

Site Details:

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Client Ref: R3971
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Grid Ref: 533237, 124593

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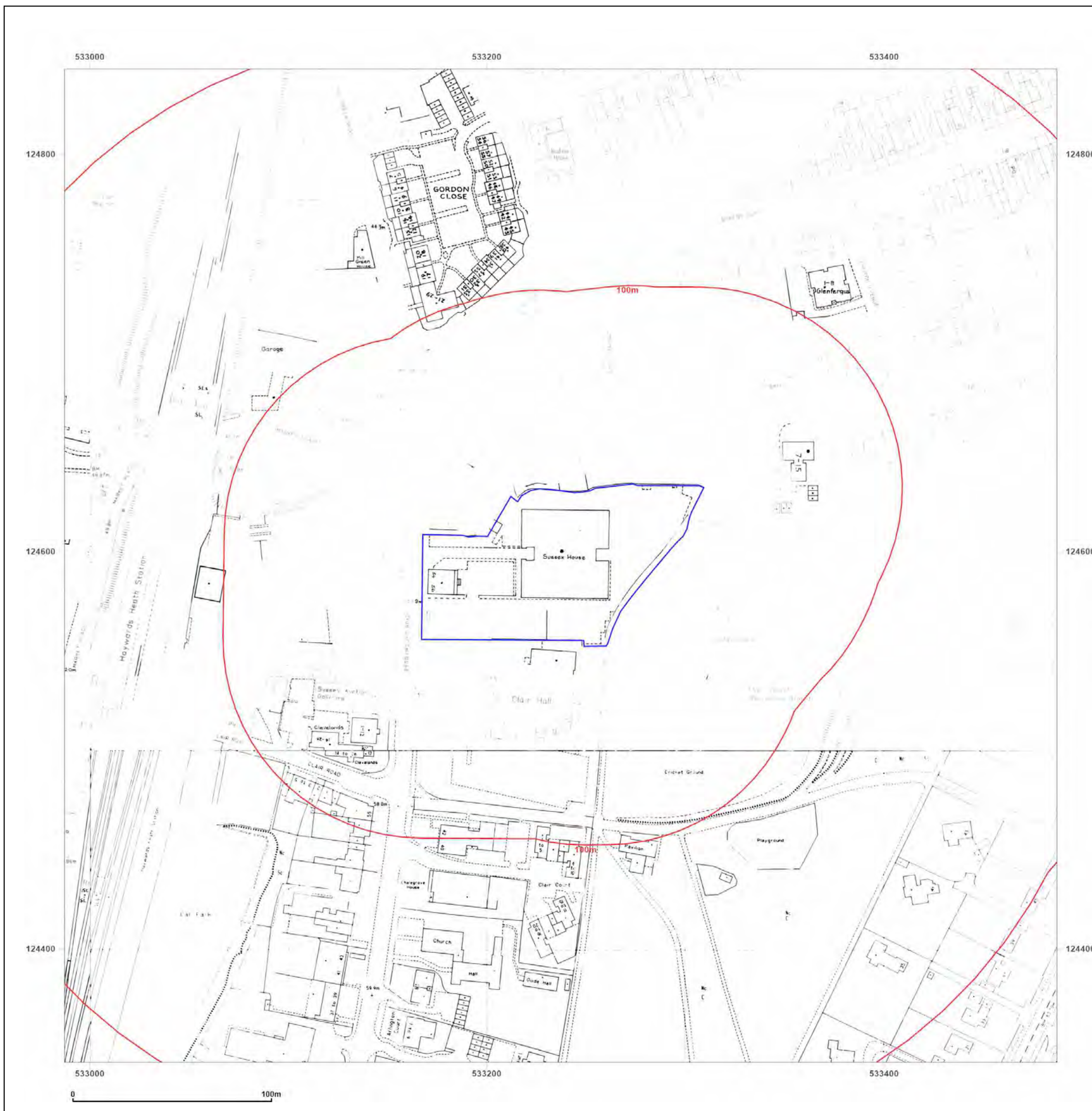


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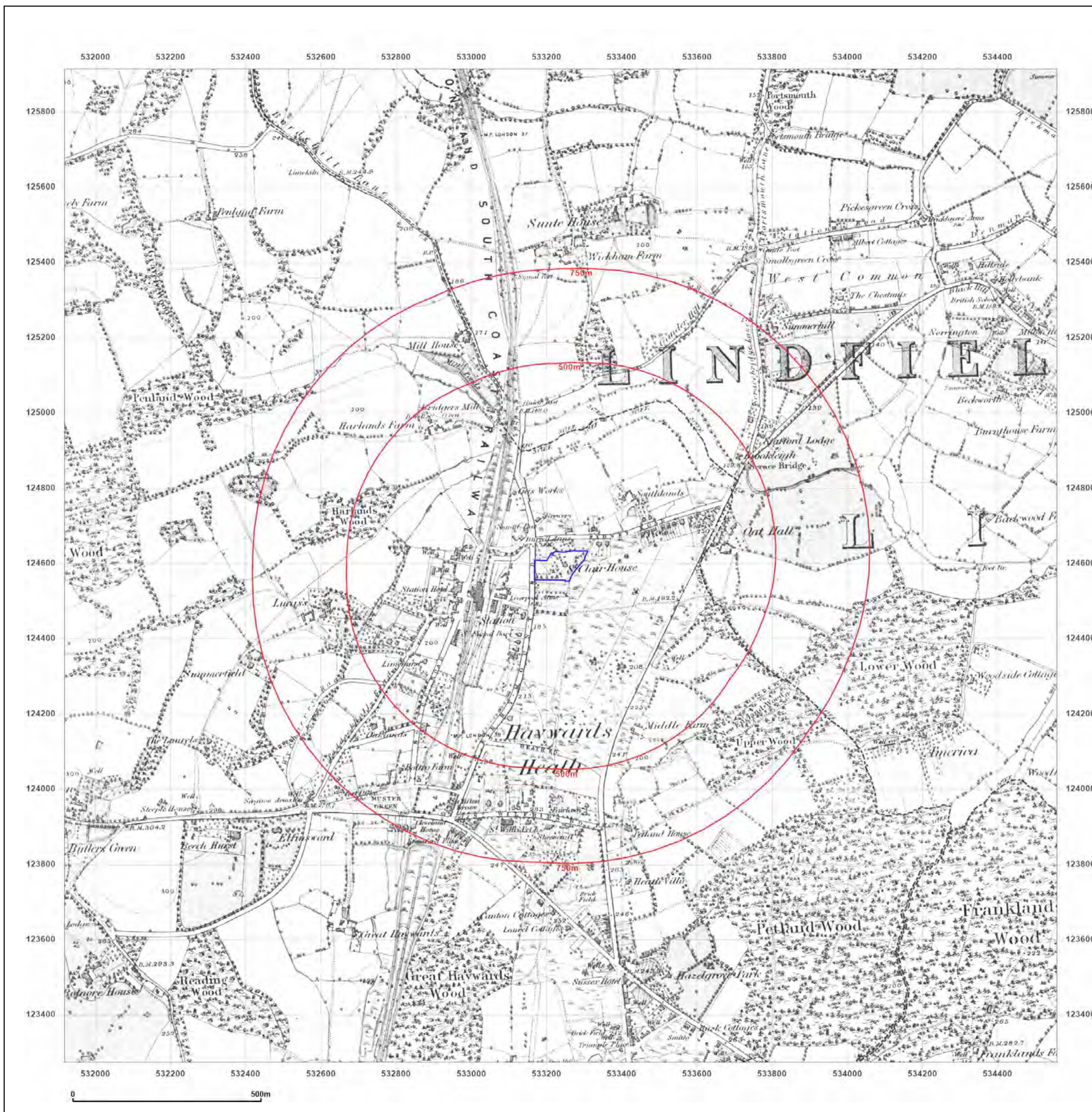


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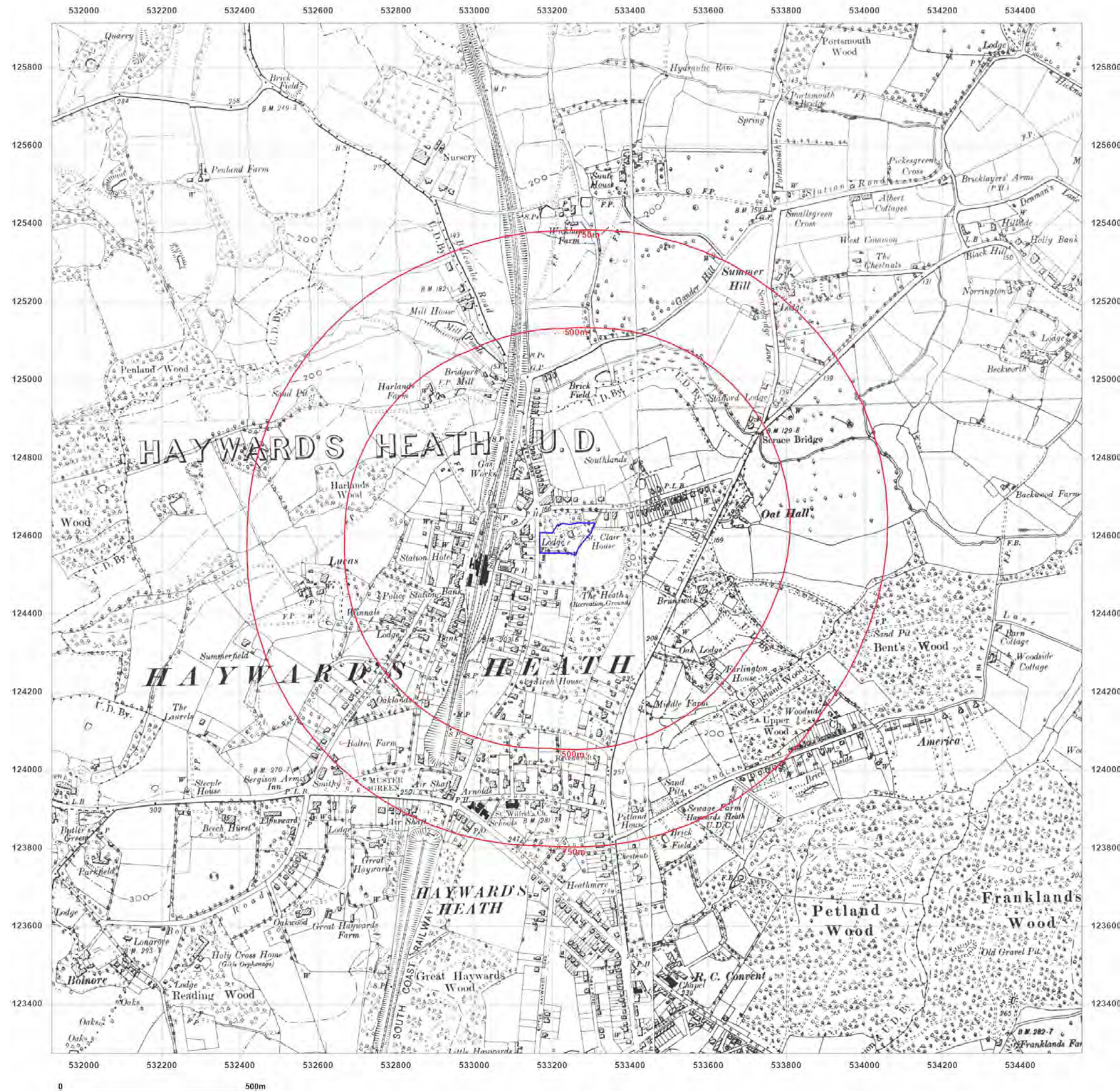


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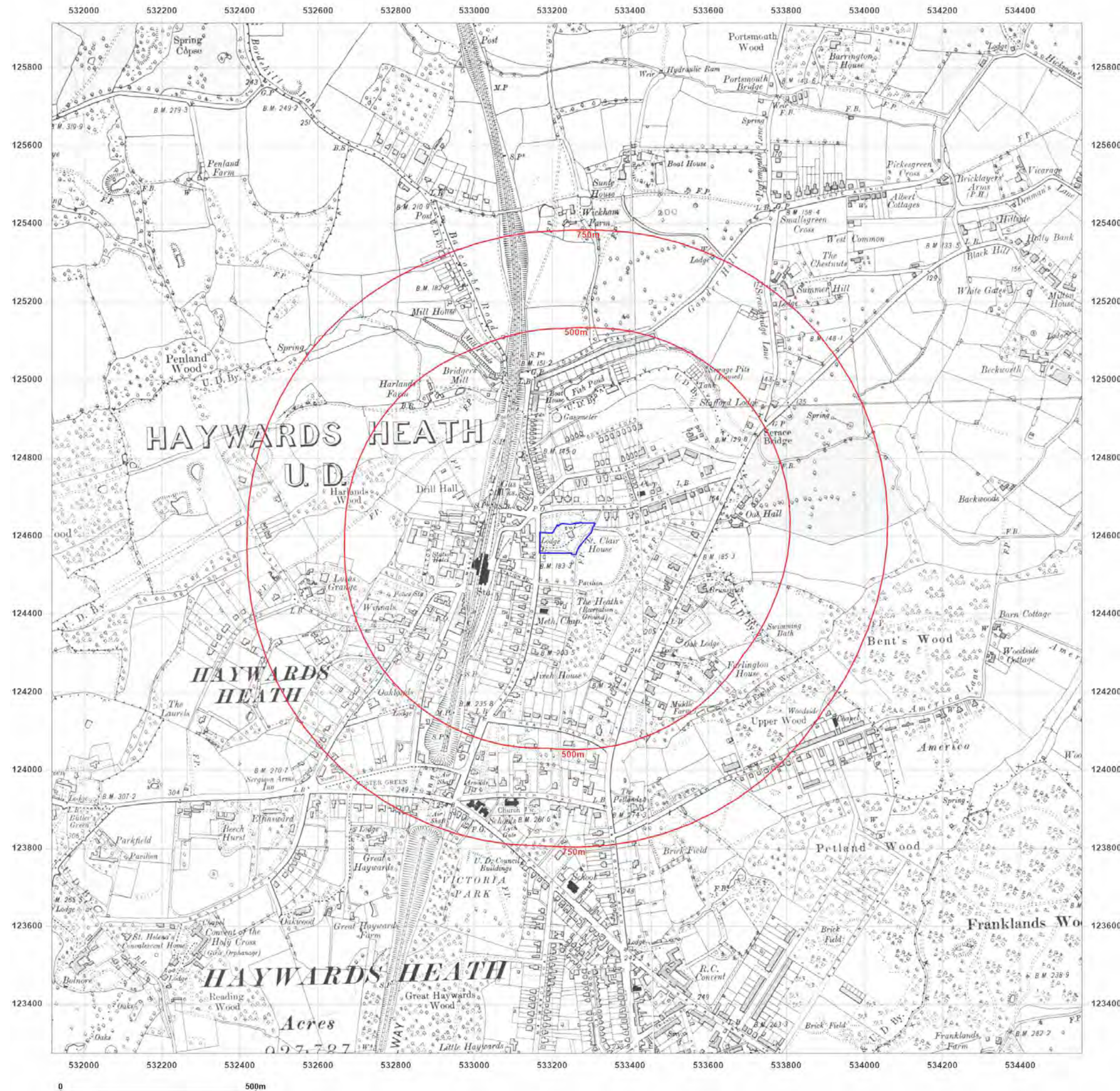


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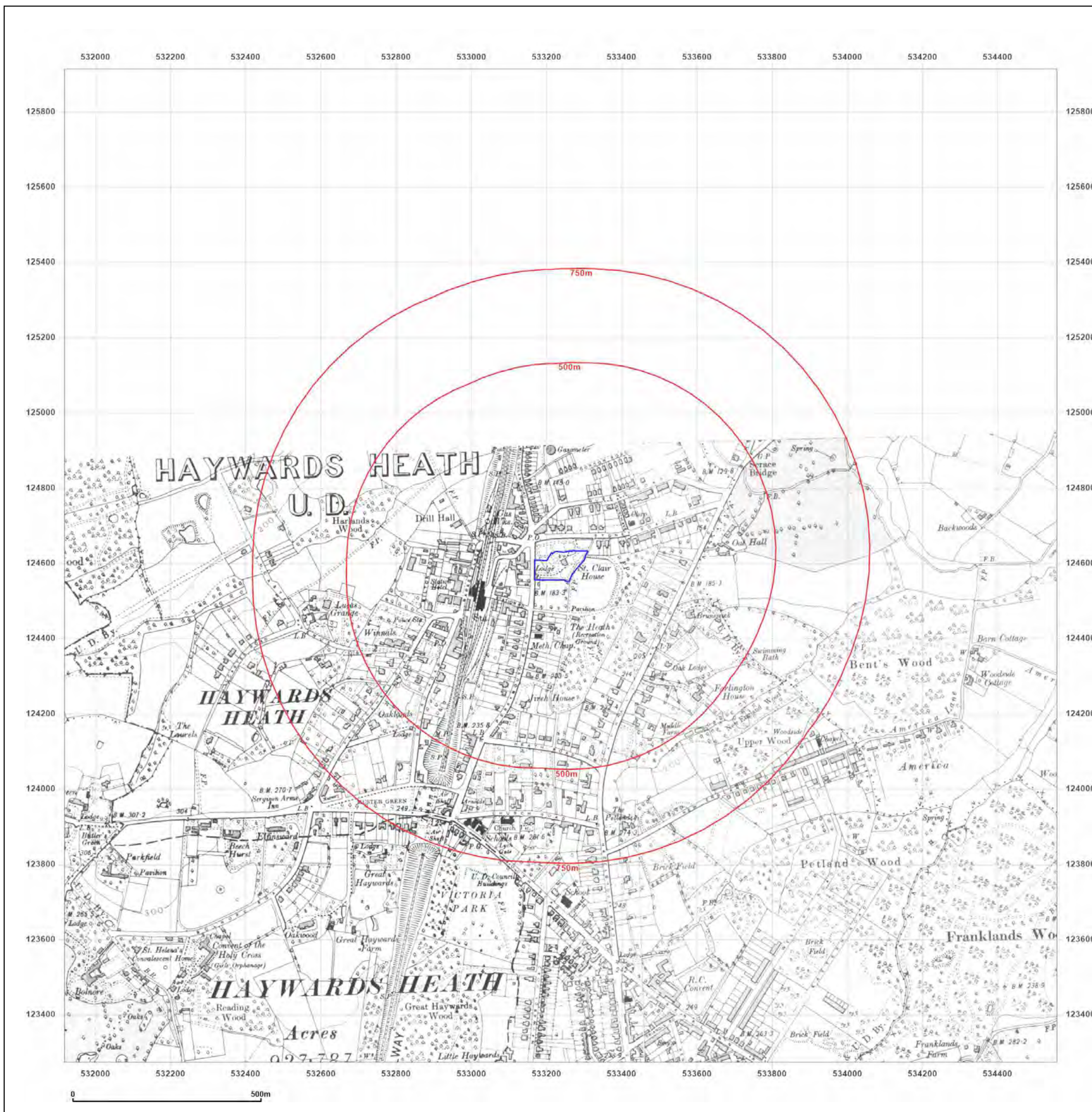


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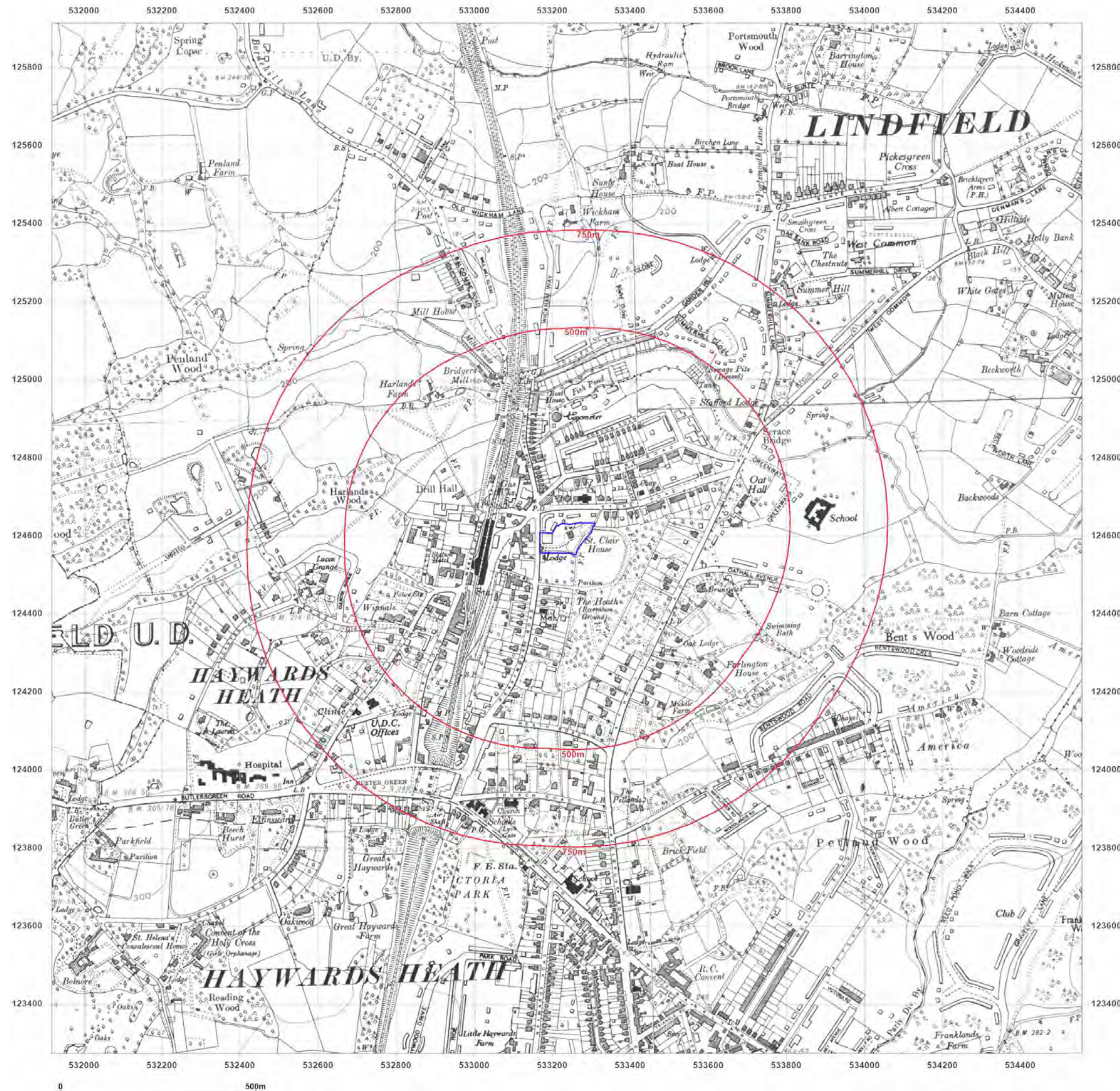


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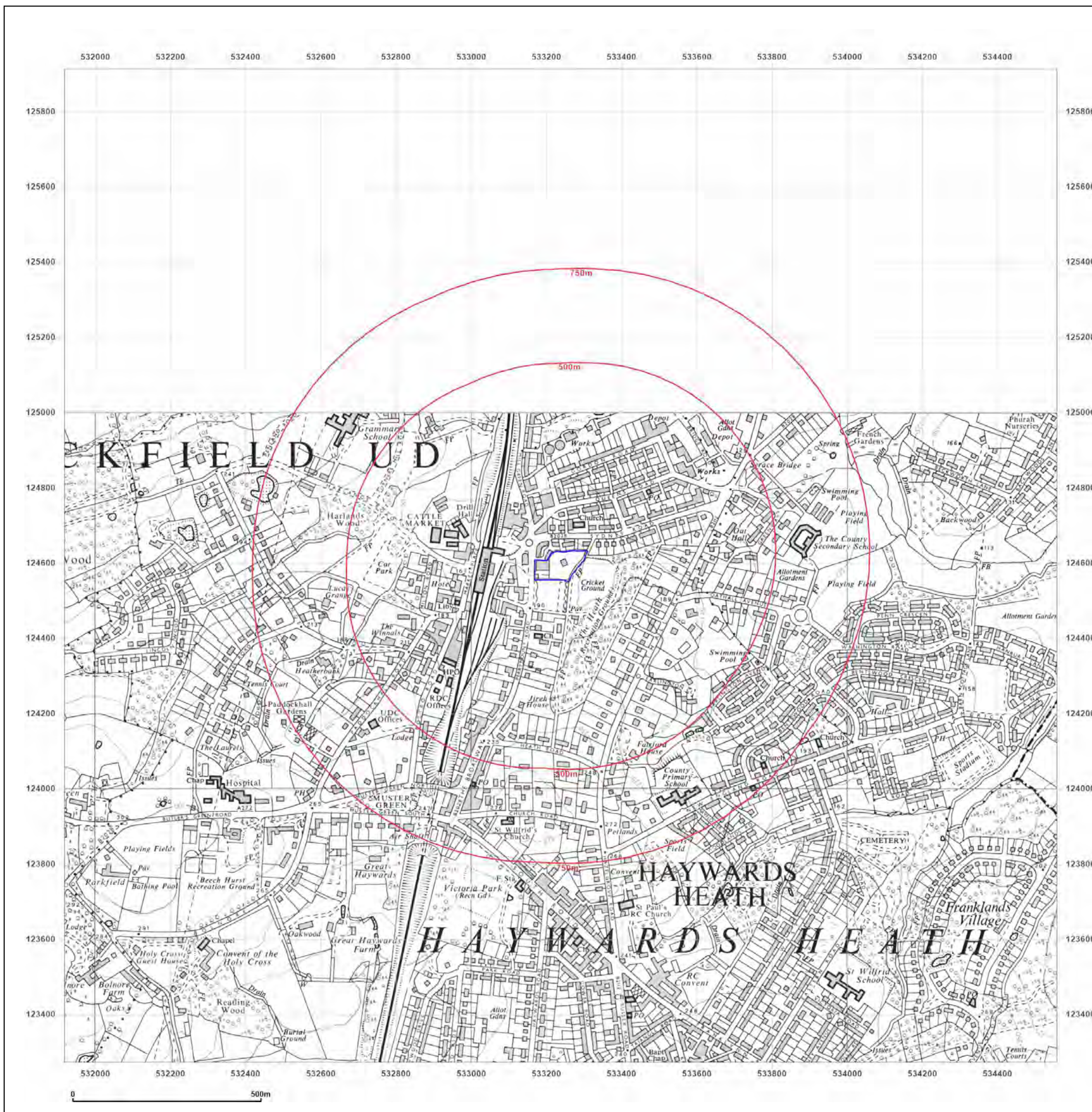


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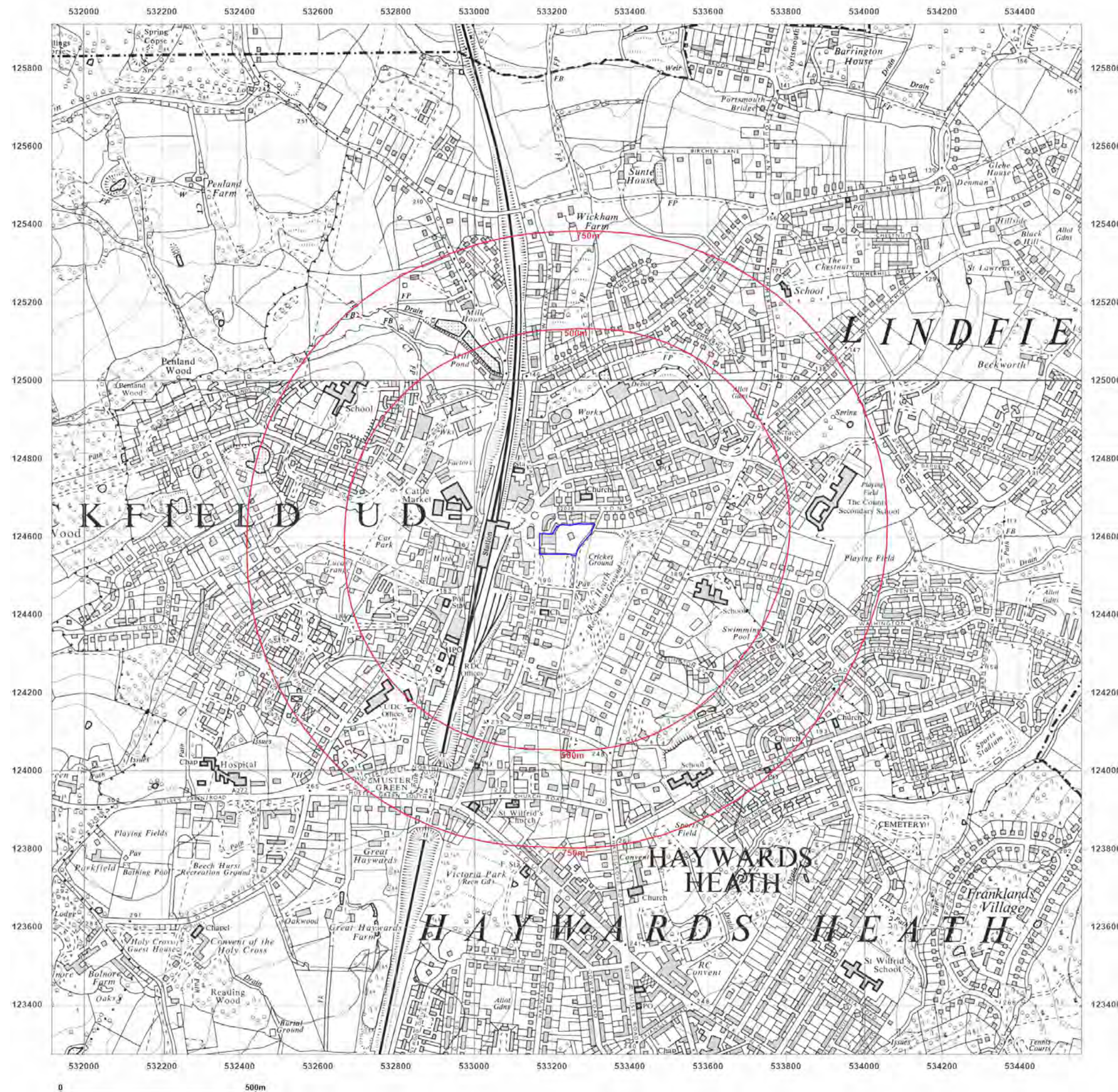


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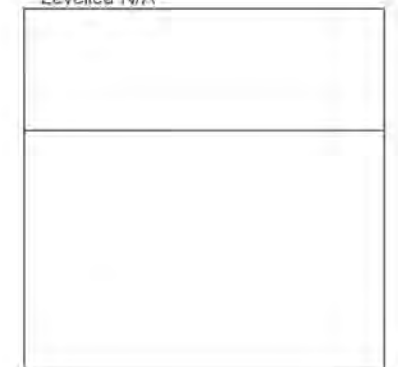
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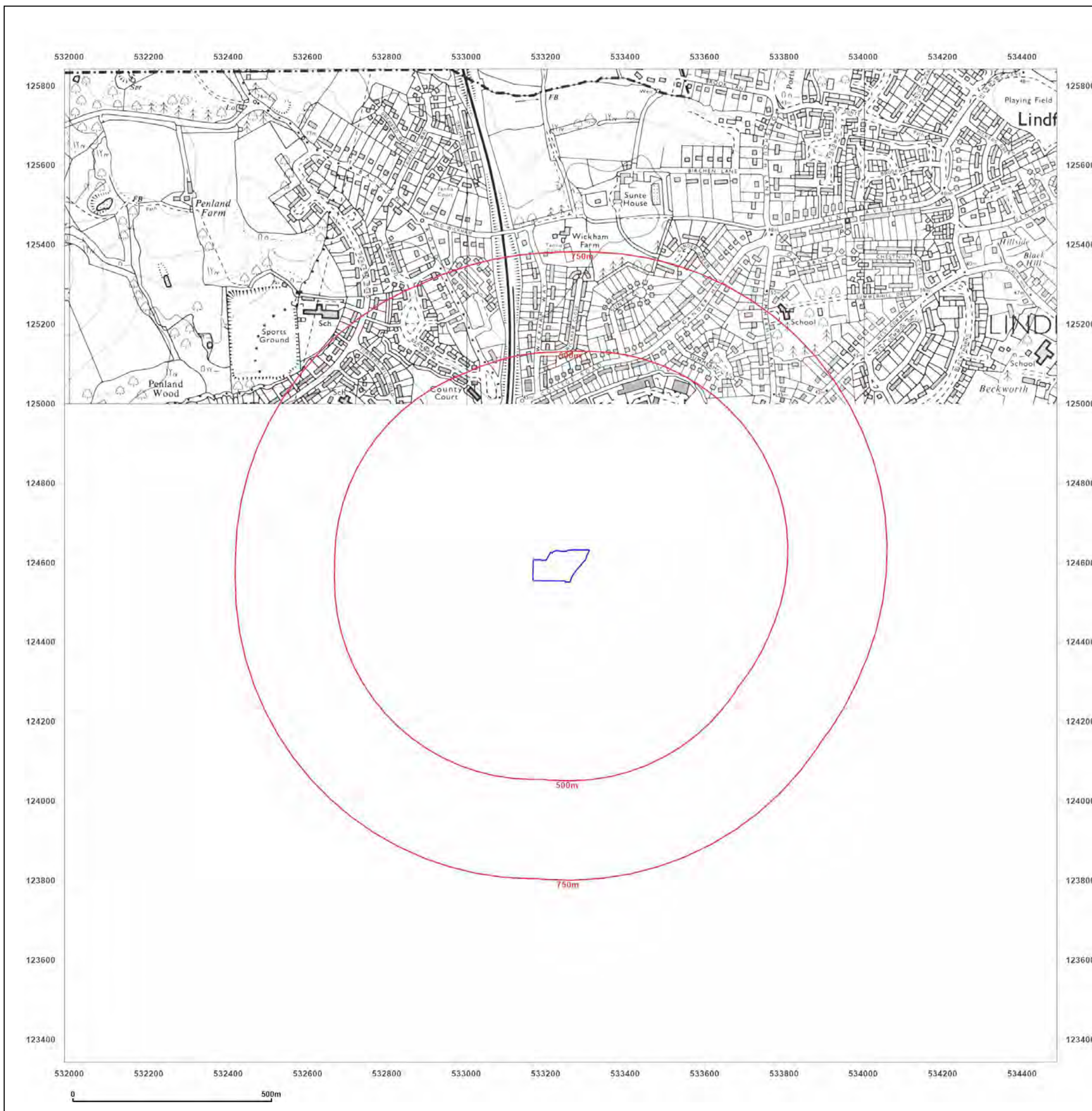


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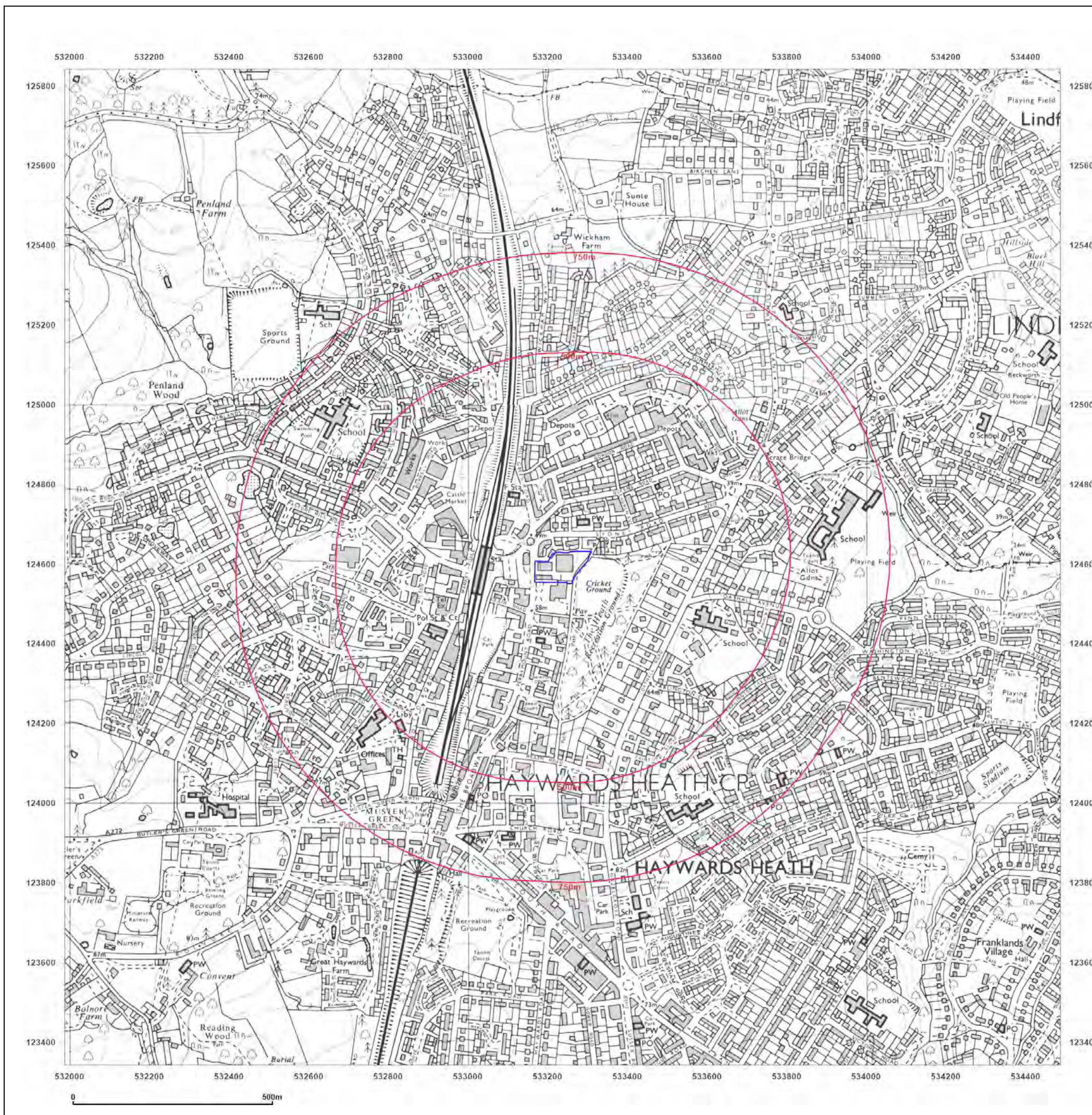


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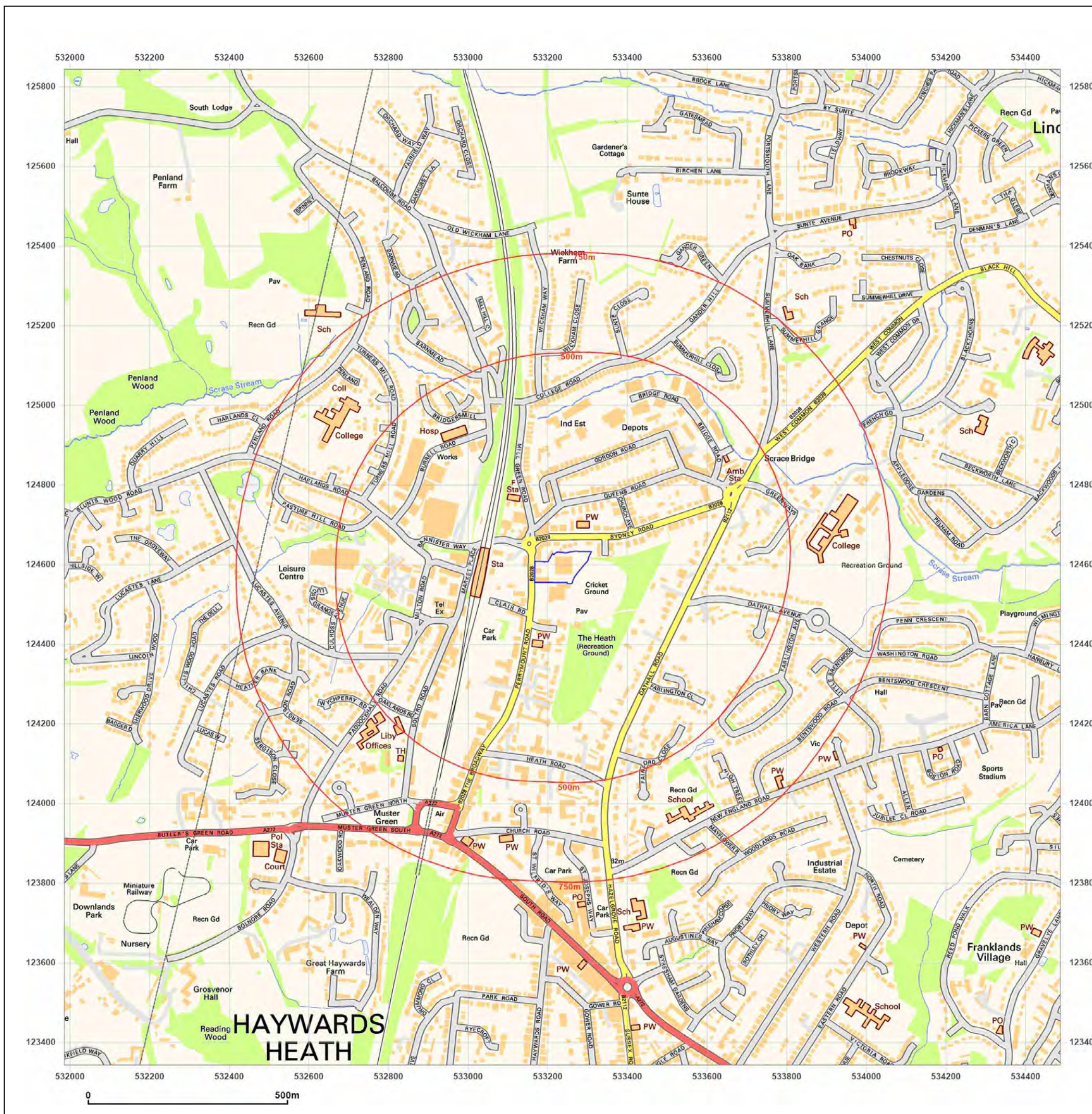


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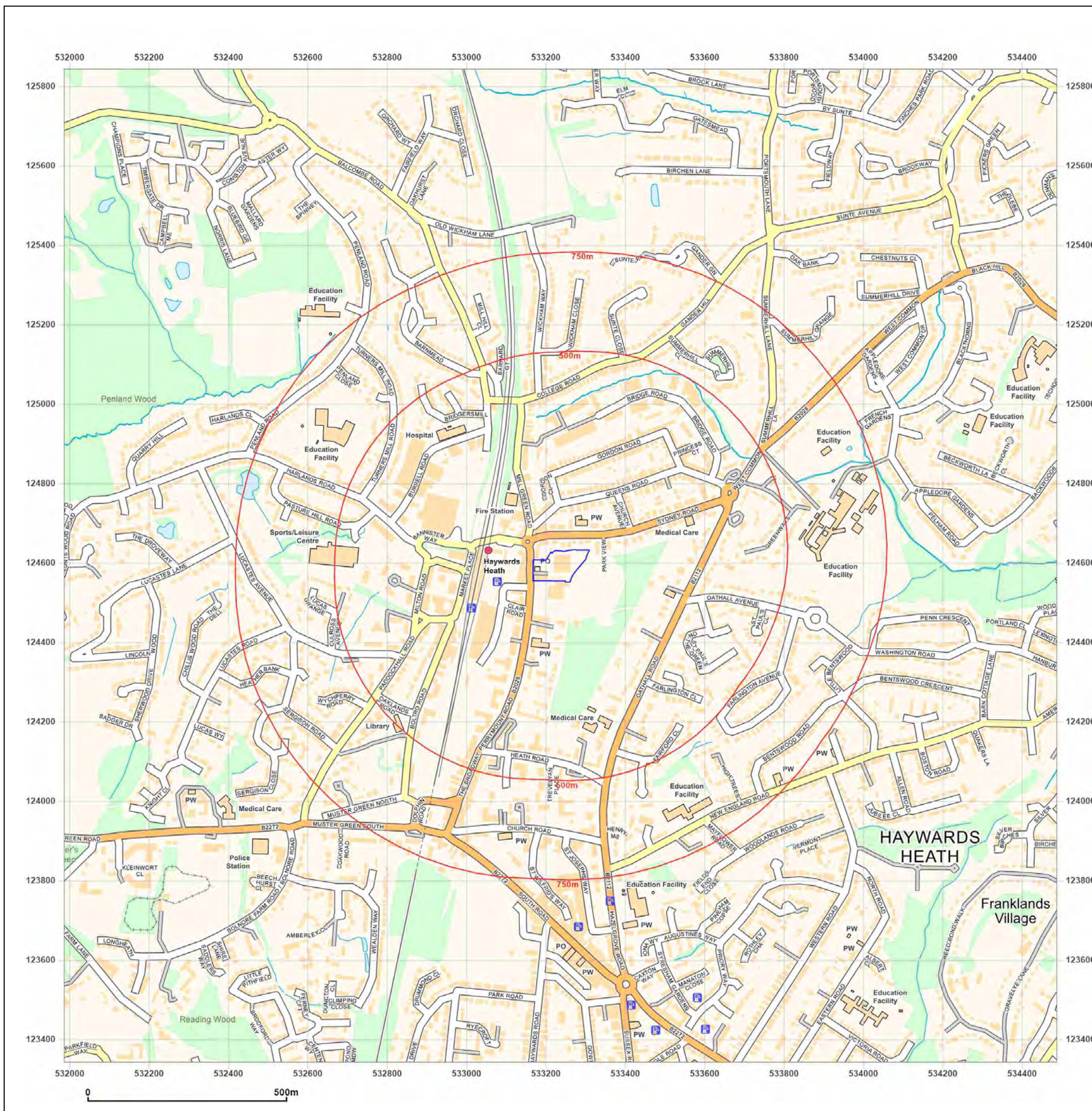


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APPENDIX 2

REPORT LIMITATIONS

REPORT LIMITATIONS

This contract was completed by Earth Environmental & Geotechnical Ltd on the basis of a defined programme and scope of works and terms and conditions agreed with the client. This report was compiled with all reasonable skill, and care, bearing in mind the project objectives, the agreed scope of works, the prevailing site conditions, the budget and staff resources allocated to the project.

