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DESK STUDY WITH WALKOVER SURVEY

**AT
NORMAN ROAD,
ROCHDALE,
GREATER MANCHESTER**

**PREPARED FOR
SHEHZAD SULEMAN**

**REPORT NO. 7569
SEPTEMBER 2022**

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EXECUTIVE SUMMARY

This executive summary is a brief summary only and should be read in conjunction with the full report.

Section	Subject	Summary
Site Details	Site Address	Norman Road, Rochdale, Greater Manchester
	Grid Reference	388720E, 412719N
	Current Land Use	Scrap yard with MOT/repair garage in the north east.
	Proposed Development	Remove existing infrastructure and redevelop with seven industrial units with car parking and landscaping.
Site History	On Site	Collieries on/ adjacent to the site circa 1850. Cotton mill developed in the north by 1890. Works extended by 1957. Most pre-existing buildings demolished from 2010 to 2020.
	Beyond Site Boundary	Colliery/ coal pits, smithy and saw mill in adjacent areas circa 1850 (nearest coal pit 24m to the south west). By 1890 Cotton mills adjacent and 60m to the north, brick field 155m to the north. By 1957 adjacent mill redeveloped as general works, warehouses. By 1984 an electricity substation is located adjacent to the site and a reuse tip 180m to the south east. By 1990 a builders yard was developed 14m to the west, redeveloped with a scrap yard by 2003.
Geological and Mining Appraisal	Made Ground	Colliery spoil anticipated on site, depth unrecorded.
	Superficial Geology	Alluvium potentially overlying Glaciofluvial or Glacial Till deposits in buried channel – depth unrecorded potentially up to 20m.
	Bedrock Geology	Carboniferous Pennine Lower Coal Measures strata.
	Radon	No radon protection measures are required
	Mining	Negligible risk from historical coal mine workings at 89m depth.
	Subsidence Hazards	Moderate risk of compressible deposits. Low risk of running sands.
Environmental Appraisal	Landfill Sites	Historical landfill identified 33m to SW, 115m and 217m to S, 167m and 216m to SE.
	Hydrogeology	Superficial and bedrock strata identified as Secondary A Aquifers. Nearest groundwater abstraction 0.72km to the N, nearest surface water abstraction 1.29km to the NE. No potable abstraction within 2km. No Source Protection Zone within 500m.
	Hydrology	Nearest watercourse is River Roch 86m to the NW.
	Flood Risk	Site is within Flood Zones 2 and 3 with a 'medium' risk of flooding. A Flood Risk Assessment is required.
	Industrial Land Uses	Scrap yard, MOT/repair garage and electricity substation located on/adjacent to the site.
	Other Relevant Details	None
Recommendations	The conceptual ground model indicates that an intrusive ground investigation is required to assess the ground conditions. The ground investigation should obtain soil samples for contamination analysis and asbestos detection and, where possible, groundwater and surface water samples for contamination analysis. Gas Standpipes should also be installed and monitored over an extended period of time to assess the risk from ground gases. Given the findings of the detailed geological and mining risk assessment a rotary borehole investigation is recommended to 30m depth followed by a ground stability assessment in order to determine whether remedial measures are required for the proposed development	
Other Considerations (for Warranty Providers, Building Control, Structural Engineers, Developers, etc.)	Listed below are various items that are likely to be required at some point during the development and it would be cost effective to have them carried out simultaneously. This is not an exhaustive list. • Boreholes and laboratory testing to assess the ground conditions for foundation design. • Waste Classification and WAC testing for removal of waste to landfill. • CBR Testing for road design and construction. • Water Pipeline Risk Assessment.	

DESK STUDY WITH WALKOVER SURVEY FOR NORMAN ROAD, ROCHDALE**CLIENT: SHEHZAD SULEMAN****ARCHITECTS: 1618 ARCHITECTS**

1. INTRODUCTION

This report has been prepared in accordance with an email, dated 9th August 2022, from the Engineer on behalf of the Client.

The brief was set out in our estimate, ref. E5899B dated 2nd August 2022, and comprises a walkover survey and a desk study report including a historical, geological, mining and environmental appraisal together with a conceptual ground model.

The brief for a coal mining risk assessment was set out in our estimate, ref. 7569A dated 9th August, and comprises a geological and mining appraisal together with our conclusions and recommendations.

1.1 Site Location and Description

The site is located on Norman Road, Rochdale, Greater Manchester, as indicated on Figure 1. The approximate National Grid Reference of the centre of the site is 388720E, 412719N.

As shown on Figure 2, the about 0.44 hectare irregular shaped site is bounded to the northwest by Dickinson's Skip Hire (no boundary), to the northeast by Van Breakers Rochdale and Sabre Materials (no boundary), to the east by a palisade fence to Norman Road, to the southeast by a palisade fence to footpath, and to the southwest by a brick wall to overgrown wasted area.

1.2 Proposed Development and Purpose of the Desk Study

We understand that it is proposed to remove the MOT Centre and Scrap Yard that are currently on site, and build seven industrial units with car parking spaces and landscaped areas, as shown on Figure 3.

The purpose of the desk study is to obtain information regarding the sites historical, geological and environmental setting in order to produce a conceptual ground model, to assess the ground conditions, to undertake a preliminary assessment of contamination sources, pathways and receptors relating to potential hazards that exist or will potentially exist on the site and to assess the need for ground investigation.

In addition, a geological and mining appraisal was required to determine the geological structure, including the depth and thickness of coal and other mineral seam horizons, to determine the potential for mineworkings in these horizons based upon the available information and to provide our conclusions and recommendations.

1.3 Walkover Survey

The walkover survey was undertaken on 16th August 2022. Surface features observed were recorded on a plan of the site together with the positions and directions of photographs taken. The resulting Walkover Survey Plan and site photographs are appended.

At the time of the walkover, the site comprised of an MOT and repair Garage (Photo 1, 5, 6, 10-19) in the northeast of the site and a Scrap Yard over most of the site. Containers and disused demountable offices were noted in the south of the site (Photo 22-28), a caravan (Photo 20) centrally placed, and an office (Photo 8) in the east were also noted. The ground surface was predominantly flat and comprised a concrete surfacing, broken in places. The site could be accessed from Norman Road (photo 4, 5, 6), although there is access from Corporation Street to the building in the northwest of the site (Photo 70). A basement (Photo 44, 45) was noted in the northwest and inferred to extend throughout the area highlighted in Fig 2. The previous building on site was destroyed in a fire and the remaining walls on site show fire damage, cracks, and are possibly unstable (Photo 38, 41, 52). There are various tanks and drums across the site, mainly within the Garage. Static machinery was noted within the MOT and repair Garage (Photo 11-14). A forklift truck was noted and vehicles are parked/stored throughout the site in various stages of dismantling. Stockpiles of car parts, building and waste materials are seen throughout the site (Photo 19, 20, 22, 26, 27, 33, 37, 47). An electricity substation was noted off site, adjacent to the northwest of the site (Photo 70).

Some visual contamination was noted during the walkover survey, oil can be seen spilt on the floor (photo 29).

2. DESK STUDY

2.1 Historical Appraisal

The past history of the site has been interpreted from the study of old Ordnance Survey plans supplied by GroundSure, as follows:

TABLE 1 SMALL SCALE SURVEYS

Date	Scale
1851	1:10,560
1890-1891	1:10,560
1908	1:10,560
1928	1:10,560
1938	1:10,560
1954-1956	1:10,560
1967-1968	1:10,560
1975	1:10,000
1987	1:10,000
1992	1:10,000
2001	1:10,000
2010	1:10,000
2022	1:10,000

TABLE 2 LARGE SCALE SURVEYS

Date	Scale
1851	1:1,056
1890-1891	1:2,500
1910	1:2,500
1930	1:2,500
1957	1:1,250**
1958-1959	1:2,500
1972-1975*	1:1,250**
1984	1:1,250**
1990	1:1,250**
1992-1993	1:1,250**
2003	1:1,250

* Site not covered by the survey, ** Printed at 1:2,000.
Extracts of the above surveys are appended.

