These may include concealed spaces, unknown spaces, locked rooms and high-level areas, for example.

Restrictions place constraints on the inspection process, due to the need to protect health and safety, structural stability, security and/or or weather tightness of the property, on completion of the survey.

Access limitations may trigger the need for a re-visit when the restrictions can be safely lifted and/or may require specialist contractors, or more extensive/controlled demolition. Materials, products, items and areas not identified in this report should be presumed as asbestos containing in the absence of information to the contrary. Please contact your Tersus contract team in the event additional work is required or for more advice.

Additional asbestos containing materials (ACM) may be present behind or above suspected/known ACM and so additional surveying may be required in such areas following initial asbestos removal. Consequently, we are unable to quantify/qualify nor report on asbestos in these areas. In particular if any plant or equipment cannot be confirmed as isolated, asbestos may be presumed to be present.

### Plans

If plans of the premises to be inspected are not made available, it may not be assumed that all areas have been identified or accessed. Plans may be hand sketched in order to avoid misinterpretation. However, in complex premises, Tersus cannot guarantee that all areas have been identified. It is the client's responsibility to check the supplied drawing and to highlight to us any concealed or obstructed areas not shown.

### Potential Access restrictions

In the event that specific restrictions are encountered these are documented within the survey report. Examples of these might include:

Confined spaces that were not evident during the scoping process.

Live mechanical and electrical services i.e. in the absence of an isolation certificate or similar.

Lift shafts, where no lift engineer was provided.

We have not inspected within or beneath the concrete floor slab(s) by default, as this would necessitate the use of a specialist contractor to provide access. If this provision has been included, then it will be reported herein.

Any area which is required to be occupied after the survey, where re-instatement is required, beyond what was/may have been originally agreed in the scope of work.



## RISK ASSESSMENT PROCESS

### Material Assessment

Number scores are allocated to ACM depending on product type, extent of damage/ deterioration, surface treatment and asbestos type (which shall be scored as Crocidolite (blue) asbestos unless similar samples show otherwise or it is likely that another type of asbestos is almost always used).

ACMs with scores of 10 or more are regarded as having a high potential to release fibres if disturbed, 7- 9 medium potential, 5-6 low potential and 4 or less very low potential.

These scores and other recorded observations, which are perceived as being likely to affect the release of asbestos fibres, are then used to allocate a risk code, which provides some basic advice on how the ACM should be treated in our opinion.

### Material Assessment Algorithm

| Sample Characteristic        | Score | Example description                                                                                                                                          |
|------------------------------|-------|--------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Product Type                 | 1     | Asbestos reinforced composites (plastics, resins, mastics, roofing felts, vinyl floor tiles, semi rigid paints or decorative finishes, asbestos cement etc.) |
|                              | 2     | Asbestos insulating board, mill boards, other low-density insulation boards, asbestos textiles, gaskets, ropes and woven textiles, asbestos paper and felt.  |
|                              | 3     | Thermal insulation (e.g. pipe and boiler lagging), sprayed asbestos, loose asbestos, asbestos mattresses and packing.                                        |
| Extent of Damage (Condition) | 0     | Good condition: no visible damage                                                                                                                            |
|                              | 1     | Low damage: a few scratches or surface marks; broken edges on boards, tiles etc.                                                                             |
|                              | 2     | Medium damage: significant breakage of materials or several small areas revealing loose fibres                                                               |
|                              | 3     | High damage or delamination of materials, sprays and thermal insulation. Visible asbestos debris                                                             |
| Surface Treatment            | 0     | Composite materials containing asbestos: reinforced plastics, resins vinyl tiles                                                                             |
|                              | 1     | Enclosed sprays and laggings, asbestos insulating board (with exposed face painted or encapsulated), asbestos cement sheets etc.                             |
|                              | 2     | Unsealed asbestos insulating board, or encapsulated lagging and sprays                                                                                       |
|                              | 3     | Unsealed laggings and sprays                                                                                                                                 |
| Asbestos Fibre Type          | 1     | Chrysotile                                                                                                                                                   |
|                              | 2     | Amphibole asbestos excluding crocidolite                                                                                                                     |
|                              | 3     | Crocidolite                                                                                                                                                  |

## Risk Category Selection

### **HIGH RISK (A) - 10 points or more.**

This is the highest risk category level and ACMs in this category require urgent action to reduce the risks. Items in this category are either damaged and/or friable and may be in a position likely to cause an exposure to occupants. In most cases it would be necessary to prevent access to the area and plan for remediation. Typically, this will mean removal of the material, however in certain circumstances encapsulation or repair may be possible.

### **MEDIUM RISK (B) - 7-9 points.**

This category indicates that there is a potential for asbestos fibre release to occupiers. Remediation of the ACM will normally be necessary, such as encapsulation or repair. In some cases it may be necessary to prevent access or occupation. Following remediation measures, normal management procedures should be followed (e.g. annual inspection for damage).

### **LOW RISK (C) - 5-6 points.**

This category indicates that there is a low risk overall from the material due to its characteristics and/or there is a low possibility of accessing the material. Normal management procedures should be followed (e.g. annual inspection for damage).

### **VERY LOW RISK (D) - 1-4 points.**

This category indicates that there is very low risk of the ACM releasing fibre into the air, or that it is so remote from the occupants that any airborne asbestos would not be present in the breathing zone. Normal management procedures should be followed (e.g. annual inspection for damage).

**APPENDIX 2 - BULK ANALYSIS CERTIFICATE**



For the attention of

**Client Address:**

Wring Group Ltd  
Vale Lane  
Bedminster  
Bristol  
BS3 5RU

Red Mill House, Red Mill Estate, Wednesbury, WS10 0NN

[www.tersusgroup.co.uk](http://www.tersusgroup.co.uk), [info@tersusgroup.co.uk](mailto:info@tersusgroup.co.uk)



**REPORT OF ANALYTICAL EXAMINATION FOR ASBESTOS IN BULK SAMPLE(S)**

|                         |                                                        |
|-------------------------|--------------------------------------------------------|
| Job number              | J838439                                                |
| Number of samples       | 10                                                     |
| Date sampled / received | 14/02/2023                                             |
| Date analysed / issued  | 14/02/2023                                             |
| Analyst                 | Richard Gravenor                                       |
| Sampled By              | Gurpreet Aujla                                         |
| Site address            | Sketchley Lane Farm, Burbage, Leicestershire, LE10 3HU |
| Client order number     | TBC                                                    |

**METHOD OF ANALYSIS**

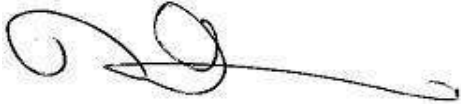
The sample(s) were analysed using Polarised Light Microscopy by the method given in HSG248, Appendix 2 and will be retained for at least six months. This is an accredited test method under ISO 17025. We disclaim responsibility for the accuracy of information provided by and sampling undertaken by the client. "Trace" is reported as defined in HSG248 where applicable. All opinions and descriptions ie. non asbestos fibre types and material types in this report fall outside the scope of our accreditation. Reports are retained for at least six years.

| Sample ref. no. | Building            | Floor level | Room        | Position  | Item              | Material | Result               |
|-----------------|---------------------|-------------|-------------|-----------|-------------------|----------|----------------------|
| KO016863        | Sketchley Lane Farm | External    | Cattle Barn | Guttering | Cement            | Cement   | No Asbestos Detected |
| KO016864        | Sketchley Lane Farm | External    | Cattle Barn | To Roof   | Cement Corrugated | Cement   | No Asbestos Detected |
| KO016865        | Sketchley Lane Farm | External    | Cattle Barn | To Roof   | Cement Corrugated | Cement   | No Asbestos Detected |

| Sample ref. no. | Building            | Floor level | Room                | Position                  | Item                 | Material             | Result               |
|-----------------|---------------------|-------------|---------------------|---------------------------|----------------------|----------------------|----------------------|
| KO016866        | Sketchley Lane Farm | External    | Chicken Coop        | To Roof Gable Ends        | Cement               | Cement               | No Asbestos Detected |
| KO016867        | Sketchley Lane Farm | External    | Chicken Coop        | To Roof                   | Cement Corrugated    | Cement               | No Asbestos Detected |
| KO016868        | Sketchley Lane Farm | External    | Chicken Coop        | To Walls                  | Cement Panels        | Cement               | No Asbestos Detected |
| KO016869        | Sketchley Lane Farm | External    | Chicken Coop        | Under Corrugated Roof     | Cement Sheeting      | Cement               | No Asbestos Detected |
| KO016870        | Sketchley Lane Farm | External    | Chicken Coop        | Toilet Cistern            | Reinforced Composite | Reinforced Composite | Amosite              |
| KO016871        | Sketchley Lane Farm | External    | Chicken Coop        | Left Side Corrugated Roof | Cement Corrugated    | Asbestos Cement      | Chrysotile           |
| KO016872        | Sketchley Lane Farm | External    | Egg Collection Area | To Walls                  | Cement Panels        | Cement               | No Asbestos Detected |