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The report was written in 2024 and should be read in light of any subsequent changes in legislation, statutory requirements and industry best practices. Ground conditions can also change over time and further investigations or assessment should be made if there is any significant delay in acting on the findings of this report. The passage of time may result in changes in site conditions, regulatory or other legal provisions, technology or economic conditions which could render the report inaccurate or unreliable. The information and conclusions contained in this report should not be relied upon in the future without the written advice of Earth Environmental & Geotechnical Ltd. In the absence of such written advice of Earth Environmental & Geotechnical Ltd, reliance on the report in the future shall be at the client's own and sole risk. Should Earth Environmental & Geotechnical Ltd be requested to review the report in the future, Earth Environmental & Geotechnical Ltd shall be entitled to additional payment at the then existing rate or such other terms as may be agreed between Earth Environmental & Geotechnical Ltd and the client.

The observations and conclusions described in this report are based solely upon the services that were provided pursuant to the agreement between the client and Earth Environmental & Geotechnical Ltd. Earth Environmental & Geotechnical Ltd has not performed any observations, investigations, studies or testing not specifically set out or mentioned within this report.

Earth Environmental & Geotechnical Ltd is not liable for the existence of any condition, the discovery of which would require performance of services not otherwise contained in the services. For the avoidance of doubt, unless otherwise expressly referred to in the introduction to this report, Earth Environmental & Geotechnical Ltd did not seek to evaluate the presence on or off the site of electromagnetic fields, lead paint, radon gas or other radioactive materials.

The services are based upon Earth Environmental & Geotechnical Ltd observations of existing physical conditions at the site gained from a walkover survey of the site together with Earth

Environmental & Geotechnical Ltd interpretation of information including documentation, obtained from third parties and from the client on the history and usage of the site. The findings and recommendations contained in this report are based in part upon information provided by third parties, and whilst Earth Environmental & Geotechnical Ltd have no reason to doubt the accuracy and that it has been provided in full from those it was requested from, the items relied on have not been verified.

No responsibility can be accepted for errors within third party items presented in this report. Further Earth Environmental & Geotechnical Ltd was not authorised and did not attempt to independently verify the accuracy or completeness of information, documentation or materials received from the client or third parties, including laboratories and information services, during the performance of the services. Earth Environmental & Geotechnical Ltd is not liable for any inaccurate information, misrepresentation of data or conclusions, the discovery of which inaccuracies required the doing of any act including the gathering of any information which was not reasonably available to Earth Environmental & Geotechnical Ltd and including the doing of any independent investigation of the information provided to Earth Environmental & Geotechnical Ltd save as otherwise provided in the terms of the contract between the client and Earth Environmental & Geotechnical Ltd.

Where field investigations have been carried out these have been restricted to a level of detail required to achieve the stated objectives of the work. Ground conditions can also be variable and as investigation excavations only allow examination of the ground at discrete locations. The potential exists for ground conditions to be encountered which are different to those considered in this report. The extent of the limited area depends on the soil and groundwater conditions, together with the position of any current structures and underground facilities and natural and other activities on site. In addition, chemical analysis was carried out for a limited number of parameters [as stipulated in the contract between the client and Earth Environmental & Geotechnical Ltd] based on an understanding of the available operational and historical information, and it should not be inferred that other chemical species are not present.

The groundwater conditions entered on the exploratory hole records are those observed at the time of investigation. The normal speed of investigation usually does not permit the recording of an equilibrium water level for any one water strike. Moreover, groundwater levels are subject to seasonal variation or changes in local drainage conditions and higher groundwater levels may occur at other times of the year than were recorded during this investigation.

Any site drawing(s) provided in this report is (are) not meant to be an accurate base plan but is (are) used to present the general relative locations of features on, and surrounding, the site.

Appendix B – EEGSL R3971/24 GIR



**EARTH ENVIRONMENTAL
& GEOTECHNICAL**

PHASE II GEOTECHNICAL SITE INVESTIGATION

ALDI HAYWARDS HEATH

SUSSEX HOUSE

PERRYMOUNT ROAD

HAYWARDS HEATH

RH16 1DN

REPORT REF: R3971/24

NOVEMBER 2024

Earth Environmental & Geotechnical
(Southern) Ltd
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Wyvols Court,
Swallowfield,
Reading
RG7 1WY

Tel : 0118 373 4000

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**PHASE II GEOTECHNICAL SITE
INVESTIGATION**

ALDI HAYWARDS HEATH

SUSSEX HOUSE

PERRYMOUNT ROAD

HAYWARDS HEATH

RH16 1DN

REPORT REF: R3971/24

NOVEMBER 2024

Prepared on Behalf of:

Aldi Stores Ltd

By:

Earth Environmental & Geotechnical (Southern) Ltd
Suite 18
Wyvols Court, Swallowfield
Reading
RG7 1WY

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**PHASE II GEOTECHNICAL AND GEOENVIRONMENTAL SITE INVESTIGATION
SUSSEX HOUSE, PERRYMOUNT ROAD, HAYWARDS HEATH, RH16 1DN**

Report Reference: R3971/24

Version A.1

Date: 26th November 2024

Prepared for: Aldi Stores Ltd

Prepared by: Earth Environmental & Geotechnical (Southern) Ltd
Suite 18
Wyvols Court, Swallowfield
Reading
RG7 1WY

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- D. Applied during initial drafting of the report before it has been reviewed.
- C. Applied after the report has been reviewed but before it has been approved by the Project Manager.
- B. Applied after the Project Manager has approved the report ready for issue to the client.
- A. Applied to reports after external/internal review.

The version number starts at “0” and is raised by “1” at each re-type.

Written by: Ashley Thorne
Senior Geo-Environmental Consultant



Approved by: John Grace
Director

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APPENDICES

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1.0 INTRODUCTION

1.1 Background

A Geoenvironmental Site Investigation has been commissioned by Craddys on behalf of Aldi Stores Ltd (the Client) to examine ground conditions, retrieve soil samples for contamination and geotechnical testing and provide information to be used in parameters for foundation design and a human health risk assessment for a proposed development at Perrymount Road, Haywards Heath, RH16 1DN (herein referred to as the 'assessment site').

1.2 Terms of Reference

Earth Environmental and Geotechnical (Southern) Ltd (EEGSL) was commissioned by the Client to undertake a Site Investigation of the assessment site in accordance with project proposal R3971 16th July 2024.

The objectives of this site investigation are as follows:

- *Assessment of ground conditions for design of foundations and infrastructure associated with proposed development.*
- *Assess the presence and likely extent of any potential environmental hazards (soil, groundwater and gas) associated within the areas of the assessment site investigated.*

1.3 Report Scope

This report presents full factual records of the site work carried out, the ground conditions encountered in the exploratory holes and the in-situ and laboratory test results. All information collected has been used to provide an interpretation of the ground conditions together with recommendations to inform on parameters used in foundation design.

1.4 Limitations of the Study

The report is written in the context of an agreed scope of work and budget and should not be used in a different context. New information, improved practices or changes in legislation may require a reinterpretation of the report in whole or in part. EEGSL reserve the right to amend either conclusions or recommendations in light of any further information that may become available. The report is provided for the sole use by the Client and is confidential to them.

Recommendations within this report are also based on exploratory records and examination of samples and, where applicable, laboratory tests. No liability can be accepted for conditions not revealed by the boreholes, particularly at intervening locations. Whilst every effort is made to ensure accuracy of data supplied, all opinions expressed as to the spatial distribution of strata between sampling locations is for guidance only and no responsibility is accepted as to its accuracy.

2.0 SITE LOCATION & DESCRIPTION

2.1 Site Location & Description

The assessment site covers an area of 0.81 ha in size and at the time of the investigation comprised small convenience store and a two-story office and retail block in the southwest and a large two-story office block (Sussex House) with car parking located centrally on site. The assessment site is located east off Perrymount Road in the north of Haywards Heath. The assessment site is centred on National Grid Reference SU 36528 46887 (E: 533240, N: 124599) with a postcode of RH16 1DN.

The assessment site is bounded to the south, and west by commercial buildings, to the north by residential properties and to the east and southeast by Clair Park.

An aerial photograph showing the location of the assessment site is provided in Figure 1.

Figure 1: Site Location Plan



2.2 Published Geology

According to the BGS, the assessment site is underlain directly by bedrock of the Upper Tunbridge Wells Sand Formation comprising a complex sequence of interbedded mudstones, siltstones, silty sandstones and fine-grained sandstones. No Superficial deposits are mapped on-site.

2.3 Preliminary Contamination Risk Assessment

Prior to any ground investigations taking place, EEGSL were commissioned by the client to undertake a Phase 1 Geo-Environmental Desk Study, EEGSL Report reference number of R3971/24/DTS, August 2024.

Table 1 below presents the Preliminary Conceptual Model for the assessment site, and a summary of the key findings of the Preliminary Risk Assessment are as follows:

- From review of historical and current day information it has been identified that the assessment site has been developed since the 1870's first being occupied by residential buildings before a cinema was added in the 1950's before being redeveloped as a car park in the 1980's and then the existing Sussex House and small commercial buildings replaced the car park in the 1990's.
- On-site sources include the possibility made ground due to historical development as well as a current electrical sub-station located at the site. The main contaminants of concern include toxic metals, hydrocarbons (including PCBs) asbestos and PAHs.
- Off-site historic sources include a bus station, fuel filling stations, garages, a coal yard and historic and current railway features. The main contaminants of concern include toxic metals, hydrocarbons, asbestos and PAHs
- Risks to current site users, future site users and adjacent site users have been deemed as Low, however risks to construction workers and shallow groundwater have been deemed as Low to Moderate.

Table 1 - Preliminary Conceptual Model

Source	Pathway	Receptor	Probability	Consequence	Risk	Comment
Onsite Sources						
Contamination of the ground beneath site due to current and historical on-site development.	Dermal contact, ingestion and inhalation of soils dust	Current Site Users	Unlikely	Moderate	Low Risk	Review of historical maps and records has shown several different commercial and residential developments on site dating back to 1874. Due to the number of different developments taking place it is deemed possible that some contamination may be present. If present the contamination is likely to be either inorganic (toxic metals or asbestos) or organic such as TPHs and PAHs. In this instance no volatile organic contamination is expected due to the nature of the former uses and the time since they were present. Given the commercial nature of the site, hardstanding currently covers the majority of the site. Given that the majority of the assessment site is covered in hardstanding, it is suggested that very limited pathways exist between any contamination present and the current site users. Given the above, it is suggested that the current site users are unlikely to encounter any significant contamination, and that in general the risk to current site users is deemed as LOW.
		Future Site users	Unlikely	Moderate	Low Risk	Given the proposed future commercial use of the site, and assuming that the majority of the site will remain covered in hardstanding, the risk to future site users is also deemed as LOW.
		Adjacent Site users	Unlikely	Moderate	Low Risk	The potential contamination generated on-site from historic developments taking place is generally considered to be sporadic and localised and it is unlikely to have migrated significantly off-site. The risk to adjacent site users in this instance is therefore deemed as LOW.
		Construction Workers	Low Likelihood	Moderate	Low to Moderate Risk	The risk to construction workers via direct exposure is considered to be LOW to MODERATE, as ground workers may be directly exposed to any contamination present during excavations and whilst working within the ground. Ground investigation works including the collection of shallow soil samples should be completed to determine the actual risk present on site.

Source	Pathway	Receptor	Probability	Consequence	Risk	Comment
	Vertical or horizontal migration of contamination via leaching into the underlying shallow groundwater	Controlled Waters	Low Likelihood	Moderate	Low to Moderate Risk	Review of the hydrogeology and hydrology has identified that the assessment site is underlain by bedrock deposits comprising of the Tunbridge Wells Sand Formation which is classified as having moderate to high permeability and is a Secondary A aquifer. It is possible for some contamination generated at the site to migrate vertically and potentially impact shallow groundwater (if present). The risk to controlled waters in this case is deemed as LOW to MODERATE. Ground investigation works are therefore recommended to assess the risk to shallow groundwater.
Offsite Sources						
Contamination of the assessment site due to current and historical off-site uses	Vertical leaching of contaminants via shallow groundwater.	Current Site Users	Unlikely	Moderate	Low Risk	Contamination may have been generated offsite at several historic and current land uses such as the historic bus station. If present, it is considered possible that some contamination generated offsite could migrate towards the assessment site within shallow groundwater (if present). However, given the commercial nature of the current land use, the hardstanding covering the assessment site (which will act as a barrier between current site users and shallow soils) and the corresponding low likelihood of exposure, it is suggested that the risk to current site users from offsite contamination is LOW.
		Future Site Users	Unlikely	Moderate	Low Risk	Given the proposed commercial site use, it is unlikely that future site users will interact with potentially contaminated shallow groundwater on-site. Therefore, the risk to future site users is deemed as LOW.
		Construction Workers			Low to Moderate Risk	The risk to construction workers from contamination within shallow groundwater at the assessment site is considered LOW to MODERATE. Ground workers may be directly exposed to any contamination present during excavation work.
Contamination of the assessment site due to current and historical off-site uses	Vertical or lateral migration of contamination within shallow soils or via windblown dusts	Current Site Users	Unlikely	Moderate	Low Risk	Contamination may have been generated offsite at several historic and current land uses such as the historic bus station. If present, it is considered possible that some contamination generated offsite could migrate towards the assessment site within shallow soils or via windblown dusts. However, given the commercial nature of the current land use, the hardstanding covering the assessment site (which will act as a barrier between current site users and shallow soils) and the

Source	Pathway	Receptor	Probability	Consequence	Risk	Comment
						corresponding low likelihood of exposure, it is suggested that the risk to current site users from offsite contamination is LOW.
		Future land users	Unlikely	Moderate	Low Risk	Given the proposed commercial site use, it is unlikely that future site users will interact with potentially contaminated shallow soils on-site. Therefore, the risk to future site users is deemed as LOW.
		Construction Workers	Low Likelihood	Moderate	Low to Moderate Risk	The risk to construction workers from migrating contamination at the assessment site is considered LOW to MODERATE. Ground workers will likely be directly exposed to any contamination on site due interaction with soils during construction, considering the potential for contaminants such as asbestos, hydrocarbons and asbestos being present, the risk to construction workers is deemed as LOW to MODERATE.

3.0 SITE INVESTIGATION

3.1 Exploratory Fieldwork

The fieldwork was carried out by EEGSL between the 27th July 2024 and the 3rd August 2024 and comprised:

- 1 No. Cable Percussion Boreholes (CP01) was sunk to a depth of 7.50m below existing ground level. Borehole logs are included in Appendix 1.
- 5 No. Window Sample Boreholes (WS01 to WS05 inclusive) were sunk to a maximum depth of 1.90m below existing ground level. Borehole logs are included in Appendix 1.
- Insitu strength testing was completed every 1m up to 5mbgl and then every 1.5m thereafter (SPTs) in all borehole locations.
- 4 No. In-situ DCP tests in car park areas to obtain CBR readings using TRL probe, the results of which are presented in Appendix 2.
- A 50mm diameter standpipe was installed into CP01 and WS04. EEGSL carried out four rounds of groundwater/ground gas monitoring from the standpipe after the fieldwork period, the results of which are presented in Appendix 3.

The fieldwork was carried out generally in accordance with BS 5930:2015+A1:2020 Code of Practice for Site Investigations unless otherwise stated.

The exploratory hole locations were determined by EEGSL and considered site logistics and working around the current tenant present at the time of investigation. The investigation locations completed are shown approximately on the Exploratory Hole Location Plan (Figure 2).

Figure 2: Exploratory Hole Location Plan



Each exploratory location was scanned using a Cable Avoidance Tool (CAT) in order to locate unrecorded underground services, and the exploratory locations were repositioned if necessary. On completion, all samples recovered from the assessment site were taken to a specialist laboratory for testing.

All site investigation work was supervised full time by a representative of EEGSL. The logging of soils and rocks has been carried out in accordance with BS5930(2015+A1:2020) except where superseded by the soil and rock description methodology in BS EN14688-1(2002), BS EN 14688-2(2004) and BS EN 14689-1(2003).

A summary of exploratory holes undertaken during the investigation is presented in Table 2.

Table 2: Summary of Exploratory Holes Undertaken

Hole	Type*	Depth (m)	Date Started	Date Finished	Backfill Details***
CP01	CP	7.50	13/08/2024	13/08/2024	Installed to 7.50mbgl.
WS01	WS	1.90	27/07/2024	27/07/2024	A
WS02	WS	1.00	27/07/2024	27/07/2024	A
WS03	WS	1.50	27/07/2024	27/07/2024	A
WS04	WS	1.90	27/07/2024	27/07/2024	Installed to 1.40mbgl.
WS05	WS	1.30	27/07/2024	27/07/2024	A
*CP = Cable Percussion Borehole, WS = Window Sample Borehole, **A = Arisings					

3.2 Laboratory Testing Programme

3.2.1 Geotechnical Testing

A programme of laboratory testing was carried out on samples taken from the various strata to assist in classification and determine the engineering properties of the materials underlying the assessment site. The testing was scheduled by EEGSL and carried out by Geo Site & Testing Services Ltd.

The test procedures used were generally in accordance with the methods described in BS1377:1990 and BS EN ISO 17892-1:2014. Details of the specific tests used in each case are given in Table 3 below:

Table 3: Summary of Geotechnical Testing

TEST	STANDARD	No.
Atterburg Limit (one-point method)	BS1377:1990 Part 2, Clause 4.4	7
PSD (wet sieve)	BS1377:1990 Part 2, clause 9.2	7
pH	BS1377:1990 Part 3, Clause 9	6
Water Soluble Sulphate (SO ₄)	BS1377:1990 Part 3, Clause 5	6
Moisture Content	BS1377:1990 Part 2: 3.2	7

The results of the laboratory geotechnical tests are discussed in Section 5 and included in Appendix 4.

3.2.2 Environmental Testing

The environmental chemistry of the ground was investigated by specialist chemical analysis of selected samples, scheduled by EEGSL and carried out by QTSE DETS Ltd.

Chemical analyses were carried out on 7 soil samples and were submitted for the following suite of determinants:

- *Asbestos Screen, Asbestos Quantification, Arsenic, Barium, Beryllium, Boron, Cadmium, Chromium, Cobalt, Copper, Lead, Mercury, Molybdenum, Nickel, Selenium, Vanadium, Zinc, Cyanide, Thiocyanate, Sulphate (SO₄), Sulphide, pH, Sulphur, Soil Organic Matter, Phenol, speciated Petroleum Hydrocarbons (TPH), speciated Polyaromatic Hydrocarbons (PAH), Polychlorinated Biphenyls (PCBs).*

3 soil samples were also submitted for Waste Acceptance Criteria (WAC) testing.

3 samples were also submitted for leachate testing and one groundwater sample was collected and tested for a similar contamination suite.

The results of the laboratory contamination tests are discussed in Section 6 and included in Appendix 5.

3.2.3 In-Situ CBR Test Results

Dynamic Cone Penetrometer Tests were undertaken at four borehole locations during the site works. A summary of the tests undertaken and the CBR values are presented in Table 4, whilst full results are presented in Appendix 2.

Table 4: Dynamic Cone Penetrometer (DCP) Results

Hole	Layer	Depth (mbgl)	CBR Value (%)
WS01	Layer 1	0.500 – 0.570	18.6
	Layer 2	0.570 – 0.666	22.1
	Layer 3	0.660 – 0.690	43.5
	Layer 4	0.690 – 0.810	17.3
	Layer 5	0.810 – 0.815	55.1
WS02	Layer 1	0.030 – 0.336	11.6
	Layer 2	0.336 – 0.390	89.0
	Layer 3	0.390 – 0.770	30.9
	Layer 4	0.770 – 0.920	19.1
	Layer 5	0.920 – 1005	24.8
WS03	Layer 1	0.050 – 0.170	26.5
	Layer 2	0.170 – 0.520	99.1
	Layer 3	0.520 – 0.840	18.7
WS04	Layer 1	0.050 – 0.379	16.5
	Layer 2	0.379 – 0.847	14.8
	Layer 3	0.847 – 0.910	52.3

4.0 GROUND CONDITIONS ENCOUNTERED

The following sections describe the ground conditions identified during the investigation and discusses the engineering properties of the soils based on insitu testing results and laboratory analysis.

4.1 Soil Profile Encountered

The sequence of strata encountered beneath the assessment site consisted of:

- Hard Standing:
 - o MACADAM proven to a maximum depth of 0.09mbgl, observed in all locations except CP01.
- Made Ground
 - o TOPSOIL: Soft brown gravelly slightly sandy CLAY proven to a maximum depth of 0.35mbgl, observed in CP01 only.
 - o Sandy gravelly CLAY proven to a maximum depth of 1.40mbgl, observed in CP01 and WS04 only.
 - o Gravelly slightly clayey SAND proven to a maximum depth of 0.57mbgl, observed in all locations except CP01.
- Weathered Upper Tunbridge Wells Sand Formation
 - o The Weathered Upper Tunbridge Wells Sand Formation was found present beneath the Made Ground in all locations and was proven to a maximum depth of 7.5mbgl within CP01. The formation was present as a complex sequence of interbedded sands and clays which in the field was predominantly logged as a Sand, however later laboratory tests indicated the materials tested were predominantly sandy Clays.

The generalised ground model can be described as Made Ground proven to a base depth of 1.40mbgl overlying interbedded clayey slightly gravelly Sands/ and sandy slightly gravelly Clays of the Weathered Upper Tunbridge Wells Sand Formation proven to a base depth of 7.50mbgl.

The depths at which each stratum was encountered in each exploratory hole is provided within the borehole logs presented within Appendix 1.

4.2 Obstructions

During the site investigation, no man-made obstructions were encountered during the drilling process.

The Cable Percussive borehole (CP01) refused on bedrock of the Upper Tunbridge Wells Sand Formation at 7.50mbgl.

The Window Sample boreholes all refused between 1.00 – 1.90mbgl on the dense/very dense Sands of the Upper Tunbridge Wells Sand Formation.

4.3 Groundwater

During the site investigation works, groundwater was not encountered in any of the boreholes drilled.

During the monitoring rounds the groundwater levels were measured between 1.70m and 4.47m below existing ground level.

4.4 Visual or Olfactory Evidence of Contamination

During the site investigation works no significant evidence of contamination was found present.

4.5 Engineering Properties

The following section discusses the engineering properties of the underlying Weathered Upper Tunbridge Wells Sand Formation. The assessment is based on results of insitu and laboratory testing obtained during this investigation. The results of laboratory geotechnical analysis are summarised in Table 5, whilst full details are included within Appendix 4.

Table 5: Summary of Laboratory Geotechnical Test Results

Location	Depth (m)	Stratum	Classification					Chemical	
			Particle Size Distribution (%)					pH Value	Water Soluble Sulphate (mg/l)
			Cobbles	Gravel	Sand	Silt	Clay		
CP01	1.00 – 1.50	UTW	0	10	9	6	75	-	-
CP01	3.00	UTW	0	8	10	6	76	-	-
CP01	4.00	UTW	0	1	4	6	89	-	-
CP01	5.00	UTW	0	13	72	6	9	-	-
CP01	6.00 – 6.50	UTW	0	3	5	6	86	5.2	82
WS01	1.00 – 1.95	UTW	0	3	6	6	85	5.5	21
WS04	1.60 – 1.90	UTW	0	17	13	6	64	5.2	27
WS05	0.80 – 1.30	UTW	0	1	9	6	84	7.4	11
UTW – Upper Tunbridge Wells Sand Formation									

4.5.1 Upper Tunbridge Wells Formation (0.34mbgl to 7.50mbgl)

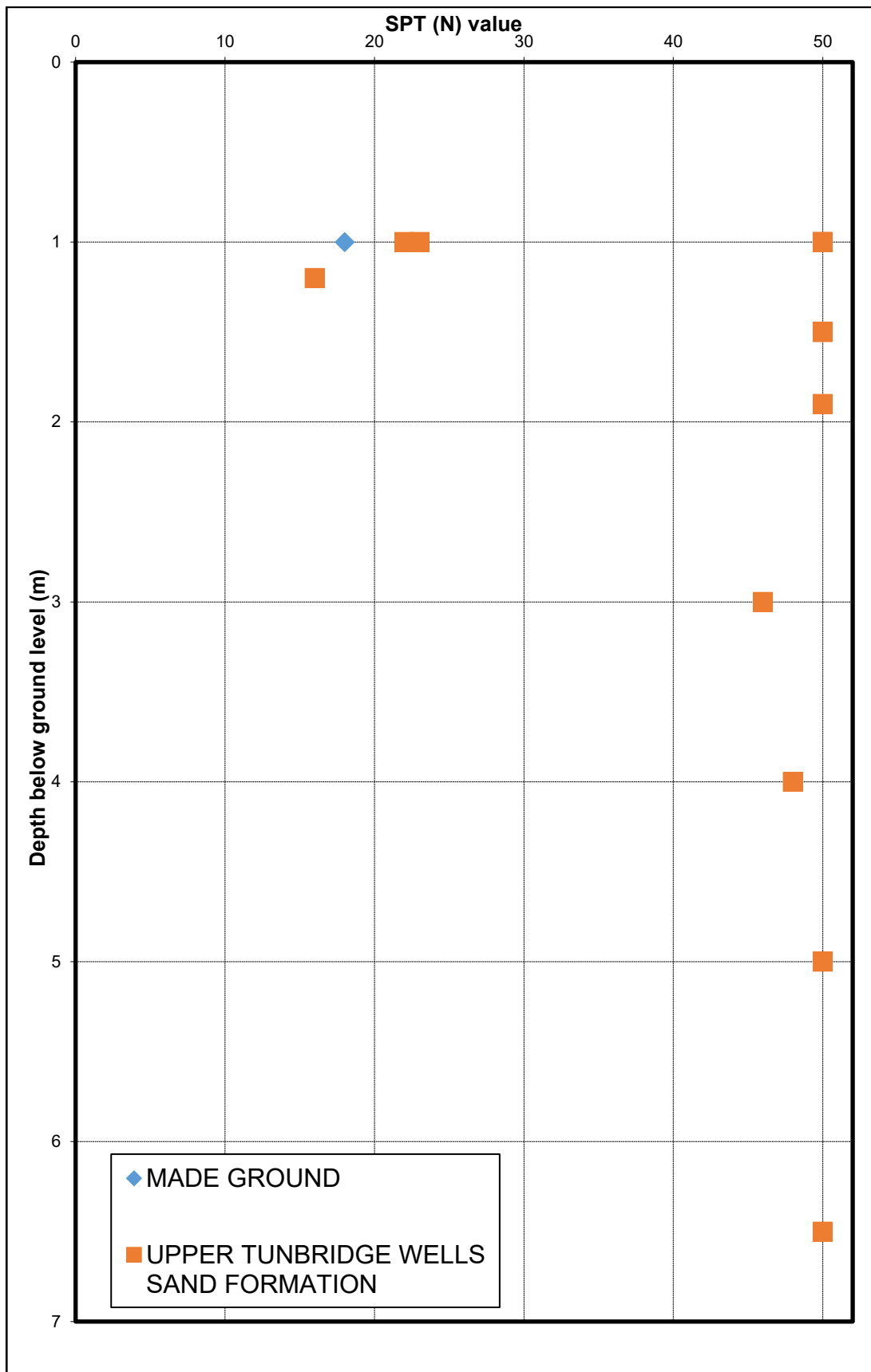
Interbedded clayey slightly gravelly Sands and sandy slightly gravelly Clays of the Weathered Upper Tunbridge Wells Formation were found present at depths between 0.34mbgl and 7.50mbgl. 14 **SPT N** results were obtained from 1.00 and 6.50mbgl giving a range of values from 16-61. The SPT N values would suggest the interbedded Sand and Clays are generally Medium

Dense / Firm to Stiff at 1.00mbgl, becoming Dense to Very Dense / Stiff to Very Stiff between 2.00 –7.50mbgl. An SPT vs N Graph is present in Figure 3 below.

Laboratory **Particle Size Distribution** (PSD) tests undertaken on seven samples suggests with the materials predominantly comprise of Clay (9% – 89%) with secondary components of Sand (4% - 72%) and Gravel (1% - 17%) and a minor component of Silt (6%).

Laboratory tests have given values of **water-soluble sulphate** (SO₄) between 11 mg/l and 82 mg/l and **pH Values** between 5.2 and 7.4.

Figure 3: SPT N Vs Depth Graph



5.0 GEOTECHNICAL ASSESSMENT

This section will discuss possible foundation design for the proposed development and considers the ground conditions identified within Section 4 alongside the design values generated from in situ and laboratory analysis.

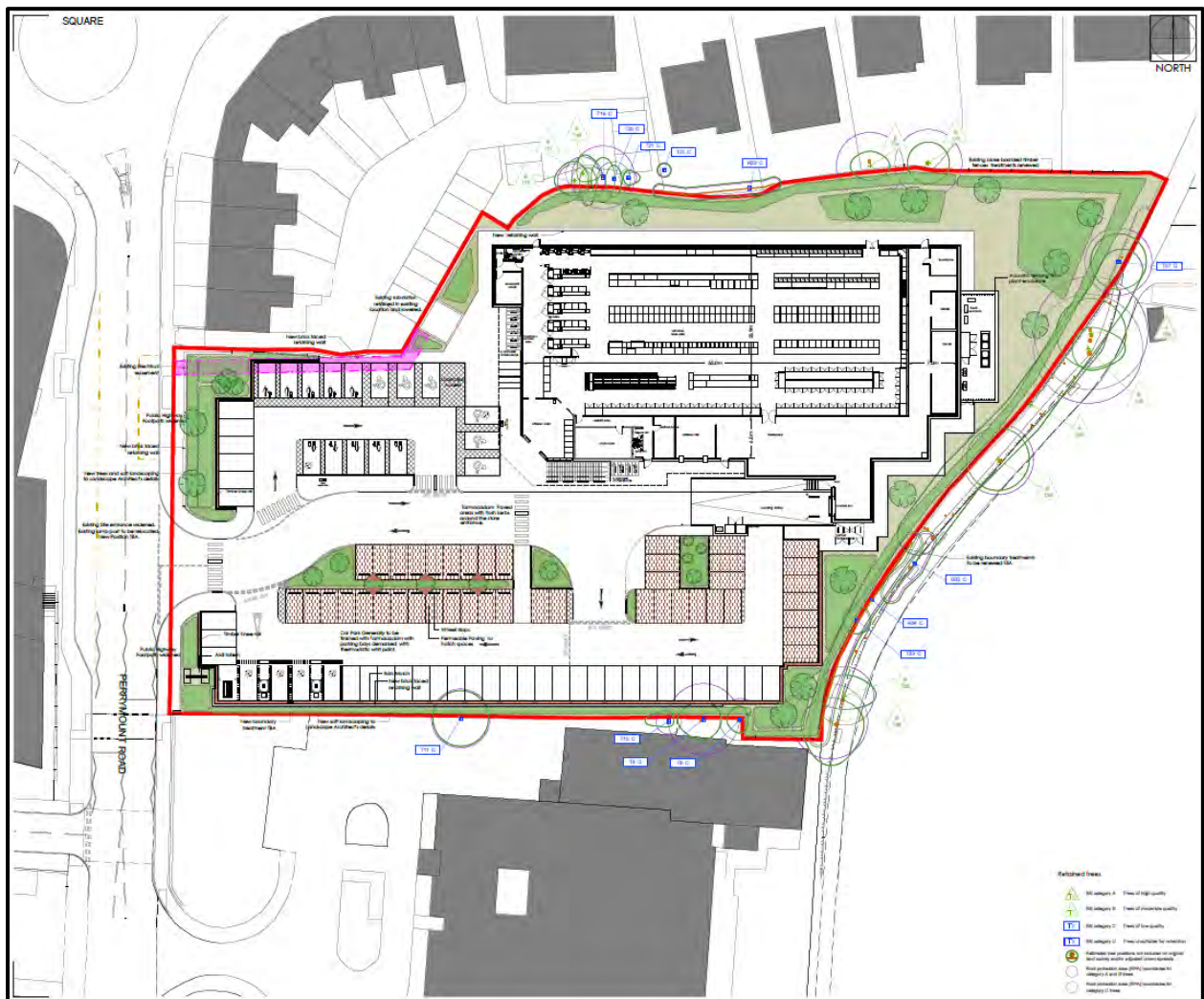
5.1 Ground Conditions Encountered

The generalised ground model can be described as Made Ground proven to a base depth of 1.40mbgl overlying interbedded clayey slightly gravelly Sands and sandy slightly gravelly Clays of the Upper Tunbridge Wells Sand Formation proven to a base depth of 7.50mbgl.

5.2 Proposed Development

It is understood that the proposed development includes the construction of a new supermarket with associated parking and harstanding areas. The proposed development layout can be seen in Figure 4 below.

Figure 4 – Proposed Development Layout



5.3 Groundwater

During the site investigation works, groundwater was not encountered in any of the boreholes drilled.

During the monitoring rounds the groundwater levels were measured between 1.70m and 4.47m below existing ground level.

Shallow groundwater is therefore expected to be present within the Upper Weathered Tunbridge Wells Sand Formation at depths below 1.70mbgl.

In this instance it is suggested that for shallow expectations (above 1.5mbgl) limited dewatering activities (digging of a sump with intermittent pumping) should be sufficient to keep excavations dry. Deeper excavations beyond 1.5mbgl may require more significant dewatering activities.

5.4 Foundations

For the purposes of this report, the bearing capacity of soils at depths of, 1.00mbgl, and 2.00mbgl will be discussed. Foundations should be placed within the Upper Weathered Tunbridge Wells Sand Formation. If any Made Ground, particularly loose or soft materials are encountered at foundation level, this should be either excavated and replaced with suitable granular fill, or the foundation extended to suitable strata.

Table 6 summarises anticipated allowable bearing pressures for strip and pad foundations. The bearing capacities are calculated based on Hansens (1978) method and assuming a factor of safety against bearing capacity failure of 3. Groundwater is assumed to be present at foundation level.

Table 6: Summary of Allowable Bearing Pressures

Foundation Depth	Foundation Stratum	Foundation Type	Foundation Width / Size	Allowable Bearing Pressure
1.00m	UTW	Pad	0.75m x 0.75m	140kPa
			1.5m x 1.5m	140kPa
		Strip	0.6m	190kPa
			1.0m	180kPa
2.00m	UTW	Pad	0.75m x 0.75m	>500kPa
			1.5m x 1.5m	>500kPa
		Strip	0.6m	>500kPa
			1.0m	>500kPa
UTW – Upper Tunbridge Wells Sand Formation				

Table 7 gives estimates of anticipated settlements for the above foundations. Maximum allowable bearing pressures calculated in Table 6 have been used to give a worst-case scenario.

Table 7: Summary of Anticipated Foundation Settlements

Foundation Depth	Foundation Stratum	Foundation Type	Foundation Size	Foundation Loading	Settlement (mm)		
					Lower Limit	Upper Limit	Best Guess
1.00m	UTW	Pad	0.75m x 0.75m	140kPa	0-5	10-15	5-10
			1.5m x 1.5m	140kPa	5-10	20-25	10-15
		Strip	0.6m	190kPa	0-5	20-25	10-15
			1.0m	180kPa	5-10	25-30	10-15
2.00m	UTW	Pad	0.75m x 0.75m	500kPa	0-5	5-10	0-5
			1.5m x 1.5m	500kPa	0-5	10-15	5-10
		Strip	0.6m	500kPa	0-5	10-15	5-10
			1.0m	500kPa	0-5	15-20	5-10
UTW – Upper Tunbridge Wells Sand Formation							

Settlements for other bearing pressures may be estimated on a pro-rata basis but bearing pressures should not exceed the allowable net bearing pressure based on ultimate bearing capacity.

All foundation excavations should be inspected by a qualified engineer to prove that the founding strata is suitable and uniform along the length of the foundation, and capable of taking the anticipated structural loadings.

Should the anticipated structural loadings exceed the allowable bearing pressures above, or anticipated settlements are too large for the proposed structure, alternative foundation options such as piling should be considered.

5.5 Chemical Attack on Buried Concrete

Chemical tests show low levels of water-soluble sulphates, with values ranging from 11 – 82mg/l and slightly acidic ground conditions with pH values ranging from 5.2 – 7.4. Based on these conditions, it is recommended that for foundations the Design Sulphate Class, as defined in BRE Special Digest 1 (2005), be taken as DS-1 and the Aggressive Chemical Environment for Concrete (ACEC) site classification be taken as AC-1s. The recommendations of BRE Special Digest 1 should be followed for concrete foundations and ground bearing floor slabs.

5.6 Suitability of Excavated Materials

Acceptability criteria and testing, and methods of compaction/placement will depend on the type of contract and specification used for the construction of the proposed development and it is

recommended that earthworks specifications are reviewed by a suitably qualified engineer once these have been prepared by the relevant parties.

In this instance it is recommended that any Made Ground materials are not used as engineered fill and are instead only used for landscaping (if proven to be free from contamination).

5.7 Temporary Works

Formations will be susceptible to damage both by weather and trafficking, and should be protected immediately on exposure, particularly in areas where construction plant will access the site.

Excavations in the Made Ground and shallow granular horizons have the potential to be unstable and should be battered back to an angle of 1 in 2, or a system of close sheeting and shoring adopted to ensure stability. Excavations within the stiff underlying cohesive horizons may remain stable within the short term, however, will require shoring if left open for longer periods of time.

All excavations should be adequately supported where personnel are required to enter.

All natural materials on site should be capable of being excavated using conventional excavating machinery.

6.0 SOIL CONTAMINATION RISK ASSESSMENT

6.1 Tier I Human Health Soil Risk Assessment – Future Site Users

As part of the contamination assessment, the chemical results obtained by EEGSL have been screened against accepted compliance criteria, namely:

- Defra C4SL Health Criteria Values, where available; and
- Tier 1 assessment values - based on LQM/CIEH Sutable 4 Use Levels (S4ULs).

As a preliminary screening assessment, all results have been compared to commercial end use.

The comparison of results is summarised in Table 8 and 9 below:

Table 8: Soil Results Comparison with Defra C4SL HCV/LLTC Values

Determinant	C4SL (mg/kg)*			Min. (mg/kg)	Max. (mg/kg)	No. of Samples with Exceedances
	Residential with home grown produce (1)	Residential without home grown produce (2)	Commercial (3)			
Arsenic	37	40	640	4	9	0
Benzo(a)pyrene	2.4	5.3	36	<0.1	<0.1	0
Cadmium	14	150	220	<0.2	<0.2	0
Chromium VI	6	21	33	<2	<2	0
Lead	200	310	2300	8	592	0
Naphthalene	15	15	1600	<0.1	<0.1	0
*Minimal risk Health Criteria Values						

The comparison within Table 8 has shown no instances of elevated levels of contamination present in excess of the C4SLs for commercial end use.

For contaminants not covered by the Defra C4SLs, reference is made to the Sutable for Use Levels (S4ULs) derived by The Land Quality Management Ltd & Chartered Institute of Environmental Health⁽²⁰¹⁵⁾ and summarised in Table 9. The S4ULs are based on 1% Soil Organic Matter (SOM) as this is the most conservative approach.