TABLE 3 HISTORICAL APPRAISAL

Date	On site	Beyond site boundary
1851	At the time of the earliest survey, the proposed site is situated across fields with an unnamed track running northeast to southwest. Pinfold Colliery is depicted on the small scale map encroaching into the north east of the site with a building straddling the site boundary. The large scale map details a pump in the east, a Saw Pit in the northeast, and drainage channels run across the site.	A Smithy is depicted 6m to the northeast adjoining the Pinfold Colliery building. Sparth Bottoms Colliery to the southwest with the nearest feature being a coal pit 24m to the south east. A building is shown 75m to the east-south-east. There is an unnamed road adjacent to the northwest, the River Roch 50m to the west, a shed 17m to the north.
1890-1891	All previous features are no longer depicted. Brimrod Mill (cotton) is situated in the north of the proposed site, there is a track running north to south and drainage channels in the south.	The previous Colliery, Saw Pit, and smithy are no longer depicted. Possibly a large mound of colliery spoil is shown some 60m south of the site. Brimrod Mill (cotton) extends 150m to the north, Standard Mill (cotton) is shown 60m to the north, a Brick Field 155m to the north, residential development (terraced housing) to the east with the nearest being 45m to the northeast on Sparth Bottom Road, Castleton Cricket Ground 50m to the east, a tank 212m to the southeast, a Gravel Pit 60m to the south, Spring Mount 175m to the northwest and a Pond 215m to the west-north-west.
1910	No significant changes are noted during this time.	Minor changes to Brimrod Mill, Standard Mill, the Brick Field is now a Brick Works, Sparth Mill is shown 30m to the west, a Recreation Ground 90m to the south. Four chimneys are labelled 180m to the north, 175m to the north-north-east, 14m to the northeast, and 55m to the west. Some residential development has taken place in the northeast. The land to the west of the River Roch is crossed with channels and sluice gates.
1930	No significant changes are noted during this time except a slope along the western boundary.	New road layout depicted with Corporation Street adjacent to the northwest and Norman Road adjacent to the northeast. A tramway and quarry are now depicted at the Brick Works (formally a Brick Field), a Laundry 92m to the northeast, a Works 10m to the west, residential development in the northeast, Tennis Grounds 80m to the east, and Allotment Gardens 70m to the northwest.
1957	Works building has been extended over the site.	Brimrod Mill is now split into Works, Warehouse, and Mill (disused). Several buildings at the Brick Works have been demolished and several more built. More drainage channels have been added to the west of the River as part of a Sewage Farm.
1958-1959	No significant changes are noted during this time.	The quarry at the previous Brick Works is now a pond 190m to the north-north-east.

1972-1975	No significant changes are noted during this time.	No significant changes are noted during this time.
1984	No significant changes are noted during this time.	The River Roch has been diverted towards the west, the Mill 30m to the southwest has been demolished, The Mill (disused) and Warehouse adjacent to the north of the site have been partly demolished and several new buildings are shown as part of an industrial estate. The Pond 190m to the north-north-east has been infilled. There is an Electricity Substation depicted adjacent to the northwest of the site, a Refuse Tip 180m to the southeast.
1990	No significant changes are noted during this time.	Mandale Park is depicted where the previous Refuse Tip was situated, along with a pond 128m to the southeast, a new building labelled Works is depicted 15m to the west with an Electrical Substation 64m to the east of the site, another Electricity Substation is shown 130m to the northeast. A depot is labelled 58m to the north, a Builders Yard 14m to the west.
1992-1993	No significant changes are noted during this time.	No significant changes are noted during this time.
2003	No significant changes are noted during this time.	The Builders Yard is no longer shown and is now a Scrap Yard
2010	The buildings in the north of the site have been partial removed.	Some of the buildings adjacent to the north of the site have been demolished.
2022	More of the buildings in the north of the site have been removed.	New buildings are depicted 100m to the southwest.

A fire on 13th June 2003 destroyed the building on site, it was attended by the Fire Brigade.

2.2 Detailed Geological Appraisal

The British Geological Survey (BGS) have published Sheet SD 81 SE, solid and drift edition at 1:10,000 scale dated 2007, and Sheet 85, solid edition at 1:50,000 scale dated 1973, extracts of which is given as Figures 4 and 5.

The geological survey indicates that the site is underlain by Made Ground, likely to be spoil associated with the former adjacent colliery. The depth of made ground is unrecorded in the area of the site, however nearby borehole records show a depth of around 2.0m.

Superficial deposits underlying the site are indicated to be alluvium comprised of clay and silt with a gravel lag. The map also indicates the site and surrounding area is underlain by a buried channel running from north to south, which is likely to be associated with glacial erosion and deposition, and infilled with Glaciofluvial sands and gravels and/or Glacial Till. The thickness of drift deposits is unrecorded in the immediate vicinity of the site, however is recorded to approximately 20m depth in old boreholes records some 35m to the west of the site and to around 4.50m depth in boreholes some 20m to the east, indicating it is potentially highly variable.

Underlying the superficial deposits the bedrock is indicated to be the Carboniferous Pennine Lower Coal Measures. Coal Measures strata in this area normally comprise interbedded mudstones, siltstones and subordinate sandstones with occasional economically important mineral seams of coal, ironstone, and fireclay.

The site is shown to be within a fault bounded block, with no record of the dip of the bedded strata. In addition there is insufficient information to accurately estimate direction or angle of dip. However, the general topography and pattern of outcropping strata in the wider area, with older strata outcropping to the north and north east, indicate the strata generally dips down to the south and south west.

The bedded rock strata are shown to be displaced by a geological fault which trends from north west to south east bounding the site to the north east. It should be noted that the rock strata in the vicinity of the site might be affected by minor parallel sympathetic geological faults.

The outcropping strata within the faulted block includes the Arley Coal seam and underlying Riddle Scout Rock sandstone, approximately 850m to the north west, and assuming the strata dips to the south to south west is expected to underlie the site. Although the depth cannot be accurately calculated from the information on the map, the appended Coal Authority Consultants Mining Report identifies the site is underlain at 89m depth by the Arley Coal with a recorded dip of 15 degrees and an extraction thickness of 1.20m.

In addition the Consultants Mining Report indicates that the Half Yard coal seam crops out 3.4m to the north of the site boundary, as shown on the Coal Authority Plan to the Report, although this coal seam is not shown on the geological maps or the Generalized Vertical Section for the 1:10,000 BGS map (ref. SD 81 SE). However, the Generalized Vertical Section for the 1:50,000 BGS map (ref. 85) indicates that in western areas of the map, the Arley Mine is overlain at approximately 80m by the laterally variable Half Yard Mine coal seam. In central and eastern areas the Half Yard is not identified, however the Arley Mine is overlain at depths of approximately 100m by the New (Top Neddy) Mine coal seam. The online BGS TextViewer, that accompanies Sheet 85, identifies the Half Yard, Top Neddy and New Mine as the same mined coal seam indicated as 0.60m to 1.20m thick. A BGS borehole record from the Sparth Bottoms Colliery for a mineshaft located 66m to the south west of the site identifies the Neddy Mine close to rockhead at 18.3m depth and the Arley Mine at 97.5m depth.

Given the above the Half Yard (Top Neddy) Mine coal seam is anticipated to be at around 10m depth underlain at 89m below ground level by the Arley Mine Coal seam. It should be noted that drift deposits are anticipated to be of variable depth, and consequently may be encountered to depths of up to 20m. It is likely that the upper Coal Measures strata including the Half Yard coal seam will have been eroded prior to deposition in such areas and consequently may be absent.

2.3 Detailed Mining Appraisal

The presence of mineral seams, including coal, which might have been mined beneath the site has been determined from the published geological sheet and the Coal Authorities Consultants Coal Mining Report, ref. 51003310377001 and dated September 2022, a copy of which is appended.

The Coal Authority indicates that they have record of mineworkings from colliery abandonment plans in the 1.20 metre thick Arley Coal seam, at 89 and 92 metres depth beneath the site and at 71m depth to the north east of the site. The above coal seam is indicated to down dip at 15 degrees to the south west. The locations of the above collieries are not given and the collieries are unnamed. The coal seam was last mined in 1849.

It should be noted that it did not become a statutory requirement to maintain and preserve plans of abandoned mines until the Mines (Coal) Regulations Act of 1872, by which date much unrecorded mining had taken place and of those plans which were made it is likely that not all will have survived.

The Coal Authority Plan to the Report indicates that there are four abandoned mineshafts within 100 metres of the site and situated approximately 35 and 85 metres to the south west, and 35 and 40 metres to the north east of the site boundary respectively. It should be noted that the Coal Authority records may be incomplete and hence mine entries may be present for which the Coal Authority has no knowledge.

Of the mineshafts recorded we have the following information:

Shaft 388412-003 situated E388802m, N412770m was located in 1989 and found to have been filled to an unknown specification.

The Coal Authority indicate that they have five mine abandonment plans which are for all or part of the site area.

Coal Authority records indicate that the Half Yard Coal seam crops out 3.4 metres to the north (268 degree bearing) of the site boundary, as shown on the Coal Authority Plan to the Report. The Coal Authority indicate that the Half Yard Coal seam is of a workable thickness.

The Coal Authority indicate that they are not aware of any geological faults, fissures or break lines affecting the site.

The Coal Authority have no records of opencast mines within 500 metres of the site boundary.

The Coal Authority have no records of managed tips, mine gas, and mine water treatment schemes within 500 metres of the site boundary.

The Coal Authority have no records of site investigations, remediated sites, and property damage claims since 31 October 1994 within 50 metres of the site boundary.

The Coal Authority indicate that they have no plans to mine coal beneath the site and there are no coal mining licences within 200 metres of the site.

In any old mining area such as this, where records are generally incomplete, the existence of unrecorded mine entries should not be discounted and appropriate precautions should be taken during all earthworks. Should a mine entry be suspected appropriate action would need to be taken in the light of the established condition and location as determined by inspection and investigation.

Conclusions and Recommendations

The detailed geological and mining appraisals indicates that the site is potentially underlain at shallow depths of around 10m by the Half Yard (Top Neddy) Mine coal seam. The thickness of drift deposits is unknown but was found to be highly variable in adjacent areas ranging from 4.5m in the east to 20m in the west.

