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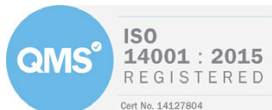


PHASE 1 ENVIRONMENTAL DESK STUDY & COAL MINING RISK ASSESSMENT REPORT

job number	C4675/24/E/7155	date	20.11.2025
site address	The Barn, Vandyke Street, Norden, Rochdale, Greater Manchester, OL12 7QG		
written by	S. Hale	checked by	S. Alexander
issued by	S. Hale		



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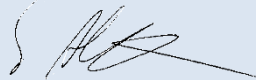
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Report on a Phase One Desk Study and Coal Mining Risk Assessment

Location:	The Barn Vandyke Street, Norden, Rochdale, Greater Manchester, OL12 7QG		
For:	Zoe Thompson		
Report No.	C4675/24/E/7155	Report date:	November 2025

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

	
Steven Hale BSc FGS Geo-environmental Engineer	Scott Alexander BSc FGS Senior Geo-environmental Engineer

1. Introduction

The site comprises an area of soft landscaping and hardstanding as part of an existing residential dwelling. The site is approximately 0.05 hectares in size and its National Grid reference is centred around 386848 414101.

It is understood that the development proposals currently comprise the erection of a new residential dwelling with associated garden areas and 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 7th November 2025 and the following observations were made:

General site description/current site use

The site comprises an existing area of soft and hard landscaping, currently used as parking and garden area for The Barn residential dwelling.

Site boundaries/access

The site is accessible from Vandyke Street only.

Topography

The site slopes downwards gently to the northeast. In addition, there is a noticeable step down from the hardstanding to the grassed area.

Surface cover of site

At the time of the walkover a mix of hardstanding and grassed area cover the surface of the site.

Visible evidence of contamination/ contaminative sources

None present.

Presence of vegetation and wildlife

Vegetation seems to be healthy with no evidence of degradation. There were no obvious signs of invasive flora, fauna, nesting birds, burrowing animals or edible plants observed during the time of the site walkover.

Services

The status of underground services is unknown. There were no overhead services present within the site at the time of the walkover.

Site neighbours

The site is located within a residential setting, with dwellings present in all directions around the site.

In order to ensure that the site is fully characterised and to comply with the Environment Act 1995¹, a Phase One Desk Study and Coal Mining Risk Assessment has been commissioned by Zoe Thompson. 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.

- | | |
|----------------------------------|--------------|
| • Site Plans | - Appendix 1 |
| • Groundsure Reports | - Appendix 2 |
| • Historical maps | - Appendix 3 |
| • Photographs | - Appendix 4 |
| • Consultants Coal Mining Report | - Appendix 5 |

The data obtained from the above-mentioned sources has been summarised below².

¹S57 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 Use³

HISTORICAL MAPPING SUMMARY		
Map Dates	On site	Within 250m
1851	The site is currently part of an undeveloped field of presumed agricultural use.	Caldershaw Brook – 100m NE Coal Pits – 100m SW Bagslate Moor Colliery – 250m S
1890	The site remains unchanged.	A residential dwelling is now present adjacent to the southwest boundary. The Coal Pits are no longer present. Tramway – 40m SW
1908-1910	The site remains unchanged.	The Bagslate Moor Colliery is no longer present.
1928-1938	The site remains unchanged.	The surrounding land use remains largely unchanged.
1956-1961	Allotment Gardens are now present to the site.	The Tramway located 40m SW is no longer present. Allotment gardens – 60m SW, 80m E, 90m SW, 110m SW, 130m SE & 220m E Garage – 180m SE
1967-1979	The site remains unchanged.	The surrounding land use remains largely unchanged.
1990-1992	The Allotment Gardens are no longer present to the site.	The Allotment Gardens are no longer present.
2201-2025	The site remains unchanged.	The surrounding land use remains largely 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	Parent Group ⁴	Description ⁵
Superficial Geology	Till	Glacigenic Deposits	It consists of a heterogenous mixture of clay, sand, gravel, and boulders varying widely in size and shape.
Solid Geology	Pennine Lower Coal Measures Formation	Pennine Coal Measures Group	Interbedded grey mudstone, siltstone and pale grey sandstone, commonly with mudstones containing marine fossils in the lower part, and more numerous and thicker coal seams in the upper part.
GEOLOGICAL FEATURES			
Type	Location	Features	Comments
Mining Activity	On site	Coal mining	The study site is located within a coal mining area.
Linear Features	On site	Coal Seams	Lower Foot Coal (0.2m thick)
	30m N		Bassey Coal (0.1m thick)
	50m SW		Lower Mountain Coal (0.3m thick)
Landslip Deposits	No data	No data	Not indicated to present on site or within the surrounding area.

³ See Appendix 3

⁴ Sources: British Geological Survey (NERC) Map Sheets 76; Rochdale; Solid and Drift Edition, and GeolIndex Onshore 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]

BGS BOREHOLE DATA			
Reference ⁶	Location	Strata Description	Depth
SD81SE33	40m NW	Boulder Clay	6.72m
		Woodhead Hill Rock Sandstone with mudstone wisps and shaly partings	22.05m
		Mudstone	29.77m
		Mudstone with marine fossils	36.57m
SD81SE34	110m NE	Peat	3.04m
		Boulder Clay	8.83m
		Gravel	10.05m
		Boulder Clay	35.35m
		Rough Rock	78.02m
		Undifferentiated Rossendale Formation	152.40m
NATURAL GROUND SUBSIDENCE & HAZARDS ⁷			
Type		Risk Rating	
Potential for shrinking or swelling clay ground stability		Very Low.	
Potential for running sand ground stability		Very Low.	
Potential for compressible ground stability		Negligible.	
Potential for collapsible ground stability hazards		Very Low.	
Potential for landslide ground stability		Low.	
Potential for ground dissolution stability		Negligible.	
Radon		The property is in a lower probability radon area (less than 1% of homes are estimated to be at or above the Action Level). No radon protective measures are necessary.	

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 cohesive soils within the Till 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 be founded at extended depths in excess of 1m.

⁶ British Geological Survey (NERC) Geoindex Onshore Viewer [online resource from www.bgs.ac.uk]

⁷ See Groundsure report

2.3.2 Site Won Materials

It would appear that residual cohesive soil is likely to 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. However, depending on the results of laboratory testing, it may be 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. Coal Mining

The Groundsure Report states that the site is within an area that may be affected by coal mining. A Coal Authority 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	Sand Rock Coal – 59m Depth – Beneath Site – Extraction Thickness 0.8m – Last mined 1892.
2	Probable Unrecorded Shallow Workings	No	None.
3	Spine Roadways at Shallow Depth	No	No spine roadway recorded at shallow depth.
4	Mine Entries	Yes	Two mine shafts located within the search radius of the site. no treatment details are offered.
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	The Bassy Coal is recorded to outcrop 25m north of the site.
7	Geological Faults	No	No faults, fissures or breaklines recorded.
8	Opencast Mines	No	None recorded within 500 metres of the enquiry 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	No	The Coal Authority has not received a damage notice or claim for the subject property, or any property within 50 metres of the enquiry boundary, since 31st October 1994. 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	For further information please see section 3 of the Consultant's Coal Mining Report (ref 51003538670001).
16	Coal mining licensing	No	
17	Court orders	No	
18	Section 46 notices	No	
19	Withdrawal of support notices	No	
20	Payments to owners of former copyhold land	No	

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
Active Landfill	Within 250m	None recorded within 250m	-
Historic Landfill	Within 250m	None recorded within 250m	-
Historic waste sites	Within 250m	None recorded within 250m	-
Licensed waste sites	Within 250m	None recorded within 250m	-
Waste Exceptions	Within 250m	None recorded within 250m	-
MADE GROUND & INFILLED GROUNDWORKINGS			
Description	Location	Comments	Monitoring Requirement
Records of Potentially Infilled Features	100m SW	Coal Pits (1851)	N
	219m NW	Worked Ground (Undivided)	N
	250m S	Bagslate Moor Colliery (1851)	N

2.6 Hydrogeology, Hydrology

Table 5: Ground/Controlled Water Sensitivity and Flooding

ENVIRONMENT AGENCY AQUIFER DESIGNATION ⁸		
Strata	Designation	Description
Superficial Geology On Site	Secondary Undifferentiated	Assigned where it is not possible to attribute either category A or B to a rock type. In general these layers have previously been designated as both minor and non-aquifer in different locations due to the variable characteristics of the rock type.
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.

⁸ See Appendix 2

GROUNDWATER SENSITIVITY ⁹		
Description	Location	Details
Source Protection Zone ¹⁰	Within 250m	None recorded within 250m.
Abstraction Licences	Within 250m	None recorded within 250m.
Discharge Consents	143m N 188m N	Effluent Type: Miscellaneous Discharges – Surface Water.
Records of Part A(2) and Part B Activities and Enforcements	178m SE	Process: Unloading of Petrol into Storage at Service Stations.
CONTROLLED WATERS ¹⁰		
Description	Location	Details
River Network Entries	100m N	Caldershaw Brook
Surface Water Features	Within 250m	3 instances of surface water features recorded. No further information given, however, these are anticipated to relate to the Caldershaw Brook

2.7 Sensitive Land Use

Table 6: Sensitive Land Uses within 250m

REGISTERED SENSITIVE LAND USES ¹¹		
Description	Location	Details
None identified within 250m of the proposed development		

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.¹² 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
Allotment Gardens	On site, 60m SW, 80m E, 90m SW, 110m SW, 130m SE & 220m E	Artificial/made ground.
Coal Pits	100m SW	

⁹ See Appendix 2

¹⁰ See Appendix 2

¹³ See Appendix 2

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

Garage	180m SE	Road vehicle fuelling, service and repair: garages and filling stations.
Bagslate Moor Colliery	250m S	Unspecified works/factories/features.
Tramway	40m SW	
CURRENT		
Electricity Sub Station	121m SE	Unspecified works/factories/features.
Pumping Station	143m NE	

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.¹³

3.1 Conceptual Ground Model & Preliminary Qualitative Risk Assessment

It is understood that the development proposals currently comprise the construction of a new dwelling. 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.

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

¹⁷This 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.

- 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.

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. Previous use as allotment gardens may have introduced contamination to soils.	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 immediate neighbours are present.	Moderate	
Inhalation of Dust/Vapours	Operative	Yes – contact with soil likely and dust may be produced during works.	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. Further testing required to reach a firm conclusion.
	End User	Yes – dust may be produced by end users.	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 – peat encountered in a nearby borehole and previous use as an allotment gardens may produce bulk ground gases.	Moderate	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 reassessment to consider a higher potential risk.
	End User		Moderate	

	Neighbours		N/A	
Spillage/loss/run off direct to receiving water	Controlled Waters	Yes – possible source on site and controlled waters 148m N.	Moderate	There are potential on and off-site sources of contamination that may have caused contamination of the site. Secondary undifferentiated and Secondary A aquifers underlie 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 undifferentiated and secondary A aquifers present beneath the site.	Moderate	
Run off via drainage/sewers etc	Controlled Waters	Yes – possible source on site.	Moderate	
Direct contact with contaminated soils	Plants	Yes – some soft landscaping areas are present as part of the proposed development.	Moderate	Further testing required to reach a firm conclusion.
Uptake via root system			Moderate	
Direct contact with contaminated soils	Building Materials	Yes – there is a potential for made ground to be present.	Moderate	Further testing required to reach a firm conclusion.
Direct contact with contaminated groundwater				
Migration of mine gas via permeable strata	Operative	Yes – in an area affected by coal mining activity, however, shallow worked seams are not anticipated to be present.	Low	See section 4 for more information.
	End User			
Exposure to Radon	Operative	No – not in a radon affected area.	N/A	The property is in a lower probability radon area (less than 1% of homes are estimated to be at or above the Action Level). BR211 states that no radon protective measures are necessary.
	End User			
Mining Instability	End User	Yes – in an area affected by coal mining activity, however, shallow worked seams are not anticipated to be present.	Low	See section 4 for more information.

Unexploded Ordinance (UXO) Risk	Operative	Yes – the Zetica ¹⁴ online maps indicate that the site is at low risk from UXO.	Low	Unlikely to be affected by UXO.
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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.

¹⁴ Pre-desk study assessment [online resource from www.zeticauxo.com].

4. Coal Mining Risk Assessment

4.1 Geological Appraisal

On the basis of the information revealed from the GeoIndex Onshore Viewer¹⁵, it is noted that the site is situated within the lower units of the Pennine Lower Coal Measures Formation. The regional solid geology shows considerable variability in the degree of dip (varying from 4° and 10°), however, this generally appears to dip towards the south and south east. In addition, it is noted that the topography of the local area generally slopes downwards towards the north east.

There are three notable coal seams that are shown to outcrop within the local area. Information regarding this seam is summarised as follows:

Table 9: Summary of Coal Seams Within the Vicinity of the Site.

Seam Name	Seam thickness ^{5*}	Outcrop distance from site ^{5*}	Anticipated depth below site
Lower Foot Coal (LF)	0.2m	On site	Not anticipated to underlie the site
Bassy Coal (B)	0.1m	30m N	Not anticipated to underlie the site.
Lower Mountain Coal (LM)	0.3m	50m SW	Not anticipated to underlie the site.

In this instance, whilst it is expected that the Lower Foot Coal and Bassy Coal would be present at shallow depths beneath the site, cognisance should be given to the existence of a buried channel present in close proximity to the site. Indeed, this channel is indicated to be present 51m northeast of the site. As such, it is considered that both the Bassy Coal and the Lower Foot Coal may have been eroded away by the creation of this buried channel and glacial action in the area in general. Further to this, publicly available borehole records present in the area support the presence of this buried channel. In addition, none of these boreholes note any coal features within them. It is suggested that these coal seams are thin and inconsistent within the local area and it is doubtful they were ever present. It should be appreciated that the Lower Mountain Coal is present stratigraphically above the Lower Foot Coal, as such, it is not anticipated to underlie the site.

4.2 Risk Assessment

The risk to the stability of the proposed residential development has been evaluated from the data obtained and with reference to the following ratings and definitions:

- Low - The possibility of instability is unlikely therefore no further action is necessary.
- Moderate - The possibility of instability is likely and further investigation or remedial action may be required.
- High - The possibility of instability is highly likely and further investigation or remedial action will be necessary.

Table 10: Development Specific Risk Assessment

Item	Risk attributed to	Coal Seam(s) Considered	Risk Rating
4.3	Shallow coal workings	Lower Foot Coal & Bassy Coal.	Low
4.4	Coal workings at depth	Coal workings present at depth are unlikely to affect the site.	Low
4.5	Mine gas	Shallow coal workings are not anticipated to be present.	Low
4.6	Mine shafts	Two shafts identified by the Consultant Coal Mining Report.	Low

4.3 Risks Posed by Shallow Coal Workings

On the basis of all of the information provided above, it is not considered likely that there are any coal seams present within 30m of the surface of the site. Therefore, a low risk rating has been assigned to this site, and further investigation is not considered to be needed.

4.4 Risks Posed by Coal Workings at Depth

In regards to deeper mining which could affect the site, it is considered that there is sufficient competent overburden between the surface of the site any recorded worked seams beneath it.

4.5 Risks Posed by Mine Gas

This assessment has identified that there is limited potential for shallow mine workings to be present beneath the proposed development. In addition, the Consultants Coal Mining Report has not reported any incidents of mine gas within the vicinity of the development. As such, a low risk rating has been assigned, and further assessment may be required.

4.6 Risks Posed by Mine Shafts

The Consultants Mining Report refers to two shafts within close proximity to the site (~75m SW, and ~75m S).

In the context of the guidance given by CIRIA SP32 – *Construction over abandoned mine workings* it should be appreciated that the minimum distance for siting structures from open or poorly filled shafts depends primarily on the nature and thickness of the surface deposits. This would presumably be on the basis that a significant ground collapse within intact rock would be improbable, therefore the crater associated with a collapse shaft would be located within the soils above the rock.

It is reasoned that there is sufficient standoff distance between the development and the shafts, such that the risks posed by shaft collapse can be considered low and no further investigation is necessary.

5. Intrusive Investigation

5.1 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 +A1:2013 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 +A1: 2013 *Investigation of potentially contaminated sites – Code of practice: 7.6*, and BS 5930: 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: +A1: 2013: 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.*

5.2 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.

5.2.1 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 0.05ha, the number of sampling points at the site should be considered with respect to the table below.

Table 11: 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	Should be assessed during any investigation.				

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.
- **Asbestos**

Sampling Method

The investigation should include the installation of three gas monitoring standpipes for subsequent monitoring. 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.

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 12: 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.

5.2.2 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. Such equipment should be able to undertake Standard Penetration Testing (SPT) and/or Dynamic Probing. Moreover, should significant thickness of weak and variable superficial soils be revealed deeper boreholes may be needed for sufficient foundation design. This could include a combination of cable percussive and rotary drilling techniques.

Soakaway Design

Should soakaway data be required for drainage design, trial pits could be excavated and infiltration tests conducted. Alternatively, these tests could be undertaken within boreholes. It should be appreciated however, should significant thicknesses of fill or contamination be revealed, then soakaways may be deemed to be an inappropriate form of surface water drainage.

Geotechnical Testing

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

5.2.3 Reporting

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

- Geotechnical recommendations.
- Contamination assessment.
- Contamination remediation strategy.
- Any recommendations for further work, if required and including validation reports where site remediation is necessary.

As soon as is 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.

6. References

- British Standards Institution (2015 + A1: 2020), BS 5930: *Code of practice for ground investigations*, B.S.I., London.
- British Standards Institution (2011) +A1:2013, 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*.

Appendix 1

Site Plans

Copyright of this drawing is owned by Whittaker Design

NOTES

All dimensions to be checked on site and any discrepancies notified prior to commencement of work.

Do not scale from this drawing - If in any doubt, ask.

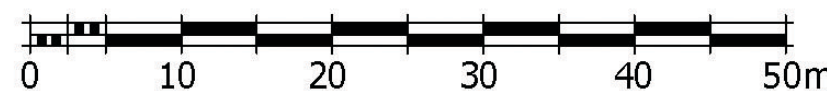
REVISIONS

Date	Ref.	By
------	------	----

AS EXISTING



SCALE 1:100



SCALE 1:500

All sites are to comply with the Construction (Design and Management) Regulations 2015.

Any Party Wall Act agreements to be agreed prior to commencement.

Client and all consultants / contractors, must be aware of The Building Safety Act 2022 & Build Regs Part 2A and understand their duty during the works.

Agree all levels on site prior to commencement.

Check lines of any drains prior to commencement. Agree any works / connections with regional water company if required.

Any alteration from the specified items on this drawing, once on site, must be agreed by the inspecting Building Control Officer. Drawing must be read in conjunction with specialist detail drawings, ie Structural Engineers, waterproofing, timber frame, etc



ARCHITECTURAL & INTERIOR DESIGNERS

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LEES

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PROJECT

Mrs Z Thompson

The Barn

Vandyke Street, Norden,
Rochdale

OL12 7QQ

DRAWING TITLE

as existing

SITE PLANS

SCALE as shown @ A1

DATE July 2025

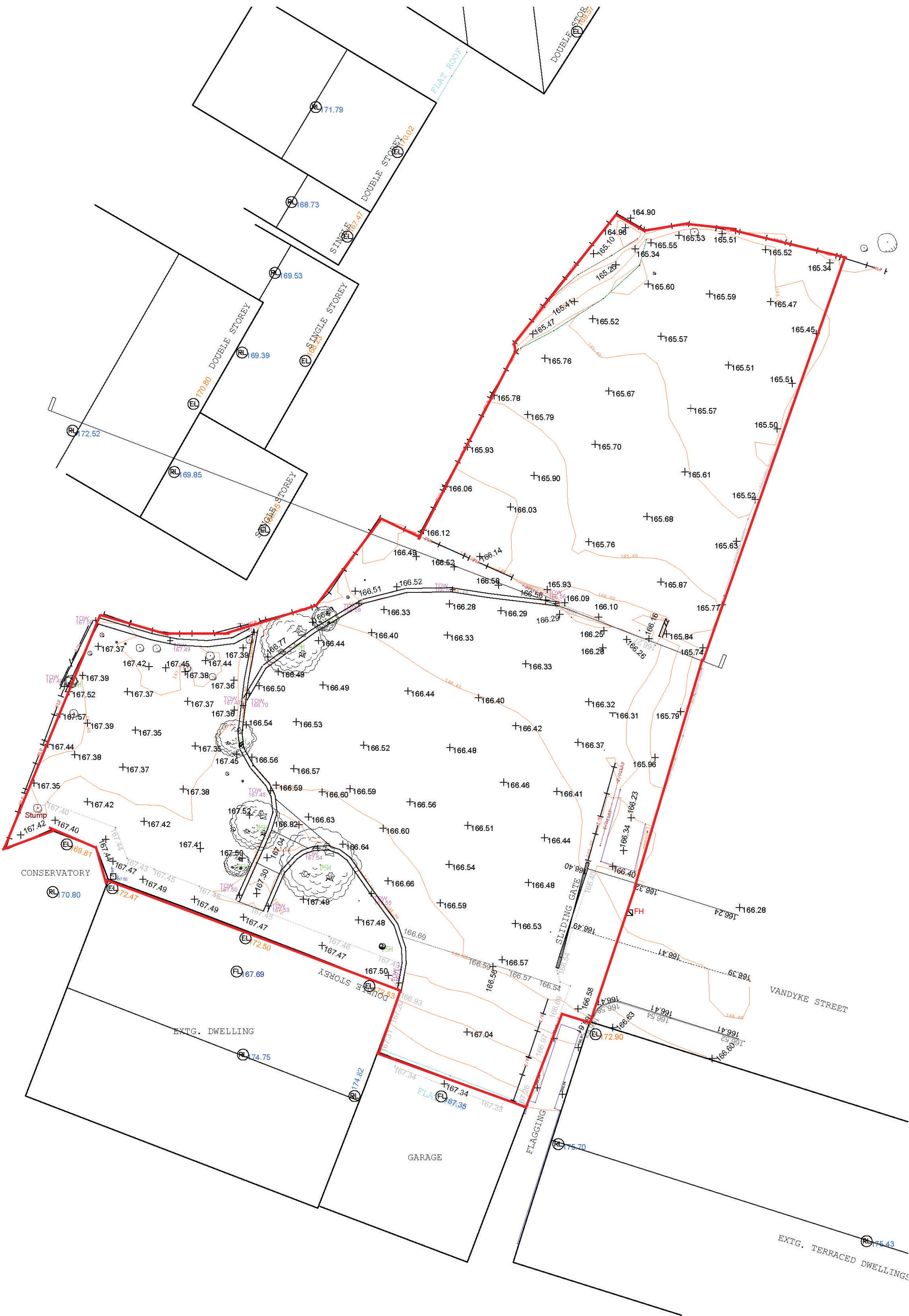
DRAWN L Hollinworth

CHECKED

NUMBER

4054.2

REVISION



Appendix 2

Groundsure Reports

THE BARN, VANDYKE STREET, ROCHDALE, OL12 7QG**Order Details**

Date: 10/11/2025
Your ref: C/4675/24/E/7155 - PO-3610
Our Ref: GS-5EC-64F-DY5-DXR

Site Details

Location: 386848 414101
Area: 0.05 ha
Authority: [Rochdale Metropolitan Borough Council](#)
↗

[Summary of findings](#)[p.2 > Aerial image](#)[p.9 >](#)[OS MasterMap site plan](#)[p.13 > Insight User Guide](#) ↗

Contact us with any questions at:

info@groundsure.com ↗

01273 257 755

Summary of findings

Page	Section	Past land use >	On site	0-50m	50-250m	250-500m	500-2000m
14 >	1.1 >	Historical industrial land uses >	0	0	9	45	-
17 >	1.2 >	Historical tanks >	0	0	0	3	-
17 >	1.3 >	Historical energy features >	0	0	3	12	-
18	1.4	Historical petrol stations	0	0	0	0	-
18 >	1.5 >	Historical garages >	0	0	7	3	-
19	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
20 >	2.1 >	Historical industrial land uses >	0	0	10	65	-
23 >	2.2 >	Historical tanks >	0	0	0	4	-
24 >	2.3 >	Historical energy features >	0	0	4	28	-
25	2.4	Historical petrol stations	0	0	0	0	-
25 >	2.5 >	Historical garages >	0	0	12	4	-
Page	Section	Waste and landfill	On site	0-50m	50-250m	250-500m	500-2000m
27	3.1	Active or recent landfill	0	0	0	0	-
27	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	-
28	3.6	Licensed waste sites	0	0	0	0	-
28	3.7	Waste exemptions	0	0	0	0	-
Page	Section	Current industrial land use >	On site	0-50m	50-250m	250-500m	500-2000m
29 >	4.1 >	Recent industrial land uses >	0	0	4	-	-
30	4.2	National Geographic Database (NGD) - Current or recent tanks	0	0	0	-	-
30 >	4.3 >	Current or recent petrol stations >	0	0	1	0	-
30	4.4	Electricity cables	0	0	0	0	-
30	4.5	Gas pipelines	0	0	0	0	-



31	4.6	Sites determined as Contaminated Land	0	0	0	0	-
31	4.7	Control of Major Accident Hazards (COMAH)	0	0	0	0	-
31	4.8	Regulated explosive sites	0	0	0	0	-
31	4.9	Hazardous substance storage/usage	0	0	0	0	-
31	4.10	Historical licensed industrial activities (IPC)	0	0	0	0	-
32	4.11	Licensed industrial activities (Part A(1))	0	0	0	0	-
32 >	4.12 >	<u>Licensed pollutant release (Part A(2)/B) ></u>	0	0	1	0	-
32	4.13	Radioactive Substance Authorisations	0	0	0	0	-
32 >	4.14 >	<u>Licensed Discharges to controlled waters ></u>	0	0	2	0	-
33	4.15	Pollutant release to surface waters (Red List)	0	0	0	0	-
33	4.16	Pollutant release to public sewer	0	0	0	0	-
33	4.17	List 1 Dangerous Substances	0	0	0	0	-
34	4.18	List 2 Dangerous Substances	0	0	0	0	-
34 >	4.19 >	<u>Pollution Incidents (EA/NRW) ></u>	0	0	0	1	-
34	4.20	Pollution inventory substances	0	0	0	0	-
34	4.21	Pollution inventory waste transfers	0	0	0	0	-
35	4.22	Pollution inventory radioactive waste	0	0	0	0	-
Page	Section	<u>Hydrogeology ></u>	On site	0-50m	50-250m	250-500m	500-2000m
36 >	5.1 >	<u>Superficial aquifer ></u>	Identified (within 500m)				
37 >	5.2 >	<u>Bedrock aquifer ></u>	Identified (within 500m)				
38 >	5.3 >	<u>Groundwater vulnerability ></u>	Identified (within 50m)				
39	5.4	Groundwater vulnerability- soluble rock risk	None (within 0m)				
39	5.5	Groundwater vulnerability- local information	None (within 0m)				
40 >	5.6 >	<u>Groundwater abstractions ></u>	0	0	0	2	10
44 >	5.7 >	<u>Surface water abstractions ></u>	0	0	0	0	8
46 >	5.8 >	<u>Potable abstractions ></u>	0	0	0	0	3
47	5.9	Source Protection Zones	0	0	0	0	-
47	5.10	Source Protection Zones (confined aquifer)	0	0	0	0	-
Page	Section	<u>Hydrology ></u>	On site	0-50m	50-250m	250-500m	500-2000m



48 >	6.1 >	Water Network (OS MasterMap) >	0	0	9	-	-
49 >	6.2 >	Surface water features >	0	0	3	-	-
50 >	6.3 >	WFD Surface water body catchments >	1	-	-	-	-
50 >	6.4 >	WFD Surface water bodies >	0	0	0	-	-
50 >	6.5 >	WFD Groundwater bodies >	1	-	-	-	-
Page	Section	River and coastal flooding >	On site	0-50m	50-250m	250-500m	500-2000m
52	7.1	Risk of flooding from rivers and the sea	None (within 50m)				
53 >	7.2 >	Historical Flood Events >	0	0	2	-	-
53	7.3	Flood Defences	0	0	0	-	-
53	7.4	Areas Benefiting from Flood Defences	0	0	0	-	-
54	7.5	Flood Storage Areas	0	0	0	-	-
55	7.6	Flood Zone 2	None (within 50m)				
55	7.7	Flood Zone 3	None (within 50m)				
Page	Section	Surface water flooding					
56	8.1	Surface water flooding	Negligible (within 50m)				
Page	Section	Groundwater flooding >					
57 >	9.1 >	Groundwater flooding >	Low (within 50m)				
Page	Section	Environmental designations >	On site	0-50m	50-250m	250-500m	500-2000m
58	10.1	Sites of Special Scientific Interest (SSSI)	0	0	0	0	0
59	10.2	Conserved wetland sites (Ramsar sites)	0	0	0	0	0
59	10.3	Special Areas of Conservation (SAC)	0	0	0	0	0
59	10.4	Special Protection Areas (SPA)	0	0	0	0	0
59	10.5	National Nature Reserves (NNR)	0	0	0	0	0
60 >	10.6 >	Local Nature Reserves (LNR) >	0	0	0	0	1
60 >	10.7 >	Designated Ancient Woodland >	0	0	0	0	13
61	10.8	Biosphere Reserves	0	0	0	0	0
61	10.9	Forest Parks	0	0	0	0	0
61	10.10	Marine Conservation Zones	0	0	0	0	0
61 >	10.11 >	Green Belt >	0	0	0	1	1



62	10.12	Proposed Ramsar sites	0	0	0	0	0
62	10.13	Possible Special Areas of Conservation (pSAC)	0	0	0	0	0
62	10.14	Potential Special Protection Areas (pSPA)	0	0	0	0	0
62	10.15	Nitrate Sensitive Areas	0	0	0	0	0
63	10.16	Nitrate Vulnerable Zones	0	0	0	0	0
64	10.17	SSSI Impact Risk Zones	0	-	-	-	-
64	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
65	11.1	World Heritage Sites	0	0	0	-	-
66	11.2	Area of Outstanding Natural Beauty	0	0	0	-	-
66	11.3	National Parks	0	0	0	-	-
66 >	11.4 >	Listed Buildings >	0	0	2	-	-
67	11.5	Conservation Areas	0	0	0	-	-
67	11.6	Scheduled Ancient Monuments	0	0	0	-	-
67	11.7	Registered Parks and Gardens	0	0	0	-	-
Page	Section	Agricultural designations >	On site	0-50m	50-250m	250-500m	500-2000m
68 >	12.1 >	Agricultural Land Classification >	Grade 4 (within 250m)				
69	12.2	Open Access Land	0	0	0	-	-
69	12.3	Tree Felling Licences	0	0	0	-	-
69	12.4	Environmental Stewardship Schemes	0	0	0	-	-
70	12.5	Countryside Stewardship Schemes	0	0	0	-	-
Page	Section	Habitat designations	On site	0-50m	50-250m	250-500m	500-2000m
71	13.1	Priority Habitat Inventory	0	0	0	-	-
71	13.2	Habitat Networks	0	0	0	-	-
71	13.3	Open Mosaic Habitat	0	0	0	-	-
71	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
72 >	14.1 >	10k Availability >	Identified (within 500m)				
73 >	14.2 >	Artificial and made ground (10k) >	0	0	1	5	-



75 >	14.3 >	Superficial geology (10k) >	1	0	0	0	-
76	14.4	Landslip (10k)	0	0	0	0	-
77 >	14.5 >	Bedrock geology (10k) >	1	1	7	5	-
78 >	14.6 >	Bedrock faults and other linear features (10k) >	1	2	7	6	-
Page	Section	Geology 1:50,000 scale >	On site	0-50m	50-250m	250-500m	500-2000m
80 >	15.1 >	50k Availability >	Identified (within 500m)				
81	15.2	Artificial and made ground (50k)	0	0	0	0	-
81	15.3	Artificial ground permeability (50k)	0	0	-	-	-
82 >	15.4 >	Superficial geology (50k) >	1	0	0	0	-
83 >	15.5 >	Superficial permeability (50k) >	Identified (within 50m)				
83	15.6	Landslip (50k)	0	0	0	0	-
83	15.7	Landslip permeability (50k)	None (within 50m)				
84 >	15.8 >	Bedrock geology (50k) >	1	1	5	6	-
85 >	15.9 >	Bedrock permeability (50k) >	Identified (within 50m)				
86 >	15.10 >	Bedrock faults and other linear features (50k) >	0	2	4	4	-
Page	Section	Boreholes >	On site	0-50m	50-250m	250-500m	500-2000m
87 >	16.1 >	BGS Boreholes >	0	1	15	-	-
Page	Section	Natural ground subsidence >					
89 >	17.1 >	Shrink swell clays >	Very low (within 50m)				
90 >	17.2 >	Running sands >	Very low (within 50m)				
91 >	17.3 >	Compressible deposits >	Negligible (within 50m)				
92 >	17.4 >	Collapsible deposits >	Very low (within 50m)				
93 >	17.5 >	Landslides >	Low (within 50m)				
95 >	17.6 >	Ground dissolution of soluble rocks >	Negligible (within 50m)				
Page	Section	Mining and ground workings >	On site	0-50m	50-250m	250-500m	500-2000m
97 >	18.1 >	BritPits >	0	0	1	3	-
99 >	18.2 >	Surface ground workings >	0	0	7	-	-
99 >	18.3 >	Underground workings >	0	0	1	8	25
101	18.4	Underground mining extents	0	0	0	0	-

