



**GEO-ENVIRONMENTAL CONSULTING**

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## LAND OFF HIGHER ROAD, LONGRIDGE

### Phase 1 - Preliminary Risk Assessment



Prepared for:

NR Holdings Limited

Report Ref: BEK-24038-1

May 2024

## Project Quality Assurance Information Sheet

Site	Land off Higher Road, Longridge
Report Title	Phase 1 - Preliminary Risk Assessment
Report Status	Final
Report No	BEK-24038-1
Date	May 2024
Prepared For	<b>NR HOLDINGS LTD</b> Orchard House Inglewhite Road Longridge PR3 2DB
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## LAND OFF HIGHER ROAD, LONGRIDGE

### Phase 1 - Preliminary Risk Assessment

**PROJECT NO:** 24038  
**REPORT REF:** BEK-24038-1  
**DATE:** May 2024

#### REVISION STATUS / HISTORY

Rev	Date	Issue / Comment	Prepared	Checked

#### GENERAL REPORT LIMITATIONS

BEK Enviro Limited (BEK) has prepared this report for the sole use of the client, showing reasonable skill and care, for the intended purposes as stated in the agreement under which this work was completed. The report may not be relied upon by any other party without the express agreement of the client and BEK. No other warranty, expressed or implied, is made as to the professional advice included in this report.

Where any data supplied by the client or from other sources have been used, it has been assumed that the information is correct. No responsibility can be accepted by BEK for inaccuracies in the data supplied by any other party. The conclusions and recommendations in this report are based on the assumption that all relevant information has been supplied by those bodies from whom it was requested.

No part of this report may be copied or duplicated without the express permission of BEK and the party for whom it was prepared. Where field investigations have been carried out, these have been restricted to a level of detail required to achieve the stated objectives of the work.

Unless explicitly agreed otherwise, in writing, this report has been prepared under BEK's limited standard Terms and Conditions as included within our proposal to the Client.

The report needs to be considered in the light of the BEK proposal and associated limitations of scope. The report needs to be read in full and isolated sections cannot be used without full reference to other elements of the report and any previous works referenced within the report.



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BEK Drawing No 24038-2	Site Layout
Jackson Crane Architecture Drawing No: LON-JCA-B0-XX-DR-A-011003 entitled 'Site Plan as Proposed'	

## 1. INTRODUCTION

### 1.1 Appointment

1.1.1 BEK Enviro (BEK) has been commissioned by NR Holdings Ltd to prepare a Phase 1 Preliminary Risk Assessment (PRA) for a parcel of land of Higher Road, Longridge (hereafter referred to as 'the site'). The PRA will assess the potential risks associated with contamination considering a change of use to residential (with homegrown produce).

1.1.2 The site location and layout are presented on BEK Drawing No 24038-1 and BEK Drawing No 24038-2, respectively. Copies of these drawings are presented in Appendix E.

### 1.2 Proposed Development

1.2.1 This report has been prepared to support a planning application for the construction of a residential dwelling with access, parking and a private garden.

1.2.2 The proposed development layout for the site is presented on 'Site Plan as Proposed' by Jackson Crane Architecture Drawing No: LON-JCA-B0-XX-DR-A-011003, a copy of which is presented in Appendix E.

### 1.3 Objective & Scope of Work

1.3.1 The objective of this report is to provide a qualitative assessment of the potential risks from contamination and ground with consideration to the proposed end use residential (with homegrown produce).

1.3.2 To achieve the objective BEK will undertake the following:

- Carry out a site inspection and collect photographs
- Review the available relevant background information for the site, including:
  - Recent Ordnance Survey Maps
  - Site Specific GroundSure Reports
  - Site Specific Historical Maps
  - Coal Authority Website
  - Drawings provided by Jackson Crane Architecture
  - Zetica UXO Information
- Develop a preliminary conceptual site model in accordance with guidance to identify potentially significant pollutant linkages specific to the proposed development
- Establish areas of potential concern based on identified risks and/or potential risks
- Identify any actions required to assess or reduce the risks identified



## 1.4 Limitations

- 1.4.1 The conclusions and recommendations presented in this report are the result of our professional interpretation of the information currently available. BEK reserves the right to amend the conclusions and recommendations if further information becomes available.
- 1.4.2 However, it should be noted that much of the information has been derived from reports written by others and BEK takes no responsibility for the accuracy of that information. Notwithstanding the above, the reports reviewed have all been written by professional environmental consultants with a duty of care to provide relevant and accurate information.
- 1.4.3 This report does not include an invasive plant species assessment.

## 2. SITE DESCRIPTION

### 2.1 Site Location

2.1.1 The site occupies a parcel of land located to the south of Higher Road. The site is approximately 4.0 km north-east of Longridge and some 4.5 km north-west of Hurst Green.

2.1.2 The National Grid Reference for the centre of the site is 364160, 439027. The site location is shown on BEK Drawing No 24038-1, a copy of which is presented in Appendix E.

### 2.2 Site Layout & Description

2.2.1 walkover/inspection was conducted by an engineer from BEK on 8<sup>th</sup> November 2023. The site occupies an irregular shaped vacant plot of land approximately 2.3 hectares which is generally open grass land with a number stonewalls intersecting the site and some semi-mature trees and stone walls around the peripheries.

2.2.2 A short gravel hardstanding track provides access onto the site from the northern site boundary. The majority of the site boundaries consisted of wooden posts and metal fencing separating the site to the adjacent land to the south and east. There is a steep drop-off beyond the western site boundary to a small ravine below the site. A number of semi-mature and mature trees are located along the northern site boundary, beyond which Higher Road is located.

2.2.3 Several small over grown stockpiles containing soils, a rusted metal drum and a concrete are located in this area. A small animal feeding trough with a water pipe running from the northern site boundary was located in the north-west of the site. Two large stone walls intersect the site, the larger stone wall starts from the northern site boundary and the second starts from the west before both meeting at a point in the south-east section of the site.

2.2.4 Standing surface water is observed at numerous locations across the site. It is noted that the sites topography is very uneven and sloping in places.

2.2.5 There is a small stockpile of fly-tipped waste located beyond the western site boundary with possible asbestos cement sheeting.

2.2.6 The general site layout is shown on BEK Drawing No 24038-2, a copy of which is presented in Appendix E and a selection of photographs taken during the walkover are presented in Appendix D.



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## 2.3 Surrounding Land Use

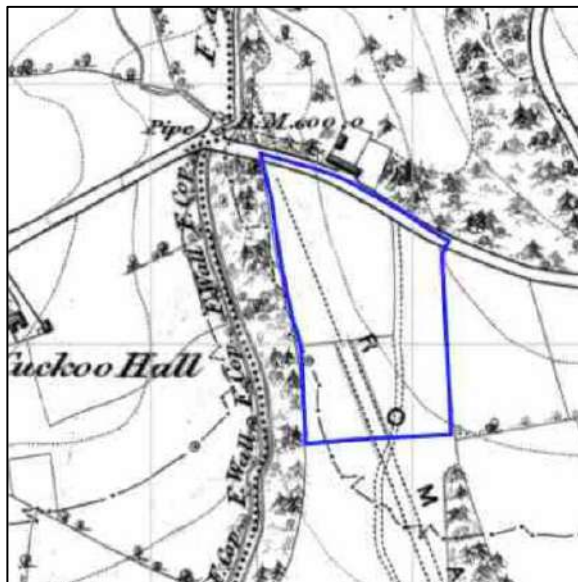
- 2.3.1 Higher Road is located immediately north of the site, beyond which Cowley Brook Farm is located. Cowley Brook is located some 20 m west of the site. Cuckoo Hall is located some 240 m west of the site.

### 3. SITE HISTORY

3.1 The history of the site has been established using historical OS maps supplied by Groundsure. A selection of historical OS maps reviewed is presented in Appendix A.

#### 1846 - 1847

3.2 The earliest available maps show the majority of the site to be vacant and part of open fields that dominate the surrounding area. A Roman Road traverses through the center of the site and is orientated north-west to south-east. An unmarked road is located adjacent to the northern site boundary beyond which a large building is located some 20 m north of the site. Cowley Brook is located some 25 m west of the site. White Gross Public House is located some 130 m east of the site. Cuckoo hall is located some 240 m east of the site (see Figure 1).



*Figure 1: Extract From 1846 - 1847 Map.*

#### 1892 – 1912 – 1932 – 1967 – 1994 - 2003

3.3 These maps show the site to remain unchanged and vacant of any features. A number of new buildings are located at Cowley Brook Farm which is located some 20 m north at its closest point. A small residential dwelling marked Cowley Cottage Brook is located some 20 m north-west of the site. A Spring is located some 110 m west of the site. White Gross Public House is now marked as Newdrop Inn. A change in building configuration has taken place at Newdrop Inn and Cuckoo Hall, with a number of new buildings now present at each development (see Figure 2).

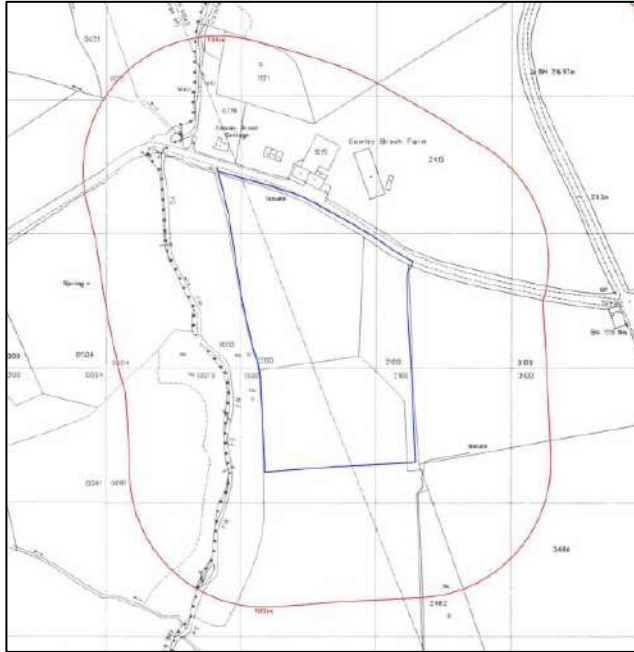


Figure 2: Extract From 1994 Map.

2010-2023

- 3.4 The more recent maps shows the site to remain vacant. An aerial image taken from Google Earth of the site from 2023 shows the site to remain vacant forming part of open fields. There appears to be access track adjacent to eastern site boundary (see Figure 3).

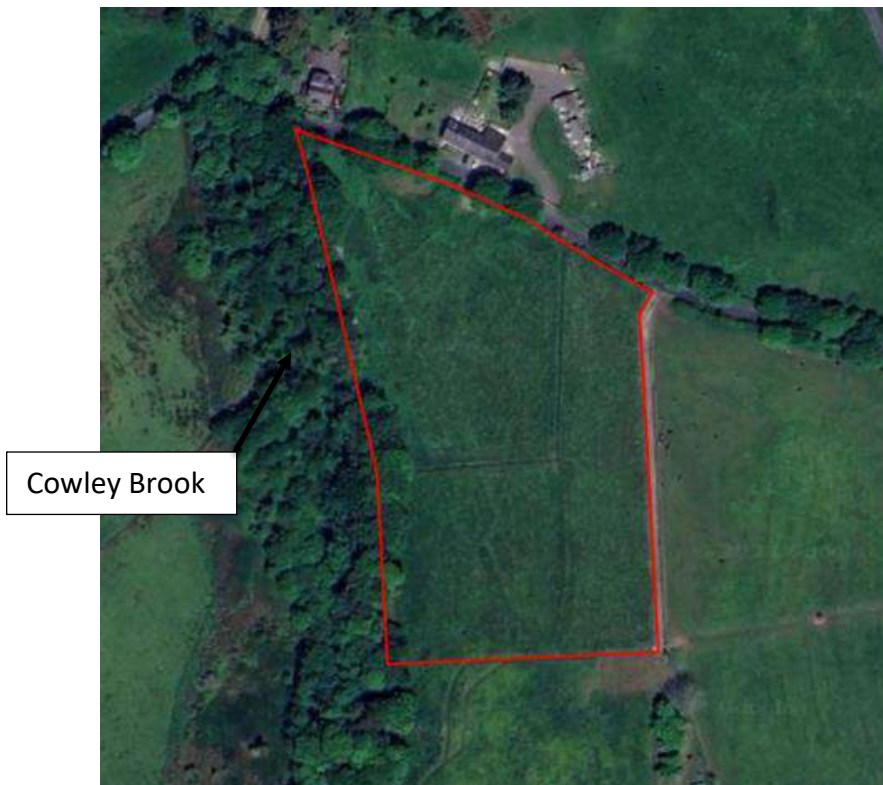


Figure 3: Aerial Image Taken from Google Images 2023

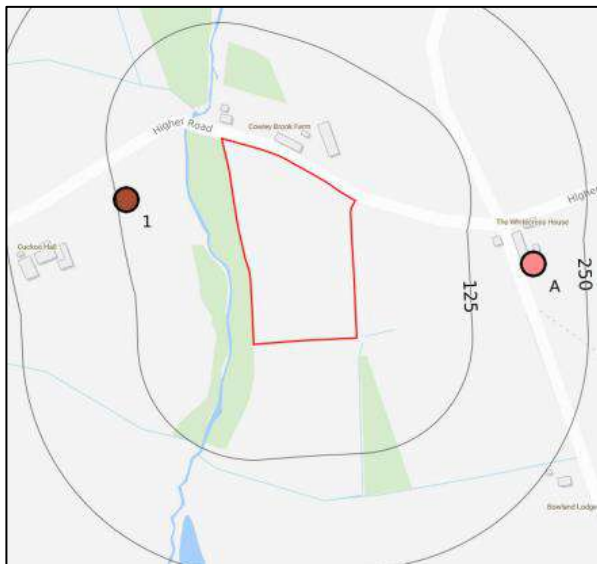
#### 4. ENVIRONMENTAL SETTING

4.0.1 An Enviro+GeolInsight Report has been obtained from Groundsure and information provided in these reports has been used within this section. A copy of the report is presented in Appendix B.

#### 4.1 Geology

4.1.1 The site geology is illustrated in the Enviro+GeolInsight Report which has sourced data from several sources including British Geological Society (BGS), BRITPITS database and the Coal Authority.

4.1.2 In addition, BEK has sought site investigation information from the BGS website and there are two boreholes within 250 m of the site, see Figure 4:



**Figure 4:** BGS Borehole Locations

4.1.3 The strata encountered within the borehole 115 m west provided no information relevant to this assessment. The strata encountered within the borehole located some 194 m east of the site is presented below in Table 1.

Distance/direction from site	Depth (m)	Strata
126 m north-east	0 – 0.4	Made Ground (Limestone Fill)
	0.4 – 1.3	Made Ground (Soft Brown Clay Fill)
	1.3 – 1.5	Brown Sand and Gravel
	1.5 -2	Soft to firm brown silty CLAY with some grey veins
	2 – 2.3	Brown Sand and Gravel
	2.3 – 12.7	Stiff brown slightly sandy Clay with a little fine Gravels

**Table 1:** Summary of Closest Borehole Within 250 m Vicinity of the Site.

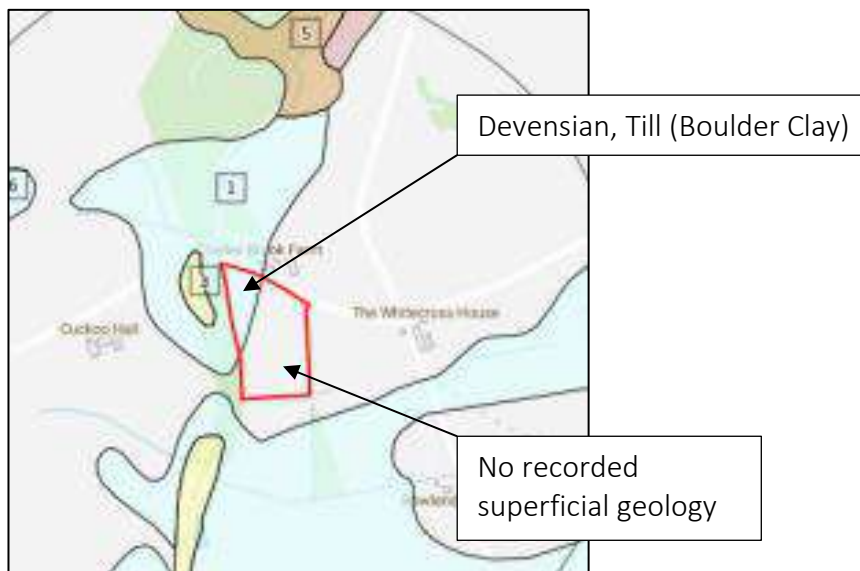
4.1.4 Copies of the BGS borehole record is provided within Appendix C

Made Ground

4.1.5 According to the Enviro+GeoInsight Insight Report there is no artificial ground (made ground) present beneath the site.

Superficial Geology

4.1.6 The Enviro+GeoInsight Report indicates that the majority of the site has no recorded superficial geology underlying the site. The northern most part of the site is underlain by Till, Devensian (Boulder Clay) which is dominated by 'Diamicton'. This strata has a low to high permeability (see Figure 5).



*Figure 5: Superficial Geology Underlying the Site.*

4.1.7 Within the offsite borehole some 126 m north-east, superficial geology of 'slightly sandy clay with little fine gravels' has been encountered from 2.3 m to 12.7 m. This is consistent with the publish geology in the area surrounding the site suggesting Boulder Clay is likely to be laterally continuous across the site and the surrounding area.

Bedrock

4.1.8 The Enviro+GeoInsight Report indicates that the underlying solid geology comprises of the Pendle Grit Member' which is dominated by sandstone. This strata has a moderate to high permeability.

4.1.9 Bedrock was not encountered within any of the offsite boreholes.

Faults/Linear Features

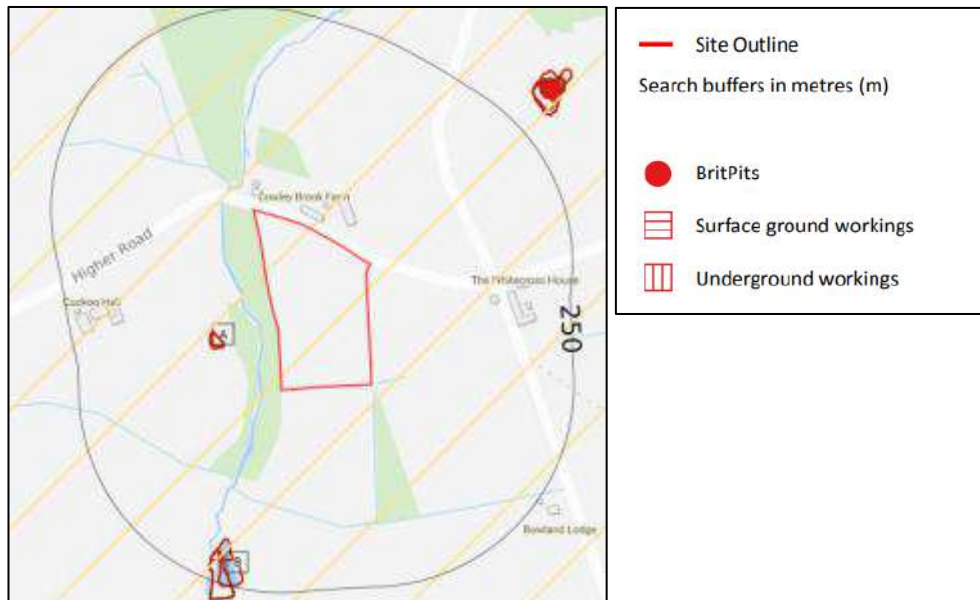
4.1.10 There are no linear features/faults located on site or within 250 m of the site.

**4.2 Mining & Ground Stability**

4.2.1 Information in the Enviro+GeoInsight Report indicates that the site is not located within a coal mining area as defined by the Coal Authority.

4.2.2 However, it is reported that non-coal mining activities (Vein Mineral) may have occurred on-site, however ‘potential for difficult ground conditions are unlikely or localised and are at a level where they need not be considered’.

4.2.3 The Enviro+GeoInsight Report indicates there are six recorded of surface ground workings located within 250 m of the site (see Figure 6).



**Figure 6: Surface Ground Workings on Site**

4.2.4 A summary of the features located within 250 m of the site is presented in Table 2 below.

Location	Land Use	Year of Mapping
68 m West	Unspecified Pit	1892
69 m West	Unspecified Pit	1932
196 m South	Unspecified Pit	1951
212 m South	Reservoir	1910
212 m South	Pond	1892
212 m South	Unspecified Pit	1932

**Table 2: Summary of Surface Ground Workings**

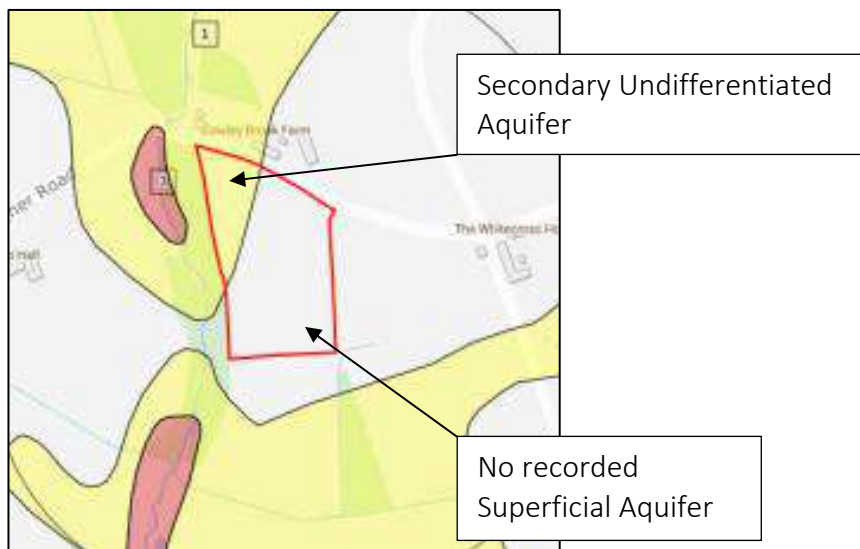
4.2.5 The Enviro+GeoInsight Report provides hazard ratings associated with ground subsidence at the site, as summarised below:

Shrink-Swell Clay:	Very Low/Negligible
Landslides:	Very Low/Low
Dissolution of Soluble Rocks:	Negligible
Compressible Deposits:	Negligible
Collapsible Deposits:	Very Low
Running Sands:	Very Low/Negligible

4.2.6 It can be seen from the above that the site is unlikely to be affected by natural ground instability, with the exception of a low rating for ‘Landslides’. The Enviro+GeoInsight Report indicates ‘Site investigation should consider specifically the slope stability of the site’.

### 4.3 Hydrogeology

4.3.1 The Enviro+GeoInsight Report indicates that the majority of the site has no recorded superficial aquifer beneath the site. The superficial deposits underlying the northern most part of the site are classified as a ‘Secondary Undifferentiated’ aquifer which is ‘assigned where it is not possible to attribute either category A or B to a rock type.’ These aquifers were formerly referred to as ‘unproductive’ (see Figure 7).



**Figure 7:** Superficial Aquifer Underlying the Site.

4.3.2 The underlying bedrock strata is classified as a ‘Secondary A Aquifer’. This formation has ‘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’.

4.3.3 The Enviro+GeoInsight Report indicates the site is not located within a groundwater source protection zone.

4.3.4 The Enviro+GeoInsight Report indicates that there is 1 groundwater abstraction license situated on/within 250 m of the site. This refers to a historical license held for a 'drinking, cooking, sanitary, washing, (small garden)-commercial/industrial/public services' some 194 m east of the site. The license was held from the start date of 11/04/1994. No end date is provided.

4.3.5 There is a low risk from groundwater flooding at the site.

#### 4.4 Hydrology

4.4.1 The Enviro+GeoInsight Report indicates there are no surface water features located on site. However, there are 23 surface water features within 250 m of the site. The closet refers to an 'inland river' not influenced by normal tide action. This is thought to be part of land drain some 1 m north-west of the site. The most significant feature is Cowley Brook located some 21 m south-west of the site.

4.4.2 The Enviro+GeoInsight Report indicates that there are two surface water/portable abstraction license situated within 250 m of the site. These both refer to an historic license held for 'United Utilities Water Plc' some 56 m north of the site. The license was held from the start date of 30/06/1966 and no end date is provided.

4.4.3 There is one further potable abstraction located some 194 m east of the site. This is a historic license that refers to a license held for 'Barr'. The license was held from the start date of 23/10/1996 and no end date is provided.

4.4.4 There are two registered licensed discharge consents located within 250 m of the site. These are summarised within Table 3 below.

Location	Address	Details / Permit Information	Status
32 m North	Cowley Brook Farm, Ribchester, Nr Preston, Lancashire	Sewage Discharges – Final/Treated Effluent Company – Not Water Company Permit Number: 011511 Permit Version: 1 Receiving Water: Cowley Brook	Status: PRE NRA Legislation Where Issue Date (01-Sep-89 (historic Only) Issue date: - 04/01/1967 Effective Date: 04/04/1967 Revocation Date: -
190 m South-east	Newdrop Inn, Ribchester, Preston, Lancashire	Sewage Discharges - Final/Treated Effluent Company – Not Water Company Permit Number: 017190404 Permit Version: 1 Receiving Water: Boyces Brook	Status: Revoked – Unspecified Issue date: - Effective Date: 17/03/1993 Revocation Date: 02/08/1993

**Table 3:** Registered Licensed Discharge Consents Located Within 250 m of the Site

4.4.5 The site is located within Flood Zone 1.

#### 4.5 Contaminated Land & Landfill Activities

- 4.5.1 The information presented in the Enviro+GeoInsight Report indicates that there are no current or historical landfill sites within 250 m of the site.
- 4.5.2 There are no historic waste site or registered waste exceptions on/within 250 m of the site.
- 4.5.3 There is one EA Recorded pollution incidents located some 189 m east m of the site. This refers to pollutant incident with no 'Pollutant Identified' and has been classified as category 4 (no impact) impact for land, air and water. The incident occurred on April in 2002
- 4.5.4 There are no NIHS or COMAH sites, recorded Part A(1), Part A(2), Part B or IPPC Authorised Activities within 250 m of the site.
- 4.5.5 The Enviro+GeoInsight Report states that there is seven potentially contaminative historical industrial sites located within 250 m of the site. These are presented below in Table 4 below.

Location	Company	Date
36 m North-West	Pipe	1846
68 m West	Unspecified Pit	1892
69 m West	Unspecified Pit	1932
196 m South	Unspecified Pit	1951
212 m South	Unspecified Pit	1932
231 m South-east	Unspecified Tank	1932
236 m South-east	Unspecified Tank	1951

**Table 4:** Potentially Recent Contaminative Industries on Site or Within 250 m.

- 4.5.6 The information presented in the Enviro+GeoInsight Report indicates that there are two historical tanks within 250 m of the site. The closest refers to an 'Unspecified Tank' some 238 m south-east of the site dated 1994.
- 4.5.7 There are no recent industrial land uses within 250 m, of the site.
- #### 4.6 Sensitive Land Uses
- 4.6.1 The site is not affected by any of the ecological systems identified as a statutory receptor in the DETR Circular 01/2006.
- 4.6.2 The site is not located within a designated nitrate vulnerable zone.
- 4.6.3 The site is located within The Forest of Bowland Area of Outstanding National Beauty.
- 4.6.4 The site is located within a Network Enhancement Zone 1.



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4.6.5 There is a priority habitat located immediately west of the site, this refers to a 'Deciduous Woodland'.

#### 4.7 Radon

4.7.1 The Enviro+GeoInsight Report states that 'the property is not in a Radon Affected Area, as less than 1% of properties are above the Action Level'. Therefore, 'no radon protective measures are necessary'.

#### 4.8 Unexploded Ordnance

4.8.1 The regional unexploded bomb risk map from Zetica indicates that the site is in an area of LOW risk from Unexploded Ordnance (UXO) resulting from the Second World War.

4.8.2 BEK do not consider any further assessment to be required with respect to UXO.

## 5. POTENTIAL POLLUTANT LINKAGES

### 5.1 General

5.1.1 This section identifies the potential sources of contamination along with specific contaminants of concern, pathways and receptors that may be associated with the site based on its known history and the current condition and with respect to the re-development of the site for residential use (with homegrown produce).

5.1.2 This information is used to develop a preliminary conceptual model which is a qualitative description of potential sources of environmental pollutants, the pathways by which they are transported and the receptors:

- i) Potential sources of contamination: these include any actual or potentially contaminating materials and activities, located either on or in the vicinity of the site
- ii) Potential pathways for contamination migration: these comprise the routes or mechanisms by which contaminants may migrate from the source to the receptor including environmental migration pathways and human health exposure pathways
- iii) Potential receptors of contamination: these include future land users, ecological systems, water resources and property.

### 5.2 Potential Sources of Contamination

5.2.1 Based on the earliest available maps dating from 1846, the site was vacant forming part of open fields. A historic roman road traverses through the centre of the site and is orientated north-west to south-east. The site remains relatively unchanged until the present day. Ariel image of the site take from Google Earth from 2023 shows the site still to remain vacant forming part if open fields. There appears to be an access track immediately adjacent to the eastern site boundary.

5.2.2 Given the history of the site, the potential for significant contamination to be present is considered to be very low.

5.2.3 However, it is recommended that some site investigation is carried out to confirm ground conditions are as expected and to inform the nature of the limited made ground/contamination present in the north of the site in the location of the gravel access track and concrete slab. It is also noted sampling of the stockpile soils in the north of the site to confirm any potential contamination present.

### 5.3 Preliminary Conceptual Model

5.5.1 As no significant contamination is considered likely based on the assessment herein, the significant pollutant linkages are considered to be present.



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## 6. RECOMMENDATIONS

- 6.1 Based on the findings of the Preliminary Risk Assessment herein, the potential risks associated with contamination with respect to the construction of residential dwelling with residential gardens and public open space areas are considered to be very low.
- 6.2 However, site investigation works are recommended to confirm that ground conditions are as anticipated. Site investigation works are also required to support a geotechnical assessment for foundation design and possibly to inform surface water drainage options.
- 6.3 The following works are recommended:
- Excavation of a series of trial pits across the site to characterise the shallow ground conditions. This should include the area in the north forming part of the gravel access track and concrete slab.
  - Samples of topsoil will need to be recovered for chemical testing to confirm suitability for re-use in gardens. Samples of natural clay will also be recovered for lab testing to inform concrete classification and geotechnical properties.
  - In-situ testing (shear vane) will be carried out in cohesive soils to inform bearing capacity.
  - CBR testing will be carried out in the areas of the proposed roadways.
  - The UKWIR Risk Assessment will need to be completed to inform water pipe specification.
  - Soakaways to BRE365 may be required to support drainage options.
- 6.4 The works undertaken will be detailed in a Site Investigation & Ground Assessment report along with full justifications for the assessment and the conclusions and any recommendations.