Surface instability arises when the collapse of mineworkings migrates upwards through the roof strata and back to the surface or near surface level. There is considered to be a potential for this if there is less than ten times the unworked thickness of the coal seam in intact rock strata above the mined coal seam. In addition residual settlement of abandoned mineworkings is not possible to predict, and although the risk may be increased by the stresses imposed by a surface load, settlement can and does occur irrespective of ground surface loads.

Given the findings of the geological and mining appraisal a rotary borehole investigation is recommended to 30m depth followed by a ground stability assessment in order to determine whether remedial measures are required for the proposed development.

2.4 Additional Geological and Non-Coal Mining Appraisal

This following appraisal is based upon the appended Groundsure Enviro+Geo Insight Report (Sections 18 to 21).

2.4.1 Potential Hazards in Natural Ground

The hazard rating for shrinking/ swelling clays and landslides is very low, the rating for running sands is low, the rating for compressible deposits/ strata is moderate, and the rating for collapsible deposits/ strata and dissolution of soluble rocks is negligible.

2.4.2 Ground Workings and Non-Coal Mining

The British Geological Surveys "BritPits" database contains details of currently active and closed surface and underground mineral workings. There are eight records of BritPits within 500 metres of the site boundary, the nearest being a Gravel Pit about 51 metres to the south of the site boundary.

Ordnance Survey mapping identifies surface excavations which may, or may not, have been subsequently backfilled with unknown material. The Ordnance Survey indicates that there are forty historical surface excavations within 250 metres of the site boundary, the nearest being a Colliery and Gravel Pit on site.

In addition, the Ordnance Survey mapping identifies underground workings in the form of tunnels, shafts and similar features. The Ordnance Survey indicates that there are two historical underground workings within 1,000 metres of the site boundary; the nearest being an Unspecified Shaft about 553 metres to the south of the site boundary.

The British Geological Survey maintain records of mining of minerals other than coal and indicates that there is no potential for non-coal mining beneath the site or within 1,000 metres of the site boundary.

According to the report the site is not in an area affected by significant natural cavities, non-coal mining, historical mineral planning areas, brine extraction, gypsum extraction, tin mining or clay mining.

2.4.3 Radon

The British Geological Survey and Public Health England have estimated the percentage of dwellings exceeding the “Radon Action Level” of 200 Becquerels/ m³ for the UK based on geological assessments and long-term measurements of radon in more than 479,000 households.

The site is unlikely to be affected by radon gas as < 1% of surrounding properties are above the Radon Action Level. No radon protection measures are required.

2.4.4 Soil Chemistry

The British Geological Survey have estimated likely background concentrations of potentially harmful arsenic, cadmium, chromium, lead and nickel in the topsoil. Data for on-site topsoil is given. In addition, data for the land within 50 metres of the site boundary is given.

2.4.5 Railway Infrastructure

There are no active or inactive underground or overground railways and no railway tunnels within 250 metres of the site boundary.

There are six historical railways within 250 metres of the site boundary, all of which are Railway Sidings, the nearest being about 184m to the northeast of the site boundary.

The site is not within 500 metres of Crossrail 1, Crossrail 2, or the High Speed 2 (HS2) rail project.

2.5 **Environmental Appraisal**

This following appraisal is based upon the appended Groundsure Enviro+Geo Insight Report (Sections 1 to 13).

2.5.1 Historical Industrial Land Use

Historical potentially contaminative industrial land uses are recorded by the Ordnance Survey. Within the site there are potentially contaminative industrial land uses identified including a Colliery, Unspecified Works, Unspecified Mills, Unspecified Commercial/industrial, Industrial estate, and a Gravel Pit. The Mill on site was destroyed by a fire in 2003, causing extensive damage. In addition, within 250 metres of the site boundary, there are fifty potentially contaminative industrial land uses identified. Those that represent the most significant risk to the site are a Colliery 6m to the southwest, Unspecified Mills 11m to the west, Unspecified Works 14m to the west, a Sewage Farm 46m to the west, and Unspecified Tanks 58m to the southwest, a Laundry 77m to the northeast, a Refuse Heap 124m to the southeast, Brick Works 152m to the northeast, and Gas Works 202m to the northeast.

There are eighteen historical tanks within 250m of the site boundary, with the nearest being 14m to the northeast.

There are four historical energy features within 250m of the site boundary, with the nearest being an electricity substation on site/ adjacent to the southwest boundary.

There are no historical petrol stations, garages, or military land within 250m of the site boundary.

2.5.2 Landfill

According to the report there are no active or recently closed landfill sites within 250 metres of the site boundary.

The British Geological Survey undertook a survey for the Department of the Environment (DoE) of operational and closed landfill sites in 1973. The survey indicated that there was one landfill site within 250 metres of the site boundary, being about 167 metres to the southeast.

Local Authority records and detailed Ordnance Surveys indicate one landfill sites within 250 metres of the site boundary being about 216 metres to the southeast.

The Environment Agency and Natural Resources Wales have three records of known historical (closed) landfill sites, where there is no PPC permit or current waste management licence, within 250 metres of the site boundary, with the nearest being about 33 metres to the southwest of the site boundary.

Our historical appraisal has identified two potential unregistered landfills in the form of quarries and ponds infilled with unknown material, which may be a source of ground gas, within 250 metres of the site boundary which are, two infilled ponds 220m to the northwest and 190m to the north.

2.5.3 Waste

Local Authority records and detailed Ordnance Surveys indicate four waste sites within 250 metres of the site, the nearest being about 7 metres to the northwest .

According to the Environment Agency and Natural Resources Wales there are fourteen active or recently closed waste sites within 250 metres of the site boundary, the nearest being about 24 metres to the north.

The Environment Agency and Natural Resources Wales have one record of activities involving the storage, treatment, use or disposal of wastes that are exempt from needing a permit (within specific limits and conditions) within 250 metres of the site boundary, the nearest being the storage of waste in a secure place, about 1 metre to the northeast.

2.5.4 Current Industrial Land Use

Current potentially contaminative industrial land uses are recorded by the Ordnance Survey and Experian. Within the site there are two potentially contaminative industrial land uses including a Car & Van Dismantlers (Scrap Metal Merchants), and an Electricity Substation (Electrical Feature). In addition, within 250 metres of the site boundary, there are thirty-three potentially contaminative industrial land uses. Those that represent the most significant risk to the site are Global Parts Specialist Ltd (Scrap Metal Merchants) 1m to the northwest, M A MOT Centre (Vehicle repair, testing, and servicing) 2m to the northeast, a Chimney (Chimneys) 23m to the northeast, and W & S Allely Ltd (Metals Manufacturers, Fabricators, and Stockholders) 36m to the northeast.

National Grid data indicates that there are currently no high voltage underground electricity transmission cables or high-pressure underground gas transmission pipelines within 250 metres of the site boundary.

2.5.5 Sites Determined as Contaminated Land

There are no sites determined as contaminated under Section 78R of the Environmental Protection Act (1990) within 250 metres of the site boundary.

2.5.6 Control of Major Accident Hazards (COMAH)

Records of Control of Major Accident Hazards (COMAH), including Notification of Installations Handling Hazardous Substances (NIHHS) and other historical data, indicate that there is one dangerous or hazardous sites within 250 metres of the site boundary, the nearest being about 242 metres to the northeast.

2.5.7 Regulated Explosives Sites

Up to April 2015 there were no sites within 250 metres of the site boundary registered and licensed by the Health and Safety Executive under the 2005 Manufacture and Storage of Explosives Regulations.

2.5.8 Hazardous Substance Storage and Usage

There are no Local Authority records of consents granted for sites to hold certain quantities of hazardous substances at or above defined limits in accordance with the 2015 Planning (Hazardous Substances) Regulations within 250 metres of the site boundary.

2.5.9 Historical Licenced Industrial Activities (IPC)

There are no historical Integrated Pollution Control (IPC) records of substances released to the air, land and water according to the Environment Agency and Natural Resources Wales within 250 metres of the site boundary.

2.5.10 Licenced Industrial Activities (Part 1(A))

The Environment Agency and Natural Resources Wales indicate that there are no records of Part 1(A) installations regulated under the 2016 Environmental Permitting (England and Wales) Regulations for release to the environment within 250 metres of the site boundary.

2.5.11 Part A(2) and Part B Authorisations

Local Authority records indicate there are three Part A(2) and Part B installations regulated under the 2016 Environmental Permitting (England and Wales) Regulations for the release of substances to the environment within 250 metres of the site boundary, the nearest being the use of bulk cement about 144 metres to the northeast.

2.5.12 Radioactive Substance Authorisations

The Environment Agency and Natural Resources Wales indicate that there are no records of storage, use, accumulation and disposal of radioactive substances regulated under the 1993 Radioactive Substances Act within 250 metres of the site boundary.

2.5.13 Licensed Discharges to Controlled Waters

According to Environment Agency and Natural Resources Wales records there has been one discharge of treated or untreated effluent to controlled water under the 1991 Water Resources Act within 250 metres of the site boundary, the nearest being the discharge of sewage about 203 metres to the north between 1993 and 1995.

2.5.14 Pollutant Release to Surface Waters (Red List)

The Environment Agency and Natural Resources Wales records indicate that there have been no discharges of specified substances under the 1991 Environmental Protection (Prescribed Processes and Substances) Regulations within 250 metres of the site boundary.