Table 9: Soil Results Comparison with LQM/CIEH S4UL

Determinant	Suitable 4 Use Levels (mg/kg)*			Min. (mg/kg)	Max. (mg/kg)	No of Exceedances
	Residential		Commercial (3)			
	with homegrown produce (1)	without homegrown produce (2)				
Metals						
Beryllium	1.7	1.7	12	<0.5	0.7	0
Boron	290	11000	240000	<1	<1	0
Chromium III	910	910	8600	8	25	0
Copper	2400	7100	68000	7	55	0
Mercury	1.2	1.2	58	<1	<1	0
Nickel	180	180	980	5	18	0
Selenium	250	430	12000	<2	<2	0
Vanadium	410	1200	9000	9	31	0
Zinc	3700	4000	730000	21	110	0
Polycyclic Aromatic Hydrocarbons						
Naphthalene	2.3	2.3	190	<0.1	<0.1	0
Acenaphthylene	170	2900	83000	<0.1	<0.1	0
Acenaphthene	210	3000	84000	<0.1	<0.1	0
Fluorene	170	2800	63000	<0.1	<0.1	0
Phenanthrene	95	1300	22000	<0.1	0.17	0
Anthracene	2400	31000	520000	<0.1	<0.1	0
Fluoranthene	280	1500	23000	<0.1	0.14	0
Pyrene	620	3700	54000	<0.1	0.14	0
Benz(a)anthracene	7.2	11	170	<0.1	<0.1	0
Chrysene	15	30	350	<0.1	<0.1	0
Benzo(b)fluoranthene	2.6	3.9	44	<0.1	<0.1	0

Benzo(k)fluoranthene	77	110	1200	<0.1	<0.1	0
Indeno(1,2,3-cd)pyrene	27	45	500	<0.1	<0.1	0
Dibenz(a,h)anthracene	0.24	0.31	3.5	<0.1	<0.1	0
Benzo(ghi)perylene	320	360	3900	<0.1	<0.1	0
Speciated TPH						
Aliphatic >C5 - C6	42	42	3200	<0.01	<0.01	0
Aliphatic >C6 - C8	100	100	7800	<0.05	<0.05	0
Aliphatic >C8 - C10	27	27	2000	<2	<2	0
Aliphatic >C10 - C12	130	130	9700	<2	<2	0
Aliphatic >C12 - C16	1100	1100	59000	<3	<3	0
Aliphatic >C16 - C21	65000	65000	1600000	<3	<3	0
Aliphatic >C21 - C34	65000	65000	260000	<10	23	0
Aromatic >C5 - C7	70	370	26000	<0.01	<0.01	0
Aromatic >C7 - C8	130	860	56000	<0.05	<0.05	0
Aromatic >C8 - C10	34	47	3500	<2	<2	0
Aromatic >C10 - C12	74	250	16000	<2	<2	0
Aromatic >C12 - C16	140	1800	36000	<2	12	0
Aromatic >C16 - C21	260	1900	28000	<3	19	0
Aromatic >C21 - C35	1100	1900	28000	<10	<10	0
BTEX						
Benzene	0.087	0.38	27	<2	<2	0
Toluene	130	880	56000	<5	<5	0
Ethylbenzene	47	83	5700	<2	<2	0
m & p-xylene	60	88	6600	<2	<2	0
o-Xylene	59	82	6200	<2	<2	0
MTBE	56	79	5900	<5	<5	0
PCBs						
PCB Congener 28	-	-	-	<0.008	<0.008	0

PCB Congener 52	-	-	-	<0.008	<0.008	0
PCB Congener 101	-	-	-	<0.008	<0.008	0
PCB Congener 118 (7 Congeners)	-	-	-	<0.008	<0.008	0
PCB Congener 138	-	-	-	<0.008	0.008	0
PCB Congener 153	-	-	-	<0.008	<0.008	0
PCB Congener 180	-	-	-	<0.008	0.012	0
Total PCB (7 Congeners)	0.008	0.008	0.24	<0.1	<0.1	0

The comparison within Table 9 has shown no instances of elevated levels of contamination above the relevant commercial end use screening criteria.

6.2 Asbestos

Asbestos was not encountered in any of the samples analysed as part of this investigation.

6.3 Soil Contamination Assessment

The screening assessments completed in Tables 8 and 9 have shown no exceedances of the relevant commercial screening criteria.

Given the absence of contamination found, it is suggested in general the site does not appear to be significantly contaminated.

6.4 Waste Soil Classification

Soil chemical test data has been assessed in accordance with Environment Agency Technical Guidance WM3.1: Hazardous Waste; "Guidance on the classification and assessment of waste", May 2019, published by Environment Agency of England and Wales, SEPA, NIEA and Natural Resources Wales has been used to characterise soil materials.

HazWasteOnlineTM a cloud-based software application for the management, analysis and reporting of hazardous waste materials has been used to make this assessment.

The Hazardous Waste Assessment confirms that the soils tested can be classified as Non-hazardous.

Full results are provided in Appendix 5.

7.0 CONTROLLED WATERS RISK ASSESSMENT

Assessment of potential impacts to surface water and groundwater quality involves the screening of observed water quality data with appropriate water quality Assessment Criteria (AC). The selection of appropriate AC depends on the nature and sensitivity of the controlled water for which active contamination linkages are considered likely to exist. There are two core sources of water quality AC commonly used for controlled waters screening assessments in the UK.

- Environmental Quality Standards (EQS) defined for the protection of the ecology of surface water environments. And;
- Drinking Water Standards (DWS) defined on the basis of health for water intended for human consumption.

A large number of the EQS values lie just above the method detection limit for particular parameters and as such, are extremely conservative. In the absence of EQS values, Drinking Water Standards have been used for comparison of results. Again, DWS standards are highly conservative, especially in this site context.

7.1 Risk Assessment Screening Values

From the regulatory perspective, the perfect scenario for remediation would be to achieve clean up to natural background levels, however this may not be practically achievable and/or cost-effective, therefore, the UK approach is to adopt a water quality standard as an achievable target.

The EC Directive on Groundwater requires member states to take measures to prevent pollution by chemicals in two categories:

- List 1 – substances to be prevented from entering groundwater.
- List 2 – substances to be prevented from causing pollution of groundwater.

For List 1 and List 2 substances, an Environmental Quality Standard (EQS) has been determined, below which level a substance is not believed to be detrimental to aquatic life. Where a site is near to a drinking water supply abstraction or where groundwater is a resource, UK Drinking Water Standards (UKDWS) as set out in the Water Supply (Water Quality) Regulations 1989 and 2000 are applicable.

For the assessment of TPH, there is no EQS and the UKDWS of 10 µg/l relates to TPH as a whole rather than the fraction bandings. It is considered that the use of the UKDWS of 10 µg/l would be overly conservative and Health-based group values for the carbon fraction bands have been applied based on guidance given in the document published by the World Health Organisation entitled 'Petroleum Products in Drinking Water' reference WHO/SDE/WSH/05.08/123.

A summary of the water quality criteria used in this risk assessment is presented in Table 10.

Table 10: Water Quality Assessment Criteria

Contaminant of Concern	Water Quality Standard*	Source
Arsenic	50/10	EQS/ UKDWS
Boron	2000	EQS
Cadmium	1.5/5.0	EQS/ UKDWS
Chromium	32/50	EQS/ UKDWS
Copper	1.0 (bioaccessible) /2000	EQS/ UKDWS
Lead	14/10	EQS/ UKDWS
Mercury	0.07/1.0	EQS/ UKDWS
Nickel	34/20	EQS/ UKDWS
Selenium	10	UKDWS
Zinc	10.9 (bioaccessible) /5000	EQS/ UKDWS
pH	6-9	EQS
Cyanide	5/50	EQS/ UKDWS
TPH aliphatic C5 -C6	15000	WHO
TPH aliphatic C6 -C8	15000	WHO
TPH aliphatic C8 -C10	300	WHO
TPH aliphatic C10 -C12	300	WHO
TPH aliphatic C12 -C16	300	WHO
TPH aliphatic C16 -C21	300	No value currently defined, assumed value based on aliphatic C12 -C16 value
TPH aliphatic C21 -C35	300	No value currently defined, assumed value based on aliphatic C12 -C16 value
TPH aromatic C5 -C7	30	WHO
TPH aromatic C7 -C8	50	EQS
TPH aromatic C8 -C10	20	EQS
TPH aromatic C10 -C12	300	WHO
TPH aromatic C12 -C16	90	WHO
TPH aromatic C16 -C21	90	WHO
TPH aromatic C21 -C35	90	WHO
Phenol	46	EQS
Benzene	50/1.0	EQS/ UKDWS
Toluene	380	EQS
Ethylbenzene	300	WHO
Xylene	30	EQS
Naphthalene	2.0	EQS
*Concentration expressed in µg/l		

7.2 Identified Receptors

The main receptors for the assessment site have been identified as the Secondary A Aquifer present within the underlying Upper Tunbridge Wells Sand Formation located on-site.

It is understood that the site does not sit within any Source Protection Zones (SPZ) and no surface water or groundwater abstractions are recorded within a radius of 250m of the site boundary.

Given the above information, it is suggested that the site be classed as low to moderate sensitivity with regards to controlled waters.

7.3 Screening Assessment

The Level II screening assessment compares observed concentrations from laboratory testing against the screening assessment values detailed in Table 9. Testing has been carried out for the potential contaminants of concern and the full results are presented in Appendix 5. A comparison of the results against the above screening criteria is presented in Table 11.

Table 11: Level II Screening Assessment

Contaminant of Concern	Water Quality Standard*	Measured Concentration*	Exceedances
		CP01	
Arsenic	50/10	5.3	-
Boron	2000	1270	-
Cadmium	1.5/5.0	3	1 (CP01) EQS
Chromium	32/50	3.6	-
Copper	2000	28.7	-
Lead	14/10	14.8	1 (CP01) EQS + UKDWS
Mercury	0.07/1.0	< 0.04	-
Nickel	34/20	42.6	1 (CP01) EQS + UKDWS
Zinc	5000	159	-
pH	6-9	6.9	-
Cyanide	5/50	< 5	-
TPH aliphatic C5 -C6	15000	<10	-
TPH aliphatic C6 -C8	15000	<10	-
TPH aliphatic C8 -C10	300	<10	-
TPH aliphatic C10 -C12	300	<10	-
TPH aliphatic C12 -C16	300	<10	-
TPH aliphatic C16 -C21	300	<10	-
TPH aliphatic C21 -C34	300	<10	-
TPH aromatic C5 -C7	30	<10	-
TPH aromatic C7 -C8	50	<10	-
TPH aromatic C8 -C10	20	<10	-
TPH aromatic C10 -C12	300	<10	-
TPH aromatic C12 -C16	90	<10	-
TPH aromatic C16 -C21	90	<10	-
TPH aromatic C21 -C35	90	<10	-
Phenol	46	<10	-
Benzene	50/1.0	<1	-
Toluene	380	<5	-
Ethylbenzene	300	<5	-
Xylene	30	<10	-
Naphthalene	2.0	0.15	-
* Concentration expressed in µg/l Exceedances in BOLD			

The results from the initial groundwater monitoring have found in general no signs of significant groundwater contamination.

Only marginally elevated concentrations of Cadmium, Lead and Nickel exceeding the very conservative EQS and UKDWS screening values have been identified, however none of these exceedances are thought to indicate the presence of significant contamination at the assessment site.

Given the wider urban environment that the assessment site sits within, it is suggest that the marginally elevated concentrations above are likely to be representative of the shallow groundwater quality within the area, and are unlikely to be attributed solely to the assessment site.

Considering the above, and given the fact that there are no surface water bodies or abstraction licences within 250m of the assessment site, it is suggested that the marginally elevated levels of Cadmium, Lead and Nickel are not significant in this instance.

8.0 GROUND GAS CONTAMINATION RISK ASSESSMENT

A preliminary gas risk assessment has been completed for the assessment site based on monitoring data collected from the installations constructed as part of the recent ground investigation works. The installations have slotted sections screened across the underlying natural soils.

A total of four rounds of ground gas monitoring have been completed to date from boreholes CP01 and WS04 between the 6th of August 2024 and the 21st August 2024. Wherever possible, monitoring rounds were targeted to coincide with falling atmospheric pressure events. Detailed results from the monitoring are provided within Appendix 3.

During monitoring the atmospheric pressure was recorded as between 1003-1013mb and the following ranges of gas concentrations were identified: Oxygen (O₂) levels ranging from 18.5 – 20.6% by volume, Carbon Dioxide (CO₂) levels ranging from <0.1-2.7% by volume and concentrations of Methane (CH₄) ranging between <0.1-1.7%. Elevated concentrations of Carbon Monoxide (CO) Hydrogen Sulphide (H₂S) were not detected during all four rounds of monitoring.

A maximum positive stabilised gas flow of 0.2 l/hr was recorded alongside a differential borehole pressure of 1 pa.

The potential risk associated with ground gases (whether from natural or man-made sources) is dependent on the concentration of gas and its flow rate to the surface. These factors are assessed by the monitoring of borehole installations over varying atmospheric conditions. The variable nature of gas generation and the effect of barometric pressure on gas flow, means that the volume of gas potentially reaching the ground surface can vary over time.

For the assessment of development sites, in terms of the potential for ground gas to present a hazard, the risk-based methodology detailed in BS8485 has been used. This is a risk-based approach that is designed to allow the design of gas protection measures for development by comparing hazardous gas flow rates (Qhgs) to Characteristic Situations as detailed within Table 1 of BS8485 (reproduced in Table 12 for reference). The Qhgs are calculated as the borehole flow rate multiplied by the concentration in the air stream of the particular gas being considered.

For the purposes of this evaluation, the calculations will be carried out for both Carbon Dioxide (CO₂) and Methane (CH₄). From the monitoring works the flow rate and gas concentration in each borehole from each round has been used to calculate Qhgs for each individual borehole for Carbon Dioxide and Methane. This analysis will give the best representative assessment of the risks posed by ground gasses at the assessment site. A table summarising the Qhgs and the associated Characteristic Situations is presented in Table 12.

Table 12: Ground Gas Risk Screening Table

Monitoring Round	Ground Gas data	CP01	WS04
1	Max Flow	<0.1	<0.1
	Max CO2	0.4	0.4
	Max CH4	<0.1	<0.1
	Qhgs CO2	0.0004	0.0004
	Qhgs CH4	0.0001	0.0001
	Characteristic Situation	1	1
2	Max Flow	<0.1	<0.1
	Max CO2	0.1	0.8
	Max CH4	0.7	0.5
	Qhgs CO2	0.0001	0.0008
	Qhgs CH4	0.0007	0.0005
	Characteristic Situation	1	1
3	Max Flow	0.2	<0.1
	Max CO2	2.7	2.7
	Max CH4	<0.1	<0.1
	Qhgs CO2	0.0054	0.0027
	Qhgs CH4	0.0002	0.0001
	Characteristic Situation	1	1
4	Max Flow	<0.1	0.1
	Max CO2	2.1	2.0
	Max CH4	<0.1	<0.1
	Qhgs CO2	0.0021	0.0020
	Qhgs CH4	0.0001	0.0001
	Characteristic Situation	1	1

As can be seen from Table 13, the calculated hazardous gas flow rates all sit well within the bounds of a Characteristic Situation 1 Scenario.

Given the above, it is recommended that the site be classed as a Characteristic Gas Situation 1 (Very Low Risk), with no ground gas protection measures required.

**Table 13: Characteristic gas situation by site characteristic hazardous gas flow rate
(BS 8485)**

Characteristic Gas Situation	Hazard Potential	Site characteristic hazardous gas flow rate, Qhgs (lh-1)	Additional Factors
1	Very Low Risk	<0.07	Typically, methane ≤1%v/v and/or carbon dioxide ≤5% v/v. Otherwise consider increase to Situation 2.
2	Low Risk	<0.7	Borehole flow rate not to exceed 70l/hr. Otherwise characteristic gas regime.
3	Moderate Risk	<3.5	
4	Moderate to High Risk	<15	
5	High Risk	<70	
6	Very High Risk	>70	

9.0 REVISED CONCEPTUAL SITE MODEL

Table 14 below presents the Revised Conceptual Model which considers whether an actual risk is present to the identified receptors taking into account the results of the recent ground investigation works.

Table 14: Conceptual site Model

Source	Pathway	Receptor	Probability	Consequence	Risk	Comment
Onsite Sources						
Contamination of the ground beneath site due to current and historical on-site development.	Dermal contact, ingestion and inhalation of soils dust	Current Site Users	Unlikely	Moderate	Low Risk	Ground investigation works have proven a lack of significant contamination present at the assessment site, therefore the risk to current site users is deemed as LOW.
		Future Site users	Unlikely	Moderate	Low Risk	Ground investigation works have proven a lack of significant contamination present at the assessment site, therefore the risk to future site users is deemed as LOW.
		Adjacent Site users	Unlikely	Moderate	Low Risk	Ground investigation works have proven a lack of significant contamination present at the assessment site, therefore the risk to adjacent site users is deemed as LOW.
		Construction Workers	Unlikely	Moderate	Low Risk	Ground investigation works have proven a lack of significant contamination present at the assessment site, therefore the risk to construction site workers is deemed as LOW.
	Vertical or horizontal migration of contamination via leaching into the underlying shallow groundwater	Controlled Waters	Unlikely	Moderate	Low Risk	Ground investigation works have proven a lack of significant contamination present at the assessment site, therefore the risk to controlled waters is deemed as LOW.
Offsite Sources						
Contamination of the assessment site due to current and historical off-site uses	Vertical leaching of contaminants via shallow groundwater.	Current Site Users	Unlikely	Moderate	Low Risk	Ground investigation works have proven a lack of significant contamination present at the assessment site, therefore the risk to current site users is deemed as LOW.
		Future Site Users	Unlikely	Moderate	Low Risk	Ground investigation works have proven a lack of significant contamination present at the assessment site, therefore the risk to future site users is deemed as LOW.
		Construction Workers	Unlikely	Moderate	Low Risk	Ground investigation works have proven a lack of significant contamination present at the assessment site, therefore the risk to construction site workers is deemed as LOW.

Source	Pathway	Receptor	Probability	Consequence	Risk	Comment
Contamination of the assessment site due to current and historical off-site uses	Vertical or lateral migration of contamination within shallow soils or via windblown dusts	Current Site Users	Unlikely	Moderate	Low Risk	Ground investigation works have proven a lack of significant ground gas contamination present at the assessment site, therefore the risk to current site users is deemed as LOW.
		Future land users	Unlikely	Moderate	Low Risk	Ground investigation works have proven a lack of significant ground gas contamination present at the assessment site, therefore the risk to future site users is deemed as LOW.
		Construction Workers	Unlikely	Moderate	Low Risk	Ground investigation works have proven a lack of significant ground gas contamination present at the assessment site, therefore the risk to construction site workers is deemed as LOW.

10.0 CONCLUSIONS AND RECOMMENDATIONS

EEGSL were commissioned by the client to undertake ground investigation works at the assessment site to help inform on parameters used in foundation design as well as undertake a Human Health Risk Assessment for the proposed new retail food store at Perrymount Road, Haywards Heath, RH16 1DN.

The following section provides a summary of the conclusions and recommendations based on the findings of the investigation works undertaken and laboratory testing results.

10.1 Ground conditions

The generalised ground model can be described as Made Ground proven to a base depth of 1.40mbgl overlying interbedded clayey slightly gravelly Sands and sandy slightly gravelly Clays of the Upper Tunbridge Wells Sand Formation proven to a base depth of 7.50mbgl.

During the site investigation works, groundwater was not encountered in any of the boreholes excavated.

During subsequent monitoring rounds the groundwater levels were measured between 1.70m and 4.47m below existing ground level.

Assessment of the ground conditions in terms of the soils bearing capacities and predicted settlements has been undertaken and predicted values provided for shallow foundations. If these bearing capacities and settlement figures are not sufficient, it is recommended that an alternative foundation solution is considered.

Chemical assessment of the underlying Upper Tunbridge Wells Formation has proven that they do not represent particularly aggressive ground conditions and therefore it is recommended that for concrete foundations the Design Sulphate Class, as defined in BRE Special Digest 1 (2005), be taken as DS-1, and the Aggressive Chemical Environment for Concrete (ACEC) site classification be taken as AC-1.

10.2 Soil Contamination

As discussed in Section 6 of this report, chemical testing of soils representative of the materials beneath the assessment site has been undertaken, and the results of which are provided within Appendix 4.

During site investigation works, seven soil samples and one groundwater sample were collected and analysed for a general suite of contaminants.

Screening of the results against currently accepted commercial end use screening criteria has proven a general lack of significant contamination present within the samples tested.

Using the results of the chemical analysis, a revised conceptual site model has been developed for the assessment site (see Section 7). The revised conceptual model indicates a Low risk level for all known receptors.

Given the lack of contamination, no further assessment or remediation is deemed necessary at the assessment site.

10.3 Ground Gas

A total of four rounds of ground gas monitoring have been completed to date from boreholes CP01 and WS04 between the 6th of August 2024 and the 21st August 2024.

The results of the gas monitoring indicated that hazardous ground gas flow rates fall well within the bounds of a Characteristic Situation 1 scenario. Therefore, ground gas protection measures are not expected to be required.

10.4 Site Personnel

As with all construction sites, personnel working on the site during the construction period should be encouraged to maintain a high standard of personal hygiene and on-site washing facilities should be made available.

10.5 Due diligence

Due diligence is required during the construction period, and should any evidence of unknown contamination be found, appropriate investigation and assessment should be taken. The significance of any contamination not discovered by this investigation is outside the scope of this report.

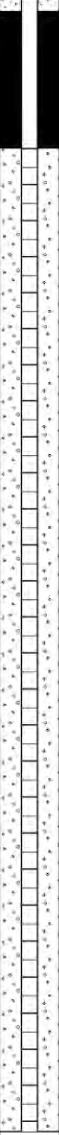
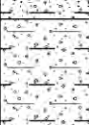
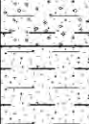
10.6 Further works

In addition to the ground investigation works completed, it is recommended that soakaway testing be completed to inform future surface water drainage design, and additional boreholes / ground investigation works may be required within area not currently accessible (e.g. underneath buildings or in areas of the site not previously accessible).

It is recommended that the further works above are completed once demolition works have been completed to ground level.

APPENDIX 1

EXPLORATORY LOGS

 EARTH ENVIRONMENTAL & GEOTECHNICAL		Percussion Drilling Log									
Project Name: ALDI Haywards Heath				Client: Craddys				Date: 03/08/2024			
Location: Perrymount Road, Haywards Heath, RH16 1DN				Contractor: PM Sampling				Co-ords: E533302.00 N124625.00			
Project No. : R3971				Crew Name: KB				Drilling Equipment: Dando 2000			
Borehole Number CP01		Hole Type CP		Level		Logged By JS		Scale 1:50		Page Number Sheet 1 of 1	
Well	Water Strikes	Sample and In Situ Testing			Depth (m)	Level (m)	Legend	Stratum Description			
		Depth (m)	Type	Results							
		0.30	ES		0.35		TOPSOIL: Soft brown gravelly slightly sandy CLAY with frequent roots and rootlets. Gravel is subangular to subrounded sandstone and flint. Sand is fine to coarse.	1			
		0.50	D								
		0.70	ES		0.80		MADE GROUND: Soft dark brown gravelly sandy CLAY with low cobble content and frequent roots and rootlets. Gravel is subangular to subrounded fine to coarse sandstone, brick, chalk and concrete. Sand is fine to coarse. Cobbles are subangular brick.				
		1.00	D								
		1.00 - 1.50	B				Interbedded Sands and Clays recovered as: Medium dense brownish yellow slightly clayey gravelly fine to medium SAND with low cobble content. Gravel is subangular to subrounded fine to coarse sandstone. Cobbles are subangular to subrounded sandstone. (WEATHERED UPPER TUNBRIDGE WELLS SAND FORMATION)	2			
		1.20	SPT	N=16 (2,3/4,3,4,5)							
		1.50	D								
		1.50	ES		2.00		Interbedded Sands and Clays recovered as: Very dense brownish yellow sandy slightly clayey subangular to subrounded fine to coarse GRAVEL of sandstone. Sand is fine to coarse. (WEATHERED UPPER TUNBRIDGE WELLS SAND FORMATION)	3			
		2.00	D								
		2.00	SPT	N=61 (6,9/11,15,18,17)							
			3.00	D		3.00		Interbedded Sands and Clays recovered as: Dense Yellowish grey slightly clayey fine SAND. (WEATHERED UPPER TUNBRIDGE WELLS SAND FORMATION)	4		
		3.00	SPT	N=46 (8,9/10,11,13,12)							
		4.00	D								
			4.00	SPT	N=48 (6,8/9,11,13,15)	5.50		Interbedded Sands and Clays recovered as: Dense Yellowish grey slightly clayey fine SAND. (WEATHERED UPPER TUNBRIDGE WELLS SAND FORMATION)	5		
		5.00	D								
	5.00	SPT	50 (25 for 120mm/50 for 105mm)								
		6.00 - 6.50	B		6		Interbedded Sands and Clays recovered as: Very dense brownish yellow very gravelly clayey fine to coarse SAND. Gravel is subangular to subrounded fine to coarse sandstone. (WEATHERED UPPER TUNBRIDGE WELLS SAND FORMATION)	6			
		6.50	SPT	50 (25 for 6mm/50 for 4mm)							
		7.00	D								
					7.50		Interbedded Sands and Clays recovered as: Very dense brownish yellow very gravelly clayey fine to coarse SAND. Gravel is subangular to subrounded fine to coarse sandstone. (WEATHERED UPPER TUNBRIDGE WELLS SAND FORMATION)	7			
							End of Borehole at 7.500m	8			
								9			
								10			

Hole Diameter		Casing Diameter		Chiselling				Inclination and Orientation			
Depth Base (m)	Diameter (mm)	Depth Base (m)	Diameter (mm)	Depth Top	Depth Base	Duration	Tool	Depth Top	Depth Base	Inclination	Orientation

Remarks

1. Hole location scanned with CAT. 2. Hole terminated due to refusing on hard strata at 7.50mbgl. 3. Borehole was installed to 7.5mbgl with 50mm HDPE standpipe. 4. Groundwater was not encountered. 5. The Weathered Tunbridge Wells Sand Formation was present as interbedded sands and clays but in the field was predominantly described as a sand.



EARTH ENVIRONMENTAL
& GEOTECHNICAL

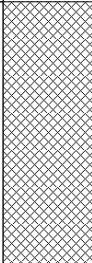
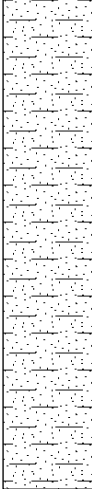
Window Sample Log

Project Name: ALDI Haywards Heath		Client: Craddys		Date: 27/07/2024	
Location: Perrymount Road, Haywards Heath, RH16 1DN		Contractor: PM Sampling		Co-ords: E533213.00 N124613.00	
Project No. : R3971		Crew Name: AF		Drilling Equipment:	
Borehole Number WS01	Hole Type WS	Level	Logged By AJ	Scale 1:10	Page Number Sheet 1 of 1

Well	Water Strikes	Sample and In Situ Testing			Depth (m)	Level (m)	Legend	Stratum Description	
		Depth (m)	Type	Results					
		0.10 - 0.30	ES		0.09			MADE GROUND: Macadam.	
								MADE GROUND: Brown very gravelly slightly clayey fine to coarse fine to coarse SAND with low cobble content. Gravel is subangular to rounded fine to coarse flint and brick. Cobbles are angular brick.	
		0.50 - 0.60	ES		0.44			Interbedded Sands and Clays recovered as: Soft yellowish brown mottled grey slightly sandy CLAY. Sand is fine to coarse.	
		0.70 - 1.00	D		0.60			Interbedded Sands and Clays recovered as: Grey and yellow slightly gravelly slightly clayey SAND. Sand is fine to coarse. Gravel is subangular to subrounded fine to medium of flint.	
		1.00 - 1.45 1.00 - 1.95 1.00	SPT B SPT	N=22 (3,4/5,5,6,6)	1.00			Interbedded Sands and Clays recovered as: Grey and yellow SAND. Sand is fine to coarse.	1
		1.50	SPT	N=50 (8,10/50 for 280mm)				(WEATHERED UPPER TUNBRIDGE WELLS SAND FORMATION)	
					1.90				
								End of Borehole at 1.910m	2

Hole Diameter		Casing Diameter		Chiselling				Inclination and Orientation			
Depth Base (m)	Diameter (mm)	Depth Base (m)	Diameter (mm)	Depth Top	Depth Base	Duration	Tool	Depth Top	Depth Base	Inclination	Orientation

Remarks 1. Hole location scanned with CAT. 2. Hole terminated due to refusing on hard strata at 1.91mbgl. 3. Borehole was backfilled with arisings 4. Groundwater was not encountered. 5. The Weathered Tunbridge Wells Sand Formation was present as interbedded sands and clays but in the field was predominantly described as a sand.										 EARTH ENVIRONMENTAL & GEOTECHNICAL
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		Window Sample Log												
Project Name: ALDI Haywards Heath					Client: Craddys					Date: 27/07/2024				
Location: Perrymount Road, Haywards Heath, RH16 1DN					Contractor: PM Sampling					Co-ords: E533237.00 N124628.00				
Project No. : R3971					Crew Name: AF					Drilling Equipment:				
Borehole Number WS02		Hole Type WS		Level		Logged By AJ		Scale 1:10		Page Number Sheet 1 of 1				
Well	Water Strikes	Sample and In Situ Testing			Depth (m)	Level (m)	Legend	Stratum Description						
		Depth (m)	Type	Results										
		0.10 - 0.30	ES		0.03			MADE GROUND: Macadam. MADE GROUND: Brown very gravelly slightly clayey fine to coarse SAND. Gravel is subangular to rounded fine to coarse of flint and brick. MADE GROUND: Brown very gravelly fine to coarse SAND. Gravel is subangular to subrounded fine to coarse of flint and brick.				1		
					0.10									
		0.40 - 0.60	ES		0.35		Interbedded Sands and Clays recovered as: Yellow and grey slightly clayey SAND. Sand is fine to coarse. (WEATHERED UPPER TUNBRIDGE WELLS SAND FORMATION)							
0.80 - 1.00	D													
1.00 - 1.45 1.00	SPT SPT	N=50 (5,7/50 for 275mm)	1.00		End of Borehole at 1.000m				2					
Hole Diameter		Casing Diameter		Chiselling				Inclination and Orientation						
Depth Base (m)	Diameter (mm)	Depth Base (m)	Diameter (mm)	Depth Top	Depth Base	Duration	Tool	Depth Top	Depth Base	Inclination	Orientation			
Remarks														
1. Hole location scanned with CAT. 2. Hole terminated due to refusing on hard strata at 1.0mbgl. 3. Borehole was backfilled with arisings. 4. Groundwater was not encountered. 5. The Weathered Tunbridge Wells Sand Formation was present as interbedded sands and clays but in the field was predominantly described as a sand.														



Project Name: ALDI Haywards Heath

Client: Craddys

Date: 27/07/2024

Location: Perrymount Road, Haywards Heath, RH16 1DN

Contractor: PM Sampling

Co-ords: E533265.00 N124605.00

Project No. : R3971

Crew Name: AF

Drilling Equipment:

Borehole Number
WS03

Hole Type
WS

Level

Logged By
AJ

Scale
1:10

Page Number
Sheet 1 of 1

Well	Water Strikes	Sample and In Situ Testing			Depth (m)	Level (m)	Legend	Stratum Description	
		Depth (m)	Type	Results					
		0.10 - 0.30	ES		0.05			MADE GROUND: Macadam.	1
					0.10			MADE GROUND: Light brown very gravelly fine to coarse SAND. Gravel is subangular to rounded fine to coarse of flint and brick. MADE GROUND: Multicoloured slightly gravelly fine to coarse SAND. Gravel is subangular to subrounded fine to coarse of brick and macadam. Frequent cobbles of angular brick.	
		0.80 - 1.00	ES		0.50			Interbedded Sands and Clays recovered as: Grey and yellow very clayey slightly gravelly SAND. Sand is fine to coarse. Gravel is subangular to subrounded fine to medium of flint. (WEATHERED UPPER TUNBRIDGE WELLS SAND FORMATION)	
					0.80			Interbedded Sands and Clays recovered as: Grey and yellow slightly clayey SAND. Sand is fine to coarse. (WEATHERED UPPER TUNBRIDGE WELLS SAND FORMATION)	
		1.00 - 1.45 1.00	SPT SPT	N=23 (4,4/5,5,6,7)					
1.50	SPT	N=50 (7,9/50 for 275mm)	1.50			End of Borehole at 1.500m	2		

Hole Diameter		Casing Diameter		Chiselling				Inclination and Orientation			
Depth Base (m)	Diameter (mm)	Depth Base (m)	Diameter (mm)	Depth Top	Depth Base	Duration	Tool	Depth Top	Depth Base	Inclination	Orientation

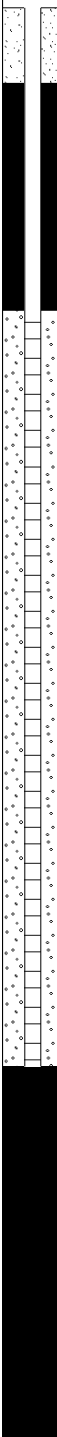
Remarks

1. Hole location scanned with CAT. 2. Hole terminated due to refusing on hard strata at 1.50mbgl. 3. Borehole was backfilled with arisings. 4. Groundwater was not encountered. 5. The Weathered Tunbridge Wells Sand Formation was present as interbedded sands and clays but in the field was predominantly described as a sand.



Window Sample Log

Project Name: ALDI Haywards Heath		Client: Craddys		Date: 27/07/2024	
Location: Perrymount Road, Haywards Heath, RH16 1DN		Contractor: PM Sampling		Co-ords: E533254.00 N124563.00	
Project No. : R3971		Crew Name: AF		Drilling Equipment:	
Borehole Number WS04	Hole Type WS	Level	Logged By AJ	Scale 1:10	Page Number Sheet 1 of 1

Well	Water Strikes	Sample and In Situ Testing			Depth (m)	Level (m)	Legend	Stratum Description	
		Depth (m)	Type	Results					
					0.05			MADE GROUND: Macadam.	
								MADE GROUND: Brown very gravelly fine to coarse SAND. Gravel is subangular to subrounded fine to coarse of flint and brick.	
		0.60 - 0.80	ES		0.57			MADE GROUND: Firm green slightly gravelly slightly sandy CLAY with strong organic odour. Gravel is subangular to subrounded fine to coarse flint. Sand is fine to coarse.	
		0.90 - 1.10	ES						
		1.00	SPT	N=18 (3,5/4,5,5,4)					1
		1.40 - 1.60	ES		1.40			Interbedded Sands and Clays recovered as: Light brown and yellow slightly clayey SAND. Sand is fine to coarse. (WEATHERED UPPER TUNBRIDGE WELLS SAND FORMATION)	
		1.60 - 1.90	D						
		1.90	SPT	50 (50 for 1mm/0 for 0mm)	1.90			End of Borehole at 1.900m	2

Hole Diameter		Casing Diameter		Chiselling				Inclination and Orientation			
Depth Base (m)	Diameter (mm)	Depth Base (m)	Diameter (mm)	Depth Top	Depth Base	Duration	Tool	Depth Top	Depth Base	Inclination	Orientation

Remarks 1. Hole location scanned with CAT. 2. Hole terminated due to refusing on hard strata at 1.90mbgl. 3. Borehole was installed to 1.40mbgl with 50mm HDPE standpipe. 4. Groundwater was not encountered. 5. The Weathered Tunbridge Wells Sand Formation was present as interbedded sands and clays but in the field was predominantly described as a sand.										 EARTH ENVIRONMENTAL & GEOTECHNICAL
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Window Sample Log

Project Name: ALDI Haywards Heath		Client: Craddys		Date: 27/07/2024	
Location: Perrymount Road, Haywards Heath, RH16 1DN		Contractor: PM Sampling		Co-ords: E533215.00 N124580.00	
Project No. : R3971		Crew Name: AF		Drilling Equipment:	
Borehole Number WS05	Hole Type WS	Level	Logged By AJ	Scale 1:10	Page Number Sheet 1 of 1

Well	Water Strikes	Sample and In Situ Testing			Depth (m)	Level (m)	Legend	Stratum Description	
		Depth (m)	Type	Results					
		0.05	ES		0.05			MADE GROUND: Macadam.	1
		0.10 - 0.30						MADE GROUND: Brown gravelly fine to coarse SAND. Gravel is subangular to round fine to coarse of flint and brick.	
		0.34			0.34			Interbedded Sands and Clays recovered as: Brown very gravelly SAND. Sand is fine to coarse. Gravel is subangular to subrounded fine to coarse flint. (WEATHERED UPPER TUNBRIDGE WELLS SAND FORMATION)	
		0.48			0.48			Interbedded Sands and Clays recovered as: Yellowish brown and grey slightly clayey SAND. Sand is fine to coarse. (WEATHERED UPPER TUNBRIDGE WELLS SAND FORMATION)	
		0.80 - 1.30	B						
		1.00	SPT	50 (50 for 1mm/0 for 0mm)					
					1.30			End of Borehole at 1.300m	2

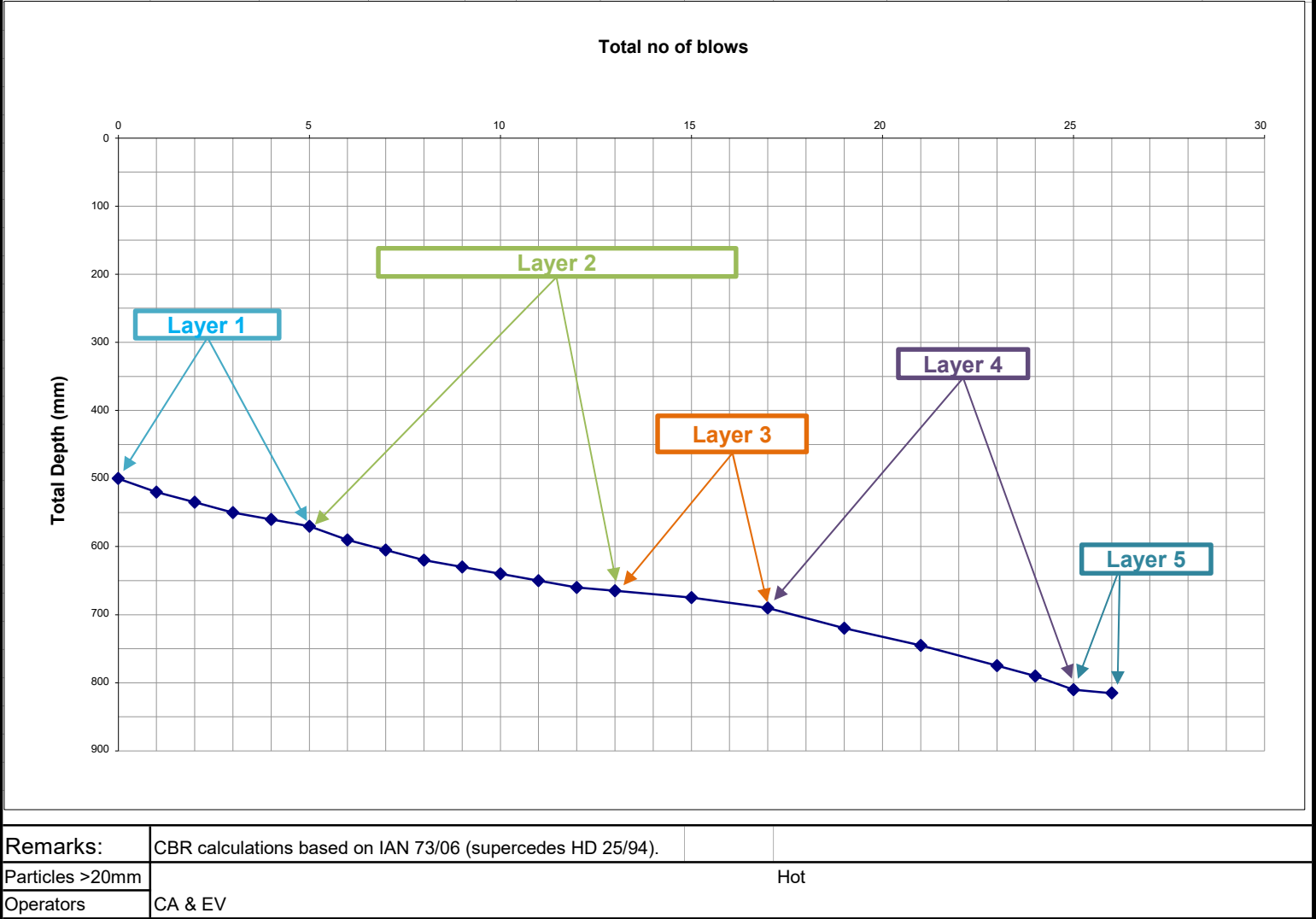
Hole Diameter		Casing Diameter		Chiselling				Inclination and Orientation			
Depth Base (m)	Diameter (mm)	Depth Base (m)	Diameter (mm)	Depth Top	Depth Base	Duration	Tool	Depth Top	Depth Base	Inclination	Orientation

Remarks 1. Hole location scanned with CAT. 2. Hole terminated due to refusing on hard strata at 1.30mbgl. 3. Borehole was backfilled with arisings. 4. Groundwater was not encountered. 5. The Weathered Tunbridge Wells Sand Formation was present as interbedded sands and clays but in the field was predominantly described as a sand.										 EARTH ENVIRONMENTAL & GEOTECHNICAL
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APPENDIX 2

TRL DCP RESULTS

DYNAMIC CONE PENETRATION TEST RESULTS										Date 27/07/2024			
Job No.										R3971			
Client Name	Craddys										Start Depth (mm)	500	
Job Name	ALDI Haywards Heath										Location	TRL1	
No. of Blows	Penetration (mm)	Total Depth BGL (mm)	Mean penetration per blow (mm)	Layer	Top of Layer BGL (mm)	Base of Layer BGL (mm)	Layer Thickness	Blows at top of layer	Blows at base of layer	Mean penetration per blow (mm)	CBR of layer (%)		
0	0	500	0	1	500	570	70	0	5	14.00	18.6		
1	20	520	20.00	2	570	665	95	5	13	11.88	22.1		
2	35	535	17.50	3	665	690	25	13	17	6.25	43.5		
3	50	550	16.67	4	690	810	120	17	25	15.00	17.3		
4	60	560	15.00	5	810	815	5	25	26	5.00	55.1		
5	70	570	14.00										
6	90	590	15.00										
7	105	605	15.00										
8	120	620	15.00										
9	130	630	14.44										
10	140	640	14.00										
11	150	650	13.64										
12	160	660	13.33										
13	165	665	12.69										
15	175	675	11.67										
17	190	690	11.18										
19	220	720	11.58										
21	245	745	11.67										
23	275	775	11.96										
24	290	790	12.08										
25	310	810	12.40										
26	315	815	12.12										



30

30

TRL2

The graph illustrates the relationship between the total depth of penetration (in mm) and the total number of blows for five different layers. The x-axis represents the total number of blows, ranging from 0 to 100. The y-axis represents the total depth in millimeters, ranging from 0 to 1000. The data points are connected by a line, and the graph is divided into five layers, each identified by a colored box and arrows pointing to the corresponding data points.