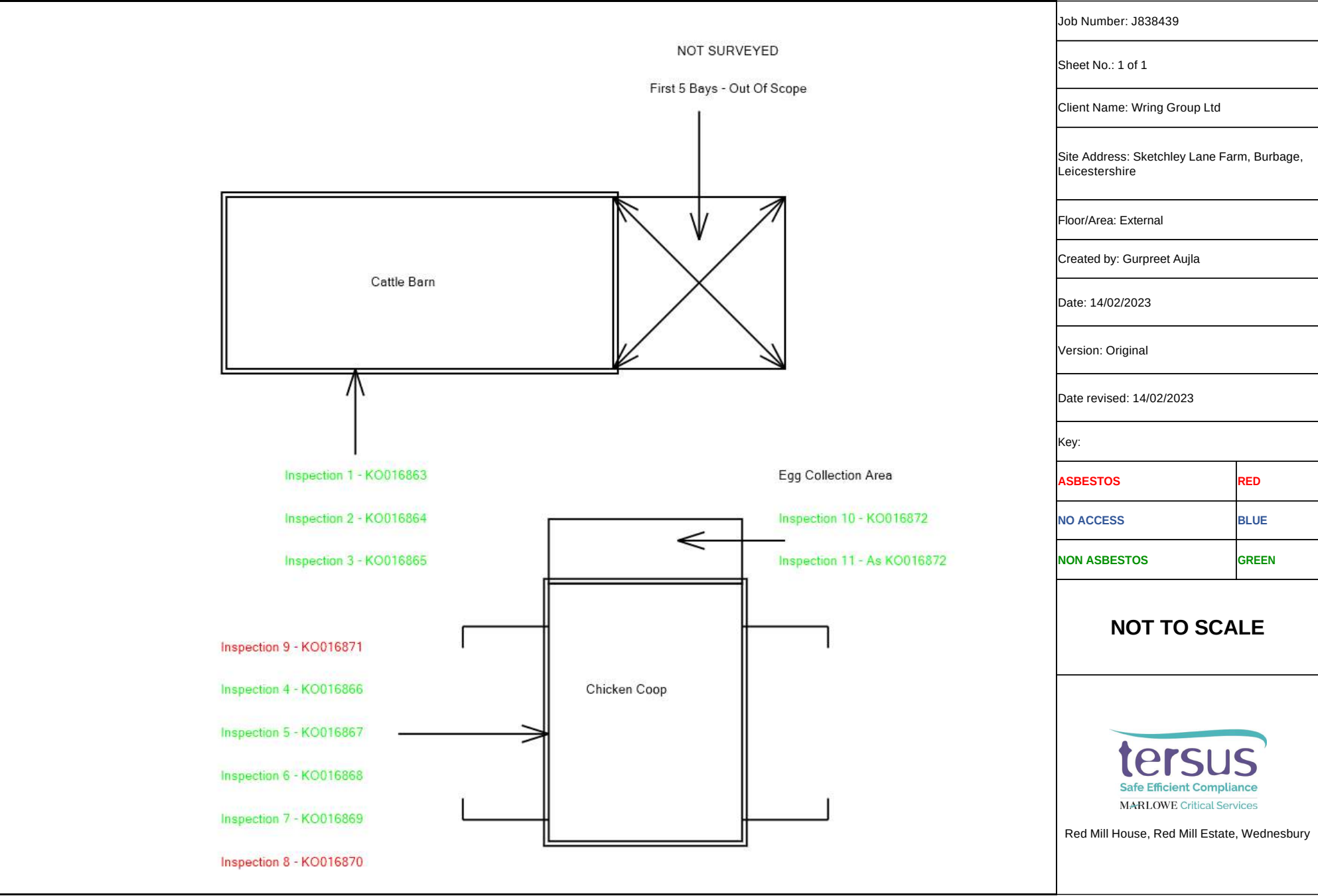
**Authorised Signatures:**

Richard Gravenor





**APPENDIX 3 - ANNOTATED PLANS**



The drawing only includes items of asbestos, areas of no access and non-asbestos items. Non-asbestos rooms are excluded. Consequently, item reference numbers may not appear consecutive.

## ASBESTOS DEMOLITION SURVEY TO TARGETED AREAS



**Client** Wring Group Ltd  
**Site** Sketchley Lane Farm, Burbage,  
 Leicestershire, LE10 3HU  
**Date report issued** 10th March 2023  
**Recommended Date for  
 Reinspection** 7th March 2024  
**Survey reference** J847977  
**Lead surveyor** Gurpreet Aujla  
**Assistant surveyor** N/A  
**UPRN** N/A

| No. of Asbestos Risks Identified                                                    |                                        |   |
|-------------------------------------------------------------------------------------|----------------------------------------|---|
|  | Category A                             | 0 |
|  | Category B                             | 0 |
|  | Category C                             | 0 |
|  | Category D                             | 3 |
|  | Areas not accessed (Presumed asbestos) | 0 |

## CONTENTS

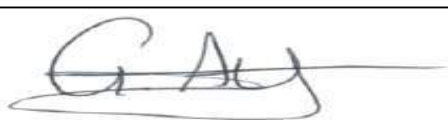
- 1.0 INTRODUCTION & SCOPE OF WORKS
- 2.0 EXECUTIVE SUMMARY & ACTION REGISTER
- 3.0 ASBESTOS SURVEY FINDINGS FOR SKETCHLEY LANE FARM
- 4.0 SAMPLE AND RISK ASSESSMENT INFORMATION

APPENDIX 1 - SURVEY METHODOLOGY, LIMITATIONS AND RISK ASSESSMENT

APPENDIX 2 - BULK ANALYSIS CERTIFICATE

APPENDIX 3 - ANNOTATED PLANS

Surveyor Signature:



Gurpreet Aujla

Approval Signature:



Shane Farrelly

## 1.0 INTRODUCTION

Tersus Consultancy Ltd of Red Mill House, Red Mill Estate, Wednesbury received instructions from of:

Wring Group Ltd, Vale Lane, Bedminster, Bristol, BS3 5RU

to undertake an asbestos demolition survey, to HSG 264 standard, of:

Sketchley Lane Farm, Burbage, Leicestershire, LE10 3HU

Works were carried out on-site during the period 7 Mar 2023 to 7 Mar 2023. The Lead Surveyor was Gurpreet Aujla

Records of previous surveys by Tersus:

| Job Number | Survey type                                   | Date of survey |
|------------|-----------------------------------------------|----------------|
| J838439    | Demolition survey (MA only) + Management Plan | 07/02/2023     |

### The agreed scope of works included:

Demolition Survey to first 5 bays of barn on right hand side only the rest of the barns within that area are covered by survey report J838439-please see this report for further details.

### Building notes:

Commercial

The building was occupied during the time of the survey.



## 2.0 EXECUTIVE SUMMARY

The extent of this inspection was to undertake an asbestos demolition survey as defined in HSG264. The purpose of this survey is to assist the client in complying with requirements of the Control of Asbestos Regulations 2012.

A demolition survey is used to locate and describe, as far as is reasonably practical Asbestos containing materials (ACMs) in the building and may involve destructive inspection, as necessary, to gain access to all areas.

The survey inspection and this survey report are designed to be used as a basis for tendering the removal of ACMs from the building pre-demolition, and to assist "the dutyholder" to manage risk to any occupants prior to demolition work.

Information on the results of this inspection is detailed within report, including appendices and annotated drawings. The report and asbestos register must be maintained as one document, as all sections record information on the surveyor's opinions, findings and limitations.

This survey does not include priority assessments because it is presumed that all asbestos will be removed prior to the demolition works.

Within the scope of this survey the findings were as follows:

### ACMs identified:

|                                  |   |
|----------------------------------|---|
| Total Number of ACMs identified: | 3 |
|----------------------------------|---|

### ACMs Recommendation summary:

|                       |   |
|-----------------------|---|
| Remove:               | 3 |
| Encapsulate & Manage: | 0 |
| Manage:               | 0 |

Full details of any ACMs requiring action, can also be found summarised within the 'Action Plan'. Details of all identified, presumed and strongly presumed asbestos can be found in the 'Asbestos register'.