## APPENDIX A

Historical OS Maps

**Site Details:**

HIGHER ROAD, LONGRIDGE,  
LANCASHIRE, PR3 2YX

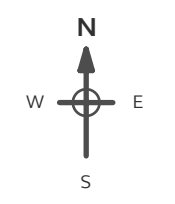
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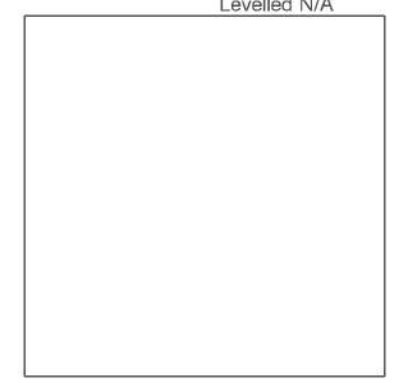
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**Scale:** 1:2,500

**Printed at:** 1:2,500



Surveyed 1892  
Revised 1892  
Edition N/A  
Copyright N/A  
Levelled N/A

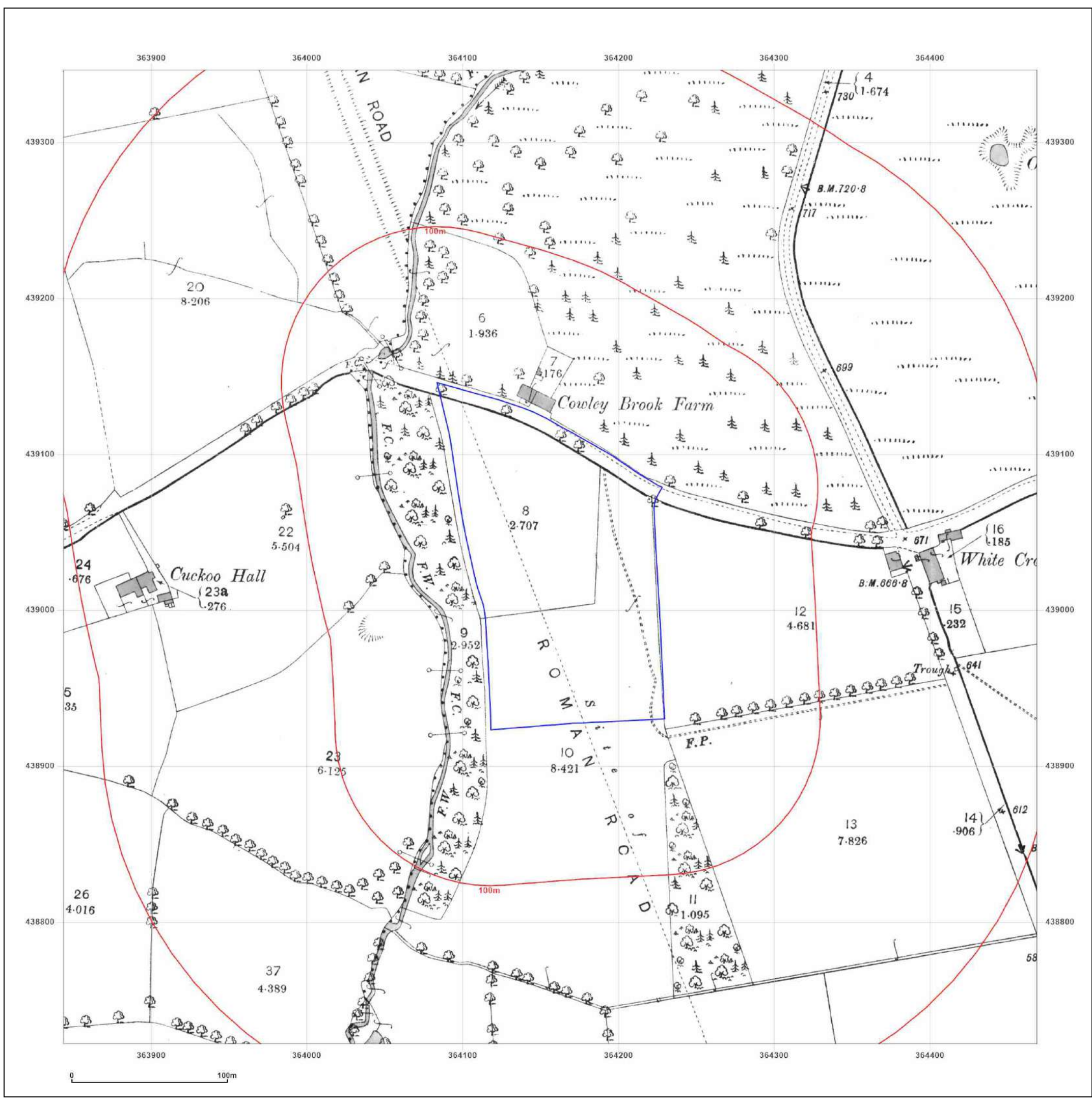


Produced by  
Groundsure Insights  
T: 08444 159000  
E: [info@groundsure.com](mailto:info@groundsure.com)  
W: [www.groundsure.com](http://www.groundsure.com)

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Production date: 09 April 2024

Map legend available at:  
[www.groundsure.com/sites/default/files/groundsure\\_legend.pdf](http://www.groundsure.com/sites/default/files/groundsure_legend.pdf)



**Site Details:**

HIGHER ROAD, LONGRIDGE,  
LANCASHIRE, PR3 2YX

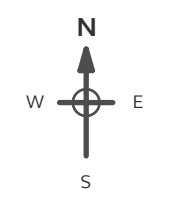
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**Grid Ref:** 364156, 439034

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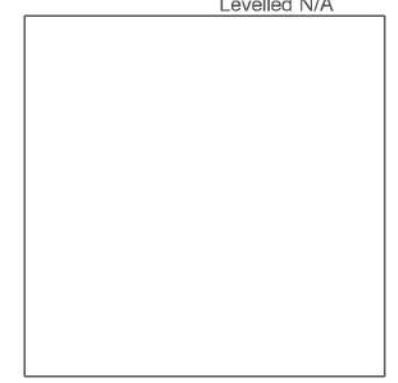
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**Scale:** 1:2,500

**Printed at:** 1:2,500



Surveyed 1912  
Revised 1912  
Edition N/A  
Copyright N/A  
Levelled N/A

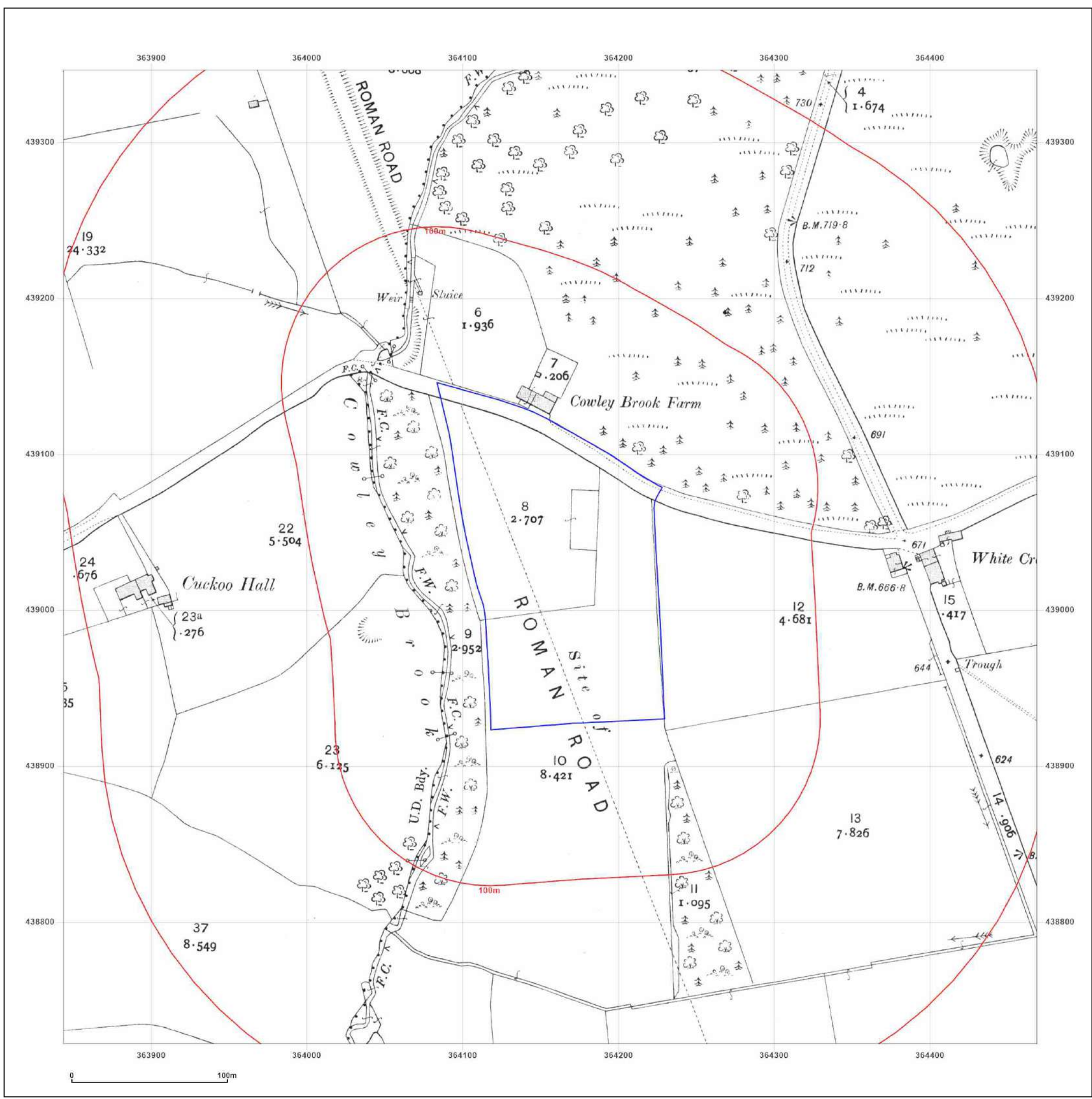


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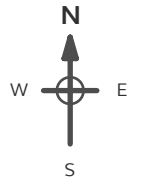
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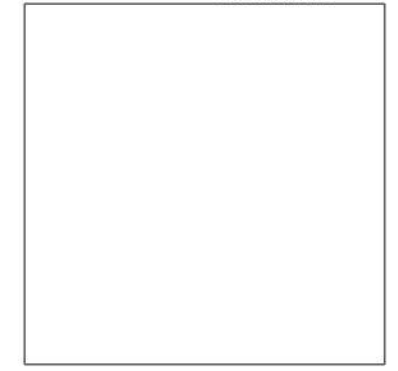
**Site Details:**  
 HIGHER ROAD, LONGRIDGE,  
 LANCASHIRE, PR3 2YX

**Client Ref:** 8174-24038-MLM  
**Report Ref:** GS-8LD-8UP-4R1-9XM  
**Grid Ref:** 364156, 439034

**Map Name:** County Series  
**Map date:** 1932  
**Scale:** 1:2,500  
**Printed at:** 1:2,500



Surveyed 1932  
 Revised 1932  
 Edition N/A  
 Copyright N/A  
 Levelled N/A

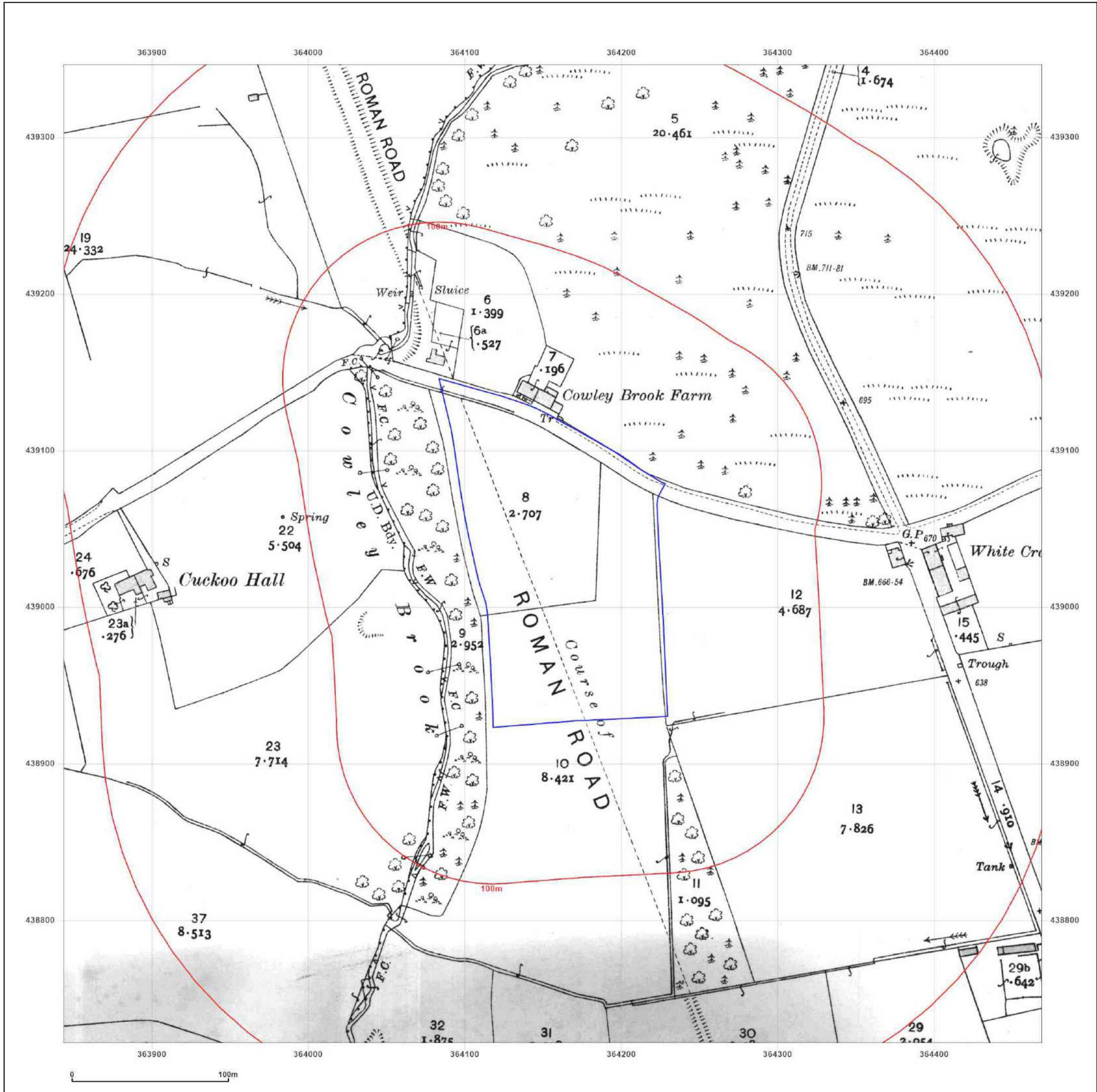


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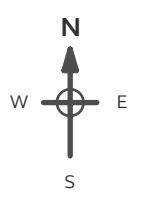


**Site Details:**

HIGHER ROAD, LONGRIDGE,  
LANCASHIRE, PR3 2YX

**Client Ref:** 8174-24038-MLM  
**Report Ref:** GS-8LD-8UP-4R1-9XM  
**Grid Ref:** 364156, 439034

**Map Name:** National Grid  
**Map date:** 1967  
**Scale:** 1:2,500  
**Printed at:** 1:2,500



Surveyed 1967  
Revised 1967  
Edition N/A  
Copyright 1968  
Levelled 1961

Surveyed N/A Revised N/A Edition N/A Copyright N/A Levelled N/A	Surveyed N/A Revised N/A Edition N/A Copyright N/A Levelled N/A
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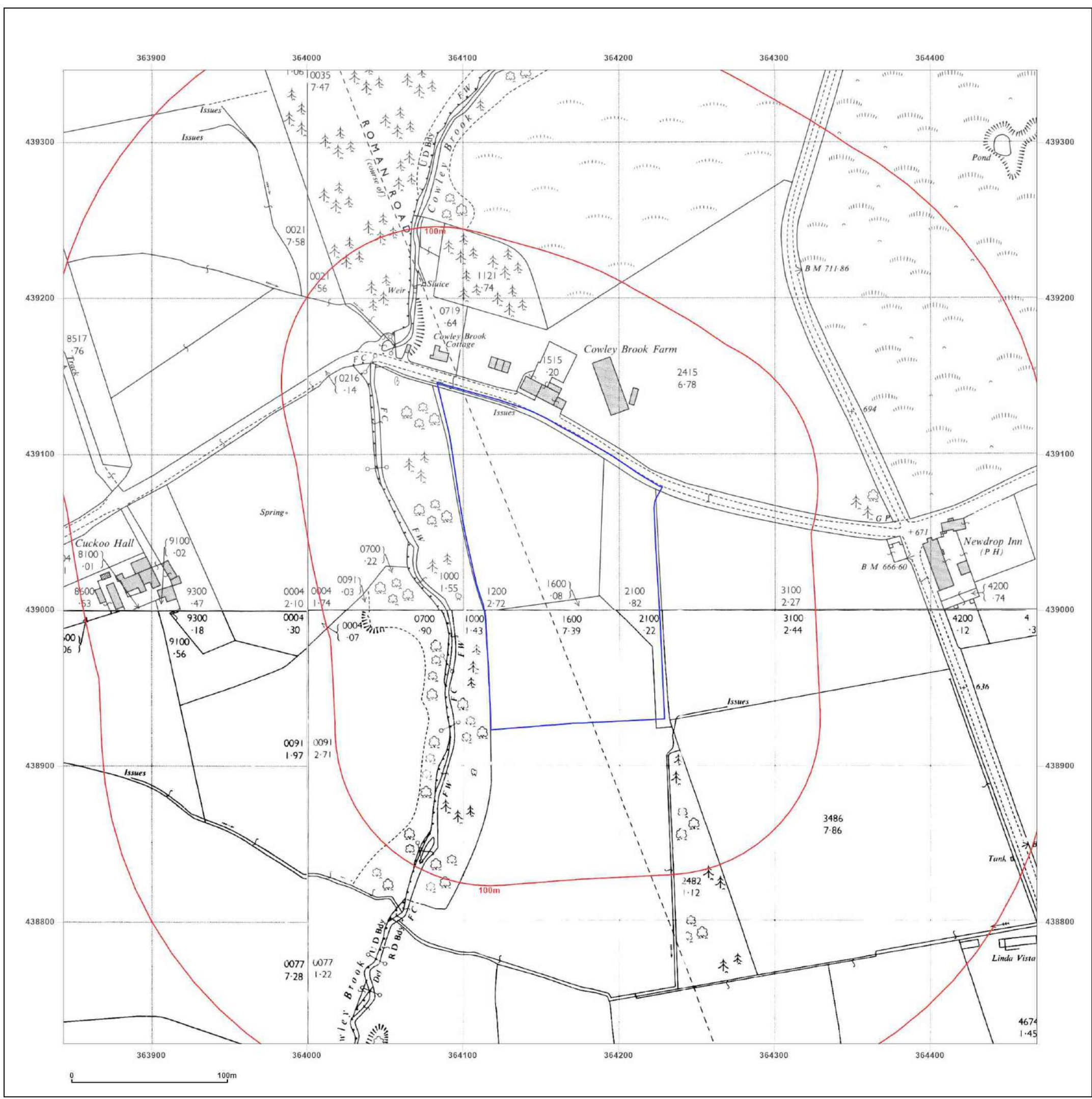


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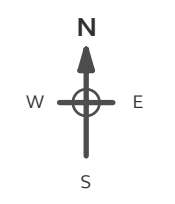


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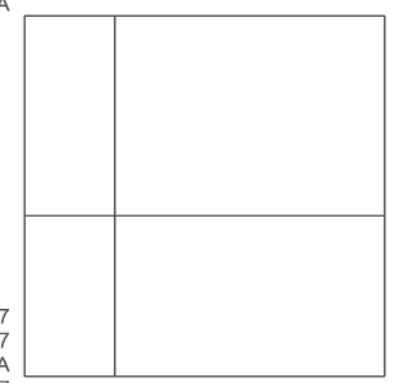
HIGHER ROAD, LONGRIDGE,  
LANCASHIRE, PR3 2YX

**Client Ref:** 8174-24038-MLM  
**Report Ref:** GS-8LD-8UP-4R1-9XM  
**Grid Ref:** 364156, 439034

**Map Name:** National Grid  
**Map date:** 1967-1968  
**Scale:** 1:2,500  
**Printed at:** 1:2,500



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Revised N/A  
Edition N/A  
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Levelled N/A



Surveyed 1967  
Revised 1967  
Edition N/A  
Copyright 1967  
Levelled 1961

Surveyed 1967  
Revised 1967  
Edition N/A  
Copyright 1967  
Levelled 1961

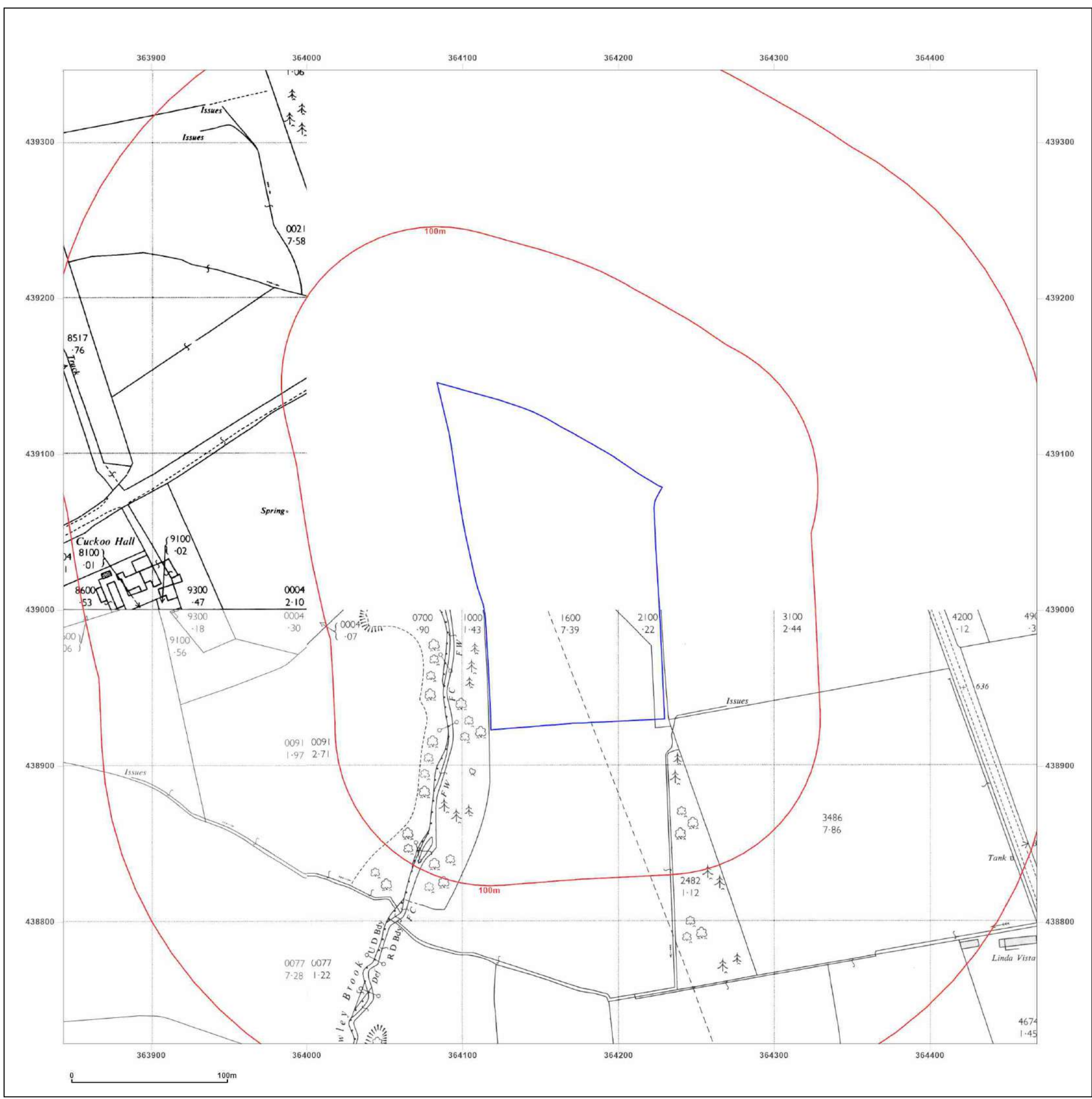


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**Site Details:**

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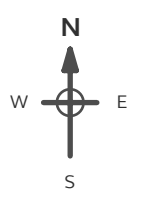
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**Report Ref:** GS-8LD-8UP-4R1-9XM  
**Grid Ref:** 364156, 439034

**Map Name:** National Grid

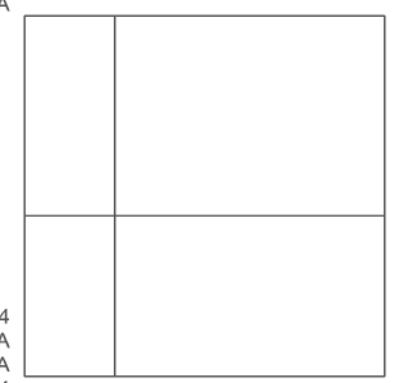
**Map date:** 1994

**Scale:** 1:2,500

**Printed at:** 1:2,500



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Revised N/A  
Edition N/A  
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Surveyed 1994  
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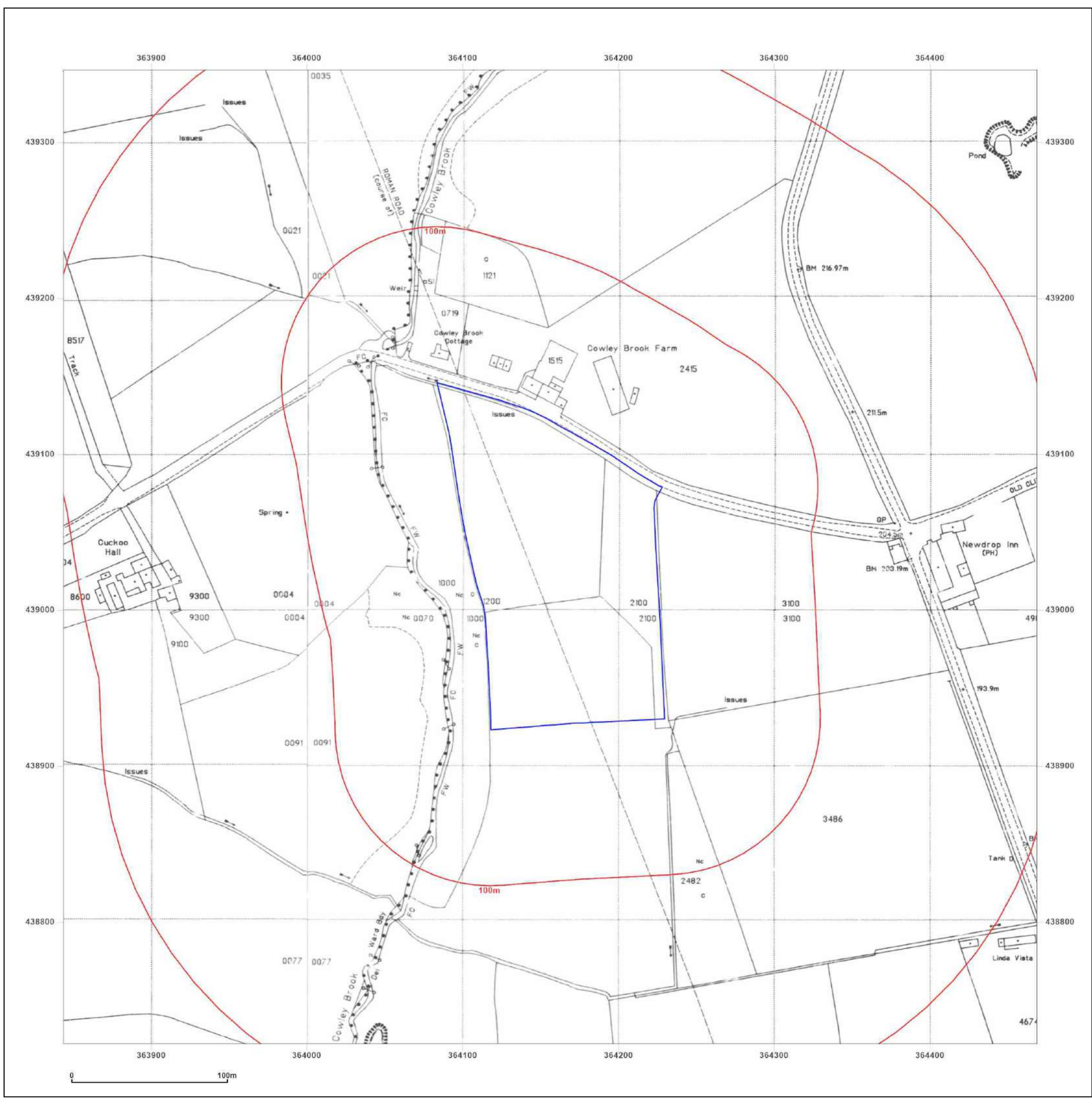


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**Site Details:**

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LANCASHIRE, PR3 2YX

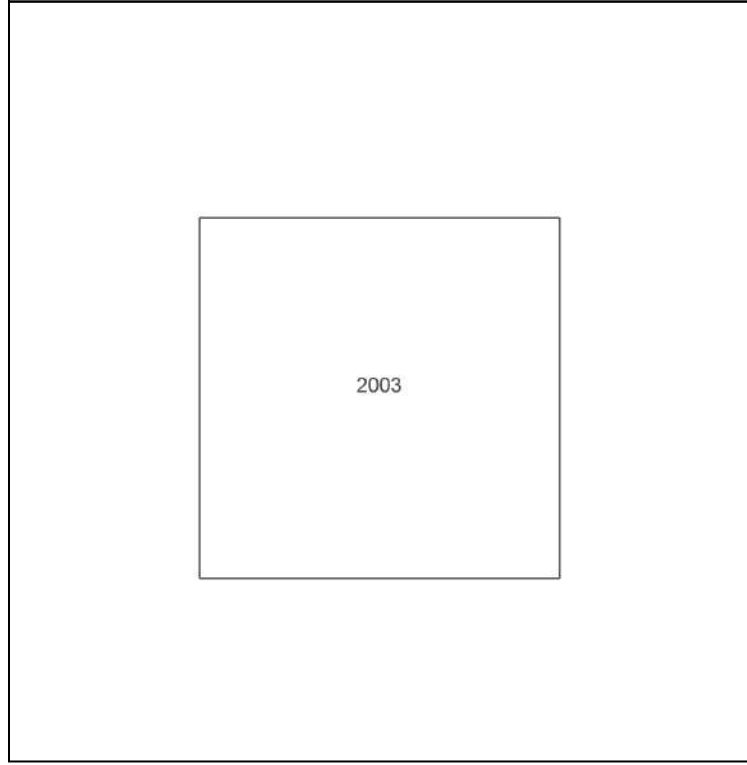
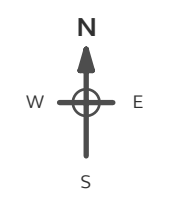
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**Report Ref:** GS-8LD-8UP-4R1-9XM  
**Grid Ref:** 364156, 439034