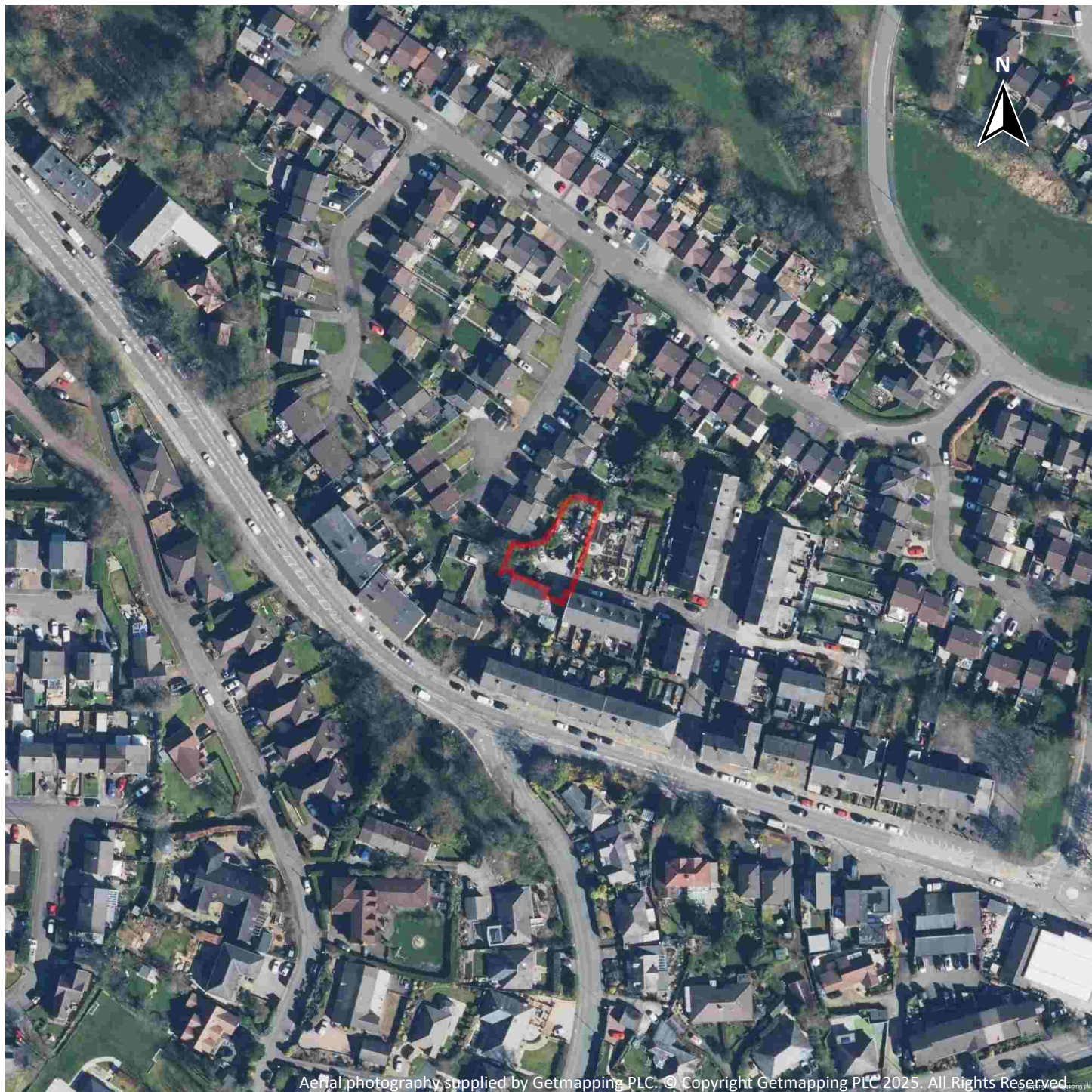


101	18.5	Historical Mineral Planning Areas	0	0	0	0	-
101 >	18.6 >	Non-coal mining >	0	0	0	0	1
101	18.7	JPB mining areas	None (within 0m)				
102	18.8	The Coal Authority non-coal mining	0	0	0	0	-
102 >	18.9 >	Researched mining >	0	0	1	1	-
102	18.10	Mining record office plans	0	0	0	0	-
102	18.11	BGS mine plans	0	0	0	0	-
103 >	18.12 >	Coal mining >	Identified (within 0m)				
103	18.13	Brine areas	None (within 0m)				
103	18.14	Gypsum areas	None (within 0m)				
103	18.15	Tin mining	None (within 0m)				
103	18.16	Clay mining	None (within 0m)				
Page	Section	Ground cavities and sinkholes	On site	0-50m	50-250m	250-500m	500-2000m
104	19.1	Natural cavities	0	0	0	0	-
104	19.2	Mining cavities	0	0	0	0	0
104	19.3	Reported recent incidents	0	0	0	0	-
104	19.4	Historical incidents	0	0	0	0	-
Page	Section	Radon >					
106 >	20.1 >	Radon >	Less than 1% (within 0m)				
Page	Section	Soil chemistry >	On site	0-50m	50-250m	250-500m	500-2000m
108 >	21.1 >	BGS Estimated Background Soil Chemistry >	1	1	-	-	-
108	21.2	BGS Estimated Urban Soil Chemistry	0	0	-	-	-
108	21.3	BGS Measured Urban Soil Chemistry	0	0	-	-	-
Page	Section	Railway infrastructure and projects	On site	0-50m	50-250m	250-500m	500-2000m
109	22.1	Underground railways (London)	0	0	0	-	-
109	22.2	Underground railways (Non-London)	0	0	0	-	-
109	22.3	Railway tunnels	0	0	0	-	-
109	22.4	Historical railway and tunnel features	0	0	0	-	-
109	22.5	Royal Mail tunnels	0	0	0	-	-



110	22.6	Historical railways	0	0	0	-	-
110	22.7	Railways	0	0	0	-	-
110	22.8	Crossrail 2	0	0	0	0	-
110	22.9	HS2	0	0	0	0	-

Recent aerial photograph

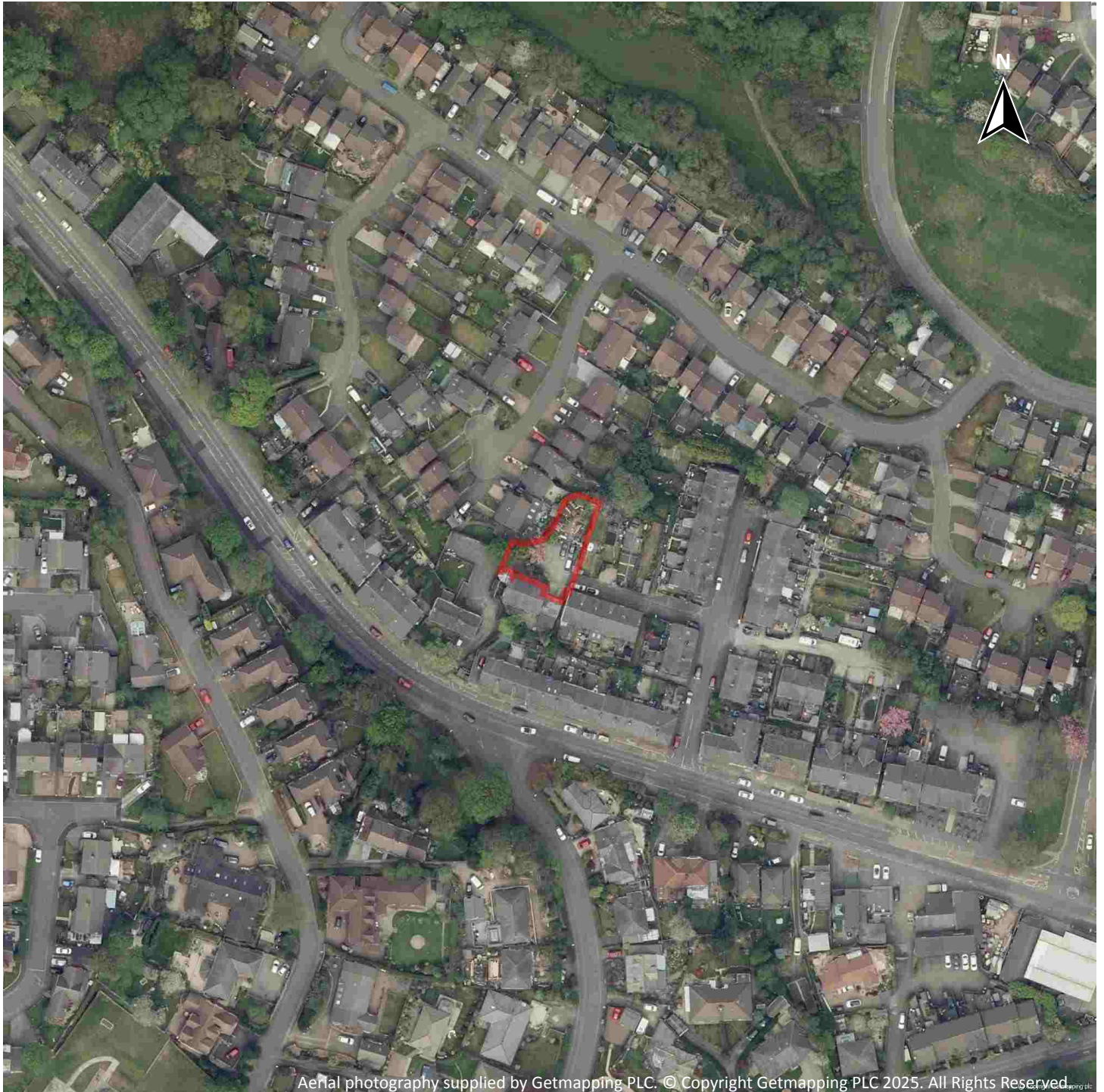


Capture Date: 07/04/2023

Site Area: 0.05ha



Recent site history - 2019 aerial photograph

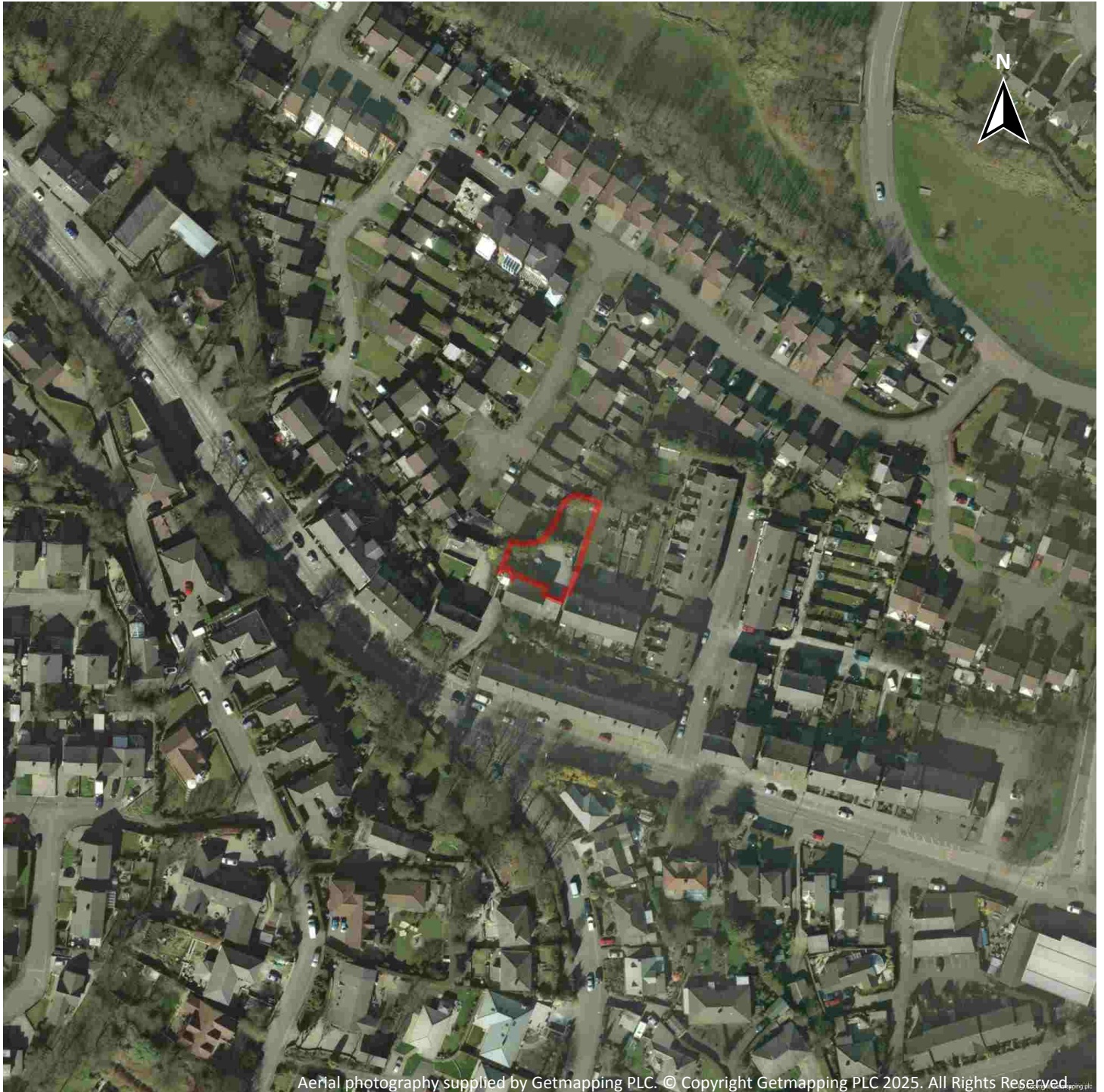


Capture Date: 23/05/2019

Site Area: 0.05ha



Recent site history - 2012 aerial photograph



Aerial photography supplied by Getmapping PLC. © Copyright Getmapping PLC 2025. All Rights Reserved.

Capture Date: 26/03/2012

Site Area: 0.05ha



Recent site history - 1999 aerial photograph



Capture Date: 10/09/1999

Site Area: 0.05ha



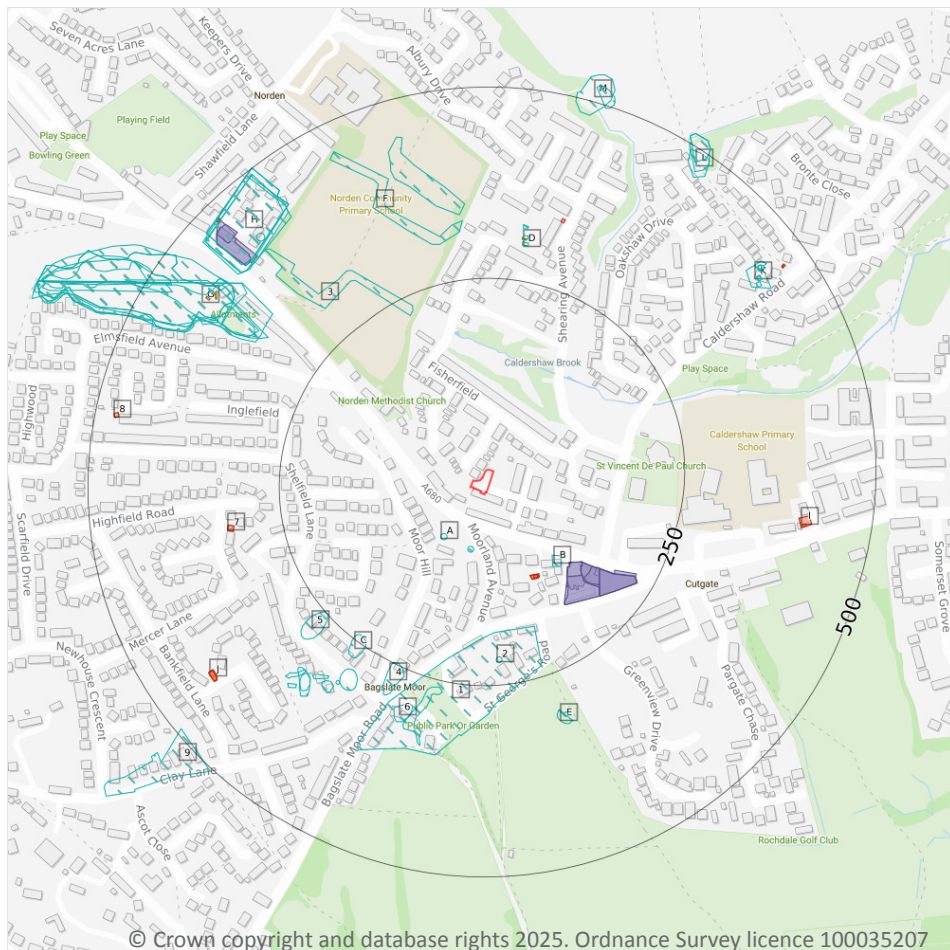
OS MasterMap site plan



Site Area: 0.05ha



1 Past land use



- Site Outline
- Search buffers in metres (m)
- Historical industrial land uses
- Historical tanks
- Historical energy features
- Historical garages

1.1 Historical industrial land uses

Records within 500m

54

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 14](#) >

ID	Location	Land use	Dates present	Group ID
A	69m SW	Coal Pits	1851	664499



ID	Location	Land use	Dates present	Group ID
A	70m S	Coal Pits	1851	664500
B	119m SE	Police Station	1987 - 1992	762787
1	180m S	Colliery	1890	690136
2	213m S	Coal Pit	1851	679297
3	225m NW	Unspecified Ground Workings	1992	660781
C	240m SW	Sandstone Quarries	1851	692517
4	247m SW	Refuse Heap	1890 - 1908	804455
5	250m SW	Sandstone Quarries	1851	692519
6	259m S	Refuse Heap	1890 - 1908	743336
C	284m SW	Sandstone Quarries	1851	692520
D	297m N	Unspecified Tank	1928	697481
E	298m S	Unspecified Old Shaft	1890	671284
F	301m N	Unspecified Ground Workings	1992	660780
E	304m S	Coal Pit	1851	679274
D	306m N	Unspecified Tank	1938	697480
C	306m SW	Shaft	1851	665116
C	309m SW	Unspecified Ground Workings	1908	660779
C	313m SW	Unspecified Quarry	1908	686045
D	318m N	Unspecified Tank	1956	697479
C	322m SW	Unspecified Ground Workings	1908	660778
C	322m SW	Sandstone Quarries	1851	692518
C	324m SW	Unspecified Pit	1908	675440
G	327m NW	Sandstone Quarry	1851	721647
F	335m N	Unspecified Ground Workings	1975 - 1992	752965
G	336m NW	Unspecified Quarry	1890	800675
G	341m NW	Unspecified Quarry	1968 - 1975	793408
G	342m NW	Unspecified Disused Quarry	1987 - 1992	788456
C	344m SW	Unspecified Ground Workings	1908	660777



ID	Location	Land use	Dates present	Group ID
G	384m NW	Unspecified Disused Quarry	1928 - 1938	744658
G	389m NW	Unspecified Disused Quarry	1908	753114
G	391m NW	Unspecified Disused Quarry	1968 - 1975	767221
G	391m NW	Unspecified Disused Quarry	1956	805611
H	402m NW	Unspecified Mill	1909 - 1928	799661
H	403m NW	Unspecified Mill	1890	764287
H	404m NW	Unspecified Mill	1938	727307
H	408m NW	Unspecified Mill	1968 - 1987	742262
H	408m NW	Unspecified Mill	1956	756186
K	415m NE	Colliery	1851	690119
H	417m NW	Chimney	1968 - 1987	723226
K	421m NE	Unspecified Old Shaft	1928	671285
K	426m NE	Unspecified Old Shaft	1938	787002
K	427m NE	Unspecified Old Shaft	1909	716308
K	435m NE	Unspecified Disused Shaft	1968 - 1987	764715
K	436m NE	Unspecified Old Shaft	1956	671283
G	464m NW	Unspecified Ground Workings	1928 - 1938	777420
L	465m NE	Unspecified Pit	1928	795550
L	472m NE	Unspecified Pit	1938 - 1956	764441
G	472m NW	Unspecified Ground Workings	1909	730517
M	482m N	Unspecified Pit	1968 - 1992	753591
L	482m NE	Unspecified Pit	1968	764310
9	493m SW	Cotton Mill	1851	654647
G	496m NW	Unspecified Ground Workings	1890	715977
M	497m N	Unspecified Ground Workings	1928	660669

This data is sourced from Ordnance Survey / Groundsure.



1.2 Historical tanks

Records within 500m

3

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

Features are displayed on the Past land use map on [page 14 >](#)

ID	Location	Land use	Dates present	Group ID
D	304m N	Unspecified Tank	1929	88818
G	411m NW	Unspecified Tank	1981	88802
G	418m NW	Unspecified Tank	1988 - 1991	97842

This data is sourced from Ordnance Survey / Groundsure.

1.3 Historical energy features

Records within 500m

15

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

Features are displayed on the Past land use map on [page 14 >](#)

ID	Location	Land use	Dates present	Group ID
B	121m SE	Electricity Substation	1973	53716
B	122m SE	Electricity Substation	1992	62615
B	124m SE	Electricity Substation	1987	61962
7	313m W	Electricity Substation	1977 - 1996	64150
D	337m N	Electricity Substation	1996	47920
I	404m E	Electricity Substation	1992 - 1996	55516
I	409m E	Electricity Substation	1971	52452
J	413m SW	Electricity Substation	1992	50488



ID	Location	Land use	Dates present	Group ID
J	413m SW	Electricity Substation	1975	51342
J	414m SW	Electricity Substation	1985	53864
K	462m NE	Electricity Substation	1992	62938
K	463m NE	Electricity Substation	1993 - 1996	56275
8	469m W	Electricity Substation	1981 - 1992	53776
H	474m NW	Electricity Substation	1977	61170
H	475m NW	Electricity Substation	1988 - 1990	62345

This data is sourced from Ordnance Survey / Groundsure.

1.4 Historical petrol stations

Records within 500m

0

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

This data is sourced from Ordnance Survey / Groundsure.

1.5 Historical garages

Records within 500m

10

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

Features are displayed on the Past land use map on [page 14 >](#)

ID	Location	Land use	Dates present	Group ID
B	142m SE	Garage	1987	19990
B	143m SE	Garage	1992	19438
B	152m SE	Garage	1973	17661
B	154m SE	Garage	1992	20903



ID	Location	Land use	Dates present	Group ID
B	168m SE	Garage	1960	19043
B	178m SE	Garage	1959	17043
B	178m SE	Garage	1973	21573
H	406m NW	Garage	1988 - 1990	17941
H	410m NW	Garage	1977	20512
H	445m NW	Garage	1996	18406

This data is sourced from Ordnance Survey / Groundsure.

1.6 Historical military land

Records within 500m

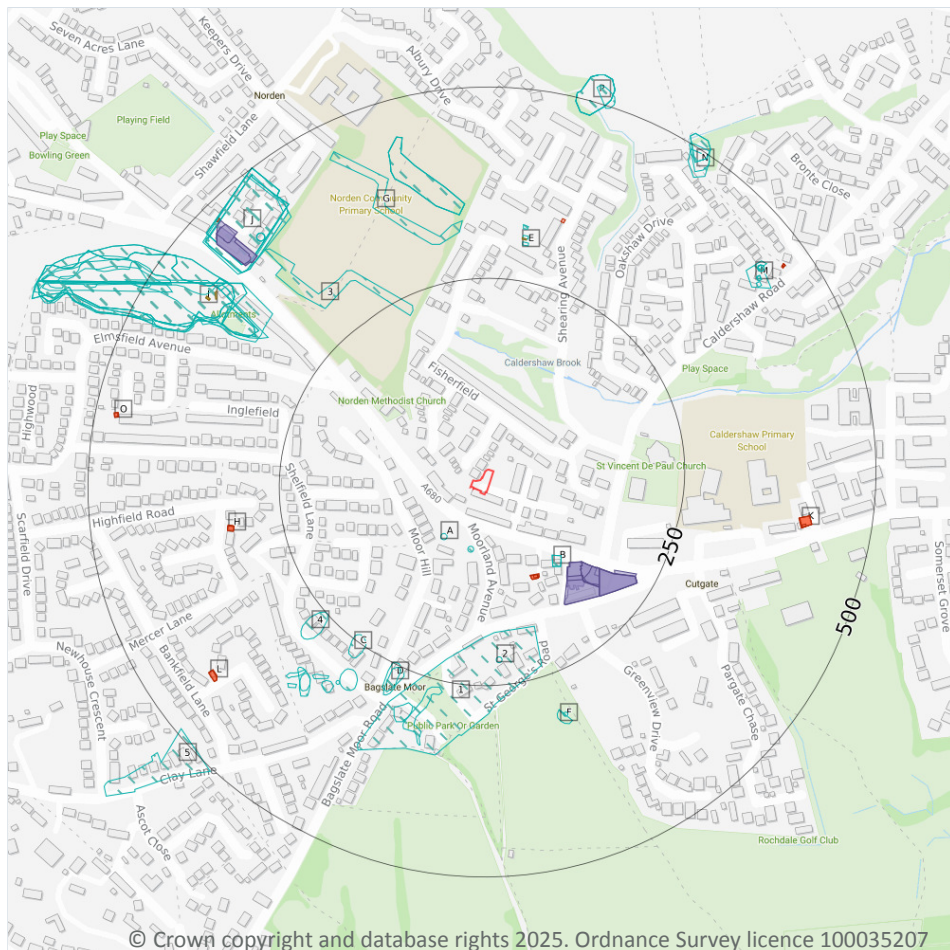
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Areas of military land digitised from multiple sources including the National Archives, local records, MOD records and verified other sources, intelligently grouped into contiguous features.

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
- Historical garages

2.1 Historical industrial land uses

Records within 500m

75

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 20](#) >

ID	Location	Land Use	Date	Group ID
A	69m SW	Coal Pits	1851	664499
A	70m S	Coal Pits	1851	664500
B	119m SE	Police Station	1992	762787



ID	Location	Land Use	Date	Group ID
B	119m SE	Police Station	1987	762787
1	180m S	Colliery	1890	690136
2	213m S	Coal Pit	1851	679297
3	225m NW	Unspecified Ground Workings	1992	660781
C	240m SW	Sandstone Quarries	1851	692517
D	247m SW	Refuse Heap	1890	804455
4	250m SW	Sandstone Quarries	1851	692519
D	252m SW	Refuse Heap	1908	804455
D	259m S	Refuse Heap	1908	743336
C	284m SW	Sandstone Quarries	1851	692520
D	290m S	Refuse Heap	1890	743336
E	297m N	Unspecified Tank	1928	697481
F	298m S	Unspecified Old Shaft	1890	671284
G	301m N	Unspecified Ground Workings	1992	660780
F	304m S	Coal Pit	1851	679274
E	306m N	Unspecified Tank	1938	697480
C	306m SW	Shaft	1851	665116
C	309m SW	Unspecified Ground Workings	1908	660779
C	313m SW	Unspecified Quarry	1908	686045
E	318m N	Unspecified Tank	1956	697479
C	322m SW	Unspecified Ground Workings	1908	660778
C	322m SW	Sandstone Quarries	1851	692518
C	324m SW	Unspecified Pit	1908	675440
I	327m NW	Sandstone Quarry	1851	721647
G	335m N	Unspecified Ground Workings	1992	752965
G	335m N	Unspecified Ground Workings	1987	752965
G	335m N	Unspecified Ground Workings	1975	752965
I	336m NW	Unspecified Quarry	1890	800675



ID	Location	Land Use	Date	Group ID
I	341m NW	Unspecified Quarry	1975	793408
I	341m NW	Unspecified Quarry	1968	793408
I	342m NW	Unspecified Disused Quarry	1992	788456
I	342m NW	Unspecified Disused Quarry	1987	788456
C	344m SW	Unspecified Ground Workings	1908	660777
I	384m NW	Unspecified Disused Quarry	1938	744658
I	384m NW	Unspecified Disused Quarry	1928	744658
I	389m NW	Unspecified Disused Quarry	1908	753114
I	391m NW	Unspecified Disused Quarry	1975	767221
I	391m NW	Unspecified Disused Quarry	1956	805611
I	391m NW	Unspecified Disused Quarry	1968	767221
J	402m NW	Unspecified Mill	1928	799661
J	402m NW	Unspecified Mill	1909	799661
J	403m NW	Unspecified Mill	1890	764287
J	404m NW	Unspecified Mill	1938	727307
J	408m NW	Unspecified Mill	1987	742262
J	408m NW	Unspecified Mill	1975	742262
J	408m NW	Unspecified Mill	1956	756186
J	408m NW	Unspecified Mill	1968	742262
M	415m NE	Colliery	1851	690119
J	417m NW	Chimney	1987	723226
J	417m NW	Chimney	1975	723226
J	417m NW	Chimney	1968	723226
M	421m NE	Unspecified Old Shaft	1928	671285
M	426m NE	Unspecified Old Shaft	1938	787002
M	427m NE	Unspecified Old Shaft	1909	716308
M	435m NE	Unspecified Disused Shaft	1987	764715
M	435m NE	Unspecified Disused Shaft	1975	764715



ID	Location	Land Use	Date	Group ID
M	435m NE	Unspecified Disused Shaft	1968	764715
M	436m NE	Unspecified Old Shaft	1956	671283
I	464m NW	Unspecified Ground Workings	1928	777420
N	465m NE	Unspecified Pit	1928	795550
I	470m NW	Unspecified Ground Workings	1938	777420
N	472m NE	Unspecified Pit	1938	764441
I	472m NW	Unspecified Ground Workings	1909	730517
P	482m N	Unspecified Pit	1992	753591
P	482m N	Unspecified Pit	1987	753591
P	482m N	Unspecified Pit	1975	753591
P	482m N	Unspecified Pit	1968	753591
N	482m NE	Unspecified Pit	1956	764441
N	482m NE	Unspecified Pit	1968	764310
5	493m SW	Cotton Mill	1851	654647
I	496m NW	Unspecified Ground Workings	1890	715977
P	497m N	Unspecified Ground Workings	1928	660669

This data is sourced from Ordnance Survey / Groundsure.

2.2 Historical tanks

Records within 500m

4

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

Features are displayed on the Past land use - un-grouped map on [page 20 >](#)

ID	Location	Land Use	Date	Group ID
E	304m N	Unspecified Tank	1929	88818
I	411m NW	Unspecified Tank	1981	88802
I	418m NW	Unspecified Tank	1988	97842
I	418m NW	Unspecified Tank	1991	97842



This data is sourced from Ordnance Survey / Groundsure.

2.3 Historical energy features

Records within 500m	32
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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 20](#) >

ID	Location	Land Use	Date	Group ID
B	121m SE	Electricity Substation	1973	53716
B	122m SE	Electricity Substation	1992	62615
B	122m SE	Electricity Substation	1992	62615
B	124m SE	Electricity Substation	1987	61962
H	313m W	Electricity Substation	1977	64150
H	313m W	Electricity Substation	1988	64150
H	313m W	Electricity Substation	1990	64150
H	314m W	Electricity Substation	1996	64150
E	337m N	Electricity Substation	1996	47920
K	404m E	Electricity Substation	1992	55516
K	405m E	Electricity Substation	1995	55516
K	405m E	Electricity Substation	1996	55516
K	405m E	Electricity Substation	1994	55516
K	405m E	Electricity Substation	1994	55516
K	405m E	Electricity Substation	1993	55516
K	409m E	Electricity Substation	1971	52452
L	413m SW	Electricity Substation	1992	50488
L	413m SW	Electricity Substation	1975	51342
L	414m SW	Electricity Substation	1985	53864
M	462m NE	Electricity Substation	1992	62938
M	463m NE	Electricity Substation	1995	56275



ID	Location	Land Use	Date	Group ID
M	463m NE	Electricity Substation	1996	56275
M	463m NE	Electricity Substation	1994	56275
M	463m NE	Electricity Substation	1994	56275
M	463m NE	Electricity Substation	1993	56275
O	469m W	Electricity Substation	1981	53776
O	469m W	Electricity Substation	1992	53776
O	470m W	Electricity Substation	1988	53776
O	470m W	Electricity Substation	1991	53776
J	474m NW	Electricity Substation	1977	61170
J	475m NW	Electricity Substation	1988	62345
J	475m NW	Electricity Substation	1990	62345

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	16
----------------------------	-----------

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'.

Features are displayed on the Past land use - un-grouped map on [page 20](#) >

ID	Location	Land Use	Date	Group ID
B	142m SE	Garage	1987	19990
B	143m SE	Garage	1992	19438



ID	Location	Land Use	Date	Group ID
B	143m SE	Garage	1992	19438
B	152m SE	Garage	1973	17661
B	154m SE	Garage	1973	17661
B	154m SE	Garage	1992	20903
B	154m SE	Garage	1992	20903
B	156m SE	Garage	1987	19990
B	168m SE	Garage	1960	19043
B	178m SE	Garage	1992	20903
B	178m SE	Garage	1959	17043
B	178m SE	Garage	1973	21573
J	406m NW	Garage	1988	17941
J	406m NW	Garage	1990	17941
J	410m NW	Garage	1977	20512
J	445m NW	Garage	1996	18406

This data is sourced from Ordnance Survey / Groundsure.



3 Waste and landfill

3.1 Active or recent landfill

Records within 500m

0

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

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

3.2 Historical landfill (BGS records)

Records within 500m

0

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

This data is sourced from the British Geological Survey.