### Non-accessed areas:

|                               |   |
|-------------------------------|---|
| Number of non-accessed areas: | 0 |
|-------------------------------|---|

Non-accessed areas are noted within the 'Non-accessible areas register'. Any areas or items not accessed must be presumed to contain asbestos until such a time as full access and inspection can be undertaken.

Tersus can assist in compiling asbestos management plans, on-going re-inspection and assisting with the management of asbestos remediation.

## Action Register

The following table summarises the asbestos-containing materials (ACMs) that require action based on our assessment of the ACMs identified, strongly presumed and presumed at Sketchley Lane Farm.

The Control of Asbestos Regulations place a duty on the duty-holder, as the person with the best understanding of the building and its use, to ensure a suitable and sufficient assessment is undertaken and that a management plan is drawn-up.

The recommended actions are provided here to assist in that assessment and management plan. Actions are subdivided into the following categories: Remove and Encapsulate/Repair. **Items that do not require remediation to reduce the risk are not included in this section.** Please refer to Sections 3.0 and 4.0 for details.

| Building            | Floor Level | Room         | Item/Inspection Reference | Item Description  | Risk Category | Recommended Action |
|---------------------|-------------|--------------|---------------------------|-------------------|---------------|--------------------|
| Sketchley Lane Farm | External    | First 5 Bays | #1                        | Cement Corrugated | D             | Remove             |
| Sketchley Lane Farm | External    | First 5 Bays | #1                        | Cement Corrugated | D             | Remove             |
| Sketchley Lane Farm | External    | First 5 Bays | #6                        | Cement            | D             | Remove             |

## Definition of Recommended Actions

|                                                                                                                                                                                                                                                                                                 |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |
|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Remove                                                                                                                                                                                                                                                                                          | <p>Restrict Access / Remove (due to an immediate risk) - Restricting access and/or removal of asbestos containing materials is recommended on the basis that its condition, location could result in exposure to persons, spread of asbestos, or release to the environment.</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |
|                                                                                                                                                                                                                                                                                                 | <p>Remove (Refurbishment) - It may be that the identified materials need to be removed ahead of any refurbishment or maintenance works.</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |
| Encapsulate/<br>Repair, then manage                                                                                                                                                                                                                                                             | <p>Apply encapsulant coating to the asbestos material to safely contain the fibres. Encapsulation is an alternative to removal, where reasonably safe and practicable. Manage within the asbestos management plan once repaired.</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |
| <p>For the above actions, there may be a requirement to prohibit access to a location that has been identified as containing damaged asbestos materials and poses a hazard. In addition, air testing may also be recommended to help ascertain if additional control measures are required.</p> |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |
| Manage                                                                                                                                                                                                                                                                                          | <p>Where asbestos is left in-situ or an area has not been accessed during the survey, the person responsible for the premises has a duty to develop and implement a management plan to help prevent accidental damage and exposure occurring. This plan should ensure that:</p> <ol style="list-style-type: none"> <li>1) a current record of the location, condition, maintenance and removal of asbestos-containing materials (ACMs) and/or areas of no access is kept;</li> <li>2) the ACMs are maintained in a good state of repair through regular monitoring;</li> <li>3) where there are areas of no access, these are presumed to contain asbestos until proven otherwise;</li> <li>4) people are informed of the locations of ACMs to prevent accidental disturbance;</li> <li>5) arrangements are in place to ensure that work which might disturb the ACMs, complies with the Control of Asbestos Regulations (CAR);</li> <li>6) the plan is reviewed at regular intervals so that it remains relevant.</li> </ol> <p>Regulation 4 of CAR requires known and presumed ACMs to be monitored for any deterioration in their condition. How often the ACMs need to be checked varies depending on the type of ACM, its location and the activities around it, but the frequency of monitoring should not exceed 12 months. In some situations, the labelling of ACMs can assist with monitoring and management.</p> |

## Non-Accessed Areas Register

The following table summarises specific areas at the property that have not been inspected as part of the survey methodology. These areas should be presumed to contain asbestos until proven otherwise.

| Building                                                                 | Floor level | Room | Item / Inspection Reference | Item Description | Position | Comments |
|--------------------------------------------------------------------------|-------------|------|-----------------------------|------------------|----------|----------|
| All areas within the scope and limitations of this survey were accessed. |             |      |                             |                  |          |          |

### 3.0 Asbestos Survey Findings

The following table(s) list the areas included in the survey, whether asbestos was found or not and whether the area was accessible or not. For further details on room notes, the risk assessment scores, risk categorisation, recommendations and photographic records, refer to Section 4.0. Asbestos types marked with an (\*) are strongly presumed to be visually consistent with other asbestos items identified at the site.

| Priority Assessment undertaken? | Yes / No |
|---------------------------------|----------|
|                                 | Yes      |

| Building    | Sketchley Lane Farm |                            |                    |                              |                      |                   |               |                    | Room Notes                                                                                               |
|-------------|---------------------|----------------------------|--------------------|------------------------------|----------------------|-------------------|---------------|--------------------|----------------------------------------------------------------------------------------------------------|
| Floor Level | Room                | Item/ Inspection Reference | Item Description   | Item Location                | Asbestos Type        | Extent            | Risk Category | Recommended Action |                                                                                                          |
| External    | First 5 Bays        | #1                         | Cement Corrugated  | Roof Panels                  | Chrysotile           | 200m <sup>2</sup> | D             | Remove             | Concrete Floor, Brick Walls, Cement Corrugated Roof With Insulation Board, Cement Guttering, Metal Beams |
| External    | First 5 Bays        | #1                         | Cement Corrugated  | Roof Panels                  | Chrysotile           | 200m <sup>2</sup> | D             | Remove             |                                                                                                          |
| External    | First 5 Bays        | #3                         | Cement             | Fascia Boards                | No Asbestos Detected |                   |               | None required      |                                                                                                          |
| External    | First 5 Bays        | #4                         | Thermal Insulation | Ceiling Panels               | No Asbestos Detected |                   |               | None required      |                                                                                                          |
| External    | First 5 Bays        | #5                         | Cement             | Back Wall Panels             | No Asbestos Detected |                   |               | None required      |                                                                                                          |
| External    | First 5 Bays        | #6                         | Cement             | Panels Under Corrugated Roof | Chrysotile           | 200m <sup>2</sup> | D             | Remove             |                                                                                                          |

**4.0 SAMPLE AND RISK ASSESSMENT INFORMATION** - For an explanation of the risk scoring process and risk code categorisations, please refer to Appendix 1 - Survey Methodology and Limitations.

|                          |                     |                     |                           |   |       |  |
|--------------------------|---------------------|---------------------|---------------------------|---|-------|--|
| Item / Inspection Ref:   | #1                  | Material Assessment | Product type:             | 1 |       |  |
| Sample Ref:              | KO017111            |                     | Condition / Damage:       | 1 |       |  |
| Survey date:             | 07/03/23            |                     | Surface Treatment:        | 1 |       |  |
| Analysis date:           | March 09 2023       |                     | Asbestos Type:            | 1 |       |  |
| Building:                | Sketchley Lane Farm |                     | Material Score:           | 4 |       |  |
| Floor level:             | External            | Priority Assessment | Occupant Activity:        | 1 |       |  |
| Room:                    | First 5 Bays        |                     | Location:                 | 0 |       |  |
| Position:                | Roof Panels         |                     | Accessibility:            | 1 |       |  |
| Item Description:        | Cement Corrugated   |                     | Extent/amount:            | 3 | 200m² |  |
| Level of Identification: | SAMPLED             |                     | Number of Occupants:      | 0 |       |  |
| Action:                  | Remove              |                     | Frequency of Use:         | 0 |       |  |
|                          |                     |                     | Time in Area:             | 0 |       |  |
| RISK CODE:               | D                   |                     | Maintenance activity:     | 1 |       |  |
|                          |                     |                     | Frequency of Maintenance: | 1 |       |  |
|                          |                     |                     | Priority Score:           | 4 |       |  |
|                          |                     |                     | Total Score:              | 8 |       |  |
|                          |                     |                     |                           |   |       |  |



