Environmental
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GEOTECHNICAL ENVIRONMENTAL

PHASE 1 ENVIRONMENTAL DESK STUDY

job number	date
C1132/20/E/1779	March 2021

site address
Coniston Farm
Coniston Avenue
Staincross, Barnsley
S75 5BB

written by	checked by
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Contents

Appendices

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Report on a Phase One Desk Study

Location:	Coniston Farm Coniston Avenue, Staincross, Barnsley, S75 5BB
For:	Mrs S. & Mr R. Senior
Consultants:	Fox Architecture and Design
Report No.	C1132/20/E/1779 Report date: March 2021

For and on behalf of **Rogers Geotechnical Services Ltd**

Hattie Henshall BSc, FGS
Graduate Engineer

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Technical Director

1. Introduction

The site comprises an area of disused farm buildings. located on Coniston Avenue, off Keswick Road, Staincross, Barnsley, S75 5BB. The site is approximately 0.69 hectares in size and its National Grid reference is centred around 432035 411036.

It is understood that the development proposals currently comprise the construction of 6 new houses with garden areas and associated car parking. In order to assist with this decision making process, and any planning and construction aspects of the development, a phase one environmental desk study has been commissioned and is the subject of this report.

In accordance with issued guidance, a site walkover was conducted on the 16th March 2021.

General site description/current site use
The site is occupied by a disused farm with associated barns and out buildings. A cattery and an apiary are understood to have occupied several of the buildings.

Site boundaries/access
The site is accessible from the south-east via Coniston Avenue, off Keswick Road.

Topography
The site area is flat, but is situated in a topographically uneven area.

Surface cover of site
There are several different surface covers on site, including concrete, gravel and grass.

Visible evidence of contamination/ contaminative sources
At the time of the site walkover, the barns were noted to possibly contain asbestos in the roofing and walls.

Presence of vegetation and wildlife
There were bee hives noted at the time of the walkover, connected with the apiary that occupied the site.

Services
Services were noted to be present on site.

Site neighbours
There are residential neighbours within 100m of the site and in the immediate 250m of the site, both to the east and north.

In order to ensure that the site is fully characterised and to comply with the Environment Act 1995[1], a Phase One Desk Study has been commissioned by Fox Architecture and Design. The desk study is intended to assess the environmental impact of historical, current and future factors on the development. This report will present the data obtained and provide a conceptual ground model and preliminary risk assessment as well as discussing the scope of any intrusive investigation that may be required. This report does not consider ecological impacts (e.g. bats) or botanical risks (e.g. Japanese Knotweed).

2. Review and Summary of Published Data

As a part of this desk study the following data has been considered.

- Groundsure Reports - Appendix 1
- Historical maps - Appendix 2
- Site Plan - Appendix 3
- Photographs - Appendix 4
- Consultants Mining Report - Appendix 5

The data obtained from the above mentioned sources has been summarised below[2].

[1]S57 of the Environment Act 1995 inserted the contaminated land regime into the Environmental Protection Act 1990 (Part 2A). The regime **'provides a risk based approach to the identification and remediation of land where contamination poses an unacceptable risk to human health or the environment'** See http://www.environment-agency.gov.uk/research/planning/40405.aspx. This places a duty on local authorities to inspect their areas for contaminated land and require its remediation using the 'suitable for use' approach. Much of this duty is discharged via the planning regime under the Town and Country Planning Act 1990 as historical land contamination is a 'material planning consideration.' The local authorities are required to secure the removal of unacceptable risks via remediation of the land, to therefore ensure the site is suitable for its new use. This is fulfilled via completion of a Phase One Environmental Desk Study, Phase Two Intrusive Investigation, Phase Three Remediation Strategy and Phase Four Validation Report. Therefore, as a minimum, once a site has been developed it should not be capable of being designated as 'contaminated land' under Part 2A of the Environmental Protection Act 1990, as inserted by the Environment Act 1995 (see also PPS 23 Planning and Pollution Control Section 8)

[2] This report is a summary only and reference must be made in full to the information provided in the Groundsure Report.

2.1 Historical Land Use

Table 1: Historical Land Use[3]

HISTORICAL MAPPING SUMMARY		
Map Dates	**On site**	**Within 250m**
1854	The site comprises field or agricultural land with no development known as Staincross Common.	• Husband Wood – 80m NW. • Darton Lane Head – 230m SE. • Sandstone Quarry – 250m SE.
1893 – 1904	The site remains unchanged.	• Unspecified Works – 216m SE (1904). • Longsite House – 220m SE. • The Views – 225m SE. • Longsite Works – 245m SE.
1906 – 1913	The site remains unchanged.	• Rural District Council Sewage Works (Barnsley R. D. C. 1913) – 152m NW. ➢ Tank – 164m NW (1913). ➢ Filter Bed – 164m NW (1913). • Brick Row – 190m to 240m N (1913).
1914 – 1956	The site remains unchanged.	• Refuse Heaps – 118m to 127m NW (1930 – 1951). • Sewage Works – 151m N (1938), 155m N (1948), 156m N (1951). • Rural District Council Sewage Works (Barnsley R. D. C. until 1956) – 152m NNW. • Chaplet and Gas Hook Works – 200m to 209m SE (1938 – 1951). • Unspecified Works – 204m SE (1930).
1960 – 1966	There is now a drain in the south west corner of the site.	• Development has increased both north and east of the site, both within 100m and to 250m. • Drainage system – on site to 95m W, continuing S to 130m SW where 4 drains intersect. • Housing – from 40m E and 110m NNE. • Keswick Road and Coniston Avenue – 60m E. • Grasmere Crescent – 120m E. • Refuse Heap – 127m NW (1965). • Unspecified Works – 153m SE (1965).
1978 – 2001	Coniston Farm now occupies the site. Cats Whiskers Boarding Cattery occupies one of the farm buildings (2001).	• Further development has occurred within 250m of the site. • Housing – 105m NE. • Windhill Drive – 110m NE. • Windhill Crescent – 160m NE.
2010	Further buildings associated with Coniston Farm have been developed on site.	• The surrounding area remains relatively unchanged.
2011 – 2021	The site remains unchanged. It is understood that the farm and the cattery are now disused (2021) but an apiary may remain on site.	• The surrounding area remains relatively unchanged.

NB. All distances given are approximate only.

2.2 Published Geology and Geological Hazards

Table 2: Geological Data for the Site

BGS MAPPING DATA			
Strata Type	**Strata Name[4]**	**Previous Name[4]**	**Description[5]**
Made Ground/Fill	Infilled Ground	N/A	Not indicated on site although previous construction may have resulted in the presence of made ground. Infilled ground present 23m S, 31m SW, 42m NE, 59m S, 101m SW and 181m N.
Superficial Geology	N/A	N/A	Not indicated to underlie the site.

[3] See Appendix 2

[4] Sources: British Geological Survey (NERC) Map Sheets 87; Barnsley; Solid and Drift Edition, and Geology of Britain Viewer [*online resource from www.bgs.ac.uk*]

[5] Sources: British Geological Survey (NERC) Lexicon of Named Rock Units [*online resource from www.bgs.ac.uk*]

Solid Geology	Pennine Middle Coal Measures Formation	Grey Measures of Yorkshire and Nottinghamshire	Interbedded mudstone, siltstone and sandstone containing fossils and coal. Both the sandstone and mudstone of this formation underlie the site. Woolley Edge Rock (sandstone) outcrops approx. 335m NE, which may indicate that the Abdy Rock is the sandstone member that outcrops on site based the BGS Generalised Vertical Section.

GEOLOGICAL FEATURES			
Type	**Location**	**Features**	**Comments**
Mining Activity	On site	Coal mining	The study site is located within the specified search distance of an identified mining area. Please see the Coal Mining Risk Assessment for further information.
		Non-coal Mining	Localised small scale underground mining may have occurred for iron ore and/or other mineral veins. Potential for difficult ground conditions are unlikely or localised and are at a level where they need not be considered.
Faults	On site, 20m SW, 47m and 149m SE, 237m W	Faults	6 normal faults, one of which is on site. Displacements unknown.
Landslip Deposits	No data	No data	No data

BGS BOREHOLE DATA			
Reference[6]	**Location**	**Strata Description**	**Depth**
SE31SW104	718m NNE (on same fault block)	Woolley Edge Rock - Sandstone	560.83m

NATURAL GROUND SUBSIDENCE & HAZARDS[7]	
Type	**Risk Rating**
Potential for collapsible ground stability hazards	Very low.
Potential for compressible ground stability	Negligible.
Potential for ground dissolution stability	Negligible.
Potential for landslide ground stability	Very Low.
Potential for running sand ground stability	Negligible.
Potential for shrinking or swelling clay ground stability	Negligible to very low.
Radon	The property is in a Radon Affected Area, as between 1 and 3% of properties are above the Action Level. It is thought that basic radon[8] protective measures are not necessary in the construction of new dwellings or extensions.

[6] http://www.bgs.ac.uk/discoveringGeology/geologyOfBritain/viewer.html
[7] See Groundsure report
[8] In outline, 'basic' radon protective measures involve the fitting of a gas tight ground barrier to protect against radon ingress. This should cover the whole building foot print and be lapped to the damp proof course in the walls and sealed around service penetrations. In addition, the membrane should also act as a damp-proof barrier. 'Full' radon protective measures requires the radon-proof ground barrier, together with a sump in the foundation, ready to take a fan if high levels of radon are detected after occupancy.

2.3 Construction Issues

2.3.1 Foundation Construction

On the basis of the prevailing geology and assuming that there are no areas of significantly filled ground, it is anticipated that shallow strip or spread foundations could be utilised at this site. It should be appreciated that an intrusive investigation will be required to validate this opinion. Moreover, it is possible that undifferentiated strata within the Pennine Middle Coal Measures Formation may include very fine grained rocks which are likely to have weathered to cohesive soils at or near the surface. Such soils could be sensitive to soil moisture variations and thus be susceptible to desiccation as result of tree root action. In light of this, it is possible that footings within the zone of influence of trees (existing or previously removed), may need to founded at extended depths in excess of 1m.

2.3.2 Site Won Materials

Where sandstone outcrops it is possible that the resulting soil may provide a suitable bulk granular fill and may prove suitable for re-compaction.

Should any residual mudstone be encountered at shallow depth over much of the site, this material is likely to be relatively difficult to re-engineer as a construction material. Therefore, depending on the results of laboratory testing, it may possible to modify/stabilise the soil using lime and/or cement to form a suitable sub-base replacement for pavements and hard standings.

2.3.3 Disposal of Site Materials

If made ground is present, then contamination/WAC testing will be required to establish the nature of the underlying soil before disposal to a licensed landfill site. However, it is anticipated that the naturally occurring soils would not be significantly contaminated, thus would probably be accepted by a waste disposal site catering for inert material.

2.4. Mining and Natural Cavities

2.4.1 Coal Mining

The Groundsure Report states that the site is within an area that may be affected by coal mining. A Consultant's Coal Mining Report has therefore been obtained that is included in appendix 5 of this report and may be summarised as follows:

Table 3: Summary of the Consultant's Coal Mining Report

Has the report highlighted evidence or potential of:			
Ref	**Mining Feature**	**Yes/No**	**Comments**
1	Underground Coal Mining	Yes	The property is in a surface area that could be affected by underground mining in 9 seams of coal between 100m and 481m depth and worked between 1878 and 1987.
2	Probable Unrecorded Shallow Workings	Yes	Probable unrecorded shallow workings.
3	Spine Roadways at Shallow Depth	No	No spine roadway recorded at shallow depth.
4	Mine Entries	No	None recorded within 100 metres of the site boundary.
5	Abandoned mine plans	Yes	Plans of abandoned mine workings below the site are suggested to be available by the coal authority.

6	Outcrops	Yes	2 outcrops of the Abdy (Winter) Coal on site.
7	Geological Faults	No	No faults, fissures or breaklines recorded.*
8	Opencast Mines	Yes	Both licensed and unlicensed opencast sites within 500m of the site boundary.
9	Coal Authority Managed Tips	No	None recorded within 500 metres of the enquiry boundary.
10	Site Investigations	No	None recorded within 50 metres of the enquiry boundary.
11	Remediated Sites	No	None recorded within 50 metres of the enquiry boundary.
12	Coal Mining Subsidence	Yes	There are 3 claims within 50 metres of the property boundary that do not match the property address. These are shown on the enquiry boundary plot. There is no current Stop Notice delaying the start of remedial works or repairs to the property. The Coal Authority is not aware of any request having been made to carry out preventive works before coal is worked under section 33 of the Coal Mining Subsidence Act 1991.
13	Mine Gas	No	None recorded within 500 metres of the enquiry boundary.
14	Mine Water Treatment Schemes	No	None recorded within 500 metres of the enquiry boundary.
15	Future underground mining	No	None recorded.
16	Coal mining licensing	No	None recorded within 200 metres of the enquiry boundary.
17	Court orders	No	None recorded.
18	Section 46 notices	No	No notices have been given, under section 46 of the Coal Mining Subsidence Act 1991, stating that the land is at risk of subsidence.
19	Withdrawal of support notices	Yes	The property is in an area where a notice to withdraw support was given in 1982. The property is not in an area where a notice has been given under section 41 of the Coal Industry Act 1994, cancelling the entitlement to withdraw support.
20	Payments to owners of former copyhold land	No	The property is not in an area where a relevant notice has been published under the Coal Industry Act 1975/Coal Industry Act 1994.

*It is noted that the Groundsure report identifies 2 faults on site and 4 within 250m. The Groundsure report uses BGS data which is commonly more up-to-date.

A Coal Mining Risk Assessment has been prepared under the same job reference number (C1132/20/E/1779) which should be considered in conjunction with this Phase 1 Desk Study.

2.5 Waste Management and Gas Monitoring

Table 4: Landfill Data and Artificial Ground, Recorded and Anticipated

ENVIRONMENT AGENCY, LOCAL AUTHORITY, BGS & HISTORIC LANDFILLS

Waste Type	Location	Comments	Monitoring Requirement
Landfills	Within 250m	None recorded within 250m	N
Other waste sites	Within 250m	None recorded within 250m	N
Environment Agency/Natural Resources Wales licensed waste sites	Within 250m	None recorded within 250m	N

MADE GROUND & INFILLED GROUNDWORKINGS			
Description	**Location**	**Comments**	**Monitoring Requirement**
Records of Potentially Infilled Features	23m and 59m S 31m and 101m SW 42m NE and 181m N	Infilled Ground	Y
	118m – 127m NW	Refuse Heaps (1930 – 1965)	Y

2.6 Hydrogeology, Hydrology

Table 5: Ground/Controlled Water Sensitivity and Flooding

ENVIRONMENT AGENCY AQUIFER DESIGNATION[9]		
Strata	**Designation**	**Description**
Solid Geology 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.

GROUNDWATER SENSITIVITY[10]		
Description	**Location**	**Details**
Source Protection Zone	-	None recorded within 250m.
Abstraction Licences	-	None recorded within 250m.
Records of Part A(2) and Part B Activities and Enforcements	-	None recorded within 250m.
Records of Licensed Discharge Consents	-	None recorded within 250m.
High Soil Leaching Potential	On site	The soil in urban areas can be highly permeable.

CONTROLLED WATERS[11]		
Description	**Location**	**Details**
River Network Entries	91m to 134m SW 92m W 97m to 167m NW	7 inland rivers on ground surface not influenced by tidal action. Watercourses contain water year round (in normal circumstances).
Surface Water Features	Within 250m	8 surface water records present within 250m, most likely narrower than 5m. Unknown types.

POLLUTION INCIDENTS[12]			
Pollutant	**Receptor**	**Location**	**Date**
Oils and Fuel	Water Category 3 (Minor) Land Category 4 (No Impact)	102m NW	Jul 2001

ENVIRONMENT AGENCY FLOOD RISK[13]		
Description	**Location**	**Details**
Zone 2	-	The site is not situated within a Zone 2 flood plain.
Zone 3	-	The site is not situated within a Zone 3 flood plain.

[9] See Appendix 1
[10] See Appendix 1
[11] See Appendix 1
[12] See Appendix 1
[13] See Appendix 1

Flood Defences	-	None recorded within 250m.
Groundwater Flooding Area	Negligible	Limited potential for groundwater flooding to occur.

2.7 Sensitive Land Use

Table 6: Sensitive Land Uses within 250m

REGISTERED SENSITIVE LAND USES [14]		
Description	**Location**	**Details**
Nitrate Vulnerable Zone	On site	River Dearne NVZ. Existing.
Green Belt Land	On site	Barnsley, South and West Yorkshire Greenbelt.
	246m NE	Barnsley, South and West Yorkshire Greenbelt.

2.8 Industrial Land Use and Potential Sources of Contamination

In order for a conceptual site model and preliminary risk assessment to be completed the historical maps and Groundsure data requires analysis to identify any past or present activities on the site and in the area that may have the potential to cause contamination on the site. Guidance has been issued by the Environment Agency, NHBC and Chartered Institute of Environmental Health.[15] Within this document, annex 3 provides examples of important contaminants that are associated with individual uses of land. This data assists in the formulation of any chemical testing regime.

Those that we consider potentially contaminative according to the guidance are given below:

Table 7: Potentially Contaminative Sources

HISTORICAL		
Land Use	**Location**	**Classification**
Drainage system	On site	Artificial/made ground. (May have been used in the construction of the drainage system).
Sewage Works (1938 – 1951) Rural District Council Sewage Works (Barnsley R. D. C. until 1956)	151m to 156m N 152m NNW	Sewage works and sewage farms.
Refuse Heaps (1930 – 1965)	118m to 127m NW	Unspecified works/factories/features.
Tank (1913)	164m NW	
Filter Bed	164m NW	
Electricity Sub-station (1977 – 1994)	208m NE	
Unspecified Works (1904 and 1930)	204 and 216m SE	
Longsite Works	245m SE	

[14] See Appendix 1
[15] Guidance for the Safe Development of Housing on Land Affected by Contamination, R&D Publication 66: 2008 Volume 1 and 2.

Sandstone Quarry	250m SE	
CURRENT		
Land Use	**Location**	**Classification**
Electricity Sub-station	211m NE	Unspecified works/factories/features.
TANKS (Buried and Above Ground)		
Land Use	**Location**	**Classification**
Overground Storage Tanks	164m NW	Tank associated with Rural District Council Sewage Works (Barnsley R. D. C.) – 152m NNW (1913).

3. Preliminary Qualitative Risk Assessment

The potential of contamination hazards on the land has been identified and the risks associated with them are assessed in the following preliminary risk assessment in accordance with industry practice and the 'suitable for use' approach. This has been conducted using the source-pathway-receptor approach. This method dictates that there must be a risk contaminant produced at a 'source' in sufficient concentration to cause harm and there must be a 'pathway' for the contaminant to reach an identifiable 'receptor' for the linkage to be proved and a contamination hazard to be considered present. Not all substances are contaminants and not all contaminants are considered to be a risk. Indeed, DEFRA and The Environment Agency state that **'a contaminant is a substance which has the potential to cause harm, while a risk itself is considered to exist if such a substance is present in sufficient concentration to cause harm and a pathway exists for a receptor to be exposed to the substance.**'

R&D Publication 66: 2008 states that the groups at risk of harm (receptors) can be identified by the following categorisation:

1. Humans: site personnel, end users, visitors and adjacent land users.
2. The water environment – receptors: groundwater, surface water, coastal waters and artificial drainage.
3. Ecosystems: plants and animals.
4. Construction/building materials/services

In order to complete a conceptual site model and therefore a preliminary risk assessment, an appraisal of the sources of contamination, potential and actual, on and in the area of the site has therefore been completed with reference to this pollution linkage.[16]

3.1 Conceptual Ground Model & Preliminary Qualitative Risk Assessment

It is understood that the development proposals currently comprise the construction of 6 new houses with garden areas and associated car parking. In view of the sensitivity of the end users it is considered that the soil screening values (SSVs) for a residential with plant uptake end use should be employed.

[16] This assessment has been based on the information as to the proposed development that has been provided by the client. If the plans should change, the assessment should be re-evaluated.

The preliminary risk assessment has been evaluated with reference to the following ratings and definitions:

N/A - A source-pathway-receptor linkage is not considered to exist and therefore a risk assessment is not required.

Low - A pollution linkage is unlikely and/or the likelihood of harm occurring is low and of minor consequence.

Moderate - The linkage exists but further field or laboratory data is required to confirm that the contaminant has reached the receptor and the levels of contaminant are harmful.

High - The linkage exists and the available data indicates that significant harm may be caused and remedial action could be necessary.

Environmental Geotechnical Specialists

Table 8: Conceptual Site Model and Preliminary Qualitative Risk Assessment

CONCEPTUAL SITE MODEL			PRELIMINARY RISK ASSESSMENT	
Pathways	**Receptor**	**Linkage Present?**	**Risk Rating**	**Notes**
Direct contact/dermal absorption/soil ingestion	Operative	Yes – operatives are likely to come in contact with the soil.	Moderate	There are potential on and off site sources of contamination that may have caused contamination of the site. Any on site sources of contamination could migrate to neighbouring properties. Further testing required to reach a firm conclusion.
	End User	Yes – end users are likely to come in contact with the soil.	Moderate	
	Neighbours	Yes – possible source on site and neighbours are present within 250m.	Moderate	
Inhalation of Dust/Vapours	Operative	Yes – contact with soil likely during works and vapours may accumulate in enclosed spaces.	Moderate	There are potential on and off site sources of contamination that may have caused contamination of the site. Any on site sources of contamination could migrate to neighbouring properties. Construction activities may create dust on and off site, which, if contaminated, could adversely affect operatives, end users and neighbours. In the event that harmful vapours are present they may accumulate in enclosed spaces, affecting operatives, end users and neighbours. Further testing required to reach a firm conclusion.
	End User	Yes – vapours may accumulate in enclosed spaces.	Moderate	
	Neighbours	Yes – neighbouring properties present and possible inhalation of dust during the works.	Moderate	
Ingestion of fruit/vegetables and/or waters	Operative	No – no edible plants or contained water sources in the area of the proposed new works.	N/A	There are potential on and off site sources of contamination that may have caused contamination of the site. Further testing required to reach a firm conclusion.
	End User	Yes – soft landscaping proposed as part of the new development.	Moderate	
	Neighbours	Yes – residential dwellings present within 250m of the proposed development.	Moderate	

Migration of hazardous gases via permeable strata	Operative	Yes – possible off site sources and potential source on site associated with mining and historical construction.	Moderate	Possible source on site and within 250m. A programme of monitoring is recommended but is suggested to be limited to 4 readings over one month in the first instance. If significant made ground considered capable of producing harmful gases is revealed during the investigation works, the monitoring regime may require reconsideration to take into account a higher potential risk.
	End User		Moderate	
	Neighbours	Yes – possible source on site due to mining, historical construction and installation of a drainage system.	Low to Moderate	It is not considered likely that any made ground that has been brought onto site will produce high levels of gas, thus presenting a significant risk of harm to this receptor. This should be re-assessed during any intrusive works should this be proven to the contrary.
Spillage/loss/run off direct to receiving water	Controlled Waters	Yes – possible source on site and controlled waters within 250m.	Moderate	There are potential on and off site sources of contamination that may have caused contamination of the site. Controlled waters within 250m. Secondary A aquifer underlies the site. Permeability of underlying geology should be assessed. Further testing required to reach a firm conclusion.
Migration via permeable unsaturated strata	Controlled Waters	Yes – possible source on site and Secondary A aquifer beneath the site.	Moderate	
Run off via drainage/sewers etc	Controlled Waters	Yes – drainage system on site.	Moderate	
Direct contact with contaminated soils	Plants	Yes – some soft landscaping areas may be present as part of the proposed development.	Moderate	There are potential on and off site sources of contamination that may have caused contamination of the site. Any on site sources of contamination could migrate to neighbouring properties. Further testing required to reach a firm conclusion.
Uptake via root system			Moderate	
Direct contact with contaminated soils	Building Materials	Yes – possible source on and off site and foundation and service installation materials may be affected by the site soil.	Moderate	There are potential on and off site sources of contamination that may have caused contamination of the site. Further testing required to reach a firm conclusion.
Direct contact with contaminated groundwater				

Migration of mine gas via permeable strata	Operative End User	Yes – in an area affected by coal mining activity and where shallow worked seams may be present.	Low to Moderate	Further knowledge required to reach a firm conclusion.
Exposure to Radon	Operative End User	Yes – in an area affected by Radon.	Low	The property is in a Radon Affected Area, as between 1 and 3% of properties are above the Action Level. It is thought that basic radon[17] protective measures are not necessary in the construction of new dwellings or extensions.
Mining Instability	End User	Yes – The property is in a surface area that could be affected by underground mining in 9 seams of coal between 100m and 481m depth and worked between 1878 and 1987.	Moderate	Further investigation may be required.
Unexploded Ordinance (UXO) Risk	Operative	No – the Zetica[18] online maps indicate that the site is at low risk from UXO.	Low	This site requires no further action.

Notes:

1. The above data and table is a qualitative assessment of the probable risks identified at this site, based on the information made available to us from the client, third party professional data and walkover survey.

2. Should any additional or new data come to light, the risk assessment should be revisited and any necessary changes made to any recommendations resulting from this study.

3. Where further testing is recommended as part of the risk assessment, this is in order to provide a quantitative assessment of any contamination issues. It should at all times be considered that uncertainties may remain, and therefore any testing regime and ground investigation philosophy should be ready to accommodate any necessary alterations should any data come to light or it become evident that it has not been previously considered.

[17] In outline, 'basic' radon protective measures involve the fitting of a gas tight ground barrier to protect against radon ingress. This should cover the whole building foot print and be lapped to the damp proof course in the walls and sealed around service penetrations. In addition, the membrane should also act as a damp-proof barrier. 'Full' radon protective measures requires the radon-proof ground barrier, together with a sump in the foundation, ready to take a fan if high levels of radon are detected after occupancy.
[18] Pre-desk study assessment [*online resource from www.zeticauxo.com*].

4. Intrusive Investigation

4.1 Site Investigation Philosophy

The information from the Phase 1 Desk Study shows there are potential sources of contamination on the site and in the surrounding area. In view of the above, any intrusive investigation should be undertaken in accordance with the sampling strategies given in BS10175: 2011 +A2:2017 and CLR4:1994. These two sampling strategies may be classified as:

- Non Targeted – using a defined sampling pattern (BS10175)
- Targeted – based on prior knowledge and professional judgement (CLR4)

These sampling strategies are considered in more detail below. However, it is emphasised that they can be used individually or in combination depending on the depth of site knowledge.

Non Targeted Sampling

If no obvious 'hot spots' of contamination have been identified on a site, it would be recommended that a stratified random pattern of sampling points be considered. This work should be undertaken with reference to BS10175: 2011 +A2: 2017 *Investigation of potentially contaminated sites – Code of practice*: 7.6, and BS5930 2015 + A1:2020, *Code of practice for ground investigations.*

Targeted Sampling

If a possible 'hot spot' of contamination has been identified on a site, it is recommended that a herringbone pattern of sampling points be considered in the immediate vicinity. If strong evidence of contamination has then been identified, it is recommended that sampling be highly focused to reflect that evidence and the investigator's experience. This work should be undertaken with reference to CLR4, *Sampling Strategies for Contaminated Land, 1994*.

The density of sampling required is defined in BS10175: 2011: +A2: 2017: 7.7.2.2.3, which indicates that an *exploratory* investigation usually requires a lower density sample spacing than does a *main* investigation. The BS goes on to state that *the actual density should depend upon the confidence and robustness required of decisions that will be based on the information obtained. Thus the area and depth of interest will be related to the contaminants present, the pathways and the receptors. Typical densities of sampling grids can vary from 25m to 50m centres for exploratory investigations, and 10m to 25m centres for main investigations.*

4.2 Site Specific Investigation

In view of the information provided above it is considered that an investigation of the site should include the following main elements.

4.2.1 Contamination Assessment

It may be appreciated that BS 10175 clause 7.7.2.2.3 suggests that the number of sampling points at the site should be based on a minimum of three testing locations or the size of the site with respect to the appropriate grid spacing, whichever the greater. On the basis of the site area being 0.69ha, the number of sampling points at the site should be considered with respect to the table below.

Table 9: Summary of Sampling Strategy

NUMBER OF SAMPLING POINTS					
	Soil	**Water**	**Asbestos**	**Standpipes**	**Standpipe Readings**
Exploratory Investigation 50m x 50m grid	3	-	3	3	A minimum of 4 readings over 1 month would be required as per risk assessment, however any regime must take into account the guidance detailed below.
Target Areas	Areas of made ground associated with historical construction on site. Known historical mining activity.				

Chemical testing should be undertaken on the above grid spacing and the following standard testing regime should be undertaken

- **Metals** – Cd, Cr, Cu, Hg, Ni, Pb, Zn, V.
- **Semi Metals and Non Metals** – As, Se, Free Cyanide and Phenols.
- **Hydrocarbons –** Polycyclic aromatic hydrocarbons (PAH EPA16), Total petroleum hydrocarbons (TPH CWG).
- **Others** – pH, Organic Content, Soluble and Total Sulphates.
- **Asbestos**

Sampling Method

Investigation should include the installation of three gas monitoring standpipes for subsequent monitoring. Furthermore, soils should be obtained for chemical sampling. The sampling strategy should employ the non-targeted strategy given above in the first instance, i.e. at least three sampling points, if it is anticipated that made ground is significant across the site. However, if the made ground at the site is thought to be localised to specific areas, then the targeted strategy should be used.

It should be possible to carry out the above work with a windowless sampling drilling rig, however, it may be more pragmatic to employ hand-held digging tools for a targeted strategy.

Gas Monitoring

The final gas monitoring regime should be undertaken in accordance with Table 4.2 of CIRIA C665: 2007: *Assessing risks posed by hazardous ground gasses to buildings.* In that document guidance for the frequency of monitoring is provided on tables 5.5a and 5.5b *Typical/idealised frequency and period of monitoring* on page 60. For convenience, these tables have been combined and reproduced below.

Table 10: Typical/idealised Frequency and Period of Monitoring.					
Sensitivity of development	**Generation potential of source**				
	Very low	**Low**	**Moderate**	**High**	**Very High**
Low (commercial)	4/1	6/2	6/3	12/6	12/12
Moderate (flats)	6/2	6/3	9/6	12/12	24/24
High (residential + gardens)	**6/3**	**9/6**	**12/6**	**24/12**	**24/24**

Notes:

a) The first number is the minimum number of readings and the second number is the minimum period in months, for example 4/1 – Four sets of readings over 1 month.

b) At least two sets of readings must be at low and falling atmospheric pressure (but not restricted to periods below 1000mb) known as worst case conditions.

c) The frequency and period stated are considered to represent typical minimum requirements. Depending on specific circumstances fewer or additional readings may be required (e.g. any such variation subject to site specific justification). The NHBC guidance is also recommending these periods/frequencies of monitoring.

d) Historical data can be used as part of the data set.

e) Not all sites will require gas monitoring. However, this would need to be confirmed with demonstrable evidence.

f) Placing high sensitivity end use on a high hazard site is not normally acceptable unless the source is removed or treated to reduce its gassing potential. Under such circumstances long-term monitoring may not be appropriate or required.

g) This guidance should be read in conjunction with BS 8576:2013 figure 6 which may justify fewer readings in the first instance, where the generation potential is considered to be very low to low. However, this should be undertaken pragmatically, and further readings obtained according to the above table, where a potentially significant source is identified and initial readings suggest that remedial measures are not necessary.

4.2.2 Geotechnical Assessment

In addition to the above contamination assessment which is likely to be required by planning authorities and insurance providers, the following investigation strategy could be considered:

Sampling Method

It is anticipated that a windowless sampling drilling rig will be able to gain sufficient data in regard to the near surface soils. Moreover, such equipment should be able to undertake Standard Penetration Testing (SPT) and/or Dynamic Probing.

Soakaway Design

Should soakaway data be required for drainage design, trialpits could be excavated and infiltration tests conducted. Alternatively, these tests could be undertaken within boreholes.

Geotechnical Testing

An allowance for geotechnical testing of the soils should be included in any ground investigation.

4.2.3 Reporting

The above data will need to be formulated into a formal assessment that should include the following:

- Geotechnical recommendations, particularly if existing loads are to increase.
- Contamination assessment.
- Contamination remediation strategy.
- Any recommendations for further work, if required and including validation reports where site remediation is necessary.

As soon is as practicable, and prior to the above, this Phase 1 report should be forwarded to the relevant authorities, in order to ensure they have sufficient time to review and discuss any issues.

5. References

- British Standards Institution (2015), BS5930 2015 + A1:2020: *Code of practice for site investigations*, B.S.I., London.
- British Standards Institution (2007), Amendment No 1 to BS5930: *Code of practice for ground investigations*, B.S.I., London.
- British Standards Institution (2011) +A2:2017, BS 10175: *Investigation of potentially contaminated sites – Code of Practice,* British Standards Institute.
- British Standards Institution (2013), BS 8576 Guidance on Investigations for Ground Gas – Permanent Gases and Volatile Organic Compounds.
- Department for Environment, Food and Rural Affairs and the Environment Agency, DEFRA R&D Publications, Environment Agency, Bristol.
- CLR 2, 1994, *Guidance on preliminary site inspection of contaminated land*, Volume 1.
- CLR 4, 1994, *Sampling Strategies for contaminated land*.
- R&D Publication 66: 2008 Guidance for the Safe Development of Housing on Land Affected by Contamination.
- CIRIA Report C665 (2007), Assessing risks posed by ground gasses in buildings.

- The Environment Agency: Groundwater source protection.

Environmental
Geotechnical
Specialists

Appendix 1

Groundsure Reports

Groundsure
LOCATION INTELLIGENCE

Enviro+Geo Insight

CONISTON FARM, CONISTON AVENUE, STAINCROSS, BARNSLEY, S75 5BB

Order Details

Date: 10/03/2021

Your ref: C1132_20_E_1779_PO-1350

Our Ref: GS-7647029

Client: Rogers Geotechnical Services

Site Details

Location: 432035 411036

Area: 0.69 ha

Authority: Barnsley Metropolitan Borough Council

Contact us with any questions at:
info@groundsure.com
08444 159 000

Summary of findings

Page	Section	Past land use	On site	0-50m	50-250m	250-500m	500-2000m
13	1.1	Historical industrial land uses	0	0	15	63	-
16	1.2	Historical tanks	0	0	1	3	-
17	1.3	Historical energy features	0	0	1	1	-
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	Past land use - un-grouped	On site	0-50m	50-250m	250-500m	500-2000m
19	2.1	Historical industrial land uses	0	0	17	95	-
24	2.2	Historical tanks	0	0	1	4	-
24	2.3	Historical energy features	0	0	3	1	-
25	2.4	Historical petrol stations	0	0	0	0	-
25	2.5	Historical garages	0	0	0	0	-
Page	Section	Waste and landfill	On site	0-50m	50-250m	250-500m	500-2000m
26	3.1	Active or recent landfill	0	0	0	0	-
26	3.2	Historical landfill (BGS records)	0	0	0	0	-
27	3.3	Historical landfill (LA/mapping records)	0	0	0	0	-
27	3.4	Historical landfill (EA/NRW records)	0	0	0	0	-
27	3.5	Historical waste sites	0	0	0	0	-
27	3.6	Licensed waste sites	0	0	0	0	-
27	3.7	Waste exemptions	47	0	0	3	-
Page	Section	Current industrial land use	On site	0-50m	50-250m	250-500m	500-2000m
34	4.1	Recent industrial land uses	0	0	1	-	-
35	4.2	Current or recent petrol stations	0	0	0	0	-
35	4.3	Electricity cables	0	0	0	0	-
35	4.4	Gas pipelines	0	0	0	0	-
35	4.5	Sites determined as Contaminated Land	0	0	0	0	-

35	4.6	Control of Major Accident Hazards (COMAH)	0	0	0	0	-
36	4.7	Regulated explosive sites	0	0	0	0	-
36	4.8	Hazardous substance storage/usage	0	0	0	0	-
36	4.9	Historical licensed industrial activities (IPC)	0	0	0	0	-
36	4.10	Licensed industrial activities (Part A(1))	0	0	0	0	-
36	4.11	Licensed pollutant release (Part A(2)/B)	0	0	0	0	-
37	4.12	Radioactive Substance Authorisations	0	0	0	0	-
37	**4.13**	**Licensed Discharges to controlled waters**	0	0	0	4	-
38	4.14	Pollutant release to surface waters (Red List)	0	0	0	0	-
38	4.15	Pollutant release to public sewer	0	0	0	0	-
38	4.16	List 1 Dangerous Substances	0	0	0	0	-
38	4.17	List 2 Dangerous Substances	0	0	0	0	-
38	**4.18**	**Pollution Incidents (EA/NRW)**	0	0	1	0	-
39	4.19	Pollution inventory substances	0	0	0	0	-
39	4.20	Pollution inventory waste transfers	0	0	0	0	-
39	4.21	Pollution inventory radioactive waste	0	0	0	0	-

Page	Section	Hydrogeology	On site	0-50m	50-250m	250-500m	500-2000m
40	5.1	Superficial aquifer	None (within 500m)				
41	**5.2**	**Bedrock aquifer**	Identified (within 500m)				
42	**5.3**	**Groundwater vulnerability**	Identified (within 50m)				
43	5.4	Groundwater vulnerability- soluble rock risk	None (within 0m)				
43	5.5	Groundwater vulnerability- local information	None (within 0m)				
44	**5.6**	**Groundwater abstractions**	0	0	0	0	2
45	5.7	Surface water abstractions	0	0	0	0	0
45	5.8	Potable abstractions	0	0	0	0	0
46	5.9	Source Protection Zones	0	0	0	0	-
46	5.10	Source Protection Zones (confined aquifer)	0	0	0	0	-

Page	Section	Hydrology	On site	0-50m	50-250m	250-500m	500-2000m
47	**6.1**	**Water Network (OS MasterMap)**	0	0	7	-	-

48	6.2	Surface water features	0	0	8	-	-
48	6.3	WFD Surface water body catchments	1	-	-	-	-
49	6.4	WFD Surface water bodies	0	0	0	-	-
49	6.5	WFD Groundwater bodies	1	-	-	-	-

Page	Section	River and coastal flooding	On site	0-50m	50-250m	250-500m	500-2000m
50	7.1	Risk of Flooding from Rivers and Sea (RoFRaS)	None (within 50m)				
50	7.2	Historical Flood Events	0	0	0	-	-
50	7.3	Flood Defences	0	0	0	-	-
50	7.4	Areas Benefiting from Flood Defences	0	0	0	-	-
51	7.5	Flood Storage Areas	0	0	0	-	-
52	7.6	Flood Zone 2	None (within 50m)				
52	7.7	Flood Zone 3	None (within 50m)				

Page	Section	Surface water flooding	
53	8.1	Surface water flooding	Negligible (within 50m)

Page	Section	Groundwater flooding	
54	9.1	Groundwater flooding	Negligible (within 50m)

Page	Section	Environmental designations	On site	0-50m	50-250m	250-500m	500-2000m
55	10.1	Sites of Special Scientific Interest (SSSI)	0	0	0	0	0
56	10.2	Conserved wetland sites (Ramsar sites)	0	0	0	0	0
56	10.3	Special Areas of Conservation (SAC)	0	0	0	0	0
56	10.4	Special Protection Areas (SPA)	0	0	0	0	0
56	10.5	National Nature Reserves (NNR)	0	0	0	0	0
57	10.6	Local Nature Reserves (LNR)	0	0	0	0	1
57	10.7	Designated Ancient Woodland	0	0	1	0	5
57	10.8	Biosphere Reserves	0	0	0	0	0
58	10.9	Forest Parks	0	0	0	0	0
58	10.10	Marine Conservation Zones	0	0	0	0	0
58	10.11	Green Belt	1	0	1	1	0
58	10.12	Proposed Ramsar sites	0	0	0	0	0

59	10.13	Possible Special Areas of Conservation (pSAC)	0	0	0	0	0
59	10.14	Potential Special Protection Areas (pSPA)	0	0	0	0	0
59	10.15	Nitrate Sensitive Areas	0	0	0	0	0
59	**10.16**	**Nitrate Vulnerable Zones**	1	0	1	0	1
61	**10.17**	**SSSI Impact Risk Zones**	2	-	-	-	-
62	10.18	SSSI Units	0	0	0	0	0
Page	Section	Visual and cultural designations	On site	0-50m	50-250m	250-500m	500-2000m
63	11.1	World Heritage Sites	0	0	0	-	-
63	11.2	Area of Outstanding Natural Beauty	0	0	0	-	-
63	11.3	National Parks	0	0	0	-	-
63	11.4	Listed Buildings	0	0	0	-	-
64	11.5	Conservation Areas	0	0	0	-	-
64	11.6	Scheduled Ancient Monuments	0	0	0	-	-
64	11.7	Registered Parks and Gardens	0	0	0	-	-
Page	Section	Agricultural designations	On site	0-50m	50-250m	250-500m	500-2000m
65	**12.1**	**Agricultural Land Classification**	Grade 4 (within 250m)				
66	12.2	Open Access Land	0	0	0	-	-
66	12.3	Tree Felling Licences	0	0	0	-	-
66	12.4	Environmental Stewardship Schemes	0	0	0	-	-
66	12.5	Countryside Stewardship Schemes	0	0	0	-	-
Page	Section	Habitat designations	On site	0-50m	50-250m	250-500m	500-2000m
67	**13.1**	**Priority Habitat Inventory**	0	0	2	-	-
68	13.2	Habitat Networks	0	0	0	-	-
68	13.3	Open Mosaic Habitat	0	0	0	-	-
68	13.4	Limestone Pavement Orders	0	0	0	-	-
Page	Section	Geology 1:10,000 scale	On site	0-50m	50-250m	250-500m	500-2000m
69	**14.1**	**10k Availability**	Identified (within 500m)				
70	**14.2**	**Artificial and made ground (10k)**	0	3	3	2	-
72	14.3	Superficial geology (10k)	0	0	0	0	-