**Map Name:** LandLine

**Map date:** 2003

**Scale:** 1:1,250

**Printed at:** 1:1,250



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## APPENDIX B

Enviro+GeoInsight Report

HIGHER ROAD, LONGRIDGE, LANCASHIRE, PR3 2YX

**Order Details**

**Date:** 09/04/2024  
**Your ref:** 8174-24038-MLM  
**Our Ref:** GS-MAX-B4A-1VH-WLC

**Site Details**

**Location:** 364160 439027  
**Area:** 2.28 ha  
**Authority:** [Ribble Valley Borough Council](#) ↗



**Summary of findings**

[p. 2 >](#)

**Aerial image**

[p. 9 >](#)

**OS MasterMap site plan**

[p.14 >](#)

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## Summary of findings

Page	Section	<a href="#">Past land use &gt;</a>	On site	0-50m	50-250m	250-500m	500-2000m
<a href="#">15 &gt;</a>	<a href="#">1.1 &gt;</a>	<a href="#">Historical industrial land uses &gt;</a>	0	1	5	18	-
<a href="#">17 &gt;</a>	<a href="#">1.2 &gt;</a>	<a href="#">Historical tanks &gt;</a>	0	0	2	1	-
17	1.3	Historical energy features	0	0	0	0	-
17	1.4	Historical petrol stations	0	0	0	0	-
18	1.5	Historical garages	0	0	0	0	-
18	1.6	Historical military land	0	0	0	0	-
Page	Section	<a href="#">Past land use - un-grouped &gt;</a>	On site	0-50m	50-250m	250-500m	500-2000m
<a href="#">19 &gt;</a>	<a href="#">2.1 &gt;</a>	<a href="#">Historical industrial land uses &gt;</a>	0	1	6	23	-
<a href="#">21 &gt;</a>	<a href="#">2.2 &gt;</a>	<a href="#">Historical tanks &gt;</a>	0	0	2	2	-
21	2.3	Historical energy features	0	0	0	0	-
21	2.4	Historical petrol stations	0	0	0	0	-
21	2.5	Historical garages	0	0	0	0	-
Page	Section	<a href="#">Waste and landfill</a>	On site	0-50m	50-250m	250-500m	500-2000m
23	3.1	Active or recent landfill	0	0	0	0	-
23	3.2	Historical landfill (BGS records)	0	0	0	0	-
23	3.3	Historical landfill (LA/mapping records)	0	0	0	0	-
23	3.4	Historical landfill (EA/NRW records)	0	0	0	0	-
23	3.5	Historical waste sites	0	0	0	0	-
24	3.6	Licensed waste sites	0	0	0	0	-
24	3.7	Waste exemptions	0	0	0	0	-
Page	Section	<a href="#">Current industrial land use &gt;</a>	On site	0-50m	50-250m	250-500m	500-2000m
25	4.1	Recent industrial land uses	0	0	0	-	-
25	4.2	Current or recent petrol stations	0	0	0	0	-
26	4.3	Electricity cables	0	0	0	0	-
26	4.4	Gas pipelines	0	0	0	0	-
26	4.5	Sites determined as Contaminated Land	0	0	0	0	-



26	4.6	Control of Major Accident Hazards (COMAH)	0	0	0	0	-
26	4.7	Regulated explosive sites	0	0	0	0	-
27	4.8	Hazardous substance storage/usage	0	0	0	0	-
27	4.9	Historical licensed industrial activities (IPC)	0	0	0	0	-
27	4.10	Licensed industrial activities (Part A(1))	0	0	0	0	-
27	4.11	Licensed pollutant release (Part A(2)/B)	0	0	0	0	-
27	4.12	Radioactive Substance Authorisations	0	0	0	0	-
<b>28 &gt;</b>	<b>4.13 &gt;</b>	<b><u>Licensed Discharges to controlled waters &gt;</u></b>	0	1	1	1	-
28	4.14	Pollutant release to surface waters (Red List)	0	0	0	0	-
28	4.15	Pollutant release to public sewer	0	0	0	0	-
29	4.16	List 1 Dangerous Substances	0	0	0	0	-
29	4.17	List 2 Dangerous Substances	0	0	0	0	-
<b>29 &gt;</b>	<b>4.18 &gt;</b>	<b><u>Pollution Incidents (EA/NRW) &gt;</u></b>	0	0	1	0	-
29	4.19	Pollution inventory substances	0	0	0	0	-
30	4.20	Pollution inventory waste transfers	0	0	0	0	-
30	4.21	Pollution inventory radioactive waste	0	0	0	0	-
Page	Section	<b><u>Hydrogeology &gt;</u></b>	On site	0-50m	50-250m	250-500m	500-2000m
<b>31 &gt;</b>	<b>5.1 &gt;</b>	<b><u>Superficial aquifer &gt;</u></b>	Identified (within 500m)				
<b>33 &gt;</b>	<b>5.2 &gt;</b>	<b><u>Bedrock aquifer &gt;</u></b>	Identified (within 500m)				
<b>34 &gt;</b>	<b>5.3 &gt;</b>	<b><u>Groundwater vulnerability &gt;</u></b>	Identified (within 50m)				
36	5.4	Groundwater vulnerability- soluble rock risk	None (within 0m)				
36	5.5	Groundwater vulnerability- local information	None (within 0m)				
<b>37 &gt;</b>	<b>5.6 &gt;</b>	<b><u>Groundwater abstractions &gt;</u></b>	0	0	1	0	6
<b>39 &gt;</b>	<b>5.7 &gt;</b>	<b><u>Surface water abstractions &gt;</u></b>	0	0	2	4	7
<b>43 &gt;</b>	<b>5.8 &gt;</b>	<b><u>Potable abstractions &gt;</u></b>	0	0	3	2	5
46	5.9	Source Protection Zones	0	0	0	0	-
46	5.10	Source Protection Zones (confined aquifer)	0	0	0	0	-
Page	Section	<b><u>Hydrology &gt;</u></b>	On site	0-50m	50-250m	250-500m	500-2000m
<b>47 &gt;</b>	<b>6.1 &gt;</b>	<b><u>Water Network (OS MasterMap) &gt;</u></b>	0	9	14	-	-



<a href="#">49</a> >	<a href="#">6.2</a> >	<a href="#">Surface water features</a> >	0	6	6	-	-
<a href="#">50</a> >	<a href="#">6.3</a> >	<a href="#">WFD Surface water body catchments</a> >	1	-	-	-	-
<a href="#">50</a> >	<a href="#">6.4</a> >	<a href="#">WFD Surface water bodies</a> >	0	1	0	-	-
<a href="#">50</a> >	<a href="#">6.5</a> >	<a href="#">WFD Groundwater bodies</a> >	1	-	-	-	-
Page	Section	River and coastal flooding	On site	0-50m	50-250m	250-500m	500-2000m
52	7.1	Risk of flooding from rivers and the sea	None (within 50m)				
52	7.2	Historical Flood Events	0	0	0	-	-
52	7.3	Flood Defences	0	0	0	-	-
53	7.4	Areas Benefiting from Flood Defences	0	0	0	-	-
53	7.5	Flood Storage Areas	0	0	0	-	-
54	7.6	Flood Zone 2	None (within 50m)				
54	7.7	Flood Zone 3	None (within 50m)				
Page	Section	<a href="#">Surface water flooding</a> >					
<a href="#">55</a> >	<a href="#">8.1</a> >	<a href="#">Surface water flooding</a> >	1 in 30 year, 0.3m - 1.0m (within 50m)				
Page	Section	<a href="#">Groundwater flooding</a> >					
<a href="#">57</a> >	<a href="#">9.1</a> >	<a href="#">Groundwater flooding</a> >	Low (within 50m)				
Page	Section	<a href="#">Environmental designations</a> >	On site	0-50m	50-250m	250-500m	500-2000m
58	10.1	Sites of Special Scientific Interest (SSSI)	0	0	0	0	0
59	10.2	Conserved wetland sites (Ramsar sites)	0	0	0	0	0
59	10.3	Special Areas of Conservation (SAC)	0	0	0	0	0
59	10.4	Special Protection Areas (SPA)	0	0	0	0	0
59	10.5	National Nature Reserves (NNR)	0	0	0	0	0
60	10.6	Local Nature Reserves (LNR)	0	0	0	0	0
<a href="#">60</a> >	<a href="#">10.7</a> >	<a href="#">Designated Ancient Woodland</a> >	0	0	0	0	5
60	10.8	Biosphere Reserves	0	0	0	0	0
61	10.9	Forest Parks	0	0	0	0	0
61	10.10	Marine Conservation Zones	0	0	0	0	0
61	10.11	Green Belt	0	0	0	0	0
61	10.12	Proposed Ramsar sites	0	0	0	0	0



61	10.13	Possible Special Areas of Conservation (pSAC)	0	0	0	0	0
62	10.14	Potential Special Protection Areas (pSPA)	0	0	0	0	0
62	10.15	Nitrate Sensitive Areas	0	0	0	0	0
62	10.16	Nitrate Vulnerable Zones	0	0	0	0	0
<b>63 &gt;</b>	<b>10.17 &gt;</b>	<b><u>SSSI Impact Risk Zones &gt;</u></b>	1	-	-	-	-
64	10.18	SSSI Units	0	0	0	0	0
Page	Section	<b><u>Visual and cultural designations &gt;</u></b>	On site	0-50m	50-250m	250-500m	500-2000m
65	11.1	World Heritage Sites	0	0	0	-	-
<b>66 &gt;</b>	<b>11.2 &gt;</b>	<b><u>Area of Outstanding Natural Beauty &gt;</u></b>	1	0	0	-	-
66	11.3	National Parks	0	0	0	-	-
66	11.4	Listed Buildings	0	0	0	-	-
67	11.5	Conservation Areas	0	0	0	-	-
67	11.6	Scheduled Ancient Monuments	0	0	0	-	-
67	11.7	Registered Parks and Gardens	0	0	0	-	-
Page	Section	<b><u>Agricultural designations &gt;</u></b>	On site	0-50m	50-250m	250-500m	500-2000m
<b>68 &gt;</b>	<b>12.1 &gt;</b>	<b><u>Agricultural Land Classification &gt;</u></b>	Grade 5 (within 250m)				
<b>69 &gt;</b>	<b>12.2 &gt;</b>	<b><u>Open Access Land &gt;</u></b>	0	0	1	-	-
69	12.3	Tree Felling Licences	0	0	0	-	-
<b>69 &gt;</b>	<b>12.4 &gt;</b>	<b><u>Environmental Stewardship Schemes &gt;</u></b>	0	0	2	-	-
70	12.5	Countryside Stewardship Schemes	0	0	0	-	-
Page	Section	<b><u>Habitat designations &gt;</u></b>	On site	0-50m	50-250m	250-500m	500-2000m
<b>71 &gt;</b>	<b>13.1 &gt;</b>	<b><u>Priority Habitat Inventory &gt;</u></b>	1	2	2	-	-
<b>72 &gt;</b>	<b>13.2 &gt;</b>	<b><u>Habitat Networks &gt;</u></b>	1	0	1	-	-
72	13.3	Open Mosaic Habitat	0	0	0	-	-
72	13.4	Limestone Pavement Orders	0	0	0	-	-
Page	Section	<b><u>Geology 1:10,000 scale &gt;</u></b>	On site	0-50m	50-250m	250-500m	500-2000m
<b>74 &gt;</b>	<b>14.1 &gt;</b>	<b><u>10k Availability &gt;</u></b>	Identified (within 500m)				
75	14.2	Artificial and made ground (10k)	0	0	0	0	-
76	14.3	Superficial geology (10k)	0	0	0	0	-



76	14.4	Landslip (10k)	0	0	0	0	-
77	14.5	Bedrock geology (10k)	0	0	0	0	-
77	14.6	Bedrock faults and other linear features (10k)	0	0	0	0	-
Page	Section	<a href="#">Geology 1:50,000 scale &gt;</a>	On site	0-50m	50-250m	250-500m	500-2000m
<a href="#">78 &gt;</a>	<a href="#">15.1 &gt;</a>	<a href="#">50k Availability &gt;</a>	Identified (within 500m)				
79	15.2	Artificial and made ground (50k)	0	0	0	0	-
79	15.3	Artificial ground permeability (50k)	0	0	-	-	-
<a href="#">80 &gt;</a>	<a href="#">15.4 &gt;</a>	<a href="#">Superficial geology (50k) &gt;</a>	1	2	1	5	-
<a href="#">81 &gt;</a>	<a href="#">15.5 &gt;</a>	<a href="#">Superficial permeability (50k) &gt;</a>	Identified (within 50m)				
81	15.6	Landslip (50k)	0	0	0	0	-
82	15.7	Landslip permeability (50k)	None (within 50m)				
<a href="#">83 &gt;</a>	<a href="#">15.8 &gt;</a>	<a href="#">Bedrock geology (50k) &gt;</a>	1	1	3	4	-
<a href="#">84 &gt;</a>	<a href="#">15.9 &gt;</a>	<a href="#">Bedrock permeability (50k) &gt;</a>	Identified (within 50m)				
<a href="#">84 &gt;</a>	<a href="#">15.10 &gt;</a>	<a href="#">Bedrock faults and other linear features (50k) &gt;</a>	0	0	0	1	-
Page	Section	<a href="#">Boreholes &gt;</a>	On site	0-50m	50-250m	250-500m	500-2000m
<a href="#">85 &gt;</a>	<a href="#">16.1 &gt;</a>	<a href="#">BGS Boreholes &gt;</a>	0	0	3	-	-
Page	Section	<a href="#">Natural ground subsidence &gt;</a>					
<a href="#">87 &gt;</a>	<a href="#">17.1 &gt;</a>	<a href="#">Shrink swell clays &gt;</a>	Very low (within 50m)				
<a href="#">89 &gt;</a>	<a href="#">17.2 &gt;</a>	<a href="#">Running sands &gt;</a>	Low (within 50m)				
<a href="#">91 &gt;</a>	<a href="#">17.3 &gt;</a>	<a href="#">Compressible deposits &gt;</a>	Moderate (within 50m)				
<a href="#">93 &gt;</a>	<a href="#">17.4 &gt;</a>	<a href="#">Collapsible deposits &gt;</a>	Very low (within 50m)				
<a href="#">94 &gt;</a>	<a href="#">17.5 &gt;</a>	<a href="#">Landslides &gt;</a>	Low (within 50m)				
<a href="#">96 &gt;</a>	<a href="#">17.6 &gt;</a>	<a href="#">Ground dissolution of soluble rocks &gt;</a>	Negligible (within 50m)				
Page	Section	<a href="#">Mining and ground workings &gt;</a>	On site	0-50m	50-250m	250-500m	500-2000m
<a href="#">98 &gt;</a>	<a href="#">18.1 &gt;</a>	<a href="#">BritPits &gt;</a>	0	0	0	1	-
<a href="#">99 &gt;</a>	<a href="#">18.2 &gt;</a>	<a href="#">Surface ground workings &gt;</a>	0	0	6	-	-
99	18.3	Underground workings	0	0	0	0	0
100	18.4	Underground mining extents	0	0	0	0	-
100	18.5	Historical Mineral Planning Areas	0	0	0	0	-



<a href="#">100</a> >	<a href="#">18.6</a> >	<a href="#">Non-coal mining</a> >	1	0	0	0	2
101	18.7	JPB mining areas	None (within 0m)				
101	18.8	The Coal Authority non-coal mining	0	0	0	0	-
101	18.9	Researched mining	0	0	0	0	-
101	18.10	Mining record office plans	0	0	0	0	-
102	18.11	BGS mine plans	0	0	0	0	-
102	18.12	Coal mining	None (within 0m)				
102	18.13	Brine areas	None (within 0m)				
102	18.14	Gypsum areas	None (within 0m)				
102	18.15	Tin mining	None (within 0m)				
103	18.16	Clay mining	None (within 0m)				
Page	Section	Ground cavities and sinkholes	On site	0-50m	50-250m	250-500m	500-2000m
104	19.1	Natural cavities	0	0	0	0	-
104	19.2	Mining cavities	0	0	0	0	0
104	19.3	Reported recent incidents	0	0	0	0	-
104	19.4	Historical incidents	0	0	0	0	-
105	19.5	National karst database	0	0	0	0	-
Page	Section	<a href="#">Radon</a> >					
<a href="#">106</a> >	<a href="#">20.1</a> >	<a href="#">Radon</a> >	Less than 1% (within 0m)				
Page	Section	<a href="#">Soil chemistry</a> >	On site	0-50m	50-250m	250-500m	500-2000m
<a href="#">108</a> >	<a href="#">21.1</a> >	<a href="#">BGS Estimated Background Soil Chemistry</a> >	4	3	-	-	-
108	21.2	BGS Estimated Urban Soil Chemistry	0	0	-	-	-
109	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
110	22.1	Underground railways (London)	0	0	0	-	-
110	22.2	Underground railways (Non-London)	0	0	0	-	-
110	22.3	Railway tunnels	0	0	0	-	-
110	22.4	Historical railway and tunnel features	0	0	0	-	-
110	22.5	Royal Mail tunnels	0	0	0	-	-



111	22.6	Historical railways	0	0	0	-	-
111	22.7	Railways	0	0	0	-	-
111	22.8	Crossrail 1	0	0	0	0	-
111	22.9	Crossrail 2	0	0	0	0	-
111	22.10	HS2	0	0	0	0	-

## Recent aerial photograph



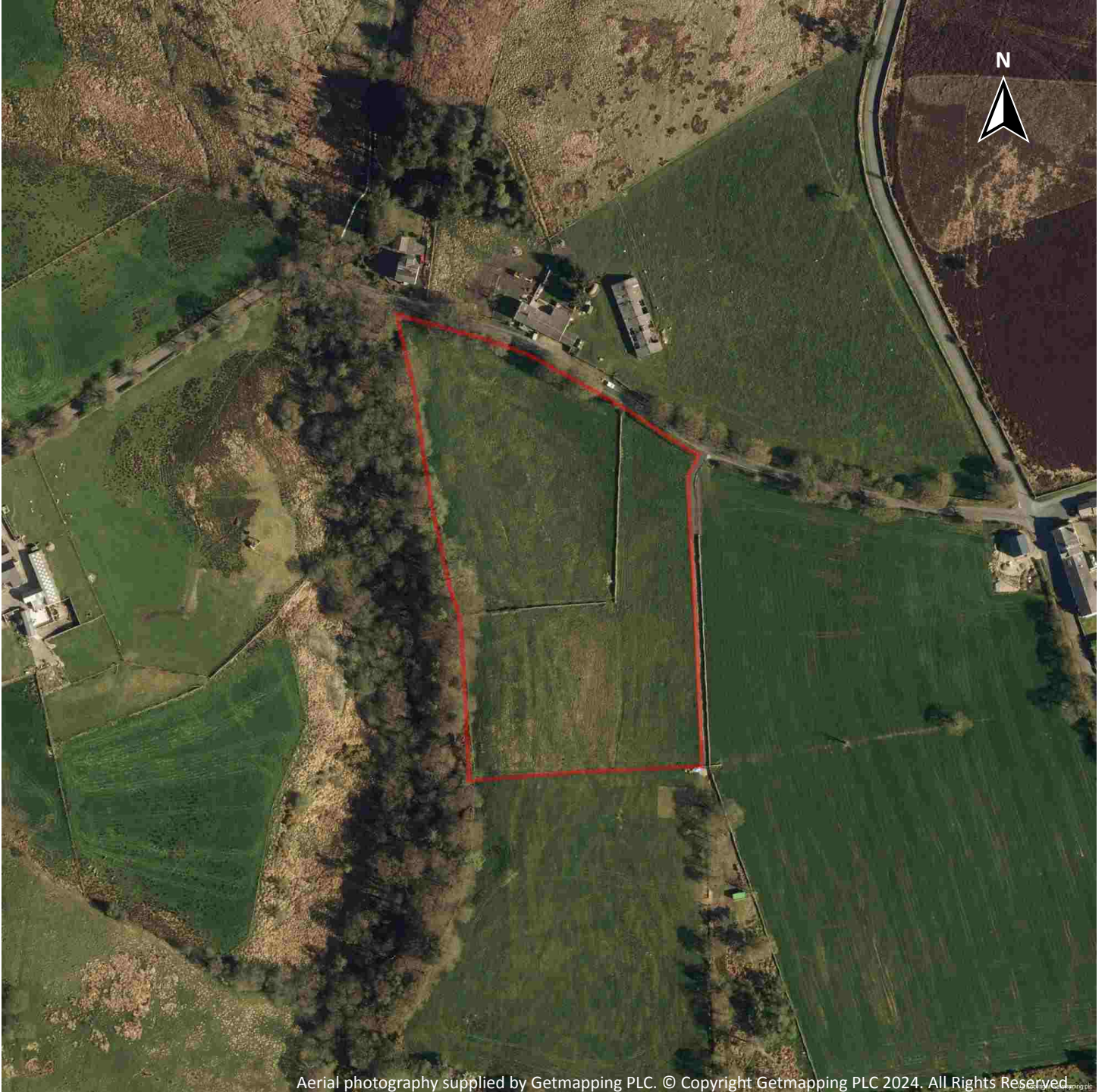
Aerial photography supplied by Getmapping PLC. © Copyright Getmapping PLC 2024. All Rights Reserved.

Capture Date: 03/04/2023

Site Area: 2.28ha



## Recent site history - 2020 aerial photograph



Capture Date: 16/04/2020

Site Area: 2.28ha



## Recent site history - 2017 aerial photograph

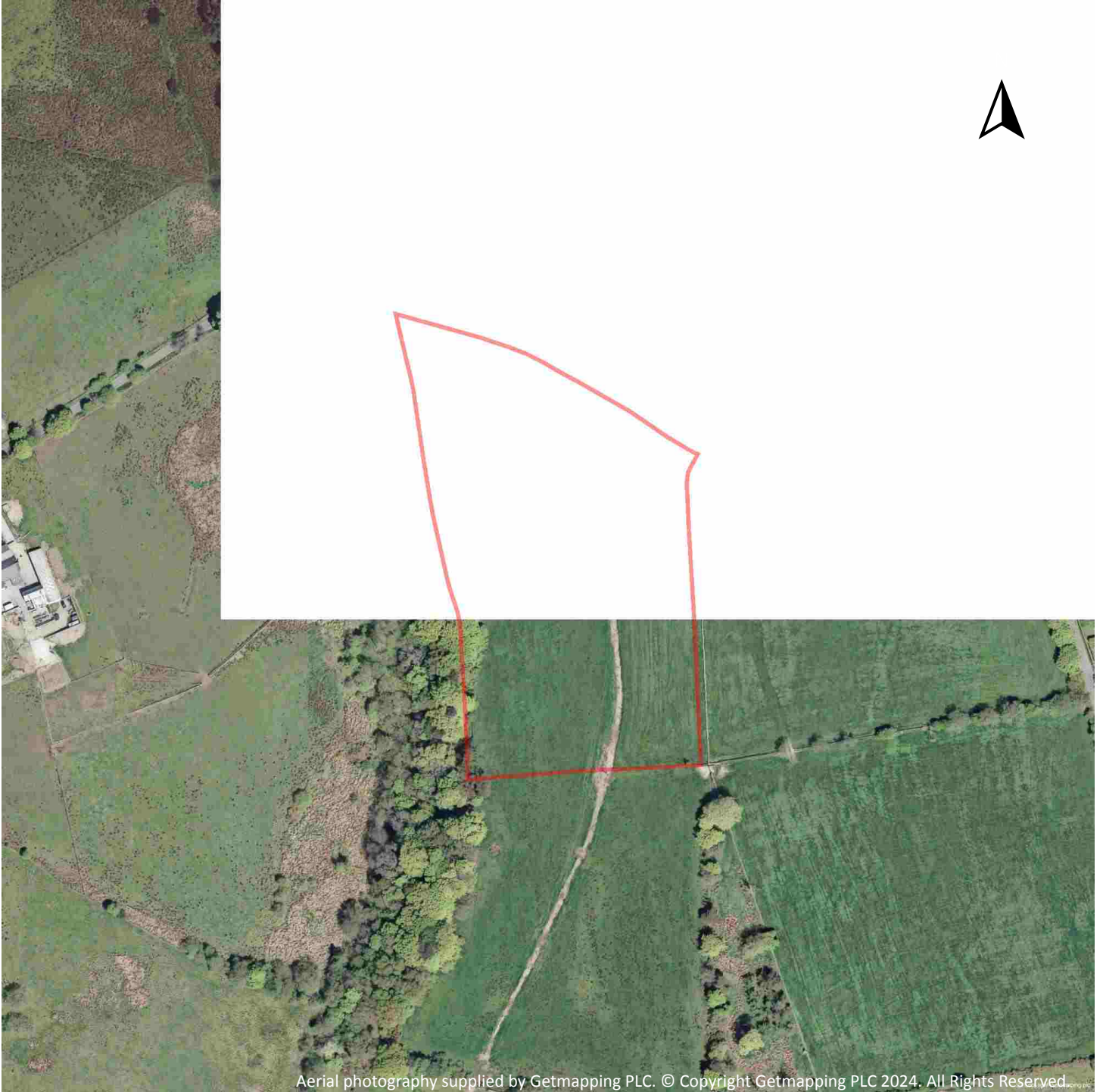


Capture Date: 03/04/2017

Site Area: 2.28ha



## Recent site history - 2013 aerial photograph



Capture Date: 25/05/2013

Site Area: 2.28ha



## Recent site history - 2001 aerial photograph

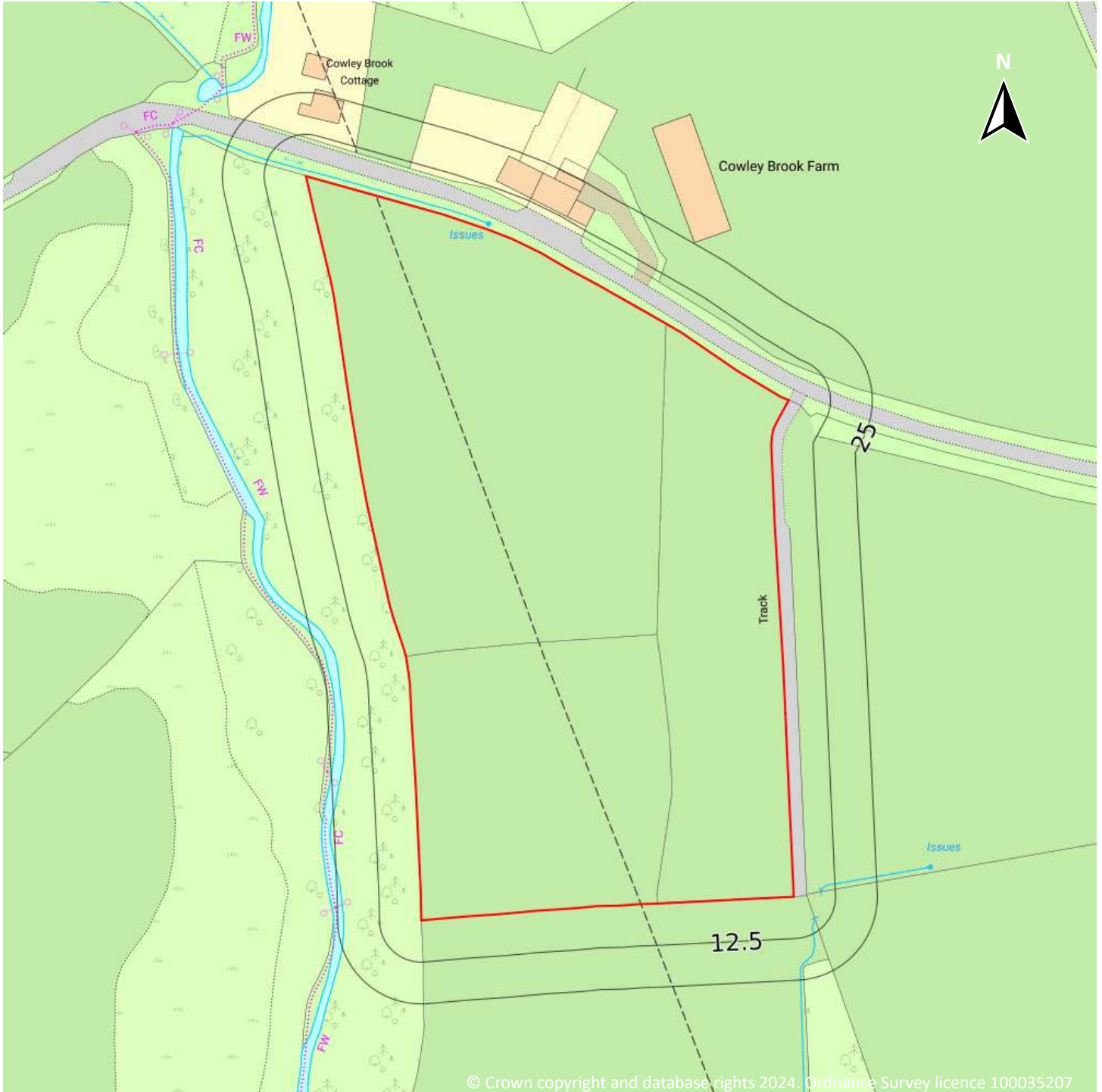


Capture Date: 12/05/2001

Site Area: 2.28ha



## OS MasterMap site plan



Site Area: 2.28ha




## 1 Past land use



**— Site Outline**

**Search buffers in metres (m)**

-  Historical industrial land uses
-  Historical tanks

### 1.1 Historical industrial land uses

**Records within 500m**

**24**

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	36m NW	Pipe	1846	656249

ID	Location	Land use	Dates present	Group ID
A	68m W	Unspecified Pit	1892	758575
A	69m W	Unspecified Pit	1932	736034
2	196m S	Unspecified Pit	1932 - 1951	752897
B	231m SE	Unspecified Tank	1932	673930
B	236m SE	Unspecified Tank	1951	673931
4	289m NE	Unspecified Pit	1932	689434
C	323m S	Unspecified Mill	1951	742764
C	343m S	Rake and Bobbin Mill	1910 - 1932	706186
C	343m S	Unspecified Mill	1892	782848
C	366m S	Bobbin Mill	1846	664333
5	425m S	Pipe	1846	656371
D	439m E	Unspecified Old Quarries	1892	657854
D	441m E	Unspecified Pit	1910 - 1932	704931
D	451m E	Unspecified Pit	1951	698310
E	455m S	Unspecified Pit	1951	758135
E	465m S	Unspecified Pit	1910 - 1932	750413
D	470m E	Sandstone Quarry	1846	686980
E	471m S	Unspecified Pit	1892	726605
D	476m E	Unspecified Heap	1910 - 1932	780614
D	478m E	Unspecified Old Quarry	1910	680528
D	478m E	Unspecified Quarry	1932	724326
D	482m E	Unspecified Quarry	1969 - 1994	738574
D	489m E	Unspecified Pit	1951	689412

*This data is sourced from Ordnance Survey / Groundsure.*



## 1.2 Historical tanks

Records within 500m

3

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'.