|                          |                     |                     |                           |   |                   |  |
|--------------------------|---------------------|---------------------|---------------------------|---|-------------------|--|
| Item / Inspection Ref:   | #1                  | Material Assessment | Product type:             | 1 |                   |  |
| Sample Ref:              | KO017111            |                     | Condition / Damage:       | 1 |                   |  |
| Survey date:             | 07/03/23            |                     | Surface Treatment:        | 1 |                   |  |
| Analysis date:           | March 09 2023       |                     | Asbestos Type:            | 1 |                   |  |
| Building:                | Sketchley Lane Farm |                     | Material Score:           | 4 |                   |  |
| Floor level:             | External            | Priority Assessment | Occupant Activity:        | 1 |                   |  |
| Room:                    | First 5 Bays        |                     | Location:                 | 0 |                   |  |
| Position:                | Roof Panels         |                     | Accessibility:            | 1 |                   |  |
| Item Description:        | Cement Corrugated   |                     | Extent/amount:            | 3 | 200m <sup>2</sup> |  |
| Level of Identification: | SAMPLED             |                     | Number of Occupants:      | 0 |                   |  |
| Action:                  | Remove              |                     | Frequency of Use:         | 0 |                   |  |
| RISK CODE:               | D                   |                     | Time in Area:             | 0 |                   |  |
|                          |                     |                     | Maintenance activity:     | 1 |                   |  |
|                          |                     |                     | Frequency of Maintenance: | 1 |                   |  |
|                          |                     |                     | Priority Score:           | 4 |                   |  |
|                          |                     |                     | Total Score:              | 8 |                   |  |
| Comments:                |                     |                     |                           |   |                   |  |





|                                 |                     |                                  |                              |  |                                                                                     |
|---------------------------------|---------------------|----------------------------------|------------------------------|--|-------------------------------------------------------------------------------------|
| <b>Item / Inspection Ref:</b>   | #3                  | <b>Material Assessment</b>       | <b>Product type:</b>         |  |  |
| <b>Sample Ref:</b>              | KO017113            |                                  | <b>Condition / Damage:</b>   |  |                                                                                     |
| <b>Survey date:</b>             | 07/03/23            |                                  | <b>Surface Treatment:</b>    |  |                                                                                     |
| <b>Analysis date:</b>           | March 10 2023       |                                  | <b>Asbestos Type:</b>        |  |                                                                                     |
| <b>Building:</b>                | Sketchley Lane Farm |                                  | <b>Material Score:</b>       |  |                                                                                     |
| <b>Floor level:</b>             | External            | <b>Priority Assessment</b>       | <b>Occupant Activity:</b>    |  |                                                                                     |
| <b>Room:</b>                    | First 5 Bays        |                                  | <b>Location:</b>             |  |                                                                                     |
| <b>Position:</b>                | Fascia Boards       |                                  | <b>Accessibility:</b>        |  |                                                                                     |
| <b>Item Description:</b>        | Cement              |                                  | <b>Extent/amount:</b>        |  |                                                                                     |
| <b>Level of Identification:</b> | SAMPLED             |                                  | <b>Number of Occupants:</b>  |  |                                                                                     |
| <b>Action:</b>                  | None required       |                                  | <b>Frequency of Use:</b>     |  |                                                                                     |
| <b>RISK CODE:</b>               | <b>No Asbestos</b>  |                                  | <b>Time in Area:</b>         |  |                                                                                     |
|                                 |                     |                                  | <b>Maintenance activity:</b> |  |                                                                                     |
|                                 |                     | <b>Frequency of Maintenance:</b> |                              |  |                                                                                     |
|                                 |                     | <b>Priority Score:</b>           |                              |  |                                                                                     |
|                                 |                     | <b>Total Score:</b>              |                              |  |                                                                                     |
| <b>Comments:</b>                |                     |                                  |                              |  |                                                                                     |

|                                 |                     |                                  |                              |  |                                                                                      |
|---------------------------------|---------------------|----------------------------------|------------------------------|--|--------------------------------------------------------------------------------------|
| <b>Item / Inspection Ref:</b>   | #4                  | <b>Material Assessment</b>       | <b>Product type:</b>         |  |  |
| <b>Sample Ref:</b>              | KO017114            |                                  | <b>Condition / Damage:</b>   |  |                                                                                      |
| <b>Survey date:</b>             | 07/03/23            |                                  | <b>Surface Treatment:</b>    |  |                                                                                      |
| <b>Analysis date:</b>           | March 10 2023       |                                  | <b>Asbestos Type:</b>        |  |                                                                                      |
| <b>Building:</b>                | Sketchley Lane Farm |                                  | <b>Material Score:</b>       |  |                                                                                      |
| <b>Floor level:</b>             | External            | <b>Priority Assessment</b>       | <b>Occupant Activity:</b>    |  |                                                                                      |
| <b>Room:</b>                    | First 5 Bays        |                                  | <b>Location:</b>             |  |                                                                                      |
| <b>Position:</b>                | Ceiling Panels      |                                  | <b>Accessibility:</b>        |  |                                                                                      |
| <b>Item Description:</b>        | Thermal Insulation  |                                  | <b>Extent/amount:</b>        |  |                                                                                      |
| <b>Level of Identification:</b> | SAMPLED             |                                  | <b>Number of Occupants:</b>  |  |                                                                                      |
| <b>Action:</b>                  | None required       |                                  | <b>Frequency of Use:</b>     |  |                                                                                      |
| <b>RISK CODE:</b>               | <b>No Asbestos</b>  |                                  | <b>Time in Area:</b>         |  |                                                                                      |
|                                 |                     |                                  | <b>Maintenance activity:</b> |  |                                                                                      |
|                                 |                     | <b>Frequency of Maintenance:</b> |                              |  |                                                                                      |
|                                 |                     | <b>Priority Score:</b>           |                              |  |                                                                                      |
|                                 |                     | <b>Total Score:</b>              |                              |  |                                                                                      |
| <b>Comments:</b>                |                     |                                  |                              |  |                                                                                      |

|                               |                     |                            |                        |  |                                                                                     |
|-------------------------------|---------------------|----------------------------|------------------------|--|-------------------------------------------------------------------------------------|
| <b>Item / Inspection Ref:</b> | #5                  | <b>Material Assessment</b> | Product type:          |  |  |
| <b>Sample Ref:</b>            | KO017115            |                            | Condition / Damage:    |  |                                                                                     |
| Survey date:                  | 07/03/23            |                            | Surface Treatment:     |  |                                                                                     |
| Analysis date:                | March 10 2023       |                            | Asbestos Type:         |  |                                                                                     |
| Building:                     | Sketchley Lane Farm |                            | <b>Material Score:</b> |  |                                                                                     |
| Floor level:                  | External            | <b>Priority Assessment</b> | Occupant Activity:     |  |                                                                                     |
| Room:                         | First 5 Bays        |                            | Location:              |  |                                                                                     |
| Position:                     | Back Wall Panels    |                            | Accessibility:         |  |                                                                                     |
| Item Description:             | Cement              |                            | Extent/amount:         |  |                                                                                     |
| Level of Identification:      | SAMPLED             |                            | Number of Occupants:   |  |                                                                                     |
| <b>Action:</b>                | None required       |                            | Frequency of Use:      |  |                                                                                     |
| <b>RISK CODE:</b>             | <b>No Asbestos</b>  |                            | Time in Area:          |  |                                                                                     |
|                               |                     | Maintenance activity:      |                        |  |                                                                                     |
|                               |                     | Frequency of Maintenance:  |                        |  |                                                                                     |
|                               |                     | <b>Priority Score:</b>     |                        |  |                                                                                     |
|                               |                     | <b>Total Score:</b>        |                        |  |                                                                                     |
| <b>Comments:</b>              |                     |                            |                        |  |                                                                                     |

|                               |                              |                            |                        |   |                                                                                      |       |
|-------------------------------|------------------------------|----------------------------|------------------------|---|--------------------------------------------------------------------------------------|-------|
| <b>Item / Inspection Ref:</b> | #6                           | <b>Material Assessment</b> | Product type:          | 1 |  |       |
| <b>Sample Ref:</b>            | KO017116                     |                            | Condition / Damage:    | 1 |                                                                                      |       |
| Survey date:                  | 07/03/23                     |                            | Surface Treatment:     | 1 |                                                                                      |       |
| Analysis date:                | March 10 2023                |                            | Asbestos Type:         | 1 |                                                                                      |       |
| Building:                     | Sketchley Lane Farm          |                            | <b>Material Score:</b> | 4 |                                                                                      |       |
| Floor level:                  | External                     | <b>Priority Assessment</b> | Occupant Activity:     | 1 |                                                                                      |       |
| Room:                         | First 5 Bays                 |                            | Location:              | 0 |                                                                                      |       |
| Position:                     | Panels Under Corrugated Roof |                            | Accessibility:         | 1 |                                                                                      |       |
| Item Description:             | Cement                       |                            | Extent/amount:         | 3 |                                                                                      | 200m² |
| Level of Identification:      | SAMPLED                      |                            | Number of Occupants:   | 0 |                                                                                      |       |
| <b>Action:</b>                | Remove                       |                            | Frequency of Use:      | 0 |                                                                                      |       |
| <b>RISK CODE:</b>             | <b>D</b>                     |                            | Time in Area:          | 0 |                                                                                      |       |
|                               |                              | Maintenance activity:      | 1                      |   |                                                                                      |       |
|                               |                              | Frequency of Maintenance:  | 1                      |   |                                                                                      |       |
|                               |                              | <b>Priority Score:</b>     | 4                      |   |                                                                                      |       |
|                               |                              | <b>Total Score:</b>        | 8                      |   |                                                                                      |       |
| <b>Comments:</b>              |                              |                            |                        |   |                                                                                      |       |

## APPENDIX 1 - SURVEY METHODOLOGY AND LIMITATIONS

### Methodology

#### Asbestos Demolition Survey

This type of survey is used to locate and describe, as far as is reasonably practical Asbestos containing materials (ACMs) in the building and may involve destructive inspection, as necessary, to gain access to all areas, so far as reasonably practicable.