3.3 Historical landfill (LA/mapping records)

Records within 500m

0

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

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

3.4 Historical landfill (EA/NRW records)

Records within 500m

0

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

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

3.5 Historical waste sites

Records within 500m

0

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

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



3.6 Licensed waste sites

Records within 500m

0

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

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

3.7 Waste exemptions

Records within 500m

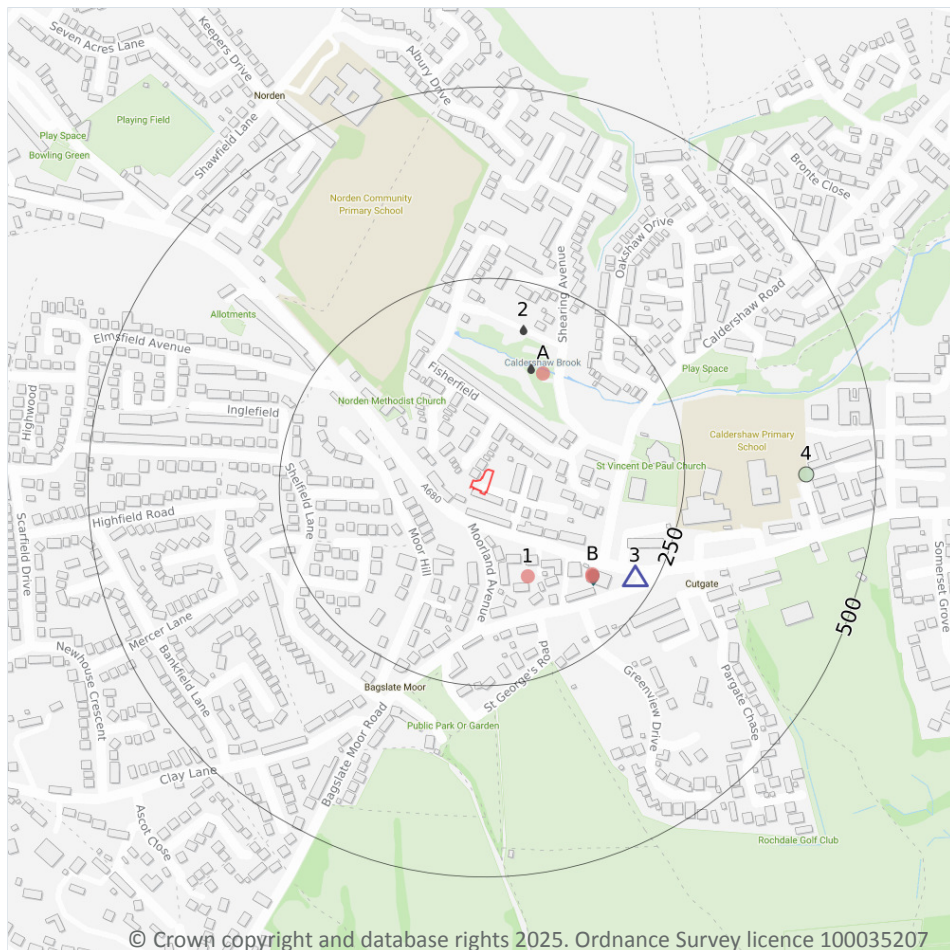
0

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

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



4 Current industrial land use



- Site Outline
- Search buffers in metres (m)
- Recent industrial land uses
- ▲ Current or recent petrol stations
- Licensed pollutant release (Part A(2)/B)
- Licensed Discharges to controlled waters
- Pollution Incidents (EA/NRW)

4.1 Recent industrial land uses

Records within 250m

4

Current potentially contaminative industrial sites.

Features are displayed on the Current industrial land use map on [page 29](#) >

ID	Location	Company	Address	Activity	Category
1	121m SE	Electricity Sub Station	Greater Manchester, OL11	Electrical Features	Infrastructure and Facilities
A	143m NE	Pumping Station	Greater Manchester, OL12	Water Pumping Stations	Industrial Features
B	175m SE	Rss Norden	Edenfield Road, Norden, Rochdale, Greater Manchester, OL11 5XR	Vehicle Cleaning Services	Personal, Consumer and Other Services



ID	Location	Company	Address	Activity	Category
B	176m SE	Rontec Norden	Woodyard Garage, Edenfield Road, Rochdale, Greater Manchester, OL11 5XR	Petrol and Fuel Stations	Road and Rail

This data is sourced from Ordnance Survey.

4.2 National Geographic Database (NGD) - Current or recent tanks

Records within 250m	0
----------------------------	----------

Current or recent tanks identified from the Ordnance Survey NGD.

This data is sourced from Ordnance Survey.

4.3 Current or recent petrol stations

Records within 500m	1
----------------------------	----------

Open, closed, under development and obsolete petrol stations.

Features are displayed on the Current industrial land use map on [page 29 >](#)

ID	Location	Company	Address	LPG	Status
3	222m SE	ESSO	Edenfield Road, Norden, Rochdale, Greater Manchester, OL11 5XR	No	Open

This data is sourced from Experian.

4.4 Electricity cables

Records within 500m	0
----------------------------	----------

High voltage underground electricity transmission cables.

This data is sourced from National Grid.

4.5 Gas pipelines

Records within 500m	0
----------------------------	----------

High pressure underground gas transmission pipelines.

This data is sourced from National Grid.

4.6 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.

4.7 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.

4.8 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.

4.9 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.

4.10 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.



4.11 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.

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

Records within 500m**1**

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.

Features are displayed on the Current industrial land use map on [page 29 >](#)

ID	Location	Address	Details	
B	178m SE	Norden Service Station, Woodyard Service Station, Edenfield Road, Rochdale, Lancashire, OL11 5XR	Process: Unloading of Petrol into Storage at Service Stations Status: Current Permit Permit Type: Part B	Enforcement: No Enforcements Notified Date of enforcement: No Enforcements Notified Comment: No Enforcements Notified

This data is sourced from Local Authority records.

4.13 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.

4.14 Licensed Discharges to controlled waters

Records within 500m**2**

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 29 >](#)



ID	Location	Address	Details	
A	143m N	ROCHDALE MBC RES DEVELOPMENT SWO, CALDERSHAW, ROCHDALE, GREATER MANCHESTER	Effluent Type: MISCELLANEOUS DISCHARGES - SURFACE WATER Permit Number: 016992066 Permit Version: 1 Receiving Water: CALDERSHAW BROOK	Status: REVOKED - UNSPECIFIED Issue date: - Effective Date: 11/11/1986 Revocation Date: 01/07/1991
2	188m N	MCLEAN RES DEVELOPMENT SWO, CALDERSHAW, ROCHDALE, GREATER MANCHESTER	Effluent Type: MISCELLANEOUS DISCHARGES - SURFACE WATER Permit Number: 016991420 Permit Version: 1 Receiving Water: CALDERSHAW BROOK	Status: REVOKED - UNSPECIFIED Issue date: - Effective Date: 22/05/1989 Revocation Date: 01/07/1991

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

4.15 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.

4.16 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.

4.17 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.

4.18 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.

4.19 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 29 >](#)

ID	Location	Details	
4	408m E	Incident Date: 28/03/2002 Incident Identification: 67388 Pollutant: Contaminated Water Pollutant Description: Other Contaminated Water	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.

4.20 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.

4.21 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.



4.22 Pollution inventory radioactive waste

Records within 500m

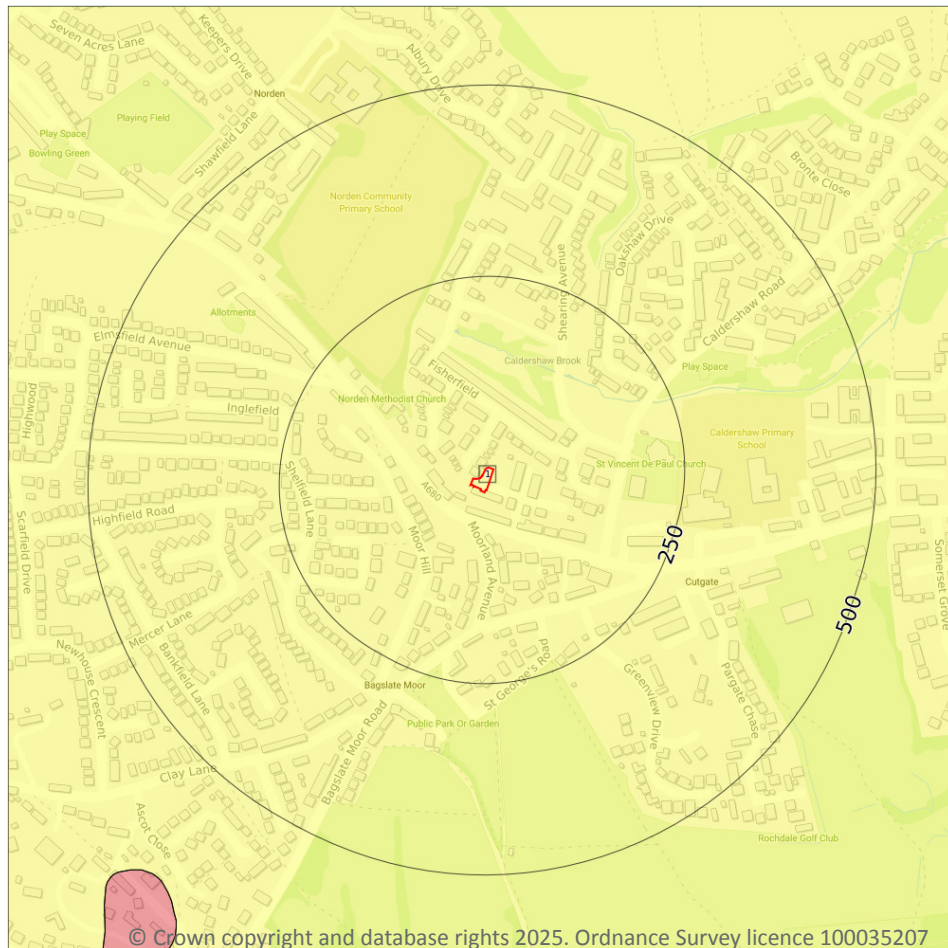
0

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



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

5.1 Superficial aquifer

Records within 500m

1

Aquifer status of groundwater held within superficial geology.

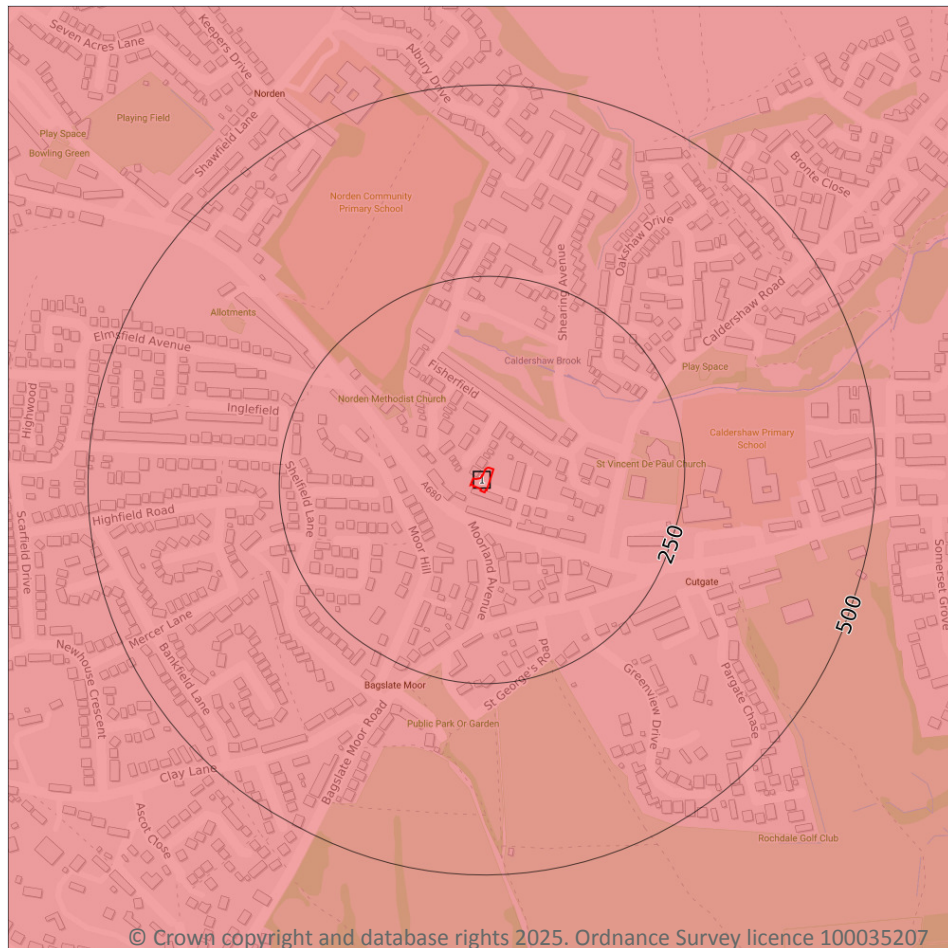
Features are displayed on the Hydrogeology map on [page 36 >](#)

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

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.

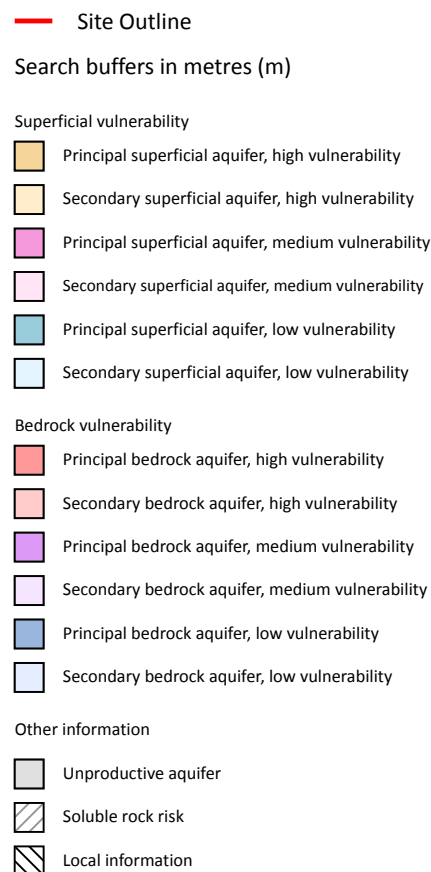
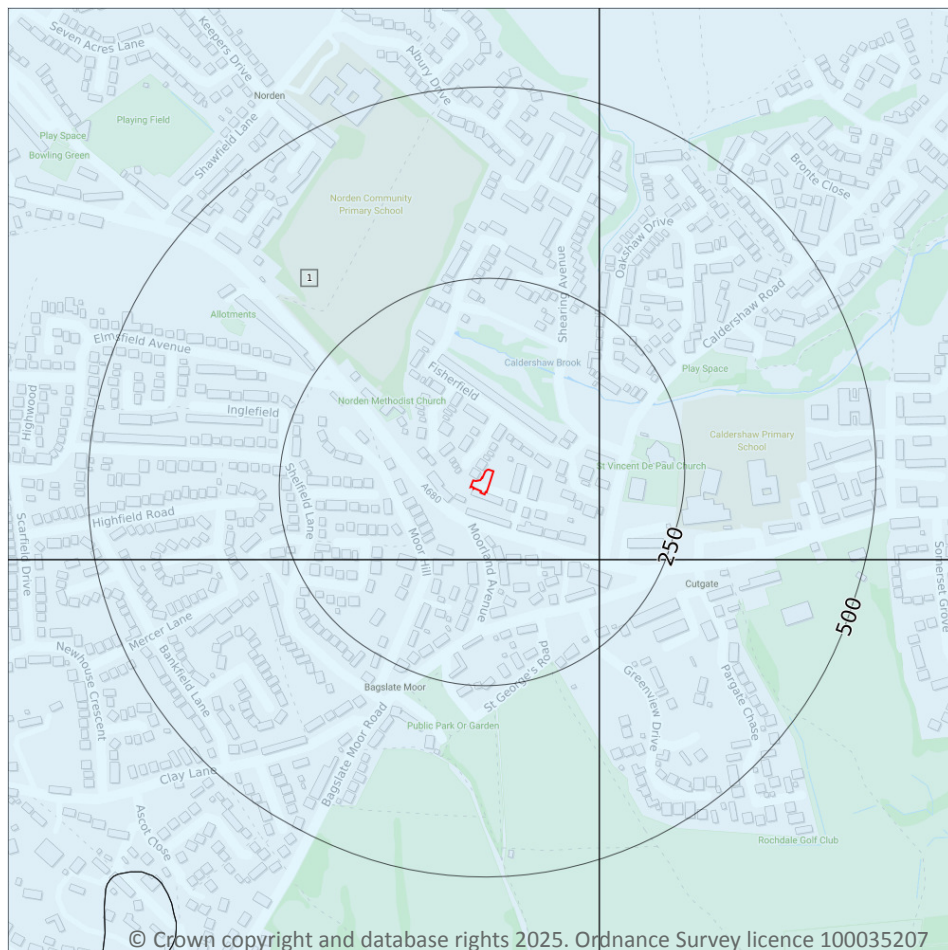
Features are displayed on the Bedrock aquifer map on [page 37](#) >

ID	Location	Designation	Description
1	On site	Secondary A	Permeable layers capable of supporting water supplies at a local rather than strategic scale, and in some cases forming an important source of base flow to rivers. These are generally aquifers formerly classified as minor aquifers

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



Groundwater vulnerability



5.3 Groundwater vulnerability

Records within 50m

1

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 38](#) >



ID	Location	Summary	Soil / surface	Superficial geology	Bedrock geology
1	On site	Summary Classification: Secondary superficial aquifer - Low Vulnerability Combined classification: Productive Bedrock Aquifer, Productive Superficial Aquifer	Leaching class: Low Infiltration value: <40% Dilution value: >550mm/year	Vulnerability: Low Aquifer type: Secondary Thickness: >10m Patchiness value: >90% Recharge potential: Low	Vulnerability: Low 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.

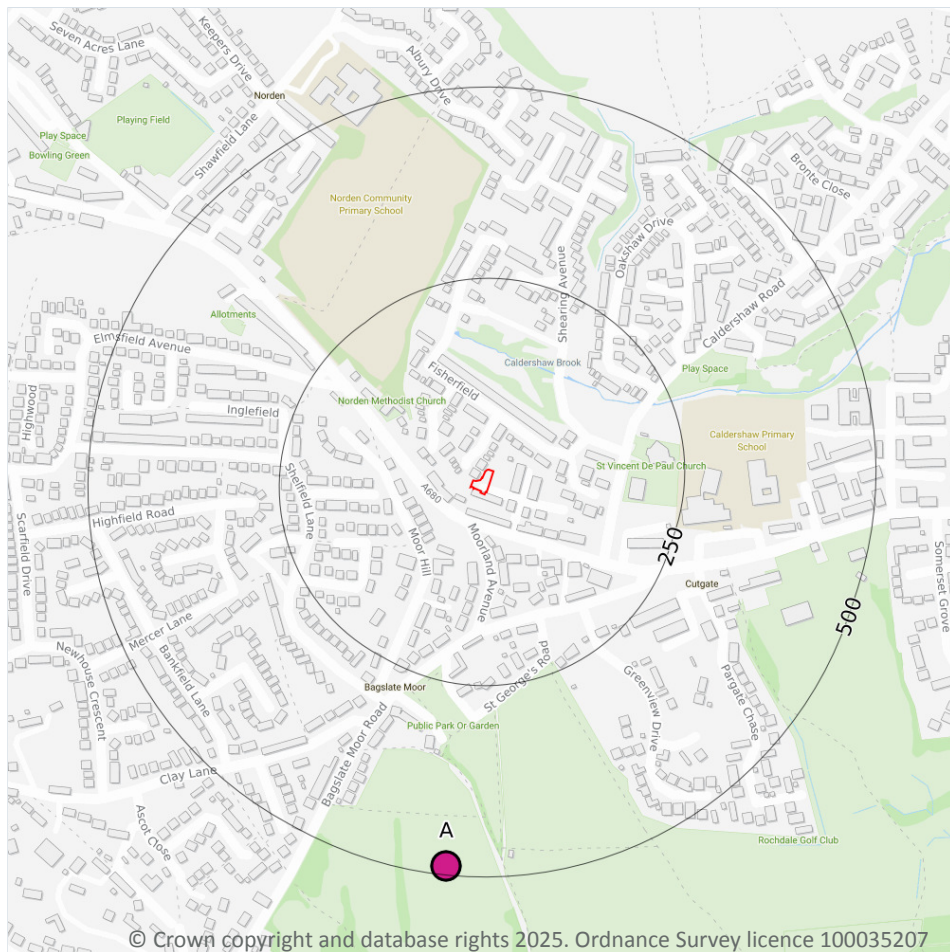
5.5 Groundwater vulnerability- local information

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
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

12

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 40](#) >



ID	Location	Details	
A	488m S	Status: Active Licence No: 2569002140 Details: Spray Irrigation - Direct Direct Source: Ground Water - North West Region Point: BOREHOLE AT ROCHDALE GOLF COURSE AT NORDEN, ROCHDALE Data Type: Point Name: ROCHDALE GOLF CLUB LTD Easting: 386800 Northing: 413600	Annual Volume (m ³): 7272 Max Daily Volume (m ³): 120 Original Application No: 0962 Original Start Date: 01/02/1966 Expiry Date: - Issue No: 100 Version Start Date: 18/11/1997 Version End Date: -
A	488m S	Status: Historical Licence No: 2569002140 Details: Spray Irrigation - Direct Direct Source: Ground Water - North West Region Point: "BOREHOLE AT ROCHDALE GOLF COURSE AT NORDEN, ROCHDALE" Data Type: Point Name: ROCHDALE GOLF CLUB LTD Easting: 386800 Northing: 413600	Annual Volume (m ³): - Max Daily Volume (m ³): - Original Application No: - Original Start Date: 01/02/1966 Expiry Date: - Issue No: 100 Version Start Date: 18/11/1997 Version End Date: -
-	1648m SW	Status: Historical Licence No: 2569002180 Details: General use relating to Secondary Category (Medium Loss) Direct Source: Ground Water - North West Region Point: "WELL AT MOOR EDGE FARM, BAMFORD, ROCHDALE" Data Type: Point Name: BLACKBOROUGH Easting: 385600 Northing: 413000	Annual Volume (m ³): - Max Daily Volume (m ³): - Original Application No: - Original Start Date: 21/02/1966 Expiry Date: - Issue No: 100 Version Start Date: 21/02/1966 Version End Date: -
-	1648m SW	Status: Historical Licence No: 2569002183 Details: General use relating to Secondary Category (Medium Loss) Direct Source: Ground Water - North West Region Point: "WELL AT MOOR EDGE FARM, BAMFORD, ROCHDALE" Data Type: Point Name: MILLS Easting: 385600 Northing: 413000	Annual Volume (m ³): - Max Daily Volume (m ³): - Original Application No: - Original Start Date: 21/02/1966 Expiry Date: - Issue No: 100 Version Start Date: 21/02/1966 Version End Date: -



ID	Location	Details	
-	1648m SW	Status: Historical Licence No: 2569002180 Details: General use relating to Secondary Category (Medium Loss) Direct Source: Ground Water - North West Region Point: WELL AT MOOR EDGE FARM, BAMFORD, ROCHDALE Data Type: Point Name: BLACKBOROUGH Easting: 385600 Northing: 413000	Annual Volume (m ³): - Max Daily Volume (m ³): - Original Application No: - Original Start Date: 21/02/1966 Expiry Date: - Issue No: 100 Version Start Date: 21/02/1966 Version End Date: -
-	1648m SW	Status: Historical Licence No: 2569002183 Details: General use relating to Secondary Category (Medium Loss) Direct Source: Ground Water - North West Region Point: WELL AT MOOR EDGE FARM, BAMFORD, ROCHDALE Data Type: Point Name: MILLS Easting: 385600 Northing: 413000	Annual Volume (m ³): - Max Daily Volume (m ³): - Original Application No: - Original Start Date: 21/02/1966 Expiry Date: - Issue No: 100 Version Start Date: 21/02/1966 Version End Date: -
-	1939m E	Status: Historical Licence No: 2569002050 Details: Process water Direct Source: Ground Water - North West Region Point: "BOREHOLE AT PREMISES, SPOTLAND, ROCHDALE" Data Type: Point Name: ALEXANDER DREW & SONS LTD Easting: 388700 Northing: 413500	Annual Volume (m ³): - Max Daily Volume (m ³): - Original Application No: - Original Start Date: 10/02/1966 Expiry Date: - Issue No: 101 Version Start Date: 02/05/2000 Version End Date: -
-	1939m E	Status: Historical Licence No: 2569002050 Details: Process water Direct Source: Ground Water - North West Region Point: BOREHOLE AT PREMISES, SPOTLAND, ROCHDALE Data Type: Point Name: ALEXANDER DREW LTD. Easting: 388700 Northing: 413500	Annual Volume (m ³): - Max Daily Volume (m ³): - Original Application No: - Original Start Date: 10/02/1966 Expiry Date: - Issue No: 102 Version Start Date: 01/04/2003 Version End Date: -



ID	Location	Details	
-	1939m E	Status: Historical Licence No: 2569002050 Details: Process water Direct Source: Ground Water - North West Region Point: BOREHOLE AT PREMISES SPOTLAND ROCHDALE Data Type: Point Name: ALEXANDER DREW LTD Easting: 388700 Northing: 413500	Annual Volume (m ³): 500000 Max Daily Volume (m ³): 2100 Original Application No: - Original Start Date: 10/02/1966 Expiry Date: - Issue No: 102 Version Start Date: 01/04/2003 Version End Date: -
-	1984m SW	Status: Active Licence No: 2569002217 Details: General Use Relating To Secondary Category (Medium Loss) Direct Source: Ground Water - North West Region Point: BOREHOLE AT BUTTERWORTH FOLD FARM BAMFORD ROCHDALE Data Type: Point Name: JAMES SWALLOW LTD Easting: 385800 Northing: 412400	Annual Volume (m ³): 33185.8 Max Daily Volume (m ³): 90.92 Original Application No: 2563 Original Start Date: 22/09/1980 Expiry Date: - Issue No: 100 Version Start Date: 01/04/2007 Version End Date: -
-	1984m SW	Status: Historical Licence No: 2569002217 Details: General use relating to Secondary Category (Medium Loss) Direct Source: Ground Water - North West Region Point: "BOREHOLE AT BUTTERWORTH FOLD FARM, BAMFORD, ROCHDALE" Data Type: Point Name: JAMES SWALLOW LTD Easting: 385800 Northing: 412400	Annual Volume (m ³): - Max Daily Volume (m ³): - Original Application No: - Original Start Date: 22/09/1980 Expiry Date: - Issue No: 100 Version Start Date: 22/09/1980 Version End Date: -
-	1984m SW	Status: Historical Licence No: 2569002217 Details: General use relating to Secondary Category (Medium Loss) Direct Source: Ground Water - North West Region Point: BOREHOLE AT BUTTERWORTH FOLD FARM, BAMFORD, ROCHDALE Data Type: Point Name: JAMES SWALLOW LTD Easting: 385800 Northing: 412400	Annual Volume (m ³): - Max Daily Volume (m ³): - Original Application No: - Original Start Date: 22/09/1980 Expiry Date: - Issue No: 100 Version Start Date: 22/09/1980 Version End Date: -

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



5.7 Surface water abstractions

Records within 2000m

8

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

Features are displayed on the Abstractions and Source Protection Zones map on [page 40 >](#)

ID	Location	Details	
-	1393m E	Status: Historical Licence No: 2569002018 Details: General Cooling (Existing Licences Only) (Low Loss) Direct Source: Surface, Non-Tidal - North West Region Point: LODGE FED BY R SPODDEN AT ROCHDALE Data Type: Point Name: FLEXITALLIC LTD Easting: 388200 Northing: 414500	Annual Volume (m ³): 1500211.393 Max Daily Volume (m ³): 4546.095 Original Application No: - Original Start Date: 14/02/1966 Expiry Date: - Issue No: 101 Version Start Date: 11/04/1997 Version End Date: -
-	1393m E	Status: Historical Licence No: 2569002018 Details: Boiler Feed Direct Source: Surface, Non-Tidal - North West Region Point: LODGE FED BY R SPODDEN AT ROCHDALE Data Type: Point Name: FLEXITALLIC LTD Easting: 388200 Northing: 414500	Annual Volume (m ³): 1500211.393 Max Daily Volume (m ³): 4546.095 Original Application No: - Original Start Date: 14/02/1966 Expiry Date: - Issue No: 101 Version Start Date: 11/04/1997 Version End Date: -
-	1393m E	Status: Historical Licence No: 2569002018 Details: Process Water Direct Source: Surface, Non-Tidal - North West Region Point: LODGE FED BY R SPODDEN AT ROCHDALE Data Type: Point Name: FLEXITALLIC LTD Easting: 388200 Northing: 414500	Annual Volume (m ³): 1500211.393 Max Daily Volume (m ³): 4546.095 Original Application No: - Original Start Date: 14/02/1966 Expiry Date: - Issue No: 101 Version Start Date: 11/04/1997 Version End Date: -
-	1418m NW	Status: Historical Licence No: 2569002221 Details: Process water Direct Source: "Surface, Non-Tidal - North West Region" Point: "NADEN BRK AT NORDERN, NR ROCHDALE" Data Type: Point Name: TACKLEA WORKS LTD Easting: 385600 Northing: 414800	Annual Volume (m ³): - Max Daily Volume (m ³): - Original Application No: - Original Start Date: 04/11/1981 Expiry Date: - Issue No: 100 Version Start Date: 05/02/1988 Version End Date: -



ID	Location	Details	
-	1418m NW	Status: Historical Licence No: 2569002221 Details: Process Water Direct Source: Surface, Non-Tidal - North West Region Point: NADEN BRK AT NORDERN, NR ROCHDALE Data Type: Point Name: TACKLEA WORKS LTD Easting: 385600 Northing: 414800	Annual Volume (m ³): 150018 Max Daily Volume (m ³): 590.98 Original Application No: - Original Start Date: 04/11/1981 Expiry Date: - Issue No: 100 Version Start Date: 05/02/1988 Version End Date: -
-	1886m NW	Status: Active Licence No: 2569002197 Details: Potable Water Supply - Direct Direct Source: Surface, Non-Tidal - North West Region Point: ASHWORTH MOOR, NADEN & GREENBOOTH RESERVOIRS, ROCHDALE Data Type: Point Name: United Utilities Water Ltd Easting: 385300 Northing: 415200	Annual Volume (m ³): 9092000 Max Daily Volume (m ³): 40914 Original Application No: 1613 Original Start Date: 22/03/1966 Expiry Date: - Issue No: 100 Version Start Date: 14/03/1990 Version End Date: -
-	1886m NW	Status: Historical Licence No: 2569002197 Details: Potable Water Supply - Direct Direct Source: "Surface, Non-Tidal - North West Region" Point: "ASHWORTH MOOR, NADEN & GREENBOOTH RESERVOIRS, ROCHDALE*31" Data Type: Point Name: UNITED UTILITIES WATER PLC Easting: 385300 Northing: 415200	Annual Volume (m ³): - Max Daily Volume (m ³): - Original Application No: - Original Start Date: 22/03/1966 Expiry Date: - Issue No: 100 Version Start Date: 14/03/1990 Version End Date: -
-	1886m NW	Status: Historical Licence No: 2569002197 Details: Potable Water Supply - Direct Direct Source: Surface, Non-Tidal - North West Region Point: ASHWORTH MOOR, NADEN & GREENBOOTH RESERVOIRS, ROCHDALE*31 Data Type: Point Name: UNITED UTILITIES WATER PLC Easting: 385300 Northing: 415200	Annual Volume (m ³): - Max Daily Volume (m ³): - Original Application No: - Original Start Date: 22/03/1966 Expiry Date: - Issue No: 100 Version Start Date: 14/03/1990 Version End Date: -

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



5.8 Potable abstractions

Records within 2000m

3

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

Features are displayed on the Abstractions and Source Protection Zones map on [page 40 >](#)

ID	Location	Details	
-	1886m NW	Status: Active Licence No: 2569002197 Details: Potable Water Supply - Direct Direct Source: Surface, Non-Tidal - North West Region Point: ASHWORTH MOOR, NADEN & GREENBOOTH RESERVOIRS, ROCHDALE Data Type: Point Name: United Utilities Water Ltd Easting: 385300 Northing: 415200	Annual Volume (m ³): 9092000 Max Daily Volume (m ³): 40914 Original Application No: 1613 Original Start Date: 22/03/1966 Expiry Date: - Issue No: 100 Version Start Date: 14/03/1990 Version End Date: -
-	1886m NW	Status: Historical Licence No: 2569002197 Details: Potable Water Supply - Direct Direct Source: "Surface, Non-Tidal - North West Region" Point: "ASHWORTH MOOR, NADEN & GREENBOOTH RESERVOIRS, ROCHDALE*31" Data Type: Point Name: UNITED UTILITIES WATER PLC Easting: 385300 Northing: 415200	Annual Volume (m ³): - Max Daily Volume (m ³): - Original Application No: - Original Start Date: 22/03/1966 Expiry Date: - Issue No: 100 Version Start Date: 14/03/1990 Version End Date: -
-	1886m NW	Status: Historical Licence No: 2569002197 Details: Potable Water Supply - Direct Direct Source: Surface, Non-Tidal - North West Region Point: ASHWORTH MOOR, NADEN & GREENBOOTH RESERVOIRS, ROCHDALE*31 Data Type: Point Name: UNITED UTILITIES WATER PLC Easting: 385300 Northing: 415200	Annual Volume (m ³): - Max Daily Volume (m ³): - Original Application No: - Original Start Date: 22/03/1966 Expiry Date: - Issue No: 100 Version Start Date: 14/03/1990 Version End Date: -

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



5.9 Source Protection Zones

Records within 500m

0

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

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

5.10 Source Protection Zones (confined aquifer)

Records within 500m

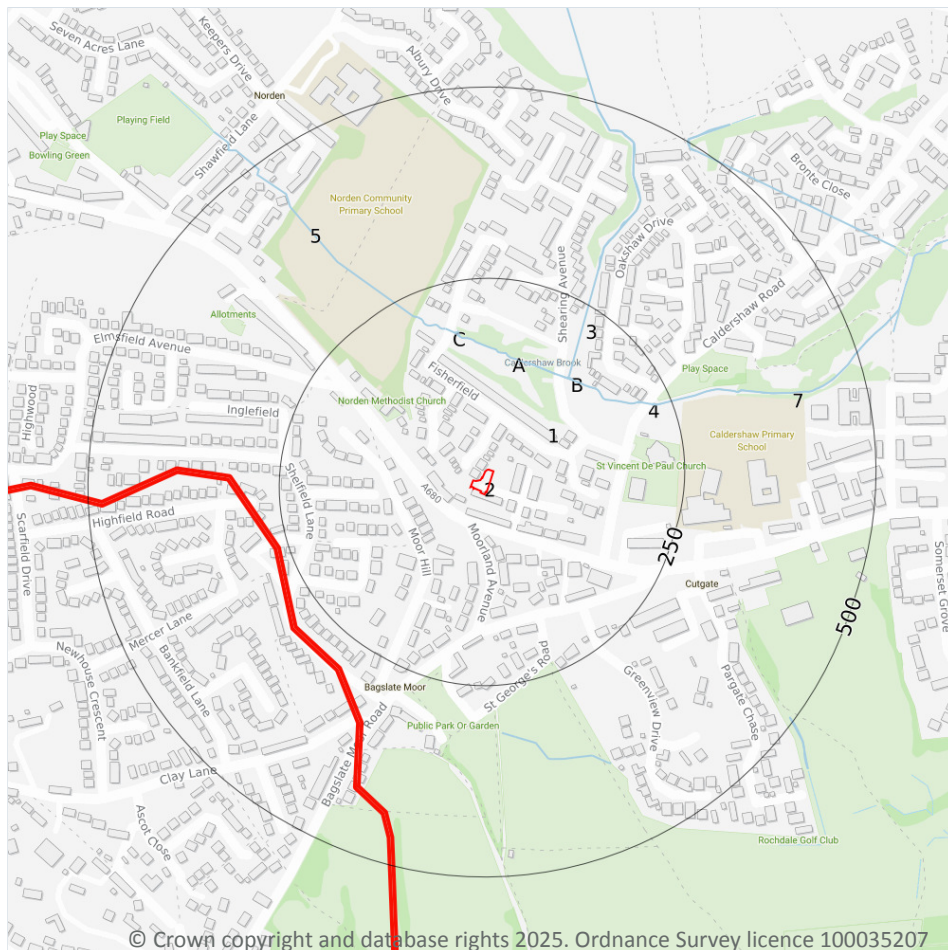
0

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

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



6 Hydrology



- 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

9

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 48 >](#)

ID	Location	Type of water feature	Ground level	Permanence	Name
A	148m N	Inland river not influenced by normal tidal action.	On ground surface	Watercourse contains water year round (in normal circumstances)	Caldershaw Brook



ID	Location	Type of water feature	Ground level	Permanence	Name
B	156m NE	Inland river not influenced by normal tidal action.	On ground surface	Watercourse contains water year round (in normal circumstances)	-
B	156m NE	Inland river not influenced by normal tidal action.	On ground surface	Watercourse contains water year round (in normal circumstances)	Caldershaw Brook
3	159m NE	Inland river not influenced by normal tidal action.	Not provided	Watercourse contains water year round (in normal circumstances)	-
C	183m N	Inland river not influenced by normal tidal action.	Underground	Watercourse contains water year round (in normal circumstances)	Caldershaw Brook
C	192m N	Inland river not influenced by normal tidal action.	On ground surface	Watercourse contains water year round (in normal circumstances)	Caldershaw Brook
4	212m NE	Inland river not influenced by normal tidal action.	Underground	Watercourse contains water year round (in normal circumstances)	Caldershaw Brook
5	219m NW	Inland river not influenced by normal tidal action.	Underground	Watercourse contains water year round (in normal circumstances)	Caldershaw Brook
7	225m NE	Inland river not influenced by normal tidal action.	On ground surface	Watercourse contains water year round (in normal circumstances)	Caldershaw Brook

This data is sourced from the Ordnance Survey.

