

New Farm, Alderton

Desk Study and Ground Investigation Report



Report for:

Ashford Homes (SW) Ltd

Reference:

P1156/CS-2253

Document Revision

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EXECUTIVE SUMMARY

Site Setting		
Site description and current land use	The site comprises an irregular shaped parcel of land approximately 120m in length by 90m in width, with a total area of approximately 1ha. The site is currently occupied by 6No derelict stone barns and several metal framed Dutch barns. A number of the barns comprise of horse stables, but all appear to have been disused for a significant period of time. The area surrounding the barns comprises a mixture of soft landscaping, gravel tracks and concrete hardstanding. Directly bounding the site to the south are occupied properties.	
Environmental setting	Geology	Forest Marble Formation.
	Hydrology and hydrogeology	Secondary A Aquifer. There are no licensed abstractions within 500m of the site. The site is located within the outer catchment of a Source Protection Zone. The nearest surface water feature is a pond located 9m to the south-east. The site is in a low risk Flood Zone 1.
	Mining	The site is not located within an area of historical coal mining.
	Radon	Low risk. Protection measures are not required.
	UXO	Low risk.
Site history	From the time of the earliest maps in the late 1800's, the site is shown to be a working farm, with a number of farm buildings located across the site. A pump considered to be attached to a well is shown adjacent to the buildings in the northeast. This is no longer shown to be present by 1921. The site has remained largely unchanged until the present day with only minor adjustments to building layouts. The area off site to the south was shown to largely comprise agricultural land, in the earliest maps, with residential and farm buildings associated with the village of Alderton to the north. A pond is shown approximately 10m to the west and another approximately 10m to the east. By 1900 an additional pond is shown approximately 10m to the north, and allotment gardens are indicated to the southeast. Few significant changes are noted up to the present.	
Areas of potential concern at desk study stage	On-site	- Made ground associated with previous site development. - Application of pesticides/herbicides associated with former agricultural practices/use of site as an orchard.
Phase 2 Ground Investigation		
Ground conditions	Made ground was encountered in the majority of the exploratory holes, to a maximum depth of 0.80mbgl. The Forest Marble Formation was typically encountered near the surface as a firm becoming stiff, variably sandy and gravelly, clay. Within TP01 and TP02 clayey sand was encountered to a maximum depth of 1.30mbgl. At depth the Forest Marble Formation was encountered as either a medium strong limestone or an extremely weak mudstone. No visible or olfactory evidence of significant contamination was encountered during the ground investigation.	
Groundwater	Groundwater was not encountered within any of the exploratory holes.	
Principal Findings and Conclusions		
Human health and plant growth	Topsoil and natural soils – Low risk posed by soil chemical concentrations. Made ground - Elevated concentrations of PAH were identified with regard to human health screening criteria in TP04. This is considered to represent a contamination hotspot.	
Controlled waters	Low risk due to the absence of an observed leaching pathway.	
Gas protection	Low risk based on limited made ground encountered and absence of significant organic content. – No protection measures required against ground gas.	
Potable supply pipework	Upgraded water supply pipework will likely be required for any services installed in the made ground.	

Waste	The made ground and natural soils are classified as non-hazardous waste. Based on the initial chemical data the natural soils are anticipated to be treated as inert. However, further Waste Acceptance Criteria (WAC) testing may be required by the receiving site.	
Engineering design	Foundations	Existing structures should be underpinned prior to the commencement of the development. Alternatively, the construction of new foundations to provide independent support may be possible. Foundations placed at the minimum depth of 0.90mbgl within the firm clay may be designed for an allowable bearing capacity of 125kPa
	Roads	Design CBR value of 2.0 - 2.5% subject to firm clay being encountered at formation level.
	Concrete	Recommended design mix for buried structures concrete is DS-1 AC-1.
	Other	The cohesive soils have shown to be of medium volume change potential and as a result will be susceptible to the influence of trees. Suspended floor slabs will be required for new dwellings.
Considerations and Recommendations for Further Work		
Recommendations	Human health/ plant growth	- Supplementary targeted ground investigation is recommended to delineate the extent of PAH impacted made ground in the vicinity of TP04 in the centre of the site to enable a robust assessment of the risk presented to future residents to be made and to inform design of remedial measures, if required, following finalisation of the development layout. - A Remediation Strategy should be produced to detail the final requirements as necessary once the development layout and landscaping plans are finalised.
	Ground gas	Should deep made ground be encountered during construction, advice should be sought from a geoenvironmental specialist
	Potable Water Supply Pipework	Elevated contaminants within the made ground with respect to the UKWIR guidelines indicate that upgraded water supply pipework will likely be required for any services installed in the made ground. The statutory water provider should be consulted regarding suitable water supply pipework requirements.
	General	- Discussions should be held with local landfill/soil waste treatment facilities to agree material classification/pre-treatment required for any soils to be disposed off-site as a result of proposed construction works. - Ground workers should remain vigilant for visible and olfactory signs of contamination following demolition of on-site buildings. - A site-specific health and safety plan should be prepared to inform on risks posed from the previous site use and mitigations for ground workers developing the site e.g. requirements for appropriate PPE, hygiene practices, environmental monitoring and requirements for mitigation measures during construction works. - A copy of this report should be provided to the relevant regulatory authorities to confirm that they are in agreement with the report findings.

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1 INTRODUCTION

1.1 Contract Details

Following instruction from Ashford Homes (SW) Ltd (the 'client'), this report presents the results of a Desk Study and Ground Investigation undertaken for a proposed residential development at New Farm, Alderton (the 'site').

1.2 Proposed Development

Information presented to T&P Regeneration Ltd (T&P) indicates that the proposed development is intended to comprise the demolition of 2N^o modern agricultural buildings and the conversion of 6N^o barns into residential dwellings with associated areas of communal and private soft landscaping with hard landscaped access and parking. A development layout plan is included in Appendix A.

1.3 Objectives

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

1.4 Scope of Works

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

- Site walkover;
- Review of site specific environmental database information, where available, and publicly available information;
- Development of a preliminary site conceptual model and environmental risk assessment;
- Intrusive ground investigation comprising trial pitting;
- Collection of soil samples for chemical and geotechnical laboratory analysis;
- Assessment of chemical and geotechnical test results;
- Refinement of conceptual site model and update to environmental risk assessment; and,
- Presentation of geotechnical information to assist with foundation design.

1.5 Report Limitations

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

2 SITE INFORMATION

2.1 Site Location

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

Table 2.1 Site Location Information

Information	Description
Full postal address	New Farm, Alderton, Chippenham, SN14 6NW
National Grid Reference (NGR)	384020, 182751

2.2 Site Description

A site walkover was undertaken by T&P on 30th July 2024. A summary of pertinent site information gathered during the survey is provided in Table 2.2. A selection of photographs is provided within Appendix B.

Table 2.2 Summary of Site Information

Information	Description	
Site access	The site is accessed via a trackway located off the adjacent Alderton Road. The access track runs parallel with the southern site boundary which eventually exists the site in the east.	
Site description including current site use and dimensions/area (ha)	The site comprises an irregular shaped parcel of land approximately 120m in length by 90m in width, with a total area of approximately 1ha. The site is currently occupied by 6N° derelict stone barns and several metal framed Dutch barns. A number of the barns comprise of horse stables, but all appear to have been disused for a significant period of time. The area surrounding the barns comprises a mixture of soft landscaping, gravel tracks and concrete hardstanding. Directly bounding to the south are occupied properties.	
Site elevation and topography	The site elevation ranges between 124 and 127 metres Above Ordnance Datum (mAOD). The site is generally level with a gentle slope down towards the southern boundary.	
Ground cover (%)	The site ground cover comprises: - Gravel - 20% - Hard landscaping (tarmacadam/concrete) - 20% - Dense vegetation - 20% - Buildings - 40%	
Site boundaries	North	Boundaries comprised largely of mature hedgerows and stone walls approximately 1.0m high.
	South	
	East	
	West	
Surrounding land uses	North	Farmland is present adjacent to the northern site boundary.
	South	Farmland is present adjacent to the southern site boundary.
	East	Woodland is present adjacent to the eastern site boundary, beyond which is agricultural land.
	West	A pond is present to the west, beyond which are residential properties.
Other significant on-site features	A pond is present adjacent to the eastern site boundary.	

Information	Description
	• Suspected asbestos containing cement roofing sheets were noted on the Dutch barn roofs.

3 ENVIRONMENTAL SETTING

3.1 Introduction

Pertinent information has been gathered with reference to the available environmental database report, and public sources of information, including geological mapping, BGS online resources, Environment Agency databases and MAGIC website. A copy of the environmental database report is included within Appendix H.

Features identified in this section during the review of available desk study information which are deemed to require further consideration within this report are identified as Areas of Potential Concern (APCs) as discussed further within Section 5.

3.2 Ground Conditions

3.2.1 *Published Geology*

Superficial deposits are not indicated to be present beneath the site.

The site is indicated to be entirely underlain by Jurassic Period mudstone of the Forest Marble Formation, which is understood to comprise *'Silicate-mudstone, greenish grey, variably calcareous and in the south notably sandy, with lenticular typically cross-bedded limestone units'*.

3.2.2 *Mining Records*

No significant on-site or nearby mining records have been identified by the review of available database information and geological records.

3.2.3 *Natural Geological Hazards*

No significant geohazards have been identified by the review of available database information and geological records.

3.2.4 *Surface Ground Workings*

2N° surface ground workings have been identified within 250m of the site within the database report, both associated with historical ponds. However, both ponds are noted to still be present and therefore have not been infilled and do not pose a risk to the site.

3.2.5 *Background Geochemical Data*

The site does not lie in an area where naturally occurring elevated concentrations of metalliferous elements are expected to be present.

3.3 Hydrogeology

The Environment Agency classifies the Forest Marble Formation as Secondary A aquifers. The site is within the outer catchment of a source protection zone (Zone 2C).

Groundwater vulnerability is classified by the Environment Agency as high.

There are no records of licensed groundwater abstractions within 500m of the site.

With reference to national guidance¹, the sensitivity of groundwater as a potential receptor to contaminant impact beneath the site is considered to be Moderately high (M1).

3.4 Hydrology and Surface Water

The nearest surface water feature is a pond located approximately 9m to the south-east of site.

The Luckington Brook is located 685m northwest of the site and is assessed by the Environment Agency as “good” for ecological quality and “fail” for chemical quality, with an overall classification as “moderate” (2019 cycle). Due to the distance from site, the Luckington Brook is not considered to be a significant receptor.

There are no records of licensed surface water abstractions within 500m of the site.

3.5 Groundwater and Surface Water Discharges

There are no records of licensed groundwater or surface water discharges within 250m of the site.

3.6 Pollution Incidents

There are no records of pollution incidents within a 250m radius of the site.

3.7 Flood Risk

The site is located within a Flood Risk Zone 1. As such, a flood risk assessment is unlikely to be required to support a future planning application for the proposed development.

With respect to groundwater flooding, the site is classified as being within an area with a low risk of flooding.

3.8 Radon

The site is located in an area where <1% of homes surveyed are above the action level. As such, no radon protection measures will be required for new development.

3.9 Environmental and Ecological Designations

No designated environmentally sensitive areas are recorded within a 250m radius of the site.

3.10 Unexploded Ordnance

Based on a review of regional unexploded bomb/ordnance (UXO) risk areas published by Zetica, an independent database authority, the site is shown to be within an area classified as being at low risk of unexploded bombs.

3.11 Industrial Trades/Processes

No current industrial trades/processes have been identified within the environmental database report.

¹ Annex 2 - Guidance for the Safe Development of Housing on land Affected by Contamination R&D66: 2008

3.12 Historical Tanks

There are no historical tanks recorded within a 250m radius of the site.

3.13 Historic Electrical Features

There are no recorded historical electrical features within 250m of the site.

3.14 Fuel Stations

There are no active fuel stations within 250m of the site.

3.15 Contaminated Land

There are no sites which have been determined under Section 78R of the Environmental Protection Act 1990 as 'contaminated land' within 500m of the site.

3.16 Landfills and Waste Management Facilities

No historical or active landfill sites or other waste management facilities are recorded within a 250m radius of the site.

3.17 COMAH and Hazardous Substances

There are no records of Control of Major Accident Hazards (COMAH) sites or other hazardous substance consents within 250m of the site.

4 SITE HISTORY

The history of the site has been considered through a study of available Town Plans, County Series Plans and Ordnance Survey maps included within the environmental database report. Maps for the periods during and following the two World Wars: 1914-1918 and 1939-1945 are generally unavailable. A copy of the large-scale map series is provided in Appendix I.

A summary of the site history is provided below.

- From the time of the earliest maps in the late 1800's, the site is shown to be a working farm, with a number of farm buildings located across the site. A pump considered to be attached to a well is shown adjacent to the buildings in the northeast. This is no longer shown to be present by 1921. The site has remained largely unchanged until the present day with only minor adjustments to building layouts.
- The area off site to the south was shown to largely comprise agricultural land, in the earliest maps, with residential and farm buildings associated with the village of Alderton to the north. A pond is shown approximately 10m to the west and another approximately 10m to the east. By 1900 an additional pond is shown approximately 10m to the north, and allotment gardens are indicated to the southeast. Few significant changes are noted up to the present.

On- and off-site historical features identified which are considered pertinent to this environmental assessment are discussed further in Section 5.

5 PRELIMINARY CONCEPTUAL SITE MODEL

5.1 Background

A risk assessment has been carried out under the governing terms set by Part 2A of the Environmental Protection Act 1990, statutory guidance entitled 'Contaminated Land Statutory Guidance (April 2012)' and in accordance with UK's risk assessment framework².

The conceptual site model for the site has been developed with consideration of national guidance³ which provides a framework for risk estimation and evaluation of plausible source-pathway-receptor linkages identified in the context of a proposed residential development.

5.2 Potential Contamination Sources

Potential on- and off-site sources of contamination have been identified in consideration of the review of desk-based information, as outlined in Section 3 and Section 4, in the context of on- and off-site current/historical activities. Potential contaminant sources identified within a 250m radius of the site are detailed in Table 5.1.

Based upon the identified sources, the following potential contaminants have been identified:

- Metals.
- Hydrocarbons.
- Asbestos. However, it has been assumed that an asbestos survey will be carried out prior to demolition works, with any identified asbestos containing materials appropriately removed. As such, potential asbestos within the existing buildings has been discounted from further consideration and this report considers the potential presence of asbestos within underlying made ground only.
- Pesticides and herbicides.
- Ground gases and vapours.

5.3 Exposure Pathways

With consideration of the site setting and proposed development, potentially active exposure pathways are included in Table 5.1.

5.4 Potential Receptors

Identified receptors with regard to the current site setting and future proposed development are included in Table 5.1. The following receptors have been discounted from further consideration:

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

5.5 Preliminary Qualitative Risk Assessment

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

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

Table 5.1 highlights the source-pathway-receptor relationships or “contaminant linkages” that may potentially be active in consideration of both the site’s current use and proposed future use. Those contaminant linkages assessed as low or very low risk at this stage will not be considered further.

Table 5.1 Summary of Source-Pathway-Receptor Relationships

APC N°	Source	Pathway (s)	Receptor	Consequence	Probability	Risk*	Comment
1	<u>On-site</u> Made ground associated with previous development.	Oral ingestion	Future residents and maintenance workers	Medium	Low likelihood	Moderate/Low	-
		Vegetable uptake	Future residents	Medium	Low likelihood	Moderate/Low	-
		Dermal contact	Future residents and maintenance workers	Medium	Low likelihood	Moderate/Low	-
		Dust migration/inhalation	Future residents, maintenance workers and off-site residents/workers	Medium	Low likelihood	Moderate/Low	-
		Gas / vapour inhalation/explosion	Future residents and maintenance workers	Medium	Low likelihood	Moderate/Low	-
		Permeation into drinking water supplies	Future residents	Medium	Low likelihood	Moderate/Low	-
		Leaching/dissolution with vertical migration to groundwater	Groundwater	Medium	Low likelihood	Moderate/Low	-
		Leaching/dissolution with vertical migration to groundwater, and lateral migration in groundwater	Surface water	Medium	Low likelihood	Moderate/Low	-
		Overland flow	Surface water	Medium	Unlikely	Low	Existing and proposed ground cover will limit potential for overland flow to be affected by shallow contamination
		Migration via existing service trenches	Groundwater/surface water	Medium	Low likelihood	Moderate/Low	-

APC N°	Source	Pathway (s)	Receptor	Consequence	Probability	Risk*	Comment
		Leaching/dissolution with vertical migration to groundwater, lateral migration in groundwater and subsequent volatilisation	Future residents, maintenance workers and off-site residents/workers	Medium	Low likelihood	Moderate/Low	-
		Uptake via root system	On-site flora	Medium	Low likelihood	Moderate/Low	-
2	On-site Pest/weed control associated with former agricultural practices.	Oral ingestion	Future residents and maintenance workers	Medium	Low likelihood	Moderate/Low	-
		Vegetable uptake	Future residents	Medium	Low likelihood	Moderate/Low	-
		Dermal contact	Future residents and maintenance workers	Medium	Low likelihood	Moderate/Low	-
		Dust migration/inhalation	Future residents, maintenance workers and off-site residents/workers	Medium	Low likelihood	Moderate/Low	-
		Overland flow	Surface water	Medium	Low likelihood	Moderate/Low	-
		Migration via existing service trenches	Surface water	Medium	Low likelihood	Moderate/Low	-
		Uptake via root system	On-site flora	Medium	Low likelihood	Moderate/Low	-

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

5.6 Summary of Geohazards

Based on information presented within Section 3 and the anticipated geology beneath the site, the following geohazards have been identified which require further consideration:

- While identified as a low risk within the environmental database report it is considered that there remains a potential for shrink-swell behaviour of residual weathered clays of the Forest Marble Formation;
- Presence of mature trees and hedgerows along the eastern boundary;
- Possible made ground of unknown composition which is unlikely to be a suitable founding stratum for new buildings/structures;
- Attack of buried concrete by aggressive ground conditions (sulphate rich soils).

6 SCOPE OF WORK

6.1 Summary of Fieldwork

An intrusive ground investigation was undertaken on 30th July 2024 and is summarised in Table 6.1.

Table 6.1 Summary of Exploratory Locations

Hole ID	Exploratory Location Type	Investigation Method	Depth (mbgl)		Comment
			Min	Max	
TP01 – TP06	Trial Pit	Wheeled JCB-3CX backhoe excavator	0.90	2.80	-
FP01 – FP05	Inspection Pit	Hand tools	0.70	0.90	To inspect foundations of existing on-site structures
CBR01 – CBR05	In situ CBR Test	Vehicle mounted plunger (BS1377)	0.30	0.85	To assist with carriageway design

All holes were logged in accordance with BS5930⁴.

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

⁴ BS 5930:2015+A1:2020. Code of Practice for Ground Investigations. 2020.

7 SUMMARY OF GROUND CONDITIONS

7.1 Encountered Strata

The geological sequence encountered during the ground investigation is summarised in Table 7.1 and described further in the following sub-sections. Ground conditions were found to broadly correspond with published geological information. Exploratory logs are included in Appendix C.

Table 7.1 Summary of Ground Conditions

Stratum	Top depth range (mbgl)	Base depth range (mbgl)	Exploratory holes	Area of site	General description/ comments
Made ground	0.00	0.10	TP01, TP06	East and West	Concrete.
	0.00 - 0.10	0.15 – 0.80	TP01, TP03 – TP06	General	Clayey sandy GRAVEL and sandy gravelly CLAY
Topsoil	0.00	0.25	TP02	Southwest	Sandy gravelly CLAY.
Forest Marble Formation	0.15 – 0.80	0.90 – 2.80	TP01, TP03 – TP06	General	Firm - stiff (slightly sandy/gravelly) CLAY.
	0.25 - 0.90	0.90 - 1.30	TP01, TP02	West	Slightly gravelly very clayey SAND and slightly clayey SAND.
	1.50 – 1.70	1.80 – 2.20	TP05, TP06	East	Extremely weak MUDSTONE.
	1.30	1.40 – 1.50	TP01, TP03	West	Medium strong LIMESTONE.

7.1.1 Made ground

Made ground was encountered in the majority of the exploratory holes, to a maximum depth of 0.80mbgl. Made ground was typically encountered as a clayey sandy gravel, and locally as a sandy gravelly clay within TP03, with inclusions of concrete, brick, limestone and flint. Within TP03 rare carbonaceous material was also observed within the made ground. Within TP04, inclusions of tarmacadam and rare pottery and glass were recorded.

7.1.2 Topsoil

Topsoil was encountered within TP02 to a depth of 0.25mbgl, comprising sandy gravelly clay with inclusions of limestone and flint.

7.1.3 Bedrock Geology – Forest Marble Formation

The Forest Marble Formation was typically encountered near the surface as a firm becoming stiff, variably sandy and gravelly, clay. Within TP01 and TP02 clayey sand was encountered to a maximum depth of 1.30mbgl. At depth the Forest Marble Formation was encountered as either a medium strong limestone or an extremely weak mudstone. The majority of the pits were terminated due to refusal on the limestone or mudstone.

7.2 Evidence of Contamination

With the exception of the made ground, no significant visible or olfactory evidence of any contamination was noted during the ground investigation.

7.3 Below Ground Structures and Obstructions

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

7.4 Groundwater

Groundwater was not encountered within any of the exploratory holes.

8 SUMMARY OF LABORATORY ANALYSES

8.1 Geotechnical Testing

The geotechnical testing deemed necessary to adequately characterise the site from a geotechnical perspective in the context of the proposed development is summarised in Table 8.1.

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

Table 8.1 Summary of Geotechnical Testing

Test	Notes	Quantity
Moisture content	-	6 soils
Atterberg limits	-	6 soils
Geochemical analysis BRE SD1 Suite	pH, sulphur, chloride, nitrate, 2:1 water soluble sulphate, magnesium, total sulphate	6 soils

8.2 Chemical Testing

The soil testing deemed necessary to adequately characterise the site from a contamination perspective in the context of the conceptual site model and proposed development is summarised in Table 8.2.

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

Table 8.2 Summary of Chemical Testing

Test type	Quantity
Arsenic, Boron, Beryllium, Cadmium, Chromium, Lead, Mercury, Nickel, Copper, Zinc, Selenium, Vanadium, Phenols and US EPA 16 Polycyclic Aromatic Hydrocarbons.	12 soils
Asbestos screening/ID	8 soils
Pesticide / herbicide screen	1 soil

9 HUMAN HEALTH AND PHYTOTOXIC RISK ASSESSMENT

9.1 Introduction

A human health generic quantitative risk assessment (GQRA) has been undertaken in accordance with the UK regulatory framework and current guidance on assessment of risks presented by land affected by contamination⁵.

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

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

9.2 Determination of Averaging Areas/Zones

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

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

- Site wide – topsoil/natural soils.
- Site wide – made ground.

9.3 Human Health Screening Assessment

For each zone/averaging area, the analytical data has been evaluated directly against adopted screening levels⁶ for a 'residential with consumption of home-grown produce' end use. A copy of the screening assessment is included in Appendix E.

Table 9.1 summarises the results of the screening assessment for site wide topsoil/natural soils where soil exceedances against adopted screening levels have been identified.

Table 9.1 Summary of Human Health Soil Screening – Topsoil and Natural Soils

Determinant	Screening level (mg/kg) ¹	Screening level source	Min (mg/kg)	Max (mg/kg)	N° of exceedances
Arsenic (inorganic)	37	C4SL	9.8	42	1 of 7
Beryllium	1.7	S4UL	0.47	2.0	1 of 7

⁵ Environmental Protection Act 1990.

Contaminated Land Statutory Guidance (April 2012).

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

⁶ The LQM/CIEH S4ULs for Human Health Risk Assessment. 2015.

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

Table 9.1 summarises the results of the screening assessment for site wide made ground where soil exceedances against adopted screening levels have been identified.

Table 9.2 Summary of Human Health Soil Screening – Made ground

Determinant	Screening level (mg/kg) ¹	Screening level source	Min (mg/kg)	Max (mg/kg)	N° of exceedances
Benz(a)anthracene	7.2	S4UL	<0.05	69	1 of 6
Chrysene	15	S4UL	0.08	73	1 of 6
Benzo(b) fluoranthene	2.6	S4UL	0.10	85	2 of 6
Benzo(a)pyrene	5.0	C4SL	0.07	67	1 of 6
Indeno(1,2,3-cd) pyrene	27	S4UL	<0.05	37	1 of 6

No asbestos was detected in the analysed made ground samples.

The distribution of elevated soil concentrations is summarised within Table 9.3. Those determinants identified as Contaminants of Potential Concern (COPC) are discussed further in Section 9.4. All other contaminant concentrations were found to be either below the adopted screening levels or otherwise professionally judged to be below levels of concern.

Table 9.3 Summary of Elevated Soil Concentrations

Exploratory location	Location	Depth (mbgl)	Stratum	Contaminant of potential concern (COPC)	Soil Concentration (mg/kg)
TP02	Southwest	0.1 – 0.2	Topsoil	Arsenic	42
TP03	West	0.5 – 0.6	Forest Marble	Beryllium	2.0
TP04	Central	0.1 – 0.2	Made ground	Benzo(a)anthracene	69
				Chrysene	73
				Benzo(b)fluoranthene	85
				Benzo(a)pyrene	67
				Indeno(1,2,3-cd)pyrene	37
TP05	Northeast	0.1 – 0.2	Made ground	Benzo(b)fluoranthene	4.0

9.4 Phytotoxic Screening Assessment

All concentrations were found to be below the phytotoxic screening criteria.

9.5 Discussion

9.5.1 Topsoil/ Natural soils

As summarised in Table 9.1, a single elevated concentration of arsenic and beryllium have been identified within the topsoil in TP02 (0.1 – 0.2m) and the natural ground in TP03 (0.5 – 0.6m) respectively.

A concentration of arsenic at 42mg/kg was recorded within the sample, compared to the screening criteria of 37mg/kg. Statistical assessment has determined this result to be an outlier.

The calculated 95th% UCL of 26mg/kg is noted to be below the screening criteria. The elevated concentration of beryllium was recorded at 2.0mg/kg, compared to the screening criteria of 1.70mg/kg. Statistical assessment has not determined this concentration to be an outlier. The calculated 95th% UCL of 1.6mg/kg is noted to be below the screening criteria. Based upon the isolated nature of the exceedances and the fact that the concentrations only marginally exceed their respective screening criteria, these exceedances within the natural ground are not considered to present a risk to human health receptors.

9.5.2 *Made Ground*

The screening assessment has identified elevated concentrations of PAH within 2N° samples of made ground.

Due to the significance of the concentrations recorded within TP04, likely attributed to tarmacadam fragments, further assessment utilising the surrogate marker approach is not considered suitable.

However, an elevated concentration of Benzo(b)fluoranthene was recorded within the made ground in TP05, at 4.0mg/kg compared to the screening criteria of 2.6mg/kg. In accordance with HPA guidance⁷ and as detailed in SP1010⁸, PAH profiling has been undertaken to determine the suitability of the Benzo(a)pyrene (BaP) surrogate marker approach in assessing the significance of the elevated Benzo(b)fluoranthene in TP05. A copy of the PAH profiling is provided in Appendix F.

Ratios of relevant PAHs are consistent with the Culp Study and as such, it is considered appropriate to apply the BaP surrogate marker approach. In consideration of BaP concentrations in the soil sample from 0.1 – 0.2mbgl in TP05, which is below the adopted screening level, it is concluded that the concentration of Benzo(b)fluoranthene does not present an unacceptable risk to human health.

A number of elevated concentrations of PAHs were identified within the sample of made ground from TP04 (0.1 – 0.2m). In consideration of the chemical laboratory data recorded across the site, as well as the ground conditions recorded within TP04, where the made ground was recorded to include fragments of tarmacadam and rare pottery and glass it is considered appropriate to treat the soil results from TP04 as a separate soil population, and therefore representative of a localised hotspot.

Further assessment and delineation of PAH soil concentrations in the vicinity of TP04 may assist in reducing the level of remedial action required. Alternatively, provision of a clean capping layer should be planned to break the contaminant pathway in areas of soft landscaping.

9.5.3 *Phytotoxic screening assessment*

With respect to the phytotoxic screening assessment, concentrations for all the determinants were found to be below the adopted screening levels in all soil samples. As such, made ground and natural soils are not considered to pose a significant risk to the existing and proposed flora. However, with consideration of the physical composition of on-site made ground, which includes brick, concrete, tarmacadam and rare pottery and glass, this will be unsuitable to remain within areas of soft landscaping.

9.6 Development Implications

⁷ Risk Assessment Approaches for Polycyclic Aromatic Hydrocarbons (PAHs). HPA Contaminated Land Information Sheet. 2010.

⁸ SP1010. Appendix E. Development of Category 4 Screening Levels. Defra. 2014.

The onsite made ground is considered to be physically unsuitable to remain at surface within areas of soft landscaping due to observed inclusions of concrete, tarmacadam, glass and pottery. Furthermore the recorded concentrations of PAH recorded within TP04 are chemically unsuitable to remain at surface. Further assessment and delineation of PAH soil concentrations in the vicinity of TP04 may assist in reducing the level of remedial action required.

Where on-site soils have been deemed chemically and/or physically unsuitable to remain beneath areas of soft landscaping, provision of a suitable thickness of capping soils may be required. The cover thickness is anticipated to be up to 600mm in private gardens and 300mm in common areas of soft landscaping.

A Remediation Strategy should be produced to detail the final requirements as necessary once the development layout and landscaping plans are finalised.

10 CONTROLLED WATERS RISK ASSESSMENT

10.1 Overview of Hydrogeological Setting

The underlying Forest Marble Formation is designated as a Secondary A Aquifer. The site is within the outer catchment of a source protection zone (Zone 2C). There are no licensed abstractions recorded within a 500m radius.

The nearest surface water feature is a pond which is located approximately 9m to the southeast of the site.

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

- Groundwater in Forest Marble Formation (Secondary A Aquifer); and,
- Pond 9m southeast.

10.2 Risk Evaluation

The ground investigation identified site wide made ground typically comprising a slightly clayey slightly sandy gravel with inclusions of brick, concrete, limestone, flint and rare carbonaceous fragments, tarmacadam, glass and pottery. No significant visual or olfactory evidence of gross contamination was observed.

Although leachate testing was not undertaken as part of the assessment, with the exception of made ground in the vicinity of TP04, the encountered soil concentrations of mobile contaminants (Polycyclic Aromatic Hydrocarbons) are considered to be below levels of concern.

Whilst elevated concentrations of mobile contaminants were recorded within the made ground in TP04, it is noted that concentrations of the same contaminants within the natural soils below the made ground were recorded at levels below the laboratory limits of detection, indicating a negligible leaching pathway.

In addition to the above, it is anticipated that the cohesive nature of the natural soils underlying the made ground will further limit vertical migration of contaminants from the overlying made ground to controlled water receptors, due to its low permeability. Furthermore, groundwater was not recorded within any of the exploratory hole locations during the investigation.

Based on the findings of the investigation, and the site conceptual model the risk to controlled water receptors is considered to be low. In addition, based upon the development layout, the impacted soils in the vicinity of TP04 are likely to be required to be removed as part of the construction process, further reducing the low residual risk.

11 GAS/VAPOUR RISK ASSESSMENT

11.1 Overview of Conceptual Model

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

- Made ground associated with former on-site development.

11.2 Discussion and Risk Evaluation

The ground investigation identified site wide made ground, to a maximum depth of 0.80mbgl, typically comprising slightly clayey slightly sandy gravel with inclusions of brick, concrete, limestone, flint and rare carbonaceous fragments, tarmacadam, glass and pottery. No evidence of significant organic content or putrescible material was observed. No additional potential sources of ground gas were identified during the ground investigation.

Based upon the above, it is considered that, overall, the site has a low ground gas generating potential and that risks to future residents associated with ground gases are low.

Based upon a review of historical maps, where a pump was recorded adjacent to the buildings in the north east, it is considered that a well may be present on site, which has the potential to have been infilled. Should deep made ground be encountered during construction, advise should be sort from a geoenvironmental specialist.

12 POTABLE SUPPLY PIPEWORK RISK ASSESSMENT

Water industry guidance⁹ states that only organic contaminants pose a potential risk to plastic pipe materials. The UKWIR report provides threshold values for polyethylene (PE) and polyvinyl chloride (PVC) pipes for the organic contaminants of concern. The results are summarised in Table 12.1 with exceedances highlighted in **bold**.

Table 12.1 Summary of Soil Screening Against UKWIR Criteria

Determinant	Pipe material Generic Assessment Criteria (mg/kg)		Min (mg/kg)	Max (mg/kg)
	PE	PVC		
Extended VOC suite ²	0.5	0.125	<0.1	67
BTEX + MTBE ¹	0.1	0.03	-	-
SVOCs TIC by purge and trap or head space and GC-MS with TIC (aliphatic and aromatic C ₅ -C ₁₀) ¹	2	1.4	-	-
Phenols	2	0.4	<1	<1
Cresols and chlorinated phenols ^{1 3}	2	0.04	-	-
Mineral oil C ₁₁ -C ₂₀ ¹	10	Suitable	-	-
Mineral oil C ₂₁ – C ₄₀ ¹	500	Suitable	-	-
Corrosive (conductivity, redox and pH) ¹	Suitable	Suitable	-	-

1. Determinant not tested.

2. Based upon recorded BaP concentrations.

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

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

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

Notwithstanding the above, based upon the limited thickness of made ground recorded on site, it is anticipated that pipework will be installed below the made ground within the natural soils. If installed within the natural soils, upgraded water supply pipework is not anticipated to be required, subject to regulator approval.

⁹ Guidance for the selection of water supply pipes to be used in brownfield sites (UK Water Industry Research Limited (UKWIR) - Ref: 10/WM/03/21) - 2010

13 REFINED CONCEPTUAL SITE MODEL

13.1 Overview

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

13.2 Sources

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

- On-site made ground associated with previous site development.
- On-site pesticide/herbicide use.
- On-site historical unspecified tank on northern boundary.

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

13.3 Risk Evaluation

Those SPRs identified within Section 5 as presenting a moderate/low or moderate risk have been further interrogated in accordance with UK national guidance and regulatory framework¹⁰ following completion of ground investigation and risk assessment. Table 13.1 presents the revised SPRs with associated classification of risk as appropriate following re-evaluation of risks.

¹⁰ Annex 4 - Guidance for the Safe Development of Housing on land Affected by Contamination R&D66: 2008.
Land contamination risk management - <https://www.gov.uk/government/publications/land-contamination-risk-management-lcrm>.

Table 13.1 6Revised Source-Pathway-Receptor Relationships

APC N°	Source	Pathway (s)	Receptor	Consequence	Probability	Risk*	Comment
1	On-site Made ground associated with previous development.	Oral ingestion	Future residents and maintenance workers	Medium	Low likelihood	Moderate/Low	Made ground physically unsuitable to remain at surface within areas of soft landscaping. Made ground in vicinity of TP04 chemically unsuitable.
		Vegetable uptake	Future residents	Medium	Low likelihood	Moderate/Low	
		Dermal contact	Future residents and maintenance workers	Medium	Low likelihood	Moderate/Low	
		Dust migration/inhalation	Future residents, maintenance workers and off-site residents/workers	Medium	Low likelihood	Moderate/Low	
		Gas / vapour inhalation/explosion	Future residents and maintenance workers	Medium	Unlikely	Low	Characteristic Situation 1
		Permeation into drinking water supplies	Future residents	Medium	Unlikely	Low	Pipework anticipated to be installed within natural ground below the made ground, therefore upgraded pipework not considered to be required.
		Leaching/dissolution with vertical migration to groundwater	Groundwater	Medium	Unlikely	Low	No significant leaching pathway observed, and no groundwater recorded. Cohesive geology anticipated to limit potential for vertical migration from made ground.
		Leaching/dissolution with vertical migration to groundwater, and lateral migration in groundwater	Surface water	Medium	Unlikely	Low	
		Overland flow	Surface water	Medium	Unlikely	Low	
		Migration via existing service trenches	Groundwater/surface water	Medium	Unlikely	Low	

APC N°	Source	Pathway (s)	Receptor	Consequence	Probability	Risk*	Comment
		Leaching/dissolution with vertical migration to groundwater, lateral migration in groundwater and subsequent volatilisation	Future residents, maintenance workers and off-site residents/workers	Medium	Unlikely	Low	
		Uptake via root system	On-site flora	Medium	Unlikely	Low	No elevated contaminant concentrations recorded with respect to phytotoxic screening criteria.
2	On-site Pest/weed control associated with former agricultural practices.	Oral ingestion	Future residents and maintenance workers	Medium	Unlikely	Low	No elevated concentrations of pesticides/herbicides recorded.
		Vegetable uptake	Future residents	Medium	Unlikely	Low	
		Dermal contact	Future residents and maintenance workers	Medium	Unlikely	Low	
		Dust migration/inhalation	Future residents, maintenance workers and off-site residents/workers	Medium	Unlikely	Low	
		Overland flow	Surface water	Medium	Unlikely	Low	
		Migration via existing service trenches	Surface water	Medium	Unlikely	Low	
		Uptake via root system	On-site flora	Medium	Unlikely	Low	

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

14 PRELIMINARY WASTE ASSESSMENT

14.1 Waste Hierarchy

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

14.2 On-site Re-Use of Materials

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

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

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

- Waste exemptions under the Environmental Permitting (England and Wales) Regulations 2010, which are operations which are exempt from requiring permits, providing certain conditions are met. This typically applies to small volumes of non-hazardous soils although may also apply to other material types.
- Environmental permit under the Environmental Permitting (England and Wales) Regulations 2010 (standard or bespoke depending on the material and the activity).
- WRAP Aggregates Quality protocol¹¹ for the production and use of aggregates from inert waste, providing certain criteria are met.

14.3 Waste Disposal to Landfill

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

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

¹¹ Aggregates from inert waste. End of waste criteria for the production of aggregates from inert waste. WRAP.

Relevant information on the above can be found in WM3¹² and is discussed further in the context of ground investigation findings in subsequent sections.

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

14.3.1 Waste Classification

A preliminary waste classification exercise has been undertaken with reference to available ground investigation data. Hazardous properties of the soils have been assessed using the HazWaste program. A copy of the HazWaste report is included in Appendix G.

All samples have been classified as non-hazardous.

14.3.2 Landfill Waste Acceptance

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

14.3.3 Landfill Tax

Unless specifically exempt landfill tax applies to disposal of material at a landfill that's covered by a permit under specific environmental legislation and at any unauthorised waste site. Currently this tax rate is set at £103.70/tonne (2024/2025).

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

A lower rate of landfill tax set at £3.30/tonne does apply to less polluting material listed in the landfill tax (qualifying material) order 2011¹³, including naturally occurring rocks and soils, excluding topsoil (group 1) and ceramic or concrete (group 2).

14.4 Recommendations

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

¹² Guidance on the classification and assessment of waste - Technical Guidance WM3. Environment Agency 2015.

¹³ Landfill Tax (Qualifying Material) Order 2011 can be found at <http://www.legislation.gov.uk/uksi/2011/1017/contents/made>

material. Supplementary testing may be required by the receiving facility, including WAC testing, to confirm the preliminary waste characterisation assessment and to ensure WM3 requirements have been met.

- Should on-site made ground be intended for re-use within the proposed development, it may be possible to demonstrate this material is not waste through preparation of a Materials Management Plan (MMP) to fulfil the requirements of the CL:AIRE DoW CoP. It is recommended that soil re-use opportunities are considered in the context of the development earthworks strategy, cut/fill and remedial strategy (if appropriate) with input from a specialist geoenvironmental consultant.

15 COMMENTS ON ENGINEERING DESIGN

15.1 General

Eurocode 7 (Section 2)¹⁴ advocates the use of geotechnical categorisation of the proposed structures to establish the design requirements. Information presented to T&P indicates that the proposed development is to comprise the demolition of 2 No modern agricultural buildings and the conversion of 6 No barns into residential dwellings with associated areas of communal and private soft landscaping and hard landscaped access and parking. It has been assumed that the dwellings will be of masonry construction with line loads of between 50-70kN/m.

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

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

15.2 Summary of Geotechnical Parameters

Stratum thicknesses and geotechnical parameters for the strata encountered in the investigation are summarised in the following sections. The level of confidence in the derived parameters is provided in Table 15.1.

Table 15.1 Confidence Levels

Key	Description
value	High level of confidence - based on information from investigation.
value	Medium level of confidence - based on published data.
value	Low level of confidence – more data required if parameter to be used in design.

15.2.1 Made Ground

The thickness of the made ground is described in Table 15.2.

Table 15.2 Summary of Geotechnical Parameters – Made Ground

Parameter	Units	Min	Max	Design	Comments
Top Depth	mbgl	GL	GL	GL	Made Ground absent in TP02
Base Depth	mbgl	0.15	0.80	0.50	
Thickness	m	0.15	0.80	0.50	
pH	-	8.0	9.6	80	
Water soluble sulphate (SO ₄ ²⁻)	mg/l	14	300	300	
Note: The variability of the Made Ground strata is such that derivation of geotechnical parameters is considered to be generally inappropriate and potentially misleading.					

¹⁴ BS EN 1997 – Part 2. Geotechnical Design.

15.2.2 Forest Marble Formation

The design thicknesses and geotechnical parameters for use in the Forest Marble Formation are described in Table 15.3.

Table 15.3 Summary of Geotechnical Parameters – Forest Marble Formation

Parameter	Units	Min	Max	Design	Comments
Top Depth	mbgl	0.15	0.80	0.50	-
Base Depth	mbgl	0.90	2.80	>2.80	Base not proven.
Thickness	m	0.65	2.00	-	Thickness not proven.
Moisture Content	%	18.2	35.5	28	-
Liquid Limit	%	39	68	53	-
Plastic Limit	%	19	29	23	-
Plasticity Index	-	17	39	26	-
% passing 425µm sieve	%	80	92	85	-
Modified Plasticity Index	-	15	34	20-<40	Based on current NHBC guidance, results are indicative of soils of a medium volume change potential
Undrained shear Strength	kPa	66	120	70	Determined from hand shear vanes. Indicative of clay of high strength.
pH	-	7.7	8.3	-	
Water soluble sulphate (SO ₄ ²⁻)	mg/l	10.9	162	126	DS-1 AC-1
Acid soluble sulphate (SO ₄ ²⁻)	%	0.02	0.15	0.15	
Total Sulphur	%	0.015	0.061	0.059	
Total Potential Sulphate	%	0.045	0.183	0.177	
Oxidisable Sulphide	%	0.011	0.095	0.072	

15.3 Construction Considerations

15.3.1 Subsurface Concrete

Based on the pH values, water soluble sulphate and SD1 suite concentrations recorded by the chemical and geotechnical laboratory analysis, together with the calculated oxidisable sulphide¹⁵, a DS-1 AC-1 design mix concrete should be suitable for buried structures placed within the shallow soils when compared against the BRE¹⁶ assessment levels.

15.3.2 Floor Slabs

The results of the investigation indicate that the cohesive soils on site are of medium volume change potential. As such, proprietary suspended ground floor slabs should be designed with a minimum 250mm void based upon NHBC guidance.

¹⁶ BRE Special Digest 1:2005 – Third edition – Concrete in aggressive ground.

Where floor slabs are found to span between non-plastic and medium volume change potential soils, floor slabs should be designed with a minimum 250mm void space based on NHBC guidance.

15.3.3 *Groundwater*

Groundwater was not encountered within any of the exploratory holes during the ground investigation.

As such, it is considered likely that groundwater ingress into excavations to <2.0m depth will be relatively slow and should be adequately dealt with via sump pumping. Should more rapid ingress be encountered the advice of specialist dewatering contractors may be sought. The ground investigation was undertaken during the summer months, and it is noted that seasonal variations in the groundwater table are possible.

15.3.4 *Deep Excavations*

Although deposits were generally found to be stable during the intrusive ground investigation, personnel entry into any excavations should be avoided where possible. However, if entry into excavations is required, the excavation sides should be adequately shored and supported or battered back to a safe angle in accordance with appropriate temporary works design.

15.3.5 *Buried Utilities*

It is recommended that existing live services are accurately located by careful hand digging and liaison undertaken with the utility companies with regard to any required works in these areas. The services should be clearly marked and taken into account in the construction design process.

15.3.6 *Earthworks and Material Handling*

Should earthworks be required, an earthworks specification will be necessary to ensure the appropriate management and reuse of the existing soils.

15.3.7 *Foundation Inspection Pits*

5N° Foundation Inspection pits (FP01 – FP05) were dug along the walls of the existing buildings. The bases of the foundations were encountered between 0.25 – 0.55mbgl, within the clay, or on the limestone within FP05.

15.3.8 *Road Construction*

In total 5N° vehicle mounted CBR tests (CBR01 – CBR05) were undertaken along the proposed roadways across the site. The results of the CBR tests are shown in Appendix D.

The *in-situ* vehicle mounted CBR test results recorded across the site range from 2.3% - 11%. Based on the test results a design CBR value of 2.0 - 2.5% is recommended subject to the cohesive soils of the Forest Marble Formation being encountered at formation level. It should be noted however that where revealed the clay soils are moisture sensitive and will be prone to deterioration to give lower CBR values if left exposed during periods of wet weather. In such circumstances the use of geotextile at the base of construction may be prudent to reduce the potential loss of granular sub-base if placed during periods of inclement weather.

Typical adoptable road construction thicknesses for a CBR of 2.5%, equivalent to a subgrade surface modulus of 31.5MPa, are given below based on current guidance¹⁷:

- Foundation Class 1 – 550mm capping.
- Foundation Class 2 – 450mm sub-base.
- Foundation Class 3 – 360mm sub-base.
- 240mm Foundation Class 2 sub-base with 420mm Foundation Class 1 capping.
- 310mm Foundation Class 3 sub-base with 410mm Foundation Class 1 capping.

Where revealed, clay soils will be prone to deterioration if left exposed during periods of wet weather to give lower CBR values of <1%. Therefore, due to the potential for such circumstances, adopting a lower CBR design value of 2% may be more realistic and the use of geotextile at the base of construction may be prudent to reduce the potential loss of granular sub-base, if placed during periods of inclement weather.

15.4 Preliminary Foundation Recommendations

15.4.1 Building Near Trees

The cohesive soils found beneath the site have been found to be of medium volume change potential. Based upon the volume change potential and in accordance with NHBC guidelines the minimum founding depth of traditional foundations would be 0.90mbgl. At this stage due to the medium volume change potential provision should be made for the use of void formers where shallow strip foundations are to be placed at a depth greater than 1.50mbgl due to the influence of existing/former trees. The impact of any new planting associated with future potential development of the site should also take into account the volume change potential of the soils.

Due to the medium volume change potential of the soils, foundations will be susceptible to the influence of trees. It is recommended the findings of this report are considered in conjunction with an arboricultural survey and the recommendations given by the NHBC regarding the over deepening of foundations in the vicinity of trees.

15.4.2 Foundation Options

The proposed development is to comprise the conversion of 6N^o existing barns on site into residential dwellings with private gardens, hardstanding and associated areas of public open space and infrastructure.

Foundation inspection pits (FP01 – FP05) indicate that the existing foundations were placed at 0.35 – 0.75mbgl within the underlying clay, and on the limestone within FP05. Based upon the medium volume change potential of the cohesive soils and in accordance with NHBC guidelines the minimum founding depth of traditional foundations should be 0.90mbgl. Given the age of the barns it is likely that settlement under the imposed loads has already taken place, and they are in equilibrium/stable.

However, it is noted that the existing buildings are to be retained and converted into residential properties which may increase the loading requirements upon the existing foundations. As such, if additional loading is anticipated it is recommended that the existing structures are underpinned prior to the commencement of the development. An alternative which might be possible may be the construction of new foundations to provide independent support. This approach might enable new floors (e.g. Mezzanine flooring) to be constructed which do not add any additional loadings to the existing wall structures with separate pads constructed to enable load transfer.

¹⁷ CD 225. Design For New Pavement Foundations. 2020.

Detailed consideration from a structural engineer would be required to evaluate the cost effectiveness of this approach.

Engineer's observations and *in situ* testing within the weathered Forest Marble Formation indicate an undrained shear strength of between 66 and 120kPa. Therefore, a typical value of 70kPa has been used for preliminary design purposes.

Based on the above and taking into account the NHBC guidance it is considered that foundations placed at the minimum depth of 0.90mbgl within the firm clay may be designed for an allowable bearing capacity of 125kPa for acceptable settlement. Higher bearing capacities may be achieved by taking foundations into the underlying bedrock.

Should foundations span between the cohesive and granular deposits of the Forest Marble Formation mesh reinforcement should be utilised in foundations to minimise the possibility of differential settlement.

16 RECOMMENDATIONS

16.1 Recommendations for Further Work

16.1.1 Human Health

- Supplementary targeted ground investigation is recommended to delineate the extent of PAH impacted made ground in the vicinity of TP04 in the centre of the site to enable a robust assessment of the risk presented to future residents to be made and to inform design of remedial measures, if required, following finalisation of the development layout.
- A Remediation Strategy should be produced to detail the final requirements as necessary once the development layout and landscaping plans are finalised.

16.1.2 Ground Gas

- Should deep made ground be encountered during construction, advice should be sought from a geoenvironmental specialist

16.1.3 Potable Water Supply Pipework

- Elevated contaminants within the made ground with respect to the UKWIR guidelines indicate that upgraded water supply pipework will likely be required for any services installed in the made ground. The statutory water provider should be consulted regarding suitable water supply pipework requirements.

16.1.4 General

- Discussions should be held with local landfill/soil waste treatment facilities to agree material classification/pre-treatment required for any soils to be disposed off-site as a result of proposed construction works.
- Ground workers should remain vigilant for visible and olfactory signs of contamination following demolition of on-site buildings.
- A site-specific health and safety plan should be prepared to inform on risks posed from the previous site use and mitigations for ground workers developing the site e.g. requirements for appropriate PPE, hygiene practices, environmental monitoring and requirements for mitigation measures during construction works.
- A copy of this report should be provided to the relevant regulatory authorities to confirm that they are in agreement with the report findings.

Appendix A – Drawings

— Site Boundary



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

-	-	-	-	-
Drawn	Checked	Amendment	Date	Rev.
Ashford Homes (SW) Ltd			Client	
New Farm, Alderton			Project	
Site Location Plan			Title	
Scale	Date	Drawn by	Check by	Rev.
1:3000@A4	07/08/24	DA	MC	-

T&P

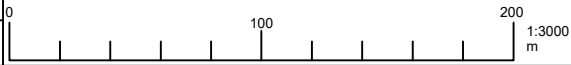


Unit 5, Septimus, Hawkfield Buisness Park,
Bristol, BS14 0BN

Tel: 0117 927 7756

Email: Info@TP-regen.co.uk

Rev.	Drawing No.
-	P1156-01-006



PROPOSED LANDSCAPE.

TITLE
NEW FARM
ALDER TON

DETAIL
BLOCK PLAN
LAYOUT

NOTES

Requirements for bats:-

- roof void access boxes on barns 2 and 5- see drawings Barn 2-01 & 02 and Barn 5-01
- Schwegler 1FQ externally on barns 3 and 6 see drawings Barn 3-02 and 6-02
- Barns 7 and 9 (garages) are open car ports with open lancets. To be fitted with Schwegler 2F units internally on gables plus partitioned loft areas over bin store ends and as clause 5.12 of Keystone 2021 survey results.
- All barn roofs when restored to be fitted with Type 1F bitumen based felt with vents at eaves and ridges as clause 5.9
- All barn roofs to be fitted with bat slate access points as clause 5.10 locations to be agreed with the ecologist on site.

REVISIONS

- A - update June 17
- B - update July 17
- C - barn 8 removed + part barn 6. 08.10.18
- D - road access changed to highways 21.01.19
- E - Bat requirements noted 26.01.22

SCALE 1:500 @ A3

DATE Dec. 14

DRAWN BY M.W.

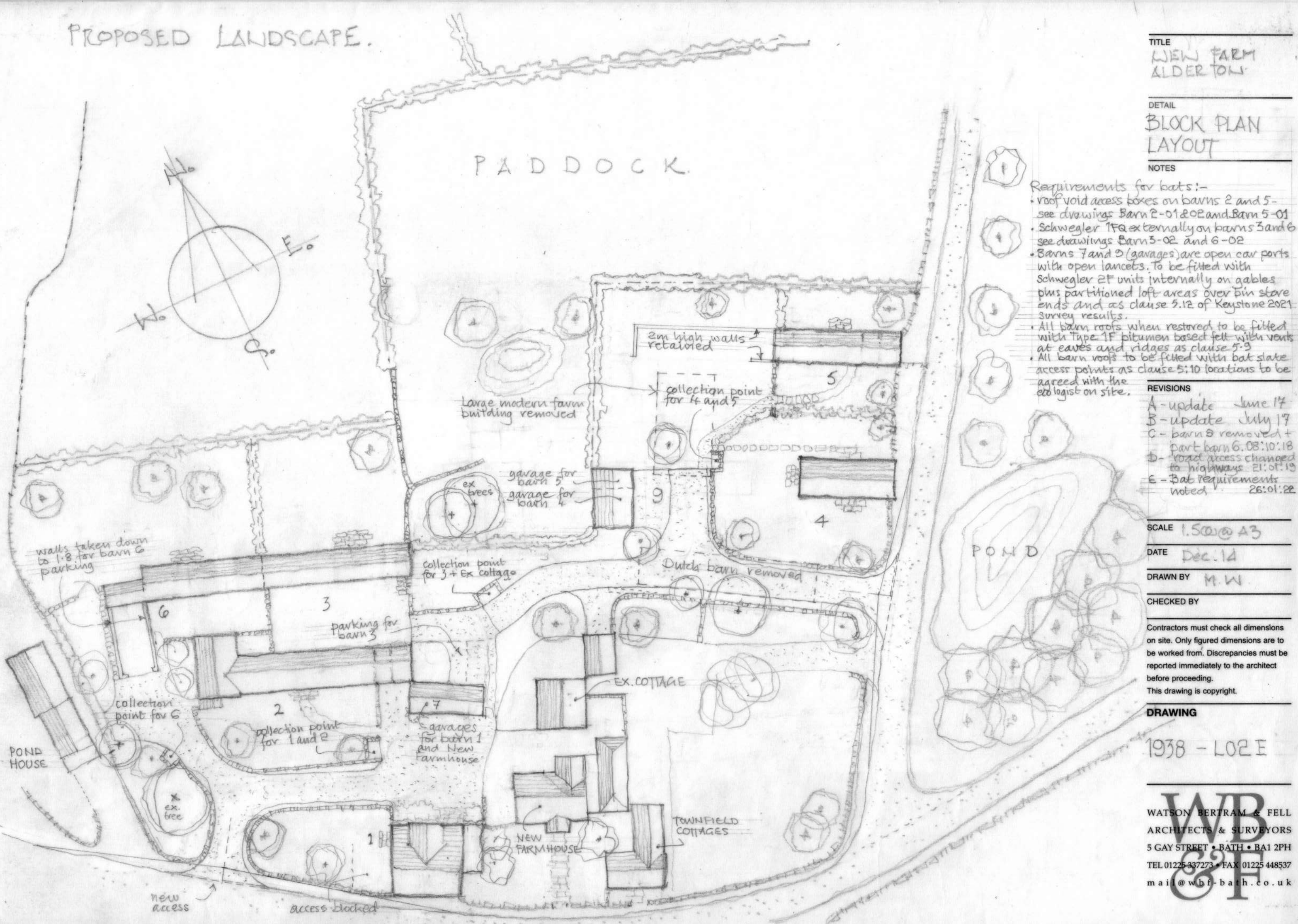
CHECKED BY

Contractors must check all dimensions on site. Only figured dimensions are to be worked from. Discrepancies must be reported immediately to the architect before proceeding.
This drawing is copyright.