The survey inspection and this survey report are designed to be used as a basis for tendering the removal of ACMs from the building pre-demolition, and to assist "the dutyholder" to manage risk to any occupants prior to demolition work.

Pre demolition surveys require substantial disruption to the building, i.e. partial demolition of risers, ducts, opening of voids to walls, floor, ceiling, access hatches, locked or blocked doors, etc. This cannot be accomplished without safeguards being in place and the building being empty, otherwise limitations will have been employed and recorded in this report.

The material assessment scores reflect the surveyor's evaluation of risk from ACM identified and/or presumed, regardless of the demolition project plan: asbestos containing materials should be removed prior to the actual demolition. Any damage to ACM after our assessment, and prior to remediation, will elevate the potential risk.

If the survey has been undertaken to specific locations, then this will be clearly stated in the body of the report.

Methods used to carry out the survey were agreed with the client prior to any works being carried out. All reasonable attempts were made to access all areas within the scope of the survey. Areas not accessed are reported in the executive summary; further details are provided in sections 3.0 and 4.0. Our surveying work is carried out in line with published guidance and our in-house procedures.

#### Inspection Procedure

Each room or area is inspected individually noting relevant building materials and those which may contain asbestos. All heating, ventilation, services, riser, voids etc, are accessed where reasonably practicable. Occupied areas can impose restrictions on sampling, and on the type and level of inspection that can be undertaken. Any such limitations will be noted in section 3.0.

The surveyor will not go beyond asbestos containing materials but will record substrates to decorative finishes where possible.

Depending on the detailed scope agreed with the client, representative inspection will be undertaken where reasonably practicable. Where there is a limitation on access, this will be detailed in the report and asbestos should be assumed to be present unless proven otherwise.

#### Sampling

Sampling is carried in line with published guidance and in-house procedures. The number of samples collected is dependent on the extent and range of materials present and the extent of variation in those materials. In addition, the occupancy and operation of a site may also have an impact on the ability for sampling to take place safely. This being so, the surveyor will determine an appropriate and representative sampling strategy at site during the survey. Materials that are not obviously asbestos (e.g. brick, glass, wood) will not be sampled, but may be detailed in the room notes.

Findings with the survey report, including samples are referred to as follows:

**Sampled items** - these are identified by the following reference number format e.g. J999999#01. The item has been sampled and will have been analysed for asbestos using polarised light microscopy to determine whether asbestos is present and the type of asbestos fibre.

**Strongly Presumed** - these items are identified by the following reference number format e.g. As Sample J99999#01\*. Such items are observed to be visually consistent with a similar material sampled within this survey.

**Presumed** - these items are identified by the following reference number format e.g. J999999#Presumed. Such items have not been sampled but may contain asbestos and/or it is unsafe to obtain a sample. Asbestos may also be presumed to be present in inaccessible areas.

#### Samples of textured coating

The sampling of textured coating is undertaken carefully, in-line with published guidance and our in-house procedures. However, the asbestos fibres in textured coating are not uniformly present and this can make the positive identification of asbestos fibres in samples difficult. Therefore, it is recommended that where a building/area is proven to contain asbestos textured coating through sample analysis, that all textured coating in that building/area is assumed to contain asbestos, irrespective of any analysis that indicates otherwise.

#### Samples of dust

Unless specifically requested by the client the sampling of dust has not been undertaken. Guidance in HSG248 states that sampling and analysis of asbestos in settled dust is not recommended except in specific circumstances where the spread of asbestos from a substantial recent release incident is being investigated – it should not be routine or part of a bulk sampling programme.

Sampling is not advised due to the technical difficulties (e.g. efficacy of collection methods) and surface deposit/settled dust variability (i.e. representativeness) as well as uncertainties in the statistical relevance and in the assessment and evaluation of risk that arises from the detection of low numbers of fibres.

#### Soil and made ground

This report does not include any sampling for asbestos in soil and/or made ground.

#### Inaccessible areas within scope

Although every effort was made to access all areas of the building it is possible that concealed cavities, floor voids etc will only be accessible during actual demolition. The client's management plan should include arrangements to mitigate any latent risks relating resulting from areas not accessed.

**Potential asbestos containing materials or areas of the buildings that were inaccessible must be presumed to contain asbestos until proven otherwise.**

#### Miscellaneous

All quantities given are approximated without the use of measuring aids. The quantities are for guidance purposes only and Tersus do not take any responsibility for the accuracy of the quantities.

Materials have been referred to as Asbestos Insulating Board or Asbestos Cement based on content and visual appearance alone. Water absorption tests on materials have not been carried out unless otherwise stated.

The survey report remains the intellectual property of Tersus until full and final payment has been received. On settlement, the information in this report remains the property of the client only and does not allow for or imply any collateral warranty to third parties.

#### LIMITATIONS & RESTRICTIONS

These are general limitations, some of which may have been unforeseen during our review of your specific requirements.

These may include concealed spaces, unknown spaces, locked rooms and high-level areas, for example.

Restrictions place constraints on the inspection process, due to the need to protect health and safety, structural stability, security and/or or weather tightness of the property, on completion of the survey.

Access limitations may trigger the need for a re-visit when the restrictions can be safely lifted and/or may require specialist contractors, or more extensive/controlled demolition. Materials, products, items and areas not identified in this report should be presumed as asbestos containing in the absence of information to the contrary. Please contact your Tersus contract team in the event additional work is required or for more advice.

Additional asbestos containing materials (ACM) may be present behind or above suspected/known ACM and so additional surveying may be required in these areas. We are unable to quantify/qualify nor report on asbestos in these areas, as follows:

- Unknown/unseen materials, where the extent and presence of these is not evident due to inaccessibility or insufficient knowledge of the structure at the time of the survey, have not been reported herein.

- Known areas within the scope which have not been accessed, for the reasons given herein, including some products and 'live' plant.

### Plans

If plans of the premises to be inspected are not made available, it cannot be ascertained if all areas have been identified or accessed. Plans may be hand sketched in order to avoid misinterpretation. However, in complex premises, Tersus cannot guarantee that all areas have been identified. It is the client's responsibility to check the supplied drawing and to highlight to us any concealed or obstructed areas not shown.

### Reasonable access

Furniture, fixtures or fittings shall be moved where possible during the survey. Access to areas obstructed by these items where known will be restricted and have been recorded within the survey report.

Access to voids, risers, ducts etc. was made through existing removable access hatches, panels, ceiling tiles etc. which can be replaced in the same condition. Where excessive damage is required especially in occupied areas this will be recorded as a no access.

Site conditions at the time of the survey may mean that floors under large carpeted areas have not been surveyed in their entirety; the carpeted area may be very large, have furniture placed upon it, or it may be stuck down etc.

Where materials exist at a height and these were beyond which it was reasonably practical to access the materials have been visually determined and presumptions may have been made.

### Potential Access restrictions

Where known and identifiable these are documented within the survey report. Examples of these areas as follows:

Service ducts, risers, voids and cavities (concealed under floors, in voids etc.) We have not inspected flues, ducts, voids and any similar enclosed areas where access would have necessitated the use of specialist equipment or tools, or which would have caused damage to decoration, fixtures, fittings or the structure of the building.

Live mechanical and electrical services i.e. in the absence of an isolation certificate or similar.

Lift shafts, where installed.

Un-boarded or unsafe roof / loft spaces and any area at excessive height.