6.2 Surface water features

Records within 250m

3

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 48](#) >

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 48 >](#)

ID	Location	Type	Water body catchment	Water body ID	Operational catchment	Management catchment
1	On site	River	Spodden	GB112069064730	Roch Irk Medlock	Irwell

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 48 >](#)

ID	Location	Type	Name	Water body ID	Overall rating	Chemical rating	Ecological rating	Year
-	1421m E	River	Spodden	GB112069064730 ↗	Moderate	Fail	Moderate	2019

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

6.5 WFD Groundwater bodies

Records on site

1

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

Features are displayed on the Hydrology map on [page 48 >](#)

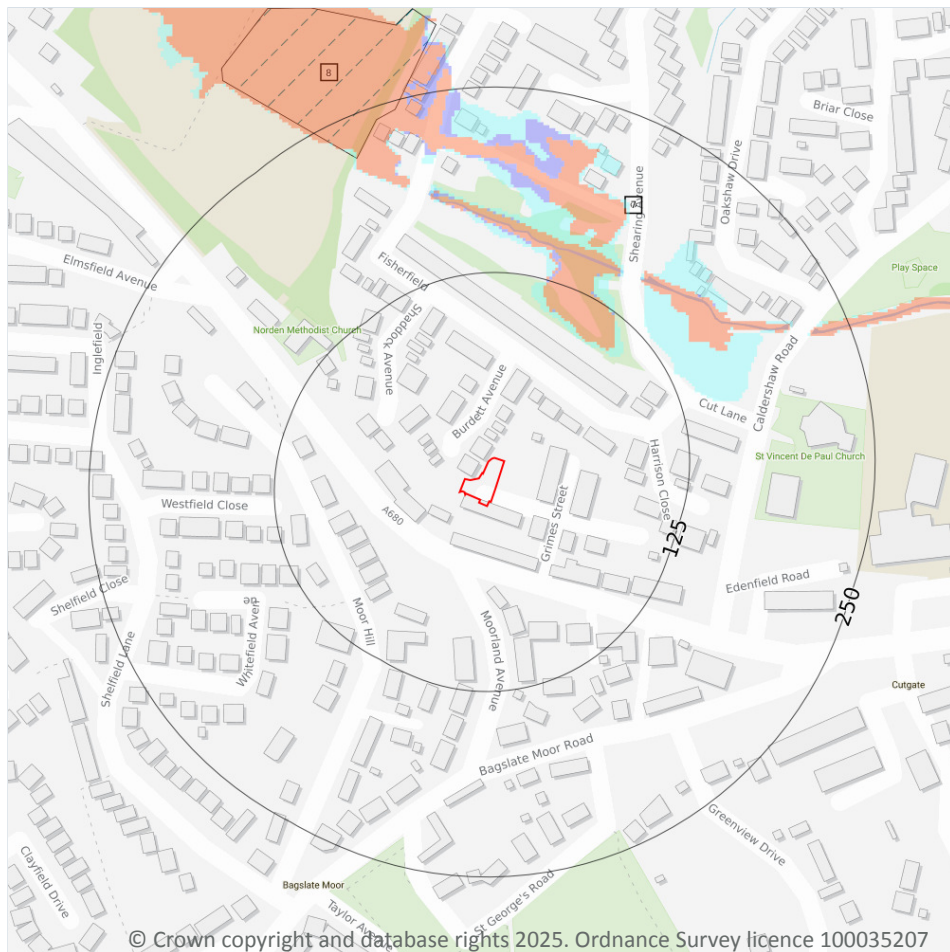


ID	Location	Name	Water body ID	Overall rating	Chemical rating	Quantitative	Year
2	On site	Northern Manchester Carboniferous Aquifers	GB41202G101800 ↗	Poor	Poor	Good	2019

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



7 River and coastal flooding



- Site Outline
- Search buffers in metres (m)
- River and coastal flooding:
- High
- Medium
- Low
- Very Low
- Historical Flood Events
- Areas Used for Flood Storage
- Areas Benefiting from Flood Defences
- Flood Defences

7.1 Risk of flooding from rivers and the sea

Records within 50m

0

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

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



7.2 Historical Flood Events

Records within 250m

2

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.

Features are displayed on the River and coastal flooding map on [page 52 >](#)

ID	Location	Event name	Date of flood	Flood source	Flood cause	Type of flood
7	192m NE	Cals	1998-10-23 1998-10-24	Unknown	Obstruction/blockage - channel	No data
8	222m NW	Ea013_Fisherfield, Norden	2016-11-21 2016-11-21	Main river	Channel capacity exceeded (no raised defences)	Fluvial

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.

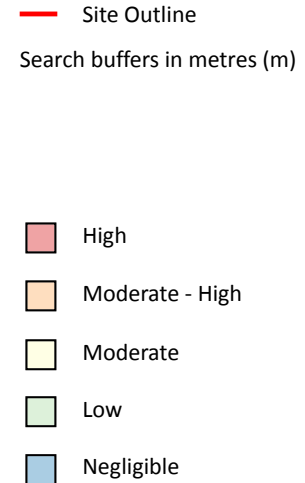
The data shown on the map and in the table above shows the highest likelihood of flood events happening at the site. Lower likelihood events may have greater flood depths and hence a greater potential impact on a site. The table below shows the maximum flood depths for a range of return periods for the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



9.1 Groundwater flooding

Highest risk on site

Low

Highest risk within 50m

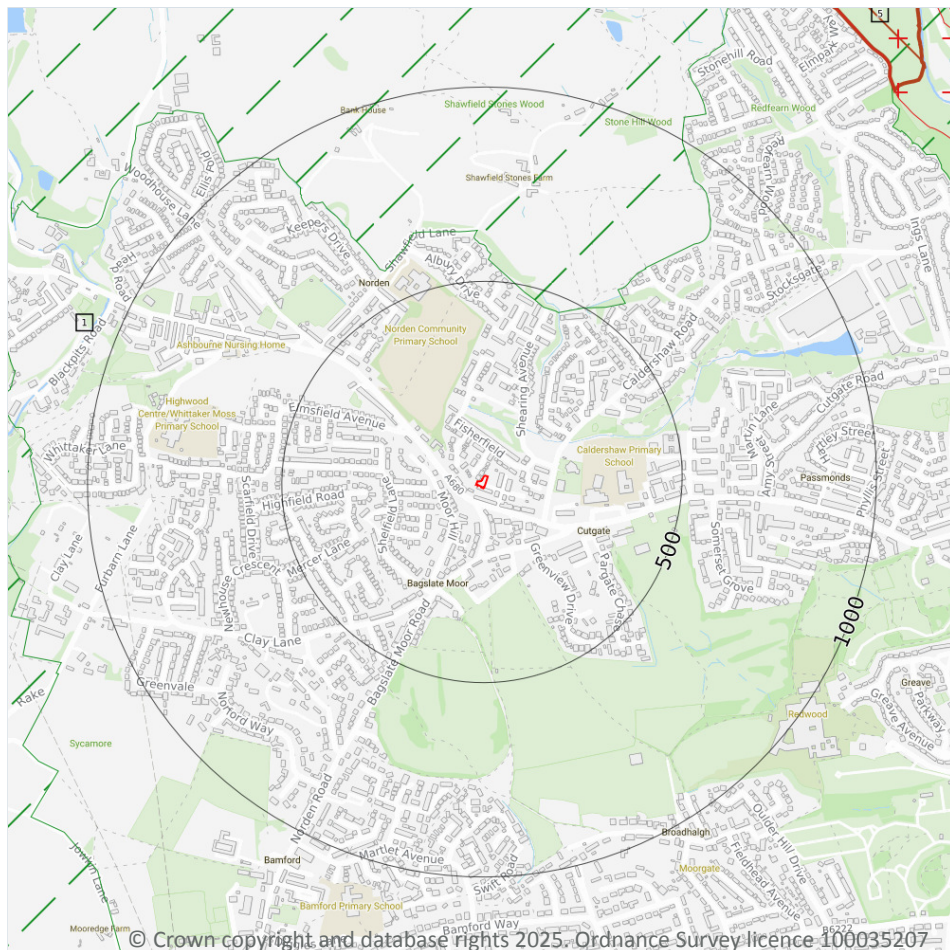
Low

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

Features are displayed on the Groundwater flooding map on [page 57](#) >

This data is sourced from Ambiantal Risk Analytics.

10 Environmental designations



- Site Outline
- Search buffers in metres (m)
- + Local Nature Reserves (LNR)
- / Designated Ancient Woodland
- / Green Belt

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 58 >](#)

ID	Location	Name	Data source
4	1437m NE	Healey Dell	Natural England

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

10.7 Designated Ancient Woodland

Records within 2000m

13

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

Features are displayed on the Environmental designations map on [page 58 >](#)

ID	Location	Name	Woodland Type
-	1234m W	Naden Brook Wood	Ancient & Semi-Natural Woodland
-	1387m S	River Rock Wood (2)	Ancient & Semi-Natural Woodland
5	1444m NE	Unknown	Ancient & Semi-Natural Woodland
-	1489m NW	Wolstenholme Wood	Ancient & Semi-Natural Woodland
-	1611m SW	Jowkin Wood	Ancient & Semi-Natural Woodland
-	1660m S	Springfield Wood	Ancient & Semi-Natural Woodland
-	1664m NE	Unknown	Ancient & Semi-Natural Woodland
-	1710m SW	Jowkin Wood	Ancient & Semi-Natural Woodland
-	1790m N	Unknown	Ancient & Semi-Natural Woodland
-	1794m S	Unknown	Ancient & Semi-Natural Woodland
-	1823m N	Unknown	Ancient & Semi-Natural Woodland
-	1849m W	Fester Clough Wood	Ancient & Semi-Natural Woodland



ID	Location	Name	Woodland Type
-	1965m SW	Jowkin Wood	Ancient & Semi-Natural Woodland

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

10.8 Biosphere Reserves

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

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

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

10.9 Forest Parks

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

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

This data is sourced from the Forestry Commission.

10.10 Marine Conservation Zones

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

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

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

10.11 Green Belt

Records within 2000m	2
-----------------------------	----------

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

Features are displayed on the Environmental designations map on [page 58 >](#)

ID	Location	Name	Local Authority name
1	459m N	Merseyside and Greater Manchester Green Belt	Rochdale
-	1913m NE	Merseyside and Greater Manchester Green Belt	Rossendale



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

10.12 Proposed Ramsar sites

Records within 2000m

0

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

This data is sourced from Natural England.

10.13 Possible Special Areas of Conservation (pSAC)

Records within 2000m

0

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

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

10.14 Potential Special Protection Areas (pSPA)

Records within 2000m

0

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

This data is sourced from Natural England.

10.15 Nitrate Sensitive Areas

Records within 2000m

0

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

This data is sourced from Natural England.



10.16 Nitrate Vulnerable Zones

Records within 2000m

0

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

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



SSSI Impact Zones and Units

10.17 SSSI Impact Risk Zones

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

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

This data is sourced from Natural England.

10.18 SSSI Units

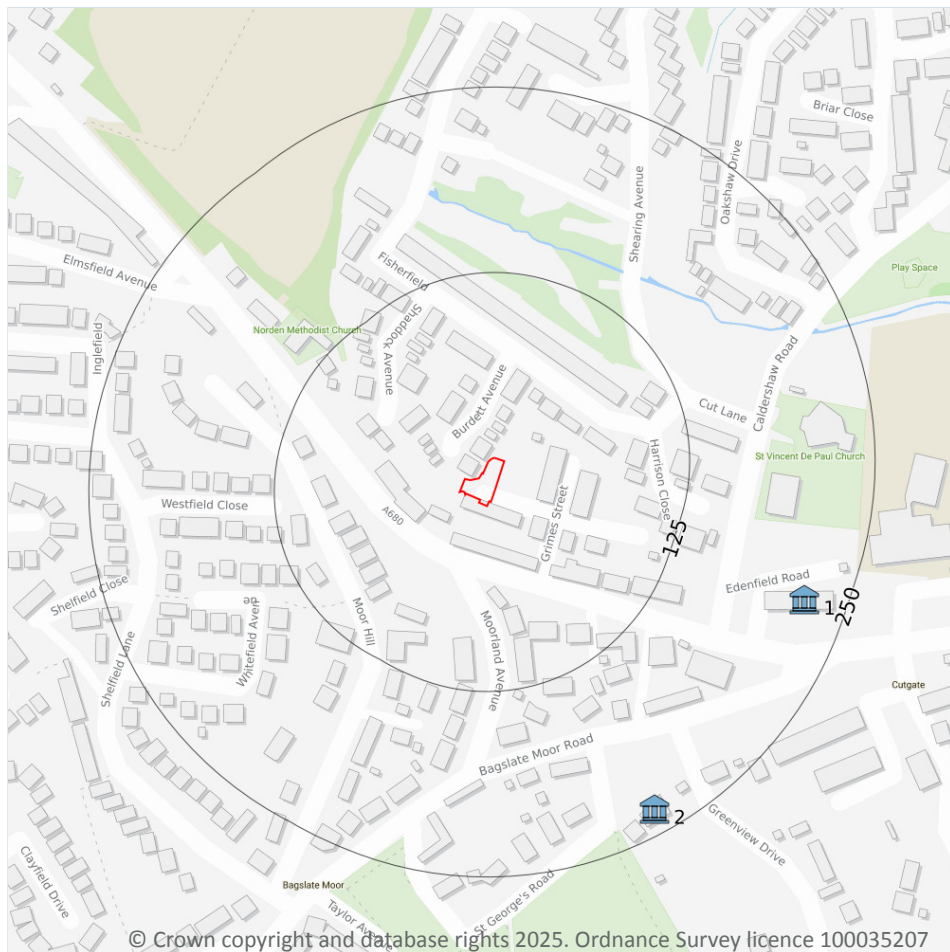
Records within 2000m	0
----------------------	---

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

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



11 Visual and cultural designations



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

11.1 World Heritage Sites

Records within 250m

0

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

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



11.2 Area of Outstanding Natural Beauty

Records within 250m

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

2

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

Features are displayed on the Visual and cultural designations map on [page 65 >](#)

ID	Location	Name	Grade	Reference Number	Listed date
1	221m E	532 And 534, Edenfield Road	II	1346248	12/02/1985
2	234m SE	Standrings House	II	1346241	12/02/1985

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



11.5 Conservation Areas

Records within 250m**0**

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

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

11.6 Scheduled Ancient Monuments

Records within 250m**0**

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

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

11.7 Registered Parks and Gardens

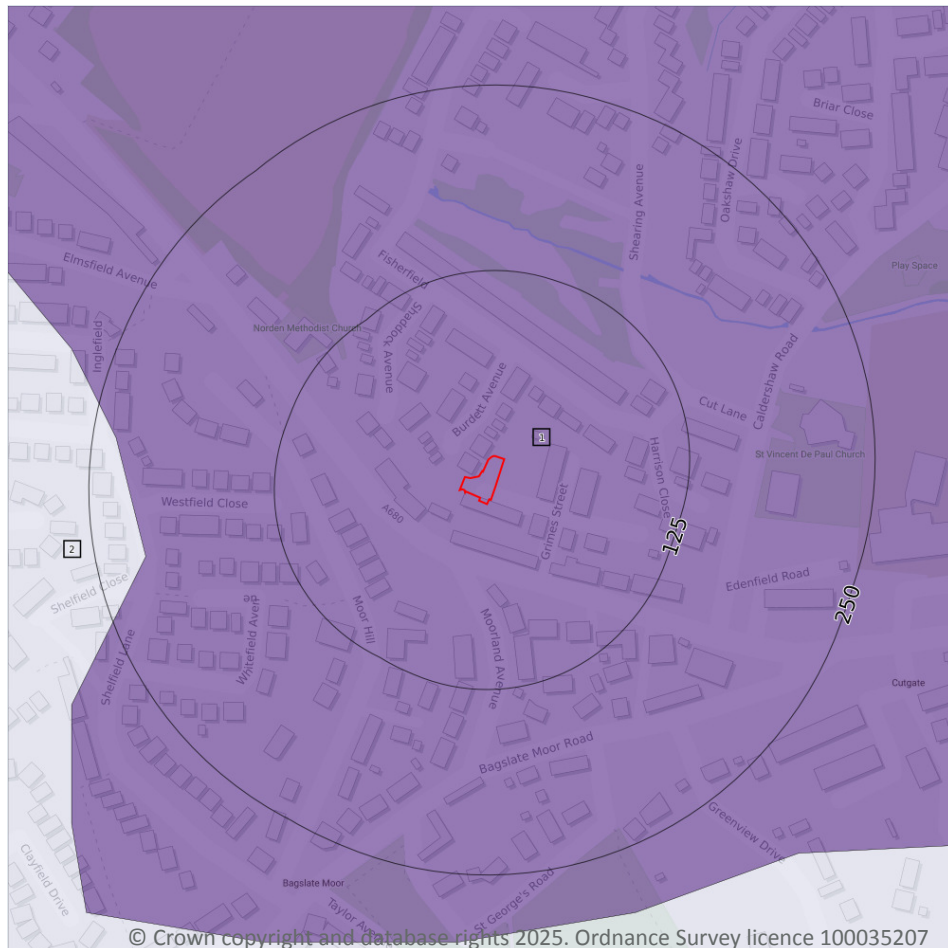
Records within 250m**0**

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

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



12 Agricultural designations



- Site Outline
- Search buffers in metres (m)
- Grade 1 - excellent quality
- Grade 2 - very good quality
- Grade 3 - good to moderate quality
- Grade 3a - good quality
- Grade 3b - moderate quality
- Grade 4 - poor quality
- Grade 5 - very poor quality
- Non-agricultural land
- Urban land
- Exclusion land
- Tree felling licences
- Open Access land

12.1 Agricultural Land Classification

Records within 250m

2

Classification of the quality of agricultural land taking into consideration multiple factors including climate, physical geography and soil properties. It should be noted that the categories for the grading of agricultural land are not consistent across England, Wales and Scotland.

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

ID	Location	Classification	Description
1	On site	Urban	Non-agricultural/no quality assigned



ID	Location	Classification	Description
2	216m 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. The schemes identified may be historical schemes that have now expired, or may still be active.

This data is sourced from Natural England.

12.5 Countryside Stewardship Schemes

Records within 250m

0

Countryside Stewardship covers a range of schemes that provide financial incentives to farmers, foresters and land managers to look after and improve the environment. Main objectives are to improve the farmed environment for wildlife and to reduce diffuse water pollution.

This data is sourced from Natural England.



13 Habitat designations

13.1 Priority Habitat Inventory

Records within 250m

0

Habitats of principal importance as named under Natural Environment and Rural Communities Act (2006) Section 41.

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

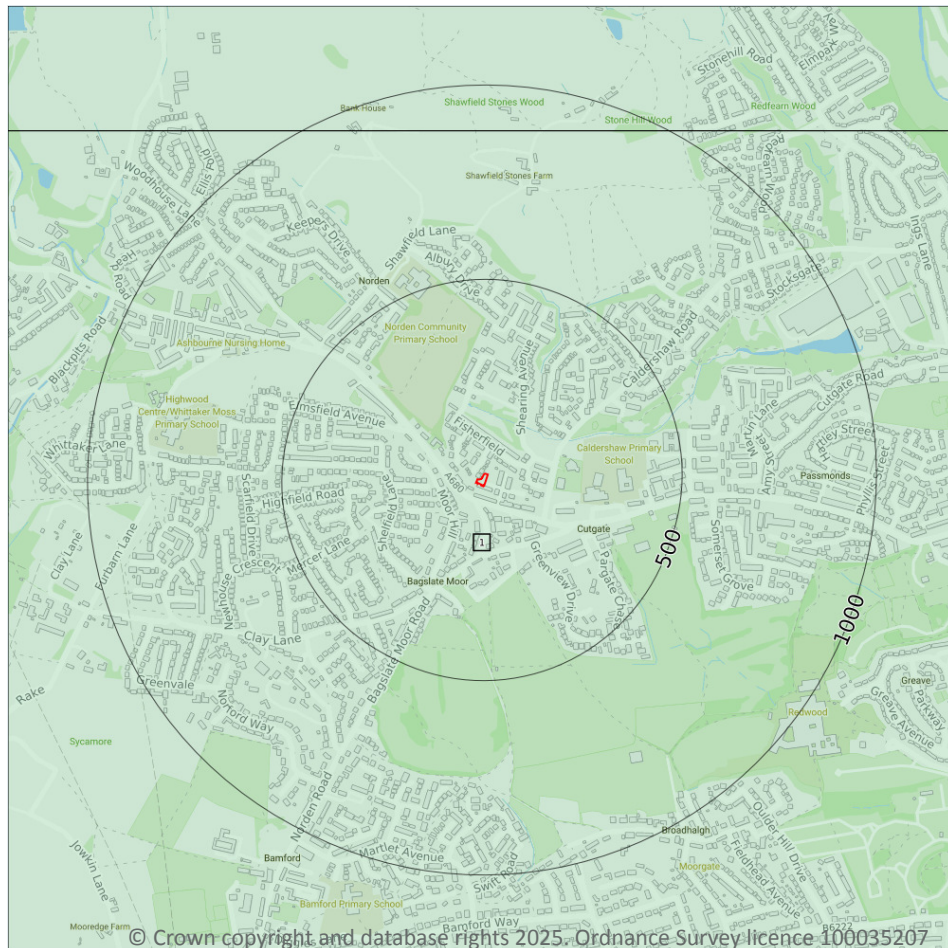
0

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.

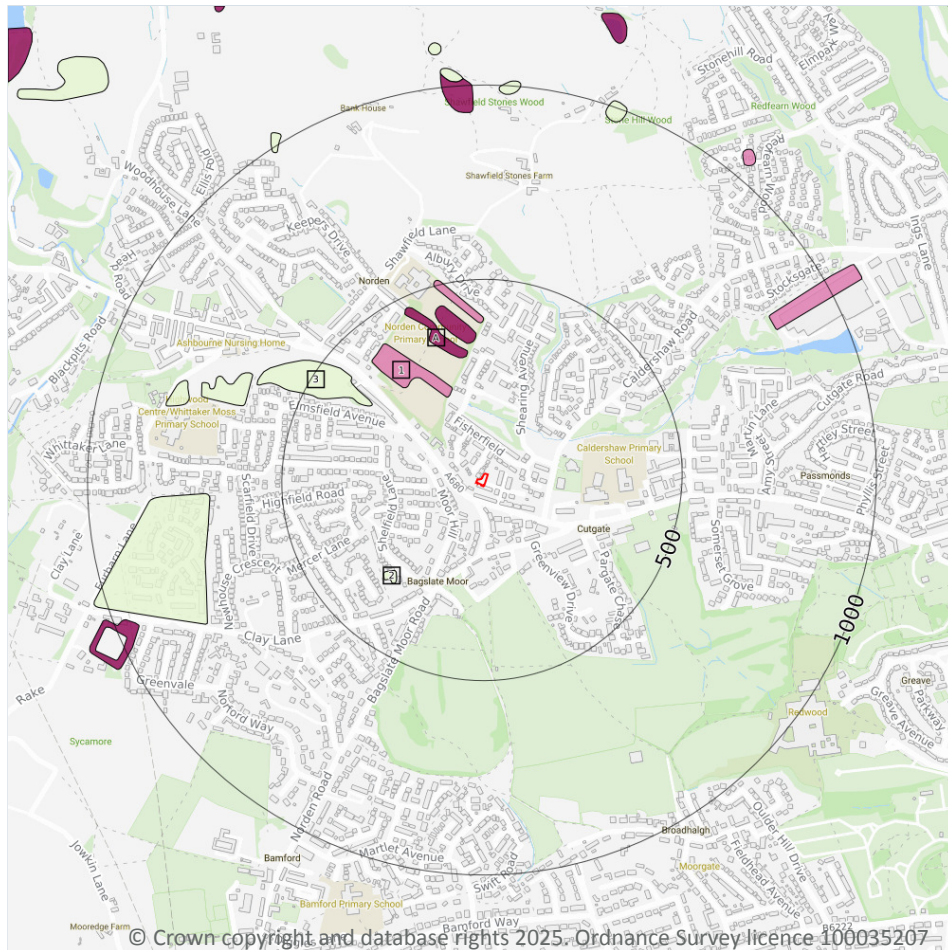
Features are displayed on the Geology 1:10,000 scale - Availability map on [page 72](#) >

ID	Location	Artificial	Superficial	Bedrock	Mass movement	Sheet No.
1	On site	Full	Full	Full	Full	SD81SE

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

6

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 73](#) >

ID	Location	LEX Code	Description	Rock description
1	219m NW	WGR-VOID	Worked Ground (Undivided)	Void
A	304m N	MGR-ARTDP	Made Ground (Undivided)	Artificial Deposit
2	308m SW	WMGR-ARTDP	Infilled Ground	Artificial Deposit
3	332m NW	WMGR-ARTDP	Infilled Ground	Artificial Deposit

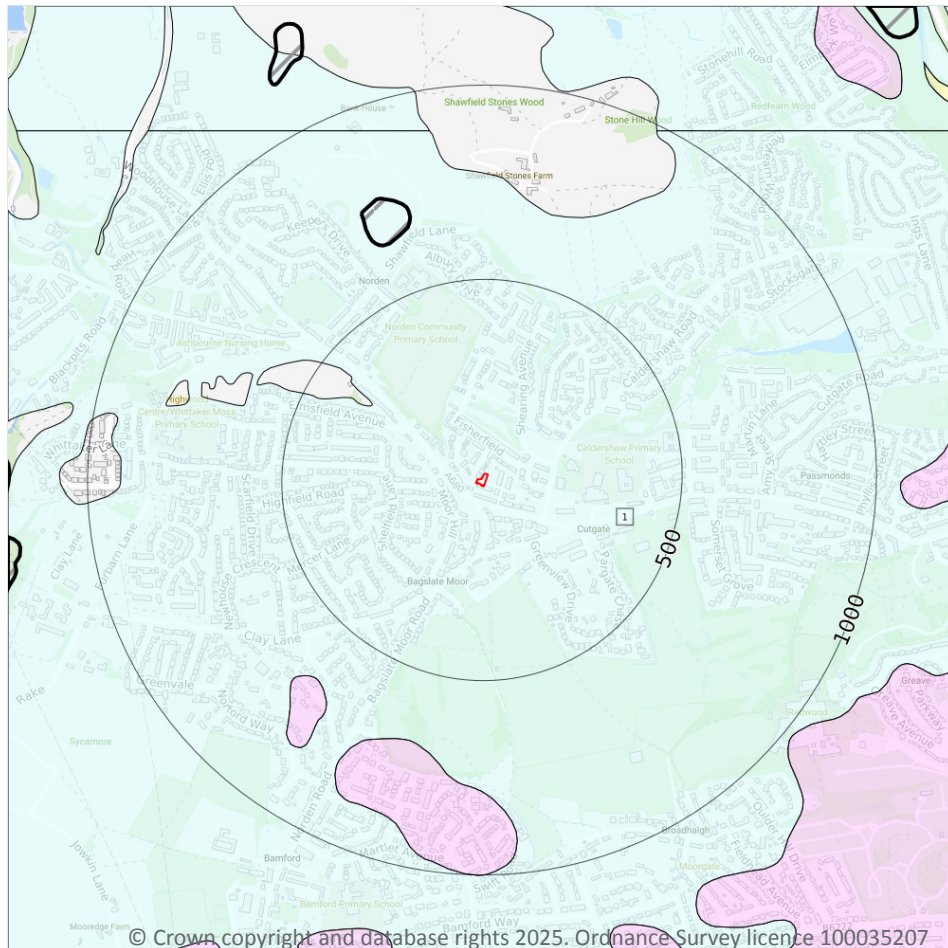


ID	Location	LEX Code	Description	Rock description
A	338m N	MGR-ARTDP	Made Ground (Undivided)	Artificial Deposit
A	388m N	WGR-VOID	Worked Ground (Undivided)	Void

This data is sourced from the British Geological Survey.



Geology 1:10,000 scale - Superficial



Site Outline

Search buffers in metres (m)

Landslip (10k)

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

14.3 Superficial geology (10k)

Records within 500m

1

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.

Features are displayed on the Geology 1:10,000 scale - Superficial map on [page 75 >](#)

ID	Location	LEX Code	Description	Rock description
1	On site	TILLD-DMTN	Till, Devensian - Diamicton	Diamicton

This data is sourced from the British Geological Survey.