DRAWING

1938 - L02 E

WATSON BERTRAM & FELL
ARCHITECTS & SURVEYORS
5 GAY STREET • BATH • BA1 2PH
TEL 01225 337273 • FAX 01225 448537
mail@wb&f-bath.co.uk



— Site Boundary

T&P Investigation

- Trial Pit Locations
(TP01 - TP06)
- Foundation Locations
(FP01 - FP05)
- ▲ CBR Locations
(CBR01 - CBR05)



Base Map

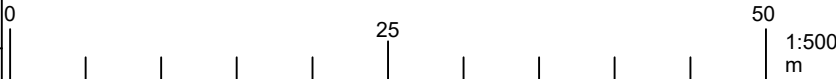
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DWG Title: -
DWG Number: -
Date: -

Drawn	Checked	Amendment	Date	Rev.
Ashford Homes (SW) Ltd				
New Farm, Alderton				
Exploratory Hole Location Plan				
Scale	Date	Drawn by	Check by	Rev.
1:500@A3	07/08/24	DA	MC	-



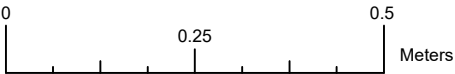
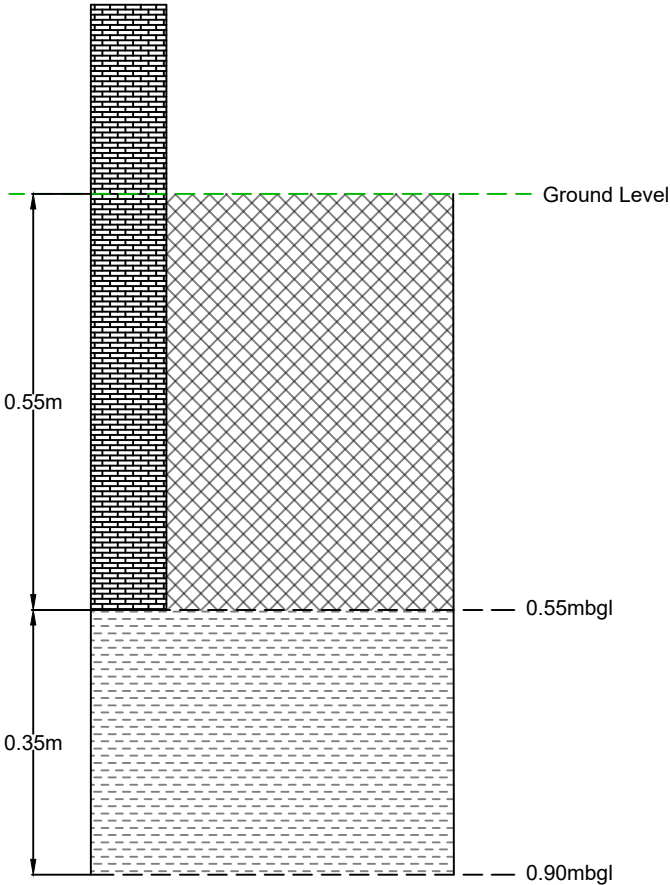
Unit 5, Septimus, Hawkfield Buisness Park,
Bristol, BS14 0BN
Tel: 0117 927 7756
Email: Info@TP-regen.co.uk

Drawing No.
P1156-01-007



Foundation Diagram

- Made Ground
- Clay
- Stone Wall with Mortar



Drawing Number:

P1156-01-001

Trial Pit Number:

FP01

Project:

New Farm, Alderton

Date:

30/07/24

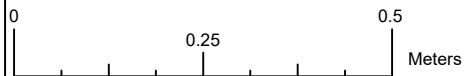
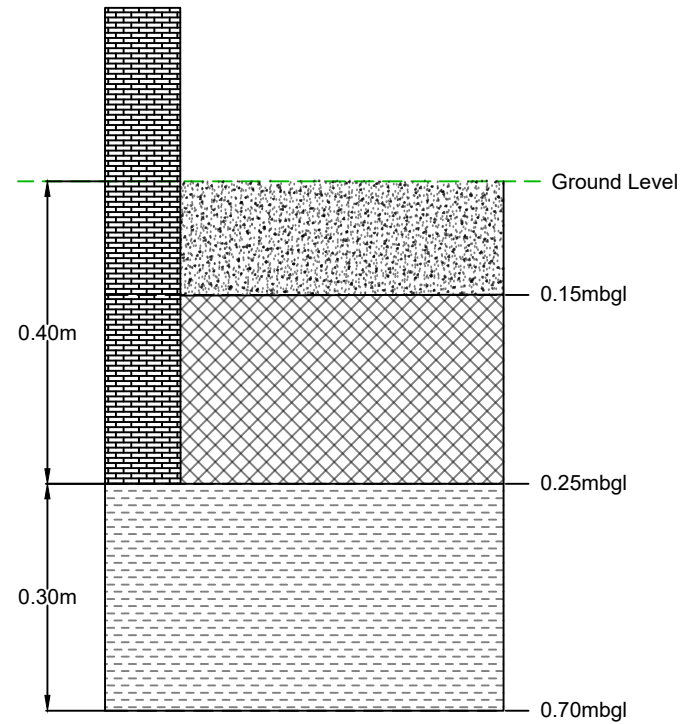
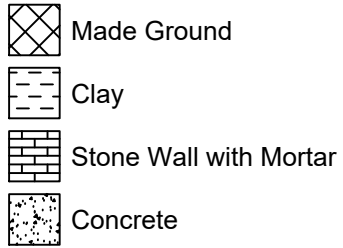
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Ashford Homes (SW) Ltd

Scale:

1:10@A4

Foundation Diagram



Drawing Number:

P1156-01-002

Trial Pit Number:

FP02

Project:

New Farm, Alderton

Date:

30/07/24

Client:

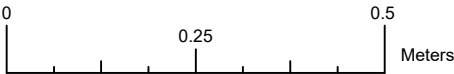
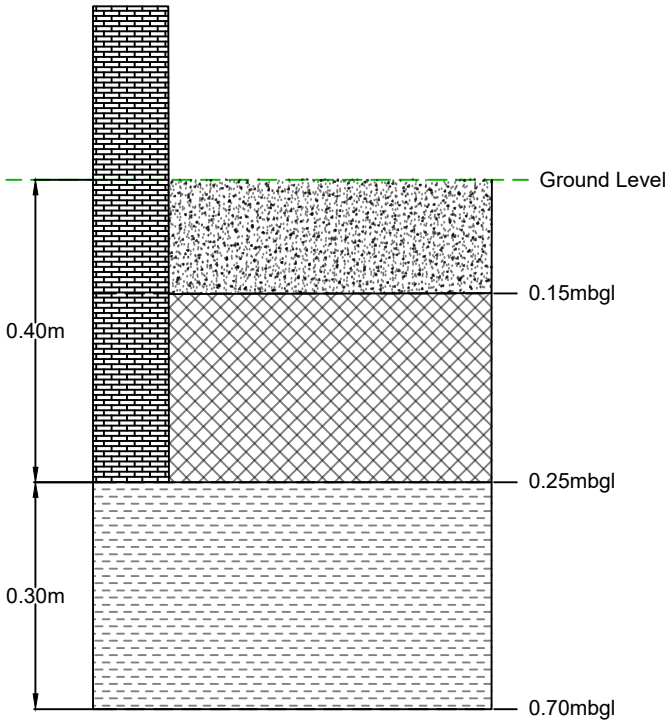
Ashford Homes (SW) Ltd

Scale:

1:10@A4

Foundation Diagram

- Made Ground
- Clay
- Stone Wall with Mortar
- Concrete



Drawing Number:

P1156-01-000

Trial Pit Number:

FP03

Project:

New Farm, Alderton

Date:

30/07/24

Client:

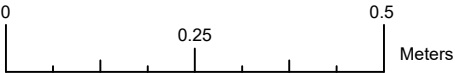
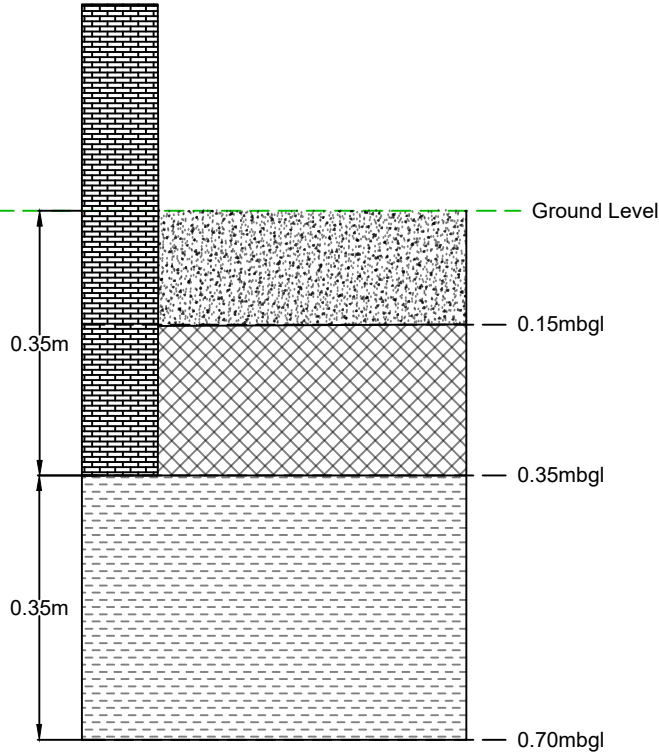
Ashford Homes (SW) Ltd

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Foundation Diagram

- Made Ground
- Clay
- Stone Wall with Mortar
- Concrete



Drawing Number:

P1156-01-004

Trial Pit Number:

FP04

Project:

New Farm, Alderton

Date:

30/07/24

Client:

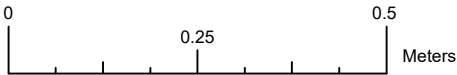
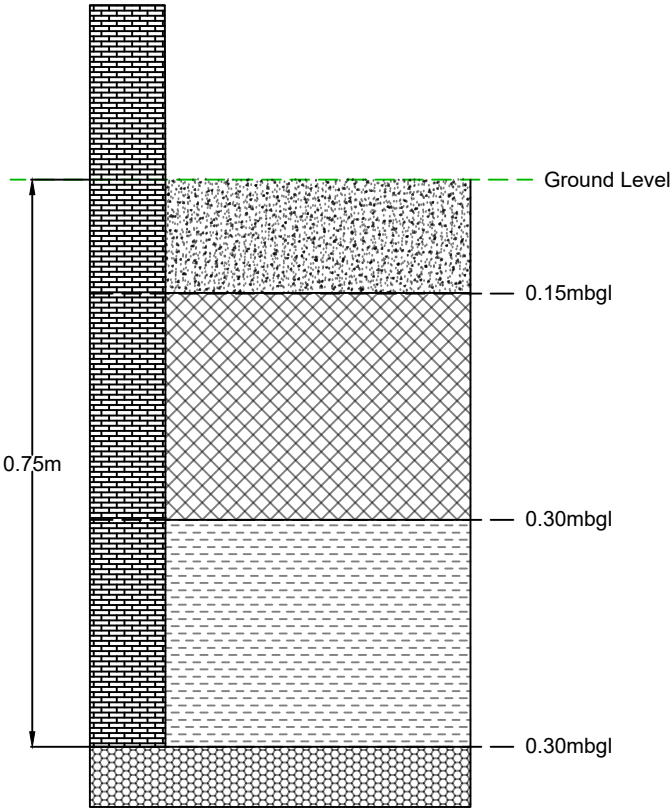
Ashford Homes (SW) Ltd

Scale:

1:10@A4

Foundation Diagram

- Made Ground
- Clay
- Stone Wall with Mortar
- Concrete
- Limestone



Drawing Number:

P1156-01-005

Project:

New Farm, Alderton

Client:

Ashford Homes (SW) Ltd

Trial Pit Number:

FP05

Date:

30/07/24

Scale:

1:10@A4

Appendix B – Photographs



PLATE 01 – Site Overview – Looking East.



PLATE 02 – Site Overview – Looking South East.



PLATE 03 – Site Overview – Looking West.



PLATE 04 – Site Overview – Looking South.



PLATE 05 – Site Overview – Looking East.



PLATE 06 – Site Overview – Looking North.



PLATE 07 – Trial Pit Excavation – TP01.



PLATE 08 – Trial Pit Spoil – TP01.



PLATE 09 – Trial Pit Excavation – TP02.



PLATE 10 – Trial Pit Spoil – TP02.



PLATE 11 – Trial Pit Excavation – TP03.



PLATE 12 – Trial Pit Spoil – TP03.



PLATE 13 – Trial Pit Excavation – TP04.



PLATE 14 – Trial Pit Spoil – TP04.



PLATE 15 – Trial Pit Excavation – TP05.



PLATE 16 – Trial Pit Spoil – TP05.



PLATE 17 – Trial Pit Excavation – FP01.



PLATE 18 – Trial Pit Spoil – FP02.

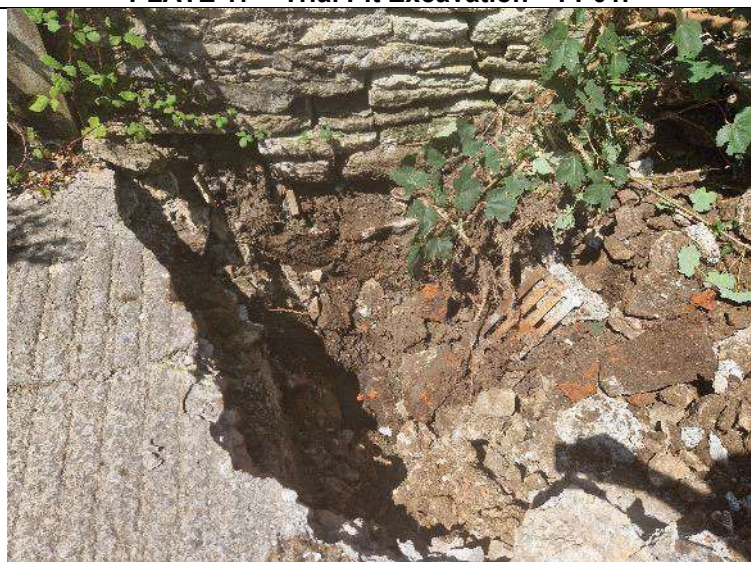


PLATE 19 – Trial Pit Excavation – FP03.



PLATE 20 – Trial Pit Spoil – FP04.



PLATE 21 – Trial Pit Excavation – FP05.

PLATE 22 – Blank.

Appendix C – Exploratory Logs

T&P Regen www.tandpregeneration.co.uk	Contract Name: New Farm, Alderton			Client: Ashford Homes (SW) Ltd			Trial Pit ID: TP01					
	Contract Number: P1156 / CS-2253		Date Started: 30/07/2024		Logged By: MC		Checked By: JSB		Status: FINAL			
	Easting: 383961.00		Northing: 182768.00		Ground Level:		Plant Used: JCB 3CX		Scale: 1:25			
Trial Pit Log												
Weather: Clear				Termination: Refusal on limestone				Stability: Stable				
Samples & In Situ Testing				Strata Details							Water	Backfill
Depth	Sample ID	Test Result	Level (mAOD)	Depth (m) (Thickness)	Legend	Strata Description						
0.10 - 0.15	ES1	HV 0.80m, 70 / 40kPa		0.10		Grey CONCRETE.	1					
0.30 - 0.40	ES2			0.15		MADE GROUND: Brown slightly clayey slightly sandy GRAVEL. Gravel is angular to subangular fine to coarse of concrete, brick, limestone and flint.						
						Firm orangish brown CLAY. (FOREST MARBLE FORMATION)						
0.70 - 0.80	D3			(0.75)								
1.00 - 1.10	D4			0.90		Greyish brown and yellowish brown slightly gravelly very clayey SAND. Gravel is angular fine to coarse of limestone. (FOREST MARBLE FORMATION)						
				(0.40)								
				1.30		Medium strong grey LIMESTONE recovered as gravel with a low cobble content. (FOREST MARBLE FORMATION)						
				1.40		End of Trial Pit at 1.40m						
							2					
							3					
							4					
							5					
Sample Key: B = Bulk Disturbed D = Small Disturbed U = Undisturbed Open-Drive W = Water G = Gas ES = Environmental Soil EW = Environmental Water												
Remarks: Coordinates taken from online source due to poor signal around buildings and vegetation. Groundwater not encountered.						Dimensions: Length: 2.50m Width: 0.60m Orientation: ° 						
						Groundwater Details						
						Depth encountered (m) Remarks						
						T&P Regeneration TP Template Issue Number: 1 Issue Date: June 2016						

T&P Regen www.tandpregeneration.co.uk	Contract Name: New Farm, Alderton		Client: Ashford Homes (SW) Ltd			Trial Pit ID: TP02		
	Contract Number: P1156 / CS-2253	Date Started: 30/07/2024	Logged By: MC	Checked By: JSB	Status: FINAL	Sheet 1 of 1		
	Easting: 383976.00	Northing: 182738.00	Ground Level:	Plant Used: JCB 3CX		Scale: 1:25		
Trial Pit Log								
Weather: Clear			Termination: Engineers instruction			Stability: Stable		
Samples & In Situ Testing			Strata Details					
Depth	Sample ID	Test Result	Level (mAOD)	Depth (m) (Thickness)	Legend	Strata Description	Water	Backfill
0.10 - 0.20	ES1					Dark brown slightly sandy slightly gravelly CLAY. Gravel is subangular to rounded fine to coarse of limestone and flint. (TOPSOIL)		
0.30 - 0.40	ES2			0.25		Orangish brown slightly clayey SAND. (FOREST MARBLE FORMATION)		
				(0.65)				
0.80 - 0.90	D3			0.90		End of Trial Pit at 0.90m	1	
							2	
							3	
							4	
							5	
Sample Key: B = Bulk Disturbed D = Small Disturbed U = Undisturbed Open-Drive W = Water G = Gas ES = Environmental Soil EW = Environmental Water								
Remarks: Coordinates taken from online source due to poor signal around buildings and vegetation. Groundwater not encountered. Access restrictions resulted in early pit termination.					Dimensions:			
					Length: 2.50m		Orientation: °	
					Width: 0.60m			
					Groundwater Details			
					Depth encountered (m)		Remarks	
					T&P Regeneration TP Template Issue Number: 1 Issue Date: June 2016			

T&P Regen www.tandpregeneration.co.uk	Contract Name: New Farm, Alderton		Client: Ashford Homes (SW) Ltd			Trial Pit ID: TP03		
	Contract Number: P1156 / CS-2253	Date Started: 30/07/2024	Logged By: MC	Checked By: JSB	Status: FINAL	Sheet 1 of 1		
	Easting: 383992.00	Northing: 182767.00	Ground Level:	Plant Used: JCB 3CX		Scale: 1:25		
Trial Pit Log								
Weather: Clear		Termination: Refusal on limestone			Stability: Stable			
Samples & In Situ Testing			Strata Details				Water	Backfill
Depth	Sample ID	Test Result	Level (mAOD)	Depth (m) (Thickness)	Legend	Strata Description		
0.10 - 0.20	ES1	HV 1.00m, 78 / 38kPa		0.25		MADE GROUND: Light brown sandy GRAVEL. Gravel is angular to subangular fine to coarse of brick, limestone and flint.	1	
0.30 - 0.40	ES2					MADE GROUND: Dark brown slightly sandy slightly gravelly CLAY. Gravel is angular to subangular fine to coarse of brick, limestone and rare carbonaceous material.		
0.50 - 0.60	ES3					(FOREST MARBLE FORMATION) Firm orangish brown slightly sandy CLAY. (FOREST MARBLE FORMATION)		
0.80 - 0.90	D4							
1.10 - 1.20	D5					At 1.10mbgl: Becomes slightly gravelly of angular limestone.		
		HV 1.20m, 76 / 30kPa		(0.80)		Medium strong grey LIMESTONE recovered as slightly clayey gravel with a low cobble content. (FOREST MARBLE FORMATION)	2	
						End of Trial Pit at 1.50m		
				1.30			3	
				1.50			4	
							5	
Sample Key: B = Bulk Disturbed D = Small Disturbed U = Undisturbed Open-Drive W = Water G = Gas ES = Environmental Soil EW = Environmental Water								
Remarks: Coordinates taken from online source due to poor signal around buildings and vegetation. Groundwater not encountered. Breaker used at 1.40mbgl for 15 minutes and progressed to 1.50mbgl.						Dimensions:		
						Length: 2.40m		
						Width: 0.60m		
						Orientation: °		
						Groundwater Details		
Depth encountered (m)						Remarks		
T&P Regeneration TP Template						Issue Number: 1		Issue Date: June 2016

T&P Regen www.tandpregeneration.co.uk	Contract Name: New Farm, Alderton		Client: Ashford Homes (SW) Ltd			Trial Pit ID: TP04		
	Contract Number: P1156 / CS-2253	Date Started: 30/07/2024	Logged By: MC	Checked By: JSB	Status: FINAL	Sheet 1 of 1		
	Easting: 384021.00	Northing: 182758.00	Ground Level:	Plant Used: JCB 3CX		Scale: 1:25		
Trial Pit Log		Weather: Clear		Termination: Effective refusal on stiff to very stiff clay		Stability: Stable		
Samples & In Situ Testing			Strata Details				Water	Backfill
Depth	Sample ID	Test Result	Level (mAOD)	Depth (m) (Thickness)	Legend	Strata Description		
0.10 - 0.20	ES1	HV 1.40m, 120 / 40kPa		(0.80)		MADE GROUND: Brown slightly clayey slightly sandy GRAVEL. Gravel is angular to subangular fine to coarse of concrete, brick, tarmacadam, limestone, flint and rare pottery and glass.	1	
0.80 - 0.90	ES2			0.80		Firm greenish grey CLAY. (FOREST MARBLE FORMATION)		
0.90 - 1.00	D3			(0.30)				
1.20 - 1.30	D4			1.10		Stiff grey mottled orangish brown slightly gravelly CLAY. Gravel is angular to subangular fine to coarse of limestone. (FOREST MARBLE FORMATION)		
				(1.70)			2	
						At 2.60mbgl: Frequent mudstone lithorelicts.		
				2.80		End of Trial Pit at 2.80m	3	
							4	
							5	
Sample Key: B = Bulk Disturbed D = Small Disturbed U = Undisturbed Open-Drive W = Water G = Gas ES = Environmental Soil EW = Environmental Water								
Remarks: Coordinates taken from online source due to poor signal around buildings and vegetation. Groundwater not encountered.						Dimensions:		
						Length: 2.50m		Orientation: ° ←
						Width: 0.60m		
						Groundwater Details		
						Depth encountered (m)		Remarks
T&P Regeneration TP Template						Issue Number: 1		Issue Date: June 2016

T&P Regen www.tandpregeneration.co.uk	Contract Name: New Farm, Alderton			Client: Ashford Homes (SW) Ltd			Trial Pit ID: TP05				
	Contract Number: P1156 / CS-2253		Date Started: 30/07/2024		Logged By: MC		Checked By: JSB		Status: FINAL		
	Easting: 384045.00		Northing: 182769.00		Ground Level:		Plant Used: JCB 3CX		Scale: 1:25		
Trial Pit Log											
Weather: Clear			Termination: Effective refusal on mudstone			Stability: Stable					
Samples & In Situ Testing			Strata Details						Water	Backfill	
Depth	Sample ID	Test Result	Level (mAOD)	Depth (m) (Thickness)	Legend	Strata Description					
0.10 - 0.20	ES1	HV 1.00m, 66 / 28kPa HV 1.40m, 108 / 20kPa		(0.70)		MADE GROUND: Brown slightly clayey slightly sandy GRAVEL. Gravel is angular to subangular fine to coarse of concrete, brick, limestone and flint.			1		
0.70 - 0.80	ES2		0.70		Firm to stiff grey mottled orangish brown slightly gravelly CLAY. Gravel is angular to subangular fine to coarse of mudstone. (FOREST MARBLE FORMATION)						
0.90 - 1.00	D3		(1.00)								
1.80 - 1.90	D4			1.70		Bluish grey extremely weak MUDSTONE recovered as slightly clayey gravel. (FOREST MARBLE FORMATION)			2		
				(0.50)							
				2.20		End of Trial Pit at 2.20m			3		
									4		
									5		
Sample Key: B = Bulk Disturbed D = Small Disturbed U = Undisturbed Open-Drive W = Water G = Gas ES = Environmental Soil EW = Environmental Water											
Remarks: Coordinates taken from online source due to poor signal around buildings and vegetation. Groundwater not encountered.						Dimensions: Length: 2.50m Width: 0.60m Orientation: ° 					
						Groundwater Details					
						Depth encountered (m) Remarks					
						T&P Regeneration TP Template Issue Number: 1 Issue Date: June 2016					

T&P Regen www.tandpregeneration.co.uk	Contract Name: New Farm, Alderton			Client: Ashford Homes (SW) Ltd			Trial Pit ID: TP06					
	Contract Number: P1156 / CS-2253		Date Started: 30/07/2024		Logged By: MC		Checked By: JSB		Status: FINAL			
	Easting: 384080.00		Northing: 182758.00		Ground Level:		Plant Used: JCB 3CX		Scale: 1:25			
Trial Pit Log												
Weather: Clear				Termination: Effective refusal on mudstone				Stability: Stable				
Samples & In Situ Testing				Strata Details							Water	Backfill
Depth	Sample ID	Test Result	Level (mAOD)	Depth (m) (Thickness)	Legend	Strata Description						
0.10 - 0.20	ES1			0.10		Grey CONCRETE.						
0.30 - 0.40	ES2			0.25		MADE GROUND: Brown slightly clayey slightly sandy GRAVEL. Gravel is angular to subangular fine to coarse of concrete, brick, limestone and flint.						
0.80 - 0.90	D3			(1.25)		Stiff grey mottled orangish brown slightly gravelly CLAY. Gravel is angular to subangular fine to coarse of mudstone. (FOREST MARBLE FORMATION)					1	
1.50 - 1.60	D4			1.50 (0.30) 1.80		Extremely weak bluish grey MUDSTONE recovered as slightly clayey gravel. (FOREST MARBLE FORMATION)						
						End of Trial Pit at 1.80m					2	
											3	
											4	
											5	
Sample Key: B = Bulk Disturbed D = Small Disturbed U = Undisturbed Open-Drive W = Water G = Gas ES = Environmental Soil EW = Environmental Water												
Remarks: Coordinates taken from online source due to poor signal around buildings and vegetation. Groundwater not encountered.						Dimensions:						
						Length: 2.50m		Orientation: °				
						Width: 0.60m						
						Groundwater Details						
						Depth encountered (m)		Remarks				
T&P Regeneration TP Template						Issue Number: 1		Issue Date: June 2016				

Appendix D – Geotechnical Results



4041

**TEST CERTIFICATE****DETERMINATION OF LIQUID AND PLASTIC LIMITS**

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

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



Environmental Science

Client: T&P Regeneration
Client Address: Unit 5, Septimus Building,
BS14 0BL

Contact: Matthew Carr
Site Address: New Farm, Alderton

Client Reference: CS-2253
Job Number: 24-033900-1
Date Sampled: 30/07/2024
Date Received: 01/08/2024
Date Tested: 09/08/2024
Sampled By: Not Given

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

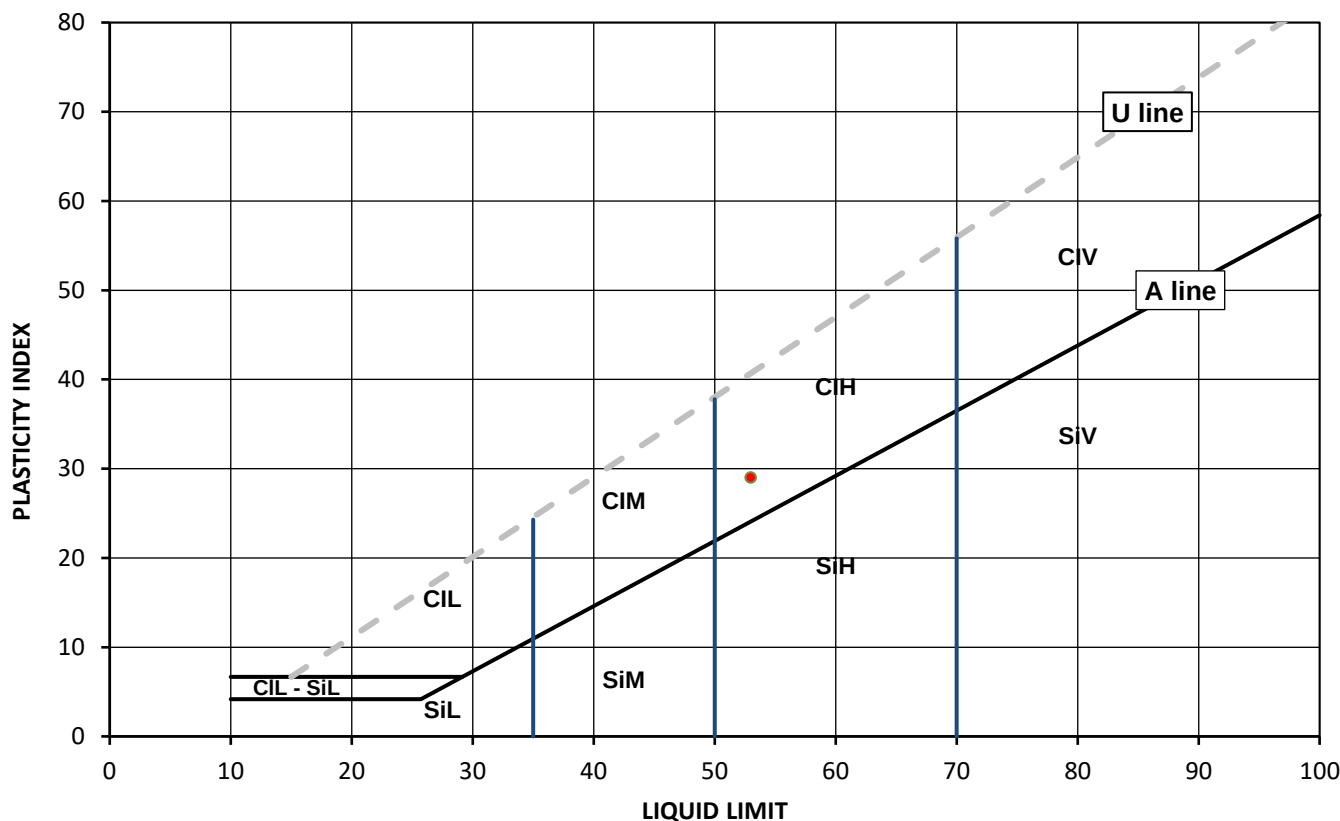
Test Results:

Laboratory Reference: 274477
Hole No.: TP01
Sample Reference: Not Given
Sample Description: Yellowish brown slightly gravelly slightly sandy CLAY

Depth Top [m]: 0.70
Depth Base [m]: 0.80
Sample Type: D

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

As Received Water Content [W] %	Corrected Liquid Limit [WL] %	Correlation Factor	Plastic Limit [Wp] %	Plasticity Index [Ip] %	Liquidity index [IL] % #	Consistency index [IC] % #	% Passing 425µm BS Test Sieve
27.7	53	1.058	24	29	0.14	0.86	80



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

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

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

Remarks:

Signed:

Katarzyna Banys

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

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4041

**TEST CERTIFICATE****DETERMINATION OF LIQUID AND PLASTIC LIMITS**

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

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



Client: T&P Regeneration
Client Address: Unit 5, Septimus Building,
BS14 0BL

Contact: Matthew Carr
Site Address: New Farm, Alderton

Client Reference: CS-2253
Job Number: 24-033900-1
Date Sampled: 30/07/2024
Date Received: 01/08/2024
Date Tested: 09/08/2024
Sampled By: Not Given

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

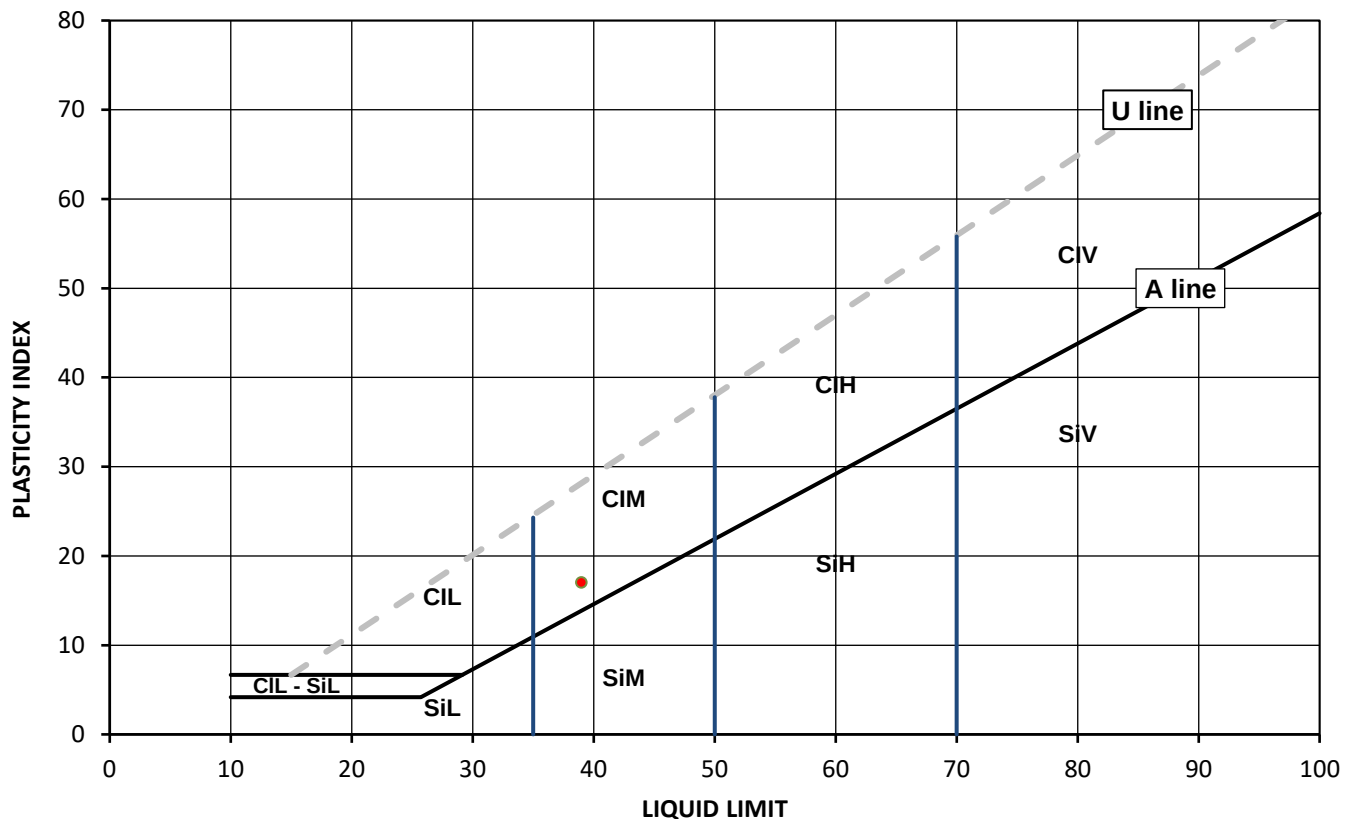
Test Results:

Laboratory Reference: 274478
Hole No.: TP01
Sample Reference: Not Given
Sample Description: Yellowish grey slightly gravelly sandy CLAY

Depth Top [m]: 1.00
Depth Base [m]: 1.10
Sample Type: D

Sample Preparation: Tested after washing to remove >0.425 mm;
Cone Type: 80g/30deg

As Received Water Content [W] %	Corrected Liquid Limit [WL] %	Correlation Factor	Plastic Limit [Wp] %	Plasticity Index [Ip] %	Liquidity index [IL] % #	Consistency index [IC] % #	% Passing 425µm BS Test Sieve
34.8	39	1.000	22	17	0.76	0.24	88



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

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

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

Remarks:

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

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



Environmental Science

Client: T&P Regeneration
Client Address: Unit 5, Septimus Building,
BS14 0BL

Contact: Matthew Carr
Site Address: New Farm, Alderton

Client Reference: CS-2253
Job Number: 24-033900-1
Date Sampled: 30/07/2024
Date Received: 01/08/2024
Date Tested: 09/08/2024
Sampled By: Not Given

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

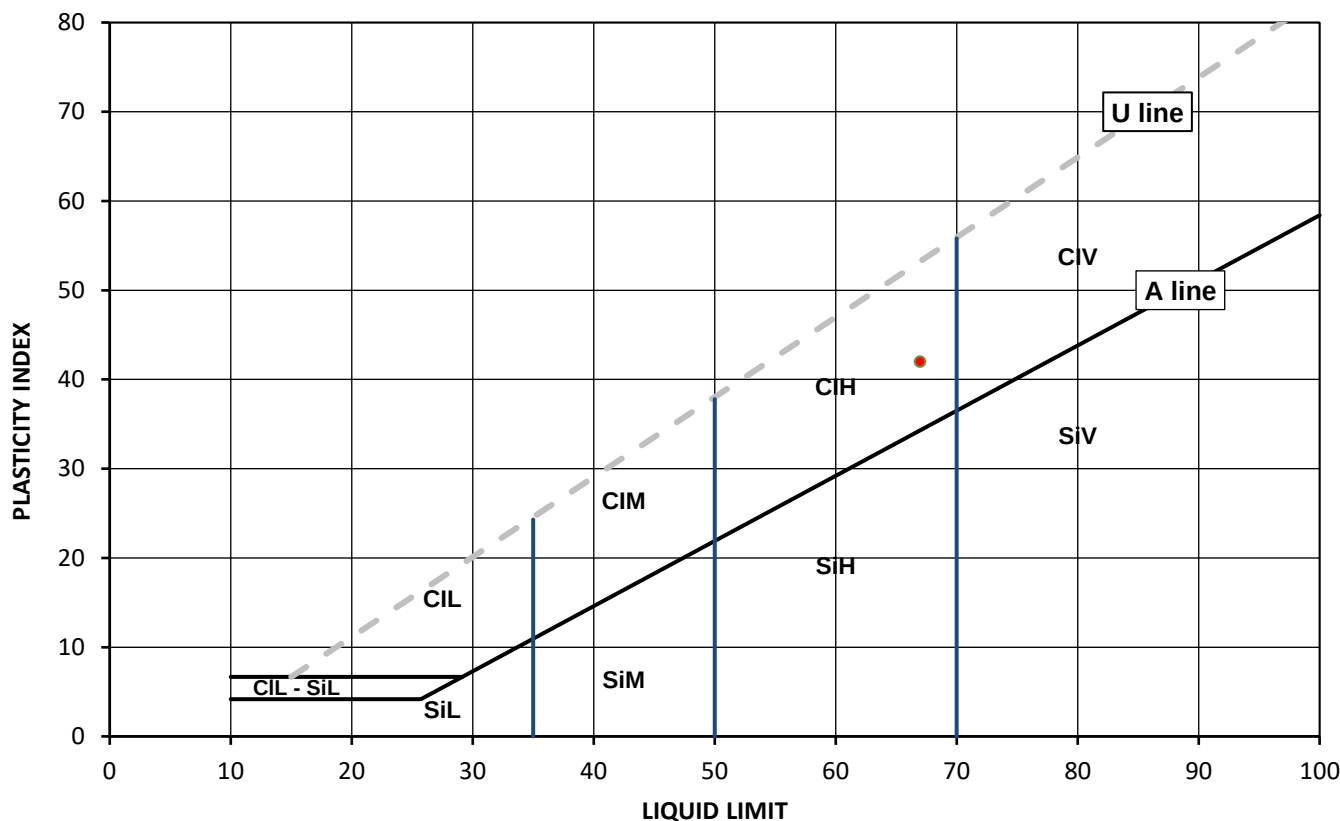
Test Results:

Laboratory Reference: 274479
Hole No.: TP03
Sample Reference: Not Given
Sample Description: Yellowish grey slightly gravelly slightly CLAY

Depth Top [m]: 0.80
Depth Base [m]: 0.90
Sample Type: D

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

As Received Water Content [W] %	Corrected Liquid Limit [WL] %	Correlation Factor	Plastic Limit [Wp] %	Plasticity Index [Ip] %	Liquidity index [IL] % #	Consistency index [IC] % #	% Passing 425µm BS Test Sieve
34.4	67	1.055	25	42	0.21	0.79	83



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

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

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

Remarks:

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

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



Environmental Science

Client: T&P Regeneration
Client Address: Unit 5, Septimus Building,
BS14 0BL

Contact: Matthew Carr
Site Address: New Farm, Alderton

Client Reference: CS-2253
Job Number: 24-033900-1
Date Sampled: 30/07/2024
Date Received: 01/08/2024
Date Tested: 09/08/2024
Sampled By: Not Given

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

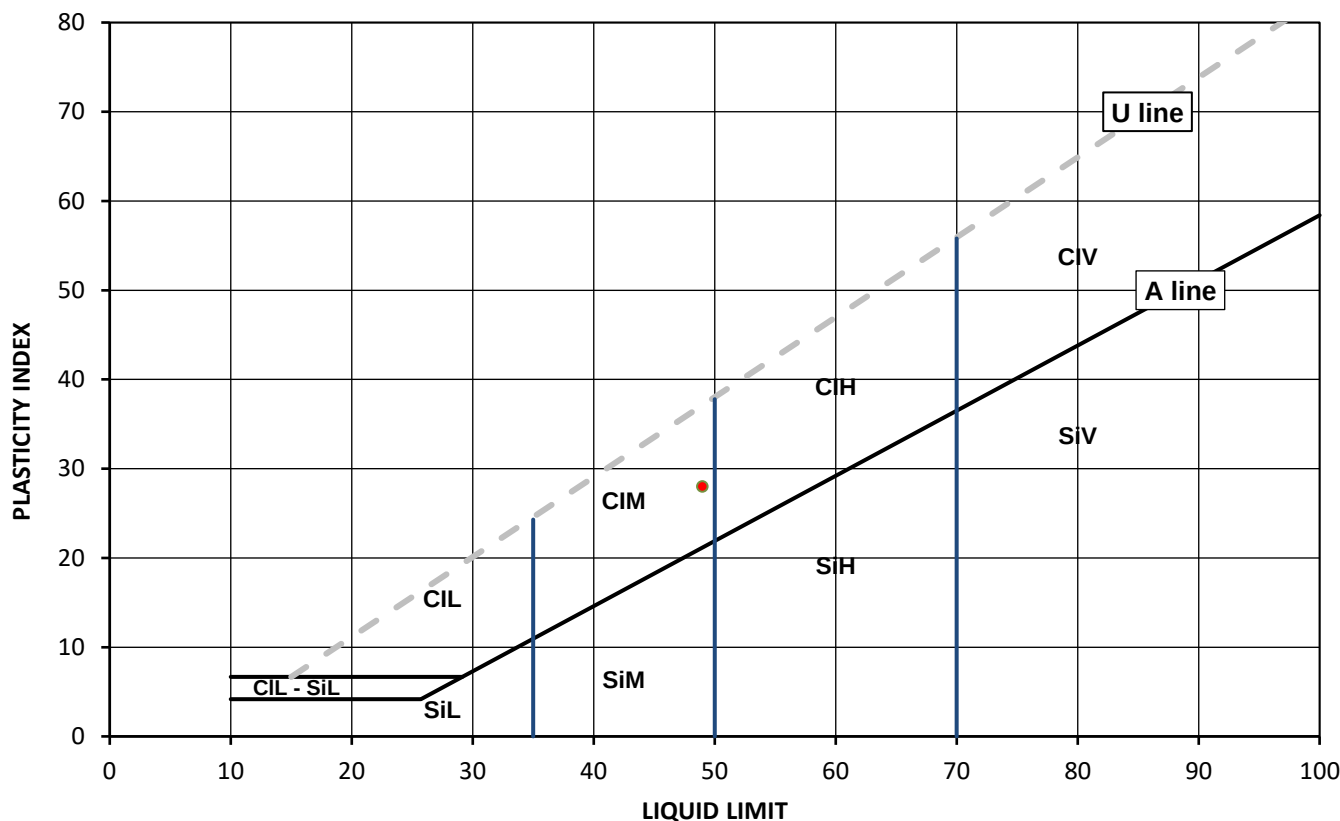
Test Results:

Laboratory Reference: 274480
Hole No.: TP04
Sample Reference: Not Given
Sample Description: Greyish brown slightly gravelly slightly sandy CLAY

Depth Top [m]: 1.20
Depth Base [m]: 1.30
Sample Type: D

Sample Preparation: Tested after washing to remove >0.425 mm;
Cone Type: 80g/30deg

As Received Water Content [W] %	Corrected Liquid Limit [WL] %	Correlation Factor	Plastic Limit [Wp] %	Plasticity Index [Ip] %	Liquidity index [IL] % #	Consistency index [IC] % #	% Passing 425µm BS Test Sieve
18.4	49	1.000	21	28	-0.11	1.11	92



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

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

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

Remarks:

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**TEST CERTIFICATE****DETERMINATION OF LIQUID AND PLASTIC LIMITS**

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

i2 Analytical Ltd
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Northampton NN4 7EB



Environmental Science

Client: T&P Regeneration
Client Address: Unit 5, Septimus Building,
BS14 0BL

Contact: Matthew Carr
Site Address: New Farm, Alderton

Client Reference: CS-2253
Job Number: 24-033900-1
Date Sampled: 30/07/2024
Date Received: 01/08/2024
Date Tested: 09/08/2024
Sampled By: Not Given

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

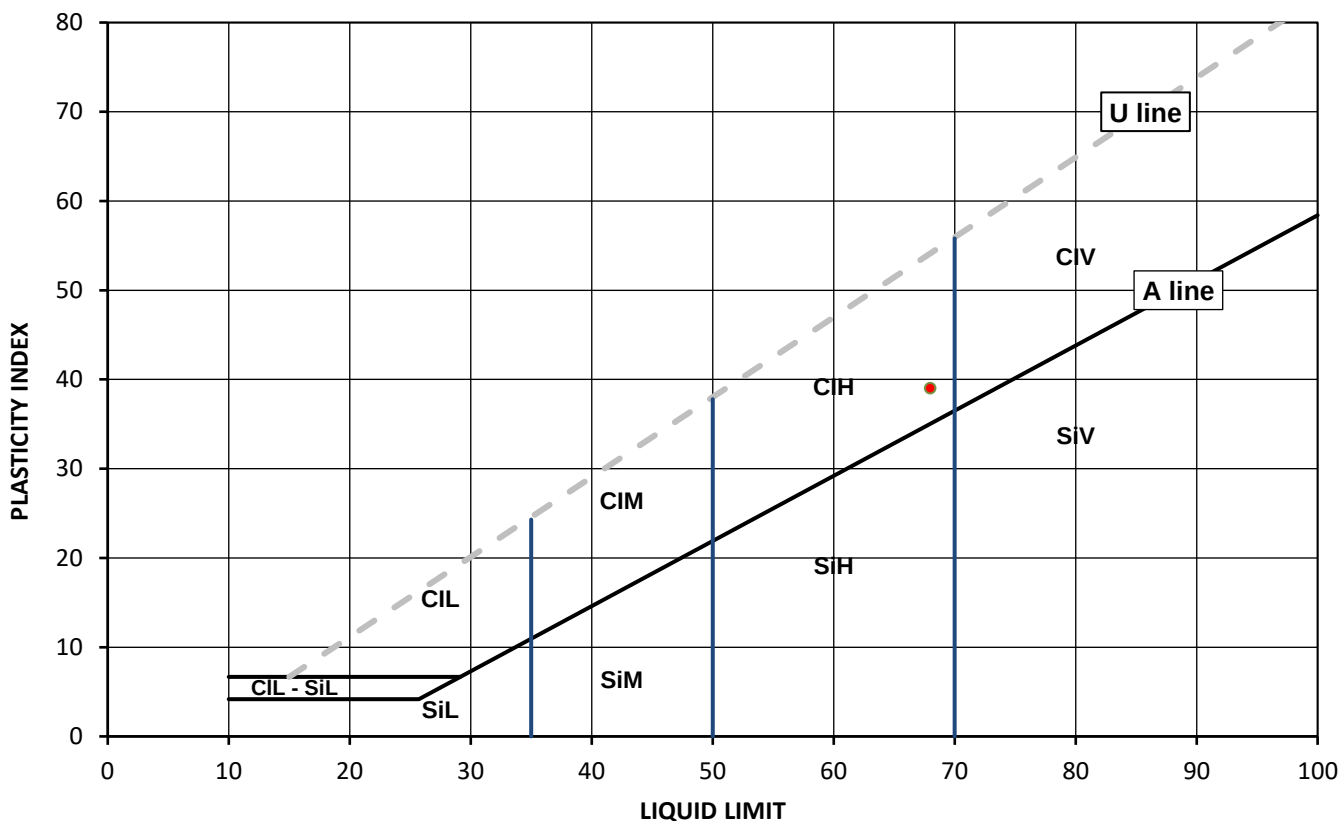
Test Results:

Laboratory Reference: 274481
Hole No.: TP05
Sample Reference: Not Given
Sample Description: Brownish grey slightly gravelly CLAY

Depth Top [m]: 0.90
Depth Base [m]: 1.00
Sample Type: D

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

As Received Water Content [W] %	Corrected Liquid Limit [WL] %	Correlation Factor	Plastic Limit [Wp] %	Plasticity Index [Ip] %	Liquidity index [IL] % #	Consistency index [IC] % #	% Passing 425µm BS Test Sieve
35.5	68	1.020	29	39	0.18	0.82	87



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

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

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

Remarks:

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4041

**TEST CERTIFICATE****DETERMINATION OF LIQUID AND PLASTIC LIMITS**

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

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



Environmental Science

Client: T&P Regeneration
Client Address: Unit 5, Septimus Building,
BS14 0BL

Contact: Matthew Carr
Site Address: New Farm, Alderton

Client Reference: CS-2253
Job Number: 24-033900-1
Date Sampled: 30/07/2024
Date Received: 01/08/2024
Date Tested: 09/08/2024
Sampled By: Not Given

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

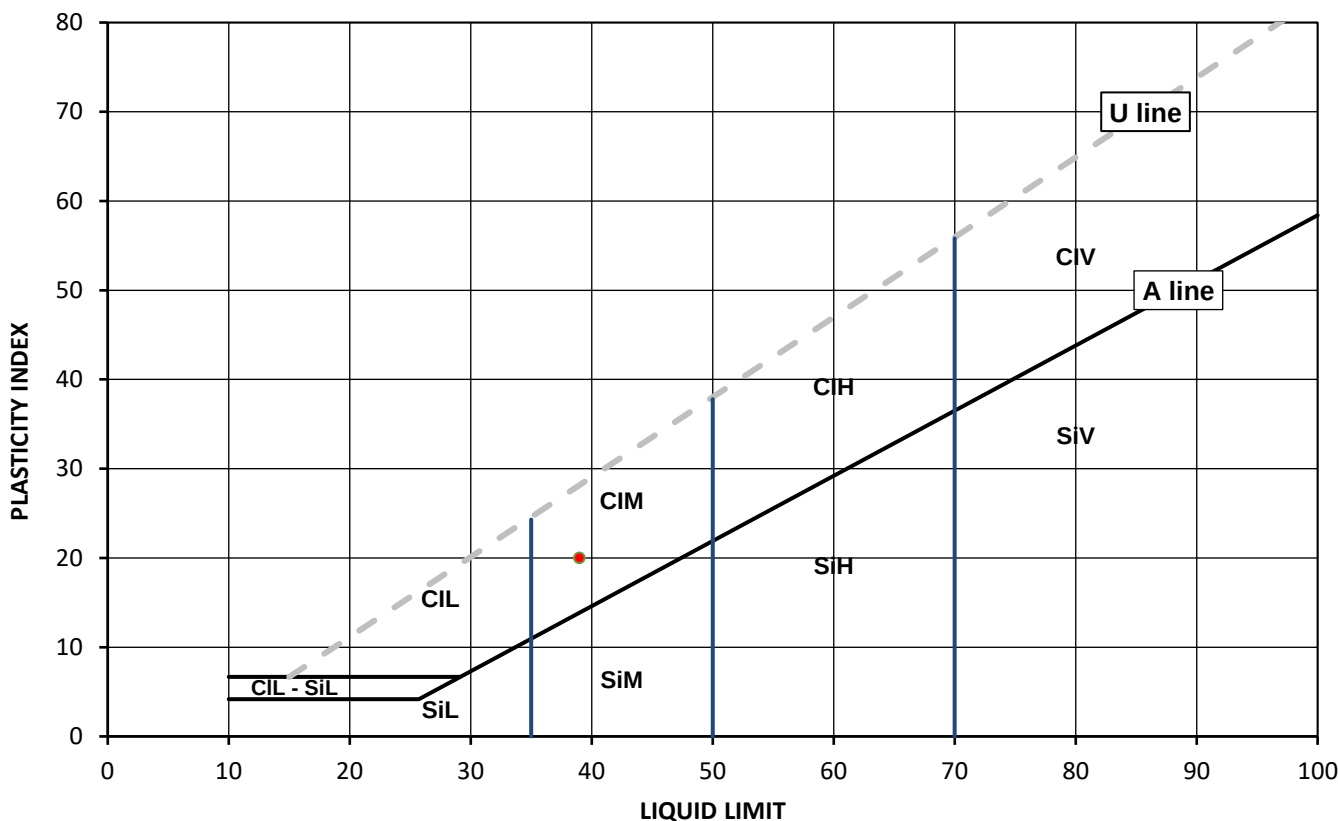
Test Results:

Laboratory Reference: 274482
Hole No.: TP06
Sample Reference: Not Given
Sample Description: Greyish brown slightly gravelly sandy CLAY

Depth Top [m]: 0.80
Depth Base [m]: 0.90
Sample Type: D

Sample Preparation: Tested after washing to remove >0.425 mm;
Cone Type: 80g/30deg

As Received Water Content [W] %	Corrected Liquid Limit [WL] %	Correlation Factor	Plastic Limit [Wp] %	Plasticity Index [Ip] %	Liquidity index [IL] % #	Consistency index [IC] % #	% Passing 425µm BS Test Sieve
18.2	39	0.984	19	20	-0.05	1.05	82



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

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

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

Remarks:

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SUMMARY REPORT

SUMMARY OF CLASSIFICATION TEST RESULTS

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



Environmental Science

Tested in Accordance with:

BS EN ISO 17892-12:2018+A2:2022, cl 5.3.14, 5.5, Fall Cone Method, 1 Pt Test, BS 1377-2:2022, cl 5.3, 6. Correlation Factor by Clayton C.R.I and Jukes A.W (1978). W by BS EN ISO 17892-1:2014+A1:2022.

Client Reference: CS-2253

Job Number: 24-033900-1

Date Sampled: 30/07/2024

Date Received: 01/08/2024

Date Tested: 09/08/2024

Sampled By: Not Given

4041

Client: T&P Regeneration

Client Address: Unit 5, Septimus Building,
BS14 0BL

Contact: Matthew Carr

Site Address: New Farm, Alderton

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

Test results

Laboratory Reference	Hole No.	Sample				Description	Remarks	W	Liquid & Plastic Limit								Density		
		Reference	Depth Top	Depth Base	Type				% Passing 425um	WL*	Correlation Factor	Wp	Ip	Cone type	Sample Preparation	bulk	dry	PD	
			m	m					%	%		%	%			Mg/m3	Mg/m3	Mg/m3	
274477	TP01	Not Given	0.70	0.80	D	Yellowish brown slightly gravelly slightly sandy CLAY	Atterberg 1 Point	27.7	80	53	1.058	24	29	80g/30 deg	R				
274478	TP01	Not Given	1.00	1.10	D	Yellowish grey slightly gravelly sandy CLAY	Atterberg 1 Point	34.8	88	39	1.000	22	17	80g/30 deg	W				
274479	TP03	Not Given	0.80	0.90	D	Yellowish grey slightly gravelly slightly CLAY	Atterberg 1 Point	34.4	83	67	1.055	25	42	80g/30 deg	R				
274480	TP04	Not Given	1.20	1.30	D	Greyish brown slightly gravelly slightly sandy CLAY	Atterberg 1 Point	18.4	92	49	1.000	21	28	80g/30 deg	W				
274481	TP05	Not Given	0.90	1.00	D	Brownish grey slightly gravelly CLAY	Atterberg 1 Point	35.5	87	68	1.020	29	39	80g/30 deg	R				
274482	TP06	Not Given	0.80	0.90	D	Greyish brown slightly gravelly sandy CLAY	Atterberg 1 Point	18.2	82	39	0.984	19	20	80g/30 deg	W				

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

Comments:

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Signed:

Katarzyna Banyś

Katarzyna Banyś
Reporting Specialist

for and on behalf of i2 Analytical Ltd



SUMMARY REPORT

DETERMINATION OF WATER CONTENT

Tested in Accordance with: BS EN ISO 17892-1:2014+A1:2022, BS 1377-2: 2022, clause 4.1

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



Environmental Science

Client: T&P Regeneration
Client Address: Unit 5, Septimus Building,
BS14 0BL

Contact: Matthew Carr
Site Address: New Farm, Alderton

Client Reference: CS-2253
Job Number: 24-033900-1
Date Sampled: 30/07/2024
Date Received: 01/08/2024
Date Tested: 09/08/2024
Sampled By: Not Given

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

Test results

Laboratory Reference	Hole No.	Sample				Description	Remarks	WC											
		Reference	Depth Top m	Depth Base m	Type														
274477	TP01	Not Given	0.70	0.80	D	Yellowish brown slightly gravelly slightly sandy CLAY		27.7											
274478	TP01	Not Given	1.00	1.10	D	Yellowish grey slightly gravelly sandy CLAY		34.8											
274479	TP03	Not Given	0.80	0.90	D	Yellowish grey slightly gravelly slightly CLAY		34.4											
274480	TP04	Not Given	1.20	1.30	D	Greyish brown slightly gravelly slightly sandy CLAY		18.4											
274481	TP05	Not Given	0.90	1.00	D	Brownish grey slightly gravelly CLAY		35.5											
274482	TP06	Not Given	0.80	0.90	D	Greyish brown slightly gravelly sandy CLAY		18.2											

Comments:

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Signed:

Katarzyna Banyś

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

T&P Regeneration
Unit 5
Septimus Building
BS14 0BL

e: matthew@tp-regen.co.uk

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

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

Analytical Report Number : 24-033901

Project / Site name:	New Farm, Alderton	Samples received on:	01/08/2024
Your job number:	CS-2253	Samples instructed on/ Analysis started on:	01/08/2024
Your order number:	19364-CS-2253	Analysis completed by:	09/08/2024
Report Issue Number:	1	Report issued on:	09/08/2024
Samples Analysed:	6 soil samples		

Signed:



Joanna Szwagrak
Reporting Specialist
For & on behalf of i2 Analytical Ltd.