Internal fire proofing materials. We have not inspected fire doors internally to ascertain whether they are manufactured using asbestos materials as this would require the use of destructive sampling procedures which would destroy the integrity of the door. However, where reasonably practicable, fire doors have been visually inspected through fixings ie locks.

We have not inspected within or beneath the concrete floor slab(s) by default, as this would necessitate the use of a specialist contractor to provide access. If this provision has been supplied, then it will be reported herein.

## RISK ASSESSMENT PROCESS

### Material Assessment

Number scores are allocated to ACM depending on product type, extent of damage/ deterioration, surface treatment and asbestos type (which shall be scored as Crocidolite (blue) asbestos unless similar samples show otherwise or it is likely that another type of asbestos is almost always used).

ACMs with scores of 10 or more are regarded as having a high potential to release fibres if disturbed, 7- 9 medium potential, 5-6 low potential and 4 or less very low potential.

These scores and other recorded observations, which are perceived as being likely to affect the release of asbestos fibres, are then used to allocate a risk code, which provides some basic advice on how the ACM should be treated in our opinion.

### Material Assessment Algorithm

| Sample Characteristic        | Score | Example description                                                                                                                                          |
|------------------------------|-------|--------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Product Type                 | 1     | Asbestos reinforced composites (plastics, resins, mastics, roofing felts, vinyl floor tiles, semi rigid paints or decorative finishes, asbestos cement etc.) |
|                              | 2     | Asbestos insulating board, mill boards, other low-density insulation boards, asbestos textiles, gaskets, ropes and woven textiles, asbestos paper and felt.  |
|                              | 3     | Thermal insulation (e.g. pipe and boiler lagging), sprayed asbestos, loose asbestos, asbestos mattresses and packing.                                        |
| Extent of Damage (Condition) | 0     | Good condition: no visible damage                                                                                                                            |
|                              | 1     | Low damage: a few scratches or surface marks; broken edges on boards, tiles etc.                                                                             |
|                              | 2     | Medium damage: significant breakage of materials or several small areas revealing loose fibres                                                               |
|                              | 3     | High damage or delamination of materials, sprays and thermal insulation. Visible asbestos debris                                                             |
| Surface Treatment            | 0     | Composite materials containing asbestos: reinforced plastics, resins vinyl tiles                                                                             |
|                              | 1     | Enclosed sprays and laggings, asbestos insulating board (with exposed face painted or encapsulated), asbestos cement sheets etc.                             |
|                              | 2     | Unsealed asbestos insulating board, or encapsulated lagging and sprays                                                                                       |
|                              | 3     | Unsealed laggings and sprays                                                                                                                                 |
| Asbestos Fibre Type          | 1     | Chrysotile                                                                                                                                                   |
|                              | 2     | Amphibole asbestos excluding crocidolite                                                                                                                     |
|                              | 3     | Crocidolite                                                                                                                                                  |



## Priority Assessment

This report does not include priority assessed items. The duty-holder can utilise the information below to undertake the priority assessment, if required. Number scores are allocated to each ACM location to assess the risk of someone disturbing the ACM. Factors assessed are, Occupant Activity, Likelihood of Disturbance, Human Exposure Potential and Maintenance Activity.

The Priority Assessment scores are added to the Material Assessment scores to provide an overall risk assessment for each ACM. ACMs with scores of 19 or more are regarded as being at a high risk, 13-18 medium risk, 9-12 low risk and 8 or less very low risk.

These scores are then used to allocate a risk code to assist in the prioritisation of mitigation actions to reduce the risk.

**IMPORTANT:** The priority assessment should be based on that detailed within HSG227 - A comprehensive guide to managing asbestos in premises - 2002 and where provided. Should you require any further assistance with that, please contact us.

## Priority Assessment Algorithm

| Sample Characteristic                                                                                                   | Score                                                    | Example description                                                                                                                                                                                                                                                                                                                                                                                                                              |
|-------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Normal Occupant Activity<br>(Repeat for secondary activities as necessary)                                              | 0<br>1<br>2<br>3                                         | Rare disturbance activity (e.g. little used store room)<br>Low disturbance activity (e.g. offices)<br>Periodic disturbance (e.g. industrial or vehicular)<br>High levels of disturbance (e.g. fire door with asbestos insulating board sheet in constant use)                                                                                                                                                                                    |
| Likelihood of disturbance<br><i>Location</i><br><br><i>Accessibility</i><br><br><i>Extent/amount</i>                    | 0<br>1<br>2<br>3<br>0<br>1<br>2<br>3<br>0<br>1<br>2<br>3 | Outdoors<br>Large rooms or well-ventilated areas<br>Rooms up to 100m <sup>2</sup><br>Confined spaces<br>Usually inaccessible or unlikely to be disturbed<br>Occasionally likely to be disturbed<br>Easily disturbed<br>Routinely disturbed<br>Small amounts or items (e.g. gaskets, fuse linings)<br><10m <sup>2</sup> or <10m pipe run<br>>10m <sup>2</sup> to ≥50m <sup>2</sup> or >10m to ≥50m pipe run<br>>50m <sup>2</sup> or >50m pipe run |
| Human exposure potential<br><i>Number of occupants</i><br><br><i>Frequency of use</i><br><br><i>Average time in use</i> | 0<br>1<br>2<br>3<br>0<br>1<br>2<br>3<br>0<br>1<br>2<br>3 | None<br>1 to 3<br>4 to 10<br>>10<br>Infrequent<br>Monthly<br>Weekly<br>Daily<br><1 Hour<br>>1 to <3 Hours<br>>3 to <6 Hours<br>>6 Hours                                                                                                                                                                                                                                                                                                          |
| Maintenance activity<br><i>Type of maintenance</i>                                                                      | 0<br>1<br>2<br>3                                         | Minor disturbance (e.g. possibility of contact when gaining access)<br>Low disturbance (e.g. changing a light bulb in asbestos insulating board ceilings)<br>Medium disturbance (e.g. lifting one or two asbestos ceiling tiles to gain access)<br>High levels of disturbance (e.g. removal of numerous asbestos insulating board ceiling tiles)                                                                                                 |
| <i>Frequency of maintenance</i>                                                                                         | 0<br>1<br>2<br>3                                         | ACM unlikely to be disturbed for maintenance<br>≤1 per year<br>>1 per year<br>>1 per month                                                                                                                                                                                                                                                                                                                                                       |

## Risk Category Selection

**HIGH RISK (A) - 19 points or more with the Priority Assessment and Material Assessment combined, 10 points or more with only the Material Assessment.**

This is the highest risk category level and ACMs in this category require urgent action to reduce the risks. Items in this category are either damaged and/or friable and may be in a position likely to cause an exposure to occupants. In most cases it would be necessary to prevent access to the area and plan for remediation. Typically, this will mean removal of the material, however in certain circumstances encapsulation or repair may be possible.

**MEDIUM RISK (B) - 13-18 points with the Priority Assessment and Material Assessment combined, 7-9 points with only the Material Assessment.**

This category indicates that there is a potential for asbestos fibre release to occupiers. Remediation of the ACM will normally be necessary, such as encapsulation or repair. In some cases it may be necessary to prevent access or occupation. Following remediation measures, normal management procedures should be followed (e.g. annual inspection for damage).

**LOW RISK (C) - 9-12 points with the Priority Assessment and Material Assessment combined, 5-6 points with only the Material Assessment.**

This category indicates that there is a low risk overall from the material due to its characteristics and/or there is a low possibility of accessing the material. Normal management procedures should be followed (e.g. annual inspection for damage).

**VERY LOW RISK (D) - 1-8 points with the Priority Assessment and Material Assessment combined, 1-4 points with only the Material Assessment.**

This category indicates that there is very low risk of the ACM releasing fibre into the air, or that it is so remote from the occupants that any airborne asbestos would not be present in the breathing zone. Normal management procedures should be followed (e.g. annual inspection for damage).