14.4 Landslip (10k)

Records within 500m

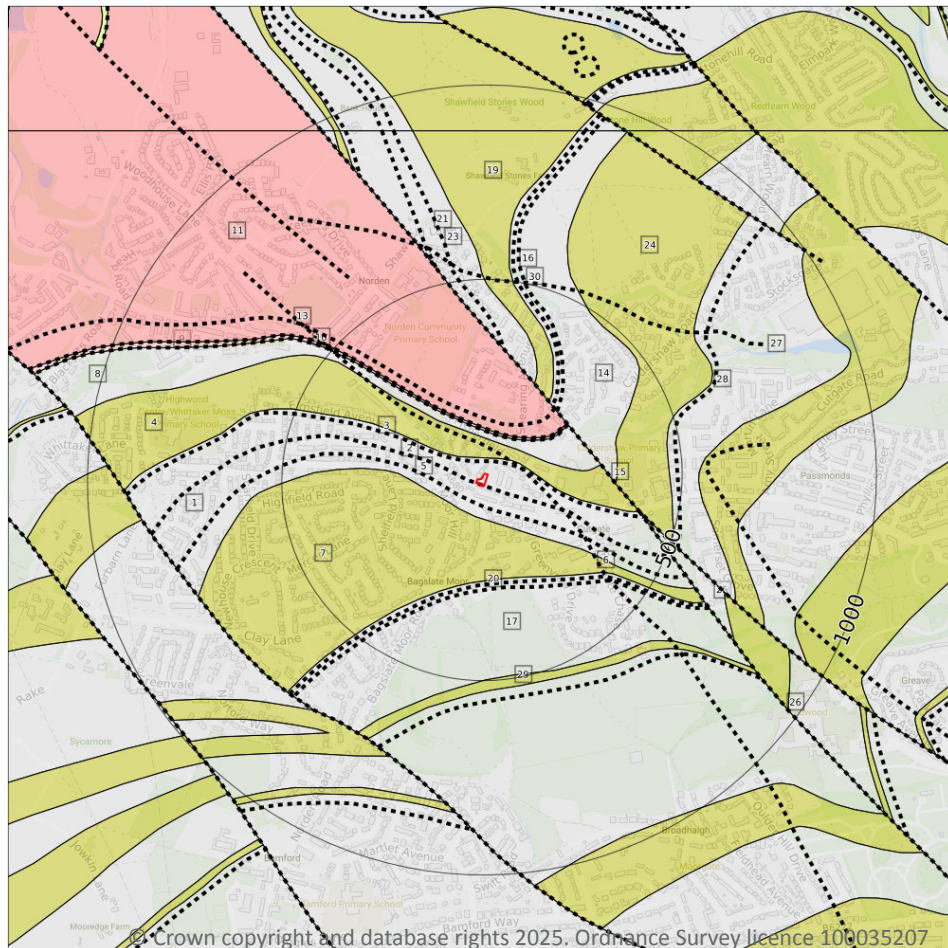
0

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

14

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 77 >](#)

ID	Location	LEX Code	Description	Rock age
1	On site	PLCM-MDSS	Pennine Lower Coal Measures Formation - Mudstone, Siltstone And Sandstone	Langsettian Sub-age
4	41m N	WH-SDST	Woodhead Hill Rock - Sandstone	Langsettian Sub-age
7	79m SW	GAS-SDST	Great Arc Sandstone - Sandstone	Langsettian Sub-age



ID	Location	LEX Code	Description	Rock age
8	86m N	PLCM-MDSS	Pennine Lower Coal Measures Formation - Mudstone, Siltstone And Sandstone	Langsettian Sub-age
9	103m N	ROSSE-MDSI	Rossendale Formation - Mudstone And Siltstone	Yeadonian Sub-age
11	110m N	RR-SDST	Rough Rock - Sandstone	Yeadonian Sub-age
14	241m NE	PLCM-MDSS	Pennine Lower Coal Measures Formation - Mudstone, Siltstone And Sandstone	Langsettian Sub-age
17	242m S	PLCM-MDSS	Pennine Lower Coal Measures Formation - Mudstone, Siltstone And Sandstone	Langsettian Sub-age
19	245m NE	GAS-SDST	Great Arc Sandstone - Sandstone	Langsettian Sub-age
21	263m NE	PLCM-MDSS	Pennine Lower Coal Measures Formation - Mudstone, Siltstone And Sandstone	Langsettian Sub-age
24	329m E	HER-SDST	Helpet Edge Rock - Sandstone	Langsettian Sub-age
25	401m E	PLCM-MDSS	Pennine Lower Coal Measures Formation - Mudstone, Siltstone And Sandstone	Langsettian Sub-age
27	466m E	PLCM-MDSS	Pennine Lower Coal Measures Formation - Mudstone, Siltstone And Sandstone	Langsettian Sub-age
29	492m S	HER-SDST	Helpet Edge Rock - Sandstone	Langsettian Sub-age

This data is sourced from the British Geological Survey.

14.6 Bedrock faults and other linear features (10k)

Records within 500m	16
----------------------------	-----------

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 77 >](#)

ID	Location	Category	Description
2	On site	ROCK	Coal seam, inferred
3	32m N	ROCK	Coal seam, inferred
5	48m SW	ROCK	Coal seam, inferred
6	61m NE	LANDFORM	Buried channel or valley margin
10	103m N	FOSSIL_HORIZON	Fossil horizon, marine band coincident with bedrock geology boundary

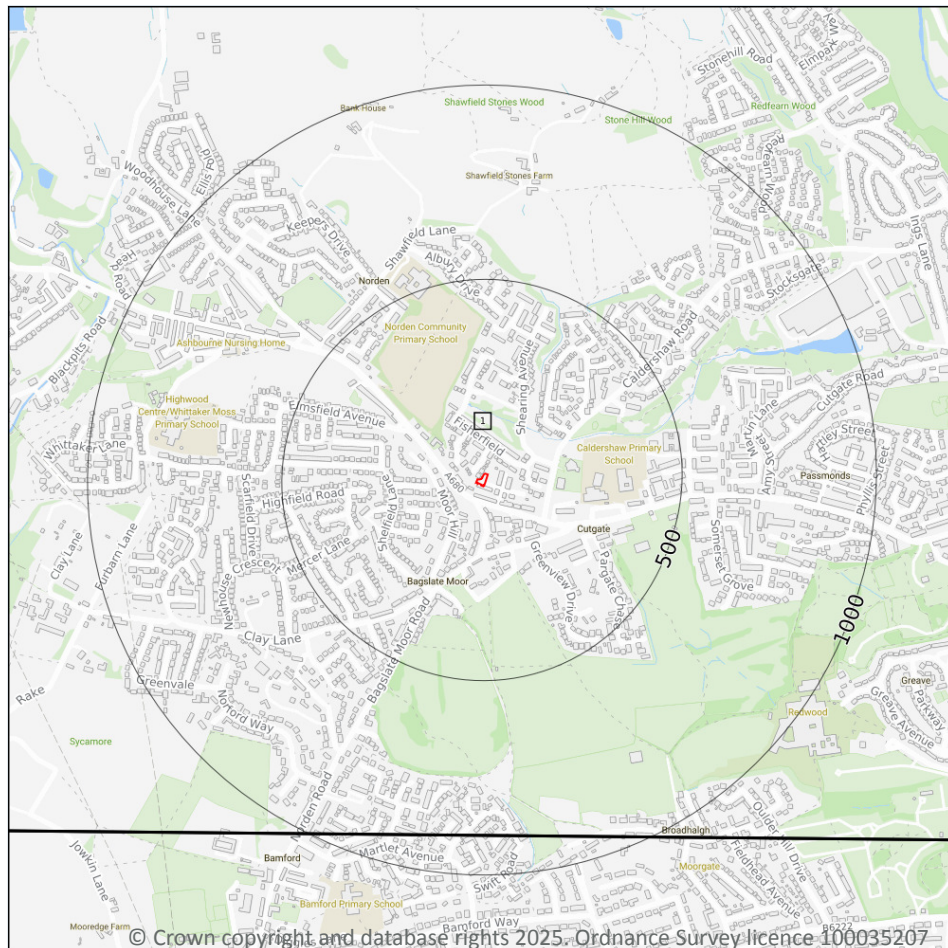


ID	Location	Category	Description
12	110m N	ROCK	Coal seam, inferred coincident with bedrock geology boundary
13	135m N	ROCK	Coal seam, inferred
15	241m NE	FAULT	Normal fault, inferred; crossmarks on downthrow side
16	241m NE	FOSSIL_HORIZON	Fossil horizon, marine band
18	243m NE	ROCK	Coal seam, inferred
20	252m S	ROCK	Coal seam, inferred
22	265m S	FOSSIL_HORIZON	Fossil horizon, marine band
23	326m N	ROCK	Coal seam, inferred
26	401m E	FAULT	Normal fault, inferred; crossmarks on downthrow side
28	487m E	ROCK	Coal seam, inferred
30	498m N	LANDFORM	Buried channel or valley margin

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 80](#) >

ID	Location	Artificial	Superficial	Bedrock	Mass movement	Sheet No.
1	On site	No coverage	Full	Full	Full	EW076_rochdale_v4

This data is sourced from the British Geological Survey.



Geology 1:50,000 scale - Artificial and made ground

15.2 Artificial and made ground (50k)

Records within 500m

0

Details of made, worked, infilled, disturbed and landscaped ground at 1:50,000 scale. Artificial ground can be associated with potentially contaminated material, unpredictable engineering conditions and instability.

This data is sourced from the British Geological Survey.

15.3 Artificial ground permeability (50k)

Records within 50m

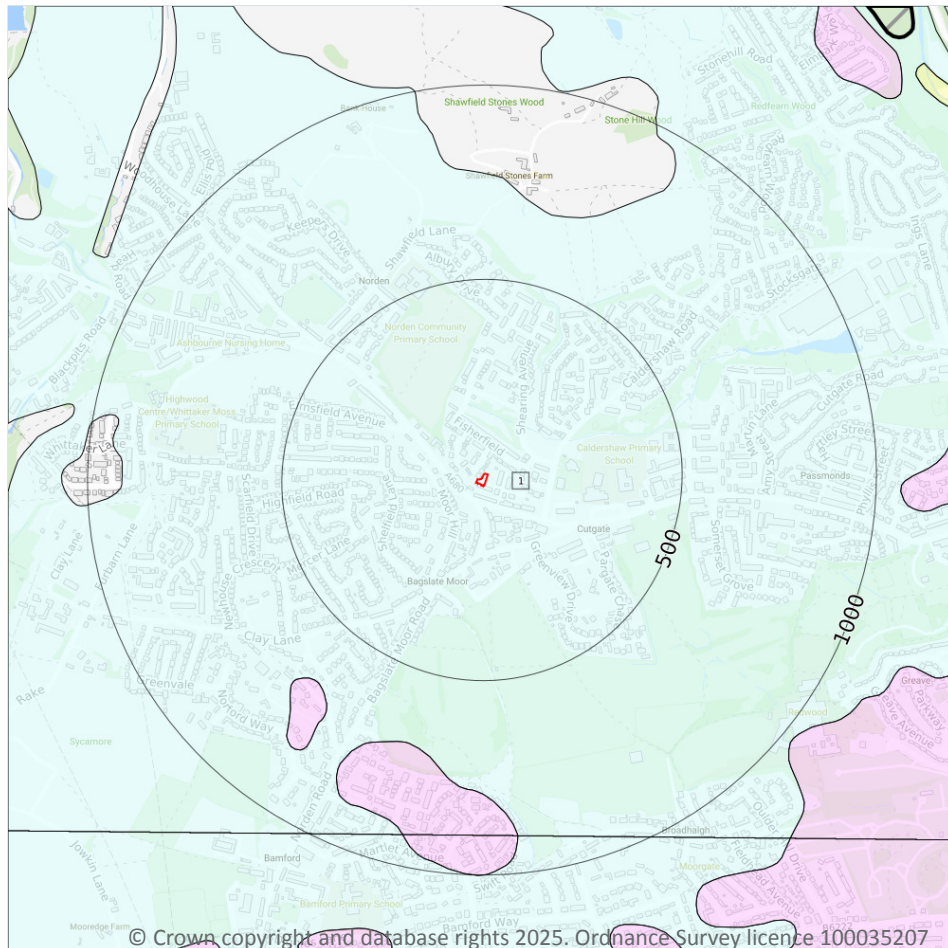
0

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

This data is sourced from the British Geological Survey.



Geology 1:50,000 scale - Superficial



— Site Outline

Search buffers in metres (m)

Landslip (50k)

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

15.4 Superficial geology (50k)

Records within 500m

1

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

Features are displayed on the Geology 1:50,000 scale - Superficial map on [page 82](#) >

ID	Location	LEX Code	Description	Rock description
1	On site	TILLD-DMTN	TILL, DEVANSIAN	DIAMICTON

This data is sourced from the British Geological Survey.



15.5 Superficial permeability (50k)

Records within 50m**1**

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

Location	Flow type	Maximum permeability	Minimum permeability
On site	Mixed	High	Low

This data is sourced from the British Geological Survey.

15.6 Landslip (50k)

Records within 500m**0**

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

This data is sourced from the British Geological Survey.

15.7 Landslip permeability (50k)

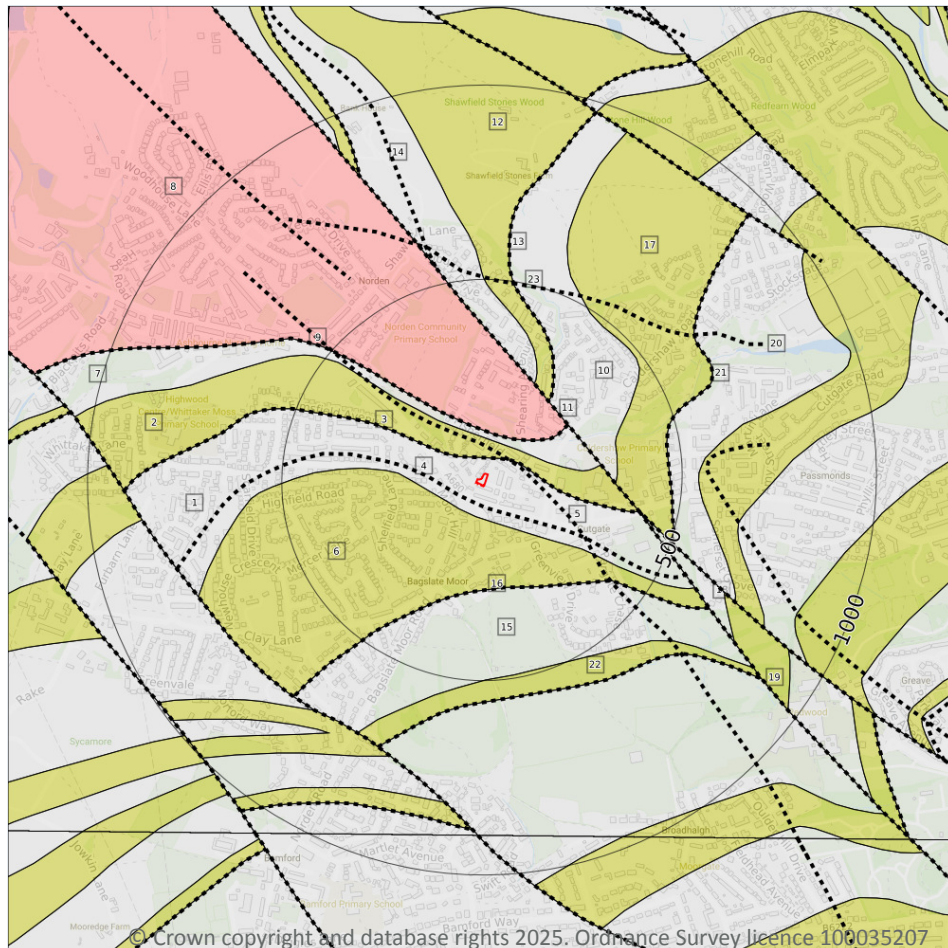
Records within 50m**0**

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

This data is sourced from the British Geological Survey.



Geology 1:50,000 scale - Bedrock



— Site Outline

Search buffers in metres (m)

.... Bedrock faults and other linear features (50k)

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

15.8 Bedrock geology (50k)

Records within 500m

13

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 84](#) >

ID	Location	LEX Code	Description	Rock age
1	On site	PLCM-MDSS	PENNINE LOWER COAL MEASURES FORMATION - MUDSTONE, SILTSTONE AND SANDSTONE	WESTPHALIAN
2	41m N	WH-SDST	WOODHEAD HILL ROCK - SANDSTONE	WESTPHALIAN
6	79m SW	GAS-SDST	GREAT ARC SANDSTONE - SANDSTONE	WESTPHALIAN



ID	Location	LEX Code	Description	Rock age
7	86m N	PLCM-MDSS	PENNINE LOWER COAL MEASURES FORMATION - MUDSTONE, SILTSTONE AND SANDSTONE	WESTPHALIAN
8	104m N	RR-SDST	ROUGH ROCK - SANDSTONE	NAMURIAN
10	241m NE	PLCM-MDSS	PENNINE LOWER COAL MEASURES FORMATION - MUDSTONE, SILTSTONE AND SANDSTONE	WESTPHALIAN
12	245m NE	GAS-SDST	GREAT ARC SANDSTONE - SANDSTONE	WESTPHALIAN
14	263m NE	PLCM-MDSS	PENNINE LOWER COAL MEASURES FORMATION - MUDSTONE, SILTSTONE AND SANDSTONE	WESTPHALIAN
15	265m S	PLCM-MDSS	PENNINE LOWER COAL MEASURES FORMATION - MUDSTONE, SILTSTONE AND SANDSTONE	WESTPHALIAN
17	329m E	HER-SDST	HELPET EDGE ROCK - SANDSTONE	WESTPHALIAN
18	401m E	PLCM-MDSS	PENNINE LOWER COAL MEASURES FORMATION - MUDSTONE, SILTSTONE AND SANDSTONE	WESTPHALIAN
20	466m E	PLCM-MDSS	PENNINE LOWER COAL MEASURES FORMATION - MUDSTONE, SILTSTONE AND SANDSTONE	WESTPHALIAN
22	490m S	HER-SDST	HELPET EDGE ROCK - 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	Moderate	Low
41m N	Fracture	High	Moderate

This data is sourced from the British Geological Survey.



15.10 Bedrock faults and other linear features (50k)

Records within 500m

10

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.

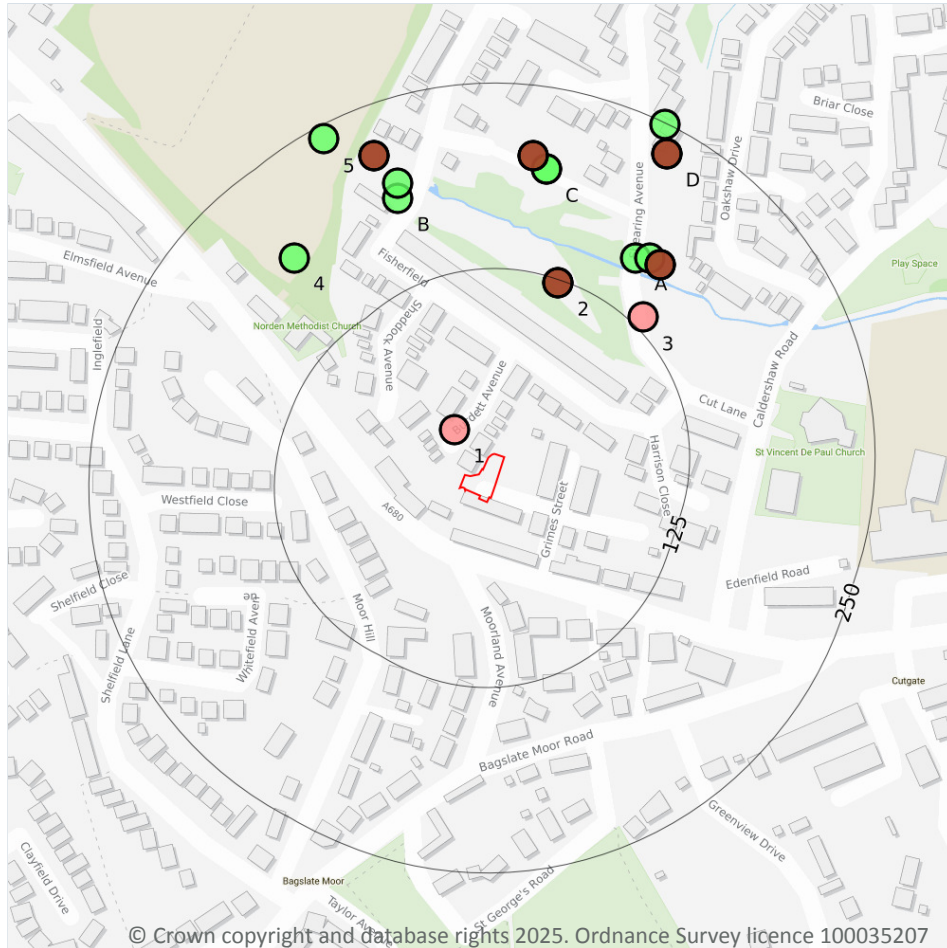
Features are displayed on the Geology 1:50,000 scale - Bedrock map on [page 84](#) >

ID	Location	Category	Description
3	41m N	ROCK	Coal seam, inferred
4	48m SW	ROCK	Coal seam, inferred
5	61m NE	LANDFORM	Approximate margin of buried (superficial deposit-filled) channel or valley
9	104m N	FOSSIL_HORIZON	Marine band
11	241m NE	FAULT	Fault, inferred
13	245m NE	FOSSIL_HORIZON	Marine band
16	265m S	FOSSIL_HORIZON	Marine band
19	401m E	FAULT	Fault, inferred
21	466m E	ROCK	Coal seam, inferred
23	495m N	LANDFORM	Approximate margin of buried (superficial deposit-filled) channel or valley

This data is sourced from the British Geological Survey.



16 Boreholes



- Site Outline**
- Search buffers in metres (m)**
- Confidential
 - 0 - 10m
 - 10 - 30m
 - 30m+
 - Unknown

16.1 BGS Boreholes

Records within 250m

16

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

Features are displayed on the Boreholes map on [page 87](#) >

ID	Location	Grid reference	Name	Length	Confidential	Web link
1	30m NW	386828 414134	CALDERSHAW ESTATE 9	36.57	N	29758 ↗
2	123m N	386898 414233	HOUSING DEVELOPMENT FOR MCLEAN HOMES LTD. CALDERSHAW, ROCHDALE TP15.	-1.0	N	17913192 ↗

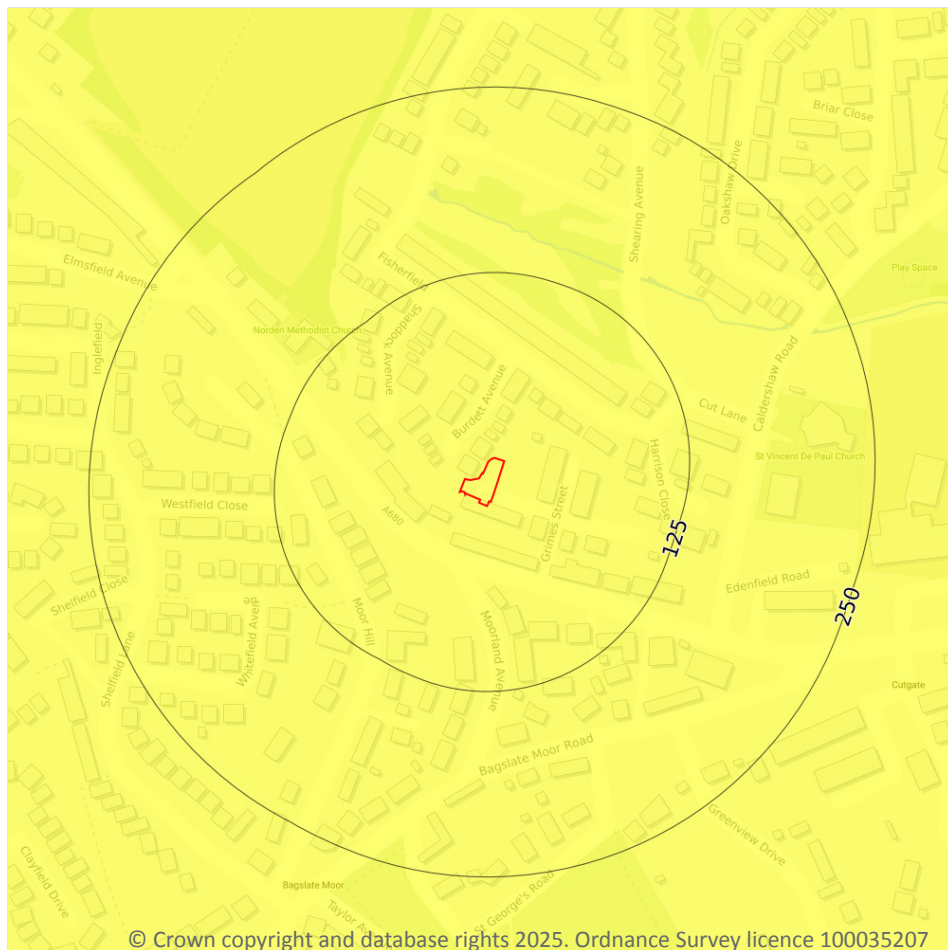


ID	Location	Grid reference	Name	Length	Confidential	Web link
3	133m NE	386955 414210	SAMUEL HEAP 2	152.4	N	29759 ↗
A	161m NE	386950 414250	HOUSING DEVELOPMENT FOR MCLEAN HOMES LTD. CALDERSHAW, ROCHDALE 5.	12.5	N	17913177 ↗
A	167m NE	386960 414250	CALDERSHAW ROCHDALE BH5	12.5	N	30308 ↗
A	167m NE	386967 414245	HOUSING DEVELOPMENT FOR MCLEAN HOMES LTD. CALDERSHAW, ROCHDALE TP14.	-1.0	N	17913191 ↗
B	184m N	386790 414290	HOUSING DEVELOPMENT FOR MCLEAN HOMES LTD. CALDERSHAW, ROCHDALE 1.	11.8	N	17913173 ↗
4	186m NW	386720 414250	NORDEN PRIMARY SCHOOL BH1	10.2	N	30186 ↗
B	193m N	386790 414300	CALDERSHAW ROCHDALE BH1	11.8	N	30304 ↗
C	195m N	386890 414310	CALDERSHAW ROCHDALE BH3	18.5	N	30306 ↗
C	195m N	386890 414310	HOUSING DEVELOPMENT FOR MCLEAN HOMES LTD. CALDERSHAW, ROCHDALE 3.	18.5	N	17913175 ↗
C	203m N	386881 414319	HOUSING DEVELOPMENT FOR MCLEAN HOMES LTD. CALDERSHAW, ROCHDALE TP12.	-1.0	N	17913189 ↗
B	217m N	386774 414319	HOUSING DEVELOPMENT FOR MCLEAN HOMES LTD. CALDERSHAW, ROCHDALE TP11.	-1.0	N	17913188 ↗
D	232m NE	386971 414320	HOUSING DEVELOPMENT FOR MCLEAN HOMES LTD. CALDERSHAW, ROCHDALE TP13.	-1.0	N	17913190 ↗
5	241m NW	386740 414330	CALDERSHAW ROCHDALE BH4	20.0	N	30307 ↗
D	249m NE	386970 414340	HOUSING DEVELOPMENT FOR MCLEAN HOMES LTD. CALDERSHAW, ROCHDALE 4.	20.0	N	17913176 ↗

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

1

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

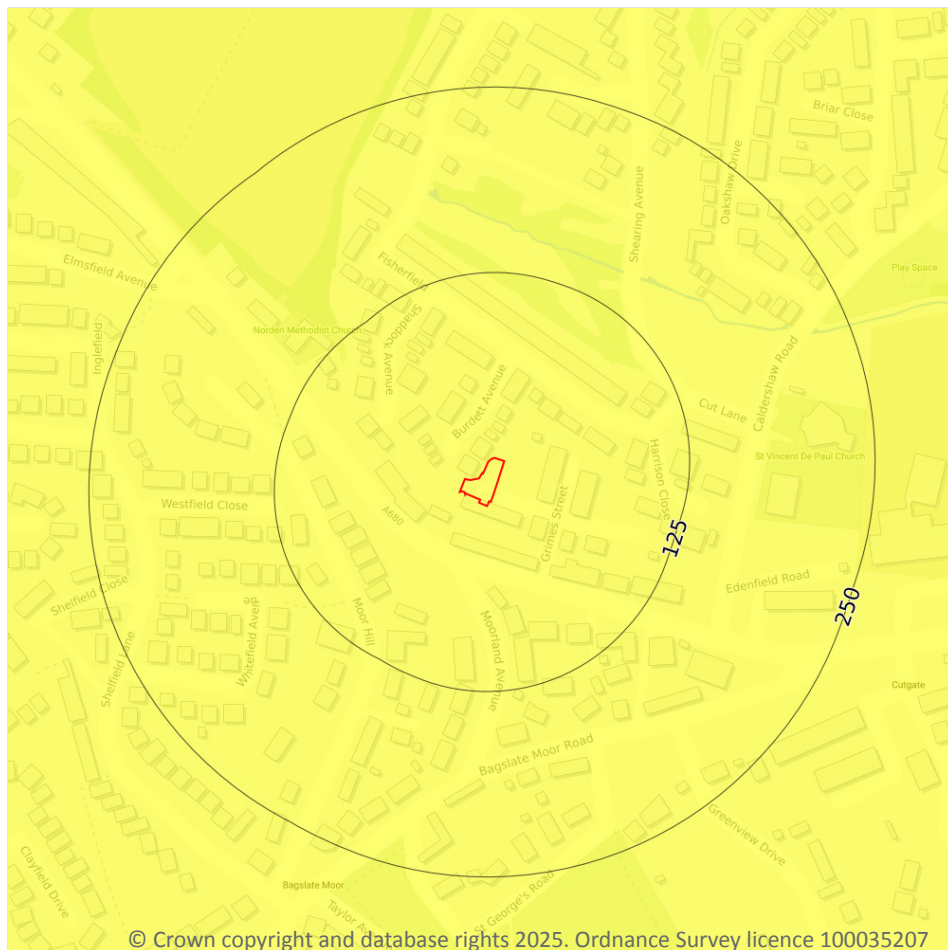
Features are displayed on the Natural ground subsidence - Shrink swell clays map on [page 89 >](#)

Location	Hazard rating	Details
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

1

The potential hazard presented by rocks that can contain loosely-packed sandy layers that can become fluidised by water flowing through them. Such sands can 'run', removing support from overlying buildings and causing potential damage.

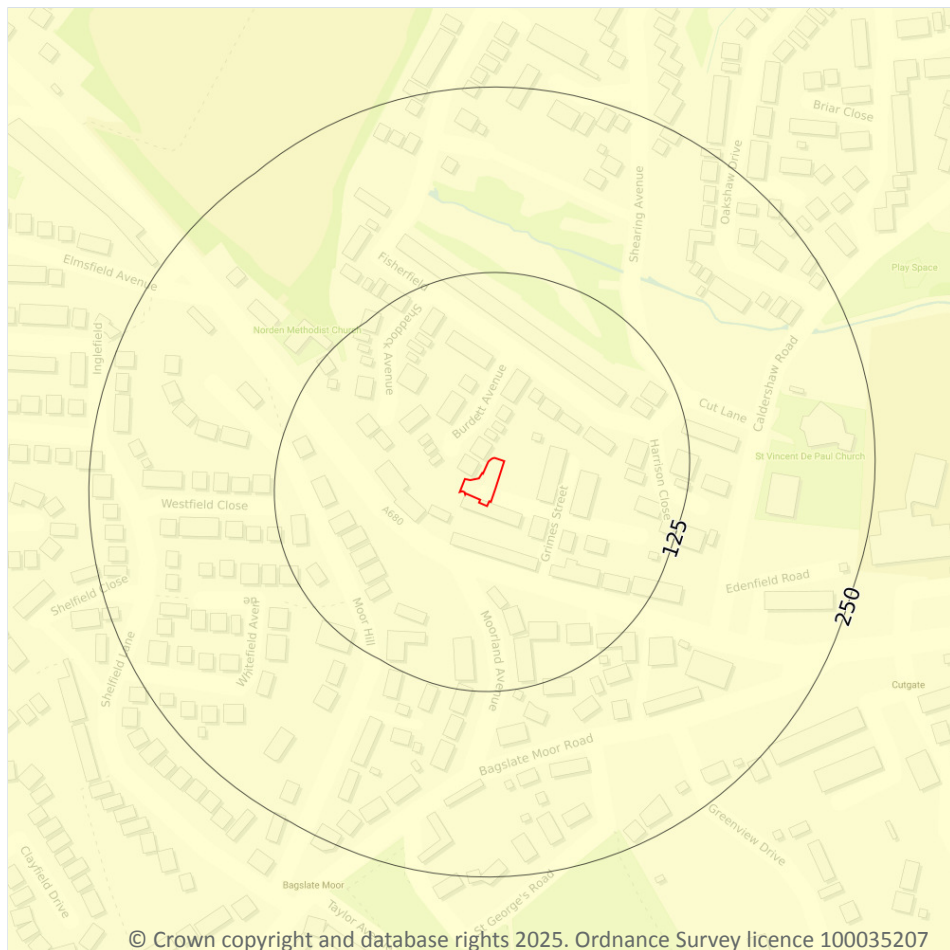
Features are displayed on the Natural ground subsidence - Running sands map on [page 90 >](#)

Location	Hazard rating	Details
On site	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

1

The potential hazard presented by types of ground that may contain layers of very soft materials like clay or peat and may compress if loaded by overlying structures, or if the groundwater level changes, potentially resulting in depression of the ground and disturbance of foundations.