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

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

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

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

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

Analytical Report Number: 24-033901
 Project / Site name: New Farm, Alderton
 Your Order No: 19364-CS-2253

Lab Sample Number				274483	274484	274485	274486	274487
Sample Reference				TP01	TP02	TP03	TP04	TP05
Sample Number				None Supplied	None Supplied	None Supplied	None Supplied	None Supplied
Depth (m)				1.00-1.10	0.80-0.90	0.80-0.90	1.20-1.30	0.90-1.00
Date Sampled				30/07/2024	30/07/2024	30/07/2024	30/07/2024	30/07/2024
Time Taken				None Supplied	None Supplied	None Supplied	None Supplied	None Supplied
Analytical Parameter (Soil Analysis)				Units	Test Limit of detection	Test Accreditation Status		

Stone Content	%	0.1	NONE	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1
Moisture Content	%	0.01	NONE	23	17	20	14	23
Total mass of sample received	kg	0.1	NONE	0.7	1	0.7	0.7	0.7

General Inorganics

pH (L099)	pH Units	N/A	MCERTS	7.7	8.3	7.7	8.2	8.3
Total Sulphate as SO ₄	%	0.005	MCERTS	0.043	0.037	0.02	0.15	0.08
Water Soluble Sulphate as SO ₄ 16hr extraction (2:1)	mg/kg	2.5	MCERTS	320	23	22	46	180
Water Soluble SO ₄ 16hr extraction (2:1 Leachate Equivalent)	mg/l	1.25	MCERTS	162	11.4	10.9	23	89.4
Water Soluble Chloride (2:1) (leachate equivalent)	mg/l	0.5	MCERTS	3	1.2	1.4	7.3	33
Total Sulphur	mg/kg	50	MCERTS	460	160	150	610	430
Total Sulphur	%	0.005	MCERTS	0.046	0.016	0.015	0.061	0.043
Water Soluble Nitrate (2:1) as N	mg/kg	2	NONE	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0
Water Soluble Nitrate (2:1) as N (leachate equivalent)	mg/l	2	NONE	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0

Heavy Metals / Metalloids

Magnesium (leachate equivalent)	mg/l	2.5	NONE	3.9	4.1	3.5	6.2	4.6
Magnesium (water soluble)	mg/kg	5	NONE	7.8	8.2	7.1	12	9.2

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



Analytical Report Number: 24-033901
Project / Site name: New Farm, Alderton
Your Order No: 19364-CS-2253

Lab Sample Number				274488
Sample Reference				TP06
Sample Number				None Supplied
Depth (m)				0.80-0.90
Date Sampled				30/07/2024
Time Taken				None Supplied
Analytical Parameter (Soil Analysis)	Units	Test Limit of detection	Test Accreditation Status	

Stone Content	%	0.1	NONE	< 0.1
Moisture Content	%	0.01	NONE	13
Total mass of sample received	kg	0.1	NONE	0.7

General Inorganics

pH (L099)	pH Units	N/A	MCERTS	8.2
Total Sulphate as SO ₄	%	0.005	MCERTS	0.143
Water Soluble Sulphate as SO ₄ 16hr extraction (2:1)	mg/kg	2.5	MCERTS	70
Water Soluble SO ₄ 16hr extraction (2:1 Leachate Equivalent)	mg/l	1.25	MCERTS	35.2
Water Soluble Chloride (2:1) (leachate equivalent)	mg/l	0.5	MCERTS	8.7
Total Sulphur	mg/kg	50	MCERTS	570
Total Sulphur	%	0.005	MCERTS	0.057
Water Soluble Nitrate (2:1) as N	mg/kg	2	NONE	< 2.0
Water Soluble Nitrate (2:1) as N (leachate equivalent)	mg/l	2	NONE	< 2.0

Heavy Metals / Metalloids

Magnesium (leachate equivalent)	mg/l	2.5	NONE	4.6
Magnesium (water soluble)	mg/kg	5	NONE	9.3

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



Analytical Report Number : 24-033901
Project / Site name: New Farm, Alderton

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

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

Lab Sample Number	Sample Reference	Sample Number	Depth (m)	Sample Description *
274483	TP01	None Supplied	1.00-1.10	Brown sandy clay
274484	TP02	None Supplied	0.80-0.90	Brown sandy clay with vegetation
274485	TP03	None Supplied	0.80-0.90	Brown clay and sand
274486	TP04	None Supplied	1.20-1.30	Brown clay and sand
274487	TP05	None Supplied	0.90-1.00	Brown clay and sand
274488	TP06	None Supplied	0.80-0.90	Brown clay and sand with vegetation

Analytical Report Number : 24-033901
Project / Site name: New Farm, Alderton

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

Analytical Test Name	Analytical Method Description	Analytical Method Reference	Method number	Wet / Dry Analysis	Accreditation Status
Moisture Content	Moisture content, determined gravimetrically (up to 30°C)	In-house method	L019B	W	NONE
Stones content of soil	Standard preparation for all samples unless otherwise detailed. Gravimetric determination of stone > 10 mm as % dry weight	In-house method based on British Standard Methods and MCERTS requirements.	L019B	D	NONE
Magnesium, water soluble, in soil	Determination of water soluble magnesium by extraction with water followed by ICP-OES	In-house method based on TRL 447	L038B	D	NONE
Total sulphate (as SO ₄ in soil)	Determination of total sulphate in soil by extraction with 10% HCl followed by ICP-OES	In-house method	L038B	D	MCERTS
Sulphate, water soluble, in soil (16hr extraction)	Sulphate, water soluble, in soil (16hr extraction)	In-house method	L038B	D	MCERTS
Total Sulphur in soil	Determination of total sulphur in soil by extraction with aqua-regia, potassium bromide/bromate followed by ICP-OES	In-house method	L038B	D	MCERTS
Water Soluble Nitrate (2:1) as N in soil	Determination of nitrate by reaction with sodium salicylate and colorimetry	In-house method based on Examination of Water and Wastewater & Polish Standard Method PN-82/C-04579.08, 2:1 extraction	L078B	W	NONE
Chloride, water soluble, in soil	Determination of Chloride colorimetrically by discrete analyser	In-house method	L082B	D	MCERTS
pH in soil (automated)	Determination of pH in soil by addition of water followed by automated electrometric measurement	In-house method	L099	D	MCERTS

For method numbers ending in 'UK' or 'A' analysis have been carried out in our laboratory in the United Kingdom (Watford).
For method numbers ending in 'F' analysis have been carried out in our laboratory in the United Kingdom (East Kilbride).
For method numbers ending in 'PL' or 'B' analysis have been carried out in our laboratory in Poland.
Soil analytical results are expressed on a dry weight basis. Where analysis is carried out on as-received the results obtained are multiplied by a moisture correction factor that is determined gravimetrically using the moisture content which is carried out at a maximum of 30°C.
Unless otherwise indicated, site information, order number, project number, sampling date, time, sample reference and depth are provided by the client. The instructed on date indicates the date on which this information was provided to the laboratory.

Quality control parameter failure associated with individual result applies to calculated sum of individuals.
The result for sum should be interpreted with caution



In Situ California Bearing Ratio (CBR)

Job Ref 35764

CBR No. CBR1

Site Name New Farm, Alderton, SN14 6NW

Depth m 0.40

Project No. 19350-CS-2253

Client

T&P Regeneration Ltd

Date of Test 30/07/2024

Soil Description

Light grey mottled orangish brown slightly sandy silty CLAY

Test Method BS1377 : Part 9 : 1990, clause 4.3

CBR Test Number 1

Note: Test only applicable when maximum particle size beneath the plunger does not exceed 20mm

Rate of Strain 1.00 mm/min

Mass of Surcharge 4.5 kg

Proving Ring Factor 0.42 N/div

Temperature
Environmental
Conditions

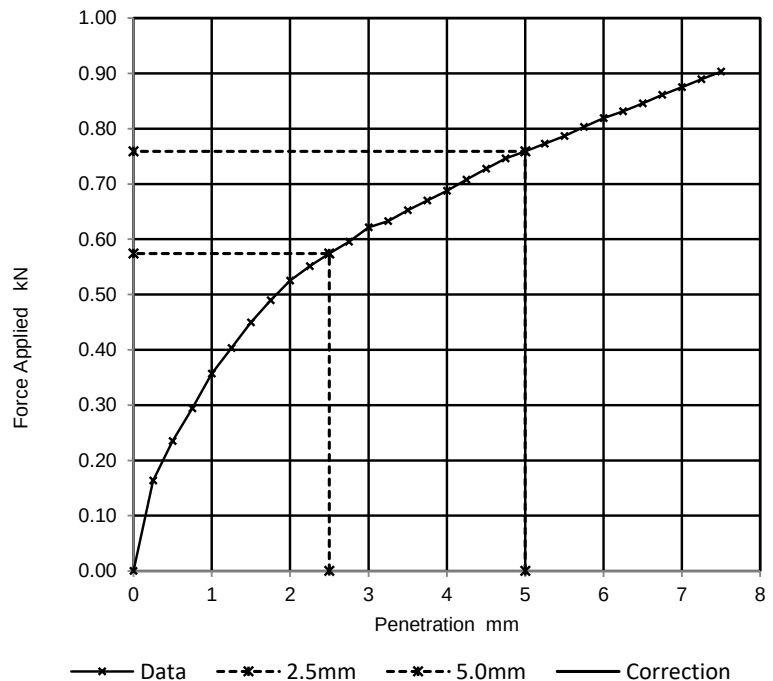
30 0C

Clear sky

Readings

Penetration of Plunger mm	Force on Plunger	
	Dial Reading	Load kN
0.00	0	0.00
0.25	390	0.16
0.50	560	0.24
0.75	700	0.29
1.00	850	0.36
1.25	960	0.40
1.50	1070	0.45
1.75	1165	0.49
2.00	1250	0.53
2.25	1312	0.55
2.50	1367	0.57
2.75	1418	0.60
3.00	1480	0.62
3.25	1507	0.63
3.50	1553	0.65
3.75	1595	0.67
4.00	1637	0.69
4.25	1685	0.71
4.50	1732	0.73
4.75	1776	0.75
5.00	1807	0.76
5.25	1840	0.77
5.50	1873	0.79
5.75	1912	0.80
6.00	1950	0.82
6.25	1979	0.83
6.50	2013	0.85
6.75	2050	0.86
7.00	2083	0.87
7.25	2117	0.89
7.50	2150	0.90

Force versus Penetration Plot



Remarks

Results

Curve correction applied	CBR Values, %			Moisture Content %
	Penetration		CBR Value	
	2.5mm	5mm		
No	4.3	3.8	4.3	25



Test Report by K4 SOILS LABORATORY
Unit 8 Olds Close Olds Approach
Watford Herts WD18 9RU
Tel: 01923 711 288
Email: James@k4soils.com

Checked and Approved

Initials: J.P

Date: 06/08/2024

2519

Approved Signatories: K.Phaure (Tech.Mgr) J.Phaure (Lab.Mgr)

MSF-5-R16



In Situ California Bearing Ratio (CBR)

Job Ref 35764

CBR No. CBR2

Site Name New Farm, Alderton, SN14 6NW

Depth m 0.80

Project No. 19350-CS-2253

Client

T&P Regeneration Ltd

Date of Test 30/07/2024

Soil Description

Brownish green slightly sandy silty CLAY

Test Method BS1377 : Part 9 : 1990, clause 4.3

CBR Test Number 2

Note: Test only applicable when maximum particle size beneath the plunger does not exceed 20mm

Rate of Strain 1.00 mm/min

Mass of Surcharge 4.5 kg

Proving Ring Factor 0.42 N/div

Temperature
Environmental
Conditions

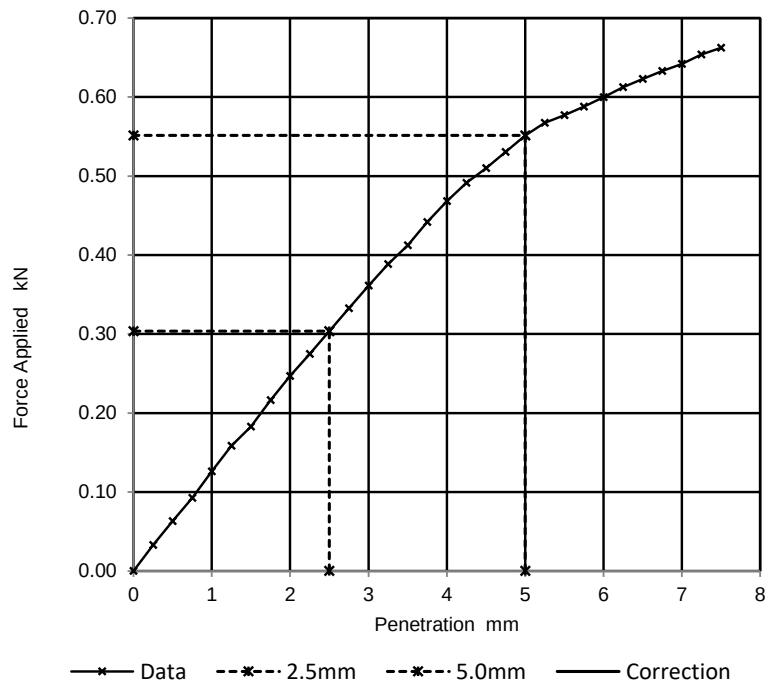
30 0C

Clear sky

Readings

Penetration of Plunger mm	Force on Plunger	
	Dial Reading	Load kN
0.00	0	0.00
0.25	78	0.03
0.50	150	0.06
0.75	220	0.09
1.00	300	0.13
1.25	377	0.16
1.50	435	0.18
1.75	515	0.22
2.00	588	0.25
2.25	654	0.27
2.50	723	0.30
2.75	792	0.33
3.00	860	0.36
3.25	925	0.39
3.50	982	0.41
3.75	1052	0.44
4.00	1115	0.47
4.25	1170	0.49
4.50	1214	0.51
4.75	1263	0.53
5.00	1313	0.55
5.25	1351	0.57
5.50	1374	0.58
5.75	1400	0.59
6.00	1428	0.60
6.25	1458	0.61
6.50	1483	0.62
6.75	1507	0.63
7.00	1528	0.64
7.25	1557	0.65
7.50	1577	0.66

Force versus Penetration Plot



Remarks

Results

Curve correction applied	CBR Values, %			Moisture Content %
	Penetration		CBR Value	
	2.5mm	5mm		
No	2.3	2.8	2.8	34



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Initials: J.P

Date: 06/08/2024

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MSF-5-R16



In Situ California Bearing Ratio (CBR)

Job Ref 35764

CBR No. CBR3

Site Name New Farm, Alderton, SN14 6NW

Depth m 0.85

Project No. 19350-CS-2253

Client

T&P Regeneration Ltd

Date of Test 30/07/2024

Soil Description

Greenish brown silty CLAY

Test Method BS1377 : Part 9 : 1990, clause 4.3

CBR Test Number 3

Note: Test only applicable when maximum particle size beneath the plunger does not exceed 20mm

Rate of Strain 1.00 mm/min

Mass of Surcharge 4.5 kg

Proving Ring Factor 0.42 N/div

Temperature
Environmental
Conditions

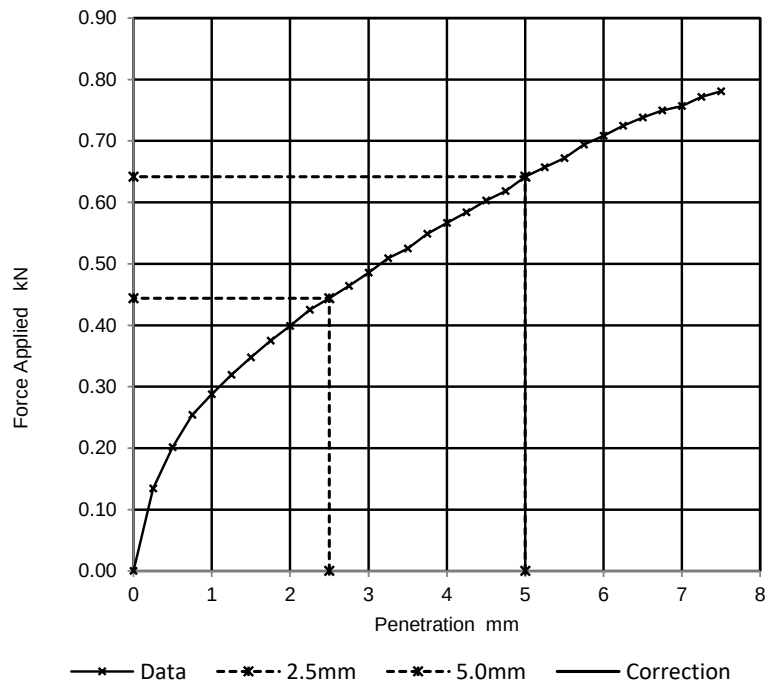
30 0C

Clear sky

Readings

Penetration of Plunger mm	Force on Plunger	
	Dial Reading	Load kN
0.00	0	0.00
0.25	320	0.13
0.50	480	0.20
0.75	605	0.25
1.00	685	0.29
1.25	760	0.32
1.50	827	0.35
1.75	893	0.38
2.00	950	0.40
2.25	1012	0.43
2.50	1057	0.44
2.75	1105	0.46
3.00	1156	0.49
3.25	1212	0.51
3.50	1250	0.53
3.75	1307	0.55
4.00	1349	0.57
4.25	1390	0.58
4.50	1436	0.60
4.75	1472	0.62
5.00	1528	0.64
5.25	1565	0.66
5.50	1600	0.67
5.75	1652	0.69
6.00	1687	0.71
6.25	1725	0.72
6.50	1757	0.74
6.75	1785	0.75
7.00	1802	0.76
7.25	1837	0.77
7.50	1859	0.78

Force versus Penetration Plot



Remarks

Results

Curve correction applied	CBR Values, %			Moisture Content %
	Penetration		CBR Value	
	2.5mm	5mm		
No	3.4	3.2	3.4	33



Test Report by K4 SOILS LABORATORY
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Checked and Approved

Initials: J.P

Date: 06/08/2024

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Approved Signatories: K.Phaure (Tech.Mgr) J.Phaure (Lab.Mgr)

MSF-5-R16



In Situ California Bearing Ratio (CBR)

Job Ref 35764

CBR No. CBR4

Site Name New Farm, Alderton, SN14 6NW

Depth m 0.30

Project No. 19350-CS-2253

Client

T&P Regeneration Ltd

Date of Test 30/07/2024

Soil Description

Brown silty CLAY

Test Method BS1377 : Part 9 : 1990, clause 4.3

CBR Test Number 4

Note: Test only applicable when maximum particle size beneath the plunger does not exceed 20mm

Rate of Strain 1.00 mm/min

Mass of Surcharge 4.5 kg

Proving Ring Factor 0.42 N/div

Temperature
Environmental
Conditions

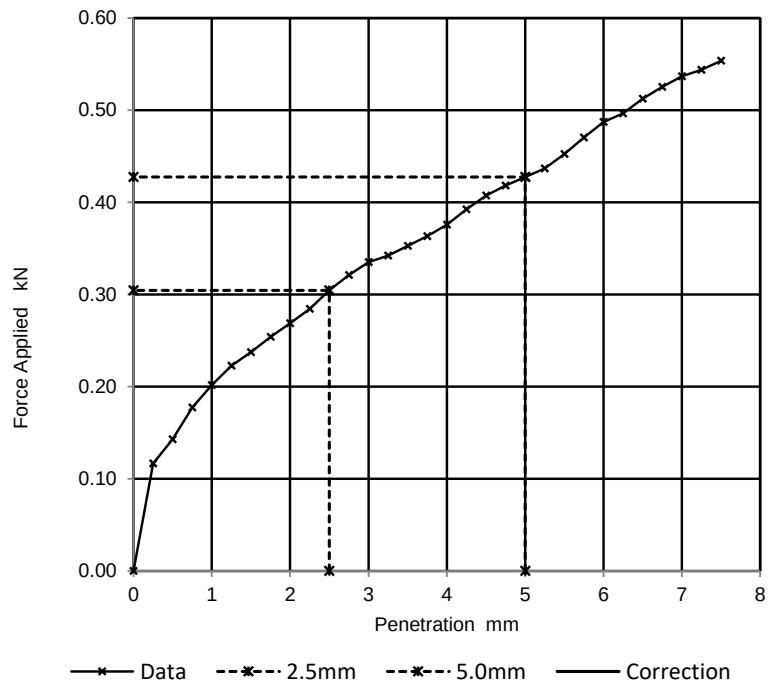
30 0C

Clear sky

Readings

Penetration of Plunger mm	Force on Plunger	
	Dial Reading	Load kN
0.00	0	0.00
0.25	278	0.12
0.50	340	0.14
0.75	422	0.18
1.00	480	0.20
1.25	530	0.22
1.50	565	0.24
1.75	605	0.25
2.00	640	0.27
2.25	677	0.28
2.50	725	0.30
2.75	765	0.32
3.00	798	0.34
3.25	815	0.34
3.50	840	0.35
3.75	865	0.36
4.00	895	0.38
4.25	934	0.39
4.50	970	0.41
4.75	996	0.42
5.00	1018	0.43
5.25	1040	0.44
5.50	1077	0.45
5.75	1120	0.47
6.00	1160	0.49
6.25	1182	0.50
6.50	1220	0.51
6.75	1251	0.53
7.00	1278	0.54
7.25	1295	0.54
7.50	1318	0.55

Force versus Penetration Plot



Remarks

Results

Curve correction applied	CBR Values, %			Moisture Content %
	Penetration		CBR Value	
	2.5mm	5mm		
No	2.3	2.1	2.3	33



Test Report by K4 SOILS LABORATORY
Unit 8 Olds Close Olds Approach
Watford Herts WD18 9RU
Tel: 01923 711 288
Email: James@k4soils.com

Checked and Approved

Initials: J.P

Date: 06/08/2024

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MSF-5-R16



In Situ California Bearing Ratio (CBR)

Job Ref 35764

CBR No. CBR5

Site Name New Farm, Alderton, SN14 6NW

Depth m 0.30

Project No. 19350-CS-2253

Client

T&P Regeneration Ltd

Date of Test 30/07/2024

Soil Description

Dark brown silty CLAY

Test Method BS1377 : Part 9 : 1990, clause 4.3

CBR Test Number 5

Note: Test only applicable when maximum particle size beneath the plunger does not exceed 20mm

Rate of Strain 1.00 mm/min

Mass of Surcharge 4.5 kg

Proving Ring Factor 7.14 N/div

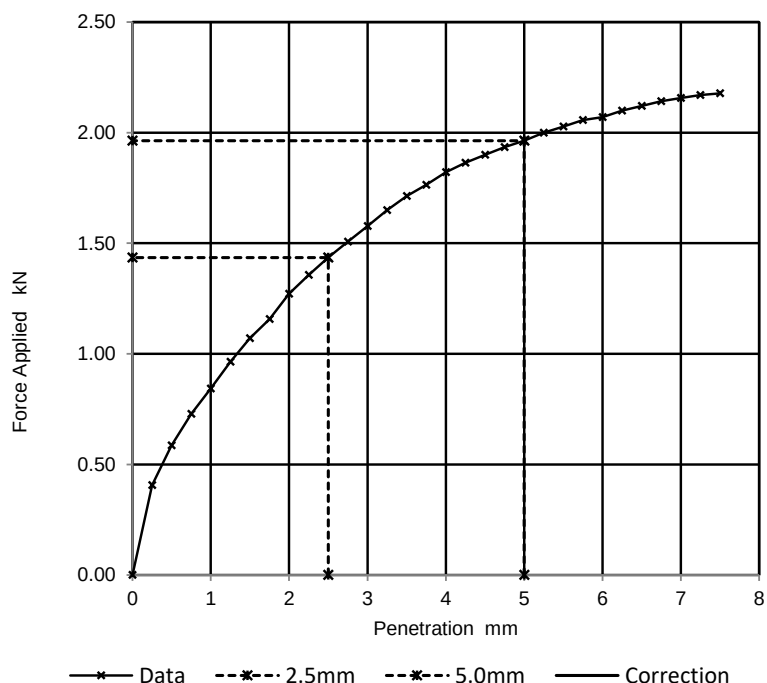
Temperature 30 °C

Environmental Conditions Clear sky

Readings

Penetration of Plunger mm	Force on Plunger	
	Dial Reading	Load kN
0.00	0	0.00
0.25	57	0.41
0.50	82	0.59
0.75	102	0.73
1.00	118	0.84
1.25	135	0.96
1.50	150	1.07
1.75	162	1.16
2.00	178	1.27
2.25	190	1.36
2.50	201	1.44
2.75	211	1.51
3.00	221	1.58
3.25	231	1.65
3.50	240	1.71
3.75	247	1.76
4.00	255	1.82
4.25	261	1.86
4.50	266	1.90
4.75	271	1.93
5.00	275	1.96
5.25	280	2.00
5.50	284	2.03
5.75	288	2.06
6.00	290	2.07
6.25	294	2.10
6.50	297	2.12
6.75	300	2.14
7.00	302	2.16
7.25	304	2.17
7.50	305	2.18

Force versus Penetration Plot



Remarks

Results

Curve correction applied	CBR Values, %			Moisture Content %
	Penetration		CBR Value	
	2.5mm	5mm		
No	11	9.8	11	23



Test Report by K4 SOILS LABORATORY
Unit 8 Olds Close Olds Approach
Watford Herts WD18 9RU
Tel: 01923 711 288
Email: James@k4soils.com

Checked and Approved

Initials: J.P

Date: 06/08/2024

2519

Approved Signatories: K.Phaure (Tech.Mgr) J.Phaure (Lab.Mgr)

MSF-5-R16

Appendix E – Chemical Results and Screening Assessment



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

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

e: matthew@tp-regen.co.uk

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

Analytical Report Number : 24-033697

Project / Site name:	New Farm, Alderton	Samples received on:	31/07/2024
Your job number:	CS 2253	Samples instructed on/ Analysis started on:	31/07/2024
Your order number:	19365 CS 2253	Analysis completed by:	08/08/2024
Report Issue Number:	1	Report issued on:	08/08/2024
Samples Analysed:	13 soil samples		

Signed: 

Joanna Szwagrzak
Reporting Specialist
For & on behalf of i2 Analytical Ltd.

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

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

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

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

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

Analytical Report Number: 24-033697
 Project / Site name: New Farm, Alderton
 Your Order No: 19365 CS 2253

Lab Sample Number				273433	273434	273435	273436	273437
Sample Reference				TP01	TP01	TP02	TP02	TP03
Sample Number				1	2	1	2	1
Depth (m)				0.10-0.15	0.30-0.40	0.10-0.20	0.30-0.40	0.10-0.20
Date Sampled				30/07/2024	30/07/2024	30/07/2024	30/07/2024	30/07/2024
Time Taken				None Supplied	None Supplied	None Supplied	None Supplied	None Supplied
Analytical Parameter (Soil Analysis)				Units	Test Limit of detection	Test Accreditation Status		

Stone Content	%	0.1	NONE	80.1	< 0.1	< 0.1	< 0.1	63.1
Moisture Content	%	0.01	NONE	4.1	19	16	17	5.9
Total mass of sample received	kg	0.1	NONE	1.4	0.5	0.5	0.5	0.6

Asbestos

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

General Inorganics

pH (L099)	pH Units	N/A	MCERTS	8.3	7.9	7.8	8.1	8.6
Water Soluble Sulphate as SO ₄ 16hr extraction (2:1)	mg/kg	2.5	MCERTS	32	21	11	7.3	14
Water Soluble SO ₄ 16hr extraction (2:1 Leachate Equivalent)	mg/l	1.25	MCERTS	16.2	10.5	5.25	3.66	6.74
Organic Matter (automated)	%	0.1	MCERTS	1.7	1.1	1.5	0.5	0.9
Total Organic Carbon (TOC) - Automated	%	0.1	MCERTS	1	0.6	0.9	0.3	0.5

Total Phenols

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

Naphthalene	mg/kg	0.05	MCERTS	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
Acenaphthylene	mg/kg	0.05	MCERTS	0.08	< 0.05	< 0.05	< 0.05	< 0.05
Acenaphthene	mg/kg	0.05	MCERTS	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
Fluorene	mg/kg	0.05	MCERTS	0.1	< 0.05	< 0.05	< 0.05	< 0.05
Phenanthrene	mg/kg	0.05	MCERTS	0.55	< 0.05	< 0.05	< 0.05	0.11
Anthracene	mg/kg	0.05	MCERTS	0.2	< 0.05	< 0.05	< 0.05	< 0.05
Fluoranthene	mg/kg	0.05	MCERTS	1.3	< 0.05	< 0.05	< 0.05	0.61
Pyrene	mg/kg	0.05	MCERTS	1.1	< 0.05	< 0.05	< 0.05	0.63
Benzo(a)anthracene	mg/kg	0.05	MCERTS	0.77	< 0.05	< 0.05	< 0.05	0.45
Chrysene	mg/kg	0.05	MCERTS	0.65	< 0.05	< 0.05	< 0.05	0.43
Benzo(b)fluoranthene	mg/kg	0.05	ISO 17025	0.93	< 0.05	< 0.05	< 0.05	0.73
Benzo(k)fluoranthene	mg/kg	0.05	ISO 17025	0.44	< 0.05	< 0.05	< 0.05	0.27
Benzo(a)pyrene	mg/kg	0.05	MCERTS	0.85	< 0.05	< 0.05	< 0.05	0.58
Indeno(1,2,3-cd)pyrene	mg/kg	0.05	MCERTS	0.41	< 0.05	< 0.05	< 0.05	0.37
Dibenz(a,h)anthracene	mg/kg	0.05	MCERTS	0.09	< 0.05	< 0.05	< 0.05	0.09
Benzo(ghi)perylene	mg/kg	0.05	MCERTS	0.4	< 0.05	< 0.05	< 0.05	0.45

Total PAH

Speciated Total EPA-16 PAHs	mg/kg	0.8	ISO 17025	7.87	< 0.80	< 0.80	< 0.80	4.72
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Analytical Report Number: 24-033697
Project / Site name: New Farm, Alderton
Your Order No: 19365 CS 2253

Lab Sample Number				273433	273434	273435	273436	273437
Sample Reference				TP01	TP01	TP02	TP02	TP03
Sample Number				1	2	1	2	1
Depth (m)				0.10-0.15	0.30-0.40	0.10-0.20	0.30-0.40	0.10-0.20
Date Sampled				30/07/2024	30/07/2024	30/07/2024	30/07/2024	30/07/2024
Time Taken				None Supplied	None Supplied	None Supplied	None Supplied	None Supplied
Analytical Parameter (Soil Analysis)				Units	Test Limit of detection	Test Accreditation Status		

Heavy Metals / Metalloids

Arsenic (aqua regia extractable)	mg/kg	1	MCERTS	9.5	16	42	12	4.9
Beryllium (aqua regia extractable)	mg/kg	0.06	MCERTS	0.41	1.4	1.6	0.47	0.26
Boron (water soluble)	mg/kg	0.2	MCERTS	0.6	0.5	0.6	0.6	0.3
Cadmium (aqua regia extractable)	mg/kg	0.2	MCERTS	0.6	< 0.2	< 0.2	< 0.2	< 0.2
Chromium (hexavalent)	mg/kg	1.8	MCERTS	< 1.8	< 1.8	< 1.8	< 1.8	< 1.8
Chromium (aqua regia extractable)	mg/kg	1	MCERTS	9.6	31	31	11	6.2
Copper (aqua regia extractable)	mg/kg	1	MCERTS	8.1	15	20	8.6	3.7
Lead (aqua regia extractable)	mg/kg	1	MCERTS	30	20	31	15	8.5
Mercury (aqua regia extractable)	mg/kg	0.3	MCERTS	< 0.3	< 0.3	< 0.3	< 0.3	< 0.3
Nickel (aqua regia extractable)	mg/kg	1	MCERTS	8	31	38	14	5.1
Selenium (aqua regia extractable)	mg/kg	1	MCERTS	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Vanadium (aqua regia extractable)	mg/kg	1	MCERTS	19	46	60	19	14
Zinc (aqua regia extractable)	mg/kg	1	MCERTS	94	67	84	35	24

Pesticides

Alpha-BHC (Benzene Hexachloride)	µg/kg	10	NONE	-	-	< 10	-	-
Alachlor	µg/kg	10	NONE	-	-	< 10	-	-
Bifenthrin	µg/kg	10	NONE	-	-	< 10	-	-
Cyhalothrin (Lambda)	µg/kg	10	NONE	-	-	< 10	-	-
Gamma-BHC (Lindane, gamma HCH)	µg/kg	10	NONE	-	-	< 10	-	-
Omethoate	µg/kg	10	NONE	-	-	< 10	-	-
1,2,3-Trichlorobenzene	µg/kg	10	NONE	-	-	< 10	-	-
1,3,5-Trichlorobenzene	µg/kg	10	NONE	-	-	< 10	-	-
2,6-Dichlorobenzonitrile	µg/kg	10	NONE	-	-	< 10	-	-
Dimethylvinphos	µg/kg	10	NONE	-	-	< 10	-	-
Demeton-O	µg/kg	10	NONE	-	-	< 10	-	-
Demeton-S	µg/kg	10	NONE	-	-	< 10	-	-
Endrin Aldehyde	µg/kg	10	NONE	-	-	< 10	-	-
Endrin Ketone	µg/kg	10	NONE	-	-	< 10	-	-
Hexachlorobutadiene	µg/kg	10	NONE	-	-	< 10	-	-
Phosphamidon (Sum)	µg/kg	10	NONE	-	-	< 10	-	-
1,2,4,5-Tetrachlorobenzene	µg/kg	10	NONE	-	-	< 10	-	-
Cis-Permethrin	µg/kg	10	NONE	-	-	< 10	-	-
Endosulfan sulfate	µg/kg	10	NONE	-	-	< 10	-	-
Etrifos	µg/kg	10	NONE	-	-	< 10	-	-
Fenvalerate (Sum)	µg/kg	10	NONE	-	-	< 10	-	-
Hexachlorobenzene	µg/kg	10	NONE	-	-	< 10	-	-
Mevinphos, E+Z	µg/kg	10	NONE	-	-	< 10	-	-
Pentachlorobenzene	µg/kg	10	NONE	-	-	< 10	-	-
Pirimiphos-ethyl	µg/kg	10	NONE	-	-	< 10	-	-
Propetamphos	µg/kg	10	NONE	-	-	< 10	-	-
Tecnazene	µg/kg	10	NONE	-	-	< 10	-	-
Triadimefon	µg/kg	10	NONE	-	-	< 10	-	-
Trans-Permethrin	µg/kg	10	NONE	-	-	< 10	-	-
Aldrin	µg/kg	10	NONE	-	-	< 10	-	-
Azinphos-methyl	µg/kg	10	NONE	-	-	< 10	-	-
Beta-BHC	µg/kg	10	NONE	-	-	< 10	-	-
Cis-Chlordane	µg/kg	10	NONE	-	-	< 10	-	-
Chlorfenvinphos	µg/kg	10	NONE	-	-	< 10	-	-
Chlorpyrifos	µg/kg	10	NONE	-	-	< 10	-	-
Chlorothalonil	µg/kg	10	NONE	-	-	< 10	-	-

Analytical Report Number: 24-033697
 Project / Site name: New Farm, Alderton
 Your Order No: 19365 CS 2253

Lab Sample Number				273433	273434	273435	273436	273437
Sample Reference				TP01	TP01	TP02	TP02	TP03
Sample Number				1	2	1	2	1
Depth (m)				0.10-0.15	0.30-0.40	0.10-0.20	0.30-0.40	0.10-0.20
Date Sampled				30/07/2024	30/07/2024	30/07/2024	30/07/2024	30/07/2024
Time Taken				None Supplied	None Supplied	None Supplied	None Supplied	None Supplied
Analytical Parameter (Soil Analysis)	Units	Test Limit of detection	Test Accreditation Status					
Carbophenothion	µg/kg	10	NONE	-	-	< 10	-	-
Cyfluthrin (Sum)	µg/kg	10	NONE	-	-	< 10	-	-
Delta-BHC	µg/kg	10	NONE	-	-	< 10	-	-
Dieldrin	µg/kg	10	NONE	-	-	< 10	-	-
Deltamethrin	µg/kg	10	NONE	-	-	< 10	-	-
Heptachlor Exo-epoxide	µg/kg	10	NONE	-	-	< 10	-	-
Endrin	µg/kg	10	NONE	-	-	< 10	-	-
Endosulfan I (alpha isomer)	µg/kg	10	NONE	-	-	< 10	-	-
Endosulfan II (beta isomer)	µg/kg	10	NONE	-	-	< 10	-	-
Fenthion	µg/kg	10	NONE	-	-	< 10	-	-
Isodrin	µg/kg	10	NONE	-	-	< 10	-	-
Methacrifos	µg/kg	10	NONE	-	-	< 10	-	-
O,p'-DDD	µg/kg	10	NONE	-	-	< 10	-	-
O,p'-DDE	µg/kg	10	NONE	-	-	< 10	-	-
O,p'-DDT	µg/kg	10	NONE	-	-	< 10	-	-
Parathion	µg/kg	10	NONE	-	-	< 10	-	-
Parathion-methyl	µg/kg	10	NONE	-	-	< 10	-	-
Pendimethalin	µg/kg	10	NONE	-	-	< 10	-	-
Phorate	µg/kg	10	NONE	-	-	< 10	-	-
Phosalone	µg/kg	10	NONE	-	-	< 10	-	-
P,p'-DDD	µg/kg	10	NONE	-	-	< 10	-	-
P,p'-DDE	µg/kg	10	NONE	-	-	< 10	-	-
P,p'-DDT	µg/kg	10	NONE	-	-	< 10	-	-
P,p'-Methoxychlor	µg/kg	10	NONE	-	-	< 10	-	-
Propyzamide	µg/kg	10	NONE	-	-	< 10	-	-
Triazophos	µg/kg	10	NONE	-	-	< 10	-	-
Trans-Chlordane	µg/kg	10	NONE	-	-	< 10	-	-
Cypermethrin (Sum)	µg/kg	10	NONE	-	-	< 10	-	-
Dichlorvos	µg/kg	10	NONE	-	-	< 10	-	-
Dimethoate	µg/kg	10	NONE	-	-	< 10	-	-
Diazinon	µg/kg	10	NONE	-	-	< 10	-	-
Ethion	µg/kg	10	NONE	-	-	< 10	-	-
Fenitrothion	µg/kg	10	NONE	-	-	< 10	-	-
Malathion	µg/kg	10	NONE	-	-	< 10	-	-
Pirimiphos-methyl	µg/kg	10	NONE	-	-	< 10	-	-
Trifluralin	µg/kg	10	NONE	-	-	< 10	-	-
Azinphos-ethyl	µg/kg	10	NONE	-	-	< 10	-	-

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

Analytical Report Number: 24-033697
 Project / Site name: New Farm, Alderton
 Your Order No: 19365 CS 2253

Lab Sample Number				273438	273439	273440	273441	273442
Sample Reference				TP03	TP03	TP04	TP04	TP05
Sample Number				2	3	1	2	1
Depth (m)				0.30-0.40	0.50-0.60	0.10-0.20	0.80-0.90	0.10-0.20
Date Sampled				30/07/2024	30/07/2024	30/07/2024	30/07/2024	30/07/2024
Time Taken				None Supplied	None Supplied	None Supplied	None Supplied	None Supplied
Analytical Parameter (Soil Analysis)				Units	Test Limit of detection	Test Accreditation Status		

Stone Content	%	0.1	NONE	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1
Moisture Content	%	0.01	NONE	20	21	6.5	21	7.6
Total mass of sample received	kg	0.1	NONE	1.1	0.3	0.3	0.3	1.2

Asbestos

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

General Inorganics

pH (L099)	pH Units	N/A	MCERTS	8	8	8.6	8	8.6
Water Soluble Sulphate as SO ₄ 16hr extraction (2:1)	mg/kg	2.5	MCERTS	46	32	230	110	180
Water Soluble SO ₄ 16hr extraction (2:1 Leachate Equivalent)	mg/l	1.25	MCERTS	23.1	15.9	117	54.1	91.1
Organic Matter (automated)	%	0.1	MCERTS	4.5	0.9	6.6	2.8	2.6
Total Organic Carbon (TOC) - Automated	%	0.1	MCERTS	2.6	0.5	3.8	1.6	1.5

Total Phenols

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

Naphthalene	mg/kg	0.05	MCERTS	< 0.05	< 0.05	9.1	< 0.05	0.15
Acenaphthylene	mg/kg	0.05	MCERTS	< 0.05	< 0.05	5.4	< 0.05	0.09
Acenaphthene	mg/kg	0.05	MCERTS	< 0.05	< 0.05	12	< 0.05	0.44
Fluorene	mg/kg	0.05	MCERTS	< 0.05	< 0.05	16	< 0.05	0.63
Phenanthrene	mg/kg	0.05	MCERTS	< 0.05	< 0.05	86	0.05	5.1
Anthracene	mg/kg	0.05	MCERTS	< 0.05	< 0.05	30	< 0.05	1.7
Fluoranthene	mg/kg	0.05	MCERTS	0.09	< 0.05	150	0.06	8.7
Pyrene	mg/kg	0.05	MCERTS	0.11	< 0.05	130	0.08	6.9
Benzo(a)anthracene	mg/kg	0.05	MCERTS	< 0.05	< 0.05	69	< 0.05	3.5
Chrysene	mg/kg	0.05	MCERTS	0.08	< 0.05	73	< 0.05	3.8
Benzo(b)fluoranthene	mg/kg	0.05	ISO 17025	0.1	< 0.05	85	< 0.05	4
Benzo(k)fluoranthene	mg/kg	0.05	ISO 17025	< 0.05	< 0.05	33	< 0.05	2.1
Benzo(a)pyrene	mg/kg	0.05	MCERTS	0.07	< 0.05	67	< 0.05	3.9
Indeno(1,2,3-cd)pyrene	mg/kg	0.05	MCERTS	< 0.05	< 0.05	37	< 0.05	2.1
Dibenz(a,h)anthracene	mg/kg	0.05	MCERTS	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
Benzo(ghi)perylene	mg/kg	0.05	MCERTS	0.07	< 0.05	39	< 0.05	2.2

Total PAH

Speciated Total EPA-16 PAHs	mg/kg	0.8	ISO 17025	< 0.80	< 0.80	841	< 0.80	45.3
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Analytical Report Number: 24-033697
 Project / Site name: New Farm, Alderton
 Your Order No: 19365 CS 2253

Lab Sample Number				273438	273439	273440	273441	273442
Sample Reference				TP03	TP03	TP04	TP04	TP05
Sample Number				2	3	1	2	1
Depth (m)				0.30-0.40	0.50-0.60	0.10-0.20	0.80-0.90	0.10-0.20
Date Sampled				30/07/2024	30/07/2024	30/07/2024	30/07/2024	30/07/2024
Time Taken				None Supplied	None Supplied	None Supplied	None Supplied	None Supplied
Analytical Parameter (Soil Analysis)				Units	Test Limit of detection	Test Accreditation Status		

Heavy Metals / Metalloids

Arsenic (aqua regia extractable)	mg/kg	1	MCERTS	17	20	13	17	9.6
Beryllium (aqua regia extractable)	mg/kg	0.06	MCERTS	1.2	2	0.56	1.4	0.39
Boron (water soluble)	mg/kg	0.2	MCERTS	2.5	1.1	1.2	0.5	0.7
Cadmium (aqua regia extractable)	mg/kg	0.2	MCERTS	< 0.2	< 0.2	0.6	< 0.2	< 0.2
Chromium (hexavalent)	mg/kg	1.8	MCERTS	< 1.8	< 1.8	< 1.8	< 1.8	< 1.8
Chromium (aqua regia extractable)	mg/kg	1	MCERTS	25	33	12	32	9.7
Copper (aqua regia extractable)	mg/kg	1	MCERTS	33	14	17	20	6.6
Lead (aqua regia extractable)	mg/kg	1	MCERTS	46	19	62	36	19
Mercury (aqua regia extractable)	mg/kg	0.3	MCERTS	< 0.3	< 0.3	< 0.3	< 0.3	< 0.3
Nickel (aqua regia extractable)	mg/kg	1	MCERTS	23	34	10	27	8.2
Selenium (aqua regia extractable)	mg/kg	1	MCERTS	< 1.0	< 1.0	1.1	< 1.0	1.4
Vanadium (aqua regia extractable)	mg/kg	1	MCERTS	41	47	23	51	22
Zinc (aqua regia extractable)	mg/kg	1	MCERTS	120	45	97	74	37

Pesticides

Alpha-BHC (Benzene Hexachloride)	µg/kg	10	NONE	-	-	-	-	-
Alachlor	µg/kg	10	NONE	-	-	-	-	-
Bifenthrin	µg/kg	10	NONE	-	-	-	-	-
Cyhalothrin (Lambda)	µg/kg	10	NONE	-	-	-	-	-
Gamma-BHC (Lindane, gamma HCH)	µg/kg	10	NONE	-	-	-	-	-
Omethoate	µg/kg	10	NONE	-	-	-	-	-
1,2,3-Trichlorobenzene	µg/kg	10	NONE	-	-	-	-	-
1,3,5-Trichlorobenzene	µg/kg	10	NONE	-	-	-	-	-
2,6-Dichlorobenzonitrile	µg/kg	10	NONE	-	-	-	-	-
Dimethylvinphos	µg/kg	10	NONE	-	-	-	-	-
Demeton-O	µg/kg	10	NONE	-	-	-	-	-
Demeton-S	µg/kg	10	NONE	-	-	-	-	-
Endrin Aldehyde	µg/kg	10	NONE	-	-	-	-	-
Endrin Ketone	µg/kg	10	NONE	-	-	-	-	-
Hexachlorobutadiene	µg/kg	10	NONE	-	-	-	-	-
Phosphamidon (Sum)	µg/kg	10	NONE	-	-	-	-	-
1,2,4,5-Tetrachlorobenzene	µg/kg	10	NONE	-	-	-	-	-
Cis-Permethrin	µg/kg	10	NONE	-	-	-	-	-
Endosulfan sulfate	µg/kg	10	NONE	-	-	-	-	-
Etrifos	µg/kg	10	NONE	-	-	-	-	-
Fenvalerate (Sum)	µg/kg	10	NONE	-	-	-	-	-
Hexachlorobenzene	µg/kg	10	NONE	-	-	-	-	-
Mevinphos, E+Z	µg/kg	10	NONE	-	-	-	-	-
Pentachlorobenzene	µg/kg	10	NONE	-	-	-	-	-
Pirimiphos-ethyl	µg/kg	10	NONE	-	-	-	-	-
Propetamphos	µg/kg	10	NONE	-	-	-	-	-
Tecnazene	µg/kg	10	NONE	-	-	-	-	-
Triadimefon	µg/kg	10	NONE	-	-	-	-	-
Trans-Permethrin	µg/kg	10	NONE	-	-	-	-	-
Aldrin	µg/kg	10	NONE	-	-	-	-	-
Azinphos-methyl	µg/kg	10	NONE	-	-	-	-	-
Beta-BHC	µg/kg	10	NONE	-	-	-	-	-
Cis-Chlordane	µg/kg	10	NONE	-	-	-	-	-
Chlorfenvinphos	µg/kg	10	NONE	-	-	-	-	-
Chlorpyrifos	µg/kg	10	NONE	-	-	-	-	-
Chlorothalonil	µg/kg	10	NONE	-	-	-	-	-



Analytical Report Number: 24-033697
 Project / Site name: New Farm, Alderton
 Your Order No: 19365 CS 2253

Lab Sample Number				273438	273439	273440	273441	273442
Sample Reference				TP03	TP03	TP04	TP04	TP05
Sample Number				2	3	1	2	1
Depth (m)				0.30-0.40	0.50-0.60	0.10-0.20	0.80-0.90	0.10-0.20
Date Sampled				30/07/2024	30/07/2024	30/07/2024	30/07/2024	30/07/2024
Time Taken				None Supplied	None Supplied	None Supplied	None Supplied	None Supplied
Analytical Parameter (Soil Analysis)	Units	Test Limit of detection	Test Accreditation Status					
Carbophenothion	µg/kg	10	NONE	-	-	-	-	-
Cyfluthrin (Sum)	µg/kg	10	NONE	-	-	-	-	-
Delta-BHC	µg/kg	10	NONE	-	-	-	-	-
Dieldrin	µg/kg	10	NONE	-	-	-	-	-
Deltamethrin	µg/kg	10	NONE	-	-	-	-	-
Heptachlor Exo-epoxide	µg/kg	10	NONE	-	-	-	-	-
Endrin	µg/kg	10	NONE	-	-	-	-	-
Endosulfan I (alpha isomer)	µg/kg	10	NONE	-	-	-	-	-
Endosulfan II (beta isomer)	µg/kg	10	NONE	-	-	-	-	-
Fenthion	µg/kg	10	NONE	-	-	-	-	-
Isodrin	µg/kg	10	NONE	-	-	-	-	-
Methacrifos	µg/kg	10	NONE	-	-	-	-	-
O,p'-DDD	µg/kg	10	NONE	-	-	-	-	-
O,p'-DDE	µg/kg	10	NONE	-	-	-	-	-
O,p'-DDT	µg/kg	10	NONE	-	-	-	-	-
Parathion	µg/kg	10	NONE	-	-	-	-	-
Parathion-methyl	µg/kg	10	NONE	-	-	-	-	-
Pendimethalin	µg/kg	10	NONE	-	-	-	-	-
Phorate	µg/kg	10	NONE	-	-	-	-	-
Phosalone	µg/kg	10	NONE	-	-	-	-	-
P,p'-DDD	µg/kg	10	NONE	-	-	-	-	-
P,p'-DDE	µg/kg	10	NONE	-	-	-	-	-
P,p'-DDT	µg/kg	10	NONE	-	-	-	-	-
P,p'-Methoxychlor	µg/kg	10	NONE	-	-	-	-	-
Propyzamide	µg/kg	10	NONE	-	-	-	-	-
Triazophos	µg/kg	10	NONE	-	-	-	-	-
Trans-Chlordane	µg/kg	10	NONE	-	-	-	-	-
Cypermethrin (Sum)	µg/kg	10	NONE	-	-	-	-	-
Dichlorvos	µg/kg	10	NONE	-	-	-	-	-
Dimethoate	µg/kg	10	NONE	-	-	-	-	-
Diazinon	µg/kg	10	NONE	-	-	-	-	-
Ethion	µg/kg	10	NONE	-	-	-	-	-
Fenitrothion	µg/kg	10	NONE	-	-	-	-	-
Malathion	µg/kg	10	NONE	-	-	-	-	-
Pirimiphos-methyl	µg/kg	10	NONE	-	-	-	-	-
Trifluralin	µg/kg	10	NONE	-	-	-	-	-
Azinphos-ethyl	µg/kg	10	NONE	-	-	-	-	-

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

Analytical Report Number: 24-033697
 Project / Site name: New Farm, Alderton
 Your Order No: 19365 CS 2253

Lab Sample Number				273443	273444	273445
Sample Reference				TP05	TP06	TP06
Sample Number				2	1	2
Depth (m)				0.70-0.80	0.10-0.20	0.30-0.40
Date Sampled				30/07/2024	30/07/2024	30/07/2024
Time Taken				None Supplied	None Supplied	None Supplied
Analytical Parameter (Soil Analysis)				Units	Test Limit of detection	Test Accreditation Status

Stone Content	%	0.1	NONE	< 0.1	< 0.1	< 0.1
Moisture Content	%	0.01	NONE	21	12	14
Total mass of sample received	kg	0.1	NONE	0.5	1.2	0.4

Asbestos

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

General Inorganics

pH (L099)	pH Units	N/A	MCERTS	8.2	9.6	8.7
Water Soluble Sulphate as SO ₄ 16hr extraction (2:1)	mg/kg	2.5	MCERTS	240	300	53
Water Soluble SO ₄ 16hr extraction (2:1 Leachate Equivalent)	mg/l	1.25	MCERTS	121	149	26.4
Organic Matter (automated)	%	0.1	MCERTS	2	1.3	0.5
Total Organic Carbon (TOC) - Automated	%	0.1	MCERTS	1.1	0.8	0.3

Total Phenols

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

Naphthalene	mg/kg	0.05	MCERTS	< 0.05	< 0.05	< 0.05
Acenaphthylene	mg/kg	0.05	MCERTS	< 0.05	< 0.05	< 0.05
Acenaphthene	mg/kg	0.05	MCERTS	< 0.05	< 0.05	< 0.05
Fluorene	mg/kg	0.05	MCERTS	< 0.05	< 0.05	< 0.05
Phenanthrene	mg/kg	0.05	MCERTS	< 0.05	0.06	< 0.05
Anthracene	mg/kg	0.05	MCERTS	< 0.05	< 0.05	< 0.05
Fluoranthene	mg/kg	0.05	MCERTS	< 0.05	0.17	< 0.05
Pyrene	mg/kg	0.05	MCERTS	< 0.05	< 0.05	< 0.05
Benzo(a)anthracene	mg/kg	0.05	MCERTS	< 0.05	0.15	< 0.05
Chrysene	mg/kg	0.05	MCERTS	< 0.05	0.2	< 0.05
Benzo(b)fluoranthene	mg/kg	0.05	ISO 17025	< 0.05	0.26	< 0.05
Benzo(k)fluoranthene	mg/kg	0.05	ISO 17025	< 0.05	< 0.05	< 0.05
Benzo(a)pyrene	mg/kg	0.05	MCERTS	< 0.05	0.24	< 0.05
Indeno(1,2,3-cd)pyrene	mg/kg	0.05	MCERTS	< 0.05	0.1	< 0.05
Dibenz(a,h)anthracene	mg/kg	0.05	MCERTS	< 0.05	< 0.05	< 0.05
Benzo(ghi)perylene	mg/kg	0.05	MCERTS	< 0.05	0.11	< 0.05

Total PAH

Speciated Total EPA-16 PAHs	mg/kg	0.8	ISO 17025	< 0.80	1.29	< 0.80
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Analytical Report Number: 24-033697
Project / Site name: New Farm, Alderton
Your Order No: 19365 CS 2253

Lab Sample Number				273443	273444	273445
Sample Reference				TP05	TP06	TP06
Sample Number				2	1	2
Depth (m)				0.70-0.80	0.10-0.20	0.30-0.40
Date Sampled				30/07/2024	30/07/2024	30/07/2024
Time Taken				None Supplied	None Supplied	None Supplied
Analytical Parameter (Soil Analysis)				Units	Test Limit of detection	Test Accreditation Status

Heavy Metals / Metalloids

Arsenic (aqua regia extractable)	mg/kg	1	MCERTS	10	16	9.8
Beryllium (aqua regia extractable)	mg/kg	0.06	MCERTS	1.1	0.7	0.83
Boron (water soluble)	mg/kg	0.2	MCERTS	0.8	0.6	1.3
Cadmium (aqua regia extractable)	mg/kg	0.2	MCERTS	< 0.2	< 0.2	< 0.2
Chromium (hexavalent)	mg/kg	1.8	MCERTS	< 1.8	< 1.8	< 1.8
Chromium (aqua regia extractable)	mg/kg	1	MCERTS	24	17	20
Copper (aqua regia extractable)	mg/kg	1	MCERTS	11	8	12
Lead (aqua regia extractable)	mg/kg	1	MCERTS	15	12	8.6
Mercury (aqua regia extractable)	mg/kg	0.3	MCERTS	< 0.3	< 0.3	< 0.3
Nickel (aqua regia extractable)	mg/kg	1	MCERTS	23	16	18
Selenium (aqua regia extractable)	mg/kg	1	MCERTS	< 1.0	< 1.0	< 1.0
Vanadium (aqua regia extractable)	mg/kg	1	MCERTS	35	29	25
Zinc (aqua regia extractable)	mg/kg	1	MCERTS	64	44	38

Pesticides

Alpha-BHC (Benzene Hexachloride)	µg/kg	10	NONE	-	-	-
Alachlor	µg/kg	10	NONE	-	-	-
Bifenthrin	µg/kg	10	NONE	-	-	-
Cyhalothrin (Lambda)	µg/kg	10	NONE	-	-	-
Gamma-BHC (Lindane, gamma HCH)	µg/kg	10	NONE	-	-	-
Omethoate	µg/kg	10	NONE	-	-	-
1,2,3-Trichlorobenzene	µg/kg	10	NONE	-	-	-
1,3,5-Trichlorobenzene	µg/kg	10	NONE	-	-	-
2,6-Dichlorobenzonitrile	µg/kg	10	NONE	-	-	-
Dimethylvinphos	µg/kg	10	NONE	-	-	-
Demeton-O	µg/kg	10	NONE	-	-	-
Demeton-S	µg/kg	10	NONE	-	-	-
Endrin Aldehyde	µg/kg	10	NONE	-	-	-
Endrin Ketone	µg/kg	10	NONE	-	-	-
Hexachlorobutadiene	µg/kg	10	NONE	-	-	-
Phosphamidon (Sum)	µg/kg	10	NONE	-	-	-
1,2,4,5-Tetrachlorobenzene	µg/kg	10	NONE	-	-	-
Cis-Permethrin	µg/kg	10	NONE	-	-	-
Endosulfan sulfate	µg/kg	10	NONE	-	-	-
Etrifos	µg/kg	10	NONE	-	-	-
Fenvalerate (Sum)	µg/kg	10	NONE	-	-	-
Hexachlorobenzene	µg/kg	10	NONE	-	-	-
Mevinphos, E+Z	µg/kg	10	NONE	-	-	-
Pentachlorobenzene	µg/kg	10	NONE	-	-	-
Pirimiphos-ethyl	µg/kg	10	NONE	-	-	-
Propetamphos	µg/kg	10	NONE	-	-	-
Tecnazene	µg/kg	10	NONE	-	-	-
Triadimefon	µg/kg	10	NONE	-	-	-
Trans-Permethrin	µg/kg	10	NONE	-	-	-
Aldrin	µg/kg	10	NONE	-	-	-
Azinphos-methyl	µg/kg	10	NONE	-	-	-
Beta-BHC	µg/kg	10	NONE	-	-	-
Cis-Chlordane	µg/kg	10	NONE	-	-	-
Chlorfenvinphos	µg/kg	10	NONE	-	-	-
Chlorpyrifos	µg/kg	10	NONE	-	-	-
Chlorothalonil	µg/kg	10	NONE	-	-	-

Analytical Report Number: 24-033697
 Project / Site name: New Farm, Alderton
 Your Order No: 19365 CS 2253