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

ID	Location	Land use	Dates present	Group ID
B	238m SE	Unspecified Tank	1994	94603
B	239m SE	Unspecified Tank	1967	88818
3	264m E	Unspecified Tank	1967 - 1994	100910

*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
- Historical tanks

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### 2.1 Historical industrial land uses

Records within 500m

30

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 19](#) >

ID	Location	Land Use	Date	Group ID
1	36m NW	Pipe	1846	656249
A	68m W	Unspecified Pit	1892	758575
A	69m W	Unspecified Pit	1932	736034

ID	Location	Land Use	Date	Group ID
B	196m S	Unspecified Pit	1951	752897
B	212m S	Unspecified Pit	1932	752897
C	231m SE	Unspecified Tank	1932	673930
C	236m SE	Unspecified Tank	1951	673931
2	289m NE	Unspecified Pit	1932	689434
E	323m S	Unspecified Mill	1951	742764
E	343m S	Rake and Bobbin Mill	1932	706186
E	343m S	Rake and Bobbin Mill	1910	706186
E	343m S	Unspecified Mill	1892	782848
E	366m S	Bobbin Mill	1846	664333
3	425m S	Pipe	1846	656371
F	439m E	Unspecified Old Quarries	1892	657854
F	441m E	Unspecified Pit	1932	704931
F	441m E	Unspecified Pit	1910	704931
F	451m E	Unspecified Pit	1951	698310
G	455m S	Unspecified Pit	1951	758135
G	465m S	Unspecified Pit	1932	750413
G	465m S	Unspecified Pit	1910	750413
F	470m E	Sandstone Quarry	1846	686980
G	471m S	Unspecified Pit	1892	726605
F	476m E	Unspecified Heap	1932	780614
F	476m E	Unspecified Heap	1910	780614
F	478m E	Unspecified Quarry	1932	724326
F	478m E	Unspecified Old Quarry	1910	680528
F	482m E	Unspecified Quarry	1969	738574
F	482m E	Unspecified Quarry	1994	738574
F	489m E	Unspecified Pit	1951	689412

*This data is sourced from Ordnance Survey / Groundsure.*



## 2.2 Historical tanks

**Records within 500m****4**

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'.

Features are displayed on the Past land use - un-grouped map on [page 19 >](#)

ID	Location	Land Use	Date	Group ID
C	238m SE	Unspecified Tank	1994	94603
C	239m SE	Unspecified Tank	1967	88818
D	264m E	Unspecified Tank	1994	100910
D	265m E	Unspecified Tank	1967	100910

*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

### 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

0

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.

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



## 4 Current industrial land use



- Site Outline
- Search buffers in metres (m)
- Licensed Discharges to controlled waters
- Pollution Incidents (EA/NRW)

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### 4.1 Recent industrial land uses

**Records within 250m** **0**

Current potentially contaminative industrial sites.

*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

3

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 25 >](#)

ID	Location	Address	Details	
1	32m N	COWLEY BROOK FARM, RIBCHESTER, NR PRESTON, LANCASHIRE, PR3 2YX	Effluent Type: SEWAGE DISCHARGES - FINAL/TREATED EFFLUENT - NOT WATER COMPANY Permit Number: 011511 Permit Version: 1 Receiving Water: COWLEY BROOK	Status: PRE NRA LEGISLATION WHERE ISSUE DATE 01-SEP-89 (HISTORIC ONLY) Issue date: 04/01/1967 Effective Date: 04/04/1967 Revocation Date: -
3	190m SE	NEWDROP INN, RIBCHESTER, PRESTON, LANCASHIRE	Effluent Type: SEWAGE DISCHARGES - FINAL/TREATED EFFLUENT - NOT WATER COMPANY Permit Number: 017190404 Permit Version: 1 Receiving Water: BOYCES BROOK	Status: REVOKED - UNSPECIFIED Issue date: - Effective Date: 17/03/1992 Revocation Date: 02/08/1993
4	495m S	MOOR HEY HOUSE, MOOR HEY LANE, KNOWLE GREEN, PRESTON, LANCASHIRE, PR3 2XE	Effluent Type: SEWAGE DISCHARGES - FINAL/TREATED EFFLUENT - NOT WATER COMPANY Permit Number: 017190739 Permit Version: 1 Receiving Water: UNNAMED TRIB OF COWLEY BROOK	Status: NEW CONSENT (WRA 91, S88 & SCHED 10 AS AMENDED BY ENV ACT 1995) Issue date: 10/01/2003 Effective Date: 10/01/2003 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

1

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

Features are displayed on the Current industrial land use map on [page 25 >](#)

ID	Location	Details	
2	189m E	Incident Date: 06/04/2002 Incident Identification: 69447 Pollutant: Pollutant Not Identified Pollutant Description: Not Identified	Water Impact: Category 4 (No Impact) Land Impact: Category 4 (No Impact) Air Impact: Category 4 (No Impact)

*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

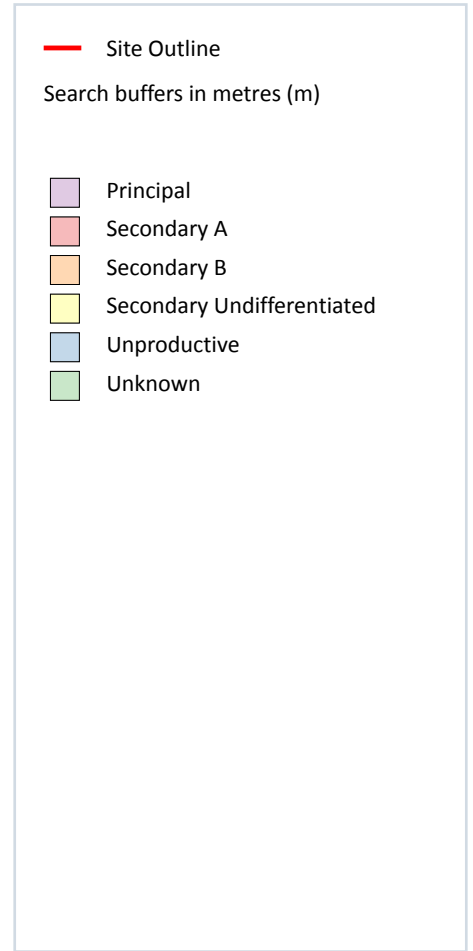
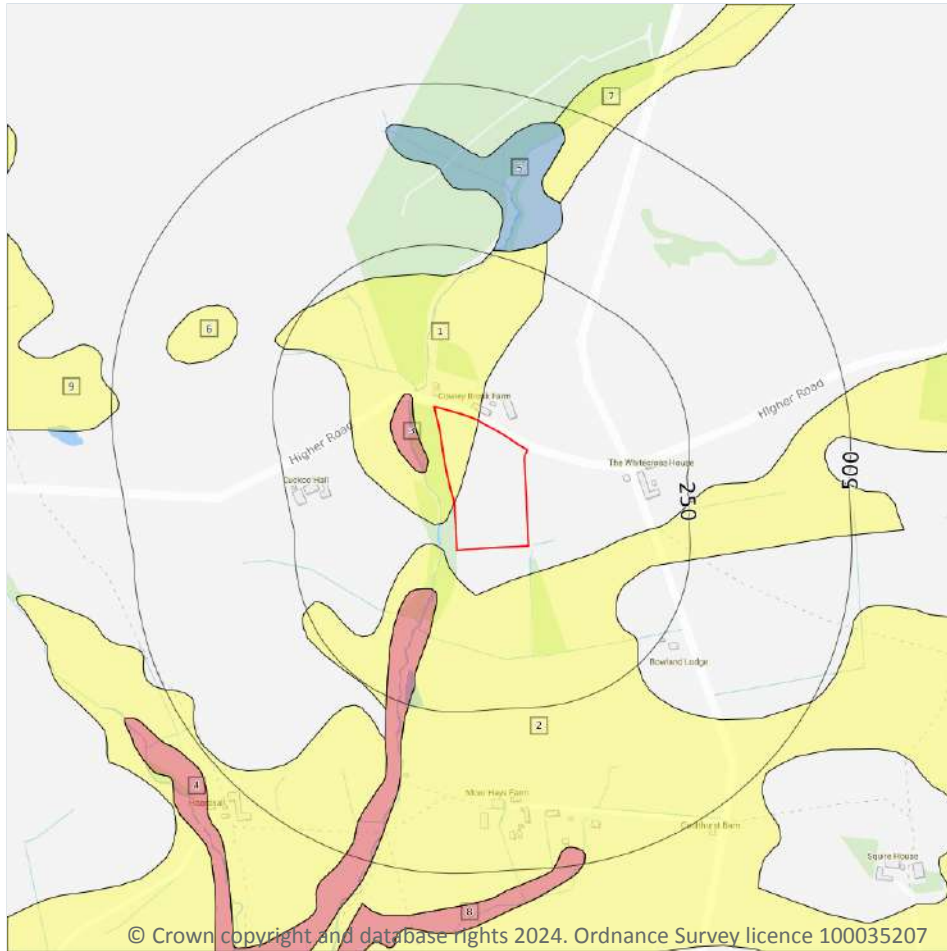
0

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

9

Aquifer status of groundwater held within superficial geology.

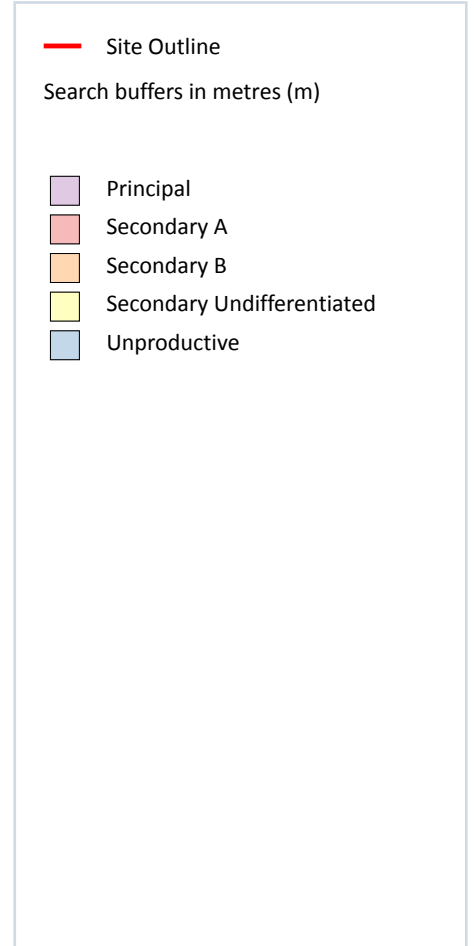
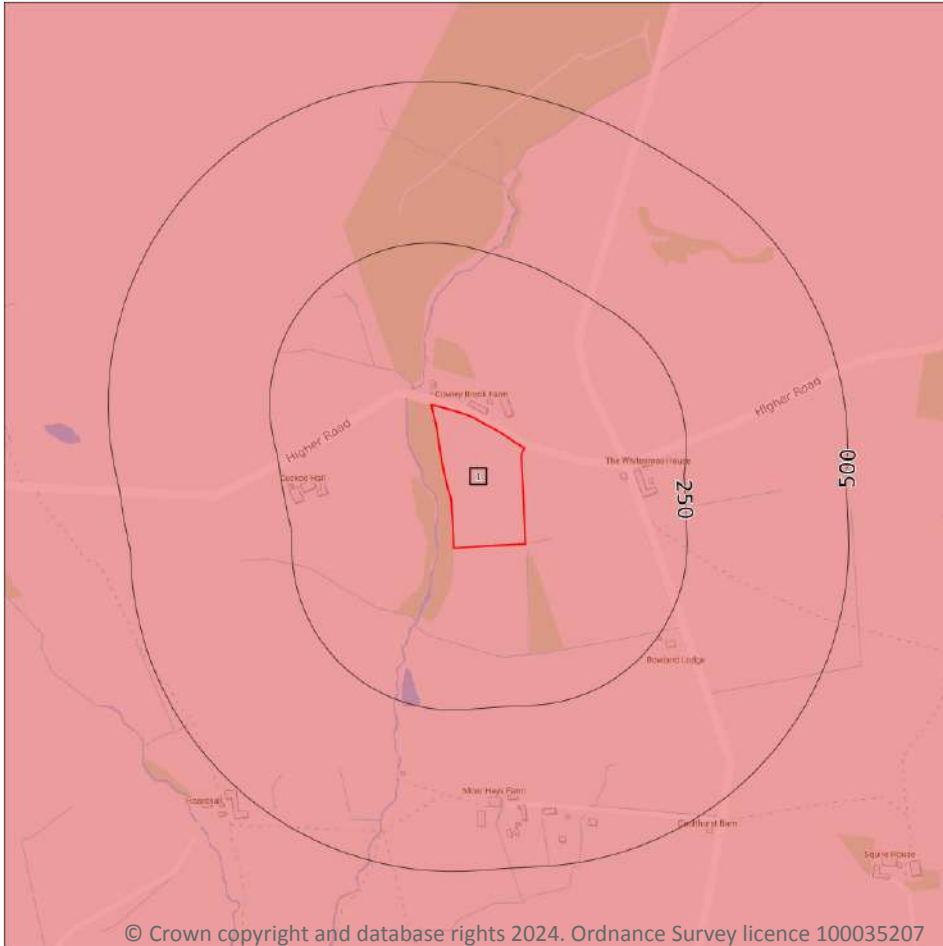
Features are displayed on the Hydrogeology map on [page 31](#) >

ID	Location	Designation	Description
1	On site	Secondary Undifferentiated	Assigned where it is not possible to attribute either category A or B to a rock type. In general these layers have previously been designated as both minor and non-aquifer in different locations due to the variable characteristics of the rock type
2	19m SW	Secondary Undifferentiated	Assigned where it is not possible to attribute either category A or B to a rock type. In general these layers have previously been designated as both minor and non-aquifer in different locations due to the variable characteristics of the rock type

ID	Location	Designation	Description
3	25m W	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
4	71m SW	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
5	258m N	Unproductive	These are rock layers or drift deposits with low permeability that have negligible significance for water supply or river base flow
6	326m NW	Secondary Undifferentiated	Assigned where it is not possible to attribute either category A or B to a rock type. In general these layers have previously been designated as both minor and non-aquifer in different locations due to the variable characteristics of the rock type
7	359m N	Secondary Undifferentiated	Assigned where it is not possible to attribute either category A or B to a rock type. In general these layers have previously been designated as both minor and non-aquifer in different locations due to the variable characteristics of the rock type
8	470m S	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
9	488m W	Secondary Undifferentiated	Assigned where it is not possible to attribute either category A or B to a rock type. In general these layers have previously been designated as both minor and non-aquifer in different locations due to the variable characteristics of the rock type

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

## Bedrock aquifer



### 5.2 Bedrock aquifer

Records within 500m

1

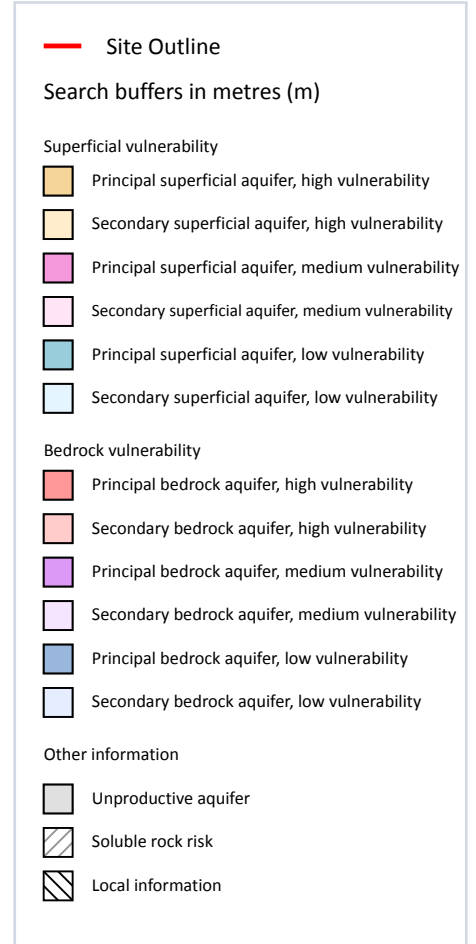
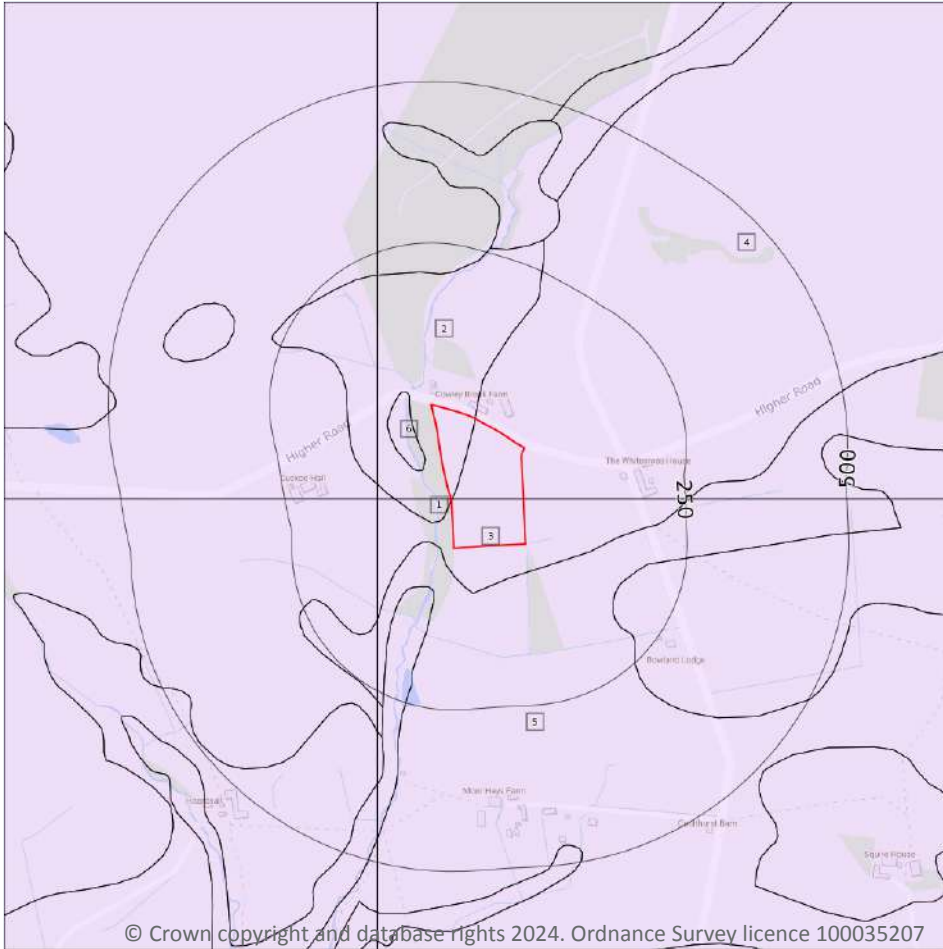
Aquifer status of groundwater held within bedrock geology.

Features are displayed on the Bedrock aquifer map on [page 33](#) >

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

*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

6

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 34](#) >



ID	Location	Summary	Soil / surface	Superficial geology	Bedrock geology
1	On site	<b>Summary Classification:</b> Secondary bedrock aquifer - Medium Vulnerability <b>Combined classification:</b> Productive Bedrock Aquifer, Productive Superficial Aquifer	<b>Leaching class:</b> Low <b>Infiltration value:</b> <40% <b>Dilution value:</b> >550mm/year	<b>Vulnerability:</b> Low <b>Aquifer type:</b> Secondary <b>Thickness:</b> <3m <b>Patchiness value:</b> <90% <b>Recharge potential:</b> High	<b>Vulnerability:</b> Medium <b>Aquifer type:</b> Secondary <b>Flow mechanism:</b> Well connected fractures
2	On site	<b>Summary Classification:</b> Secondary bedrock aquifer - Medium Vulnerability <b>Combined classification:</b> Productive Bedrock Aquifer, Productive Superficial Aquifer	<b>Leaching class:</b> Low <b>Infiltration value:</b> <40% <b>Dilution value:</b> >550mm/year	<b>Vulnerability:</b> Low <b>Aquifer type:</b> Secondary <b>Thickness:</b> <3m <b>Patchiness value:</b> <90% <b>Recharge potential:</b> High	<b>Vulnerability:</b> Medium <b>Aquifer type:</b> Secondary <b>Flow mechanism:</b> Well connected fractures
3	On site	<b>Summary Classification:</b> Secondary bedrock aquifer - Medium Vulnerability <b>Combined classification:</b> Productive Bedrock Aquifer, No Superficial Aquifer	<b>Leaching class:</b> Low <b>Infiltration value:</b> <40% <b>Dilution value:</b> >550mm/year	<b>Vulnerability:</b> - <b>Aquifer type:</b> - <b>Thickness:</b> <3m <b>Patchiness value:</b> <90% <b>Recharge potential:</b> High	<b>Vulnerability:</b> Medium <b>Aquifer type:</b> Secondary <b>Flow mechanism:</b> Well connected fractures
4	On site	<b>Summary Classification:</b> Secondary bedrock aquifer - Medium Vulnerability <b>Combined classification:</b> Productive Bedrock Aquifer, No Superficial Aquifer	<b>Leaching class:</b> Low <b>Infiltration value:</b> <40% <b>Dilution value:</b> >550mm/year	<b>Vulnerability:</b> - <b>Aquifer type:</b> - <b>Thickness:</b> <3m <b>Patchiness value:</b> <90% <b>Recharge potential:</b> High	<b>Vulnerability:</b> Medium <b>Aquifer type:</b> Secondary <b>Flow mechanism:</b> Well connected fractures
5	19m SW	<b>Summary Classification:</b> Secondary bedrock aquifer - Medium Vulnerability <b>Combined classification:</b> Productive Bedrock Aquifer, Productive Superficial Aquifer	<b>Leaching class:</b> Low <b>Infiltration value:</b> <40% <b>Dilution value:</b> >550mm/year	<b>Vulnerability:</b> Low <b>Aquifer type:</b> Secondary <b>Thickness:</b> <3m <b>Patchiness value:</b> <90% <b>Recharge potential:</b> High	<b>Vulnerability:</b> Medium <b>Aquifer type:</b> Secondary <b>Flow mechanism:</b> Well connected fractures
6	24m W	<b>Summary Classification:</b> Secondary bedrock aquifer - Medium Vulnerability <b>Combined classification:</b> Productive Bedrock Aquifer, Productive Superficial Aquifer	<b>Leaching class:</b> Low <b>Infiltration value:</b> <40% <b>Dilution value:</b> >550mm/year	<b>Vulnerability:</b> Low <b>Aquifer type:</b> Secondary <b>Thickness:</b> <3m <b>Patchiness value:</b> <90% <b>Recharge potential:</b> High	<b>Vulnerability:</b> Medium <b>Aquifer type:</b> Secondary <b>Flow mechanism:</b> 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

0

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

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

## 5.5 Groundwater vulnerability- local information

Records on site

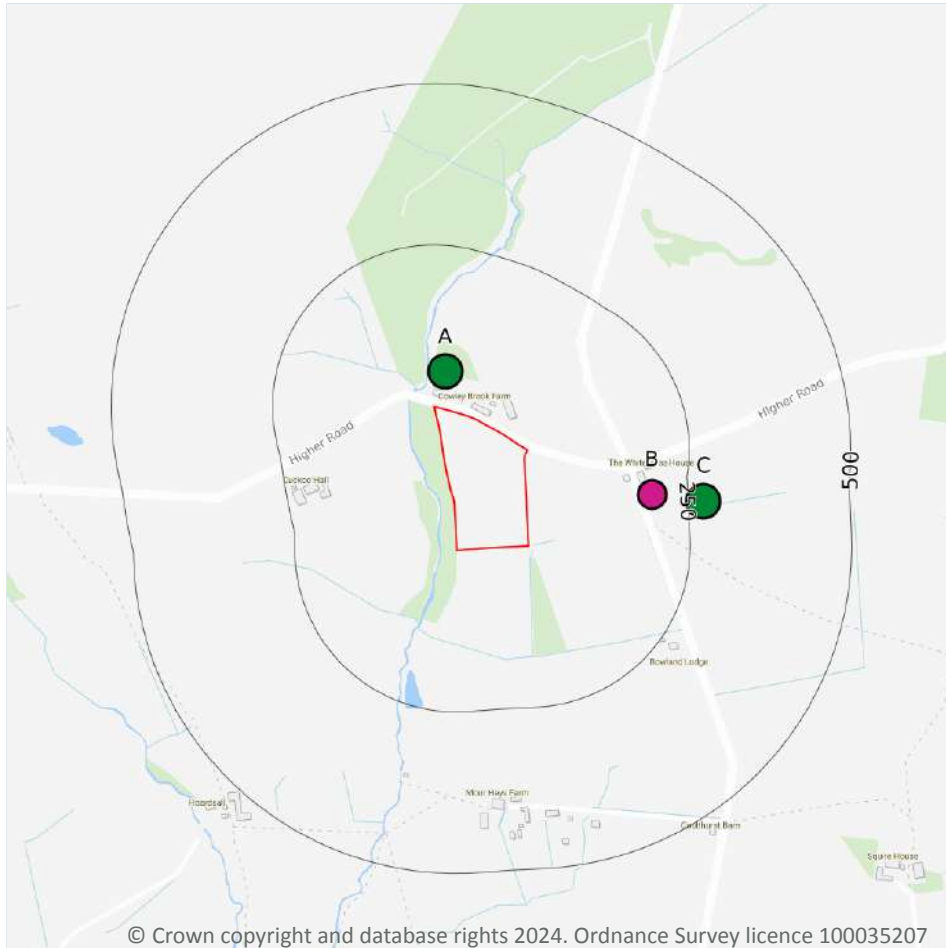
0

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](mailto:enquiries@environment-agency.gov.uk) ↗.

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



## Abstractions and Source Protection Zones



### 5.6 Groundwater abstractions

Records within 2000m

7

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 37 >](#)

ID	Location	Details	
B	194m E	Status: Historical Licence No: 2671338031 Details: Drinking, Cooking, Sanitary, Washing, (Small Garden) - Commercial/Industrial/Public Services Direct Source: Ground Water - North West Region Point: UNDERGROUND STRATA IN RIBCHESTER Data Type: Point Name: BARR Easting: 364420 Northing: 439010	Annual Volume (m <sup>3</sup> ): - Max Daily Volume (m <sup>3</sup> ): - Original Application No: - Original Start Date: 23/10/1996 Expiry Date: - Issue No: 100 Version Start Date: 23/10/1996 Version End Date: -
-	951m NW	Status: Historical Licence No: 2671338022 Details: General use relating to Secondary Category (Medium Loss) Direct Source: Ground Water - North West Region Point: "BOREHOLE AT FORTY ACRES, THORNLEY WITH HEATLEY, LONGRIDGE" Data Type: Point Name: LUPTON Easting: 363200 Northing: 439500	Annual Volume (m <sup>3</sup> ): - Max Daily Volume (m <sup>3</sup> ): - Original Application No: - Original Start Date: 10/03/1972 Expiry Date: - Issue No: 100 Version Start Date: 10/03/1972 Version End Date: -
-	951m NW	Status: Historical Licence No: 2671338022 Details: General use relating to Secondary Category (Medium Loss) Direct Source: Ground Water - North West Region Point: BOREHOLE AT FORTY ACRES, THORNLEY WITH HEATLEY, LONGRIDGE Data Type: Point Name: LUPTON Easting: 363200 Northing: 439500	Annual Volume (m <sup>3</sup> ): - Max Daily Volume (m <sup>3</sup> ): - Original Application No: - Original Start Date: 10/03/1972 Expiry Date: - Issue No: 100 Version Start Date: 10/03/1972 Version End Date: -
-	1580m W	Status: Active Licence No: 2671317011 Details: Spray Irrigation - Direct Direct Source: Ground Water - North West Region Point: BOREHOLE AT LONGRIDGE GOLF CLUB, PRESTON Data Type: Point Name: LONGRIDGE GOLF CLUB & PRESTON Easting: 362510 Northing: 439000	Annual Volume (m <sup>3</sup> ): 1920 Max Daily Volume (m <sup>3</sup> ): 29.55 Original Application No: 7237 Original Start Date: 10/04/1997 Expiry Date: - Issue No: 100 Version Start Date: 01/04/2008 Version End Date: -



ID	Location	Details	
-	1580m W	Status: Active Licence No: 2671317011 Details: Drinking, Cooking, Sanitary, Washing, (Small Garden) - Commercial/Industrial/Public Services Direct Source: Ground Water - North West Region Point: BOREHOLE AT LONGRIDGE GOLF CLUB, PRESTON Data Type: Point Name: LONGRIDGE GOLF CLUB & PRESTON Easting: 362510 Northing: 439000	Annual Volume (m <sup>3</sup> ): 1920 Max Daily Volume (m <sup>3</sup> ): 29.55 Original Application No: 7237 Original Start Date: 10/04/1997 Expiry Date: - Issue No: 100 Version Start Date: 01/04/2008 Version End Date: -
-	1580m W	Status: Historical Licence No: 2671317011 Details: Spray Irrigation - Direct Direct Source: Ground Water - North West Region Point: "BOREHOLE AT LONGRIDGE GOLF CLUB, PRESTON" Data Type: Point Name: LONGRIDGE GOLF CLUB & PRESTON Easting: 362510 Northing: 439000	Annual Volume (m <sup>3</sup> ): - Max Daily Volume (m <sup>3</sup> ): - Original Application No: - Original Start Date: 10/04/1997 Expiry Date: - Issue No: 100 Version Start Date: 10/04/1997 Version End Date: -
-	1580m W	Status: Historical Licence No: 2671317011 Details: "Drinking, Cooking, Sanitary, Washing, (Small Garden) - Commercial/Industrial/Public Services" Direct Source: Ground Water - North West Region Point: "BOREHOLE AT LONGRIDGE GOLF CLUB, PRESTON" Data Type: Point Name: LONGRIDGE GOLF CLUB & PRESTON Easting: 362510 Northing: 439000	Annual Volume (m <sup>3</sup> ): - Max Daily Volume (m <sup>3</sup> ): - Original Application No: - Original Start Date: 10/04/1997 Expiry Date: - Issue No: 100 Version Start Date: 10/04/1997 Version End Date: -

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

## 5.7 Surface water abstractions

**Records within 2000m**

**13**

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.