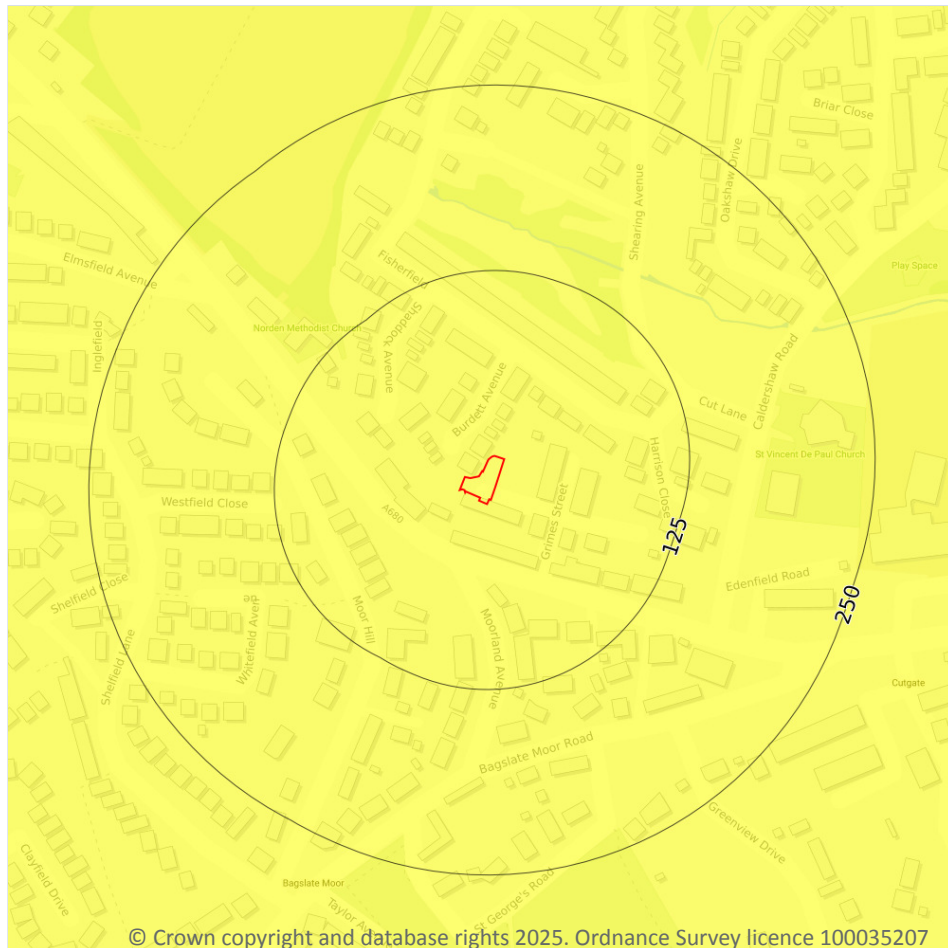
Features are displayed on the Natural ground subsidence - Compressible deposits map on [page 91](#) >

Location	Hazard rating	Details
On site	Negligible	Compressible strata are not thought to occur.

This data is sourced from the British Geological Survey.



Natural ground subsidence - Collapsible deposits



- Site Outline**
- Search buffers in metres (m)**
- ☐ No data
 - ☐ Negligible
 - ☐ Very low
 - ☐ Low
 - ☐ Moderate
 - ☐ High

17.4 Collapsible deposits

Records within 50m

1

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

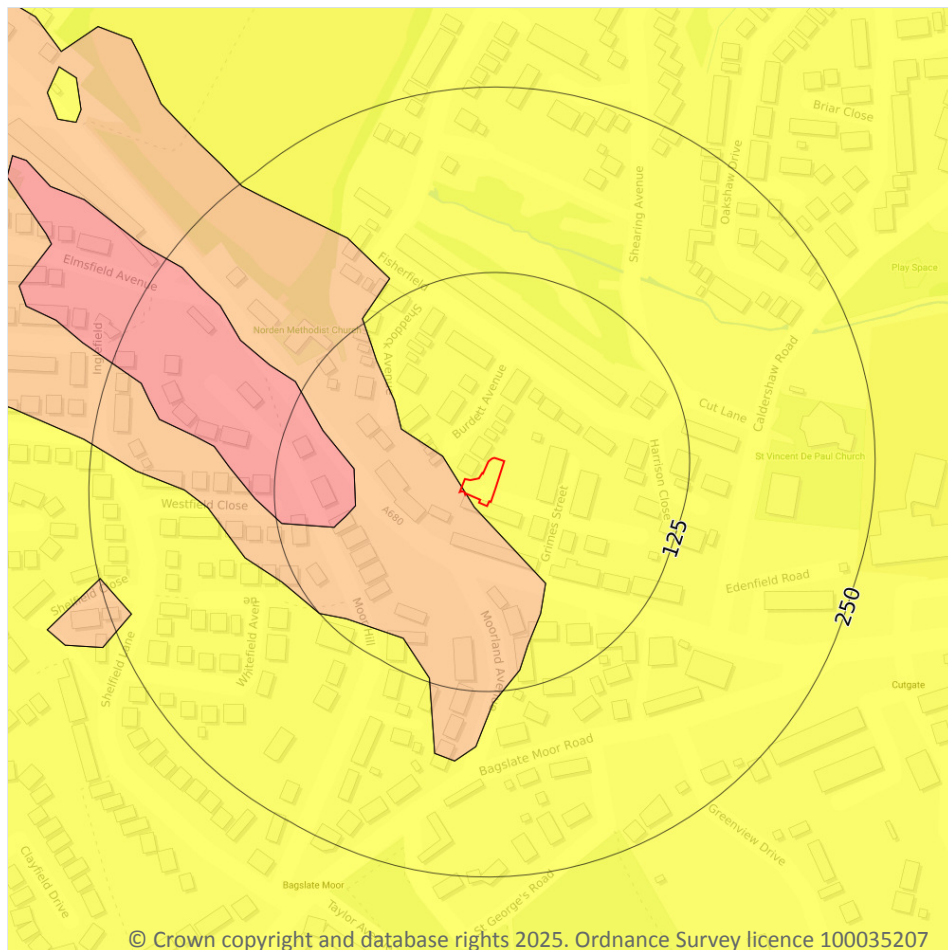
Features are displayed on the Natural ground subsidence - Collapsible deposits map on [page 92](#) >

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

2

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 93](#) >

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

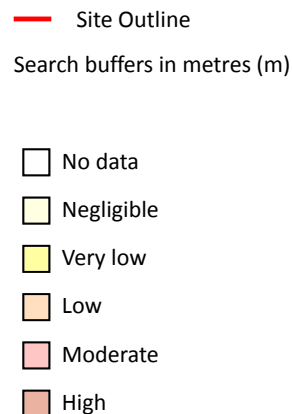
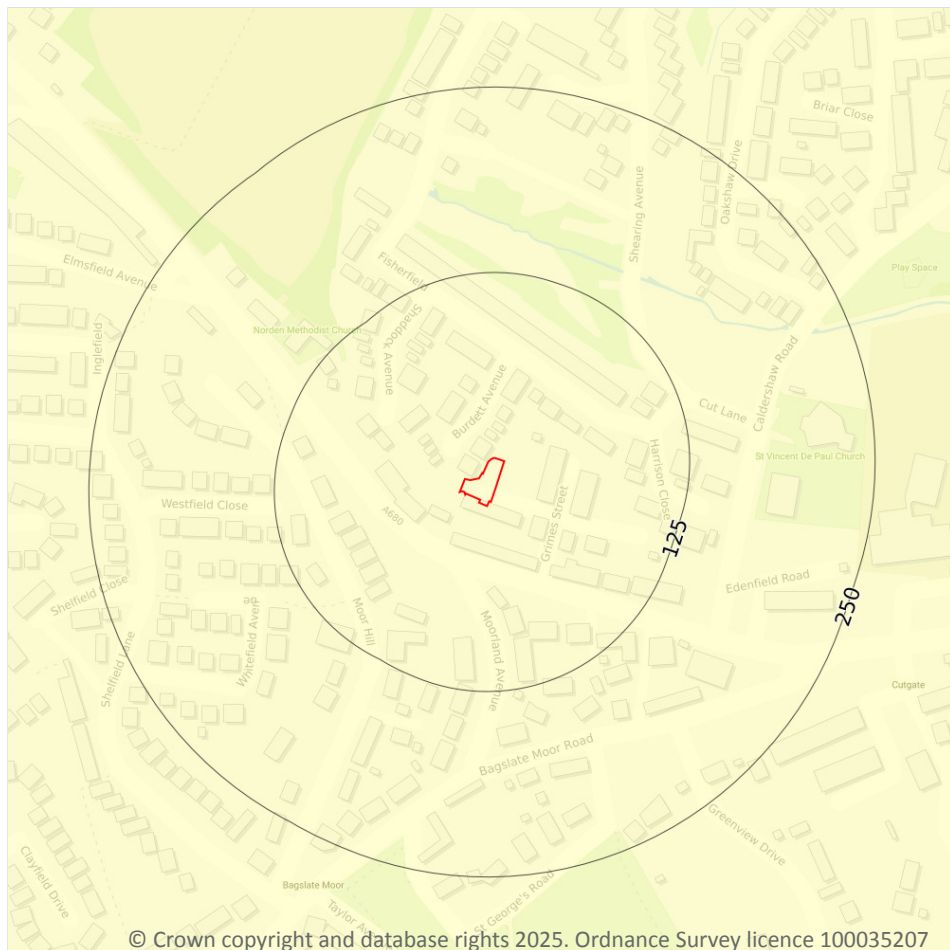


Location	Hazard rating	Details
On site	Low	Slope instability problems may be present or anticipated. Site investigation should consider specifically the slope stability of the site.

This data is sourced from the British Geological Survey.



Natural ground subsidence - Ground dissolution of soluble rocks



17.6 Ground dissolution of soluble rocks

Records within 50m

1

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

Features are displayed on the Natural ground subsidence - Ground dissolution of soluble rocks map on [page 95](#)

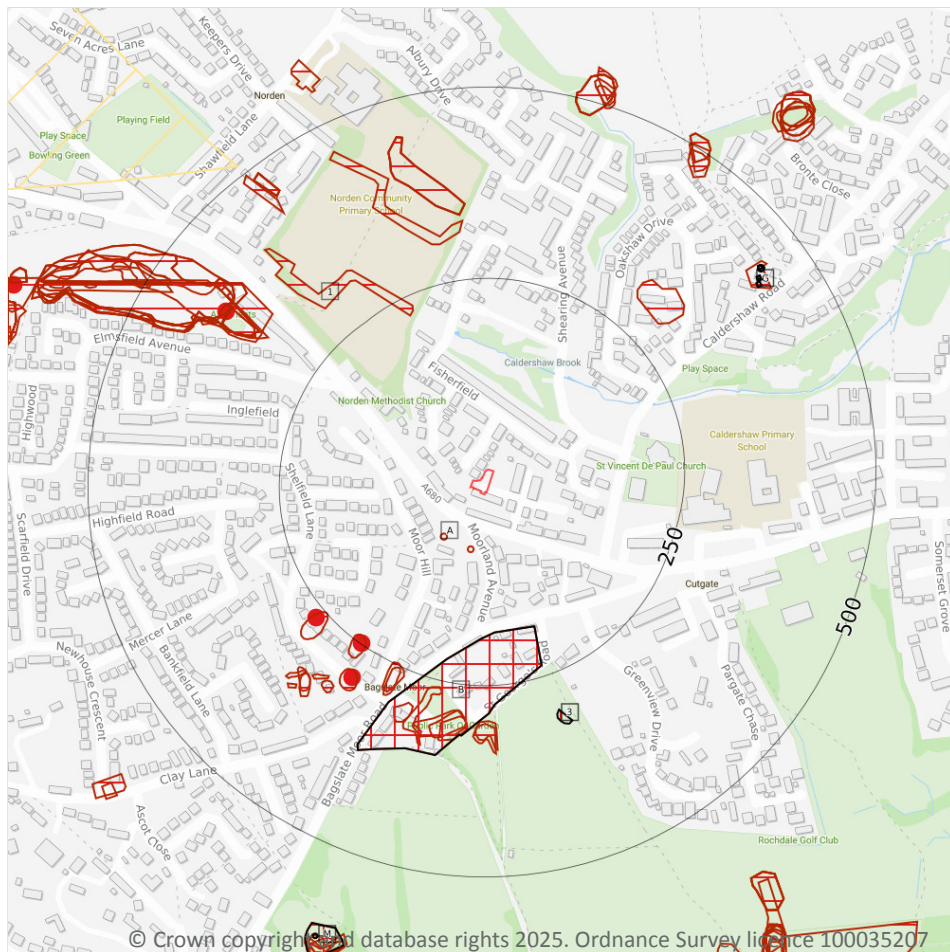
Location	Hazard rating	Details
On site	Negligible	Soluble rocks are either not thought to be present within the ground, or not prone to dissolution. Dissolution features are unlikely to be present.



This data is sourced from the British Geological Survey.



18 Mining and ground workings



- Site Outline
- Search buffers in metres (m)
- BritPits
- ▤ Surface ground workings
- ▥ Underground workings
- ▦ Underground mining extents
- ▧ Historical mineral planning areas
- ▨ TCA non-coal mining
- Non Coal Mining
- ▩ Sporadic underground mining of restricted extent possible
- Localised small scale underground mining possible
- Small scale mining possible
- ▬ Underground mining known or likely within or in close proximity
- ▭ Underground mining known within or in very close proximity

18.1 BritPits

Records within 500m

4

BritPits (an abbreviation of British Pits) is a database maintained by the British Geological Survey of currently active and closed surface and underground mineral workings. Details of major mineral handling sites, such as wharfs and rail depots are also held in the database.

Features are displayed on the Mining and ground workings map on [page 97 >](#)



ID	Location	Details	Description
C	249m SW	Name: Shelffield Address: Bagslate Moor, ROCHDALE, Lancashire Commodity: Sandstone Status: Ceased	Type: A surface mineral working. It may be termed Quarry, Delf, Delph, Gravel Pit, Sand Pit, Sand and Gravel Pit, Clay Pit, Pit, Opencast Coal Site or Surface Mine. It may be mapped as Worked Ground or Worked and Made Ground on BGS mapping. Status description: Site which has ceased to extract minerals. May be considered as 'Closed' by operator. May be considered to have 'Active', 'Dormant' or 'Expired' planning permissions by the Mineral Planning Authority.
D	264m SW	Name: Shelffield Address: Bagslate Moor, ROCHDALE, Lancashire Commodity: Sandstone Status: Ceased	Type: A surface mineral working. It may be termed Quarry, Delf, Delph, Gravel Pit, Sand Pit, Sand and Gravel Pit, Clay Pit, Pit, Opencast Coal Site or Surface Mine. It may be mapped as Worked Ground or Worked and Made Ground on BGS mapping. Status description: Site which has ceased to extract minerals. May be considered as 'Closed' by operator. May be considered to have 'Active', 'Dormant' or 'Expired' planning permissions by the Mineral Planning Authority.
C	293m SW	Name: Shelffield Address: Bagslate Moor, ROCHDALE, Lancashire Commodity: Sandstone Status: Ceased	Type: A surface mineral working. It may be termed Quarry, Delf, Delph, Gravel Pit, Sand Pit, Sand and Gravel Pit, Clay Pit, Pit, Opencast Coal Site or Surface Mine. It may be mapped as Worked Ground or Worked and Made Ground on BGS mapping. Status description: Site which has ceased to extract minerals. May be considered as 'Closed' by operator. May be considered to have 'Active', 'Dormant' or 'Expired' planning permissions by the Mineral Planning Authority.
F	391m NW	Name: Bagslate Quarry Address: Bagslate Moor, ROCHDALE, Lancashire Commodity: Sandstone Status: Ceased	Type: A surface mineral working. It may be termed Quarry, Delf, Delph, Gravel Pit, Sand Pit, Sand and Gravel Pit, Clay Pit, Pit, Opencast Coal Site or Surface Mine. It may be mapped as Worked Ground or Worked and Made Ground on BGS mapping. Status description: Site which has ceased to extract minerals. May be considered as 'Closed' by operator. May be considered to have 'Active', 'Dormant' or 'Expired' planning permissions by the Mineral Planning Authority.

This data is sourced from the British Geological Survey.



18.2 Surface ground workings

Records within 250m

7

Historical land uses identified from Ordnance Survey mapping that involved ground excavation at the surface. These features may or may not have been subsequently backfilled.

Features are displayed on the Mining and ground workings map on [page 97 >](#)

ID	Location	Land Use	Year of mapping	Mapping scale
A	69m SW	Coal Pits	1851	1:10560
A	70m S	Coal Pits	1851	1:10560
B	180m S	Colliery	1890	1:10560
1	225m NW	Unspecified Ground Workings	1992	1:10000
C	240m SW	Sandstone Quarries	1851	1:10560
B	247m SW	Refuse Heap	1890	1:10560
D	250m SW	Sandstone Quarries	1851	1:10560

This data is sourced from Ordnance Survey/Groundsure.

18.3 Underground workings

Records within 1000m

34

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

Features are displayed on the Mining and ground workings map on [page 97 >](#)

ID	Location	Land Use	Year of mapping	Mapping scale
B	180m S	Colliery	1890	1:10560
3	298m S	Unspecified Old Shaft	1890	1:10560
G	421m NE	Unspecified Old Shaft	1928	1:10560
G	426m NE	Unspecified Old Shaft	1938	1:10560
G	427m NE	Unspecified Old Shaft	1909	1:10560
G	435m NE	Unspecified Disused Shaft	1987	1:10000
G	435m NE	Unspecified Disused Shaft	1975	1:10000
G	435m NE	Unspecified Disused Shaft	1968	1:10560



ID	Location	Land Use	Year of mapping	Mapping scale
G	436m NE	Unspecified Old Shaft	1956	1:10560
M	599m S	Old Coal Pit	1890	1:10560
M	615m S	Old Coal Shaft	1908	1:10560
-	799m NE	Unspecified Old Shaft	1909	1:10560
-	861m NW	Unspecified Old Shaft	1890	1:10560
-	861m NW	Old Air Shaft	1938	1:10560
-	861m NW	Old Air Shaft	1928	1:10560
-	862m NW	Old Air Shaft	1909	1:10560
-	870m NW	Unspecified Disused Shaft	1992	1:10000
-	870m NW	Unspecified Disused Shaft	1987	1:10000
-	870m NW	Unspecified Disused Shaft	1975	1:10000
-	870m NW	Unspecified Disused Shaft	1968	1:10560
-	870m NW	Old Air Shaft	1956	1:10560
-	885m NW	Unspecified Old Shaft	1928	1:10560
-	886m NW	Unspecified Old Shafts	1890	1:10560
-	888m NW	Unspecified Old Shaft	1938	1:10560
-	889m NW	Unspecified Old Shaft	1909	1:10560
-	896m NW	Unspecified Disused Shaft	1992	1:10000
-	896m NW	Unspecified Disused Shaft	1987	1:10000
-	896m NW	Unspecified Disused Shaft	1975	1:10000
-	897m NW	Unspecified Old Shaft	1956	1:10560
-	897m NW	Unspecified Disused Shaft	1968	1:10560
-	908m NW	Colliery	1890	1:10560
-	927m NW	Unspecified Old Shafts	1890	1:10560
-	934m N	Unspecified Old Shafts	1890	1:10560
-	969m SE	Old Colliery	1890	1:10560

This is data is sourced from Ordnance Survey/Groundsure.



18.4 Underground mining extents

Records within 500m

0

This data identifies underground mine workings that could present a potential risk, including adits and seam workings. These features have been identified from BGS Geological mapping and mine plans sourced from the BGS and various collections and sources.

This data is sourced from Groundsure.

18.5 Historical Mineral Planning Areas

Records within 500m

0

Boundaries of mineral planning permissions for England and Wales. This data was collated between the 1940s (and retrospectively to the 1930s) and the mid 1980s. The data includes permitted, withdrawn and refused permissions.

This data is sourced from the British Geological Survey.

18.6 Non-coal mining

Records within 1000m

1

The potential for historical non-coal mining to have affected an area. The assessment is drawn from expert knowledge and literature in addition to the digital geological map of Britain. Mineral commodities may be divided into seven general categories - vein minerals, chalk, oil shale, building stone, bedded ores, evaporites and 'other' commodities (including ball clay, jet, black marble, graphite and chert).

Features are displayed on the Mining and ground workings map on [page 97 >](#)

ID	Location	Name	Commodity	Class	Likelihood
4	513m NW	Not available	Vein Mineral	A	Underground mine workings are uncommon, although the geology is similar to that worked elsewhere. Potential for difficult ground conditions are unlikely and are at a level where they need not be considered.

This data is sourced from the British Geological Survey.

18.7 JPB mining areas

Records on site

0

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

This data is sourced from Johnson Poole and Bloomer.



18.8 The Coal Authority non-coal mining

Records within 500m**0**

This data provides an indication of the potential zone of influence of recorded underground non-coal mining workings. Any and all analysis and interpretation of Coal Authority Data in this report is made by Groundsure, and is in no way supported, endorsed or authorised by the Coal Authority. The use of the data is restricted to the terms and provisions contained in this report. Data reproduced in this report may be the copyright of the Coal Authority and permission should be sought from Groundsure prior to any re-use.

This data is sourced from The Coal Authority.

18.9 Researched mining

Records within 500m**2**

This data indicates areas of potential mining identified from alternative or archival sources, including; BGS Geological paper maps, Lidar data, aerial photographs (from World War II onwards), archaeological data services, websites, Tithe maps, and various text/plans from collected books and reports. Some of this data is approximate and Groundsure have interpreted the resultant risk area and, where possible, specific areas of risk have been captured.

Location	Mineral type
219m NW	Stone
332m NW	Stone

This data is sourced from Groundsure.

18.10 Mining record office plans

Records within 500m**0**

This dataset is representative of Mining Record Office and/or plan extents held by Groundsure and should be considered approximate. Where possible, plans have been located and any specific areas of risk they depict have been captured.

This data is sourced from Groundsure.

18.11 BGS mine plans

Records within 500m**0**

This dataset is representative of BGS mine plans held by Groundsure and should be considered approximate. Where possible, plans have been located and any specific areas of risk they depict have been captured.

This data is sourced from Groundsure.



18.12 Coal mining

Records on site	1
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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.

18.13 Brine areas

Records on site	0
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The Cheshire Brine Compensation District indicates areas that may be affected by salt and brine extraction in Cheshire and where compensation would be available where damage from this mining has occurred. Damage from salt and brine mining can still occur outside this district, but no compensation will be available.

This data is sourced from the Cheshire Brine Subsidence Compensation Board.

18.14 Gypsum areas

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

Generalised areas that may be affected by gypsum extraction.

This data is sourced from British Gypsum.

18.15 Tin mining

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

Generalised areas that may be affected by historical tin mining.

This data is sourced from Groundsure.

18.16 Clay mining

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

Generalised areas that may be affected by kaolin and ball clay extraction.

This data is sourced from the Kaolin and Ball Clay Association (UK).



19 Ground cavities and sinkholes

19.1 Natural cavities

Records within 500m

0

Industry recognised national database of natural cavities. Sinkholes and caves are formed by the dissolution of soluble rock, such as chalk and limestone, gulls and fissures by cambering. Ground instability can result from movement of loose material contained within these cavities, often triggered by water.

This data is sourced from Stantec UK Ltd.

19.2 Mining cavities

Records within 1000m

0

Industry recognised national database of mining cavities. Degraded mines may result in hazardous subsidence (crown holes). Climatic conditions and water escape can also trigger subsidence over mine entrances and workings.

This data is sourced from Stantec UK Ltd.

19.3 Reported recent incidents

Records within 500m

0

This data identifies sinkhole information gathered from media reports and Groundsure's own records. This data goes back to 2014 and includes relative accuracy ratings for each event and links to the original data sources. The data is updated on a regular basis and should not be considered a comprehensive catalogue of all sinkhole events. The absence of data in this database does not mean a sinkhole definitely has not occurred during this time.

This data is sourced from Groundsure.

19.4 Historical incidents

Records within 500m

0

This dataset comprises an extract of 1:10,560, 1:10,000, 1:2,500 and 1:1,250 scale historical Ordnance Survey maps held by Groundsure, dating back to the 1840s. It shows shakeholes, deneholes and other 'holes' as noted on these maps. Dene holes are medieval chalk extraction pits, usually comprising a narrow shaft with a number of chambers at the base of the shaft. Shakeholes are an alternative name for suffusion sinkholes, most commonly found in the limestone landscapes of North Yorkshire but also extensively noted around the Brecon Beacons National Park.

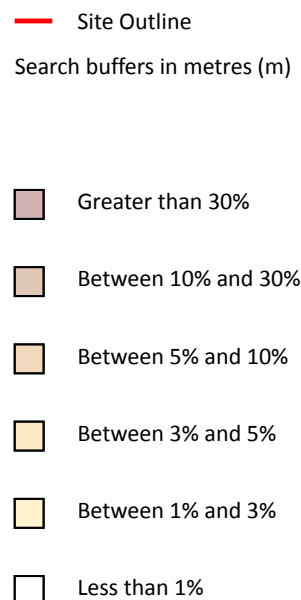
Not all 'holes' noted on Ordnance Survey mapping will necessarily be present within this dataset.



This data is sourced from Groundsure.



20 Radon



20.1 Radon

Records on site

1

The Radon Potential data classifies areas based on their likelihood of a property having a radon level at or above the Action Level in Great Britain. The dataset is intended for use at 1:50,000 scale and was derived from both geological assessments and indoor radon measurements (more than 560,000 records). A minimum 50m buffer should be considered when searching the maps, as the smallest detectable feature at this scale is 50m. The findings of this section should supersede any estimations derived from the Indicative Atlas of Radon in Great Britain (1:100,000 scale).

Features are displayed on the Radon map on [page 106](#) >

Location	Estimated properties affected	Radon Protection Measures required
On site	Less than 1%	None



This data is sourced from the British Geological Survey and UK Health Security Agency.



21 Soil chemistry

21.1 BGS Estimated Background Soil Chemistry

Records within 50m

2

The estimated values provide the likely background concentration of the potentially harmful elements Arsenic, Cadmium, Chromium, Lead and Nickel in topsoil. The values are estimated primarily from rural topsoil data collected at a sample density of approximately 1 per 2 km². In areas where rural soil samples are not available, estimation is based on stream sediment data collected from small streams at a sampling density of 1 per 2.5 km²; this is the case for most of Scotland, Wales and southern England. The stream sediment data are converted to soil-equivalent concentrations prior to the estimation.

Location	Arsenic	Bioaccessible Arsenic	Lead	Bioaccessible Lead	Cadmium	Chromium	Nickel
On site	15 mg/kg	No data	100 - 200 mg/kg	60 - 120 mg/kg	2.2 - 3.0 mg/kg	60 - 90 mg/kg	15 - 30 mg/kg
26m N	15 - 25 mg/kg	No data	100 - 200 mg/kg	60 - 120 mg/kg	2.2 - 3.0 mg/kg	60 - 90 mg/kg	30 - 45 mg/kg

This data is sourced from the British Geological Survey.

21.2 BGS Estimated Urban Soil Chemistry

Records within 50m

0

Estimated topsoil chemistry of Arsenic, Cadmium, Chromium, Copper, Nickel, Lead, Tin and Zinc and bioaccessible Arsenic and Lead in 23 urban centres across Great Britain. These estimates are derived from interpolation of the measured urban topsoil data referred to above and provide information across each city between the measured sample locations (4 per km²).

This data is sourced from the British Geological Survey.

21.3 BGS Measured Urban Soil Chemistry

Records within 50m

0

The locations and measured total concentrations (mg/kg) of Arsenic, Cadmium, Chromium, Copper, Nickel, Lead, Tin and Zinc in urban topsoil samples from 23 urban centres across Great Britain. These are collected at a sample density of 4 per km².

This data is sourced from the British Geological Survey.



22 Railway infrastructure and projects

22.1 Underground railways (London)

Records within 250m**0**

Details of all active London Underground lines, including approximate tunnel roof depth and operational hours.

This data is sourced from publicly available information by Groundsure.

22.2 Underground railways (Non-London)

Records within 250m**0**

Details of the Merseyrail system, the Tyne and Wear Metro and the Glasgow Subway. Not all parts of all systems are located underground. The data contains location information only and does not include a depth assessment.

This data is sourced from publicly available information by Groundsure.

22.3 Railway tunnels

Records within 250m**0**

Railway tunnels taken from contemporary Ordnance Survey mapping.

This data is sourced from the Ordnance Survey.

22.4 Historical railway and tunnel features

Records within 250m**0**

Railways and tunnels digitised from historical Ordnance Survey mapping as scales of 1:1,250, 1:2,500, 1:10,000 and 1:10,560.

This data is sourced from Ordnance Survey/Groundsure.

22.5 Royal Mail tunnels

Records within 250m**0**

The Post Office Railway, otherwise known as the Mail Rail, is an underground railway running through Central London from Paddington Head District Sorting Office to Whitechapel Eastern Head Sorting Office. The line is 10.5km long. The data includes details of the full extent of the tunnels, the depth of the tunnel, and the depth to track level.



This data is sourced from Groundsure/the Postal Museum.

22.6 Historical railways

Records within 250m

0

Former railway lines, including dismantled lines, abandoned lines, disused lines, historic railways and razed lines.

This data is sourced from OpenStreetMap.

22.7 Railways

Records within 250m

0

Currently existing railway lines, including standard railways, narrow gauge, funicular, trams and light railways.

This data is sourced from Ordnance Survey and OpenStreetMap.

22.8 Crossrail 2

Records within 500m

0

Crossrail 2 is a proposed railway linking the national rail networks in Surrey and Hertfordshire via an underground tunnel through London.

This data is sourced from publicly available information by Groundsure.