Lab Sample Number				273443	273444	273445
Sample Reference				TP05	TP06	TP06
Sample Number				2	1	2
Depth (m)				0.70-0.80	0.10-0.20	0.30-0.40
Date Sampled				30/07/2024	30/07/2024	30/07/2024
Time Taken				None Supplied	None Supplied	None Supplied
Analytical Parameter (Soil Analysis)	Units	Test Limit of detection	Test Accreditation Status			
Carbophenothion	µg/kg	10	NONE	-	-	-
Cyfluthrin (Sum)	µg/kg	10	NONE	-	-	-
Delta-BHC	µg/kg	10	NONE	-	-	-
Dieldrin	µg/kg	10	NONE	-	-	-
Deltamethrin	µg/kg	10	NONE	-	-	-
Heptachlor Exo-epoxide	µg/kg	10	NONE	-	-	-
Endrin	µg/kg	10	NONE	-	-	-
Endosulfan I (alpha isomer)	µg/kg	10	NONE	-	-	-
Endosulfan II (beta isomer)	µg/kg	10	NONE	-	-	-
Fenthion	µg/kg	10	NONE	-	-	-
Isodrin	µg/kg	10	NONE	-	-	-
Methacrifos	µg/kg	10	NONE	-	-	-
O,p'-DDD	µg/kg	10	NONE	-	-	-
O,p'-DDE	µg/kg	10	NONE	-	-	-
O,p'-DDT	µg/kg	10	NONE	-	-	-
Parathion	µg/kg	10	NONE	-	-	-
Parathion-methyl	µg/kg	10	NONE	-	-	-
Pendimethalin	µg/kg	10	NONE	-	-	-
Phorate	µg/kg	10	NONE	-	-	-
Phosalone	µg/kg	10	NONE	-	-	-
P,p'-DDD	µg/kg	10	NONE	-	-	-
P,p'-DDE	µg/kg	10	NONE	-	-	-
P,p'-DDT	µg/kg	10	NONE	-	-	-
P,p'-Methoxychlor	µg/kg	10	NONE	-	-	-
Propyzamide	µg/kg	10	NONE	-	-	-
Triazophos	µg/kg	10	NONE	-	-	-
Trans-Chlordane	µg/kg	10	NONE	-	-	-
Cypermethrin (Sum)	µg/kg	10	NONE	-	-	-
Dichlorvos	µg/kg	10	NONE	-	-	-
Dimethoate	µg/kg	10	NONE	-	-	-
Diazinon	µg/kg	10	NONE	-	-	-
Ethion	µg/kg	10	NONE	-	-	-
Fenitrothion	µg/kg	10	NONE	-	-	-
Malathion	µg/kg	10	NONE	-	-	-
Pirimiphos-methyl	µg/kg	10	NONE	-	-	-
Trifluralin	µg/kg	10	NONE	-	-	-
Azinphos-ethyl	µg/kg	10	NONE	-	-	-

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



Analytical Report Number : 24-033697

Project / Site name: New Farm, Alderton

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

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

Lab Sample Number	Sample Reference	Sample Number	Depth (m)	Sample Description *
273433	TP01	1	0.10-0.15	Brown loam and gravel with vegetation and stones
273434	TP01	2	0.30-0.40	Brown clay and loam with gravel
273435	TP02	1	0.10-0.20	Brown clay and loam with gravel and vegetation
273436	TP02	2	0.30-0.40	Brown sandy loam with gravel and vegetation
273437	TP03	1	0.10-0.20	Brown loam and gravel with vegetation and stones
273438	TP03	2	0.30-0.40	Brown clay and loam with gravel and vegetation
273439	TP03	3	0.50-0.60	Brown clay and sand
273440	TP04	1	0.10-0.20	Brown loam and clay with gravel and tar
273441	TP04	2	0.80-0.90	Brown loam and clay with gravel and vegetation
273442	TP05	1	0.10-0.20	Brown loam and sand with gravel and vegetation
273443	TP05	2	0.70-0.80	Brown clay with gravel
273444	TP06	1	0.10-0.20	Brown clay and sand with gravel
273445	TP06	2	0.30-0.40	Brown clay and sand with chalk

Analytical Report Number : 24-033697
Project / Site name: New Farm, Alderton

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

Analytical Test Name	Analytical Method Description	Analytical Method Reference	Method number	Wet / Dry Analysis	Accreditation Status
Asbestos identification in Soil	Asbestos Identification with the use of polarised light microscopy in conjunction with dispersion staining techniques	In-house method based on HSG 248, 2021	A001B	D	ISO 17025
Organic matter (Automated) in soil	Determination of organic matter in soil by oxidising with potassium dichromate followed by titration with iron (II) sulphate (Walkley Black Method)	In-house method	L009B	D	MCERTS
Total organic carbon (Automated) in soil	Determination of organic matter in soil by oxidising with potassium dichromate followed by titration with iron (II) sulphate (Walkley Black Method)	In-house method	L009B	D	MCERTS
Moisture Content	Moisture content, determined gravimetrically (up to 30°C)	In-house method	L019B	W	NONE
Stones content of soil	Standard preparation for all samples unless otherwise detailed. Gravimetric determination of stone > 10 mm as % dry weight	In-house method based on British Standard Methods and MCERTS requirements.	L019B	D	NONE
Metals in soil by ICP-OES	Determination of metals in soil by aqua-regia digestion followed by ICP-OES	In-house method based on MEWAM 2006 Methods for the Determination of Metals in Soil	L038B	D	MCERTS
Boron, water soluble, in soil	Determination of water soluble boron in soil by hot water extract followed by ICP-OES	In-house method based on Second Site Properties version 3	L038B	D	MCERTS
Sulphate, water soluble, in soil (16hr extraction)	Sulphate, water soluble, in soil (16hr extraction)	In-house method	L038B	D	MCERTS
Pesticides by GC-MS/MS	Determination of Pesticides in soil by GC MS/MS	In-house method	L055B	W	NONE
Speciated PAHs and/or Semi-volatile organic compounds in soil	Determination of semi-volatile organic compounds (including PAH) in soil by extraction in dichloromethane and hexane followed by GC-MS	In-house method based on USEPA 8270	L064B	D	MCERTS
Hexavalent chromium in soil	Determination of hexavalent chromium in soil by extraction in NaOH and addition of 1,5 diphénylcarbazine followed by colorimetry	In-house method	L080	W	MCERTS
Monohydric phenols in soil	Determination of phenols in soil by extraction with sodium hydroxide followed by distillation followed by colorimetry	In-house method based on Examination of Water and Wastewater 20th Edition: Clesceri, Greenberg & Eaton	L080	W	MCERTS
pH in soil (automated)	Determination of pH in soil by addition of water followed by automated electrometric measurement	In-house method	L099	D	MCERTS

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

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

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

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

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



Analytical Report Number : 24-033697
Project / Site name: New Farm, Alderton

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

Analytical Test Name	Analytical Method Description	Analytical Method Reference	Method number	Wet / Dry Analysis	Accreditation Status
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Quality control parameter failure associated with individual result applies to calculated sum of individuals.
The result for sum should be interpreted with caution

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

CS-2253
HUMAN HEALTH
ASSESSMENT



Min	Max	Count	No. of	Screen	Location ID			TP01		TP02		TP03			TP04		TP05		TP06
Value	Value	Values	Exceed	Level	Depth Top and Base (m)			0.1	0.3	0.1	0.3	0.1	0.3	0.5	0.1	0.8	0.1	0.7	0.1
(mg/kg)	(mg/kg)		-	(mg/kg)	Ref.	Group	Contaminant Reported	0.15	0.4	0.2	0.4	0.2	0.4	0.6	0.2	0.9	0.2	0.8	0.2
4.90	42.00	13	1	37	1.01	Heavy Metals	Arsenic	9.50	16.00	42.00	12.00	4.90	17.00	20.00	13.00	17.00	9.60	10.00	16.00
0.26	2.00	13	1	1.7	1.02	Heavy Metals	Beryllium	0.41	1.40	1.60	0.47	0.26	1.20	2.00	0.56	1.40	0.39	1.10	0.70
0.20	0.60	13	-	22	1.03	Heavy Metals	Cadmium	0.60	0.20	0.20	0.20	0.20	0.20	0.20	0.60	0.20	0.20	0.20	0.20
6.20	33.00	13	-	910	1.04	Heavy Metals	Chromium	9.60	31.00	31.00	11.00	6.20	25.00	33.00	12.00	32.00	9.70	24.00	17.00
8.50	62.00	13	-	200	1.05	Heavy Metals	Lead	30.00	20.00	31.00	15.00	8.50	46.00	19.00	62.00	36.00	19.00	15.00	12.00
0.30	0.30	13	-	40	1.06	Heavy Metals	Mercury	0.30	0.30	0.30	0.30	0.30	0.30	0.30	0.30	0.30	0.30	0.30	0.30
5.10	38.00	13	-	180	1.07	Heavy Metals	Nickel	8.00	31.00	38.00	14.00	5.10	23.00	34.00	10.00	27.00	8.20	23.00	16.00
1.00	1.40	13	-	250	1.08	Heavy Metals	Selenium	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.10	1.00	1.40	1.00	1.00
14.00	60.00	13	-	410	1.09	Heavy Metals	Vanadium	19.00	46.00	60.00	19.00	14.00	41.00	47.00	23.00	51.00	22.00	35.00	29.00
0.30	2.50	13	-	290	2.01	Inorganics	Water Soluble Boron	0.60	0.50	0.60	0.60	0.30	2.50	1.10	1.20	0.50	0.70	0.80	0.60
1.80	1.80	13	-	21	2.02	Inorganics	Hexavalent Chromium	1.80	1.80	1.80	1.80	1.80	1.80	1.80	1.80	1.80	1.80	1.80	1.80
3.70	33.00	13	-	2400	3.01	Phytotoxic Metals	Copper	8.10	15.00	20.00	8.60	3.70	33.00	14.00	17.00	20.00	6.60	11.00	8.00
24.00	120.00	13	-	3700	3.02	Phytotoxic Metals	Zinc	94.00	67.00	84.00	35.00	24.00	120.00	45.00	97.00	74.00	37.00	64.00	44.00
1.00	1.00	13	-	280	4.01	Phenols	Phenol	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
0.05	9.10	13	-	15	5.01	PAHs	Naphthalene	0.05	0.05	0.05	0.05	0.05	0.05	0.05	9.10	0.05	0.15	0.05	0.05
0.05	5.40	13	-	170	5.02	PAHs	Acenaphthylene	0.08	0.05	0.05	0.05	0.05	0.05	0.05	5.40	0.05	0.09	0.05	0.05
0.05	12.00	13	-	210	5.03	PAHs	Acenaphthene	0.05	0.05	0.05	0.05	0.05	0.05	0.05	12.00	0.05	0.44	0.05	0.05
0.05	16.00	13	-	170	5.04	PAHs	Fluorene	0.10	0.05	0.05	0.05	0.05	0.05	0.05	16.00	0.05	0.63	0.05	0.05
0.05	86.00	13	-	95	5.05	PAHs	Phenanthrene	0.55	0.05	0.05	0.05	0.11	0.05	0.05	86.00	0.05	5.10	0.05	0.06
0.05	30.00	13	-	2400	5.06	PAHs	Anthracene	0.20	0.05	0.05	0.05	0.05	0.05	0.05	30.00	0.05	1.70	0.05	0.05
0.05	150.00	13	-	280	5.07	PAHs	Fluoranthene	1.30	0.05	0.05	0.05	0.61	0.09	0.05	150.00	0.06	8.70	0.05	0.17
0.05	130.00	13	-	620	5.08	PAHs	Pyrene	1.10	0.05	0.05	0.05	0.63	0.11	0.05	130.00	0.08	6.90	0.05	0.05
0.05	69.00	13	1	7.2	5.09	PAHs	Benzo[a]anthracene	0.77	0.05	0.05	0.05	0.45	0.05	0.05	69.00	0.05	3.50	0.05	0.15
0.05	73.00	13	1	15	5.10	PAHs	Chrysene	0.65	0.05	0.05	0.05	0.43	0.08	0.05	73.00	0.05	3.80	0.05	0.20
0.05	85.00	13	2	2.6	5.11	PAHs	Benzo[b]fluoranthene	0.93	0.05	0.05	0.05	0.73	0.10	0.05	85.00	0.05	4.00	0.05	0.26
0.05	33.00	13	-	77	5.12	PAHs	Benzo[k]fluoranthene	0.44	0.05	0.05	0.05	0.27	0.05	0.05	33.00	0.05	2.10	0.05	0.05
0.05	67.00	13	1	5	5.13	PAHs	Benzo[a]pyrene	0.85	0.05	0.05	0.05	0.58	0.07	0.05	67.00	0.05	3.90	0.05	0.24
0.05	37.00	13	1	27	5.14	PAHs	Indeno[1,2,3-cd]pyrene	0.41	0.05	0.05	0.05	0.37	0.05	0.05	37.00	0.05	2.10	0.05	0.10
0.05	0.09	13	-	0.24	5.15	PAHs	Dibenz[a,h]anthracene	0.09	0.05	0.05	0.05	0.09	0.05	0.05	0.05	0.05	0.05	0.05	0.05
0.05	39.00	13	-	320	5.16	PAHs	Benzo[ghi]perylene	0.40	0.05	0.05	0.05	0.45	0.07	0.05	39.00	0.05	2.20	0.05	0.11

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

**CS-2253
HUMAN HEALTH
ASSESSMENT**

Min	Max	Count	No. of	Screen	Location ID			TP06
Value	Value	Values	Exceed	Level	Depth Top and Base (m)			0.3
(mg/kg)	(mg/kg)		- ances	(mg/kg)	Ref.	Group	Contaminant Reported	0.4
4.90	42.00	13	1	37	1.01	Heavy Metals	Arsenic	9.80
0.26	2.00	13	1	1.7	1.02	Heavy Metals	Beryllium	0.83
0.20	0.60	13	-	22	1.03	Heavy Metals	Cadmium	0.20
6.20	33.00	13	-	910	1.04	Heavy Metals	Chromium	20.00
8.50	62.00	13	-	200	1.05	Heavy Metals	Lead	8.60
0.30	0.30	13	-	40	1.06	Heavy Metals	Mercury	0.30
5.10	38.00	13	-	180	1.07	Heavy Metals	Nickel	18.00
1.00	1.40	13	-	250	1.08	Heavy Metals	Selenium	1.00
14.00	60.00	13	-	410	1.09	Heavy Metals	Vanadium	25.00
0.30	2.50	13	-	290	2.01	Inorganics	Water Soluble Boron	1.30
1.80	1.80	13	-	21	2.02	Inorganics	Hexavalent Chromium	1.80
3.70	33.00	13	-	2400	3.01	Phytotoxic Metals	Copper	12.00
24.00	120.00	13	-	3700	3.02	Phytotoxic Metals	Zinc	38.00
1.00	1.00	13	-	280	4.01	Phenols	Phenol	1.00
0.05	9.10	13	-	15	5.01	PAHs	Naphthalene	0.05
0.05	5.40	13	-	170	5.02	PAHs	Acenaphthylene	0.05
0.05	12.00	13	-	210	5.03	PAHs	Acenaphthene	0.05
0.05	16.00	13	-	170	5.04	PAHs	Fluorene	0.05
0.05	86.00	13	-	95	5.05	PAHs	Phenanthrene	0.05
0.05	30.00	13	-	2400	5.06	PAHs	Anthracene	0.05
0.05	150.00	13	-	280	5.07	PAHs	Fluoranthene	0.05
0.05	130.00	13	-	620	5.08	PAHs	Pyrene	0.05
0.05	69.00	13	1	7.2	5.09	PAHs	Benzo[a]anthracene	0.05
0.05	73.00	13	1	15	5.10	PAHs	Chrysene	0.05
0.05	85.00	13	2	2.6	5.11	PAHs	Benzo[b]fluoranthene	0.05
0.05	33.00	13	-	77	5.12	PAHs	Benzo[k]fluoranthene	0.05
0.05	67.00	13	1	5	5.13	PAHs	Benzo[a]pyrene	0.05
0.05	37.00	13	1	27	5.14	PAHs	Indeno[1,2,3-cd]pyrene	0.05
0.05	0.09	13	-	0.24	5.15	PAHs	Dibenz[a,h]anthracene	0.05
0.05	39.00	13	-	320	5.16	PAHs	Benzo[ghi]perylene	0.05

End Use Scenario
Phytotoxic

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

CS-2253
PHYTOTOXIC
REPORT



Min Value	Max Value	Count Values	No. of Exceed - ances	Screen Level	Location ID			TP01		TP02		TP03			TP04		TP05		TP06
					Depth Top and Base			0.1	0.3	0.1	0.3	0.1	0.3	0.5	0.1	0.8	0.1	0.7	0.1
					Ref.	Group	Contaminant Reported	0.15	0.4	0.2	0.4	0.2	0.4	0.6	0.2	0.9	0.2	0.8	0.2
0.20	0.60	13	-	8	1.03	Heavy Metals	Cadmium	0.60	0.20	0.20	0.20	0.20	0.20	0.20	0.60	0.20	0.20	0.20	0.20
6.20	33.00	13	-	154	1.04	Heavy Metals	Chromium	9.60	31.00	31.00	11.00	6.20	25.00	33.00	12.00	32.00	9.70	24.00	17.00
0.30	0.30	13	-	28	1.06	Heavy Metals	Mercury	0.30	0.30	0.30	0.30	0.30	0.30	0.30	0.30	0.30	0.30	0.30	0.30
5.10	38.00	13	-	70	1.07	Heavy Metals	Nickel	8.00	31.00	38.00	14.00	5.10	23.00	34.00	10.00	27.00	8.20	23.00	16.00
1.00	1.40	13	-	10	1.08	Heavy Metals	Selenium	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.10	1.00	1.40	1.00	1.00
0.30	2.50	13	-	3	2.01	Inorganics	Water Soluble Boron	0.60	0.50	0.60	0.60	0.30	2.50	1.10	1.20	0.50	0.70	0.80	0.60
3.70	33.00	13	-	130	3.01	Phytotoxic Metals	Copper	8.10	15.00	20.00	8.60	3.70	33.00	14.00	17.00	20.00	6.60	11.00	8.00
24.00	120.00	13	-	300	3.02	Phytotoxic Metals	Zinc	94.00	67.00	84.00	35.00	24.00	120.00	45.00	97.00	74.00	37.00	64.00	44.00

End Use Scenario
Phytotoxic

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

CS-2253

PHYTOTOXIC

REPORT

Min Value	Max Value	Count Values	No. of Exceed - ances	Screen Level	Location ID			TP06
					Depth Top and Base			0.3
					Ref.	Group	Contaminant Reported	0.4
0.20	0.60	13	-	8	1.03	Heavy Metals	Cadmium	0.20
6.20	33.00	13	-	154	1.04	Heavy Metals	Chromium	20.00
0.30	0.30	13	-	28	1.06	Heavy Metals	Mercury	0.30
5.10	38.00	13	-	70	1.07	Heavy Metals	Nickel	18.00
1.00	1.40	13	-	10	1.08	Heavy Metals	Selenium	1.00
0.30	2.50	13	-	3	2.01	Inorganics	Water Soluble Boron	1.30
3.70	33.00	13	-	130	3.01	Phytotoxic Metals	Copper	12.00
24.00	120.00	13	-	300	3.02	Phytotoxic Metals	Zinc	38.00

Geology Code	(All)
Geology Code2	(All)
Stratum Reference	(All)

CS-2253
NO ASBESTOS TESTING
RESULTS AVAILABLE



Appendix F – Statistical Assessment

	A	B	C	D	E	F	G	H	I	J	K	L
1					Outlier Tests for Selected Uncensored Variables							
2	User Selected Options											
3	Date/Time of Computation			ProUCL 5.128/08/2024 10:15:19								
4				From File	WorkSheet.xls							
5				Full Precision	OFF							
6												
7												
8	Dixon's Outlier Test for Be											
9												
10	Number of Observations = 7											
11	10% critical value: 0.434											
12	5% critical value: 0.507											
13	1% critical value: 0.637											
14												
15	1. Observation Value 2 is a Potential Outlier (Upper Tail)?											
16												
17	Test Statistic: 0.261											
18												
19	For 10% significance level, 2 is not an outlier.											
20	For 5% significance level, 2 is not an outlier.											
21	For 1% significance level, 2 is not an outlier.											
22												
23	2. Observation Value 0.47 is a Potential Outlier (Lower Tail)?											
24												
25	Test Statistic: 0.235											
26												
27	For 10% significance level, 0.47 is not an outlier.											
28	For 5% significance level, 0.47 is not an outlier.											
29	For 1% significance level, 0.47 is not an outlier.											
30												
31												
32	Dixon's Outlier Test for As											
33												
34	Number of Observations = 7											
35	10% critical value: 0.434											
36	5% critical value: 0.507											
37	1% critical value: 0.637											
38												
39	1. Observation Value 42 is a Potential Outlier (Upper Tail)?											
40												
41	Test Statistic: 0.683											
42												
43	For 10% significance level, 42 is an outlier.											
44	For 5% significance level, 42 is an outlier.											
45	For 1% significance level, 42 is an outlier.											
46												
47	2. Observation Value 9.8 is a Potential Outlier (Lower Tail)?											
48												
49	Test Statistic: 0.006											
50												
51	For 10% significance level, 9.8 is not an outlier.											
52	For 5% significance level, 9.8 is not an outlier.											
53	For 1% significance level, 9.8 is not an outlier.											
54												

	A	B	C	D	E	F	G	H	I	J	K	L
1	UCL Statistics for Uncensored Full Data Sets											
2												
3	User Selected Options											
4	Date/Time of Computation			ProUCL 5.128/08/2024 10:18:36								
5	From File			WorkSheet.xls								
6	Full Precision			OFF								
7	Confidence Coefficient			95%								
8	Number of Bootstrap Operations			2000								
9												
10												
11	Be											
12												
13	General Statistics											
14	Total Number of Observations				7		Number of Distinct Observations				6	
15							Number of Missing Observations				0	
16	Minimum				0.47		Mean				1.257	
17	Maximum				2		Median				1.4	
18	SD				0.506		Std. Error of Mean				0.191	
19	Coefficient of Variation				0.403		Skewness				-0.204	
20												
21	Note: Sample size is small (e.g., <10), if data are collected using ISM approach, you should use											
22	guidance provided in ITRC Tech Reg Guide on ISM (ITRC, 2012) to compute statistics of interest.											
23	For example, you may want to use Chebyshev UCL to estimate EPC (ITRC, 2012).											
24	Chebyshev UCL can be computed using the Nonparametric and All UCL Options of ProUCL 5.1											
25												
26	Normal GOF Test											
27	Shapiro Wilk Test Statistic				0.983		Shapiro Wilk GOF Test					
28	5% Shapiro Wilk Critical Value				0.803		Data appear Normal at 5% Significance Level					
29	Lilliefors Test Statistic				0.183		Lilliefors GOF Test					
30	5% Lilliefors Critical Value				0.304		Data appear Normal at 5% Significance Level					
31	Data appear Normal at 5% Significance Level											
32												
33	Assuming Normal Distribution											
34	95% Normal UCL					95% UCLs (Adjusted for Skewness)						
35	95% Student's-t UCL				1.629		95% Adjusted-CLT UCL (Chen-1995)				1.556	
36							95% Modified-t UCL (Johnson-1978)				1.626	
37												
38	Gamma GOF Test											
39	A-D Test Statistic				0.279		Anderson-Darling Gamma GOF Test					
40	5% A-D Critical Value				0.71		Detected data appear Gamma Distributed at 5% Significance Level					
41	K-S Test Statistic				0.228		Kolmogorov-Smirnov Gamma GOF Test					
42	5% K-S Critical Value				0.313		Detected data appear Gamma Distributed at 5% Significance Level					
43	Detected data appear Gamma Distributed at 5% Significance Level											
44												
45	Gamma Statistics											
46	k hat (MLE)				5.882		k star (bias corrected MLE)				3.456	
47	Theta hat (MLE)				0.214		Theta star (bias corrected MLE)				0.364	
48	nu hat (MLE)				82.35		nu star (bias corrected)				48.39	
49	MLE Mean (bias corrected)				1.257		MLE Sd (bias corrected)				0.676	
50						Approximate Chi Square Value (0.05)				33.42		
51	Adjusted Level of Significance				0.0158		Adjusted Chi Square Value				29.71	
52												
53	Assuming Gamma Distribution											
54	95% Approximate Gamma UCL (use when n>=50))				1.82		95% Adjusted Gamma UCL (use when n<50)				2.047	
55												

	A	B	C	D	E	F	G	H	I	J	K	L
56	Lognormal GOF Test											
57	Shapiro Wilk Test Statistic					0.92	Shapiro Wilk Lognormal GOF Test					
58	5% Shapiro Wilk Critical Value					0.803	Data appear Lognormal at 5% Significance Level					
59	Lilliefors Test Statistic					0.228	Lilliefors Lognormal GOF Test					
60	5% Lilliefors Critical Value					0.304	Data appear Lognormal at 5% Significance Level					
61	Data appear Lognormal at 5% Significance Level											
62												
63	Lognormal Statistics											
64	Minimum of Logged Data					-0.755	Mean of logged Data					0.141
65	Maximum of Logged Data					0.693	SD of logged Data					0.483
66												
67	Assuming Lognormal Distribution											
68	95% H-UCL					2.09	90% Chebyshev (MVUE) UCL					1.972
69	95% Chebyshev (MVUE) UCL					2.289	97.5% Chebyshev (MVUE) UCL					2.729
70	99% Chebyshev (MVUE) UCL					3.594						
71												
72	Nonparametric Distribution Free UCL Statistics											
73	Data appear to follow a Discernible Distribution at 5% Significance Level											
74												
75	Nonparametric Distribution Free UCLs											
76	95% CLT UCL					1.572	95% Jackknife UCL					1.629
77	95% Standard Bootstrap UCL					1.554	95% Bootstrap-t UCL					1.634
78	95% Hall's Bootstrap UCL					1.571	95% Percentile Bootstrap UCL					1.553
79	95% BCA Bootstrap UCL					1.543						
80	90% Chebyshev(Mean, Sd) UCL					1.831	95% Chebyshev(Mean, Sd) UCL					2.091
81	97.5% Chebyshev(Mean, Sd) UCL					2.452	99% Chebyshev(Mean, Sd) UCL					3.161
82												
83	Suggested UCL to Use											
84	95% Student's-t UCL					1.629						
85												
86	Note: Suggestions regarding the selection of a 95% UCL are provided to help the user to select the most appropriate 95% UCL.											
87	Recommendations are based upon data size, data distribution, and skewness.											
88	These recommendations are based upon the results of the simulation studies summarized in Singh, Maichle, and Lee (2006).											
89	However, simulations results will not cover all Real World data sets; for additional insight the user may want to consult a statistician.											
90												
91	Note: For highly negatively-skewed data, confidence limits (e.g., Chen, Johnson, Lognormal, and Gamma) may not be											
92	reliable. Chen's and Johnson's methods provide adjustments for positively skewed data sets.											
93												
94												
95	As											
96												
97	General Statistics											
98	Total Number of Observations					7	Number of Distinct Observations					7
99							Number of Missing Observations					0
100	Minimum					9.8	Mean					18.11
101	Maximum					42	Median					16
102	SD					11.2	Std. Error of Mean					4.232
103	Coefficient of Variation					0.618	Skewness					2.042
104												
105	Note: Sample size is small (e.g., <10), if data are collected using ISM approach, you should use											
106	guidance provided in ITRC Tech Reg Guide on ISM (ITRC, 2012) to compute statistics of interest.											
107	For example, you may want to use Chebyshev UCL to estimate EPC (ITRC, 2012).											
108	Chebyshev UCL can be computed using the Nonparametric and All UCL Options of ProUCL 5.1											
109												
110	Normal GOF Test											

	A	B	C	D	E	F	G	H	I	J	K	L	
111	Shapiro Wilk Test Statistic					0.753	Shapiro Wilk GOF Test						
112	5% Shapiro Wilk Critical Value					0.803	Data Not Normal at 5% Significance Level						
113	Lilliefors Test Statistic					0.29	Lilliefors GOF Test						
114	5% Lilliefors Critical Value					0.304	Data appear Normal at 5% Significance Level						
115	Data appear Approximate Normal at 5% Significance Level												
116													
117	Assuming Normal Distribution												
118	95% Normal UCL						95% UCLs (Adjusted for Skewness)						
119	95% Student's-t UCL					26.34	95% Adjusted-CLT UCL (Chen-1995)					28.57	
120							95% Modified-t UCL (Johnson-1978)					26.88	
121													
122	Gamma GOF Test												
123	A-D Test Statistic					0.504	Anderson-Darling Gamma GOF Test						
124	5% A-D Critical Value					0.71	Detected data appear Gamma Distributed at 5% Significance Level						
125	K-S Test Statistic					0.213	Kolmogorov-Smirnov Gamma GOF Test						
126	5% K-S Critical Value					0.313	Detected data appear Gamma Distributed at 5% Significance Level						
127	Detected data appear Gamma Distributed at 5% Significance Level												
128													
129	Gamma Statistics												
130	k hat (MLE)					4.192	k star (bias corrected MLE)					2.491	
131	Theta hat (MLE)					4.321	Theta star (bias corrected MLE)					7.272	
132	nu hat (MLE)					58.69	nu star (bias corrected)					34.87	
133	MLE Mean (bias corrected)					18.11	MLE Sd (bias corrected)					11.48	
134							Approximate Chi Square Value (0.05)					22.36	
135	Adjusted Level of Significance					0.0158	Adjusted Chi Square Value					19.4	
136													
137	Assuming Gamma Distribution												
138	95% Approximate Gamma UCL (use when n>=50))					28.25	95% Adjusted Gamma UCL (use when n<50)					32.57	
139													
140	Lognormal GOF Test												
141	Shapiro Wilk Test Statistic					0.889	Shapiro Wilk Lognormal GOF Test						
142	5% Shapiro Wilk Critical Value					0.803	Data appear Lognormal at 5% Significance Level						
143	Lilliefors Test Statistic					0.186	Lilliefors Lognormal GOF Test						
144	5% Lilliefors Critical Value					0.304	Data appear Lognormal at 5% Significance Level						
145	Data appear Lognormal at 5% Significance Level												
146													
147	Lognormal Statistics												
148	Minimum of Logged Data					2.282	Mean of logged Data					2.773	
149	Maximum of Logged Data					3.738	SD of logged Data					0.505	
150													
151	Assuming Lognormal Distribution												
152	95% H-UCL					30.27	90% Chebyshev (MVUE) UCL					28.07	
153	95% Chebyshev (MVUE) UCL					32.72	97.5% Chebyshev (MVUE) UCL					39.16	
154	99% Chebyshev (MVUE) UCL					51.82							
155													
156	Nonparametric Distribution Free UCL Statistics												
157	Data appear to follow a Discernible Distribution at 5% Significance Level												
158													
159	Nonparametric Distribution Free UCLs												
160	95% CLT UCL					25.08	95% Jackknife UCL					26.34	
161	95% Standard Bootstrap UCL					24.42	95% Bootstrap-t UCL					37.79	
162	95% Hall's Bootstrap UCL					54.28	95% Percentile Bootstrap UCL					25.51	
163	95% BCA Bootstrap UCL					28.29							
164	90% Chebyshev(Mean, Sd) UCL					30.81	95% Chebyshev(Mean, Sd) UCL					36.56	
165	97.5% Chebyshev(Mean, Sd) UCL					44.54	99% Chebyshev(Mean, Sd) UCL					60.22	

	A	B	C	D	E	F	G	H	I	J	K	L
166												
167	Suggested UCL to Use											
168	95% Student's-t UCL					26.34						
169												
170	When a data set follows an approximate (e.g., normal) distribution passing one of the GOF test											
171	When applicable, it is suggested to use a UCL based upon a distribution (e.g., gamma) passing both GOF tests in ProUCL											
172												
173	Note: Suggestions regarding the selection of a 95% UCL are provided to help the user to select the most appropriate 95% UCL.											
174	Recommendations are based upon data size, data distribution, and skewness.											
175	These recommendations are based upon the results of the simulation studies summarized in Singh, Maichle, and Lee (2006).											
176	However, simulations results will not cover all Real World data sets; for additional insight the user may want to consult a statistician.											
177												

Appendix G – Surrogate Marker Assessment

Project Name:

New Farm, Alderton

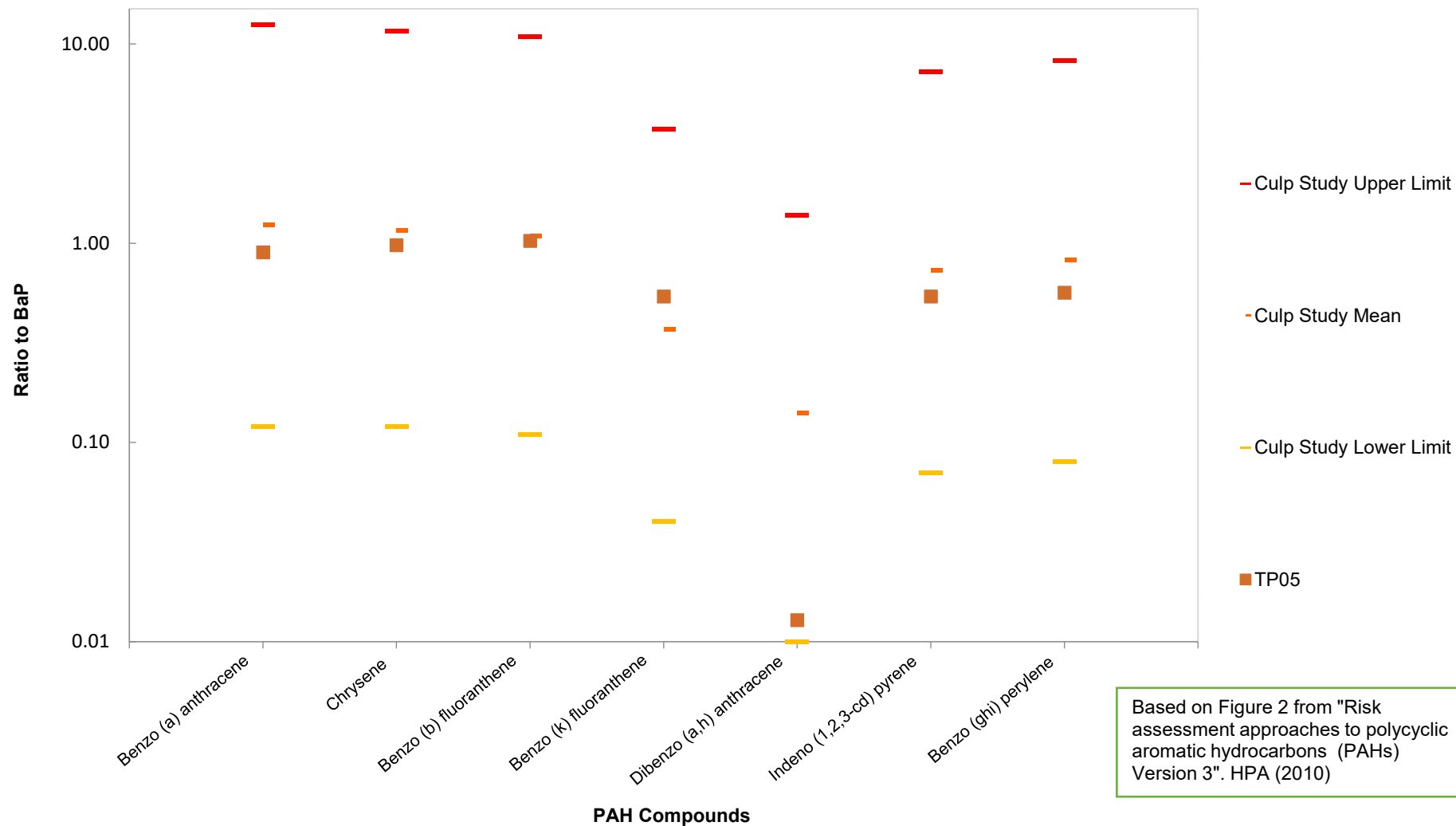
Project ID:

P1156

Client:

Ashford Homes (SW) Ltd

Profile of PAHs in selected soil samples expressed as a ratio to benzo(a)pyrene compared with Culp Study results (Culp, S.J., et al., 1998)

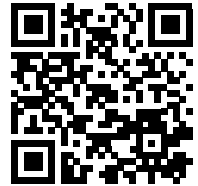


Appendix H – HazWaste Report

Waste Classification Report

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

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



YOE8B-6QFDR-NU8IM

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

Job name

New Farm, Alderton

Description/Comments

Project

P1156

Site

New Farm, Alderton

Classified by

Name: **Matthew Carr**
 Date: **23 Aug 2024 09:39 GMT**
 Telephone: **0117 927 7756**
 Company: **T&P Regeneration Ltd**
Unit 5, Septimus
Hawkfield Business Park
Bristol
BS14 0BN

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

HazWasteOnline™ Certification:

CERTIFIED

Course

Hazardous Waste Classification

Date

09 Dec 2021

Next 3 year Refresher due by Dec 2024

Purpose of classification

2 - Material Characterisation

Address of the waste

New Farm, Alderton, Chippenham

Post Code **SN14 6NW**

SIC for the process giving rise to the waste

Description of industry/producer giving rise to the waste

Development of site.

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

Waste created during the excavation of soils for development.

Description of the waste

Natural clay and made ground.

Job summary

#	Sample name	Depth [m]	Classification Result	Hazard properties	Page
1	TP01-1-30072024-0.10		Non Hazardous		3
2	TP01-2-30072024-0.30		Non Hazardous		5
3	TP02-1-30072024-0.10		Non Hazardous		7
4	TP02-2-30072024-0.30		Non Hazardous		9
5	TP03-1-30072024-0.10		Non Hazardous		11
6	TP03-2-30072024-0.30		Non Hazardous		13
7	TP03-3-30072024-0.50		Non Hazardous		15
8	TP04-1-30072024-0.10		Non Hazardous		17
9	TP04-2-30072024-0.80		Non Hazardous		19
10	TP05-1-30072024-0.10		Non Hazardous		21
11	TP05-2-30072024-0.70		Non Hazardous		23
12	TP06-1-30072024-0.10		Non Hazardous		25
13	TP06-2-30072024-0.30		Non Hazardous		27

Related documents

#	Name	Description
1	24-033697_HWOL.hwol	i2 Analytical .hwol file used to populate the Job

Report

Created by: Matthew Carr

Created date: 23 Aug 2024 09:39 GMT

Appendices

	Page
Appendix A: Classifier defined and non GB MCL determinands	29
Appendix B: Rationale for selection of metal species	30
Appendix C: Version	31

Classification of sample: TP01-1-30072024-0.10

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

Sample details

Sample name:	LoW Code:
TP01-1-30072024-0.10	Chapter:
Moisture content:	17: Construction and Demolition Wastes (including excavated soil from contaminated sites)
4.1%	17 05 04 (Soil and stones other than those mentioned in 17 05 03)
(wet weight correction)	

Hazard properties

None identified

Determinands

Moisture content: 4.1% Wet Weight Moisture Correction applied (MC)

#	Determinand			CLP Note	User entered data	Conv. Factor	Compound conc.	Classification value	MC Applied	Conc. Not Used
	EU CLP index number	EC Number	CAS Number							
1	monohydric phenols				<1 mg/kg		<1 mg/kg	<0.0001 %		<LOD
			P1186							
2	chromium in chromium(VI) compounds { chromium (VI) compounds, with the exception of barium chromate and of compounds specified elsewhere in this Annex }				<1.8 mg/kg	2.27	<4.086 mg/kg	<0.000409 %		<LOD
	024-017-00-8									
3	pH				8.3 pH		8.3 pH	8.3 pH		
			PH							
4	boron { diboron trioxide }				0.6 mg/kg	3.22	1.853 mg/kg	0.000185 %	✓	
	005-008-00-8	215-125-8	1303-86-2							
5	arsenic { arsenic compounds, with the exception of those specified elsewhere in this Annex }			1	9.5 mg/kg		9.111 mg/kg	0.000911 %	✓	
	033-002-00-5									
6	beryllium { beryllium chloride }				0.41 mg/kg	8.868	3.487 mg/kg	0.000349 %	✓	
			7787-47-5							
7	cadmium { cadmium compounds, with the exception of cadmium sulphoselenide (xCdS.yCdSe), reaction mass of cadmium sulphide with zinc sulphide (xCdS.yZnS), reaction mass of cadmium sulphide with mercury sulphide (xCdS.yHgS), and those specified elsewhere in this Annex }			1	0.6 mg/kg		0.575 mg/kg	0.0000575 %	✓	
	048-001-00-5									
8	copper { copper(II) carbonate – copper(II) hydroxide (1:1) }				8.1 mg/kg	1.74	13.515 mg/kg	0.00135 %	✓	
	029-020-00-8	235-113-6	12069-69-1							
9	mercury { inorganic compounds of mercury with the exception of mercuric sulphide and those specified elsewhere in this Annex }			1	<0.3 mg/kg		<0.3 mg/kg	<0.00003 %		<LOD
	080-002-00-6									
10	nickel { nickel sulfide }				8 mg/kg	1.546	11.863 mg/kg	0.00119 %	✓	
	028-006-00-9	240-841-2 [1] 234-349-7 [2] - [3]	16812-54-7 [1] 11113-75-0 [2] 1314-04-1 [3]							
11	lead { lead compounds with the exception of those specified elsewhere in this Annex (worst case) }			1	30 mg/kg		28.77 mg/kg	0.00288 %	✓	
	082-001-00-6									

#	Determinand			CLP Note	User entered data	Conv. Factor	Compound conc.		Classification value	MC Applied	Conc. Not Used
	EU CLP index number	EC Number	CAS Number								
12	selenium { selenium compounds with the exception of cadmium sulphoselenide and those specified elsewhere in this Annex }				<1 mg/kg	1.405	<1.405 mg/kg	<0.000141 %			<LOD
	034-002-00-8										
13	vanadium { divanadium pentaoxide; vanadium pentoxide }				19 mg/kg	1.785	32.528 mg/kg	0.00325 %		✓	
	023-001-00-8	215-239-8	1314-62-1								
14	zinc { zinc sulphate }				94 mg/kg	2.469	222.597 mg/kg	0.0223 %		✓	
	030-006-00-9	231-793-3 [1] 231-793-3 [2]	7446-19-7 [1] 7733-02-0 [2]								
15	naphthalene				<0.05 mg/kg		<0.05 mg/kg	<0.000005 %			<LOD
	601-052-00-2	202-049-5	91-20-3								
16	acenaphthylene				0.08 mg/kg		0.0767 mg/kg	0.00000767 %		✓	
		205-917-1	208-96-8								
17	acenaphthene				<0.05 mg/kg		<0.05 mg/kg	<0.000005 %			<LOD
		201-469-6	83-32-9								
18	fluorene				0.1 mg/kg		0.0959 mg/kg	0.00000959 %		✓	
		201-695-5	86-73-7								
19	phenanthrene				0.55 mg/kg		0.527 mg/kg	0.0000527 %		✓	
		201-581-5	85-01-8								
20	anthracene				0.2 mg/kg		0.192 mg/kg	0.0000192 %		✓	
		204-371-1	120-12-7								
21	fluoranthene				1.3 mg/kg		1.247 mg/kg	0.000125 %		✓	
		205-912-4	206-44-0								
22	pyrene				1.1 mg/kg		1.055 mg/kg	0.000105 %		✓	
		204-927-3	129-00-0								
23	benzo[a]anthracene				0.77 mg/kg		0.738 mg/kg	0.0000738 %		✓	
	601-033-00-9	200-280-6	56-55-3								
24	chrysene				0.65 mg/kg		0.623 mg/kg	0.0000623 %		✓	
	601-048-00-0	205-923-4	218-01-9								
25	benzo[a]pyrene; benzo[def]chrysene				0.85 mg/kg		0.815 mg/kg	0.0000815 %		✓	
	601-032-00-3	200-028-5	50-32-8								
26	indeno[123-cd]pyrene				0.41 mg/kg		0.393 mg/kg	0.0000393 %		✓	
		205-893-2	193-39-5								
27	dibenz[a,h]anthracene				0.09 mg/kg		0.0863 mg/kg	0.00000863 %		✓	
	601-041-00-2	200-181-8	53-70-3								
28	benzo[ghi]perylene				0.4 mg/kg		0.384 mg/kg	0.0000384 %		✓	
		205-883-8	191-24-2								
29	chromium in chromium(III) compounds { chromium(III) oxide (worst case) }				9.6 mg/kg	1.462	14.031 mg/kg	0.0014 %			
		215-160-9	1308-38-9								
30	benzo[bk]fluoranthene				1.37 mg/kg		1.314 mg/kg	0.000131 %		✓	
		[1] 205-911-9 [2] 205-916-6	[1] 205-99-2 [2] 207-08-9								
Total:									0.0353 %		

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: TP01-2-30072024-0.30

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

Sample details

Sample name:	LoW Code:
TP01-2-30072024-0.30	Chapter:
Moisture content:	17: Construction and Demolition Wastes (including excavated soil from contaminated sites)
19%	17 05 04 (Soil and stones other than those mentioned in 17 05 03)
(wet weight correction)	

Hazard properties

None identified

Determinands

Moisture content: 19% Wet Weight Moisture Correction applied (MC)

#	Determinand			CLP Note	User entered data	Conv. Factor	Compound conc.	Classification value	MC Applied	Conc. Not Used
	EU CLP index number	EC Number	CAS Number							
1	monohydric phenols				<1 mg/kg		<1 mg/kg	<0.0001 %		<LOD
			P1186							
2	chromium in chromium(VI) compounds { chromium (VI) compounds, with the exception of barium chromate and of compounds specified elsewhere in this Annex }				<1.8 mg/kg	2.27	<4.086 mg/kg	<0.000409 %		<LOD
	024-017-00-8									
3	pH				7.9 pH		7.9 pH	7.9 pH		
			PH							
4	boron { diboron trioxide }				0.5 mg/kg	3.22	1.304 mg/kg	0.00013 %	✓	
	005-008-00-8	215-125-8	1303-86-2							
5	arsenic { arsenic compounds, with the exception of those specified elsewhere in this Annex }			1	16 mg/kg		12.96 mg/kg	0.0013 %	✓	
	033-002-00-5									
6	beryllium { beryllium chloride }				1.4 mg/kg	8.868	10.056 mg/kg	0.00101 %	✓	
			7787-47-5							
7	cadmium { cadmium compounds, with the exception of cadmium sulphoselenide (xCdS.yCdSe), reaction mass of cadmium sulphide with zinc sulphide (xCdS.yZnS), reaction mass of cadmium sulphide with mercury sulphide (xCdS.yHgS), and those specified elsewhere in this Annex }			1	<0.2 mg/kg		<0.2 mg/kg	<0.00002 %		<LOD
	048-001-00-5									
8	copper { copper(II) carbonate – copper(II) hydroxide (1:1) }				15 mg/kg	1.74	21.138 mg/kg	0.00211 %	✓	
	029-020-00-8	235-113-6	12069-69-1							
9	mercury { inorganic compounds of mercury with the exception of mercuric sulphide and those specified elsewhere in this Annex }			1	<0.3 mg/kg		<0.3 mg/kg	<0.00003 %		<LOD
	080-002-00-6									
10	nickel { nickel sulfide }				31 mg/kg	1.546	38.828 mg/kg	0.00388 %	✓	
	028-006-00-9	240-841-2 [1] 234-349-7 [2] - [3]	16812-54-7 [1] 11113-75-0 [2] 1314-04-1 [3]							
11	lead { lead compounds with the exception of those specified elsewhere in this Annex (worst case) }			1	20 mg/kg		16.2 mg/kg	0.00162 %	✓	
	082-001-00-6									

#	Determinand			CLP Note	User entered data	Conv. Factor	Compound conc.		Classification value	MC Applied	Conc. Not Used
	EU CLP index number	EC Number	CAS Number								
12	selenium { selenium compounds with the exception of cadmium sulphoselenide and those specified elsewhere in this Annex }				<1 mg/kg	1.405	<1.405 mg/kg	<0.000141 %			<LOD
	034-002-00-8										
13	vanadium { divanadium pentaoxide; vanadium pentoxide }				46 mg/kg	1.785	66.516 mg/kg	0.00665 %		✓	
	023-001-00-8	215-239-8	1314-62-1								
14	zinc { zinc sulphate }				67 mg/kg	2.469	134.009 mg/kg	0.0134 %		✓	
	030-006-00-9	231-793-3 [1] 231-793-3 [2]	7446-19-7 [1] 7733-02-0 [2]								
15	naphthalene				<0.05 mg/kg		<0.05 mg/kg	<0.000005 %			<LOD
	601-052-00-2	202-049-5	91-20-3								
16	acenaphthylene				<0.05 mg/kg		<0.05 mg/kg	<0.000005 %			<LOD
		205-917-1	208-96-8								
17	acenaphthene				<0.05 mg/kg		<0.05 mg/kg	<0.000005 %			<LOD
		201-469-6	83-32-9								
18	fluorene				<0.05 mg/kg		<0.05 mg/kg	<0.000005 %			<LOD
		201-695-5	86-73-7								
19	phenanthrene				<0.05 mg/kg		<0.05 mg/kg	<0.000005 %			<LOD
		201-581-5	85-01-8								
20	anthracene				<0.05 mg/kg		<0.05 mg/kg	<0.000005 %			<LOD
		204-371-1	120-12-7								
21	fluoranthene				<0.05 mg/kg		<0.05 mg/kg	<0.000005 %			<LOD
		205-912-4	206-44-0								
22	pyrene				<0.05 mg/kg		<0.05 mg/kg	<0.000005 %			<LOD
		204-927-3	129-00-0								
23	benzo[a]anthracene				<0.05 mg/kg		<0.05 mg/kg	<0.000005 %			<LOD
	601-033-00-9	200-280-6	56-55-3								
24	chrysene				<0.05 mg/kg		<0.05 mg/kg	<0.000005 %			<LOD
	601-048-00-0	205-923-4	218-01-9								
25	benzo[a]pyrene; benzo[def]chrysene				<0.05 mg/kg		<0.05 mg/kg	<0.000005 %			<LOD
	601-032-00-3	200-028-5	50-32-8								
26	indeno[123-cd]pyrene				<0.05 mg/kg		<0.05 mg/kg	<0.000005 %			<LOD
		205-893-2	193-39-5								
27	dibenz[a,h]anthracene				<0.05 mg/kg		<0.05 mg/kg	<0.000005 %			<LOD
	601-041-00-2	200-181-8	53-70-3								
28	benzo[ghi]perylene				<0.05 mg/kg		<0.05 mg/kg	<0.000005 %			<LOD
		205-883-8	191-24-2								
29	chromium in chromium(III) compounds { chromium(III) oxide (worst case) }				31 mg/kg	1.462	45.308 mg/kg	0.00453 %			
		215-160-9	1308-38-9								
30	benzo[bk]fluoranthene				<0.1 mg/kg		<0.1 mg/kg	<0.00001 %			<LOD
		[1] 205-911-9 [2] 205-916-6	[1] 205-99-2 [2] 207-08-9								
Total:									0.0354 %		

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: TP02-1-30072024-0.10

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

Sample details

Sample name:	LoW Code:
TP02-1-30072024-0.10	Chapter:
Moisture content:	17: Construction and Demolition Wastes (including excavated soil from contaminated sites)
16% (wet weight correction)	Entry:
	17 05 04 (Soil and stones other than those mentioned in 17 05 03)

Hazard properties

None identified

Determinands

Moisture content: 16% Wet Weight Moisture Correction applied (MC)

#	Determinand			CLP Note	User entered data	Conv. Factor	Compound conc.	Classification value	MC Applied	Conc. Not Used
	EU CLP index number	EC Number	CAS Number							
1	monohydric phenols				<1 mg/kg		<1 mg/kg	<0.0001 %		<LOD
			P1186							
2	chromium in chromium(VI) compounds { chromium (VI) compounds, with the exception of barium chromate and of compounds specified elsewhere in this Annex }				<1.8 mg/kg	2.27	<4.086 mg/kg	<0.000409 %		<LOD
	024-017-00-8									
3	pH				7.8 pH		7.8 pH	7.8 pH		
			PH							
4	boron { diboron trioxide }				0.6 mg/kg	3.22	1.623 mg/kg	0.000162 %	✓	
	005-008-00-8	215-125-8	1303-86-2							
5	arsenic { arsenic compounds, with the exception of those specified elsewhere in this Annex }			1	42 mg/kg		35.28 mg/kg	0.00353 %	✓	
	033-002-00-5									
6	beryllium { beryllium chloride }				1.6 mg/kg	8.868	11.919 mg/kg	0.00119 %	✓	
			7787-47-5							
7	cadmium { cadmium compounds, with the exception of cadmium sulphoselenide (xCdS.yCdSe), reaction mass of cadmium sulphide with zinc sulphide (xCdS.yZnS), reaction mass of cadmium sulphide with mercury sulphide (xCdS.yHgS), and those specified elsewhere in this Annex }			1	<0.2 mg/kg		<0.2 mg/kg	<0.00002 %		<LOD
	048-001-00-5									
8	copper { copper(II) carbonate – copper(II) hydroxide (1:1) }				20 mg/kg	1.74	29.229 mg/kg	0.00292 %	✓	
	029-020-00-8	235-113-6	12069-69-1							
9	mercury { inorganic compounds of mercury with the exception of mercuric sulphide and those specified elsewhere in this Annex }			1	<0.3 mg/kg		<0.3 mg/kg	<0.00003 %		<LOD
	080-002-00-6									
10	nickel { nickel sulfide }				38 mg/kg	1.546	49.358 mg/kg	0.00494 %	✓	
	028-006-00-9	240-841-2 [1] 234-349-7 [2] - [3]	16812-54-7 [1] 11113-75-0 [2] 1314-04-1 [3]							
11	lead { lead compounds with the exception of those specified elsewhere in this Annex (worst case) }			1	31 mg/kg		26.04 mg/kg	0.0026 %	✓	
	082-001-00-6									

#	Determinand			CLP Note	User entered data	Conv. Factor	Compound conc.		Classification value	MC Applied	Conc. Not Used
	EU CLP index number	EC Number	CAS Number								
12	selenium { selenium compounds with the exception of cadmium sulphoselenide and those specified elsewhere in this Annex }				<1 mg/kg	1.405	<1.405 mg/kg	<0.000141 %			<LOD
	034-002-00-8										
13	vanadium { divanadium pentaoxide; vanadium pentoxide }				60 mg/kg	1.785	89.973 mg/kg	0.009 %		✓	
	023-001-00-8	215-239-8	1314-62-1								
14	zinc { zinc sulphate }				84 mg/kg	2.469	174.234 mg/kg	0.0174 %		✓	
	030-006-00-9	231-793-3 [1] 231-793-3 [2]	7446-19-7 [1] 7733-02-0 [2]								
15	naphthalene				<0.05 mg/kg		<0.05 mg/kg	<0.000005 %			<LOD
	601-052-00-2	202-049-5	91-20-3								
16	acenaphthylene				<0.05 mg/kg		<0.05 mg/kg	<0.000005 %			<LOD
		205-917-1	208-96-8								
17	acenaphthene				<0.05 mg/kg		<0.05 mg/kg	<0.000005 %			<LOD
		201-469-6	83-32-9								
18	fluorene				<0.05 mg/kg		<0.05 mg/kg	<0.000005 %			<LOD
		201-695-5	86-73-7								
19	phenanthrene				<0.05 mg/kg		<0.05 mg/kg	<0.000005 %			<LOD
		201-581-5	85-01-8								
20	anthracene				<0.05 mg/kg		<0.05 mg/kg	<0.000005 %			<LOD
		204-371-1	120-12-7								
21	fluoranthene				<0.05 mg/kg		<0.05 mg/kg	<0.000005 %			<LOD
		205-912-4	206-44-0								
22	pyrene				<0.05 mg/kg		<0.05 mg/kg	<0.000005 %			<LOD
		204-927-3	129-00-0								
23	benzo[a]anthracene				<0.05 mg/kg		<0.05 mg/kg	<0.000005 %			<LOD
	601-033-00-9	200-280-6	56-55-3								
24	chrysene				<0.05 mg/kg		<0.05 mg/kg	<0.000005 %			<LOD
	601-048-00-0	205-923-4	218-01-9								
25	benzo[a]pyrene; benzo[def]chrysene				<0.05 mg/kg		<0.05 mg/kg	<0.000005 %			<LOD
	601-032-00-3	200-028-5	50-32-8								
26	indeno[123-cd]pyrene				<0.05 mg/kg		<0.05 mg/kg	<0.000005 %			<LOD
		205-893-2	193-39-5								
27	dibenz[a,h]anthracene				<0.05 mg/kg		<0.05 mg/kg	<0.000005 %			<LOD
	601-041-00-2	200-181-8	53-70-3								
28	benzo[ghi]perylene				<0.05 mg/kg		<0.05 mg/kg	<0.000005 %			<LOD
		205-883-8	191-24-2								
29	chromium in chromium(III) compounds { chromium(III) oxide (worst case) }				31 mg/kg	1.462	45.308 mg/kg	0.00453 %			
		215-160-9	1308-38-9								
30	benzo[bk]fluoranthene				<0.1 mg/kg		<0.1 mg/kg	<0.00001 %			<LOD
		[1] 205-911-9 [2] 205-916-6	[1] 205-99-2 [2] 207-08-9								
Total:									0.0471 %		

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: TP02-2-30072024-0.30

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

Sample details

Sample name:	LoW Code:
TP02-2-30072024-0.30	Chapter:
Moisture content:	17: Construction and Demolition Wastes (including excavated soil from contaminated sites)
17% (wet weight correction)	Entry:
	17 05 04 (Soil and stones other than those mentioned in 17 05 03)

Hazard properties

None identified

Determinands

Moisture content: 17% Wet Weight Moisture Correction applied (MC)

#	Determinand			CLP Note	User entered data	Conv. Factor	Compound conc.	Classification value	MC Applied	Conc. Not Used
	EU CLP index number	EC Number	CAS Number							
1	monohydric phenols				<1 mg/kg		<1 mg/kg	<0.0001 %		<LOD
			P1186							
2	chromium in chromium(VI) compounds { chromium (VI) compounds, with the exception of barium chromate and of compounds specified elsewhere in this Annex }				<1.8 mg/kg	2.27	<4.086 mg/kg	<0.000409 %		<LOD
	024-017-00-8									
3	pH				8.1 pH		8.1 pH	8.1 pH		
			PH							
4	boron { diboron trioxide }				0.6 mg/kg	3.22	1.603 mg/kg	0.00016 %	✓	
	005-008-00-8	215-125-8	1303-86-2							
5	arsenic { arsenic compounds, with the exception of those specified elsewhere in this Annex }			1	12 mg/kg		9.96 mg/kg	0.000996 %	✓	
	033-002-00-5									
6	beryllium { beryllium chloride }				0.47 mg/kg	8.868	3.459 mg/kg	0.000346 %	✓	
			7787-47-5							
7	cadmium { cadmium compounds, with the exception of cadmium sulphoselenide (xCdS.yCdSe), reaction mass of cadmium sulphide with zinc sulphide (xCdS.yZnS), reaction mass of cadmium sulphide with mercury sulphide (xCdS.yHgS), and those specified elsewhere in this Annex }			1	<0.2 mg/kg		<0.2 mg/kg	<0.00002 %		<LOD
	048-001-00-5									
8	copper { copper(II) carbonate – copper(II) hydroxide (1:1) }				8.6 mg/kg	1.74	12.419 mg/kg	0.00124 %	✓	
	029-020-00-8	235-113-6	12069-69-1							
9	mercury { inorganic compounds of mercury with the exception of mercuric sulphide and those specified elsewhere in this Annex }			1	<0.3 mg/kg		<0.3 mg/kg	<0.00003 %		<LOD
	080-002-00-6									
10	nickel { nickel sulfide }				14 mg/kg	1.546	17.968 mg/kg	0.0018 %	✓	
	028-006-00-9	240-841-2 [1] 234-349-7 [2] - [3]	16812-54-7 [1] 11113-75-0 [2] 1314-04-1 [3]							
11	lead { lead compounds with the exception of those specified elsewhere in this Annex (worst case) }			1	15 mg/kg		12.45 mg/kg	0.00125 %	✓	
	082-001-00-6									