Features are displayed on the Abstractions and Source Protection Zones map on [page 37 >](#)



ID	Location	Details	
A	56m N	Status: Historical Licence No: 2671338012 Details: Potable Water Supply - Direct Direct Source: "Surface, Non-Tidal - North West Region" Point: "INTAKE FROM COWLEY BRK, DUTTON" Data Type: Point Name: UNITED UTILITIES WATER PLC Easting: 364100 Northing: 439200	Annual Volume (m <sup>3</sup> ): - Max Daily Volume (m <sup>3</sup> ): - Original Application No: - Original Start Date: 30/06/1966 Expiry Date: - Issue No: 100 Version Start Date: 16/01/1995 Version End Date: -
A	56m N	Status: Historical Licence No: 2671338012 Details: Potable Water Supply - Direct Direct Source: Surface, Non-Tidal - North West Region Point: INTAKE FROM COWLEY BRK, DUTTON Data Type: Point Name: United Utilities Water Ltd Easting: 364100 Northing: 439200	Annual Volume (m <sup>3</sup> ): 3532969 Max Daily Volume (m <sup>3</sup> ): 37277.20 Original Application No: 3048 Original Start Date: 30/06/1966 Expiry Date: - Issue No: 100 Version Start Date: 16/01/1995 Version End Date: -
C	273m E	Status: Historical Licence No: 2671338021 Details: General use relating to Secondary Category (Medium Loss) Direct Source: "Surface, Non-Tidal - North West Region" Point: "SPRING AT NEW DROP,RIBCHESTER." Data Type: Point Name: BARR Easting: 364500 Northing: 439000	Annual Volume (m <sup>3</sup> ): - Max Daily Volume (m <sup>3</sup> ): - Original Application No: - Original Start Date: 17/10/1969 Expiry Date: - Issue No: 100 Version Start Date: 24/10/1996 Version End Date: -
C	273m E	Status: Historical Licence No: 2671338021 Details: "Drinking, Cooking, Sanitary, Washing, (Small Garden) - Commercial/Industrial/Public Services" Direct Source: "Surface, Non-Tidal - North West Region" Point: "SPRING AT NEW DROP,RIBCHESTER." Data Type: Point Name: BARR Easting: 364500 Northing: 439000	Annual Volume (m <sup>3</sup> ): - Max Daily Volume (m <sup>3</sup> ): - Original Application No: - Original Start Date: 17/10/1969 Expiry Date: - Issue No: 100 Version Start Date: 24/10/1996 Version End Date: -



ID	Location	Details	
C	273m E	Status: Historical Licence No: 2671338021 Details: General use relating to Secondary Category (Medium Loss) Direct Source: Surface, Non-Tidal - North West Region Point: SPRING AT NEW DROP,RIBCHESTER. Data Type: Point Name: BARR Easting: 364500 Northing: 439000	Annual Volume (m <sup>3</sup> ): - Max Daily Volume (m <sup>3</sup> ): - Original Application No: - Original Start Date: 17/10/1969 Expiry Date: - Issue No: 100 Version Start Date: 24/10/1996 Version End Date: -
C	273m E	Status: Historical Licence No: 2671338021 Details: Drinking, Cooking, Sanitary, Washing, (Small Garden) - Commercial/Industrial/Public Services Direct Source: Surface, Non-Tidal - North West Region Point: SPRING AT NEW DROP,RIBCHESTER. Data Type: Point Name: BARR Easting: 364500 Northing: 439000	Annual Volume (m <sup>3</sup> ): - Max Daily Volume (m <sup>3</sup> ): - Original Application No: - Original Start Date: 17/10/1969 Expiry Date: - Issue No: 100 Version Start Date: 24/10/1996 Version End Date: -
-	1359m N	Status: Historical Licence No: 2671317008 Details: Drinking, Cooking, Sanitary, Washing, (Small Garden) - Household Direct Source: Surface, Non-Tidal - North West Region Point: SPRING AT THORNLEY. Data Type: Point Name: WILMORE Easting: 364200 Northing: 440500	Annual Volume (m <sup>3</sup> ): - Max Daily Volume (m <sup>3</sup> ): - Original Application No: - Original Start Date: 13/05/1974 Expiry Date: - Issue No: 102 Version Start Date: 01/08/2000 Version End Date: -
-	1484m W	Status: Historical Licence No: 2671338011 Details: Spray Irrigation - Direct Direct Source: "Surface, Non-Tidal - North West Region" Point: "CULVERT ON LAND AT LONGRIDGE GOLF CLUB, JEFFREY HILL" Data Type: Point Name: LONGRIDGE GOLF CLUB & PRESTON Easting: 362600 Northing: 439100	Annual Volume (m <sup>3</sup> ): - Max Daily Volume (m <sup>3</sup> ): - Original Application No: - Original Start Date: 10/10/1966 Expiry Date: - Issue No: 101 Version Start Date: 18/05/2001 Version End Date: -



ID	Location	Details	
-	1484m W	Status: Historical Licence No: 2671338011 Details: "Drinking, Cooking, Sanitary, Washing, (Small Garden) - Commercial/Industrial/Public Services" Direct Source: "Surface, Non-Tidal - North West Region" Point: "CULVERT ON LAND AT LONGRIDGE GOLF CLUB, JEFFREY HILL" Data Type: Point Name: LONGRIDGE GOLF CLUB & PRESTON Easting: 362600 Northing: 439100	Annual Volume (m <sup>3</sup> ): - Max Daily Volume (m <sup>3</sup> ): - Original Application No: - Original Start Date: 10/10/1966 Expiry Date: - Issue No: 101 Version Start Date: 18/05/2001 Version End Date: -
-	1484m W	Status: Historical Licence No: 2671338011 Details: Drinking, Cooking, Sanitary, Washing, (Small Garden) - Commercial/Industrial/Public Services Direct Source: Surface, Non-Tidal - North West Region Point: CULVERT ON LAND AT LONGRIDGE GOLF CLUB, JEFFREY HILL Data Type: Point Name: LONGRIDGE GOLF CLUB & PRESTON Easting: 362600 Northing: 439100	Annual Volume (m <sup>3</sup> ): 7364.53 Max Daily Volume (m <sup>3</sup> ): 20.46 Original Application No: 4475 Original Start Date: 10/10/1966 Expiry Date: - Issue No: 101 Version Start Date: 01/04/2008 Version End Date: -
-	1484m W	Status: Historical Licence No: 2671338011 Details: Spray Irrigation - Direct Direct Source: Surface, Non-Tidal - North West Region Point: CULVERT ON LAND AT LONGRIDGE GOLF CLUB, JEFFREY HILL Data Type: Point Name: LONGRIDGE GOLF CLUB & PRESTON Easting: 362600 Northing: 439100	Annual Volume (m <sup>3</sup> ): 7364.53 Max Daily Volume (m <sup>3</sup> ): 20.46 Original Application No: 4475 Original Start Date: 10/10/1966 Expiry Date: - Issue No: 101 Version Start Date: 01/04/2008 Version End Date: -
-	1657m E	Status: Historical Licence No: 2671338019 Details: General Farming & Domestic Direct Source: "Surface, Non-Tidal - North West Region" Point: "SPRING AT WILLOW PLANTATION,DUTTON LONGRIDGE,PRESTON." Data Type: Point Name: JACKSON Easting: 365800 Northing: 438400	Annual Volume (m <sup>3</sup> ): - Max Daily Volume (m <sup>3</sup> ): - Original Application No: - Original Start Date: 07/04/1967 Expiry Date: - Issue No: 100 Version Start Date: 16/12/1993 Version End Date: -



ID	Location	Details	
-	1657m E	Status: Historical Licence No: 2671338019 Details: General Farming & Domestic Direct Source: Surface, Non-Tidal - North West Region Point: SPRING AT WILLOW PLANTATION,DUTTON LONGRIDGE,PRESTON. Data Type: Point Name: JACKSON Easting: 365800 Northing: 438400	Annual Volume (m <sup>3</sup> ): - Max Daily Volume (m <sup>3</sup> ): - Original Application No: - Original Start Date: 07/04/1967 Expiry Date: - Issue No: 100 Version Start Date: 16/12/1993 Version End Date: -

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

## 5.8 Potable abstractions

Records within 2000m

10

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.

Features are displayed on the Abstractions and Source Protection Zones map on [page 37 >](#)

ID	Location	Details	
A	56m N	Status: Active Licence No: 2671338012 Details: Potable Water Supply - Direct Direct Source: Surface, Non-Tidal - North West Region Point: INTAKE FROM COWLEY BRK, DUTTON Data Type: Point Name: United Utilities Water Ltd Easting: 364100 Northing: 439200	Annual Volume (m <sup>3</sup> ): 3532969 Max Daily Volume (m <sup>3</sup> ): 37277.2 Original Application No: 3048 Original Start Date: 30/06/1966 Expiry Date: - Issue No: 100 Version Start Date: 16/01/1995 Version End Date: -
A	56m N	Status: Historical Licence No: 2671338012 Details: Potable Water Supply - Direct Direct Source: "Surface, Non-Tidal - North West Region" Point: "INTAKE FROM COWLEY BRK, DUTTON" Data Type: Point Name: UNITED UTILITIES WATER PLC Easting: 364100 Northing: 439200	Annual Volume (m <sup>3</sup> ): - Max Daily Volume (m <sup>3</sup> ): - Original Application No: - Original Start Date: 30/06/1966 Expiry Date: - Issue No: 100 Version Start Date: 16/01/1995 Version End Date: -



ID	Location	Details	
B	194m E	Status: Historical Licence No: 2671338031 Details: Drinking, Cooking, Sanitary, Washing, (Small Garden) - Commercial/Industrial/Public Services Direct Source: Ground Water - North West Region Point: UNDERGROUND STRATA IN RIBCHESTER Data Type: Point Name: BARR Easting: 364420 Northing: 439010	Annual Volume (m <sup>3</sup> ): - Max Daily Volume (m <sup>3</sup> ): - Original Application No: - Original Start Date: 23/10/1996 Expiry Date: - Issue No: 100 Version Start Date: 23/10/1996 Version End Date: -
C	273m E	Status: Historical Licence No: 2671338021 Details: "Drinking, Cooking, Sanitary, Washing, (Small Garden) - Commercial/Industrial/Public Services" Direct Source: "Surface, Non-Tidal - North West Region" Point: "SPRING AT NEW DROP,RIBCHESTER." Data Type: Point Name: BARR Easting: 364500 Northing: 439000	Annual Volume (m <sup>3</sup> ): - Max Daily Volume (m <sup>3</sup> ): - Original Application No: - Original Start Date: 17/10/1969 Expiry Date: - Issue No: 100 Version Start Date: 24/10/1996 Version End Date: -
C	273m E	Status: Historical Licence No: 2671338021 Details: Drinking, Cooking, Sanitary, Washing, (Small Garden) - Commercial/Industrial/Public Services Direct Source: Surface, Non-Tidal - North West Region Point: SPRING AT NEW DROP,RIBCHESTER. Data Type: Point Name: BARR Easting: 364500 Northing: 439000	Annual Volume (m <sup>3</sup> ): - Max Daily Volume (m <sup>3</sup> ): - Original Application No: - Original Start Date: 17/10/1969 Expiry Date: - Issue No: 100 Version Start Date: 24/10/1996 Version End Date: -
-	1359m N	Status: Historical Licence No: 2671317008 Details: Drinking, Cooking, Sanitary, Washing, (Small Garden) - Household Direct Source: Surface, Non-Tidal - North West Region Point: SPRING AT THORNLEY. Data Type: Point Name: WILMORE Easting: 364200 Northing: 440500	Annual Volume (m <sup>3</sup> ): - Max Daily Volume (m <sup>3</sup> ): - Original Application No: - Original Start Date: 13/05/1974 Expiry Date: - Issue No: 102 Version Start Date: 01/08/2000 Version End Date: -



ID	Location	Details	
-	1484m W	Status: Active Licence No: 2671338011 Details: Drinking, Cooking, Sanitary, Washing, (Small Garden) - Commercial/Industrial/Public Services Direct Source: Surface, Non-Tidal - North West Region Point: CULVERT ON LAND AT LONGRIDGE GOLF CLUB, JEFFREY HILL Data Type: Point Name: LONGRIDGE GOLF CLUB & PRESTON Easting: 362600 Northing: 439100	Annual Volume (m <sup>3</sup> ): 7364.53 Max Daily Volume (m <sup>3</sup> ): 20.46 Original Application No: 4475 Original Start Date: 10/10/1966 Expiry Date: - Issue No: 101 Version Start Date: 01/04/2008 Version End Date: -
-	1484m W	Status: Historical Licence No: 2671338011 Details: "Drinking, Cooking, Sanitary, Washing, (Small Garden) - Commercial/Industrial/Public Services" Direct Source: "Surface, Non-Tidal - North West Region" Point: "CULVERT ON LAND AT LONGRIDGE GOLF CLUB, JEFFREY HILL" Data Type: Point Name: LONGRIDGE GOLF CLUB & PRESTON Easting: 362600 Northing: 439100	Annual Volume (m <sup>3</sup> ): - Max Daily Volume (m <sup>3</sup> ): - Original Application No: - Original Start Date: 10/10/1966 Expiry Date: - Issue No: 101 Version Start Date: 18/05/2001 Version End Date: -
-	1580m W	Status: Active Licence No: 2671317011 Details: Drinking, Cooking, Sanitary, Washing, (Small Garden) - Commercial/Industrial/Public Services Direct Source: Ground Water - North West Region Point: BOREHOLE AT LONGRIDGE GOLF CLUB, PRESTON Data Type: Point Name: LONGRIDGE GOLF CLUB & PRESTON Easting: 362510 Northing: 439000	Annual Volume (m <sup>3</sup> ): 1920 Max Daily Volume (m <sup>3</sup> ): 29.55 Original Application No: 7237 Original Start Date: 10/04/1997 Expiry Date: - Issue No: 100 Version Start Date: 01/04/2008 Version End Date: -
-	1580m W	Status: Historical Licence No: 2671317011 Details: "Drinking, Cooking, Sanitary, Washing, (Small Garden) - Commercial/Industrial/Public Services" Direct Source: Ground Water - North West Region Point: "BOREHOLE AT LONGRIDGE GOLF CLUB, PRESTON" Data Type: Point Name: LONGRIDGE GOLF CLUB & PRESTON Easting: 362510 Northing: 439000	Annual Volume (m <sup>3</sup> ): - Max Daily Volume (m <sup>3</sup> ): - Original Application No: - Original Start Date: 10/04/1997 Expiry Date: - Issue No: 100 Version Start Date: 10/04/1997 Version End Date: -

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



## 5.9 Source Protection Zones

Records within 500m

0

Source Protection Zones define the sensitivity of an area around a potable abstraction site to contamination.

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

## 5.10 Source Protection Zones (confined aquifer)

Records within 500m

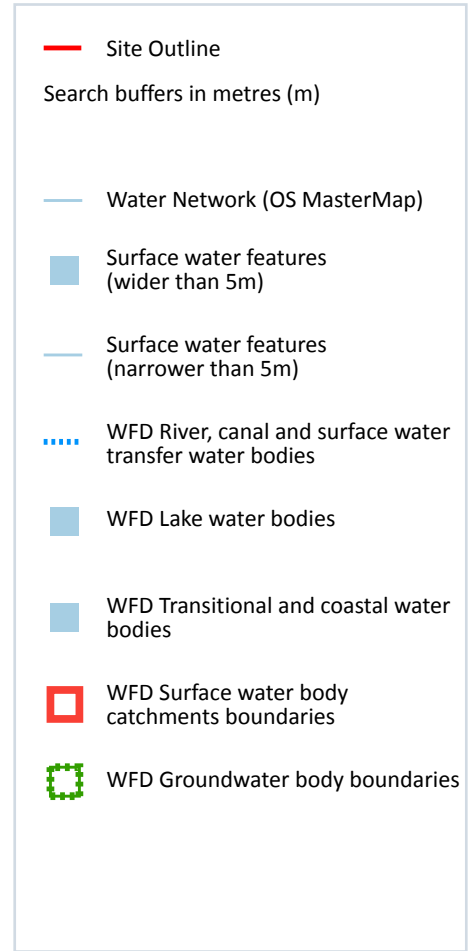
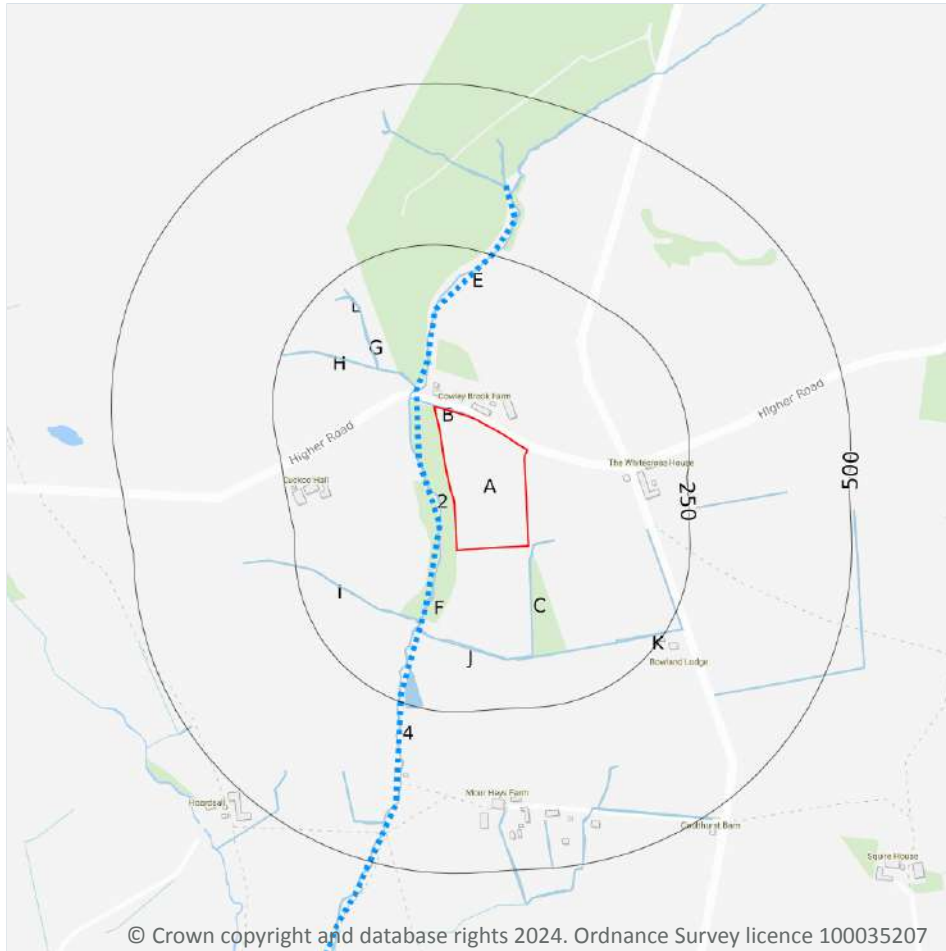
0

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.

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



## 6 Hydrology



### 6.1 Water Network (OS MasterMap)

Records within 250m

23

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 47 >](#)

ID	Location	Type of water feature	Ground level	Permanence	Name
B	1m NW	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
C	7m SE	Inland river not influenced by normal tidal action.	On ground surface	Watercourse contains water year round (in normal circumstances)	-
2	21m SW	Inland river not influenced by normal tidal action.	On ground surface	Watercourse contains water year round (in normal circumstances)	Cowley Brook
B	33m NW	Inland river not influenced by normal tidal action.	On ground surface	Watercourse contains water year round (in normal circumstances)	Cowley Brook
B	37m NW	Inland river not influenced by normal tidal action.	On ground surface	Watercourse contains water year round (in normal circumstances)	-
B	37m NW	Inland river not influenced by normal tidal action.	On ground surface	Watercourse contains water year round (in normal circumstances)	Cowley Brook
B	39m NW	Inland river not influenced by normal tidal action.	Underground	Watercourse contains water year round (in normal circumstances)	Cowley Brook
B	40m NW	Inland river not influenced by normal tidal action.	On ground surface	Watercourse contains water year round (in normal circumstances)	Cowley Brook
B	40m NW	Inland river not influenced by normal tidal action.	On ground surface	Watercourse contains water year round (in normal circumstances)	-
B	66m NW	Inland river not influenced by normal tidal action.	On ground surface	Watercourse contains water year round (in normal circumstances)	-
F	75m SW	Inland river not influenced by normal tidal action.	On ground surface	Watercourse contains water year round (in normal circumstances)	-
F	75m SW	Inland river not influenced by normal tidal action.	On ground surface	Watercourse contains water year round (in normal circumstances)	Cowley Brook
E	76m NW	Inland river not influenced by normal tidal action.	On ground surface	Watercourse contains water year round (in normal circumstances)	Cowley Brook
F	97m SW	Inland river not influenced by normal tidal action.	On ground surface	Watercourse contains water year round (in normal circumstances)	Cowley Brook



ID	Location	Type of water feature	Ground level	Permanence	Name
G	104m NW	Inland river not influenced by normal tidal action.	On ground surface	Watercourse contains water year round (in normal circumstances)	-
H	104m NW	Inland river not influenced by normal tidal action.	On ground surface	Watercourse contains water year round (in normal circumstances)	-
I	123m SW	Inland river not influenced by normal tidal action.	On ground surface	Watercourse contains water year round (in normal circumstances)	-
F	129m SW	Inland river not influenced by normal tidal action.	On ground surface	Watercourse contains water year round (in normal circumstances)	Cowley Brook
4	133m SW	Inland river not influenced by normal tidal action.	On ground surface	Watercourse contains water year round (in normal circumstances)	Cowley Brook
J	133m SW	Inland river not influenced by normal tidal action.	On ground surface	Watercourse contains water year round (in normal circumstances)	-
K	171m S	Inland river not influenced by normal tidal action.	On ground surface	Watercourse contains water year round (in normal circumstances)	-
L	193m NW	Inland river not influenced by normal tidal action.	On ground surface	Watercourse contains water year round (in normal circumstances)	-
L	193m NW	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

<b>Records within 250m</b>	<b>12</b>
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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 47 >](#)

*This data is sourced from the Ordnance Survey.*



### 6.3 WFD Surface water body catchments

<b>Records on site</b>	<b>1</b>
------------------------	----------

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 47 >](#)

ID	Location	Type	Water body catchment	Water body ID	Operational catchment	Management catchment
A	On site	River	Duddel Brook	GB112071065700	Big Ribble	Ribble

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

### 6.4 WFD Surface water bodies

<b>Records identified</b>	<b>1</b>
---------------------------	----------

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 47 >](#)

ID	Location	Type	Name	Water body ID	Overall rating	Chemical rating	Ecological rating	Year
3	24m SW	River	Duddel Brook	<a href="#">GB112071065700 ↗</a>	Moderate	Fail	Moderate	2019

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

### 6.5 WFD Groundwater bodies

<b>Records on site</b>	<b>1</b>
------------------------	----------

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 47 >](#)

ID	Location	Name	Water body ID	Overall rating	Chemical rating	Quantitative	Year
A	On site	Ribble Carboniferous Aquifers	<a href="#">GB41202G103000</a> ↗	Poor	Poor	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

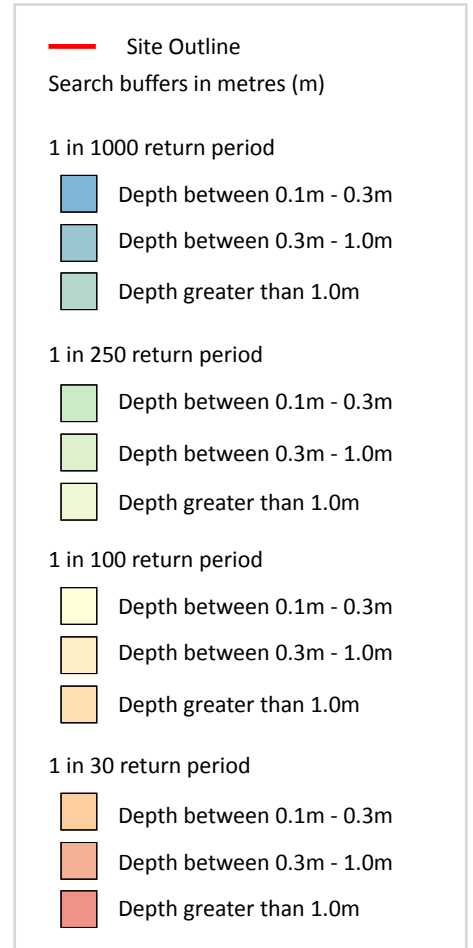
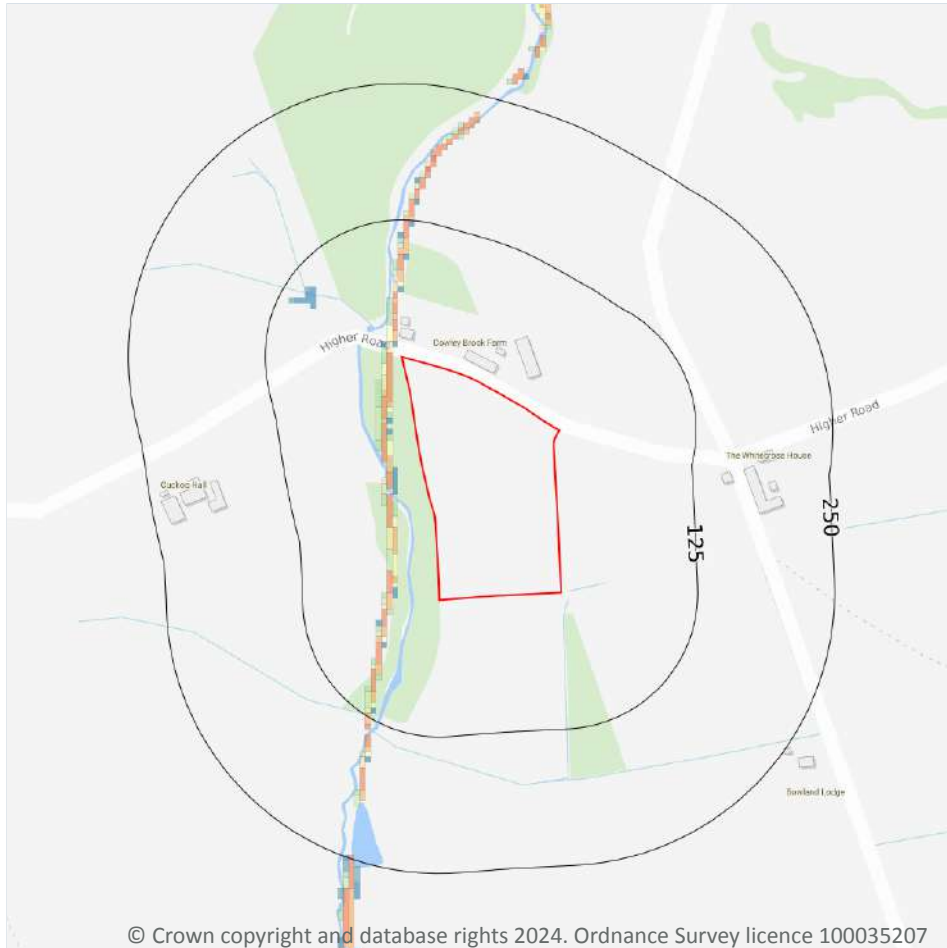
0

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

Negligible

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 55 >](#)

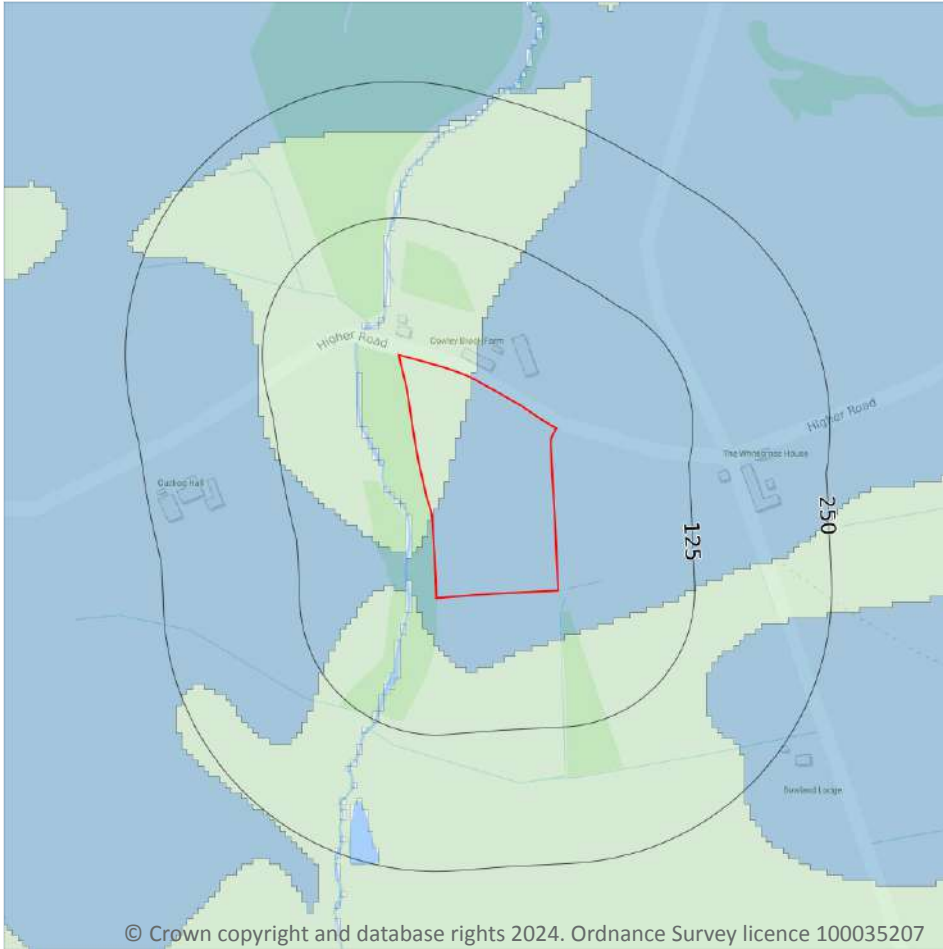
The data shown on the map and in the table above shows the highest likelihood of flood events happening at the site. Lower likelihood events may have greater flood depths and hence a greater potential impact on a site.