Layer	Approx. Total no of blows	Approx. Total Depth (mm)
Layer 1	0 - 15	0 - 150
Layer 2	15 - 30	150 - 200
Layer 3	30 - 60	200 - 450
Layer 4	60 - 85	450 - 750
Layer 5	85 - 95	750 - 850

Operators	CA & EV
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DYNAMIC CONE PENETRATION TEST RESULTS				Date		27/07/2024		EARTH ENVIRONMENTAL LABORATORY			
Job No.				R3971		Start Depth (mm)		50			
Client Name		Craddys						Location		TRL3	
Job Name		Aldi Haywards Heath									
No. of Blows	Penetration (mm)	Total Depth BGL (mm)	Mean penetration per blow (mm)	Layer	Top of Layer BGL (mm)	Base of Layer BGL (mm)	Layer Thickness	Blows at top of layer	Blows at base of layer	Mean penetration per blow (mm)	CBR of layer (%)
0	0	50	0	1	50	170	120	0	12	10.00	26.5
1	10	60	10.00	2	170	520	350	12	134	2.87	99.1
2	20	70	10.00	3	520	840	320	45	68	13.91	18.7
3	30	80	10.00								
4	45	95	11.25								
5	61	111	12.20								
6	70	120	11.67								
8	100	150	12.50								
10	111	161	11.10								
12	120	170	10.00								
17	130	180	7.65								
22	140	190	6.36								
27	150	200	5.56								
32	180	230	5.63								
34	185	235	5.44								
39	200	250	5.13								
44	225	275	5.11								
49	240	290	4.90								
54	255	305	4.72								
59	270	320	4.58								
64	285	335	4.45								
69	306	356	4.43								
74	315	365	4.26								
84	350	400	4.17								
94	385	435	4.10								
99	390	440	3.94								
109	410	460	3.76								
119	415	465	3.49								
129	450	500	3.49								
134	470	520	3.51								
136	495	545	3.64								
137	535	585	3.91								
138	570	620	4.13								
139	600	650	4.32								
140	630	680	4.50								
141	660	710	4.68								
142	680	730	4.79								
143	700	750	4.90								
144	730	780	5.07								
145	750	800	5.17								
146	770	820	5.27								
147	780	830	5.31								
148	790	840	5.34								

Total no of blows



Remarks:	CBR calculations based on IAN 73/06 (supercedes HD 25/94).		
Particles >20mm		Hot	
Operators	AJ		

APPENDIX 3
GAS MONITORING RESULTS

Gas Monitoring Record

Project Number:	R3971
Project Name:	Aldi Haywards Heath
Date:	09/08/2024
Logger	AJ

Weather:	Warm, Sunny
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*mbgl - Meters below Ground Level

			Initial	10 secs	20 secs	30 secs	40 secs	50 secs	60 secs	70 secs	80 secs	90 secs	100 secs	110 secs	120 secs	130 secs	140 secs	150 secs	160 secs	300 secs	Steady State Flow Readings (taken after gas readings)		Groundwater Level (mbgl*)	Borehole Base (mbgl*)	Comments
Borehole ID	CP01	CH4 (%)	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7			4.4	7.15	
Flow Rate (l/hr)	0	CO2 (%)	0	0	0	0	0	0	0	0	0	0	0	0	0	0.1	0.1	0.1	0.1	0.1		Flow Rate (l/hr)	0		
Atmospheric Pressure (mbar)	1007	O2 (%)	20.3	20.4	20.3	20.3	20.3	20.3	20.3	20.3	20.3	20.3	20.3	20.3	20.3	20.2	20.2	20.2	20.1	20.1		Atmospheric Pressure (mbar)	1007		
Borehole Pressure (Pa)	0	CO (ppm)	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1		Borehole Pressure (Pa)	0		
Time	10:17	H2S (ppm)	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1		Time			
Peak VOC		LEL (%)																				Peak VOC	2.2		
			Initial	10 secs	20 secs	30 secs	40 secs	50 secs	60 secs	70 secs	80 secs	90 secs	100 secs	110 secs	120 secs	130 secs	140 secs	150 secs	160 secs	300 secs	Steady State Flow Readings (taken after gas readings)		Groundwater Level (mbgl*)	Borehole Base (mbgl*)	Comments
Borehole ID	WS04	CH4 (%)	0.4	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.4	0.4	0.4	0.4	0.4	0.4	0.4			DRY	1.8	
Flow Rate (l/hr)	0	CO2 (%)	0	0.8	0.6	0.5	0.5	0.4	0.3	0.3	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.1	0.1	0.1		Flow Rate (l/hr)	0		
Atmospheric Pressure (mbar)	1008	O2 (%)	19.9	19.1	19.2	19.3	19.3	19.4	19.4	19.4	19.4	19.4	19.4	19.4	19.4	19.4	19.4	19.4	19.4	19.2		Atmospheric Pressure (mbar)	1007		
Borehole Pressure (Pa)	0	CO (ppm)	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1		Borehole Pressure (Pa)	0		
Time	11:52	H2S (ppm)	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1		Time			
Peak VOC	0.1	LEL (%)																				Peak VOC			

Gas Monitoring Record

Project Number:	R3971
Project Name:	ALDI Haywards Heath
Date:	06/08/2024
Logger	JL

Weather:	Wet, Rainy and Mild
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*mbgl - Meters below Ground Level

			Initial	10 secs	20 secs	30 secs	40 secs	50 secs	60 secs	70 secs	80 secs	90 secs	100 secs	110 secs	120 secs	130 secs	140 secs	150 secs	160 secs	180 secs	300 secs	Steady State Flow Readings (taken after gas readings)		Groundwater Level (mbgl*)	Borehole Base (mbgl*)	Comments
Borehole ID	CP01	CH4 (%)	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1			4.37	7.24	
Flow Rate (l/hr)	0	CO2 (%)	0.4	0.4	0.3	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	Flow Rate (l/hr)	0			
Atmospheric Pressure (mbar)	1009	O2 (%)	19.7	19.4	19.3	19.3	19.3	19.3	19.3	19.3	19.3	19.3	19.3	19.3	19.3	19.3	19.2	19.2	19.2	19.2	19.2	Atmospheric Pressure (mbar)	1012			
Borehole Pressure (Pa)	0	CO (ppm)	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	Borehole Pressure (Pa)	1			
Time	14:10	H2S (ppm)	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	Time	14:17			
Peak VOC		LEL (%)	<	<	<	<	<	<	<	<	<	<	<	<	<	<	<	<	<	<	<	Peak VOC	<0.1			
			Initial	10 secs	20 secs	30 secs	40 secs	50 secs	60 secs	70 secs	80 secs	90 secs	100 secs	110 secs	120 secs	130 secs	140 secs	150 secs	160 secs	180 secs	300 secs	Steady State Flow Readings (taken after gas readings)		Groundwater Level (mbgl*)	Borehole Base (mbgl*)	Comments
Borehole ID	WS4	CH4 (%)	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1			DRY	1.84	
Flow Rate (l/hr)	0	CO2 (%)	0.4	0.4	0.4	0.3	0.3	0.3	0.3	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.1	Flow Rate (l/hr)	0			
Atmospheric Pressure (mbar)	1011	O2 (%)	19.1	19.1	19	19	19	19	19	19	19	19	19	19	19	19	19	19	19	19	19	Atmospheric Pressure (mbar)	1009			
Borehole Pressure (Pa)	0	CO (ppm)	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	Borehole Pressure (Pa)	1			
Time	14:27	H2S (ppm)	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	Time	14:34			
Peak VOC		LEL (%)	<	<	<	<	<	<	<	<	<	<	<	<	<	<	<	<	<	<	<	Peak VOC	<0.1			

Gas Monitoring Record

Project Number:	R3971
Project Name:	ALDI Haywards Heath
Date:	13/08/2024
Logger	JL

Weather:	Sunny, Mild, Dry
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*mbgl - Meters below Ground Level

			Initial	10 secs	20 secs	30 secs	40 secs	50 secs	60 secs	70 secs	80 secs	90 secs	100 secs	110 secs	120 secs	130 secs	140 secs	150 secs	180 secs	300 secs	Steady State Flow Readings (taken after gas readings)		Groundwater Level (mbgl")	Borehole Base (mbgl")	Comments
Borehole ID	CP01	CH4 (%)	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1			4.42	7.25	
Flow Rate (l/hr)	0.2	CO2 (%)	0.1	2	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.5	2.5	2.5	2.7	Flow Rate (l/hr)	0.1			
Atmospheric Pressure (mbar)	1003	O2 (%)	19.7	19.3	18.8	18.8	18.6	18.7	18.7	18.7	18.7	18.7	18.7	18.7	18.7	18.7	18.6	18.6	18.6	18.5	Atmospheric Pressure (mbar)	1003			
Borehole Pressure (Pa)	0	CO (ppm)	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	Borehole Pressure (Pa)	0			
Time	12:05	H2S (ppm)	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	Time	12:12			
Peak VOC		LEL (%)	<	<	<	<	<	<	<	<	<	<	<	<	<	<	<	<	<	<	Peak VOC	<0.1			
			Initial	10 secs	20 secs	30 secs	40 secs	50 secs	60 secs	70 secs	80 secs	90 secs	100 secs	110 secs	120 secs	130 secs	140 secs	150 secs	180 secs	300 secs	Steady State Flow Readings (taken after gas readings)		Groundwater Level (mbgl")	Borehole Base (mbgl")	Comments
Borehole ID	WS04	CH4 (%)	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1			DRY	1.86	
Flow Rate (l/hr)	0	CO2 (%)	2.2	2.7	2.1	1.9	1.6	1.4	1.2	1	0.9	0.9	0.8	0.8	0.7	0.7	0.7	0.6	0.6	0.3	Flow Rate (l/hr)	0.1			
Atmospheric Pressure (mbar)	1004	O2 (%)	19.3	18.7	19.1	19.3	19.4	19.6	19.7	19.8	19.9	20	20.1	20.2	20.2	20.2	20.3	20.3	20.3	20.6	Atmospheric Pressure (mbar)	1003			
Borehole Pressure (Pa)	0	CO (ppm)	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	Borehole Pressure (Pa)	0			
Time	13:01	H2S (ppm)	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	Time	13:08			
Peak VOC		LEL (%)	<	<	<	<	<	<	<	<	<	<	<	<	<	<	<	<	<	<	Peak VOC	<0.1			

Gas Monitoring Record

Project Number:	R3971
Project Name:	ALDI Haywards Heath
Date:	21/08/2024
Logger	JL

Weather:	Sunny, Mild, Dry
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*mbgl - Meters below Ground Level

			Initial	10 secs	20 secs	30 secs	40 secs	50 secs	60 secs	70 secs	80 secs	90 secs	100 secs	110 secs	120 secs	130 secs	140 secs	150 secs	180 secs	300 secs	Steady State Flow Readings (taken after gas readings)		Groundwater Level (mbgl")	Borehole Base (mbgl")	Comments
Borehole ID	CP01	CH4 (%)	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1			4.47	7.25	
Flow Rate (l/hr)	0	CO2 (%)	0.3	1.7	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.9	1.9	1.9	1.9	1.9	2.1	Flow Rate (l/hr)	0.1			
Atmospheric Pressure (mbar)	1013	O2 (%)	19.5	19.5	19.4	19.4	19.4	19.3	19.3	19.3	19.3	19.3	19.3	19.3	19.3	19.3	19.3	19.3	19.3	19.1	Atmospheric Pressure (mbar)	1013			
Borehole Pressure (Pa)	0	CO (ppm)	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	Borehole Pressure (Pa)	0			
Time	12:05	H2S (ppm)	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	Time	12:12			
Peak VOC		LEL (%)	<	<	<	<	<	<	<	<	<	<	<	<	<	<	<	<	<	<	Peak VOC	<0.1			
			Initial	10 secs	20 secs	30 secs	40 secs	50 secs	60 secs	70 secs	80 secs	90 secs	100 secs	110 secs	120 secs	130 secs	140 secs	150 secs	180 secs	300 secs	Steady State Flow Readings (taken after gas readings)		Groundwater Level (mbgl")	Borehole Base (mbgl")	Comments
Borehole ID	WS04	CH4 (%)	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1			1.7	1.86	
Flow Rate (l/hr)	0.1	CO2 (%)	2	1.9	1.9	1.7	1.6	1.5	1.3	1.2	1.1	0.9	0.9	0.8	0.8	0.8	0.7	0.7	0.7	0.3	Flow Rate (l/hr)	0.2			
Atmospheric Pressure (mbar)	1013	O2 (%)	19.2	19.4	19.3	19.4	19.5	19.6	19.7	19.8	19.8	19.9	20	20	20	20	20	20.1	20.1	20.4	Atmospheric Pressure (mbar)	1013			
Borehole Pressure (Pa)	0	CO (ppm)	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	Borehole Pressure (Pa)	1			
Time	12:20	H2S (ppm)	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	Time	12:27			
Peak VOC		LEL (%)	<	<	<	<	<	<	<	<	<	<	<	<	<	<	<	<	<	<	Peak VOC	<0.1			

APPENDIX 4
LABORATORY TEST RESULTS (GEOTECHNICAL)



Laboratory Report



Contract Number: 73991

Client Ref: **R3971**

Client PO: **R3971/AT/31/07/2024**

Date Received: **31-07-2024**

Date Completed: **15-08-2024**

Report Date: **15-08-2024**

Client: **Earth Environmental & Geotechnical**

This report has been checked and approved by:

Contract Title: **Haywards Heath**

For the attention of: **Ashley Thorne**

Brendan Evans
Office Administrator

Description	Qty
Particle Size Distribution BS EN ISO 17892-4 : 5.1 - * UKAS	3
Sedimentation by Pipette BS EN ISO 17892-4 : 5.4	3
Water Soluble Sulphate 2:1 extract Sub-contracted Test	3
pH value of soil Sub-contracted Test	3
Disposal of samples for job	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)

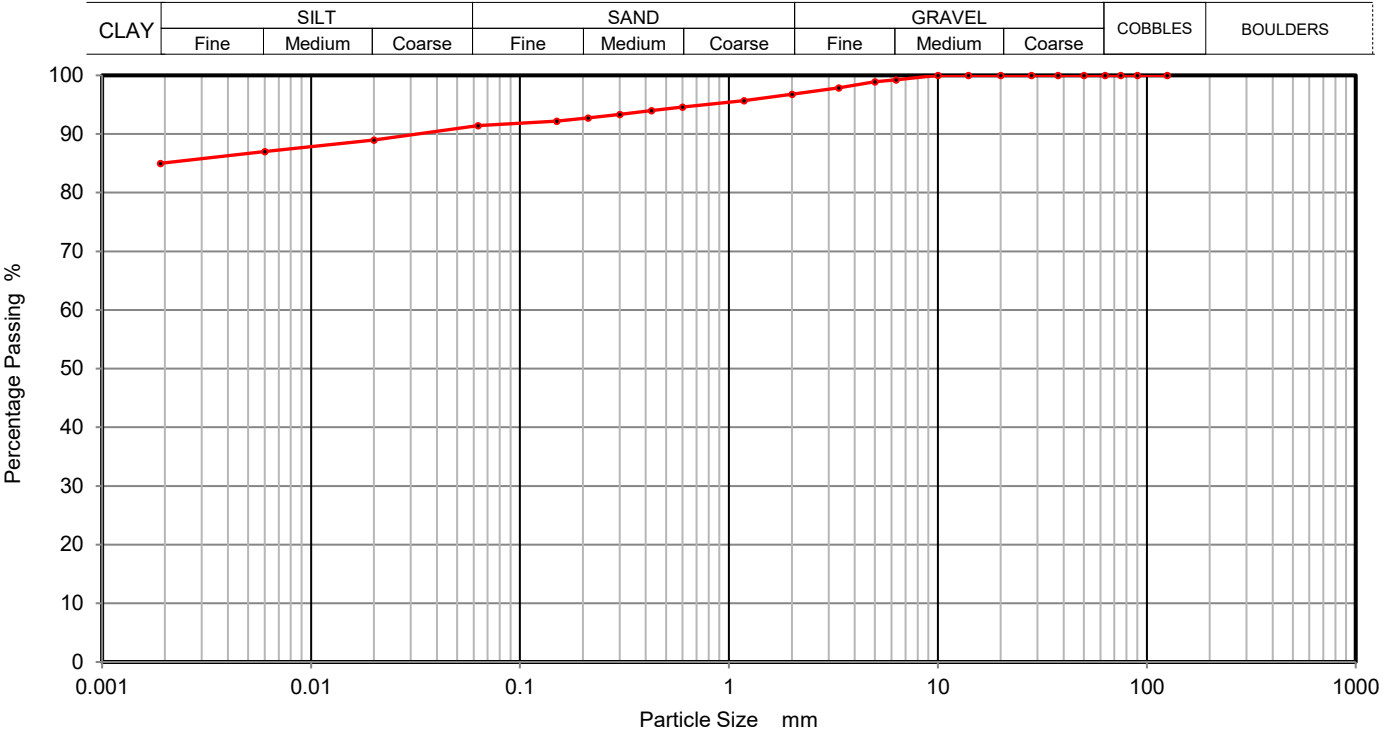
Richard John (Quality/Technical Manager) - Shaun Jones (Laboratory manager) - Shaun Thomas (Site Manager)

Wayne Honey (HR & HSE Manager)

PARTICLE SIZE DISTRIBUTION
BS EN ISO 17892-4:2016
Wet Sieve & Pipette Analysis, Clause 5.2 & 5.4

Contract Number	73991
Borehole/Pit No.	WS01
Sample No.	
Depth Top	1.00
Depth Base	1.95
Sample Type	B

Project Name	Haywards Heath
Sample Description	Brown slightly fine to medium gravelly fine to coarse sandy silty CLAY
Date Tested	12/08/2024



Sieving		Sedimentation	
Particle Size mm	% Passing	Particle Size mm	% Passing
125	100	0.0200	89
90	100	0.0060	87
75	100	0.0020	85
63	100		
50	100		
37.5	100		
28	100		
20	100		
14	100		
10	100		
6.3	99		
5	99		
3.35	98		
2	97		
1.18	96		
0.63	95		
0.425	94		
0.30	93		
0.20	93		
0.15	92		
0.063	91		

Sample Proportions	% dry mass
Cobbles	0
Gravel	3
Sand	6
Silt	6
Clay	85

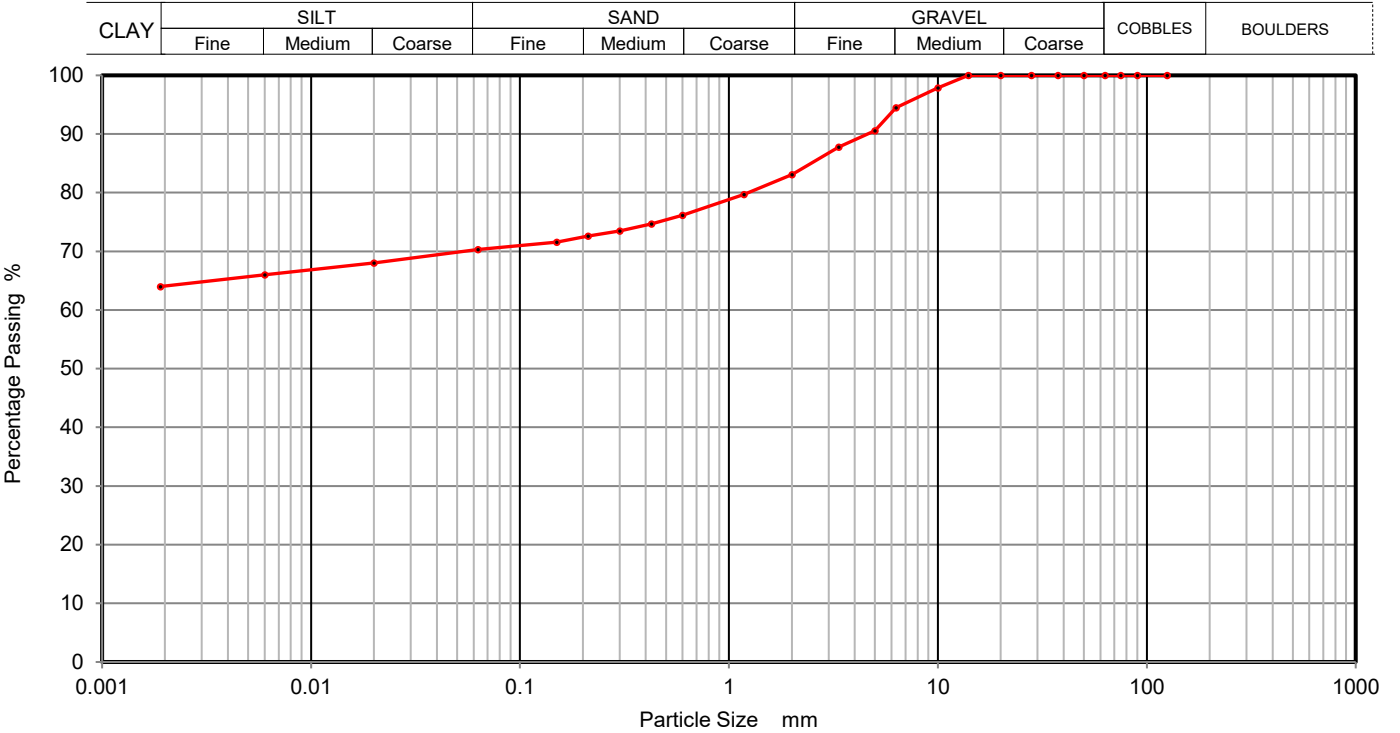
Remarks
Preparation and testing in accordance with BS17892 unless noted below

Operator
Cameron Thomas

PARTICLE SIZE DISTRIBUTION
BS EN ISO 17892-4:2016
Wet Sieve & Pipette Analysis, Clause 5.2 & 5.4

Contract Number	73991
Borehole/Pit No.	WS04
Sample No.	
Depth Top	1.60
Depth Base	1.90
Sample Type	D

Project Name	Haywards Heath
Sample Description	Brown fine to coarse sandy fine to medium gravelly silty CLAY
Date Tested	12/08/2024



Sieving		Sedimentation	
Particle Size mm	% Passing	Particle Size mm	% Passing
125	100	0.0200	68
90	100	0.0060	66
75	100	0.0020	64
63	100		
50	100		
37.5	100		
28	100		
20	100		
14	100		
10	98		
6.3	94		
5	91		
3.35	88		
2	83		
1.18	80		
0.63	76		
0.425	75		
0.30	73		
0.20	73		
0.15	72		
0.063	70		

Sample Proportions	% dry mass
Cobbles	0
Gravel	17
Sand	13
Silt	6
Clay	64

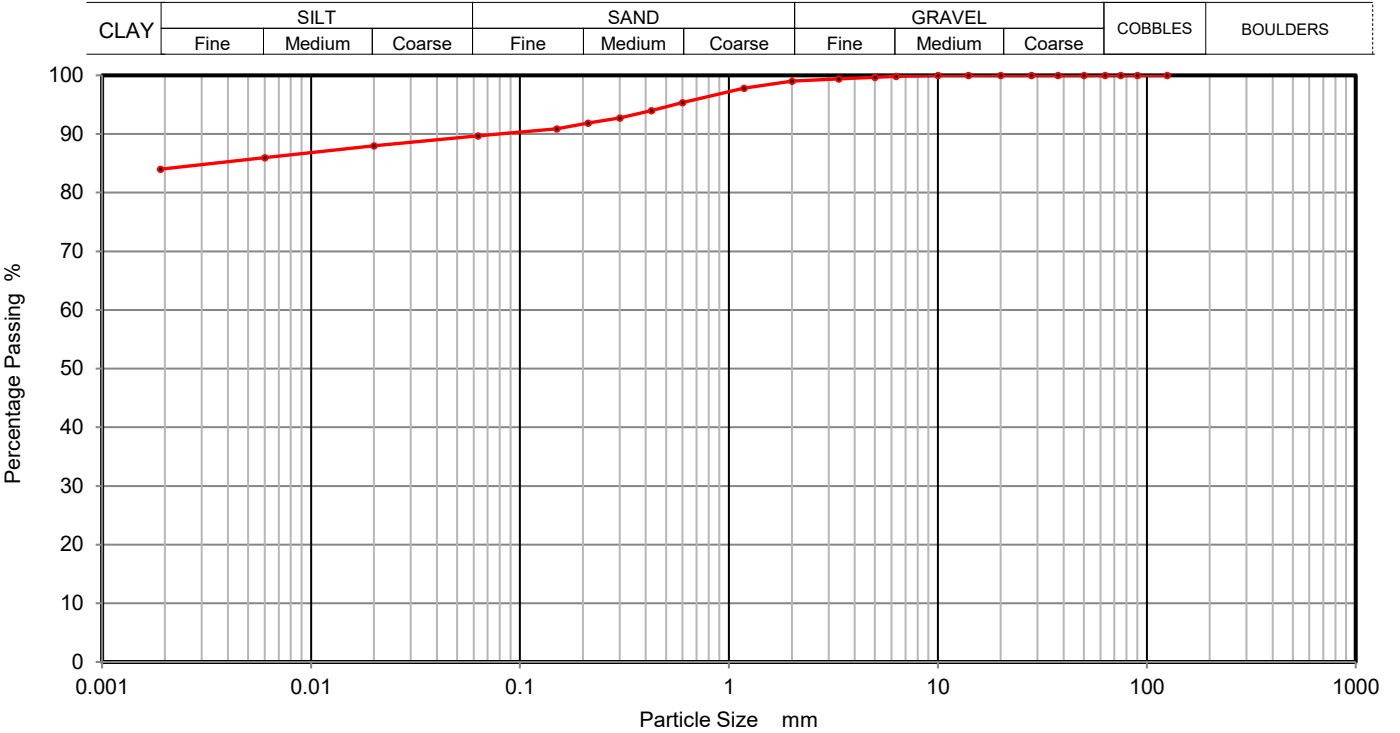
Remarks
Preparation and testing in accordance with BS17892 unless noted below

Operator
Cameron Thomas

PARTICLE SIZE DISTRIBUTION
BS EN ISO 17892-4:2016
Wet Sieve & Pipette Analysis, Clause 5.2 & 5.4

Contract Number	73991
Borehole/Pit No.	WS05
Sample No.	
Depth Top	0.80
Depth Base	1.30
Sample Type	B

Project Name	Haywards Heath
Sample Description	Brown slightly fine to medium gravelly fine to coarse sandy silty CLAY
Date Tested	12/08/2024



Sieving		Sedimentation	
Particle Size mm	% Passing	Particle Size mm	% Passing
125	100	0.0200	88
90	100	0.0060	86
75	100	0.0020	84
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	98		
0.63	95		
0.425	94		
0.30	93		
0.20	92		
0.15	91		
0.063	90		

Sample Proportions	% dry mass
Cobbles	0
Gravel	1
Sand	9
Silt	6
Clay	84

Remarks
Preparation and testing in accordance with BS17892 unless noted below

Operator
Cameron Thomas



GSTL
Unit 3-4 Heol Aur
Dafen Ind Estate
Dafen
SA14 8QN

7 - 11 Harding Street
Leicester
LE1 4DH

Analytical Test Report: L24/07104/GSL - 24-48263

Your Project Reference:	HAYWARDS HEATH R3971		
Your Order Number:	73991	Samples Received / Instructed:	05/08/2024 / 05/08/2024
Report Issue Number:	1	Sample Tested:	05/08 to 13/08/2024
Samples Analysed:	3 samples	Report issued:	13/08/2024

Signed

James Gane
Analytical Services Manager
CTS Group

Notes:

General

Please refer to Methodologies page for details pertaining to the analytical methods undertaken.

Samples will be retained for 14 days after issue of this report unless otherwise requested.

Moisture Content was determined in accordance with CTS method statement MS - CL - Sample Prep, oven dried at <30°C.

Moisture Content is reported as a percentage of the dry mass of soil, this calculation is in accordance with BS1377, Part 2, 1990, Clause 3.2

Where specification limits are included these are for guidance only. Where a measured value has been highlighted this is not implying acceptance or failure and certainty of measurement values have not been taken into account.

Uncertainty of measurement values are available on request.

Samples were supplied by customer, results apply to the samples as received.

Deviating Samples

On receipt samples are compared against our sample holding and handling protocols, where any deviations have been noted these are reported on our deviating sample page (if present)

Accreditation Key

UKAS = UKAS Accreditation, MCERTS = MCERTS Accreditation, u = Unaccredited, subUKAS - Subcontracted to a laboratory UKAS accredited for this test, subMCERTS - Subcontracted to a laboratory MCERTS accredited for this test

MCERTS Accreditation only covers the SAND, CLAY and LOAM matrices

Date of Issue: 08.08.2024

Issued by: J. Gane

Issue No: 4

Rev No: 11



L24/07104/GSL - 24-48263

Project Reference - HAYWARDS HEATH R3971

7 - 11 Harding Street
Leicester
LE1 4DH

Analytical Test Results - Chemical Analysis

Lab Reference			387830	387831	387832
Client Sample ID			-	-	-
Client Sample Location			WS01	WS04	WS05
Client Sample Type			B	D	B
Client Sample Number			-	-	-
Depth - Top (m)			1.00	1.60	0.80
Depth - Bottom (m)			1.95	1.90	1.30
Date of Sampling			-	-	-
Time of Sampling			-	-	-
Sample Matrix			Clay	Clay	Clay
Determinant	Units	Accreditation			
Water soluble sulphate (as SO ₄)	(mg/l)	u	21	27	11
pH Value	pH Units	MCERTS	5.5	5.2	7.4



L24/07104/GSL - 24-48263

Project Reference - HAYWARDS HEATH R3971

Sample Descriptions

7 - 11 Harding Street
Leicester
LE1 4DH

Lab Reference	Client Sample ID	Client Sample Location	Client Sample Type	Client Sample Number	Description	Moisture Content (%)	Stone Content (%)	Passing 2mm test sieve (%)
387830	-	WS01	B	-	Brown very gravelly sandy clay	-	-	100
387831	-	WS04	D	-	Brown very gravelly sandy clay	-	-	100
387832	-	WS05	B	-	Brown very gravelly sandy clay	-	-	100



L24/07104/GSL - 24-48263

Project Reference - HAYWARDS HEATH R3971

Sample Comments

7 - 11 Harding Street
Leicester
LE1 4DH

Lab Reference	Client Sample ID	Client Sample Location	Client Sample Type	Client Sample Number	Comments
387830	-	WS01	B	-	
387831	-	WS04	D	-	
387832	-	WS05	B	-	



7 - 11 Harding Street
Leicester
LE1 4DH

L24/07104/GSL - 24-48263

Project Reference - HAYWARDS HEATH R3971

Analysis Methodologies

Test Code	Test Name / Reference	Sample condition for analysis	Sample Preparation	Test Details
ANIONSS	MS - CL - Anions by Aquakem (2:1Extract)	Oven dried	Passing 2mm test sieve	Determination of Anions (inc Sulphate, chloride etc.) in soils by Aquakem. Analysis is based on a 2:1 water to soil extraction ratio
PHS	MS - CL - pH in Soils	As received	Passing 10mm test sieve	Determination of pH in soils using a pH probe (using a 1:3 soil to water extraction)
SAMPLEPREP	MS - CL - Sample Preparation	-	-	Preparation of samples (including determination of moisture content) to allow for subsequent analysis



L24/07104/GSL - 24-48263

Project Reference - HAYWARDS HEATH R3971

Sample Deviations

Deviations are listed below against each sample and associated test method, where deviation(s) are noted it means data may not be representative of the sample at the time of sampling and it is possible that results provided may be compromised.

Observations on receipt

A - No date of sampling provided

C - Received in inappropriate container

H - Contains headspace

T - Temperature on receipt exceeds storage temperature

R - Sample(s) received with less than 96 hours for testing to commence/complete, any result formally classed as deviating will be marked with an X against the applicable test (i.e. RX)

Observations whilst in laboratory

X - Exceeds sampling to extraction or analysis timescales

Lab Reference	Client Sample ID	Client Sample Location	Client Sample Type	Client Sample Number	Test	Deviations
387830	-	WS01	B	-		A
387831	-	WS04	D	-		A
387832	-	WS05	B	-		A



Laboratory Report



Contract Number: 74077

Client Ref: **R3971**

Client PO: **R3971/JS/05/08/2024**

Date Received: **06-08-2024**

Date Completed: **15-08-2024**

Report Date: **15-08-2024**

Client: **Earth Environmental & Geotechnical**

This report has been checked and approved by:

Contract Title: **Haywards Heath**

For the attention of: **Jason**

Brendan Evans
Office Administrator

Description	Qty
Particle Size Distribution BS EN ISO 17892-4 : 5.1 - * UKAS	5
Sedimentation by Pipette BS EN ISO 17892-4 : 5.4	5
Water Soluble Sulphate 2:1 extract Sub-contracted Test	1
pH value of soil Sub-contracted Test	1
Disposal of samples for job	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

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Approved Signatories:

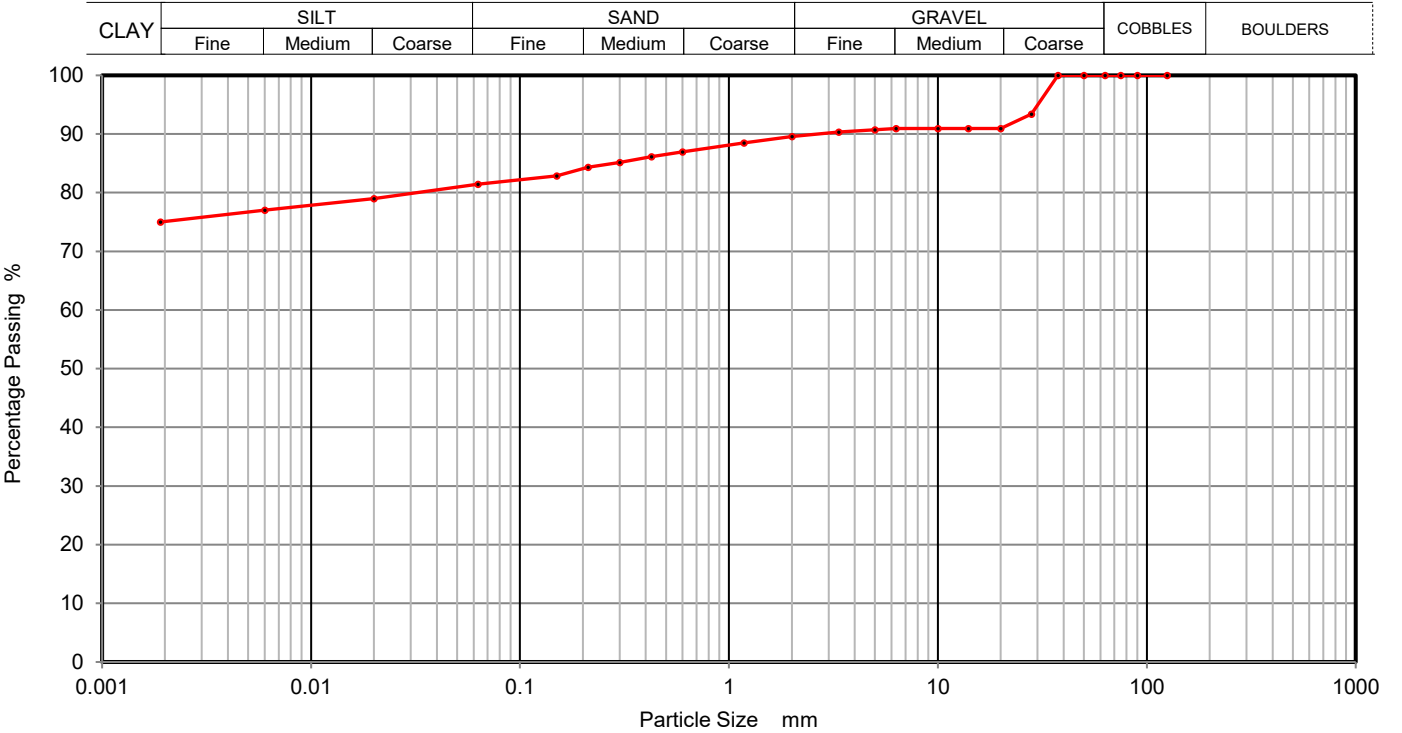
Brendan Evans (Office Administrator) - Darren Bourne (Quality Senior Technician) - Paul Evans (Director)

Richard John (Quality/Technical Manager) - Shaun Jones (Laboratory manager) - Shaun Thomas (Site Manager)

Wayne Honey (HR & HSE Manager)

PARTICLE SIZE DISTRIBUTION
BS EN ISO 17892-4:2016
Wet Sieve & Pipette Analysis, Clause 5.2 & 5.4

		Contract Number	74077
		Borehole/Pit No.	CP01
Project Name	Haywards Heath	Sample No.	1
Sample Description	Brown fine to coarse sandy fine to coarse gravelly silty CLAY (with rootlets)	Depth Top	1.00
		Depth Base	1.50
Date Tested	08/08/2024	Sample Type	B



Sieving		Sedimentation	
Particle Size mm	% Passing	Particle Size mm	% Passing
125	100	0.0200	79
90	100	0.0060	77
75	100	0.0020	75
63	100		
50	100		
37.5	100		
28	93		
20	91		
14	91		
10	91		
6.3	91		
5	91		
3.35	90		
2	90		
1.18	88		
0.63	87		
0.425	86		
0.30	85		
0.20	84		
0.15	83		
0.063	81		

Sample Proportions	% dry mass
Cobbles	0
Gravel	10
Sand	9
Silt	6
Clay	75

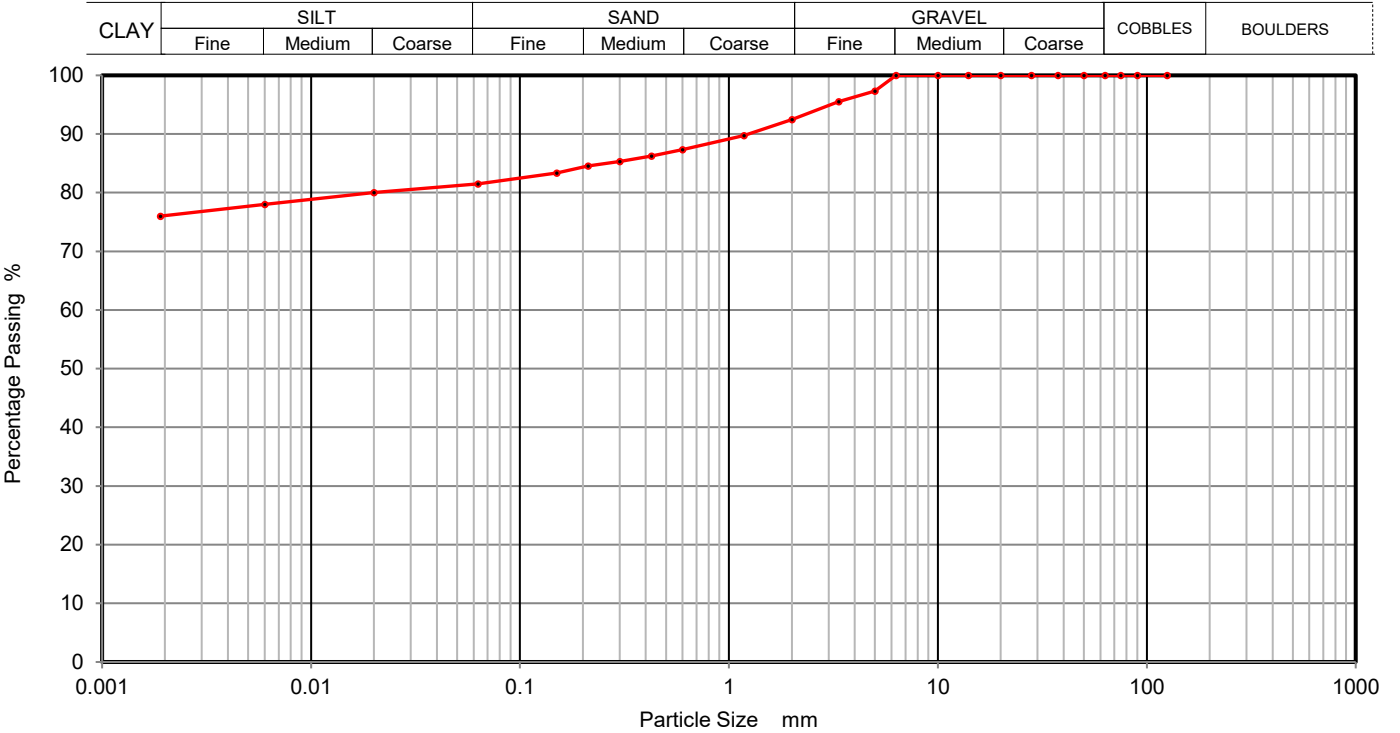
Remarks
Preparation and testing in accordance with BS17892 unless noted below

Operator
Cameron Thomas

PARTICLE SIZE DISTRIBUTION
BS EN ISO 17892-4:2016
Wet Sieve & Pipette Analysis, Clause 5.2 & 5.4

Contract Number	74077
Borehole/Pit No.	CP01
Sample No.	5
Depth Top	3.00
Depth Base	
Sample Type	D

Project Name	Haywards Heath
Sample Description	Brown fine to medium gravelly fine to coarse sandy silty CLAY
Date Tested	08/08/2024



Sieving		Sedimentation	
Particle Size mm	% Passing	Particle Size mm	% Passing
125	100	0.0200	80
90	100	0.0060	78
75	100	0.0020	76
63	100		
50	100		
37.5	100		
28	100		
20	100		
14	100		
10	100		
6.3	100		
5	97		
3.35	96		
2	92		
1.18	90		
0.63	87		
0.425	86		
0.30	85		
0.20	85		
0.15	83		
0.063	82		

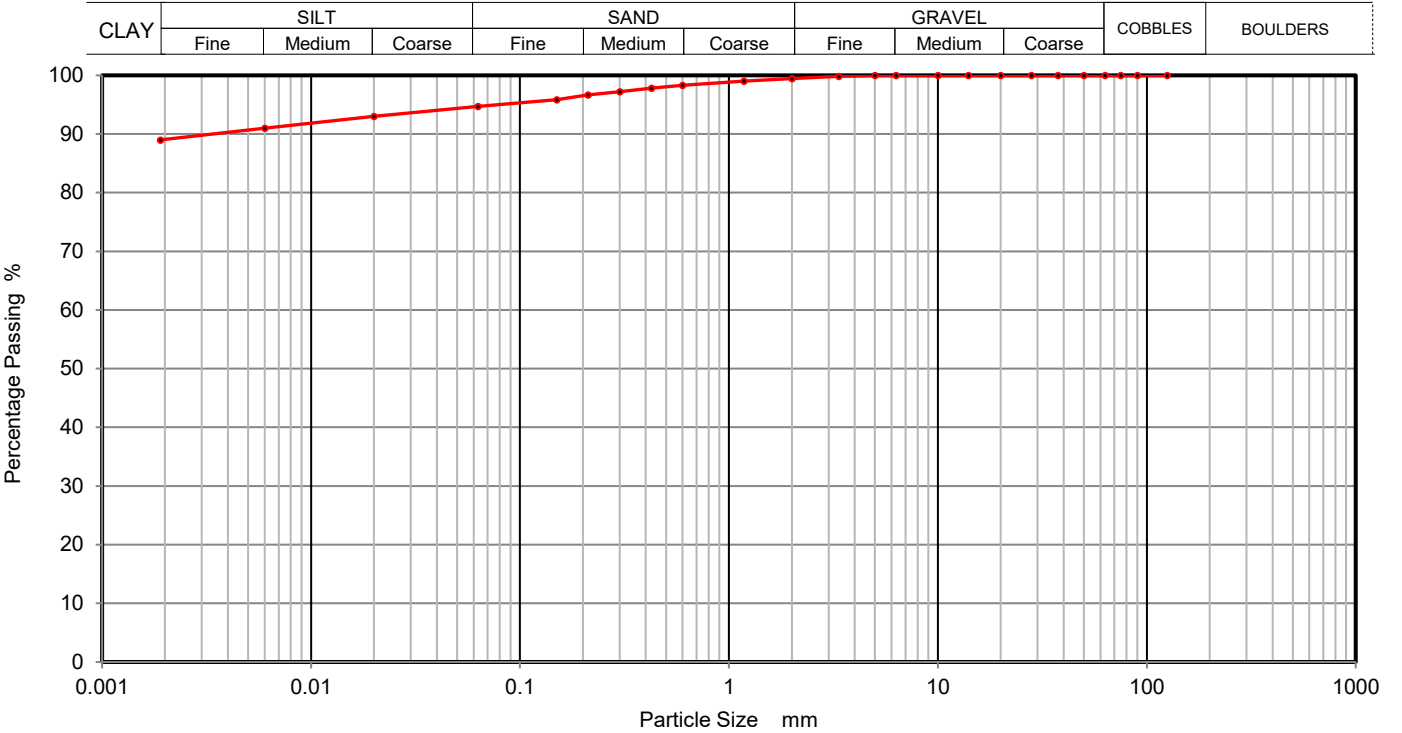
Sample Proportions	% dry mass
Cobbles	0
Gravel	8
Sand	10
Silt	6
Clay	76