#	Determinand			CLP Note	User entered data	Conv. Factor	Compound conc.		Classification value	MC Applied	Conc. Not Used
	EU CLP index number	EC Number	CAS Number								
12	selenium { selenium compounds with the exception of cadmium sulphoselenide and those specified elsewhere in this Annex }				<1 mg/kg	1.405	<1.405 mg/kg	<0.000141 %			<LOD
	034-002-00-8										
13	vanadium { divanadium pentaoxide; vanadium pentoxide }				19 mg/kg	1.785	28.152 mg/kg	0.00282 %		✓	
	023-001-00-8	215-239-8	1314-62-1								
14	zinc { zinc sulphate }				35 mg/kg	2.469	71.733 mg/kg	0.00717 %		✓	
	030-006-00-9	231-793-3 [1] 231-793-3 [2]	7446-19-7 [1] 7733-02-0 [2]								
15	naphthalene				<0.05 mg/kg		<0.05 mg/kg	<0.000005 %			<LOD
	601-052-00-2	202-049-5	91-20-3								
16	acenaphthylene				<0.05 mg/kg		<0.05 mg/kg	<0.000005 %			<LOD
		205-917-1	208-96-8								
17	acenaphthene				<0.05 mg/kg		<0.05 mg/kg	<0.000005 %			<LOD
		201-469-6	83-32-9								
18	fluorene				<0.05 mg/kg		<0.05 mg/kg	<0.000005 %			<LOD
		201-695-5	86-73-7								
19	phenanthrene				<0.05 mg/kg		<0.05 mg/kg	<0.000005 %			<LOD
		201-581-5	85-01-8								
20	anthracene				<0.05 mg/kg		<0.05 mg/kg	<0.000005 %			<LOD
		204-371-1	120-12-7								
21	fluoranthene				<0.05 mg/kg		<0.05 mg/kg	<0.000005 %			<LOD
		205-912-4	206-44-0								
22	pyrene				<0.05 mg/kg		<0.05 mg/kg	<0.000005 %			<LOD
		204-927-3	129-00-0								
23	benzo[a]anthracene				<0.05 mg/kg		<0.05 mg/kg	<0.000005 %			<LOD
	601-033-00-9	200-280-6	56-55-3								
24	chrysene				<0.05 mg/kg		<0.05 mg/kg	<0.000005 %			<LOD
	601-048-00-0	205-923-4	218-01-9								
25	benzo[a]pyrene; benzo[def]chrysene				<0.05 mg/kg		<0.05 mg/kg	<0.000005 %			<LOD
	601-032-00-3	200-028-5	50-32-8								
26	indeno[123-cd]pyrene				<0.05 mg/kg		<0.05 mg/kg	<0.000005 %			<LOD
		205-893-2	193-39-5								
27	dibenz[a,h]anthracene				<0.05 mg/kg		<0.05 mg/kg	<0.000005 %			<LOD
	601-041-00-2	200-181-8	53-70-3								
28	benzo[ghi]perylene				<0.05 mg/kg		<0.05 mg/kg	<0.000005 %			<LOD
		205-883-8	191-24-2								
29	chromium in chromium(III) compounds { chromium(III) oxide (worst case) }				11 mg/kg	1.462	16.077 mg/kg	0.00161 %			
		215-160-9	1308-38-9								
30	benzo[bk]fluoranthene				<0.1 mg/kg		<0.1 mg/kg	<0.00001 %			<LOD
		[1] 205-911-9 [2] 205-916-6	[1] 205-99-2 [2] 207-08-9								
Total:									0.0182 %		

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: TP03-1-30072024-0.10

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

Sample details

Sample name:	LoW Code:
TP03-1-30072024-0.10	Chapter:
Moisture content:	17: Construction and Demolition Wastes (including excavated soil from contaminated sites)
5.9% (wet weight correction)	Entry:
	17 05 04 (Soil and stones other than those mentioned in 17 05 03)

Hazard properties

None identified

Determinands

Moisture content: 5.9% Wet Weight Moisture Correction applied (MC)

#	Determinand			CLP Note	User entered data	Conv. Factor	Compound conc.	Classification value	MC Applied	Conc. Not Used
	EU CLP index number	EC Number	CAS Number							
1	monohydric phenols				<1 mg/kg		<1 mg/kg	<0.0001 %		<LOD
			P1186							
2	chromium in chromium(VI) compounds { chromium (VI) compounds, with the exception of barium chromate and of compounds specified elsewhere in this Annex }				<1.8 mg/kg	2.27	<4.086 mg/kg	<0.000409 %		<LOD
	024-017-00-8									
3	pH				8.6 pH		8.6 pH	8.6 pH		
			PH							
4	boron { diboron trioxide }				0.3 mg/kg	3.22	0.909 mg/kg	0.0000909 %	✓	
	005-008-00-8	215-125-8	1303-86-2							
5	arsenic { arsenic compounds, with the exception of those specified elsewhere in this Annex }			1	4.9 mg/kg		4.611 mg/kg	0.000461 %	✓	
	033-002-00-5									
6	beryllium { beryllium chloride }				0.26 mg/kg	8.868	2.17 mg/kg	0.000217 %	✓	
			7787-47-5							
7	cadmium { cadmium compounds, with the exception of cadmium sulphoselenide (xCdS.yCdSe), reaction mass of cadmium sulphide with zinc sulphide (xCdS.yZnS), reaction mass of cadmium sulphide with mercury sulphide (xCdS.yHgS), and those specified elsewhere in this Annex }			1	<0.2 mg/kg		<0.2 mg/kg	<0.00002 %		<LOD
	048-001-00-5									
8	copper { copper(II) carbonate – copper(II) hydroxide (1:1) }				3.7 mg/kg	1.74	6.057 mg/kg	0.000606 %	✓	
	029-020-00-8	235-113-6	12069-69-1							
9	mercury { inorganic compounds of mercury with the exception of mercuric sulphide and those specified elsewhere in this Annex }			1	<0.3 mg/kg		<0.3 mg/kg	<0.00003 %		<LOD
	080-002-00-6									
10	nickel { nickel sulfide }				5.1 mg/kg	1.546	7.421 mg/kg	0.000742 %	✓	
	028-006-00-9	240-841-2 [1] 234-349-7 [2] - [3]	16812-54-7 [1] 11113-75-0 [2] 1314-04-1 [3]							
11	lead { lead compounds with the exception of those specified elsewhere in this Annex (worst case) }			1	8.5 mg/kg		7.998 mg/kg	0.0008 %	✓	
	082-001-00-6									

#	Determinand			CLP Note	User entered data	Conv. Factor	Compound conc.		Classification value	MC Applied	Conc. Not Used
	EU CLP index number	EC Number	CAS Number								
12	selenium { selenium compounds with the exception of cadmium sulphoselenide and those specified elsewhere in this Annex }				<1 mg/kg	1.405	<1.405 mg/kg	<0.000141 %			<LOD
	034-002-00-8										
13	vanadium { divanadium pentaoxide; vanadium pentoxide }				14 mg/kg	1.785	23.518 mg/kg	0.00235 %		✓	
	023-001-00-8	215-239-8	1314-62-1								
14	zinc { zinc sulphate }				24 mg/kg	2.469	55.767 mg/kg	0.00558 %		✓	
	030-006-00-9	231-793-3 [1] 231-793-3 [2]	7446-19-7 [1] 7733-02-0 [2]								
15	naphthalene				<0.05 mg/kg		<0.05 mg/kg	<0.000005 %			<LOD
	601-052-00-2	202-049-5	91-20-3								
16	acenaphthylene				<0.05 mg/kg		<0.05 mg/kg	<0.000005 %			<LOD
		205-917-1	208-96-8								
17	acenaphthene				<0.05 mg/kg		<0.05 mg/kg	<0.000005 %			<LOD
		201-469-6	83-32-9								
18	fluorene				<0.05 mg/kg		<0.05 mg/kg	<0.000005 %			<LOD
		201-695-5	86-73-7								
19	phenanthrene				0.11 mg/kg		0.104 mg/kg	0.0000104 %		✓	
		201-581-5	85-01-8								
20	anthracene				<0.05 mg/kg		<0.05 mg/kg	<0.000005 %			<LOD
		204-371-1	120-12-7								
21	fluoranthene				0.61 mg/kg		0.574 mg/kg	0.0000574 %		✓	
		205-912-4	206-44-0								
22	pyrene				0.63 mg/kg		0.593 mg/kg	0.0000593 %		✓	
		204-927-3	129-00-0								
23	benzo[a]anthracene				0.45 mg/kg		0.423 mg/kg	0.0000423 %		✓	
	601-033-00-9	200-280-6	56-55-3								
24	chrysene				0.43 mg/kg		0.405 mg/kg	0.0000405 %		✓	
	601-048-00-0	205-923-4	218-01-9								
25	benzo[a]pyrene; benzo[def]chrysene				0.58 mg/kg		0.546 mg/kg	0.0000546 %		✓	
	601-032-00-3	200-028-5	50-32-8								
26	indeno[123-cd]pyrene				0.37 mg/kg		0.348 mg/kg	0.0000348 %		✓	
		205-893-2	193-39-5								
27	dibenz[a,h]anthracene				0.09 mg/kg		0.0847 mg/kg	0.00000847 %		✓	
	601-041-00-2	200-181-8	53-70-3								
28	benzo[ghi]perylene				0.45 mg/kg		0.423 mg/kg	0.0000423 %		✓	
		205-883-8	191-24-2								
29	chromium in chromium(III) compounds { chromium(III) oxide (worst case) }				6.2 mg/kg	1.462	9.062 mg/kg	0.000906 %			
		215-160-9	1308-38-9								
30	benzo[bk]fluoranthene				1 mg/kg		0.941 mg/kg	0.0000941 %		✓	
		[1] 205-911-9 [2] 205-916-6	[1] 205-99-2 [2] 207-08-9								
Total:									0.0129 %		

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: TP03-2-30072024-0.30

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

Sample details

Sample name:	LoW Code:
TP03-2-30072024-0.30	Chapter:
Moisture content:	17: Construction and Demolition Wastes (including excavated soil from contaminated sites)
20%	17 05 04 (Soil and stones other than those mentioned in 17 05 03)
(wet weight correction)	

Hazard properties

None identified

Determinands

Moisture content: 20% Wet Weight Moisture Correction applied (MC)

#	Determinand			CLP Note	User entered data	Conv. Factor	Compound conc.	Classification value	MC Applied	Conc. Not Used
	EU CLP index number	EC Number	CAS Number							
1	monohydric phenols		P1186		<1 mg/kg		<1 mg/kg	<0.0001 %		<LOD
2	chromium in chromium(VI) compounds { chromium (VI) compounds, with the exception of barium chromate and of compounds specified elsewhere in this Annex }				<1.8 mg/kg	2.27	<4.086 mg/kg	<0.000409 %		<LOD
	024-017-00-8									
3	pH		PH		8 pH		8 pH	8pH		
4	boron { diboron trioxide }				2.5 mg/kg	3.22	6.44 mg/kg	0.000644 %	✓	
	005-008-00-8	215-125-8	1303-86-2							
5	arsenic { arsenic compounds, with the exception of those specified elsewhere in this Annex }			1	17 mg/kg		13.6 mg/kg	0.00136 %	✓	
	033-002-00-5									
6	beryllium { beryllium chloride }				1.2 mg/kg	8.868	8.513 mg/kg	0.000851 %	✓	
			7787-47-5							
7	cadmium { cadmium compounds, with the exception of cadmium sulphoselenide (xCdS.yCdSe), reaction mass of cadmium sulphide with zinc sulphide (xCdS.yZnS), reaction mass of cadmium sulphide with mercury sulphide (xCdS.yHgS), and those specified elsewhere in this Annex }			1	<0.2 mg/kg		<0.2 mg/kg	<0.00002 %		<LOD
	048-001-00-5									
8	copper { copper(II) carbonate – copper(II) hydroxide (1:1) }				33 mg/kg	1.74	45.931 mg/kg	0.00459 %	✓	
	029-020-00-8	235-113-6	12069-69-1							
9	mercury { inorganic compounds of mercury with the exception of mercuric sulphide and those specified elsewhere in this Annex }			1	<0.3 mg/kg		<0.3 mg/kg	<0.00003 %		<LOD
	080-002-00-6									
10	nickel { nickel sulfide }				23 mg/kg	1.546	28.452 mg/kg	0.00285 %	✓	
	028-006-00-9	240-841-2 [1] 234-349-7 [2] - [3]	16812-54-7 [1] 11113-75-0 [2] 1314-04-1 [3]							
11	lead { lead compounds with the exception of those specified elsewhere in this Annex (worst case) }			1	46 mg/kg		36.8 mg/kg	0.00368 %	✓	
	082-001-00-6									

#	Determinand			CLP Note	User entered data	Conv. Factor	Compound conc.		Classification value	MC Applied	Conc. Not Used
	EU CLP index number	EC Number	CAS Number								
12	selenium { selenium compounds with the exception of cadmium sulphoselenide and those specified elsewhere in this Annex }				<1 mg/kg	1.405	<1.405 mg/kg	<0.000141 %			<LOD
	034-002-00-8										
13	vanadium { divanadium pentaoxide; vanadium pentoxide }				41 mg/kg	1.785	58.554 mg/kg	0.00586 %	✓		
	023-001-00-8	215-239-8	1314-62-1								
14	zinc { zinc sulphate }				120 mg/kg	2.469	237.052 mg/kg	0.0237 %	✓		
	030-006-00-9	231-793-3 [1] 231-793-3 [2]	7446-19-7 [1] 7733-02-0 [2]								
15	naphthalene				<0.05 mg/kg		<0.05 mg/kg	<0.000005 %			<LOD
	601-052-00-2	202-049-5	91-20-3								
16	acenaphthylene				<0.05 mg/kg		<0.05 mg/kg	<0.000005 %			<LOD
		205-917-1	208-96-8								
17	acenaphthene				<0.05 mg/kg		<0.05 mg/kg	<0.000005 %			<LOD
		201-469-6	83-32-9								
18	fluorene				<0.05 mg/kg		<0.05 mg/kg	<0.000005 %			<LOD
		201-695-5	86-73-7								
19	phenanthrene				<0.05 mg/kg		<0.05 mg/kg	<0.000005 %			<LOD
		201-581-5	85-01-8								
20	anthracene				<0.05 mg/kg		<0.05 mg/kg	<0.000005 %			<LOD
		204-371-1	120-12-7								
21	fluoranthene				0.09 mg/kg		0.072 mg/kg	0.0000072 %	✓		
		205-912-4	206-44-0								
22	pyrene				0.11 mg/kg		0.088 mg/kg	0.0000088 %	✓		
		204-927-3	129-00-0								
23	benzo[a]anthracene				<0.05 mg/kg		<0.05 mg/kg	<0.000005 %			<LOD
	601-033-00-9	200-280-6	56-55-3								
24	chrysene				0.08 mg/kg		0.064 mg/kg	0.0000064 %	✓		
	601-048-00-0	205-923-4	218-01-9								
25	benzo[a]pyrene; benzo[def]chrysene				0.07 mg/kg		0.056 mg/kg	0.0000056 %	✓		
	601-032-00-3	200-028-5	50-32-8								
26	indeno[123-cd]pyrene				<0.05 mg/kg		<0.05 mg/kg	<0.000005 %			<LOD
		205-893-2	193-39-5								
27	dibenz[a,h]anthracene				<0.05 mg/kg		<0.05 mg/kg	<0.000005 %			<LOD
	601-041-00-2	200-181-8	53-70-3								
28	benzo[ghi]perylene				0.07 mg/kg		0.056 mg/kg	0.0000056 %	✓		
		205-883-8	191-24-2								
29	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								
30	benzo[bk]fluoranthene				0.1 mg/kg		0.08 mg/kg	0.000008 %	✓		
		[1] 205-911-9 [2] 205-916-6	[1] 205-99-2 [2] 207-08-9								
Total:									0.048 %		

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: TP03-3-30072024-0.50

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

Sample details

Sample name:	LoW Code:
TP03-3-30072024-0.50	Chapter:
Moisture content:	17: Construction and Demolition Wastes (including excavated soil from contaminated sites)
21%	17 05 04 (Soil and stones other than those mentioned in 17 05 03)
(wet weight correction)	

Hazard properties

None identified

Determinands

Moisture content: 21% Wet Weight Moisture Correction applied (MC)

#	Determinand			CLP Note	User entered data	Conv. Factor	Compound conc.	Classification value	MC Applied	Conc. Not Used
	EU CLP index number	EC Number	CAS Number							
1	monohydric phenols				<1 mg/kg		<1 mg/kg	<0.0001 %		<LOD
			P1186							
2	chromium in chromium(VI) compounds { chromium (VI) compounds, with the exception of barium chromate and of compounds specified elsewhere in this Annex }				<1.8 mg/kg	2.27	<4.086 mg/kg	<0.000409 %		<LOD
	024-017-00-8									
3	pH				8 pH		8 pH	8pH		
			PH							
4	boron { diboron trioxide }				1.1 mg/kg	3.22	2.798 mg/kg	0.00028 %	✓	
	005-008-00-8	215-125-8	1303-86-2							
5	arsenic { arsenic compounds, with the exception of those specified elsewhere in this Annex }			1	20 mg/kg		15.8 mg/kg	0.00158 %	✓	
	033-002-00-5									
6	beryllium { beryllium chloride }				2 mg/kg	8.868	14.011 mg/kg	0.0014 %	✓	
			7787-47-5							
7	cadmium { cadmium compounds, with the exception of cadmium sulphoselenide (xCdS.yCdSe), reaction mass of cadmium sulphide with zinc sulphide (xCdS.yZnS), reaction mass of cadmium sulphide with mercury sulphide (xCdS.yHgS), and those specified elsewhere in this Annex }			1	<0.2 mg/kg		<0.2 mg/kg	<0.00002 %		<LOD
	048-001-00-5									
8	copper { copper(II) carbonate – copper(II) hydroxide (1:1) }				14 mg/kg	1.74	19.242 mg/kg	0.00192 %	✓	
	029-020-00-8	235-113-6	12069-69-1							
9	mercury { inorganic compounds of mercury with the exception of mercuric sulphide and those specified elsewhere in this Annex }			1	<0.3 mg/kg		<0.3 mg/kg	<0.00003 %		<LOD
	080-002-00-6									
10	nickel { nickel sulfide }				34 mg/kg	1.546	41.534 mg/kg	0.00415 %	✓	
	028-006-00-9	240-841-2 [1] 234-349-7 [2] - [3]	16812-54-7 [1] 11113-75-0 [2] 1314-04-1 [3]							
11	lead { lead compounds with the exception of those specified elsewhere in this Annex (worst case) }			1	19 mg/kg		15.01 mg/kg	0.0015 %	✓	
	082-001-00-6									

#	Determinand			CLP Note	User entered data	Conv. Factor	Compound conc.		Classification value	MC Applied	Conc. Not Used
	EU CLP index number	EC Number	CAS Number								
12	selenium { selenium compounds with the exception of cadmium sulphoselenide and those specified elsewhere in this Annex }				<1 mg/kg	1.405	<1.405 mg/kg	<0.000141 %			<LOD
	034-002-00-8										
13	vanadium { divanadium pentaoxide; vanadium pentoxide }				47 mg/kg	1.785	66.284 mg/kg	0.00663 %		✓	
	023-001-00-8	215-239-8	1314-62-1								
14	zinc { zinc sulphate }				45 mg/kg	2.469	87.783 mg/kg	0.00878 %		✓	
	030-006-00-9	231-793-3 [1] 231-793-3 [2]	7446-19-7 [1] 7733-02-0 [2]								
15	naphthalene				<0.05 mg/kg		<0.05 mg/kg	<0.000005 %			<LOD
	601-052-00-2	202-049-5	91-20-3								
16	acenaphthylene				<0.05 mg/kg		<0.05 mg/kg	<0.000005 %			<LOD
		205-917-1	208-96-8								
17	acenaphthene				<0.05 mg/kg		<0.05 mg/kg	<0.000005 %			<LOD
		201-469-6	83-32-9								
18	fluorene				<0.05 mg/kg		<0.05 mg/kg	<0.000005 %			<LOD
		201-695-5	86-73-7								
19	phenanthrene				<0.05 mg/kg		<0.05 mg/kg	<0.000005 %			<LOD
		201-581-5	85-01-8								
20	anthracene				<0.05 mg/kg		<0.05 mg/kg	<0.000005 %			<LOD
		204-371-1	120-12-7								
21	fluoranthene				<0.05 mg/kg		<0.05 mg/kg	<0.000005 %			<LOD
		205-912-4	206-44-0								
22	pyrene				<0.05 mg/kg		<0.05 mg/kg	<0.000005 %			<LOD
		204-927-3	129-00-0								
23	benzo[a]anthracene				<0.05 mg/kg		<0.05 mg/kg	<0.000005 %			<LOD
	601-033-00-9	200-280-6	56-55-3								
24	chrysene				<0.05 mg/kg		<0.05 mg/kg	<0.000005 %			<LOD
	601-048-00-0	205-923-4	218-01-9								
25	benzo[a]pyrene; benzo[def]chrysene				<0.05 mg/kg		<0.05 mg/kg	<0.000005 %			<LOD
	601-032-00-3	200-028-5	50-32-8								
26	indeno[123-cd]pyrene				<0.05 mg/kg		<0.05 mg/kg	<0.000005 %			<LOD
		205-893-2	193-39-5								
27	dibenz[a,h]anthracene				<0.05 mg/kg		<0.05 mg/kg	<0.000005 %			<LOD
	601-041-00-2	200-181-8	53-70-3								
28	benzo[ghi]perylene				<0.05 mg/kg		<0.05 mg/kg	<0.000005 %			<LOD
		205-883-8	191-24-2								
29	chromium in chromium(III) compounds { chromium(III) oxide (worst case) }				33 mg/kg	1.462	48.231 mg/kg	0.00482 %			
		215-160-9	1308-38-9								
30	benzo[bk]fluoranthene				<0.1 mg/kg		<0.1 mg/kg	<0.00001 %			<LOD
		[1] 205-911-9 [2] 205-916-6	[1] 205-99-2 [2] 207-08-9								
Total:									0.0318 %		

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: TP04-1-30072024-0.10

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

Sample details

Sample name:	LoW Code:
TP04-1-30072024-0.10	Chapter:
Moisture content:	17: Construction and Demolition Wastes (including excavated soil from contaminated sites)
6.5%	17 05 04 (Soil and stones other than those mentioned in 17 05 03)
(wet weight correction)	

Hazard properties

None identified

Determinands

Moisture content: 6.5% Wet Weight Moisture Correction applied (MC)

#	Determinand			CLP Note	User entered data	Conv. Factor	Compound conc.	Classification value	MC Applied	Conc. Not Used
	EU CLP index number	EC Number	CAS Number							
1	monohydric phenols				<1 mg/kg		<1 mg/kg	<0.0001 %		<LOD
			P1186							
2	chromium in chromium(VI) compounds { chromium (VI) compounds, with the exception of barium chromate and of compounds specified elsewhere in this Annex }				<1.8 mg/kg	2.27	<4.086 mg/kg	<0.000409 %		<LOD
	024-017-00-8									
3	pH				8.6 pH		8.6 pH	8.6 pH		
			PH							
4	boron { diboron trioxide }				1.2 mg/kg	3.22	3.613 mg/kg	0.000361 %	✓	
	005-008-00-8	215-125-8	1303-86-2							
5	arsenic { arsenic compounds, with the exception of those specified elsewhere in this Annex }			1	13 mg/kg		12.155 mg/kg	0.00122 %	✓	
	033-002-00-5									
6	beryllium { beryllium chloride }				0.56 mg/kg	8.868	4.643 mg/kg	0.000464 %	✓	
			7787-47-5							
7	cadmium { cadmium compounds, with the exception of cadmium sulphoselenide (xCdS.yCdSe), reaction mass of cadmium sulphide with zinc sulphide (xCdS.yZnS), reaction mass of cadmium sulphide with mercury sulphide (xCdS.yHgS), and those specified elsewhere in this Annex }			1	0.6 mg/kg		0.561 mg/kg	0.0000561 %	✓	
	048-001-00-5									
8	copper { copper(II) carbonate – copper(II) hydroxide (1:1) }				17 mg/kg	1.74	27.654 mg/kg	0.00277 %	✓	
	029-020-00-8	235-113-6	12069-69-1							
9	mercury { inorganic compounds of mercury with the exception of mercuric sulphide and those specified elsewhere in this Annex }			1	<0.3 mg/kg		<0.3 mg/kg	<0.00003 %		<LOD
	080-002-00-6									
10	nickel { nickel sulfide }				10 mg/kg	1.546	14.458 mg/kg	0.00145 %	✓	
	028-006-00-9	240-841-2 [1] 234-349-7 [2] - [3]	16812-54-7 [1] 11113-75-0 [2] 1314-04-1 [3]							
11	lead { lead compounds with the exception of those specified elsewhere in this Annex (worst case) }			1	62 mg/kg		57.97 mg/kg	0.0058 %	✓	
	082-001-00-6									

#		Determinand			CLP Note	User entered data		Conv. Factor	Compound conc.		Classification value	MC Applied	Conc. Not Used
		EU CLP index number	EC Number	CAS Number									
12		selenium { selenium compounds with the exception of cadmium sulphoselenide and those specified elsewhere in this Annex }				1.1	mg/kg	1.405	1.445	mg/kg	0.000145 %	✓	
		034-002-00-8											
13		vanadium { divanadium pentaoxide; vanadium pentoxide }				23	mg/kg	1.785	38.39	mg/kg	0.00384 %	✓	
		023-001-00-8	215-239-8	1314-62-1									
14		zinc { zinc sulphate }				97	mg/kg	2.469	223.953	mg/kg	0.0224 %	✓	
		030-006-00-9	231-793-3 [1] 231-793-3 [2]	7446-19-7 [1] 7733-02-0 [2]									
15		naphthalene				9.1	mg/kg		8.509	mg/kg	0.000851 %	✓	
		601-052-00-2	202-049-5	91-20-3									
16		acenaphthylene				5.4	mg/kg		5.049	mg/kg	0.000505 %	✓	
			205-917-1	208-96-8									
17		acenaphthene				12	mg/kg		11.22	mg/kg	0.00112 %	✓	
			201-469-6	83-32-9									
18		fluorene				16	mg/kg		14.96	mg/kg	0.0015 %	✓	
			201-695-5	86-73-7									
19		phenanthrene				86	mg/kg		80.41	mg/kg	0.00804 %	✓	
			201-581-5	85-01-8									
20		anthracene				30	mg/kg		28.05	mg/kg	0.00281 %	✓	
			204-371-1	120-12-7									
21		fluoranthene				150	mg/kg		140.25	mg/kg	0.014 %	✓	
			205-912-4	206-44-0									
22		pyrene				130	mg/kg		121.55	mg/kg	0.0122 %	✓	
			204-927-3	129-00-0									
23		benzo[a]anthracene				69	mg/kg		64.515	mg/kg	0.00645 %	✓	
		601-033-00-9	200-280-6	56-55-3									
24		chrysene				73	mg/kg		68.255	mg/kg	0.00683 %	✓	
		601-048-00-0	205-923-4	218-01-9									
25		benzo[a]pyrene; benzo[def]chrysene				67	mg/kg		62.645	mg/kg	0.00626 %	✓	
		601-032-00-3	200-028-5	50-32-8									
26		indeno[123-cd]pyrene				37	mg/kg		34.595	mg/kg	0.00346 %	✓	
			205-893-2	193-39-5									
27		dibenz[a,h]anthracene				<0.05	mg/kg		<0.05	mg/kg	<0.000005 %		<LOD
		601-041-00-2	200-181-8	53-70-3									
28		benzo[ghi]perylene				39	mg/kg		36.465	mg/kg	0.00365 %	✓	
			205-883-8	191-24-2									
29		chromium in chromium(III) compounds {  chromium(III) oxide (worst case) }				12	mg/kg	1.462	17.539	mg/kg	0.00175 %		
			215-160-9	1308-38-9									
30		benzo[bk]fluoranthene				118	mg/kg		110.33	mg/kg	0.011 %	✓	
			[1] 205-911-9 [2] 205-916-6	[1] 205-99-2 [2] 207-08-9									
Total:												0.119 %	

Key

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

Classification of sample: TP04-2-30072024-0.80

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

Sample details

Sample name:	LoW Code:
TP04-2-30072024-0.80	Chapter:
Moisture content:	17: Construction and Demolition Wastes (including excavated soil from contaminated sites)
21%	17 05 04 (Soil and stones other than those mentioned in 17 05 03)
(wet weight correction)	

Hazard properties

None identified

Determinands

Moisture content: 21% Wet Weight Moisture Correction applied (MC)

#	Determinand			CLP Note	User entered data	Conv. Factor	Compound conc.	Classification value	MC Applied	Conc. Not Used
	EU CLP index number	EC Number	CAS Number							
1	monohydric phenols				<1 mg/kg		<1 mg/kg	<0.0001 %		<LOD
			P1186							
2	chromium in chromium(VI) compounds { chromium (VI) compounds, with the exception of barium chromate and of compounds specified elsewhere in this Annex }				<1.8 mg/kg	2.27	<4.086 mg/kg	<0.000409 %		<LOD
	024-017-00-8									
3	pH				8 pH		8 pH	8pH		
			PH							
4	boron { diboron trioxide }				0.5 mg/kg	3.22	1.272 mg/kg	0.000127 %	✓	
	005-008-00-8	215-125-8	1303-86-2							
5	arsenic { arsenic compounds, with the exception of those specified elsewhere in this Annex }			1	17 mg/kg		13.43 mg/kg	0.00134 %	✓	
	033-002-00-5									
6	beryllium { beryllium chloride }				1.4 mg/kg	8.868	9.808 mg/kg	0.000981 %	✓	
			7787-47-5							
7	cadmium { cadmium compounds, with the exception of cadmium sulphoselenide (xCdS.yCdSe), reaction mass of cadmium sulphide with zinc sulphide (xCdS.yZnS), reaction mass of cadmium sulphide with mercury sulphide (xCdS.yHgS), and those specified elsewhere in this Annex }			1	<0.2 mg/kg		<0.2 mg/kg	<0.00002 %		<LOD
	048-001-00-5									
8	copper { copper(II) carbonate – copper(II) hydroxide (1:1) }				20 mg/kg	1.74	27.489 mg/kg	0.00275 %	✓	
	029-020-00-8	235-113-6	12069-69-1							
9	mercury { inorganic compounds of mercury with the exception of mercuric sulphide and those specified elsewhere in this Annex }			1	<0.3 mg/kg		<0.3 mg/kg	<0.00003 %		<LOD
	080-002-00-6									
10	nickel { nickel sulfide }				27 mg/kg	1.546	32.983 mg/kg	0.0033 %	✓	
	028-006-00-9	240-841-2 [1] 234-349-7 [2] - [3]	16812-54-7 [1] 11113-75-0 [2] 1314-04-1 [3]							
11	lead { lead compounds with the exception of those specified elsewhere in this Annex (worst case) }			1	36 mg/kg		28.44 mg/kg	0.00284 %	✓	
	082-001-00-6									

#	Determinand			CLP Note	User entered data	Conv. Factor	Compound conc.		Classification value	MC Applied	Conc. Not Used
	EU CLP index number	EC Number	CAS Number								
12	selenium { selenium compounds with the exception of cadmium sulphoselenide and those specified elsewhere in this Annex }				<1 mg/kg	1.405	<1.405 mg/kg	<0.000141 %			<LOD
	034-002-00-8										
13	vanadium { divanadium pentaoxide; vanadium pentoxide }				51 mg/kg	1.785	71.925 mg/kg	0.00719 %	✓		
	023-001-00-8	215-239-8	1314-62-1								
14	zinc { zinc sulphate }				74 mg/kg	2.469	144.355 mg/kg	0.0144 %	✓		
	030-006-00-9	231-793-3 [1] 231-793-3 [2]	7446-19-7 [1] 7733-02-0 [2]								
15	naphthalene				<0.05 mg/kg		<0.05 mg/kg	<0.000005 %			<LOD
	601-052-00-2	202-049-5	91-20-3								
16	acenaphthylene				<0.05 mg/kg		<0.05 mg/kg	<0.000005 %			<LOD
		205-917-1	208-96-8								
17	acenaphthene				<0.05 mg/kg		<0.05 mg/kg	<0.000005 %			<LOD
		201-469-6	83-32-9								
18	fluorene				<0.05 mg/kg		<0.05 mg/kg	<0.000005 %			<LOD
		201-695-5	86-73-7								
19	phenanthrene				0.05 mg/kg		0.0395 mg/kg	0.00000395 %	✓		
		201-581-5	85-01-8								
20	anthracene				<0.05 mg/kg		<0.05 mg/kg	<0.000005 %			<LOD
		204-371-1	120-12-7								
21	fluoranthene				0.06 mg/kg		0.0474 mg/kg	0.00000474 %	✓		
		205-912-4	206-44-0								
22	pyrene				0.08 mg/kg		0.0632 mg/kg	0.00000632 %	✓		
		204-927-3	129-00-0								
23	benzo[a]anthracene				<0.05 mg/kg		<0.05 mg/kg	<0.000005 %			<LOD
	601-033-00-9	200-280-6	56-55-3								
24	chrysene				<0.05 mg/kg		<0.05 mg/kg	<0.000005 %			<LOD
	601-048-00-0	205-923-4	218-01-9								
25	benzo[a]pyrene; benzo[def]chrysene				<0.05 mg/kg		<0.05 mg/kg	<0.000005 %			<LOD
	601-032-00-3	200-028-5	50-32-8								
26	indeno[123-cd]pyrene				<0.05 mg/kg		<0.05 mg/kg	<0.000005 %			<LOD
		205-893-2	193-39-5								
27	dibenz[a,h]anthracene				<0.05 mg/kg		<0.05 mg/kg	<0.000005 %			<LOD
	601-041-00-2	200-181-8	53-70-3								
28	benzo[ghi]perylene				<0.05 mg/kg		<0.05 mg/kg	<0.000005 %			<LOD
		205-883-8	191-24-2								
29	chromium in chromium(III) compounds { chromium(III) oxide (worst case) }				32 mg/kg	1.462	46.77 mg/kg	0.00468 %			
		215-160-9	1308-38-9								
30	benzo[bk]fluoranthene				<0.1 mg/kg		<0.1 mg/kg	<0.00001 %			<LOD
		[1] 205-911-9 [2] 205-916-6	[1] 205-99-2 [2] 207-08-9								
Total:									0.0384 %		

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: TP05-1-30072024-0.10

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

Sample details

Sample name:	LoW Code:
TP05-1-30072024-0.10	Chapter:
Moisture content:	17: Construction and Demolition Wastes (including excavated soil from contaminated sites)
7.6%	17 05 04 (Soil and stones other than those mentioned in 17 05 03)
(wet weight correction)	

Hazard properties

None identified

Determinands

Moisture content: 7.6% Wet Weight Moisture Correction applied (MC)

#	Determinand			CLP Note	User entered data	Conv. Factor	Compound conc.	Classification value	MC Applied	Conc. Not Used
	EU CLP index number	EC Number	CAS Number							
1	monohydric phenols				<1 mg/kg		<1 mg/kg	<0.0001 %		<LOD
			P1186							
2	chromium in chromium(VI) compounds { chromium (VI) compounds, with the exception of barium chromate and of compounds specified elsewhere in this Annex }				<1.8 mg/kg	2.27	<4.086 mg/kg	<0.000409 %		<LOD
	024-017-00-8									
3	pH				8.6 pH		8.6 pH	8.6 pH		
			PH							
4	boron { diboron trioxide }				0.7 mg/kg	3.22	2.083 mg/kg	0.000208 %	✓	
	005-008-00-8	215-125-8	1303-86-2							
5	arsenic { arsenic compounds, with the exception of those specified elsewhere in this Annex }			1	9.6 mg/kg		8.87 mg/kg	0.000887 %	✓	
	033-002-00-5									
6	beryllium { beryllium chloride }				0.39 mg/kg	8.868	3.196 mg/kg	0.00032 %	✓	
			7787-47-5							
7	cadmium { cadmium compounds, with the exception of cadmium sulphoselenide (xCdS.yCdSe), reaction mass of cadmium sulphide with zinc sulphide (xCdS.yZnS), reaction mass of cadmium sulphide with mercury sulphide (xCdS.yHgS), and those specified elsewhere in this Annex }			1	<0.2 mg/kg		<0.2 mg/kg	<0.00002 %		<LOD
	048-001-00-5									
8	copper { copper(II) carbonate – copper(II) hydroxide (1:1) }				6.6 mg/kg	1.74	10.61 mg/kg	0.00106 %	✓	
	029-020-00-8	235-113-6	12069-69-1							
9	mercury { inorganic compounds of mercury with the exception of mercuric sulphide and those specified elsewhere in this Annex }			1	<0.3 mg/kg		<0.3 mg/kg	<0.00003 %		<LOD
	080-002-00-6									
10	nickel { nickel sulfide }				8.2 mg/kg	1.546	11.716 mg/kg	0.00117 %	✓	
	028-006-00-9	240-841-2 [1] 234-349-7 [2] - [3]	16812-54-7 [1] 11113-75-0 [2] 1314-04-1 [3]							
11	lead { lead compounds with the exception of those specified elsewhere in this Annex (worst case) }			1	19 mg/kg		17.556 mg/kg	0.00176 %	✓	
	082-001-00-6									

#		Determinand			CLP Note	User entered data		Conv. Factor	Compound conc.		Classification value	MC Applied	Conc. Not Used
		EU CLP index number	EC Number	CAS Number									
12		selenium { selenium compounds with the exception of cadmium sulphoselenide and those specified elsewhere in this Annex }				1.4	mg/kg	1.405	1.818	mg/kg	0.000182 %	✓	
		034-002-00-8											
13		vanadium { divanadium pentaoxide; vanadium pentoxide }				22	mg/kg	1.785	36.289	mg/kg	0.00363 %	✓	
		023-001-00-8	215-239-8	1314-62-1									
14		zinc { zinc sulphate }				37	mg/kg	2.469	84.42	mg/kg	0.00844 %	✓	
		030-006-00-9	231-793-3 [1] 231-793-3 [2]	7446-19-7 [1] 7733-02-0 [2]									
15		naphthalene				0.15	mg/kg		0.139	mg/kg	0.0000139 %	✓	
		601-052-00-2	202-049-5	91-20-3									
16		acenaphthylene				0.09	mg/kg		0.0832	mg/kg	0.00000832 %	✓	
			205-917-1	208-96-8									
17		acenaphthene				0.44	mg/kg		0.407	mg/kg	0.0000407 %	✓	
			201-469-6	83-32-9									
18		fluorene				0.63	mg/kg		0.582	mg/kg	0.0000582 %	✓	
			201-695-5	86-73-7									
19		phenanthrene				5.1	mg/kg		4.712	mg/kg	0.000471 %	✓	
			201-581-5	85-01-8									
20		anthracene				1.7	mg/kg		1.571	mg/kg	0.000157 %	✓	
			204-371-1	120-12-7									
21		fluoranthene				8.7	mg/kg		8.039	mg/kg	0.000804 %	✓	
			205-912-4	206-44-0									
22		pyrene				6.9	mg/kg		6.376	mg/kg	0.000638 %	✓	
			204-927-3	129-00-0									
23		benzo[a]anthracene				3.5	mg/kg		3.234	mg/kg	0.000323 %	✓	
		601-033-00-9	200-280-6	56-55-3									
24		chrysene				3.8	mg/kg		3.511	mg/kg	0.000351 %	✓	
		601-048-00-0	205-923-4	218-01-9									
25		benzo[a]pyrene; benzo[def]chrysene				3.9	mg/kg		3.604	mg/kg	0.00036 %	✓	
		601-032-00-3	200-028-5	50-32-8									
26		indeno[123-cd]pyrene				2.1	mg/kg		1.94	mg/kg	0.000194 %	✓	
			205-893-2	193-39-5									
27		dibenz[a,h]anthracene				<0.05	mg/kg		<0.05	mg/kg	<0.000005 %		<LOD
		601-041-00-2	200-181-8	53-70-3									
28		benzo[ghi]perylene				2.2	mg/kg		2.033	mg/kg	0.000203 %	✓	
			205-883-8	191-24-2									
29		chromium in chromium(III) compounds {  chromium(III) oxide (worst case) }				9.7	mg/kg	1.462	14.177	mg/kg	0.00142 %		
			215-160-9	1308-38-9									
30		benzo[bk]fluoranthene				6.1	mg/kg		5.636	mg/kg	0.000564 %	✓	
			[1] 205-911-9 [2] 205-916-6	[1] 205-99-2 [2] 207-08-9									
Total:											0.0238 %		

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: TP05-2-30072024-0.70

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

Sample details

Sample name:	LoW Code:
TP05-2-30072024-0.70	Chapter:
Moisture content:	17: Construction and Demolition Wastes (including excavated soil from contaminated sites)
21%	17 05 04 (Soil and stones other than those mentioned in 17 05 03)
(wet weight correction)	

Hazard properties

None identified

Determinands

Moisture content: 21% Wet Weight Moisture Correction applied (MC)

#	Determinand			CLP Note	User entered data	Conv. Factor	Compound conc.	Classification value	MC Applied	Conc. Not Used
	EU CLP index number	EC Number	CAS Number							
1	monohydric phenols				<1 mg/kg		<1 mg/kg	<0.0001 %		<LOD
			P1186							
2	chromium in chromium(VI) compounds { chromium (VI) compounds, with the exception of barium chromate and of compounds specified elsewhere in this Annex }				<1.8 mg/kg	2.27	<4.086 mg/kg	<0.000409 %		<LOD
	024-017-00-8									
3	pH				8.2 pH		8.2 pH	8.2 pH		
			PH							
4	boron { diboron trioxide }				0.8 mg/kg	3.22	2.035 mg/kg	0.000203 %	✓	
	005-008-00-8	215-125-8	1303-86-2							
5	arsenic { arsenic compounds, with the exception of those specified elsewhere in this Annex }			1	10 mg/kg		7.9 mg/kg	0.00079 %	✓	
	033-002-00-5									
6	beryllium { beryllium chloride }				1.1 mg/kg	8.868	7.706 mg/kg	0.000771 %	✓	
			7787-47-5							
7	cadmium { cadmium compounds, with the exception of cadmium sulphoselenide (xCdS.yCdSe), reaction mass of cadmium sulphide with zinc sulphide (xCdS.yZnS), reaction mass of cadmium sulphide with mercury sulphide (xCdS.yHgS), and those specified elsewhere in this Annex }			1	<0.2 mg/kg		<0.2 mg/kg	<0.00002 %		<LOD
	048-001-00-5									
8	copper { copper(II) carbonate – copper(II) hydroxide (1:1) }				11 mg/kg	1.74	15.119 mg/kg	0.00151 %	✓	
	029-020-00-8	235-113-6	12069-69-1							
9	mercury { inorganic compounds of mercury with the exception of mercuric sulphide and those specified elsewhere in this Annex }			1	<0.3 mg/kg		<0.3 mg/kg	<0.00003 %		<LOD
	080-002-00-6									
10	nickel { nickel sulfide }				23 mg/kg	1.546	28.097 mg/kg	0.00281 %	✓	
	028-006-00-9	240-841-2 [1] 234-349-7 [2] - [3]	16812-54-7 [1] 11113-75-0 [2] 1314-04-1 [3]							
11	lead { lead compounds with the exception of those specified elsewhere in this Annex (worst case) }			1	15 mg/kg		11.85 mg/kg	0.00119 %	✓	
	082-001-00-6									

#	Determinand			CLP Note	User entered data	Conv. Factor	Compound conc.		Classification value	MC Applied	Conc. Not Used
	EU CLP index number	EC Number	CAS Number								
12	selenium { selenium compounds with the exception of cadmium sulphoselenide and those specified elsewhere in this Annex }				<1 mg/kg	1.405	<1.405 mg/kg	<0.000141 %			<LOD
	034-002-00-8										
13	vanadium { divanadium pentaoxide; vanadium pentoxide }				35 mg/kg	1.785	49.36 mg/kg	0.00494 %		✓	
	023-001-00-8	215-239-8	1314-62-1								
14	zinc { zinc sulphate }				64 mg/kg	2.469	124.848 mg/kg	0.0125 %		✓	
	030-006-00-9	231-793-3 [1] 231-793-3 [2]	7446-19-7 [1] 7733-02-0 [2]								
15	naphthalene				<0.05 mg/kg		<0.05 mg/kg	<0.000005 %			<LOD
	601-052-00-2	202-049-5	91-20-3								
16	acenaphthylene				<0.05 mg/kg		<0.05 mg/kg	<0.000005 %			<LOD
		205-917-1	208-96-8								
17	acenaphthene				<0.05 mg/kg		<0.05 mg/kg	<0.000005 %			<LOD
		201-469-6	83-32-9								
18	fluorene				<0.05 mg/kg		<0.05 mg/kg	<0.000005 %			<LOD
		201-695-5	86-73-7								
19	phenanthrene				<0.05 mg/kg		<0.05 mg/kg	<0.000005 %			<LOD
		201-581-5	85-01-8								
20	anthracene				<0.05 mg/kg		<0.05 mg/kg	<0.000005 %			<LOD
		204-371-1	120-12-7								
21	fluoranthene				<0.05 mg/kg		<0.05 mg/kg	<0.000005 %			<LOD
		205-912-4	206-44-0								
22	pyrene				<0.05 mg/kg		<0.05 mg/kg	<0.000005 %			<LOD
		204-927-3	129-00-0								
23	benzo[a]anthracene				<0.05 mg/kg		<0.05 mg/kg	<0.000005 %			<LOD
	601-033-00-9	200-280-6	56-55-3								
24	chrysene				<0.05 mg/kg		<0.05 mg/kg	<0.000005 %			<LOD
	601-048-00-0	205-923-4	218-01-9								
25	benzo[a]pyrene; benzo[def]chrysene				<0.05 mg/kg		<0.05 mg/kg	<0.000005 %			<LOD
	601-032-00-3	200-028-5	50-32-8								
26	indeno[123-cd]pyrene				<0.05 mg/kg		<0.05 mg/kg	<0.000005 %			<LOD
		205-893-2	193-39-5								
27	dibenz[a,h]anthracene				<0.05 mg/kg		<0.05 mg/kg	<0.000005 %			<LOD
	601-041-00-2	200-181-8	53-70-3								
28	benzo[ghi]perylene				<0.05 mg/kg		<0.05 mg/kg	<0.000005 %			<LOD
		205-883-8	191-24-2								
29	chromium in chromium(III) compounds { chromium(III) oxide (worst case) }				24 mg/kg	1.462	35.077 mg/kg	0.00351 %			
		215-160-9	1308-38-9								
30	benzo[bk]fluoranthene				<0.1 mg/kg		<0.1 mg/kg	<0.00001 %			<LOD
		[1] 205-911-9 [2] 205-916-6	[1] 205-99-2 [2] 207-08-9								
Total:									0.029 %		

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: TP06-1-30072024-0.10

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

Sample details

Sample name:	LoW Code:
TP06-1-30072024-0.10	Chapter:
Moisture content:	17: Construction and Demolition Wastes (including excavated soil from contaminated sites)
12%	17 05 04 (Soil and stones other than those mentioned in 17 05 03)
(wet weight correction)	

Hazard properties

None identified

Determinands

Moisture content: 12% Wet Weight Moisture Correction applied (MC)

#	Determinand			CLP Note	User entered data	Conv. Factor	Compound conc.	Classification value	MC Applied	Conc. Not Used
	EU CLP index number	EC Number	CAS Number							
1	monohydric phenols				<1 mg/kg		<1 mg/kg	<0.0001 %		<LOD
			P1186							
2	chromium in chromium(VI) compounds { chromium (VI) compounds, with the exception of barium chromate and of compounds specified elsewhere in this Annex }				<1.8 mg/kg	2.27	<4.086 mg/kg	<0.000409 %		<LOD
	024-017-00-8									
3	pH				9.6 pH		9.6 pH	9.6 pH		
			PH							
4	boron { diboron trioxide }				0.6 mg/kg	3.22	1.7 mg/kg	0.00017 %	✓	
	005-008-00-8	215-125-8	1303-86-2							
5	arsenic { arsenic compounds, with the exception of those specified elsewhere in this Annex }			1	16 mg/kg		14.08 mg/kg	0.00141 %	✓	
	033-002-00-5									
6	beryllium { beryllium chloride }				0.7 mg/kg	8.868	5.463 mg/kg	0.000546 %	✓	
			7787-47-5							
7	cadmium { cadmium compounds, with the exception of cadmium sulphoselenide (xCdS.yCdSe), reaction mass of cadmium sulphide with zinc sulphide (xCdS.yZnS), reaction mass of cadmium sulphide with mercury sulphide (xCdS.yHgS), and those specified elsewhere in this Annex }			1	<0.2 mg/kg		<0.2 mg/kg	<0.00002 %		<LOD
	048-001-00-5									
8	copper { copper(II) carbonate – copper(II) hydroxide (1:1) }				8 mg/kg	1.74	12.248 mg/kg	0.00122 %	✓	
	029-020-00-8	235-113-6	12069-69-1							
9	mercury { inorganic compounds of mercury with the exception of mercuric sulphide and those specified elsewhere in this Annex }			1	<0.3 mg/kg		<0.3 mg/kg	<0.00003 %		<LOD
	080-002-00-6									
10	nickel { nickel sulfide }				16 mg/kg	1.546	21.772 mg/kg	0.00218 %	✓	
	028-006-00-9	240-841-2 [1] 234-349-7 [2] - [3]	16812-54-7 [1] 11113-75-0 [2] 1314-04-1 [3]							
11	lead { lead compounds with the exception of those specified elsewhere in this Annex (worst case) }			1	12 mg/kg		10.56 mg/kg	0.00106 %	✓	
	082-001-00-6									

#	Determinand			CLP Note	User entered data	Conv. Factor	Compound conc.		Classification value	MC Applied	Conc. Not Used
	EU CLP index number	EC Number	CAS Number								
12	selenium { selenium compounds with the exception of cadmium sulphoselenide and those specified elsewhere in this Annex }				<1 mg/kg	1.405	<1.405 mg/kg	<0.000141 %			<LOD
	034-002-00-8										
13	vanadium { divanadium pentaoxide; vanadium pentoxide }				29 mg/kg	1.785	45.558 mg/kg	0.00456 %		✓	
	023-001-00-8	215-239-8	1314-62-1								
14	zinc { zinc sulphate }				44 mg/kg	2.469	95.611 mg/kg	0.00956 %		✓	
	030-006-00-9	231-793-3 [1] 231-793-3 [2]	7446-19-7 [1] 7733-02-0 [2]								
15	naphthalene				<0.05 mg/kg		<0.05 mg/kg	<0.000005 %			<LOD
	601-052-00-2	202-049-5	91-20-3								
16	acenaphthylene				<0.05 mg/kg		<0.05 mg/kg	<0.000005 %			<LOD
		205-917-1	208-96-8								
17	acenaphthene				<0.05 mg/kg		<0.05 mg/kg	<0.000005 %			<LOD
		201-469-6	83-32-9								
18	fluorene				<0.05 mg/kg		<0.05 mg/kg	<0.000005 %			<LOD
		201-695-5	86-73-7								
19	phenanthrene				0.06 mg/kg		0.0528 mg/kg	0.0000528 %		✓	
		201-581-5	85-01-8								
20	anthracene				<0.05 mg/kg		<0.05 mg/kg	<0.000005 %			<LOD
		204-371-1	120-12-7								
21	fluoranthene				0.17 mg/kg		0.15 mg/kg	0.000015 %		✓	
		205-912-4	206-44-0								
22	pyrene				<0.05 mg/kg		<0.05 mg/kg	<0.000005 %			<LOD
		204-927-3	129-00-0								
23	benzo[a]anthracene				0.15 mg/kg		0.132 mg/kg	0.0000132 %		✓	
	601-033-00-9	200-280-6	56-55-3								
24	chrysene				0.2 mg/kg		0.176 mg/kg	0.0000176 %		✓	
	601-048-00-0	205-923-4	218-01-9								
25	benzo[a]pyrene; benzo[def]chrysene				0.24 mg/kg		0.211 mg/kg	0.0000211 %		✓	
	601-032-00-3	200-028-5	50-32-8								
26	indeno[123-cd]pyrene				0.1 mg/kg		0.088 mg/kg	0.0000088 %		✓	
		205-893-2	193-39-5								
27	dibenz[a,h]anthracene				<0.05 mg/kg		<0.05 mg/kg	<0.000005 %			<LOD
	601-041-00-2	200-181-8	53-70-3								
28	benzo[ghi]perylene				0.11 mg/kg		0.0968 mg/kg	0.00000968 %		✓	
		205-883-8	191-24-2								
29	chromium in chromium(III) compounds { chromium(III) oxide (worst case) }				17 mg/kg	1.462	24.846 mg/kg	0.00248 %			
		215-160-9	1308-38-9								
30	benzo[bk]fluoranthene				0.26 mg/kg		0.229 mg/kg	0.0000229 %		✓	
		[1] 205-911-9 [2] 205-916-6	[1] 205-99-2 [2] 207-08-9								
Total:									0.024 %		

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: TP06-2-30072024-0.30

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

Sample details

Sample name:	LoW Code:
TP06-2-30072024-0.30	Chapter:
Moisture content:	17: Construction and Demolition Wastes (including excavated soil from contaminated sites)
14%	17 05 04 (Soil and stones other than those mentioned in 17 05 03)
(wet weight correction)	

Hazard properties

None identified

Determinands

Moisture content: 14% Wet Weight Moisture Correction applied (MC)

#	Determinand			CLP Note	User entered data	Conv. Factor	Compound conc.	Classification value	MC Applied	Conc. Not Used
	EU CLP index number	EC Number	CAS Number							
1	monohydric phenols				<1 mg/kg		<1 mg/kg	<0.0001 %		<LOD
			P1186							
2	chromium in chromium(VI) compounds { chromium (VI) compounds, with the exception of barium chromate and of compounds specified elsewhere in this Annex }				<1.8 mg/kg	2.27	<4.086 mg/kg	<0.000409 %		<LOD
	024-017-00-8									
3	pH				8.7 pH		8.7 pH	8.7 pH		
			PH							
4	boron { diboron trioxide }				1.3 mg/kg	3.22	3.6 mg/kg	0.00036 %	✓	
	005-008-00-8	215-125-8	1303-86-2							
5	arsenic { arsenic compounds, with the exception of those specified elsewhere in this Annex }			1	9.8 mg/kg		8.428 mg/kg	0.000843 %	✓	
	033-002-00-5									
6	beryllium { beryllium chloride }				0.83 mg/kg	8.868	6.33 mg/kg	0.000633 %	✓	
			7787-47-5							
7	cadmium { cadmium compounds, with the exception of cadmium sulphoselenide (xCdS.yCdSe), reaction mass of cadmium sulphide with zinc sulphide (xCdS.yZnS), reaction mass of cadmium sulphide with mercury sulphide (xCdS.yHgS), and those specified elsewhere in this Annex }			1	<0.2 mg/kg		<0.2 mg/kg	<0.00002 %		<LOD
	048-001-00-5									
8	copper { copper(II) carbonate – copper(II) hydroxide (1:1) }				12 mg/kg	1.74	17.955 mg/kg	0.0018 %	✓	
	029-020-00-8	235-113-6	12069-69-1							
9	mercury { inorganic compounds of mercury with the exception of mercuric sulphide and those specified elsewhere in this Annex }			1	<0.3 mg/kg		<0.3 mg/kg	<0.00003 %		<LOD
	080-002-00-6									
10	nickel { nickel sulfide }				18 mg/kg	1.546	23.937 mg/kg	0.00239 %	✓	
	028-006-00-9	240-841-2 [1] 234-349-7 [2] - [3]	16812-54-7 [1] 11113-75-0 [2] 1314-04-1 [3]							
11	lead { lead compounds with the exception of those specified elsewhere in this Annex (worst case) }			1	8.6 mg/kg		7.396 mg/kg	0.00074 %	✓	
	082-001-00-6									

#	Determinand			CLP Note	User entered data	Conv. Factor	Compound conc.		Classification value	MC Applied	Conc. Not Used
	EU CLP index number	EC Number	CAS Number								
12	selenium { selenium compounds with the exception of cadmium sulphoselenide and those specified elsewhere in this Annex }				<1 mg/kg	1.405	<1.405 mg/kg	<0.000141 %			<LOD
	034-002-00-8										
13	vanadium { divanadium pentaoxide; vanadium pentoxide }				25 mg/kg	1.785	38.381 mg/kg	0.00384 %		✓	
	023-001-00-8	215-239-8	1314-62-1								
14	zinc { zinc sulphate }				38 mg/kg	2.469	80.697 mg/kg	0.00807 %		✓	
	030-006-00-9	231-793-3 [1] 231-793-3 [2]	7446-19-7 [1] 7733-02-0 [2]								
15	naphthalene				<0.05 mg/kg		<0.05 mg/kg	<0.000005 %			<LOD
	601-052-00-2	202-049-5	91-20-3								
16	acenaphthylene				<0.05 mg/kg		<0.05 mg/kg	<0.000005 %			<LOD
		205-917-1	208-96-8								
17	acenaphthene				<0.05 mg/kg		<0.05 mg/kg	<0.000005 %			<LOD
		201-469-6	83-32-9								
18	fluorene				<0.05 mg/kg		<0.05 mg/kg	<0.000005 %			<LOD
		201-695-5	86-73-7								
19	phenanthrene				<0.05 mg/kg		<0.05 mg/kg	<0.000005 %			<LOD
		201-581-5	85-01-8								
20	anthracene				<0.05 mg/kg		<0.05 mg/kg	<0.000005 %			<LOD
		204-371-1	120-12-7								
21	fluoranthene				<0.05 mg/kg		<0.05 mg/kg	<0.000005 %			<LOD
		205-912-4	206-44-0								
22	pyrene				<0.05 mg/kg		<0.05 mg/kg	<0.000005 %			<LOD
		204-927-3	129-00-0								
23	benzo[a]anthracene				<0.05 mg/kg		<0.05 mg/kg	<0.000005 %			<LOD
	601-033-00-9	200-280-6	56-55-3								
24	chrysene				<0.05 mg/kg		<0.05 mg/kg	<0.000005 %			<LOD
	601-048-00-0	205-923-4	218-01-9								
25	benzo[a]pyrene; benzo[def]chrysene				<0.05 mg/kg		<0.05 mg/kg	<0.000005 %			<LOD
	601-032-00-3	200-028-5	50-32-8								
26	indeno[123-cd]pyrene				<0.05 mg/kg		<0.05 mg/kg	<0.000005 %			<LOD
		205-893-2	193-39-5								
27	dibenz[a,h]anthracene				<0.05 mg/kg		<0.05 mg/kg	<0.000005 %			<LOD
	601-041-00-2	200-181-8	53-70-3								
28	benzo[ghi]perylene				<0.05 mg/kg		<0.05 mg/kg	<0.000005 %			<LOD
		205-883-8	191-24-2								
29	chromium in chromium(III) compounds { chromium(III) oxide (worst case) }				20 mg/kg	1.462	29.231 mg/kg	0.00292 %			
		215-160-9	1308-38-9								
30	benzo[bk]fluoranthene				<0.1 mg/kg		<0.1 mg/kg	<0.00001 %			<LOD
		[1] 205-911-9 [2] 205-916-6	[1] 205-99-2 [2] 207-08-9								
Total:									0.0224 %		

Key

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

Appendix A: Classifier defined and non GB MCL determinands

• monohydric phenols (CAS Number: P1186)

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

Data source: CLP combined data

Data source date: 26 Mar 2019

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

• pH (CAS Number: PH)

Description/Comments: Appendix C4

Data source: WM3 1st Edition 2015

Data source date: 25 May 2015

Hazard Statements: None.