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	Negligible
1 in 250 year	Negligible
1 in 100 year	Negligible
1 in 30 year	Negligible

*This data is sourced from Ambiental Risk Analytics.*

## 9 Groundwater flooding



### 9.1 Groundwater flooding

**Highest risk on site**

**Low**

**Highest risk within 50m**

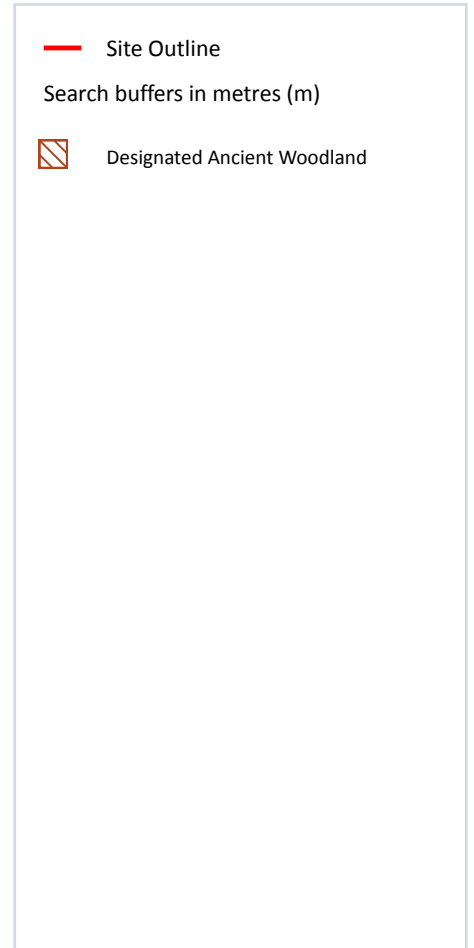
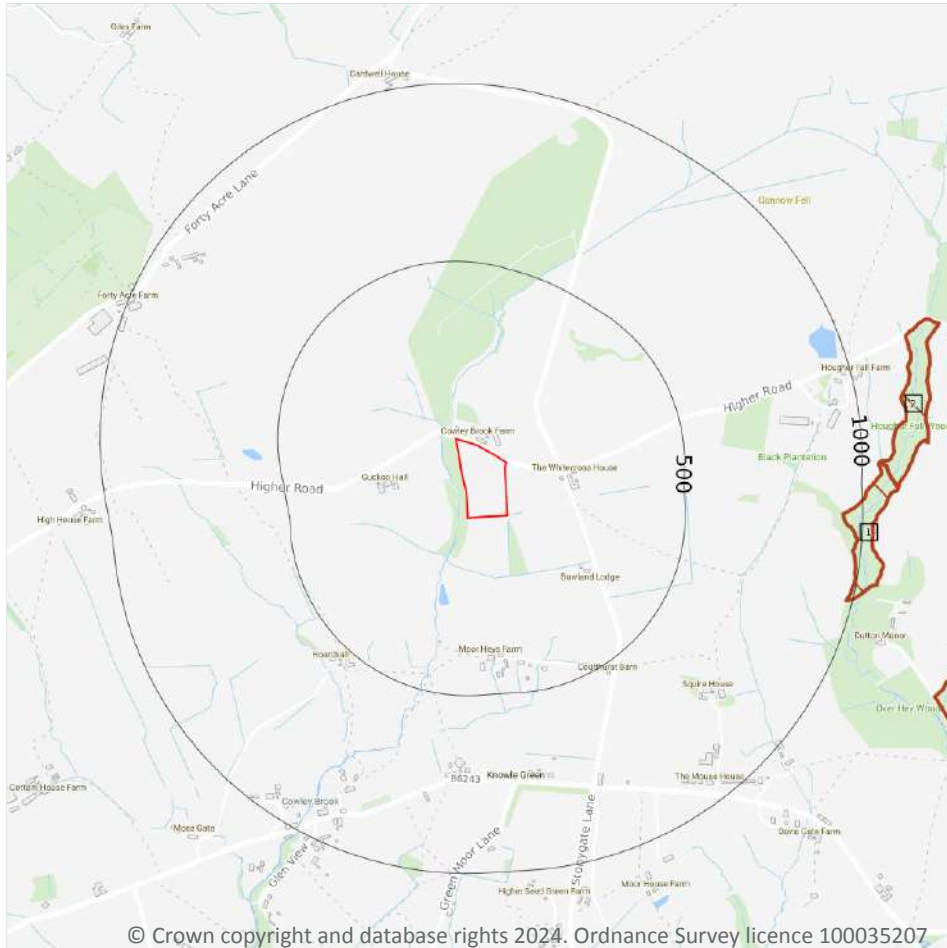
**Low**

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 57 >](#)

*This data is sourced from Ambiental Risk Analytics.*

## 10 Environmental designations



### 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

5

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 58 >](#)

ID	Location	Name	Woodland Type
1	945m E	Unknown	Ancient & Semi-Natural Woodland
2	1056m E	Unknown	Ancient & Semi-Natural Woodland
3	1307m SE	Overhey Wood	Ancient & Semi-Natural Woodland
-	1568m SE	Unknown	Ancient & Semi-Natural Woodland
-	1796m SE	Duddel Wood	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

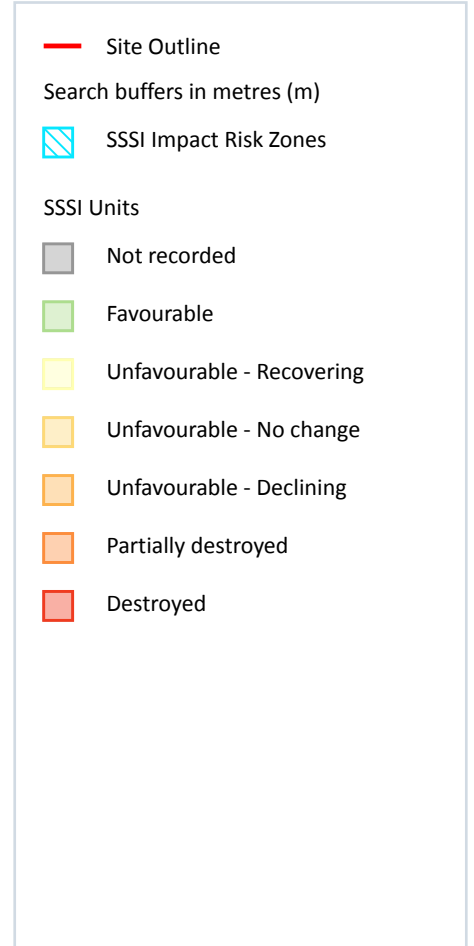
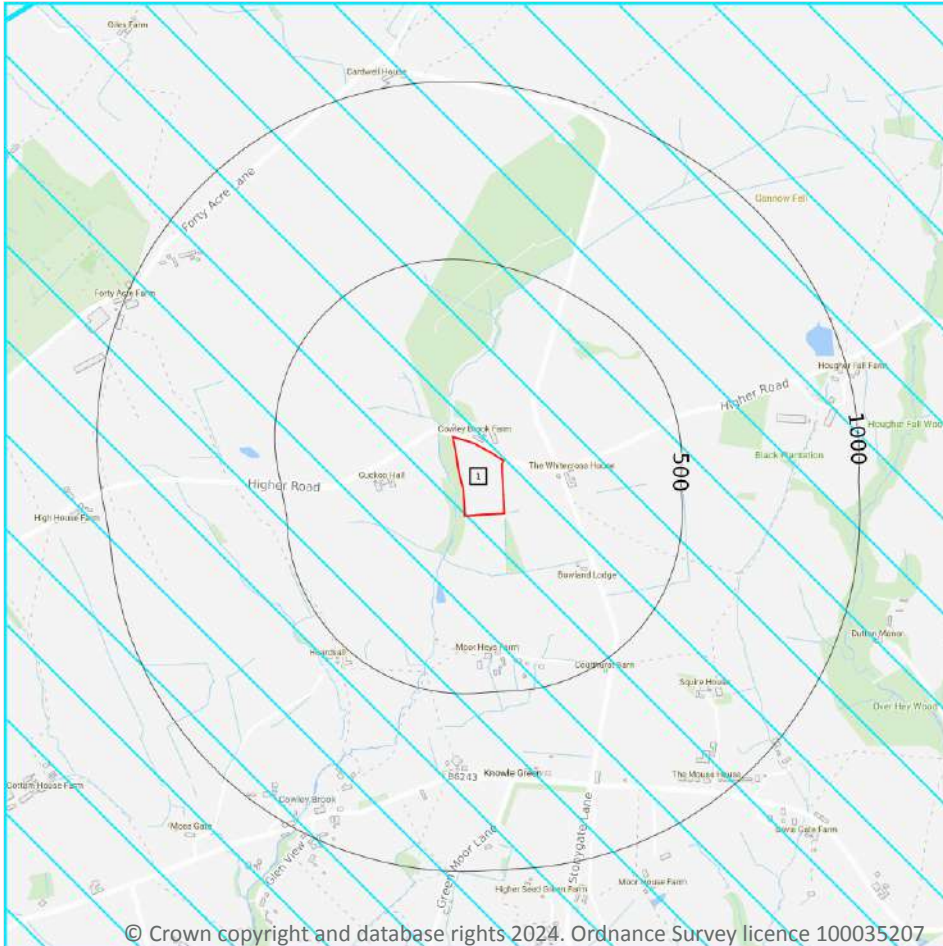
0

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.

*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

1

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.

Features are displayed on the SSSI Impact Zones and Units map on [page 63](#) >

ID	Location	Type of developments requiring consultation
1	On site	<p>Infrastructure - Airports, helipads and other aviation proposals.</p> <p>Air pollution - Livestock &amp; poultry units with floorspace &gt; 500m<sup>2</sup>, slurry lagoons &amp; digestate stores &gt; 4000m<sup>2</sup>.</p> <p>Combustion - General combustion processes &gt;50MW energy input. Incl: energy from waste incineration, other incineration, landfill gas generation plant, pyrolysis/gasification, anaerobic digestion, sewage treatment works, other incineration/ combustion.</p> <p>Discharges - Any discharge of water or liquid waste of more than 20m<sup>3</sup>/day to ground (ie to seep away) or to surface water, such as a beck or stream.</p>

*This data is sourced from Natural England.*

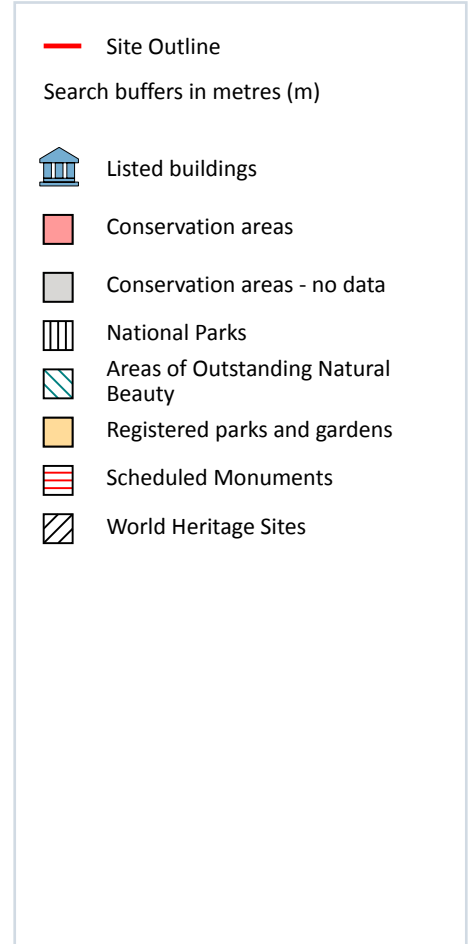
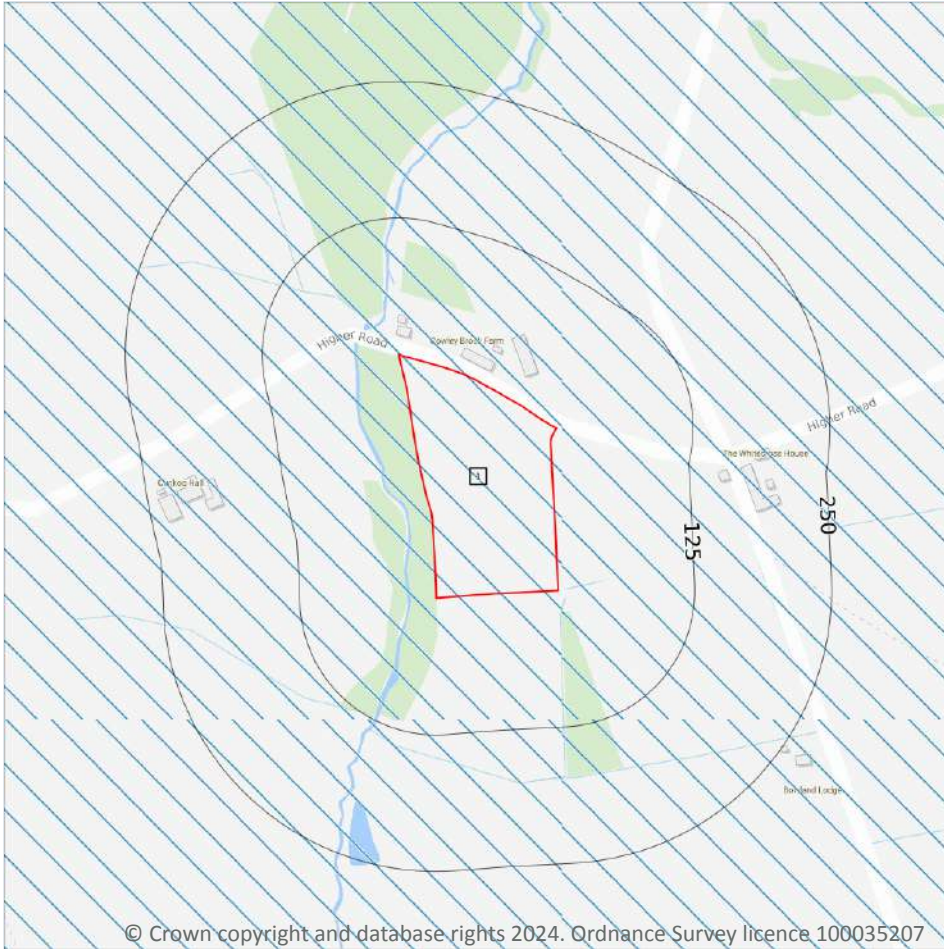
## 10.18 SSSI Units

<b>Records within 2000m</b>	<b>0</b>
-----------------------------	----------

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



### 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 65 >](#)

ID	Location	NAME	Data Source
1	On site	Forest Of Bowland	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

0

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.

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



## 11.5 Conservation Areas

Records within 250m

0

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.

*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

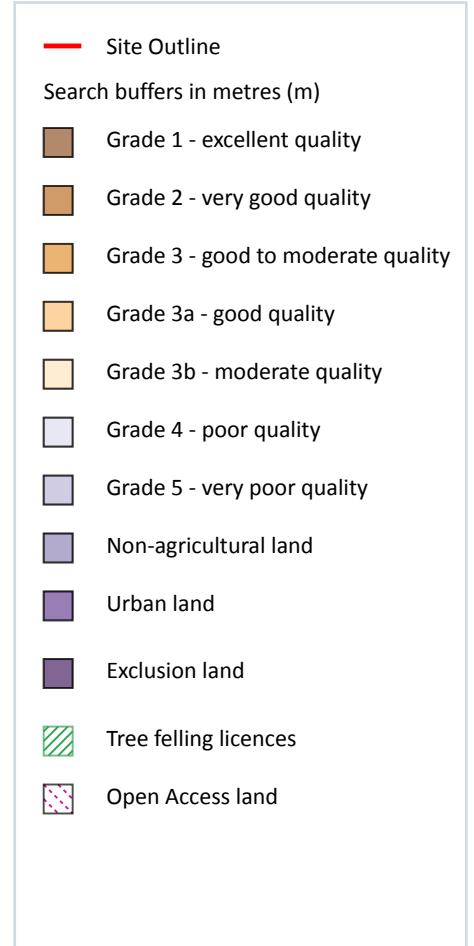
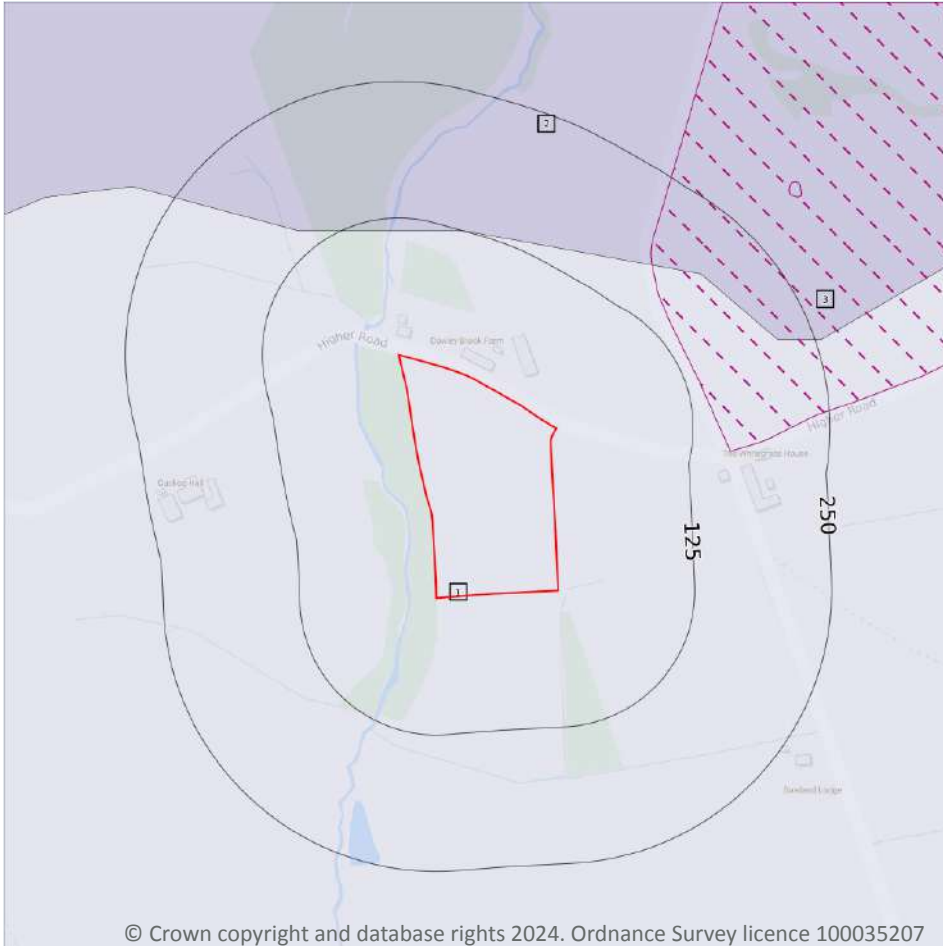
0

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



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### 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 68](#) >

ID	Location	Classification	Description
1	On site	Grade 4	Poor quality agricultural land. Land with severe limitations which significantly restrict the range of crops and/or level of yields. It is mainly suited to grass with occasional arable crops (e.g. cereals and forage crops) the yields of which are variable. In moist climates, yields of grass may be moderate to high but there may be difficulties in utilisation. The grade also includes very droughty arable land.

ID	Location	Classification	Description
2	114m N	Grade 5	Very poor quality agricultural land. Land with very severe limitations which restrict use to permanent pasture or rough grazing, except for occasional pioneer forage crops.

*This data is sourced from Natural England.*

## 12.2 Open Access Land

### Records within 250m

1

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.

Features are displayed on the Agricultural designations map on [page 68 >](#)

ID	Location	Name	Classification	Other relevant legislation
3	136m NE	-	Section 4 Conclusive Open Country	-

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

## 12.3 Tree Felling Licences

### Records within 250m

0

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.

*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
54m N	AG00388413	Entry Level plus Higher Level Stewardship	01/03/2012	28/02/2023
136m NE	AG00388413	Entry Level plus Higher Level Stewardship	01/03/2012	28/02/2023



*This data is sourced from Natural England.*

## 12.5 Countryside Stewardship Schemes

Records within 250m

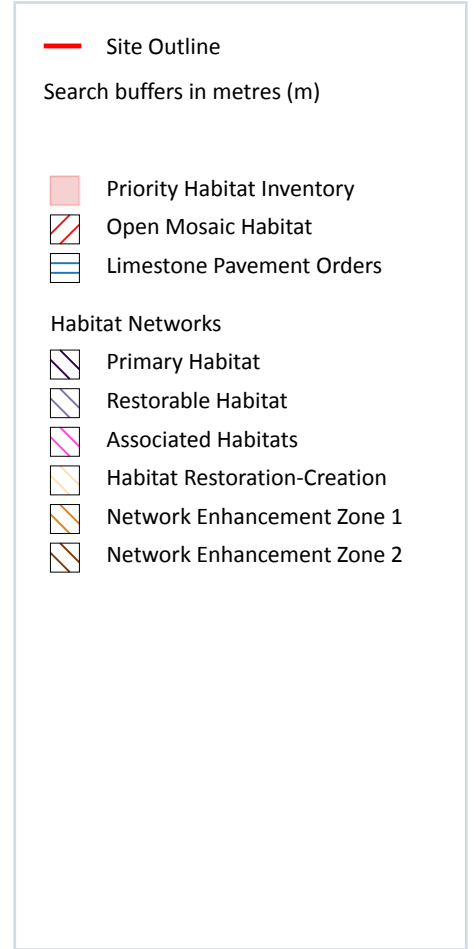
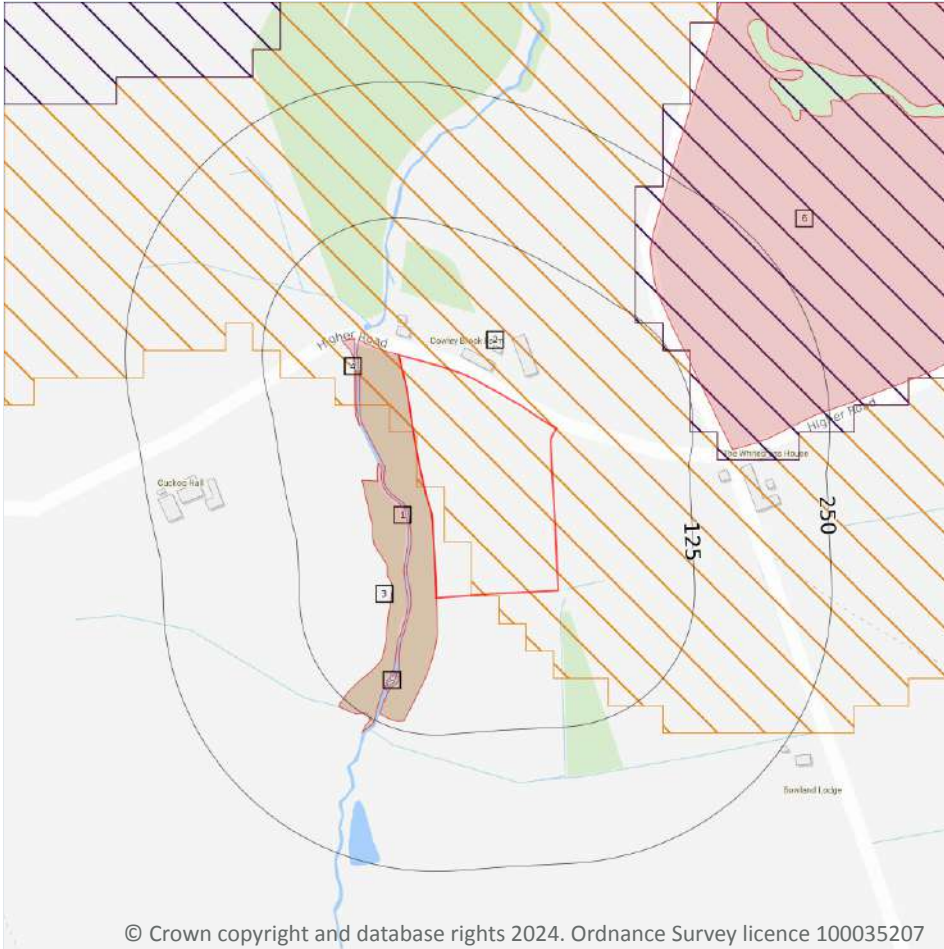
0

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.

*This data is sourced from Natural England.*



## 13 Habitat designations



### 13.1 Priority Habitat Inventory

Records within 250m

5

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 71 >](#)

ID	Location	Main Habitat	Other habitats
1	On site	Deciduous woodland	Main habitat: DWOOD (INV > 50%)
3	23m SW	Deciduous woodland	Main habitat: DWOOD (INV > 50%)

ID	Location	Main Habitat	Other habitats
4	40m NW	Deciduous woodland	Main habitat: DWOOD (INV > 50%)
5	77m SW	Deciduous woodland	Main habitat: DWOOD (INV > 50%)
7	136m NE	Upland heathland	Main habitat: UHEAT (INV > 50%, FEP + HLS); Additional: BLBOG (FEP 50%); FHEAT (FEP 50%); GMOOR (FEP 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 71 >](#)

ID	Location	Type	Habitat
2	On site	Network Enhancement Zone 1	Not specified
6	120m NE	Primary Habitat	Upland heathland

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

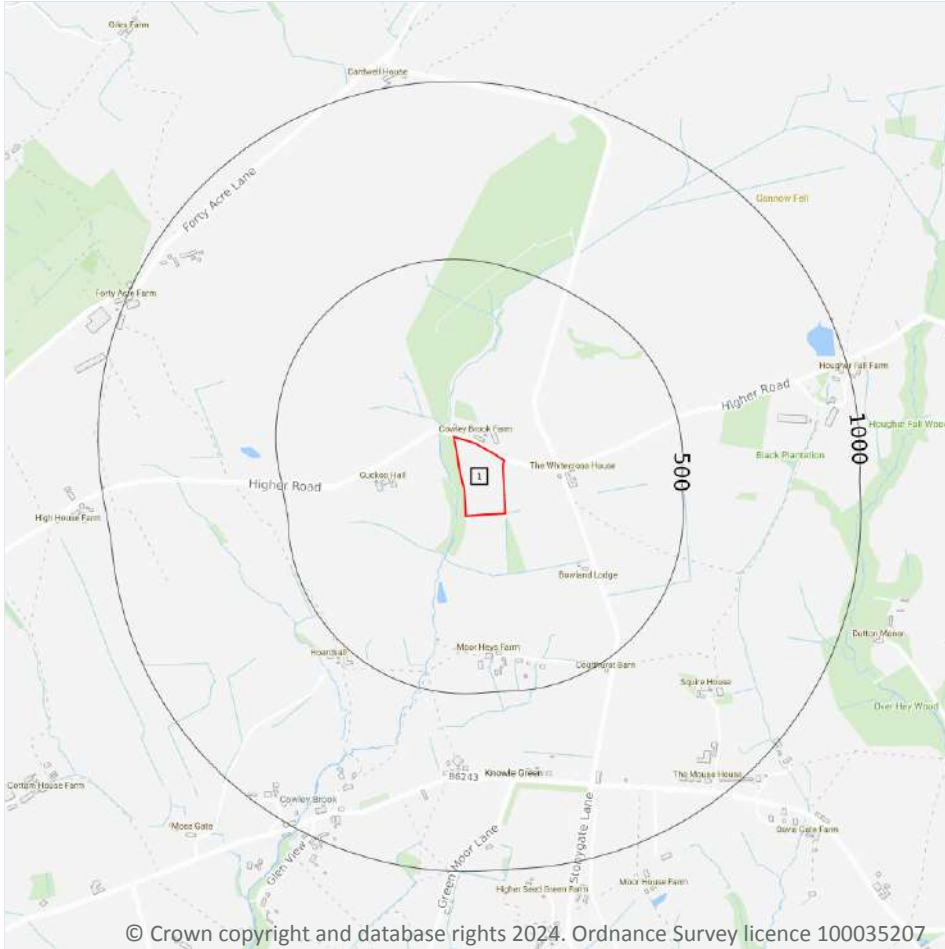


them additional protection via the creation of Limestone Pavement Orders, which made it a criminal offence to remove any part of the outcrop. The associated Limestone Pavement Priority Habitat is part of the UK Biodiversity Action Plan priority habitat in England.

*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 74](#) >

ID	Location	Artificial	Superficial	Bedrock	Mass movement	Sheet No.
1	On site	No coverage	No coverage	No coverage	No coverage	NoCov

This data is sourced from the British Geological Survey.

## Geology 1:10,000 scale - Artificial and made ground

### 14.2 Artificial and made ground (10k)

Records within 500m

0

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.

*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

### 14.5 Bedrock geology (10k)

Records within 500m

0

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.

*This data is sourced from the British Geological Survey.*

### 14.6 Bedrock faults and other linear features (10k)

Records within 500m

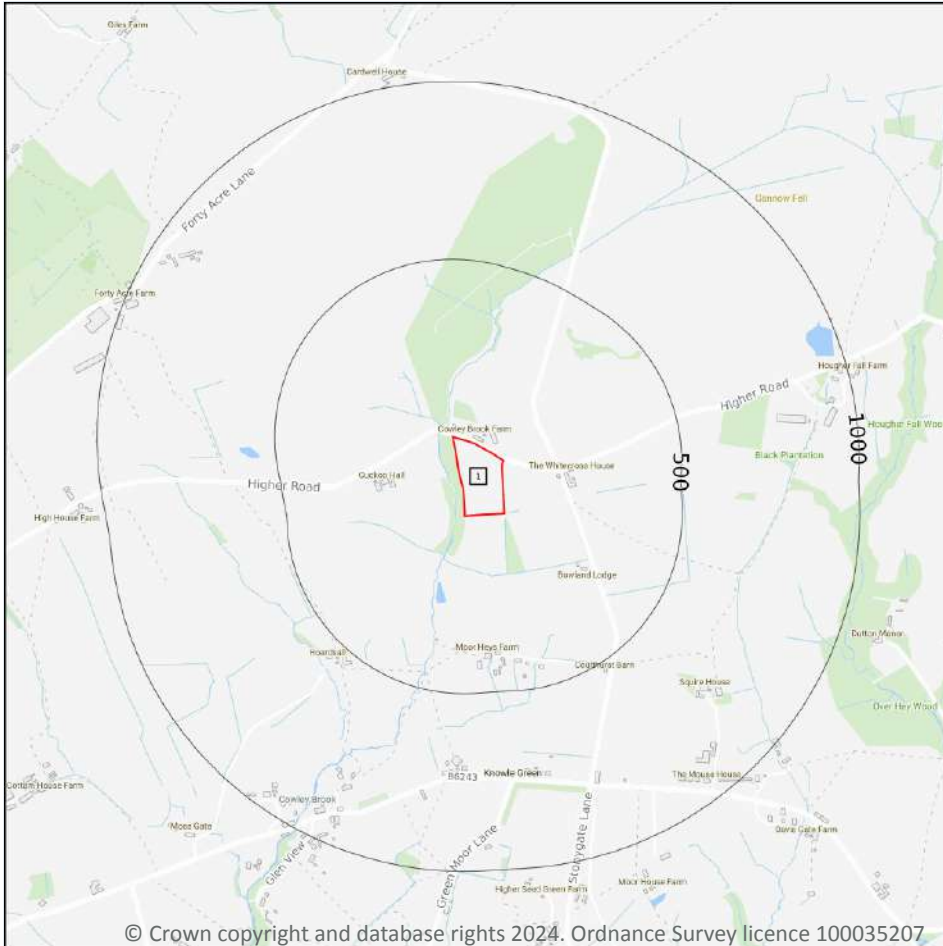
0

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 78 >](#)

ID	Location	Artificial	Superficial	Bedrock	Mass movement	Sheet No.
1	On site	Full	Full	Full	Full	EW067_garstang_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

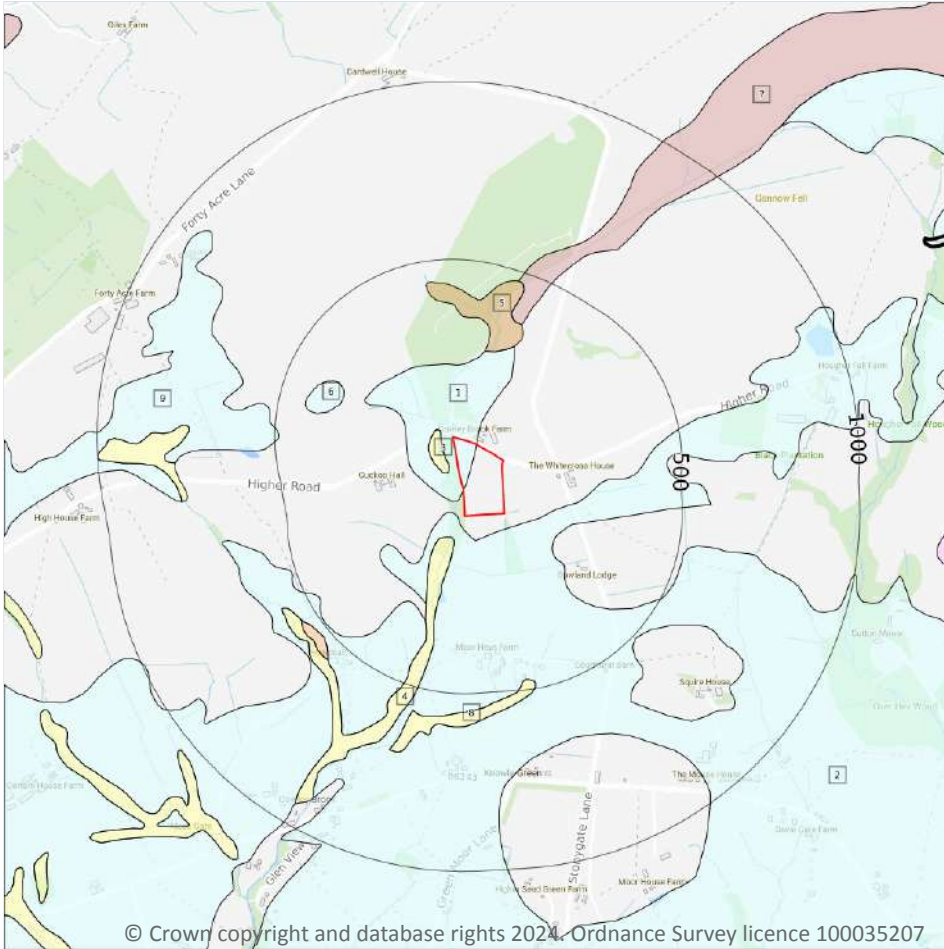
0

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



- Site Outline
- Search buffers in metres (m)
- Landslip (50k)
- Superficial geology (50k)  
Please see table for more details.