Remarks
Preparation and testing in accordance with BS17892 unless noted below

Operator
Cameron Thomas

PARTICLE SIZE DISTRIBUTION
BS EN ISO 17892-4:2016
Wet Sieve & Pipette Analysis, Clause 5.2 & 5.4

 GEOTECHNICAL SITE & TESTING LABORATORIES	PARTICLE SIZE DISTRIBUTION BS EN ISO 17892-4:2016 Wet Sieve & Pipette Analysis, Clause 5.2 & 5.4	Contract Number	74077
		Borehole/Pit No.	CP01
Project Name	Haywards Heath	Sample No.	6
Sample Description	Brown slightly fine gravelly slightly fine to coarse sandy silty CLAY	Depth Top	4.00
		Depth Base	
Date Tested	08/08/2024	Sample Type	D



Sieving		Sedimentation	
Particle Size mm	% Passing	Particle Size mm	% Passing
125	100	0.0200	93
90	100	0.0060	91
75	100	0.0020	89
63	100		
50	100		
37.5	100		
28	100		
20	100		
14	100		
10	100		
6.3	100		
5	100		
3.35	100		
2	99		
1.18	99		
0.63	98		
0.425	98		
0.30	97		
0.20	97		
0.15	96		
0.063	95		

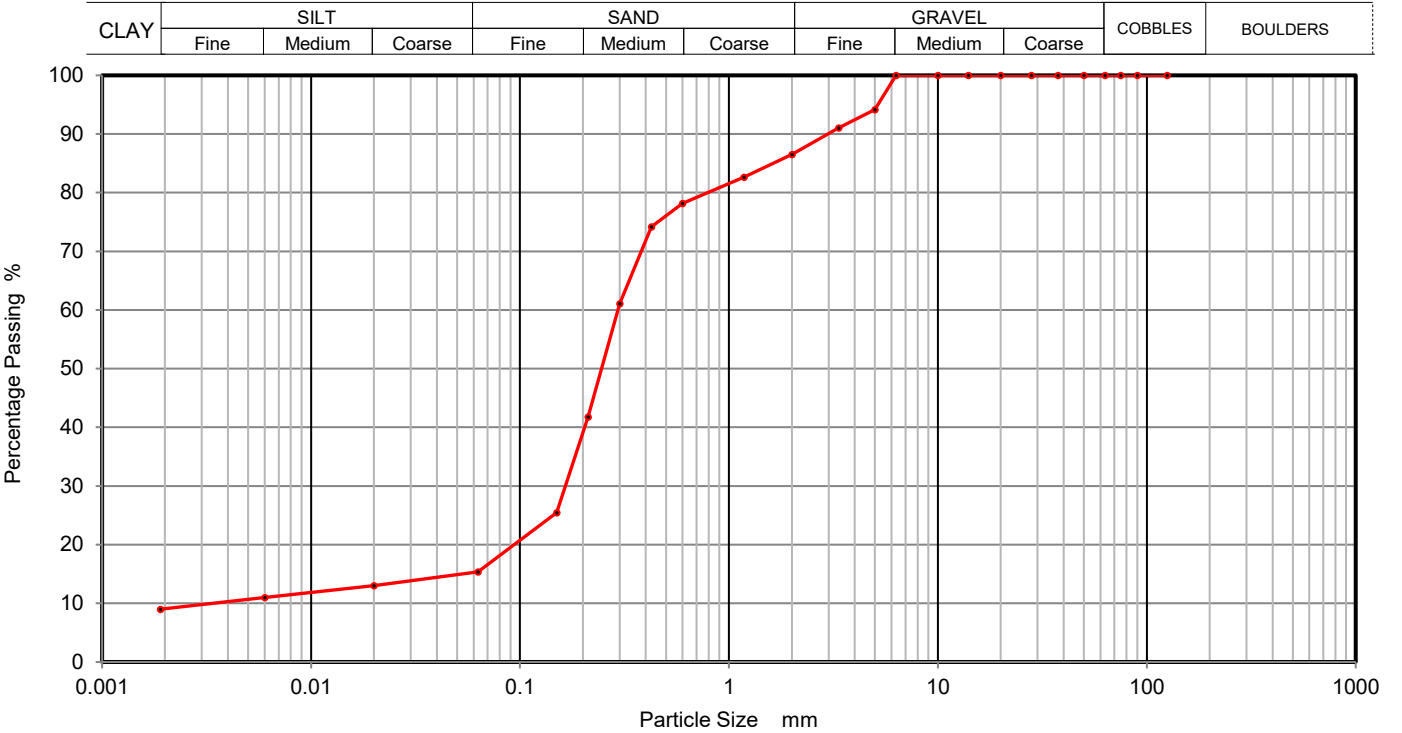
Sample Proportions	% dry mass
Cobbles	0
Gravel	1
Sand	4
Silt	6
Clay	89

Remarks
Preparation and testing in accordance with BS17892 unless noted below

Operator
Cameron Thomas

PARTICLE SIZE DISTRIBUTION
BS EN ISO 17892-4:2016
Wet Sieve & Pipette Analysis, Clause 5.2 & 5.4

Contract Number	74077	
	Borehole/Pit No.	
CP01		
Sample No.		7
Depth Top	5.00	
	Depth Base	
Sample Type		D
Date Tested		08/08/2024
Project Name		Haywards Heath
Sample Description		Brown fine gravelly silty clay fine to coarse SAND



Sieving		Sedimentation	
Particle Size mm	% Passing	Particle Size mm	% Passing
125	100	0.0200	13
90	100	0.0060	11
75	100	0.0020	9
63	100		
50	100		
37.5	100		
28	100		
20	100		
14	100		
10	100		
6.3	100		
5	94		
3.35	91		
2	87		
1.18	83		
0.63	78		
0.425	74		
0.30	61		
0.20	42		
0.15	25		
0.063	15		

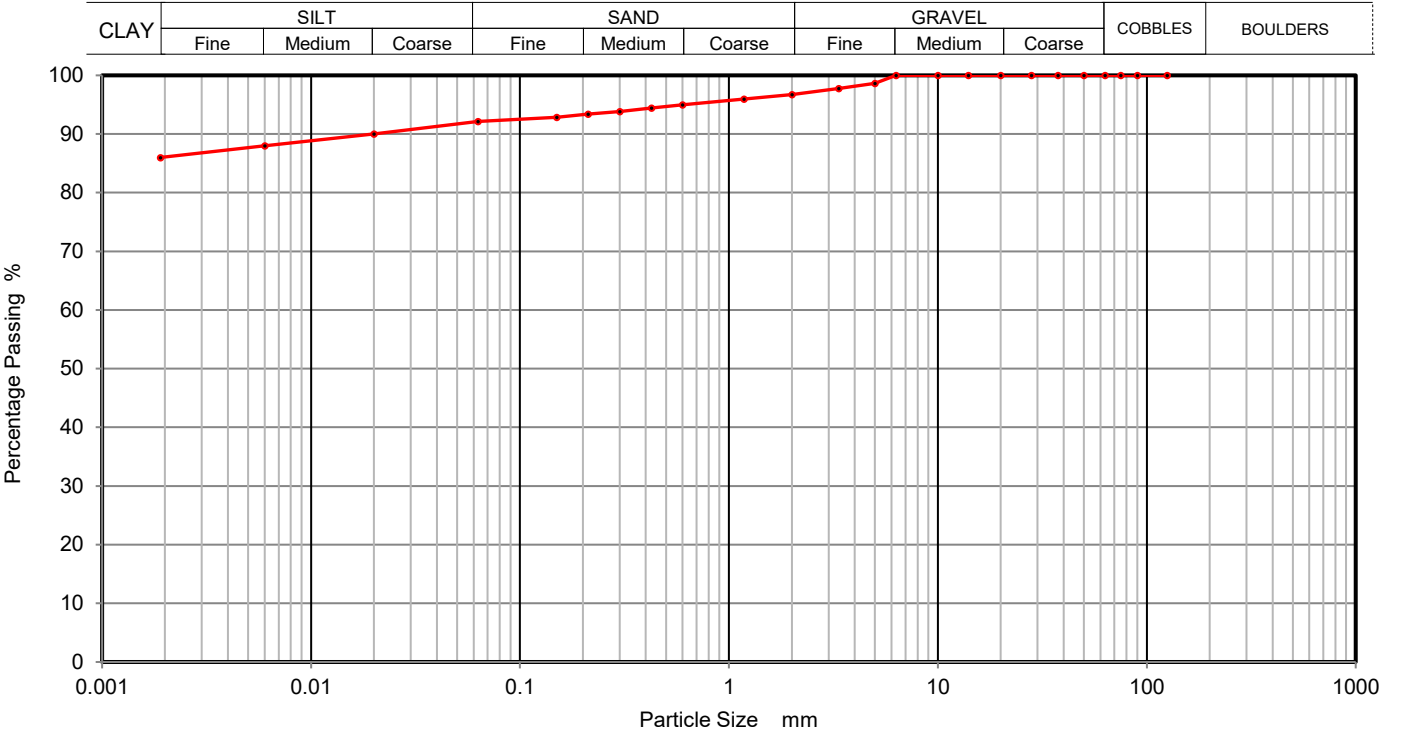
Sample Proportions	% dry mass
Cobbles	0
Gravel	13
Sand	72
Silt	6
Clay	9

Remarks
Preparation and testing in accordance with BS17892 unless noted below

Operator
Cameron Thomas

PARTICLE SIZE DISTRIBUTION
BS EN ISO 17892-4:2016
Wet Sieve & Pipette Analysis, Clause 5.2 & 5.4

 GEOTECHNICAL SITE & TESTING LABORATORIES	PARTICLE SIZE DISTRIBUTION BS EN ISO 17892-4:2016 Wet Sieve & Pipette Analysis, Clause 5.2 & 5.4	Contract Number	74077
		Borehole/Pit No.	CP01
Project Name	Haywards Heath	Sample No.	2
Sample Description	Brown slightly fine gravelly slightly fine to coarse sandy silty CLAY	Depth Top	6.00
		Depth Base	6.50
Date Tested	08/08/2024	Sample Type	B



Sieving		Sedimentation	
Particle Size mm	% Passing	Particle Size mm	% Passing
125	100	0.0200	90
90	100	0.0060	88
75	100	0.0020	86
63	100		
50	100		
37.5	100		
28	100		
20	100		
14	100		
10	100		
6.3	100		
5	99		
3.35	98		
2	97		
1.18	96		
0.63	95		
0.425	94		
0.30	94		
0.20	93		
0.15	93		
0.063	92		

Sample Proportions	% dry mass
Cobbles	0
Gravel	3
Sand	5
Silt	6
Clay	86

Remarks
Preparation and testing in accordance with BS17892 unless noted below

Operator
Cameron Thomas



7 - 11 Harding Street
Leicester
LE1 4DH

GSTL
Unit 3-4 Heol Aur
Dafen Ind Estate
Dafen
SA14 8QN

Analytical Test Report: L24/07269/GSL - 24-48430

Your Project Reference:	HAYWARDS HEATH R3971		
Your Order Number:	74077	Samples Received / Instructed:	08/08/2024 / 08/08/2024
Report Issue Number:	1	Sample Tested:	08/08 to 15/08/2024
Samples Analysed:	1 samples	Report issued:	15/08/2024

Signed

James Gane
Analytical Services Manager
CTS Group

Notes:

General

Please refer to Methodologies page for details pertaining to the analytical methods undertaken.

Samples will be retained for 14 days after issue of this report unless otherwise requested.

Moisture Content was determined in accordance with CTS method statement MS - CL - Sample Prep, oven dried at <30°C.

Moisture Content is reported as a percentage of the dry mass of soil, this calculation is in accordance with BS1377, Part 2, 1990, Clause 3.2

Where specification limits are included these are for guidance only. Where a measured value has been highlighted this is not implying acceptance or failure and certainty of measurement values have not been taken into account.

Uncertainty of measurement values are available on request.

Samples were supplied by customer, results apply to the samples as received.

Deviating Samples

On receipt samples are compared against our sample holding and handling protocols, where any deviations have been noted these are reported on our deviating sample page (if present)

Accreditation Key

UKAS = UKAS Accreditation, MCERTS = MCERTS Accreditation, u = Unaccredited, subUKAS - Subcontracted to a laboratory UKAS accredited for this test, subMCERTS - Subcontracted to a laboratory MCERTS accredited for this test

MCERTS Accreditation only covers the SAND, CLAY and LOAM matrices

Date of Issue: 08.08.2024

Issued by: J. Gane

Issue No: 4

Rev No: 11



7 - 11 Harding Street
Leicester
LE1 4DH

L24/07269/GSL - 24-48430

Project Reference - HAYWARDS HEATH R3971

Analytical Test Results - Chemical Analysis

Lab Reference				388620
Client Sample ID				2
Client Sample Location				CP01
Client Sample Type				B
Client Sample Number				-
Depth - Top (m)				6.00
Depth - Bottom (m)				6.50
Date of Sampling				-
Time of Sampling				-
Sample Matrix				Clay
Determinant	Units	Accreditation		
Water soluble sulphate (as SO ₄)	(mg/l)	u	82	
pH Value	pH Units	MCERTS	5.2	



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L24/07269/GSL - 24-48430

Project Reference - HAYWARDS HEATH R3971

Sample Descriptions

Lab Reference	Client Sample ID	Client Sample Location	Client Sample Type	Client Sample Number	Description	Moisture Content (%)	Stone Content (%)	Passing 2mm test sieve (%)
388620	2	CP01	B	-	Yellow slightly sandy silty clay	-	-	100



4161



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L24/07269/GSL - 24-48430

Project Reference - HAYWARDS HEATH R3971

Sample Comments

Lab Reference	Client Sample ID	Client Sample Location	Client Sample Type	Client Sample Number	Comments
388620	2	CP01	B	-	



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L24/07269/GSL - 24-48430

Project Reference - HAYWARDS HEATH R3971

Analysis Methodologies

Test Code	Test Name / Reference	Sample condition for analysis	Sample Preparation	Test Details
ANIONSS	MS - CL - Anions by Aquakem (2:1Extract)	Oven dried	Passing 2mm test sieve	Determination of Anions (inc Sulphate, chloride etc.) in soils by Aquakem. Analysis is based on a 2:1 water to soil extraction ratio
PHS	MS - CL - pH in Soils	As received	Passing 10mm test sieve	Determination of pH in soils using a pH probe (using a 1:3 soil to water extraction)
SAMPLEPREP	MS - CL - Sample Preparation	-	-	Preparation of samples (including determination of moisture content) to allow for subsequent analysis



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L24/07269/GSL - 24-48430

Project Reference - HAYWARDS HEATH R3971

Sample Deviations

Deviations are listed below against each sample and associated test method, where deviation(s) are noted it means data may not be representative of the sample at the time of sampling and it is possible that results provided may be compromised.

Observations on receipt

A - No date of sampling provided

C - Received in inappropriate container

H - Contains headspace

T - Temperature on receipt exceeds storage temperature

R - Sample(s) received with less than 96 hours for testing to commence/complete, any result formally classed as deviating will be marked with an X against the applicable test (i.e. RX)

Observations whilst in laboratory

X - Exceeds sampling to extraction or analysis timescales

Lab Reference	Client Sample ID	Client Sample Location	Client Sample Type	Client Sample Number	Test	Deviations
388620	2	CP01	B	-		A

APPENDIX 5
LABORATORY TEST RESULTS (CONTAMINATION)



John Grace
Earth Environmental & Geotechnical (Southern Ltd)
200 Brook Drive
Green Park
Reading
Berkshire
RG2 6UB

Normec DETS Limited
Unit 1
Rose Lane Industrial Estate
Rose Lane
Lenham Heath
Kent
ME17 2JN
t: 01622 850410

DETS Report No: 24-08787

Site Reference: Haywards Heath

Project / Job Ref: R3971

Order No: R3971/21/7/24/AT

Sample Receipt Date: 01/08/2024

Sample Scheduled Date: 01/08/2024

Report Issue Number: 1

Reporting Date: 12/08/2024

Authorised by:

Steve Knight
Customer Support Manager

Dates of laboratory activities for each tested analyte are available upon request.

Opinions and interpretations are outside the laboratory's scope of ISO 17025 accreditation. 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 certificate shall not be reproduced except in full, without the prior written approval of the laboratory.

For Topsoil and WAC analysis the expanded uncertainty measurement should be considered while evaluating results against compliance values.



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Tel : 01622 850410



Soil Analysis Certificate						
DETS Report No: 24-08787	~Date Sampled	27/07/24	27/07/24	27/07/24	27/07/24	27/07/24
Earth Environmental & Geotechnical (Southern Ltd)	~Time Sampled	None Supplied	None Supplied	None Supplied	None Supplied	None Supplied
~Site Reference: Haywards Heath	~TP / BH No	WS01	WS02	WS02	WS03	WS03
~Project / Job Ref: R3971	~Additional Refs	None Supplied	None Supplied	None Supplied	None Supplied	None Supplied
~Order No: R3971/21/7/24/AT	~Depth (m)	0.10 - 0.30	0.10 - 0.30	0.10 - 0.30	0.10 - 0.30	0.10 - 0.30
Reporting Date: 12/08/2024	DETS Sample No	730196	730197	730198	730200	730201

Determinand	Unit	RL	Accreditation				
Asbestos Screen ^(S)	N/a	N/a	ISO17025	Not Detected	Not Detected		Not Detected
pH	pH Units	N/a	MCERTS	8.7	8.8		9.3
Total Cyanide	mg/kg	< 1	NONE	< 1	< 1		< 1
Complex Cyanide	mg/kg	< 1	NONE	< 1	< 1		< 1
Free Cyanide	mg/kg	< 1	NONE	< 1	< 1		< 1
Thiocyanate as SCN	mg/kg	< 3	NONE	< 3	< 3		< 3
Total Sulphate as SO ₄	mg/kg	< 200	MCERTS	1762	1174		1330
Total Sulphate as SO ₄	%	< 0.02	MCERTS	0.18	0.12		0.13
W/S Sulphate as SO ₄ (2:1)	mg/l	< 10	MCERTS	27	45		33
W/S Sulphate as SO ₄ (2:1)	g/l	< 0.01	MCERTS	0.03	0.04		0.03
Elemental Sulphur	mg/kg	< 10	NONE	< 10	< 10		< 10
Sulphide	mg/kg	< 5	NONE	< 5	< 5		< 5
Organic Matter (SOM)	%	< 0.1	MCERTS	1.4	1.4		2.2
Ammoniacal Nitrogen as NH ₄	mg/kg	< 0.5	MCERTS	< 0.5	< 0.5		< 0.5
Total Chloride	%	< 0.01	NONE	0.07	0.07		0.07
Water Soluble Nitrate (2:1) as NO ₃	mg/kg	< 3	MCERTS	5	11		4
Water Soluble Nitrate (2:1) as NO ₃	mg/l	< 1.5	MCERTS	2.6	5.3		2.1
Arsenic (As)	mg/kg	< 2	MCERTS	8	9		9
Barium (Ba)	mg/kg	< 2.5	MCERTS	225	149		185
Beryllium (Be)	mg/kg	< 0.5	MCERTS	< 0.5	< 0.5		< 0.5
W/S Boron	mg/kg	< 1	NONE	< 1	< 1		< 1
Cadmium (Cd)	mg/kg	< 0.2	MCERTS	< 0.2	< 0.2		< 0.2
Chromium (Cr)	mg/kg	< 2	MCERTS	11	8		11
Chromium (hexavalent)	mg/kg	< 2	NONE	< 2	< 2		< 2
Cobalt (Co)	mg/kg	< 1	MCERTS	4.2	3.2		4.6
Copper (Cu)	mg/kg	< 4	MCERTS	9	55		10
Lead (Pb)	mg/kg	< 3	MCERTS	41	592		138
Mercury (Hg)	mg/kg	< 1	MCERTS	< 1	< 1		< 1
Molybdenum (Mo)	mg/kg	< 1	MCERTS	< 1	< 1		< 1
Nickel (Ni)	mg/kg	< 3	MCERTS	7	6		10
Selenium (Se)	mg/kg	< 2	MCERTS	< 2	< 2		< 2
Vanadium (V)	mg/kg	< 1	MCERTS	23	17		21
Zinc (Zn)	mg/kg	< 3	MCERTS	110	107		101
Total Phenols (monohydric)	mg/kg	< 2	NONE	< 2	< 2		< 2

Analytical results are expressed on a dry weight basis where samples are assisted-dried at less than 30°C. The Method Description page describes if the test is performed on the dried or as-received portion
Subcontracted analysis (S)

~Sample details provided by customer and can affect the validity of results



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Lenham Heath
Maidstone
Kent ME17 2JN
Tel : 01622 850410



Soil Analysis Certificate						
DETS Report No: 24-08787	~Date Sampled	27/07/24	27/07/24	27/07/24	27/07/24	27/07/24
Earth Environmental & Geotechnical (Southern Ltd)	~Time Sampled	None Supplied	None Supplied	None Supplied	None Supplied	None Supplied
~Site Reference: Haywards Heath	~TP / BH No	WS04	WS04	WS04	WS04	WS05
~Project / Job Ref: R3971	~Additional Refs	None Supplied	None Supplied	None Supplied	None Supplied	None Supplied
~Order No: R3971/21/7/24/AT	~Depth (m)	0.60 - 0.80	0.90 - 1.10	0.90 - 1.10	1.40 - 1.60	0.10 - 0.30
Reporting Date: 12/08/2024	DETS Sample No	730202	730203	730204	730205	730206

Determinand	Unit	RL	Accreditation					
Asbestos Screen ^(S)	N/a	N/a	ISO17025	Not Detected	Not Detected		Not Detected	Not Detected
pH	pH Units	N/a	MCERTS	7.2	7.6		5.4	8.4
Total Cyanide	mg/kg	< 1	NONE	< 1	< 1		< 1	< 1
Complex Cyanide	mg/kg	< 1	NONE	< 1	< 1		< 1	< 1
Free Cyanide	mg/kg	< 1	NONE	< 1	< 1		< 1	< 1
Thiocyanate as SCN	mg/kg	< 3	NONE	< 3	< 3		< 3	
Total Sulphate as SO ₄	mg/kg	< 200	MCERTS	388	341		598	845
Total Sulphate as SO ₄	%	< 0.02	MCERTS	0.04	0.03		0.06	0.08
W/S Sulphate as SO ₄ (2:1)	mg/l	< 10	MCERTS	116	65		38	16
W/S Sulphate as SO ₄ (2:1)	g/l	< 0.01	MCERTS	0.12	0.06		0.04	0.02
Elemental Sulphur	mg/kg	< 10	NONE	< 10	21		< 10	
Sulphide	mg/kg	< 5	NONE	< 5	< 5		< 5	< 5
Organic Matter (SOM)	%	< 0.1	MCERTS	1.3	1.1		0.9	1.2
Ammoniacal Nitrogen as NH ₄	mg/kg	< 0.5	MCERTS	22.5	< 0.5		< 0.5	
Total Chloride	%	< 0.01	NONE	0.08	0.09		0.07	
Water Soluble Nitrate (2:1) as NO ₃	mg/kg	< 3	MCERTS	< 3	< 3		3	
Water Soluble Nitrate (2:1) as NO ₃	mg/l	< 1.5	MCERTS	< 1.5	< 1.5		1.6	
Arsenic (As)	mg/kg	< 2	MCERTS	4	6		7	8
Barium (Ba)	mg/kg	< 2.5	MCERTS	32	36		31	46
Beryllium (Be)	mg/kg	< 0.5	MCERTS	< 0.5	< 0.5		0.7	< 0.5
W/S Boron	mg/kg	< 1	NONE	< 1	< 1		< 1	< 1
Cadmium (Cd)	mg/kg	< 0.2	MCERTS	< 0.2	< 0.2		< 0.2	< 0.2
Chromium (Cr)	mg/kg	< 2	MCERTS	11	23		25	9
Chromium (hexavalent)	mg/kg	< 2	NONE	< 2	< 2		< 2	< 2
Cobalt (Co)	mg/kg	< 1	MCERTS	7.5	8.6		6.8	
Copper (Cu)	mg/kg	< 4	MCERTS	11	26		21	7
Lead (Pb)	mg/kg	< 3	MCERTS	20	19		17	20
Mercury (Hg)	mg/kg	< 1	MCERTS	< 1	< 1		< 1	< 1
Molybdenum (Mo)	mg/kg	< 1	MCERTS	< 1	< 1		1.4	
Nickel (Ni)	mg/kg	< 3	MCERTS	5	18		14	11
Selenium (Se)	mg/kg	< 2	MCERTS	< 2	< 2		< 2	< 2
Vanadium (V)	mg/kg	< 1	MCERTS	17	26		31	19
Zinc (Zn)	mg/kg	< 3	MCERTS	29	54		45	45
Total Phenols (monohydric)	mg/kg	< 2	NONE	< 2	< 2		< 2	< 2

Analytical results are expressed on a dry weight basis where samples are assisted-dried at less than 30°C. The Method Description page describes if the test is performed on the dried or as-received portion
Subcontracted analysis (S)

~Sample details provided by customer and can affect the validity of results



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Soil Analysis Certificate - Speciated PAHs						
DETS Report No: 24-08787	~ Date Sampled	27/07/24	27/07/24	27/07/24	27/07/24	27/07/24
Earth Environmental & Geotechnical (Souther	~ Time Sampled	None Supplied	None Supplied	None Supplied	None Supplied	None Supplied
~ Site Reference: Haywards Heath	~ TP / BH No	WS01	WS02	WS03	WS04	WS04
~ Project / Job Ref: R3971	~ Additional Refs	None Supplied	None Supplied	None Supplied	None Supplied	None Supplied
~ Order No: R3971/21/7/24/AT	~ Depth (m)	0.10 - 0.30	0.10 - 0.30	0.10 - 0.30	0.60 - 0.80	0.90 - 1.10
Reporting Date: 12/08/2024	DETS Sample No	730196	730197	730200	730202	730203

Determinand	Unit	RL	Accreditation					
Naphthalene	mg/kg	< 0.1	MCERTS	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1
Acenaphthylene	mg/kg	< 0.1	MCERTS	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1
Acenaphthene	mg/kg	< 0.1	MCERTS	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1
Fluorene	mg/kg	< 0.1	MCERTS	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1
Phenanthrene	mg/kg	< 0.1	MCERTS	< 0.1	< 0.1	< 0.1	< 0.1	0.17
Anthracene	mg/kg	< 0.1	MCERTS	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1
Fluoranthene	mg/kg	< 0.1	MCERTS	0.12	< 0.1	< 0.1	< 0.1	0.14
Pyrene	mg/kg	< 0.1	MCERTS	< 0.1	0.12	< 0.1	< 0.1	0.14
Benzo(a)anthracene	mg/kg	< 0.1	MCERTS	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1
Chrysene	mg/kg	< 0.1	MCERTS	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1
Benzo(b)fluoranthene	mg/kg	< 0.1	MCERTS	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1
Benzo(k)fluoranthene	mg/kg	< 0.1	MCERTS	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1
Benzo(a)pyrene	mg/kg	< 0.1	MCERTS	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1
Indeno(1,2,3-cd)pyrene	mg/kg	< 0.1	MCERTS	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1
Dibenz(a,h)anthracene	mg/kg	< 0.1	MCERTS	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1
Benzo(ghi)perylene	mg/kg	< 0.1	MCERTS	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1
Total EPA-16 PAHs	mg/kg	< 1.6	MCERTS	< 1.6	< 1.6	< 1.6	< 1.6	< 1.6

~ Sample details provided by customer and can affect the validity of results



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Soil Analysis Certificate - Speciated PAHs						
DETS Report No: 24-08787	~ Date Sampled	27/07/24	27/07/24			
Earth Environmental & Geotechnical (Souther	~ Time Sampled	None Supplied	None Supplied			
~ Site Reference: Haywards Heath	~ TP / BH No	WS04	WS05			
~ Project / Job Ref: R3971	~ Additional Refs	None Supplied	None Supplied			
~ Order No: R3971/21/7/24/AT	~ Depth (m)	1.40 - 1.60	0.10 - 0.30			
Reporting Date: 12/08/2024	DETS Sample No	730205	730206			

Determinand	Unit	RL	Accreditation				
Naphthalene	mg/kg	< 0.1	MCERTS	< 0.1	< 0.1		
Acenaphthylene	mg/kg	< 0.1	MCERTS	< 0.1	< 0.1		
Acenaphthene	mg/kg	< 0.1	MCERTS	< 0.1	< 0.1		
Fluorene	mg/kg	< 0.1	MCERTS	< 0.1	< 0.1		
Phenanthrene	mg/kg	< 0.1	MCERTS	< 0.1	< 0.1		
Anthracene	mg/kg	< 0.1	MCERTS	< 0.1	< 0.1		
Fluoranthene	mg/kg	< 0.1	MCERTS	< 0.1	< 0.1		
Pyrene	mg/kg	< 0.1	MCERTS	< 0.1	< 0.1		
Benzo(a)anthracene	mg/kg	< 0.1	MCERTS	< 0.1	< 0.1		
Chrysene	mg/kg	< 0.1	MCERTS	< 0.1	< 0.1		
Benzo(b)fluoranthene	mg/kg	< 0.1	MCERTS	< 0.1	< 0.1		
Benzo(k)fluoranthene	mg/kg	< 0.1	MCERTS	< 0.1	< 0.1		
Benzo(a)pyrene	mg/kg	< 0.1	MCERTS	< 0.1	< 0.1		
Indeno(1,2,3-cd)pyrene	mg/kg	< 0.1	MCERTS	< 0.1	< 0.1		
Dibenz(a,h)anthracene	mg/kg	< 0.1	MCERTS	< 0.1	< 0.1		
Benzo(ghi)perylene	mg/kg	< 0.1	MCERTS	< 0.1	< 0.1		
Total EPA-16 PAHs	mg/kg	< 1.6	MCERTS	< 1.6	< 1.6		

~ Sample details provided by customer and can affect the validity of results



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Soil Analysis Certificate - TPH CWG Banded

DETS Report No: 24-08787	~ Date Sampled	27/07/24	27/07/24	27/07/24	27/07/24	27/07/24
Earth Environmental & Geotechnical (Souther	~ Time Sampled	None Supplied	None Supplied	None Supplied	None Supplied	None Supplied
~ Site Reference: Haywards Heath	~ TP / BH No	WS01	WS02	WS02	WS03	WS03
~ Project / Job Ref: R3971	~ Additional Refs	None Supplied	None Supplied	None Supplied	None Supplied	None Supplied
~ Order No: R3971/21/7/24/AT	~ Depth (m)	0.10 - 0.30	0.10 - 0.30	0.10 - 0.30	0.10 - 0.30	0.10 - 0.30
Reporting Date: 12/08/2024	DETS Sample No	730196	730197	730198	730200	730201

Determinand	Unit	RL	Accreditation					
Aliphatic >C5 - C6 : HS 1D MS AL	mg/kg	< 0.01	NONE	< 0.01	< 0.01		< 0.01	
Aliphatic >C6 - C8 : HS 1D MS AL	mg/kg	< 0.05	NONE	< 0.05	< 0.05		< 0.05	
Aliphatic >C8 - C10 : EH CU 1D AL	mg/kg	< 2	MCERTS	< 2	< 2		< 2	
Aliphatic >C10 - C12 : EH CU 1D AL	mg/kg	< 2	MCERTS	< 2	< 2		< 2	
Aliphatic >C12 - C16 : EH CU 1D AL	mg/kg	< 3	MCERTS	< 3	< 3		< 3	
Aliphatic >C16 - C21 : EH CU 1D AL	mg/kg	< 3	MCERTS	< 3	< 3		< 3	
Aliphatic >C21 - C34 : EH CU 1D AL	mg/kg	< 10	MCERTS	< 10	23		< 10	
Aliphatic (C5 - C34) : HS 1D_MS+EH_CU_1D_AL	mg/kg	< 21	NONE	< 21	23		< 21	
Aromatic >C5 - C7 : HS 1D MS AR	mg/kg	< 0.01	NONE	< 0.01	< 0.01		< 0.01	
Aromatic >C7 - C8 : HS 1D MS AR	mg/kg	< 0.05	NONE	< 0.05	< 0.05		< 0.05	
Aromatic >C8 - C10 : EH CU 1D AR	mg/kg	< 2	MCERTS	< 2	< 2		< 2	
Aromatic >C10 - C12 : EH CU 1D AR	mg/kg	< 2	MCERTS	< 2	< 2		< 2	
Aromatic >C12 - C16 : EH CU 1D AR	mg/kg	< 2	MCERTS	< 2	< 2		< 2	
Aromatic >C16 - C21 : EH CU 1D AR	mg/kg	< 3	MCERTS	< 3	< 3		< 3	
Aromatic >C21 - C35 : EH CU 1D AR	mg/kg	< 10	MCERTS	< 10	< 10		< 10	
Aromatic (C5 - C35) : HS 1D_MS+EH_CU_1D_AR	mg/kg	< 21	NONE	< 21	< 21		< 21	
Total >C5 - C35 : HS 1D_MS+EH_CU_1D_Tot al	mg/kg	< 42	NONE	< 42	< 42		< 42	

~ Sample details provided by customer and can affect the validity of results



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Soil Analysis Certificate - TPH CWG Banded

DETS Report No: 24-08787	~ Date Sampled	27/07/24	27/07/24	27/07/24	27/07/24	27/07/24
Earth Environmental & Geotechnical (Souther	~ Time Sampled	None Supplied	None Supplied	None Supplied	None Supplied	None Supplied
~ Site Reference: Haywards Heath	~ TP / BH No	WS04	WS04	WS04	WS04	WS05
~ Project / Job Ref: R3971	~ Additional Refs	None Supplied	None Supplied	None Supplied	None Supplied	None Supplied
~ Order No: R3971/21/7/24/AT	~ Depth (m)	0.60 - 0.80	0.90 - 1.10	0.90 - 1.10	1.40 - 1.60	0.10 - 0.30
Reporting Date: 12/08/2024	DETS Sample No	730202	730203	730204	730205	730206

Determinand	Unit	RL	Accreditation					
Aliphatic >C5 - C6 : HS_1D_MS_AL	mg/kg	< 0.01	NONE	< 0.01	< 0.01		< 0.01	< 0.01
Aliphatic >C6 - C8 : HS_1D_MS_AL	mg/kg	< 0.05	NONE	< 0.05	< 0.05		< 0.05	< 0.05
Aliphatic >C8 - C10 : EH_CU_1D_AL	mg/kg	< 2	MCERTS	< 2	< 2		< 2	< 2
Aliphatic >C10 - C12 : EH_CU_1D_AL	mg/kg	< 2	MCERTS	< 2	< 2		< 2	< 2
Aliphatic >C12 - C16 : EH_CU_1D_AL	mg/kg	< 3	MCERTS	< 3	< 3		< 3	< 3
Aliphatic >C16 - C21 : EH_CU_1D_AL	mg/kg	< 3	MCERTS	< 3	< 3		< 3	< 3
Aliphatic >C21 - C34 : EH_CU_1D_AL	mg/kg	< 10	MCERTS	< 10	< 10		< 10	< 10
Aliphatic (C5 - C34) : HS_1D_MS+EH_CU_1D_AL	mg/kg	< 21	NONE	< 21	< 21		< 21	< 21
Aromatic >C5 - C7 : HS_1D_MS_AR	mg/kg	< 0.01	NONE	< 0.01	< 0.01		< 0.01	< 0.01
Aromatic >C7 - C8 : HS_1D_MS_AR	mg/kg	< 0.05	NONE	< 0.05	< 0.05		< 0.05	< 0.05
Aromatic >C8 - C10 : EH_CU_1D_AR	mg/kg	< 2	MCERTS	< 2	< 2		< 2	< 2
Aromatic >C10 - C12 : EH_CU_1D_AR	mg/kg	< 2	MCERTS	< 2	< 2		< 2	< 2
Aromatic >C12 - C16 : EH_CU_1D_AR	mg/kg	< 2	MCERTS	< 2	12		< 2	< 2
Aromatic >C16 - C21 : EH_CU_1D_AR	mg/kg	< 3	MCERTS	< 3	19		< 3	< 3
Aromatic >C21 - C35 : EH_CU_1D_AR	mg/kg	< 10	MCERTS	< 10	< 10		< 10	< 10
Aromatic (C5 - C35) : HS_1D_MS+EH_CU_1D_AR	mg/kg	< 21	NONE	< 21	31		< 21	< 21
Total >C5 - C35 : HS_1D_MS+EH_CU_1D_Tot al	mg/kg	< 42	NONE	< 42	< 42		< 42	< 42

~ Sample details provided by customer and can affect the validity of results



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Soil Analysis Certificate - BTEX / MTBE						
DETS Report No: 24-08787	~ Date Sampled	27/07/24	27/07/24	27/07/24	27/07/24	27/07/24
Earth Environmental & Geotechnical (Souther	~ Time Sampled	None Supplied	None Supplied	None Supplied	None Supplied	None Supplied
~ Site Reference: Haywards Heath	~ TP / BH No	WS01	WS02	WS03	WS04	WS04
~ Project / Job Ref: R3971	~ Additional Refs	None Supplied	None Supplied	None Supplied	None Supplied	None Supplied
~ Order No: R3971/21/7/24/AT	~ Depth (m)	0.10 - 0.30	0.10 - 0.30	0.10 - 0.30	0.60 - 0.80	0.90 - 1.10
Reporting Date: 12/08/2024	DETS Sample No	730196	730197	730200	730202	730203

Determinand	Unit	RL	Accreditation					
Benzene : HS_1D_MS	ug/kg	< 2	MCERTS	< 2	< 2	< 2	< 2	< 2
Toluene : HS_1D_MS	ug/kg	< 5	MCERTS	< 5	< 5	< 5	< 5	< 5
Ethylbenzene : HS_1D_MS	ug/kg	< 2	MCERTS	< 2	< 2	< 2	< 2	< 2
p & m-xylene : HS_1D_MS	ug/kg	< 2	MCERTS	< 2	< 2	< 2	< 2	< 2
o-xylene : HS_1D_MS	ug/kg	< 2	MCERTS	< 2	< 2	< 2	< 2	< 2
MTBE : HS_1D_MS	ug/kg	< 5	MCERTS	< 5	< 5	< 5	< 5	< 5

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Soil Analysis Certificate - BTEX / MTBE						
DETS Report No: 24-08787	~ Date Sampled	27/07/24	27/07/24			
Earth Environmental & Geotechnical (Souther	~ Time Sampled	None Supplied	None Supplied			
~ Site Reference: Haywards Heath	~ TP / BH No	WS04	WS05			
~ Project / Job Ref: R3971	~ Additional Refs	None Supplied	None Supplied			
~ Order No: R3971/21/7/24/AT	~ Depth (m)	1.40 - 1.60	0.10 - 0.30			
Reporting Date: 12/08/2024	DETS Sample No	730205	730206			

Determinand	Unit	RL	Accreditation			
Benzene : HS_1D_MS	ug/kg	< 2	MCERTS	< 2	< 2	
Toluene : HS_1D_MS	ug/kg	< 5	MCERTS	< 5	< 5	
Ethylbenzene : HS_1D_MS	ug/kg	< 2	MCERTS	< 2	< 2	
p & m-xylene : HS_1D_MS	ug/kg	< 2	MCERTS	< 2	< 2	
o-xylene : HS_1D_MS	ug/kg	< 2	MCERTS	< 2	< 2	
MTBE : HS_1D_MS	ug/kg	< 5	MCERTS	< 5	< 5	

- Sample details provided by customer and can affect the validity of results



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Soil Analysis Certificate - PCB (7 Congeners)						
DETS Report No: 24-08787	~ Date Sampled	27/07/24	27/07/24	27/07/24	27/07/24	27/07/24
Earth Environmental & Geotechnical (Souther	~ Time Sampled	None Supplied	None Supplied	None Supplied	None Supplied	None Supplied
~ Site Reference: Haywards Heath	~ TP / BH No	WS01	WS02	WS03	WS04	WS04
~ Project / Job Ref: R3971	~ Additional Refs	None Supplied	None Supplied	None Supplied	None Supplied	None Supplied
~ Order No: R3971/21/7/24/AT	~ Depth (m)	0.10 - 0.30	0.10 - 0.30	0.10 - 0.30	0.60 - 0.80	0.90 - 1.10
Reporting Date: 12/08/2024	DETS Sample No	730196	730197	730200	730202	730203

Determinand	Unit	RL	Accreditation					
PCB Congener 28	mg/kg	0.008	NONE	< 0.008	< 0.008	< 0.008	< 0.008	< 0.008
PCB Congener 52	mg/kg	0.008	NONE	< 0.008	< 0.008	< 0.008	< 0.008	< 0.008
PCB Congener 101	mg/kg	0.008	NONE	< 0.008	< 0.008	< 0.008	< 0.008	< 0.008
PCB Congener 118	mg/kg	0.008	NONE	< 0.008	< 0.008	< 0.008	< 0.008	< 0.008
PCB Congener 138	mg/kg	0.008	NONE	< 0.008	< 0.008	0.008	< 0.008	< 0.008
PCB Congener 153	mg/kg	0.008	NONE	< 0.008	< 0.008	< 0.008	< 0.008	< 0.008
PCB Congener 180	mg/kg	0.008	NONE	< 0.008	< 0.008	0.012	< 0.008	< 0.008
Total PCB (7 Congeners)	mg/kg	< 0.1	NONE	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1

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Soil Analysis Certificate - PCB (7 Congeners)						
DETS Report No: 24-08787	~ Date Sampled	27/07/24				
Earth Environmental & Geotechnical (Southern)	~ Time Sampled	None Supplied				
~ Site Reference: Haywards Heath	~ TP / BH No	WS04				
~ Project / Job Ref: R3971	~ Additional Refs	None Supplied				
~ Order No: R3971/21/7/24/AT	~ Depth (m)	1.40 - 1.60				
Reporting Date: 12/08/2024	DETS Sample No	730205				

Determinand	Unit	RL	Accreditation				
PCB Congener 28	mg/kg	0.008	NONE	< 0.008			
PCB Congener 52	mg/kg	0.008	NONE	< 0.008			
PCB Congener 101	mg/kg	0.008	NONE	< 0.008			
PCB Congener 118	mg/kg	0.008	NONE	< 0.008			
PCB Congener 138	mg/kg	0.008	NONE	< 0.008			
PCB Congener 153	mg/kg	0.008	NONE	< 0.008			
PCB Congener 180	mg/kg	0.008	NONE	< 0.008			
Total PCB (7 Congeners)	mg/kg	< 0.1	NONE	< 0.1			

~ Sample details provided by customer and can affect the validity of results



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Leachate Analysis Certificate						
DETS Report No: 24-08787	~ Date Sampled	27/07/24	27/07/24	27/07/24	27/07/24	27/07/24
Earth Environmental & Geotechnical (Southern Ltd)	~ Time Sampled	None Supplied	None Supplied	None Supplied	None Supplied	None Supplied
~ Site Reference: Haywards Heath	~ TP / BH No	WS01	WS02	WS03	WS03	WS04
~ Project / Job Ref: R3971	~ Additional Refs	None Supplied	None Supplied	None Supplied	None Supplied	None Supplied
~ Order No: R3971/21/7/24/AT	~ Depth (m)	0.10 - 0.30	0.10 - 0.30	0.10 - 0.30	0.10 - 0.30	0.60 - 0.80
Reporting Date: 12/08/2024	DETS Sample No	730196	730198	730200	730201	730202