2.5.15 Pollutant Release to Public Sewers

According to Environment Agency and Natural Resources Wales records there have been two discharges of special category effluents to public sewers within 250 metres of the site boundary the nearest being 41m to the east.

2.5.16 List I and List II Dangerous Substances

The Environment Agency and Natural Resources Wales records indicate that there have been no discharges of substances on List I and List II of the European Directive E2006/11/EC respectively, regulated under the 2015 Environmental Damage (Prevention and Remediation) Regulations, within 250 metres of the site boundary.

2.5.17 Pollution Incidents

According to the Environment Agency and Natural Resources Wales there are ten records of substantiated pollution incidents within 250 metres of the site boundary, the nearest being in 2003 with Smoke Tyres about 3 metres to the northeast with a Category 2 (Significant) Land Impact and Category 3 (Minor) Air Impact.

2.5.18 Pollution Inventory Substances

The Environment Agency and the Scottish Environment Protection Agency indicate that there have been no reports on annual emissions of certain regulated substances to air, controlled waters and land within 250 metres of the site boundary.

2.5.19 Pollution Inventory Waste Transfers

According to the Environment Agency and the Scottish Environment Protection Agency there have been no reports on annual transfers and recovery/ disposal of controlled wastes within 250 metres of the site boundary.

2.5.20 Pollution Inventory Radioactive Waste

The Environment Agency and the Scottish Environment Protection Agency indicate that there have been no reports on annual releases of radioactive substances within 250 metres of the site boundary.

2.5.21 Hydrogeology

The following designation of aquifers is in accordance with the Environment Agency's April 2010 Groundwater Protection Policy.

Superficial/ drift deposits are anticipated to be present and comprise Alluvium, generally comprising clays, silts, sands, and gravel, which are indicated to be a Secondary A aquifer comprising permeable layers capable of supporting water supplies at a local scale and in some cases forming an important source of base flow to rivers.

The bedrock is anticipated to be Pennine Lower Coal Measures Formation, generally comprising mudstone, siltstone, and sandstones, which are indicated to be a Secondary A aquifer comprising permeable layers capable of supporting water supplies at a local scale and in some cases forming an important source of base flow to rivers.

The vulnerability of groundwater in the superficial geology to a pollutant found within the site and its immediate surrounding area has been assessed as "High" – an area able to easily transmit pollution to groundwater.

The vulnerability of groundwater in the bedrock geology to a pollutant found within the site and its immediate surrounding area has been assessed as "Low", an area able to provide protection from pollution.

British Geological Survey and Environment Agency data indicates that the site is not within a 1km grid where solution features are present that will enable rapid movement of a pollutant to groundwater.

Environment Agency data indicates that the site is not in an area where additional local information indicates that groundwater is vulnerable to pollution.

According to data provided by the Environment Agency and Natural Resources Wales there are three groundwater abstraction licences, twelve surface water abstraction licences, and no potable water abstraction licences within 2000 metres of the site boundary. The nearest being 723m to the north and 1286m to the northeast respectively.

There are no Source Protection Zones, set up to protect a water source within 500 metres of the site of boundary, present according to the environmental data report.

2.5.22 Hydrology

The Ordnance Survey indicate that there are three watercourses (river, stream or canal) within 250 metres of the site boundary, the nearest watercourse (inland river not influenced by normal tidal action) being about 86 metres to the northwest.

There are four surface water features (ponds or lakes) within 250 metres of the site boundary according to the Ordnance Survey, the nearest water feature (inland river not influenced by normal tidal action) being about 86 metres to the northwest.

The Water Framework Directive (WFD) indicates that the site is within the catchment of the River Roch (Spodden to Irwell), this watercourse being about 90 metres to the northwest of the site boundary and the groundwater body is known as the Northern Manchester Carboniferous Aquifers.

7569 – ROCHDALE

2.5.23 Flooding

Flooding data is maintained by the Environment Agency and Natural Resources Wales. The Risk of Flooding from Rivers and Sea (RoFRaS) database indicates that within 50 metres of the site boundary the highest risk of flooding is “Medium”.

In the period since records began in 1946, there are no records of historical floods within 250 metres of the site boundary.

There are no flood defences, one area benefitting from flood defences, about 10m to the northwest, and no flood storage areas present within 250 metres of the site boundary.

The site is within a Flood Zone 2 (Fluvial/ Tidal Models) and Flood Zone 3 (Fluvial Models).

According to Ambiental Risk Analytics surface water “FloodMap” there is a 1 in 100 year, 0.3m – 1.0m risk of surface water flooding on the site and a 1 in 30 year, 0.3m – 1.0m risk of surface water flooding within 50 metres of the site boundary.

Groundwater flooding is caused when the water table rises in areas where this is usually at shallow depth. Ambiental Risk Analytics indicate that there is a low risk of groundwater flooding on the site and a moderate risk of groundwater flooding within 50 metres of the site boundary.

Given the above we anticipate that a Flood Risk Assessment will be required.

2.5.24 Environmental Designations

Natural England, Natural Resources Wales and Scottish Natural Heritage indicate that there are environmental sensitive sites within 2000 metres of the site boundary.

The site is within an SSSI Impact Risk Zone, there are four Sites of Special Scientific Interest (SSSI), with the nearest being 1222m to the southeast, four Special Areas of Conservation (SAC), with the nearest being 1222m to the southeast, three areas of Designated Ancient Woodland, with the nearest being 1240m to the west, and one area of Green Belt Land, which is 1465m to the southwest.

2.5.25 Visual and Cultural, Agricultural and Habitat Designations

Natural England indicate that there are thirteen priority habitats within 250 metres of the site boundary.

2.6 Conceptual Ground Model

A conceptual ground model of a site and its environs uses available information to form a preliminary assessment of contamination sources, pathways and receptors, and the significance of hazards that exist or will potentially exist on the site. Its purpose is to identify the relationships between sources of contamination, pathways and receptors to allow exposure scenarios to be determined and thereby aid in the design of any intrusive investigation. It also forms the basis of the risk assessment.

2.6.1 Sources

Potential sources of contamination identified in the desk study are:

- General contaminants associated with Made Ground (if present) and past and present contaminative processes undertaken on and adjacent to the site including a scrap yard, MOT/repair garage, colliery, cotton mill and unspecified works, earthworks, construction, demolition, and mining.
- On-site spillage and leakage of hydrocarbons (oils and fuels) from vehicles and industrial processes.
- Migrating leachate (contaminated surface and/ or groundwater) from Sewage Works, registered and/ or unregistered landfills.
- Migrating ground gases from registered and/ or unregistered landfills.
- Fire retarding chemicals.

2.6.2 Pathways

Potential pathways from source and receptor for the proposed development are:

- Direct skin contact with and/ or ingestion of contaminated soils and/ or water.
- Inhalation of dust, vapours and/ or gases.
- Dissolved contaminants via infiltrating surface water/ migrating groundwater.
- Dissolved ground gases via infiltrating surface water/ migrating groundwater.
- Volatile contaminants via permeable soils and rocks.
- Ground gases via permeable soils and rocks.

2.6.3 Receptors

Potential receptors for the proposed development are:

- Site operatives during demolition, earthworks and/ or construction.
- The end users of the development.
- Vegetation, bushes and trees planted as part of the development of the site.
- Controlled waters including surface water and groundwater, including aquifers.

2.6.4 Conclusions

An appraisal of the sources, pathways and receptors has been considered and we have produced a conceptual ground model based upon the available information, as follows:

Sub Surface North West Limited
3 Peel Street, Preston, Lancashire, PR2 2QS
Tel: 01772 561135 Fax: 01772 204907 Email: preston@subsurface.co.uk

Asbestos on/ in ground	Asbestos fibres	Asbestos fibres	Inhalation of fibres	Site Operatives End Users	Low
Landfill (registered/ unregistered) Made Ground on Site.	Ground Gas (Asphyxiation, fire and explosion)	Methane Carbon Dioxide	Inhalation of gas Ignition of gas	Site Operatives End Users	Low to Moderate
Building fire on site circa 1998	Contaminants derived from burning materials and use of firefighting foams	per- and polyfluoroalkyl substances (PFAS) PAHs	Ingestion of soil Ingestion of dust Dermal contact Inhalation of dust	Site Operatives End Users	Moderate
			Uptake via contaminated groundwater	Vegetation	Moderate
			Vertical and lateral movement of mobile contaminants to surface water and groundwater	Controlled Waters	Moderate
			Direct contact	Structures and Services	Moderate
Mining (1)	Ground Gas (Asphyxiation, fire and explosion)	Methane Carbon Dioxide	Inhalation of gas Ignition of gas	Site Operatives End Users	Low
Mining (2)	Subsidence	-	-	Structures and services	Moderate

The conceptual ground model indicates that an intrusive ground investigation is required to assess the ground conditions. The ground investigation should obtain soil samples for contamination analysis and asbestos detection and, where possible, groundwater and surface water samples for contamination analysis.

In addition the conceptual ground model indicates that ground gases might be present and hence gas standpipes should be installed and monitored over an extended period of time to allow for an assessment to be made.