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

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

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

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

Reason for additional Hazards Statement(s):

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

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

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

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

Data source date: 02 Jun 2014

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

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

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

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

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

Reason for additional Hazards Statement(s):

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

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

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

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

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

Reason for additional Hazards Statement(s):

20 Nov 2021 - Carc. 1A; H350 hazard statement sourced from: IARC Group 2A (Sup 7, 87) 2006; Lead REACH Consortium www.reach-lead.eu/substanceinformation.html (worst case lead compounds). Review date 29/09/2015

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

Description/Comments: Data from C&L Inventory Database

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

Data source date: 17 Jul 2015

Hazard Statements: Acute Tox. 4; H302 , Acute Tox. 1; H330 , Acute Tox. 1; H310 , Eye Irrit. 2; H319 , STOT SE 3; H335 , Skin Irrit. 2; H315

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

Description/Comments: Data from C&L Inventory Database

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

Data source date: 17 Jul 2015

Hazard Statements: Eye Irrit. 2; H319 , STOT SE 3; H335 , Skin Irrit. 2; H315 , Aquatic Acute 1; H400 , Aquatic Chronic 1; H410 , Aquatic Chronic 2; H411

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

Description/Comments: Data from C&L Inventory Database

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

Data source date: 06 Aug 2015

Hazard Statements: Aquatic Acute 1; H400 , Aquatic Chronic 1; H410

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

Description/Comments: Data from C&L Inventory Database

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

Data source date: 06 Aug 2015

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

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

Description/Comments: Data from C&L Inventory Database

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

Data source date: 17 Jul 2015

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

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

Description/Comments: Data from C&L Inventory Database

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

Data source date: 21 Aug 2015

Hazard Statements: Acute Tox. 4; H302 , Aquatic Acute 1; H400 , Aquatic Chronic 1; H410

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

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

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

Data source date: 21 Aug 2015

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

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

Description/Comments: Data from C&L Inventory Database

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

Data source date: 06 Aug 2015

Hazard Statements: Carc. 2; H351

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

Description/Comments: Data from C&L Inventory Database; SDS Sigma Aldrich 28/02/2015

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

Data source date: 23 Jul 2015

Hazard Statements: Aquatic Acute 1; H400 , Aquatic Chronic 1; H410

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

Description/Comments: Data from C&L Inventory Database

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

Data source date: 17 Jul 2015

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

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

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

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

Data source date: 02 Mar 2017

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

Appendix B: Rationale for selection of metal species

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

Worst case.

boron {diboron trioxide}

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

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

Most likely based upon material type and environmental conditions.

beryllium {beryllium chloride}

Worst case.

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

Most likely based upon the material type and environmental conditions.

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

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

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

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

nickel {nickel sulfide}

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

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

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

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

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

vanadium {divanadium pentaoxide; vanadium pentoxide}

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

zinc {zinc sulphate}

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

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

Worst case.

Appendix C: Version

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

HazWasteOnline Classification Engine Version: 2024.235.6223.11423 (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

Appendix I – Environmental Database Report

NEW BARN, BACK LANE, ALDERTON, WILTSHIRE, SN14 6NW

Order Details

Date: 29/07/2024
Your ref: 19360CS-2253
Our Ref: GS-2HN-SJQ-GWQ-7R7

Site Details

Location: 384008 182763
Area: 0.76 ha
Authority: [Wiltshire Council](#) ↗



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Summary of findings

[p. 2 >](#)

Aerial image

[p. 9 >](#)

OS MasterMap site plan

[p.14 >](#)

[Insight User Guide](#) ↗

Contact us with any questions at:

info@groundsure.com ↗

01273 257 755

Summary of findings

Page	Section	Past land use >	On site	0-50m	50-250m	250-500m	500-2000m
15 >	1.1 >	Historical industrial land uses >	1	0	0	13	-
16	1.2	Historical tanks	0	0	0	0	-
16	1.3	Historical energy features	0	0	0	0	-
17	1.4	Historical petrol stations	0	0	0	0	-
17	1.5	Historical garages	0	0	0	0	-
17	1.6	Historical military land	0	0	0	0	-
Page	Section	Past land use - un-grouped >	On site	0-50m	50-250m	250-500m	500-2000m
18 >	2.1 >	Historical industrial land uses >	1	0	0	15	-
19	2.2	Historical tanks	0	0	0	0	-
19	2.3	Historical energy features	0	0	0	0	-
20	2.4	Historical petrol stations	0	0	0	0	-
20	2.5	Historical garages	0	0	0	0	-
Page	Section	Waste and landfill >	On site	0-50m	50-250m	250-500m	500-2000m
21	3.1	Active or recent landfill	0	0	0	0	-
21	3.2	Historical landfill (BGS records)	0	0	0	0	-
22	3.3	Historical landfill (LA/mapping records)	0	0	0	0	-
22	3.4	Historical landfill (EA/NRW records)	0	0	0	0	-
22	3.5	Historical waste sites	0	0	0	0	-
22	3.6	Licensed waste sites	0	0	0	0	-
22 >	3.7 >	Waste exemptions >	0	0	7	1	-
Page	Section	Current industrial land use >	On site	0-50m	50-250m	250-500m	500-2000m
24 >	4.1 >	Recent industrial land uses >	0	0	1	-	-
25	4.2	Current or recent petrol stations	0	0	0	0	-
25	4.3	Electricity cables	0	0	0	0	-
25	4.4	Gas pipelines	0	0	0	0	-
25	4.5	Sites determined as Contaminated Land	0	0	0	0	-



25	4.6	Control of Major Accident Hazards (COMAH)	0	0	0	0	-
26	4.7	Regulated explosive sites	0	0	0	0	-
26	4.8	Hazardous substance storage/usage	0	0	0	0	-
26	4.9	Historical licensed industrial activities (IPC)	0	0	0	0	-
26	4.10	Licensed industrial activities (Part A(1))	0	0	0	0	-
26	4.11	Licensed pollutant release (Part A(2)/B)	0	0	0	0	-
27	4.12	Radioactive Substance Authorisations	0	0	0	0	-
27 >	4.13 >	Licensed Discharges to controlled waters >	0	0	0	1	-
27	4.14	Pollutant release to surface waters (Red List)	0	0	0	0	-
27	4.15	Pollutant release to public sewer	0	0	0	0	-
28	4.16	List 1 Dangerous Substances	0	0	0	0	-
28	4.17	List 2 Dangerous Substances	0	0	0	0	-
28	4.18	Pollution Incidents (EA/NRW)	0	0	0	0	-
28	4.19	Pollution inventory substances	0	0	0	0	-
28	4.20	Pollution inventory waste transfers	0	0	0	0	-
29	4.21	Pollution inventory radioactive waste	0	0	0	0	-
Page	Section	Hydrogeology	On site	0-50m	50-250m	250-500m	500-2000m
30	5.1	Superficial aquifer	None (within 500m)				
31 >	5.2 >	Bedrock aquifer >	Identified (within 500m)				
33 >	5.3 >	Groundwater vulnerability >	Identified (within 50m)				
34 >	5.4 >	Groundwater vulnerability- soluble rock risk >	Identified (within 0m)				
34	5.5	Groundwater vulnerability- local information	None (within 0m)				
35 >	5.6 >	Groundwater abstractions >	0	0	0	0	3
36	5.7	Surface water abstractions	0	0	0	0	0
37	5.8	Potable abstractions	0	0	0	0	0
37 >	5.9 >	Source Protection Zones >	0	0	0	1	-
37 >	5.10 >	Source Protection Zones (confined aquifer) >	1	0	0	0	-
Page	Section	Hydrology >	On site	0-50m	50-250m	250-500m	500-2000m
38 >	6.1 >	Water Network (OS MasterMap) >	0	3	0	-	-



39 >	6.2 >	Surface water features >	0	1	0	-	-
39 >	6.3 >	WFD Surface water body catchments >	1	-	-	-	-
40 >	6.4 >	WFD Surface water bodies >	0	0	0	-	-
40 >	6.5 >	WFD Groundwater bodies >	1	-	-	-	-
Page	Section	River and coastal flooding	On site	0-50m	50-250m	250-500m	500-2000m
41	7.1	Risk of flooding from rivers and the sea	None (within 50m)				
41	7.2	Historical Flood Events	0	0	0	-	-
41	7.3	Flood Defences	0	0	0	-	-
42	7.4	Areas Benefiting from Flood Defences	0	0	0	-	-
42	7.5	Flood Storage Areas	0	0	0	-	-
43	7.6	Flood Zone 2	None (within 50m)				
43	7.7	Flood Zone 3	None (within 50m)				
Page	Section	Surface water flooding >					
44 >	8.1 >	Surface water flooding >	1 in 30 year, 0.3m - 1.0m (within 50m)				
Page	Section	Groundwater flooding >					
46 >	9.1 >	Groundwater flooding >	Low (within 50m)				
Page	Section	Environmental designations >	On site	0-50m	50-250m	250-500m	500-2000m
47	10.1	Sites of Special Scientific Interest (SSSI)	0	0	0	0	0
48	10.2	Conserved wetland sites (Ramsar sites)	0	0	0	0	0
48	10.3	Special Areas of Conservation (SAC)	0	0	0	0	0
48	10.4	Special Protection Areas (SPA)	0	0	0	0	0
48	10.5	National Nature Reserves (NNR)	0	0	0	0	0
49	10.6	Local Nature Reserves (LNR)	0	0	0	0	0
49 >	10.7 >	Designated Ancient Woodland >	0	0	0	0	2
49	10.8	Biosphere Reserves	0	0	0	0	0
49	10.9	Forest Parks	0	0	0	0	0
50	10.10	Marine Conservation Zones	0	0	0	0	0
50	10.11	Green Belt	0	0	0	0	0
50	10.12	Proposed Ramsar sites	0	0	0	0	0



50	10.13	Possible Special Areas of Conservation (pSAC)	0	0	0	0	0
50	10.14	Potential Special Protection Areas (pSPA)	0	0	0	0	0
51	10.15	Nitrate Sensitive Areas	0	0	0	0	0
51 >	10.16 >	Nitrate Vulnerable Zones >	2	0	0	0	0
52	10.17	SSSI Impact Risk Zones	0	-	-	-	-
52	10.18	SSSI Units	0	0	0	0	0
Page	Section	Visual and cultural designations >	On site	0-50m	50-250m	250-500m	500-2000m
53	11.1	World Heritage Sites	0	0	0	-	-
54 >	11.2 >	Area of Outstanding Natural Beauty >	1	0	0	-	-
54	11.3	National Parks	0	0	0	-	-
54 >	11.4 >	Listed Buildings >	0	5	6	-	-
55 >	11.5 >	Conservation Areas >	1	0	0	-	-
55	11.6	Scheduled Ancient Monuments	0	0	0	-	-
56	11.7	Registered Parks and Gardens	0	0	0	-	-
Page	Section	Agricultural designations >	On site	0-50m	50-250m	250-500m	500-2000m
57 >	12.1 >	Agricultural Land Classification >	Grade 3 (within 250m)				
58	12.2	Open Access Land	0	0	0	-	-
58 >	12.3 >	Tree Felling Licences >	0	1	0	-	-
59 >	12.4 >	Environmental Stewardship Schemes >	0	1	1	-	-
59 >	12.5 >	Countryside Stewardship Schemes >	0	2	2	-	-
Page	Section	Habitat designations >	On site	0-50m	50-250m	250-500m	500-2000m
60 >	13.1 >	Priority Habitat Inventory >	0	4	4	-	-
61 >	13.2 >	Habitat Networks >	1	0	1	-	-
61	13.3	Open Mosaic Habitat	0	0	0	-	-
61	13.4	Limestone Pavement Orders	0	0	0	-	-
Page	Section	Geology 1:10,000 scale >	On site	0-50m	50-250m	250-500m	500-2000m
63 >	14.1 >	10k Availability >	Identified (within 500m)				
64 >	14.2 >	Artificial and made ground (10k) >	0	0	0	1	-
65	14.3	Superficial geology (10k)	0	0	0	0	-

65	14.4	Landslip (10k)	0	0	0	0	-
66 >	14.5 >	Bedrock geology (10k) >	1	0	0	3	-
67	14.6	Bedrock faults and other linear features (10k)	0	0	0	0	-
Page	Section	Geology 1:50,000 scale >	On site	0-50m	50-250m	250-500m	500-2000m
68 >	15.1 >	50k Availability >	Identified (within 500m)				
69	15.2	Artificial and made ground (50k)	0	0	0	0	-
69	15.3	Artificial ground permeability (50k)	0	0	-	-	-
70	15.4	Superficial geology (50k)	0	0	0	0	-
70	15.5	Superficial permeability (50k)	None (within 50m)				
70	15.6	Landslip (50k)	0	0	0	0	-
70	15.7	Landslip permeability (50k)	None (within 50m)				
71 >	15.8 >	Bedrock geology (50k) >	1	0	0	4	-
72 >	15.9 >	Bedrock permeability (50k) >	Identified (within 50m)				
72	15.10	Bedrock faults and other linear features (50k)	0	0	0	0	-
Page	Section	Boreholes	On site	0-50m	50-250m	250-500m	500-2000m
73	16.1	BGS Boreholes	0	0	0	-	-
Page	Section	Natural ground subsidence >					
74 >	17.1 >	Shrink swell clays >	Low (within 50m)				
75 >	17.2 >	Running sands >	Negligible (within 50m)				
76 >	17.3 >	Compressible deposits >	Negligible (within 50m)				
77 >	17.4 >	Collapsible deposits >	Very low (within 50m)				
78 >	17.5 >	Landslides >	Very low (within 50m)				
79 >	17.6 >	Ground dissolution of soluble rocks >	Negligible (within 50m)				
Page	Section	Mining and ground workings >	On site	0-50m	50-250m	250-500m	500-2000m
81 >	18.1 >	BritPits >	0	0	0	1	-
82 >	18.2 >	Surface ground workings >	0	9	2	-	-
83 >	18.3 >	Underground workings >	0	0	0	5	0
83	18.4	Underground mining extents	0	0	0	0	-
83	18.5	Historical Mineral Planning Areas	0	0	0	0	-



84	18.6	Non-coal mining	0	0	0	0	0
84	18.7	JPB mining areas	None (within 0m)				
84	18.8	The Coal Authority non-coal mining	0	0	0	0	-
84	18.9	Researched mining	0	0	0	0	-
85	18.10	Mining record office plans	0	0	0	0	-
85	18.11	BGS mine plans	0	0	0	0	-
85	18.12	Coal mining	None (within 0m)				
85	18.13	Brine areas	None (within 0m)				
85	18.14	Gypsum areas	None (within 0m)				
86	18.15	Tin mining	None (within 0m)				
86	18.16	Clay mining	None (within 0m)				
Page	Section	Ground cavities and sinkholes	On site	0-50m	50-250m	250-500m	500-2000m
87	19.1	Natural cavities	0	0	0	0	-
87	19.2	Mining cavities	0	0	0	0	0
87	19.3	Reported recent incidents	0	0	0	0	-
87	19.4	Historical incidents	0	0	0	0	-
88	19.5	National karst database	0	0	0	0	-
Page	Section	Radon >					
89 >	20.1 >	Radon >	Less than 1% (within 0m)				
Page	Section	Soil chemistry >	On site	0-50m	50-250m	250-500m	500-2000m
91 >	21.1 >	BGS Estimated Background Soil Chemistry >	3	0	-	-	-
91	21.2	BGS Estimated Urban Soil Chemistry	0	0	-	-	-
91	21.3	BGS Measured Urban Soil Chemistry	0	0	-	-	-
Page	Section	Railway infrastructure and projects	On site	0-50m	50-250m	250-500m	500-2000m
92	22.1	Underground railways (London)	0	0	0	-	-
92	22.2	Underground railways (Non-London)	0	0	0	-	-
92	22.3	Railway tunnels	0	0	0	-	-
92	22.4	Historical railway and tunnel features	0	0	0	-	-
92	22.5	Royal Mail tunnels	0	0	0	-	-



93	22.6	Historical railways	0	0	0	-	-
93	22.7	Railways	0	0	0	-	-
93	22.8	Crossrail 1	0	0	0	0	-
93	22.9	Crossrail 2	0	0	0	0	-
93	22.10	HS2	0	0	0	0	-

Recent aerial photograph



Capture Date: 22/04/2020

Site Area: 0.76ha



Recent site history - 2017 aerial photograph



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Capture Date: 03/04/2017

Site Area: 0.76ha



Recent site history - 2012 aerial photograph



Capture Date: 22/05/2012

Site Area: 0.76ha



Recent site history - 2006 aerial photograph



Capture Date: 05/06/2006

Site Area: 0.76ha



Recent site history - 1999 aerial photograph



Capture Date: 29/08/1999

Site Area: 0.76ha



This map shows a rural landscape with a central area outlined in red. The area is surrounded by various buildings, including cottages and a school house. There are several ponds and a stream. Contour lines indicate elevation, with labels for 12.5 and 25. A north arrow is located in the top right corner.

Labels on the map include:

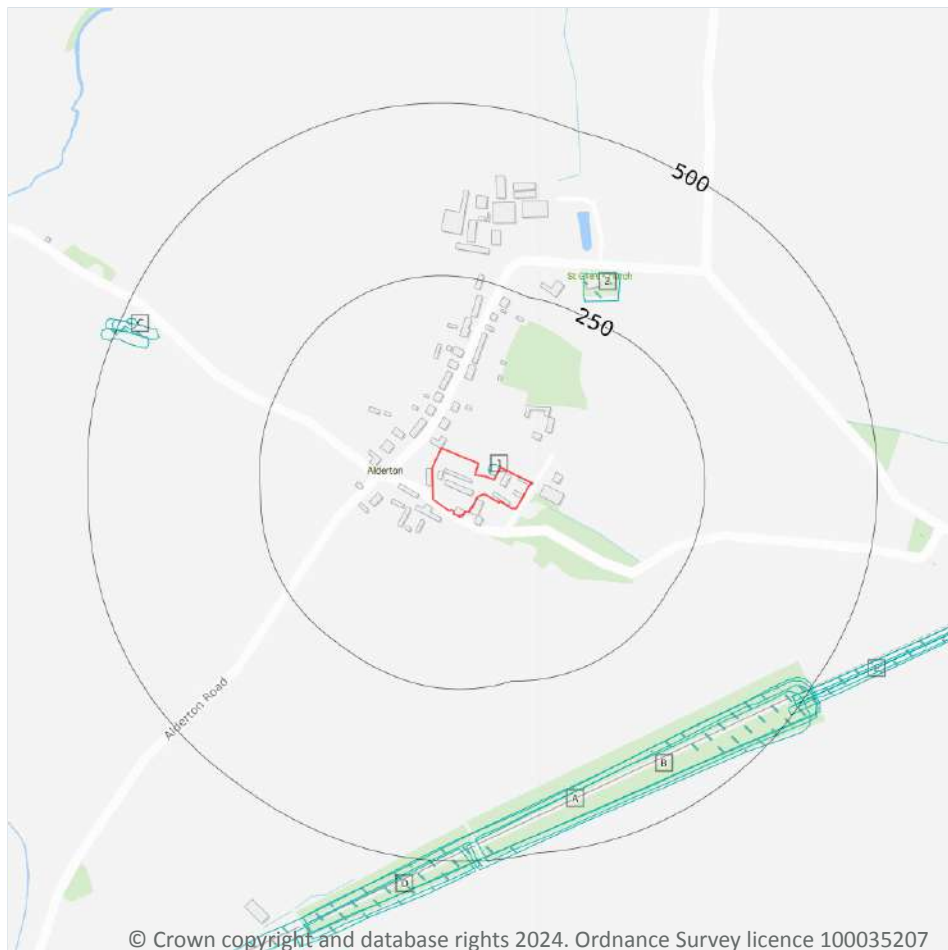
- The Gables
- Byways
- Cott
- View Tree Cott
- Rose Cottage
- Ruby Cottage
- Walnut Cottage
- Old School House
- Pond House
- Cattle Grid
- New Farm
- Ponds
- Pond
- Pond
- Pond

Contour lines are labeled with the values 12.5 and 25.

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1 Past land use



- Site Outline
- Search buffers in metres (m)
- Historical industrial land uses

1.1 Historical industrial land uses

Records within 500m

14

Potentially contaminative land use features digitised from historical Ordnance Survey mapping at 1:10,000 and 1:10,560 scale, intelligently grouped into contiguous features. To prevent misrepresentation of the size of historical features at any given time, features are only grouped if they have similar geometries within immediately preceding or succeeding map editions. See section 2 for a breakdown of grouping if required. Grouped and the original un-grouped features can be cross-referenced across sections 1 and 2 using the 'Group ID'.

Features are displayed on the Past land use map on [page 15 >](#)

ID	Location	Land use	Dates present	Group ID
1	On site	Unspecified Tank	1923	1203629



ID	Location	Land use	Dates present	Group ID
2	270m NE	Grave Yard	1885	1184891
A	398m SE	Cuttings	1949	1216974
A	398m SE	Cuttings	1982	1236329
B	406m SE	Cuttings	1923	1251814
B	406m SE	Cuttings	1923	1223775
C	439m NW	Unspecified Quarry	1923 - 1949	1266400
C	449m NW	Unspecified Quarry	1923	1261474
D	472m S	Cuttings	1923	1221452
C	474m NW	Unspecified Quarry	1899	1286580
D	481m S	Cuttings	1923	1236902
E	484m SE	Tunnel	1923 - 1949	1229200
E	484m SE	Tunnel	1982	1245404
E	491m SE	Tunnel	1923	1237095

This data is sourced from Ordnance Survey / Groundsure.

1.2 Historical tanks

Records within 500m

0

Tank features digitised from historical Ordnance Survey mapping at high-detail 1:1,250 and 1:2,500 scale, intelligently grouped into contiguous features. To prevent misrepresentation of the size of historical features at any given time, features are only grouped if they have similar geometries within immediately preceding or succeeding map editions. See section 2 for a breakdown of grouping if required. Grouped and the original ungrouped features can be cross-referenced across sections 1 and 2 using the 'Group ID'.

This data is sourced from Ordnance Survey / Groundsure.

1.3 Historical energy features

Records within 500m

0

Energy features digitised from historical Ordnance Survey mapping at high-detail 1:1,250 and 1:2,500 scale, intelligently grouped into contiguous features. To prevent misrepresentation of the size of historical features at any given time, features are only grouped if they have similar geometries within immediately preceding or succeeding map editions. See section 2 for a breakdown of grouping if required. Grouped and the original ungrouped features can be cross-referenced across sections 1 and 2 using the 'Group ID'.

This data is sourced from Ordnance Survey / Groundsure.



1.4 Historical petrol stations

Records within 500m**0**

Petrol stations digitised from historical Ordnance Survey mapping at high-detail 1:1,250 and 1:2,500 scale, intelligently grouped into contiguous features. To prevent misrepresentation of the size of historical features at any given time, features are only grouped if they have similar geometries within immediately preceding or succeeding map editions. See section 2 for a breakdown of grouping if required. Grouped and the original ungrouped features can be cross-referenced across sections 1 and 2 using the 'Group ID'.

This data is sourced from Ordnance Survey / Groundsure.

1.5 Historical garages

Records within 500m**0**

Garages digitised from historical Ordnance Survey mapping at high-detail 1:1,250 and 1:2,500 scale, intelligently grouped into contiguous features. To prevent misrepresentation of the size of historical features at any given time, features are only grouped if they have similar geometries within immediately preceding or succeeding map editions. See section 2 for a breakdown of grouping if required. Grouped and the original ungrouped features can be cross-referenced across sections 1 and 2 using the 'Group ID'.

This data is sourced from Ordnance Survey / Groundsure.

1.6 Historical military land

Records within 500m**0**

Areas of military land digitised from multiple sources including the National Archives, local records, MOD records and verified other sources, intelligently grouped into contiguous features.

This data is sourced from Ordnance Survey / Groundsure / other sources.



2 Past land use - un-grouped



- Site Outline
- Search buffers in metres (m)
- Historical industrial land uses

2.1 Historical industrial land uses

Records within 500m

16

Potentially contaminative land use features digitised from historical Ordnance Survey mapping at 1:10,000 and 10,560 scale. Any records shown are available intelligently grouped in section 1. Grouped and the original un-grouped features can be cross-referenced across sections 1 and 2 using the 'Group ID'.

Features are displayed on the Past land use - un-grouped map on [page 18](#) >

ID	Location	Land Use	Date	Group ID
1	On site	Unspecified Tank	1923	1203629
2	270m NE	Grave Yard	1885	1184891
A	398m SE	Cuttings	1949	1216974



ID	Location	Land Use	Date	Group ID
A	398m SE	Cuttings	1982	1236329
B	406m SE	Cuttings	1923	1251814
B	406m SE	Cuttings	1923	1223775
C	439m NW	Unspecified Quarry	1923	1266400
C	447m NW	Unspecified Quarry	1949	1266400
C	449m NW	Unspecified Quarry	1923	1261474
D	472m S	Cuttings	1923	1221452
C	474m NW	Unspecified Quarry	1899	1286580
D	481m S	Cuttings	1923	1236902
E	484m SE	Tunnel	1949	1229200
E	484m SE	Tunnel	1982	1245404
E	489m SE	Tunnel	1923	1229200
E	491m SE	Tunnel	1923	1237095

This data is sourced from Ordnance Survey / Groundsure.

2.2 Historical tanks

Records within 500m

0

Tank features digitised from historical Ordnance Survey mapping at high-detail 1:1,250 and 1:2,500 scale. Any records shown are available intelligently grouped in section 1. Grouped and the original un-grouped features can be cross-referenced across sections 1 and 2 using the 'Group ID'.

This data is sourced from Ordnance Survey / Groundsure.

2.3 Historical energy features

Records within 500m

0

Energy features digitised from historical Ordnance Survey mapping at high-detail 1:1,250 and 1:2,500 scale. Any records shown are available intelligently grouped in section 1. Grouped and the original un-grouped features can be cross-referenced across sections 1 and 2 using the 'Group ID'.

This data is sourced from Ordnance Survey / Groundsure.



2.4 Historical petrol stations

Records within 500m**0**

Petrol stations digitised from historical Ordnance Survey mapping at high-detail 1:1,250 and 1:2,500 scale. Any records shown are available intelligently grouped in section 1. Grouped and the original un-grouped features can be cross-referenced across sections 1 and 2 using the 'Group ID'.

This data is sourced from Ordnance Survey / Groundsure.

2.5 Historical garages

Records within 500m**0**

Garages digitised from historical Ordnance Survey mapping at high-detail 1:1,250 and 1:2,500 scale. Any records shown are available intelligently grouped in section 1. Grouped and the original un-grouped features can be cross-referenced across sections 1 and 2 using the 'Group ID'.

This data is sourced from Ordnance Survey / Groundsure.



3 Waste and landfill



- Site Outline
- Search buffers in metres (m)
- Waste exemptions

3.1 Active or recent landfill

Records within 500m

0

Active or recently closed landfill sites under Environment Agency/Natural Resources Wales regulation.

This data is sourced from the Environment Agency and Natural Resources Wales.

3.2 Historical landfill (BGS records)

Records within 500m

0

Landfill sites identified on a survey carried out on behalf of the DoE in 1973. These sites may have been closed or operational at this time.

This data is sourced from the British Geological Survey.



3.3 Historical landfill (LA/mapping records)

Records within 500m**0**

Landfill sites identified from Local Authority records and high detail historical mapping.

This data is sourced from the Ordnance Survey/Groundsure and Local Authority records.

3.4 Historical landfill (EA/NRW records)

Records within 500m**0**

Known historical (closed) landfill sites (e.g. sites where there is no PPC permit or waste management licence currently in force). This includes sites that existed before the waste licensing regime and sites that have been licensed in the past but where a licence has been revoked, ceased to exist or surrendered and a certificate of completion has been issued.

This data is sourced from the Environment Agency and Natural Resources Wales.

3.5 Historical waste sites

Records within 500m**0**

Waste site records derived from Local Authority planning records and high detail historical mapping.

This data is sourced from Ordnance Survey/Groundsure and Local Authority records.

3.6 Licensed waste sites

Records within 500m**0**

Active or recently closed waste sites under Environment Agency/Natural Resources Wales regulation.

This data is sourced from the Environment Agency and Natural Resources Wales.

3.7 Waste exemptions

Records within 500m**8**

Activities involving the storage, treatment, use or disposal of waste that are exempt from needing a permit. Exemptions have specific limits and conditions that must be adhered to.

Features are displayed on the Waste and landfill map on [page 21](#) >



ID	Location	Site	Reference	Category	Sub-Category	Description
A	203m N	New Farm Cottage, The Street, Alderton, Chippenham, Sn14 6nl	WEX250588	Using waste exemption	On a farm	Use of waste in construction
A	203m N	New Farm Cottage, The Street, Alderton, Chippenham, Sn14 6nl	WEX250588	Using waste exemption	On a farm	Use of waste for a specified purpose
A	203m N	New Farm Cottage, The Street, Alderton, Chippenham, Sn14 6nl	WEX250588	Disposing of waste exemption	On a farm	Deposit of waste from dredging of inland waters
A	203m N	New Farm Cottage, The Street, Alderton, Chippenham, Sn14 6nl	WEX250588	Storing waste exemption	On a farm	Storage of waste in secure containers
A	203m N	New Farm Cottage, The Street, Alderton, Chippenham, Sn14 6nl	WEX250588	Storing waste exemption	On a farm	Storage of waste in a secure place
A	203m N	New Farm Cottage, The Street, Alderton, Chippenham, Sn14 6nl	WEX250588	Using waste exemption	On a farm	Spreading waste on agricultural land to confer benefit
A	203m N	New Farm Cottage, The Street, Alderton, Chippenham, Sn14 6nl	WEX250588	Disposing of waste exemption	On a farm	Burning waste in the open
1	315m N	Manor Farm, The Street, Alderton, Chippenham, Sn14 6nl	WEX023242	Using waste exemption	On a farm	Use of waste in construction

This data is sourced from the Environment Agency and Natural Resources Wales.



4 Current industrial land use



- Site Outline
- Search buffers in metres (m)
- Recent industrial land uses
- Licensed Discharges to controlled waters

4.1 Recent industrial land uses

Records within 250m

1

Current potentially contaminative industrial sites.

Features are displayed on the Current industrial land use map on [page 24](#) >

ID	Location	Company	Address	Activity	Category
1	218m NW	Pumping Station	Wiltshire, SN14	Water Pumping Stations	Industrial Features

This data is sourced from Ordnance Survey.



4.2 Current or recent petrol stations

Records within 500m**0**

Open, closed, under development and obsolete petrol stations.

This data is sourced from Experian.

4.3 Electricity cables

Records within 500m**0**

High voltage underground electricity transmission cables.

This data is sourced from National Grid.

4.4 Gas pipelines

Records within 500m**0**

High pressure underground gas transmission pipelines.

This data is sourced from National Grid.

4.5 Sites determined as Contaminated Land

Records within 500m**0**

Contaminated Land Register of sites designated under Part 2a of the Environmental Protection Act 1990.

This data is sourced from Local Authority records.

4.6 Control of Major Accident Hazards (COMAH)

Records within 500m**0**

Control of Major Accident Hazards (COMAH) sites. This data includes upper and lower tier sites, and includes a historical archive of COMAH sites and Notification of Installations Handling Hazardous Substances (NIHHS) records.

This data is sourced from the Health and Safety Executive.



4.7 Regulated explosive sites

Records within 500m**0**

Sites registered and licensed by the Health and Safety Executive under the Manufacture and Storage of Explosives Regulations 2005 (MSER). The last update to this data was in April 2011.

This data is sourced from the Health and Safety Executive.

4.8 Hazardous substance storage/usage

Records within 500m**0**

Consents granted for a site to hold certain quantities of hazardous substances at or above defined limits in accordance with the Planning (Hazardous Substances) Regulations 2015.

This data is sourced from Local Authority records.

4.9 Historical licensed industrial activities (IPC)

Records within 500m**0**

Integrated Pollution Control (IPC) records of substance releases to air, land and water. This data represents a historical archive as the IPC regime has been superseded.

This data is sourced from the Environment Agency and Natural Resources Wales.

4.10 Licensed industrial activities (Part A(1))

Records within 500m**0**

Records of Part A(1) installations regulated under the Environmental Permitting (England and Wales) Regulations 2016 for the release of substances to the environment.

This data is sourced from the Environment Agency and Natural Resources Wales.

4.11 Licensed pollutant release (Part A(2)/B)

Records within 500m**0**

Records of Part A(2) and Part B installations regulated under the Environmental Permitting (England and Wales) Regulations 2016 for the release of substances to the environment.

This data is sourced from Local Authority records.



4.12 Radioactive Substance Authorisations

Records within 500m

0

Records of the storage, use, accumulation and disposal of radioactive substances regulated under the Radioactive Substances Act 1993.

This data is sourced from the Environment Agency and Natural Resources Wales.

4.13 Licensed Discharges to controlled waters

Records within 500m

1

Discharges of treated or untreated effluent to controlled waters under the Water Resources Act 1991. Features are displayed on the Current industrial land use map on [page 24](#) >

ID	Location	Address	Details	
2	385m N	MANOR FARM (ALDERTON), ALDERTON, CHIPPENHAM, WILTS	Effluent Type: AGRICULTURE - ARABLE FARMING Permit Number: 020068 Permit Version: 1 Receiving Water: TRIB OF RIVER BRISTOL AVON	Status: TRANSFERRED FROM R(PP)A 1951-1961 Issue date: - Effective Date: 01/02/1972 Revocation Date: -

This data is sourced from the Environment Agency and Natural Resources Wales.

4.14 Pollutant release to surface waters (Red List)

Records within 500m

0

Discharges of specified substances under the Environmental Protection (Prescribed Processes and Substances) Regulations 1991.

This data is sourced from the Environment Agency and Natural Resources Wales.

4.15 Pollutant release to public sewer

Records within 500m

0

Discharges of Special Category Effluents to the public sewer.

This data is sourced from the Environment Agency and Natural Resources Wales.



4.16 List 1 Dangerous Substances

Records within 500m**0**

Discharges of substances identified on List I of European Directive E 2006/11/EC, and regulated under the Environmental Damage (Prevention and Remediation) Regulations 2015.

This data is sourced from the Environment Agency and Natural Resources Wales.

4.17 List 2 Dangerous Substances

Records within 500m**0**

Discharges of substances identified on List II of European Directive E 2006/11/EC, and regulated under the Environmental Damage (Prevention and Remediation) Regulations 2015.

This data is sourced from the Environment Agency and Natural Resources Wales.

4.18 Pollution Incidents (EA/NRW)

Records within 500m**0**

Records of substantiated pollution incidents. Since 2006 this data has only included category 1 (major) and 2 (significant) pollution incidents.

This data is sourced from the Environment Agency and Natural Resources Wales.

4.19 Pollution inventory substances

Records within 500m**0**

The pollution inventory (substances) includes reporting on annual emissions of certain regulated substances to air, controlled waters and land. A reporting threshold for each substance is also included. Where emissions fall below the reporting threshold, no value will be given. The data is given for the most recent complete year available.

This data is sourced from the Environment Agency and the Scottish Environment Protection Agency.

4.20 Pollution inventory waste transfers

Records within 500m**0**

The pollution inventory (waste transfers) includes reporting on annual transfers and recovery/disposal of controlled wastes from a site. A reporting threshold for each waste type is also included. Where releases fall below the reporting threshold, no value will be given. The data is given for the most recent complete year available.

This data is sourced from the Environment Agency and the Scottish Environment Protection Agency.



4.21 Pollution inventory radioactive waste

Records within 500m

0

The pollution inventory (radioactive wastes) includes reporting on annual releases of radioactive substances from a site, including the means of release. Where releases fall below the reporting threshold, no value will be given. The data is given for the most recent complete year available.

This data is sourced from the Environment Agency and the Scottish Environment Protection Agency.



5 Hydrogeology - Superficial aquifer

5.1 Superficial aquifer

Records within 500m

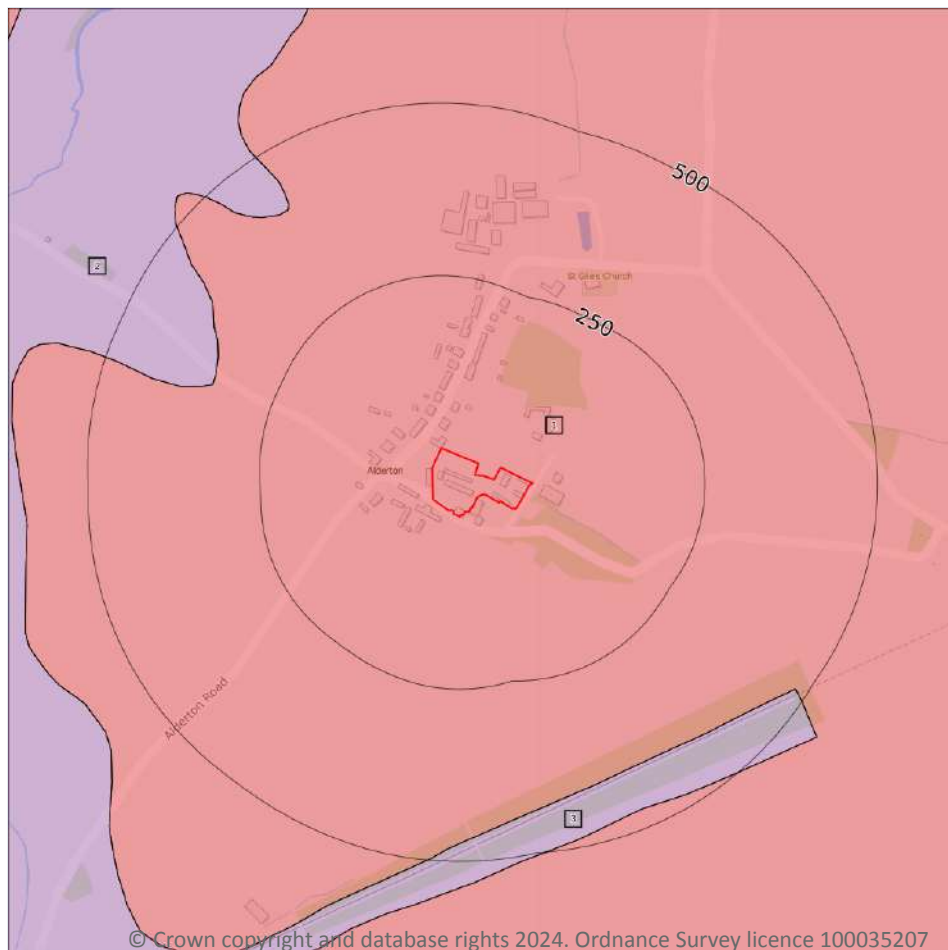
0

Aquifer status of groundwater held within superficial geology.

This data is sourced from the British Geological Survey, the Environment Agency and Natural Resources Wales.



Bedrock aquifer



- Site Outline
- Search buffers in metres (m)
- Principal
 - Secondary A
 - Secondary B
 - Secondary Undifferentiated
 - Unproductive

5.2 Bedrock aquifer

Records within 500m

3

Aquifer status of groundwater held within bedrock geology.

Features are displayed on the Bedrock aquifer map on [page 31](#) >

ID	Location	Designation	Description
1	On site	Secondary A	Permeable layers capable of supporting water supplies at a local rather than strategic scale, and in some cases forming an important source of base flow to rivers. These are generally aquifers formerly classified as minor aquifers
2	341m W	Principal	Geology of high intergranular and/or fracture permeability, usually providing a high level of water storage and may support water supply/river base flow on a strategic scale. Generally principal aquifers were previously major aquifers

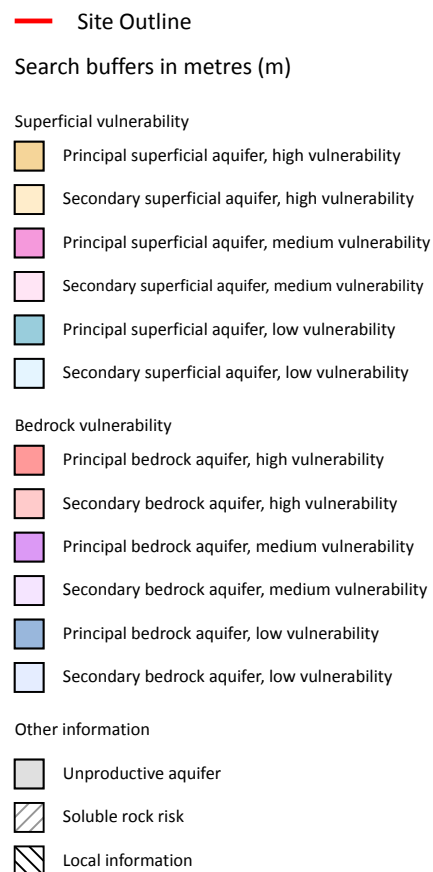
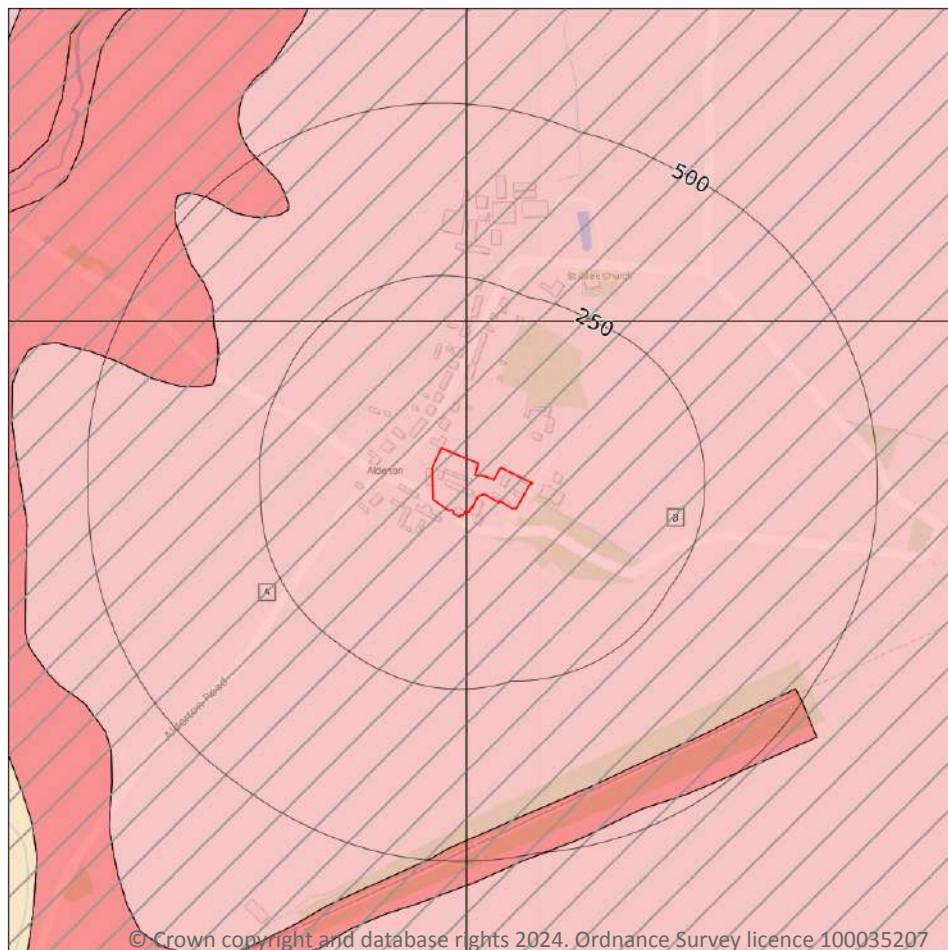


ID	Location	Designation	Description
3	411m SE	Principal	Geology of high intergranular and/or fracture permeability, usually providing a high level of water storage and may support water supply/river base flow on a strategic scale. Generally principal aquifers were previously major aquifers

This data is sourced from the British Geological Survey, the Environment Agency and Natural Resources Wales.



Groundwater vulnerability



5.3 Groundwater vulnerability

Records within 50m

2

An assessment of the vulnerability of groundwater to a pollutant discharged at ground level based on the hydrological, geological, hydrogeological and soil properties within a one kilometre square grid. Groundwater vulnerability is described as High, Medium or Low as follows:

- High - Areas able to easily transmit pollution to groundwater. They are likely to be characterised by high leaching soils and the absence of low permeability superficial deposits.
- Medium - Intermediate between high and low vulnerability.
- Low - Areas that provide the greatest protection from pollution. They are likely to be characterised by low leaching soils and/or the presence of superficial deposits characterised by a low permeability.

Features are displayed on the Groundwater vulnerability map on [page 33](#) >



ID	Location	Summary	Soil / surface	Superficial geology	Bedrock geology
A	On site	Summary Classification: Secondary bedrock aquifer - High Vulnerability Combined classification: Productive Bedrock Aquifer, No Superficial Aquifer	Leaching class: High Infiltration value: >70% Dilution value: 300- 550mm/year	Vulnerability: - Aquifer type: - Thickness: <3m Patchiness value: <90% Recharge potential: No Data	Vulnerability: High Aquifer type: Secondary Flow mechanism: Well connected fractures
B	On site	Summary Classification: Secondary bedrock aquifer - High Vulnerability Combined classification: Productive Bedrock Aquifer, No Superficial Aquifer	Leaching class: Low Infiltration value: 40- 70% Dilution value: 300- 550mm/year	Vulnerability: - Aquifer type: - Thickness: <3m Patchiness value: <90% Recharge potential: No Data	Vulnerability: High Aquifer type: Secondary Flow mechanism: Well connected fractures

This data is sourced from the British Geological Survey, the Environment Agency and Natural Resources Wales.

5.4 Groundwater vulnerability- soluble rock risk

Records on site	2
------------------------	----------

This dataset identifies areas where solution features that enable rapid movement of a pollutant may be present within a 1km grid square.

ID	Maximum soluble risk category	Percentage of grid square covered by maximum risk
A	Significant soluble rocks are likely to be present. Problems unlikely except with considerable surface or subsurface water flow.	40.0%
B	Significant soluble rocks are likely to be present. Problems unlikely except with considerable surface or subsurface water flow.	5.0%

This data is sourced from the British Geological Survey and the Environment Agency.

5.5 Groundwater vulnerability- local information

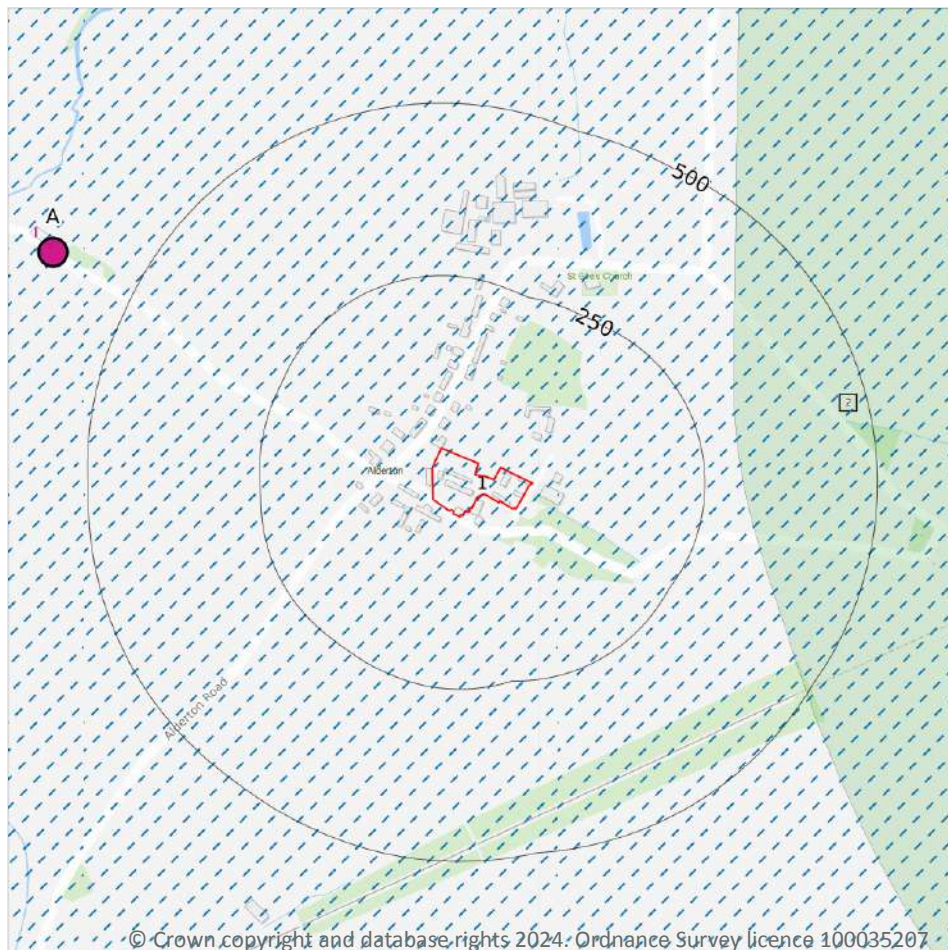
Records on site	0
------------------------	----------

This dataset identifies areas where additional local information affecting vulnerability is held by the Environment Agency. Further information can be obtained by contacting the Environment Agency local Area groundwater team through the Environment Agency National Customer Call Centre on 03798 506 506 or by email on enquiries@environment-agency.gov.uk ↗.

This data is sourced from the British Geological Survey and the Environment Agency.



Abstractions and Source Protection Zones



- Site Outline
- Search buffers in metres (m)
- Source Protection Zone 1
Inner catchment
- Source Protection Zone 2
Outer catchment
- Source Protection Zone 3
Total catchment
- Source Protection Zone 4
Zone of Special Interest
- Source Protection Zone 1c
Inner catchment - confined aquifer
- Source Protection Zone 2c
Outer catchment - confined aquifer
- Source Protection Zone 3c
Total catchment - confined aquifer
- Drinking water abstraction licences
Polygon features
- Drinking water abstraction licences
Linear features
- Groundwater abstraction licence (point)
- Groundwater abstraction licence (area)
- Groundwater abstraction licence (linear)
- Surface Water Abstractions (point)
- Surface Water Abstractions (area)
- Surface Water Abstractions (linear)

5.6 Groundwater abstractions

Records within 2000m

3

Licensed groundwater abstractions for sites extracting more than 20 cubic metres of water a day and includes active and historical records. The data may be for a single abstraction point, between two points (line data) or a larger area.

Features are displayed on the Abstractions and Source Protection Zones map on [page 35 >](#)

ID	Location	Details	
A	631m NW	Status: Historical Licence No: 17/53/001/G/410 Details: General Use Relating To Secondary Category (Very Low Loss) Direct Source: Ground Water - Fresh Point: LUCKINGTON Data Type: Point Name: Wessex Water Services Ltd Easting: 383400 Northing: 183100	Annual Volume (m ³): 21650000 Max Daily Volume (m ³): 59400 Original Application No: - Original Start Date: 23/10/1989 Expiry Date: - Issue No: 100 Version Start Date: 23/10/1989 Version End Date: -
A	631m NW	Status: Historical Licence No: 17/53/001/G/410 Details: Transfer Between Sources (Pre Water Act 2003) Direct Source: Ground Water - Fresh Point: LUCKINGTON Data Type: Point Name: Wessex Water Services Ltd Easting: 383400 Northing: 183100	Annual Volume (m ³): 21650000 Max Daily Volume (m ³): 59400 Original Application No: - Original Start Date: 23/10/1989 Expiry Date: - Issue No: 100 Version Start Date: 23/10/1989 Version End Date: -
A	636m NW	Status: Active Licence No: 17/53/001/G/410 Details: General Use Relating To Secondary Category (Very Low Loss) Direct Source: Ground Water - Fresh Point: LUCKINGTON Data Type: Poly4 Name: Wessex Water Services Ltd Easting: 383376 Northing: 183137	Annual Volume (m ³): 4200000 Max Daily Volume (m ³): 27500 Original Application No: NPS/WR/028211 Original Start Date: 23/10/1989 Expiry Date: - Issue No: 101 Version Start Date: 31/01/2019 Version End Date: -

This data is sourced from the Environment Agency and Natural Resources Wales.

5.7 Surface water abstractions

Records within 2000m	0
-----------------------------	----------

Licensed surface water abstractions for sites extracting more than 20 cubic metres of water a day and includes active and historical records. The data may be for a single abstraction point, a stretch of watercourse or a larger area.

This data is sourced from the Environment Agency and Natural Resources Wales.



5.8 Potable abstractions

Records within 2000m

0

Licensed potable water abstractions for sites extracting more than 20 cubic metres of water a day and includes active and historical records. The data may be for a single abstraction point, a stretch of watercourse or a larger area.

This data is sourced from the Environment Agency and Natural Resources Wales.

5.9 Source Protection Zones

Records within 500m

1

Source Protection Zones define the sensitivity of an area around a potable abstraction site to contamination. Features are displayed on the Abstractions and Source Protection Zones map on [page 35 >](#)

ID	Location	Type	Description
2	301m E	3	Total catchment

This data is sourced from the Environment Agency and Natural Resources Wales.

5.10 Source Protection Zones (confined aquifer)

Records within 500m

1

Source Protection Zones in the confined aquifer define the sensitivity around a deep groundwater abstraction to contamination. A confined aquifer would normally be protected from contamination by overlying geology and is only considered a sensitive resource if deep excavation/drilling is taking place.

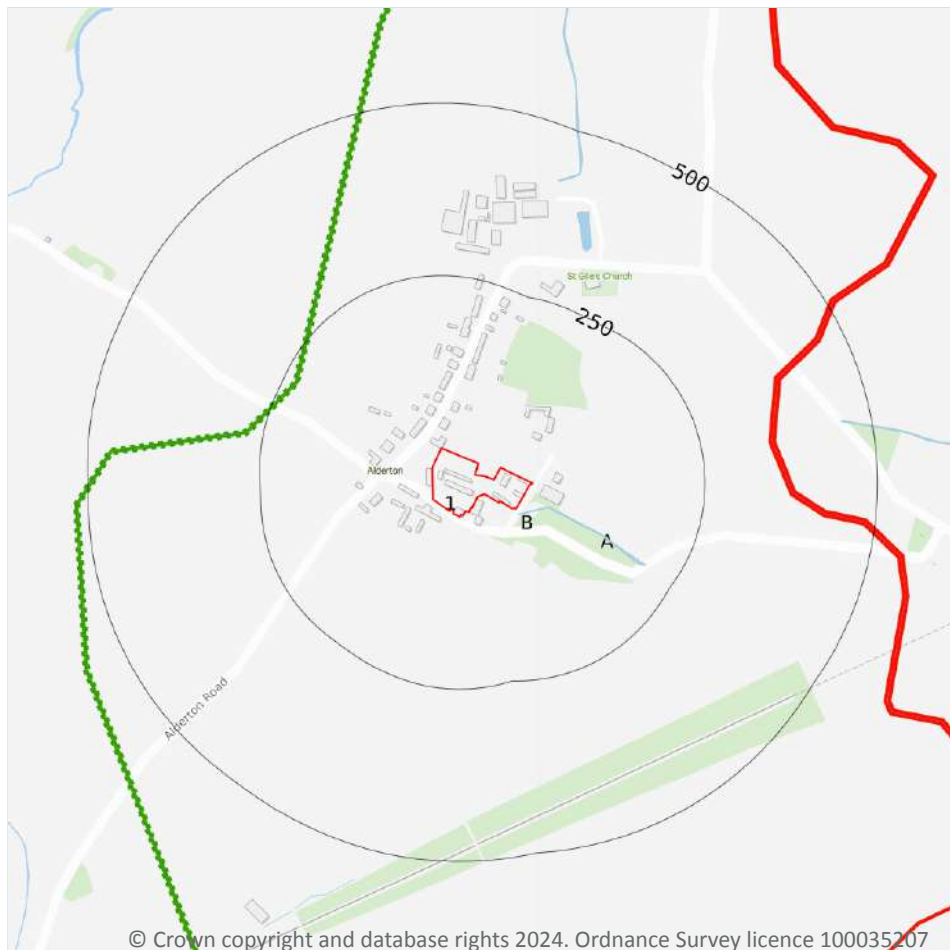
Features are displayed on the Abstractions and Source Protection Zones map on [page 35 >](#)

ID	Location	Type	Description
1	On site	2c	Outer catchment within confined aquifer

This data is sourced from the Environment Agency and Natural Resources Wales.