72	14.4	Landslip (10k)	0	0	0	0	-
73	14.5	Bedrock geology (10k)	3	3	8	23	-
75	14.6	Bedrock faults and other linear features (10k)	3	8	17	16	-
Page	Section	Geology 1:50,000 scale	On site	0-50m	50-250m	250-500m	500-2000m
78	15.1	50k Availability	Identified (within 500m)				
79	15.2	Artificial and made ground (50k)	0	3	3	1	-
80	15.3	Artificial ground permeability (50k)	0	3	-	-	-
81	15.4	Superficial geology (50k)	0	0	0	0	-
81	15.5	Superficial permeability (50k)	None (within 50m)				
81	15.6	Landslip (50k)	0	0	0	0	-
81	15.7	Landslip permeability (50k)	None (within 50m)				
82	15.8	Bedrock geology (50k)	2	1	7	19	-
84	15.9	Bedrock permeability (50k)	Identified (within 50m)				
84	15.10	Bedrock faults and other linear features (50k)	1	6	16	17	-
Page	Section	Boreholes	On site	0-50m	50-250m	250-500m	500-2000m
87	16.1	BGS Boreholes	0	0	0	-	-
Page	Section	Natural ground subsidence					
88	17.1	Shrink swell clays	Very low (within 50m)				
89	17.2	Running sands	Very low (within 50m)				
91	17.3	Compressible deposits	Moderate (within 50m)				
93	17.4	Collapsible deposits	Very low (within 50m)				
94	17.5	Landslides	Very low (within 50m)				
95	17.6	Ground dissolution of soluble rocks	Negligible (within 50m)				
Page	Section	Mining, ground workings and natural cavities	On site	0-50m	50-250m	250-500m	500-2000m
96	18.1	Natural cavities	0	0	0	0	-
97	18.2	BritPits	0	0	0	2	-
97	18.3	Surface ground workings	0	0	11	-	-
98	18.4	Underground workings	0	0	0	16	28
100	18.5	Historical Mineral Planning Areas	0	0	0	0	-

100	**18.6**	**Non-coal mining**	2	0	1	1	4
101	18.7	Mining cavities	0	0	0	0	0
101	18.8	JPB mining areas	None (within 0m)				
101	**18.9**	**Coal mining**	Identified (within 0m)				
102	18.10	Brine areas	None (within 0m)				
102	18.11	Gypsum areas	None (within 0m)				
102	18.12	Tin mining	None (within 0m)				
102	18.13	Clay mining	None (within 0m)				

Page	Section	Radon	
103	**19.1**	**Radon**	Between 1% and 3% (within 0m)

Page	Section	Soil chemistry	On site	0-50m	50-250m	250-500m	500-2000m
104	**20.1**	**BGS Estimated Background Soil Chemistry**	7	5	-	-	-
105	20.2	BGS Estimated Urban Soil Chemistry	0	0	-	-	-
105	20.3	BGS Measured Urban Soil Chemistry	0	0	-	-	-

Page	Section	Railway infrastructure and projects	On site	0-50m	50-250m	250-500m	500-2000m
106	21.1	Underground railways (London)	0	0	0	-	-
106	21.2	Underground railways (Non-London)	0	0	0	-	-
106	21.3	Railway tunnels	0	0	0	-	-
106	21.4	Historical railway and tunnel features	0	0	0	-	-
106	21.5	Royal Mail tunnels	0	0	0	-	-
107	21.6	Historical railways	0	0	0	-	-
107	21.7	Railways	0	0	0	-	-
107	21.8	Crossrail 1	0	0	0	0	-
107	21.9	Crossrail 2	0	0	0	0	-
107	21.10	HS2	0	0	0	0	-

Recent aerial photograph

Capture Date: 01/07/2018

Site Area: 0.69ha

Recent site history - 2012 aerial photograph

Capture Date: 26/03/2012

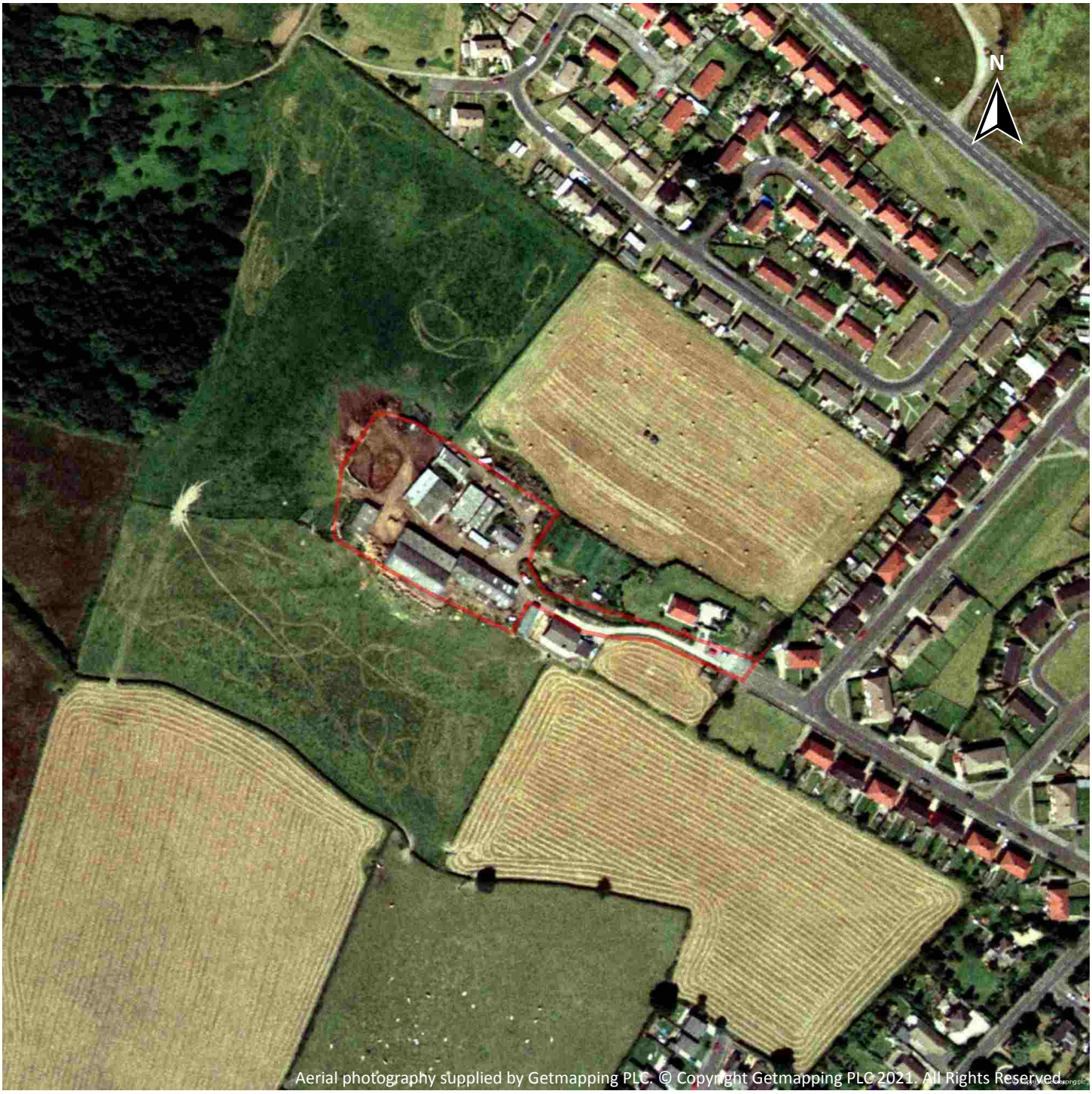
Site Area: 0.69ha

Recent site history - 2009 aerial photograph

Capture Date: 11/09/2009

Site Area: 0.69ha

Recent site history - 1999 aerial photograph



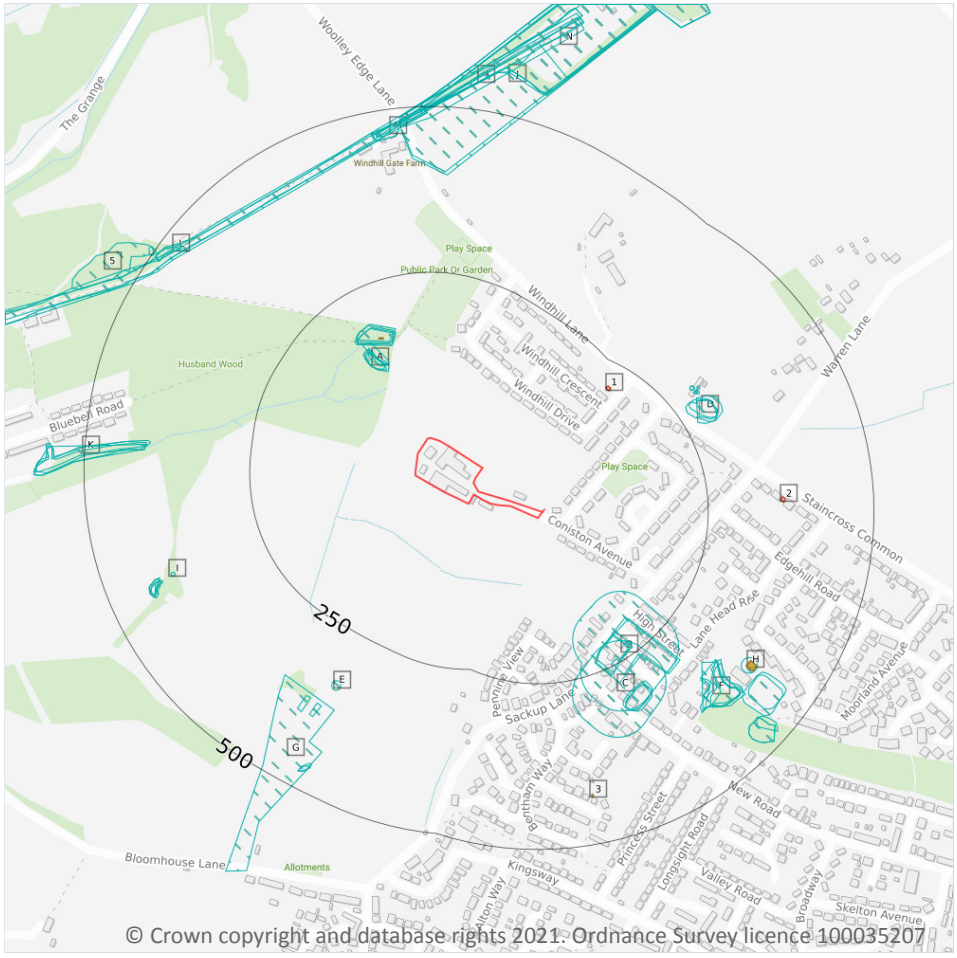
Capture Date: 10/07/1999

Site Area: 0.69ha

OS MasterMap site plan

Site Area: 0.69ha

1 Past land use



Site Outline

Search buffers in metres (m)

Historical industrial land uses

Historical tanks

Historical energy features

1.1 Historical industrial land uses

Records within 500m	78

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 13**

ID	Location	Land use	Dates present	Group ID
A	118m NW	Refuse Heap	1930	1539368

ID	Location	Land use	Dates present	Group ID
A	121m NW	Refuse Heap	1938	1524704
A	124m NW	Refuse Heap	1948	1531451
A	127m NW	Refuse Heap	1951	1460092
A	127m NW	Refuse Heap	1965	1534143
A	151m N	Sewage Works	1938	1517746
A	152m N	Rural District Council Sewage Works	1930	1433254
B	153m SE	Unspecified Works	1965	1493827
A	155m N	Sewage Works	1948	1557455
A	156m N	Sewage Works	1951	1491578
B	200m SE	Chaplet and Gas Hook Works	1948	1458891
B	204m SE	Unspecified Works	1930	1487929
B	206m SE	Chaplet and Gas Hook Works	1951	1532406
B	209m SE	Chaplet and Gas Hook Works	1938	1549119
C	216m SE	Unspecified Works	1904	1529107
D	265m NE	Unspecified Heap	1930 - 1948	1534044
D	270m NE	Refuse Heap	1904	1437977
D	272m NE	Unspecified Heap	1951 - 1965	1489350
D	276m NE	Unspecified Heap	1948	1493014
D	289m NE	Old Coal Shaft	1904	1411680
D	289m NE	Unspecified Old Shaft	1948	1418311
D	290m NE	Unspecified Old Shaft	1938	1508455
C	293m SE	Unspecified Heap	1948 - 1951	1541198
D	293m NE	Unspecified Old Shaft	1930	1495156
C	296m SE	Unspecified Heap	1930	1469202
C	296m SE	Unspecified Heap	1938	1490465
D	298m NE	Unspecified Old Shaft	1951	1418314
E	327m SW	Unspecified Levels	1938	1473191
F	330m SE	Unspecified Quarry	1948	1510710

ID	Location	Land use	Dates present	Group ID
F	343m SE	Unspecified Quarry	1951	1499640
F	344m SE	Unspecified Ground Workings	1930	1494977
F	345m SE	Unspecified Quarry	1938	1546539
F	346m SE	Unspecified Quarry	1891 - 1904	1477765
F	351m SE	Unspecified Quarry	1965	1488377
G	359m SW	Tramway Sidings	1930 - 1938	1506500
E	369m SW	Unspecified Levels	1930	1440499
E	372m SW	Unspecified Levels	1930	1440500
H	377m SE	Sandstone Quarry	1854	1461403
I	392m W	Unspecified Hole	1904	1423047
J	398m N	Colliery	1930	1516066
J	402m N	Disused Colliery	1951	1431738
K	403m W	Refuse Heap	1951	1480085
H	406m SE	Water Works Reservoirs	1930	1519440
K	407m W	Refuse Heap	1930	1554750
K	408m W	Refuse Heap	1948	1470535
H	408m SE	Unspecified Heap	1965	1417528
K	410m W	Refuse Heap	1938	1465121
I	414m SW	Unspecified Ground Workings	1930	1514052
I	416m W	Unspecified Ground Workings	1951	1517223
I	417m SW	Unspecified Heap	1938	1488339
I	417m SW	Unspecified Heap	1948	1497787
I	422m SW	Old Coal Pit	1904	1443011
4	425m NW	Railway Sidings	1938	1551127
L	429m NW	Railway Sidings	1904 - 1930	1551015
L	430m NW	Railway Sidings	1891	1469420
H	447m SE	Unspecified Quarry	1904	1508305
H	447m SE	Unspecified Quarry	1948	1555612

ID	Location	Land use	Dates present	Group ID
H	449m SE	Unspecified Quarry	1965	1545484
M	455m N	Tunnel	1938	1459351
M	456m N	Tunnel	1930	1519792
G	456m SW	Unspecified Level	1930	1536487
M	459m N	Tunnel	1891	1463391
M	460m N	Tunnel	1948	1475395
G	460m SW	Unspecified Level	1938	1486555
M	461m N	Tunnel	1904	1494252
L	469m NW	Refuse Heap	1930	1489220
L	471m NW	Refuse Heap	1938	1502440
N	479m N	Unspecified Mine	1978	1481549
N	479m N	Unspecified Mine	1965	1500089
N	479m N	Unspecified Mine	1990	1530833
J	485m N	Railway Sidings	1904	1493211
J	485m N	Railway Sidings	1891	1544717
N	485m N	Colliery	1891 - 1904	1468006
J	492m N	Railway Sidings	1948	1497275
N	492m N	Colliery	1948	1471810
J	493m N	Railway Sidings	1930	1527934
L	497m NW	Unspecified Old Shaft	1904 - 1951	1477430
5	499m NW	Unspecified Heaps	1965 - 1990	1460309

This data is sourced from Ordnance Survey / Groundsure.

1.2 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, 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 13**

ID	Location	Land use	Dates present	Group ID
A	164m NW	Unspecified Tank	1913	228895
H	385m SE	Unspecified Tank	1982 - 1984	233635
H	386m SE	Unspecified Tank	1978	242406
3	425m S	Unspecified Tank	1906	228896

This data is sourced from Ordnance Survey / Groundsure.

1.3 Historical energy features

Records within 500m	**2**

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 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 13**

ID	Location	Land use	Dates present	Group ID
1	208m NE	Electricity Substation	1977 - 1994	146705
2	360m E	Electricity Substation	1978	131068

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 un-grouped 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 un-grouped features can be cross-referenced across sections 1 and 2 using the 'Group ID'.

This data is sourced from Ordnance Survey / Groundsure.

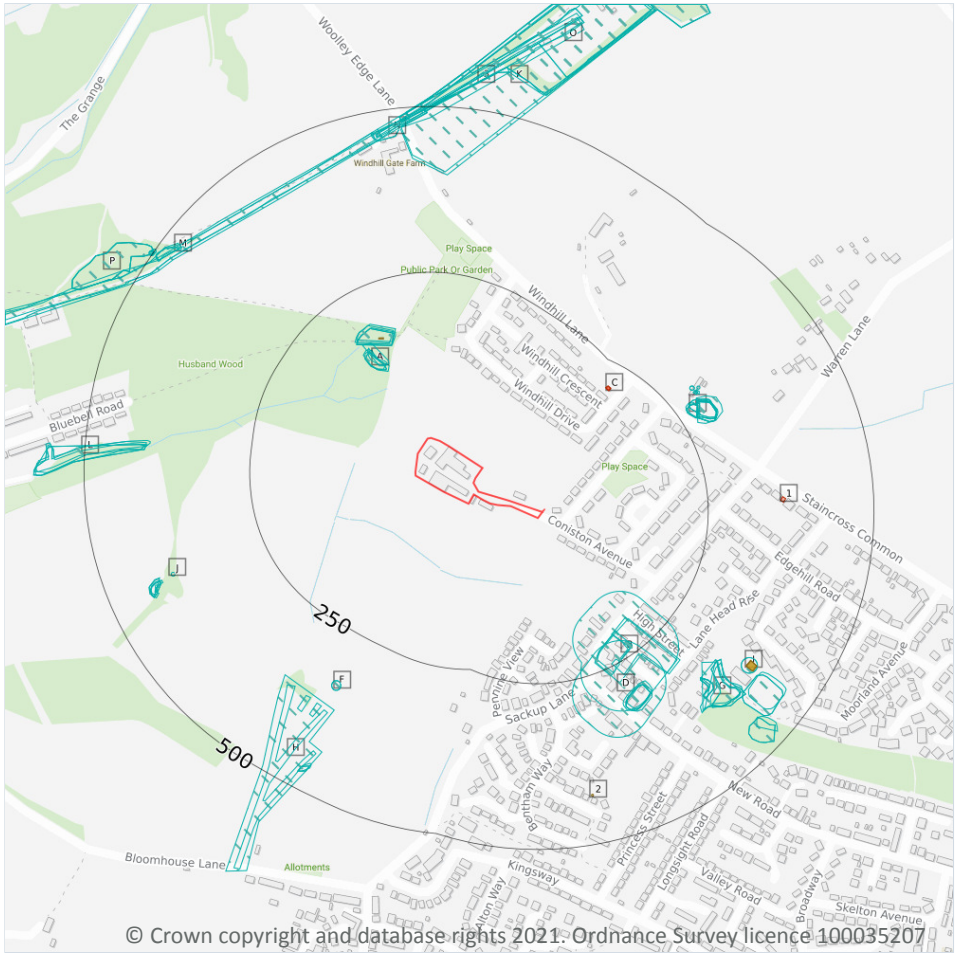
1.6 Historical military land

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

Historical energy features

2.1 Historical industrial land uses

Records within 500m	112

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
A	118m NW	Refuse Heap	1930	1539368
A	121m NW	Refuse Heap	1938	1524704
A	121m NW	Refuse Heap	1938	1524704

ID	Location	Land Use	Date	Group ID
A	124m NW	Refuse Heap	1948	1531451
A	127m NW	Refuse Heap	1951	1460092
A	127m NW	Refuse Heap	1965	1534143
A	151m N	Sewage Works	1938	1517746
A	151m N	Sewage Works	1938	1517746
A	152m N	Rural District Council Sewage Works	1930	1433254
B	153m SE	Unspecified Works	1965	1493827
A	155m N	Sewage Works	1948	1557455
A	156m N	Sewage Works	1951	1491578
B	200m SE	Chaplet and Gas Hook Works	1948	1458891
B	204m SE	Unspecified Works	1930	1487929
B	206m SE	Chaplet and Gas Hook Works	1951	1532406
B	209m SE	Chaplet and Gas Hook Works	1938	1549119
D	216m SE	Unspecified Works	1904	1529107
E	265m NE	Unspecified Heap	1948	1534044
E	266m NE	Unspecified Heap	1938	1534044
E	266m NE	Unspecified Heap	1938	1534044
E	267m NE	Unspecified Heap	1930	1534044
E	270m NE	Refuse Heap	1904	1437977
E	272m NE	Unspecified Heap	1965	1489350
E	272m NE	Unspecified Heap	1951	1489350
E	273m NE	Unspecified Heap	1930	1534044
E	273m NE	Unspecified Heap	1930	1534044
E	273m NE	Unspecified Heap	1930	1534044
E	273m NE	Unspecified Heap	1930	1534044
E	274m NE	Unspecified Heap	1938	1534044
E	274m NE	Unspecified Heap	1938	1534044
E	276m NE	Unspecified Heap	1948	1493014

ID	Location	Land Use	Date	Group ID
E	289m NE	Old Coal Shaft	1904	1411680
E	289m NE	Unspecified Old Shaft	1948	1418311
E	290m NE	Unspecified Old Shaft	1938	1508455
E	290m NE	Unspecified Old Shaft	1938	1508455
D	293m SE	Unspecified Heap	1951	1541198
E	293m NE	Unspecified Old Shaft	1930	1495156
D	295m SE	Unspecified Heap	1948	1541198
D	296m SE	Unspecified Heap	1930	1469202
D	296m SE	Unspecified Heap	1938	1490465
D	296m SE	Unspecified Heap	1938	1490465
E	298m NE	Unspecified Old Shaft	1951	1418314
F	327m SW	Unspecified Levels	1938	1473191
F	327m SW	Unspecified Levels	1938	1473191
G	330m SE	Unspecified Quarry	1948	1510710
G	343m SE	Unspecified Quarry	1951	1499640
G	344m SE	Unspecified Ground Workings	1930	1494977
G	344m SE	Unspecified Ground Workings	1930	1494977
G	344m SE	Unspecified Ground Workings	1930	1494977
G	344m SE	Unspecified Ground Workings	1930	1494977
G	345m SE	Unspecified Quarry	1938	1546539
G	346m SE	Unspecified Quarry	1904	1477765
G	346m SE	Unspecified Quarry	1891	1477765
G	351m SE	Unspecified Quarry	1965	1488377
H	359m SW	Tramway Sidings	1938	1506500
H	366m SW	Tramway Sidings	1930	1506500
F	369m SW	Unspecified Levels	1930	1440499
F	372m SW	Unspecified Levels	1930	1440500
I	377m SE	Sandstone Quarry	1854	1461403

ID	Location	Land Use	Date	Group ID
I	377m SE	Sandstone Quarry	1854	1461403
J	392m W	Unspecified Hole	1904	1423047
K	398m N	Colliery	1930	1516066
K	402m N	Disused Colliery	1951	1431738
L	403m W	Refuse Heap	1951	1480085
I	406m SE	Water Works Reservoirs	1930	1519440
I	406m SE	Water Works Reservoirs	1930	1519440
L	407m W	Refuse Heap	1930	1554750
L	408m W	Refuse Heap	1948	1470535
I	408m SE	Unspecified Heap	1965	1417528
L	410m W	Refuse Heap	1938	1465121
L	410m W	Refuse Heap	1938	1465121
J	414m SW	Unspecified Ground Workings	1930	1514052
J	416m W	Unspecified Ground Workings	1951	1517223
J	417m SW	Unspecified Heap	1948	1497787
J	417m SW	Unspecified Heap	1938	1488339
J	417m SW	Unspecified Heap	1938	1488339
J	422m SW	Old Coal Pit	1904	1443011
3	425m NW	Railway Sidings	1938	1551127
M	429m NW	Railway Sidings	1904	1551015
M	430m NW	Railway Sidings	1891	1469420
I	447m SE	Unspecified Quarry	1948	1555612
I	447m SE	Unspecified Quarry	1904	1508305
I	449m SE	Unspecified Quarry	1965	1545484
N	455m N	Tunnel	1938	1459351
N	456m N	Tunnel	1930	1519792
H	456m SW	Unspecified Level	1930	1536487
N	459m N	Tunnel	1891	1463391

ID	Location	Land Use	Date	Group ID
N	460m N	Tunnel	1948	1475395
H	460m SW	Unspecified Level	1938	1486555
H	460m SW	Unspecified Level	1938	1486555
N	461m N	Tunnel	1904	1494252
M	469m NW	Refuse Heap	1930	1489220
M	471m NW	Refuse Heap	1938	1502440
M	471m NW	Refuse Heap	1938	1502440
O	479m N	Unspecified Mine	1990	1530833
O	479m N	Unspecified Mine	1965	1500089
O	479m N	Unspecified Mine	1978	1481549
K	485m N	Railway Sidings	1904	1493211
K	485m N	Railway Sidings	1891	1544717
O	485m N	Colliery	1904	1468006
O	485m N	Colliery	1891	1468006
K	492m N	Railway Sidings	1948	1497275
O	492m N	Colliery	1948	1471810
K	493m N	Railway Sidings	1930	1527934
M	497m NW	Unspecified Old Shaft	1948	1477430
M	497m NW	Unspecified Old Shaft	1904	1477430
M	498m NW	Unspecified Old Shaft	1930	1477430
M	498m NW	Unspecified Old Shaft	1938	1477430
M	498m NW	Unspecified Old Shaft	1938	1477430
P	499m NW	Unspecified Heaps	1990	1460309
P	499m NW	Unspecified Heaps	1965	1460309
P	499m NW	Unspecified Heaps	1978	1460309

This data is sourced from Ordnance Survey / Groundsure.

2.2 Historical tanks

Records within 500m	5

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
A	164m NW	Unspecified Tank	1913	228895
I	385m SE	Unspecified Tank	1984	233635
I	385m SE	Unspecified Tank	1982	233635
I	386m SE	Unspecified Tank	1978	242406
2	425m S	Unspecified Tank	1906	228896

This data is sourced from Ordnance Survey / Groundsure.

2.3 Historical energy features

Records within 500m	4

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'.

Features are displayed on the Past land use - un-grouped map on **page 19**

ID	Location	Land Use	Date	Group ID
C	208m NE	Electricity Substation	1977	146705
C	208m NE	Electricity Substation	1977	146705
C	209m NE	Electricity Substation	1994	146705
1	360m E	Electricity Substation	1978	131068

This data is sourced from Ordnance Survey / Groundsure.

2.4 Historical petrol stations

Records within 500m	0

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

This data is sourced from Ordnance Survey / Groundsure.

2.5 Historical garages

Records within 500m	0

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

This data is sourced from Ordnance Survey / Groundsure.

3 Waste and landfill

Site Outline

Search buffers in metres (m)

Waste exemptions

3.1 Active or recent landfill

Records within 500m	0

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

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

3.2 Historical landfill (BGS records)

Records within 500m	0

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

This data is sourced from the British Geological Survey.

3.3 Historical landfill (LA/mapping records)

Records within 500m	0

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

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

3.4 Historical landfill (EA/NRW records)

Records within 500m	0

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

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

3.5 Historical waste sites

Records within 500m	0

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

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

3.6 Licensed waste sites

Records within 500m	0

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

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

3.7 Waste exemptions

Records within 500m	50

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

Features are displayed on the Waste and landfill map on **page 26**

ID	Location	Site	Reference	Category	Sub-Category	Description
A	On site	38 Coniston Avenue Barnsley South Yorkshire S75 5BB	EPR/ZH0272SD/A001	Disposing of waste exemption	Both agricultural and non-agricultural waste	Deposit of waste from dredging of inland waters
A	On site	38 Coniston Avenue Barnsley South Yorkshire S75 5BB	EPR/ZH0272SD/A001	Disposing of waste exemption	Both agricultural and non-agricultural waste	Deposit of waste from a portable sanitary convenience
A	On site	38 Coniston Avenue Barnsley South Yorkshire S75 5BB	EPR/ZH0272SD/A001	Disposing of waste exemption	Both agricultural and non-agricultural waste	Disposal by incineration
A	On site	38 Coniston Avenue Barnsley South Yorkshire S75 5BB	EPR/ZH0272SD/A001	Disposing of waste exemption	Both agricultural and non-agricultural waste	Burning waste in the open
A	On site	38 Coniston Avenue Barnsley South Yorkshire S75 5BB	EPR/ZH0272SD/A001	Storing waste exemption	Both agricultural and non-agricultural waste	Storage of waste in secure containers
A	On site	38 Coniston Avenue Barnsley South Yorkshire S75 5BB	EPR/ZH0272SD/A001	Storing waste exemption	Both agricultural and non-agricultural waste	Storage of waste in a secure place
A	On site	38 Coniston Avenue Barnsley South Yorkshire S75 5BB	EPR/ZH0272SD/A001	Treating waste exemption	Both agricultural and non-agricultural waste	Cleaning, washing, spraying or coating relevant waste
A	On site	38 Coniston Avenue Barnsley South Yorkshire S75 5BB	EPR/ZH0272SD/A001	Treating waste exemption	Both agricultural and non-agricultural waste	Sorting mixed waste
A	On site	38 Coniston Avenue Barnsley South Yorkshire S75 5BB	EPR/ZH0272SD/A001	Treating waste exemption	Both agricultural and non-agricultural waste	Treatment of waste food

ID	Location	Site	Reference	Category	Sub-Category	Description
A	On site	38 Coniston Avenue Barnsley South Yorkshire S75 5BB	EPR/ZH0272SD/A001	Treating waste exemption	Both agricultural and non-agricultural waste	Crushing and emptying waste vehicle oil filters
A	On site	38 Coniston Avenue Barnsley South Yorkshire S75 5BB	EPR/ZH0272SD/A001	Treating waste exemption	Both agricultural and non-agricultural waste	Treatment of waste aerosol cans
A	On site	38 Coniston Avenue Barnsley South Yorkshire S75 5BB	EPR/ZH0272SD/A001	Treating waste exemption	Both agricultural and non-agricultural waste	Crushing waste fluorescent tubes
A	On site	38 Coniston Avenue Barnsley South Yorkshire S75 5BB	EPR/ZH0272SD/A001	Treating waste exemption	Both agricultural and non-agricultural waste	Aerobic composting and associated prior treatment
A	On site	38 Coniston Avenue Barnsley South Yorkshire S75 5BB	EPR/ZH0272SD/A001	Treating waste exemption	Both agricultural and non-agricultural waste	Anaerobic digestion at premises used for agriculture and burning of resultant biogas
A	On site	38 Coniston Avenue Barnsley South Yorkshire S75 5BB	EPR/ZH0272SD/A001	Treating waste exemption	Both agricultural and non-agricultural waste	Anaerobic digestion at premises not used for agriculture and burning of resultant biogas
A	On site	38 Coniston Avenue Barnsley South Yorkshire S75 5BB	EPR/ZH0272SD/A001	Treating waste exemption	Both agricultural and non-agricultural waste	Treatment of non-hazardous pesticide washings by carbon filtration for disposal
A	On site	38 Coniston Avenue Barnsley South Yorkshire S75 5BB	EPR/ZH0272SD/A001	Treating waste exemption	Both agricultural and non-agricultural waste	Treatment of waste in a biobed or biofilter
A	On site	38 Coniston Avenue Barnsley South Yorkshire S75 5BB	EPR/ZH0272SD/A001	Treating waste exemption	Both agricultural and non-agricultural waste	Preparatory treatments (baling, sorting, shredding etc)

ID	Location	Site	Reference	Category	Sub-Category	Description
A	On site	38 Coniston Avenue Barnsley South Yorkshire S75 5BB	EPR/ZH0272SD/A001	Treating waste exemption	Both agricultural and non-agricultural waste	Screening and blending of waste
A	On site	38 Coniston Avenue Barnsley South Yorkshire S75 5BB	EPR/ZH0272SD/A001	Treating waste exemption	Both agricultural and non-agricultural waste	Treatment of waste wood and waste plant matter by chipping, shredding, cutting or pulverising
A	On site	38 Coniston Avenue Barnsley South Yorkshire S75 5BB	EPR/ZH0272SD/A001	Treating waste exemption	Both agricultural and non-agricultural waste	Mechanical treatment of end-of-life tyres
A	On site	38 Coniston Avenue Barnsley South Yorkshire S75 5BB	EPR/ZH0272SD/A001	Treating waste exemption	Both agricultural and non-agricultural waste	Recovery of scrap metal
A	On site	38 Coniston Avenue Barnsley South Yorkshire S75 5BB	EPR/ZH0272SD/A001	Using waste exemption	Both agricultural and non-agricultural waste	Use of waste in construction
A	On site	38 Coniston Avenue Barnsley South Yorkshire S75 5BB	EPR/ZH0272SD/A001	Using waste exemption	Both agricultural and non-agricultural waste	Spreading waste on agricultural land to confer benefit
A	On site	38 Coniston Avenue Barnsley South Yorkshire S75 5BB	EPR/ZH0272SD/A001	Using waste exemption	Both agricultural and non-agricultural waste	Spreading waste on non-agricultural land to confer benefit
A	On site	38 Coniston Avenue Barnsley South Yorkshire S75 5BB	EPR/ZH0272SD/A001	Using waste exemption	Both agricultural and non-agricultural waste	Use of mulch
A	On site	38 Coniston Avenue Barnsley South Yorkshire S75 5BB	EPR/ZH0272SD/A001	Using waste exemption	Both agricultural and non-agricultural waste	Spreading of plant matter to confer benefit

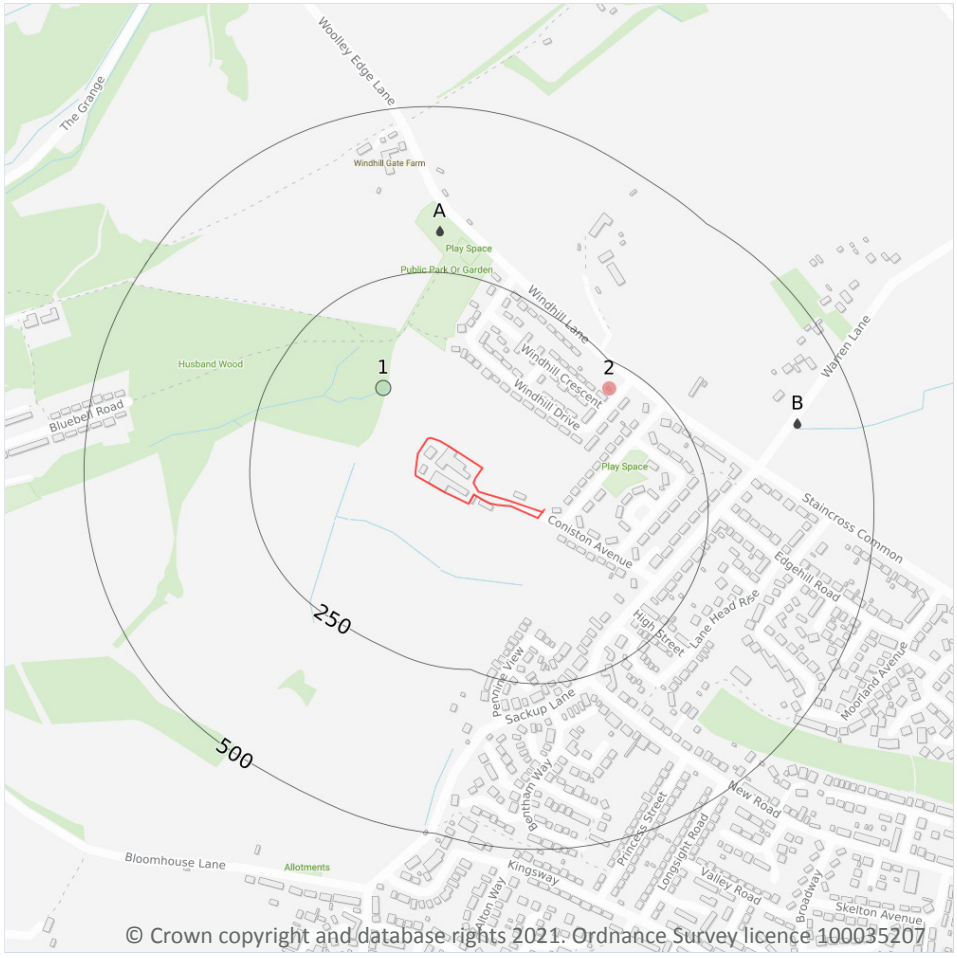
ID	Location	Site	Reference	Category	Sub-Category	Description
A	On site	38 Coniston Avenue Barnsley South Yorkshire S75 5BB	EPR/ZH0272SD/A001	Using waste exemption	Both agricultural and non-agricultural waste	Incorporation of ash into soil
A	On site	38 Coniston Avenue Barnsley South Yorkshire S75 5BB	EPR/ZH0272SD/A001	Using waste exemption	Both agricultural and non-agricultural waste	Use of baled end-of-life tyres in construction
A	On site	38 Coniston Avenue Barnsley South Yorkshire S75 5BB	EPR/ZH0272SD/A001	Using waste exemption	Both agricultural and non-agricultural waste	Burning of waste as a fuel in a small appliance
A	On site	38 Coniston Avenue Barnsley South Yorkshire S75 5BB	EPR/ZH0272SD/A001	Using waste exemption	Both agricultural and non-agricultural waste	Use of waste derived biodiesel as fuel
A	On site	38 Coniston Avenue Barnsley South Yorkshire S75 5BB	EPR/ZH0272SD/A001	Using waste exemption	Both agricultural and non-agricultural waste	Use of waste for a specified purpose
A	On site	38 Coniston Avenue Barnsley South Yorkshire S75 5BB	EPR/ZH0272SD/A001	Using waste exemption	Both agricultural and non-agricultural waste	Use of waste to manufacture finished goods
A	On site	38 Coniston Avenue Barnsley South Yorkshire S75 5BB	EPR/PF0337NT/A001	Disposing of waste exemption	Both agricultural and non-agricultural waste	Disposal by incineration
A	On site	38 Coniston Avenue Barnsley South Yorkshire S75 5BB	EPR/PF0337NT/A001	Disposing of waste exemption	Both agricultural and non-agricultural waste	Burning waste in the open
A	On site	38 Coniston Avenue Barnsley South Yorkshire S75 5BB	EPR/PF0337NT/A001	Storing waste exemption	Both agricultural and non-agricultural waste	Storage of waste in a secure place

ID	Location	Site	Reference	Category	Sub-Category	Description
A	On site	38 Coniston Avenue Barnsley South Yorkshire S75 5BB	EPR/PF0337NT/A001	Treating waste exemption	Both agricultural and non-agricultural waste	Treatment of waste food
A	On site	38 Coniston Avenue Barnsley South Yorkshire S75 5BB	EPR/PF0337NT/A001	Treating waste exemption	Both agricultural and non-agricultural waste	Preparatory treatments (baling, sorting, shredding etc)
A	On site	38 Coniston Avenue Barnsley South Yorkshire S75 5BB	EPR/PF0337NT/A001	Treating waste exemption	Both agricultural and non-agricultural waste	Treatment of waste wood and waste plant matter by chipping, shredding, cutting or pulverising
A	On site	38 Coniston Avenue Barnsley South Yorkshire S75 5BB	EPR/PF0337NT/A001	Using waste exemption	Both agricultural and non-agricultural waste	Spreading waste on agricultural land to confer benefit
A	On site	38 Coniston Avenue Barnsley South Yorkshire S75 5BB	EPR/PF0337NT/A001	Using waste exemption	Both agricultural and non-agricultural waste	Spreading waste on non-agricultural land to confer benefit
A	On site	38 Coniston Avenue Barnsley South Yorkshire S75 5BB	EPR/PF0337NT/A001	Using waste exemption	Both agricultural and non-agricultural waste	Use of mulch
A	On site	38 Coniston Avenue Barnsley South Yorkshire S75 5BB	EPR/PF0337NT/A001	Using waste exemption	Both agricultural and non-agricultural waste	Spreading of plant matter to confer benefit
A	On site	38 Coniston Avenue Barnsley South Yorkshire S75 5BB	EPR/PF0337NT/A001	Using waste exemption	Both agricultural and non-agricultural waste	Incorporation of ash into soil
A	On site	38 Coniston Avenue Barnsley South Yorkshire S75 5BB	EPR/PF0337NT/A001	Using waste exemption	Both agricultural and non-agricultural waste	Burning of waste as a fuel in a small appliance

ID	Location	Site	Reference	Category	Sub-Category	Description
A	**On site**	**38 Coniston Avenue Barnsley South Yorkshire S75 5BB**	**EPR/PF0337NT/A001**	**Using waste exemption**	**Both agricultural and non-agricultural waste**	**Use of waste for a specified purpose**
A	**On site**	**38 Coniston Avenue Barnsley South Yorkshire S75 5BB**	**EPR/PF0337NT/A001**	**Using waste exemption**	**Both agricultural and non-agricultural waste**	**Use of waste to manufacture finished goods**
B	471m N	Church Farm Church Street Woolley Wakefield WF4 2JU	EPR/MF0237ZV/A001	Storing waste exemption	Non-Agricultural Waste Only	Storage of sludge
B	471m N	Church Farm Church Street Woolley Wakefield WF4 2JU	EPR/PF0830NU/A001	Storing waste exemption	Non-Agricultural Waste Only	Storage of sludge
1	482m N	Bretton Mill Farm Huddersfield Road BARNSLEY South Yorkshire S75 4BX	EPR/EF0609LL/A001	Storing waste exemption	Non-Agricultural Waste Only	Storage of sludge

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

4 Current industrial land use



Site Outline

Search buffers in metres (m)

Recent industrial land uses

Licensed Discharges to controlled waters

Pollution Incidents (EA/NRW)

4.1 Recent industrial land uses

Records within 250m	1

Current potentially contaminative industrial sites.