Given the findings of the detailed geological and mining risk assessment a rotary borehole investigation is recommended followed by a ground stability assessment in order to determine whether remedial measures are required for the proposed development.

2.7 General

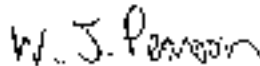
No consideration has been given to flora and fauna as this was outside our brief.

This Phase I walkover survey and desk study should be followed by a Phase II ground investigation. It should be noted that dependent upon the findings of the ground investigation a Phase III remediation statement and Phase IV validation with report may be required.

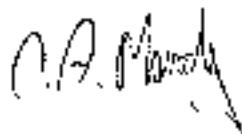
We recommend that consultation should be undertaken with and written approval obtained from the Local Authority Environmental Health Officer, the Local Authority Building Control Officer and the Coal Authority prior to commencing development.

We trust that this report fulfils your present requirements but if you have any queries or we can be of further assistance please contact the undersigned or Ms Anna Marsden at our Preston office.

SUB SURFACE CONSULTANTS LIMITED
REPORT No. 7569
SEPTEMBER 2022



W. J. Pearson B.Sc.(Hons.), M.Sc.
Geotechnical Engineer
For and on behalf of
Sub Surface Consultants Limited



C. A. Marsden B.Sc.(Hons.), C.Eng., M.I.C.E.
Director
For and on behalf of
Sub Surface Consultants Limited.

PRELIMINARY RISK RATING GUIDANCE

PRELIMINARY RISK RATING GUIDANCE

The following table based on CIRIA C552 'Contaminated Land Risk Assessment. A Guide to Good Practice' has been used when developing the Conceptual Ground Model and the preliminary risk ratings. The method requires an assessment of the magnitude of the probability or likelihood of the risk occurring and the magnitude of the potential consequence or severity of the risk occurring to formulate a preliminary risk rating (Table A).

Table A DESCRIPTION OF RISK AND LIKELY ACTION REQUIRED

Preliminary Risk Rating	Action Required
Very High Risk	Extensive Ground Investigation Required. There is a high probability that severe harm could arise to a designated receptor from an identified hazard, or there is evidence that severe harm to a designated receptor is currently happening. This risk, if realised, is likely to result in a substantial liability. Urgent investigation (if not undertaken already) and remediation are likely to be required.
High Risk	Extensive Ground Investigation Required. Harm is likely to arise to a designated receptor from an identified hazard. Realisation of the risk is likely to present a substantial liability. Urgent investigation (if not undertaken already) is required and remedial works may be necessary in the short-term and are likely over the longer-term.
Moderate	Ground Investigation Required. It is possible that harm could arise to a designated receptor from an identified hazard. However, it is either relatively unlikely that any such harm would be severe, or if any harm were to occur it is more likely that the harm would be relatively mild. Investigation (if not already undertaken) is normally required to clarify the risk and to determine the potential liability. Some remedial works may be required in the long-term.
Low Risk	Nominal Ground Investigation Required. It is possible that harm could arise to a designated receptor from an identified hazard, but it is likely that this harm, if realised, would at worst normally be mild.
Very Low Risk	No Ground Investigation Required.* There is a low possibility that harm could arise to a receptor. In the event of such harm being realised it is not likely to be severe.
Negligible Risk	No Ground Investigation Required.* There is a very low possibility that harm could arise to a receptor. In the event of such harm being realised it is not likely to be severe.

* No further action is required unless unforeseen contaminated ground conditions are encountered.

PHOTOGRAPHS



SUB SURFACE

SITE INVESTIGATION SPECIALISTS, GEOTECHNICAL & ENVIRONMENTAL CONSULTANTS

3 Peel Street, Preston, Lancashire, PR2 2QS. Tel: (01772) 561135 Fax: (01772) 204907

Photographs

Site: NORMAN ROAD, ROCHDALE

Client: SHEHZAD SULEMAN

Architect: 1618 ARCHITECTS

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ENVIRO+GEO INSIGHT REPORT

Norman Road, Rochdale

Order Details

Date: 12/08/2022
Your ref: CMAPS-CM-1055535-4199-120822
Our Ref: CMAPS-CM-1055535-4199-120822EDRGeo

Site Details

Location: 388720 412719
Area: 0.44 ha
Authority: [Rochdale Metropolitan Borough Council](#)



Summary of findings

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Aerial image

p. 8

OS MasterMap site plan

p.12

groundsure.com/insightuserguide

Contact us with any questions at:

info@groundsure.com

08444 159 000

Summary of findings

Page	Section	Past land use	On site	0-50m	50-250m	250-500m	500-2000m
13	1.1	Historical industrial land uses	9	12	38	94	-
19	1.2	Historical tanks	0	1	17	69	-
23	1.3	Historical energy features	0	1	3	25	-
24	1.4	Historical petrol stations	0	0	0	0	-
24	1.5	Historical garages	0	0	0	7	-
25	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
26	2.1	Historical industrial land uses	12	16	60	139	-
35	2.2	Historical tanks	0	1	20	107	-
39	2.3	Historical energy features	0	2	3	47	-
42	2.4	Historical petrol stations	0	0	0	0	-
42	2.5	Historical garages	0	0	0	11	-
Page	Section	Waste and landfill	On site	0-50m	50-250m	250-500m	500-2000m
43	3.1	Active or recent landfill	0	0	0	0	-
43	3.2	Historical landfill (BGS records)	0	0	1	0	-
44	3.3	Historical landfill (LA/mapping records)	0	0	1	2	-
44	3.4	Historical landfill (EA/NRW records)	0	1	2	1	-
45	3.5	Historical waste sites	0	1	3	2	-
46	3.6	Licensed waste sites	0	1	13	0	-
51	3.7	Waste exemptions	0	1	0	31	-
Page	Section	Current industrial land use	On site	0-50m	50-250m	250-500m	500-2000m
54	4.1	Recent industrial land uses	2	7	26	-	-
57	4.2	Current or recent petrol stations	0	0	0	1	-
57	4.3	Electricity cables	0	0	0	0	-
57	4.4	Gas pipelines	0	0	0	0	-
57	4.5	Sites determined as Contaminated Land	0	0	0	1	-



58	4.6	<u>Control of Major Accident Hazards (COMAH)</u>	0	0	1	1	-
58	4.7	Regulated explosive sites	0	0	0	0	-
58	4.8	<u>Hazardous substance storage/usage</u>	0	0	0	2	-
59	4.9	Historical licensed industrial activities (IPC)	0	0	0	0	-
59	4.10	<u>Licensed industrial activities (Part A(1))</u>	0	0	0	1	-
60	4.11	<u>Licensed pollutant release (Part A(2)/B)</u>	0	0	3	0	-
60	4.12	Radioactive Substance Authorisations	0	0	0	0	-
60	4.13	<u>Licensed Discharges to controlled waters</u>	0	0	1	11	-
62	4.14	Pollutant release to surface waters (Red List)	0	0	0	0	-
63	4.15	<u>Pollutant release to public sewer</u>	0	2	0	0	-
63	4.16	List 1 Dangerous Substances	0	0	0	0	-
63	4.17	List 2 Dangerous Substances	0	0	0	0	-
63	4.18	<u>Pollution Incidents (EA/NRW)</u>	0	9	1	5	-
65	4.19	Pollution inventory substances	0	0	0	0	-
65	4.20	Pollution inventory waste transfers	0	0	0	0	-
66	4.21	Pollution inventory radioactive waste	0	0	0	0	-
Page	Section	Hydrogeology	On site	0-50m	50-250m	250-500m	500-2000m
67	5.1	<u>Superficial aquifer</u>	Identified (within 500m)				
68	5.2	<u>Bedrock aquifer</u>	Identified (within 500m)				
69	5.3	<u>Groundwater vulnerability</u>	Identified (within 50m)				
70	5.4	Groundwater vulnerability- soluble rock risk	None (within 0m)				
70	5.5	Groundwater vulnerability- local information	None (within 0m)				
71	5.6	<u>Groundwater abstractions</u>	0	0	0	0	3
72	5.7	<u>Surface water abstractions</u>	0	0	0	0	12
76	5.8	Potable abstractions	0	0	0	0	0
76	5.9	Source Protection Zones	0	0	0	0	-
76	5.10	Source Protection Zones (confined aquifer)	0	0	0	0	-
Page	Section	Hydrology	On site	0-50m	50-250m	250-500m	500-2000m
77	6.1	<u>Water Network (OS MasterMap)</u>	0	0	3	-	-