**APPENDIX 2 - BULK ANALYSIS CERTIFICATE**



For the attention of

**Client Address:**

Wring Group Ltd  
Vale Lane  
Bedminster  
Bristol  
BS3 5RU

Red Mill House, Red Mill Estate, Wednesbury, WS10 0NN

[www.tersusgroup.co.uk](http://www.tersusgroup.co.uk), [info@tersusgroup.co.uk](mailto:info@tersusgroup.co.uk)



**REPORT OF ANALYTICAL EXAMINATION FOR ASBESTOS IN BULK SAMPLE(S)**

|                         |                                                        |
|-------------------------|--------------------------------------------------------|
| Job number              | J847977                                                |
| Number of samples       | 6                                                      |
| Date sampled / received | 09/03/2023                                             |
| Date analysed / issued  | 09/03/2023, 10/03/2023                                 |
| Analyst                 | Jane Louisa Ash                                        |
| Sampled By              | Gurpreet Aujla                                         |
| Site address            | Sketchley Lane Farm, Burbage, Leicestershire, LE10 3HU |
| Client order number     | tbc                                                    |

**METHOD OF ANALYSIS**

The sample(s) were analysed using Polarised Light Microscopy by the method given in HSG248, Appendix 2 and will be retained for at least six months. This is an accredited test method under ISO 17025. We disclaim responsibility for the accuracy of information provided by and sampling undertaken by the client. "Trace" is reported as defined in HSG248 where applicable. All opinions and descriptions ie. non asbestos fibre types and material types in this report fall outside the scope of our accreditation. Reports are retained for at least six years.

| Sample ref. no. | Building            | Floor level | Room         | Position      | Item              | Material        | Result               |
|-----------------|---------------------|-------------|--------------|---------------|-------------------|-----------------|----------------------|
| KO017111        | Sketchley Lane Farm | External    | First 5 Bays | Roof Panels   | Cement Corrugated | Asbestos Cement | Chrysotile           |
| KO017111        | Sketchley Lane Farm | External    | First 5 Bays | Roof Panels   | Cement Corrugated | Asbestos Cement | Chrysotile           |
| KO017113        | Sketchley Lane Farm | External    | First 5 Bays | Fascia Boards | Cement            | Cement          | No Asbestos Detected |

| Sample ref. no. | Building            | Floor level | Room         | Position                     | Item               | Material           | Result               |
|-----------------|---------------------|-------------|--------------|------------------------------|--------------------|--------------------|----------------------|
| KO017114        | Sketchley Lane Farm | External    | First 5 Bays | Ceiling Panels               | Thermal Insulation | Thermal Insulation | No Asbestos Detected |
| KO017115        | Sketchley Lane Farm | External    | First 5 Bays | Back Wall Panels             | Cement             | Cement             | No Asbestos Detected |
| KO017116        | Sketchley Lane Farm | External    | First 5 Bays | Panels Under Corrugated Roof | Cement             | Asbestos Cement    | Chrysotile           |