6 Hydrology



- Site Outline
- Search buffers in metres (m)
- Water Network (OS MasterMap)
- Surface water features (wider than 5m)
- Surface water features (narrower than 5m)
- ⋯ WFD River, canal and surface water transfer water bodies
- WFD Lake water bodies
- WFD Transitional and coastal water bodies
- WFD Surface water body catchments boundaries
- WFD Groundwater body boundaries

6.1 Water Network (OS MasterMap)

Records within 250m

3

Detailed water network of Great Britain showing the flow and precise central course of every river, stream, lake and canal.

Features are displayed on the Hydrology map on [page 38 >](#)

ID	Location	Type of water feature	Ground level	Permanence	Name
B	9m SE	Inland river not influenced by normal tidal action.	On ground surface	Watercourse contains water year round (in normal circumstances)	-



ID	Location	Type of water feature	Ground level	Permanence	Name
B	9m SE	Lake, loch or reservoir.	On ground surface	Watercourse contains water year round (in normal circumstances)	-
A	39m E	Inland river not influenced by normal tidal action.	On ground surface	Watercourse contains water year round (in normal circumstances)	-

This data is sourced from the Ordnance Survey.

6.2 Surface water features

Records within 250m

1

Covering rivers, streams and lakes (some overlap with OS MasterMap Water Network data in previous section) but additionally covers smaller features such as ponds. Rivers and streams narrower than 5m are represented as a single line. Lakes, ponds and rivers or streams wider than 5m are represented as polygons.

Features are displayed on the Hydrology map on [page 38 >](#)

This data is sourced from the Ordnance Survey.

6.3 WFD Surface water body catchments

Records on site

1

The Water Framework Directive is an EU-led framework for the protection of inland surface waters, estuaries, coastal waters and groundwater through river basin-level management planning. In terms of surface water, these basins are broken down into smaller units known as management, operational and water body catchments.

Features are displayed on the Hydrology map on [page 38 >](#)

ID	Location	Type	Water body catchment	Water body ID	Operational catchment	Management catchment
1	On site	River	Luckington Bk	GB109053027665	Avon Bristol Rural	Avon Bristol and Somerset Nort

This data is sourced from the Environment Agency and Natural Resources Wales.



6.4 WFD Surface water bodies

Records identified	1
---------------------------	----------

Surface water bodies under the Directive may be rivers, lakes, estuary or coastal. To achieve the purpose of the Directive, environmental objectives have been set and are reported on for each water body. The progress towards delivery of the objectives is then reported on by the relevant competent authorities at the end of each six-year cycle. The river water body directly associated with the catchment listed in the previous section is detailed below, along with any lake, canal, coastal or artificial water body within 250m of the site. Click on the water body ID in the table to visit the EA Catchment Explorer to find out more about each water body listed.

Features are displayed on the Hydrology map on [page 38 >](#)

ID	Location	Type	Name	Water body ID	Overall rating	Chemical rating	Ecological rating	Year
-	695m NW	River	Luckington Bk	GB109053027665 ↗	Moderate	Fail	Good	2019

This data is sourced from the Environment Agency and Natural Resources Wales.

6.5 WFD Groundwater bodies

Records on site	1
------------------------	----------

Groundwater bodies are also covered by the Directive and the same regime of objectives and reporting detailed in the previous section is in place. Click on the water body ID in the table to visit the EA Catchment Explorer to find out more about each groundwater body listed.

Features are displayed on the Hydrology map on [page 38 >](#)

ID	Location	Name	Water body ID	Overall rating	Chemical rating	Quantitative	Year
A	On site	Bristol Avon Forest Marble	GB40902G302900 ↗	Good	Good	Good	2019

This data is sourced from the Environment Agency and Natural Resources Wales.

7 River and coastal flooding

7.1 Risk of flooding from rivers and the sea

Records within 50m**0**

The chance of flooding from rivers and/or the sea in any given year, based on cells of 50m within the Risk of Flooding from Rivers and Sea (RoFRaS)/Flood Risk Assessment Wales (FRAW) models. Each cell is allocated one of four flood risk categories, taking into account flood defences and their condition. The risk categories for RoFRaS for rivers and the sea and FRAW for rivers are; Very low (less than 1 in 1000 chance in any given year), Low (less than 1 in 100 but greater than or equal to 1 in 1000 chance), Medium (less than 1 in 30 but greater than or equal to 1 in 100 chance) or High (greater than or equal to 1 in 30 chance). The risk categories for FRAW for the sea are; Very low (less than 1 in 1000 chance in any given year), Low (less than 1 in 200 but greater than or equal to 1 in 1000 chance), Medium (less than 1 in 30 but greater than or equal to 1 in 200 chance) or High (greater than or equal to 1 in 30 chance).

This data is sourced from the Environment Agency and Natural Resources Wales.

7.2 Historical Flood Events

Records within 250m**0**

Records of historic flooding from rivers, the sea, groundwater and surface water. Records began in 1946 when predecessor bodies started collecting detailed information about flooding incidents, although limited details may be included on flooding incidents prior to this date. Takes into account the presence of defences, structures, and other infrastructure where they existed at the time of flooding, and includes flood extents that may have been affected by overtopping, breaches or blockages.

This data is sourced from the Environment Agency and Natural Resources Wales.

7.3 Flood Defences

Records within 250m**0**

Records of flood defences owned, managed or inspected by the Environment Agency and Natural Resources Wales. Flood defences can be structures, buildings or parts of buildings. Typically these are earth banks, stone and concrete walls, or sheet-piling that is used to prevent or control the extent of flooding.

This data is sourced from the Environment Agency and Natural Resources Wales.



7.4 Areas Benefiting from Flood Defences

Records within 250m

0

Areas that would benefit from the presence of flood defences in a 1 in 100 (1%) chance of flooding each year from rivers or 1 in 200 (0.5%) chance of flooding each year from the sea.

This data is sourced from the Environment Agency and Natural Resources Wales.

7.5 Flood Storage Areas

Records within 250m

0

Areas that act as a balancing reservoir, storage basin or balancing pond to attenuate an incoming flood peak to a flow level that can be accepted by the downstream channel or to delay the timing of a flood peak so that its volume is discharged over a longer period.

This data is sourced from the Environment Agency and Natural Resources Wales.



River and coastal flooding - Flood Zones

7.6 Flood Zone 2

Records within 50m

0

Areas of land at risk of flooding, when the presence of flood defences are ignored. Covering land between Flood Zone 3 (see next section) and the extent of the flooding from rivers or the sea with a 1 in 1000 (0.1%) chance of flooding each year.

This data is sourced from the Environment Agency and Natural Resources Wales.

7.7 Flood Zone 3

Records within 50m

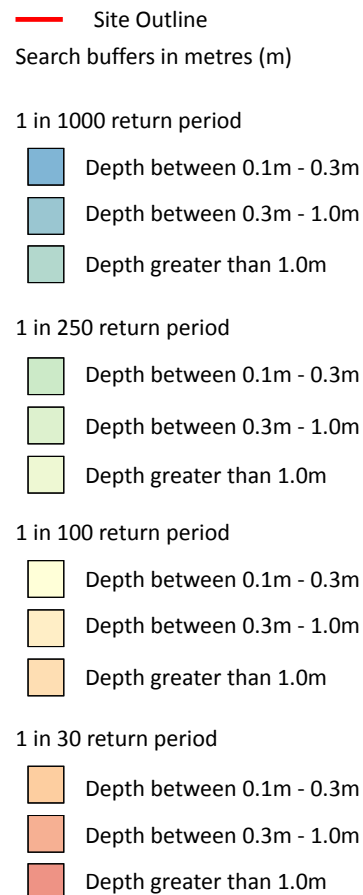
0

Areas of land at risk of flooding, when the presence of flood defences are ignored. Covering land with a 1 in 100 (1%) or greater chance of flooding each year from rivers or a 1 in 200 (0.5%) or greater chance of flooding each year from the sea.

This data is sourced from the Environment Agency and Natural Resources Wales.



8 Surface water flooding



8.1 Surface water flooding

Highest risk on site

1 in 250 year, 0.1m - 0.3m

Highest risk within 50m

1 in 30 year, 0.3m - 1.0m

Ambiental Risk Analytics surface water (pluvial) FloodMap identifies areas likely to flood as a result of extreme rainfall events, i.e. land naturally vulnerable to surface water ponding or flooding. This data set was produced by simulating 1 in 30 year, 1 in 100 year, 1 in 250 year and 1 in 1,000 year rainfall events. Modern urban drainage systems are typically built to cope with rainfall events between 1 in 20 and 1 in 30 years, though some older ones may flood in a 1 in 5 year rainfall event.

Features are displayed on the Surface water flooding map on [page 44 >](#)

The data shown on the map and in the table above shows the highest likelihood of flood events happening at the site. Lower likelihood events may have greater flood depths and hence a greater potential impact on a site.

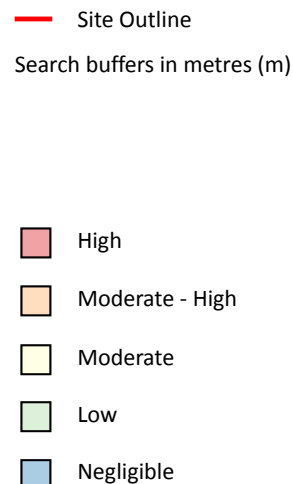
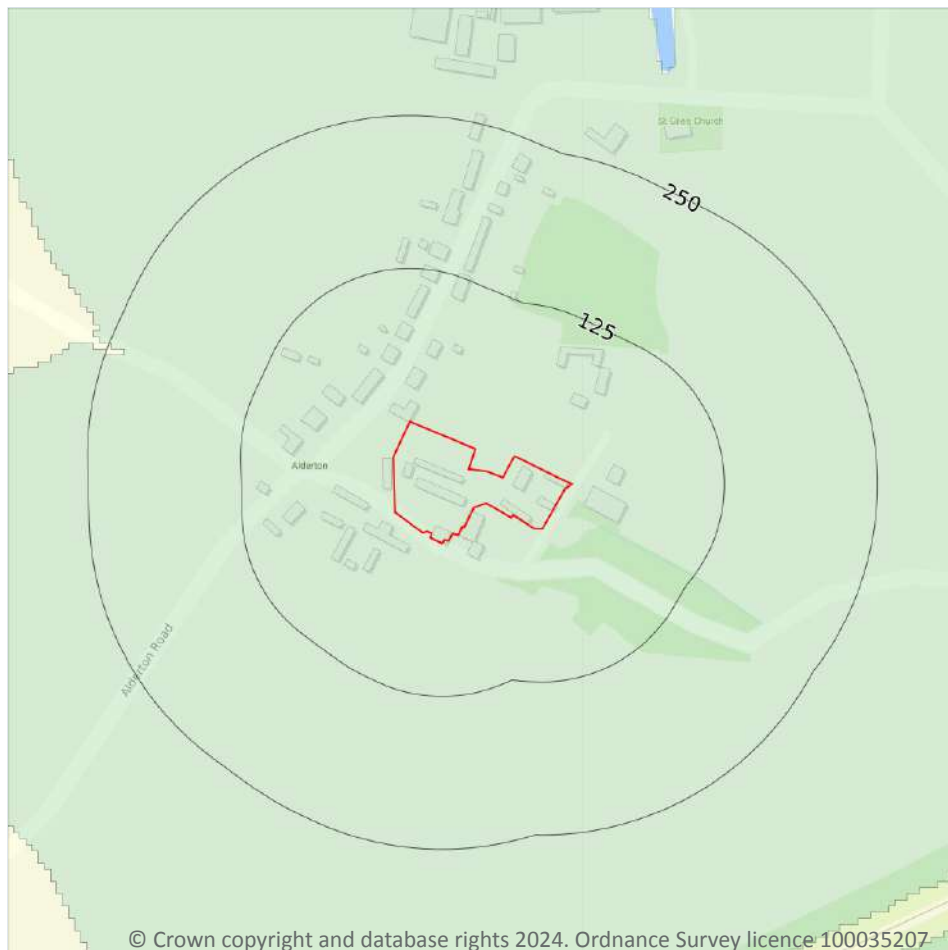
The table below shows the maximum flood depths for a range of return periods for the site.

Return period	Maximum modelled depth
1 in 1000 year	Between 0.1m and 0.3m
1 in 250 year	Between 0.1m and 0.3m
1 in 100 year	Negligible
1 in 30 year	Negligible

This data is sourced from Ambiantal Risk Analytics.



9 Groundwater flooding



9.1 Groundwater flooding

Highest risk on site

Low

Highest risk within 50m

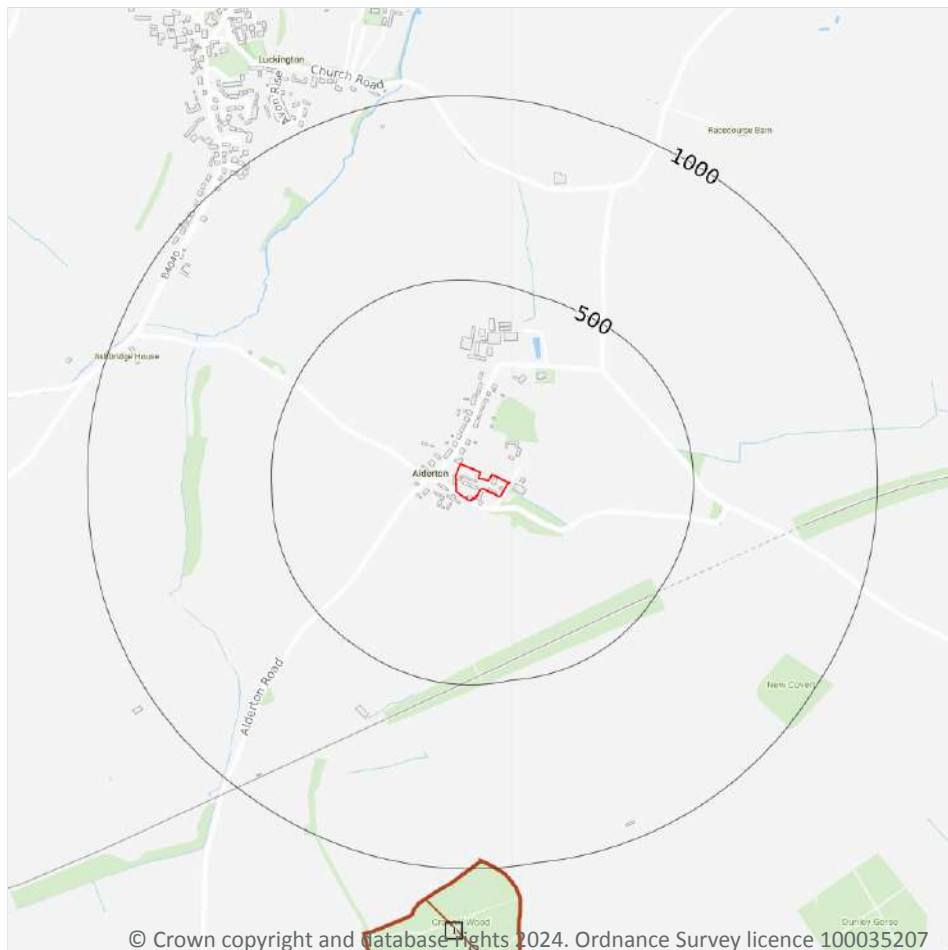
Low

Groundwater flooding is caused by unusually high groundwater levels. It occurs when the water table rises above the ground surface or within underground structures such as basements or cellars. Groundwater flooding tends to exhibit a longer duration than surface water flooding, possibly lasting for weeks or months, and as a result it can cause significant damage to property. This risk assessment is based on a 1 in 100 year return period and a 5m Digital Terrain Model (DTM).

Features are displayed on the Groundwater flooding map on [page 46 >](#)

This data is sourced from Ambiantal Risk Analytics.

10 Environmental designations



- Site Outline
- Search buffers in metres (m)
- Designated Ancient Woodland

10.1 Sites of Special Scientific Interest (SSSI)

Records within 2000m

0

Sites providing statutory protection for the best examples of UK flora, fauna, or geological or physiographical features. Originally notified under the National Parks and Access to the Countryside Act 1949, SSSIs were re-notified under the Wildlife and Countryside Act 1981. Improved provisions for the protection and management of SSSIs were introduced by the Countryside and Rights of Way Act 2000 (in England and Wales) and (in Scotland) by the Nature Conservation (Scotland) Act 2004 and the Wildlife and Natural Environment (Scotland) Act 2010.

This data is sourced from Natural England, Natural Resources Wales and Scottish Natural Heritage.

10.2 Conserved wetland sites (Ramsar sites)

Records within 2000m**0**

Ramsar sites are designated under the Convention on Wetlands of International Importance, agreed in Ramsar, Iran, in 1971. They cover all aspects of wetland conservation and wise use, recognizing wetlands as ecosystems that are extremely important for biodiversity conservation in general and for the well-being of human communities. These sites cover a broad definition of wetland; marsh, fen, peatland or water, whether natural or artificial, permanent or temporary, with water that is static or flowing, fresh, brackish or salt, and even some marine areas.

This data is sourced from Natural England, Natural Resources Wales and Scottish Natural Heritage.

10.3 Special Areas of Conservation (SAC)

Records within 2000m**0**

Areas which have been identified as best representing the range and variety within the European Union of habitats and (non-bird) species listed on Annexes I and II to the Directive. SACs are designated under the EC Habitats Directive.

This data is sourced from Natural England, Natural Resources Wales and Scottish Natural Heritage.

10.4 Special Protection Areas (SPA)

Records within 2000m**0**

Sites classified by the UK Government under the EC Birds Directive, SPAs are areas of the most important habitat for rare (listed on Annex I to the Directive) and migratory birds within the European Union.

This data is sourced from Natural England, Natural Resources Wales and Scottish Natural Heritage.

10.5 National Nature Reserves (NNR)

Records within 2000m**0**

Sites containing examples of some of the most important natural and semi-natural terrestrial and coastal ecosystems in Great Britain. They are managed to conserve their habitats, provide special opportunities for scientific study or to provide public recreation compatible with natural heritage interests.

This data is sourced from Natural England, Natural Resources Wales and Scottish Natural Heritage.

10.6 Local Nature Reserves (LNR)

Records within 2000m**0**

Sites managed for nature conservation, and to provide opportunities for research and education, or simply enjoying and having contact with nature. They are declared by local authorities under the National Parks and Access to the Countryside Act 1949 after consultation with the relevant statutory nature conservation agency.

This data is sourced from Natural England, Natural Resources Wales and Scottish Natural Heritage.

10.7 Designated Ancient Woodland

Records within 2000m**2**

Ancient woodlands are classified as areas which have been wooded continuously since at least 1600 AD. This includes semi-natural woodland and plantations on ancient woodland sites. 'Wooded continuously' does not mean there is or has previously been continuous tree cover across the whole site, and not all trees within the woodland have to be old.

Features are displayed on the Environmental designations map on [page 47 >](#)

ID	Location	Name	Woodland Type
1	978m S	Cranhill Wood	Ancient & Semi-Natural Woodland
-	1745m SW	Unknown	Ancient & Semi-Natural Woodland

This data is sourced from Natural England, Natural Resources Wales and Scottish Natural Heritage.

10.8 Biosphere Reserves

Records within 2000m**0**

Biosphere Reserves are internationally recognised by UNESCO as sites of excellence to balance conservation and socioeconomic development between nature and people. They are recognised under the Man and the Biosphere (MAB) Programme with the aim of promoting sustainable development founded on the work of the local community.

This data is sourced from Natural England, Natural Resources Wales and Scottish Natural Heritage.

10.9 Forest Parks

Records within 2000m**0**

These are areas managed by the Forestry Commission designated on the basis of recreational, conservation or scenic interest.

This data is sourced from the Forestry Commission.



10.10 Marine Conservation Zones

Records within 2000m**0**

A type of marine nature reserve in UK waters established under the Marine and Coastal Access Act (2009). They are designated with the aim to protect nationally important, rare or threatened habitats and species.

This data is sourced from Natural England, Natural Resources Wales and Scottish Natural Heritage.

10.11 Green Belt

Records within 2000m**0**

Areas designated to prevent urban sprawl by keeping land permanently open.

This data is sourced from the Ministry of Housing, Communities and Local Government.

10.12 Proposed Ramsar sites

Records within 2000m**0**

Ramsar sites are areas listed as a Wetland of International Importance under the Convention on Wetlands of International Importance especially as Waterfowl Habitat (the Ramsar Convention) 1971. The sites here supplied have a status of 'Proposed' having been identified for potential adoption under the framework.

This data is sourced from Natural England.

10.13 Possible Special Areas of Conservation (pSAC)

Records within 2000m**0**

Special Areas of Conservation are areas which have been identified as best representing the range and variety within the European Union of habitats and (non-bird) species listed on Annexes I and II to the Directive. SACs are designated under the EC Habitats Directive. Those sites supplied here are those with a status of 'Possible' having been identified for potential adoption under the framework.

This data is sourced from Natural England and Natural Resources Wales.

10.14 Potential Special Protection Areas (pSPA)

Records within 2000m**0**

Special Protection Areas (SPAs) are areas designated (or 'classified') under the European Union Wild Birds Directive for the protection of nationally and internationally important populations of wild birds. Those sites supplied here are those with a status of 'Potential' having been identified for potential adoption under the framework.

This data is sourced from Natural England.



10.15 Nitrate Sensitive Areas

Records within 2000m**0**

Areas where nitrate concentrations in drinking water sources exceeded or was at risk of exceeding the limit of 50 mg/l set by the 1980 EC Drinking Water Directive. Voluntary agricultural measures as a means of reducing the levels of nitrate were introduced by DEFRA as MAFF, with payments being made to farmers who complied. The scheme was started as a pilot in 1990 in ten areas, later implemented within 32 areas. The scheme was closed to further new entrants in 1998, although existing agreements continued for their full term. All Nitrate Sensitive Areas fell within the areas designated as Nitrate Vulnerable Zones (NVZs) in 1996 under the EC Nitrate Directive (91/676/EEC).

This data is sourced from Natural England.

10.16 Nitrate Vulnerable Zones

Records within 2000m**2**

Areas at risk from agricultural nitrate pollution designated under the EC Nitrate Directive (91/676/EEC). These are areas of land that drain into waters polluted by nitrates. Farmers operating within these areas have to follow mandatory rules to tackle nitrate loss from agriculture.

Location	Name	Type	NVZ ID	Status
On site	Sherston Avon NVZ	Surface Water	572	Existing
On site	Sherston Avon NVZ	Surface Water	572	Existing

This data is sourced from Natural England and Natural Resources Wales.



SSSI Impact Zones and Units

10.17 SSSI Impact Risk Zones

Records on site	0
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Developed to allow rapid initial assessment of the potential risks to SSSIs posed by development proposals. They define zones around each SSSI which reflect the particular sensitivities of the features for which it is notified and indicate the types of development proposal which could potentially have adverse impacts.

This data is sourced from Natural England.

10.18 SSSI Units

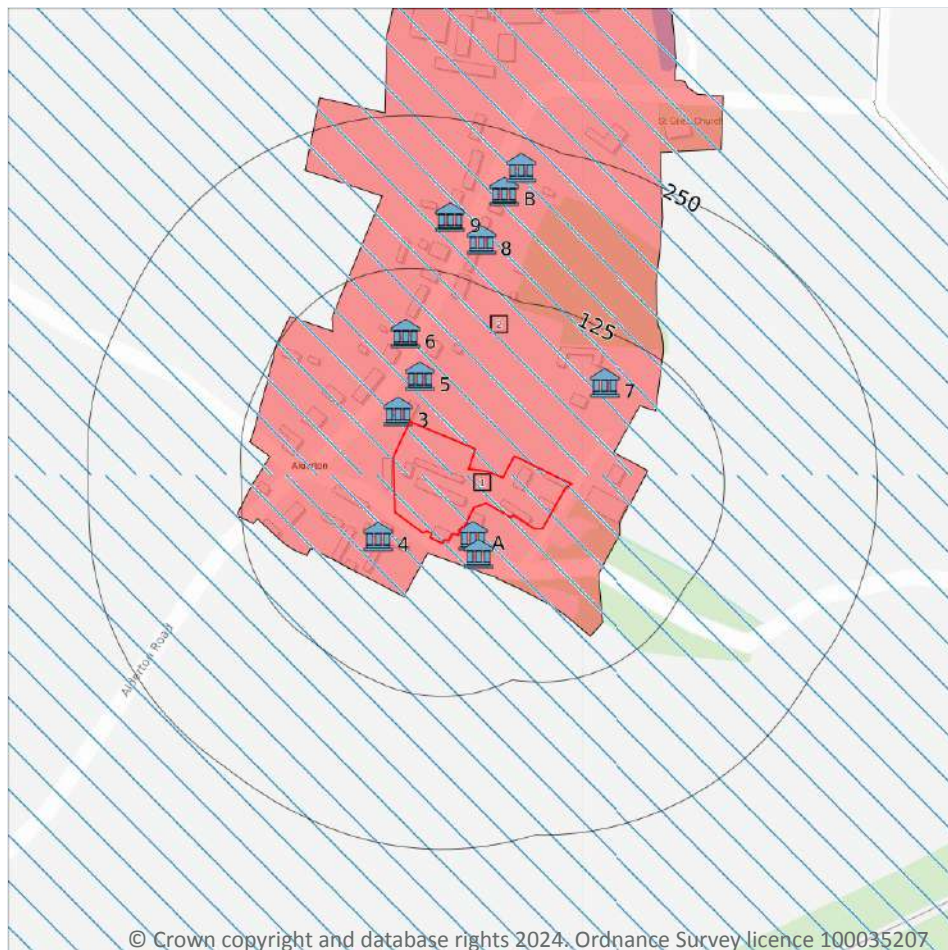
Records within 2000m	0
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Divisions of SSSIs used to record management and condition details. Units are the smallest areas for which Natural England gives a condition assessment, however, the size of units varies greatly depending on the types of management and the conservation interest.

This data is sourced from Natural England and Natural Resources Wales.



11 Visual and cultural designations



- Site Outline
- Search buffers in metres (m)
- Listed buildings
- Conservation areas
- Conservation areas - no data
- National Parks
- Areas of Outstanding Natural Beauty
- Registered parks and gardens
- Scheduled Monuments
- World Heritage Sites

11.1 World Heritage Sites

Records within 250m

0

Sites designated for their globally important cultural or natural interest requiring appropriate management and protection measures. World Heritage Sites are designated to meet the UK's commitments under the World Heritage Convention.

This data is sourced from Historic England, Cadw and Historic Environment Scotland.

11.2 Area of Outstanding Natural Beauty

Records within 250m

1

Areas of Outstanding Natural Beauty (AONB) are conservation areas, chosen because they represent 18% of the finest countryside. Each AONB has been designated for special attention because of the quality of their flora, fauna, historical and cultural associations, and/or scenic views. The National Parks and Access to the Countryside Act of 1949 created AONBs and the Countryside and Rights of Way Act, 2000 added further regulation and protection. There are likely to be restrictions to some developments within these areas.

Features are displayed on the Visual and cultural designations map on [page 53 >](#)

ID	Location	NAME	Data Source
1	On site	Cotswolds	Natural England

This data is sourced from Natural England, Natural Resources Wales and Scottish Natural Heritage.

11.3 National Parks

Records within 250m

0

In England and Wales, the purpose of National Parks is to conserve and enhance landscapes within the countryside whilst promoting public enjoyment of them and having regard for the social and economic well-being of those living within them. In Scotland National Parks have the additional purpose of promoting the sustainable use of the natural resources of the area and the sustainable social and economic development of its communities. The National Parks and Access to the Countryside Act 1949 established the National Park designation in England and Wales, and The National Parks (Scotland) Act 2000 in Scotland.

This data is sourced from Natural England, Natural Resources Wales and the Scottish Government.

11.4 Listed Buildings

Records within 250m

11

Buildings listed for their special architectural or historical interest. Building control in the form of 'listed building consent' is required in order to make any changes to that building which might affect its special interest. Listed buildings are graded to indicate their relative importance, however building controls apply to all buildings equally, irrespective of their grade, and apply to the interior and exterior of the building in its entirety, together with any curtilage structures.

Features are displayed on the Visual and cultural designations map on [page 53 >](#)

ID	Location	Name	Grade	Reference Number	Listed date
A	9m S	New Farmhouse	II	1363843	29/02/1988
3	13m NW	The Old School House	II	1283264	29/02/1988



ID	Location	Name	Grade	Reference Number	Listed date
A	22m S	Townfield Cottages	II	1199667	29/02/1988
4	24m SW	Townfield Farmhouse And Attached Barn	II	1363844	29/02/1988
5	38m N	Yew Tree Cottage And New Farm Cottages	II	1022365	29/02/1988
6	72m N	The Old Bakehouse	II	1022366	29/02/1988
7	86m NE	Hughes Farmhouse	II	1022367	29/02/1988
8	159m N	Chez Nous And The Porch	II	1283295	29/02/1988
9	171m N	The Forge House	II	1199657	28/10/1959
B	203m N	New Farm Cottages	II	1022364	29/02/1988
B	226m N	Church Cottage	II	1199604	23/09/1987

This data is sourced from Historic England, Cadw and Historic Environment Scotland.

11.5 Conservation Areas

Records within 250m

1

Local planning authorities are obliged to designate as conservation areas any parts of their own area that are of special architectural or historic interest, the character and appearance of which it is desirable to preserve or enhance. Designation of a conservation area gives broader protection than the listing of individual buildings. All the features within the area, listed or otherwise, are recognised as part of its character. Conservation area designation is the means of recognising the importance of all factors and of ensuring that planning decisions address the quality of the landscape in its broadest sense.

Features are displayed on the Visual and cultural designations map on [page 53](#) >

ID	Location	Name	District	Date of designation
2	On site	Alderton	Wiltshire	1974

This data is sourced from Historic England, Cadw and Historic Environment Scotland.

11.6 Scheduled Ancient Monuments

Records within 250m

0

A scheduled monument is an historic building or site that is included in the Schedule of Monuments kept by the Secretary of State for Digital, Culture, Media and Sport. The regime is set out in the Ancient Monuments and Archaeological Areas Act 1979. The Schedule of Monuments has c.20,000 entries and includes sites such as Roman remains, burial mounds, castles, bridges, earthworks, the remains of deserted villages and industrial sites. Monuments are not graded, but all are, by definition, considered to be of national importance.



This data is sourced from Historic England, Cadw and Historic Environment Scotland.

11.7 Registered Parks and Gardens

Records within 250m

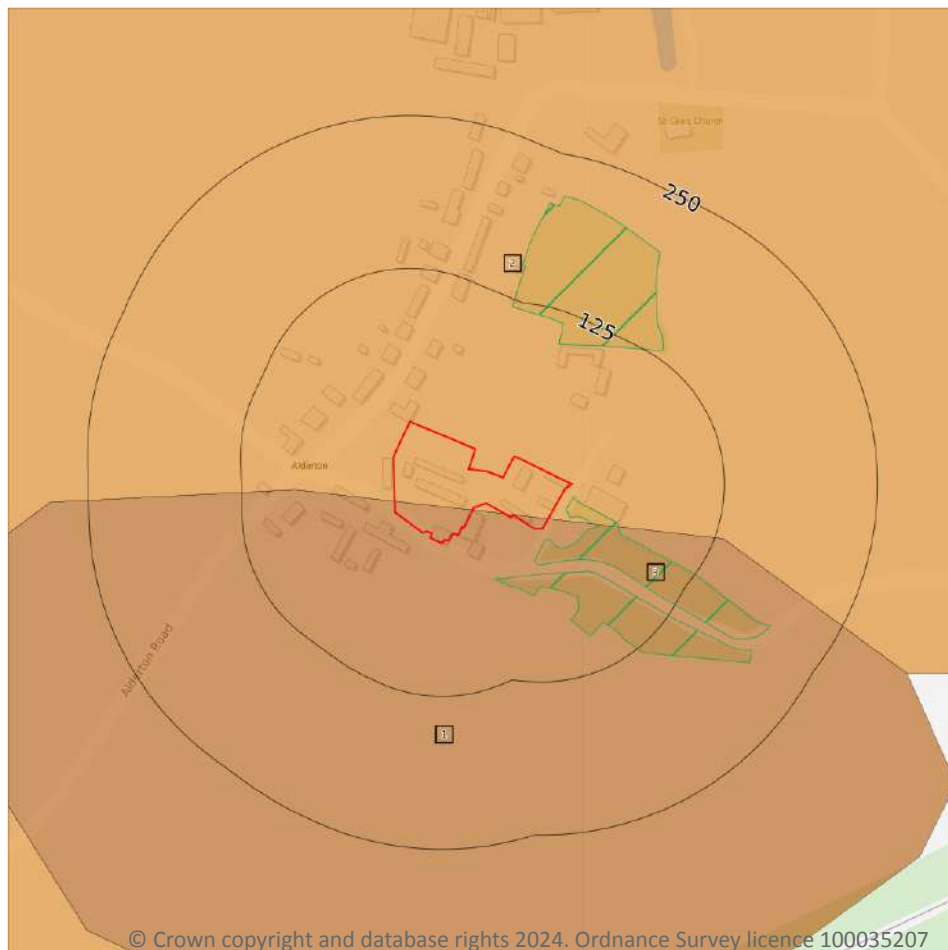
0

Parks and gardens assessed to be of particular interest and of special historic interest. The emphasis being on 'designed' landscapes, rather than on planting or botanical importance. Registration is a 'material consideration' in the planning process, meaning that planning authorities must consider the impact of any proposed development on the special character of the landscape.

This data is sourced from Historic England, Cadw and Historic Environment Scotland.



12 Agricultural designations



- Site Outline
- Search buffers in metres (m)
- Grade 1 - excellent quality
- Grade 2 - very good quality
- Grade 3 - good to moderate quality
- Grade 3a - good quality
- Grade 3b - moderate quality
- Grade 4 - poor quality
- Grade 5 - very poor quality
- Non-agricultural land
- Urban land
- Exclusion land
- Tree felling licences
- Open Access land

12.1 Agricultural Land Classification

Records within 250m

2

Classification of the quality of agricultural land taking into consideration multiple factors including climate, physical geography and soil properties. It should be noted that the categories for the grading of agricultural land are not consistent across England, Wales and Scotland.

Features are displayed on the Agricultural designations map on [page 57](#) >

ID	Location	Classification	Description
1	On site	Grade 2	Very good quality agricultural land. Land with minor limitations which affect crop yield, cultivations or harvesting. A wide range of agricultural and horticultural crops can usually be grown but on some land in the grade there may be reduced flexibility due to difficulties with the production of the more demanding crops such as winter harvested vegetables and arable root crops. The level of yield is generally high but may be lower or more variable than Grade 1.
2	On site	Grade 3	Good to moderate quality agricultural land. Land with moderate limitations which affect the choice of crops, timing and type of cultivation, harvesting or the level of yield. Where more demanding crops are grown yields are generally lower or more variable than on land in Grades 1 and 2.

This data is sourced from Natural England.

12.2 Open Access Land

Records within 250m	0
---------------------	---

The Countryside and Rights of Way Act 2000 (CROW Act) gives a public right of access to land without having to use paths. Access land includes mountains, moors, heaths and downs that are privately owned. It also includes common land registered with the local council and some land around the England Coast Path. Generally permitted activities on access land are walking, running, watching wildlife and climbing.

This data is sourced from Natural England and Natural Resources Wales.

12.3 Tree Felling Licences

Records within 250m	1
---------------------	---

Felling Licence Application (FLA) areas approved by Forestry Commission England. Anyone wishing to fell trees must ensure that a licence or permission under a grant scheme has been issued by the Forestry Commission before any felling is carried out or that one of the exceptions apply.

Features are displayed on the Agricultural designations map on [page 57 >](#)

ID	Location	Description	Reference	Application date
3	9m E	Selective Fell/Thin (Unconditional)	018/299/16-17	18/11/2016

This data is sourced from the Forestry Commission.



12.4 Environmental Stewardship Schemes

Records within 250m

2

Environmental Stewardship covers a range of schemes that provide financial incentives to farmers, foresters and land managers to look after and improve the environment. The schemes identified may be historical schemes that have now expired, or may still be active.

Location	Reference	Scheme	Start Date	End date
11m S	AG00330827	Entry Level plus Higher Level Stewardship	01/04/2011	31/03/2021
84m NW	AG00334594	Entry Level plus Higher Level Stewardship	01/06/2011	31/05/2021

This data is sourced from Natural England.

12.5 Countryside Stewardship Schemes

Records within 250m

4

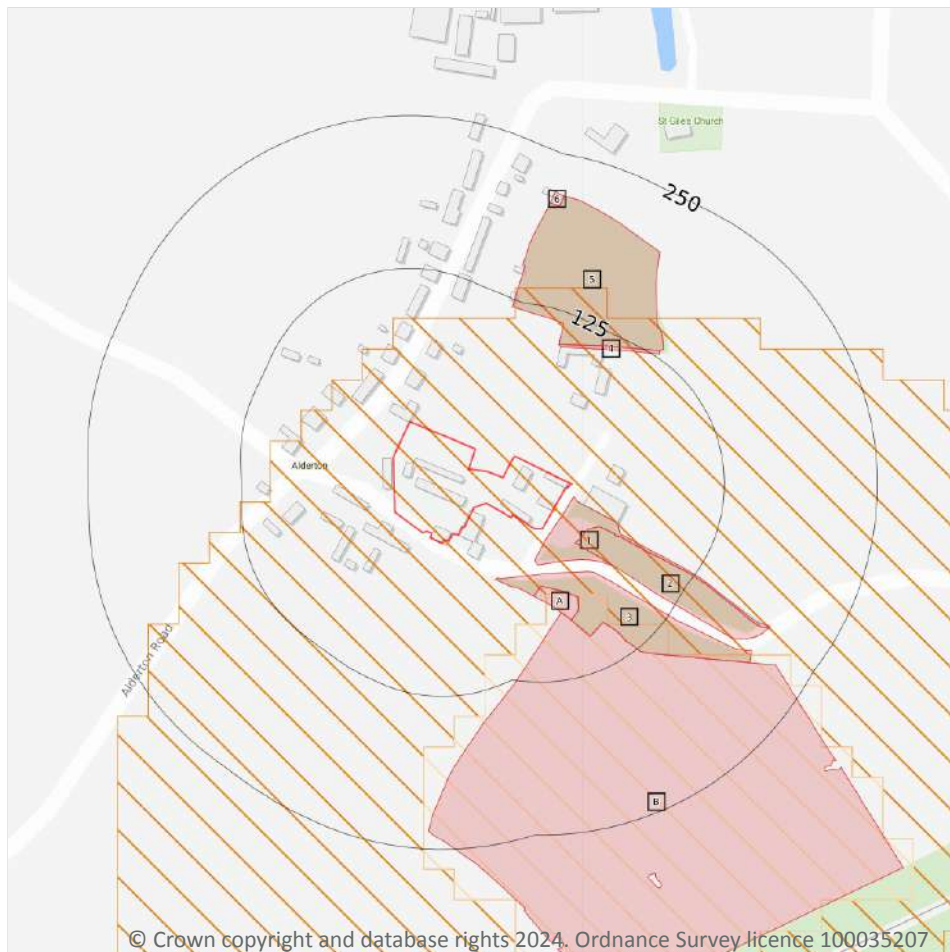
Countryside Stewardship covers a range of schemes that provide financial incentives to farmers, foresters and land managers to look after and improve the environment. Main objectives are to improve the farmed environment for wildlife and to reduce diffuse water pollution.

Location	Reference	Scheme	Start Date	End Date
11m S	1306170	Countryside Stewardship (Middle Tier)	01/01/2023	31/12/2027
41m E	1264038	Countryside Stewardship (Middle Tier)	01/01/2022	31/12/2026
84m NW	1266108	Countryside Stewardship (Middle Tier)	01/01/2022	31/12/2026
103m W	1091925	Countryside Stewardship (Middle Tier)	01/01/2021	31/12/2025

This data is sourced from Natural England.



13 Habitat designations



- Site Outline
- Search buffers in metres (m)
- Priority Habitat Inventory
- Open Mosaic Habitat
- Limestone Pavement Orders
- Habitat Networks
- Primary Habitat
- Restorable Habitat
- Associated Habitats
- Habitat Restoration-Creation
- Network Enhancement Zone 1
- Network Enhancement Zone 2

13.1 Priority Habitat Inventory

Records within 250m

8

Habitats of principal importance as named under Natural Environment and Rural Communities Act (2006) Section 41.

Features are displayed on the Habitat designations map on [page 60](#) >

ID	Location	Main Habitat	Other habitats
1	7m SE	Deciduous woodland	Main habitat: DWOOD (INV > 50%)
2	29m SE	Deciduous woodland	Main habitat: DWOOD (INV > 50%)
3	37m SE	Deciduous woodland	Main habitat: DWOOD (INV > 50%)
A	47m SE	Deciduous woodland	Main habitat: DWOOD (INV > 50%)



ID	Location	Main Habitat	Other habitats
B	70m SE	Good quality semi-improved grassland	Main habitat: LMEAD (FEP + HLS)
4	97m NE	Deciduous woodland	Main habitat: DWOOD (INV > 50%)
5	98m NE	Deciduous woodland	Main habitat: DWOOD (INV > 50%)
6	207m N	Deciduous woodland	Main habitat: DWOOD (INV > 50%)

This data is sourced from Natural England.

13.2 Habitat Networks

Records within 250m	2
----------------------------	----------

Habitat networks for 18 priority habitat networks (based primarily, but not exclusively, on the priority habitat inventory) and areas suitable for the expansion of networks through restoration and habitat creation.

Features are displayed on the Habitat designations map on [page 60](#) >

ID	Location	Type	Habitat
A	On site	Network Enhancement Zone 1	Not specified
B	53m SE	Habitat Restoration-Creation	Not specified

This data is sourced from Natural England.

13.3 Open Mosaic Habitat

Records within 250m	0
----------------------------	----------

Sites verified as Open Mosaic Habitat. Mosaic habitats are brownfield sites that are identified under the UK Biodiversity Action Plan as a priority habitat due to the habitat variation within a single site, supporting an array of invertebrates.

This data is sourced from Natural England.

13.4 Limestone Pavement Orders

Records within 250m	0
----------------------------	----------

Limestone pavements are outcrops of limestone where the surface has been worn away by natural means over millennia. These rocks have the appearance of paving blocks, hence their name. Not only do they have geological interest, they also provide valuable habitats for wildlife. These habitats are threatened due to their removal for use in gardens and water features. Many limestone pavements have been designated as SSSIs which affords them some protection. In addition, Section 34 of the Wildlife and Countryside Act 1981 gave them additional protection via the creation of Limestone Pavement Orders, which made it a criminal offence to

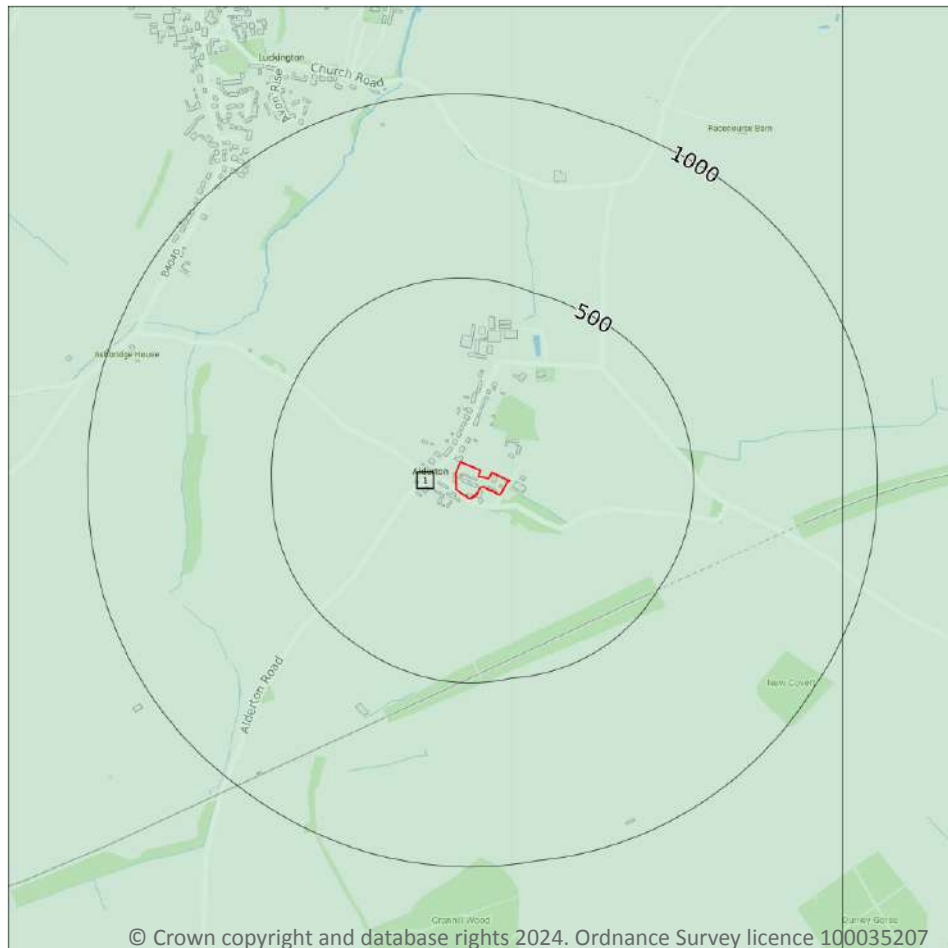


remove any part of the outcrop. The associated Limestone Pavement Priority Habitat is part of the UK Biodiversity Action Plan priority habitat in England.

This data is sourced from Natural England.



14 Geology 1:10,000 scale - Availability



- Site Outline**
- Search buffers in metres (m)**
- Full coverage
 - Partial coverage
 - No coverage

14.1 10k Availability

Records within 500m

1

An indication on the coverage of 1:10,000 scale geology data for the site, the most detailed dataset provided by the British Geological Survey. Either 'Full', 'Partial' or 'No coverage' for each geological theme.

Features are displayed on the Geology 1:10,000 scale - Availability map on [page 63](#) >

ID	Location	Artificial	Superficial	Bedrock	Mass movement	Sheet No.
1	On site	Full	Full	Full	No coverage	ST88SW

This data is sourced from the British Geological Survey.



Geology 1:10,000 scale - Artificial and made ground



- Site Outline**
- Search buffers in metres (m)**
- Reclaimed ground
 - Made ground
 - Worked ground
 - Infilled ground
 - Disturbed ground
 - Landscaped ground

14.2 Artificial and made ground (10k)

Records within 500m

1

Details of made, worked, infilled, disturbed and landscaped ground at 1:10,000 scale. Artificial ground can be associated with potentially contaminated material, unpredictable engineering conditions and instability.

Features are displayed on the Geology 1:10,000 scale - Artificial and made ground map on [page 64](#) >

ID	Location	LEX Code	Description	Rock description
1	377m SE	WGR-VOID	Worked Ground (Undivided)	Void

This data is sourced from the British Geological Survey.

Geology 1:10,000 scale - Superficial

14.3 Superficial geology (10k)

Records within 500m

0

Superficial geological deposits at 1:10,000 scale. Also known as 'drift', these are the youngest geological deposits, formed during the Quaternary. They rest on older deposits or rocks referred to as bedrock.

This data is sourced from the British Geological Survey.

14.4 Landslip (10k)

Records within 500m

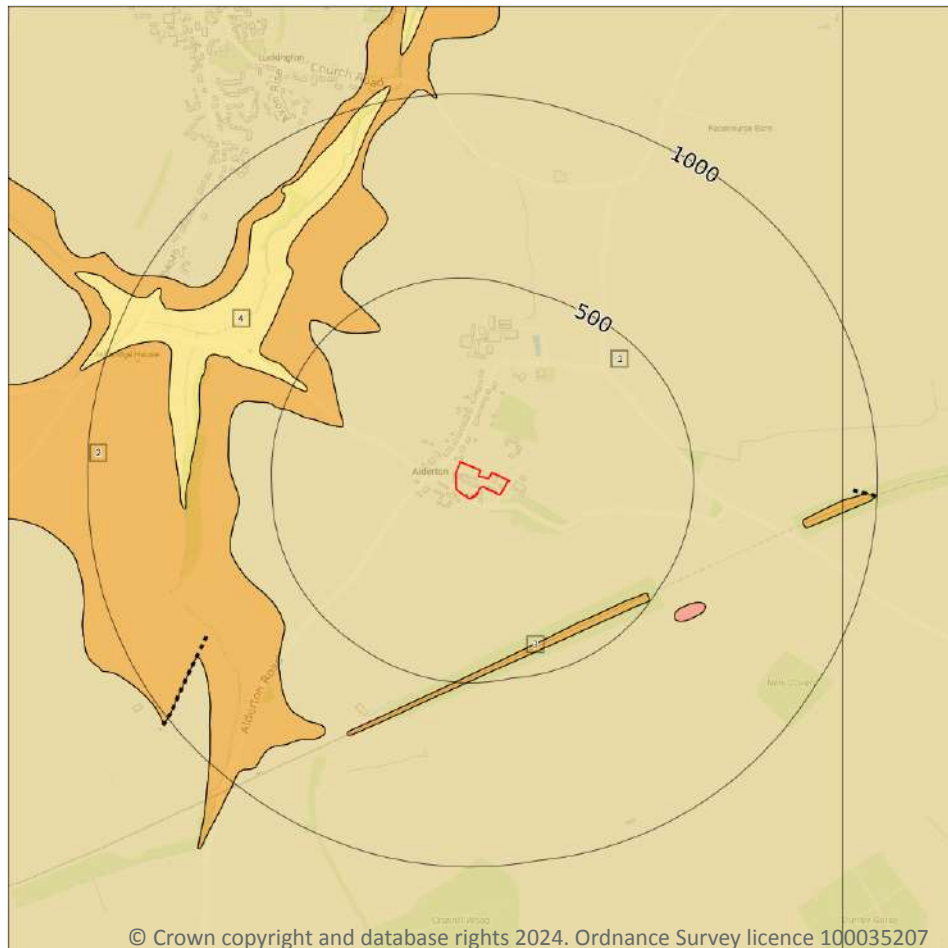
0

Mass movement deposits on BGS geological maps at 1:10,000 scale. Primarily superficial deposits that have moved down slope under gravity to form landslips. These affect bedrock, other superficial deposits and artificial ground.

This data is sourced from the British Geological Survey.



Geology 1:10,000 scale - Bedrock



Site Outline

Search buffers in metres (m)

..... Bedrock faults and other linear features (10k)

Bedrock geology (10k)
Please see table for more details.

14.5 Bedrock geology (10k)

Records within 500m

4

Bedrock geology at 1:10,000 scale. The main mass of rocks forming the Earth and present everywhere, whether exposed at the surface in outcrops or concealed beneath superficial deposits or water.

Features are displayed on the Geology 1:10,000 scale - Bedrock map on [page 66 >](#)

ID	Location	LEX Code	Description	Rock age
1	On site	FMB-MDST	Forest Marble Formation - Mudstone	Bathonian Age
2	331m NW	FMB-LMST	Forest Marble Formation - Limestone	Bathonian Age
3	406m SE	FMB-LMST	Forest Marble Formation - Limestone	Bathonian Age

ID	Location	LEX Code	Description	Rock age
4	461m NW	CFDO- LMOOL	Chalfield Oolite Formation - Ooidal Limestone	Bathonian Age

This data is sourced from the British Geological Survey.

14.6 Bedrock faults and other linear features (10k)

Records within 500m

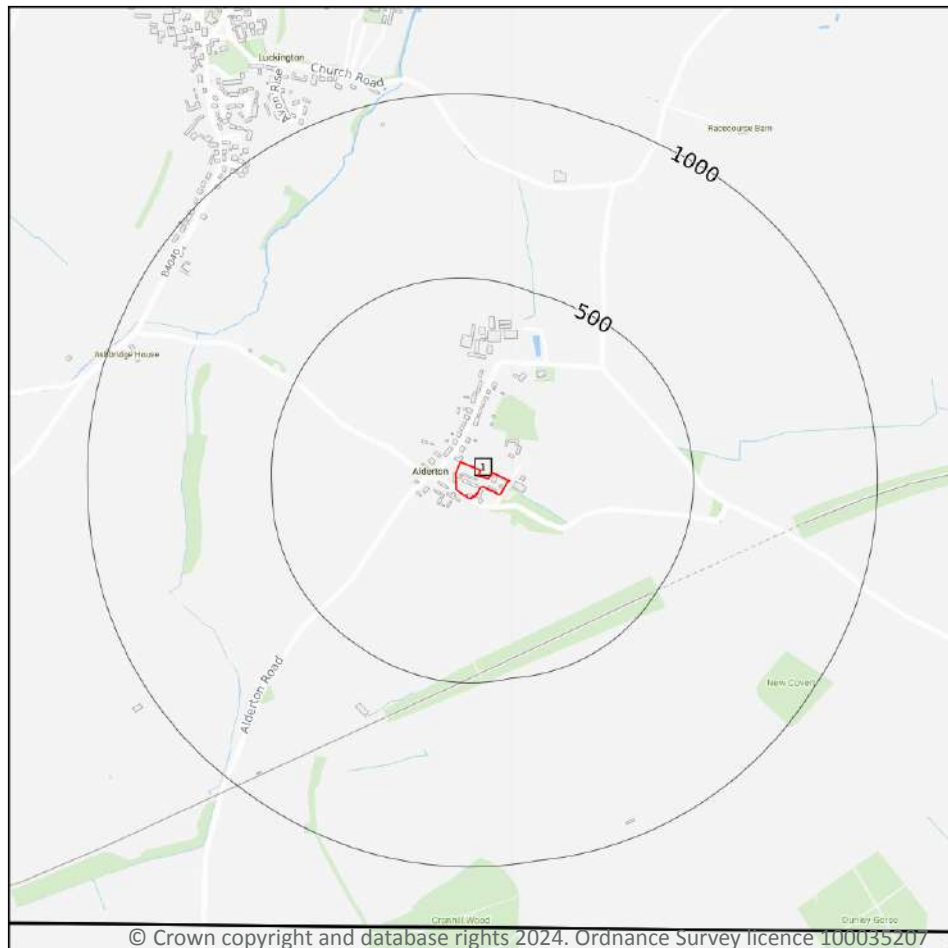
0

Linear features at the ground or bedrock surface at 1:10,000 scale of six main types; rock, fault, fold axis, mineral vein, alteration area or landform. Features are either observed or inferred, and relate primarily to bedrock.

This data is sourced from the British Geological Survey.



15 Geology 1:50,000 scale - Availability



— Site Outline

Search buffers in metres (m)

□ Geological map tile

15.1 50k Availability

Records within 500m

1

An indication on the coverage of 1:50,000 scale geology data for the site. Either 'Full' or 'No coverage' for each geological theme.

Features are displayed on the Geology 1:50,000 scale - Availability map on [page 68](#) >

ID	Location	Artificial	Superficial	Bedrock	Mass movement	Sheet No.
1	On site	No coverage	Full	Full	Full	EW251_malmesbury_v4

This data is sourced from the British Geological Survey.



Geology 1:50,000 scale - Artificial and made ground

15.2 Artificial and made ground (50k)

Records within 500m

0

Details of made, worked, infilled, disturbed and landscaped ground at 1:50,000 scale. Artificial ground can be associated with potentially contaminated material, unpredictable engineering conditions and instability.

This data is sourced from the British Geological Survey.

15.3 Artificial ground permeability (50k)

Records within 50m

0

A qualitative classification of estimated rates of vertical movement of water from the ground surface through the unsaturated zone of any artificial deposits (the zone between the land surface and the water table).

This data is sourced from the British Geological Survey.



Geology 1:50,000 scale - Superficial

15.4 Superficial geology (50k)

Records within 500m

0

Superficial geological deposits at 1:50,000 scale. Also known as 'drift', these are the youngest geological deposits, formed during the Quaternary. They rest on older deposits or rocks referred to as bedrock.

This data is sourced from the British Geological Survey.

15.5 Superficial permeability (50k)

Records within 50m

0

A qualitative classification of estimated rates of vertical movement of water from the ground surface through the unsaturated zone of any superficial deposits (the zone between the land surface and the water table).

This data is sourced from the British Geological Survey.

15.6 Landslip (50k)

Records within 500m

0

Mass movement deposits on BGS geological maps at 1:50,000 scale. Primarily superficial deposits that have moved down slope under gravity to form landslips. These affect bedrock, other superficial deposits and artificial ground.

This data is sourced from the British Geological Survey.