Determinand	Unit	RL	Accreditation				
pH	pH Units	N/a	ISO17025		7.6		7.9
Total Cyanide	ug/l	< 5	ISO17025		< 5		< 5
Complex Cyanide	ug/l	< 5	ISO17025		< 5		< 5
Free Cyanide	ug/l	< 5	NONE		< 5		< 5
Sulphate as SO ₄	mg/l	< 1	ISO17025		3		3
Sulphide	mg/l	< 0.1	NONE		< 0.1		< 0.1
Total Organic Carbon (TOC)	mg/l	< 1	ISO17025		2.8		2.9
Arsenic	ug/l	< 0.2	ISO17025		1.2		3.9
Boron	ug/l	< 1	ISO17025		9		26
Cadmium	ug/l	< 0.2	ISO17025		< 0.2		< 0.2
Chromium	ug/l	< 0.2	ISO17025		< 0.2		0.7
Chromium (hexavalent)	ug/l	< 20	NONE		< 20		< 20
Copper	ug/l	< 0.2	ISO17025		1.7		1.7
Lead	ug/l	< 0.2	ISO17025		0.4		0.8
Mercury	ug/l	< 0.04	ISO17025		< 0.04		< 0.04
Nickel	ug/l	< 0.2	ISO17025		< 0.2		< 0.2
Selenium	ug/l	< 0.2	ISO17025		< 0.2		< 0.2
Vanadium	ug/l	< 0.2	ISO17025		1.2		6.9
Zinc	ug/l	< 1	ISO17025		2		2
Total Phenols (monohydric)	ug/l	< 10	ISO17025		< 10		< 10
TPH (EPH EC10-EC40) : EH_1D_Total	ug/l	< 10	NONE		1133		790

Subcontracted analysis ^(S)

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Leachate Analysis Certificate						
DETS Report No: 24-08787	~ Date Sampled	27/07/24				
Earth Environmental & Geotechnical (Southern Ltd)	~ Time Sampled	None Supplied				
~ Site Reference: Haywards Heath	~ TP / BH No	WS04				
~ Project / Job Ref: R3971	~ Additional Refs	None Supplied				
~ Order No: R3971/21/7/24/AT	~ Depth (m)	0.90 - 1.10				
Reporting Date: 12/08/2024	DETS Sample No	730204				

Determinand	Unit	RL	Accreditation				
pH	pH Units	N/a	ISO17025	7.9			
Total Cyanide	ug/l	< 5	ISO17025	< 5			
Complex Cyanide	ug/l	< 5	ISO17025	< 5			
Free Cyanide	ug/l	< 5	NONE	< 5			
Sulphate as SO ₄	mg/l	< 1	ISO17025	6			
Sulphide	mg/l	< 0.1	NONE	< 0.1			
Total Organic Carbon (TOC)	mg/l	< 1	ISO17025	5.6			
Arsenic	ug/l	< 0.2	ISO17025	1.2			
Boron	ug/l	< 1	ISO17025	40			
Cadmium	ug/l	< 0.2	ISO17025	< 0.2			
Chromium	ug/l	< 0.2	ISO17025	0.6			
Chromium (hexavalent)	ug/l	< 20	NONE	< 20			
Copper	ug/l	< 0.2	ISO17025	2.2			
Lead	ug/l	< 0.2	ISO17025	0.9			
Mercury	ug/l	< 0.04	ISO17025	< 0.04			
Nickel	ug/l	< 0.2	ISO17025	0.6			
Selenium	ug/l	< 0.2	ISO17025	0.2			
Vanadium	ug/l	< 0.2	ISO17025	1.6			
Zinc	ug/l	< 1	ISO17025	3			
Total Phenols (monohydric)	ug/l	< 10	ISO17025	< 10			
TPH (EPH EC10-EC40) : EH_1D_Total	ug/l	< 10	NONE	9326			

Subcontracted analysis ^(S)

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Leachate Analysis Certificate - Speciated PAH						
DETS Report No: 24-08787	~ Date Sampled	27/07/24	27/07/24	27/07/24		
Earth Environmental & Geotechnical (Southern)	~ Time Sampled	None Supplied	None Supplied	None Supplied		
~ Site Reference: Haywards Heath	~ TP / BH No	WS02	WS03	WS04		
~ Project / Job Ref: R3971	~ Additional Refs	None Supplied	None Supplied	None Supplied		
~ Order No: R3971/21/7/24/AT	~ Depth (m)	0.10 - 0.30	0.10 - 0.30	0.90 - 1.10		
Reporting Date: 12/08/2024	DETS Sample No	730198	730201	730204		

Determinand	Unit	RL	Accreditation				
Naphthalene	ug/l	< 0.01	NONE	0.02	< 0.01	< 0.01	
Acenaphthylene	ug/l	< 0.01	NONE	< 0.01	< 0.01	< 0.01	
Acenaphthene	ug/l	< 0.01	NONE	< 0.01	< 0.01	< 0.01	
Fluorene	ug/l	< 0.01	NONE	< 0.01	< 0.01	< 0.01	
Phenanthrene	ug/l	< 0.01	NONE	0.03	0.07	< 0.01	
Anthracene	ug/l	< 0.01	NONE	< 0.01	< 0.01	< 0.01	
Fluoranthene	ug/l	< 0.01	NONE	< 0.01	0.03	< 0.01	
Pyrene	ug/l	< 0.01	NONE	< 0.01	0.02	0.06	
Benzo(a)anthracene	ug/l	< 0.01	NONE	< 0.01	< 0.01	< 0.01	
Chrysene	ug/l	< 0.01	NONE	< 0.01	< 0.01	< 0.01	
Benzo(b)fluoranthene	ug/l	< 0.01	NONE	< 0.01	< 0.01	< 0.01	
Benzo(k)fluoranthene	ug/l	< 0.01	NONE	< 0.01	< 0.01	< 0.01	
Benzo(a)pyrene	ug/l	< 0.01	NONE	< 0.01	< 0.01	< 0.01	
Indeno(1,2,3-cd)pyrene	ug/l	< 0.01	NONE	< 0.01	< 0.01	< 0.01	
Dibenz(a,h)anthracene	ug/l	< 0.01	NONE	< 0.01	< 0.01	< 0.01	
Benzo(ghi)perylene	ug/l	0.008	NONE	< 0.008	< 0.008	< 0.008	
Total EPA-16 PAHs	ug/l	< 0.16	NONE	< 0.16	< 0.16	< 0.16	



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Soil Analysis Certificate - Sample Descriptions

DETS Report No: 24-08787
Earth Environmental & Geotechnical (Southern Ltd)
~Site Reference: Haywards Heath
~Project / Job Ref: R3971
~Order No: R3971/21/7/24/AT
Reporting Date: 12/08/2024



DETS Sample No	~ TP / BH No	~Additional Refs	~Depth (m)	Moisture Content (%)	Sample Matrix Description
730196	WS01	None Supplied	0.10 - 0.30	9.1	Brown gravelly sand with stones
730197	WS02	None Supplied	0.10 - 0.30	9.1	Brown clayey sand with stones
730200	WS03	None Supplied	0.10 - 0.30	6.7	Brown clayey sand with stones and brick
730202	WS04	None Supplied	0.60 - 0.80	15.3	Brown sandy clay
730203	WS04	None Supplied	0.90 - 1.10	15.9	Brown sandy clay with stones
730205	WS04	None Supplied	1.40 - 1.60	12.6	Brown sandy clay
730206	WS05	None Supplied	0.10 - 0.30	5	Brown clayey sand with stones

Moisture content is part of procedure E003 & is not an accredited test

Insufficient Sample ^{I/S}

Unsuitable Sample ^{U/S}

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Soil Analysis Certificate - Methodology & Miscellaneous Information	
DETS Report No: 24-08787	
Earth Environmental & Geotechnical (Southern Ltd)	
~Site Reference: Haywards Heath	
~Project / Job Ref: R3971	
~Order No: R3971/21/7/24/AT	
Reporting Date: 12/08/2024	

Matrix	Analysed On	Determinand	Brief Method Description	Method No
Soil	D	Boron - Water Soluble	Determination of water soluble boron in soil by 2:1 hot water extract followed by ICP-OES	E012
Soil	AR	BTEX	Determination of BTEX by headspace GC-MS	E001
Soil	D	Cations	Determination of cations in soil by aqua-regia digestion followed by ICP-OES	E002
Soil	D	Chloride - Water Soluble (2:1)	Determination of chloride by extraction with water & analysed by ion chromatography	E009
Soil	AR	Chromium - Hexavalent	Determination of hexavalent chromium in soil by extraction in water then by acidification, addition of 1,5 diphenylcarbazide followed by colorimetry	E016
Soil	AR	Cyanide - Complex	Determination of complex cyanide by distillation followed by colorimetry	E015
Soil	AR	Cyanide - Free	Determination of free cyanide by distillation followed by colorimetry	E015
Soil	AR	Cyanide - Total	Determination of total cyanide by distillation followed by colorimetry	E015
Soil	D	Cyclohexane Extractable Matter (CEM)	Gravimetrically determined through extraction with cyclohexane	E011
Soil	AR	Diesel Range Organics (C10 - C24)	Determination of hexane/acetone extractable hydrocarbons by GC-FID	E004
Soil	AR	Electrical Conductivity	Determination of electrical conductivity by addition of saturated calcium sulphate followed by electrometric measurement	E022
Soil	AR	Electrical Conductivity	Determination of electrical conductivity by addition of water followed by electrometric measurement	E023
Soil	D	Elemental Sulphur	Determination of elemental sulphur by solvent extraction followed by GC-MS	E020
Soil	AR	EPH (C10 - C40)	Determination of acetone/hexane extractable hydrocarbons by GC-FID	E004
Soil	AR	EPH Product ID	Determination of acetone/hexane extractable hydrocarbons by GC-FID	E004
Soil	AR	EPH TEXAS (C6-C8, C8-C10, C10-C12, C12-C16, C16-C21, C21-C40)	Determination of acetone/hexane extractable hydrocarbons by GC-FID for C8 to C40. C6 to C8 by headspace GC-MS	E004
Soil	D	Fluoride - Water Soluble	Determination of Fluoride by extraction with water & analysed by ion chromatography	E009
Soil	D	Fraction Organic Carbon (FOC)	Determination of TOC by combustion analyser.	E027
Soil	D	Organic Matter (SOM)	Determination of TOC by combustion analyser.	E027
Soil	D	TOC (Total Organic Carbon)	Determination of TOC by combustion analyser.	E027
Soil	AR	Exchangeable Ammonium	Determination of ammonium by discrete analyser.	E029
Soil	D	FOC (Fraction Organic Carbon)	Determination of fraction of organic carbon by oxidising with potassium dichromate followed by titration with iron (II) sulphate	E010
Soil	D	Loss on Ignition @ 450oC	Determination of loss on ignition in soil by gravimetrically with the sample being ignited in a muffle furnace	E019
Soil	D	Magnesium - Water Soluble	Determination of water soluble magnesium by extraction with water followed by ICP-OES	E025
Soil	D	Metals	Determination of metals by aqua-regia digestion followed by ICP-OES	E002
Soil	AR	Mineral Oil (C10 - C40)	Determination of hexane/acetone extractable hydrocarbons by GC-FID fractionating with SPE cartridge	E004
Soil	AR	Moisture Content	Moisture content; determined gravimetrically	E003
Soil	D	Nitrate - Water Soluble (2:1)	Determination of nitrate by extraction with water & analysed by ion chromatography	E009
Soil	D	Organic Matter	Determination of organic matter by oxidising with potassium dichromate followed by titration with iron (II) sulphate	E010
Soil	AR	PAH - Speciated (EPA 16)	Determination of PAH compounds by extraction in acetone and hexane followed by GC-MS with the use of surrogate and internal standards	E005
Soil	AR	PCB - 7 Congeners	Determination of PCB by extraction with acetone and hexane followed by GC-MS	E008
Soil	D	Petroleum Ether Extract (PEE)	Gravimetrically determined through extraction with petroleum ether	E011
Soil	AR	pH	Determination of pH by addition of water followed by electrometric measurement	E007
Soil	AR	Phenols - Total (monohydric)	Determination of phenols by distillation followed by colorimetry	E021
Soil	D	Phosphate - Water Soluble (2:1)	Determination of phosphate by extraction with water & analysed by ion chromatography	E009
Soil	D	Sulphate (as SO4) - Total	Determination of total sulphate by extraction with 10% HCl followed by ICP-OES	E013
Soil	D	Sulphate (as SO4) - Water Soluble (2:1)	Determination of sulphate by extraction with water & analysed by ion chromatography	E009
Soil	D	Sulphate (as SO4) - Water Soluble (2:1)	Determination of water soluble sulphate by extraction with water followed by ICP-OES	E014
Soil	AR	Sulphide	Determination of sulphide by distillation followed by colorimetry	E018
Soil	D	Sulphur - Total	Determination of total sulphur by extraction with aqua-regia followed by ICP-OES	E024
Soil	AR	SVOC	Determination of semi-volatile organic compounds by extraction in acetone and hexane followed by GC-MS	E006
Soil	AR	Thiocyanate (as SCN)	Determination of thiocyanate by extraction in caustic soda followed by acidification followed by addition of ferric nitrate followed by colorimetry	E017
Soil	D	Toluene Extractable Matter (TEM)	Gravimetrically determined through extraction with toluene	E011
Soil	D	Total Organic Carbon (TOC)	Determination of organic matter by oxidising with potassium dichromate followed by titration with iron (II) sulphate	E010
Soil	AR	TPH CWG (ali: C5- C6, C6-C8, C8-C10, C10-C12, C12-C16, C16-C21, C21-C34, aro: C5-C7, C7-C8, C8-C10, C10-C12, C12-C16, C16-C21, C21-C35)	Determination of hexane/acetone extractable hydrocarbons by GC-FID fractionating with SPE cartridge for C8 to C35. C5 to C8 by headspace GC-MS	E004
Soil	AR	TPH LQM (ali: C5-C6, C6-C8, C8-C10, C10-C12, C12-C16, C16-C35, C35-C44, aro: C5-C7, C7-C8, C8-C10, C10-C12, C12-C16, C16-C21, C21-C35, C35-C44)	Determination of hexane/acetone extractable hydrocarbons by GC-FID fractionating with SPE cartridge for C8 to C44. C5 to C8 by headspace GC-MS	E004
Soil	AR	VOCs	Determination of volatile organic compounds by headspace GC-MS	E001
Soil	AR	VPH (C6-C8 & C8-C10)	Determination of hydrocarbons C6-C8 by headspace GC-MS & C8-C10 by GC-FID	E001

D Dried
AR As Received

~Sample details provided by customer and can affect the validity of results



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Water Analysis Certificate - Methodology & Miscellaneous Information

DETS Report No: 24-08787

Earth Environmental & Geotechnical (Southern Ltd)

~Site Reference: Haywards Heath

~Project / Job Ref: R3971

~Order No: R3971/21/7/24/AT

Reporting Date: 12/08/2024

Matrix	Analysed On	Determinand	Brief Method Description	Method No
Water	UF	Alkalinity	Determination of alkalinity by titration against hydrochloric acid using bromocresol green as the end point	E103
Water	F	Ammoniacal Nitrogen	Determination of ammoniacal nitrogen by discrete analyser.	E126
Water	UF	BTEX	Determination of BTEX by headspace GC-MS	E101
Water	F	Cations	Determination of cations by filtration followed by ICP-MS	E102
Water	U	Chemical Oxygen Demand (COD)	Determination using a COD reactor followed by colorimetry	E112
Water	UF	Biological Oxygen Demand (COD)	Determination using BOD sensors measuring the change of pressure	E133
Water	F	Chloride	Determination of chloride by filtration & analysed by ion chromatography	E109
Water	F	Chromium - Hexavalent	Determination of hexavalent chromium by acidification, addition of 1,5 diphenylcarbazide followed by	E116
Water	UF	Cyanide - Complex	Determination of complex cyanide by distillation followed by colorimetry	E115
Water	UF	Cyanide - Free	Determination of free cyanide by distillation followed by colorimetry	E115
Water	UF	Cyanide - Total	Determination of total cyanide by distillation followed by colorimetry	E115
Water	UF	Cyclohexane Extractable Matter (CEM)	Gravimetrically determined through liquid:liquid extraction with cyclohexane	E111
Water	F	Diesel Range Organics (C10 - C24)	Determination of liquid:liquid extraction with hexane followed by GC-FID	E104
Water	F	Dissolved Organic Content (DOC)	Determination of DOC by filtration followed by low heat with persulphate addition followed by IR detection	E110
Water	UF	Electrical Conductivity	Determination of electrical conductivity by electrometric measurement	E123
Water	F	EPH (C10 - C40)	Determination of liquid:liquid extraction with hexane followed by GC-FID	E104
Water	F	EPH TEXAS (C6-C8, C8-C10, C10-C12, C12-C16, C16-C21, C21-C40)	Determination of liquid:liquid extraction with hexane followed by GC-FID for C8 to C40. C6 to C8 by headspace GC-MS	E104
Water	F	Fluoride	Determination of Fluoride by filtration & analysed by ion chromatography	E109
Water	F	Hardness	Determination of Ca and Mg by ICP-MS followed by calculation	E102
Leachate	F	Leachate Preparation - NRA	Based on National Rivers Authority leaching test 1994	E301
Leachate	F	Leachate Preparation - WAC	Based on BS EN 12457 Pt1, 2, 3	E302
Water	F	Metals	Determination of metals by filtration followed by ICP-MS	E102
Water	F	Mineral Oil (C10 - C40)	Determination of liquid:liquid extraction with hexane followed by GI-FID	E104
Water	F	Nitrate	Determination of nitrate by filtration & analysed by ion chromatography	E109
Water	UF	Monohydric Phenol	Determination of phenols by distillation followed by colorimetry	E121
Water	F	PAH - Speciated (EPA 16)	Determination of PAH compounds by concentration through SPE cartridge, collection in dichloromethane followed by GC-MS	E105
Water	F	PCB - 7 Congeners	Determination of PCB compounds by concentration through SPE cartridge, collection in dichloromethane followed by GC-MS	E108
Water	UF	Petroleum Ether Extract (PEE)	Gravimetrically determined through liquid:liquid extraction with petroleum ether	E111
Water	UF	pH	Determination of pH by electrometric measurement	E107
Water	F	Phosphate	Determination of phosphate by filtration & analysed by ion chromatography	E109
Water	UF	Redox Potential	Determination of redox potential by electrometric measurement	E113
Water	F	Sulphate (as SO4)	Determination of sulphate by filtration & analysed by ion chromatography	E109
Water	UF	Sulphide	Determination of sulphide by distillation followed by colorimetry	E118
Water	F	SVOC	Determination of semi-volatile organic compounds by concentration through SPE cartridge, collection in dichloromethane followed by GC-MS	E106
Water	UF	Toluene Extractable Matter (TEM)	Gravimetrically determined through liquid:liquid extraction with toluene	E111
Water	UF	Total Organic Carbon (TOC)	Low heat with persulphate addition followed by IR detection	E110
Water	F	TPH CWG (ali: C5-C6, C6-C8, C8-C10, C10-C12, C12-C16, C16-C21, C21-C34, aro: C5-C7, C7-C8, C8-C10, C10-C12, C12-C16, C16-C21, C21-C35)	Determination of liquid:liquid extraction with hexane, fractionating with SPE followed by GC-FID for C8 to C35. C5 to C8 by headspace GC-MS	E104
Water	F	TPH LQM (ali: C5-C6, C6-C8, C8-C10, C10-C12, C12-C16, C16-C35, C35-C44, aro: C5-C7, C7-C8, C8-C10, C10-C12, C12-C16, C16-C21, C21-C35, C35-C44)	Determination of liquid:liquid extraction with hexane, fractionating with SPE followed by GC-FID for C8 to C44. C5 to C8 by headspace GC-MS	E104
Water	UF	VOCs	Determination of volatile organic compounds by headspace GC-MS	E101
Water	UF	VPH (C6-C8 & C8-C10)	Determination of hydrocarbons C6-C8 by headspace GC-MS & C8-C10 by GC-FID	E101

Key

F Filtered

UF Unfiltered

~Sample details provided by customer and can affect the validity of results



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List of HWOL Acronyms and Operators	
DETS Report No: 24-08787	
Earth Environmental & Geotechnical (Southern Ltd)	
~Site Reference: Haywards Heath	
~Project / Job Ref: R3971	
~Order No: R3971/21/7/24/AT	
Reporting Date: 12/08/2024	

Acronym	Description
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
2D	GC-GC - Double coil gas chromatography
Total	Aliphatics & Aromatics
AL	Aliphatics only
AR	Aromatics only
#1	EH 2D Total but with humics mathematically subtracted
#2	EH 2D Total but with fatty acids mathematically subtracted
	Operator - underscore to separate acronyms (exception for +)
+	Operator to indicate cumulative eg. EH+HS Total or EH CU+HS Total
~	Sample details provided by customer and can affect the validity of results

Benzene - HS 1D MS
Ethylbenzene - HS 1D MS
MTBE - HS 1D MS
Mineral Oil (C10 - C40) (BS EN 12457-2) - EH CU 1D AL
TPH (EPH EC10-EC40) - EH 1D Total
TPH CWG - Aliphatic >C10 - C12 - EH CU 1D AL
TPH CWG - Aliphatic >C12 - C16 - EH CU 1D AL
TPH CWG - Aliphatic >C16 - C21 - EH CU 1D AL
TPH CWG - Aliphatic >C21 - C34 - EH CU 1D AL
TPH CWG - Aliphatic >C5 - C6 - HS 1D MS AL
TPH CWG - Aliphatic >C6 - C8 - HS 1D MS AL
TPH CWG - Aliphatic >C8 - C10 - EH CU 1D AL
TPH CWG - Aliphatic C5 - C34 - HS 1D MS+EH CU 1D AL
TPH CWG - Aromatic >C10 - C12 - EH CU 1D AR
TPH CWG - Aromatic >C12 - C16 - EH CU 1D AR
TPH CWG - Aromatic >C16 - C21 - EH CU 1D AR
TPH CWG - Aromatic >C21 - C35 - EH CU 1D AR
TPH CWG - Aromatic >C5 - C35 - HS 1D MS+EH CU 1D AR
TPH CWG - Aromatic >C5 - C7 - HS 1D MS AR
TPH CWG - Aromatic >C7 - C8 - HS 1D MS AR
TPH CWG - Aromatic >C8 - C10 - EH CU 1D AR
TPH CWG - Total >C5 - C35 - HS 1D MS+EH CU 1D Total
Toluene - HS 1D MS
Total BTEX (BS EN 12457-2) - HS 1D MS Total
m & p-xylene - HS 1D MS
o-Xylene - HS 1D MS

Parameter	Matrix Type	Expanded Uncertainty Measurement	Unit
TOC	Soil	12.2	%
Loss on Ignition	Soil	22.9	%
BTEX	Soil	11.2	%
Sum of PCBs	Soil	43.4	%
Mineral Oil	Soil	9.0	%
Total PAH	Soil	18.5	%
pH	Soil	0.335	Units
Acid Neutralisation Capacity	Soil	18.0	%
Clay Content	Soil	15.0	%
Silt Content	Soil	14.0	%
Sand Content	Soil	13.0	%
Loss on Ignition	Soil	22.9	%
pH	Soil	0.335	Units
Carbonate	Soil	12.0	%
Total Nitrogen	Soil	12.0	%
Phosphorus (Extractable)	Soil	24.0	%
Potassium (Extractable)	Soil	20.0	%
Magnesium (Extractable)	Soil	26.0	%
Zinc	Soil	21.6	%
Copper	Soil	18.2	%
Nickel	Soil	24.3	%
Available Sodium	Soil	23.0	%
Available Calcium	Soil	23.0	%
Electrical Conductivity	Soil	10.0	%



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DETS Report No: 24-08916

Site Reference: Haywards Heath

Project / Job Ref: R3971

Order No: R3971/21/7/24/AT

Sample Receipt Date: 01/08/2024

Sample Scheduled Date: 06/08/2024

Report Issue Number: 1

Reporting Date: 12/08/2024

Authorised by:

Steve Knight
Customer Support Manager

Dates of laboratory activities for each tested analyte are available upon request.

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Soil Analysis Certificate						
DETS Report No: 24-08916	~Date Sampled	27/07/24				
Earth Environmental & Geotechnical (Southern Ltd)	~Time Sampled	None Supplied				
~Site Reference: Haywards Heath	~TP / BH No	WS02				
~Project / Job Ref: R3971	~Additional Refs	None Supplied				
~Order No: R3971/21/7/24/AT	~Depth (m)	0.40 - 0.60				
Reporting Date: 12/08/2024	DETS Sample No	730653				

Determinand	Unit	RL	Accreditation				
Asbestos Screen ^(S)	N/a	N/a	ISO17025	Not Detected			
Asbestos Quantification ^(S)	%	< 0.001	ISO17025	< 0.001			
pH	pH Units	N/a	MCERTS	7.2			
Total Cyanide	mg/kg	< 1	NONE	< 1			
Complex Cyanide	mg/kg	< 1	NONE	< 1			
Free Cyanide	mg/kg	< 1	NONE	< 1			
Thiocyanate as SCN	mg/kg	< 3	NONE	< 3			
Total Sulphate as SO ₄	mg/kg	< 200	MCERTS	< 200			
Total Sulphate as SO ₄	%	< 0.02	MCERTS	< 0.02			
W/S Sulphate as SO ₄ (2:1)	mg/l	< 10	MCERTS	< 10			
W/S Sulphate as SO ₄ (2:1)	g/l	< 0.01	MCERTS	< 0.01			
Elemental Sulphur	mg/kg	< 10	NONE	< 10			
Sulphide	mg/kg	< 5	NONE	< 5			
Organic Matter (SOM)	%	< 0.1	MCERTS	0.6			
Ammoniacal Nitrogen as NH ₄	mg/kg	< 0.5	MCERTS	< 0.5			
Total Chloride	%	< 0.01	NONE	0.07			
Water Soluble Nitrate (2:1) as NO ₃	mg/kg	< 3	MCERTS	< 3			
Water Soluble Nitrate (2:1) as NO ₃	mg/l	< 1.5	MCERTS	< 1.5			
Arsenic (As)	mg/kg	< 2	MCERTS	6			
Barium (Ba)	mg/kg	< 2.5	MCERTS	11			
Beryllium (Be)	mg/kg	< 0.5	MCERTS	< 0.5			
W/S Boron	mg/kg	< 1	NONE	< 1			
Cadmium (Cd)	mg/kg	< 0.2	MCERTS	< 0.2			
Chromium (Cr)	mg/kg	< 2	MCERTS	8			
Chromium (hexavalent)	mg/kg	< 2	NONE	< 2			
Cobalt (Co)	mg/kg	< 1	MCERTS	4.8			
Copper (Cu)	mg/kg	< 4	MCERTS	10			
Lead (Pb)	mg/kg	< 3	MCERTS	8			
Mercury (Hg)	mg/kg	< 1	MCERTS	< 1			
Molybdenum (Mo)	mg/kg	< 1	MCERTS	< 1			
Nickel (Ni)	mg/kg	< 3	MCERTS	6			
Selenium (Se)	mg/kg	< 2	MCERTS	< 2			
Vanadium (V)	mg/kg	< 1	MCERTS	9			
Zinc (Zn)	mg/kg	< 3	MCERTS	21			
Total Phenols (monohydric)	mg/kg	< 2	NONE	< 2			

Analytical results are expressed on a dry weight basis where samples are assisted-dried at less than 30°C. The Method Description page describes if the test is performed on the dried or as-received portion
Subcontracted analysis (S)

~Sample details provided by customer and can affect the validity of results



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Soil Analysis Certificate - Speciated PAHs						
DETS Report No: 24-08916	~ Date Sampled	27/07/24				
Earth Environmental & Geotechnical (Souther	~ Time Sampled	None Supplied				
~ Site Reference: Haywards Heath	~ TP / BH No	WS02				
~ Project / Job Ref: R3971	~ Additional Refs	None Supplied				
~ Order No: R3971/21/7/24/AT	~ Depth (m)	0.40 - 0.60				
Reporting Date: 12/08/2024	DETS Sample No	730653				

Determinand	Unit	RL	Accreditation				
Naphthalene	mg/kg	< 0.1	MCERTS	< 0.1			
Acenaphthylene	mg/kg	< 0.1	MCERTS	< 0.1			
Acenaphthene	mg/kg	< 0.1	MCERTS	< 0.1			
Fluorene	mg/kg	< 0.1	MCERTS	< 0.1			
Phenanthrene	mg/kg	< 0.1	MCERTS	< 0.1			
Anthracene	mg/kg	< 0.1	MCERTS	< 0.1			
Fluoranthene	mg/kg	< 0.1	MCERTS	< 0.1			
Pyrene	mg/kg	< 0.1	MCERTS	< 0.1			
Benzo(a)anthracene	mg/kg	< 0.1	MCERTS	< 0.1			
Chrysene	mg/kg	< 0.1	MCERTS	< 0.1			
Benzo(b)fluoranthene	mg/kg	< 0.1	MCERTS	< 0.1			
Benzo(k)fluoranthene	mg/kg	< 0.1	MCERTS	< 0.1			
Benzo(a)pyrene	mg/kg	< 0.1	MCERTS	< 0.1			
Indeno(1,2,3-cd)pyrene	mg/kg	< 0.1	MCERTS	< 0.1			
Dibenz(a,h)anthracene	mg/kg	< 0.1	MCERTS	< 0.1			
Benzo(ghi)perylene	mg/kg	< 0.1	MCERTS	< 0.1			
Total EPA-16 PAHs	mg/kg	< 1.6	MCERTS	< 1.6			

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Soil Analysis Certificate - TPH CWG Banded						
DETS Report No: 24-08916	~ Date Sampled	27/07/24				
Earth Environmental & Geotechnical (Souther	~ Time Sampled	None Supplied				
~ Site Reference: Haywards Heath	~ TP / BH No	WS02				
~ Project / Job Ref: R3971	~ Additional Refs	None Supplied				
~ Order No: R3971/21/7/24/AT	~ Depth (m)	0.40 - 0.60				
Reporting Date: 12/08/2024	DETS Sample No	730653				

Determinand	Unit	RL	Accreditation				
Aliphatic >C5 - C6 : HS_1D_MS_AL	mg/kg	< 0.01	NONE	< 0.01			
Aliphatic >C6 - C8 : HS_1D_MS_AL	mg/kg	< 0.05	NONE	< 0.05			
Aliphatic >C8 - C10 : EH_CU_1D_AL	mg/kg	< 2	MCERTS	< 2			
Aliphatic >C10 - C12 : EH_CU_1D_AL	mg/kg	< 2	MCERTS	< 2			
Aliphatic >C12 - C16 : EH_CU_1D_AL	mg/kg	< 3	MCERTS	< 3			
Aliphatic >C16 - C21 : EH_CU_1D_AL	mg/kg	< 3	MCERTS	< 3			
Aliphatic >C21 - C34 : EH_CU_1D_AL	mg/kg	< 10	MCERTS	< 10			
Aliphatic (C5 - C34) : HS_1D_MS+EH_CU_1D_AL	mg/kg	< 21	NONE	< 21			
Aromatic >C5 - C7 : HS_1D_MS_AR	mg/kg	< 0.01	NONE	< 0.01			
Aromatic >C7 - C8 : HS_1D_MS_AR	mg/kg	< 0.05	NONE	< 0.05			
Aromatic >C8 - C10 : EH_CU_1D_AR	mg/kg	< 2	MCERTS	< 2			
Aromatic >C10 - C12 : EH_CU_1D_AR	mg/kg	< 2	MCERTS	< 2			
Aromatic >C12 - C16 : EH_CU_1D_AR	mg/kg	< 2	MCERTS	< 2			
Aromatic >C16 - C21 : EH_CU_1D_AR	mg/kg	< 3	MCERTS	< 3			
Aromatic >C21 - C35 : EH_CU_1D_AR	mg/kg	< 10	MCERTS	< 10			
Aromatic (C5 - C35) : HS_1D_MS+EH_CU_1D_AR	mg/kg	< 21	NONE	< 21			
Total >C5 - C35 : HS_1D_MS+EH_CU_1D_Tot al	mg/kg	< 42	NONE	< 42			

~ Sample details provided by customer and can affect the validity of results



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Soil Analysis Certificate - BTEX / MTBE						
DETS Report No: 24-08916	~ Date Sampled	27/07/24				
Earth Environmental & Geotechnical (Souther	~ Time Sampled	None Supplied				
~ Site Reference: Haywards Heath	~ TP / BH No	WS02				
~ Project / Job Ref: R3971	~ Additional Refs	None Supplied				
~ Order No: R3971/21/7/24/AT	~ Depth (m)	0.40 - 0.60				
Reporting Date: 12/08/2024	DETS Sample No	730653				

Determinand	Unit	RL	Accreditation				
Benzene : HS_1D_MS	ug/kg	< 2	MCERTS	< 2			
Toluene : HS_1D_MS	ug/kg	< 5	MCERTS	< 5			
Ethylbenzene : HS_1D_MS	ug/kg	< 2	MCERTS	< 2			
p & m-xylene : HS_1D_MS	ug/kg	< 2	MCERTS	< 2			
o-xylene : HS_1D_MS	ug/kg	< 2	MCERTS	< 2			
MTBE : HS_1D_MS	ug/kg	< 5	MCERTS	< 5			

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Soil Analysis Certificate - PCB (7 Congeners)						
DETS Report No: 24-08916	~ Date Sampled	27/07/24				
Earth Environmental & Geotechnical (Southern)	~ Time Sampled	None Supplied				
~ Site Reference: Haywards Heath	~ TP / BH No	WS02				
~ Project / Job Ref: R3971	~ Additional Refs	None Supplied				
~ Order No: R3971/21/7/24/AT	~ Depth (m)	0.40 - 0.60				
Reporting Date: 12/08/2024	DETS Sample No	730653				

Determinand	Unit	RL	Accreditation				
PCB Congener 28	mg/kg	0.008	NONE	< 0.008			
PCB Congener 52	mg/kg	0.008	NONE	< 0.008			
PCB Congener 101	mg/kg	0.008	NONE	< 0.008			
PCB Congener 118	mg/kg	0.008	NONE	< 0.008			
PCB Congener 138	mg/kg	0.008	NONE	< 0.008			
PCB Congener 153	mg/kg	0.008	NONE	< 0.008			
PCB Congener 180	mg/kg	0.008	NONE	< 0.008			
Total PCB (7 Congeners)	mg/kg	< 0.1	NONE	< 0.1			

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Soil Analysis Certificate - Sample Descriptions	
DETS Report No: 24-08916	
Earth Environmental & Geotechnical (Southern Ltd)	
~Site Reference: Haywards Heath	
~Project / Job Ref: R3971	
~Order No: R3971/21/7/24/AT	
Reporting Date: 12/08/2024	

DETS Sample No	~TP / BH No	~Additional Refs	~Depth (m)	Moisture Content (%)	Sample Matrix Description
730653	WS02	None Supplied	0.40 - 0.60	12.3	Brown sandy clay

Moisture content is part of procedure E003 & is not an accredited test

Insufficient Sample ^{U/S}

Unsuitable Sample ^{U/S}

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Soil Analysis Certificate - Methodology & Miscellaneous Information	
DETS Report No: 24-08916	
Earth Environmental & Geotechnical (Southern Ltd)	
~Site Reference: Haywards Heath	
~Project / Job Ref: R3971	
~Order No: R3971/21/7/24/AT	
Reporting Date: 12/08/2024	

Matrix	Analysed On	Determinand	Brief Method Description	Method No
Soil	D	Boron - Water Soluble	Determination of water soluble boron in soil by 2:1 hot water extract followed by ICP-OES	E012
Soil	AR	BTEX	Determination of BTEX by headspace GC-MS	E001
Soil	D	Cations	Determination of cations in soil by aqua-regia digestion followed by ICP-OES	E002
Soil	D	Chloride - Water Soluble (2:1)	Determination of chloride by extraction with water & analysed by ion chromatography	E009
Soil	AR	Chromium - Hexavalent	Determination of hexavalent chromium in soil by extraction in water then by acidification, addition of 1,5 diphénylcarbazine followed by colorimetry	E016
Soil	AR	Cyanide - Complex	Determination of complex cyanide by distillation followed by colorimetry	E015
Soil	AR	Cyanide - Free	Determination of free cyanide by distillation followed by colorimetry	E015
Soil	AR	Cyanide - Total	Determination of total cyanide by distillation followed by colorimetry	E015
Soil	D	Cyclohexane Extractable Matter (CEM)	Gravimetrically determined through extraction with cyclohexane	E011
Soil	AR	Diesel Range Organics (C10 - C24)	Determination of hexane/acetone extractable hydrocarbons by GC-FID	E004
Soil	AR	Electrical Conductivity	Determination of electrical conductivity by addition of saturated calcium sulphate followed by electrometric measurement	E022
Soil	AR	Electrical Conductivity	Determination of electrical conductivity by addition of water followed by electrometric measurement	E023
Soil	D	Elemental Sulphur	Determination of elemental sulphur by solvent extraction followed by GC-MS	E020
Soil	AR	EPH (C10 - C40)	Determination of acetone/hexane extractable hydrocarbons by GC-FID	E004
Soil	AR	EPH Product ID	Determination of acetone/hexane extractable hydrocarbons by GC-FID	E004
Soil	AR	EPH TEXAS (C6-C8, C8-C10, C10-C12, C12-C16, C16-C21, C21-C40)	Determination of acetone/hexane extractable hydrocarbons by GC-FID for C8 to C40. C6 to C8 by headspace GC-MS	E004
Soil	D	Fluoride - Water Soluble	Determination of Fluoride by extraction with water & analysed by ion chromatography	E009
Soil	D	Fraction Organic Carbon (FOC)	Determination of TOC by combustion analyser.	E027
Soil	D	Organic Matter (SOM)	Determination of TOC by combustion analyser.	E027
Soil	D	TOC (Total Organic Carbon)	Determination of TOC by combustion analyser.	E027
Soil	AR	Exchangeable Ammonium	Determination of ammonium by discrete analyser.	E029
Soil	D	FOC (Fraction Organic Carbon)	Determination of fraction of organic carbon by oxidising with potassium dichromate followed by titration with iron (II) sulphate	E010
Soil	D	Loss on Ignition @ 450oC	Determination of loss on ignition in soil by gravimetrically with the sample being ignited in a muffle furnace	E019
Soil	D	Magnesium - Water Soluble	Determination of water soluble magnesium by extraction with water followed by ICP-OES	E025
Soil	D	Metals	Determination of metals by aqua-regia digestion followed by ICP-OES	E002
Soil	AR	Mineral Oil (C10 - C40)	Determination of hexane/acetone extractable hydrocarbons by GC-FID fractionating with SPE cartridge	E004
Soil	AR	Moisture Content	Moisture content; determined gravimetrically	E003
Soil	D	Nitrate - Water Soluble (2:1)	Determination of nitrate by extraction with water & analysed by ion chromatography	E009
Soil	D	Organic Matter	Determination of organic matter by oxidising with potassium dichromate followed by titration with iron (II) sulphate	E010
Soil	AR	PAH - Speciated (EPA 16)	Determination of PAH compounds by extraction in acetone and hexane followed by GC-MS with the use of surrogate and internal standards	E005
Soil	AR	PCB - 7 Congeners	Determination of PCB by extraction with acetone and hexane followed by GC-MS	E008
Soil	D	Petroleum Ether Extract (PEE)	Gravimetrically determined through extraction with petroleum ether	E011
Soil	AR	pH	Determination of pH by addition of water followed by electrometric measurement	E007
Soil	AR	Phenols - Total (monohydric)	Determination of phenols by distillation followed by colorimetry	E021
Soil	D	Phosphate - Water Soluble (2:1)	Determination of phosphate by extraction with water & analysed by ion chromatography	E009
Soil	D	Sulphate (as SO4) - Total	Determination of total sulphate by extraction with 10% HCl followed by ICP-OES	E013
Soil	D	Sulphate (as SO4) - Water Soluble (2:1)	Determination of sulphate by extraction with water & analysed by ion chromatography	E009
Soil	D	Sulphate (as SO4) - Water Soluble (2:1)	Determination of water soluble sulphate by extraction with water followed by ICP-OES	E014
Soil	AR	Sulphide	Determination of sulphide by distillation followed by colorimetry	E018
Soil	D	Sulphur - Total	Determination of total sulphur by extraction with aqua-regia followed by ICP-OES	E024
Soil	AR	SVOC	Determination of semi-volatile organic compounds by extraction in acetone and hexane followed by GC-MS	E006
Soil	AR	Thiocyanate (as SCN)	Determination of thiocyanate by extraction in caustic soda followed by acidification followed by addition of ferric nitrate followed by colorimetry	E017
Soil	D	Toluene Extractable Matter (TEM)	Gravimetrically determined through extraction with toluene	E011
Soil	D	Total Organic Carbon (TOC)	Determination of organic matter by oxidising with potassium dichromate followed by titration with iron (II) sulphate	E010
Soil	AR	TPH CWG (ali: C5- C6, C6-C8, C8-C10, C10-C12, C12-C16, C16-C21, C21-C34, aro: C5-C7, C7-C8, C8-C10, C10-C12, C12-C16, C16-C21, C21-C35)	Determination of hexane/acetone extractable hydrocarbons by GC-FID fractionating with SPE cartridge for C8 to C35. C5 to C8 by headspace GC-MS	E004
Soil	AR	TPH LQM (ali: C5-C6, C6-C8, C8-C10, C10-C12, C12-C16, C16-C35, C35-C44, aro: C5-C7, C7-C8, C8-C10, C10-C12, C12-C16, C16-C21, C21-C35, C35-C44)	Determination of hexane/acetone extractable hydrocarbons by GC-FID fractionating with SPE cartridge for C8 to C44. C5 to C8 by headspace GC-MS	E004
Soil	AR	VOCs	Determination of volatile organic compounds by headspace GC-MS	E001
Soil	AR	VPH (C6-C8 & C8-C10)	Determination of hydrocarbons C6-C8 by headspace GC-MS & C8-C10 by GC-FID	E001

D Dried
AR As Received

~Sample details provided by customer and can affect the validity of results



Normec DETS Limited
Unit 1, Rose Lane Industrial Estate
Rose Lane
Lenham Heath
Maidstone
Kent ME17 2JN
Tel : 01622 850410



List of HWOL Acronyms and Operators	
DETS Report No: 24-08916	
Earth Environmental & Geotechnical (Southern Ltd)	
~Site Reference: Haywards Heath	
~Project / Job Ref: R3971	
~Order No: R3971/21/7/24/AT	
Reporting Date: 12/08/2024	

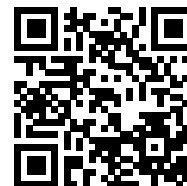
Acronym	Description
HS	Headspace analysis
EH	Extractable Hydrocarbons - i.e. everything extracted by the solvent
CU	Clean-up - e.g. by florisil, silica gel
1D	GC - Single coil gas chromatography
2D	GC-GC - Double coil gas chromatography
Total	Aliphatics & Aromatics
AL	Aliphatics only
AR	Aromatics only
#1	EH 2D Total but with humics mathematically subtracted
#2	EH 2D Total but with fatty acids mathematically subtracted
	Operator - underscore to separate acronyms (exception for +)
+	Operator to indicate cumulative eg. EH+HS Total or EH CU+HS Total
~	Sample details provided by customer and can affect the validity of results

Benzene - HS 1D MS
Ethylbenzene - HS 1D MS
MTBE - HS 1D MS
TPH CWG - Aliphatic >C10 - C12 - EH CU 1D AL
TPH CWG - Aliphatic >C12 - C16 - EH CU 1D AL
TPH CWG - Aliphatic >C16 - C21 - EH CU 1D AL
TPH CWG - Aliphatic >C21 - C34 - EH CU 1D AL
TPH CWG - Aliphatic >C5 - C6 - HS 1D MS AL
TPH CWG - Aliphatic >C6 - C8 - HS 1D MS AL
TPH CWG - Aliphatic >C8 - C10 - EH CU 1D AL
TPH CWG - Aliphatic C5 - C34 - HS 1D MS+EH CU 1D AL
TPH CWG - Aromatic >C10 - C12 - EH CU 1D AR
TPH CWG - Aromatic >C12 - C16 - EH CU 1D AR
TPH CWG - Aromatic >C16 - C21 - EH CU 1D AR
TPH CWG - Aromatic >C21 - C35 - EH CU 1D AR
TPH CWG - Aromatic >C5 - C35 - HS 1D MS+EH CU 1D AR
TPH CWG - Aromatic >C5 - C7 - HS 1D MS AR
TPH CWG - Aromatic >C7 - C8 - HS 1D MS AR
TPH CWG - Aromatic >C8 - C10 - EH CU 1D AR
TPH CWG - Total >C5 - C35 - HS 1D MS+EH CU 1D Total
Toluene - HS 1D MS
m & p-xylene - HS 1D MS
o-Xylene - HS 1D MS

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)



K6ARZ-SZIAU-36E00

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

Job name

Haywards Heath

Description/Comments

Project

R3971

Site

Haywards Heath

Classified by

Name: **John Grace**
Date: **02 Sep 2024 14:29 GMT**
Telephone: **0845 2508100**
Company: **Earth Environmental & Geotechnical Ltd**
Houldsworth Mill Business & Arts Centre
Houldsworth Street
Stockport
SK5 6DA

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

HazWasteOnline™ Certification:

Course
Hazardous Waste Classification

Date

Purpose of classification

2 - Material Characterisation

Address of the waste

Perrymount Road, Haywards Heath

Post Code RH16 1DN

SIC for the process giving rise to the waste

41201 Construction of commercial buildings

Description of industry/producer giving rise to the waste

Redevelopment of brownfield site

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

Waste soil generated from excavation of foundations.