### 15.4 Superficial geology (50k)

Records within 500m

9

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.

Features are displayed on the Geology 1:50,000 scale - Superficial map on [page 80 >](#)

ID	Location	LEX Code	Description	Rock description
1	On site	TILLD-DMTN	TILL, DEVANSIAN	DIAMICTON
2	19m SW	TILLD-DMTN	TILL, DEVANSIAN	DIAMICTON
3	25m W	ALV-XCZSV	ALLUVIUM	CLAY, SILT, SAND AND GRAVEL

ID	Location	LEX Code	Description	Rock description
4	71m SW	ALV-XCZSV	ALLUVIUM	CLAY, SILT, SAND AND GRAVEL
5	258m N	PEAT-P	PEAT	PEAT
6	326m NW	TILLD-DMTN	TILL, DEVENSIAN	DIAMICTON
7	359m N	HEAD-XCZSV	HEAD	CLAY, SILT, SAND AND GRAVEL
8	470m S	ALV-XCZSV	ALLUVIUM	CLAY, SILT, SAND AND GRAVEL
9	488m W	TILLD-DMTN	TILL, DEVENSIAN	DIAMICTON

*This data is sourced from the British Geological Survey.*

## 15.5 Superficial permeability (50k)

**Records within 50m**

**3**

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).

Location	Flow type	Maximum permeability	Minimum permeability
<b>On site</b>	<b>Mixed</b>	<b>High</b>	<b>Low</b>
19m SW	Mixed	High	Low
25m W	Intergranular	High	Very Low

*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

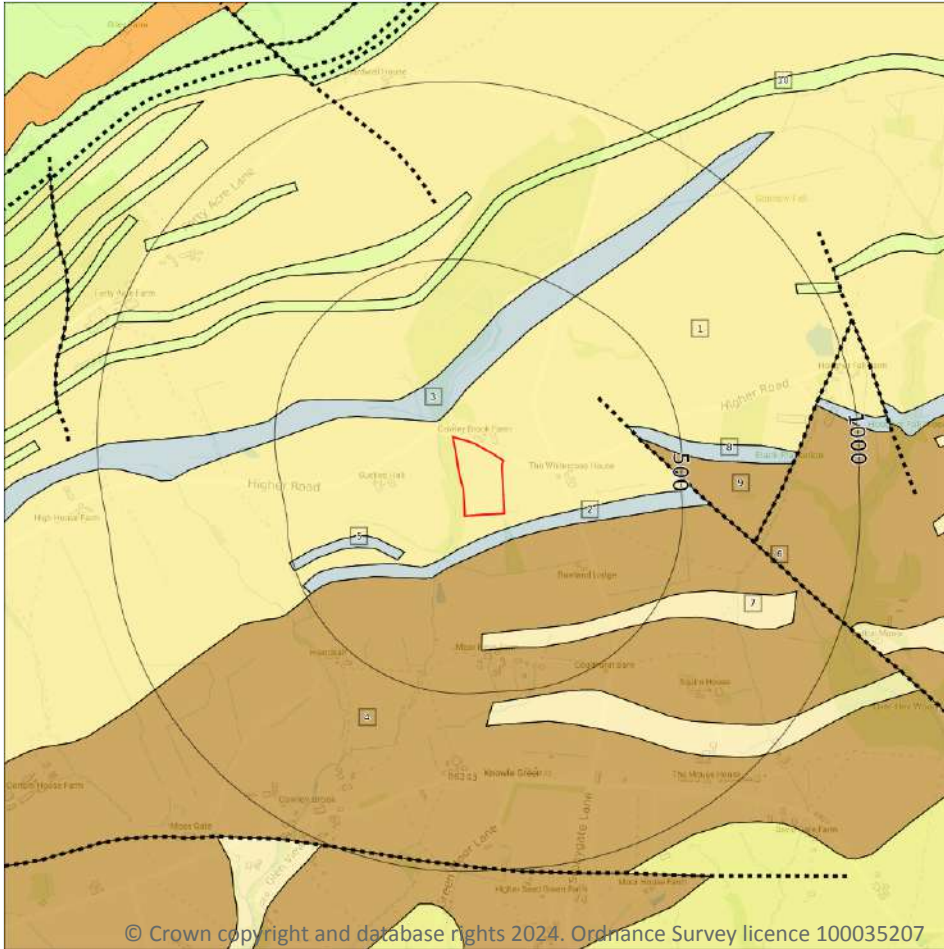
0

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

9

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 83](#) >

ID	Location	LEX Code	Description	Rock age
1	On site	PG-SDST	PENDLE GRIT MEMBER - SANDSTONE	NAMURIAN
2	43m SE	PG-MDST	PENDLE GRIT MEMBER - MUDSTONE	NAMURIAN
3	60m NW	PG-MDST	PENDLE GRIT MEMBER - MUDSTONE	NAMURIAN
4	75m SE	WWG-SDST	WARLEY WISE GRIT - SANDSTONE	NAMURIAN

ID	Location	LEX Code	Description	Rock age
5	198m SW	PG-MDST	PENDLE GRIT MEMBER - MUDSTONE	NAMURIAN
7	330m S	WWG-STMD	WARLEY WISE GRIT - SANDSTONE AND MUDSTONE	NAMURIAN
8	361m E	PG-MDST	PENDLE GRIT MEMBER - MUDSTONE	NAMURIAN
9	386m E	WWG-SDST	WARLEY WISE GRIT - SANDSTONE	NAMURIAN
10	388m N	PG-SLSST	PENDLE GRIT MEMBER - SANDSTONE, SILTY	NAMURIAN

This data is sourced from the British Geological Survey.

## 15.9 Bedrock permeability (50k)

Records within 50m

2

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
<b>On site</b>	<b>Fracture</b>	<b>High</b>	<b>Moderate</b>
43m SE	Fracture	Low	Low

This data is sourced from the British Geological Survey.

## 15.10 Bedrock faults and other linear features (50k)

Records within 500m

1

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.

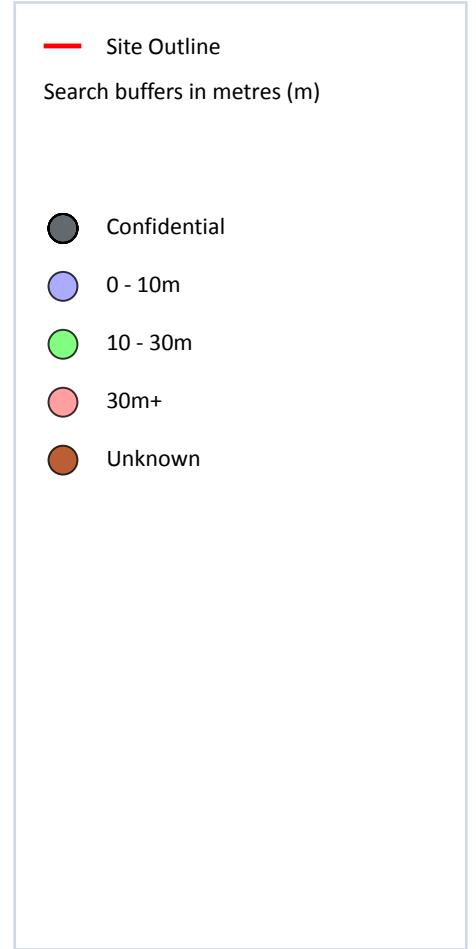
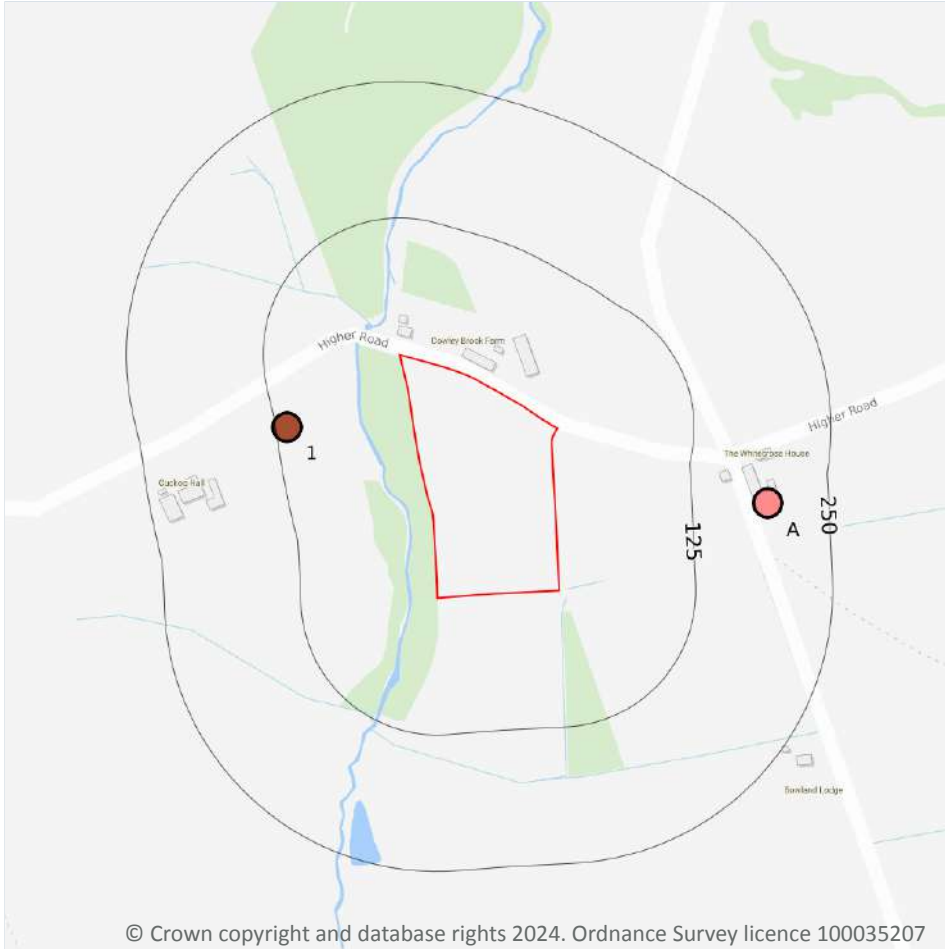
Features are displayed on the Geology 1:50,000 scale - Bedrock map on [page 83](#) >

ID	Location	Category	Description
6	320m NE	FAULT	Fault, inferred

This data is sourced from the British Geological Survey.



## 16 Boreholes



### 16.1 BGS Boreholes

Records within 250m

3

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.

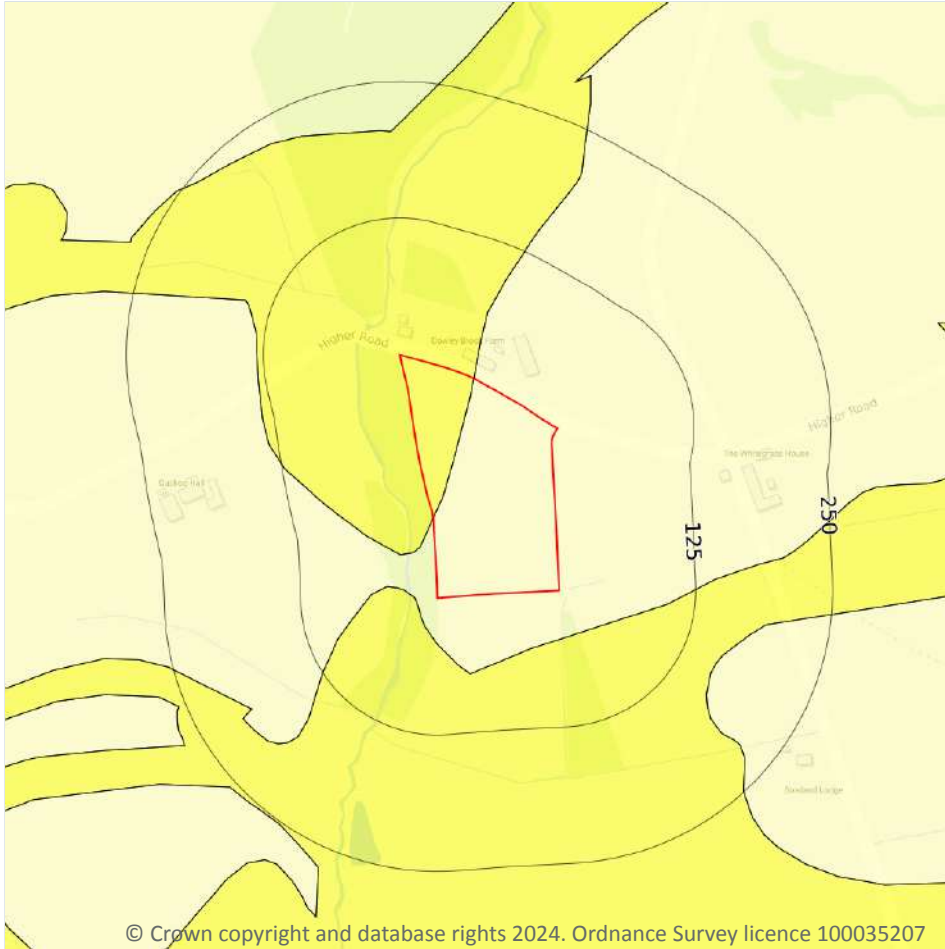
Features are displayed on the Boreholes map on [page 85](#) >

ID	Location	Grid reference	Name	Length	Confidential	Web link
1	115m W	363980 439080	CUCKOO HALL FARM	-1.0	N	<a href="#">17776</a> ↗
A	194m E	364420 439010	NEW DROP INN	60.96	N	<a href="#">17770</a> ↗
A	194m E	364420 439010	NEW DROP INN RIBCHESTER	60.96	N	<a href="#">17764</a> ↗

*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

### 17.1 Shrink swell clays

Records within 50m

3

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).

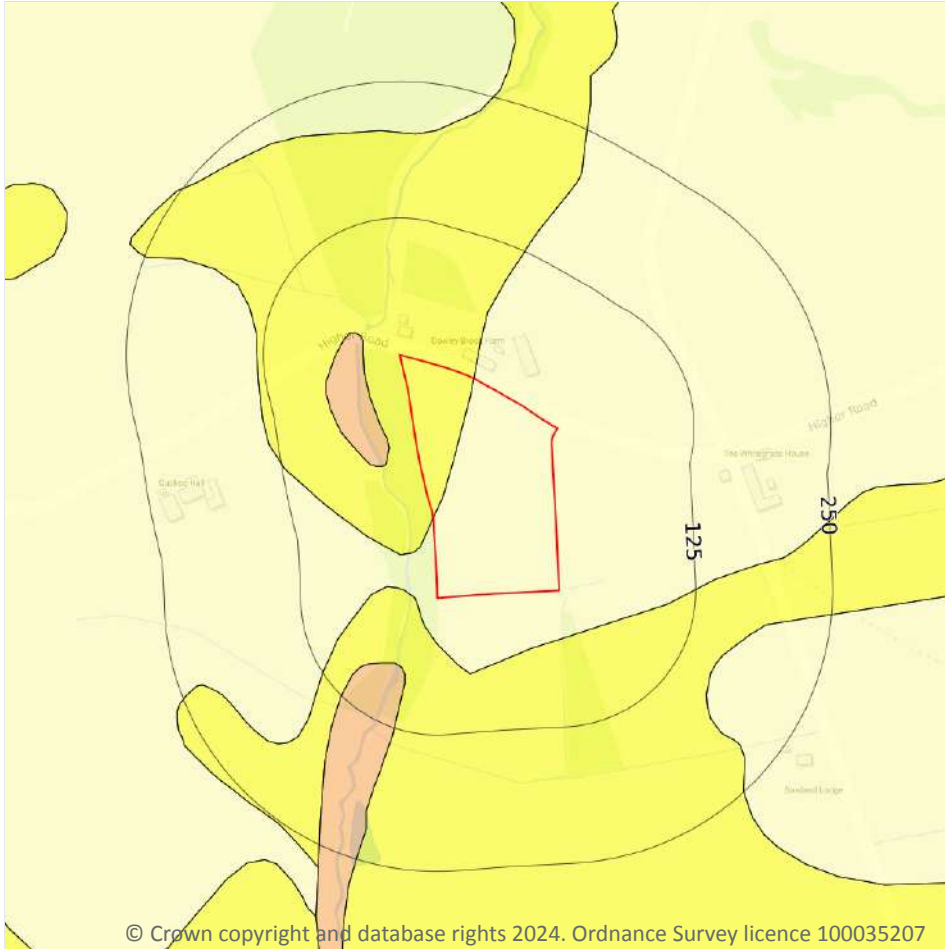
Features are displayed on the Natural ground subsidence - Shrink swell clays map on [page 87 >](#)

Location	Hazard rating	Details
On site	Negligible	Ground conditions predominantly non-plastic.
On site	Very low	Ground conditions predominantly low plasticity.
19m SW	Very low	Ground conditions predominantly low 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

4

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 89](#) >

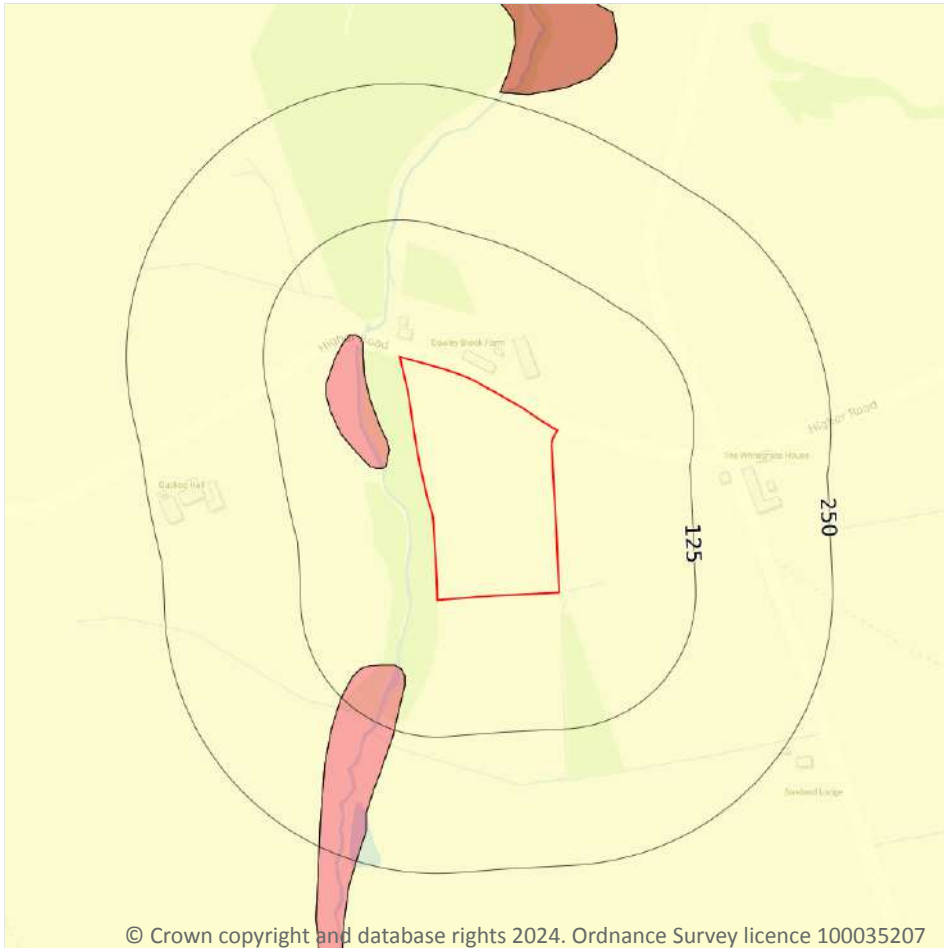
Location	Hazard rating	Details
On site	Negligible	Running sand conditions are not thought to occur whatever the position of the water table. No identified constraints on lands use due to running conditions.

Location	Hazard rating	Details
On site	Very low	<b>Running sand conditions are unlikely. No identified constraints on land use due to running conditions unless water table rises rapidly.</b>
19m SW	Very low	Running sand conditions are unlikely. No identified constraints on land use due to running conditions unless water table rises rapidly.
25m W	Low	Running sand conditions may be present. Constraints may apply to land uses involving excavation or the addition or removal of water.

*This data is sourced from the British Geological Survey.*



## Natural ground subsidence - Compressible deposits



### 17.3 Compressible deposits

Records within 50m

2

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.

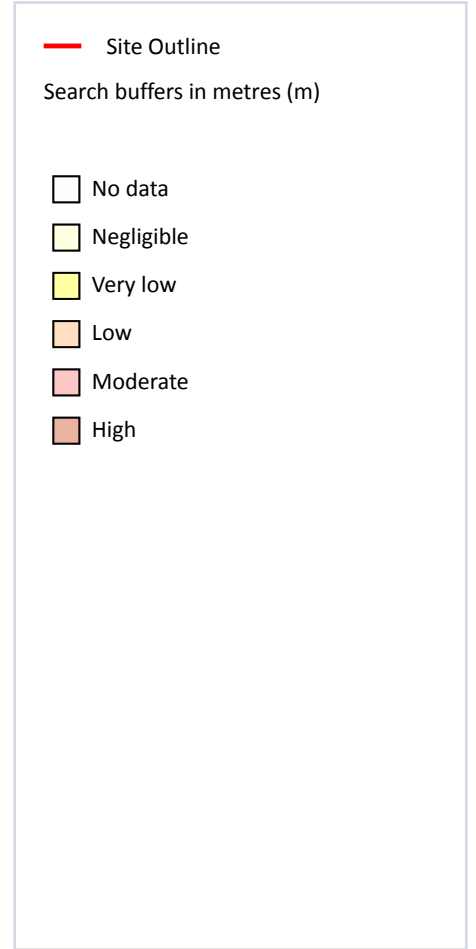
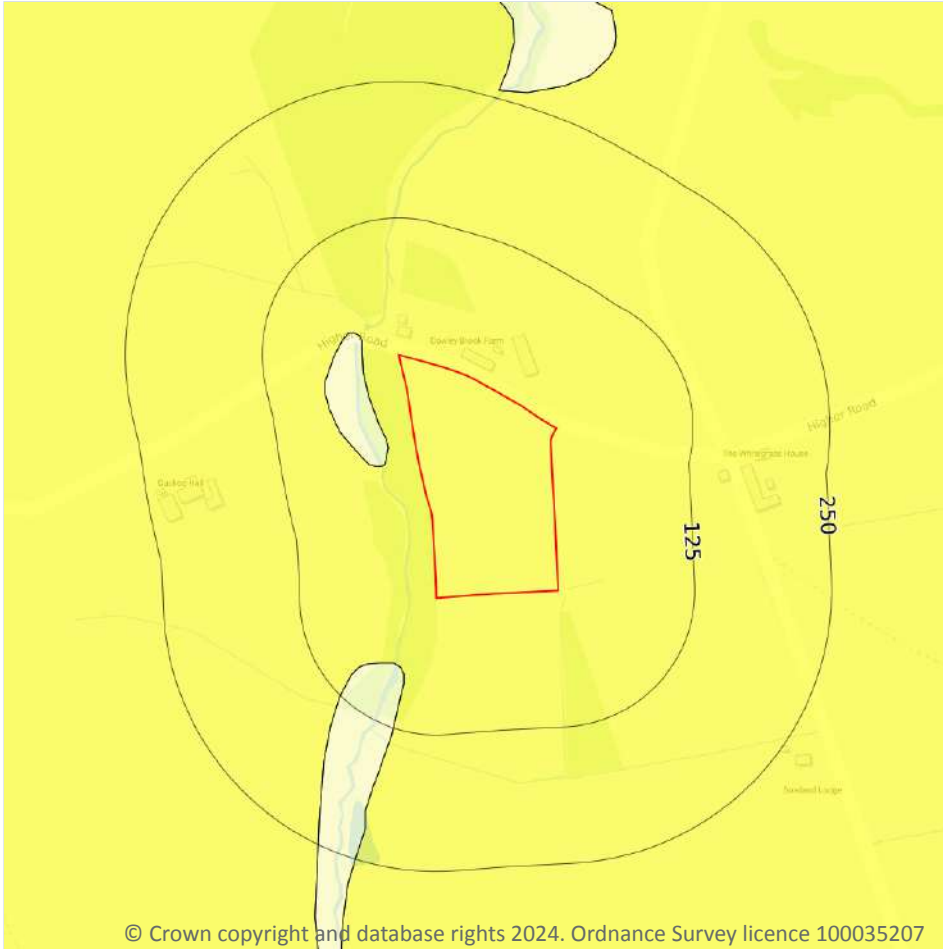
Features are displayed on the Natural ground subsidence - Compressible deposits map on [page 91](#) >

Location	Hazard rating	Details
On site	Negligible	Compressible strata are not thought to occur.
25m W	Moderate	Compressibility and uneven settlement hazards are probably present. Land use should consider specifically the compressibility and variability of the site.

*This data is sourced from the British Geological Survey.*



## Natural ground subsidence - Collapsible deposits



### 17.4 Collapsible deposits

Records within 50m

2

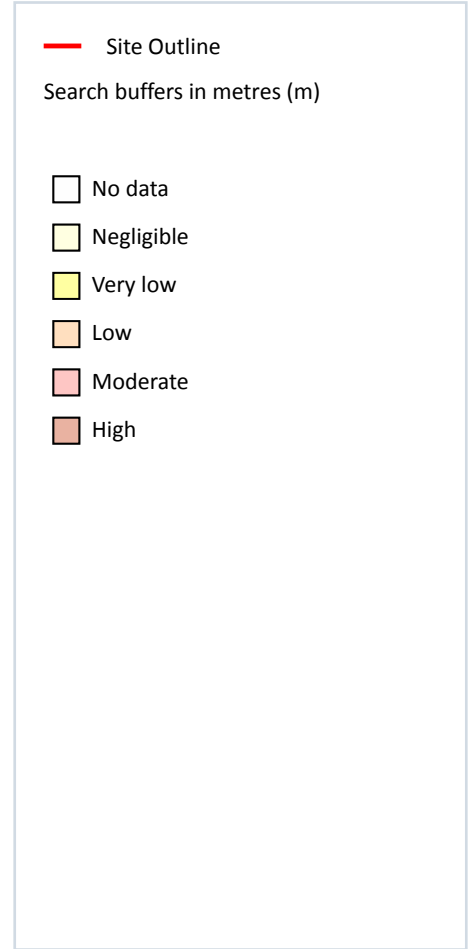
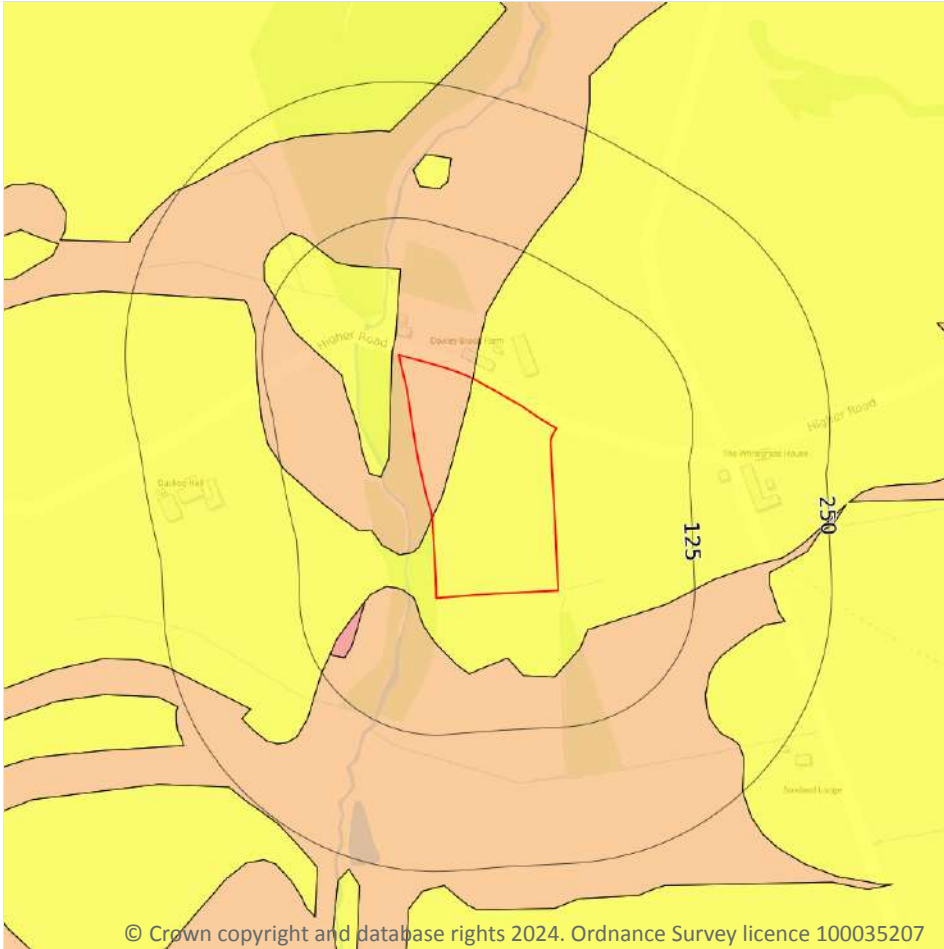
The potential hazard presented by natural deposits that could collapse when a load (such as a building) is placed on them or they become saturated with water.