Features are displayed on the Current industrial land use map on **page 34**

ID	Location	Company	Address	Activity	Category
2	211m NE	Electricity Sub Station	South Yorkshire, S75	Electrical Features	Infrastructure and Facilities

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	4

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 34**

ID	Location	Address	Details	
A	311m N	WINDHILL GATE FARM, DARTON, WOOLLEY, WAKEFIELD, WEST YORKSHIRE	Effluent Type: SEWAGE DISCHARGES - FINAL/TREATED EFFLUENT - NOT WATER COMPANY Permit Number: C3846 Permit Version: 1 Receiving Water: SOAKAWAY AT WINDHILL GATE FARM	Status: TRANSFERRED FROM COPA 1974 Issue date: 14/01/1985 Effective Date: 14/01/1985 Revocation Date: 25/07/2012
A	311m N	WINDHILL GATE FARM, DARTON, WOOLLEY, WAKEFIELD, WEST YORKSHIRE	Effluent Type: SEWAGE DISCHARGES - FINAL/TREATED EFFLUENT - NOT WATER COMPANY Permit Number: C3846 Permit Version: 2 Receiving Water: SOAKAWAY AT WINDHILL GATE FARM	Status: TRANSFERRED FROM COPA 1974 Issue date: 26/07/2012 Effective Date: 26/07/2012 Revocation Date: -
B	406m E	STAINCROSS COMMON SPS, WARREN ROAD, STAINCROSS COMMON, NEAR BARNSLEY, SOUTH YORKSHIRE	Effluent Type: SEWAGE DISCHARGES - PUMPING STATION - WATER COMPANY Permit Number: WRA7045 Permit Version: 1 Receiving Water: TRIB OF BUSHCLIFF BECK	Status: NEW CONSENT, BY APPLICATION (WRA 91, SECTION 88) Issue date: 18/05/1994 Effective Date: 18/05/1994 Revocation Date: 05/02/2003
B	406m E	STAINCROSS COMMON SPS, WARREN ROAD, STAINCROSS COMMON, NEAR BARNSLEY, SOUTH YORKSHIRE	Effluent Type: SEWAGE DISCHARGES - PUMPING STATION - WATER COMPANY Permit Number: WRA7045 Permit Version: 2 Receiving Water: TRIB OF BUSHCLIFFE BECK	Status: MODIFIED - (WRA 91 SCHED 10 - AS AMENDED BY ENV ACT 1995) Issue date: 06/02/2003 Effective Date: 06/02/2003 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 34**

ID	Location	Details	
1	102m NW	Incident Date: 16/07/2001 Incident Identification: 16689 Pollutant: Oils and Fuel Pollutant Description: Diesel	Water Impact: Category 3 (Minor) 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

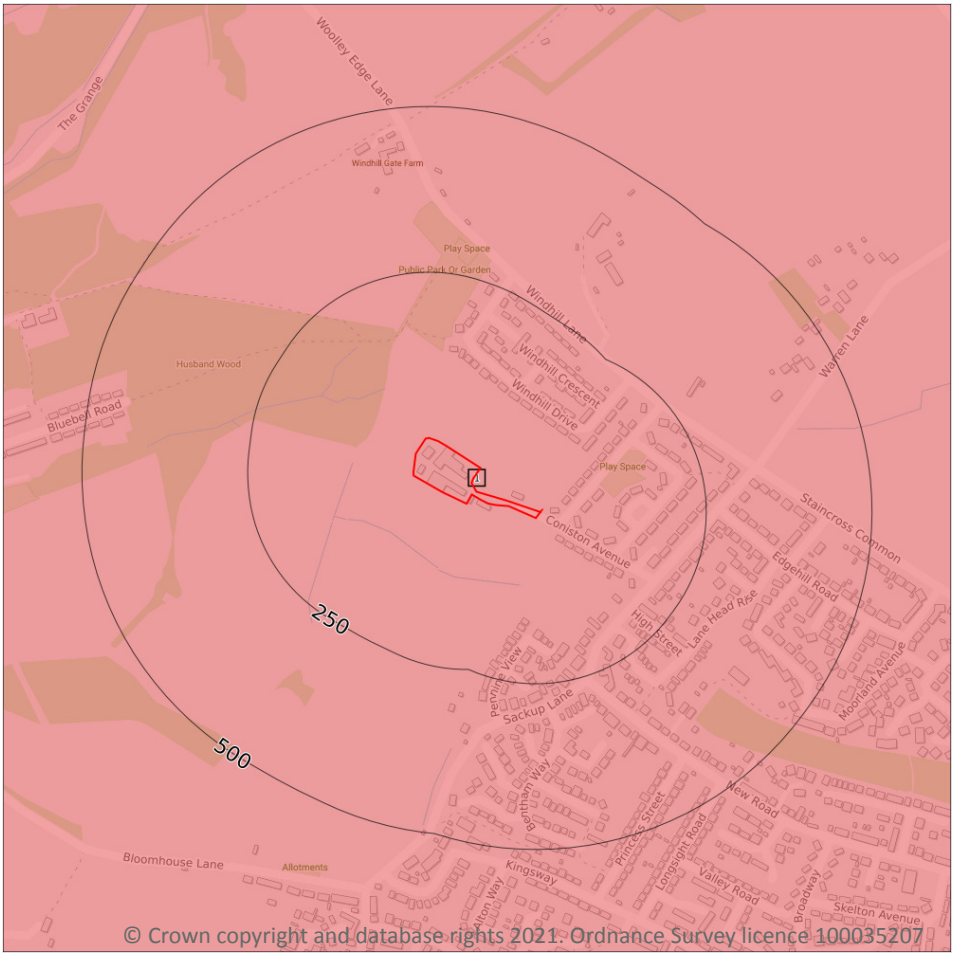
5.1 Superficial aquifer

Records within 500m	0

Aquifer status of groundwater held within superficial geology.

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

Bedrock aquifer



Site Outline

Search buffers in metres (m)

- Principal
- Secondary A
- Secondary B
- Secondary Undifferentiated
- Unproductive

5.2 Bedrock aquifer

Records within 500m	1

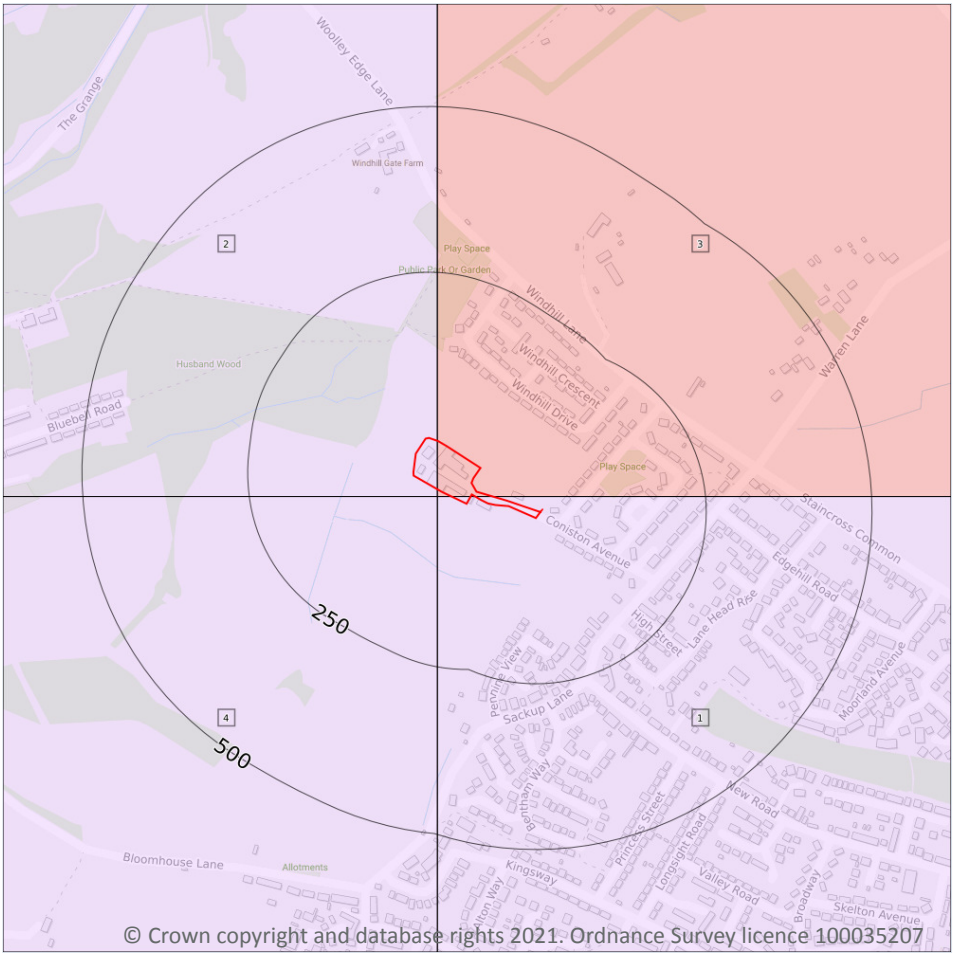
Aquifer status of groundwater held within bedrock geology.

Features are displayed on the Bedrock aquifer map on **page 41**

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



Site Outline

Search buffers in metres (m)

Superficial vulnerability

- Principal superficial aquifer, high vulnerability
- Secondary superficial aquifer, high vulnerability
- Principal superficial aquifer, medium vulnerability
- Secondary superficial aquifer, medium vulnerability
- Principal superficial aquifer, low vulnerability
- Secondary superficial aquifer, low vulnerability

Bedrock vulnerability

- Principal bedrock aquifer, high vulnerability
- Secondary bedrock aquifer, high vulnerability
- Principal bedrock aquifer, medium vulnerability
- Secondary bedrock aquifer, medium vulnerability
- Principal bedrock aquifer, low vulnerability
- Secondary bedrock aquifer, low vulnerability

Other information

- Unproductive aquifer
- Soluble rock risk
- Local information

5.3 Groundwater vulnerability

Records within 50m	4

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 42**

ID	Location	Summary	Soil / surface	Superficial geology	Bedrock geology
1	**On site**	**Summary Classification: Secondary bedrock aquifer - Medium Vulnerability Combined classification: Productive Bedrock Aquifer, No Superficial Aquifer**	**Leaching class: Low Infiltration value: <40% Dilution value: 300-550mm/year**	**Vulnerability: - Aquifer type: - Thickness: <3m Patchiness value: <90% Recharge potential: No Data**	**Vulnerability: Medium Aquifer type: Secondary Flow mechanism: Well connected fractures**
2	**On site**	**Summary Classification: Secondary bedrock aquifer - Medium Vulnerability Combined classification: Productive Bedrock Aquifer, No Superficial Aquifer**	**Leaching class: Low Infiltration value: <40% Dilution value: <300mm/year**	**Vulnerability: - Aquifer type: - Thickness: 3-10m Patchiness value: <90% Recharge potential: No Data**	**Vulnerability: Medium Aquifer type: Secondary Flow mechanism: Well connected fractures**
3	**On site**	**Summary Classification: Secondary bedrock aquifer - High Vulnerability Combined classification: Productive Bedrock Aquifer, No Superficial Aquifer**	**Leaching class: High Infiltration value: >70% Dilution value: <300mm/year**	**Vulnerability: - Aquifer type: - Thickness: <3m Patchiness value: <90% Recharge potential: No Data**	**Vulnerability: High Aquifer type: Secondary Flow mechanism: Well connected fractures**
4	9m SW	Summary Classification: Secondary bedrock aquifer - Medium Vulnerability Combined classification: Productive Bedrock Aquifer, No Superficial Aquifer	Leaching class: Low Infiltration value: <40% Dilution value: 300-550mm/year	Vulnerability: - Aquifer type: - Thickness: <3m Patchiness value: <90% Recharge potential: No Data	Vulnerability: Medium Aquifer type: Secondary Flow mechanism: Well connected fractures

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

5.4 Groundwater vulnerability- soluble rock risk

Records on site	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.

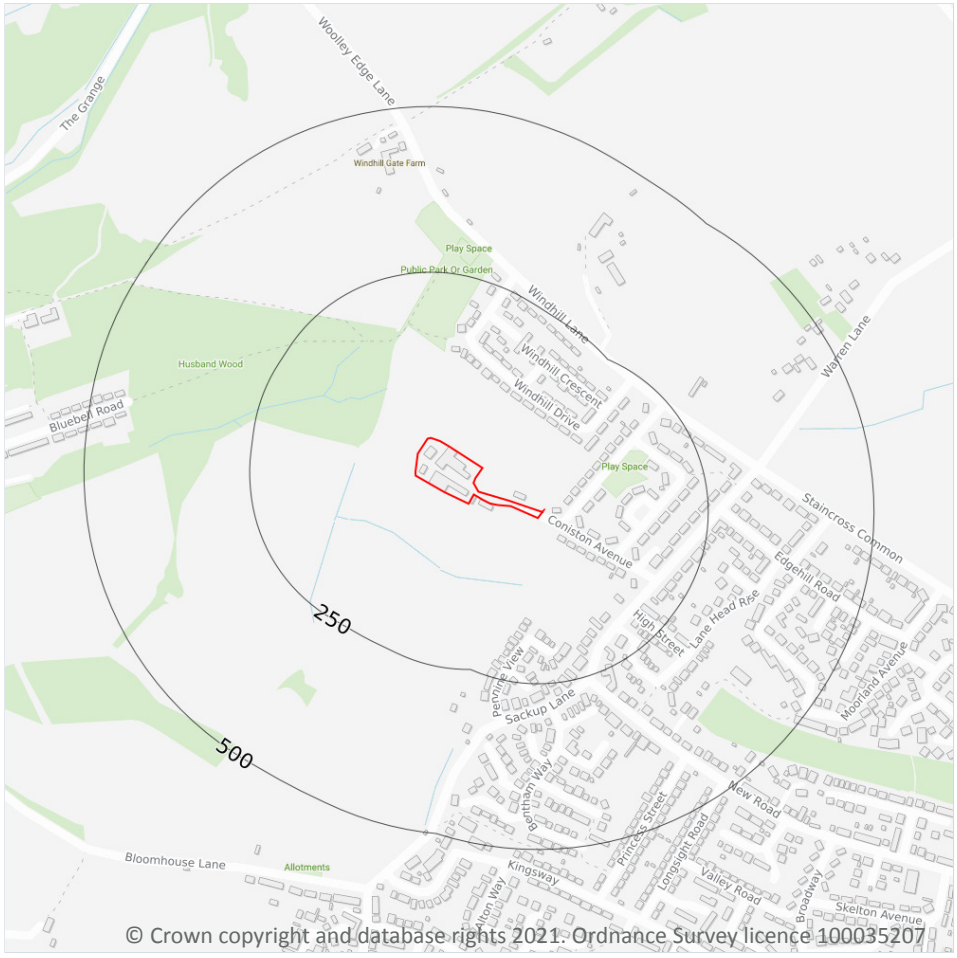
5.5 Groundwater vulnerability- local information

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.

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

Abstractions and Source Protection Zones



Site Outline

Search buffers in metres (m)

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

5.6 Groundwater abstractions

Records within 2000m	2

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 44**

ID	Location	Details	
-	1022m W	Status: Historical Licence No: NE/027/0008/006 Details: Pollution Remediation Direct Source: GROUNDWATERS Point: UNDERGROUND STRATA AT FORMER WOOLEY COLLIERY Data Type: Point Name: THE COAL AUTHORITY Easting: 430949 Northing: 411161	Annual Volume (m^3): - Max Daily Volume (m^3): - Original Application No: - Original Start Date: 13/07/2009 Expiry Date: 31/03/2017 Issue No: 1 Version Start Date: 13/07/2009 Version End Date: -
-	1022m W	Status: Active Licence No: NE/027/0008/006/R01 Details: Pollution Remediation Direct Source: GROUNDWATERS Point: UNDERGROUND STRATA AT FORMER WOOLEY COLLIERY Data Type: Point Name: THE COAL AUTHORITY Easting: 430949 Northing: 411161	Annual Volume (m^3): - Max Daily Volume (m^3): - Original Application No: - Original Start Date: 20/04/2017 Expiry Date: 31/03/2029 Issue No: 1 Version Start Date: 20/04/2017 Version End Date: -

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

5.7 Surface water abstractions

Records within 2000m	**0**

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

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

5.8 Potable abstractions

Records within 2000m	**0**

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

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

5.9 Source Protection Zones

Records within 500m	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.

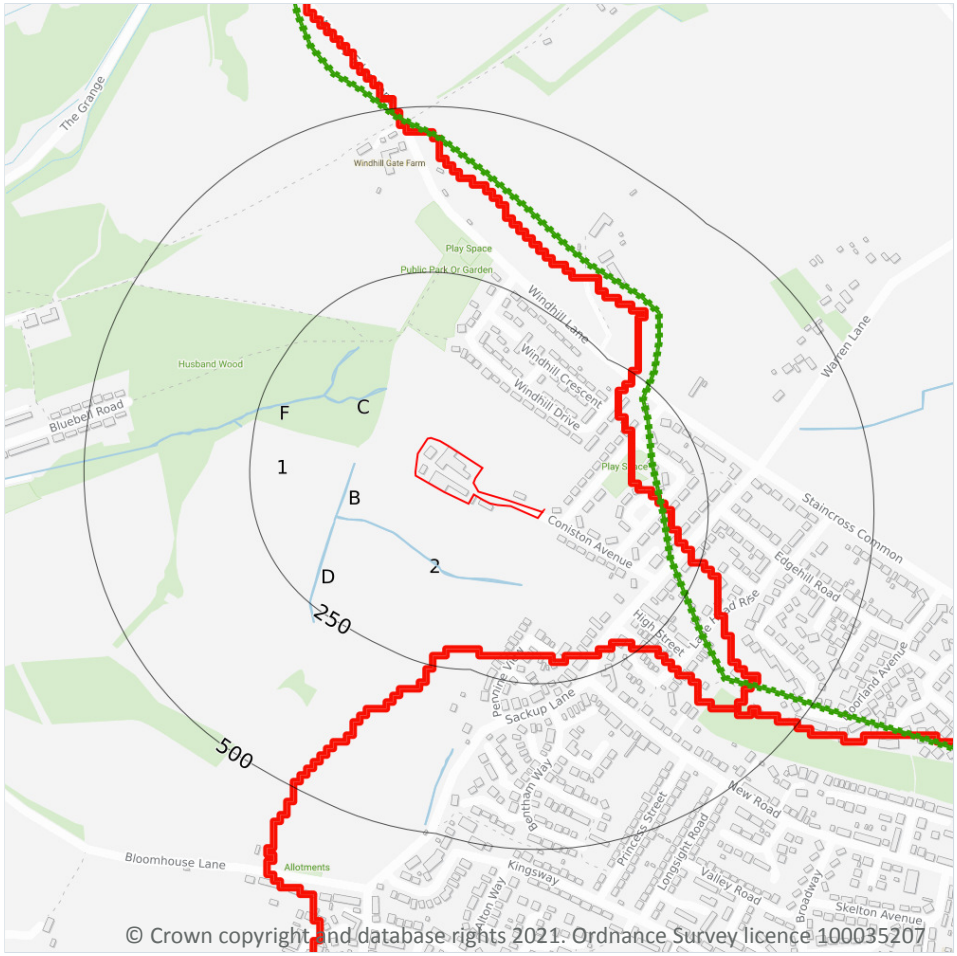
5.10 Source Protection Zones (confined aquifer)

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



Site Outline

Search buffers in metres (m)

Water Network (OS MasterMap)

Surface water features (wider than 5m)

Surface water features (narrower than 5m)

WFD River, canal and surface water transfer water bodies

WFD Lake water bodies

WFD Transitional and coastal water bodies

WFD Surface water body catchments boundaries

WFD Groundwater body boundaries

6.1 Water Network (OS MasterMap)

Records within 250m	**7**

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
2	91m SW	Inland river not influenced by normal tidal action.	On ground surface	Watercourse contains water year round (in normal circumstances)	-

ID	Location	Type of water feature	Ground level	Permanence	Name
B	92m W	Inland river not influenced by normal tidal action.	On ground surface	Watercourse contains water year round (in normal circumstances)	-
C	97m NW	Inland river not influenced by normal tidal action.	On ground surface	Watercourse contains water year round (in normal circumstances)	-
B	134m SW	Inland river not influenced by normal tidal action.	On ground surface	Watercourse contains water year round (in normal circumstances)	-
D	134m SW	Inland river not influenced by normal tidal action.	On ground surface	Watercourse contains water year round (in normal circumstances)	-
C	164m NW	Inland river not influenced by normal tidal action.	On ground surface	Watercourse contains water year round (in normal circumstances)	-
F	167m 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

Records within 250m	8

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

Records on site	1

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

Features are displayed on the Hydrology map on **page 47**

ID	Location	Type	Water body catchment	Water body ID	Operational catchment	Management catchment
1	**On site**	**River WB catchment**	**Dearne from Bentley Brook to Cawthorne Dyke**	**GB104027063260**	**Dearne**	**Don and Rother**

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

6.4 WFD Surface water bodies

Records identified	**1**

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

Features are displayed on the Hydrology map on **page 47**

ID	Location	Type	Name	Water body ID	Overall rating	Chemical rating	Ecological rating	Year
-	1148m W	River	Dearne from Bentley Brook to Cawthorne Dyke	GB104027063260	Moderate	Good	Moderate	2016

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

6.5 WFD Groundwater bodies

Records on site	**1**

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

Features are displayed on the Hydrology map on **page 47**

ID	Location	Name	Water body ID	Overall rating	Chemical rating	Quantitative	Year
A	**On site**	**Don & Rother Millstone grit & Coal Measures**	**GB40402G992300**	**Poor**	**Poor**	**Good**	**2015**

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 Sea (RoFRaS)

Records within 50m	0

The chance of flooding from rivers and/or the sea in any given year, based on cells of 50m. Each cell is allocated one of four flood risk categories, taking into account flood defences and their condition; 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).

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	**Negligible**

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.

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

Site Outline

Search buffers in metres (m)

- High
- Moderate - High
- Moderate
- Low
- Negligible

9.1 Groundwater flooding

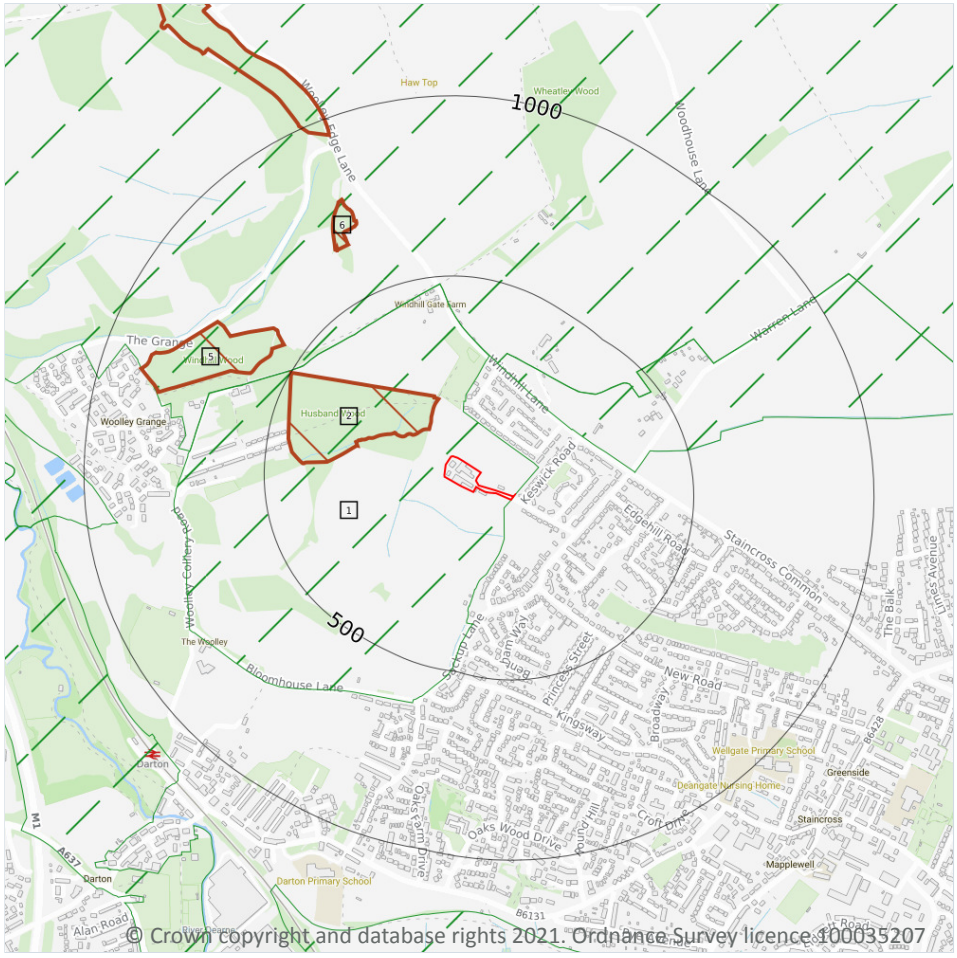
Highest risk on site	**Negligible**
Highest risk within 50m	**Negligible**

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 54**

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	1

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.

Features are displayed on the Environmental designations map on **page 55**

ID	Location	Name	Data source
-	1568m E	Notton Wood	Natural England

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

10.7 Designated Ancient Woodland

Records within 2000m	6

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 55**

ID	Location	Name	Woodland Type
2	97m NW	Unknown	Ancient & Semi-Natural Woodland
5	558m NW	Windhill Wood	Ancient & Semi-Natural Woodland
6	654m NW	Unknown	Ancient & Semi-Natural Woodland
7	954m N	Jobson Wood	Ancient & Semi-Natural Woodland
-	1568m E	Notton Park	Ancient Replanted Woodland
-	1835m E	Notton Park	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	3

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

Features are displayed on the Environmental designations map on **page 55**

ID	Location	Name	Local Authority name
1	**On site**	**South and West Yorkshire**	**Barnsley**
3	246m NE	South and West Yorkshire	Barnsley
4	286m NE	South and West Yorkshire	Wakefield

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	3

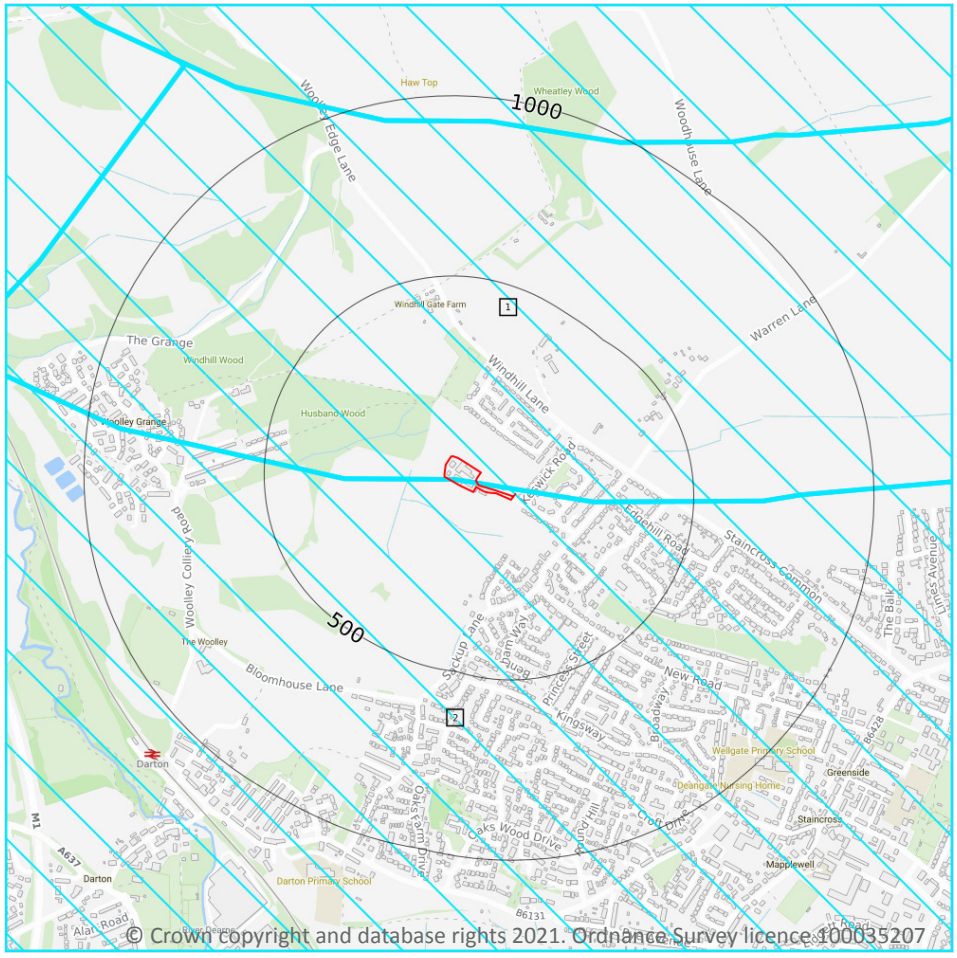
Areas at risk from agricultural nitrate pollution designated under the EC Nitrate Directive (91/676/EEC). These are areas of land that drain into waters polluted by nitrates. Farmers operating within these areas have to follow mandatory rules to tackle nitrate loss from agriculture.

Location	Name	Type	NVZ ID	Status
On site	**River Dearne NVZ**	**Surface Water**	**S278**	**Existing**

Location	Name	Type	NVZ ID	Status
190m N	Owler Beck from Source to River Calder NVZ	Surface Water	S268	Existing
1936m NE	Owler Beck from Source to River Calder NVZ	Surface Water	S268	Existing

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

SSSI Impact Zones and Units



10.17 SSSI Impact Risk Zones

Records on site	2

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 61**

ID	Location	Type of developments requiring consultation
1	On site	**Infrastructure - Airports, helipads and other aviation proposals. Minerals, Oil and Gas - Planning applications for quarries, including: new proposals, Review of Minerals Permissions (ROMP), extensions, variations to conditions etc. Oil & gas exploration/extraction. Air pollution - Livestock & poultry units with floorspace > 500m², slurry lagoons > 750m² & manure stores > 3500t. Combustion - General combustion processes >50MW energy input. Incl: energy from waste incineration, other incineration, landfill gas generation plant, pyrolysis/gasification, anaerobic digestion, sewage treatment works, other incineration/ combustion**
2	On site	**Infrastructure - Airports, helipads and other aviation proposals. Air pollution - Livestock & poultry units with floorspace > 500m², slurry lagoons > 750m² & manure stores > 3500t. Combustion - General combustion processes >50MW energy input. Incl: energy from waste incineration, other incineration, landfill gas generation plant, pyrolysis/gasification, anaerobic digestion, sewage treatment works, other incineration/ combustion**

This data is sourced from Natural England.

10.18 SSSI Units

Records within 2000m	**0**

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	0

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.

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 English Heritage, 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 English Heritage, 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 English Heritage, Cadw and Historic Environment Scotland.

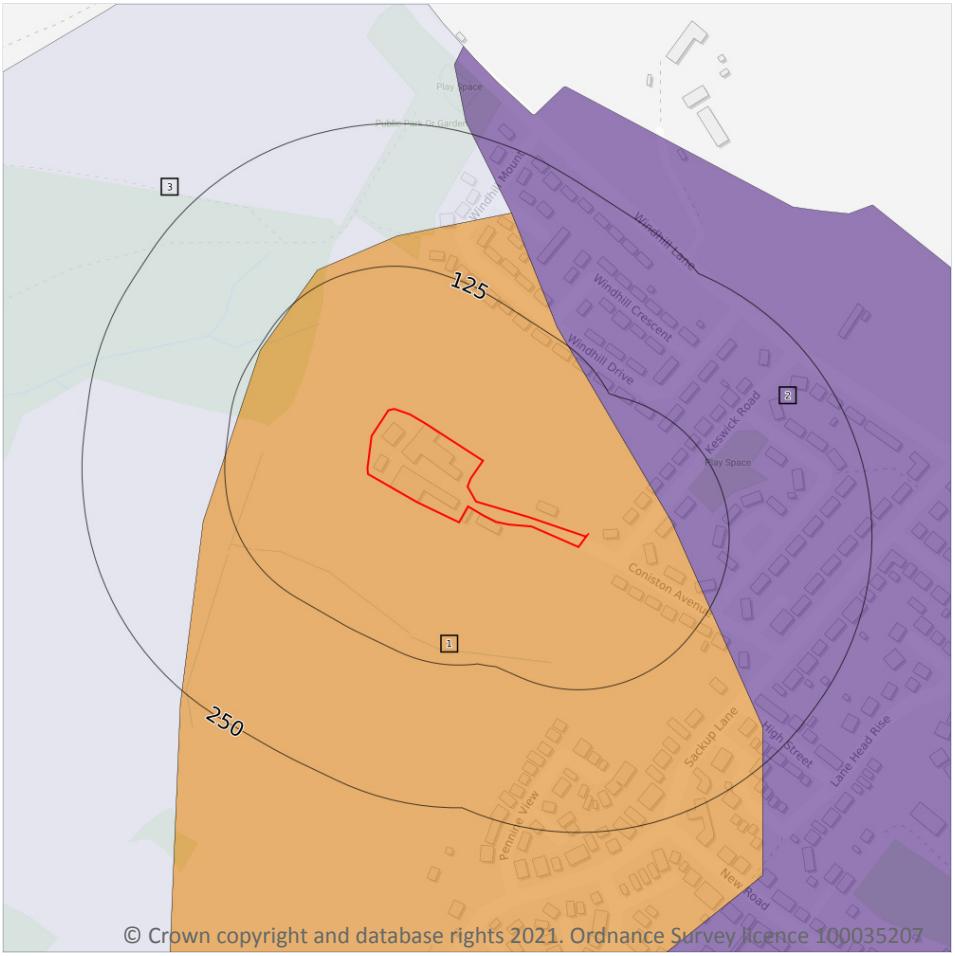
11.7 Registered Parks and Gardens

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 English Heritage, Cadw and Historic Environment Scotland.

12 Agricultural designations



Site Outline

Search buffers in metres (m)

- Grade 1 - excellent quality
- Grade 2 - very good quality
- Grade 3 - good to moderate quality
- Grade 3a - good quality
- Grade 3b - moderate quality
- Grade 4 - poor quality
- Grade 5 - very poor quality
- Non-agricultural land
- Urban land
- Exclusion land
- Tree felling licences
- Open Access land

12.1 Agricultural Land Classification

Records within 250m	3

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 65**

ID	Location	Classification	Description
1	**On site**	**Grade 3**	**Good to moderate quality agricultural land. Land with moderate limitations which affect the choice of crops, timing and type of cultivation, harvesting or the level of yield. Where more demanding crops are grown yields are generally lower or more variable than on land in Grades 1 and 2.**
2	71m NE	Urban	-

ID	Location	Classification	Description
3	116m W	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.

This data is sourced from Natural England.

12.2 Open Access Land

Records within 250m	0

The Countryside and Rights of Way Act 2000 (CROW Act) gives a public right of access to land without having to use paths. Access land includes mountains, moors, heaths and downs that are privately owned. It also includes common land registered with the local council and some land around the England Coast Path. Generally permitted activities on access land are walking, running, watching wildlife and climbing.

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

12.3 Tree Felling Licences

Records within 250m	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	0

Environmental Stewardship covers a range of schemes that provide financial incentives to farmers, foresters and land managers to look after and improve the environment.

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

Site Outline

Search buffers in metres (m)

Priority Habitat Inventory
Open Mosaic Habitat
Limestone Pavement Orders

Habitat Networks

Primary Habitat
Restorable Habitat
Associated Habitats
Habitat Restoration-Creation
Network Enhancement Zone 1
Network Enhancement Zone 2

13.1 Priority Habitat Inventory

Records within 250m	2

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 67**

ID	Location	Main Habitat	Other habitats
1	75m NW	Deciduous woodland	Main habitat: DWOOD (INV > 50%)
2	76m W	Deciduous woodland	Main habitat: DWOOD (INV > 50%)

This data is sourced from Natural England.

13.2 Habitat Networks

Records within 250m	0

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.

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.

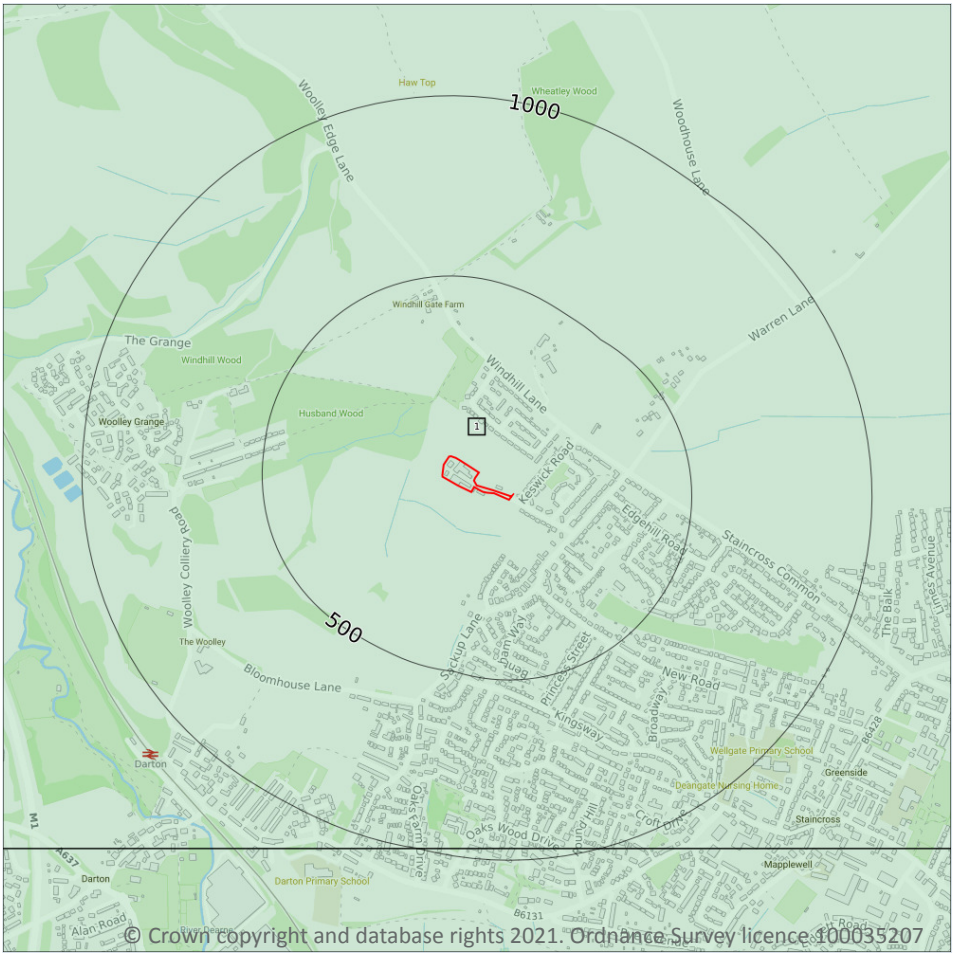
13.4 Limestone Pavement Orders

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

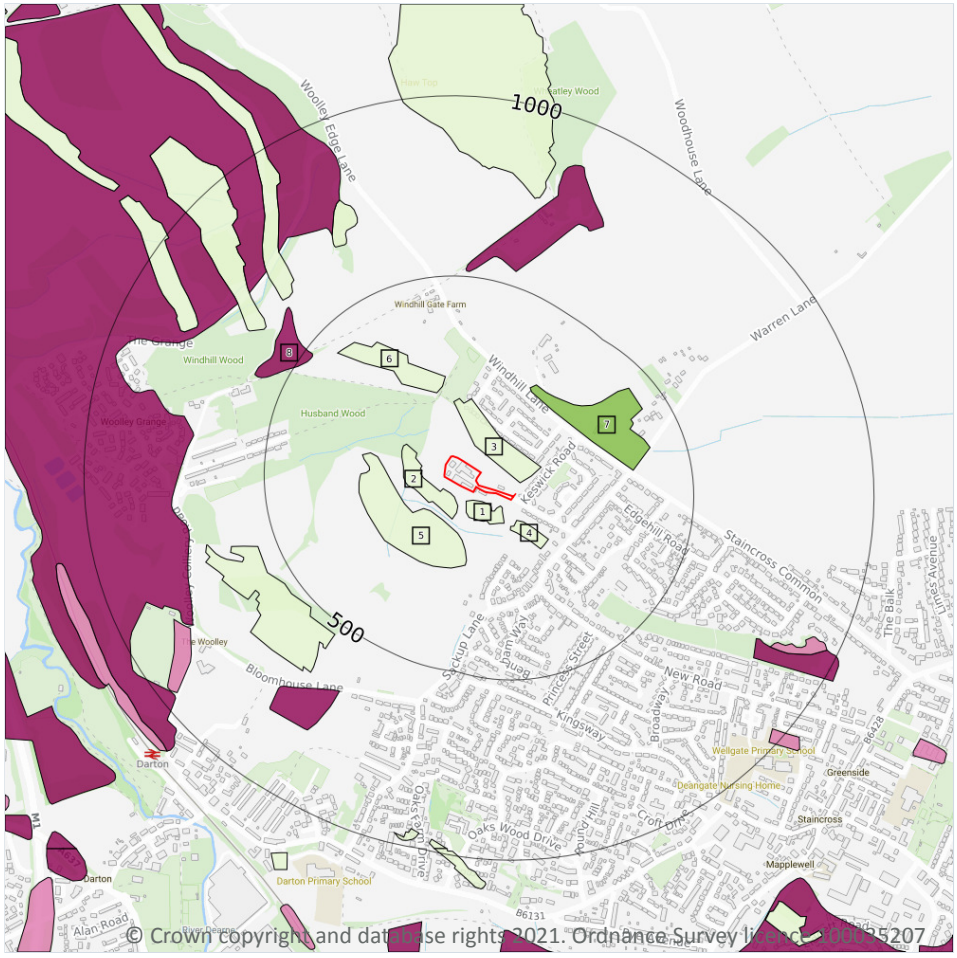
An indication on the coverage of 1:10,000 scale geology data for the site, the most detailed dataset provided by the British Geological Survey. Either 'Full', 'Partial' or 'No coverage' for each geological theme.