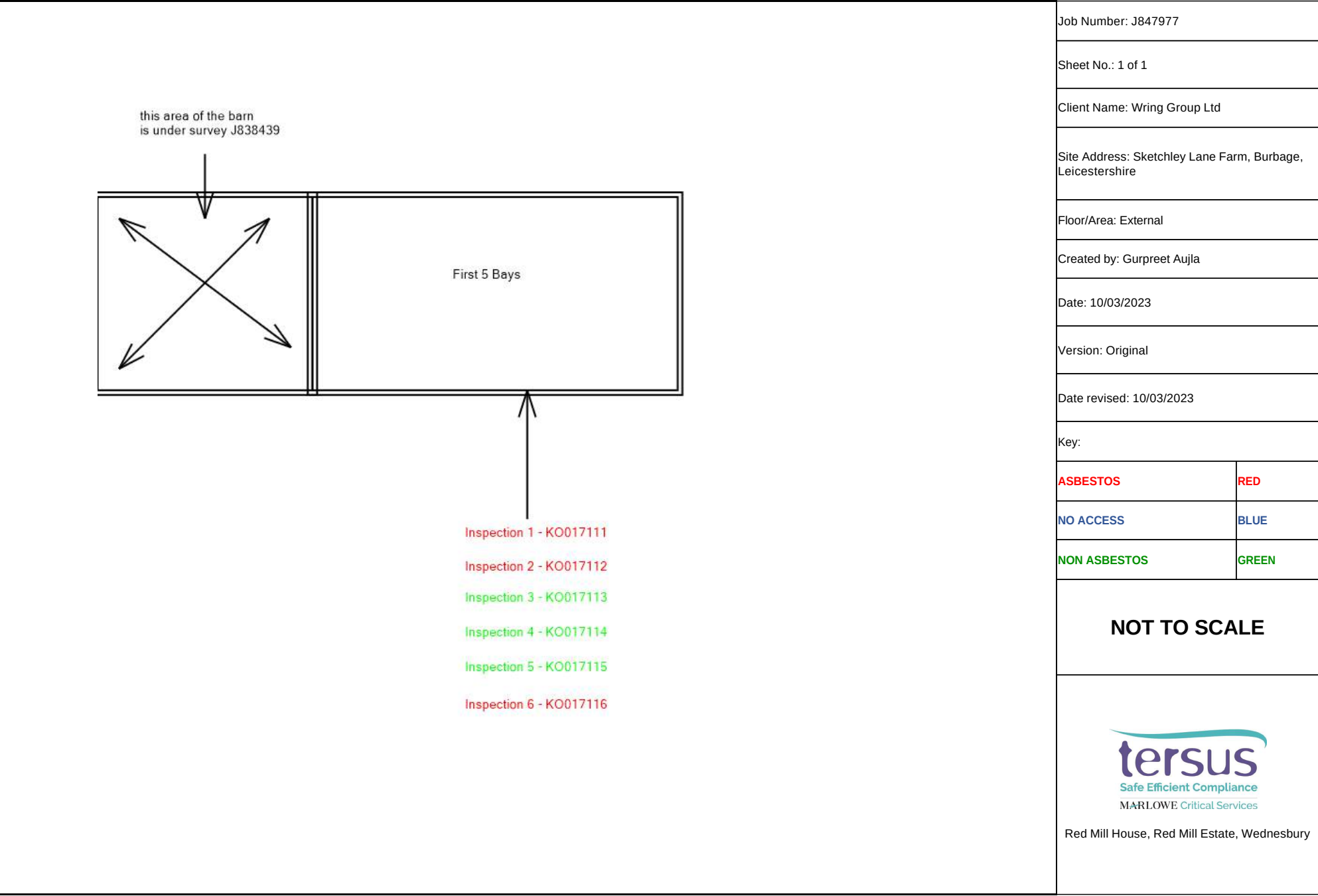
**Authorised Signatures:**

Jane Louisa Ash

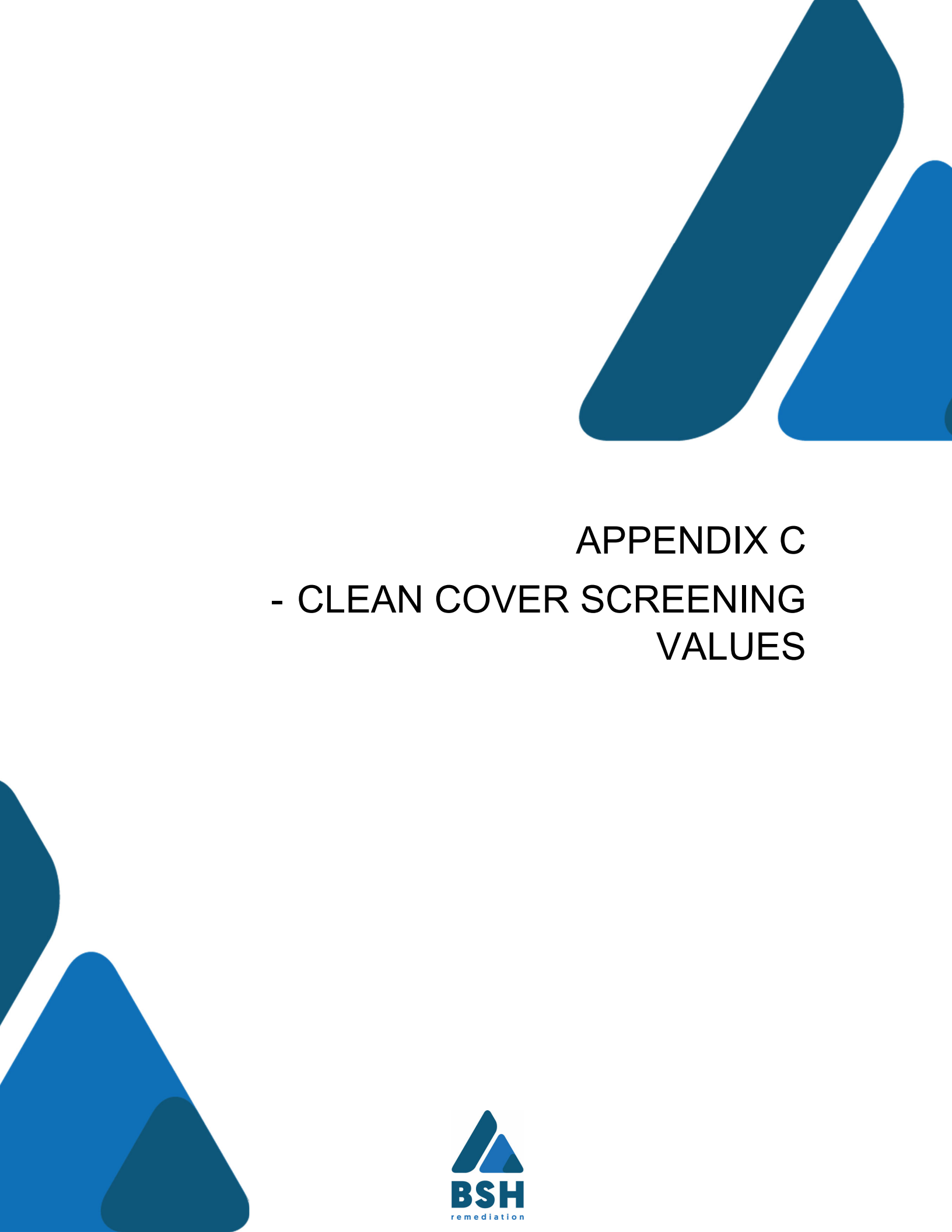


**APPENDIX 3 - ANNOTATED PLANS**





The drawing only includes items of asbestos, areas of no access and non-asbestos items. Non-asbestos rooms are excluded. Consequently, item reference numbers may not appear consecutive.



# APPENDIX C

## - CLEAN COVER SCREENING VALUES

| Determinand | Units | Residential with Produce | Public Open Space (400mm cover) | Ref. |
|-------------|-------|--------------------------|---------------------------------|------|
|-------------|-------|--------------------------|---------------------------------|------|

This is a list of Tier 1 Screening Values (T1SVs) for SOILS

#### Heavy Metals & Inorganics

|                     |       |      |             |     |
|---------------------|-------|------|-------------|-----|
| Arsenic             | mg/kg | 37   | 79          | c   |
| Boron               | mg/kg | 290  | 21000       | c   |
| Cadmium             | mg/kg | 11   | 120         | c   |
| Chromium (VI)       | mg/kg | 6    | 7.7         | c   |
| Lead                | mg/kg | 200  | 630         | a   |
| Nickel              | mg/kg | 130  | 230         | c   |
| Copper              | mg/kg | 2400 | 12000       | c   |
| Zinc                | mg/kg | 3700 | 81000       | c   |
| Elemental Mercury   | mg/kg | 1.2  | 16          | c,x |
| Phenol <sup>1</sup> | mg/kg | 280  | 760 (11000) | c   |
|                     |       |      |             |     |

#### Polycyclic Aromatic Hydrocarbons<sup>1</sup>

|                      |       |      |       |     |
|----------------------|-------|------|-------|-----|
| Naphthalene          | mg/kg | 2.3  | 4900  | c,x |
| Acenaphthylene       | mg/kg | 170  | 15000 | c,x |
| Acenaphthene         | mg/kg | 210  | 15000 | c,x |
| Fluorene             | mg/kg | 170  | 9900  | c,x |
| Phenanthrene         | mg/kg | 95   | 3100  | c,x |
| Anthracene           | mg/kg | 2400 | 74000 | c,x |
| Fluoranthene         | mg/kg | 280  | 3100  | c   |
| Pyrene               | mg/kg | 620  | 7400  | c   |
| Benzo(a)anthracene   | mg/kg | 7.2  | 29    | c   |
| Chrysene             | mg/kg | 15   | 57    | c   |
| Benzo(b)fluoranthene | mg/kg | 2.6  | 7.1   | c   |

| Determinand                                     | Units | Residential with Produce | Public Open Space (400mm cover) | Ref. |
|-------------------------------------------------|-------|--------------------------|---------------------------------|------|
| Benzo(k)fluoranthene                            | mg/kg | 77                       | 190                             | c    |
| Benzo(a)pyrene <sup>2</sup>                     | mg/kg | 2.2                      | 5.7                             | c    |
| Indeno(1,2,3-cd)pyrene                          | mg/kg | 27                       | 82                              | c    |
| Dibenz(a,h)anthracene                           | mg/kg | 0.24                     | 0.57                            | c    |
| Benzo(ghi)perylene                              | mg/kg | 320                      | 640                             | c    |
| <b>Total Petroleum Hydrocarbons</b>             |       |                          |                                 |      |
| TPH Aliphatic >C <sub>5</sub> -C <sub>6</sub>   | mg/kg | 42                       | 570000 (304)                    | c,x  |
| TPH Aliphatic >C <sub>6</sub> -C <sub>8</sub>   | mg/kg | 100                      | 600000                          | c,x  |
| TPH Aliphatic >C <sub>8</sub> -C <sub>10</sub>  | mg/kg | 27                       | 13000                           | c,x  |
| TPH Aliphatic >C <sub>10</sub> -C <sub>12</sub> | mg/kg | 130 (48)                 | 13000                           | c,x  |
| TPH Aliphatic >C <sub>12</sub> -C <sub>16</sub> | mg/kg | 1100 (24)                | 13000                           | c,x  |
| TPH Aliphatic >C <sub>16</sub> -C <sub>21</sub> | mg/kg | 65000 (8.48)             | 250000                          | c,x  |
| TPH Aliphatic >C <sub>21</sub> -C <sub>35</sub> | mg/kg | 65000 (8.48)             | 250000                          | c,x  |
|                                                 |       |                          |                                 |      |
| TPH Aromatic >C <sub>5</sub> -C <sub>7</sub>    | mg/kg | 70                       | 56000                           | c,x  |
| TPH Aromatic >C <sub>7</sub> -C <sub>8</sub>    | mg/kg | 130                      | 56000                           | c,x  |
| TPH Aromatic >C <sub>8</sub> -C <sub>10</sub>   | mg/kg | 34                       | 5000                            | c,x  |
| TPH Aromatic >C <sub>10</sub> -C <sub>12</sub>  | mg/kg | 74                       | 5000                            | c,x  |
| TPH Aromatic >C <sub>12</sub> -C <sub>16</sub>  | mg/kg | 140                      | 5100                            | c,x  |
| TPH Aromatic >C <sub>16</sub> -C <sub>21</sub>  | mg/kg | 260                      | 3800                            | c    |
| TPH Aromatic >C <sub>21</sub> -C <sub>35</sub>  | mg/kg | 1100                     | 3800                            | c    |
| TPH Aromatic >C <sub>35</sub> -C <sub>44</sub>  | mg/kg | 1100                     | 3800                            | c    |
|                                                 |       |                          |                                 |      |

| Determinand                          | Units                       | Residential with Produce | Public Open Space (400mm cover) | Ref. |
|--------------------------------------|-----------------------------|--------------------------|---------------------------------|------|
| TPH C <sub>6</sub> -C <sub>10</sub>  | mg/kg                       | 27                       | 5000                            | c    |
| TPH C <sub>10</sub> -C <sub>25</sub> | mg/kg                       | 74                       | 3800                            | c    |
| TPH C <sub>25</sub> -C <sub>44</sub> | mg/kg                       | 1100                     | 3800                            | c    |
|                                      |                             |                          |                                 |      |
|                                      |                             |                          |                                 |      |
| Asbestos                             | Fibres Volume<br>Weight (%) | NFD                      | NFD                             |      |

NFD - No Fibres Detected

| Reference | Comments                                                                                                                       |
|-----------|--------------------------------------------------------------------------------------------------------------------------------|
| a         | DEFRA - SP1010: Development of Category 4 Screening Levels for Assessment of Land Affected by Contaminants                     |
| b         | CL:AIRE / EIC - Soil Generic Assessment Criteria for Human Health Risk Assessment. January 2010                                |
| c         | LQM - The LQM / CIEH S4ULs for Human Health Risk Assessment. 2015                                                              |
| d         | US EPA Regional Screening Values (THQ = 0.1). Use as initial benchmarking values, these are CERCLA (superfund)                 |
| w         | For chlorophenol compounds, please use a <u>sum</u> of compounds for 2-chlorophenol, 2,4-dichlorophenol, 2,4,6-trichlorophenol |
| x         | Value shown in brackets are at, or in excess of, vapour limits.                                                                |
| y         | See EIC report. This GAC is 1/3 of the GAC (presented as total cresols '(2-, 3- and 4-methylphenol)                            |
| z         | Value for 1,3-dichloropropene (cis and trans isomers) taken to be identical and from US EPA value for -1,3-dichloropropene     |