22.9 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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Appendix 3

Historical Maps

Site Details:

THE BARN, VANDYKE STREET,
ROCHDALE, OL12 7QG

Client Ref: C/4675/24/E/7155 - PO-3610
Report Ref: GS-G4S-RF6-EA4-9BW
Grid Ref: 386846, 414101

Map Name: County Series

Map date: 1890

Scale: 1:2,500

Printed at: 1:2,500



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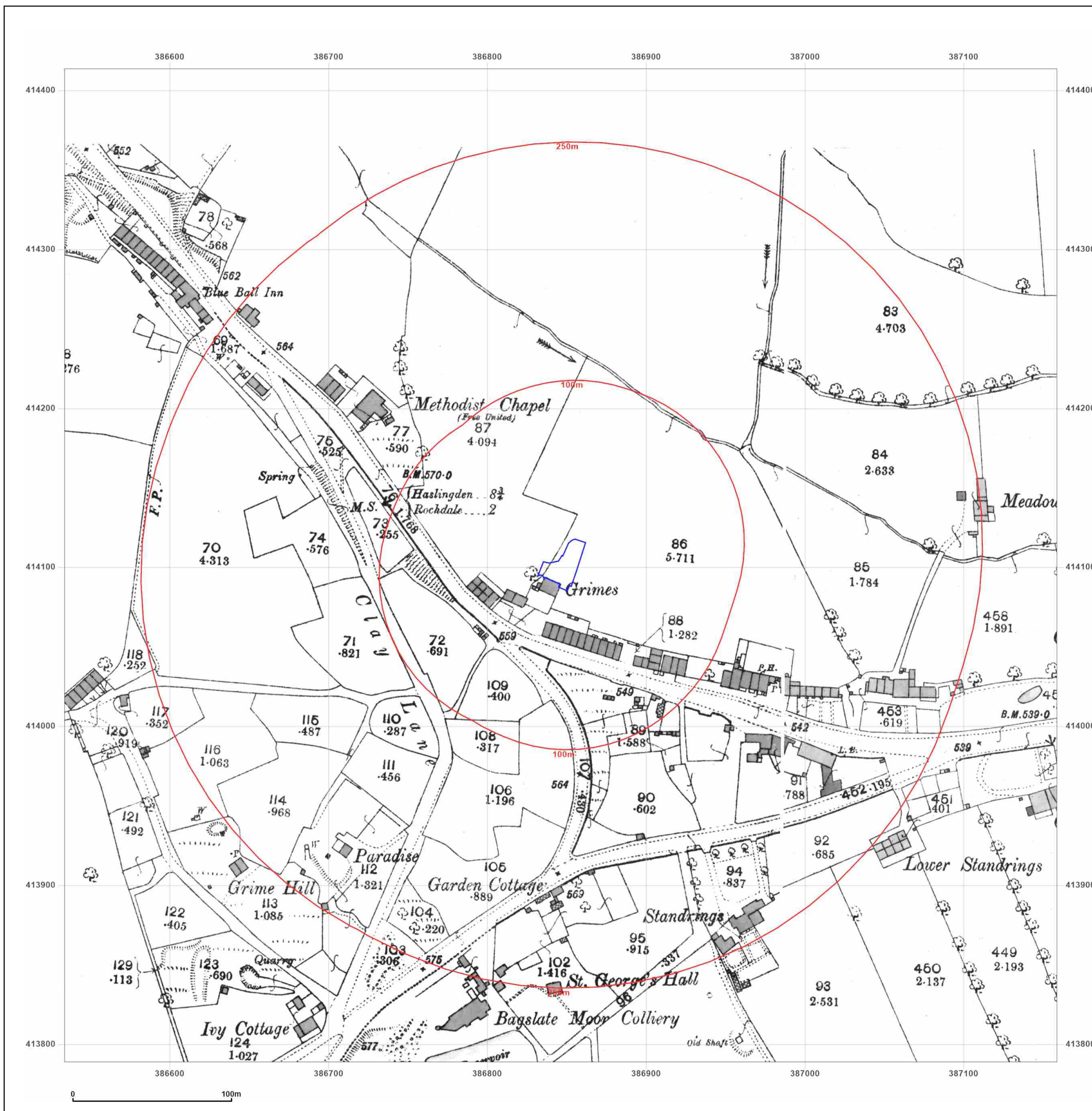


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Site Details:

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Client Ref: C/4675/24/E/7155 - PO-3610
Report Ref: GS-G4S-RF6-EA4-9BW
Grid Ref: 386846, 414101

Map Name: County Series

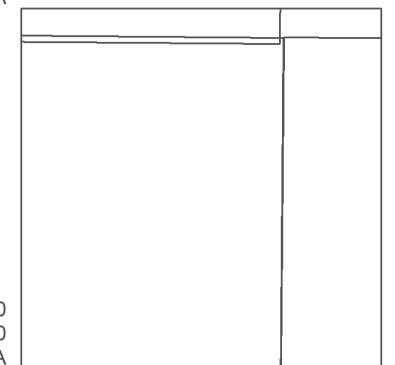
Map date: 1910

Scale: 1:2,500

Printed at: 1:2,500



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Client Ref: C/4675/24/E/7155 - PO-3610
Report Ref: GS-G4S-RF6-EA4-9BW
Grid Ref: 386846, 414101

Map Name: County Series

Map date: 1929-1930

Scale: 1:2,500

Printed at: 1:2,500



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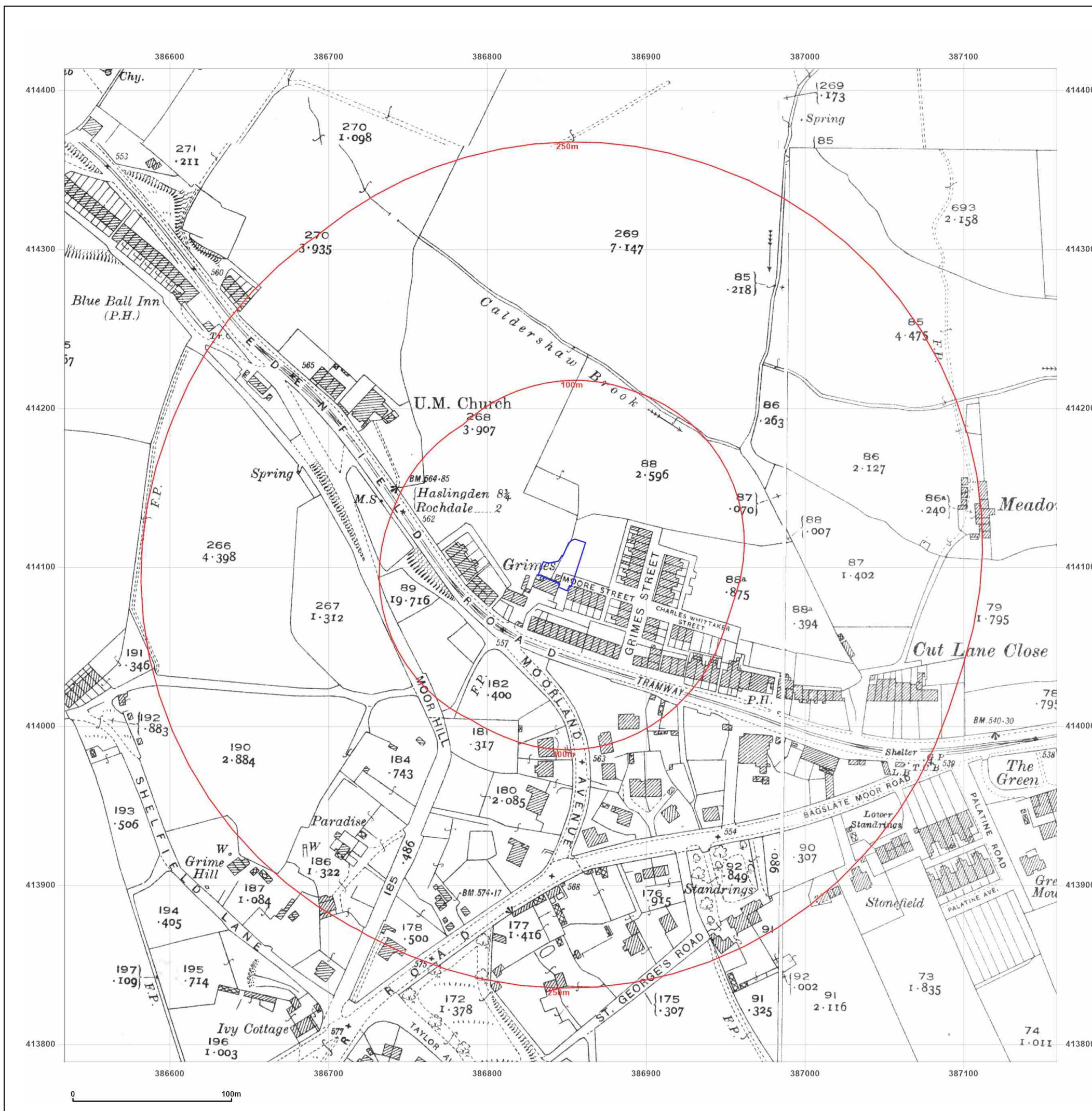


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Client Ref: C/4675/24/E/7155 - PO-3610
Report Ref: GS-G4S-RF6-EA4-9BW
Grid Ref: 386846, 414101

Map Name: National Grid

Map date: 1959

Scale: 1:1,250

Printed at: 1:2,000



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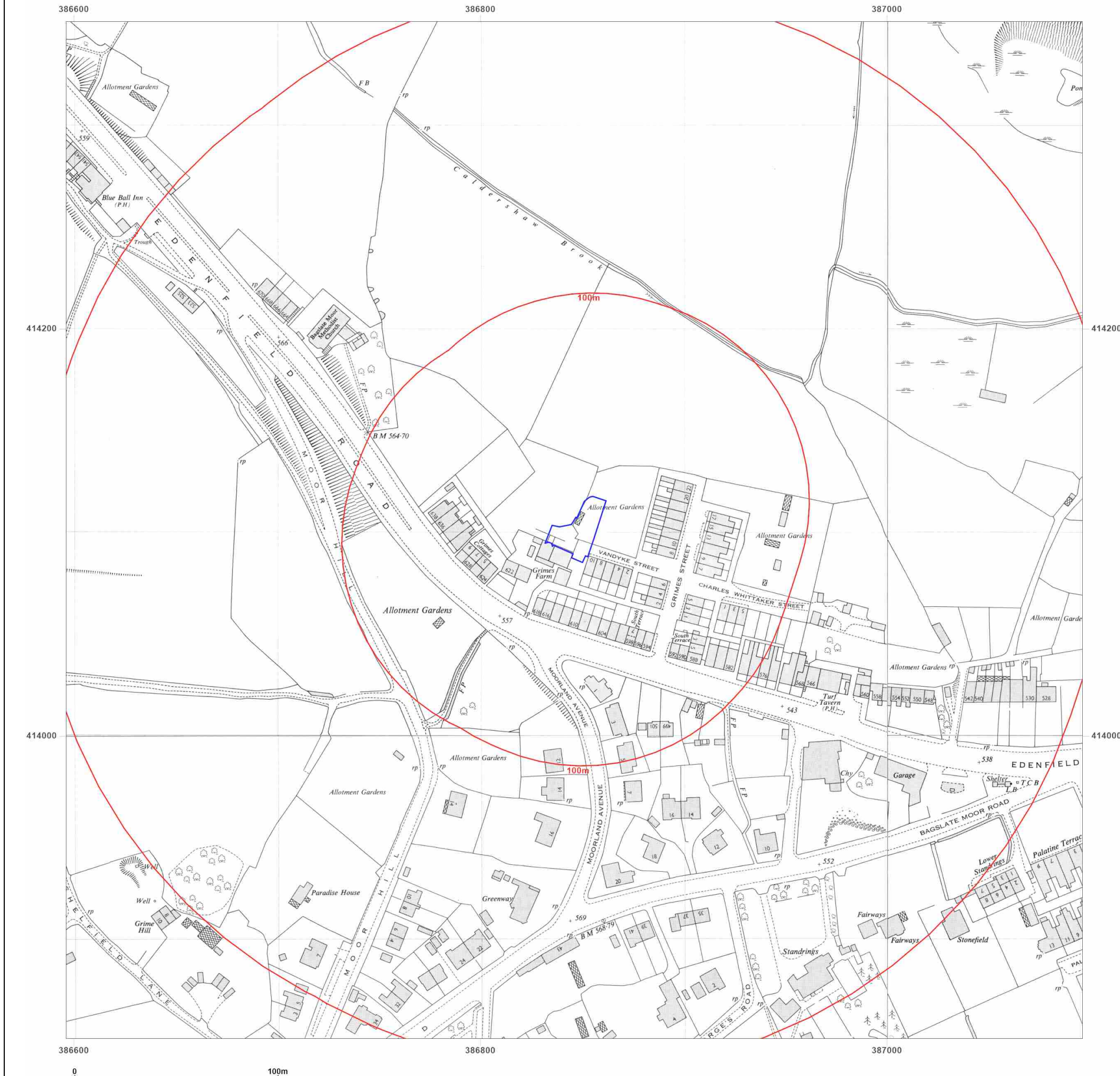


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Client Ref: C/4675/24/E/7155 - PO-3610
Report Ref: GS-G4S-RF6-EA4-9BW
Grid Ref: 386846, 414101

Map Name: National Grid

Map date: 1960-1961

Scale: 1:2,500

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Client Ref: C/4675/24/E/7155 - PO-3610
Report Ref: GS-G4S-RF6-EA4-9BW
Grid Ref: 386846, 414101

Map Name: National Grid

Map date: 1966-1971

Scale: 1:1,250

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Report Ref: GS-G4S-RF6-EA4-9BW
Grid Ref: 386846, 414101

Map Name: National Grid

Map date: 1973-1975

Scale: 1:1,250

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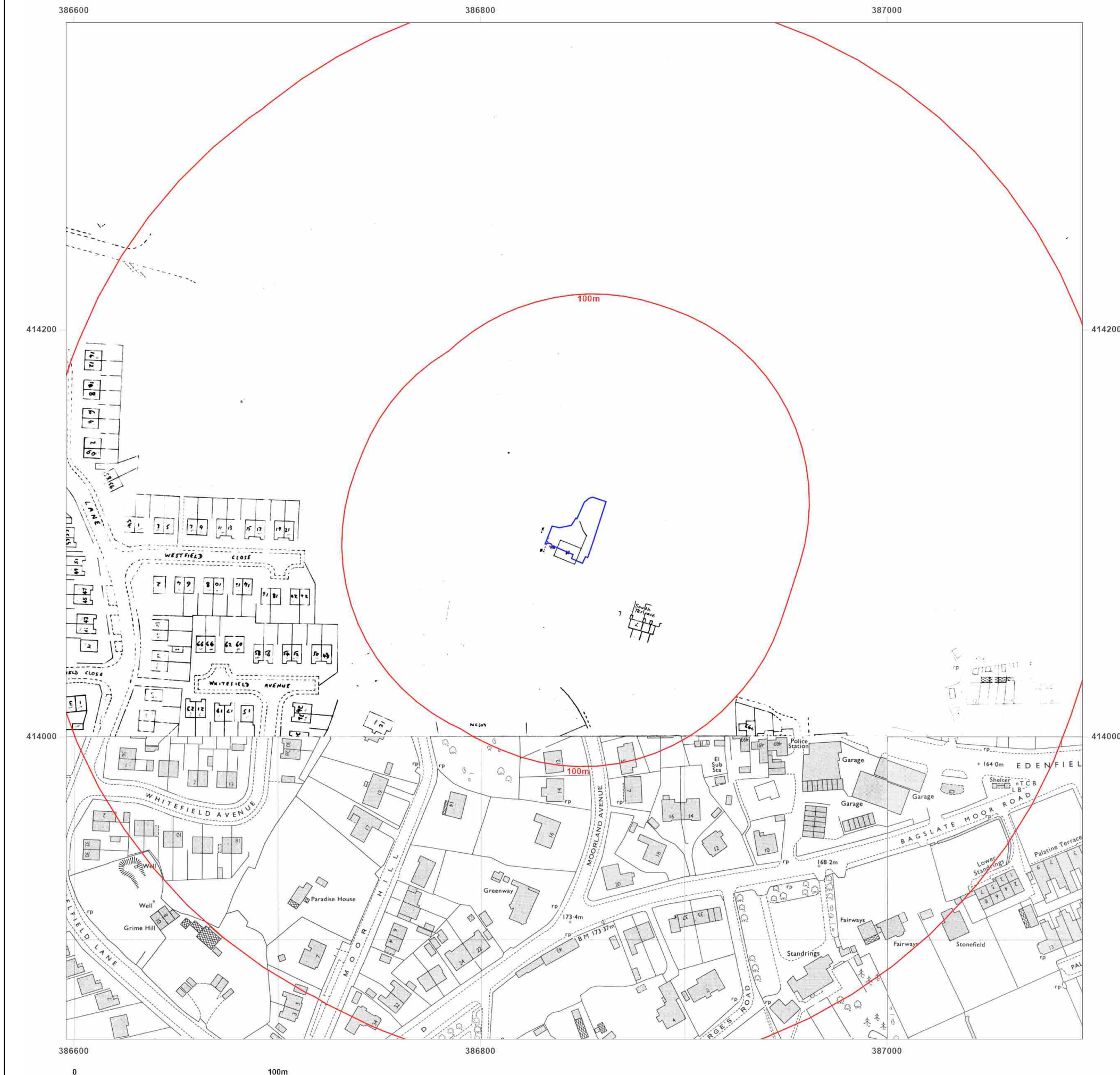


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Report Ref: GS-G4S-RF6-EA4-9BW
Grid Ref: 386846, 414101

Map Name: National Grid

Map date: 1975

Scale: 1:1,250

Printed at: 1:2,000



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Client Ref: C/4675/24/E/7155 - PO-3610
Report Ref: GS-G4S-RF6-EA4-9BW
Grid Ref: 386846, 414101

Map Name: National Grid

Map date: 1977

Scale: 1:1,250

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Client Ref: C/4675/24/E/7155 - PO-3610
Report Ref: GS-G4S-RF6-EA4-9BW
Grid Ref: 386846, 414101

Map Name: National Grid

Map date: 1987-1992

Scale: 1:1,250

Printed at: 1:2,000



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Report Ref: GS-G4S-RF6-EA4-9BW
Grid Ref: 386846, 414101

Map Name: National Grid

Map date: 1990-1992

Scale: 1:1,250

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Report Ref: GS-G4S-RF6-EA4-9BW
Grid Ref: 386846, 414101

Map Name: National Grid

Map date: 1992-1993

Scale: 1:1,250

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Client Ref: C/4675/24/E/7155 - PO-3610
Report Ref: GS-G4S-RF6-EA4-9BW
Grid Ref: 386846, 414101

Map Name: LandLine

Map date: 2003

Scale: 1:1,250

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2003



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Client Ref: C/4675/24/E/7155 - PO-3610
Report Ref: GS-G4S-RF6-EA4-9BW
Grid Ref: 386846, 414101

Map Name: County Series

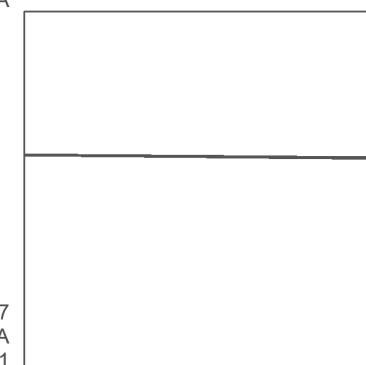
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Scale: 1:10,560

Printed at: 1:10,560



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Edition 1851
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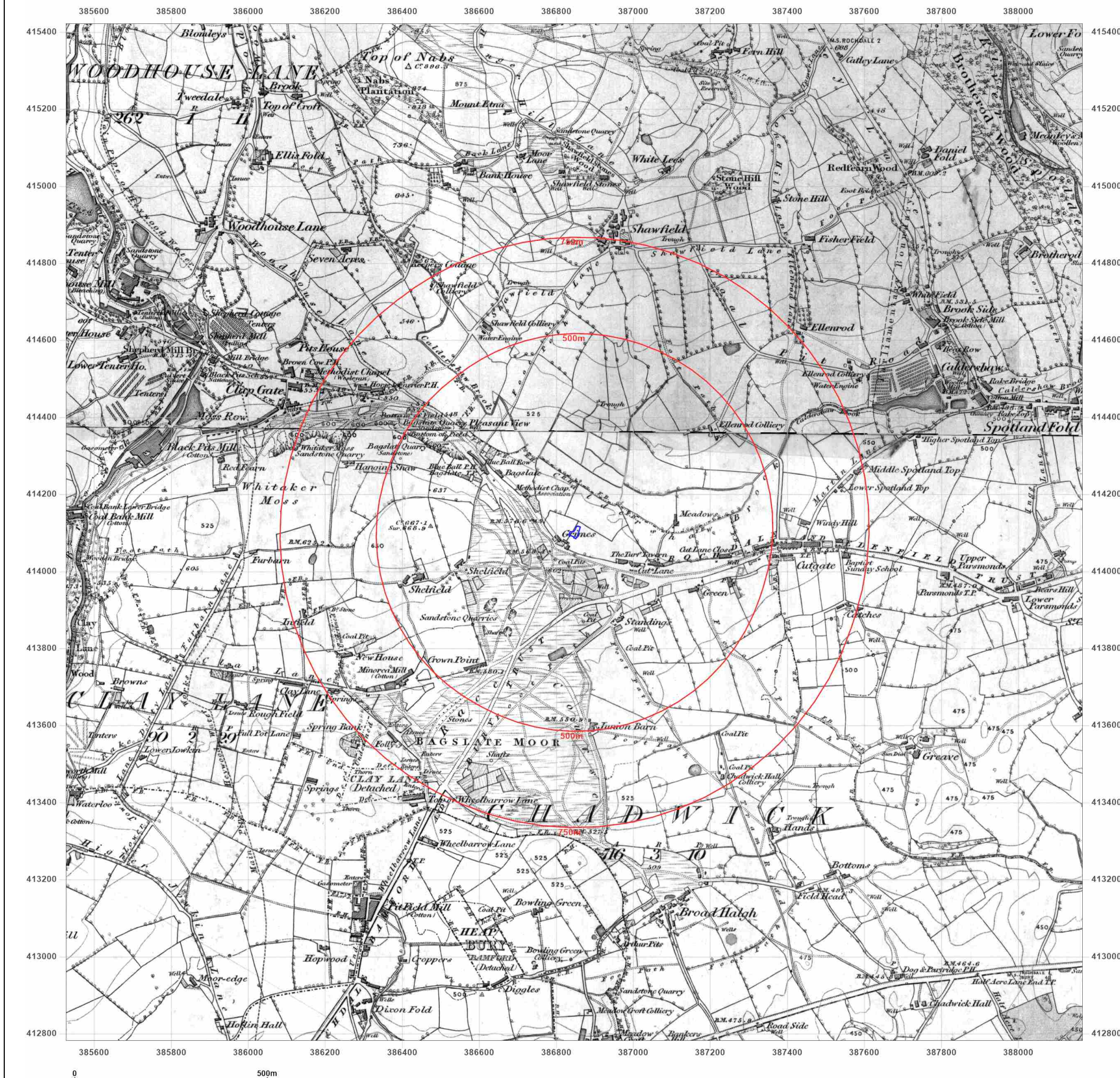


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Report Ref: GS-G4S-RF6-EA4-9BW
Grid Ref: 386846, 414101

Map Name: County Series

Map date: 1890

Scale: 1:10,560

Printed at: 1:10,560



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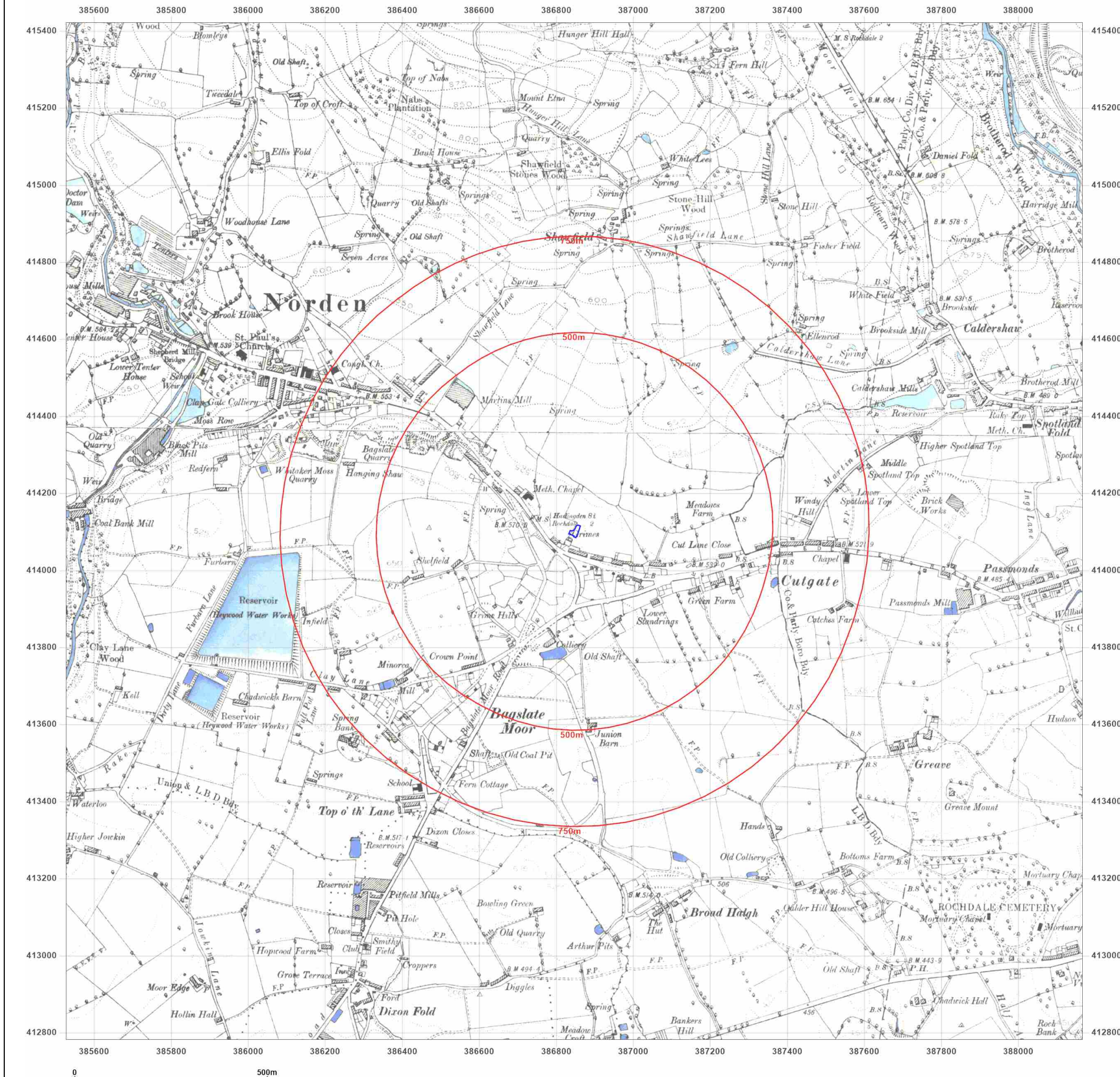


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Client Ref: C/4675/24/E/7155 - PO-3610
Report Ref: GS-G4S-RF6-EA4-9BW
Grid Ref: 386846, 414101

Map Name: County Series

Map date: 1908-1909

Scale: 1:10,560

Printed at: 1:10,560



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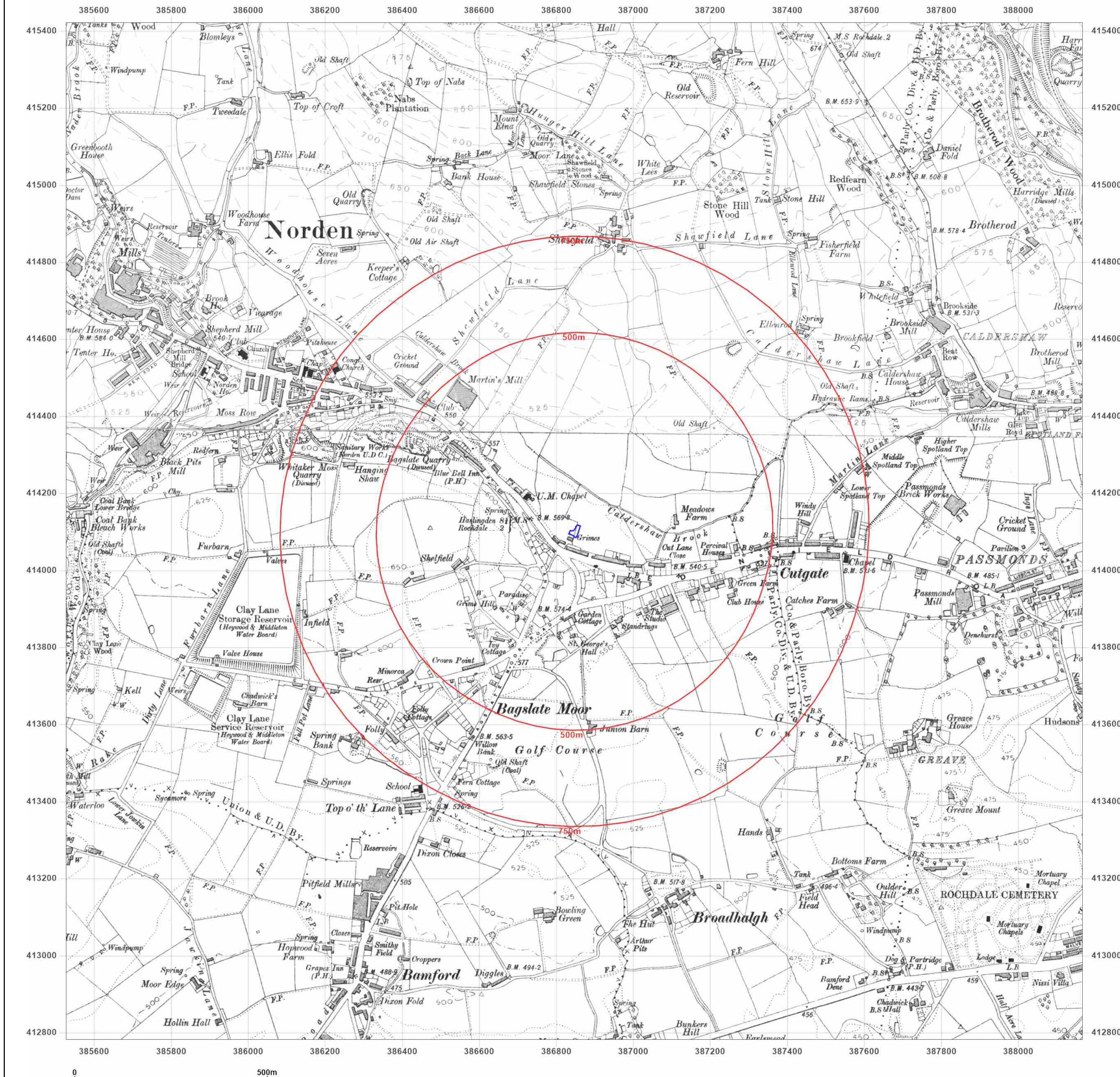


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Grid Ref: 386846, 414101

Map Name: County Series

Map date: 1928

Scale: 1:10,560

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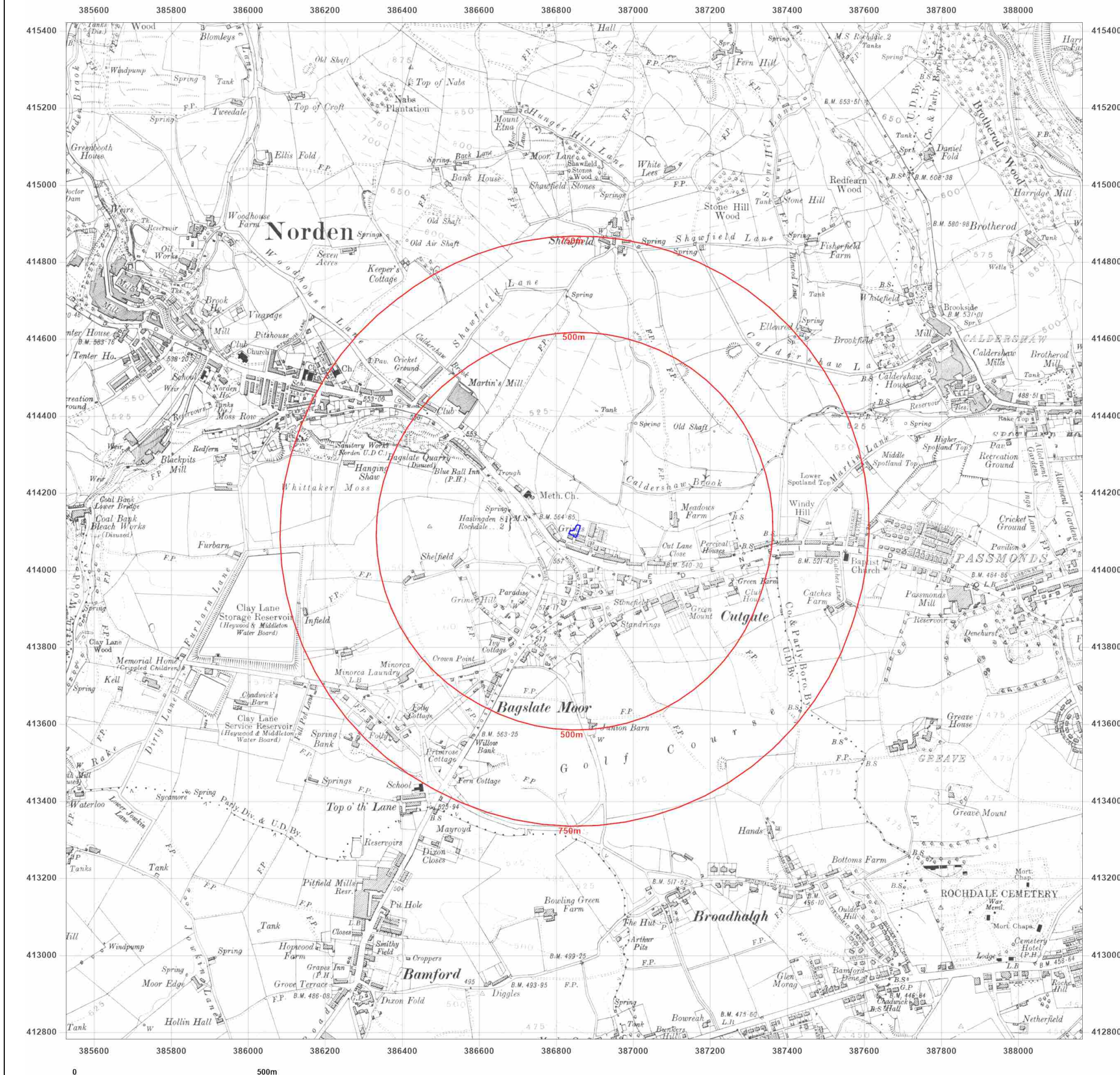


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Client Ref: C/4675/24/E/7155 - PO-3610
Report Ref: GS-G4S-RF6-EA4-9BW
Grid Ref: 386846, 414101

Map Name: County Series

Map date: 1938

Scale: 1:10,560

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ROCHDALE, OL12 7QG

Client Ref: C/4675/24/E/7155 - PO-3610
Report Ref: GS-G4S-RF6-EA4-9BW
Grid Ref: 386846, 414101