Features are displayed on the Geology 1:10,000 scale - Availability map on **page 69**

ID	Location	Artificial	Superficial	Bedrock	Mass movement	Sheet No.
1	**On site**	**Full**	**Full**	**Full**	**No coverage**	**SE31SW**

This data is sourced from the British Geological Survey.

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



Site Outline

Search buffers in metres (m)

- Reclaimed ground
- Made ground
- Worked ground
- Infilled ground
- Disturbed ground
- Landscaped ground

14.2 Artificial and made ground (10k)

Records within 500m	8

Details of made, worked, infilled, disturbed and landscaped ground at 1:10,000 scale. Artificial ground can be associated with potentially contaminated material, unpredictable engineering conditions and instability.

Features are displayed on the Geology 1:10,000 scale - Artificial and made ground map on **page 70**

ID	Location	LEX Code	Description	Rock description
1	23m S	WMGR-ARTDP	Infilled Ground	Artificial Deposit
2	31m SW	WMGR-ARTDP	Infilled Ground	Artificial Deposit
3	42m NE	WMGR-ARTDP	Infilled Ground	Artificial Deposit
4	59m S	WMGR-ARTDP	Infilled Ground	Artificial Deposit

ID	Location	LEX Code	Description	Rock description
5	101m SW	WMGR-ARTDP	Infilled Ground	Artificial Deposit
6	181m N	WMGR-ARTDP	Infilled Ground	Artificial Deposit
7	254m NE	DDGR-UKNOWN	Disturbed Ground (Undivided)	Unknown/unclassified Entry
8	474m NW	MGR-ARTDP	Made Ground (Undivided)	Artificial Deposit

This data is sourced from the British Geological Survey.

Geology 1:10,000 scale - Superficial

14.3 Superficial geology (10k)

Records within 500m	0

Superficial geological deposits at 1:10,000 scale. Also known as 'drift', these are the youngest geological deposits, formed during the Quaternary. They rest on older deposits or rocks referred to as bedrock.

This data is sourced from the British Geological Survey.

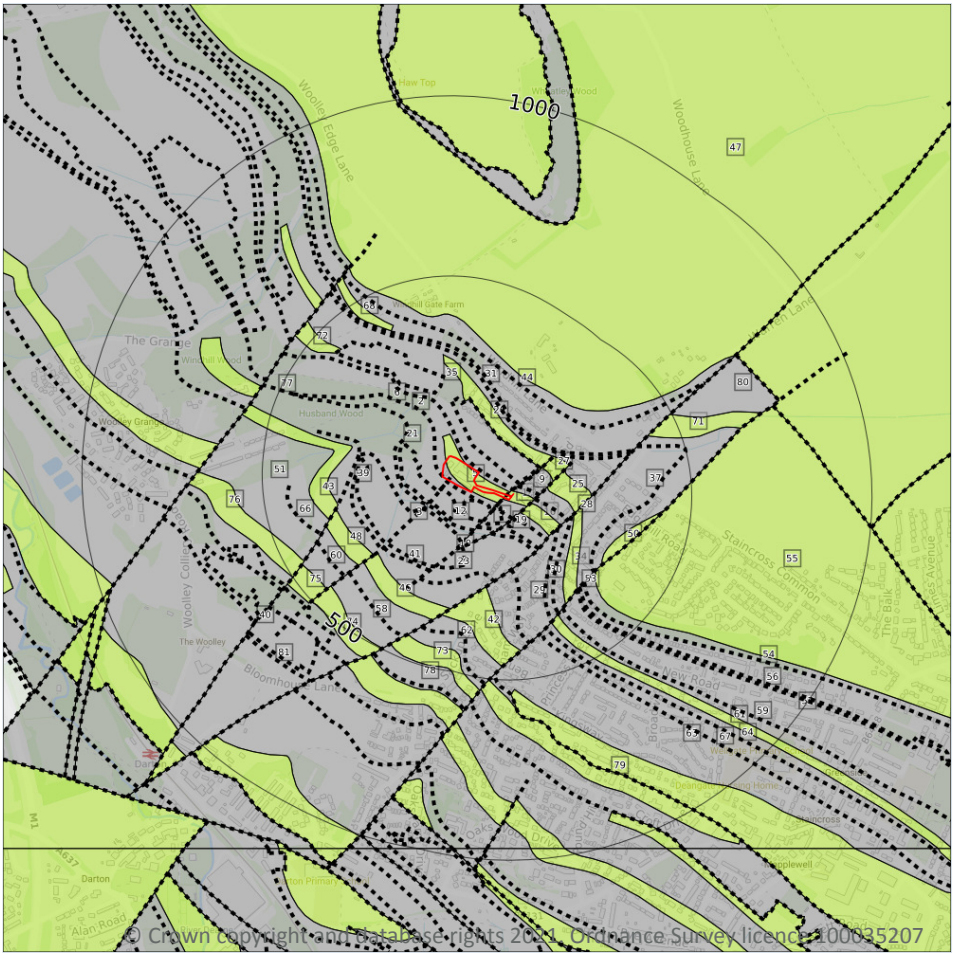
14.4 Landslip (10k)

Records within 500m	0

Mass movement deposits on BGS geological maps at 1:10,000 scale. Primarily superficial deposits that have moved down slope under gravity to form landslips. These affect bedrock, other superficial deposits and artificial ground.

This data is sourced from the British Geological Survey.

Geology 1:10,000 scale - Bedrock



Site Outline

Search buffers in metres (m)

Bedrock faults and other linear features (10k)

Bedrock geology (10k)
Please see table for more details.

14.5 Bedrock geology (10k)

Records within 500m	37

Bedrock geology at 1:10,000 scale. The main mass of rocks forming the Earth and present everywhere, whether exposed at the surface in outcrops or concealed beneath superficial deposits or water.

Features are displayed on the Geology 1:10,000 scale - Bedrock map on **page 73**

ID	Location	LEX Code	Description	Rock age
1	On site	PMCM-SDST	Pennine Middle Coal Measures Formation - Sandstone	Bolsovian Sub-age - Duckmantian Sub-age
5	On site	PMCM-SDST	Pennine Middle Coal Measures Formation - Sandstone	Bolsovian Sub-age - Duckmantian Sub-age

ID	Location	LEX Code	Description	Rock age
6	**On site**	**PMCM-MDSS**	**Pennine Middle Coal Measures Formation - Mudstone, Siltstone And Sandstone**	**Bolsovian Sub-age - Duckmantian Sub-age**
7	3m S	PMCM-MDSS	Pennine Middle Coal Measures Formation - Mudstone, Siltstone And Sandstone	Bolsovian Sub-age - Duckmantian Sub-age
9	15m N	PMCM-MDSS	Pennine Middle Coal Measures Formation - Mudstone, Siltstone And Sandstone	Bolsovian Sub-age - Duckmantian Sub-age
16	47m SE	PMCM-SDST	Pennine Middle Coal Measures Formation - Sandstone	Bolsovian Sub-age - Duckmantian Sub-age
18	57m E	PMCM-MDSS	Pennine Middle Coal Measures Formation - Mudstone, Siltstone And Sandstone	Bolsovian Sub-age - Duckmantian Sub-age
25	103m E	ABR-SDST	Abdy Rock - Sandstone	Duckmantian Sub-age
26	104m NE	ABR-SDST	Abdy Rock - Sandstone	Duckmantian Sub-age
27	115m NE	ABR-SDST	Abdy Rock - Sandstone	Duckmantian Sub-age
29	149m SE	PMCM-MDSS	Pennine Middle Coal Measures Formation - Mudstone, Siltstone And Sandstone	Bolsovian Sub-age - Duckmantian Sub-age
34	179m E	PMCM-SDST	Pennine Middle Coal Measures Formation - Sandstone	Bolsovian Sub-age - Duckmantian Sub-age
37	197m E	PMCM-MDSS	Pennine Middle Coal Measures Formation - Mudstone, Siltstone And Sandstone	Bolsovian Sub-age - Duckmantian Sub-age
42	250m S	PMCM-SDST	Pennine Middle Coal Measures Formation - Sandstone	Bolsovian Sub-age - Duckmantian Sub-age
43	258m W	PMCM-SDST	Pennine Middle Coal Measures Formation - Sandstone	Bolsovian Sub-age - Duckmantian Sub-age
46	278m SW	PMCM-SDST	Pennine Middle Coal Measures Formation - Sandstone	Bolsovian Sub-age - Duckmantian Sub-age
47	288m NE	WE-SDST	Woolley Edge Rock - Sandstone	Duckmantian Sub-age
48	289m SW	PMCM-SDST	Pennine Middle Coal Measures Formation - Sandstone	Bolsovian Sub-age - Duckmantian Sub-age
50	302m SE	ABR-SDST	Abdy Rock - Sandstone	Duckmantian Sub-age
51	307m W	PMCM-MDSS	Pennine Middle Coal Measures Formation - Mudstone, Siltstone And Sandstone	Bolsovian Sub-age - Duckmantian Sub-age
52	308m SE	PMCM-MDSS	Pennine Middle Coal Measures Formation - Mudstone, Siltstone And Sandstone	Bolsovian Sub-age - Duckmantian Sub-age
55	310m SE	WE-SDST	Woolley Edge Rock - Sandstone	Duckmantian Sub-age

ID	Location	LEX Code	Description	Rock age
58	323m SW	PMCM-MDSS	Pennine Middle Coal Measures Formation - Mudstone, Siltstone And Sandstone	Bolsovian Sub-age - Duckmantian Sub-age
60	338m SW	PMCM-MDSS	Pennine Middle Coal Measures Formation - Mudstone, Siltstone And Sandstone	Bolsovian Sub-age - Duckmantian Sub-age
61	345m SE	PMCM-SDST	Pennine Middle Coal Measures Formation - Sandstone	Bolsovian Sub-age - Duckmantian Sub-age
62	351m S	PMCM-MDSS	Pennine Middle Coal Measures Formation - Mudstone, Siltstone And Sandstone	Bolsovian Sub-age - Duckmantian Sub-age
63	361m S	PMCM-MDSS	Pennine Middle Coal Measures Formation - Mudstone, Siltstone And Sandstone	Bolsovian Sub-age - Duckmantian Sub-age
68	384m NW	PMCM-SDST	Pennine Middle Coal Measures Formation - Sandstone	Bolsovian Sub-age - Duckmantian Sub-age
71	413m NE	ABR-SDST	Abdy Rock - Sandstone	Duckmantian Sub-age
72	422m NW	ABR-SDST	Abdy Rock - Sandstone	Duckmantian Sub-age
73	432m SW	PMCM-SDST	Pennine Middle Coal Measures Formation - Sandstone	Bolsovian Sub-age - Duckmantian Sub-age
74	433m SW	PMCM-SDST	Pennine Middle Coal Measures Formation - Sandstone	Bolsovian Sub-age - Duckmantian Sub-age
75	446m SW	PMCM-SDST	Pennine Middle Coal Measures Formation - Sandstone	Bolsovian Sub-age - Duckmantian Sub-age
76	449m SW	PMCM-SDST	Pennine Middle Coal Measures Formation - Sandstone	Bolsovian Sub-age - Duckmantian Sub-age
78	477m SW	PMCM-MDSS	Pennine Middle Coal Measures Formation - Mudstone, Siltstone And Sandstone	Bolsovian Sub-age - Duckmantian Sub-age
80	495m NE	PMCM-MDSS	Pennine Middle Coal Measures Formation - Mudstone, Siltstone And Sandstone	Bolsovian Sub-age - Duckmantian Sub-age
81	498m SW	PMCM-MDSS	Pennine Middle Coal Measures Formation - Mudstone, Siltstone And Sandstone	Bolsovian Sub-age - Duckmantian Sub-age

This data is sourced from the British Geological Survey.

14.6 Bedrock faults and other linear features (10k)

Records within 500m **44**

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.

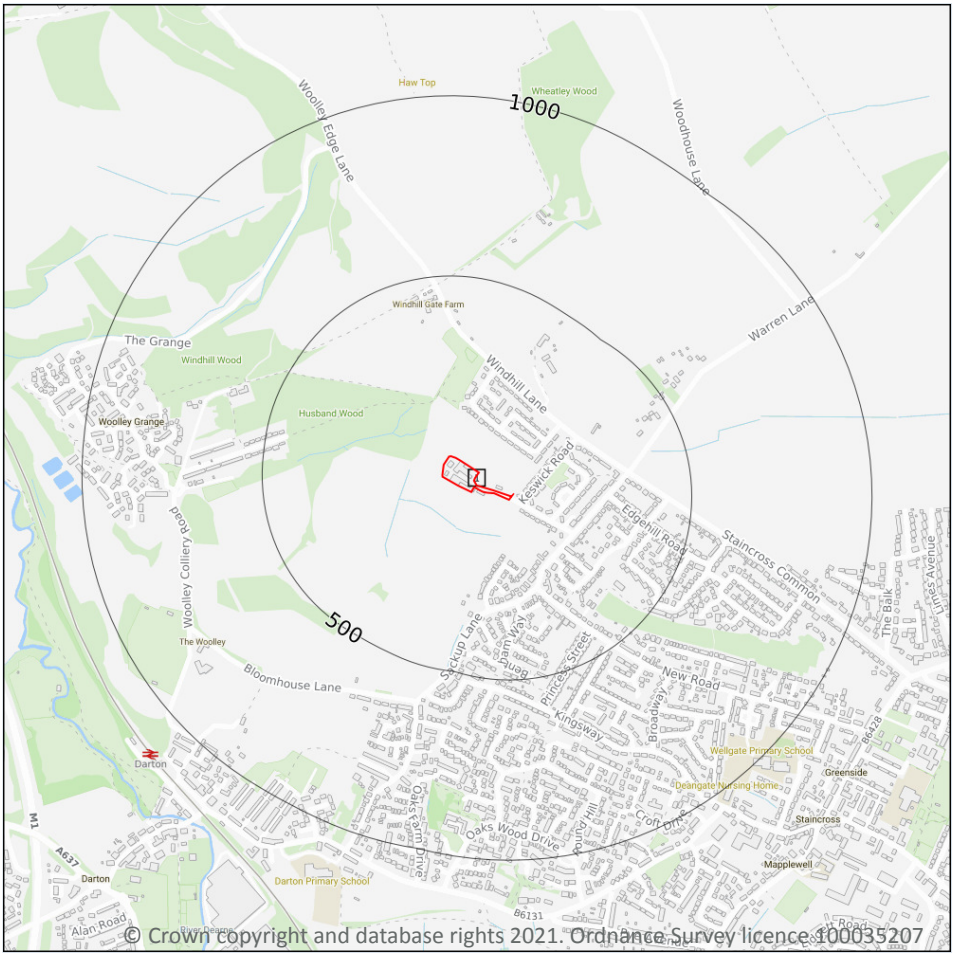
Features are displayed on the Geology 1:10,000 scale - Bedrock map on **page 73**

ID	Location	Category	Description
2	**On site**	**ROCK**	**Coal seam, inferred**
3	**On site**	**FAULT**	**Normal fault, inferred**
4	**On site**	**FAULT**	**Normal fault, inferred**
8	7m NE	ROCK	Coal seam, inferred
10	20m SW	FAULT	Normal fault, inferred
11	23m S	ROCK	Coal seam, observed
12	31m SW	ROCK	Coal seam, observed
13	33m NE	ROCK	Coal seam, inferred
14	39m SW	ROCK	Coal seam, inferred
15	42m NE	ROCK	Coal seam, observed
17	47m SE	FAULT	Normal fault, inferred
19	59m S	ROCK	Coal seam, observed
20	65m E	ROCK	Coal seam, inferred
21	88m SW	ROCK	Coal seam, inferred
22	90m S	ROCK	Coal seam, inferred
23	102m SW	ROCK	Coal seam, observed
24	102m S	ROCK	Coal seam, inferred
28	149m SE	FAULT	Normal fault, inferred
30	155m SE	ROCK	Coal seam, inferred
31	157m NE	ROCK	Coal seam, inferred
32	168m NE	FOSSIL_HORIZON	Fossil horizon, marine band
33	175m E	ROCK	Coal seam, inferred
35	181m N	ROCK	Coal seam, observed
36	194m S	ROCK	Coal seam, inferred
38	216m S	ROCK	Coal seam, inferred
39	235m W	ROCK	Coal seam, inferred
40	237m W	FAULT	Normal fault, inferred

ID	Location	Category	Description
41	247m SW	ROCK	Coal seam, inferred
44	264m NE	ROCK	Coal seam, inferred
45	270m SE	ROCK	Coal seam, inferred
49	289m SW	FAULT	Normal fault, inferred
53	308m SE	FAULT	Normal fault, inferred
54	309m SE	ROCK	Coal seam, inferred
56	312m SE	FOSSIL_HORIZON	Fossil horizon, marine band
57	313m SE	ROCK	Coal seam, inferred
59	336m SE	ROCK	Coal seam, inferred
64	370m S	ROCK	Coal seam, inferred
65	371m SW	ROCK	Coal seam, inferred
66	372m SW	ROCK	Coal seam, inferred
67	380m S	ROCK	Coal seam, inferred
69	387m SW	ROCK	Coal seam, inferred
70	392m S	ROCK	Coal seam, inferred
77	461m NW	ROCK	Coal seam, inferred
79	487m S	ROCK	Coal seam, inferred

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

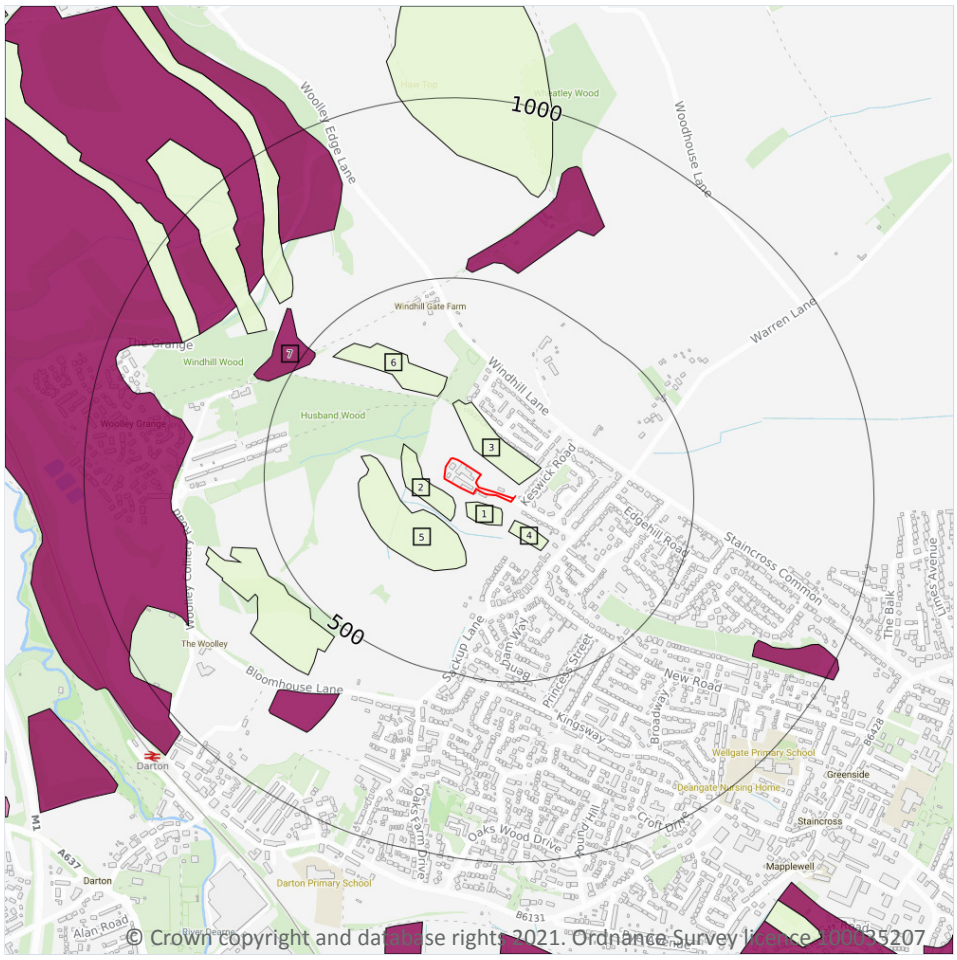
An indication on the coverage of 1:50,000 scale geology data for the site. Either 'Full' or 'No coverage' for each geological theme.

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**	**No coverage**	**Full**	**Full**	**Full**	**EW087_barnsley_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	7

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.

Features are displayed on the Geology 1:50,000 scale - Artificial and made ground map on **page 79**

ID	Location	LEX Code	Description	Rock description
1	23m S	WMGR-ARTDP	INFILLED GROUND	ARTIFICIAL DEPOSIT
2	31m SW	WMGR-ARTDP	INFILLED GROUND	ARTIFICIAL DEPOSIT
3	41m N	WMGR-ARTDP	INFILLED GROUND	ARTIFICIAL DEPOSIT
4	53m S	WMGR-ARTDP	INFILLED GROUND	ARTIFICIAL DEPOSIT

ID	Location	LEX Code	Description	Rock description
5	101m SW	WMGR-ARTDP	INFILLED GROUND	ARTIFICIAL DEPOSIT
6	177m N	WMGR-ARTDP	INFILLED GROUND	ARTIFICIAL DEPOSIT
7	471m NW	MGR-ARTDP	MADE GROUND (UNDIVIDED)	ARTIFICIAL DEPOSIT

This data is sourced from the British Geological Survey.

15.3 Artificial ground 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 artificial deposits (the zone between the land surface and the water table).

Location	Flow type	Maximum permeability	Minimum permeability
23m SE	Mixed	Very High	Low
31m W	Mixed	Very High	Low
41m NE	Mixed	Very High	Low

This data is sourced from the British Geological Survey.

Geology 1:50,000 scale - Superficial

15.4 Superficial geology (50k)

Records within 500m	0

Superficial geological deposits at 1:50,000 scale. Also known as 'drift', these are the youngest geological deposits, formed during the Quaternary. They rest on older deposits or rocks referred to as bedrock.

This data is sourced from the British Geological Survey.

15.5 Superficial permeability (50k)

Records within 50m	0

A qualitative classification of estimated rates of vertical movement of water from the ground surface through the unsaturated zone of any superficial deposits (the zone between the land surface and the water table).

This data is sourced from the British Geological Survey.

15.6 Landslip (50k)

Records within 500m	0

Mass movement deposits on BGS geological maps at 1:50,000 scale. Primarily superficial deposits that have moved down slope under gravity to form landslips. These affect bedrock, other superficial deposits and artificial ground.

This data is sourced from the British Geological Survey.

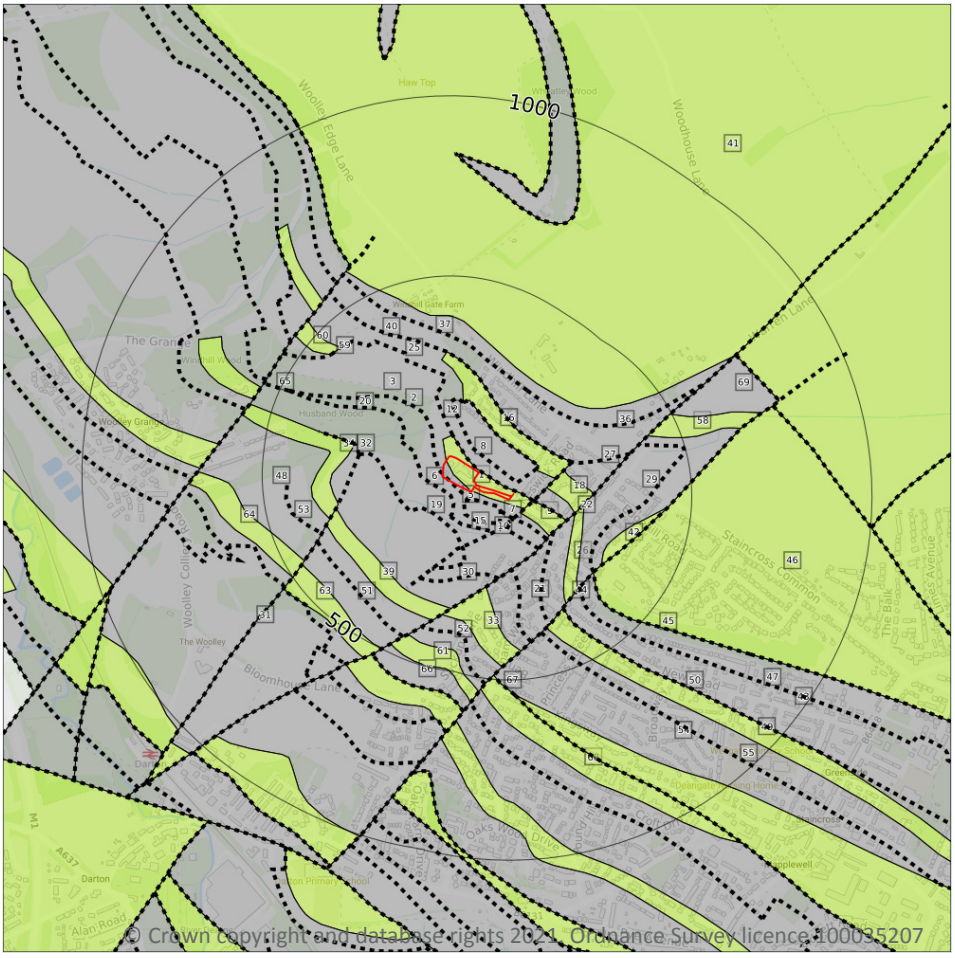
15.7 Landslip permeability (50k)

Records within 50m	0

A qualitative classification of estimated rates of vertical movement of water from the ground surface through the unsaturated zone of any landslip deposits (the zone between the land surface and the water table).

This data is sourced from the British Geological Survey.

Geology 1:50,000 scale - Bedrock



Site Outline

Search buffers in metres (m)

Bedrock faults and other linear features (50k)

Bedrock geology (50k)
Please see table for more details.

15.8 Bedrock geology (50k)

Records within 500m	29

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 82**

ID	Location	LEX Code	Description	Rock age
1	On site	PMCM-SDST	PENNINE MIDDLE COAL MEASURES FORMATION - SANDSTONE	WESTPHALIAN
3	On site	PMCM-MDSS	PENNINE MIDDLE COAL MEASURES FORMATION - MUDSTONE, SILTSTONE AND SANDSTONE	WESTPHALIAN

ID	Location	LEX Code	Description	Rock age
9	47m SE	PMCM-SDST	PENNINE MIDDLE COAL MEASURES FORMATION - SANDSTONE	WESTPHALIAN
13	62m E	PMCM-MDSS	PENNINE MIDDLE COAL MEASURES FORMATION - MUDSTONE, SILTSTONE AND SANDSTONE	WESTPHALIAN
16	99m NE	ABR-SDST	ABDY ROCK - SANDSTONE	WESTPHALIAN
18	100m E	ABR-SDST	ABDY ROCK - SANDSTONE	WESTPHALIAN
21	149m SE	PMCM-MDSS	PENNINE MIDDLE COAL MEASURES FORMATION - MUDSTONE, SILTSTONE AND SANDSTONE	WESTPHALIAN
26	183m E	PMCM-SDST	PENNINE MIDDLE COAL MEASURES FORMATION - SANDSTONE	WESTPHALIAN
29	203m E	PMCM-MDSS	PENNINE MIDDLE COAL MEASURES FORMATION - MUDSTONE, SILTSTONE AND SANDSTONE	WESTPHALIAN
33	250m S	PMCM-SDST	PENNINE MIDDLE COAL MEASURES FORMATION - SANDSTONE	WESTPHALIAN
34	252m W	PMCM-SDST	PENNINE MIDDLE COAL MEASURES FORMATION - SANDSTONE	WESTPHALIAN
39	288m SW	PMCM-SDST	PENNINE MIDDLE COAL MEASURES FORMATION - SANDSTONE	WESTPHALIAN
41	295m NE	WE-SDST	WOOLLEY EDGE ROCK - SANDSTONE	WESTPHALIAN
42	298m SE	ABR-SDST	ABDY ROCK - SANDSTONE	WESTPHALIAN
43	308m SE	PMCM-MDSS	PENNINE MIDDLE COAL MEASURES FORMATION - MUDSTONE, SILTSTONE AND SANDSTONE	WESTPHALIAN
46	308m SE	WE-SDST	WOOLLEY EDGE ROCK - SANDSTONE	WESTPHALIAN
48	316m W	PMCM-MDSS	PENNINE MIDDLE COAL MEASURES FORMATION - MUDSTONE, SILTSTONE AND SANDSTONE	WESTPHALIAN
49	336m SE	PMCM-SDST	PENNINE MIDDLE COAL MEASURES FORMATION - SANDSTONE	WESTPHALIAN
51	337m SW	PMCM-MDSS	PENNINE MIDDLE COAL MEASURES FORMATION - MUDSTONE, SILTSTONE AND SANDSTONE	WESTPHALIAN
52	350m S	PMCM-MDSS	PENNINE MIDDLE COAL MEASURES FORMATION - MUDSTONE, SILTSTONE AND SANDSTONE	WESTPHALIAN
54	370m S	PMCM-MDSS	PENNINE MIDDLE COAL MEASURES FORMATION - MUDSTONE, SILTSTONE AND SANDSTONE	WESTPHALIAN
58	413m NE	ABR-SDST	ABDY ROCK - SANDSTONE	WESTPHALIAN
60	427m NW	ABR-SDST	ABDY ROCK - SANDSTONE	WESTPHALIAN

ID	Location	LEX Code	Description	Rock age
61	432m SW	PMCM-SDST	PENNINE MIDDLE COAL MEASURES FORMATION - SANDSTONE	WESTPHALIAN
63	448m SW	PMCM-SDST	PENNINE MIDDLE COAL MEASURES FORMATION - SANDSTONE	WESTPHALIAN
64	449m SW	PMCM-SDST	PENNINE MIDDLE COAL MEASURES FORMATION - SANDSTONE	WESTPHALIAN
66	477m SW	PMCM-MDSS	PENNINE MIDDLE COAL MEASURES FORMATION - MUDSTONE, SILTSTONE AND SANDSTONE	WESTPHALIAN
68	488m S	PMCM-SDST	PENNINE MIDDLE COAL MEASURES FORMATION - SANDSTONE	WESTPHALIAN
69	495m NE	PMCM-MDSS	PENNINE MIDDLE COAL MEASURES FORMATION - MUDSTONE, SILTSTONE AND SANDSTONE	WESTPHALIAN

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
On site	**Fracture**	**High**	**Moderate**
On site	**Fracture**	**Moderate**	**Low**

This data is sourced from the British Geological Survey.

15.10 Bedrock faults and other linear features (50k)

Records within 500m **40**

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 82**

ID	Location	Category	Description
2	**On site**	**ROCK**	**Coal seam, inferred**

ID	Location	Category	Description
4	6m NE	ROCK	Coal seam, inferred
5	23m S	ROCK	Coal seam, inferred
6	31m SW	ROCK	Coal seam, inferred
7	38m SW	ROCK	Coal seam, inferred
8	41m N	ROCK	Coal seam, inferred
10	47m SE	FAULT	Fault, inferred, displacement unknown
11	53m S	ROCK	Coal seam, inferred
12	59m N	ROCK	Coal seam, inferred
14	62m E	ROCK	Coal seam, inferred
15	87m SW	ROCK	Coal seam, inferred
17	99m NE	ROCK	Coal seam, inferred
19	101m SW	ROCK	Coal seam, inferred
20	133m NW	ROCK	Coal seam, inferred
22	149m SE	FAULT	Fault, inferred
23	152m SE	ROCK	Coal seam, inferred
24	159m NE	ROCK	Coal seam, inferred
25	177m N	ROCK	Coal seam, inferred
27	192m NE	ROCK	Coal seam, inferred
28	194m S	ROCK	Coal seam, inferred
30	216m S	ROCK	Coal seam, inferred
31	236m W	FAULT	Fault, inferred
32	236m W	ROCK	Coal seam, inferred
35	252m W	ROCK	Coal seam, inferred
36	263m NE	ROCK	Coal seam, inferred
37	264m NE	ROCK	Coal seam, inferred
38	266m SE	ROCK	Coal seam, inferred
40	290m N	ROCK	Coal seam, inferred
44	308m SE	FAULT	Fault, inferred

ID	Location	Category	Description
45	308m SE	ROCK	Coal seam, inferred
47	311m SE	ROCK	Coal seam, inferred
50	336m SE	ROCK	Coal seam, inferred
53	370m SW	ROCK	Coal seam, inferred
55	379m S	ROCK	Coal seam, inferred
56	386m SW	ROCK	Coal seam, inferred
57	392m S	ROCK	Coal seam, inferred
59	427m NW	ROCK	Coal seam, inferred
62	432m NW	ROCK	Coal seam, inferred
65	476m NW	ROCK	Coal seam, inferred
67	488m S	ROCK	Coal seam, inferred

This data is sourced from the British Geological Survey.

16 Boreholes

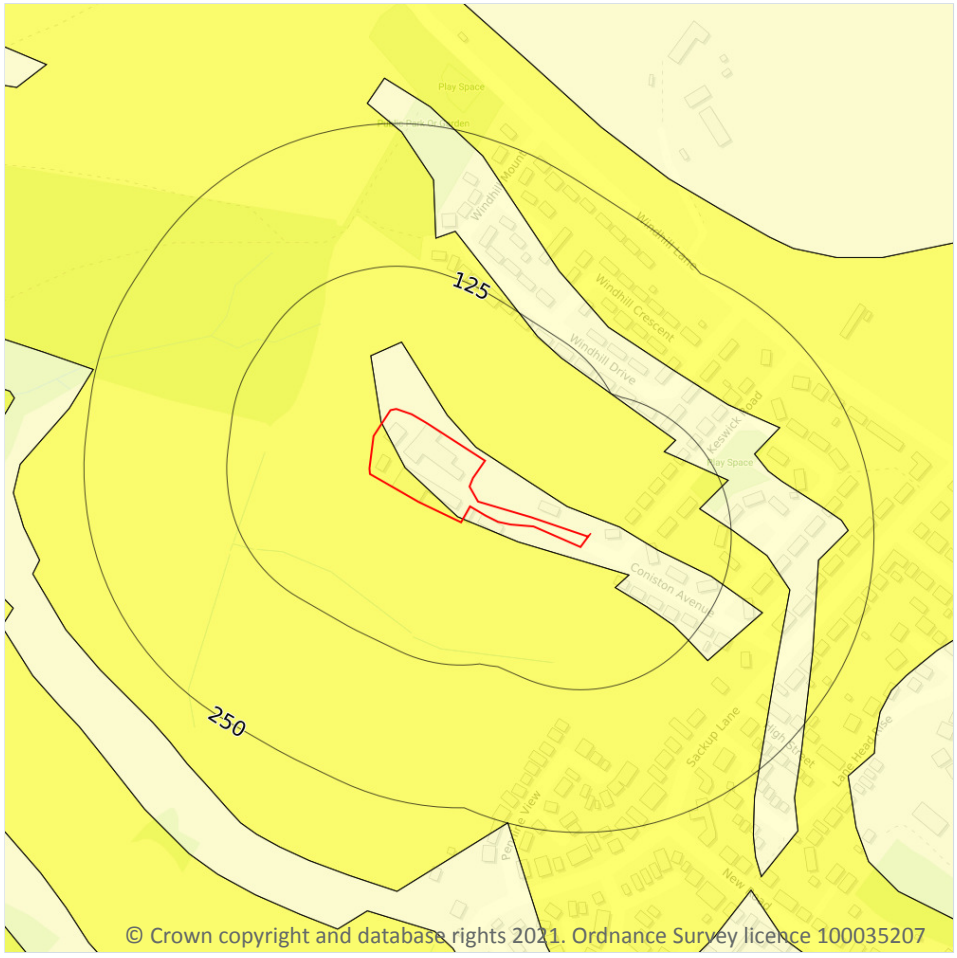
16.1 BGS Boreholes

Records within 250m	0

The Single Onshore Boreholes Index (SOBI); an index of over one million records of boreholes, shafts and wells from all forms of drilling and site investigation work held by the British Geological Survey. Covering onshore and nearshore boreholes dating back to at least 1790 and ranging from one to several thousand metres deep.

This data is sourced from the British Geological Survey.

17 Natural ground subsidence - Shrink swell clays



Site Outline

Search buffers in metres (m)

- No data
- Negligible
- Very low
- Low
- Moderate
- High

17.1 Shrink swell clays

Records within 50m	2

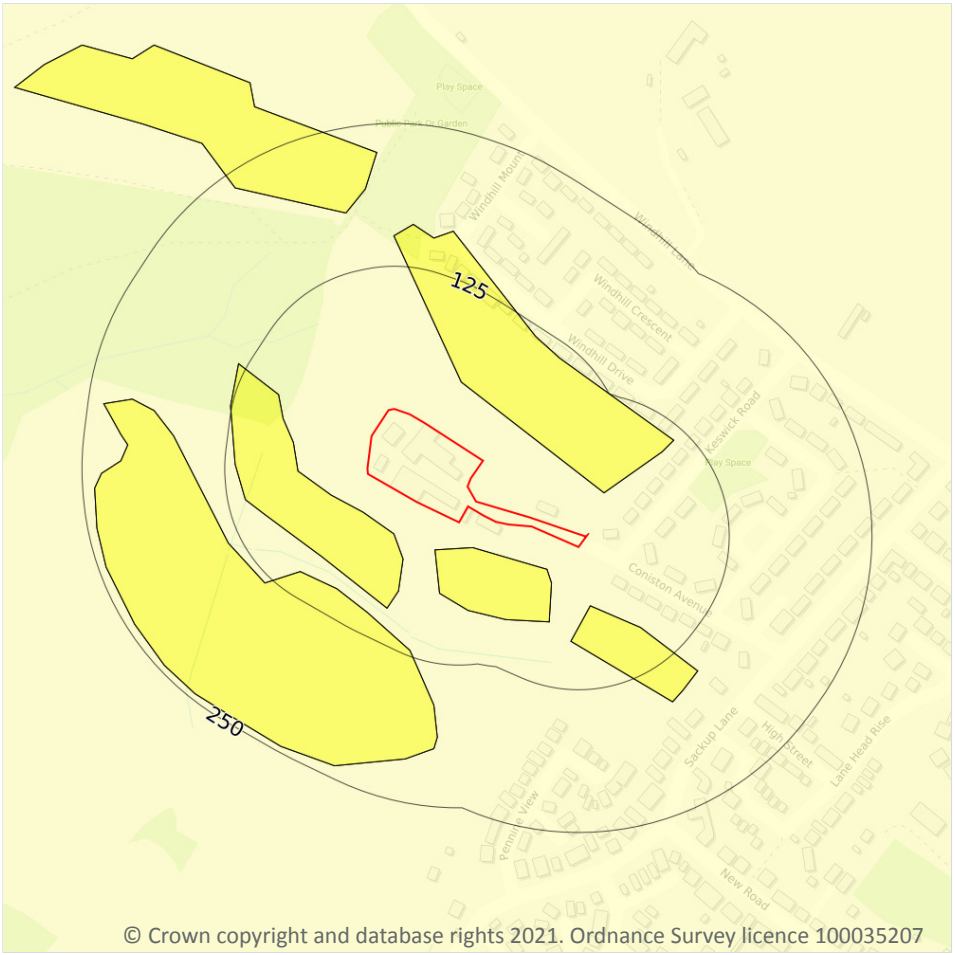
The potential hazard presented by soils that absorb water when wet (making them swell), and lose water as they dry (making them shrink). This shrink-swell behaviour is controlled by the type and amount of clay in the soil, and by seasonal changes in the soil moisture content (related to rainfall and local drainage).

Features are displayed on the Natural ground subsidence - Shrink swell clays map on **page 88**

Location	Hazard rating	Details
On site	**Negligible**	**Ground conditions predominantly non-plastic.**
On site	**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
23m S	Very low	Running sand conditions are unlikely. No identified constraints on land use due to running conditions unless water table rises rapidly.
31m SW	Very low	Running sand conditions are unlikely. No identified constraints on land use due to running conditions unless water table rises rapidly.
41m N	Very low	Running sand conditions are unlikely. No identified constraints on land use due to running conditions unless water table rises rapidly.

This data is sourced from the British Geological Survey.

Natural ground subsidence - Compressible deposits

Site Outline

Search buffers in metres (m)

- No data
- Negligible
- Very low
- Low
- Moderate
- High

17.3 Compressible deposits

Records within 50m	4

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.