15.7 Landslip permeability (50k)

Records within 50m

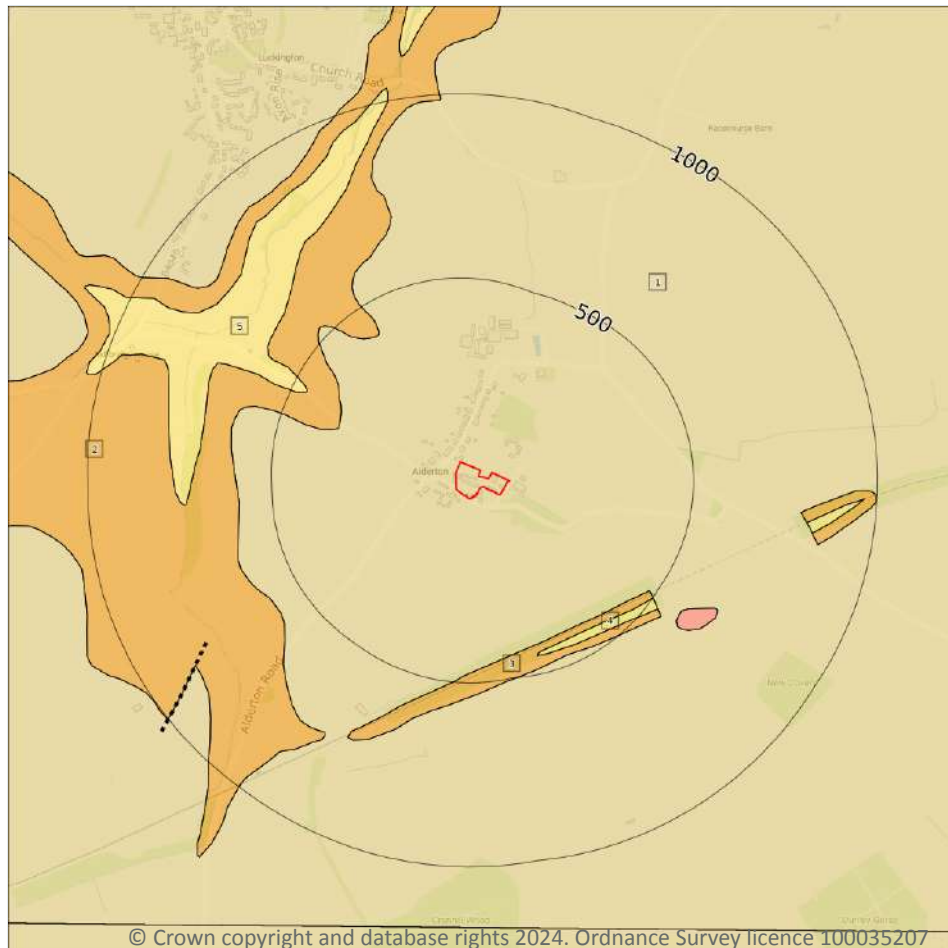
0

A qualitative classification of estimated rates of vertical movement of water from the ground surface through the unsaturated zone of any landslip deposits (the zone between the land surface and the water table).

This data is sourced from the British Geological Survey.



Geology 1:50,000 scale - Bedrock



— Site Outline

Search buffers in metres (m)

.... Bedrock faults and other linear features (50k)

Bedrock geology (50k)
Please see table for more details.

15.8 Bedrock geology (50k)

Records within 500m

5

Bedrock geology at 1:50,000 scale. The main mass of rocks forming the Earth and present everywhere, whether exposed at the surface in outcrops or concealed beneath superficial deposits or water.

Features are displayed on the Geology 1:50,000 scale - Bedrock map on [page 71 >](#)

ID	Location	LEX Code	Description	Rock age
1	On site	FMB-MDST	FOREST MARBLE FORMATION - MUDSTONE	BATHONIAN
2	341m W	FMB-LMOOL	FOREST MARBLE FORMATION - LIMESTONE, OOIDAL	BATHONIAN
3	411m SE	FMB-LMOOL	FOREST MARBLE FORMATION - LIMESTONE, OOIDAL	BATHONIAN



ID	Location	LEX Code	Description	Rock age
4	432m SE	CFDO-LMOOL	CHALFIELD OOLITE FORMATION - LIMESTONE, OOIDAL	BATHONIAN
5	459m NW	CFDO-LMOOL	CHALFIELD OOLITE FORMATION - LIMESTONE, OOIDAL	BATHONIAN

This data is sourced from the British Geological Survey.

15.9 Bedrock permeability (50k)

Records within 50m **1**

A qualitative classification of estimated rates of vertical movement of water from the ground surface through the unsaturated zone of bedrock (the zone between the land surface and the water table).

Location	Flow type	Maximum permeability	Minimum permeability
On site	Fracture	Low	Very Low

This data is sourced from the British Geological Survey.

15.10 Bedrock faults and other linear features (50k)

Records within 500m **0**

Linear features at the ground or bedrock surface at 1:50,000 scale of six main types; rock, fault, fold axis, mineral vein, alteration area or landform. Features are either observed or inferred, and relate primarily to bedrock.

This data is sourced from the British Geological Survey.



16 Boreholes

16.1 BGS Boreholes

Records within 250m

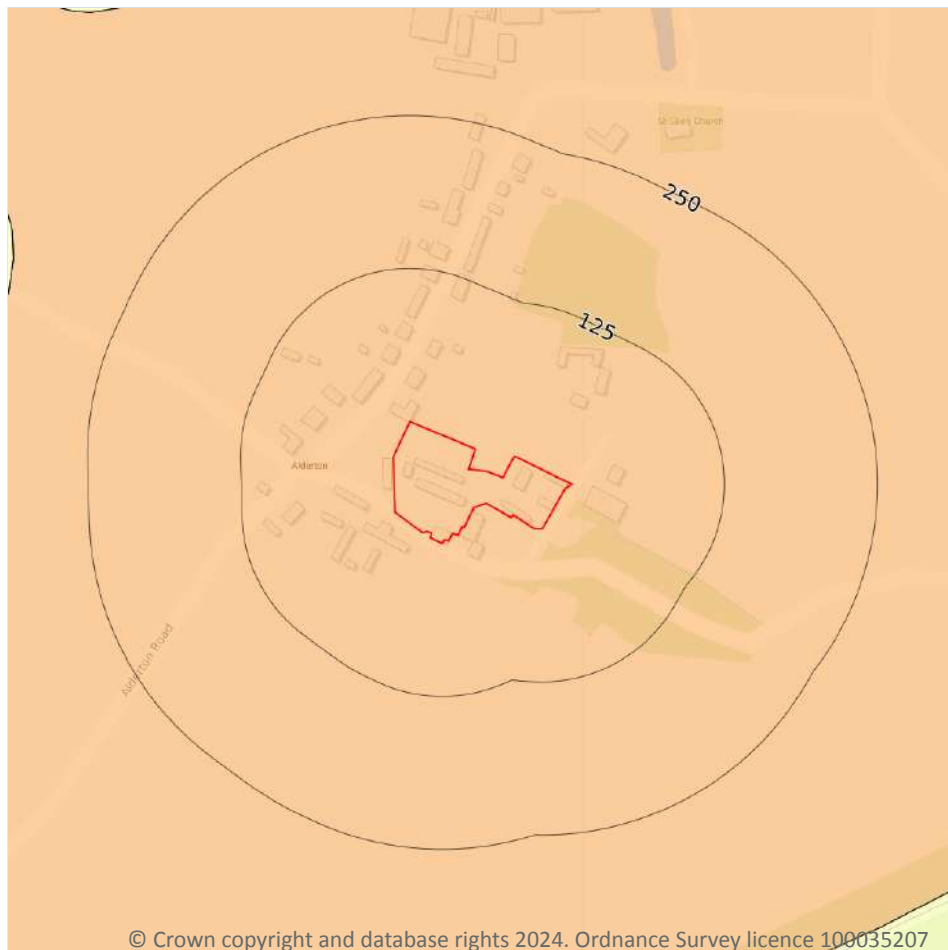
0

The Single Onshore Boreholes Index (SOBI); an index of over one million records of boreholes, shafts and wells from all forms of drilling and site investigation work held by the British Geological Survey. Covering onshore and nearshore boreholes dating back to at least 1790 and ranging from one to several thousand metres deep.

This data is sourced from the British Geological Survey.



17 Natural ground subsidence - Shrink swell clays



- Site Outline
- Search buffers in metres (m)
- ☐ No data
 - ☐ Negligible
 - ☐ Very low
 - ☐ Low
 - ☐ Moderate
 - ☐ High

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17.1 Shrink swell clays

Records within 50m

1

The potential hazard presented by soils that absorb water when wet (making them swell), and lose water as they dry (making them shrink). This shrink-swell behaviour is controlled by the type and amount of clay in the soil, and by seasonal changes in the soil moisture content (related to rainfall and local drainage).

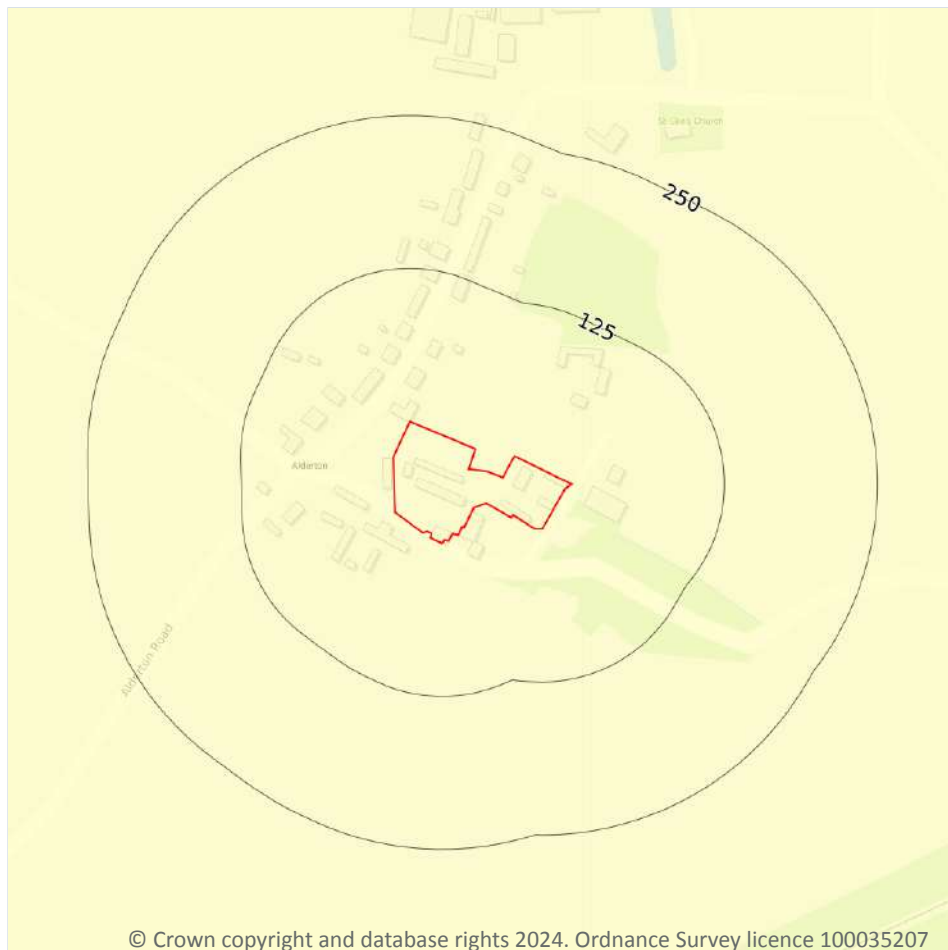
Features are displayed on the Natural ground subsidence - Shrink swell clays map on [page 74 >](#)

Location	Hazard rating	Details
On site	Low	Ground conditions predominantly medium plasticity.

This data is sourced from the British Geological Survey.



Natural ground subsidence - Running sands



- Site Outline
- Search buffers in metres (m)
- ☐ No data
 - ☐ Negligible
 - ☐ Very low
 - ☐ Low
 - ☐ Moderate
 - ☐ High

17.2 Running sands

Records within 50m

1

The potential hazard presented by rocks that can contain loosely-packed sandy layers that can become fluidised by water flowing through them. Such sands can 'run', removing support from overlying buildings and causing potential damage.

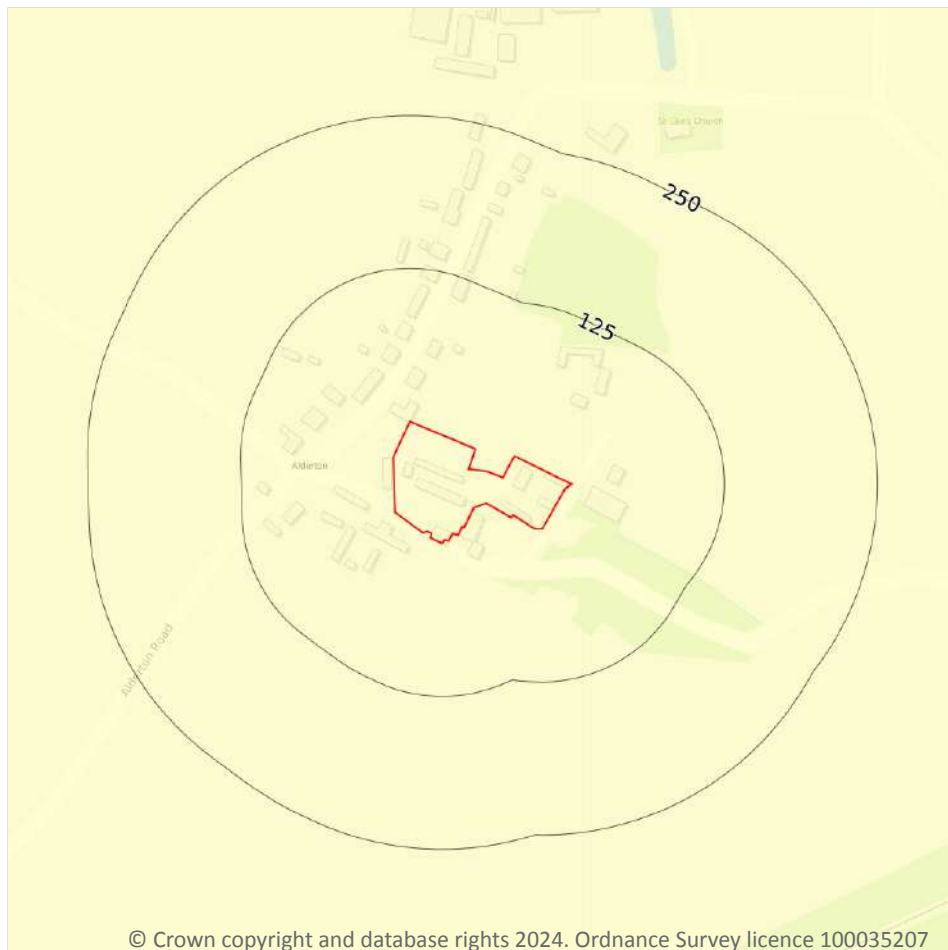
Features are displayed on the Natural ground subsidence - Running sands map on [page 75 >](#)

Location	Hazard rating	Details
On site	Negligible	Running sand conditions are not thought to occur whatever the position of the water table. No identified constraints on lands use due to running conditions.

This data is sourced from the British Geological Survey.



Natural ground subsidence - Compressible deposits



- Site Outline
- Search buffers in metres (m)
- ☐ No data
 - ☐ Negligible
 - ☐ Very low
 - ☐ Low
 - ☐ Moderate
 - ☐ High

17.3 Compressible deposits

Records within 50m

1

The potential hazard presented by types of ground that may contain layers of very soft materials like clay or peat and may compress if loaded by overlying structures, or if the groundwater level changes, potentially resulting in depression of the ground and disturbance of foundations.

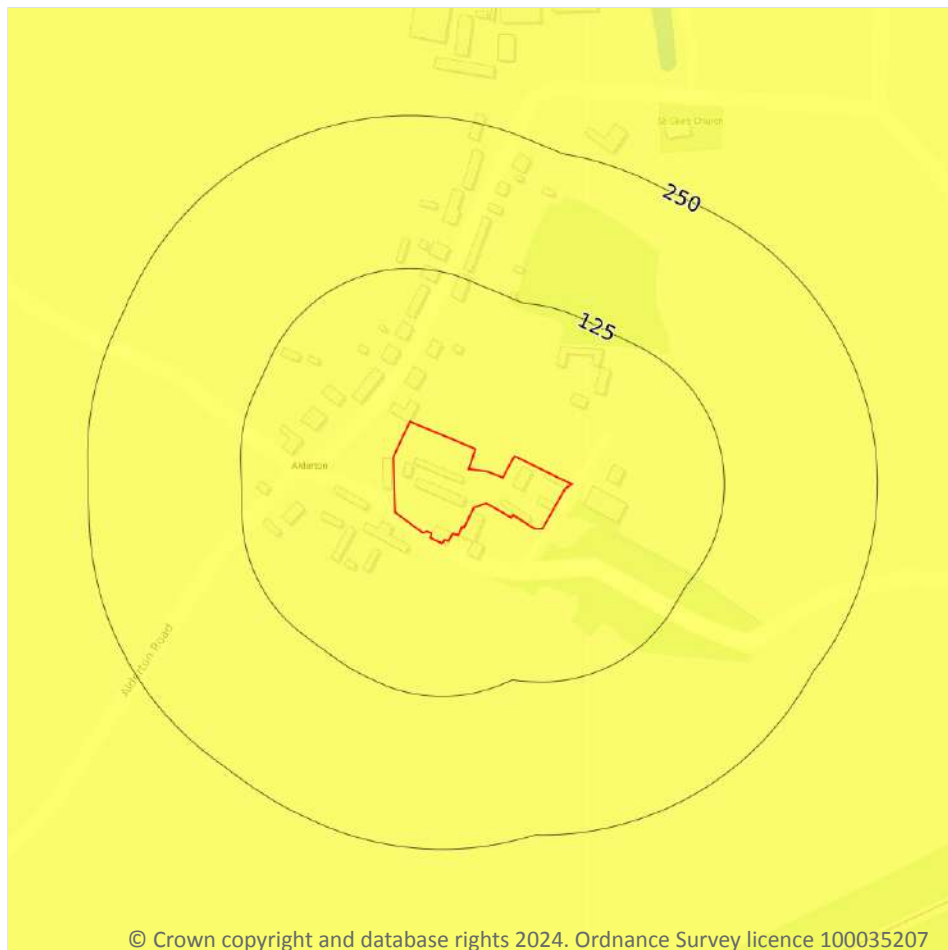
Features are displayed on the Natural ground subsidence - Compressible deposits map on [page 76 >](#)

Location	Hazard rating	Details
On site	Negligible	Compressible strata are not thought to occur.

This data is sourced from the British Geological Survey.



Natural ground subsidence - Collapsible deposits



- Site Outline
- Search buffers in metres (m)
- ☐ No data
 - ☐ Negligible
 - ☐ Very low
 - ☐ Low
 - ☐ Moderate
 - ☐ High

17.4 Collapsible deposits

Records within 50m

1

The potential hazard presented by natural deposits that could collapse when a load (such as a building) is placed on them or they become saturated with water.

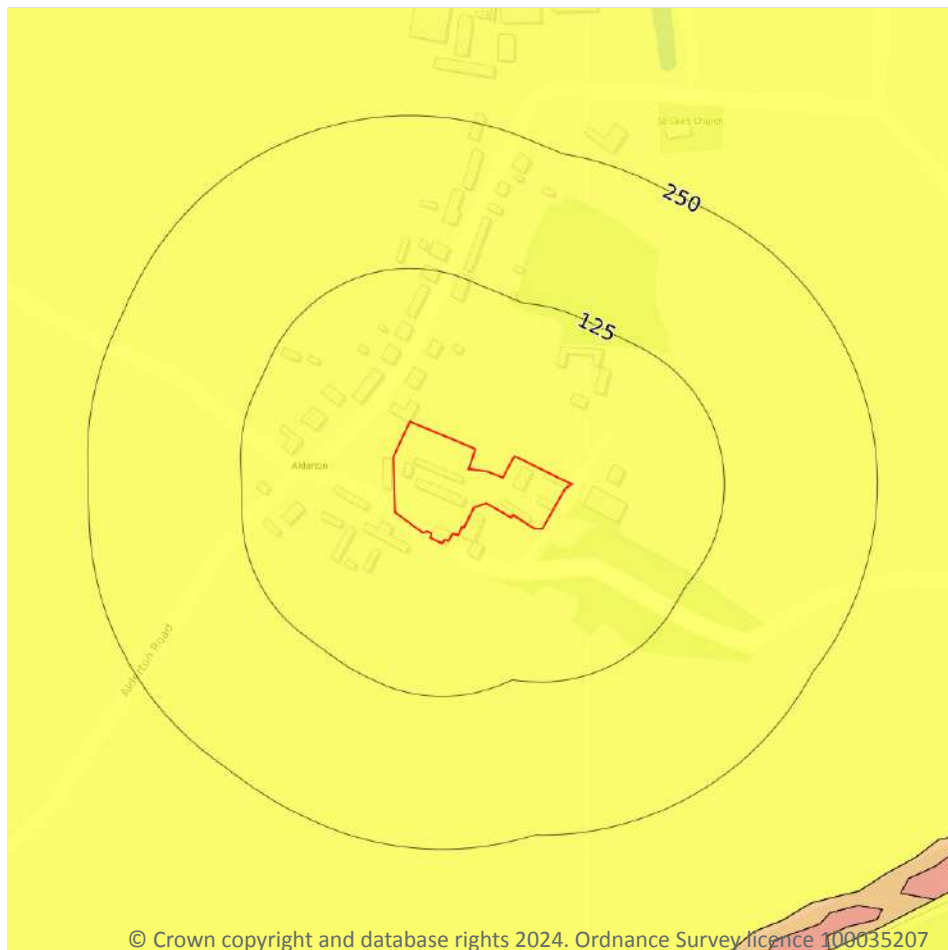
Features are displayed on the Natural ground subsidence - Collapsible deposits map on [page 77 >](#)

Location	Hazard rating	Details
On site	Very low	Deposits with potential to collapse when loaded and saturated are unlikely to be present.

This data is sourced from the British Geological Survey.



Natural ground subsidence - Landslides



- Site Outline
- Search buffers in metres (m)
- ☐ No data
 - ☐ Negligible
 - ☒ Very low
 - ☐ Low
 - ☐ Moderate
 - ☐ High

17.5 Landslides

Records within 50m

1

The potential for landsliding (slope instability) to be a hazard assessed using 1:50,000 scale digital maps of superficial and bedrock deposits, combined with information from the BGS National Landslide Database and scientific and engineering reports.

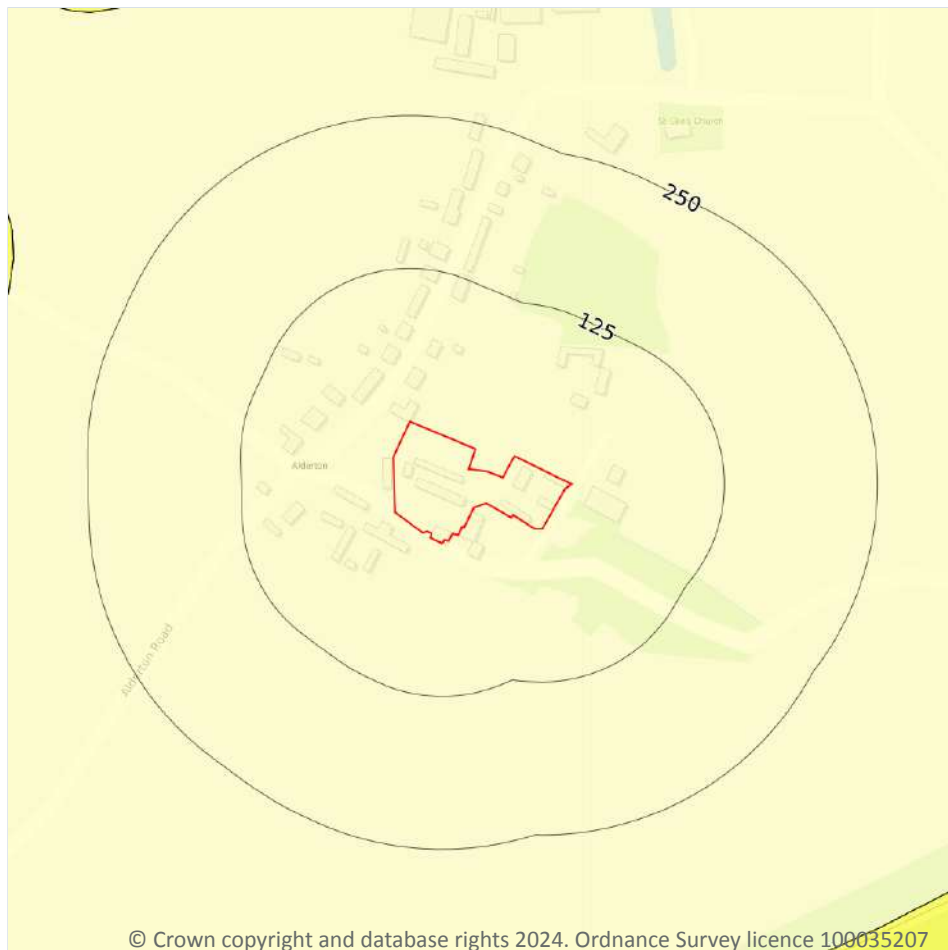
Features are displayed on the Natural ground subsidence - Landslides map on [page 78](#) >

Location	Hazard rating	Details
On site	Very low	Slope instability problems are not likely to occur but consideration to potential problems of adjacent areas impacting on the site should always be considered.

This data is sourced from the British Geological Survey.



Natural ground subsidence - Ground dissolution of soluble rocks



- Site Outline
- Search buffers in metres (m)
- No data
 - Negligible
 - Very low
 - Low
 - Moderate
 - High

17.6 Ground dissolution of soluble rocks

Records within 50m

1

The potential hazard presented by ground dissolution, which occurs when water passing through soluble rocks produces underground cavities and cave systems. These cavities reduce support to the ground above and can cause localised collapse of the overlying rocks and deposits.

Features are displayed on the Natural ground subsidence - Ground dissolution of soluble rocks map on [page 79](#) >

Location	Hazard rating	Details
On site	Negligible	Soluble rocks are either not thought to be present within the ground, or not prone to dissolution. Dissolution features are unlikely to be present.



This data is sourced from the British Geological Survey.



18 Mining and ground workings



- Site Outline
- Search buffers in metres (m)
- BritPits
- Surface ground workings
- Underground workings
- Underground mining extents
- Historical mineral planning areas
- TCA non-coal mining
- Non Coal Mining
 - Sporadic underground mining of restricted extent possible
 - Localised small scale underground mining possible
 - Small scale mining possible
 - Underground mining known or likely within or in close proximity
 - Underground mining known within or in very close proximity

18.1 BritPits

Records within 500m

1

BritPits (an abbreviation of British Pits) is a database maintained by the British Geological Survey of currently active and closed surface and underground mineral workings. Details of major mineral handling sites, such as wharfs and rail depots are also held in the database.

Features are displayed on the Mining and ground workings map on [page 81](#) >

ID	Location	Details	Description
G	490m NW	Name: Manor Farm Quarry Address: Luckington, MALMESBURY, Wiltshire Commodity: Limestone Status: Ceased	Type: A surface mineral working. It may be termed Quarry, Sand Pit, Clay Pit or Opencast Coal Site Status description: Site which, at date of entry, has ceased to extract minerals. May be considered as Closed by operator. May be considered to have Active, Dormant or Expired planning permissions by Mineral Planning Authority

This data is sourced from the British Geological Survey.

18.2 Surface ground workings

Records within 250m	11
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Historical land uses identified from Ordnance Survey mapping that involved ground excavation at the surface. These features may or may not have been subsequently backfilled.

Features are displayed on the Mining and ground workings map on [page 81](#) >

ID	Location	Land Use	Year of mapping	Mapping scale
A	4m SE	Pond	1949	1:10560
A	12m SE	Pond	1982	1:10000
B	12m W	Pond	1885	1:10560
A	15m SE	Pond	1885	1:10560
B	15m W	Pond	1923	1:10560
B	16m W	Pond	1982	1:10000
B	16m W	Pond	1899	1:10560
B	22m W	Pond	1949	1:10560
B	27m W	Pond	1923	1:10560
C	244m N	Pond	1923	1:10560
C	249m N	Pond	1885	1:10560

This is data is sourced from Ordnance Survey/Groundsure.



18.3 Underground workings

Records within 1000m

5

Historical land uses identified from Ordnance Survey mapping that indicate the presence of underground workings e.g. mine shafts.

Features are displayed on the Mining and ground workings map on [page 81](#) >

ID	Location	Land Use	Year of mapping	Mapping scale
I	484m SE	Tunnel	1949	1:10560
I	484m SE	Tunnel	1982	1:10000
I	489m SE	Tunnel	1923	1:10560
I	491m SE	Tunnel	1923	1:10560
I	491m SE	Tunnel	1923	1:10560

This data is sourced from Ordnance Survey/Groundsure.

18.4 Underground mining extents

Records within 500m

0

This data identifies underground mine workings that could present a potential risk, including adits and seam workings. These features have been identified from BGS Geological mapping and mine plans sourced from the BGS and various collections and sources.

This data is sourced from Groundsure.

18.5 Historical Mineral Planning Areas

Records within 500m

0

Boundaries of mineral planning permissions for England and Wales. This data was collated between the 1940s (and retrospectively to the 1930s) and the mid 1980s. The data includes permitted, withdrawn and refused permissions.

This data is sourced from the British Geological Survey.



18.6 Non-coal mining

Records within 1000m

0

The potential for historical non-coal mining to have affected an area. The assessment is drawn from expert knowledge and literature in addition to the digital geological map of Britain. Mineral commodities may be divided into seven general categories - vein minerals, chalk, oil shale, building stone, bedded ores, evaporites and 'other' commodities (including ball clay, jet, black marble, graphite and chert).

This data is sourced from the British Geological Survey.

18.7 JPB mining areas

Records on site

0

Areas which could be affected by former coal and other mining. This data includes some mine plans unavailable to the Coal Authority.

This data is sourced from Johnson Poole and Bloomer.

18.8 The Coal Authority non-coal mining

Records within 500m

0

This data provides an indication of the potential zone of influence of recorded underground non-coal mining workings. Any and all analysis and interpretation of Coal Authority Data in this report is made by Groundsure, and is in no way supported, endorsed or authorised by the Coal Authority. The use of the data is restricted to the terms and provisions contained in this report. Data reproduced in this report may be the copyright of the Coal Authority and permission should be sought from Groundsure prior to any re-use.

This data is sourced from The Coal Authority.

18.9 Researched mining

Records within 500m

0

This data indicates areas of potential mining identified from alternative or archival sources, including; BGS Geological paper maps, Lidar data, aerial photographs (from World War II onwards), archaeological data services, websites, Tithe maps, and various text/plans from collected books and reports. Some of this data is approximate and Groundsure have interpreted the resultant risk area and, where possible, specific areas of risk have been captured.

This data is sourced from Groundsure.



18.10 Mining record office plans

Records within 500m

0

This dataset is representative of Mining Record Office and/or plan extents held by Groundsure and should be considered approximate. Where possible, plans have been located and any specific areas of risk they depict have been captured.

This data is sourced from Groundsure.

18.11 BGS mine plans

Records within 500m

0

This dataset is representative of BGS mine plans held by Groundsure and should be considered approximate. Where possible, plans have been located and any specific areas of risk they depict have been captured.

This data is sourced from Groundsure.

18.12 Coal mining

Records on site

0

Areas which could be affected by past, current or future coal mining.

This data is sourced from the Coal Authority.

18.13 Brine areas

Records on site

0

The Cheshire Brine Compensation District indicates areas that may be affected by salt and brine extraction in Cheshire and where compensation would be available where damage from this mining has occurred. Damage from salt and brine mining can still occur outside this district, but no compensation will be available.

This data is sourced from the Cheshire Brine Subsidence Compensation Board.

18.14 Gypsum areas

Records on site

0

Generalised areas that may be affected by gypsum extraction.

This data is sourced from British Gypsum.

18.15 Tin mining

Records on site	0
-----------------	---

Generalised areas that may be affected by historical tin mining.

This data is sourced from Groundsure.

18.16 Clay mining

Records on site	0
-----------------	---

Generalised areas that may be affected by kaolin and ball clay extraction.

This data is sourced from the Kaolin and Ball Clay Association (UK).

19 Ground cavities and sinkholes

19.1 Natural cavities

Records within 500m

0

Industry recognised national database of natural cavities. Sinkholes and caves are formed by the dissolution of soluble rock, such as chalk and limestone, gulls and fissures by cambering. Ground instability can result from movement of loose material contained within these cavities, often triggered by water.

This data is sourced from Stantec UK Ltd.

19.2 Mining cavities

Records within 1000m

0

Industry recognised national database of mining cavities. Degraded mines may result in hazardous subsidence (crown holes). Climatic conditions and water escape can also trigger subsidence over mine entrances and workings.

This data is sourced from Stantec UK Ltd.

19.3 Reported recent incidents

Records within 500m

0

This data identifies sinkhole information gathered from media reports and Groundsure's own records. This data goes back to 2014 and includes relative accuracy ratings for each event and links to the original data sources. The data is updated on a regular basis and should not be considered a comprehensive catalogue of all sinkhole events. The absence of data in this database does not mean a sinkhole definitely has not occurred during this time.

This data is sourced from Groundsure.

19.4 Historical incidents

Records within 500m

0

This dataset comprises an extract of 1:10,560, 1:10,000, 1:2,500 and 1:1,250 scale historical Ordnance Survey maps held by Groundsure, dating back to the 1840s. It shows shakeholes, deneholes and other 'holes' as noted on these maps. Dene holes are medieval chalk extraction pits, usually comprising a narrow shaft with a number of chambers at the base of the shaft. Shakeholes are an alternative name for suffusion sinkholes, most commonly found in the limestone landscapes of North Yorkshire but also extensively noted around the Brecon Beacons National Park.

Not all 'holes' noted on Ordnance Survey mapping will necessarily be present within this dataset.



This data is sourced from Groundsure.

19.5 National karst database

Records within 500m

0

This is a comprehensive database of national karst information gathered from a wide range of sources. BGS have collected data on five main types of karst feature: Sinkholes, stream links, caves, springs, and incidences of associated damage to buildings, roads, bridges and other engineered works.

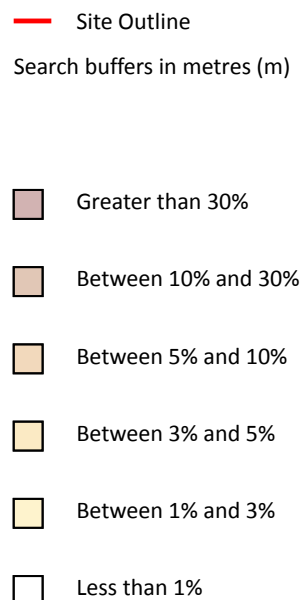
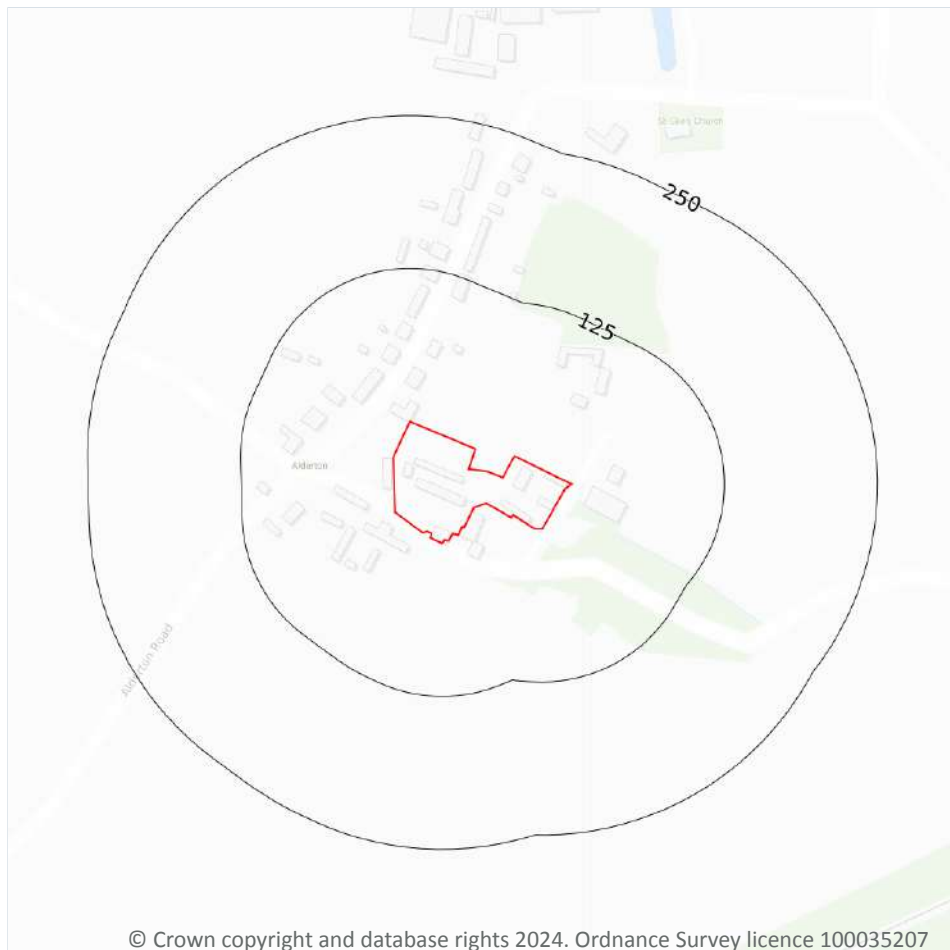
Since the database was set up in 2002 data covering most of the evaporite karst areas of the UK have now been added, along with data covering about 60% of the Chalk, and 35% of the Carboniferous Limestone outcrops. Many of the classic upland karst areas have yet to be included. Recorded so far are: Over 800 caves, 1300 stream sinks, 5600 springs, 10,000 sinkholes.

The database is not yet complete, and not all records have been verified. The absence of data does not mean that karst features are not present at a site. A reliability rating is included with each record.

This data is sourced from the British Geological Survey.



20 Radon



20.1 Radon

Records on site

1

The Radon Potential data classifies areas based on their likelihood of a property having a radon level at or above the Action Level in Great Britain. The dataset is intended for use at 1:50,000 scale and was derived from both geological assessments and indoor radon measurements (more than 560,000 records). A minimum 50m buffer should be considered when searching the maps, as the smallest detectable feature at this scale is 50m. The findings of this section should supersede any estimations derived from the Indicative Atlas of Radon in Great Britain (1:100,000 scale).

Features are displayed on the Radon map on [page 89](#) >

Location	Estimated properties affected	Radon Protection Measures required
On site	Less than 1%	None



This data is sourced from the British Geological Survey and UK Health Security Agency.



21 Soil chemistry

21.1 BGS Estimated Background Soil Chemistry

Records within 50m

3

The estimated values provide the likely background concentration of the potentially harmful elements Arsenic, Cadmium, Chromium, Lead and Nickel in topsoil. The values are estimated primarily from rural topsoil data collected at a sample density of approximately 1 per 2 km². In areas where rural soil samples are not available, estimation is based on stream sediment data collected from small streams at a sampling density of 1 per 2.5 km²; this is the case for most of Scotland, Wales and southern England. The stream sediment data are converted to soil-equivalent concentrations prior to the estimation.

Location	Arsenic	Bioaccessible Arsenic	Lead	Bioaccessible Lead	Cadmium	Chromium	Nickel
On site	15 - 25 mg/kg	No data	100 mg/kg	60 mg/kg	1.8 mg/kg	90 - 120 mg/kg	30 - 45 mg/kg
On site	15 - 25 mg/kg	No data	100 mg/kg	60 mg/kg	1.8 mg/kg	90 - 120 mg/kg	30 - 45 mg/kg
On site	15 - 25 mg/kg	No data	100 mg/kg	60 mg/kg	1.8 mg/kg	90 - 120 mg/kg	30 - 45 mg/kg

This data is sourced from the British Geological Survey.

21.2 BGS Estimated Urban Soil Chemistry

Records within 50m

0

Estimated topsoil chemistry of Arsenic, Cadmium, Chromium, Copper, Nickel, Lead, Tin and Zinc and bioaccessible Arsenic and Lead in 23 urban centres across Great Britain. These estimates are derived from interpolation of the measured urban topsoil data referred to above and provide information across each city between the measured sample locations (4 per km²).

This data is sourced from the British Geological Survey.

21.3 BGS Measured Urban Soil Chemistry

Records within 50m

0

The locations and measured total concentrations (mg/kg) of Arsenic, Cadmium, Chromium, Copper, Nickel, Lead, Tin and Zinc in urban topsoil samples from 23 urban centres across Great Britain. These are collected at a sample density of 4 per km².

This data is sourced from the British Geological Survey.



22 Railway infrastructure and projects

22.1 Underground railways (London)

Records within 250m

0

Details of all active London Underground lines, including approximate tunnel roof depth and operational hours.

This data is sourced from publicly available information by Groundsure.

22.2 Underground railways (Non-London)

Records within 250m

0

Details of the Merseyrail system, the Tyne and Wear Metro and the Glasgow Subway. Not all parts of all systems are located underground. The data contains location information only and does not include a depth assessment.

This data is sourced from publicly available information by Groundsure.

22.3 Railway tunnels

Records within 250m

0

Railway tunnels taken from contemporary Ordnance Survey mapping.

This data is sourced from the Ordnance Survey.

22.4 Historical railway and tunnel features

Records within 250m

0

Railways and tunnels digitised from historical Ordnance Survey mapping as scales of 1:1,250, 1:2,500, 1:10,000 and 1:10,560.

This data is sourced from Ordnance Survey/Groundsure.

22.5 Royal Mail tunnels

Records within 250m

0

The Post Office Railway, otherwise known as the Mail Rail, is an underground railway running through Central London from Paddington Head District Sorting Office to Whitechapel Eastern Head Sorting Office. The line is 10.5km long. The data includes details of the full extent of the tunnels, the depth of the tunnel, and the depth to track level.



This data is sourced from Groundsure/the Postal Museum.

22.6 Historical railways

Records within 250m

0

Former railway lines, including dismantled lines, abandoned lines, disused lines, historic railways and razed lines.

This data is sourced from OpenStreetMap.

22.7 Railways

Records within 250m

0

Currently existing railway lines, including standard railways, narrow gauge, funicular, trams and light railways.

This data is sourced from Ordnance Survey and OpenStreetMap.

22.8 Crossrail 1

Records within 500m

0

The Crossrail railway project links 41 stations over 100 kilometres from Reading and Heathrow in the west, through underground sections in central London, to Shenfield and Abbey Wood in the east.

This data is sourced from publicly available information by Groundsure.

22.9 Crossrail 2

Records within 500m

0

Crossrail 2 is a proposed railway linking the national rail networks in Surrey and Hertfordshire via an underground tunnel through London.

This data is sourced from publicly available information by Groundsure.

22.10 HS2

Records within 500m

0

HS2 is a proposed high speed rail network running from London to Manchester and Leeds via Birmingham. Main civils construction on Phase 1 (London to Birmingham) of the project began in 2019, and it is currently anticipated that this phase will be fully operational by 2026. Construction on Phase 2a (Birmingham to Crewe) is anticipated to commence in 2021, with the service fully operational by 2027. Construction on Phase 2b (Crewe to Manchester and Birmingham to Leeds) is scheduled to begin in 2023 and be operational by 2033.

This data is sourced from HS2 Ltd.



Data providers

Groundsure works with respected data providers to bring you the most relevant and accurate information. To find out who they are and their areas of expertise see <https://www.groundsure.com/sources-reference> ↗.

Terms and conditions

Groundsure's Terms and Conditions can be accessed at this link: www.groundsure.com/terms-and-conditions-april-2023/ ↗.



Appendix J – Historical Maps

Site Details:

NEW BARN, BACK LANE,
ALDERTON, WILTSHIRE, SN14
6NW

Client Ref: 19360CS-2253
Report Ref: GS-FKA-UIL-EWZ-P8J
Grid Ref: 384023, 182766

Map Name: County Series

Map date: 1886

Scale: 1:2,500

Printed at: 1:2,500



Surveyed 1886
Revised 1886
Edition N/A
Copyright N/A
Levelled N/A

Surveyed 1886
Revised 1886
Edition N/A
Copyright N/A
Levelled N/A

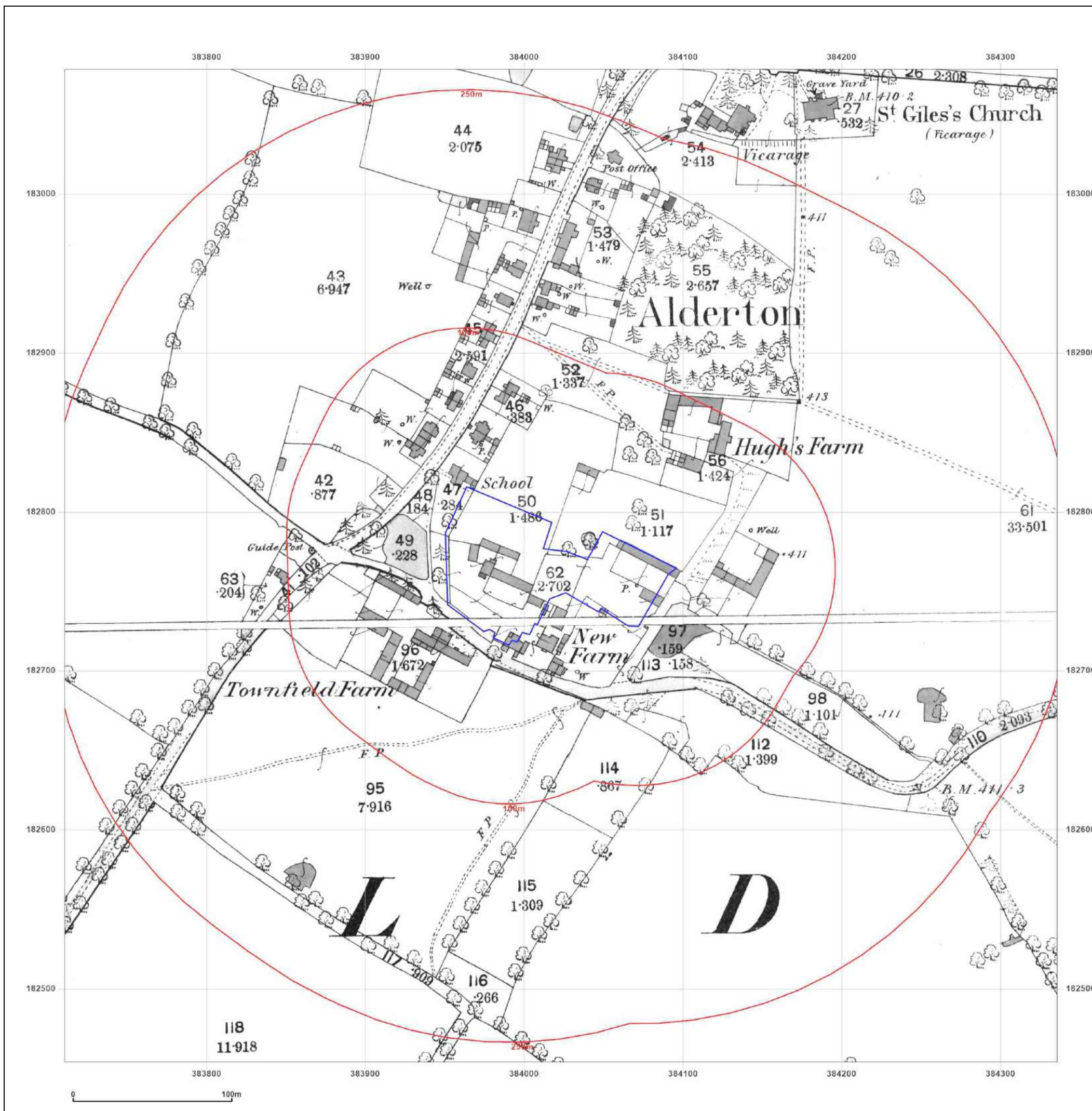


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W: www.groundsure.com

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Production date: 29 July 2024

Map legend available at:
www.groundsure.com/sites/default/files/groundsure_legend.pdf



Site Details:

NEW BARN, BACK LANE,
ALDERTON, WILTSHIRE, SN14
6NW

Client Ref: 19360CS-2253
Report Ref: GS-FKA-UIL-EWZ-P8J
Grid Ref: 384023, 182766

Map Name: County Series

Map date: 1900

Scale: 1:2,500

Printed at: 1:2,500



Surveyed 1900
Revised 1900
Edition N/A
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Revised 1900
Edition N/A
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Map legend available at:
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Site Details:

NEW BARN, BACK LANE,
ALDERTON, WILTSHIRE, SN14
6NW

Client Ref: 19360CS-2253
Report Ref: GS-FKA-UIL-EWZ-P8J
Grid Ref: 384023, 182766

Map Name: County Series

Map date: 1921

Scale: 1:2,500

Printed at: 1:2,500



Surveyed 1921
Revised 1921
Edition N/A
Copyright N/A
Levelled N/A

Surveyed 1921
Revised 1921
Edition N/A
Copyright N/A
Levelled N/A

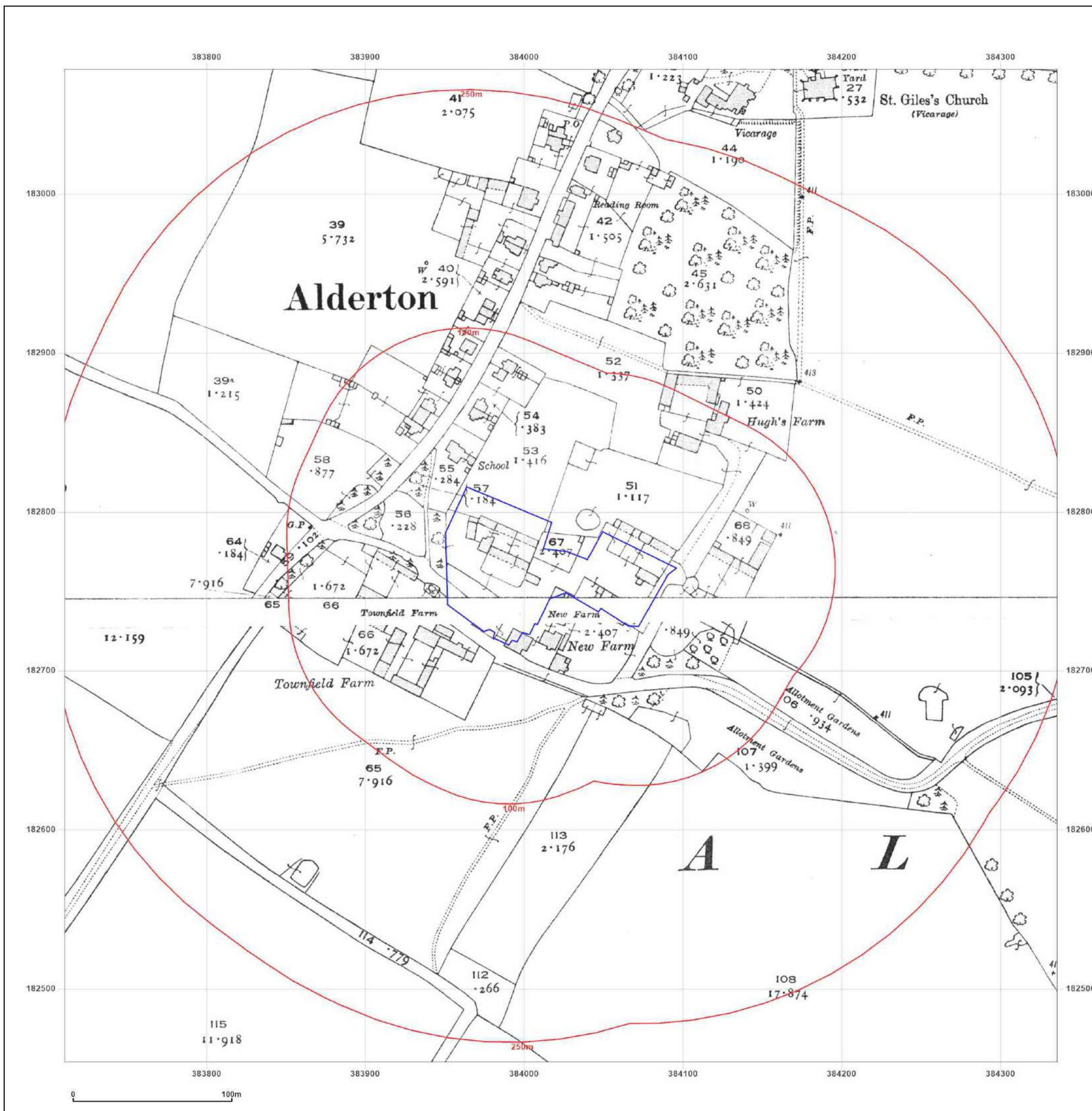


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Site Details:

NEW BARN, BACK LANE,
ALDERTON, WILTSHIRE, SN14
6NW

Client Ref: 19360CS-2253
Report Ref: GS-FKA-UIL-EWZ-P8J
Grid Ref: 384023, 182766

Map Name: National Grid

Map date: 1980-1981

Scale: 1:2,500

Printed at: 1:2,500



Surveyed 1979
Revised 1979
Edition N/A
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Levelled 1971

Surveyed 1979
Revised 1979
Edition N/A
Copyright 1981
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Edition N/A
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Surveyed 1979
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Site Details:

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6NW

Client Ref: 19360CS-2253
Report Ref: GS-FKA-UIL-EWZ-P8J
Grid Ref: 384023, 182766

Map Name: National Grid

Map date: 1980-1981

Scale: 1:2,500

Printed at: 1:2,500



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Revised N/A
Edition N/A
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Edition N/A
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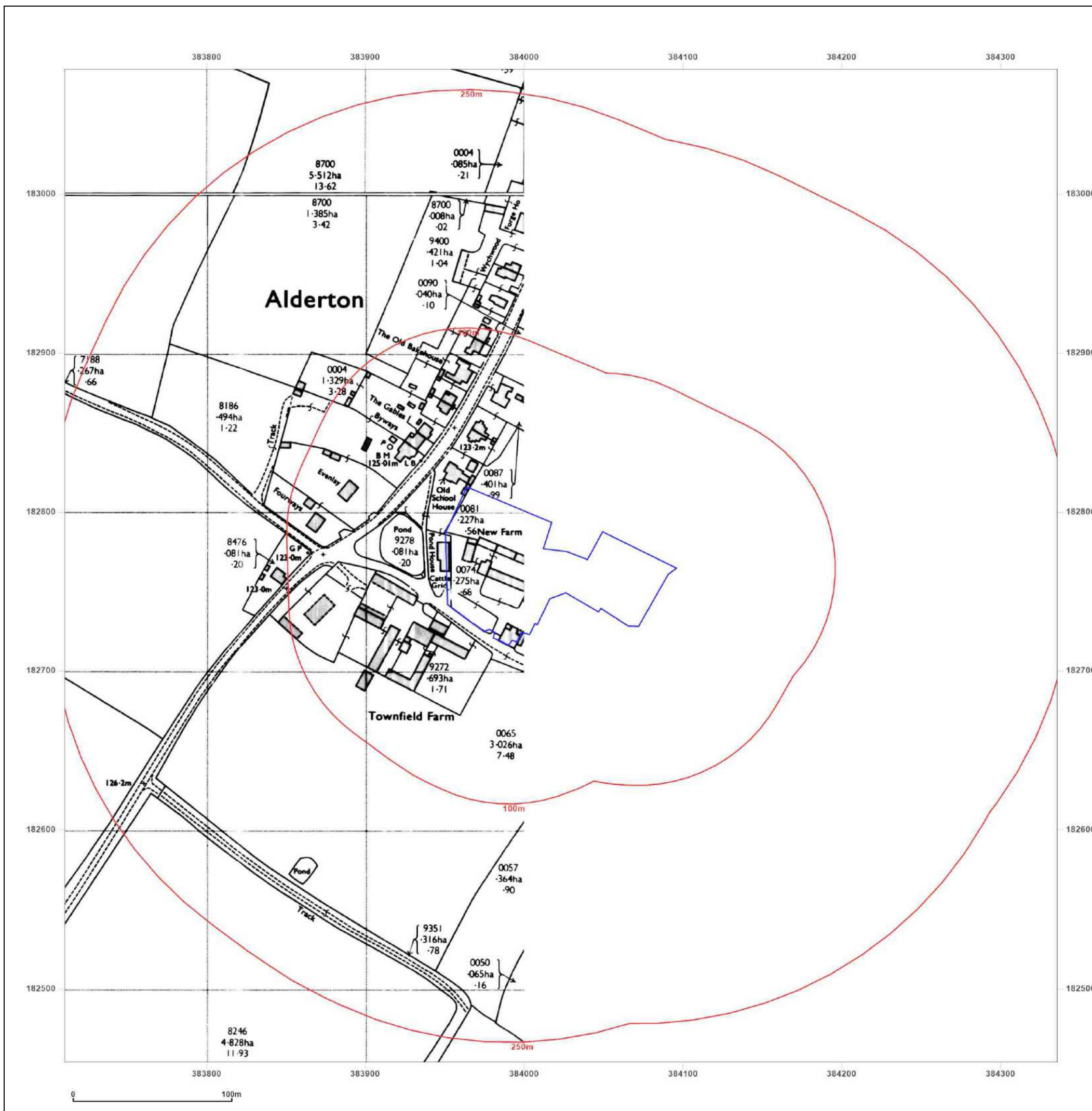


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Site Details:

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ALDERTON, WILTSHIRE, SN14
6NW

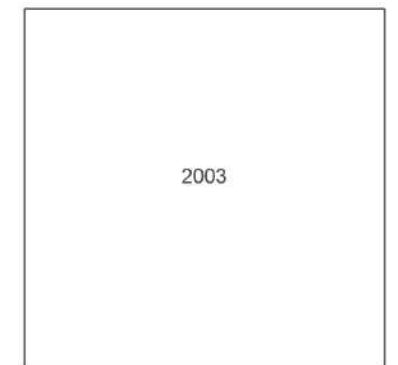
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Report Ref: GS-FKA-UIL-EWZ-P8J
Grid Ref: 384023, 182766

Map Name: LandLine

Map date: 2003

Scale: 1:1,250

Printed at: 1:1,250



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