78	6.2	<u>Surface water features</u>	0	0	4	-	-
78	6.3	<u>WFD Surface water body catchments</u>	1	-	-	-	-
79	6.4	<u>WFD Surface water bodies</u>	0	0	1	-	-
79	6.5	<u>WFD Groundwater bodies</u>	1	-	-	-	-
Page	Section	River and coastal flooding	On site	0-50m	50-250m	250-500m	500-2000m
80	7.1	<u>Risk of flooding from rivers and the sea</u>	Medium (within 50m)				
81	7.2	Historical Flood Events	0	0	0	-	-
81	7.3	Flood Defences	0	0	0	-	-
81	7.4	<u>Areas Benefiting from Flood Defences</u>	0	1	0	-	-
82	7.5	Flood Storage Areas	0	0	0	-	-
83	7.6	<u>Flood Zone 2</u>	Identified (within 50m)				
84	7.7	<u>Flood Zone 3</u>	Identified (within 50m)				
Page	Section	Surface water flooding					
85	8.1	<u>Surface water flooding</u>	1 in 30 year, 0.3m - 1.0m (within 50m)				
Page	Section	Groundwater flooding					
87	9.1	<u>Groundwater flooding</u>	Moderate (within 50m)				
Page	Section	Environmental designations	On site	0-50m	50-250m	250-500m	500-2000m
88	10.1	<u>Sites of Special Scientific Interest (SSSI)</u>	0	0	0	0	4
89	10.2	Conserved wetland sites (Ramsar sites)	0	0	0	0	0
89	10.3	<u>Special Areas of Conservation (SAC)</u>	0	0	0	0	4
90	10.4	Special Protection Areas (SPA)	0	0	0	0	0
90	10.5	National Nature Reserves (NNR)	0	0	0	0	0
90	10.6	Local Nature Reserves (LNR)	0	0	0	0	0
90	10.7	<u>Designated Ancient Woodland</u>	0	0	0	0	3
91	10.8	Biosphere Reserves	0	0	0	0	0
91	10.9	Forest Parks	0	0	0	0	0
91	10.10	Marine Conservation Zones	0	0	0	0	0
91	10.11	<u>Green Belt</u>	0	0	0	0	1
92	10.12	Proposed Ramsar sites	0	0	0	0	0



92	10.13	Possible Special Areas of Conservation (pSAC)	0	0	0	0	0
92	10.14	Potential Special Protection Areas (pSPA)	0	0	0	0	0
92	10.15	Nitrate Sensitive Areas	0	0	0	0	0
93	10.16	Nitrate Vulnerable Zones	0	0	0	0	0
94	<u>10.17</u>	<u>SSSI Impact Risk Zones</u>	1	-	-	-	-
95	<u>10.18</u>	<u>SSSI Units</u>	0	0	0	0	4
Page	Section	Visual and cultural designations	On site	0-50m	50-250m	250-500m	500-2000m
97	11.1	World Heritage Sites	0	0	0	-	-
97	11.2	Area of Outstanding Natural Beauty	0	0	0	-	-
97	11.3	National Parks	0	0	0	-	-
97	11.4	Listed Buildings	0	0	0	-	-
98	11.5	Conservation Areas	0	0	0	-	-
98	11.6	Scheduled Ancient Monuments	0	0	0	-	-
98	11.7	Registered Parks and Gardens	0	0	0	-	-
Page	Section	Agricultural designations	On site	0-50m	50-250m	250-500m	500-2000m
99	<u>12.1</u>	<u>Agricultural Land Classification</u>	Urban (within 250m)				
100	12.2	Open Access Land	0	0	0	-	-
100	12.3	Tree Felling Licences	0	0	0	-	-
100	12.4	Environmental Stewardship Schemes	0	0	0	-	-
100	12.5	Countryside Stewardship Schemes	0	0	0	-	-
Page	Section	Habitat designations	On site	0-50m	50-250m	250-500m	500-2000m
101	<u>13.1</u>	<u>Priority Habitat Inventory</u>	0	1	12	-	-
102	13.2	Habitat Networks	0	0	0	-	-
102	13.3	Open Mosaic Habitat	0	0	0	-	-
102	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
104	<u>14.1</u>	<u>10k Availability</u>	Identified (within 500m)				
105	<u>14.2</u>	<u>Artificial and made ground (10k)</u>	1	0	1	0	-
106	<u>14.3</u>	<u>Superficial geology (10k)</u>	1	1	1	0	-

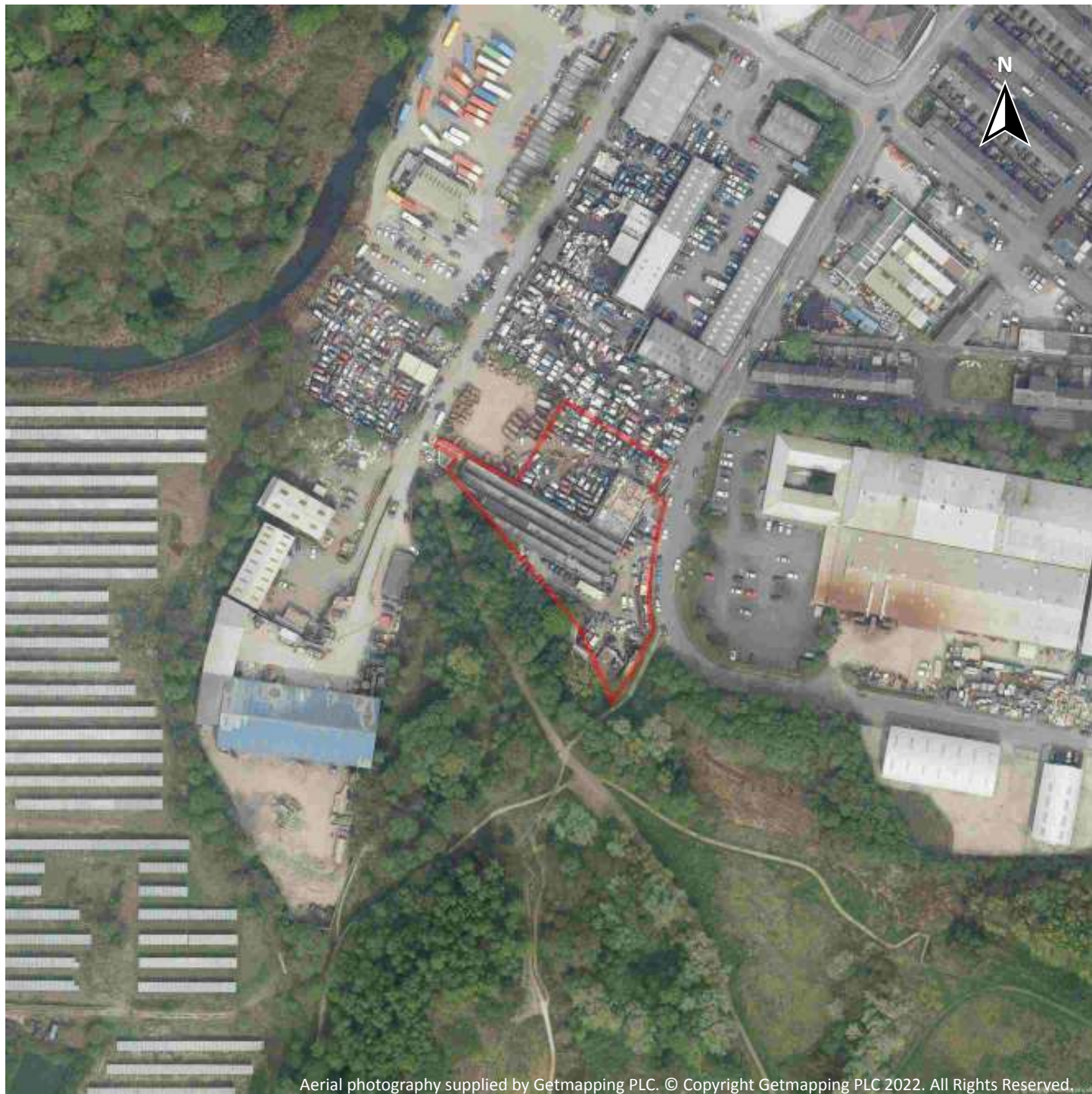


<u>107</u>	<u>14.4</u>	<u>Landslip (10k)</u>	0	0	1	0	-
<u>108</u>	<u>14.5</u>	<u>Bedrock geology (10k)</u>	1	0	2	5	-
<u>109</u>	<u>14.6</u>	<u>Bedrock faults and other linear features (10k)</u>	1	1	2	3	-
Page	Section	Geology 1:50,000 scale	On site	0-50m	50-250m	250-500m	500-2000m
<u>110</u>	<u>15.1</u>	<u>50k Availability</u>	Identified (within 500m)				
111	15.2	Artificial and made ground (50k)	0	0	0	0	-
111	15.3	Artificial ground permeability (50k)	0	0	-	-	-
<u>112</u>	<u>15.4</u>	<u>Superficial geology (50k)</u>	1	1	1	2	-
<u>113</u>	<u>15.5</u>	<u>Superficial permeability (50k)</u>	Identified (within 50m)				
<u>113</u>	<u>15.6</u>	<u>Landslip (50k)</u>	0	0	1	0	-
113	15.7	Landslip permeability (50k)	None (within 50m)				
<u>114</u>	<u>15.8</u>	<u>Bedrock geology (50k)</u>	1	0	2	5	-
<u>115</u>	<u>15.9</u>	<u>Bedrock permeability (50k)</u>	Identified (within 50m)				
<u>115</u>	<u>15.10</u>	<u>Bedrock faults and other linear features (50k)</u>	1	0	2	2	-
Page	Section	Boreholes	On site	0-50m	50-250m	250-500m	500-2000m
<u>117</u>	<u>16.1</u>	<u>BGS Boreholes</u>	0	2	17	-	-
Page	Section	Natural ground subsidence					
<u>119</u>	<u>17.1</u>	<u>Shrink swell clays</u>	Very low (within 50m)				
<u>120</u>	<u>17.2</u>	<u>Running sands</u>	Low (within 50m)				
<u>122</u>	<u>17.3</u>	<u>Compressible deposits</u>	Moderate (within 50m)				
<u>124</u>	<u>17.4</u>	<u>Collapsible deposits</u>	Very low (within 50m)				
<u>125</u>	<u>17.5</u>	<u>Landslides</u>	Very low (within 50m)				
<u>126</u>	<u>17.6</u>	<u>Ground dissolution of soluble rocks</u>	Negligible (within 50m)				
Page	Section	Mining, ground workings and natural cavities	On site	0-50m	50-250m	250-500m	500-2000m
128	18.1	Natural cavities	0	0	0	0	-
<u>129</u>	<u>18.2</u>	<u>BritPits</u>	0	0	1	7	-
<u>130</u>	<u>18.3</u>	<u>Surface ground workings</u>	2	3	35	-	-
<u>132</u>	<u>18.4</u>	<u>Underground workings</u>	0	0	0	0	2
132	18.5	Historical Mineral Planning Areas	0	0	0	0	-