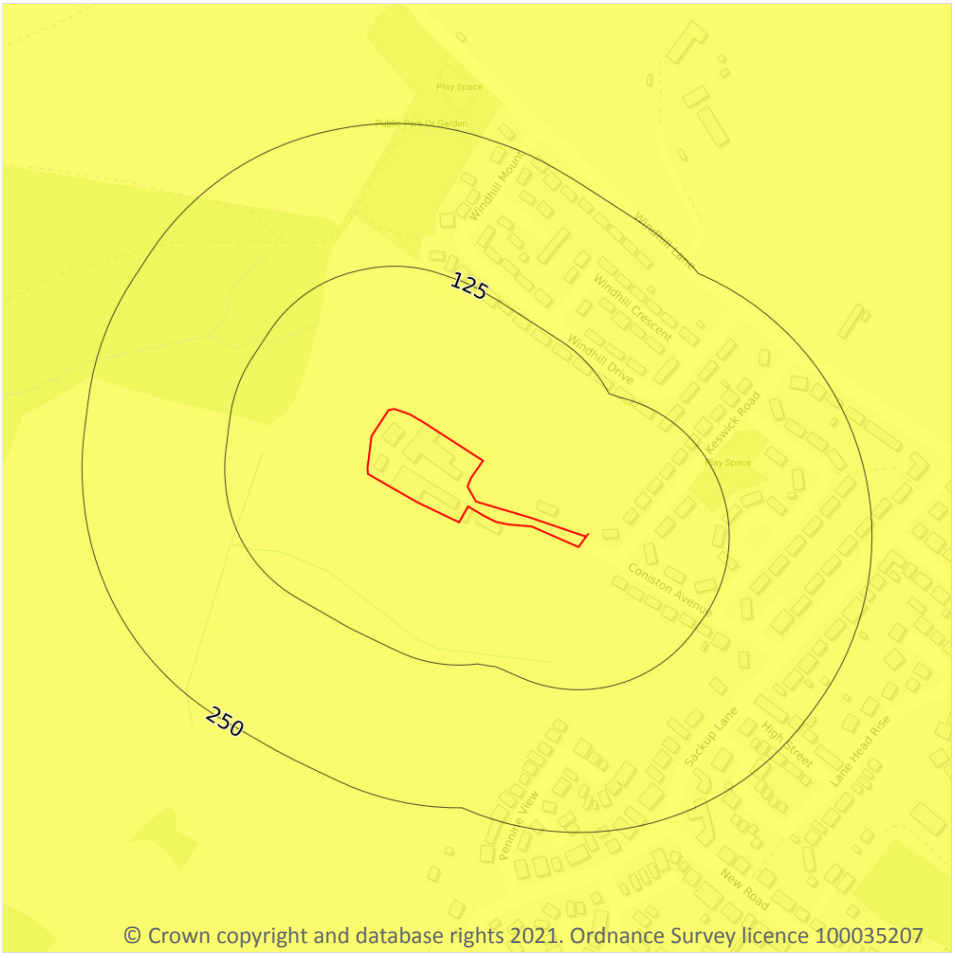
Features are displayed on the Natural ground subsidence - Compressible deposits map on **page 91**

Location	Hazard rating	Details
On site	**Negligible**	**Compressible strata are not thought to occur.**
23m S	Moderate	Compressibility and uneven settlement hazards are probably present. Land use should consider specifically the compressibility and variability of the site.

Location	Hazard rating	Details
31m SW	Moderate	Compressibility and uneven settlement hazards are probably present. Land use should consider specifically the compressibility and variability of the site.
41m N	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



Site Outline

Search buffers in metres (m)

- No data
- Negligible
- Very low
- Low
- Moderate
- High

17.4 Collapsible deposits

Records within 50m	1

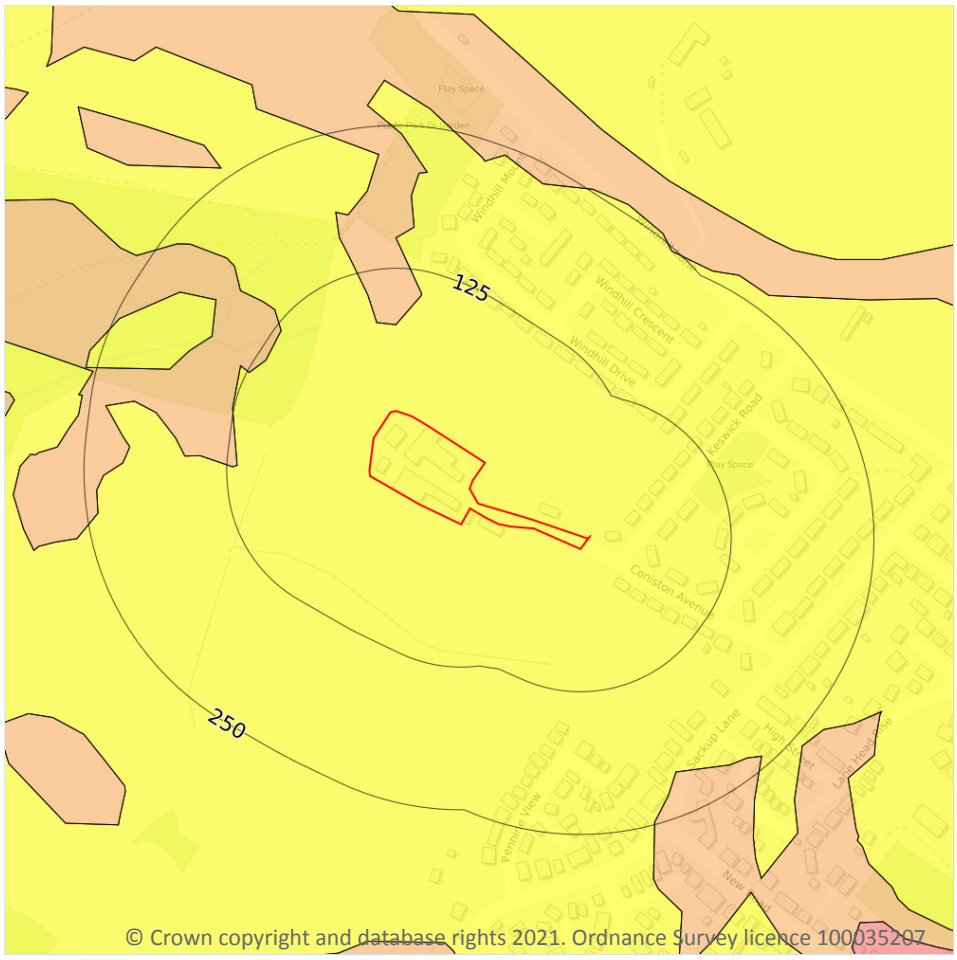
The potential hazard presented by natural deposits that could collapse when a load (such as a building) is placed on them or they become saturated with water.

Features are displayed on the Natural ground subsidence - Collapsible deposits map on **page 93**

Location	Hazard rating	Details
On site	**Very low**	**Deposits with potential to collapse when loaded and saturated are unlikely to be present.**

This data is sourced from the British Geological Survey.

Natural ground subsidence - Landslides



Site Outline

Search buffers in metres (m)

- No data
- Negligible
- Very low
- Low
- Moderate
- High

17.5 Landslides

Records within 50m	1

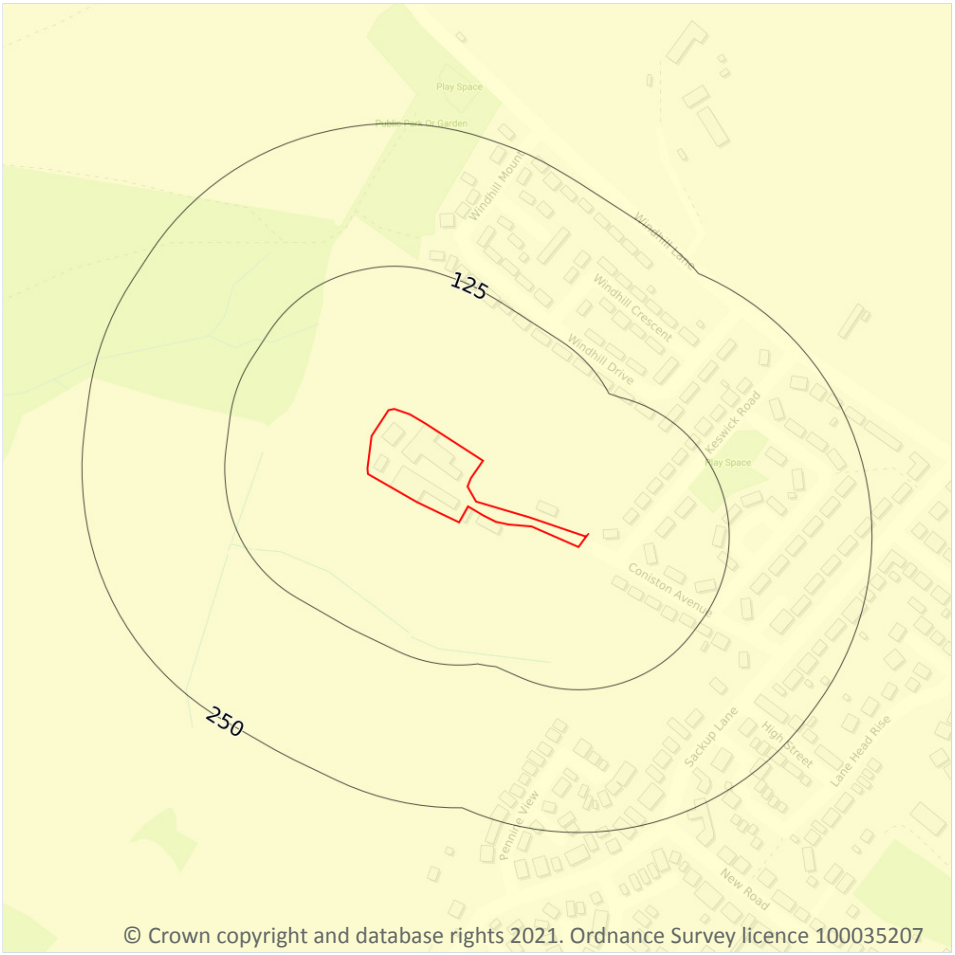
The potential for landsliding (slope instability) to be a hazard assessed using 1:50,000 scale digital maps of superficial and bedrock deposits, combined with information from the BGS National Landslide Database and scientific and engineering reports.

Features are displayed on the Natural ground subsidence - Landslides map on **page 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.**

This data is sourced from the British Geological Survey.

Natural ground subsidence - Ground dissolution of soluble rocks



Site Outline

Search buffers in metres (m)

- No data
- Negligible
- Very low
- Low
- Moderate
- High

17.6 Ground dissolution of soluble rocks

Records within 50m	1

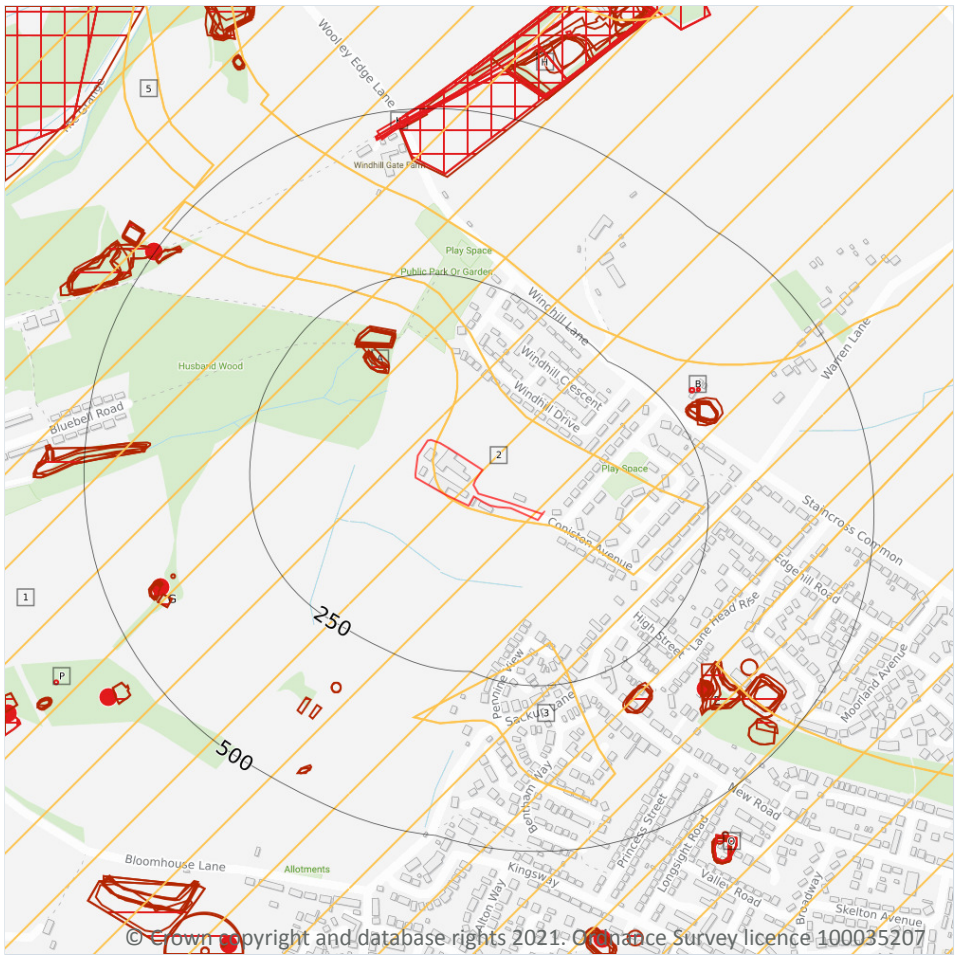
The potential hazard presented by ground dissolution, which occurs when water passing through soluble rocks produces underground cavities and cave systems. These cavities reduce support to the ground above and can cause localised collapse of the overlying rocks and deposits.

Features are displayed on the Natural ground subsidence - Ground dissolution of soluble rocks map on **page 95**

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, ground workings and natural cavities



18.1 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 Peter Brett Associates (PBA).

18.2 BritPits

Records within 500m	2

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, ground workings and natural cavities map on **page 96**

ID	Location	Details	Description
E	359m SE	Name: Staincross Hill Address: Mapplewell, BARNSLEY, South Yorkshire 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
G	418m SW	Name: Pye Wood Address: Darton, BARNSLEY, South Yorkshire Commodity: Coal, Deep 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.

18.3 Surface ground workings

Records within 250m	11

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, ground workings and natural cavities map on **page 96**

ID	Location	Land Use	Year of mapping	Mapping scale
A	118m NW	Refuse Heap	1930	1:10560
A	121m NW	Refuse Heap	1938	1:10560
A	121m NW	Refuse Heap	1938	1:10560
A	124m NW	Refuse Heap	1948	1:10560
A	127m NW	Refuse Heap	1951	1:10560
A	127m NW	Refuse Heap	1965	1:10560

ID	Location	Land Use	Year of mapping	Mapping scale
A	151m N	Sewage Works	1938	1:10560
A	151m N	Sewage Works	1938	1:10560
A	152m N	Rural District Council Sewage Works	1930	1:10560
A	155m N	Sewage Works	1948	1:10560
A	156m N	Sewage Works	1951	1:10560

This is data is sourced from Ordnance Survey/Groundsure.

18.4 Underground workings

Records within 1000m	**44**

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

Features are displayed on the Mining, ground workings and natural cavities map on **page 96**

ID	Location	Land Use	Year of mapping	Mapping scale
B	289m NE	Old Coal Shaft	1904	1:10560
B	289m NE	Unspecified Old Shaft	1948	1:10560
B	298m NE	Unspecified Old Shaft	1951	1:10560
H	402m N	Disused Colliery	1951	1:10560
G	422m SW	Old Coal Pit	1904	1:10560
K	459m N	Tunnel	1891	1:10560
K	460m N	Tunnel	1948	1:10560
K	461m N	Tunnel	1904	1:10560
H	479m N	Unspecified Mine	1990	1:10000
H	479m N	Unspecified Mine	1965	1:10560
H	479m N	Unspecified Mine	1978	1:10000
H	485m N	Colliery	1904	1:10560
H	485m N	Colliery	1891	1:10560
H	492m N	Colliery	1948	1:10560
L	497m NW	Unspecified Old Shaft	1948	1:10560

ID	Location	Land Use	Year of mapping	Mapping scale
L	497m NW	Unspecified Old Shaft	1904	1:10560
L	501m NW	Unspecified Disused Shaft	1990	1:10000
L	501m NW	Unspecified Disused Shaft	1965	1:10560
L	501m NW	Unspecified Disused Shaft	1978	1:10000
L	501m NW	Unspecified Old Shaft	1951	1:10560
O	547m SE	Old Coal Pit	1904	1:10560
P	621m SW	Old Air Shaft	1904	1:10560
H	643m N	Unspecified Shaft	1948	1:10560
-	682m S	Unspecified Levels	1948	1:10560
-	698m S	Unspecified Levels	1951	1:10560
-	701m S	Unspecified Levels	1948	1:10560
T	702m SW	Old Coal Pit	1904	1:10560
8	717m W	Colliery	1978	1:10000
-	731m W	Unspecified Mine	1965	1:10560
-	734m W	Colliery	1904	1:10560
-	734m W	Colliery	1891	1:10560
-	739m W	Colliery	1951	1:10560
-	745m S	Unspecified Levels	1951	1:10560
-	748m S	Unspecified Levels	1948	1:10560
-	806m S	Unspecified Level	1951	1:10560
-	809m S	Unspecified Level	1948	1:10560
-	842m SE	Unspecified Old Shaft	1948	1:10560
-	863m W	Tunnel	1948	1:10560
-	864m W	Unspecified Shaft	1990	1:10000
-	890m S	Unspecified Levels	1951	1:10560
-	908m S	Unspecified Levels	1951	1:10560
-	914m W	Air Shafts	1904	1:10560
-	925m W	Air Shafts	1904	1:10560

ID	Location	Land Use	Year of mapping	Mapping scale
-	978m W	Unspecified Shafts	1990	1:10000

This is data is sourced from Ordnance Survey/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	**8**

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, ground workings and natural cavities map on **page 96**

ID	Location	Name	Commodity	Class	Likelihood
1	**On site**	**Not available**	**Iron Ore (Bedded)**	**B**	**Localised small scale underground mining may have occurred. Potential for difficult ground conditions are unlikely or localised and are at a level where they need not be considered**
2	**On site**	**Sheffield Area**	**Vein Mineral/Iron ore**	**B**	**Localised small scale underground mining may have occurred. Potential for difficult ground conditions are unlikely or localised and are at a level where they need not be considered**
3	185m S	Sheffield Area	Vein Mineral/Iron ore	B	Localised small scale underground mining may have occurred. Potential for difficult ground conditions are unlikely or localised and are at a level where they need not be considered
4	273m NE	Sheffield Area	Vein Mineral/Iron ore	B	Localised small scale underground mining may have occurred. Potential for difficult ground conditions are unlikely or localised and are at a level where they need not be considered

ID	Location	Name	Commodity	Class	Likelihood
5	518m NW	Sheffield Area	Vein Mineral/Iron ore	B	Localised small scale underground mining may have occurred. Potential for difficult ground conditions are unlikely or localised and are at a level where they need not be considered
7	691m N	Not available	Iron Ore (Bedded)	B	Localised small scale underground mining may have occurred. Potential for difficult ground conditions are unlikely or localised and are at a level where they need not be considered
-	780m N	Sheffield Area	Vein Mineral/Iron ore	B	Localised small scale underground mining may have occurred. Potential for difficult ground conditions are unlikely or localised and are at a level where they need not be considered
-	968m S	Not available	Iron Ore (Bedded)	B	Localised small scale underground mining may have occurred. Potential for difficult ground conditions are unlikely or localised and are at a level where they need not be considered

This data is sourced from the British Geological Survey.

18.7 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 Peter Brett Associates (PBA).

18.8 JPB mining areas

Records on site	**0**

Areas which could be affected by former coal mining. This data includes some mine plans unavailable to the Coal Authority.

This data is sourced from Johnson Poole and Bloomer.

18.9 Coal mining

Records on site	**1**

Areas which could be affected by past, current or future coal mining.

Location	Details
On site	**The site is located within a coal mining area as defined by the Coal Authority. A Consultants Coal Mining Report is recommended to further assess coal mining issues at the site. This can be ordered directly through Groundsure or your preferred search provider.**

This data is sourced from the Coal Authority.

18.10 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.

18.11 Gypsum areas

Records on site	0

Generalised areas that may be affected by gypsum extraction.

This data is sourced from British Gypsum.

18.12 Tin mining

Records on site	0

Generalised areas that may be affected by historical tin mining.

This data is sourced from Mining Searches UK.

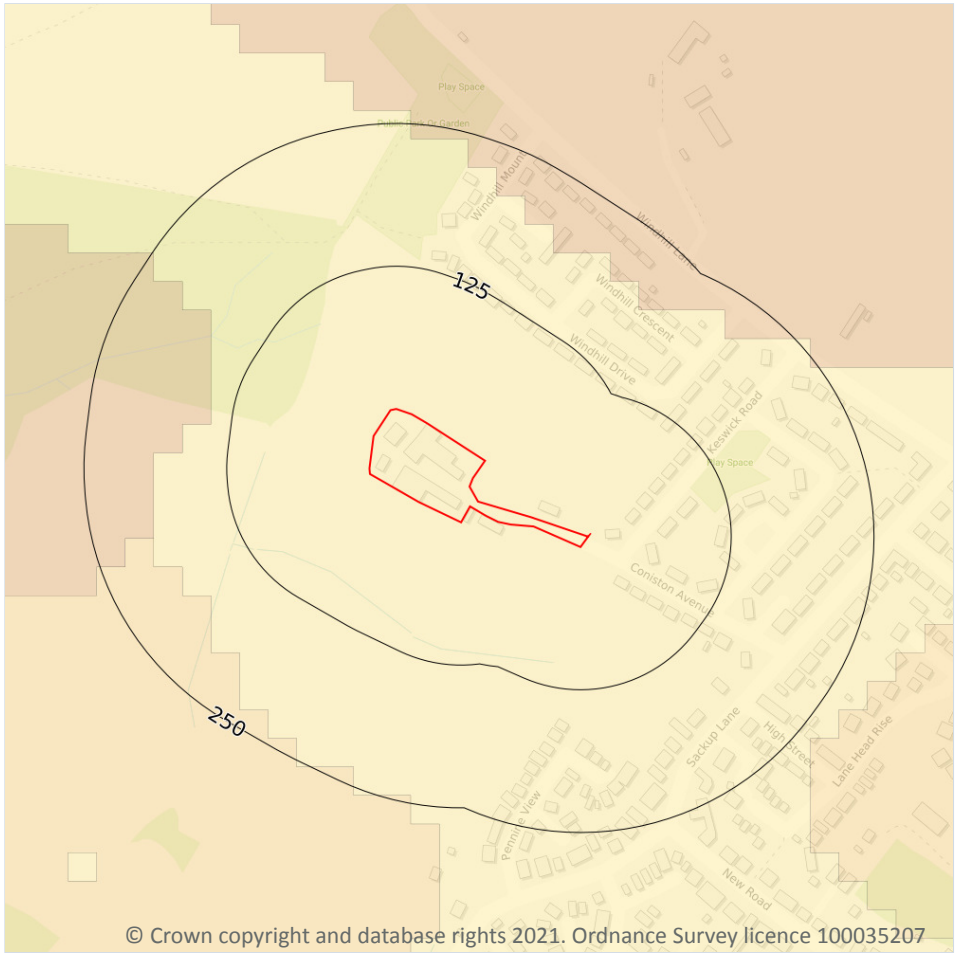
18.13 Clay mining

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 Radon



Site Outline

Search buffers in metres (m)

- Greater than 30%
- Between 10% and 30%
- Between 5% and 10%
- Between 3% and 5%
- Between 1% and 3%
- Less than 1%

19.1 Radon

Records on site	1

Estimated percentage of dwellings exceeding the Radon Action Level. This data is the highest resolution radon dataset available for the UK and is produced to a 75m level of accuracy to allow for geological data accuracy and a 'residential property' buffer. The findings of this section should supersede any estimations derived from the Indicative Atlas of Radon in Great Britain. The data was derived from both geological assessments and long term measurements of radon in more than 479,000 households.

Features are displayed on the Radon map on **page 103**

Location	Estimated properties affected	Radon Protection Measures required
On site	**Between 1% and 3%**	**None**

This data is sourced from the British Geological Survey and Public Health England.

20 Soil chemistry

20.1 BGS Estimated Background Soil Chemistry

Records within 50m	12

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^2. 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^2; this is the case for most of Scotland, Wales and southern England. The stream sediment data are converted to soil-equivalent concentrations prior to the estimation.

Location	Arsenic	Bioaccessible Arsenic	Lead	Bioaccessible Lead	Cadmium	Chromium	Nickel
On site	**15 - 25 mg/kg**	**No data**	**100 mg/kg**	**60 mg/kg**	**1.8 mg/kg**	**60 - 90 mg/kg**	**15 - 30 mg/kg**
On site	**15 - 25 mg/kg**	**No data**	**100 mg/kg**	**60 mg/kg**	**1.8 mg/kg**	**60 - 90 mg/kg**	**15 - 30 mg/kg**
On site	**15 - 25 mg/kg**	**No data**	**100 mg/kg**	**60 mg/kg**	**1.8 mg/kg**	**90 - 120 mg/kg**	**15 - 30 mg/kg**
On site	**15 - 25 mg/kg**	**No data**	**100 mg/kg**	**60 mg/kg**	**1.8 mg/kg**	**90 - 120 mg/kg**	**15 - 30 mg/kg**
On site	**15 - 25 mg/kg**	**No data**	**100 mg/kg**	**60 mg/kg**	**1.8 mg/kg**	**60 - 90 mg/kg**	**15 - 30 mg/kg**
On site	**15 - 25 mg/kg**	**No data**	**100 mg/kg**	**60 mg/kg**	**1.8 mg/kg**	**60 - 90 mg/kg**	**15 - 30 mg/kg**
On site	**15 - 25 mg/kg**	**No data**	**100 mg/kg**	**60 mg/kg**	**1.8 mg/kg**	**90 - 120 mg/kg**	**15 - 30 mg/kg**
2m SE	15 - 25 mg/kg	No data	100 mg/kg	60 mg/kg	1.8 mg/kg	90 - 120 mg/kg	15 - 30 mg/kg
9m S	15 - 25 mg/kg	No data	100 mg/kg	60 mg/kg	1.8 mg/kg	90 - 120 mg/kg	15 - 30 mg/kg
9m SW	15 - 25 mg/kg	No data	100 mg/kg	60 mg/kg	1.8 mg/kg	90 - 120 mg/kg	15 - 30 mg/kg
10m N	15 - 25 mg/kg	No data	100 mg/kg	60 mg/kg	1.8 mg/kg	90 - 120 mg/kg	15 - 30 mg/kg
10m N	15 - 25 mg/kg	No data	100 mg/kg	60 mg/kg	1.8 mg/kg	90 - 120 mg/kg	15 - 30 mg/kg

This data is sourced from the British Geological Survey.

20.2 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^2).

This data is sourced from the British Geological Survey.

20.3 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^2.

This data is sourced from the British Geological Survey.

21 Railway infrastructure and projects

21.1 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.

21.2 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.

21.3 Railway tunnels

Records within 250m	0

Railway tunnels taken from contemporary Ordnance Survey mapping.

This data is sourced from the Ordnance Survey.

21.4 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.

21.5 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.

21.6 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.

21.7 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.

21.8 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.

21.9 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.

21.10 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.

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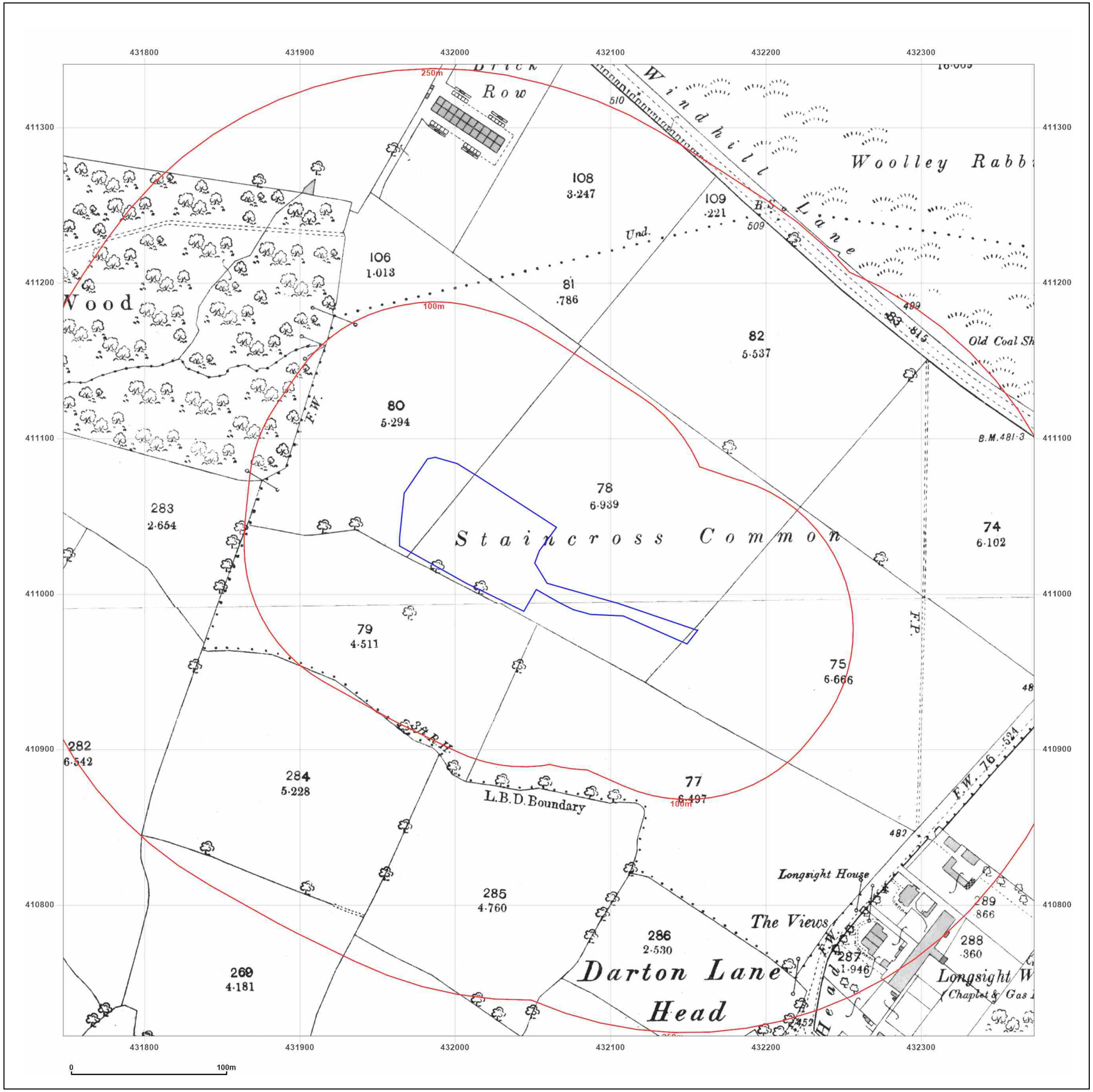
Environmental Geotechnical Specialists

RGS

Appendix 2

Historical Maps



Groundsure INSIGHTS

Site Details:

CONISTON FARM, CONISTON AVENUE, STAINCROSS, BARNSLEY, S75 5BB

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Report Ref: GS-7647028
Grid Ref: 432060, 411028

Map Name: County Series
Map date: **1893**
Scale: 1:2,500
Printed at: 1:2,500

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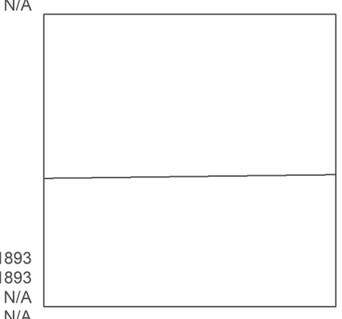
Surveyed 1893
Revised 1893
Edition N/A
Copyright N/A
Levelled N/A



Surveyed 1893
Revised 1893
Edition N/A
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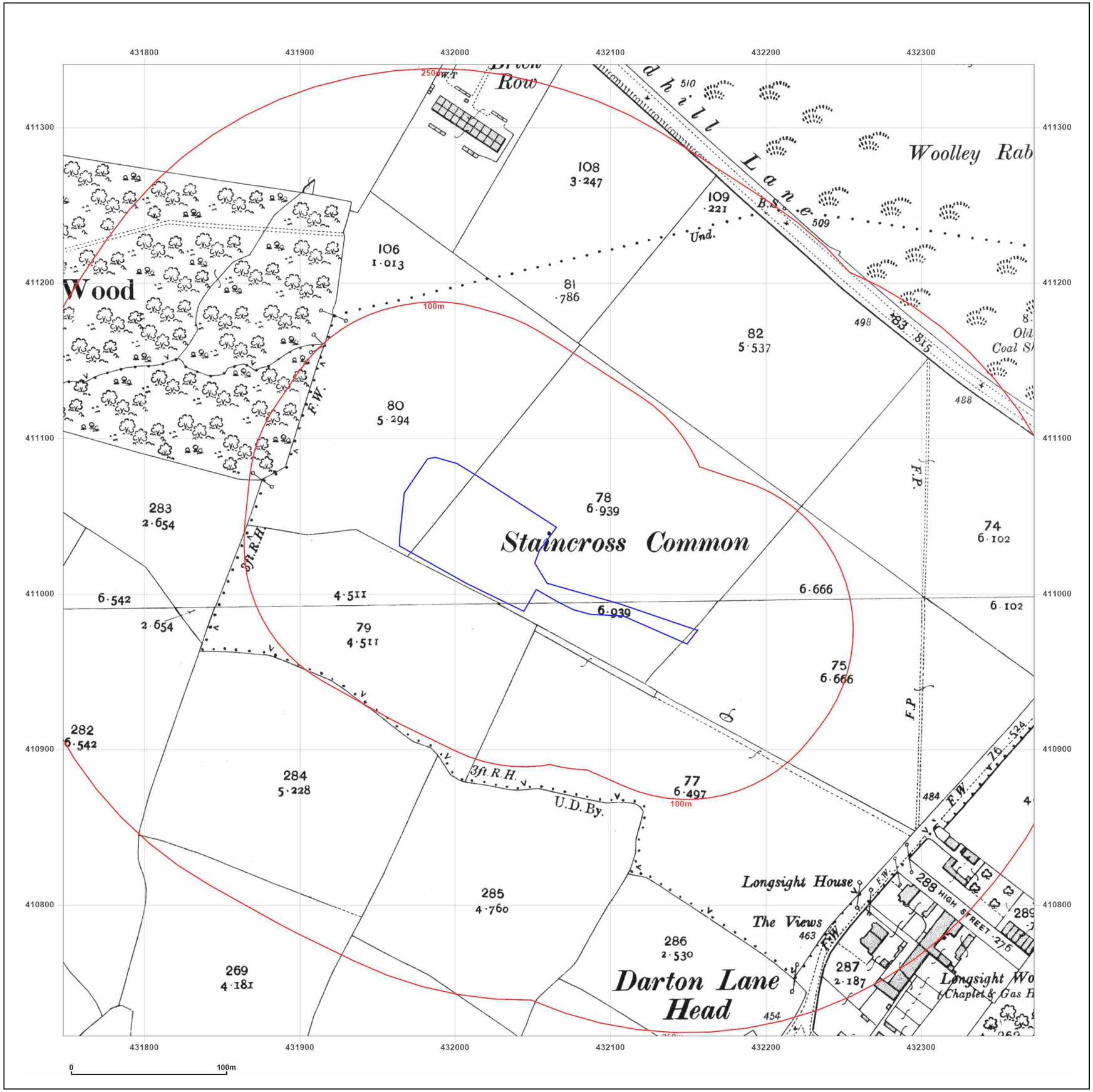

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CONISTON FARM, CONISTON AVENUE, STAINCROSS, BARNSLEY, S75 5BB

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Report Ref: GS-7647028
Grid Ref: 432060, 411028

Map Name: County Series
Map date: **1906**
Scale: 1:2,500
Printed at: 1:2,500

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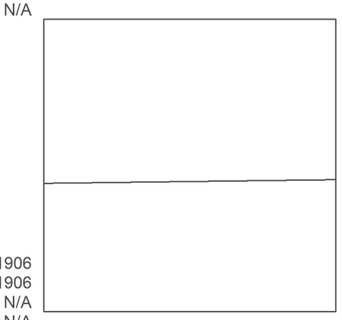
Surveyed 1906
Revised 1906
Edition N/A
Copyright N/A
Levelled N/A



Surveyed 1906
Revised 1906
Edition N/A
Copyright N/A
Levelled N/A

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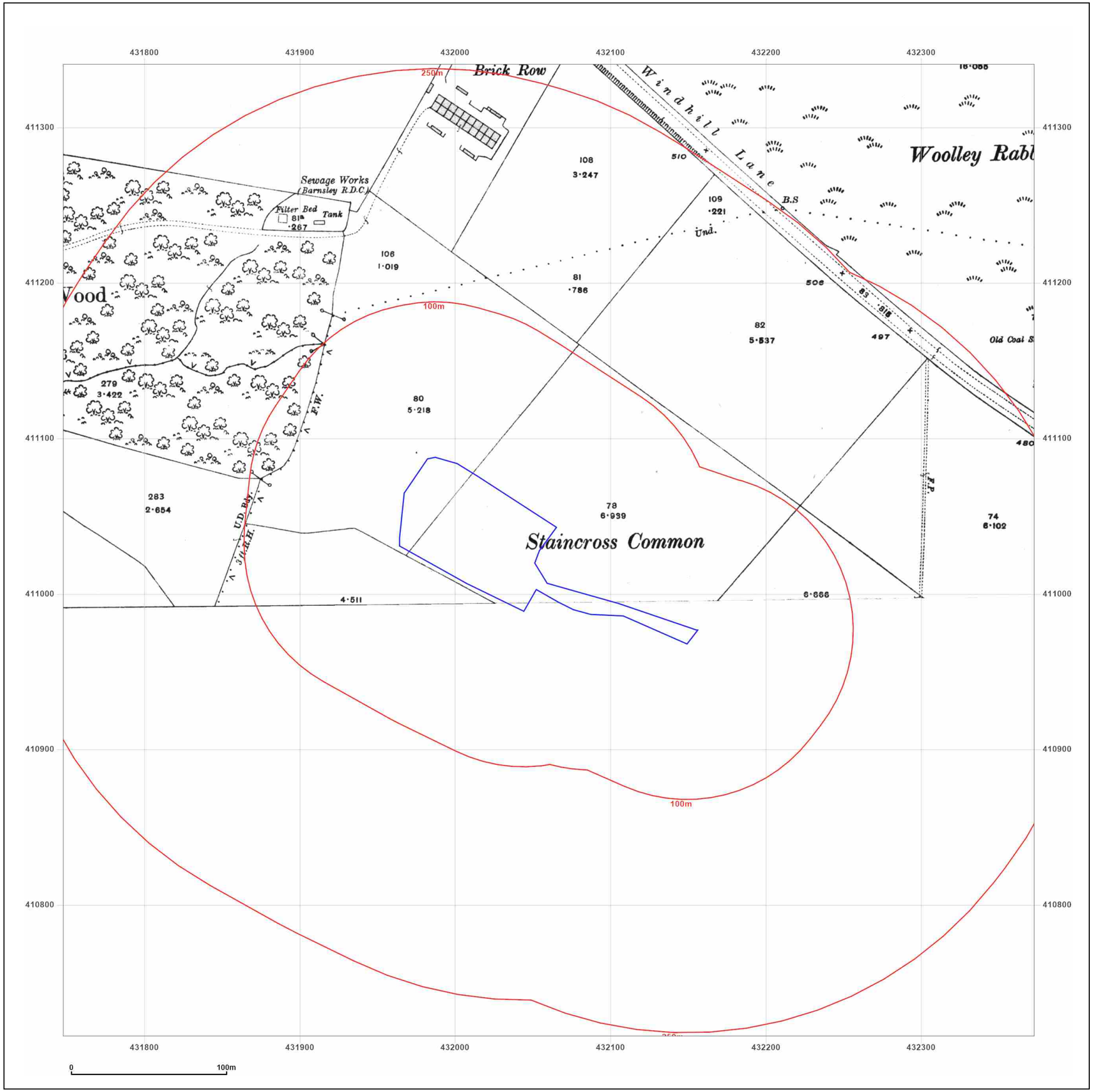

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Client Ref: C1132_20_E_1779_PO-1350
Report Ref: GS-7647028
Grid Ref: 432060, 411028

Map Name: County Series
Map date: **1913**
Scale: 1:2,500
Printed at: 1:2,500

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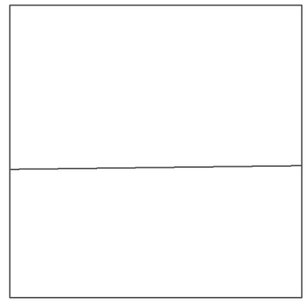
Surveyed 1913
Revised 1913
Edition N/A
Copyright N/A
Levelled N/A