Description of the waste

Made Ground and underlying natural soils



Job summary

#	Sample name	Depth [m]	Classification Result	Hazard properties	Page
1	WS01	0.10 - 0.30	Non Hazardous		3
2	WS02	0.10 - 0.30	Non Hazardous		6
3	WS03	0.10 - 0.30	Non Hazardous		9
4	WS04	0.60 - 0.80	Non Hazardous		12
5	WS04[2]	0.90 - 1.10	Non Hazardous		15
6	WS04[4]	1.40 - 1.60	Non Hazardous		18
7	WS05	0.10 - 0.30	Non Hazardous		21
8	WS02[3]	0.40 - 0.60	Non Hazardous		24

Related documents

#	Name	Description
1	Example waste stream template for contaminated soils	waste stream template used to create this Job

Report

Created by: John Grace

Created date: 02 Sep 2024 14:29 GMT

Appendices	Page
Appendix A: Classifier defined and non GB MCL determinands	27
Appendix B: Rationale for selection of metal species	28
Appendix C: Version	29



Classification of sample: WS01

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

Sample details

Sample name:	LoW Code:
WS01	Chapter:
Sample Depth:	17: Construction and Demolition Wastes (including excavated soil from contaminated sites)
0.10 - 0.30 m	Entry:
Moisture content:	17 05 04 (Soil and stones other than those mentioned in 17 05 03)
9.1%	
(no correction)	

Hazard properties

None identified

Determinands

Moisture content: 9.1% 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 }				8 mg/kg	1.32	10.563 mg/kg	0.00106 %			
	033-003-00-0	215-481-4	1327-53-3								
2	beryllium { beryllium oxide }				<0.5 mg/kg	2.775	<1.388 mg/kg	<0.000139 %			<LOD
	004-003-00-8	215-133-1	1304-56-9								
3	boron { diboron trioxide }				<1 mg/kg	3.22	<3.22 mg/kg	<0.000322 %			<LOD
	005-008-00-8	215-125-8	1303-86-2								
4	cadmium { cadmium oxide }				<0.2 mg/kg	1.142	<0.228 mg/kg	<0.0000228 %			<LOD
	048-002-00-0	215-146-2	1306-19-0								
5	chromium in chromium(III) compounds { chromium(III) oxide (worst case) }				11 mg/kg	1.462	16.077 mg/kg	0.00161 %			
		215-160-9	1308-38-9								
6	chromium in chromium(VI) compounds { chromium(VI) oxide }				<2 mg/kg	1.923	<3.846 mg/kg	<0.000385 %			<LOD
	024-001-00-0	215-607-8	1333-82-0								
7	copper { dicopper oxide; copper (I) oxide }				9 mg/kg	1.126	10.133 mg/kg	0.00101 %			
	029-002-00-X	215-270-7	1317-39-1								
8	lead { lead compounds with the exception of those specified elsewhere in this Annex (worst case) }			1	41 mg/kg		41 mg/kg	0.0041 %			
	082-001-00-6										
9	mercury { mercury dichloride }				<1 mg/kg	1.353	<1.353 mg/kg	<0.000135 %			<LOD
	080-010-00-X	231-299-8	7487-94-7								
10	molybdenum { molybdenum(VI) oxide }				<1 mg/kg	1.5	<1.5 mg/kg	<0.00015 %			<LOD
	042-001-00-9	215-204-7	1313-27-5								
11	nickel { nickel diiodide }				7 mg/kg	5.324	37.27 mg/kg	0.00373 %			
	028-029-00-4	236-666-6	13462-90-3								
12	selenium { nickel selenate }				<2 mg/kg	2.554	<5.108 mg/kg	<0.000511 %			<LOD
	028-031-00-5	239-125-2	15060-62-5								
13	zinc { zinc sulphate (hydrrous) (mono-, hexa- and hepta hydrate); [1] zinc sulphate (anhydrous) [2] }				110 mg/kg	4.398	483.772 mg/kg	0.0484 %			
	030-006-00-9	231-793-3 [1] 231-793-3 [2]	7446-19-7 [1] 7733-02-0 [2]								
14	TPH (C6 to C40) petroleum group				<42 mg/kg		<42 mg/kg	<0.0042 %			<LOD
			TPH								



#	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	tert-butyl methyl ether; MTBE; 2-methoxy-2-methylpropane 603-181-00-X	216-653-1	1634-04-4		<5 mg/kg		<5 mg/kg	<0.0005 %		<LOD
16	benzene 601-020-00-8	200-753-7	71-43-2		<2 mg/kg		<2 mg/kg	<0.0002 %		<LOD
17	toluene 601-021-00-3	203-625-9	108-88-3		<5 mg/kg		<5 mg/kg	<0.0005 %		<LOD
18	ethylbenzene 601-023-00-4	202-849-4	100-41-4		<2 mg/kg		<2 mg/kg	<0.0002 %		<LOD
19	xylene 601-022-00-9	202-422-2 [1] 203-396-5 [2] 203-576-3 [3] 215-535-7 [4]	95-47-6 [1] 106-42-3 [2] 108-38-3 [3] 1330-20-7 [4]		<2 mg/kg		<2 mg/kg	<0.0002 %		<LOD
20	cyanides { salts of hydrogen cyanide with the exception of complex cyanides such as ferrocyanides, ferricyanides and mercuric oxycyanide and those specified elsewhere in this Annex } 006-007-00-5				<1 mg/kg	1.884	<1.884 mg/kg	<0.000188 %		<LOD
21	pH		PH		8.7 pH		8.7 pH	8.7 pH		
22	naphthalene 601-052-00-2	202-049-5	91-20-3		<0.1 mg/kg		<0.1 mg/kg	<0.00001 %		<LOD
23	acenaphthylene 205-917-1	208-96-8			<0.1 mg/kg		<0.1 mg/kg	<0.00001 %		<LOD
24	acenaphthene 201-469-6	83-32-9			<0.1 mg/kg		<0.1 mg/kg	<0.00001 %		<LOD
25	fluorene 201-695-5	86-73-7			<0.1 mg/kg		<0.1 mg/kg	<0.00001 %		<LOD
26	phenanthrene 201-581-5	85-01-8			<0.1 mg/kg		<0.1 mg/kg	<0.00001 %		<LOD
27	anthracene 204-371-1	120-12-7			<0.1 mg/kg		<0.1 mg/kg	<0.00001 %		<LOD
28	fluoranthene 205-912-4	206-44-0			0.12 mg/kg		0.12 mg/kg	0.000012 %		
29	pyrene 204-927-3	129-00-0			<0.1 mg/kg		<0.1 mg/kg	<0.00001 %		<LOD
30	benzo[a]anthracene 601-033-00-9	200-280-6	56-55-3		<0.1 mg/kg		<0.1 mg/kg	<0.00001 %		<LOD
31	chrysene 601-048-00-0	205-923-4	218-01-9		<0.1 mg/kg		<0.1 mg/kg	<0.00001 %		<LOD
32	benzo[b]fluoranthene 601-034-00-4	205-911-9	205-99-2		<0.1 mg/kg		<0.1 mg/kg	<0.00001 %		<LOD
33	benzo[k]fluoranthene 601-036-00-5	205-916-6	207-08-9		<0.1 mg/kg		<0.1 mg/kg	<0.00001 %		<LOD
34	benzo[a]pyrene; benzo[def]chrysene 601-032-00-3	200-028-5	50-32-8		<0.1 mg/kg		<0.1 mg/kg	<0.00001 %		<LOD
35	indeno[123-cd]pyrene 205-893-2	193-39-5			<0.1 mg/kg		<0.1 mg/kg	<0.00001 %		<LOD
36	dibenz[a,h]anthracene 601-041-00-2	200-181-8	53-70-3		<0.1 mg/kg		<0.1 mg/kg	<0.00001 %		<LOD
37	benzo[ghi]perylene 205-883-8	191-24-2			<0.1 mg/kg		<0.1 mg/kg	<0.00001 %		<LOD
38	phenol 604-001-00-2	203-632-7	108-95-2		<2 mg/kg		<2 mg/kg	<0.0002 %		<LOD
39	polychlorobiphenyls; PCB 602-039-00-4	215-648-1	1336-36-3		<0.1 mg/kg		<0.1 mg/kg	<0.00001 %		<LOD
Total:								0.0679 %		



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

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

Sample details

Sample name:	LoW Code:
WS02	Chapter: 17: Construction and Demolition Wastes (including excavated soil from contaminated sites)
Sample Depth:	Entry: 17 05 04 (Soil and stones other than those mentioned in 17 05 03)
0.10 - 0.30 m	
Moisture content:	
9.1%	
(no correction)	

Hazard properties

None identified

Determinands

Moisture content: 9.1% 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 }				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 }				<0.5 mg/kg	2.775	<1.388 mg/kg	<0.000139 %		<LOD
	004-003-00-8	215-133-1	1304-56-9							
3	boron { diboron trioxide }				<1 mg/kg	3.22	<3.22 mg/kg	<0.000322 %		<LOD
	005-008-00-8	215-125-8	1303-86-2							
4	cadmium { cadmium oxide }				<0.2 mg/kg	1.142	<0.228 mg/kg	<0.0000228 %		<LOD
	048-002-00-0	215-146-2	1306-19-0							
5	chromium in chromium(III) compounds { chromium(III) oxide (worst case) }				8 mg/kg	1.462	11.692 mg/kg	0.00117 %		
		215-160-9	1308-38-9							
6	chromium in chromium(VI) compounds { chromium(VI) oxide }				<2 mg/kg	1.923	<3.846 mg/kg	<0.000385 %		<LOD
	024-001-00-0	215-607-8	1333-82-0							
7	copper { dicopper oxide; copper (I) oxide }				55 mg/kg	1.126	61.924 mg/kg	0.00619 %		
	029-002-00-X	215-270-7	1317-39-1							
8	lead { lead compounds with the exception of those specified elsewhere in this Annex (worst case) }			1	592 mg/kg		592 mg/kg	0.0592 %		
	082-001-00-6									
9	mercury { mercury dichloride }				<1 mg/kg	1.353	<1.353 mg/kg	<0.000135 %		<LOD
	080-010-00-X	231-299-8	7487-94-7							
10	molybdenum { molybdenum(VI) oxide }				<1 mg/kg	1.5	<1.5 mg/kg	<0.00015 %		<LOD
	042-001-00-9	215-204-7	1313-27-5							
11	nickel { nickel diiodide }				6 mg/kg	5.324	31.946 mg/kg	0.00319 %		
	028-029-00-4	236-666-6	13462-90-3							
12	selenium { nickel selenate }				<2 mg/kg	2.554	<5.108 mg/kg	<0.000511 %		<LOD
	028-031-00-5	239-125-2	15060-62-5							
13	zinc { zinc sulphate (hydrous) (mono-, hexa- and hepta hydrate); [1] zinc sulphate (anhydrous) [2] }				107 mg/kg	4.398	470.578 mg/kg	0.0471 %		
	030-006-00-9	231-793-3 [1] 231-793-3 [2]	7446-19-7 [1] 7733-02-0 [2]							
14	TPH (C6 to C40) petroleum group				<42 mg/kg		<42 mg/kg	<0.0042 %		<LOD
			TPH							



#	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	tert-butyl methyl ether; MTBE; 2-methoxy-2-methylpropane				<5 mg/kg		<5 mg/kg	<0.0005 %			<LOD
	603-181-00-X	216-653-1	1634-04-4								
16	benzene				<2 mg/kg		<2 mg/kg	<0.0002 %			<LOD
	601-020-00-8	200-753-7	71-43-2								
17	toluene				<5 mg/kg		<5 mg/kg	<0.0005 %			<LOD
	601-021-00-3	203-625-9	108-88-3								
18	ethylbenzene				<2 mg/kg		<2 mg/kg	<0.0002 %			<LOD
	601-023-00-4	202-849-4	100-41-4								
19	xylene				<2 mg/kg		<2 mg/kg	<0.0002 %			<LOD
	601-022-00-9	202-422-2 [1] 203-396-5 [2] 203-576-3 [3] 215-535-7 [4]	95-47-6 [1] 106-42-3 [2] 108-38-3 [3] 1330-20-7 [4]								
20	cyanides { salts of hydrogen cyanide with the exception of complex cyanides such as ferrocyanides, ferricyanides and mercuric oxycyanide and those specified elsewhere in this Annex }				<1 mg/kg	1.884	<1.884 mg/kg	<0.000188 %			<LOD
	006-007-00-5										
21	pH				8.8 pH		8.8 pH	8.8 pH			
			pH								
22	naphthalene				<0.1 mg/kg		<0.1 mg/kg	<0.00001 %			<LOD
	601-052-00-2	202-049-5	91-20-3								
23	acenaphthylene				<0.1 mg/kg		<0.1 mg/kg	<0.00001 %			<LOD
		205-917-1	208-96-8								
24	acenaphthene				<0.1 mg/kg		<0.1 mg/kg	<0.00001 %			<LOD
		201-469-6	83-32-9								
25	fluorene				<0.1 mg/kg		<0.1 mg/kg	<0.00001 %			<LOD
		201-695-5	86-73-7								
26	phenanthrene				<0.1 mg/kg		<0.1 mg/kg	<0.00001 %			<LOD
		201-581-5	85-01-8								
27	anthracene				<0.1 mg/kg		<0.1 mg/kg	<0.00001 %			<LOD
		204-371-1	120-12-7								
28	fluoranthene				<0.1 mg/kg		<0.1 mg/kg	<0.00001 %			<LOD
		205-912-4	206-44-0								
29	pyrene				0.12 mg/kg		0.12 mg/kg	0.000012 %			
		204-927-3	129-00-0								
30	benzo[a]anthracene				<0.1 mg/kg		<0.1 mg/kg	<0.00001 %			<LOD
	601-033-00-9	200-280-6	56-55-3								
31	chrysene				<0.1 mg/kg		<0.1 mg/kg	<0.00001 %			<LOD
	601-048-00-0	205-923-4	218-01-9								
32	benzo[b]fluoranthene				<0.1 mg/kg		<0.1 mg/kg	<0.00001 %			<LOD
	601-034-00-4	205-911-9	205-99-2								
33	benzo[k]fluoranthene				<0.1 mg/kg		<0.1 mg/kg	<0.00001 %			<LOD
	601-036-00-5	205-916-6	207-08-9								
34	benzo[a]pyrene; benzo[def]chrysene				<0.1 mg/kg		<0.1 mg/kg	<0.00001 %			<LOD
	601-032-00-3	200-028-5	50-32-8								
35	indeno[123-cd]pyrene				<0.1 mg/kg		<0.1 mg/kg	<0.00001 %			<LOD
		205-893-2	193-39-5								
36	dibenz[a,h]anthracene				<0.1 mg/kg		<0.1 mg/kg	<0.00001 %			<LOD
	601-041-00-2	200-181-8	53-70-3								
37	benzo[ghi]perylene				<0.1 mg/kg		<0.1 mg/kg	<0.00001 %			<LOD
		205-883-8	191-24-2								
38	phenol				<2 mg/kg		<2 mg/kg	<0.0002 %			<LOD
	604-001-00-2	203-632-7	108-95-2								
39	polychlorobiphenyls; PCB				<0.1 mg/kg		<0.1 mg/kg	<0.00001 %			<LOD
	602-039-00-4	215-648-1	1336-36-3								
Total:									0.126 %		



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

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

Sample details

Sample name:	LoW Code:
WS03	Chapter:
Sample Depth:	17: Construction and Demolition Wastes (including excavated soil from contaminated sites)
0.10 - 0.30 m	Entry:
Moisture content:	17 05 04 (Soil and stones other than those mentioned in 17 05 03)
6.7%	
(no correction)	

Hazard properties

None identified

Determinands

Moisture content: 6.7% 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 }				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 }				<0.5 mg/kg	2.775	<1.388 mg/kg	<0.000139 %			<LOD
	004-003-00-8	215-133-1	1304-56-9								
3	boron { diboron trioxide }				<1 mg/kg	3.22	<3.22 mg/kg	<0.000322 %			<LOD
	005-008-00-8	215-125-8	1303-86-2								
4	cadmium { cadmium oxide }				<0.2 mg/kg	1.142	<0.228 mg/kg	<0.0000228 %			<LOD
	048-002-00-0	215-146-2	1306-19-0								
5	chromium in chromium(III) compounds { chromium(III) oxide (worst case) }				11 mg/kg	1.462	16.077 mg/kg	0.00161 %			
		215-160-9	1308-38-9								
6	chromium in chromium(VI) compounds { chromium(VI) oxide }				<2 mg/kg	1.923	<3.846 mg/kg	<0.000385 %			<LOD
	024-001-00-0	215-607-8	1333-82-0								
7	copper { dicopper oxide; copper (I) oxide }				10 mg/kg	1.126	11.259 mg/kg	0.00113 %			
	029-002-00-X	215-270-7	1317-39-1								
8	lead { lead compounds with the exception of those specified elsewhere in this Annex (worst case) }			1	138 mg/kg		138 mg/kg	0.0138 %			
	082-001-00-6										
9	mercury { mercury dichloride }				<1 mg/kg	1.353	<1.353 mg/kg	<0.000135 %			<LOD
	080-010-00-X	231-299-8	7487-94-7								
10	molybdenum { molybdenum(VI) oxide }				<1 mg/kg	1.5	<1.5 mg/kg	<0.00015 %			<LOD
	042-001-00-9	215-204-7	1313-27-5								
11	nickel { nickel diiodide }				10 mg/kg	5.324	53.243 mg/kg	0.00532 %			
	028-029-00-4	236-666-6	13462-90-3								
12	selenium { nickel selenate }				<2 mg/kg	2.554	<5.108 mg/kg	<0.000511 %			<LOD
	028-031-00-5	239-125-2	15060-62-5								
13	zinc { zinc sulphate (hydrrous) (mono-, hexa- and hepta hydrate); [1] zinc sulphate (anhydrous) [2] }				101 mg/kg	4.398	444.191 mg/kg	0.0444 %			
	030-006-00-9	231-793-3 [1] 231-793-3 [2]	7446-19-7 [1] 7733-02-0 [2]								
14	TPH (C6 to C40) petroleum group				<42 mg/kg		<42 mg/kg	<0.0042 %			<LOD
			TPH								



#	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	tert-butyl methyl ether; MTBE; 2-methoxy-2-methylpropane 603-181-00-X	216-653-1	1634-04-4		<5 mg/kg		<5 mg/kg	<0.0005 %		<LOD
16	benzene 601-020-00-8	200-753-7	71-43-2		<2 mg/kg		<2 mg/kg	<0.0002 %		<LOD
17	toluene 601-021-00-3	203-625-9	108-88-3		<5 mg/kg		<5 mg/kg	<0.0005 %		<LOD
18	ethylbenzene 601-023-00-4	202-849-4	100-41-4		<2 mg/kg		<2 mg/kg	<0.0002 %		<LOD
19	xylene 601-022-00-9	202-422-2 [1] 203-396-5 [2] 203-576-3 [3] 215-535-7 [4]	95-47-6 [1] 106-42-3 [2] 108-38-3 [3] 1330-20-7 [4]		<2 mg/kg		<2 mg/kg	<0.0002 %		<LOD
20	cyanides { salts of hydrogen cyanide with the exception of complex cyanides such as ferrocyanides, ferricyanides and mercuric oxycyanide and those specified elsewhere in this Annex } 006-007-00-5				<1 mg/kg	1.884	<1.884 mg/kg	<0.000188 %		<LOD
21	pH PH				9.3 pH		9.3 pH	9.3 pH		
22	naphthalene 601-052-00-2	202-049-5	91-20-3		<0.1 mg/kg		<0.1 mg/kg	<0.00001 %		<LOD
23	acenaphthylene 205-917-1	208-96-8			<0.1 mg/kg		<0.1 mg/kg	<0.00001 %		<LOD
24	acenaphthene 201-469-6	83-32-9			<0.1 mg/kg		<0.1 mg/kg	<0.00001 %		<LOD
25	fluorene 201-695-5	86-73-7			<0.1 mg/kg		<0.1 mg/kg	<0.00001 %		<LOD
26	phenanthrene 201-581-5	85-01-8			<0.1 mg/kg		<0.1 mg/kg	<0.00001 %		<LOD
27	anthracene 204-371-1	120-12-7			<0.1 mg/kg		<0.1 mg/kg	<0.00001 %		<LOD
28	fluoranthene 205-912-4	206-44-0			<0.1 mg/kg		<0.1 mg/kg	<0.00001 %		<LOD
29	pyrene 204-927-3	129-00-0			<0.1 mg/kg		<0.1 mg/kg	<0.00001 %		<LOD
30	benzo[a]anthracene 601-033-00-9	200-280-6	56-55-3		<0.1 mg/kg		<0.1 mg/kg	<0.00001 %		<LOD
31	chrysene 601-048-00-0	205-923-4	218-01-9		<0.1 mg/kg		<0.1 mg/kg	<0.00001 %		<LOD
32	benzo[b]fluoranthene 601-034-00-4	205-911-9	205-99-2		<0.1 mg/kg		<0.1 mg/kg	<0.00001 %		<LOD
33	benzo[k]fluoranthene 601-036-00-5	205-916-6	207-08-9		<0.1 mg/kg		<0.1 mg/kg	<0.00001 %		<LOD
34	benzo[a]pyrene; benzo[def]chrysene 601-032-00-3	200-028-5	50-32-8		<0.1 mg/kg		<0.1 mg/kg	<0.00001 %		<LOD
35	indeno[123-cd]pyrene 205-893-2	193-39-5			<0.1 mg/kg		<0.1 mg/kg	<0.00001 %		<LOD
36	dibenz[a,h]anthracene 601-041-00-2	200-181-8	53-70-3		<0.1 mg/kg		<0.1 mg/kg	<0.00001 %		<LOD
37	benzo[ghi]perylene 205-883-8	191-24-2			<0.1 mg/kg		<0.1 mg/kg	<0.00001 %		<LOD
38	phenol 604-001-00-2	203-632-7	108-95-2		<2 mg/kg		<2 mg/kg	<0.0002 %		<LOD
39	polychlorobiphenyls; PCB 602-039-00-4	215-648-1	1336-36-3		<0.1 mg/kg		<0.1 mg/kg	<0.00001 %		<LOD
Total:								0.0755 %		



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: WS04

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

Sample details

Sample name:	LoW Code:
WS04	Chapter: 17: Construction and Demolition Wastes (including excavated soil from contaminated sites)
Sample Depth:	Entry: 17 05 04 (Soil and stones other than those mentioned in 17 05 03)
0.60 - 0.80 m	
Moisture content:	
15.3%	
(no correction)	

Hazard properties

None identified

Determinands

Moisture content: 15.3% 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 }				4 mg/kg	1.32	5.281 mg/kg	0.000528 %		
	033-003-00-0	215-481-4	1327-53-3							
2	beryllium { beryllium oxide }				<0.5 mg/kg	2.775	<1.388 mg/kg	<0.000139 %		<LOD
	004-003-00-8	215-133-1	1304-56-9							
3	boron { diboron trioxide }				<1 mg/kg	3.22	<3.22 mg/kg	<0.000322 %		<LOD
	005-008-00-8	215-125-8	1303-86-2							
4	cadmium { cadmium oxide }				<0.2 mg/kg	1.142	<0.228 mg/kg	<0.0000228 %		<LOD
	048-002-00-0	215-146-2	1306-19-0							
5	chromium in chromium(III) compounds { chromium(III) oxide (worst case) }				11 mg/kg	1.462	16.077 mg/kg	0.00161 %		
		215-160-9	1308-38-9							
6	chromium in chromium(VI) compounds { chromium(VI) oxide }				<2 mg/kg	1.923	<3.846 mg/kg	<0.000385 %		<LOD
	024-001-00-0	215-607-8	1333-82-0							
7	copper { dicopper oxide; copper (I) oxide }				11 mg/kg	1.126	12.385 mg/kg	0.00124 %		
	029-002-00-X	215-270-7	1317-39-1							
8	lead { lead compounds with the exception of those specified elsewhere in this Annex (worst case) }			1	20 mg/kg		20 mg/kg	0.002 %		
	082-001-00-6									
9	mercury { mercury dichloride }				<1 mg/kg	1.353	<1.353 mg/kg	<0.000135 %		<LOD
	080-010-00-X	231-299-8	7487-94-7							
10	molybdenum { molybdenum(VI) oxide }				<1 mg/kg	1.5	<1.5 mg/kg	<0.00015 %		<LOD
	042-001-00-9	215-204-7	1313-27-5							
11	nickel { nickel diiodide }				5 mg/kg	5.324	26.622 mg/kg	0.00266 %		
	028-029-00-4	236-666-6	13462-90-3							
12	selenium { nickel selenate }				<2 mg/kg	2.554	<5.108 mg/kg	<0.000511 %		<LOD
	028-031-00-5	239-125-2	15060-62-5							
13	zinc { zinc sulphate (hydrous) (mono-, hexa- and hepta hydrate); [1] zinc sulphate (anhydrous) [2] }				29 mg/kg	4.398	127.54 mg/kg	0.0128 %		
	030-006-00-9	231-793-3 [1] 231-793-3 [2]	7446-19-7 [1] 7733-02-0 [2]							
14	TPH (C6 to C40) petroleum group				<42 mg/kg		<42 mg/kg	<0.0042 %		<LOD
			TPH							



#	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	tert-butyl methyl ether; MTBE; 2-methoxy-2-methylpropane				<5 mg/kg		<5 mg/kg	<0.0005 %		<LOD
	603-181-00-X	216-653-1	1634-04-4							
16	benzene				<2 mg/kg		<2 mg/kg	<0.0002 %		<LOD
	601-020-00-8	200-753-7	71-43-2							
17	toluene				<5 mg/kg		<5 mg/kg	<0.0005 %		<LOD
	601-021-00-3	203-625-9	108-88-3							
18	ethylbenzene				<2 mg/kg		<2 mg/kg	<0.0002 %		<LOD
	601-023-00-4	202-849-4	100-41-4							
19	xylene				<2 mg/kg		<2 mg/kg	<0.0002 %		<LOD
	601-022-00-9	202-422-2 [1] 203-396-5 [2] 203-576-3 [3] 215-535-7 [4]	95-47-6 [1] 106-42-3 [2] 108-38-3 [3] 1330-20-7 [4]							
20	cyanides { salts of hydrogen cyanide with the exception of complex cyanides such as ferrocyanides, ferricyanides and mercuric oxycyanide and those specified elsewhere in this Annex }				<1 mg/kg	1.884	<1.884 mg/kg	<0.000188 %		<LOD
	006-007-00-5									
21	pH				7.2 pH		7.2 pH	7.2 pH		
			pH							
22	naphthalene				<0.1 mg/kg		<0.1 mg/kg	<0.00001 %		<LOD
	601-052-00-2	202-049-5	91-20-3							
23	acenaphthylene				<0.1 mg/kg		<0.1 mg/kg	<0.00001 %		<LOD
		205-917-1	208-96-8							
24	acenaphthene				<0.1 mg/kg		<0.1 mg/kg	<0.00001 %		<LOD
		201-469-6	83-32-9							
25	fluorene				<0.1 mg/kg		<0.1 mg/kg	<0.00001 %		<LOD
		201-695-5	86-73-7							
26	phenanthrene				<0.1 mg/kg		<0.1 mg/kg	<0.00001 %		<LOD
		201-581-5	85-01-8							
27	anthracene				<0.1 mg/kg		<0.1 mg/kg	<0.00001 %		<LOD
		204-371-1	120-12-7							
28	fluoranthene				<0.1 mg/kg		<0.1 mg/kg	<0.00001 %		<LOD
		205-912-4	206-44-0							
29	pyrene				<0.1 mg/kg		<0.1 mg/kg	<0.00001 %		<LOD
		204-927-3	129-00-0							
30	benzo[a]anthracene				<0.1 mg/kg		<0.1 mg/kg	<0.00001 %		<LOD
	601-033-00-9	200-280-6	56-55-3							
31	chrysene				<0.1 mg/kg		<0.1 mg/kg	<0.00001 %		<LOD
	601-048-00-0	205-923-4	218-01-9							
32	benzo[b]fluoranthene				<0.1 mg/kg		<0.1 mg/kg	<0.00001 %		<LOD
	601-034-00-4	205-911-9	205-99-2							
33	benzo[k]fluoranthene				<0.1 mg/kg		<0.1 mg/kg	<0.00001 %		<LOD
	601-036-00-5	205-916-6	207-08-9							
34	benzo[a]pyrene; benzo[def]chrysene				<0.1 mg/kg		<0.1 mg/kg	<0.00001 %		<LOD
	601-032-00-3	200-028-5	50-32-8							
35	indeno[123-cd]pyrene				<0.1 mg/kg		<0.1 mg/kg	<0.00001 %		<LOD
		205-893-2	193-39-5							
36	dibenz[a,h]anthracene				<0.1 mg/kg		<0.1 mg/kg	<0.00001 %		<LOD
	601-041-00-2	200-181-8	53-70-3							
37	benzo[ghi]perylene				<0.1 mg/kg		<0.1 mg/kg	<0.00001 %		<LOD
		205-883-8	191-24-2							
38	phenol				<2 mg/kg		<2 mg/kg	<0.0002 %		<LOD
	604-001-00-2	203-632-7	108-95-2							
39	polychlorobiphenyls; PCB				<0.1 mg/kg		<0.1 mg/kg	<0.00001 %		<LOD
	602-039-00-4	215-648-1	1336-36-3							
Total:								0.0288 %		



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: WS04[2]

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

Sample details

Sample name:	LoW Code:
WS04[2]	Chapter:
Sample Depth:	17: Construction and Demolition Wastes (including excavated soil from contaminated sites)
0.90 - 1.10 m	Entry:
Moisture content:	17 05 04 (Soil and stones other than those mentioned in 17 05 03)
15.9%	
(no correction)	

Hazard properties

None identified

Determinands

Moisture content: 15.9% No Moisture Correction applied (MC)

#	Determinand			CLP Note	User entered data	Conv. Factor	Compound conc.		Classification value	MC Applied	Conc. Not Used
	EU CLP index number	EC Number	CAS Number								
1	arsenic { arsenic trioxide }				6 mg/kg	1.32	7.922 mg/kg	0.000792 %			
	033-003-00-0	215-481-4	1327-53-3								
2	beryllium { beryllium oxide }				<0.5 mg/kg	2.775	<1.388 mg/kg	<0.000139 %			<LOD
	004-003-00-8	215-133-1	1304-56-9								
3	boron { diboron trioxide }				<1 mg/kg	3.22	<3.22 mg/kg	<0.000322 %			<LOD
	005-008-00-8	215-125-8	1303-86-2								
4	cadmium { cadmium oxide }				<0.2 mg/kg	1.142	<0.228 mg/kg	<0.0000228 %			<LOD
	048-002-00-0	215-146-2	1306-19-0								
5	chromium in chromium(III) compounds { chromium(III) oxide (worst case) }				23 mg/kg	1.462	33.616 mg/kg	0.00336 %			
		215-160-9	1308-38-9								
6	chromium in chromium(VI) compounds { chromium(VI) oxide }				<2 mg/kg	1.923	<3.846 mg/kg	<0.000385 %			<LOD
	024-001-00-0	215-607-8	1333-82-0								
7	copper { dicopper oxide; copper (I) oxide }				26 mg/kg	1.126	29.273 mg/kg	0.00293 %			
	029-002-00-X	215-270-7	1317-39-1								
8	lead { lead compounds with the exception of those specified elsewhere in this Annex (worst case) }			1	19 mg/kg		19 mg/kg	0.0019 %			
	082-001-00-6										
9	mercury { mercury dichloride }				<1 mg/kg	1.353	<1.353 mg/kg	<0.000135 %			<LOD
	080-010-00-X	231-299-8	7487-94-7								
10	molybdenum { molybdenum(VI) oxide }				<1 mg/kg	1.5	<1.5 mg/kg	<0.00015 %			<LOD
	042-001-00-9	215-204-7	1313-27-5								
11	nickel { nickel diiodide }				18 mg/kg	5.324	95.837 mg/kg	0.00958 %			
	028-029-00-4	236-666-6	13462-90-3								
12	selenium { nickel selenate }				<2 mg/kg	2.554	<5.108 mg/kg	<0.000511 %			<LOD
	028-031-00-5	239-125-2	15060-62-5								
13	zinc { zinc sulphate (hydrrous) (mono-, hexa- and hepta hydrate); [1] zinc sulphate (anhydrous) [2] }				54 mg/kg	4.398	237.488 mg/kg	0.0237 %			
	030-006-00-9	231-793-3 [1] 231-793-3 [2]	7446-19-7 [1] 7733-02-0 [2]								
14	TPH (C6 to C40) petroleum group				<42 mg/kg		<42 mg/kg	<0.0042 %			<LOD
			TPH								



#	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	tert-butyl methyl ether; MTBE; 2-methoxy-2-methylpropane 603-181-00-X	216-653-1	1634-04-4		<5 mg/kg		<5 mg/kg	<0.0005 %		<LOD
16	benzene 601-020-00-8	200-753-7	71-43-2		<2 mg/kg		<2 mg/kg	<0.0002 %		<LOD
17	toluene 601-021-00-3	203-625-9	108-88-3		<5 mg/kg		<5 mg/kg	<0.0005 %		<LOD
18	ethylbenzene 601-023-00-4	202-849-4	100-41-4		<2 mg/kg		<2 mg/kg	<0.0002 %		<LOD
19	xylene 601-022-00-9	202-422-2 [1] 203-396-5 [2] 203-576-3 [3] 215-535-7 [4]	95-47-6 [1] 106-42-3 [2] 108-38-3 [3] 1330-20-7 [4]		<2 mg/kg		<2 mg/kg	<0.0002 %		<LOD
20	cyanides { salts of hydrogen cyanide with the exception of complex cyanides such as ferrocyanides, ferricyanides and mercuric oxycyanide and those specified elsewhere in this Annex } 006-007-00-5				<1 mg/kg	1.884	<1.884 mg/kg	<0.000188 %		<LOD
21	pH		PH		7.6 pH		7.6 pH	7.6 pH		
22	naphthalene 601-052-00-2	202-049-5	91-20-3		<0.1 mg/kg		<0.1 mg/kg	<0.00001 %		<LOD
23	acenaphthylene 205-917-1	208-96-8			<0.1 mg/kg		<0.1 mg/kg	<0.00001 %		<LOD
24	acenaphthene 201-469-6	83-32-9			<0.1 mg/kg		<0.1 mg/kg	<0.00001 %		<LOD
25	fluorene 201-695-5	86-73-7			<0.1 mg/kg		<0.1 mg/kg	<0.00001 %		<LOD
26	phenanthrene 201-581-5	85-01-8			0.17 mg/kg		0.17 mg/kg	0.000017 %		
27	anthracene 204-371-1	120-12-7			<0.1 mg/kg		<0.1 mg/kg	<0.00001 %		<LOD
28	fluoranthene 205-912-4	206-44-0			0.14 mg/kg		0.14 mg/kg	0.000014 %		
29	pyrene 204-927-3	129-00-0			0.14 mg/kg		0.14 mg/kg	0.000014 %		
30	benzo[a]anthracene 601-033-00-9	200-280-6	56-55-3		<0.1 mg/kg		<0.1 mg/kg	<0.00001 %		<LOD
31	chrysene 601-048-00-0	205-923-4	218-01-9		<0.1 mg/kg		<0.1 mg/kg	<0.00001 %		<LOD
32	benzo[b]fluoranthene 601-034-00-4	205-911-9	205-99-2		<0.1 mg/kg		<0.1 mg/kg	<0.00001 %		<LOD
33	benzo[k]fluoranthene 601-036-00-5	205-916-6	207-08-9		<0.1 mg/kg		<0.1 mg/kg	<0.00001 %		<LOD
34	benzo[a]pyrene; benzo[def]chrysene 601-032-00-3	200-028-5	50-32-8		<0.1 mg/kg		<0.1 mg/kg	<0.00001 %		<LOD
35	indeno[123-cd]pyrene 205-893-2	193-39-5			<0.1 mg/kg		<0.1 mg/kg	<0.00001 %		<LOD
36	dibenz[a,h]anthracene 601-041-00-2	200-181-8	53-70-3		<0.1 mg/kg		<0.1 mg/kg	<0.00001 %		<LOD
37	benzo[ghi]perylene 205-883-8	191-24-2			<0.1 mg/kg		<0.1 mg/kg	<0.00001 %		<LOD
38	phenol 604-001-00-2	203-632-7	108-95-2		<2 mg/kg		<2 mg/kg	<0.0002 %		<LOD
39	polychlorobiphenyls; PCB 602-039-00-4	215-648-1	1336-36-3		<0.1 mg/kg		<0.1 mg/kg	<0.00001 %		<LOD
Total:								0.0504 %		



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: WS04[4]

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

Sample details

Sample name:	LoW Code:
WS04[4]	Chapter:
Sample Depth:	17: Construction and Demolition Wastes (including excavated soil from contaminated sites)
1.40 - 1.60 m	Entry:
Moisture content:	17 05 04 (Soil and stones other than those mentioned in 17 05 03)
12.6%	
(no correction)	

Hazard properties

None identified

Determinands

Moisture content: **12.6%** No Moisture Correction applied (MC)

#	Determinand			CLP Note	User entered data	Conv. Factor	Compound conc.	Classification value	MC Applied	Conc. Not Used
	EU CLP index number	EC Number	CAS Number							
1	arsenic { arsenic trioxide }				7 mg/kg	1.32	9.242 mg/kg	0.000924 %		
	033-003-00-0	215-481-4	1327-53-3							
2	beryllium { beryllium oxide }				0.7 mg/kg	2.775	1.943 mg/kg	0.000194 %		
	004-003-00-8	215-133-1	1304-56-9							
3	boron { diboron trioxide }				<1 mg/kg	3.22	<3.22 mg/kg	<0.000322 %		<LOD
	005-008-00-8	215-125-8	1303-86-2							
4	cadmium { cadmium oxide }				<0.2 mg/kg	1.142	<0.228 mg/kg	<0.0000228 %		<LOD
	048-002-00-0	215-146-2	1306-19-0							
5	chromium in chromium(III) compounds { chromium(III) oxide (worst case) }				25 mg/kg	1.462	36.539 mg/kg	0.00365 %		
		215-160-9	1308-38-9							
6	chromium in chromium(VI) compounds { chromium(VI) oxide }				<2 mg/kg	1.923	<3.846 mg/kg	<0.000385 %		<LOD
	024-001-00-0	215-607-8	1333-82-0							
7	copper { dicopper oxide; copper (I) oxide }				21 mg/kg	1.126	23.644 mg/kg	0.00236 %		
	029-002-00-X	215-270-7	1317-39-1							
8	lead { lead compounds with the exception of those specified elsewhere in this Annex (worst case) }			1	17 mg/kg		17 mg/kg	0.0017 %		
	082-001-00-6									
9	mercury { mercury dichloride }				<1 mg/kg	1.353	<1.353 mg/kg	<0.000135 %		<LOD
	080-010-00-X	231-299-8	7487-94-7							
10	molybdenum { molybdenum(VI) oxide }				1.4 mg/kg	1.5	2.1 mg/kg	0.00021 %		
	042-001-00-9	215-204-7	1313-27-5							
11	nickel { nickel diiodide }				14 mg/kg	5.324	74.54 mg/kg	0.00745 %		
	028-029-00-4	236-666-6	13462-90-3							
12	selenium { nickel selenate }				<2 mg/kg	2.554	<5.108 mg/kg	<0.000511 %		<LOD
	028-031-00-5	239-125-2	15060-62-5							
13	zinc { zinc sulphate (hydrous) (mono-, hexa- and hepta hydrate); [1] zinc sulphate (anhydrous) [2] }				45 mg/kg	4.398	197.907 mg/kg	0.0198 %		
	030-006-00-9	231-793-3 [1] 231-793-3 [2]	7446-19-7 [1] 7733-02-0 [2]							
14	TPH (C6 to C40) petroleum group				<42 mg/kg		<42 mg/kg	<0.0042 %		<LOD
			TPH							