132	18.6	Non-coal mining	0	0	0	0	0
133	18.7	Mining cavities	0	0	0	0	0
133	18.8	JPB mining areas	None (within 0m)				
133	18.9	<u>Coal mining</u>	Identified (within 0m)				
133	18.10	Brine areas	None (within 0m)				
134	18.11	Gypsum areas	None (within 0m)				
134	18.12	Tin mining	None (within 0m)				
134	18.13	Clay mining	None (within 0m)				
Page	Section	Radon					
135	19.1	<u>Radon</u>	Less than 1% (within 0m)				
Page	Section	Soil chemistry	On site	0-50m	50-250m	250-500m	500-2000m
136	20.1	<u>BGS Estimated Background Soil Chemistry</u>	1	1	-	-	-
136	20.2	BGS Estimated Urban Soil Chemistry	0	0	-	-	-
136	20.3	BGS Measured Urban Soil Chemistry	0	0	-	-	-
Page	Section	Railway infrastructure and projects	On site	0-50m	50-250m	250-500m	500-2000m
137	21.1	Underground railways (London)	0	0	0	-	-
137	21.2	Underground railways (Non-London)	0	0	0	-	-
138	21.3	Railway tunnels	0	0	0	-	-
138	21.4	<u>Historical railway and tunnel features</u>	0	0	6	-	-
138	21.5	Royal Mail tunnels	0	0	0	-	-
139	21.6	Historical railways	0	0	0	-	-
139	21.7	Railways	0	0	0	-	-
139	21.8	Crossrail 1	0	0	0	0	-
139	21.9	Crossrail 2	0	0	0	0	-
139	21.10	HS2	0	0	0	0	-

Recent aerial photograph



Capture Date: 23/05/2019

Site Area: 0.44ha



Recent site history - 2012 aerial photograph



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Capture Date: 26/03/2012

Site Area: 0.44ha



Recent site history - 2000 aerial photograph



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Capture Date: 19/06/2000

Site Area: 0.44ha



Recent site history - 1999 aerial photograph



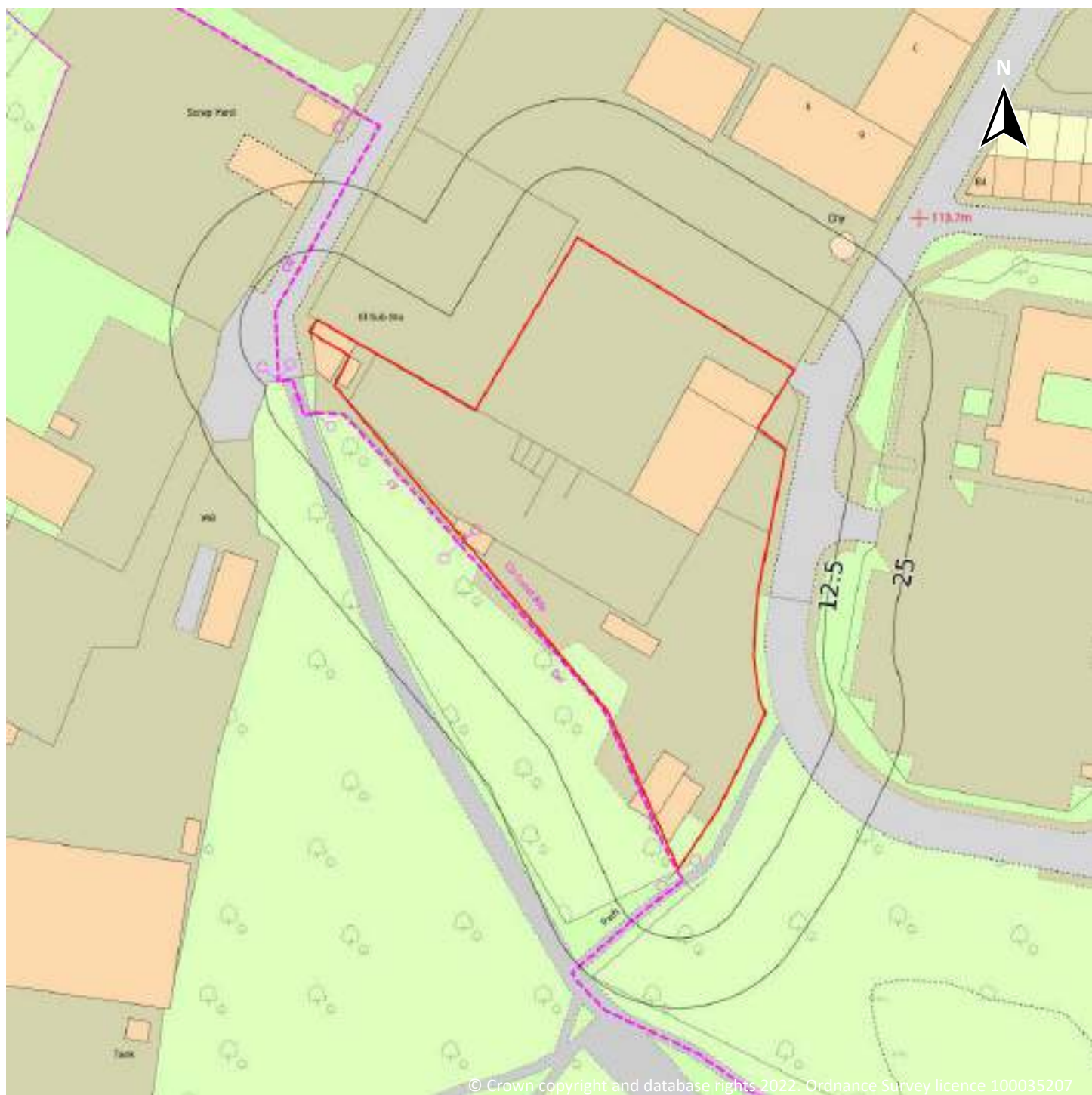
Aerial photography supplied by Getmapping PLC. © Copyright Getmapping PLC 2022. All Rights Reserved.

Capture Date: 10/09/1999

Site Area: 0.44ha



OS MasterMap site plan



Site Area: 0.44ha



1 Past land use



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

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1.1 Historical industrial land uses

Records within 500m

153

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

Features are displayed on the Past land use map on **page 13**

ID	Location	Land use	Dates present	Group ID
A	On site	Colliery	1851	645246



ID	Location	Land use	Dates present	Group ID
A	On site	Unspecified Works	1968	701380
A	On site	Unspecified Mill	1928 - 1938	702127
A	On site	Unspecified Mill	1949	707027
A	On site	Unspecified Mill	1908	723008
A	On site	Unspecified Commercial/Industrial	1968 - 1975	744042
A	On site	Industrial Estate	1987 - 1992	770430
A	On site	Unspecified Mill	1890	786193
B	On site	Gravel Pit	1890	652934
1	6m SW	Colliery	1851	645245
C	11m W	Unspecified Mills	1968 - 1975	772761
A	11m NW	Shed	1851	659583
A	14m W	Unspecified Works	1987 - 1992	773433
2	15m E	Unspecified Works	1992	678966
C	15m SW	Unspecified Mills	1949	759796
A	15m NW	Unspecified Commercial/Industrial	1975	643270
B	19m SW	Unspecified Ground Workings	1908	648046
C	20m W	Unspecified Mill	1908	657015
C	21m W	Unspecified Mills	1928 - 1938	774238
D	44m N	Unspecified Mill	1968 - 1975	762738
E	46m W	Sewage Farm	1928	764863
C	58m SW	Unspecified Tank	1908 - 1949	729033
D	59m NW	Unspecified Mill	1890 - 1938	788874
D	63m N	Unspecified Mill	1949	750483
E	67m W	Sewage Farm	1949	788969
3	69m W	Sewage Works	1975 - 1992	725350
4	70m W	Sludge Lagoons	1975	762930
5	71m E	Unspecified Heap	1938	650756
6	72m W	Sludge Lagoons	1987 - 1992	723894