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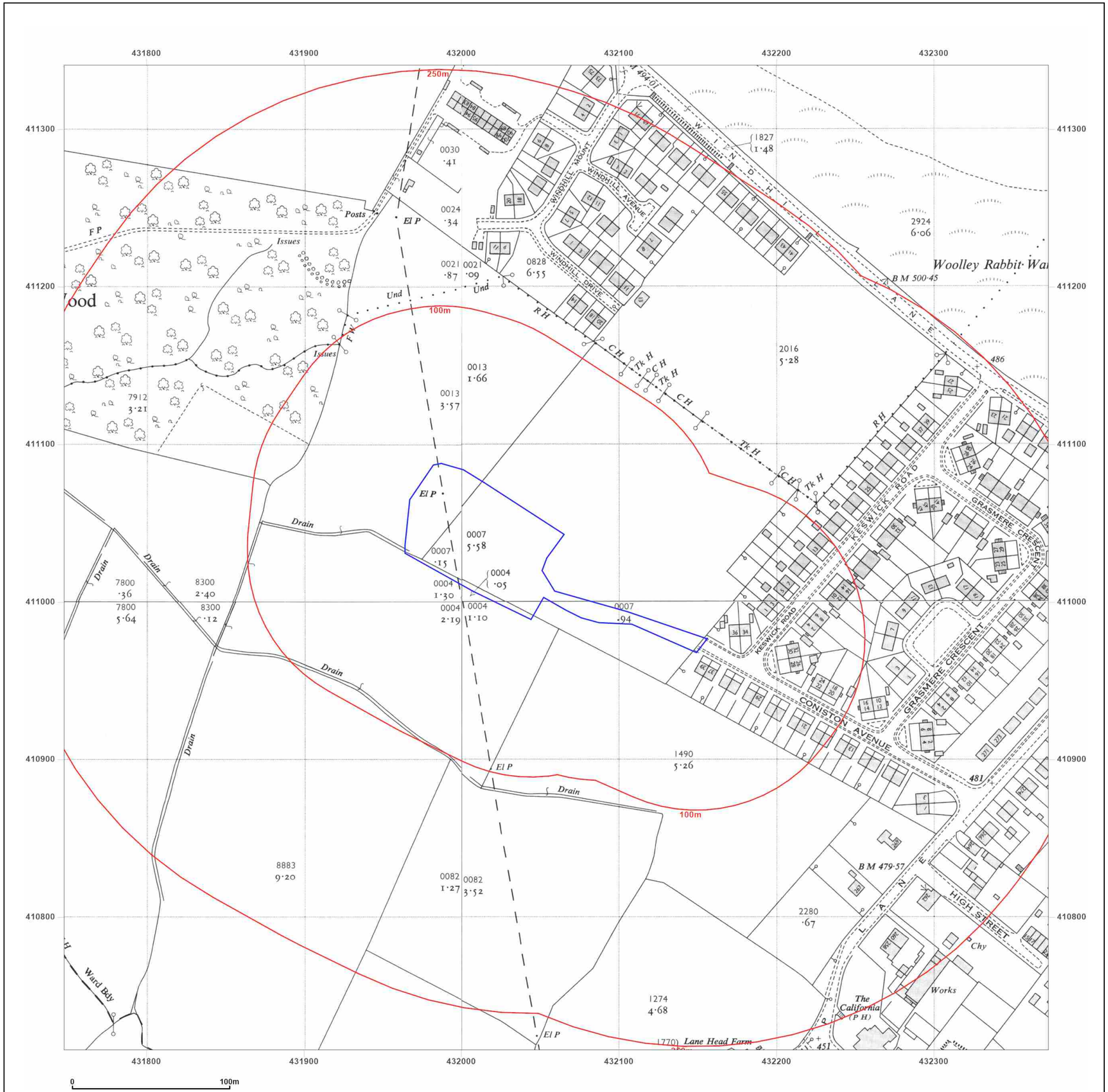

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Report Ref: GS-7647028
Grid Ref: 432060, 411028

Map Name: National Grid

Map date: **1960**

Scale: 1:2,500

Printed at: 1:2,500

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Surveyed 1960
Revised 1960
Edition N/A
Copyright 1961
Levelled 1958

Surveyed 1960
Revised 1960
Edition N/A
Copyright 1961
Levelled 1958

Surveyed 1960
Revised 1960
Edition N/A
Copyright 1961
Levelled 1958

Surveyed 1960
Revised 1960
Edition N/A
Copyright 1962
Levelled 1960

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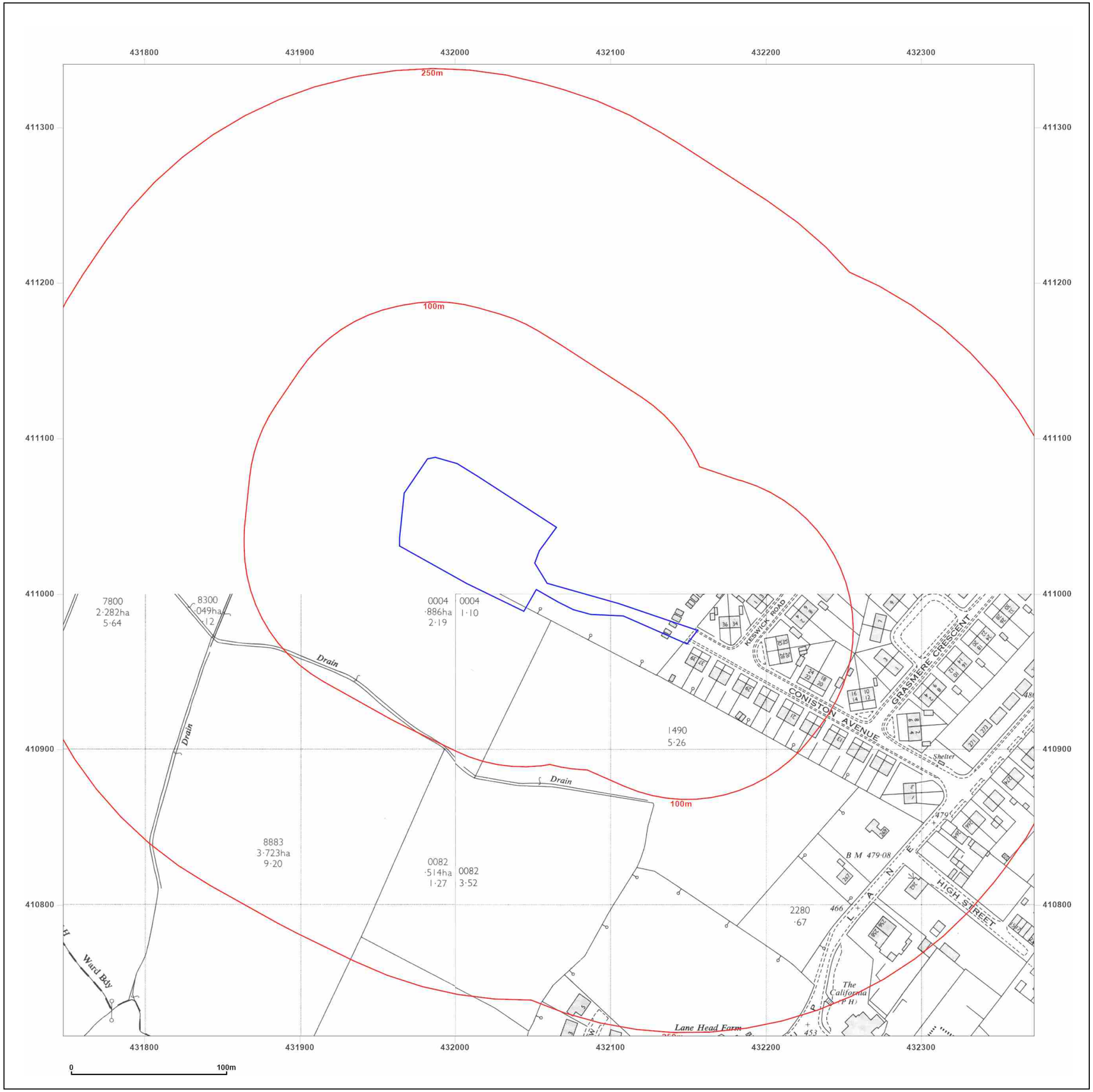

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Client Ref: C1132_20_E_1779_PO-1350
Report Ref: GS-7647028
Grid Ref: 432060, 411028

Map Name: National Grid

Map date: **1966-1969**

Scale: 1:2,500

Printed at: 1:2,500

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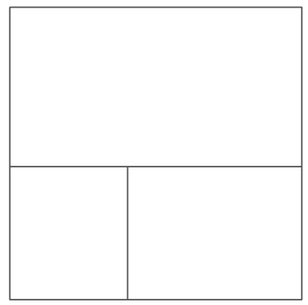

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Edition N/A
Copyright 1970
Levelled 1963

Surveyed 1966
Revised 1966
Edition N/A
Copyright 1967
Levelled 1964

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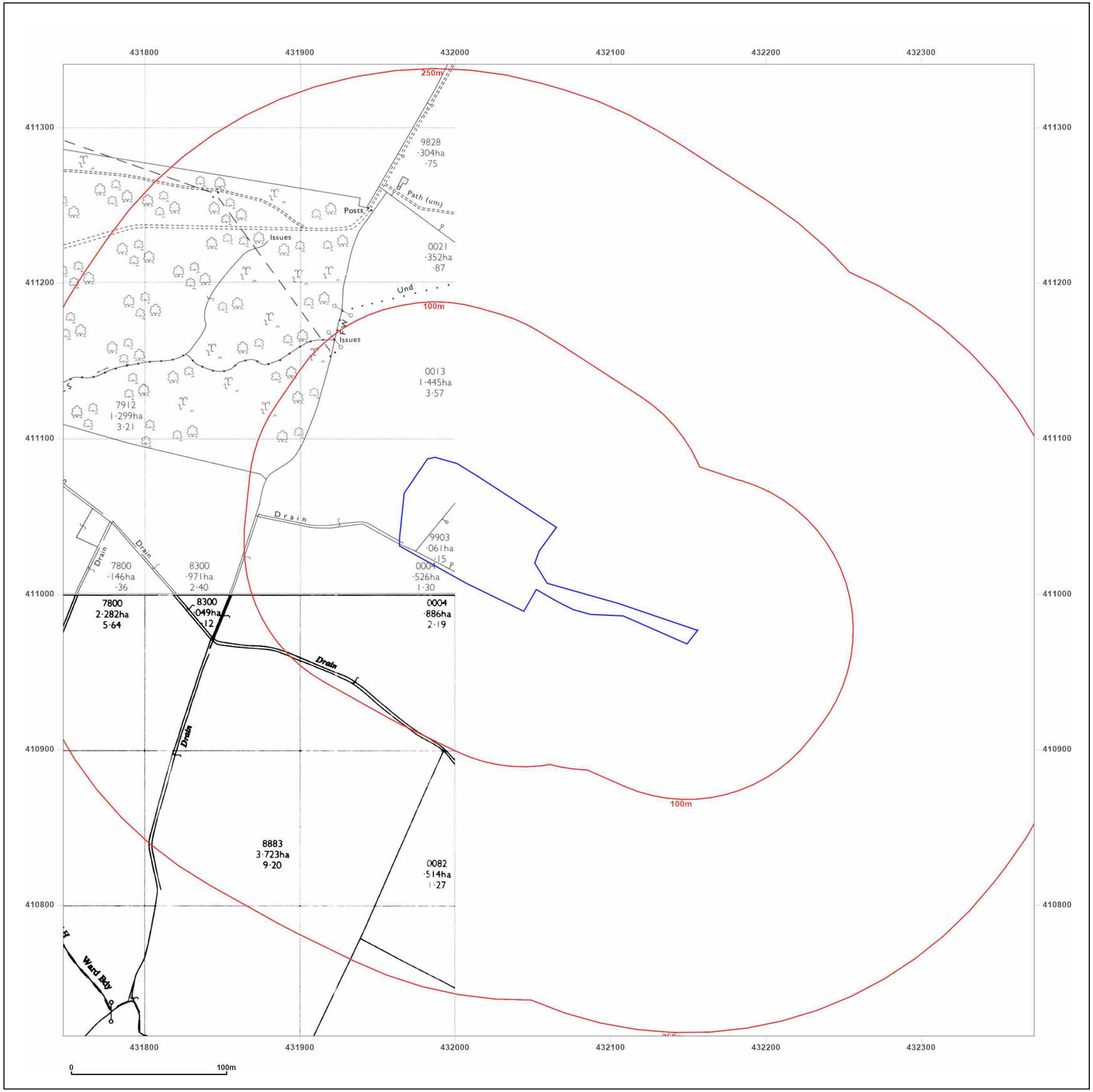

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Client Ref: C1132_20_E_1779_PO-1350
Report Ref: GS-7647028
Grid Ref: 432060, 411028

Map Name: National Grid

Map date: **1970-1973**

Scale: 1:2,500

Printed at: 1:2,500

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Surveyed 1973
Revised 1973
Edition N/A
Copyright 1974
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Surveyed N/A
Revised N/A
Edition N/A
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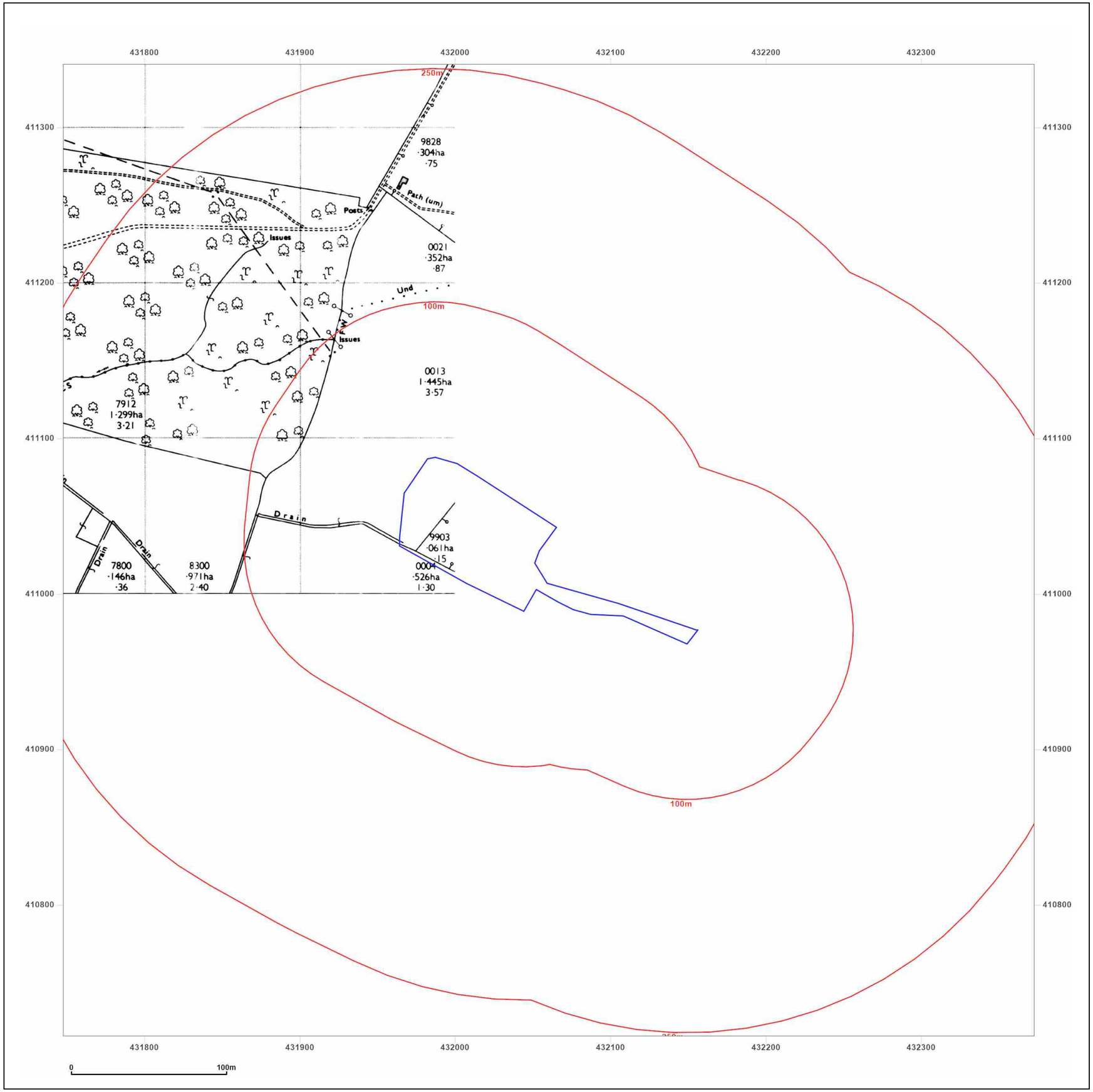

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Report Ref: GS-7647028
Grid Ref: 432060, 411028

Map Name: National Grid
Map date: **1974**
Scale: 1:2,500
Printed at: 1:2,500

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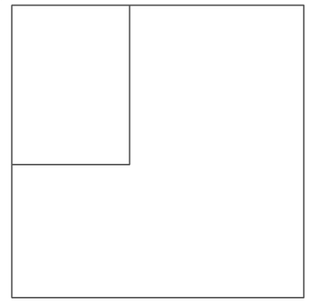
Surveyed N/A
Revised N/A
Edition N/A
Copyright N/A
Levelled N/A



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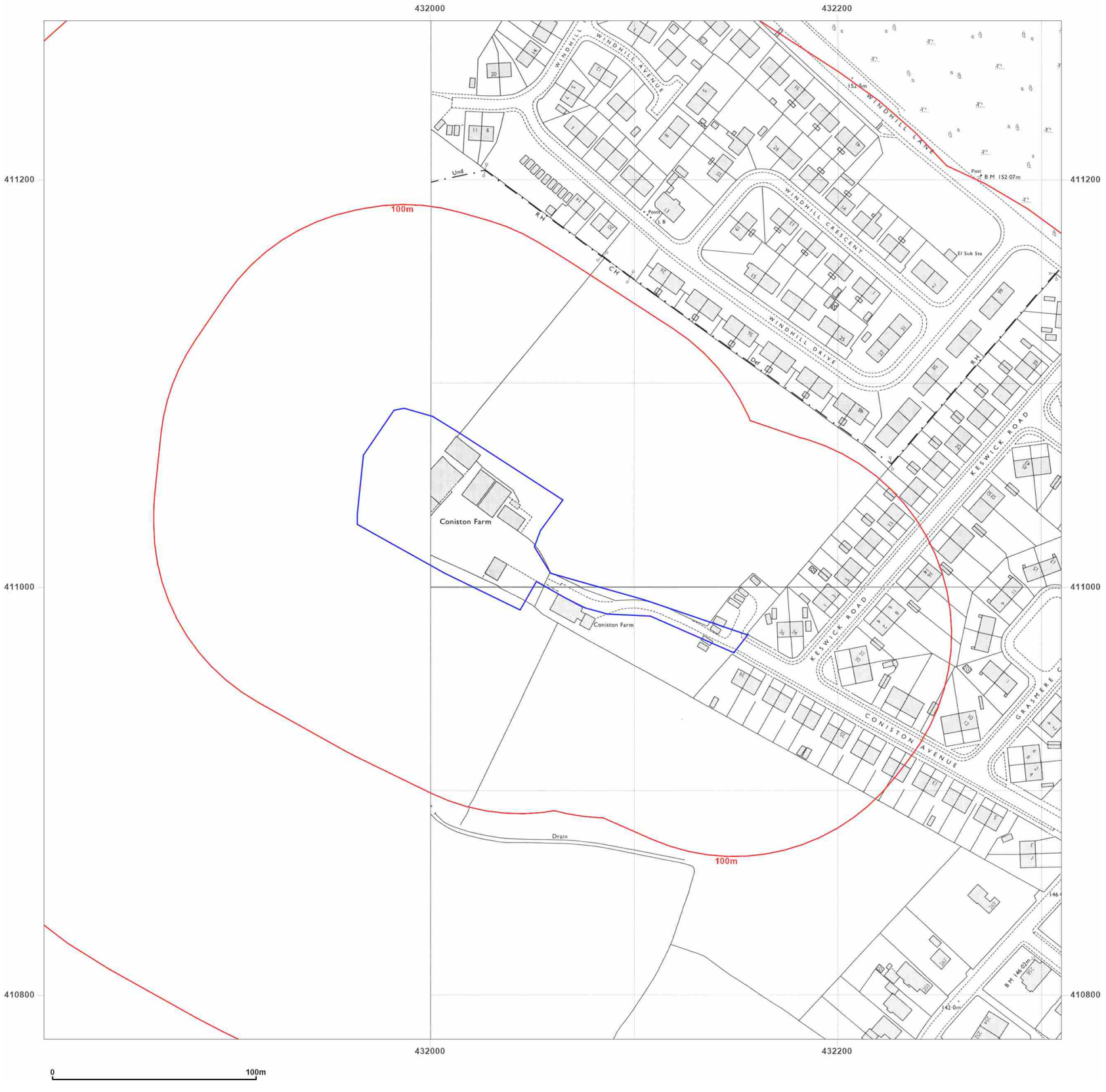

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Report Ref: GS-7647028
Grid Ref: 432060, 411028

Map Name: National Grid

Map date: **1977-1978**

Scale: 1:1,250

Printed at: 1:2,000

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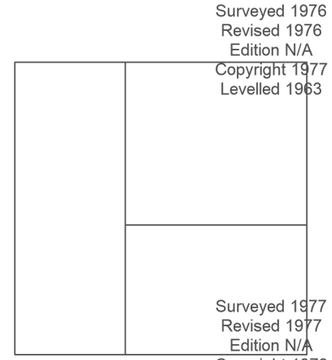

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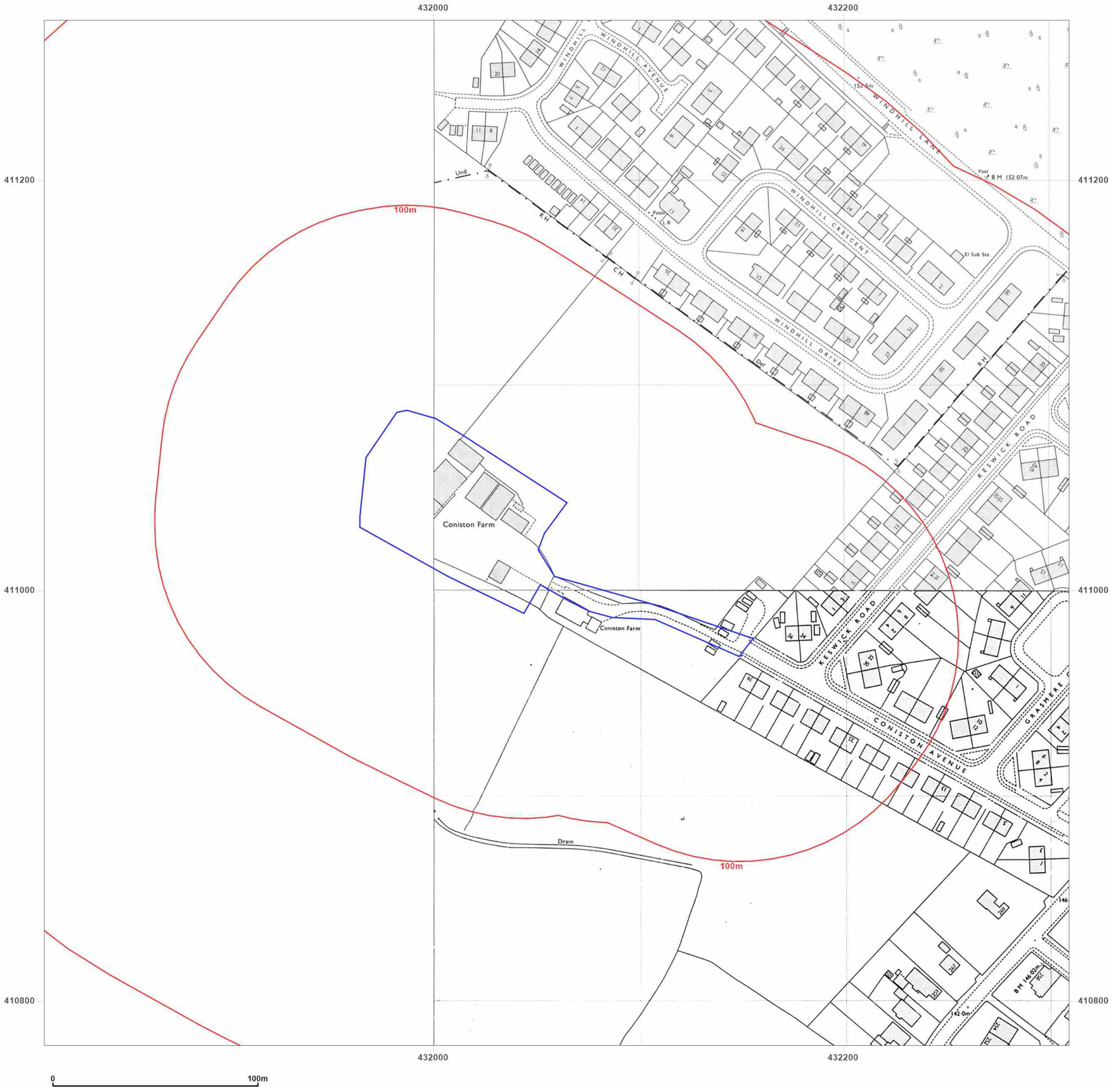

Groundsure INSIGHTS

Site Details:

CONISTON FARM, CONISTON AVENUE, STAINCROSS, BARNSLEY, S75 5BB

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Report Ref: GS-7647028
Grid Ref: 432060, 411028

Map Name: National Grid

Map date: **1977-1982**

Scale: 1:1,250

Printed at: 1:2,000

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Surveyed 1976
Revised 1976
Edition N/A
Copyright 1977
Levelled 1963

Surveyed N/A
Revised N/A
Edition N/A
Copyright 1982
Levelled 1963

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Report Ref: GS-7647028
Grid Ref: 432060, 411028

Map Name: National Grid
Map date: **1984**
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Printed at: 1:2,000

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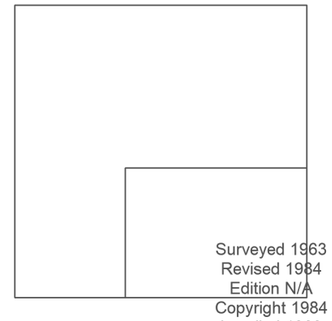

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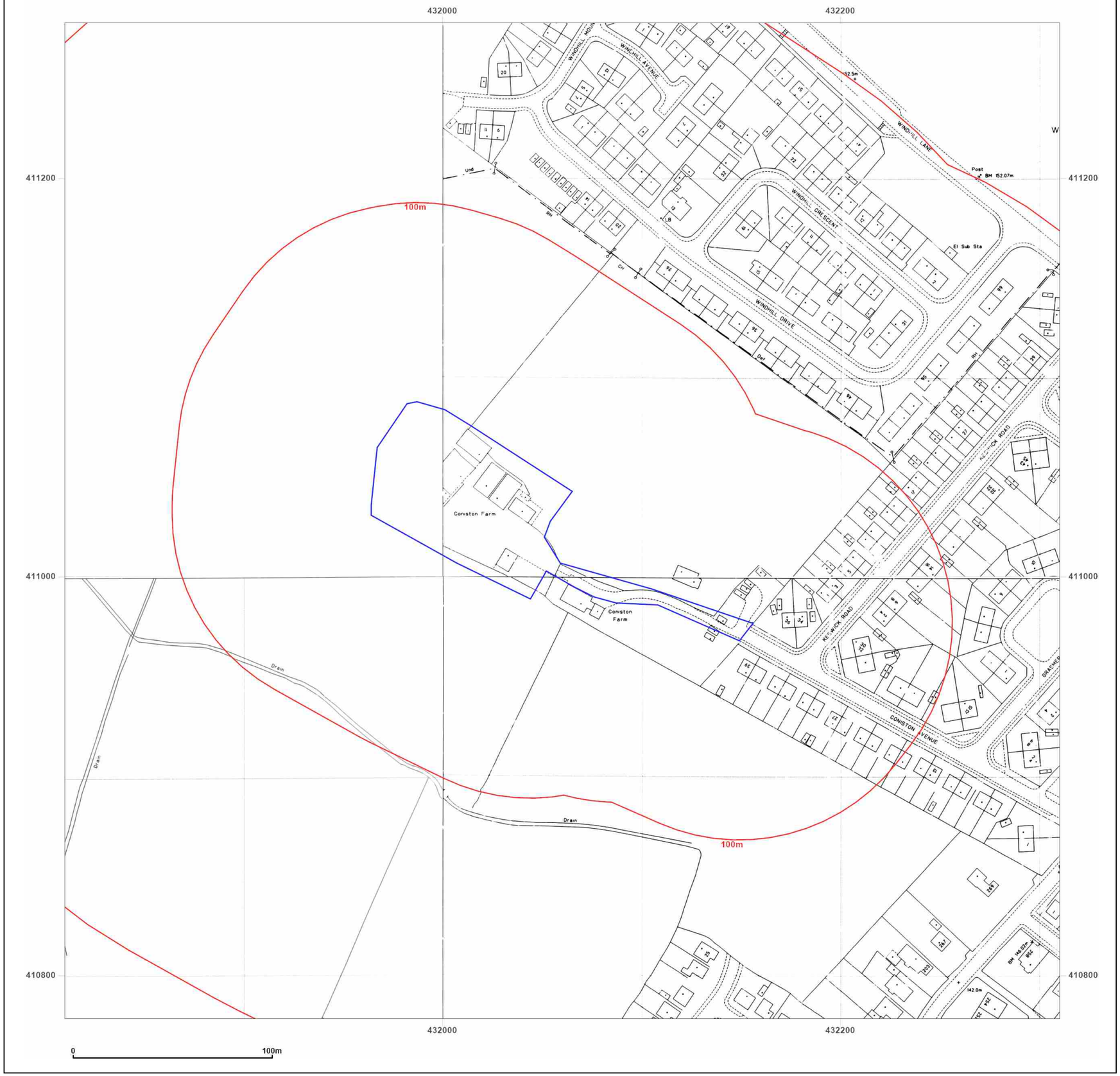

Groundsure INSIGHTS

Site Details:

CONISTON FARM, CONISTON AVENUE, STAINCROSS, BARNSLEY, S75 5BB

Client Ref: C1132_20_E_1779_PO-1350
Report Ref: GS-7647028
Grid Ref: 432060, 411028

Map Name: National Grid
Map date: **1993**
Scale: 1:1,250
Printed at: 1:2,000

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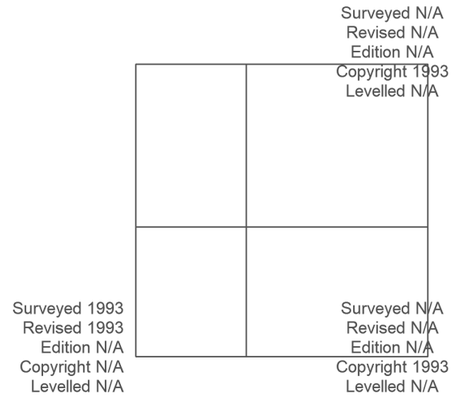

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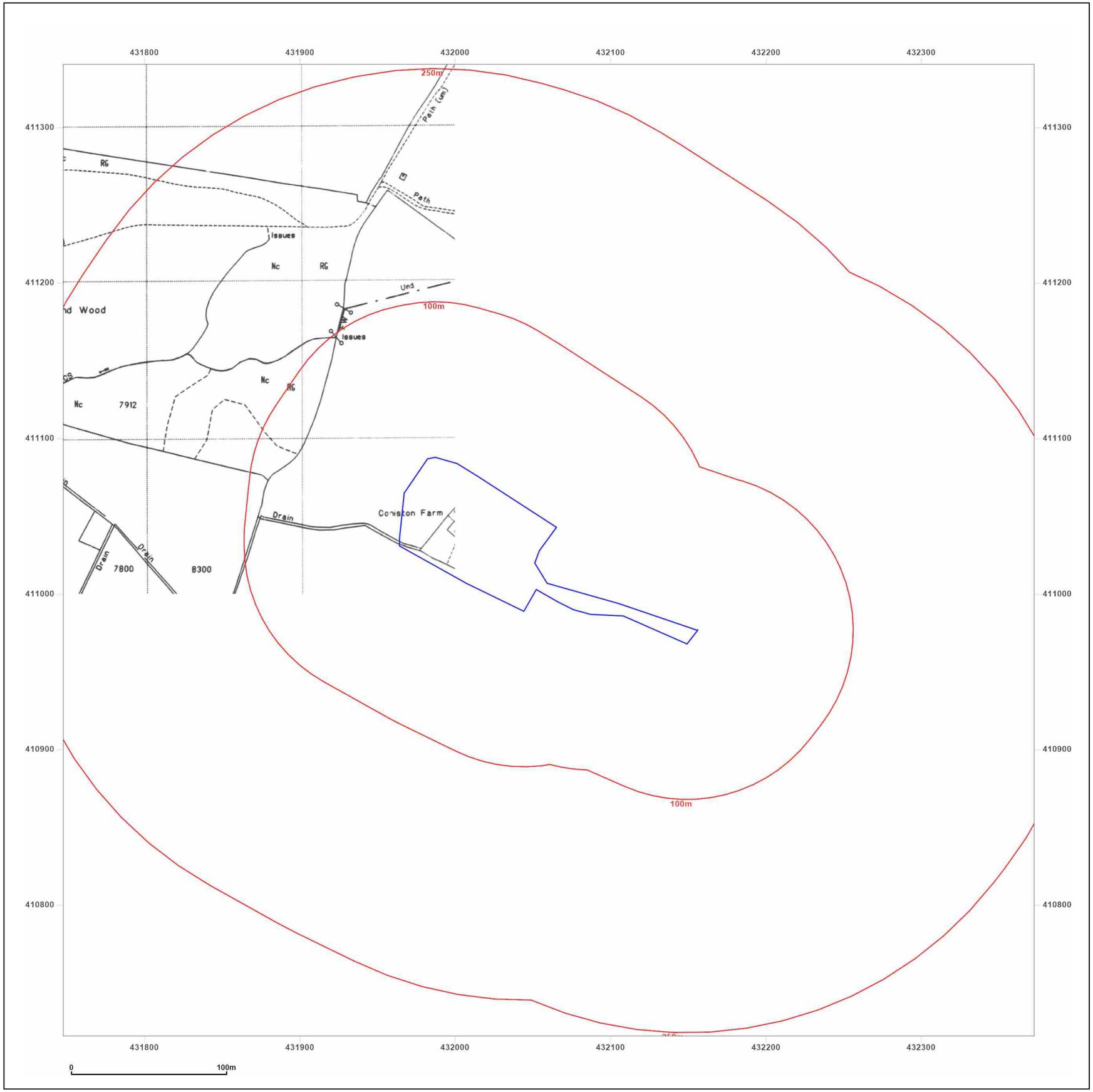

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Report Ref: GS-7647028
Grid Ref: 432060, 411028

Map Name: National Grid

Map date: **1993**

Scale: 1:2,500

Printed at: 1:2,500

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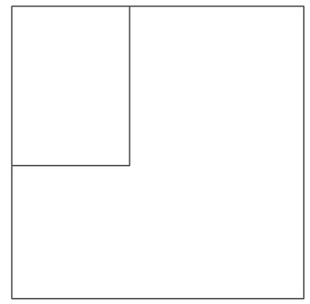
Surveyed 1993
Revised N/A
Edition N/A
Copyright 1993
Levelled N/A



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CONISTON FARM, CONISTON AVENUE, STAINCROSS, BARNSLEY, S75 5BB

Client Ref: C1132_20_E_1779_PO-1350
Report Ref: GS-7647028
Grid Ref: 432060, 411028

Map Name: National Grid
Map date: **1994**
Scale: 1:1,250
Printed at: 1:2,000

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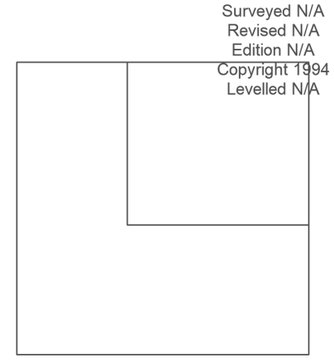

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Groundsure INSIGHTS

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Client Ref: C1132_20_E_1779_PO-1350
Report Ref: GS-7647028
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Map Name: National Grid
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Printed at: 1:2,000

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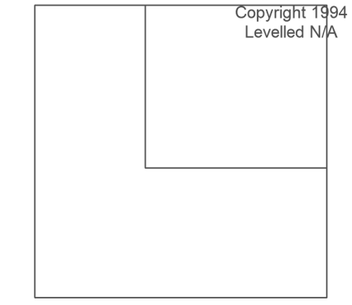

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Groundsure INSIGHTS

Site Details:

CONISTON FARM, CONISTON AVENUE, STAINCROSS, BARNSLEY, S75 5BB

Client Ref: C1132_20_E_1779_PO-1350
Report Ref: GS-7647028
Grid Ref: 432060, 411028

Map Name: LandLine
Map date: **2003**
Scale: 1:1,250
Printed at: 1:1,250

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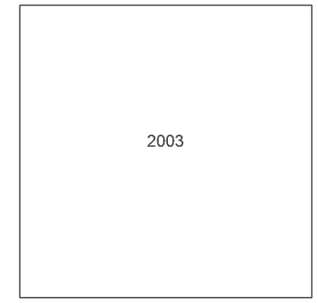

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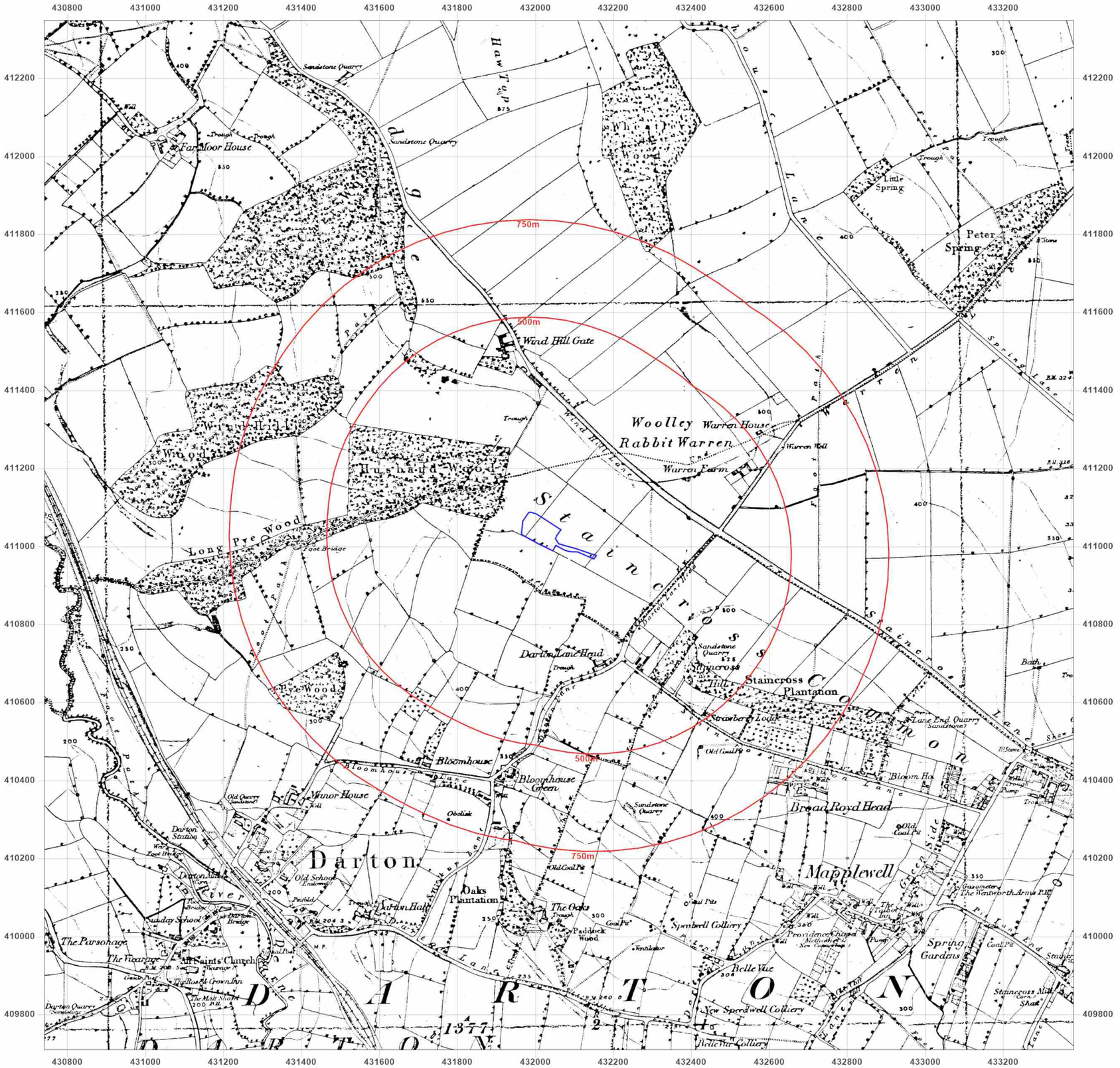
W: www.groundsure.com

Production date: 10 March 2021

Map legend available at:
www.groundsure.com/sites/default/files/groundsure_legend.pdf



Groundsure INSIGHTS

Site Details:

CONISTON FARM, CONISTON AVENUE, STAINCROSS, BARNSLEY, S75 5BB

Client Ref: C1132_20_E_1779_PO-1350
Report Ref: GS-7647028
Grid Ref: 432060, 411028