#	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	tert-butyl methyl ether; MTBE; 2-methoxy-2-methylpropane				<5 mg/kg		<5 mg/kg	<0.0005 %		<LOD
	603-181-00-X	216-653-1	1634-04-4							
16	benzene				<2 mg/kg		<2 mg/kg	<0.0002 %		<LOD
	601-020-00-8	200-753-7	71-43-2							
17	toluene				<5 mg/kg		<5 mg/kg	<0.0005 %		<LOD
	601-021-00-3	203-625-9	108-88-3							
18	ethylbenzene				<2 mg/kg		<2 mg/kg	<0.0002 %		<LOD
	601-023-00-4	202-849-4	100-41-4							
19	xylene				<2 mg/kg		<2 mg/kg	<0.0002 %		<LOD
	601-022-00-9	202-422-2 [1] 203-396-5 [2] 203-576-3 [3] 215-535-7 [4]	95-47-6 [1] 106-42-3 [2] 108-38-3 [3] 1330-20-7 [4]							
20	cyanides { salts of hydrogen cyanide with the exception of complex cyanides such as ferrocyanides, ferricyanides and mercuric oxycyanide and those specified elsewhere in this Annex }				<1 mg/kg	1.884	<1.884 mg/kg	<0.000188 %		<LOD
	006-007-00-5									
21	pH				5.4 pH		5.4 pH	5.4 pH		
			pH							
22	naphthalene				<0.1 mg/kg		<0.1 mg/kg	<0.00001 %		<LOD
	601-052-00-2	202-049-5	91-20-3							
23	acenaphthylene				<0.1 mg/kg		<0.1 mg/kg	<0.00001 %		<LOD
		205-917-1	208-96-8							
24	acenaphthene				<0.1 mg/kg		<0.1 mg/kg	<0.00001 %		<LOD
		201-469-6	83-32-9							
25	fluorene				<0.1 mg/kg		<0.1 mg/kg	<0.00001 %		<LOD
		201-695-5	86-73-7							
26	phenanthrene				<0.1 mg/kg		<0.1 mg/kg	<0.00001 %		<LOD
		201-581-5	85-01-8							
27	anthracene				<0.1 mg/kg		<0.1 mg/kg	<0.00001 %		<LOD
		204-371-1	120-12-7							
28	fluoranthene				<0.1 mg/kg		<0.1 mg/kg	<0.00001 %		<LOD
		205-912-4	206-44-0							
29	pyrene				<0.1 mg/kg		<0.1 mg/kg	<0.00001 %		<LOD
		204-927-3	129-00-0							
30	benzo[a]anthracene				<0.1 mg/kg		<0.1 mg/kg	<0.00001 %		<LOD
	601-033-00-9	200-280-6	56-55-3							
31	chrysene				<0.1 mg/kg		<0.1 mg/kg	<0.00001 %		<LOD
	601-048-00-0	205-923-4	218-01-9							
32	benzo[b]fluoranthene				<0.1 mg/kg		<0.1 mg/kg	<0.00001 %		<LOD
	601-034-00-4	205-911-9	205-99-2							
33	benzo[k]fluoranthene				<0.1 mg/kg		<0.1 mg/kg	<0.00001 %		<LOD
	601-036-00-5	205-916-6	207-08-9							
34	benzo[a]pyrene; benzo[def]chrysene				<0.1 mg/kg		<0.1 mg/kg	<0.00001 %		<LOD
	601-032-00-3	200-028-5	50-32-8							
35	indeno[123-cd]pyrene				<0.1 mg/kg		<0.1 mg/kg	<0.00001 %		<LOD
		205-893-2	193-39-5							
36	dibenz[a,h]anthracene				<0.1 mg/kg		<0.1 mg/kg	<0.00001 %		<LOD
	601-041-00-2	200-181-8	53-70-3							
37	benzo[ghi]perylene				<0.1 mg/kg		<0.1 mg/kg	<0.00001 %		<LOD
		205-883-8	191-24-2							
38	phenol				<2 mg/kg		<2 mg/kg	<0.0002 %		<LOD
	604-001-00-2	203-632-7	108-95-2							
39	polychlorobiphenyls; PCB				<0.1 mg/kg		<0.1 mg/kg	<0.00001 %		<LOD
	602-039-00-4	215-648-1	1336-36-3							
Total:								0.044 %		



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: WS05

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

Sample details

Sample name:	LoW Code:
WS05	Chapter:
Sample Depth:	17: Construction and Demolition Wastes (including excavated soil from contaminated sites)
0.10 - 0.30 m	Entry:
Moisture content:	17 05 04 (Soil and stones other than those mentioned in 17 05 03)
5%	
(no correction)	

Hazard properties

None identified

Determinands

Moisture content: 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 }				8 mg/kg	1.32	10.563 mg/kg	0.00106 %			
	033-003-00-0	215-481-4	1327-53-3								
2	beryllium { beryllium oxide }				<0.5 mg/kg	2.775	<1.388 mg/kg	<0.000139 %			<LOD
	004-003-00-8	215-133-1	1304-56-9								
3	boron { diboron trioxide }				<1 mg/kg	3.22	<3.22 mg/kg	<0.000322 %			<LOD
	005-008-00-8	215-125-8	1303-86-2								
4	cadmium { cadmium oxide }				<0.2 mg/kg	1.142	<0.228 mg/kg	<0.0000228 %			<LOD
	048-002-00-0	215-146-2	1306-19-0								
5	chromium in chromium(III) compounds { chromium(III) oxide (worst case) }				9 mg/kg	1.462	13.154 mg/kg	0.00132 %			
		215-160-9	1308-38-9								
6	chromium in chromium(VI) compounds { chromium(VI) oxide }				<2 mg/kg	1.923	<3.846 mg/kg	<0.000385 %			<LOD
	024-001-00-0	215-607-8	1333-82-0								
7	copper { dicopper oxide; copper (I) oxide }				7 mg/kg	1.126	7.881 mg/kg	0.000788 %			
	029-002-00-X	215-270-7	1317-39-1								
8	lead { lead compounds with the exception of those specified elsewhere in this Annex (worst case) }			1	20 mg/kg		20 mg/kg	0.002 %			
	082-001-00-6										
9	mercury { mercury dichloride }				<1 mg/kg	1.353	<1.353 mg/kg	<0.000135 %			<LOD
	080-010-00-X	231-299-8	7487-94-7								
10	nickel { nickel diiodide }				11 mg/kg	5.324	58.567 mg/kg	0.00586 %			
	028-029-00-4	236-666-6	13462-90-3								
11	selenium { nickel selenate }				<2 mg/kg	2.554	<5.108 mg/kg	<0.000511 %			<LOD
	028-031-00-5	239-125-2	15060-62-5								
12	zinc { zinc sulphate (hydrous) (mono-, hexa- and hepta hydrate); [1] zinc sulphate (anhydrous) [2] }				45 mg/kg	4.398	197.907 mg/kg	0.0198 %			
	030-006-00-9	231-793-3 [1] 231-793-3 [2]	7446-19-7 [1] 7733-02-0 [2]								
13	TPH (C6 to C40) petroleum group				<42 mg/kg		<42 mg/kg	<0.0042 %			<LOD
			TPH								
14	tert-butyl methyl ether; MTBE; 2-methoxy-2-methylpropane				<5 mg/kg		<5 mg/kg	<0.0005 %			<LOD
	603-181-00-X	216-653-1	1634-04-4								



#	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	benzene				<2 mg/kg		<2 mg/kg	<0.0002 %		<LOD
	601-020-00-8	200-753-7	71-43-2							
16	toluene				<5 mg/kg		<5 mg/kg	<0.0005 %		<LOD
	601-021-00-3	203-625-9	108-88-3							
17	ethylbenzene				<2 mg/kg		<2 mg/kg	<0.0002 %		<LOD
	601-023-00-4	202-849-4	100-41-4							
18	xylene				<2 mg/kg		<2 mg/kg	<0.0002 %		<LOD
	601-022-00-9	202-422-2 [1] 203-396-5 [2] 203-576-3 [3] 215-535-7 [4]	95-47-6 [1] 106-42-3 [2] 108-38-3 [3] 1330-20-7 [4]							
19	cyanides { salts of hydrogen cyanide with the exception of complex cyanides such as ferrocyanides, ferricyanides and mercuric oxycyanide and those specified elsewhere in this Annex }				<1 mg/kg	1.884	<1.884 mg/kg	<0.000188 %		<LOD
	006-007-00-5									
20	pH		PH		8.4 pH		8.4 pH	8.4 pH		
21	naphthalene				<0.1 mg/kg		<0.1 mg/kg	<0.00001 %		<LOD
	601-052-00-2	202-049-5	91-20-3							
22	acenaphthylene				<0.1 mg/kg		<0.1 mg/kg	<0.00001 %		<LOD
		205-917-1	208-96-8							
23	acenaphthene				<0.1 mg/kg		<0.1 mg/kg	<0.00001 %		<LOD
		201-469-6	83-32-9							
24	fluorene				<0.1 mg/kg		<0.1 mg/kg	<0.00001 %		<LOD
		201-695-5	86-73-7							
25	phenanthrene				<0.1 mg/kg		<0.1 mg/kg	<0.00001 %		<LOD
		201-581-5	85-01-8							
26	anthracene				<0.1 mg/kg		<0.1 mg/kg	<0.00001 %		<LOD
		204-371-1	120-12-7							
27	fluoranthene				<0.1 mg/kg		<0.1 mg/kg	<0.00001 %		<LOD
		205-912-4	206-44-0							
28	pyrene				<0.1 mg/kg		<0.1 mg/kg	<0.00001 %		<LOD
		204-927-3	129-00-0							
29	benzo[a]anthracene				<0.1 mg/kg		<0.1 mg/kg	<0.00001 %		<LOD
	601-033-00-9	200-280-6	56-55-3							
30	chrysene				<0.1 mg/kg		<0.1 mg/kg	<0.00001 %		<LOD
	601-048-00-0	205-923-4	218-01-9							
31	benzo[b]fluoranthene				<0.1 mg/kg		<0.1 mg/kg	<0.00001 %		<LOD
	601-034-00-4	205-911-9	205-99-2							
32	benzo[k]fluoranthene				<0.1 mg/kg		<0.1 mg/kg	<0.00001 %		<LOD
	601-036-00-5	205-916-6	207-08-9							
33	benzo[a]pyrene; benzo[def]chrysene				<0.1 mg/kg		<0.1 mg/kg	<0.00001 %		<LOD
	601-032-00-3	200-028-5	50-32-8							
34	indeno[123-cd]pyrene				<0.1 mg/kg		<0.1 mg/kg	<0.00001 %		<LOD
		205-893-2	193-39-5							
35	dibenz[a,h]anthracene				<0.1 mg/kg		<0.1 mg/kg	<0.00001 %		<LOD
	601-041-00-2	200-181-8	53-70-3							
36	benzo[ghi]perylene				<0.1 mg/kg		<0.1 mg/kg	<0.00001 %		<LOD
		205-883-8	191-24-2							
37	phenol				<2 mg/kg		<2 mg/kg	<0.0002 %		<LOD
	604-001-00-2	203-632-7	108-95-2							
Total:								0.0387 %		



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[3]

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

Sample details

Sample name:	LoW Code:
WS02[3]	Chapter:
Sample Depth:	17: Construction and Demolition Wastes (including excavated soil from contaminated sites)
0.40 - 0.60 m	Entry:
Moisture content:	17 05 04 (Soil and stones other than those mentioned in 17 05 03)
12.3%	
(no correction)	

Hazard properties

None identified

Determinands

Moisture content: **12.3% 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 }				6 mg/kg	1.32	7.922 mg/kg	0.000792 %		
	033-003-00-0	215-481-4	1327-53-3							
2	beryllium { beryllium oxide }				<0.5 mg/kg	2.775	<1.388 mg/kg	<0.000139 %		<LOD
	004-003-00-8	215-133-1	1304-56-9							
3	boron { diboron trioxide }				<1 mg/kg	3.22	<3.22 mg/kg	<0.000322 %		<LOD
	005-008-00-8	215-125-8	1303-86-2							
4	cadmium { cadmium oxide }				<0.2 mg/kg	1.142	<0.228 mg/kg	<0.0000228 %		<LOD
	048-002-00-0	215-146-2	1306-19-0							
5	chromium in chromium(III) compounds { chromium(III) oxide (worst case) }				8 mg/kg	1.462	11.692 mg/kg	0.00117 %		
		215-160-9	1308-38-9							
6	chromium in chromium(VI) compounds { chromium(VI) oxide }				<2 mg/kg	1.923	<3.846 mg/kg	<0.000385 %		<LOD
	024-001-00-0	215-607-8	1333-82-0							
7	copper { dicopper oxide; copper (I) oxide }				10 mg/kg	1.126	11.259 mg/kg	0.00113 %		
	029-002-00-X	215-270-7	1317-39-1							
8	lead { lead compounds with the exception of those specified elsewhere in this Annex (worst case) }			1	8 mg/kg		8 mg/kg	0.0008 %		
	082-001-00-6									
9	mercury { mercury dichloride }				<1 mg/kg	1.353	<1.353 mg/kg	<0.000135 %		<LOD
	080-010-00-X	231-299-8	7487-94-7							
10	molybdenum { molybdenum(VI) oxide }				<1 mg/kg	1.5	<1.5 mg/kg	<0.00015 %		<LOD
	042-001-00-9	215-204-7	1313-27-5							
11	nickel { nickel diiodide }				6 mg/kg	5.324	31.946 mg/kg	0.00319 %		
	028-029-00-4	236-666-6	13462-90-3							
12	selenium { nickel selenate }				<2 mg/kg	2.554	<5.108 mg/kg	<0.000511 %		<LOD
	028-031-00-5	239-125-2	15060-62-5							
13	zinc { zinc sulphate (hydrous) (mono-, hexa- and hepta hydrate); [1] zinc sulphate (anhydrous) [2] }				21 mg/kg	4.398	92.356 mg/kg	0.00924 %		
	030-006-00-9	231-793-3 [1]	7446-19-7 [1]							
		231-793-3 [2]	7733-02-0 [2]							
14	TPH (C6 to C40) petroleum group				<42 mg/kg		<42 mg/kg	<0.0042 %		<LOD
			TPH							



#	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	tert-butyl methyl ether; MTBE; 2-methoxy-2-methylpropane				<5 mg/kg		<5	mg/kg	<0.0005 %		<LOD
	603-181-00-X	216-653-1	1634-04-4								
16	benzene				<2 mg/kg		<2	mg/kg	<0.0002 %		<LOD
	601-020-00-8	200-753-7	71-43-2								
17	toluene				<5 mg/kg		<5	mg/kg	<0.0005 %		<LOD
	601-021-00-3	203-625-9	108-88-3								
18	ethylbenzene				<2 mg/kg		<2	mg/kg	<0.0002 %		<LOD
	601-023-00-4	202-849-4	100-41-4								
19	xylene				<2 mg/kg		<2	mg/kg	<0.0002 %		<LOD
	601-022-00-9	202-422-2 [1] 203-396-5 [2] 203-576-3 [3] 215-535-7 [4]	95-47-6 [1] 106-42-3 [2] 108-38-3 [3] 1330-20-7 [4]								
20	cyanides { salts of hydrogen cyanide with the exception of complex cyanides such as ferrocyanides, ferricyanides and mercuric oxycyanide and those specified elsewhere in this Annex }				<1 mg/kg	1.884	<1.884	mg/kg	<0.000188 %		<LOD
	006-007-00-5										
21	pH				7.2 pH		7.2	pH	7.2 pH		
			pH								
22	naphthalene				<0.1 mg/kg		<0.1	mg/kg	<0.00001 %		<LOD
	601-052-00-2	202-049-5	91-20-3								
23	acenaphthylene				<0.1 mg/kg		<0.1	mg/kg	<0.00001 %		<LOD
		205-917-1	208-96-8								
24	acenaphthene				<0.1 mg/kg		<0.1	mg/kg	<0.00001 %		<LOD
		201-469-6	83-32-9								
25	fluorene				<0.1 mg/kg		<0.1	mg/kg	<0.00001 %		<LOD
		201-695-5	86-73-7								
26	phenanthrene				<0.1 mg/kg		<0.1	mg/kg	<0.00001 %		<LOD
		201-581-5	85-01-8								
27	anthracene				<0.1 mg/kg		<0.1	mg/kg	<0.00001 %		<LOD
		204-371-1	120-12-7								
28	fluoranthene				<0.1 mg/kg		<0.1	mg/kg	<0.00001 %		<LOD
		205-912-4	206-44-0								
29	pyrene				<0.1 mg/kg		<0.1	mg/kg	<0.00001 %		<LOD
		204-927-3	129-00-0								
30	benzo[a]anthracene				<0.1 mg/kg		<0.1	mg/kg	<0.00001 %		<LOD
	601-033-00-9	200-280-6	56-55-3								
31	chrysene				<0.1 mg/kg		<0.1	mg/kg	<0.00001 %		<LOD
	601-048-00-0	205-923-4	218-01-9								
32	benzo[b]fluoranthene				<0.1 mg/kg		<0.1	mg/kg	<0.00001 %		<LOD
	601-034-00-4	205-911-9	205-99-2								
33	benzo[k]fluoranthene				<0.1 mg/kg		<0.1	mg/kg	<0.00001 %		<LOD
	601-036-00-5	205-916-6	207-08-9								
34	benzo[a]pyrene; benzo[def]chrysene				<0.1 mg/kg		<0.1	mg/kg	<0.00001 %		<LOD
	601-032-00-3	200-028-5	50-32-8								
35	indeno[123-cd]pyrene				<0.1 mg/kg		<0.1	mg/kg	<0.00001 %		<LOD
		205-893-2	193-39-5								
36	dibenz[a,h]anthracene				<0.1 mg/kg		<0.1	mg/kg	<0.00001 %		<LOD
	601-041-00-2	200-181-8	53-70-3								
37	benzo[ghi]perylene				<0.1 mg/kg		<0.1	mg/kg	<0.00001 %		<LOD
		205-883-8	191-24-2								
38	phenol				<2 mg/kg		<2	mg/kg	<0.0002 %		<LOD
	604-001-00-2	203-632-7	108-95-2								
39	polychlorobiphenyls; PCB				<0.1 mg/kg		<0.1	mg/kg	<0.00001 %		<LOD
	602-039-00-4	215-648-1	1336-36-3								
Total:									0.0243 %		



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

■ **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 (worst case lead compounds). Review date 29/09/2015

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

Description/Comments: Hazard statements taken from WM3 1st Edition 2015; Risk phrases: WM2 3rd Edition 2013

Data source: WM3 1st Edition 2015

Data source date: 25 May 2015

Hazard Statements: Flam. Liq. 3; H226 , Asp. Tox. 1; H304 , STOT RE 2; H373 , Muta. 1B; H340 , Carc. 1B; H350 , Repr. 2; H361d , Aquatic Chronic 2; H411

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

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

Description/Comments:

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

Reason for additional Hazards Statement(s):

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

■ **salts of hydrogen cyanide with the exception of complex cyanides such as ferrocyanides, ferricyanides and mercuric oxycyanide and those specified elsewhere in this Annex**

GB MCL index number: 006-007-00-5

Description/Comments: Conversion factor based on a worst case compound: sodium cyanide

Additional Hazard Statement(s): EUH032 >= 0.2 %

Reason for additional Hazards Statement(s):

20 Nov 2021 - EUH032 >= 0.2 % hazard statement sourced from: WM3, Table C12.2

■ **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

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

GB MCL index number: 602-039-00-4
Description/Comments: Worst Case: IARC considers PCB Group 1; Carcinogenic to humans;

POP specific threshold from ATP1 (Regulation 756/2010/EU) to POPs Regulation (Regulation 850/2004/EC). Where applicable, the calculation method laid down in European standards EN 12766-1 and EN 12766-2 shall be applied.

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

Reason for additional Hazards Statement(s):

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

Appendix B: Rationale for selection of metal species

arsenic {arsenic trioxide}

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

beryllium {beryllium oxide}

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

boron {diboron trioxide}

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

cadmium {cadmium oxide}

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

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

Reasonable case species based on hazard statements/molecular weight. Industrial sources include: tanning, pigment in paint, inks and glass

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

There isn't enough Cr(VI) to make hazardous levels of the Metal chromate

copper {dicopper oxide; copper (I) oxide}

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

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

There isn't enough Cr(VI) to make hazardous levels of the Metal chromate

mercury {mercury dichloride}

Worst case CLP species based on hazard statements/molecular weight

molybdenum {molybdenum(VI) oxide}

Worst case CLP species based on hazard statements/molecular weight

nickel {nickel diiodide}

There isn't enough Cr(VI) to make hazardous levels of the Metal chromate

selenium {nickel selenate}

Worst case CLP species based on hazard statements/molecular weight

zinc {zinc sulphate (hydrous) (mono-, hexa- and hepta hydrate); [1] zinc sulphate (anhydrous) [2]}

There isn't enough Cr(VI) to make hazardous levels of the Metal chromate

cyanides {salts of hydrogen cyanide with the exception of complex cyanides such as ferrocyanides, ferricyanides and mercuric oxycyanide and those specified elsewhere in this Annex}

Harmonised group entry used as most reasonable case as complex cyanides and those specified elsewhere in the annex are not likely to be present in this soil: [Note conversion factor based on a worst case compound: sodium cyanide]

Appendix C: Version

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

HazWasteOnline Classification Engine Version: 2024.235.6223.11423 (22 Aug 2024)

HazWasteOnline Database: 2024.235.6223.11423 (22 Aug 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

GB MCL List v3.0 - version 3.0 of 11th January 2024

GB MCL List v4.0 - version 4.0 of 2nd March 2024

GB MCL List v5.0 - version 5.0 of 26th June 2024



John Grace
Earth Environmental & Geotechnical Ltd
Houldsworth Mill Business Centre
Houldsworth Street
Reddish
Stockport
Cheshire
SK5 6DA

Normec DETS Limited
Unit 1
Rose Lane Industrial Estate
Rose Lane
Lenham Heath
Kent
ME17 2JN
t: 01622 850410

DETS Report No: 24-09234

Site Reference: Aldi Haywards Heath

Project / Job Ref: R3971

Order No: R3971/JG/12/08/2024

Sample Receipt Date: 12/08/2024

Sample Scheduled Date: 12/08/2024

Report Issue Number: 1

Reporting Date: 16/08/2024

Authorised by:

A handwritten signature in black ink, appearing to read "Kevin Old", written over a horizontal line.

Kevin Old
Operations Director

Dates of laboratory activities for each tested analyte are available upon request.

Opinions and interpretations are outside the laboratory's scope of ISO 17025 accreditation. 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 certificate shall not be reproduced except in full, without the prior written approval of the laboratory.



Normec DETS Limited
Unit 1, Rose Lane Industrial Estate
Rose Lane
Lenham Heath
Maidstone
Kent ME17 2JN
Tel : 01622 850410



Water Analysis Certificate						
DETS Report No: 24-09234	~Date Sampled	09/08/24				
Earth Environmental & Geotechnical Ltd	~Time Sampled	None Supplied				
~Site Reference: Aldi Haywards Heath	~TP / BH No	CP01				
~Project / Job Ref: R3971	~Additional Refs	None Supplied				
~Order No: R3971/JG/12/08/2024	~Depth (m)	None Supplied				
Reporting Date: 16/08/2024	DETS Sample No	731935				

Determinand	Unit	RL	Accreditation				
pH	pH Units	N/a	ISO17025	6.9			
Total Cyanide	ug/l	< 5	ISO17025	< 5			
Sulphate as SO ₄	mg/l	< 1	ISO17025	262			
Dissolved Organic Carbon (DOC)	mg/l	<1.0	ISO17025	27.1			
Hardness - Total	mgCaCO ₃ /l	< 0.25	NONE	671			
Arsenic (dissolved)	ug/l	< 0.2	ISO17025	5.3			
Boron (dissolved)	ug/l	< 1	ISO17025	1270			
Cadmium (dissolved)	ug/l	< 0.2	ISO17025	3			
Chromium (dissolved)	ug/l	< 0.2	ISO17025	3.6			
Chromium (hexavalent)	ug/l	< 20	NONE	< 20			
Copper (dissolved)	ug/l	< 0.2	ISO17025	28.7			
Lead (dissolved)	ug/l	< 0.2	ISO17025	14.8			
Mercury (dissolved)	ug/l	< 0.04	ISO17025	< 0.04			
Nickel (dissolved)	ug/l	< 0.2	ISO17025	42.6			
Zinc (dissolved)	ug/l	< 1	ISO17025	159			
Total Phenols (monohydric)	ug/l	< 10	ISO17025	< 10			

Subcontracted analysis ^(S)

Insufficient sample ^{I/S}

Unsuitable Sample ^{U/S}

~Sample details provided by customer and can affect the validity of results



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Water Analysis Certificate - Speciated PAH						
DETS Report No: 24-09234	~ Date Sampled	09/08/24				
Earth Environmental & Geotechnical Ltd	~ Time Sampled	None Supplied				
~ Site Reference: Aldi Haywards Heath	~ TP / BH No	CP01				
~ Project / Job Ref: R3971	~ Additional Refs	None Supplied				
~ Order No: R3971/JG/12/08/2024	~ Depth (m)	None Supplied				
Reporting Date: 16/08/2024	DETS Sample No	731935				

Determinand	Unit	RL	Accreditation				
Naphthalene	ug/l	< 0.01	NONE	< 0.01			
Acenaphthylene	ug/l	< 0.01	NONE	< 0.01			
Acenaphthene	ug/l	< 0.01	NONE	< 0.01			
Fluorene	ug/l	< 0.01	NONE	< 0.01			
Phenanthrene	ug/l	< 0.01	NONE	< 0.01			
Anthracene	ug/l	< 0.01	NONE	< 0.01			
Fluoranthene	ug/l	< 0.01	NONE	< 0.01			
Pyrene	ug/l	< 0.01	NONE	< 0.01			
Benzo(a)anthracene	ug/l	< 0.01	NONE	< 0.01			
Chrysene	ug/l	< 0.01	NONE	< 0.01			
Benzo(b)fluoranthene	ug/l	< 0.01	NONE	< 0.01			
Benzo(k)fluoranthene	ug/l	< 0.01	NONE	< 0.01			
Benzo(a)pyrene	ug/l	< 0.01	NONE	< 0.01			
Indeno(1,2,3-cd)pyrene	ug/l	< 0.01	NONE	< 0.01			
Dibenz(a,h)anthracene	ug/l	< 0.01	NONE	< 0.01			
Benzo(ghi)perylene	ug/l	0.008	NONE	< 0.008			
Total EPA-16 PAHs	ug/l	< 0.16	NONE	< 0.16			

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Water Analysis Certificate - TPH CWG Banded						
DETS Report No: 24-09234	~ Date Sampled	09/08/24				
Earth Environmental & Geotechnical Ltd	~ Time Sampled	None Supplied				
~ Site Reference: Aldi Haywards Heath	~ TP / BH No	CP01				
~ Project / Job Ref: R3971	~ Additional Refs	None Supplied				
~ Order No: R3971/JG/12/08/2024	~ Depth (m)	None Supplied				
Reporting Date: 16/08/2024	DETS Sample No	731935				

Determinand	Unit	RL	Accreditation					
Aliphatic >C5 - C6 : HS_1D_MS_AL	ug/l	< 10	NONE	< 10				
Aliphatic >C6 - C8 : HS_1D_MS_AL	ug/l	< 10	NONE	< 10				
Aliphatic >C8 - C10 : EH_CU_1D_AL	ug/l	< 10	NONE	< 10				
Aliphatic >C10 - C12 : EH_CU_1D_AL	ug/l	< 10	NONE	< 10				
Aliphatic >C12 - C16 : EH_CU_1D_AL	ug/l	< 10	NONE	< 10				
Aliphatic >C16 - C21 : EH_CU_1D_AL	ug/l	< 10	NONE	< 10				
Aliphatic >C21 - C34 : EH_CU_1D_AL	ug/l	< 10	NONE	< 10				
Aliphatic (C5 - C34) : HS_1D_MS+EH_CU_1D_AL	ug/l	< 70	NONE	< 70				
Aromatic >C5 - C7 : HS_1D_MS_AR	ug/l	< 10	NONE	< 10				
Aromatic >C7 - C8 : HS_1D_MS_AR	ug/l	< 10	NONE	< 10				
Aromatic >C8 - C10 : EH_CU_1D_AR	ug/l	< 10	NONE	< 10				
Aromatic >C10 - C12 : EH_CU_1D_AR	ug/l	< 10	NONE	< 10				
Aromatic >C12 - C16 : EH_CU_1D_AR	ug/l	< 10	NONE	< 10				
Aromatic >C16 - C21 : EH_CU_1D_AR	ug/l	< 10	NONE	< 10				
Aromatic >C21 - C35 : EH_CU_1D_AR	ug/l	< 10	NONE	< 10				
Aromatic (C5 - C35) : HS_1D_MS+EH_CU_1D_AR	ug/l	< 70	NONE	< 70				
Total >C5 - C35 : HS_1D_MS+EH_CU_1D_Tot al	ug/l	< 140	NONE	< 140				

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Maidstone
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Tel : 01622 850410



Water Analysis Certificate - BTEX / MTBE						
DETS Report No: 24-09234	~ Date Sampled	09/08/24				
Earth Environmental & Geotechnical Ltd	~ Time Sampled	None Supplied				
~ Site Reference: Aldi Haywards Heath	~ TP / BH No	CP01				
~ Project / Job Ref: R3971	~ Additional Refs	None Supplied				
~ Order No: R3971/JG/12/08/2024	~ Depth (m)	None Supplied				
Reporting Date: 16/08/2024	DETS Sample No	731935				

Determinand	Unit	RL	Accreditation				
Benzene : HS 1D MS	ug/l	< 1	ISO17025	< 1			
Toluene : HS 1D MS	ug/l	< 5	ISO17025	< 5			
Ethylbenzene : HS 1D MS	ug/l	< 5	ISO17025	< 5			
p & m-xylene : HS 1D MS	ug/l	< 10	ISO17025	< 10			
o-xylene : HS 1D MS	ug/l	< 5	ISO17025	< 5			
MTBE : HS 1D MS	ug/l	< 10	ISO17025	< 10			

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Water Analysis Certificate - Speciated Phenols

DETS Report No: 24-09234	~ Date Sampled	09/08/24				
Earth Environmental & Geotechnical Ltd	~ Time Sampled	None Supplied				
~ Site Reference: Aldi Haywards Heath	~ TP / BH No	CP01				
~ Project / Job Ref: R3971	~ Additional Refs	None Supplied				
~ Order No: R3971/JG/12/08/2024	~ Depth (m)	None Supplied				
Reporting Date: 16/08/2024	DETS Sample No	731935				

Determinand	Unit	RL	Accreditation				
2, 3, 5-trimethylphenol	ug/l	< 0.1	NONE	< 0.1			
2, 3, 6-trimethylphenol	ug/l	< 0.1	NONE	< 0.1			
2, 3-xyleneol	ug/l	< 0.1	NONE	< 0.1			
2, 4, 6-trimethylphenol	ug/l	< 0.1	NONE	< 0.1			
2, 4-xyleneol	ug/l	< 0.1	NONE	< 0.1			
2, 5-xyleneol	ug/l	< 0.1	NONE	< 0.1			
2, 6-xyleneol	ug/l	< 0.1	NONE	< 0.1			
2-ethylphenol	ug/l	< 0.1	NONE	< 0.1			
2-isopropylphenol	ug/l	< 0.1	NONE	< 0.1			
3, 4, 5-trimethylphenol	ug/l	< 0.1	NONE	< 0.1			
3, 4-xyleneol	ug/l	< 0.1	NONE	< 0.1			
3, 5-xyleneol	ug/l	< 0.1	NONE	< 0.1			
3-ethylphenol	ug/l	< 0.1	NONE	< 0.1			
3-isopropylphenol	ug/l	< 0.1	NONE	< 0.1			
4-ethylphenol	ug/l	< 0.1	NONE	< 0.1			
4-isopropylphenol	ug/l	< 0.1	NONE	< 0.1			
m-cresol (3-methylphenol)	ug/l	< 0.1	NONE	< 0.1			
o-cresol (2-methylphenol)	ug/l	< 0.1	NONE	< 0.1			
p-cresol (4-methylphenol)	ug/l	< 0.1	NONE	< 0.1			
phenol	ug/l	< 0.1	NONE	< 0.1			

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Water Analysis Certificate - Methodology & Miscellaneous Information

DETS Report No: 24-09234

Earth Environmental & Geotechnical Ltd

~Site Reference: Aldi Haywards Heath

~Project / Job Ref: R3971

~Order No: R3971/JG/12/08/2024

Reporting Date: 16/08/2024

Matrix	Analysed On	Determinand	Brief Method Description	Method No
Water	UF	Alkalinity	Determination of alkalinity by titration against hydrochloric acid using bromocresol green as the end point	E103
Water	F	Ammoniacal Nitrogen	Determination of ammoniacal nitrogen by discrete analyser.	E126
Water	UF	BTEX	Determination of BTEX by headspace GC-MS	E101
Water	F	Cations	Determination of cations by filtration followed by ICP-MS	E102
Water	F	Chemical Oxygen Demand (COD)	Determination using a COD reactor followed by colorimetry	E112
Water	UF	Biological Oxygen Demand (BOD)	Determination using BOD sensors measuring the change of pressure	E133
Water	F	Chloride	Determination of chloride by filtration & analysed by ion chromatography	E109
Water	F	Chromium - Hexavalent	Determination of hexavalent chromium by acidification, addition of 1,5 diphenylcarbazide followed by	E116
Water	UF	Cyanide - Complex	Determination of complex cyanide by distillation followed by colorimetry	E115
Water	UF	Cyanide - Free	Determination of free cyanide by distillation followed by colorimetry	E115
Water	UF	Cyanide - Total	Determination of total cyanide by distillation followed by colorimetry	E115
Water	UF	Cyclohexane Extractable Matter (CEM)	Gravimetrically determined through liquid:liquid extraction with cyclohexane	E111
Water	F	Diesel Range Organics (C10 - C24)	Determination of liquid:liquid extraction with hexane followed by GC-FID	E104
Water	F	Dissolved Organic Content (DOC)	Determination of DOC by filtration followed by low heat with persulphate addition followed by IR detection	E110
Water	UF	Electrical Conductivity	Determination of electrical conductivity by electrometric measurement	E123
Water	F	EPH (C10 - C40)	Determination of liquid:liquid extraction with hexane followed by GC-FID	E104
Water	F	EPH TEXAS (C6-C8, C8-C10, C10-C12, C12-C16, C16-C21, C21-C40)	Determination of liquid:liquid extraction with hexane followed by GC-FID for C8 to C40. C6 to C8 by headspace GC-MS	E104
Water	F	Fluoride	Determination of Fluoride by filtration & analysed by ion chromatography	E109
Water	F	Hardness	Determination of Ca and Mg by ICP-MS followed by calculation	E102
Leachate	F	Leachate Preparation - NRA	Based on National Rivers Authority leaching test 1994	E301
Leachate	F	Leachate Preparation - WAC	Based on BS EN 12457 Pt1, 2, 3	E302
Water	F	Metals	Determination of metals by filtration followed by ICP-MS	E102
Water	F	Mineral Oil (C10 - C40)	Determination of liquid:liquid extraction with hexane followed by GI-FID	E104
Water	F	Nitrate	Determination of nitrate by filtration & analysed by ion chromatography	E109
Water	UF	Monohydric Phenol	Determination of phenols by distillation followed by colorimetry	E121
Water	F	PAH - Speciated (EPA 16)	Determination of PAH compounds by concentration through SPE cartridge, collection in dichloromethane followed by GC-MS	E105
Water	F	PCB - 7 Congeners	Determination of PCB compounds by concentration through SPE cartridge, collection in dichloromethane followed by GC-MS	E108
Water	UF	Petroleum Ether Extract (PEE)	Gravimetrically determined through liquid:liquid extraction with petroleum ether	E111
Water	UF	pH	Determination of pH by electrometric measurement	E107
Water	F	Phosphate	Determination of phosphate by filtration & analysed by ion chromatography	E109
Water	UF	Redox Potential	Determination of redox potential by electrometric measurement	E113
Water	F	Sulphate (as SO4)	Determination of sulphate by filtration & analysed by ion chromatography	E109
Water	UF	Sulphide	Determination of sulphide by distillation followed by colorimetry	E118
Water	F	SVOC	Determination of semi-volatile organic compounds by concentration through SPE cartridge, collection in dichloromethane followed by GC-MS	E106
Water	UF	Toluene Extractable Matter (TEM)	Gravimetrically determined through liquid:liquid extraction with toluene	E111
Water	UF	Total Organic Carbon (TOC)	Low heat with persulphate addition followed by IR detection	E110
Water	F	TPH CWG (ali: C5-C6, C6-C8, C8-C10, C10-C12, C12-C16, C16-C21, C21-C34, aro: C5-C7, C7-C8, C8-C10, C10-C12, C12-C16, C16-C21, C21-C35)	Determination of liquid:liquid extraction with hexane, fractionating with SPE followed by GC-FID for C8 to C35. C5 to C8 by headspace GC-MS	E104
Water	F	TPH LQM (ali: C5-C6, C6-C8, C8-C10, C10-C12, C12-C16, C16-C35, C35-C44, aro: C5-C7, C7-C8, C8-C10, C10-C12, C12-C16, C16-C21, C21-C35, C35-C44)	Determination of liquid:liquid extraction with hexane, fractionating with SPE followed by GC-FID for C8 to C44. C5 to C8 by headspace GC-MS	E104
Water	UF	VOCs	Determination of volatile organic compounds by headspace GC-MS	E101
Water	UF	VPH (C6-C8 & C8-C10)	Determination of hydrocarbons C6-C8 by headspace GC-MS & C8-C10 by GC-FID	E101

Key

F Filtered
UF Unfiltered

~Sample details provided by customer and can affect the validity of results



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List of HWOL Acronyms and Operators

Acronym	Description
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
2D	GC-GC - Double coil gas chromatography
Total	Aliphatics & Aromatics
AL	Aliphatics only
AR	Aromatics only
#1	EH 2D Total but with humics mathematically subtracted
#2	EH 2D Total but with fatty acids mathematically subtracted
	Operator - underscore to separate acronyms (exception for +)
+	Operator to indicate cumulative eg. EH+HS Total or EH CU+HS Total
~	Sample details provided by customer and can affect the validity of results

Benzene - HS 1D MS
Ethylbenzene - HS 1D MS
MTBE - HS 1D MS
TPH CWG - Aliphatic >C10 - C12 - EH CU 1D AL
TPH CWG - Aliphatic >C12 - C16 - EH CU 1D AL
TPH CWG - Aliphatic >C16 - C21 - EH CU 1D AL
TPH CWG - Aliphatic >C21 - C34 - EH CU 1D AL
TPH CWG - Aliphatic >C5 - C34 - HS 1D MS+EH CU 1D AL
TPH CWG - Aliphatic >C5 - C6 - HS 1D MS AL
TPH CWG - Aliphatic >C6 - C8 - HS 1D MS AL
TPH CWG - Aliphatic >C8 - C10 - EH CU 1D AL
TPH CWG - Aromatic >C10 - C12 - EH CU 1D AR
TPH CWG - Aromatic >C12 - C16 - EH CU 1D AR
TPH CWG - Aromatic >C16 - C21 - EH CU 1D AR
TPH CWG - Aromatic >C21 - C35 - EH CU 1D AR
TPH CWG - Aromatic >C5 - C7 - HS 1D MS AR
TPH CWG - Aromatic >C7 - C8 - HS 1D MS AR
TPH CWG - Aromatic >C8 - C10 - EH CU 1D AR
TPH CWG - Aromatic C5 - C35 - HS 1D MS+EH CU 1D AR
TPH CWG - Total >C5 - C35 - HS 1D MS+EH CU 1D Total
Toluene - HS 1D MS
m & p-xylene - HS 1D MS
o-Xylene - HS 1D MS

APPENDIX 6

REPORT LIMITATIONS

REPORT LIMITATIONS

This contract was completed by Earth Environmental & Geotechnical Ltd on the basis of a defined programme and scope of works and terms and conditions agreed with the client. This report was compiled with all reasonable skill, and care, bearing in mind the project objectives, the agreed scope of works, the prevailing site conditions, the budget and staff resources allocated to the project.

Other than that, expressly contained in the above paragraph, Earth Environmental & Geotechnical Ltd provides no other representation or warranty whether express or implied, is made in relation to the services. Unless otherwise agreed this report has been prepared exclusively for the use and reliance of the client in accordance with generally accepted consulting practices and for the intended purposes as stated in the agreement under which this work was completed. This report may not be relied upon, or transferred to, by any other party without the written agreement of a Director of Earth Environmental & Geotechnical Ltd.

If a third party relies on this report, it does so wholly at its own and sole risk and Earth Environmental & Geotechnical Ltd disclaims any liability to such parties.

It is Earth Environmental & Geotechnical Ltd understanding that this report is to be used for the purpose described in the introduction to the report. That purpose was an important factor in determining the scope and level of the services. Should the purpose for which the report is used, or the proposed use of the site change, this report will no longer be valid and any further use of, or reliance upon the report in those circumstances by the client without Earth Environmental & Geotechnical Ltd review and advice shall be at the client's sole and own risk.

The report was written in 2024 and should be read in light of any subsequent changes in legislation, statutory requirements and industry best practices. Ground conditions can also change over time and further investigations or assessment should be made if there is any significant delay in acting on the findings of this report. The passage of time may result in changes in site conditions, regulatory or other legal provisions, technology or economic conditions which could render the report inaccurate or unreliable. The information and conclusions contained in this report should not be relied upon in the future without the written advice of Earth Environmental & Geotechnical Ltd. In the absence of such written advice of Earth Environmental & Geotechnical Ltd, reliance on the report in the future shall be at the client's own and sole risk. Should Earth Environmental & Geotechnical Ltd be requested to review the report in the future, Earth Environmental & Geotechnical Ltd shall be entitled to additional payment at the then existing rate or such other terms as may be agreed between Earth Environmental & Geotechnical Ltd and the client.

The observations and conclusions described in this report are based solely upon the services that were provided pursuant to the agreement between the client and Earth Environmental & Geotechnical Ltd. Earth Environmental & Geotechnical Ltd has not performed any observations, investigations, studies or testing not specifically set out or mentioned within this report.

Earth Environmental & Geotechnical Ltd is not liable for the existence of any condition, the discovery of which would require performance of services not otherwise contained in the services. For the avoidance of doubt, unless otherwise expressly referred to in the introduction to this report, Earth Environmental & Geotechnical Ltd did not seek to evaluate the presence on or off the site of electromagnetic fields, lead paint, radon gas or other radioactive materials.

The services are based upon Earth Environmental & Geotechnical Ltd observations of existing physical conditions at the site gained from a walkover survey of the site together with Earth Environmental & Geotechnical Ltd interpretation of information including documentation, obtained from third parties and from the client on the history and usage of the site. The findings and recommendations contained in this report are based in part upon information provided by third parties, and whilst Earth Environmental & Geotechnical Ltd have no reason to doubt the accuracy and that it has been provided in full from those it was requested from, the items relied on have not been verified.

No responsibility can be accepted for errors within third party items presented in this report. Further Earth Environmental & Geotechnical Ltd was not authorised and did not attempt to independently verify the accuracy or completeness of information, documentation or materials received from the client or third parties, including laboratories and information services, during the performance of the services. Earth Environmental & Geotechnical Ltd is not liable for any inaccurate information, misrepresentation of data or conclusions, the discovery of which inaccuracies required the doing of any act including the gathering of any information which was not reasonably available to Earth Environmental & Geotechnical Ltd and including the doing of any independent investigation of the information provided to Earth Environmental & Geotechnical Ltd save as otherwise provided in the terms of the contract between the client and Earth Environmental & Geotechnical Ltd.

Where field investigations have been carried out these have been restricted to a level of detail required to achieve the stated objectives of the work. Ground conditions can also be variable and as investigation excavations only allow examination of the ground at discrete locations. The potential exists for ground conditions to be encountered which are different to those considered in this report. The extent of the limited area depends on the soil and groundwater conditions, together with the position of any current structures and underground facilities and natural and other activities on site. In addition, chemical analysis was carried out for a limited number of parameters [as stipulated in the contract between the client and Earth Environmental & Geotechnical Ltd] based on an understanding of the available operational and historical information, and it should not be inferred that other chemical species are not present.

The groundwater conditions entered on the exploratory hole records are those observed at the time of investigation. The normal speed of investigation usually does not permit the recording of an equilibrium water level for any one water strike. Moreover, groundwater levels are subject to seasonal variation or changes in local drainage conditions and higher groundwater levels may occur at other times of the year than were recorded during this investigation.

Any site drawing(s) provided in this report is (are) not meant to be an accurate base plan but is (are) used to present the general relative locations of features on, and surrounding, the site.