Features are displayed on the Natural ground subsidence - Collapsible deposits map on [page 93 >](#)

Location	Hazard rating	Details
On site	Very low	Deposits with potential to collapse when loaded and saturated are unlikely to be present.
25m W	Negligible	Deposits with potential to collapse when loaded and saturated are believed not to be present.

*This data is sourced from the British Geological Survey.*

## Natural ground subsidence - Landslides



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### 17.5 Landslides

Records within 50m

4

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 94 >](#)

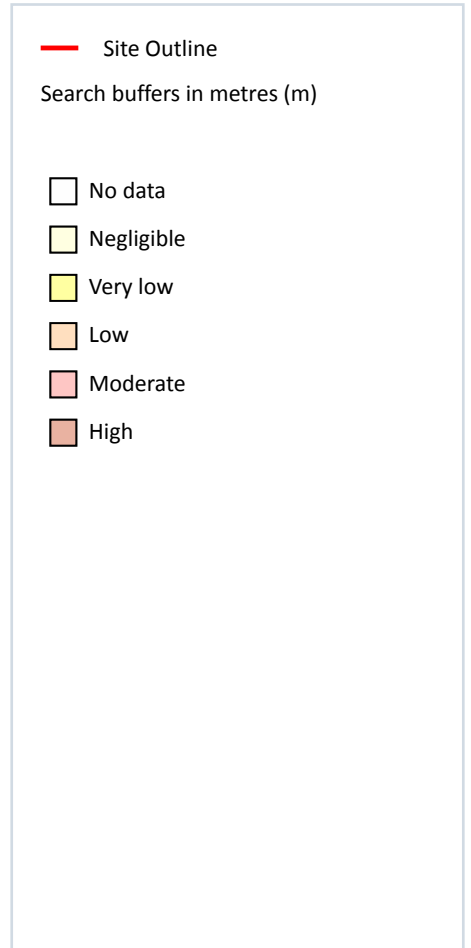
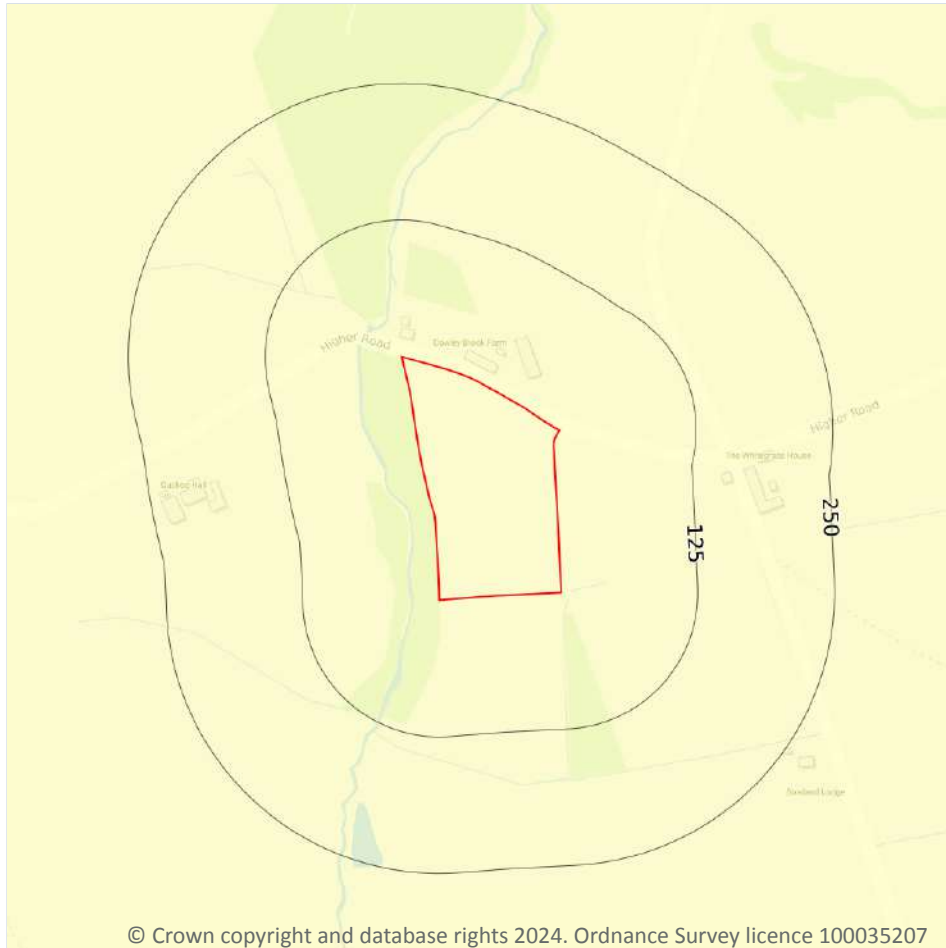
Location	Hazard rating	Details
On site	Very low	Slope instability problems are not likely to occur but consideration to potential problems of adjacent areas impacting on the site should always be considered.

Location	Hazard rating	Details
On site	Low	<b>Slope instability problems may be present or anticipated. Site investigation should consider specifically the slope stability of the site.</b>
6m NW	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.
19m SW	Low	Slope instability problems may be present or anticipated. Site investigation should consider specifically the slope stability of the site.

*This data is sourced from the British Geological Survey.*



## Natural ground subsidence - Ground dissolution of soluble rocks



### 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.

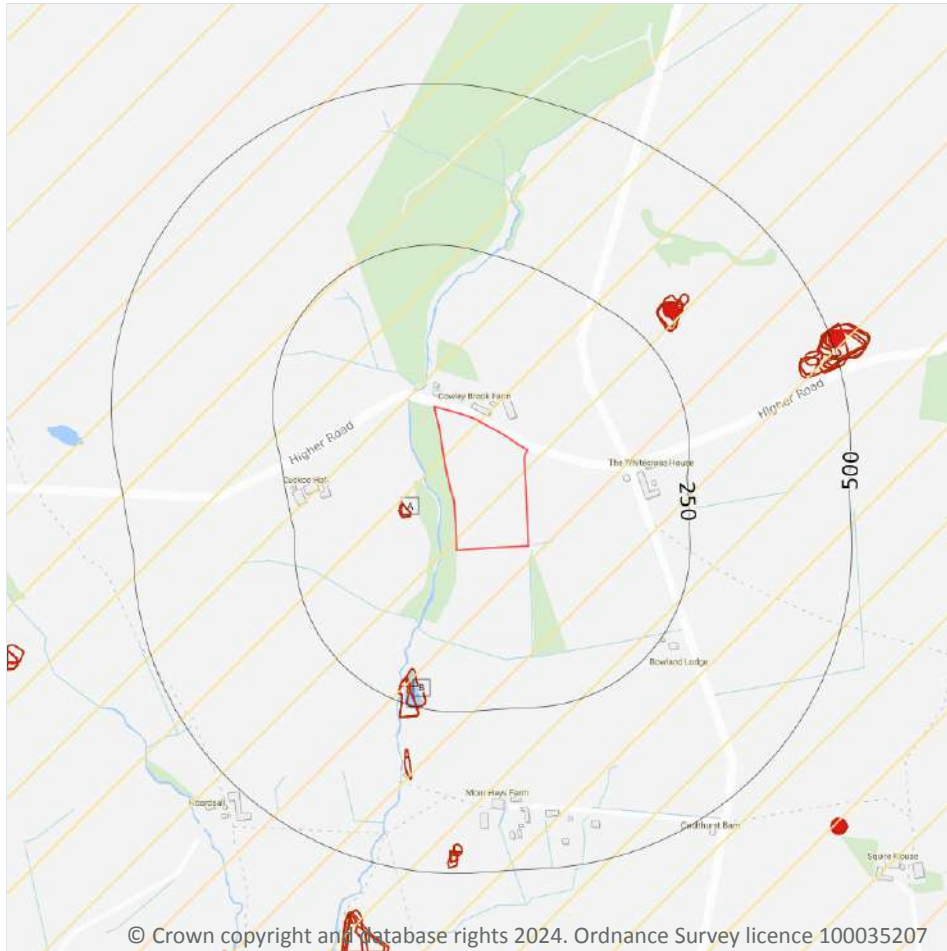
Features are displayed on the Natural ground subsidence - Ground dissolution of soluble rocks map on [page 96](#)

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



### 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 98](#) >

ID	Location	Details	Description
C	310m NE	Name: Cowley Brook Farm Address: Knowle Green, LONGRIDGE, Lancashire Commodity: Sandstone 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**

**6**

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 98](#) >

ID	Location	Land Use	Year of mapping	Mapping scale
A	68m W	Unspecified Pit	1892	1:10560
A	69m W	Unspecified Pit	1932	1:10560
B	196m S	Unspecified Pit	1951	1:10560
B	212m S	Reservoir	1910	1:10560
B	212m S	Pond	1892	1:10560
B	212m S	Unspecified Pit	1932	1:10560

*This is data is sourced from Ordnance Survey/Groundsure.*

## 18.3 Underground workings

**Records within 1000m**

**0**

Historical land uses identified from Ordnance Survey mapping that indicate the presence of underground workings e.g. mine shafts.

*This is 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

3

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).

Features are displayed on the Mining and ground workings map on [page 98 >](#)

ID	Location	Name	Commodity	Class	Likelihood
1	On site	Not available	Vein Mineral	A	<b>Underground mine workings are uncommon, although the geology is similar to that worked elsewhere. Potential for difficult ground conditions are unlikely and are at a level where they need not be considered.</b>
-	771m E	Not available	Vein Mineral	A	Underground mine workings are uncommon, although the geology is similar to that worked elsewhere. Potential for difficult ground conditions are unlikely and are at a level where they need not be considered.
-	854m N	Not available	Vein Mineral	A	Underground mine workings are uncommon, although the geology is similar to that worked elsewhere. Potential for difficult ground conditions are unlikely and are at a level where they need not be considered.

*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.

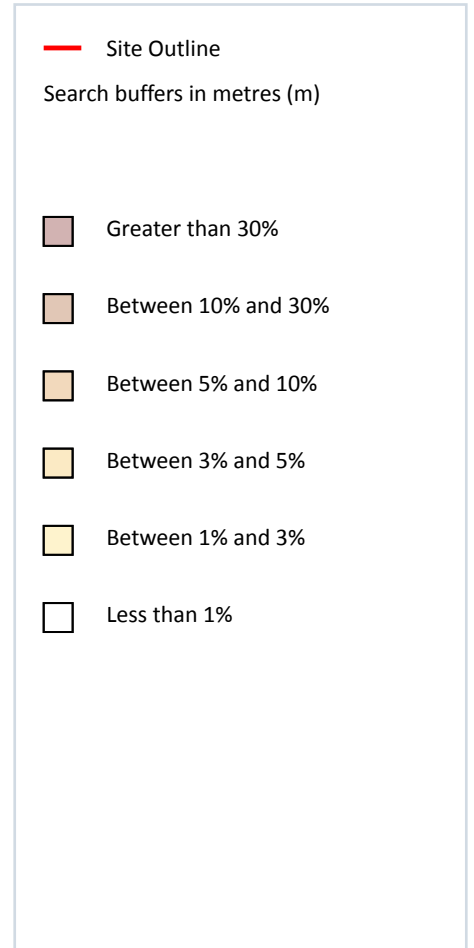
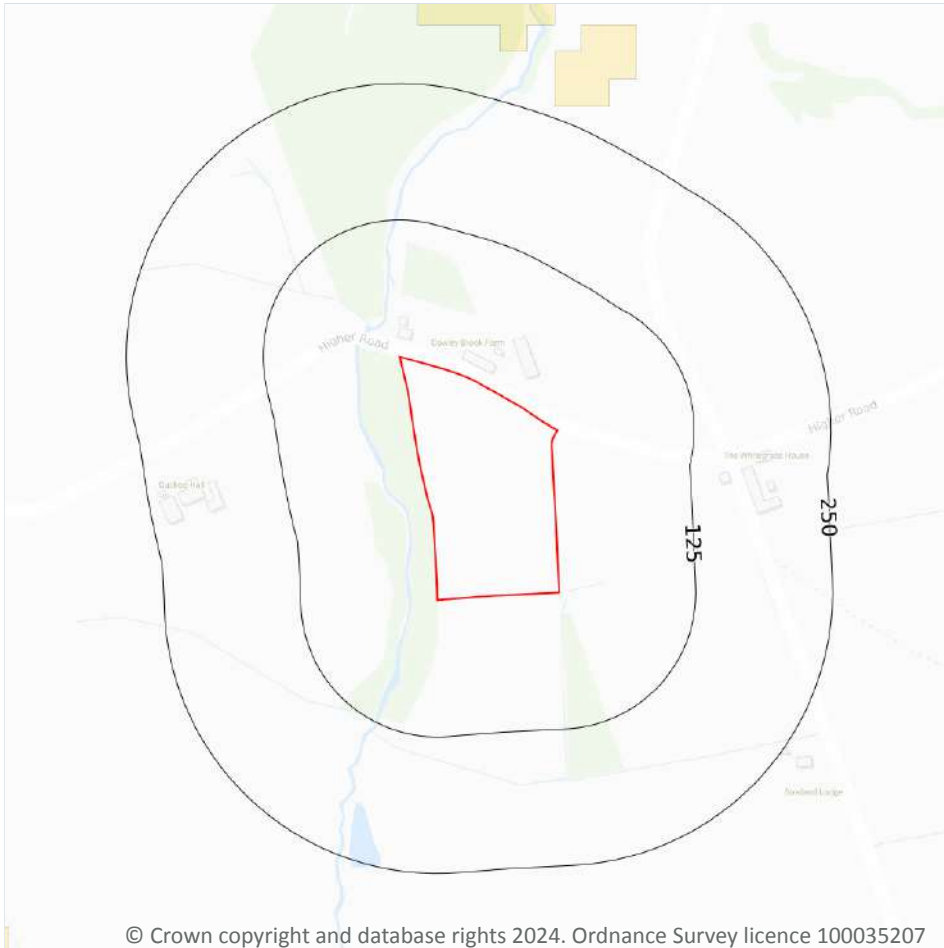
Since the database was set up in 2002 data covering most of the evaporite karst areas of the UK have now been added, along with data covering about 60% of the Chalk, and 35% of the Carboniferous Limestone outcrops. Many of the classic upland karst areas have yet to be included. Recorded so far are: Over 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 106 >](#)

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

7

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 km<sup>2</sup>. 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 km<sup>2</sup>; 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 - 2.2 mg/kg	90 - 120 mg/kg	15 - 30 mg/kg
On site	15 mg/kg	No data	100 mg/kg	60 mg/kg	3.0 - 6.0 mg/kg	90 - 120 mg/kg	15 - 30 mg/kg
On site	15 mg/kg	No data	100 mg/kg	60 mg/kg	3.0 - 6.0 mg/kg	60 - 90 mg/kg	15 mg/kg
On site	15 mg/kg	No data	100 mg/kg	60 mg/kg	1.8 - 2.2 mg/kg	60 - 90 mg/kg	15 mg/kg
19m SW	15 mg/kg	No data	100 mg/kg	60 mg/kg	3.0 - 6.0 mg/kg	90 - 120 mg/kg	15 - 30 mg/kg
25m W	15 mg/kg	No data	100 mg/kg	60 mg/kg	1.8 - 2.2 mg/kg	60 - 90 mg/kg	15 - 30 mg/kg
43m SE	15 mg/kg	No data	100 mg/kg	60 mg/kg	3.0 - 6.0 mg/kg	60 - 90 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 km<sup>2</sup>).

*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 km<sup>2</sup>.

*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/](http://www.groundsure.com/terms-and-conditions-april-2023/) ↗.



## APPENDIX C

BGS Borehole Record

SD63NW 6019 3788

9

STRATA SURVEYS LTD., Telephone: 0606 834637 Fax: 0606 836657				Borehole Number : 2 Sheet 1 of 2.								
Job Number : 7539 Location : Longridge Preston Client : Edenhall Services Limited				Dia. & Drilling Methods light cable percussion 150mm diameter								
Description of Strata	Red. Level	Legend	Thick-ness	Depth	Sample Depths	Sample Types	N Value	Cu	φ	Water Level	Piezo-meter	Daily Prog.
MADE GROUND (Limestone fill)			(0.40)	0.00								
MADE GROUND (Soft brown clay fill)			(0.90)	0.40	0.90 - 1.35	U-1						
Brown SAND and GRAVEL			(0.20)	1.30	1.50	D-1						
Soft to firm brown silty CLAY with some grey veins			(0.50)	1.50	2.00 - 2.45	U-2						
Brown SAND and GRAVEL			(0.30)	2.00	2.00 - 2.45	U-2						
Stiff brown slightly sandy CLAY with a little fine gravel			(10.40)	2.30	2.50	D-2						
				3.00 - 3.45	3.50	U-3						
				4.00 - 4.45	4.50	D-3		95.0				
				5.00 - 5.45	5.50	U-4						
				6.00 - 6.45	6.50	D-4						
				7.00 - 7.45	7.50	U-5						
				8.00 - 8.45	8.50	D-5						
				9.00 - 9.45	9.50	U-6						
				10.00 - 10.45	10.50	D-6						
				11.00 - 11.45	11.50	U-7						
				12.00 - 12.45	12.50	D-7						
				13.00 - 13.45	13.50	U-8						
				14.00 - 14.45	14.50	D-8						
Borehole Continued					10.00							
General Remarks : No groundwater encountered						Dates : 17 March 1994 Driller : RC Engineer: MSW Coordinates :						



SD63NW

9.

STRATA SURVEYS LTD., Telephone: 0606 834637 Fax: 0606 836657					Borehole Number : 2 Sheet 2 of 2.							
Job Number : 7539 Location : Longridge Preston Client : Edenhall Services Limited					Dia. & Drilling Methods light cable percussion 150mm diameter							
Description of Strata	Red. Level	Legend	Thick-ness	Depth m	Sample Depth	Sample Types	N Value	Cu	s	Water Level	Piezo-meter	Daily Prog.
Stiff brown slightly sandy CLAY with a little fine gravel				10.00	9.80 - 10.25	U-8						
					10.30		D-8					
			(10.40)		11.30 - 11.75	U-9						
					11.80		D-9					
					12.00 - 12.45	U-10						
				12.50		D-10						
Borehole Completed				12.70						dry		17/3
General Remarks : No groundwater encountered					Date : 17 March 1994 Driller : RC Engineer: MSW Coordinates :							

## APPENDIX D

Site Photographs



**P1:** Access to the site via the northern site boundary



**P2:** Hardstanding gravel access track leading onto the north of the site.



**P3:** Hardstanding concrete slab located in the north of the site



**P4:** Animal feeding trough located in the north of the site.



**P5:** Small stockpile of soils in the north of the site containing made ground



**P6:** rusted metal oil drum located in the north of the site.

**Comments:**

This appendix is for illustrative purposes only and is for use only in conjunction with associated reports relating to the project

**Site:** Land off Higer Road Longridge

**Title:** Appendix D - Site Photographs

**Photographs 1 to 6**

**Project No:**  
24038

**Created By:**  
M Leigh-Monk

**Date:**  
April 2024

**Client:** NR Holdings Ltd





**P7:** Small amounts of standing water across the site.



**P8:** A view looking across into the north-western corner of the site



**P9:** A view looking south across the site



**P10:** A slight slope in the topography of the site along the western site boundary.



**P11:** A view looking north across the site



**P12:** A stone wall intersecting the centre of the site.

**Comments:**



**Photographs 7 to 12**

This appendix is for illustrative purposes only and is for use only in conjunction with associated reports relating to the project

**Site:** Land off Higher Road Longridge

**Title:** Appendix D - Site Photographs

**Project No:** 24038

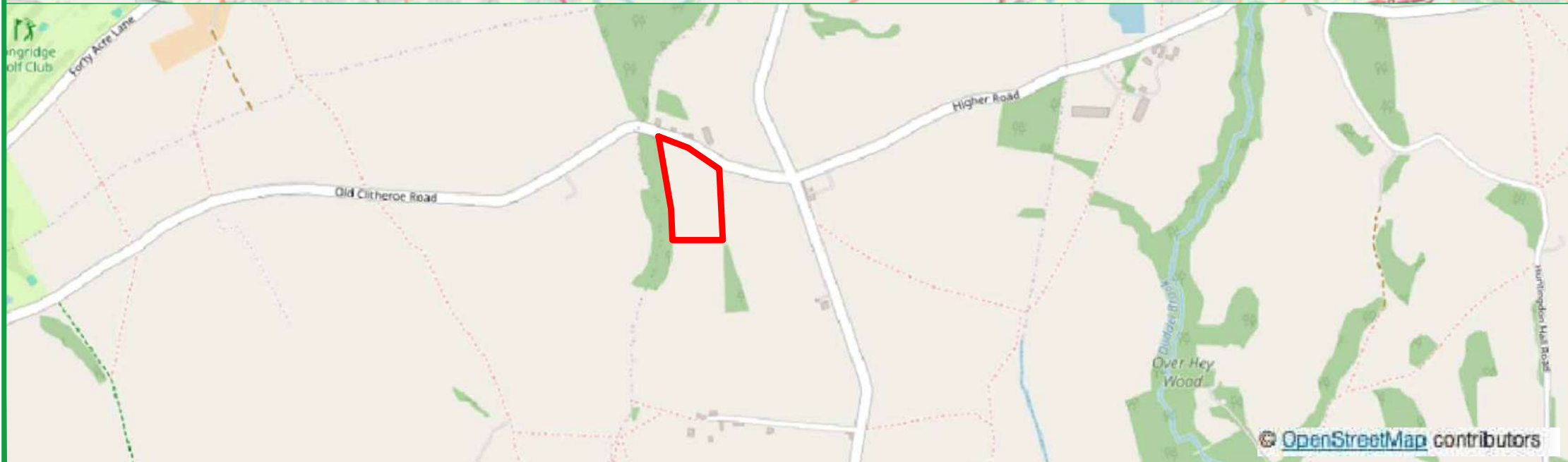
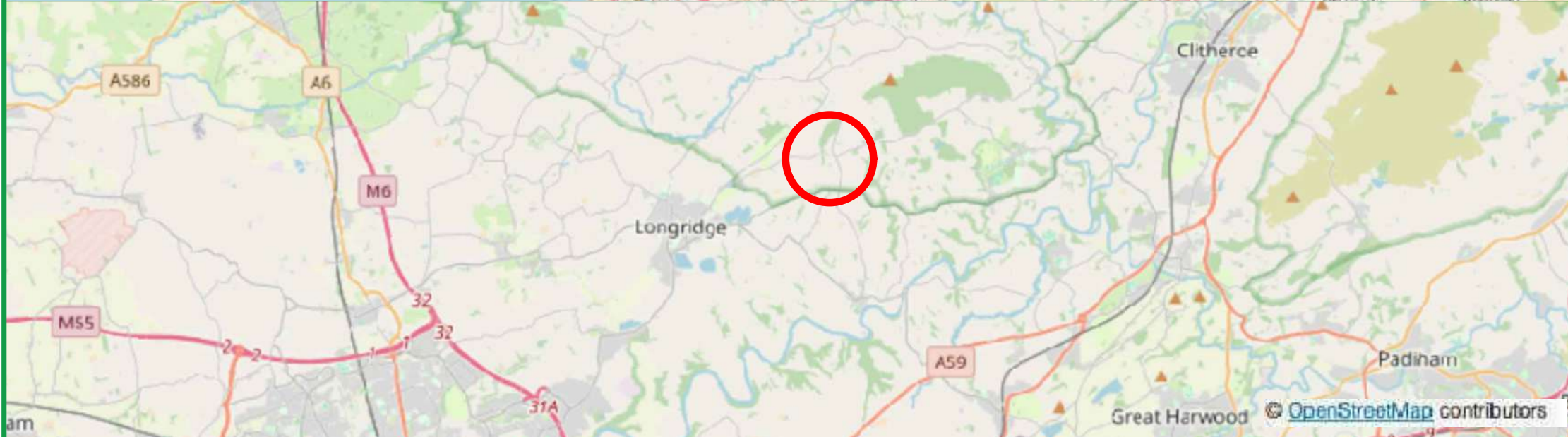
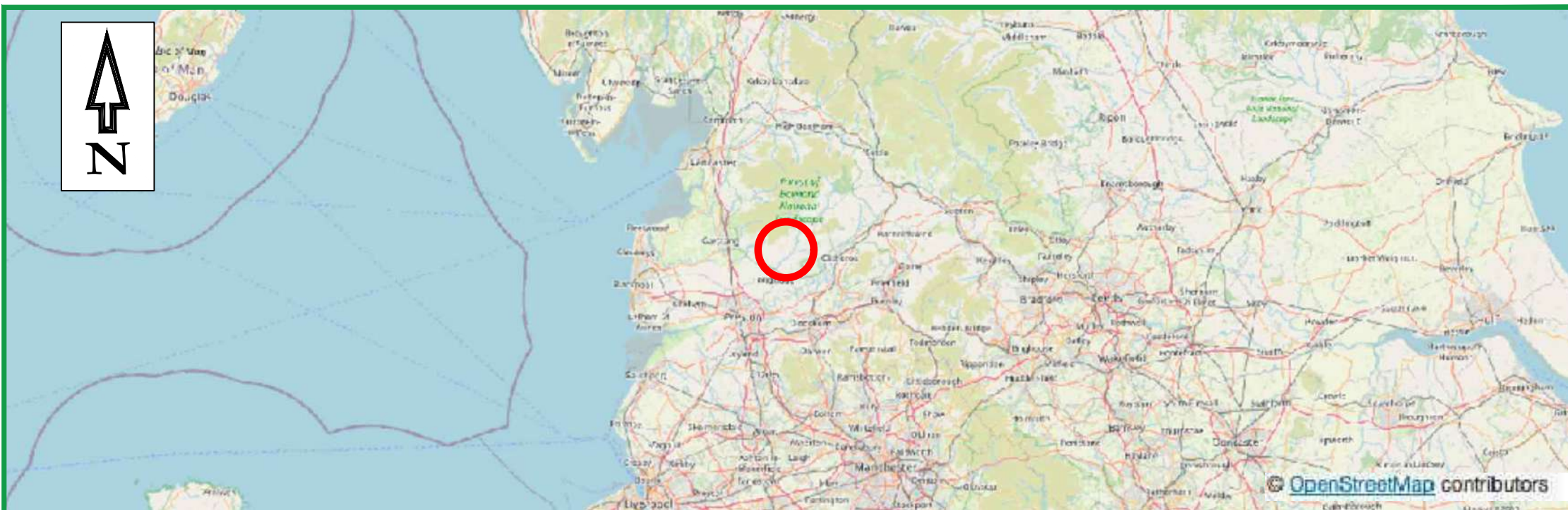
**Created By:** M Leigh-Monk

**Date:** April 2024


**Client:** NR Holdings Ltd

## APPENDIX E

Drawings



# LEGEND

 SITE LOCATION

REV	DESCRIPTION	DATE	BY



**GEO-ENVIRONMENTAL CONSULTING**  
 No 2 Landwick Court, Metcalf Drive, Altham Business Park, Lancashire  
 Tel: 01254 377622 Mob: 07906753583  
 Email: mbuckley@bekenviron.co.uk  
 Web: www.bekenviron.co.uk

CLIENT.  
 NR HOLDINGS LTD

JOB TITLE.  
 HIGHER ROAD, LONGRIDGE

DRAWING TITLE.  
 SITE LOCATION PLAN


SCALE © A3. N'TS	DRAWN BY. D.E.	APPROVED BY. M.B.	DATE. 12/04/24
---------------------	-------------------	----------------------	-------------------

DRAWING No. 24038-1	REV. -
------------------------	-----------



Aerial photography supplied by Getmapping PLC. © Copyright Getmapping PLC 2024. All Rights Reserved.

## LEGEND

 SITE FOOTPRINT

REV	DESCRIPTION	DATE	BY



GEO-ENVIRONMENTAL CONSULTING

No 2 Landwick Court, Metcalf Drive, Altham Business Park, Lancashire, BB5 5GY

Tel: 01254 377622 Mob: 07906753583

Email: mbuckley@bekenviro.co.uk

Web: www.bekenviro.co.uk

CLIENT.

NR HOLDINGS LTD

JOB TITLE.

HIGHER ROAD, LONGRIDGE

DRAWING TITLE.





SITE LAYOUT PLAN

SCALE © A3. N'TS	DRAWN BY. D.E.	APPROVED BY. M.B.	DATE. 12/04/24
---------------------	-------------------	----------------------	-------------------

DRAWING No. 24038-2	REV. -
------------------------	-----------

In addition to the hazard/risks normally associated with the types of work detailed on this drawing take note of the above. It is assumed that all works on this drawing will be carried out by a competent contractor working, where appropriate, to an appropriate method statement.

Construction Risks	Maintenance / Clearing Risks	Demolition / Adaptation Risks
--------------------	------------------------------	-------------------------------

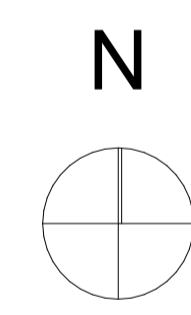
-  Potential area for small car parking area for visitors to view roman road
-  Course of the roman road. to be verified on site by Roman Road Association
-  Location of natural spring. Water to be redirected to the house for irrigation of crops.
-  Location of a previously identified stone wall pen.



F1,F2& F3 Existing fields (65% of total site area) to be restored to a species rich hay meadow



Agricultural farm track to new dwelling



Rev	Description	Date	Initials

**Jackson-Crane**  
 2, Broadway  
 Nottingham  
 NG1 1PS  
 T: 0115 837 0123  
 hello@jacksoncranearchitecture.co.uk  
 www.jacksoncranearchitecture.co.uk

Project Name  
**Higher Road, Longridge, Preston, PR3 2YX**

Project Address  
**Higher Road, Longridge, Preston, Lancashire, PR3 2YX**

Client  
**Mr Neil Richards**

Drawing Title  
**Site Plan as Proposed**

Project No.	Scale	Paper Size	Drawn By	Checked By
<b>20-002</b>	<b>1:500</b>	<b>A1</b>	<b>DJC</b>	<b>DJC</b>
Status	Purpose of Issue			
<b>S0</b>	<b>Work In Progress</b>			

Drawing Reference				
Project	Originator	Zone	Level	Type
LON	JCA	B0	XX	DR - A
Number			Revision	
<b>01003</b>				

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