Map Name: County Series

Map date: **1854**

Scale: 1:10,560

Printed at: 1:10,560

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Surveyed 1851
Revised N/A
Edition 1854
Copyright N/A
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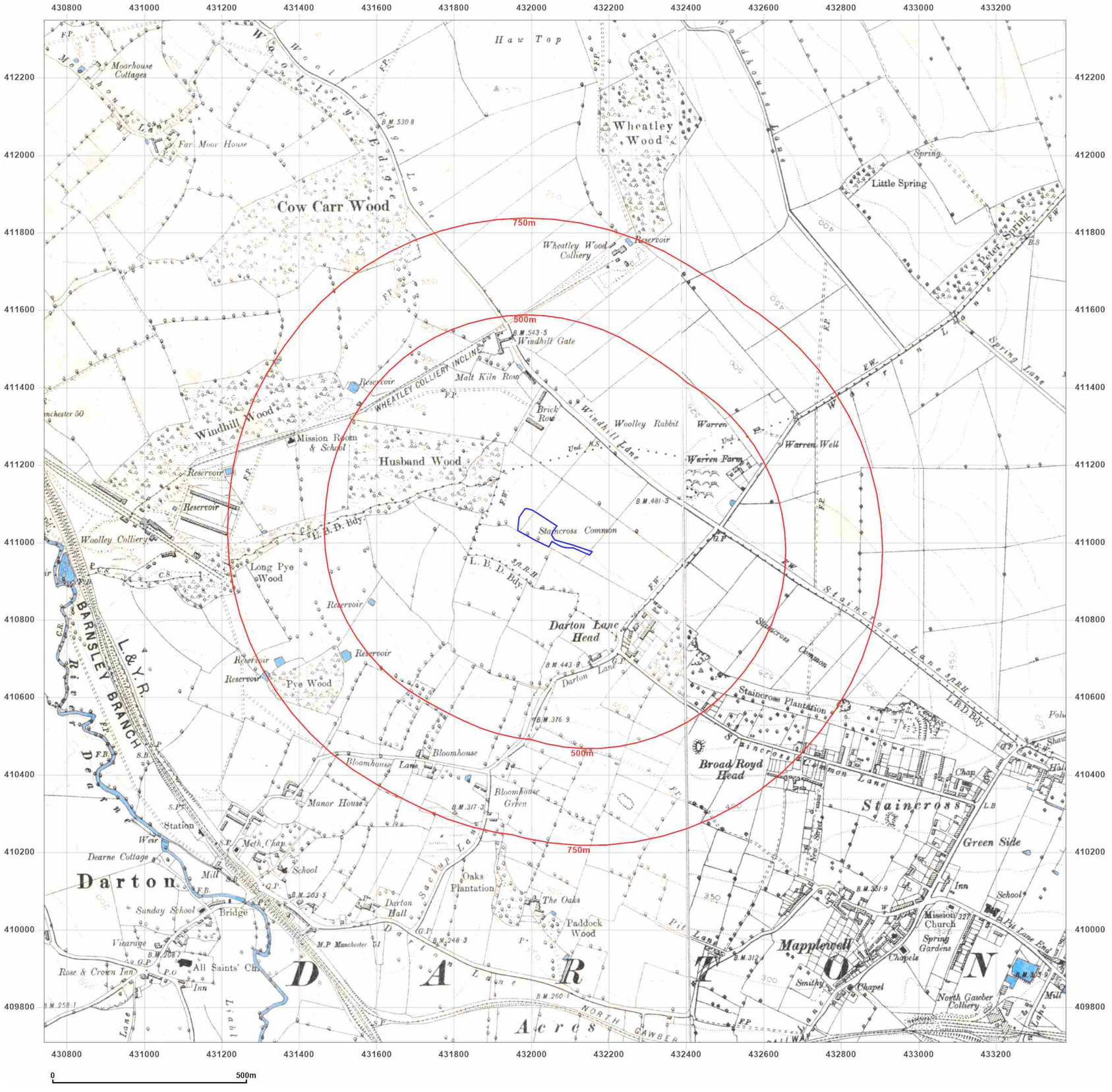

Groundsure INSIGHTS

Site Details:

CONISTON FARM, CONISTON AVENUE, STAINCROSS, BARNSLEY, S75 5BB

Client Ref: C1132_20_E_1779_PO-1350
Report Ref: GS-7647028
Grid Ref: 432060, 411028

Map Name: County Series
Map date: **1891**
Scale: 1:10,560
Printed at: 1:10,560

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Surveyed 1891
Revised 1891
Edition N/A
Copyright N/A
Levelled N/A

Surveyed 1891
Revised 1891
Edition 1891
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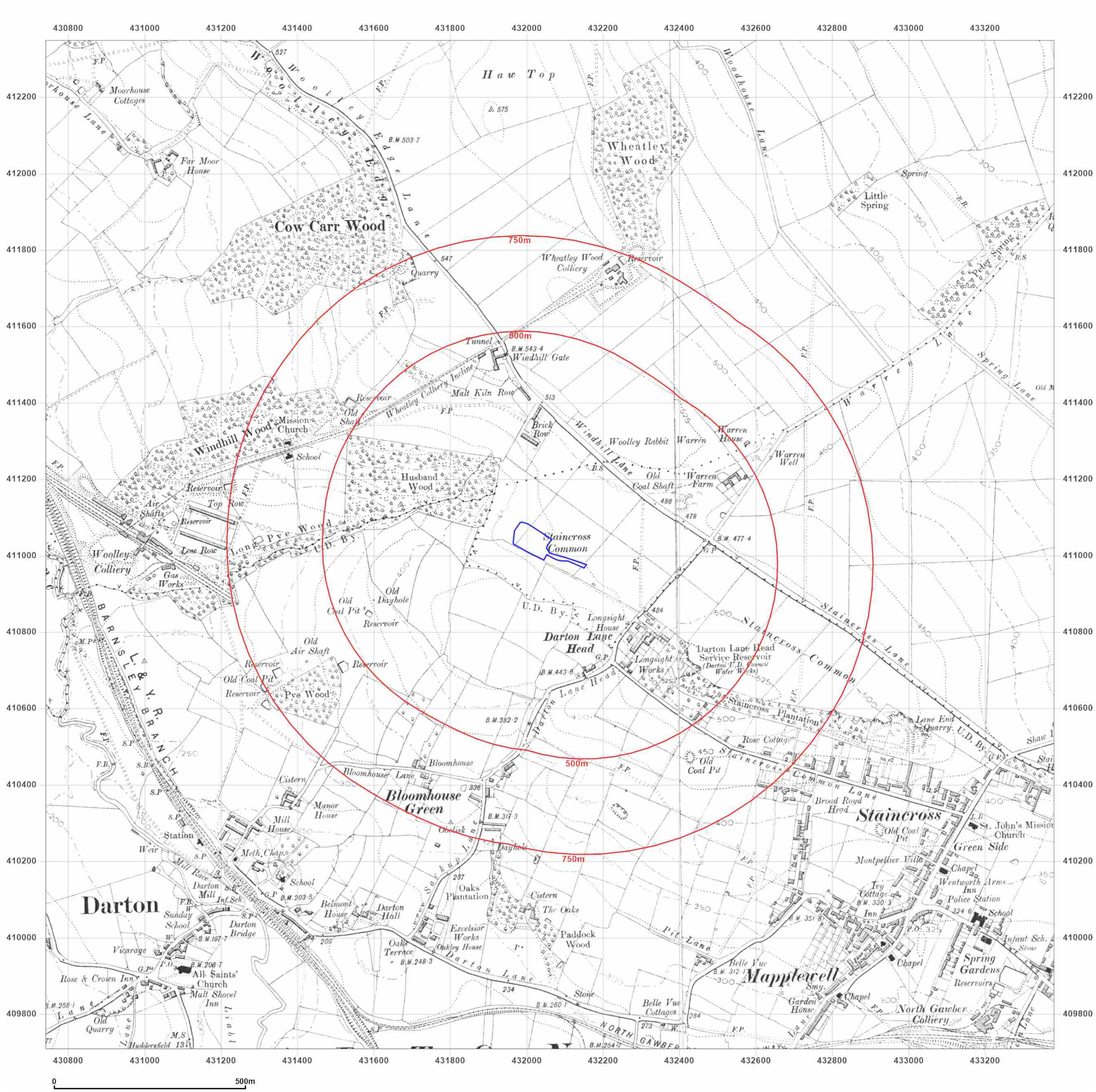
Production date: 10 March 2021

Map legend available at:
www.groundsure.com/sites/default/files/groundsure_legend.pdf



Groundsure INSIGHTS

Site Details:

CONISTON FARM, CONISTON AVENUE, STAINCROSS, BARNSLEY, S75 5BB

Client Ref: C1132_20_E_1779_PO-1350
Report Ref: GS-7647028
Grid Ref: 432060, 411028

Map Name: County Series

Map date: **1904**

Scale: 1:10,560

Printed at: 1:10,560

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Surveyed 1891 Revised 1904 Edition N/A Copyright N/A Levelled N/A	Surveyed 1891 Revised 1904 Edition 1904 Copyright N/A Levelled N/A

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Map legend available at:
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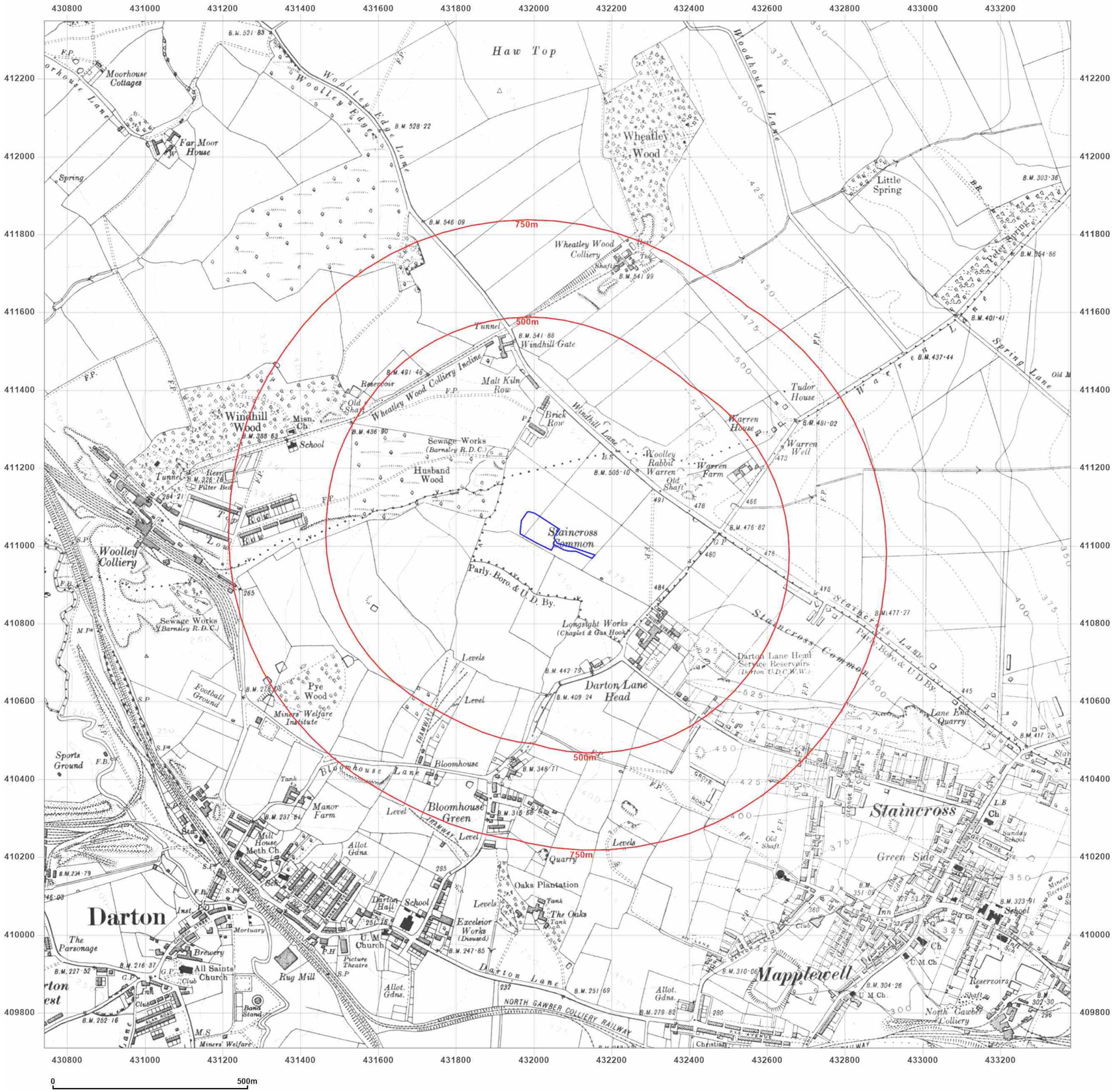

Groundsure INSIGHTS

Site Details:

CONISTON FARM, CONISTON AVENUE, STAINCROSS, BARNSLEY, S75 5BB

Client Ref: C1132_20_E_1779_PO-1350
Report Ref: GS-7647028
Grid Ref: 432060, 411028

Map Name: County Series

Map date: **1930**

Scale: 1:10,560

Printed at: 1:10,560

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Surveyed 1851
Revised 1930
Edition N/A
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Levelled N/A

Surveyed 1851
Revised 1930
Edition 1930
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Production date: 10 March 2021

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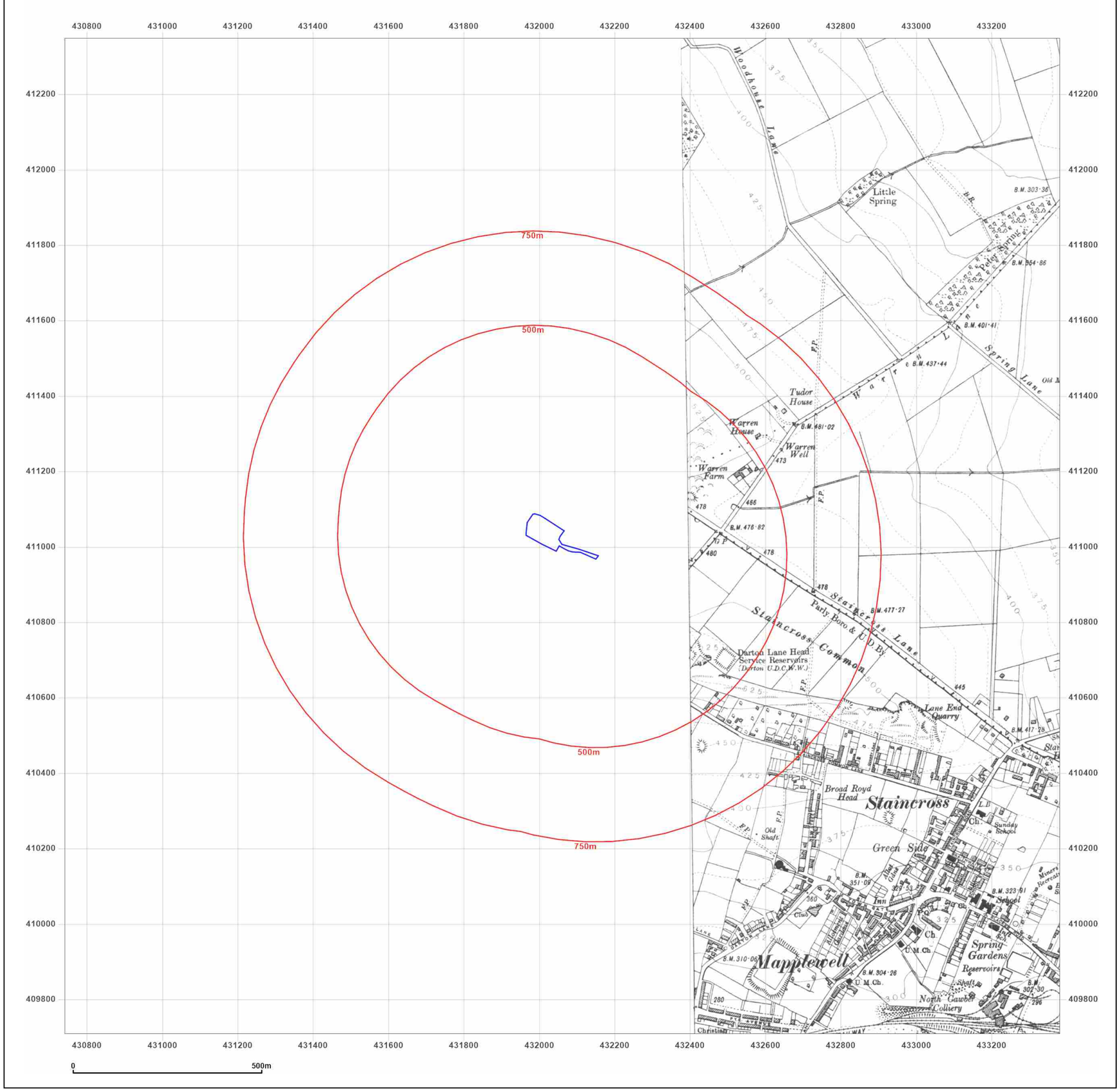

Groundsure INSIGHTS

Site Details:

CONISTON FARM, CONISTON AVENUE, STAINCROSS, BARNSLEY, S75 5BB

Client Ref: C1132_20_E_1779_PO-1350
Report Ref: GS-7647028
Grid Ref: 432060, 411028

Map Name: County Series

Map date: **1930**

Scale: 1:10,560

Printed at: 1:10,560

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Surveyed 1851
Revised 1930
Edition 1930
Copyright N/A
Levelled 1929

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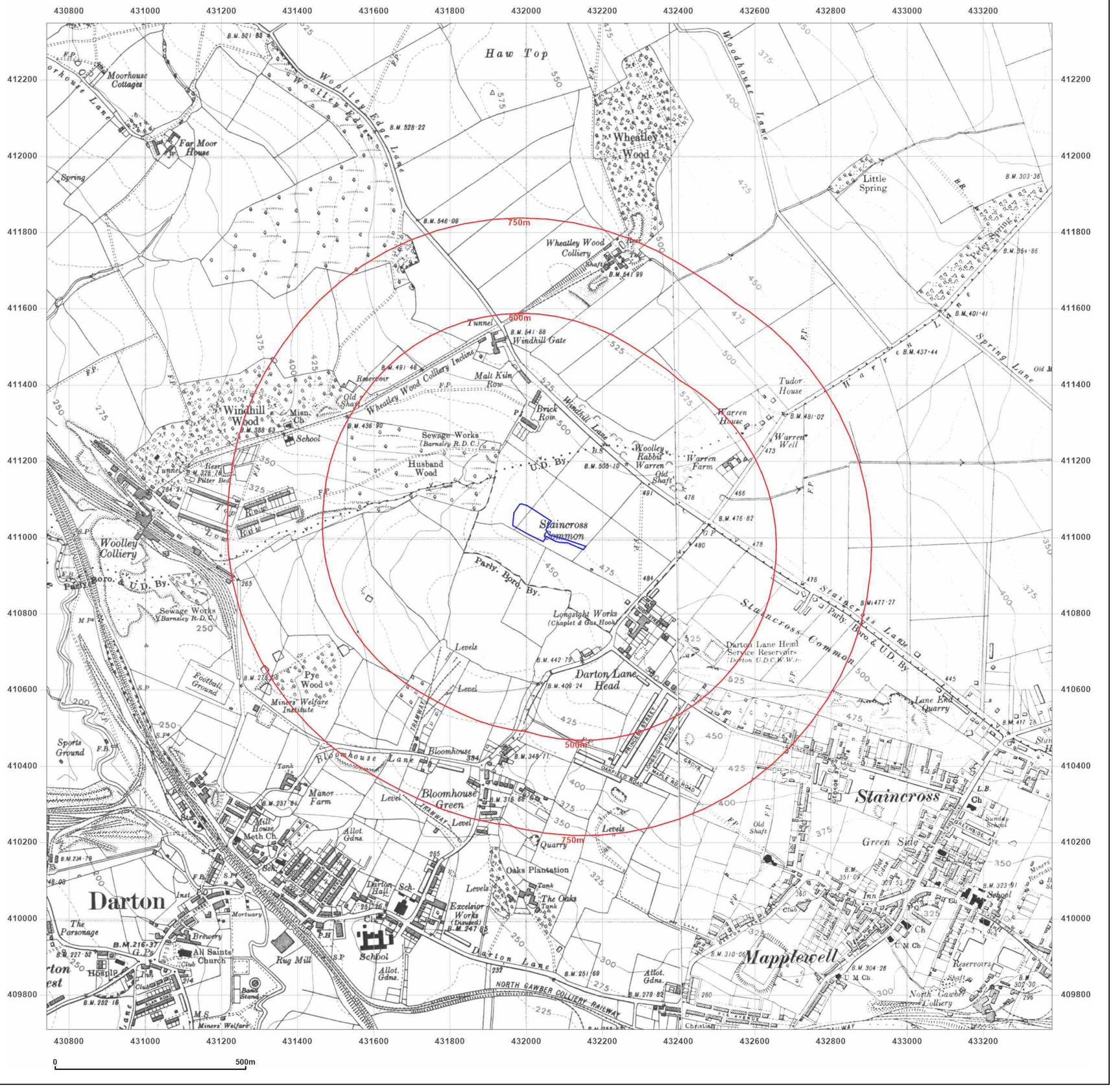
Production date: 10 March 2021

Map legend available at:
www.groundsure.com/sites/default/files/groundsure_legend.pdf



Groundsure INSIGHTS

Site Details:

CONISTON FARM, CONISTON AVENUE, STAINCROSS, BARNSLEY, S75 5BB

Client Ref: C1132_20_E_1779_PO-1350
Report Ref: GS-7647028
Grid Ref: 432060, 411028

Map Name: County Series

Map date: **1938**

Scale: 1:10,560

Printed at: 1:10,560

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Surveyed 1851 Revised 1938 Edition 1938 Copyright N/A Levelled N/A		Surveyed 1851 Revised 1938 Edition 1938 Copyright N/A Levelled 1929

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Production date: 10 March 2021

Map legend available at:
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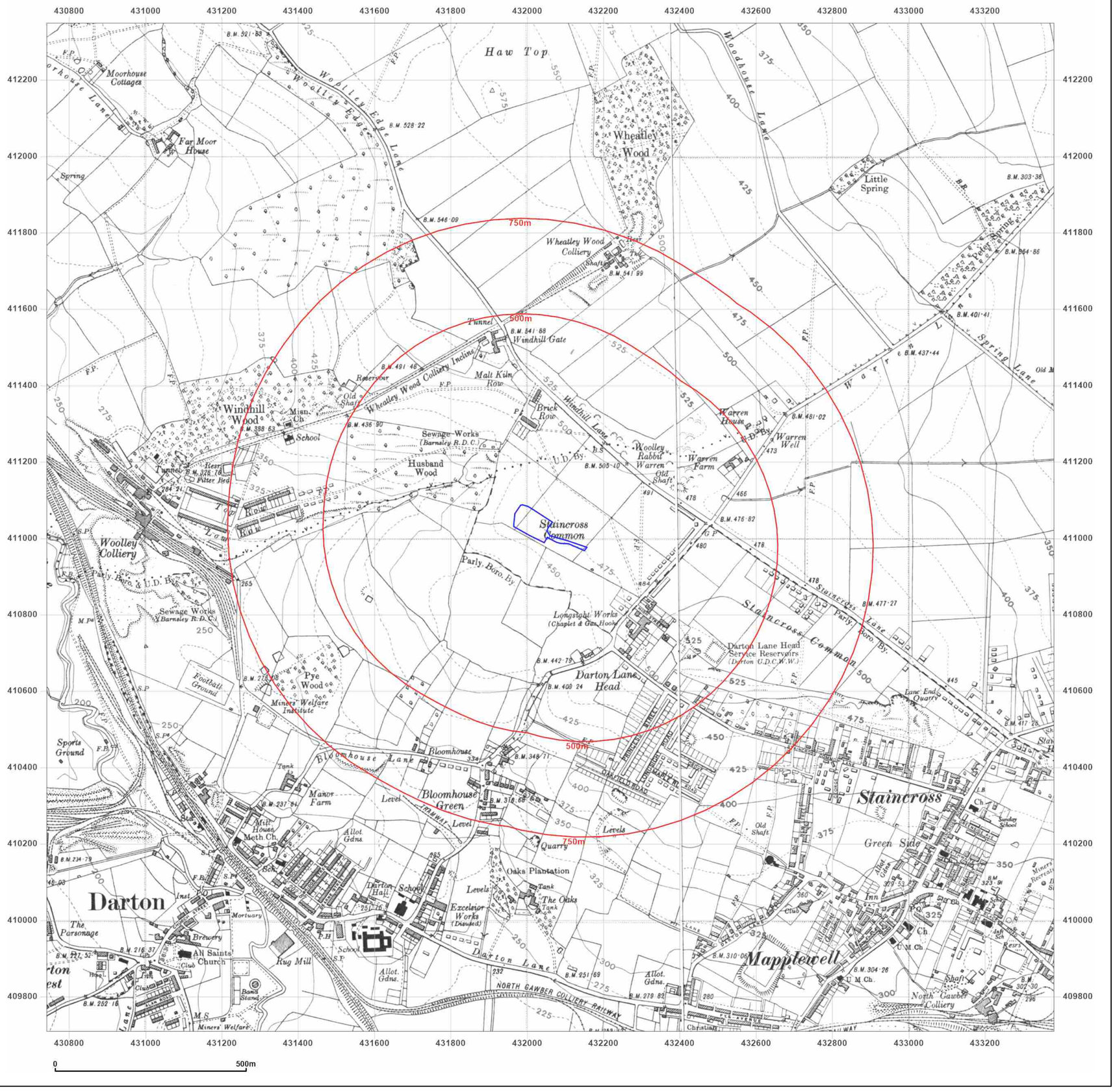

Groundsure INSIGHTS

Site Details:

CONISTON FARM, CONISTON AVENUE, STAINCROSS, BARNSLEY, S75 5BB

Client Ref: C1132_20_E_1779_PO-1350
Report Ref: GS-7647028
Grid Ref: 432060, 411028

Map Name: County Series

Map date: **1948**

Scale: 1:10,560

Printed at: 1:10,560

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Revised 1948
Edition N/A
Copyright N/A
Levelled N/A

Surveyed 1851
Revised 1948
Edition 1948
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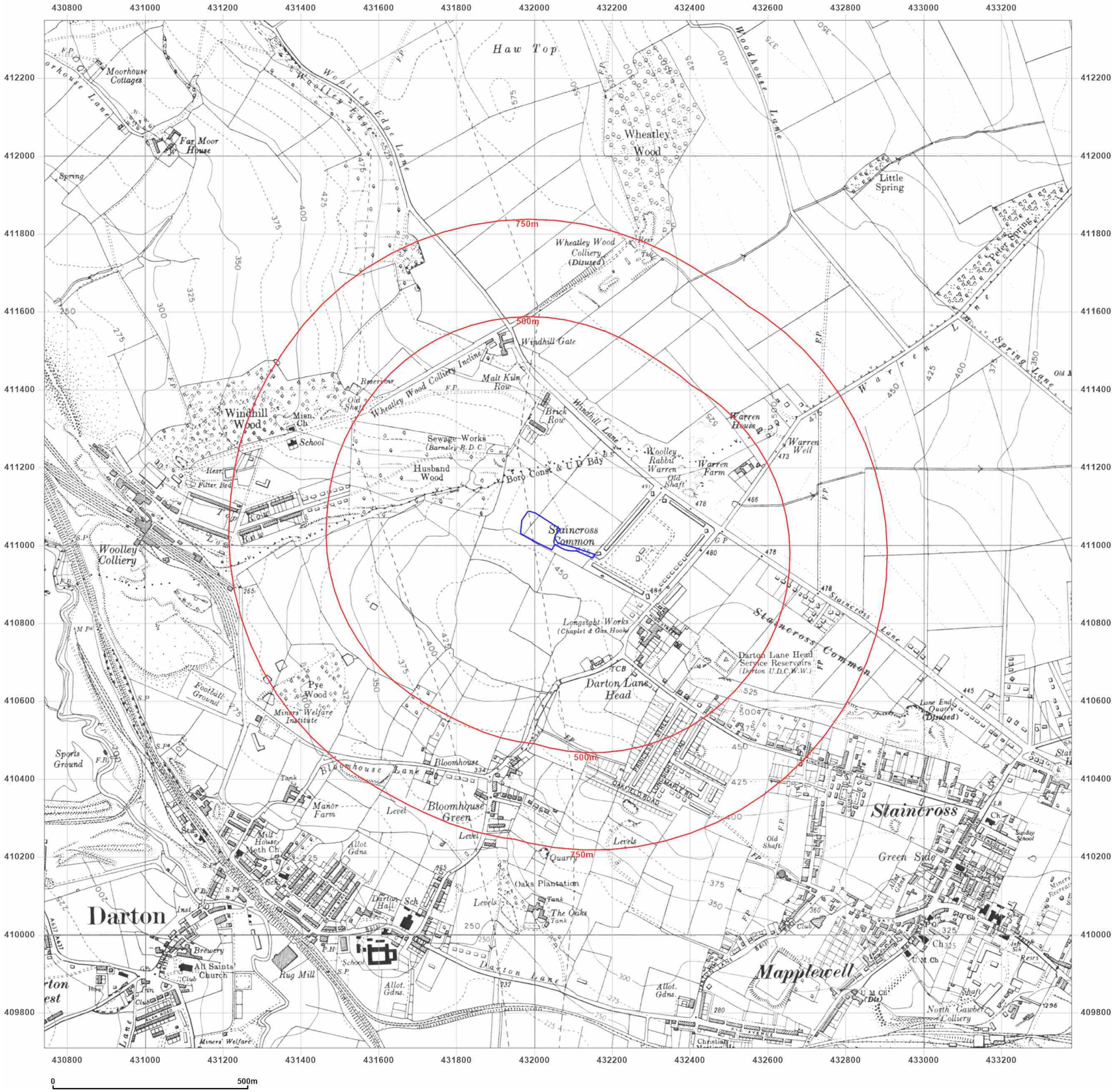
Production date: 10 March 2021

Map legend available at:
www.groundsure.com/sites/default/files/groundsure_legend.pdf



Groundsure INSIGHTS

Site Details:

CONISTON FARM, CONISTON AVENUE, STAINCROSS, BARNSLEY, S75 5BB

Client Ref: C1132_20_E_1779_PO-1350
Report Ref: GS-7647028
Grid Ref: 432060, 411028

Map Name: Provisional

Map date: **1951-1956**

Scale: 1:10,560

Printed at: 1:10,560

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Surveyed 1951
Revised 1951
Edition N/A
Copyright N/A
Levelled N/A

Surveyed N/A
Revised 1955
Edition N/A
Copyright 1956
Levelled N/A

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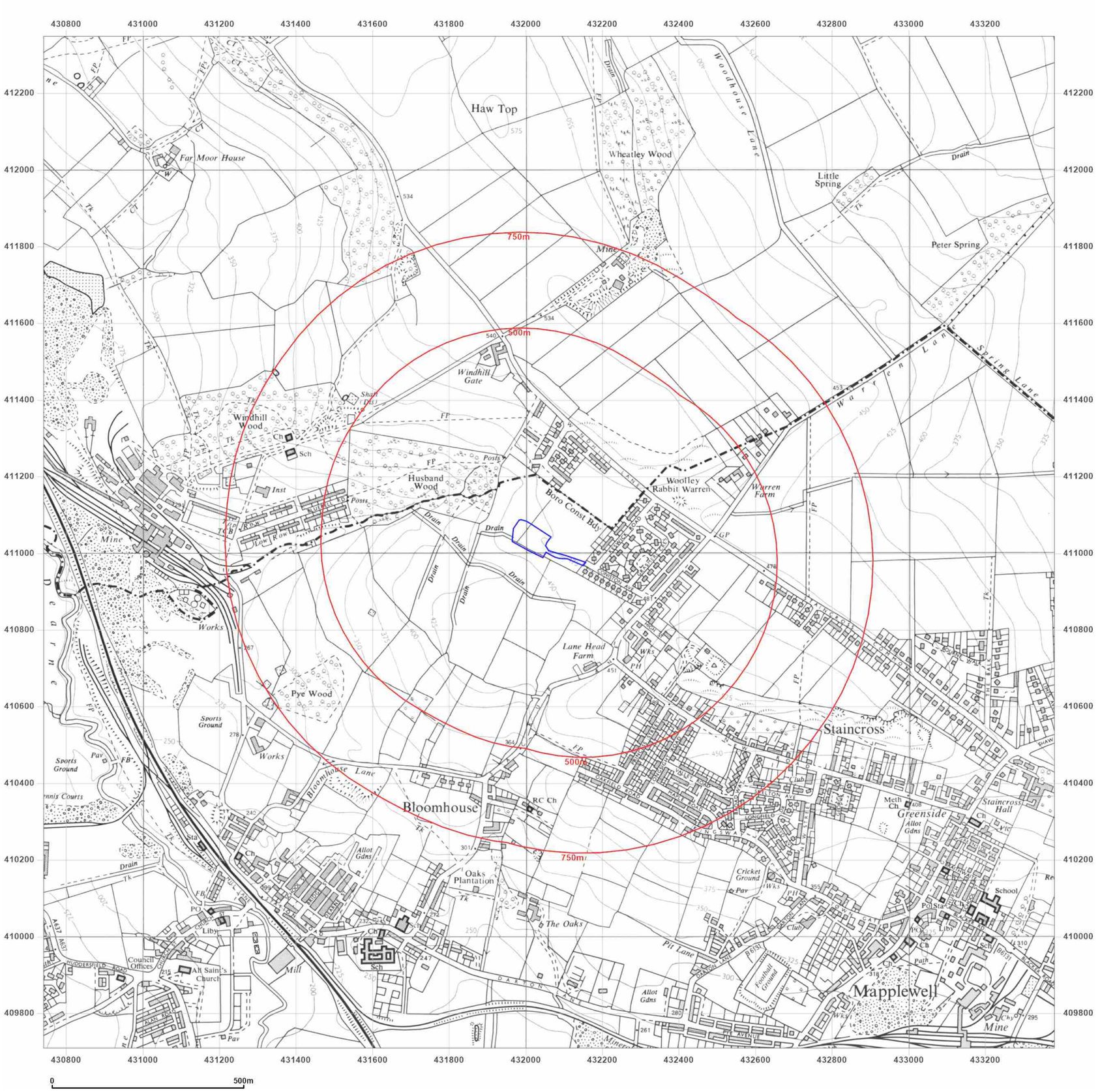

Groundsure INSIGHTS

Site Details:

CONISTON FARM, CONISTON AVENUE, STAINCROSS, BARNSLEY, S75 5BB

Client Ref: C1132_20_E_1779_PO-1350
Report Ref: GS-7647028
Grid Ref: 432060, 411028

Map Name: Provisional

Map date: **1965-1966**

Scale: 1:10,560

Printed at: 1:10,560

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Surveyed 1965
Revised 1965
Edition N/A
Copyright N/A
Levelled N/A

Surveyed 1966
Revised 1966
Edition N/A
Copyright N/A
Levelled N/A

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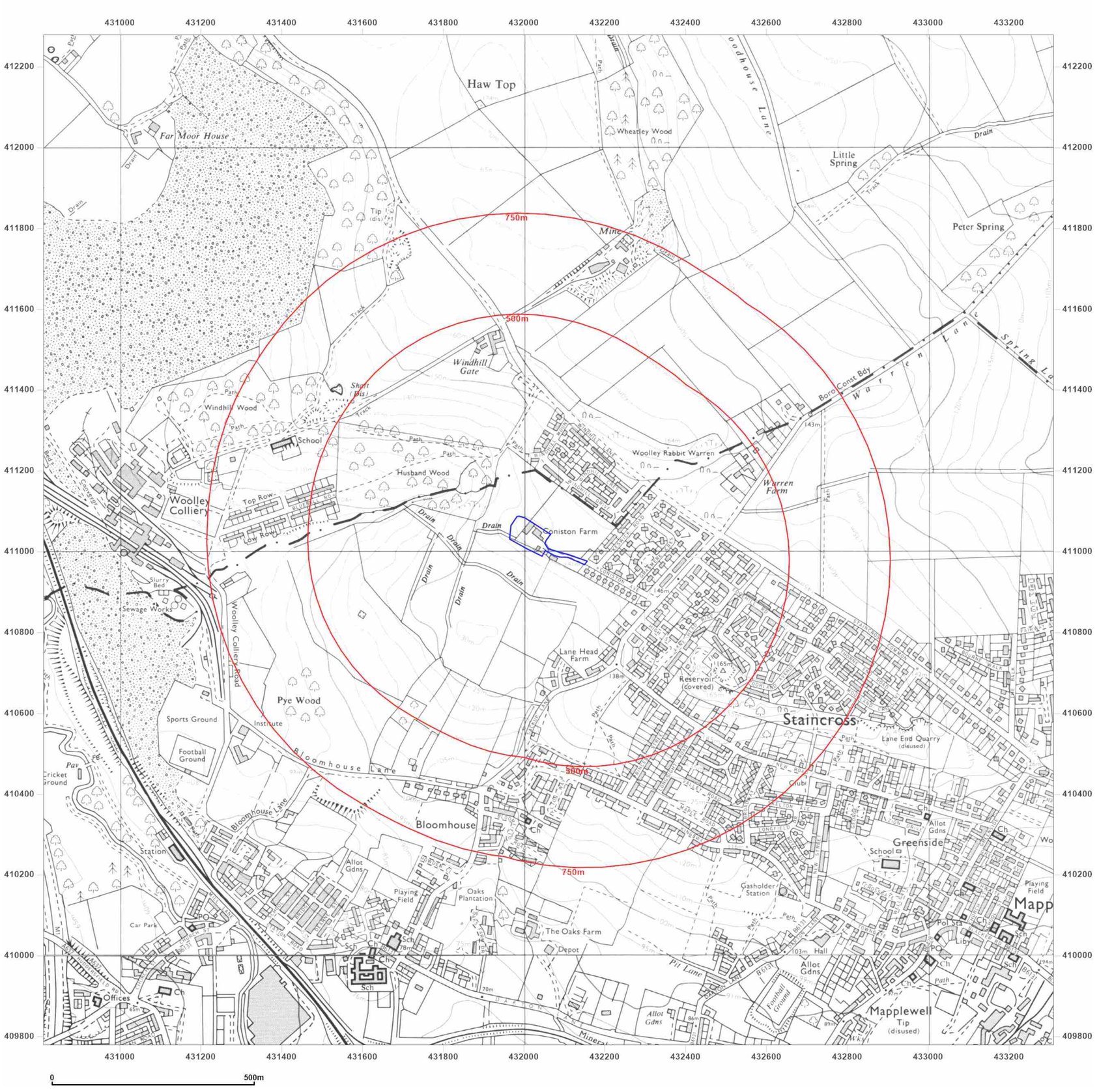

Groundsure INSIGHTS

Site Details:

CONISTON FARM, CONISTON AVENUE, STAINCROSS, BARNSLEY, S75 5BB

Client Ref: C1132_20_E_1779_PO-1350
Report Ref: GS-7647028
Grid Ref: 432060, 411028

Map Name: National Grid

Map date: **1973-1978**

Scale: 1:10,000

Printed at: 1:10,000

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Surveyed 1977
Revised 1978
Edition N/A
Copyright N/A
Levelled N/A

Surveyed 1973
Revised 1973
Edition N/A
Copyright N/A
Levelled N/A

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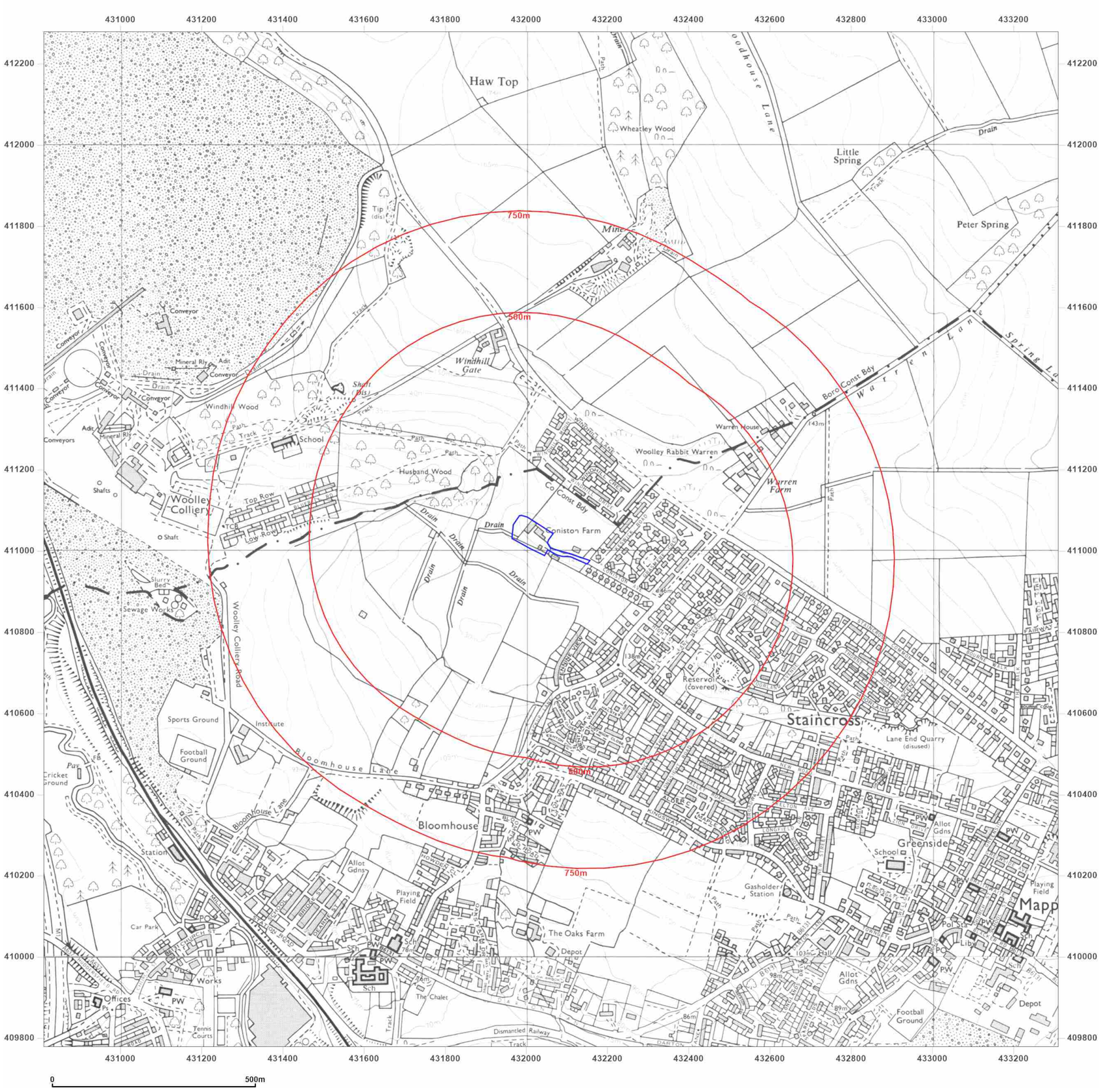
Production date: 10 March 2021

Map legend available at:
www.groundsure.com/sites/default/files/groundsure_legend.pdf



Groundsure INSIGHTS

Site Details:

CONISTON FARM, CONISTON AVENUE, STAINCROSS, BARNSLEY, S75 5BB

Client Ref: C1132_20_E_1779_PO-1350
Report Ref: GS-7647028
Grid Ref: 432060, 411028