Map Name: Provisional

Map date: 1956

Scale: 1:10,560

Printed at: 1:10,560



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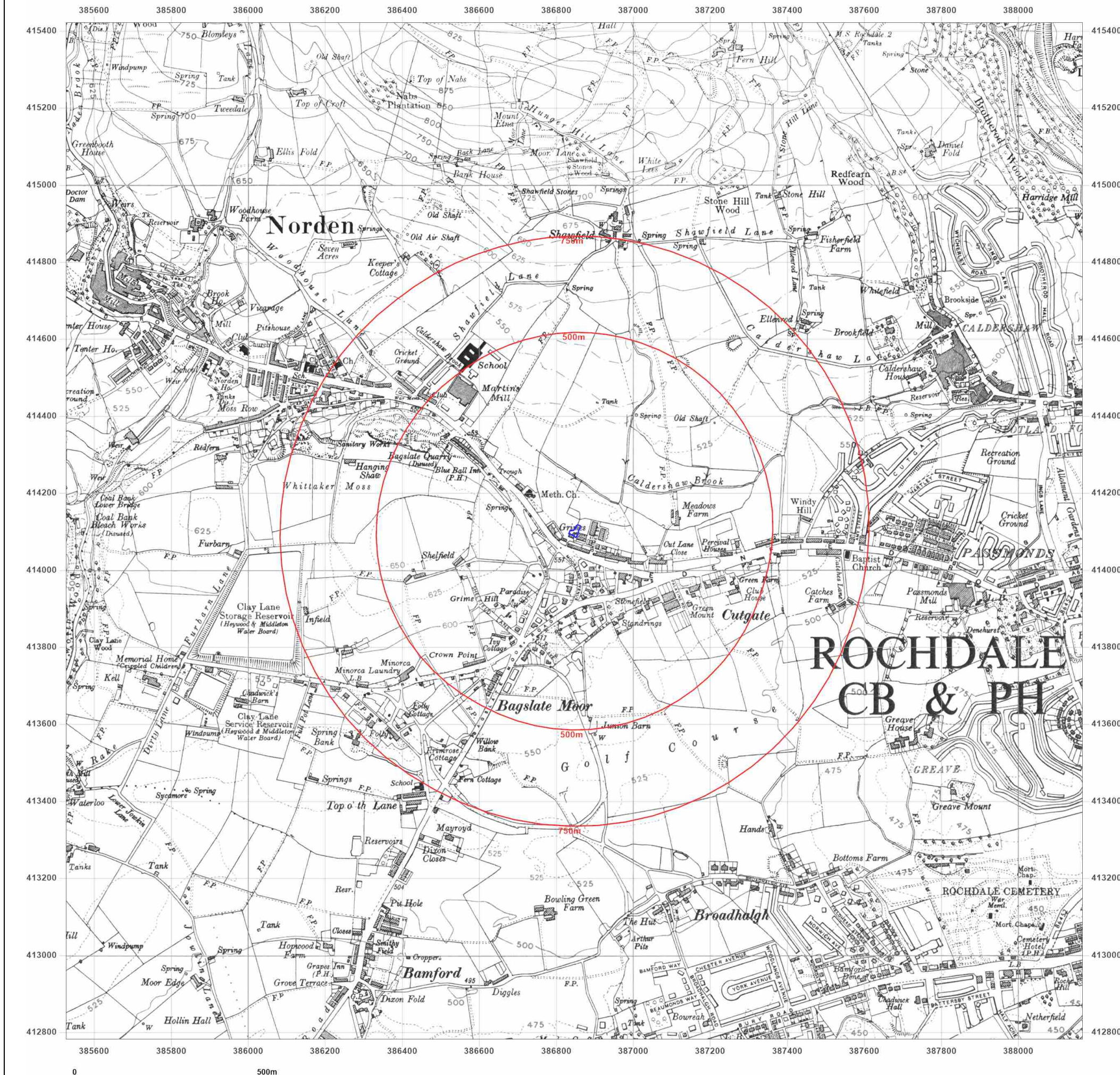


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ROCHDALE, OL12 7QG

Client Ref: C/4675/24/E/7155 - PO-3610
Report Ref: GS-G4S-RF6-EA4-9BW
Grid Ref: 386846, 414101

Map Name: Provisional
Map date: 1967-1968
Scale: 1:10,560
Printed at: 1:10,560



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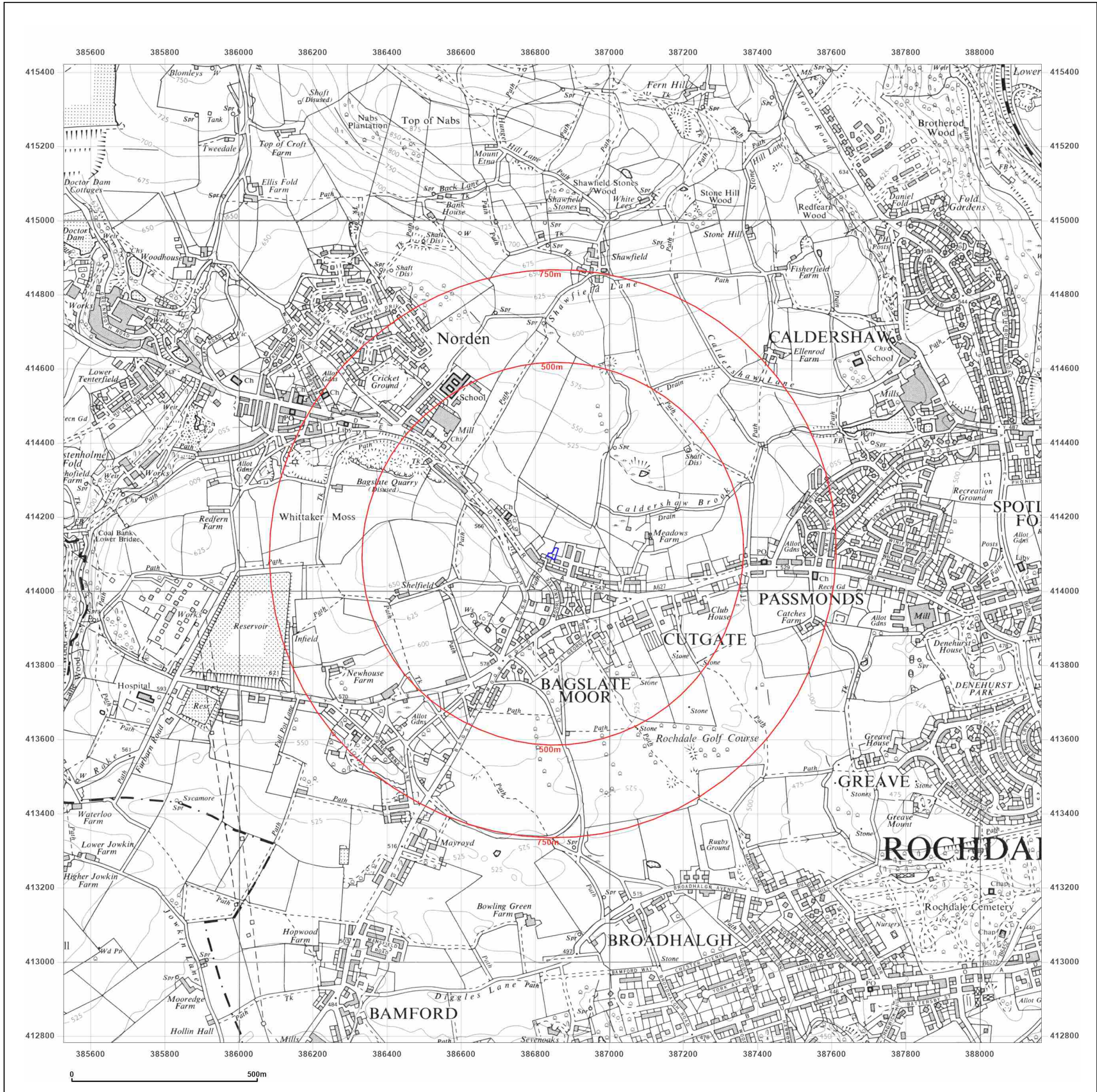
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Client Ref:

C/4675/24/E/7155 - PO-3610

Report Ref:

GS-G4S-RF6-EA4-9BW

Grid Ref:

386846, 414101

Map Name:

National Grid

Map date:

1975-1979

Scale:

1:10,000

Printed at:

1:10,000



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Production date: 10 November 2025

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Site Details:

THE BARN, VANDYKE STREET,
ROCHDALE, OL12 7QG

Client Ref: C/4675/24/E/7155 - PO-3610
Report Ref: GS-G4S-RF6-EA4-9BW
Grid Ref: 386846, 414101

Map Name: National Grid
Map date: 1987
Scale: 1:10,000
Printed at: 1:10,000



Surveyed 1984
Revised 1987
Edition N/A
Copyright N/A
Levelled N/A

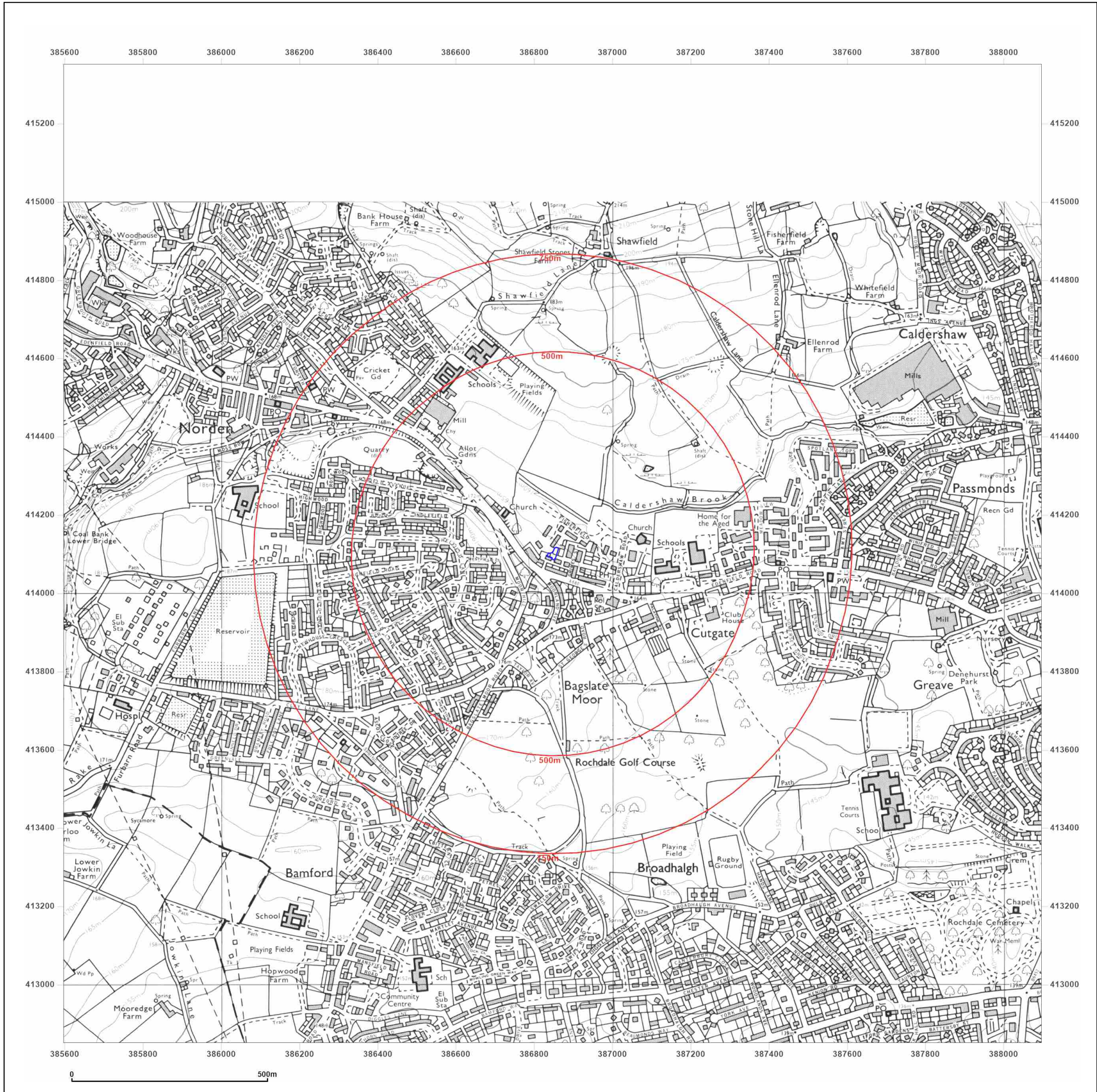


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Client Ref: C/4675/24/E/7155 - PO-3610
Report Ref: GS-G4S-RF6-EA4-9BW
Grid Ref: 386846, 414101

Map Name: National Grid
Map date: 1992
Scale: 1:10,000
Printed at: 1:10,000



Surveyed 1984
Revised 1992
Edition N/A
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Levelled N/A

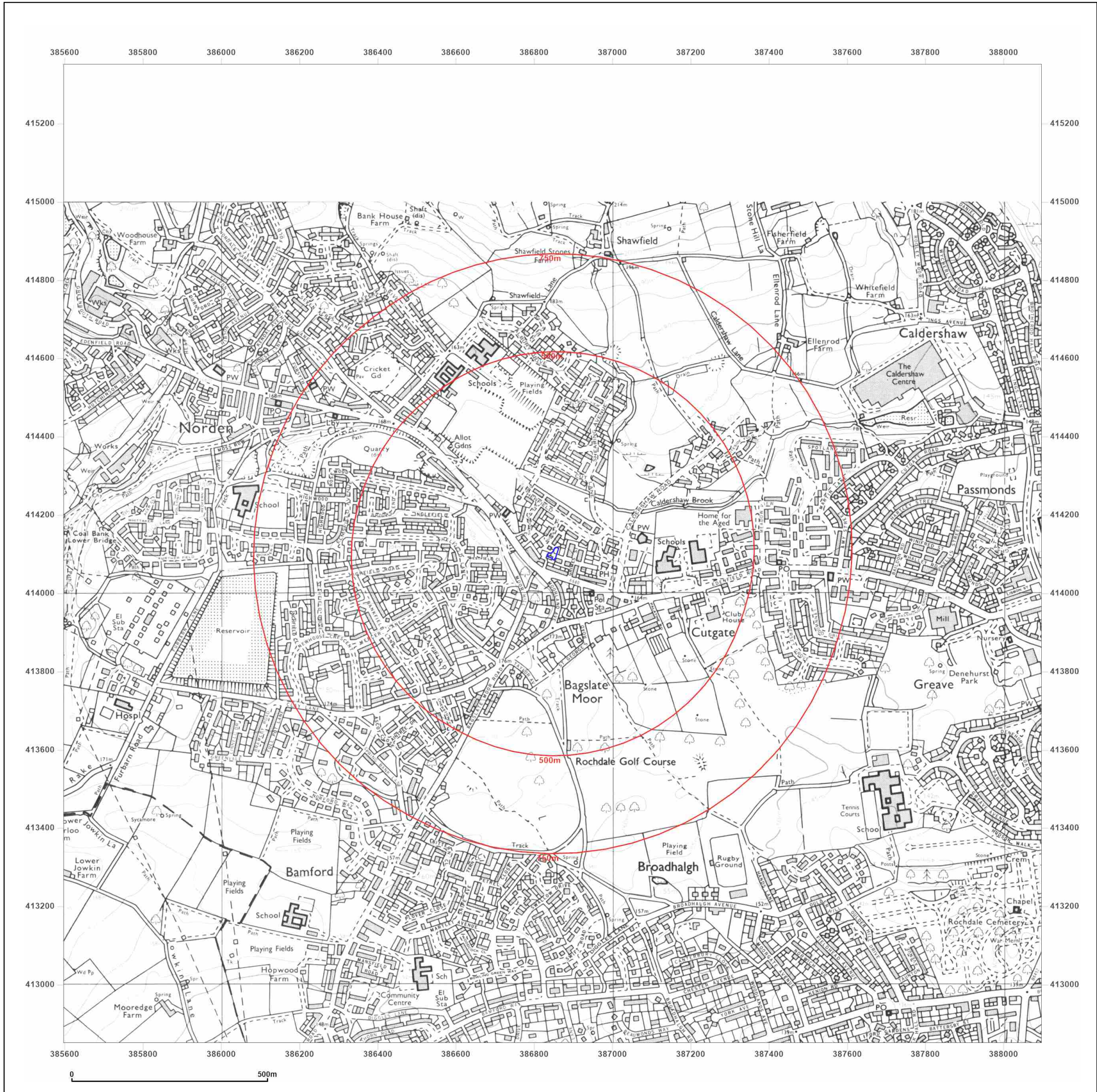


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Client Ref: C/4675/24/E/7155 - PO-3610
Report Ref: GS-G4S-RF6-EA4-9BW
Grid Ref: 386846, 414101

Map Name: National Grid

Map date: 2001

Scale: 1:10,000

Printed at: 1:10,000



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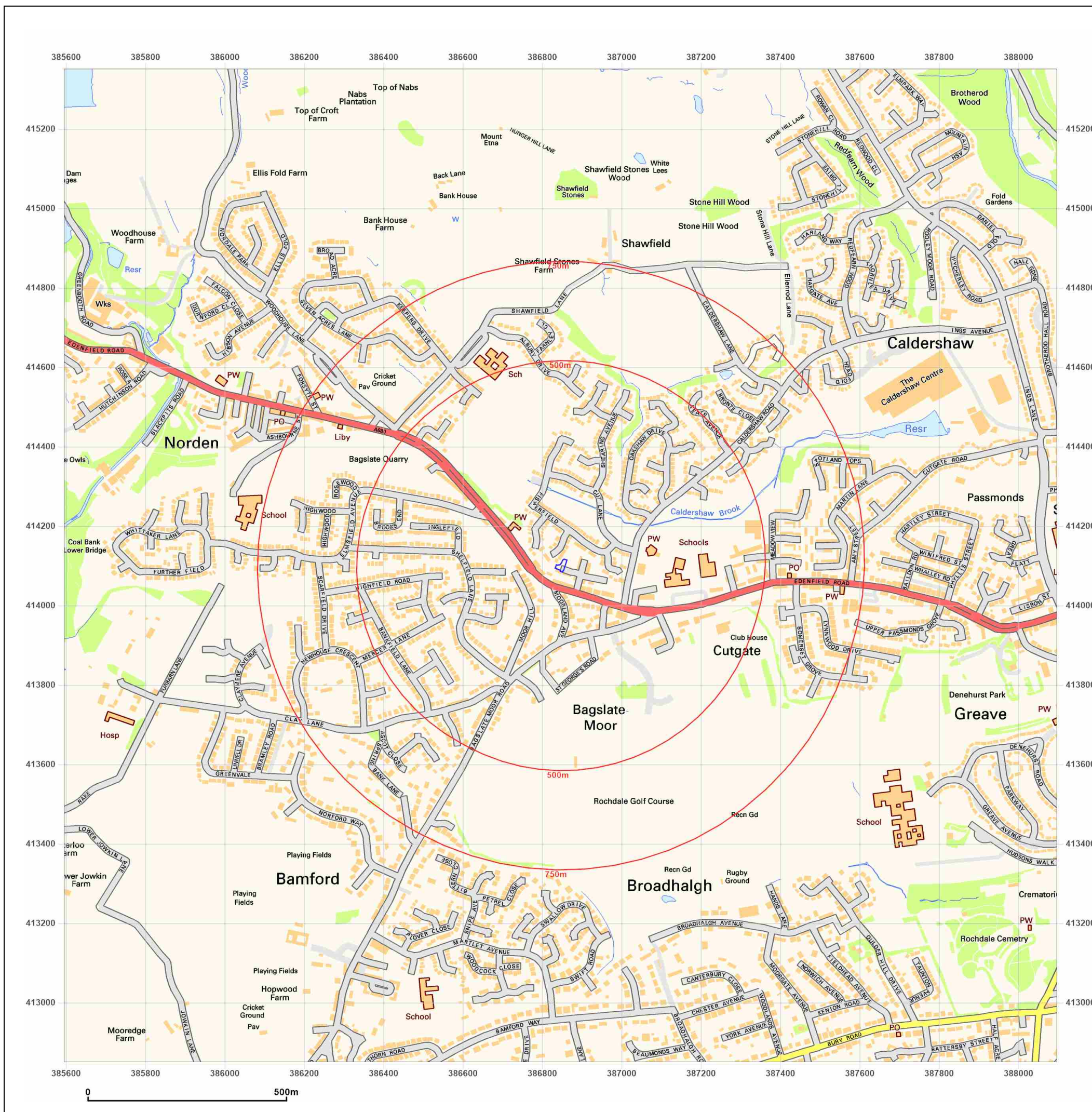


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Client Ref: C/4675/24/E/7155 - PO-3610
Report Ref: GS-G4S-RF6-EA4-9BW
Grid Ref: 386846, 414101

Map Name: National Grid

Map date: 2010

Scale: 1:10,000

Printed at: 1:10,000



2010

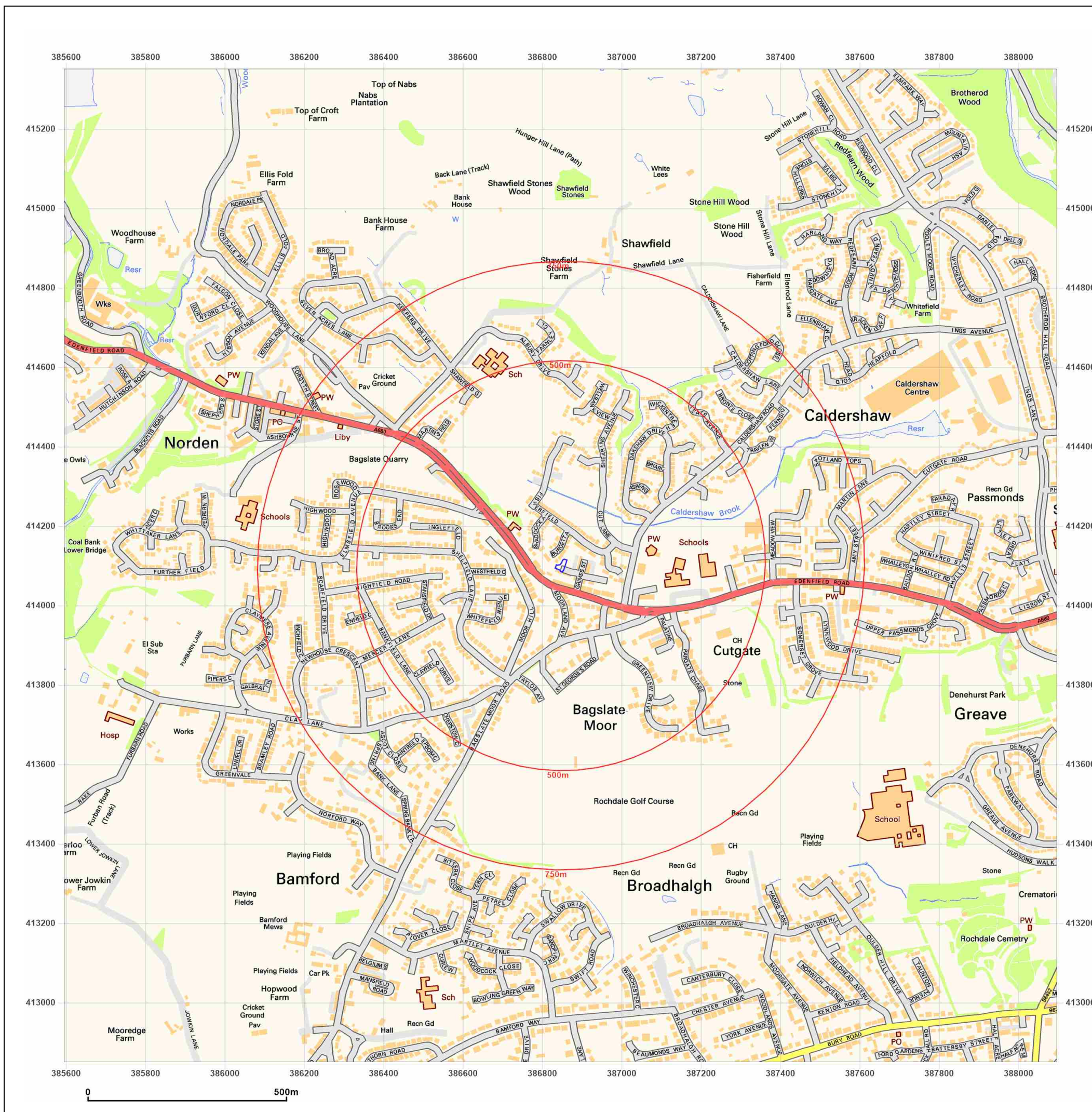


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Client Ref: C/4675/24/E/7155 - PO-3610
Report Ref: GS-G4S-RF6-EA4-9BW
Grid Ref: 386846, 414101

Map Name: National Grid

Map date: 2025

Scale: 1:10,000

Printed at: 1:10,000



2025

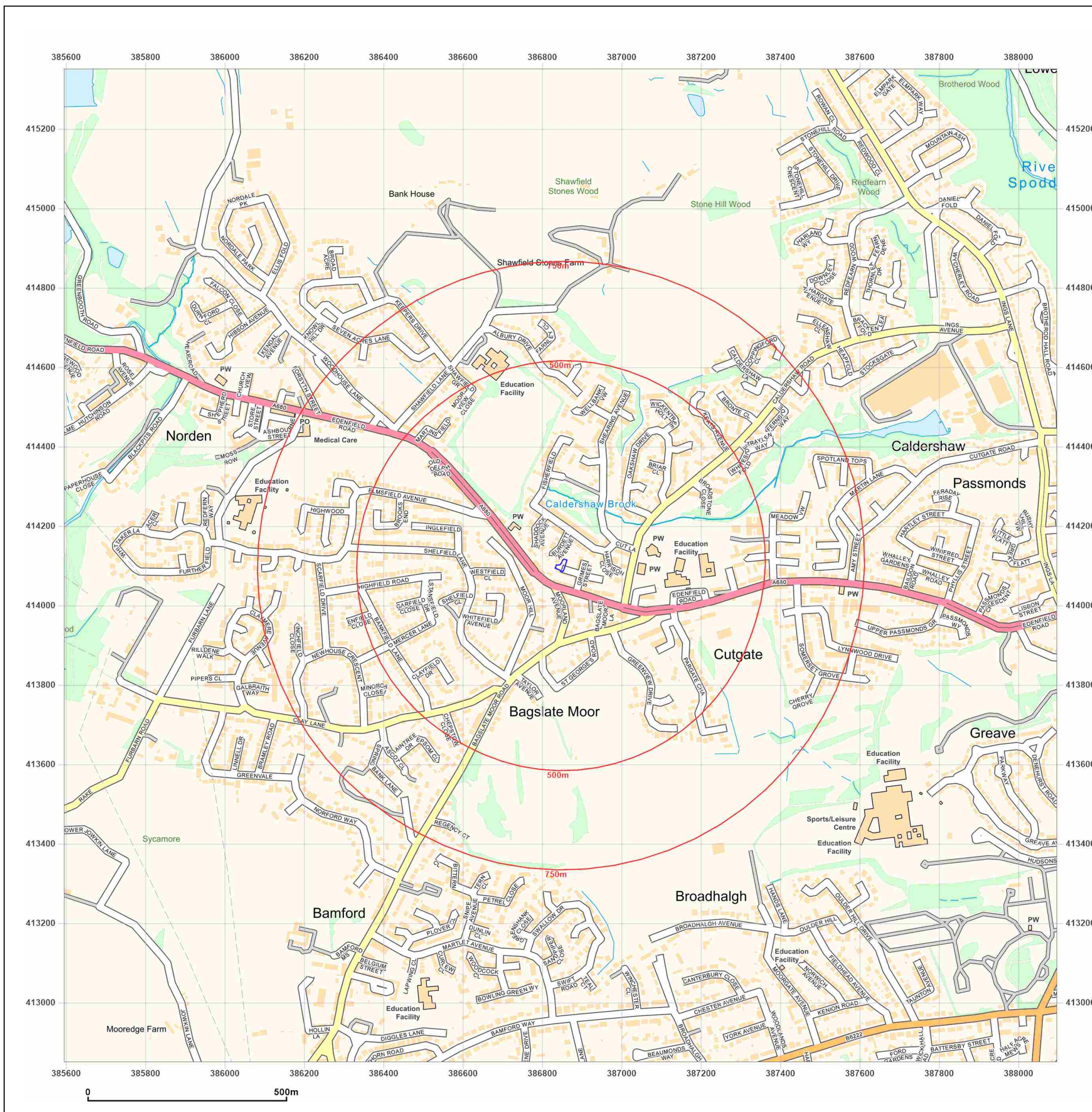


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Appendix 4

Photographs









Appendix 5

Consultants Coal Mining Report



The Coal
Authority

Consultants Coal Mining Report

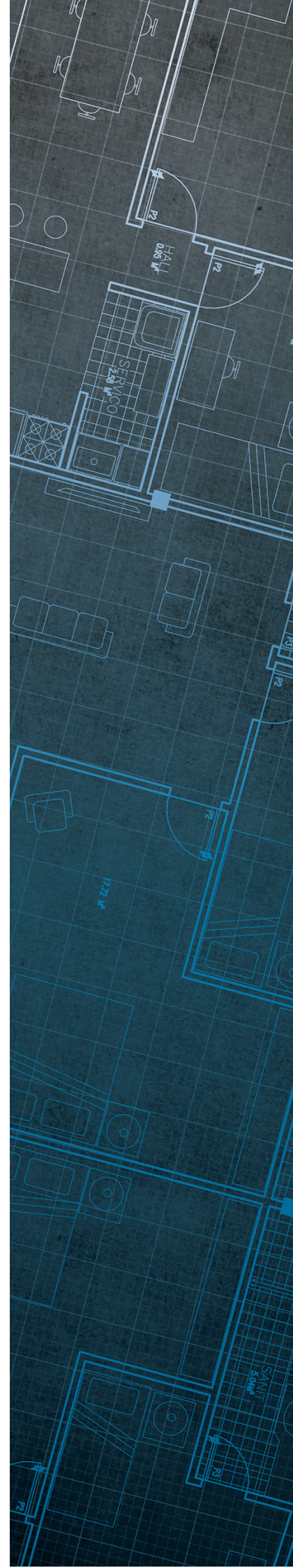
The Barn
Vandyke Street
Rochdale
Rochdale
OL12 7QG

Date of enquiry:
Date enquiry received:
Issue date:

18 November 2025
18 November 2025
18 November 2025

Our reference:
Your reference:

51003538670001
C/4675/24/E/7155 - PO-
3616



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

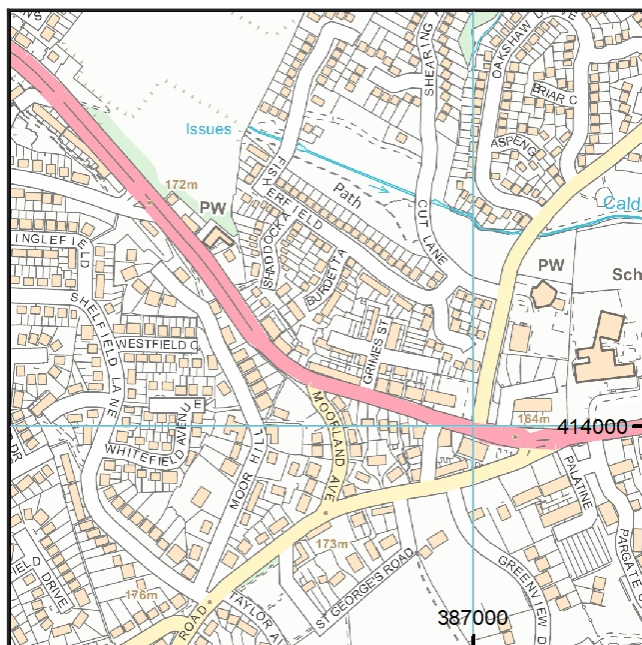
The Barn
Vandyke Street
Rochdale
Rochdale
OL12 7QG

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NG18 4RG

reports@miningremediation.gov.uk



Approximate position of property



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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	SAND ROCK	Coal	3VQ1	59	Beneath Property	6.3	South	80	1892
unnamed	SAND ROCK	Coal	3VQ3	59	Beneath Property	6.3	South	80	1892

Probable unrecorded shallow workings

None.

Spine roadways at shallow depth

No spine roadway recorded at shallow depth.

Mine entries

Entry type	Reference	Grid reference	Treatment description	Mineral	Conveyancing details
Shaft	386414-012	386797 414030	Treatment details unknown.*	Coal	
Shaft	386414-013	386831 414016	Treatment details unknown.*	Coal	

*For your information, before the coal industry was nationalised in 1947, there was no requirement for a mine operator to record mine entry treatment details when a mine was abandoned.

Therefore, it is not unusual for us to have no treatment details for many of the 176,000 recorded mine entries on our database. Despite this lack of information, please be assured that the fact we have no treatment recorded does not necessarily mean that the mine entries were left untreated when abandoned.

Abandoned mine plan catalogue numbers

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

2748	PO0	16820
0		

For assistance in identifying the specific abandoned mine plans relevant to your requirements, **please contact us at InformationManagers@MiningRemediation.gov.uk**.

Outcrops

Seam name	Mineral	Seam workable	Distance to outcrop (m)	Direction to outcrop	Bearing of outcrop
BASSEY	Coal	Yes	25.0	North	271

Geological faults, fissures and breaklines

No faults, fissures or breaklines recorded.

Opencast mines

None recorded 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

The Coal Authority has not received a damage notice or claim for the subject property, or any property within 50 metres of the enquiry boundary, since 31 October 1994.

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.

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 not in an area where a notice to withdraw support has been given.

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.

Future development

If development proposals are being considered, technical advice relating to both the investigation of coal and former coal mines and their treatment should be obtained before beginning work on site. All proposals should apply specialist engineering practice required for former mining areas. No development should be undertaken that intersects, disturbs or interferes with any coal or coal mines without first obtaining the permission of the Coal Authority.

MINE GAS: Please note, if there are no recorded instances of mine gas within 500m of the enquiry boundary, this does not mean that mine gas is not present within the vicinity. The Coal Authority Mine Gas data is limited to only those sites where a Mine Gas incident has been recorded. Developers should be aware that the investigation of coal seams, mine workings or mine entries may have the potential to generate and/or displace underground gases. Associated risks both to the development site and any neighbouring land or properties should be fully considered when undertaking any ground works. The need for effective measures to prevent gases migrating onto any land or into any properties, either during investigation or remediation work, or after development must also be assessed and properly addressed. In these instances, the Coal Authority recommends that a more detailed Gas Risk Assessment is undertaken by a competent assessor.

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.

For further information on specific site or ground investigations in relation to any issues raised in Section 4, please email us at reports@miningremediation.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 **email us at reports@miningremediation.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. Please note, if there are no recorded instances of mine gas reported, this does not mean that mine gas is not present within the vicinity. The Coal Authority Mine Gas data is limited to only those sites where a Mine Gas incident has been recorded.

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 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 
- Disused mine shaft 
- Outcrop (Conjectured) 

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