Map Name: National Grid

Map date: **1990-1993**

Scale: 1:10,000

Printed at: 1:10,000

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Surveyed 1983
Revised 1990
Edition N/A
Copyright N/A
Levelled N/A

Surveyed 1992
Revised 1993
Edition N/A
Copyright N/A
Levelled N/A

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W: www.groundsure.com

Production date: 10 March 2021

Map legend available at:
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Groundsure INSIGHTS

Site Details:

CONISTON FARM, CONISTON AVENUE, STAINCROSS, BARNSLEY, S75 5BB

Client Ref: C1132_20_E_1779_PO-1350
Report Ref: GS-7647028
Grid Ref: 432060, 411028

Map Name: National Grid
Map date: **2001**
Scale: 1:10,000
Printed at: 1:10,000

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2001

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W: www.groundsure.com

Production date: 10 March 2021

Map legend available at:
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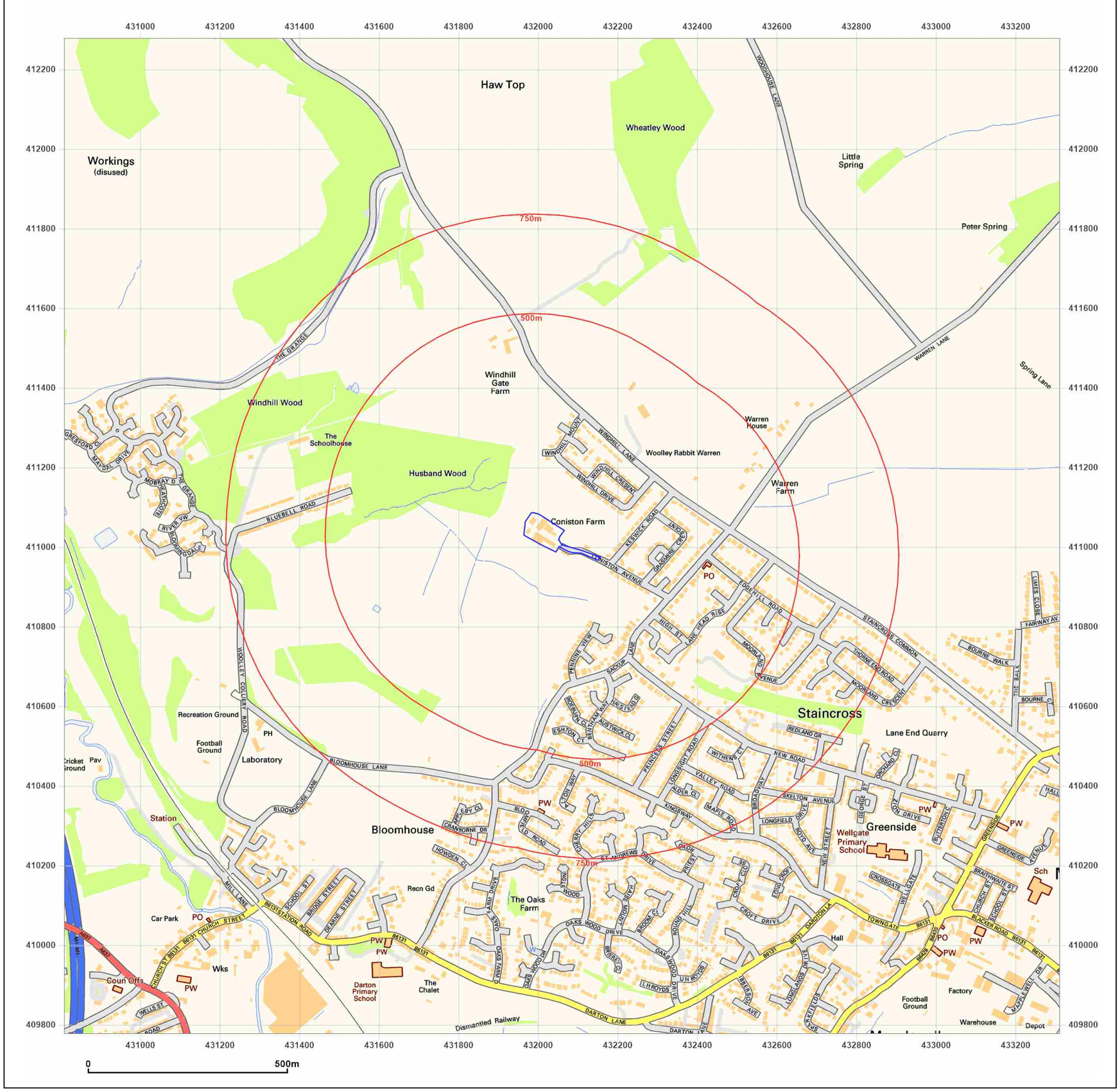

Site Details:

CONISTON FARM, CONISTON AVENUE, STAINCROSS, BARNSLEY, S75 5BB

Client Ref: C1132_20_E_1779_PO-1350
Report Ref: GS-7647028
Grid Ref: 432060, 411028

Map Name: National Grid

Map date: **2010**

Scale: 1:10,000

Printed at: 1:10,000

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W: www.groundsure.com

Production date: 10 March 2021

Map legend available at:
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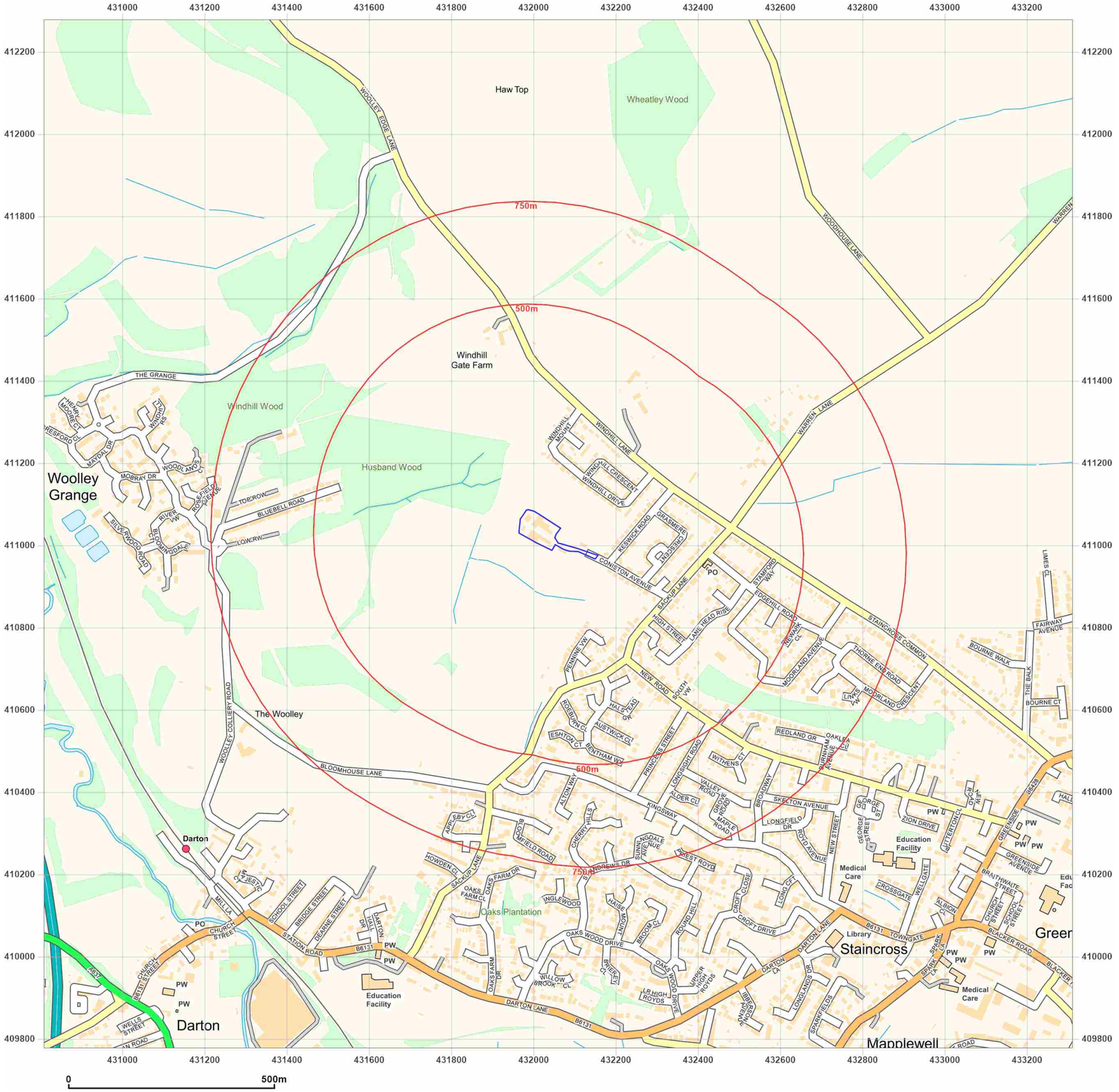

Groundsure INSIGHTS

Site Details:

CONISTON FARM, CONISTON AVENUE, STAINCROSS, BARNSLEY, S75 5BB

Client Ref: C1132_20_E_1779_PO-1350
Report Ref: GS-7647028
Grid Ref: 432060, 411028

Map Name: National Grid

Map date: **2021**

Scale: 1:10,000

Printed at: 1:10,000

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2021

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Production date: 10 March 2021

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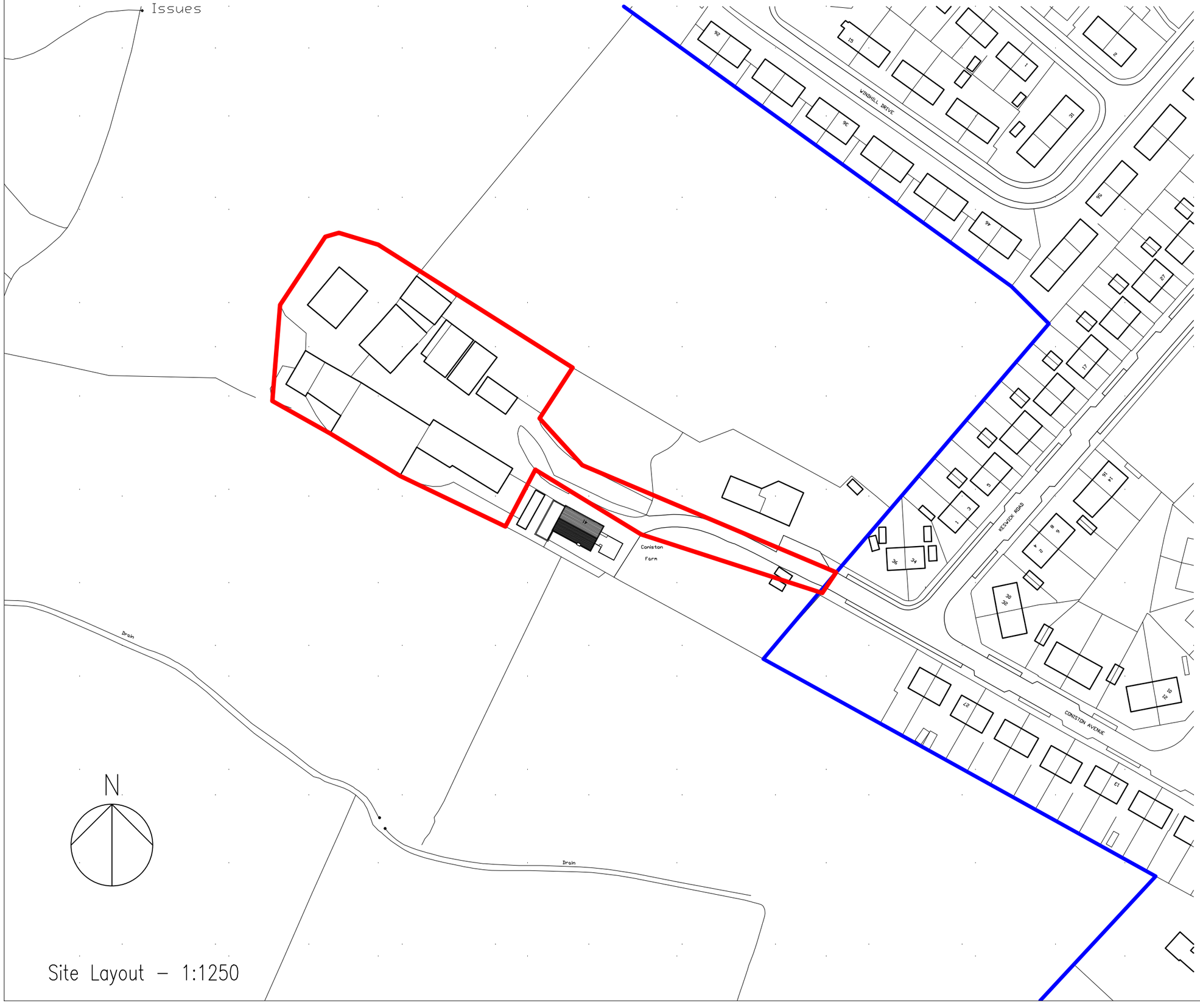
Environmental Geotechnical Specialists

Appendix 3

Site Plans

Issues



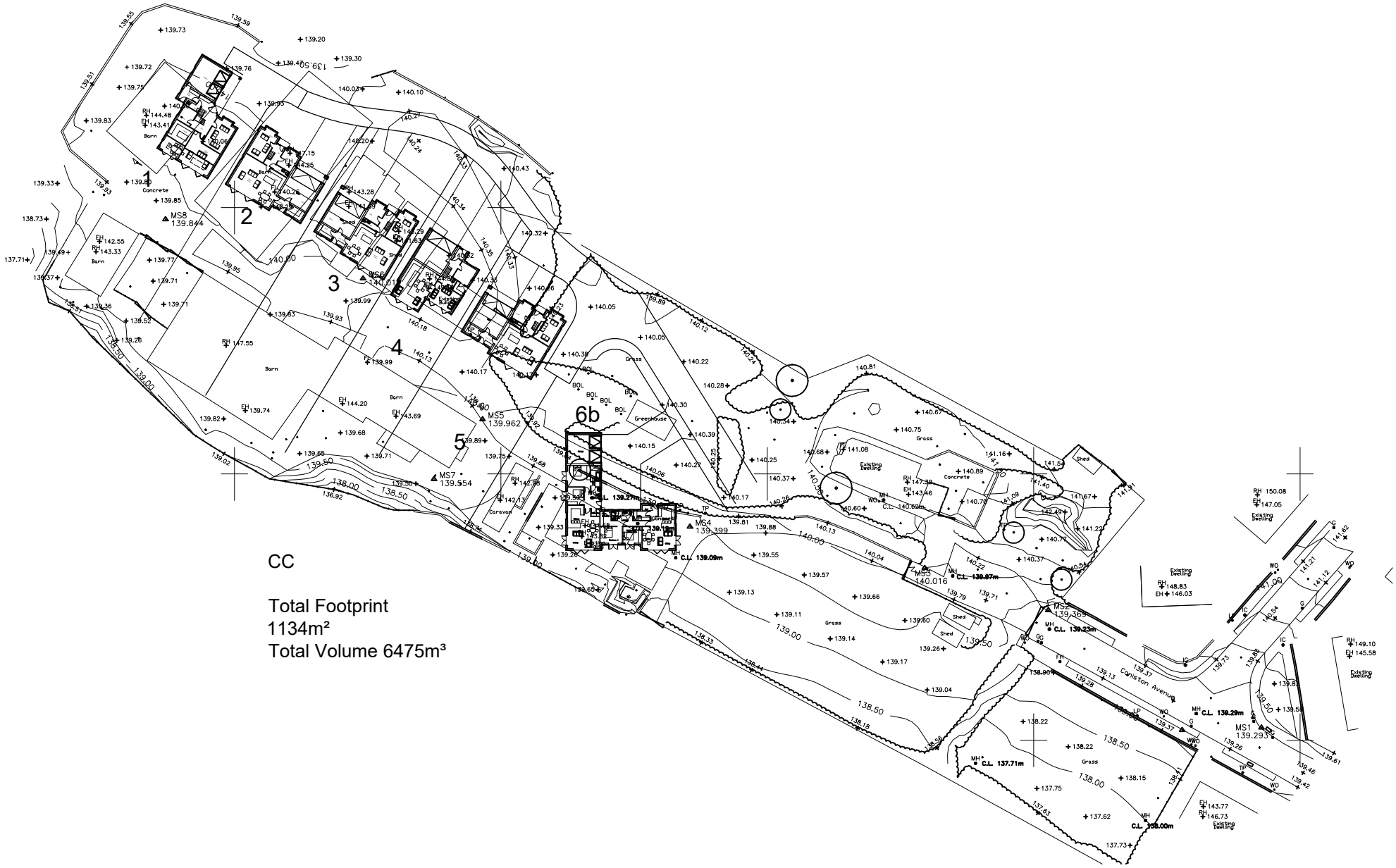
Site Layout – 1:1250

NOTES
DO NOT SCALE FROM THIS DRAWING.
It is the Contractor's responsibility to check all governing dimensions and verify all dimensions on site before commencing any work or making any shop drawings.
This drawing is to be read in conjunction with schedules of work, specifications, bills of quantities and other relevant information. Any discrepancies are to be reported to the Project Architect.
Work and materials are to be in accordance with the Building Regulations and to comply with the relevant British Standards.

Rev:	Date:	Notes:

FOX ARCHITECTURE & DESIGN
Fox Cottage, Whitley Road, Whitley
West Yorkshire, WF12 0LU
T 01924 459231
E info@foxarchitecture.co.uk
www.foxarchitecture.co.uk

Client:	Mrs S Senior
Project:	Coniston Farm Staincross
Drawing:	Existing Site Location
Date:	Aug 2017
Scale:	1:1250 @ A3
Drawing No:	1237/100
Rev:	



CC

Total Footprint
1134m²
Total Volume 6475m³

Appendix 4

Photographs

Photo 1: On site, facing south-east-east towards Coniston Avenue, leading to Keswick Road. Area of asphalt with some temporary buildings, flower beds and bee hives.

Photo 2: Building associated with the former cattery on site, in the centre of the site, with the road/path on the far side of the photo leading to more former cattery buildings.

Photo 3: Buildings associated with the former cattery on site towards the north, with flower beds, potted plants, areas of grass and an asphalt ground surface.

Photo 4: Buildings associated with the former cattery on site towards the north, with flower beds, potted planets and areas of grass.

Environmental Geotechnical Specialists

Rogers Geotechnical Services Ltd

Offices 1 & 2, Barncliffe Business Park,
Near Bank, Shelley,
Huddersfield,

Job No:

C1132/20/E/1779

Site:

Coniston Farm
Coniston Avenue
Staincross
Barnsley
S75 5BB

Client:

Fox Architecture and Design
On behalf of:
Mrs S. & Mr R. Senior

Photo 5: Buildings close to the entrance to the site via Coniston Avenue, facing north-north-west.

Photo 6: Corrugated metal roof of one of the buildings on site.

Photo 7: Corrugated metal roof of one of the buildings on site. Wooden sides and several discarded wooden logs.

Photo 8: Road/path to the former cattery buildings in the north of the site. Photo taken looking south-east towards Coniston Avenue and the entrance to the site.

Photo 9: Road/path in the centre of the site looking south-east-east towards the entrance to the site via Coniston Avenue, with farm buildings on either side.

Photo 10: Farm building in the north-west of the site near the site perimeter, with farm equipment, a beehive and a trailer.

Photo 11: Closer view of the farm building with associated farm equipment, beehive and trailer.

Photo 12: Area of asphalt with moss growing through with the same farm building to the left and another building on the right, in the north-west of the site, facing north-east. Houses on Windhill Drive present in the background of the photo.

Photo 13: Same farm building in the north-west of the site, near the perimeter, containing trailers and associated farm equipment. Slatted wooden sides and metal roof.

Photo 14: Farm buildings at the perimeter of the site with corrugated metal roofs and metal or wooden slatted sides. Several discarded tyres, wood and bricks.

Photo 15: On site on Coniston Avenue, looking southwards onto the fields that surround the site. Farm building in the right of the picture and discarded tyre.

Photo 16: Track in the north-west area of the site near the perimeter, leading to fields that surround the site with piece of unknown, disused equipment and a pylon.

Photo 17: Farm building in the north-west-west of the site, near the perimeter, with wrapped hay bales, metal gates and farm equipment.

Photo 18: Inside one of the farm buildings, with a corrugated metal roof and farm equipment.

Photo 19: Disused farm building with corrugated metal roof, metal framework and associated disused farm equipment.

Photo 20: Entrance to one of the farm buildings on site with corrugated metal roof, sides and metal framework.

Photo 21: Farm building with corrugated metal sides and metal framework.

Photo 22: Inside one of the farm buildings, with a corrugated metal roof and sides, containing hay and farm equipment.

Photo 23: Inside one of the farm buildings, with a corrugated metal roof and sides, metal framework, and farm equipment including overground storage tanks of unknown use.

Appendix 5

Coal Authority Report

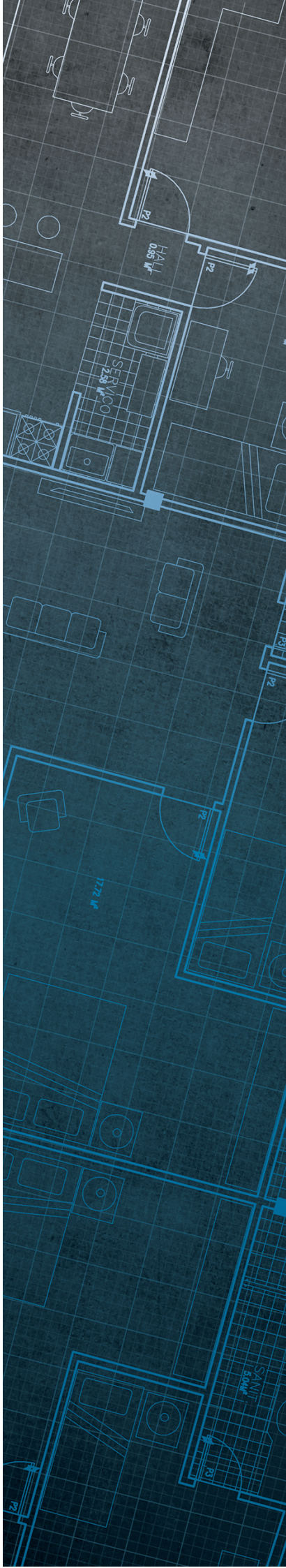
The Coal Authority

Consultants

Coal Mining Report

Coniston Farm
Coniston Avenue
Staincross
Barnsley
S75 5BB

Date of enquiry:	**11 March 2021**
Date enquiry received:	**11 March 2021**
Issue date:	**11 March 2021**
Our reference:	**51002404065001**
Your reference:	**C/1132/20/E/1779**



Consultants

Coal Mining Report

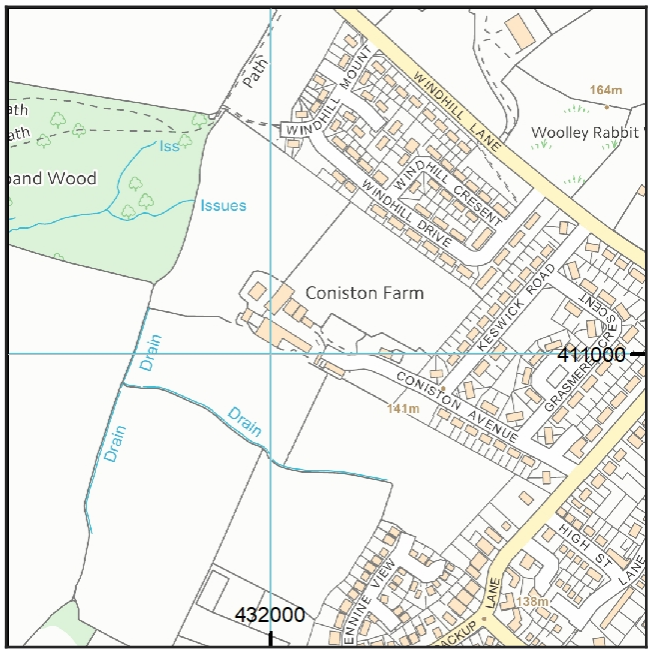
This report is based on and limited to the records held by the Coal Authority at the time the report was produced.

Client name

ROGERS GEOTECHNICAL SERVICES LTD

Enquiry address

Coniston Farm
Coniston Avenue
Staincross
Barnsley
S75 5BB



Approximate position of property

How to contact us

0345 762 6848 (UK)
+44 (0)1623 637 000 (International)

200 Lichfield Lane
Mansfield
Nottinghamshire
NG18 4RG

www.groundstability.com

@coalauthority
/company/the-coal-authority
/thecoalauthority
/thecoalauthority

Section 1 – Mining activity and geology

Past underground mining

Colliery	Seam	Mineral	Coal Authority reference	Depth (m)	Direction to working	Dipping rate of seam worked (degrees)	Dipped direction of seam worked	Extraction thickness (cm)	Year last mined
unnamed	BARNSLEY	Coal	6J4R	100	South-West	4.7	North-East	294	1878
unnamed	BARNSLEY	Coal	6Y42	113	Beneath Property	5.0	North	294	1886
unnamed	BARNSLEY	Coal	6YTD	123	Beneath Property	4.8	North-East	314	1870
unnamed	BARNSLEY	Coal	6IF3	127	Beneath Property	3.4	North-East	314	1869
unnamed	TOP HAIGH MOOR	Coal	6J4U	166	South-West	6.9	North-East	102	1965
unnamed	TOP HAIGH MOOR	Coal	6J4V	174	West	6.9	North-East	102	1968
unnamed	TOP HAIGH MOOR	Coal	6IFD	188	Beneath Property	3.3	North-East	97	1960
unnamed	TOP HAIGH MOOR	Coal	6Y62	189	Beneath Property	4.8	North	104	1960
unnamed	LOW HAIGH MOOR	Coal	6J51	191	South-West	6.4	North-East	71	1956
unnamed	TOP HAIGH MOOR	Coal	6YTH	192	Beneath Property	4.8	North-East	102	1970
unnamed	LOW HAIGH MOOR	Coal	6YB2	192	Beneath Property	4.1	North-East	69	1960
unnamed	LOW HAIGH MOOR	Coal	6YTK	194	Beneath Property	3.7	North-East	74	1960
unnamed	LOW HAIGH MOOR	Coal	6IF9	196	Beneath Property	3.1	North-East	97	1961
unnamed	LIDGETT	Coal	6J54	220	South-West	6.1	North-East	82	1951
unnamed	LIDGETT	Coal	6IFH	225	North	3.3	North-East	80	1951
unnamed	LIDGETT	Coal	6Y33	226	Beneath Property	4.2	North	76	1951
unnamed	LIDGETT	Coal	6IFI	227	Beneath Property	3.6	North-East	80	1952
unnamed	LIDGETT	Coal	6YTI	228	Beneath Property	4.2	North-East	84	1953
unnamed	FENTON	Coal	6Y53	321	Beneath Property	5.0	North-East	206	1961
unnamed	FENTON	Coal	6J5C	327	South-West	7.1	North-East	205	1953
unnamed	FENTON	Coal	6YTL	337	Beneath Property	4.8	North-East	221	1960
unnamed	LOW FENTON	Coal	6IFJ	337	Beneath Property	4.3	North-East	180	1960

Colliery	Seam	Mineral	Coal Authority reference	Depth (m)	Direction to working	Dipping rate of seam worked (degrees)	Dipped direction of seam worked	Extraction thickness (cm)	Year last mined
unnamed	MIDDLETON MAIN	Coal	6Y3B	368	Beneath Property	5.1	North-East	128	1975
unnamed	MIDDLETON MAIN	Coal	6IFL	370	Beneath Property	4.3	North-East	107	1975
unnamed	MIDDLETON MAIN	Coal	6J5O	371	South-West	7.8	North	145	1975
unnamed	MIDDLETON MAIN	Coal	6YTL	381	Beneath Property	5.6	North-East	180	1960
unnamed	WHEATLEY LIME	Coal	6Y24	391	Beneath Property	5.8	North	79	1942
unnamed	WHEATLEY LIME	Coal	6J5N	393	South-West	6.8	North-East	91	1945
unnamed	WHEATLEY LIME	Coal	6IFM	393	Beneath Property	3.7	North-East	86	1941
unnamed	WHEATLEY LIME	Coal	6YTN	401	Beneath Property	4.9	North-East	86	1939
WOOLLEY	WHINMOOR	Coal	Z01	466	South-East	5.9	North-East	140	1985
WOOLLEY	WHINMOOR	Coal	Z02	475	Beneath Property	5.9	North-East	134	1987
WOOLLEY/REDBROOK	WHINMOOR	Coal	Z02	481	Beneath Property	3.2	East	136	1987

Probable unrecorded shallow workings

Yes.

Spine roadways at shallow depth

No spine roadway recorded at shallow depth.

Mine entries

None recorded within 100 metres of the enquiry boundary.

Abandoned mine plan catalogue numbers

The following abandoned mine plan catalogue numbers intersect with some, or all, of the enquiry boundary:

GCR248	7389	2281
NE158	NE1025	7649
NE1034	NE378	NE816

Our records show we have more plans than those shown above which could affect the enquiry boundary.

Please contact us on 0345 762 6848 to determine the exact abandoned mine plans you require based on your needs.

Outcrops

Seam name	Mineral	Seam workable	Distance to outcrop (m)	Direction to outcrop	Bearing of outcrop
WINTER	Coal	Yes	Within	N/A	172
WINTER	Coal	Yes	Within	N/A	276

Geological faults, fissures and breaklines

No faults, fissures or breaklines recorded.

Opencast mines

Please refer to the “Summary of findings” map (on separate sheet) for details of any opencast areas within 500 metres of the enquiry boundary.

Coal Authority managed tips

None recorded within 500 metres of the enquiry boundary.

Section 2 – Investigative or remedial activity

Please refer to the 'Summary of findings' map (on separate sheet) for details of any activity within the area of the site boundary.

Site investigations
None recorded within 50 metres of the enquiry boundary.

Remediated sites
None recorded within 50 metres of the enquiry boundary.

Coal mining subsidence
A damage notice or claim for alleged subsidence damage was made in April 1998 for 38 CONISTON AVENUE, DARTON, BARNSLEY, SOUTH YORKSHIRE, S75 5BB. However, the claim was rejected.

There is no current Stop Notice delaying the start of remedial works or repairs to the property.

A damage notice or claim for alleged subsidence damage was made in February 1998 for FIELDS OS 0004 0082 8883 LAND ADJ CONISTON AVENUE, DARTON, BARNSLEY, SOUTH YORKSHIRE, S75 5BB. However, the claim was rejected.

There is no current Stop Notice delaying the start of remedial works or repairs to the property.

There are a further 1 claim(s) within 50 metres of the property boundary that do not match the property address. These are shown on the enquiry boundary plot.

The Coal Authority is not aware of any request having been made to carry out preventive works before coal is worked under section 33 of the Coal Mining Subsidence Act 1991.

If further subsidence damage claims information is required, please visit www.groundstability.com.

See Section 4 for further information.

Mine gas
None recorded within 500 metres of the enquiry boundary.

Mine water treatment schemes
None recorded within 500 metres of the enquiry boundary.

Section 3 – Licensing and future mining activity

Future underground mining
None recorded.

Coal mining licensing
None recorded within 200 metres of the enquiry boundary.

Court orders
None recorded.

Section 46 notices
No notices have been given, under section 46 of the Coal Mining Subsidence Act 1991, stating that the land is at risk of subsidence.

Withdrawal of support notices
The property is in an area where a notice to withdraw support was given in 1982.

The property is not in an area where a notice has been given under section 41 of the Coal Industry Act 1994, cancelling the entitlement to withdraw support.

Payments to owners of former copyhold land
The property is not in an area where a relevant notice has been published under the Coal Industry Act 1975/Coal Industry Act 1994.

Section 4 – Further information

The following potential risks have been identified and as part of your risk assessment should be investigated further.

Development advice

The site is within an area of historical coal mining activity. Should you require advice and/or support on understanding the mining legacy, its risks to your development or what next steps you need to take, please contact us.

Coal mining subsidence

The site is within an area of previous interest. It is close to where the Coal Authority or licensed mine operator has investigated and where necessary remediated issues relating to coal mining subsidence.

The site requires further investigation and may influence your risk assessment. We recommend that you order the appropriate **Coal Authority Subsidence Claims Report**, which will include more information about the hazard.

For further information on specific site or ground investigations in relation to any issues raised in Section 4, please call us on 0345 762 6848 or email us at groundstability@coal.gov.uk.

Section 5 – Data definitions

The datasets used in this report have limitations and assumptions within their results. For more guidance on the data and the results specific to the enquiry boundary, please **call us on 0345 762 6848** or **email us at groundstability@coal.gov.uk.**

Past underground coal mining

Details of all recorded underground mining relative to the enquiry boundary. Only past underground workings where the enquiry boundary is within 0.7 times the depth of the workings (zone of likely physical influence) allowing for seam inclination, will be included.

Probable unrecorded shallow workings

Areas where the Coal Authority believes there to be unrecorded coal workings that exist at or close to the surface (less than 30 metres deep).

Spine roadways at shallow depth

Connecting roadways either, working to working, or, surface to working, both in-seam and cross measures that exist at or close to the surface (less than 30 metres deep), either within or within 10 metres of the enquiry boundary.

Mine entries

Details of any shaft or adit either within, or within 100 metres of the enquiry boundary including approximate location, brief treatment details where known, the mineral worked from the mine entry and conveyance details where the mine entry has previously been sold by the Authority or its predecessors British Coal or the National Coal Board.

Abandoned mine plan catalogue numbers

Plan numbers extracted from the abandoned mines catalogue containing details of coal and other mineral abandonment plans deposited via the Mines Inspectorate in accordance with the Coal Mines Regulation Act and Metalliferous Mines Regulation Act 1872. A maximum of 9 plan extents that intersect with the enquiry boundary will be included. This does not infer that the workings and/or mine entries shown on the abandonment plan will be relevant to the site/property boundary.

Outcrops

Details of seam outcrops will be included where the enquiry boundary intersects with a conjectured or actual seam outcrop location (derived by either the British Geological Survey or the Coal Authority) or intersects with a defined 50 metres buffer on the coal (dip) side of the outcrop. An indication of whether the Coal Authority believes the seam to be of sufficient thickness and/or quality to have been worked will also be included.

Geological faults, fissures and breaklines

Geological disturbances or fractures in the bedrock. Surface fault lines (British Geological Survey derived data) and fissures and breaklines (Coal Authority derived data) intersecting with the enquiry boundary will be included. In some circumstances faults, fissures or breaklines have been known to contribute to surface subsidence damage as a consequence of underground coal mining.

Opencast mines
Opencast coal sites from which coal has been removed in the past by opencast (surface) methods and where the enquiry boundary is within 500 metres of either the licence area, site boundary, excavation area (high wall) or coaling area.

Coal Authority managed tips
Locations of disused colliery tip sites owned and managed by the Coal Authority, located within 500 metres of the enquiry boundary.

Site investigations
Details of site investigations within 50 metres of the enquiry boundary where the Coal Authority has received information relating to coal mining risk investigation and/or remediation by third parties.

Remediated sites
Sites where the Coal Authority has undertaken remedial works either within or within 50 metres of the enquiry boundary following report of a hazard relating to coal mining under the Coal Authority's Emergency Surface Hazard Call Out procedures.

Coal mining subsidence
Details of alleged coal mining subsidence claims made since 31 October 1994 either within or within 50 metres of the enquiry boundary. Where the claim relates to the enquiry boundary confirmation of whether the claim was accepted, rejected or whether liability is still being determined will be given. Where the claim has been discharged, whether this was by repair, payment of compensation or a combination of both, the value of the claim, where known, will also be given.

Details of any current 'Stop Notice' deferring remedial works or repairs affecting the property/site, and if so the date of the notice.

Details of any request made to execute preventative works before coal is worked under section 33 of the Coal Mining Subsidence Act 1991. If yes, whether any person withheld consent or failed to comply with any request to execute preventative works.

Mine gas
Reports of alleged mine gas emissions received by the Coal Authority, either within or within 500 metres of the enquiry boundary that subsequently required investigation and action by the Coal Authority to mitigate the effects of the mine gas emission.

Mine water treatment schemes
Locations where the Coal Authority has constructed or operates assets that remove pollutants from mine water prior to the treated mine water being discharged into the receiving water body.

These schemes are part of the UK's strategy to meet the requirements of the Water Framework Directive. Schemes fall into 2 basic categories: Remedial – mitigating the impact of existing pollution or Preventative – preventing a future pollution incident.

Mine water treatment schemes generally consist of one or more primary settlement lagoons and one or more reed beds for secondary treatment. A small number are more specialised process treatment plants.

Future underground mining
Details of all planned underground mining relative to the enquiry boundary. Only those future workings where the enquiry boundary is within 0.7 times the depth of the workings (zone of likely physical influence) allowing for seam inclination will be included.

Coal mining licensing
Details of all licenses issued by the Coal Authority either within or within 200 metres of the enquiry boundary in relation to the under taking of surface coal mining, underground coal mining or underground coal gasification.

Court orders
Orders in respect of the working of coal under the Mines (Working Facilities and Support) Acts of 1923 and 1966 or any statutory modification or amendment thereof.

Section 46 notices
Notice of proposals relating to underground coal mining operations that have been given under section 46 of the Coal Mining Subsidence Act 1991.

Withdrawal of support notices
Published notices of entitlement to withdraw support and the date of the notice. Details of any revocation notice withdrawing the entitlement to withdraw support given under Section 41 of the Coal Industry Act 1994.

Payment to owners of former copyhold land
Relevant notices which may affect the property and any subsequent notice of retained interests in coal and coal mines, acceptance or rejection notices and whether any compensation has been paid to a claimant.

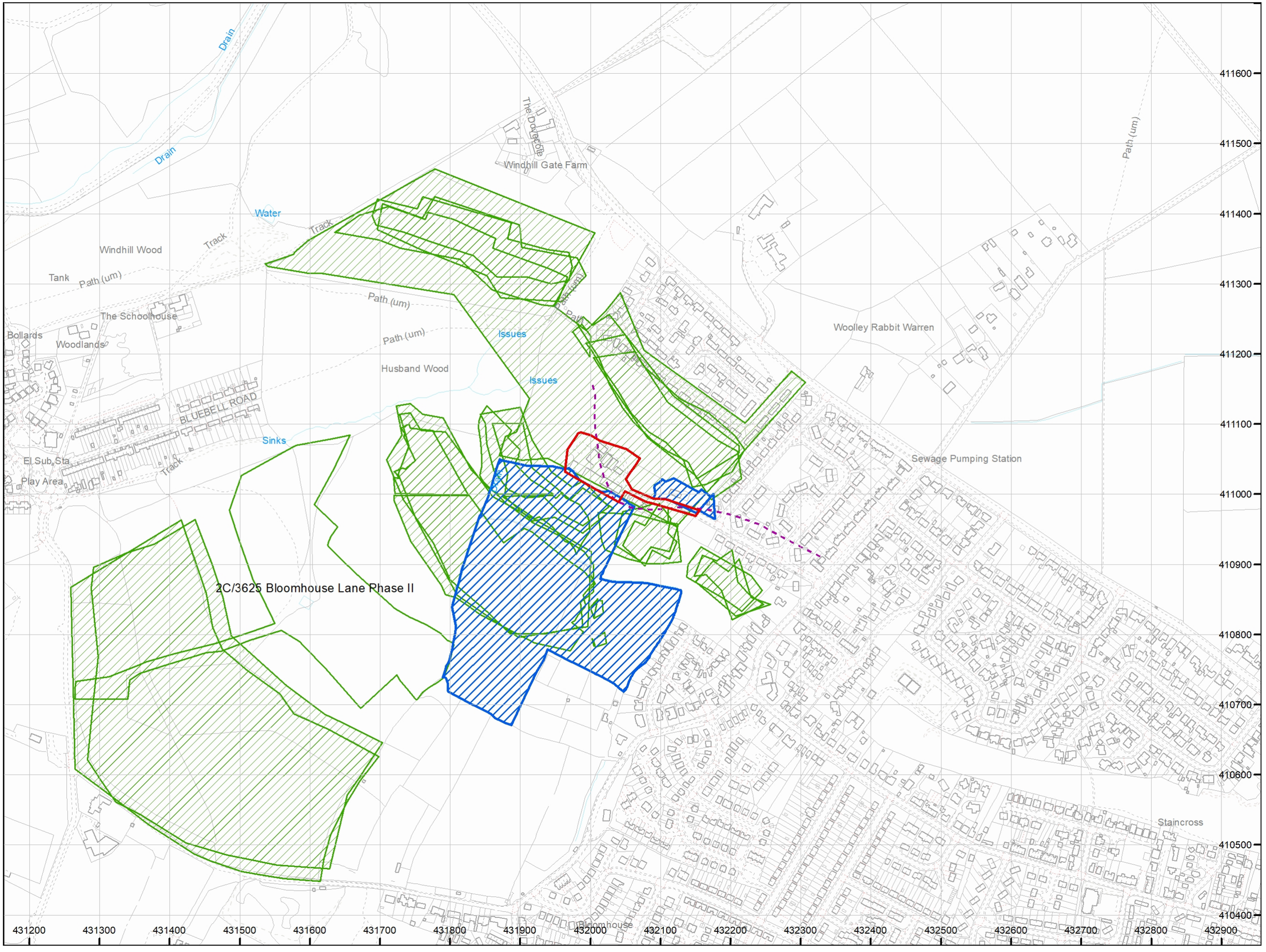
The Coal Authority

Summary of findings

The map highlights any specific surface or subsurface features within or near to the boundary of the site.

Key

- Approximate position of the enquiry boundary shown
- Outcrop (Conjectured)
- Opencast mine licence area
- Unlicensed opencast site
- Coal claim



How to contact us
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