ID	Location	Land use	Dates present	Group ID
F	77m NE	Laundry	1928 - 1938	746289
H	124m SE	Refuse Heap	1987	734733
I	144m SE	Unspecified Heap	1949	726687
I	144m SE	Unspecified Heap	1968 - 1992	762394
I	145m S	Unspecified Heap	1928 - 1938	787494
I	150m S	Unspecified Ground Workings	1908	648045
J	152m NE	Brick Works	1908	749241
J	153m NE	Brick Works	1928 - 1938	748954
J	172m NE	Unspecified Heap	1890 - 1908	742696
D	173m N	Unspecified Tank	1908	740259
D	176m N	Unspecified Tank	1949	748211
J	184m NE	Railway Sidings	1908	759045
J	184m NE	Railway Sidings	1928 - 1938	782338
J	184m NE	Unspecified Pit	1968 - 1975	749474
7	186m W	Railway Sidings	1949	641623
K	191m NW	Unspecified Heap	1908	650754
L	197m N	Unspecified Mills	1908	747111
L	199m N	Unspecified Mills	1928 - 1938	707412
8	201m W	Sludge Beds	1987 - 1992	752789
L	201m N	Woollen Mill	1851	670984
M	202m NE	Gas Works	1908	721516
I	203m S	Refuse Heap	1908	677420
L	205m N	Unspecified Mills	1949	766909
M	209m NE	Unspecified Works	1968	678967
M	209m NE	Unspecified Commercial/Industrial	1949	711256
K	211m N	Refuse Heap	1928 - 1938	724425
9	216m S	Unspecified Disused Tip	1992	654671
K	219m N	Refuse Heap	1949	734879



ID	Location	Land use	Dates present	Group ID
J	227m NE	Unspecified Quarry	1908	768102
J	235m NE	Unspecified Quarry	1928 - 1938	738831
L	253m N	Unspecified Mill	1890	657014
M	260m NE	Gasometer	1908	655110
M	260m NE	Unspecified Tank	1928 - 1938	768365
J	264m NE	Unspecified Pit	1968 - 1975	726278
H	264m SE	Refuse Heap	1975	782818
M	267m NE	Unspecified Tank	1949	729919
M	267m NE	Unspecified Tank	1968 - 1992	737435
H	269m E	Refuse Heap	1949	776854
11	276m E	Cuttings	1851	642618
M	279m E	Unspecified Commercial/Industrial	1928 - 1938	713479
M	289m E	Unspecified Commercial/Industrial	1975 - 1992	738979
M	293m NE	Gas Works	1890	735188
N	303m E	Unspecified Ground Workings	1949	648020
M	314m NE	Gasometers	1890 - 1908	706696
M	315m NE	Unspecified Tank	1928 - 1938	780786
M	317m NE	Unspecified Tank	1975 - 1992	756378
M	321m NE	Unspecified Tank	1968	755852
M	321m NE	Unspecified Tank	1949	773040
O	325m W	Unspecified Works	1968	678965
N	326m E	Unspecified Pit	1890	690685
M	331m NE	Unspecified Tanks	1908	666406
13	333m E	Unspecified Ground Workings	1890	648019
14	344m N	Unspecified Mill	1890 - 1908	754245
M	346m NE	Unspecified Tank	1928 - 1938	705447
M	351m NE	Unspecified Tank	1949	749036
M	351m NE	Unspecified Tank	1968 - 1992	771526



ID	Location	Land use	Dates present	Group ID
M	352m NE	Unspecified Tanks	1908	666407
M	356m NE	Unspecified Tank	1949	674712
Q	358m N	Sand Pit	1851	643846
R	366m S	Refuse Heap	1949	780948
R	366m S	Refuse Heap	1938	762926
N	367m E	Unspecified Pit	1890	690687
R	367m S	Refuse Heap	1928	697271
S	373m NE	Unspecified Works	1975	678968
P	373m SW	Unspecified Mills	1890	653215
S	373m NE	Unspecified Commercial/Industrial	1987 - 1992	768228
M	380m NE	Unspecified Tank	1928 - 1938	776653
15	382m E	Sand Pit	1851	643845
M	385m NE	Unspecified Tank	1968	701522
M	385m NE	Unspecified Tank	1949	736521
Q	385m N	Unspecified Works	1908	700400
Q	386m N	Unspecified Works	1928 - 1938	778348
T	388m W	Unspecified Tanks	1987 - 1992	728221
Q	389m N	Unspecified Works	1949	740262
M	391m NE	Unspecified Tanks	1908	666405
O	393m SW	Sewage Farm	1890	778690
19	394m SE	Refuse Heap	1908	739108
P	398m SW	Settling Tanks	1908	681806
M	407m NE	Unspecified Tank	1928 - 1938	787884
Q	407m N	Sand Pit	1851	643847
M	407m NE	Gasometer	1890 - 1908	790690
M	410m NE	Unspecified Depot	1987 - 1992	743479
U	412m NW	Garage	1987 - 1992	745291
V	414m N	Unspecified Pit	1890	690684



ID	Location	Land use	Dates present	Group ID
20	416m S	Refuse Heap	1851	677419
V	417m N	Unspecified Heaps	1987 - 1992	733057
21	418m NW	Sand Pit	1890	643844
S	420m NE	Unspecified Commercial/Industrial	1987 - 1992	714400
O	425m W	Unspecified Heap	1908	650753
22	427m N	Unspecified Mill	1987 - 1992	754845
V	431m N	Unspecified Quarry	1890	667799
O	431m SW	Unspecified Tanks	1987 - 1992	748092
W	431m NE	Cotton Mill	1851	644261
M	434m E	Unspecified Ground Workings	1968 - 1992	757649
Q	434m N	Unspecified Heap	1975	717515
V	435m N	Mill Pond	1928 - 1938	769736
23	437m SE	Hospital	1992	682599
M	438m NE	Gas Works	1851	701538
V	440m N	Unspecified Pit	1968 - 1975	775373
U	441m NW	Unspecified Ground Workings	1928	740857
V	443m N	Mill Pond	1949	761387
U	444m NW	Unspecified Ground Workings	1968 - 1975	732129
U	444m NW	Unspecified Ground Workings	1949	734239
Q	445m N	Unspecified Heap	1987 - 1992	713231
M	448m E	Unspecified Ground Workings	1890	700601
P	449m SW	Unspecified Heap	1968 - 1975	757754
Q	454m N	Nursery	1890 - 1908	696329
24	460m S	Brick Field	1851	668535
O	464m W	Filter Beds	1987 - 1992	719807
M	466m NE	Gasometers	1851	652228
X	474m N	Unspecified Works	1987 - 1992	730963
Y	479m NE	Iron Works	1928 - 1938	711428



ID	Location	Land use	Dates present	Group ID
Y	484m NE	Iron Works	1949	776877
28	484m E	Refuse Heap	1851	677421
Y	485m NE	Unspecified Mills	1975	724503
Y	485m NE	Unspecified Works	1987 - 1992	737212
Y	486m NE	Unspecified Works	1968	740403
Y	486m NE	Unspecified Commercial/Industrial	1968	643263
W	492m NE	Unspecified Mills	1949	653259
X	493m N	Unspecified Ground Workings	1975 - 1992	696220
X	494m N	Unspecified Quarry	1928 - 1938	782710
30	496m W	Unspecified Disused Tip	1992	654670
Z	497m N	Woollen Mill	1851	670986
W	498m NE	Unspecified Commercial/Industrial	1968	643264

This data is sourced from Ordnance Survey / Groundsure.

1.2 Historical tanks

Records within 500m

87

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 13**

ID	Location	Land use	Dates present	Group ID
A	14m NE	Unspecified Tank	1890	84213
C	59m SW	Unspecified Tank	1957	96780
F	89m NE	Unspecified Tank	1957	103878
F	89m NE	Unspecified Tank	-	77904
G	109m NW	Unspecified Tank	1957	102083
G	109m NW	Unspecified Tank	-	77930



ID	Location	Land use	Dates present	Group ID
G	109m NW	Unspecified Tank	1957	89624
G	109m NW	Unspecified Tank	1984	100022
G	145m W	Unspecified Tank	1957	91675
G	145m W	Unspecified Tank	1957	102249
G	148m NW	Unspecified Tank	1984	84210
G	149m NW	Unspecified Tank	1957	96678
G	149m NW	Unspecified Tank	1957	99854
G	151m NW	Unspecified Tank	-	77879
D	173m N	Unspecified Tank	1890	84208
D	178m N	Unspecified Tank	1957	95963
D	179m N	Unspecified Tank	-	77878
10	242m SE	Unspecified Tank	1891	84317
M	254m NE	Gasholder Station	1990	85874
M	259m NE	Gasometer	1910	78080
M	259m NE	Unspecified Tank	1930	103497
M	266m NE	Gas Holder	1990	88188
M	266m NE	Unspecified Tank	1957 - 1984	96689
M	266m NE	Unspecified Tank	-	77847
M	268m NE	Unspecified Tank	1957	92517
M	272m NE	Unspecified Tank	1973 - 1993	92553
12	279m NW	Unspecified Tank	1910	84209
M	284m E	Gasholder Station	1973 - 1974	101994
M	284m E	Gas Holder Station	1993	95263
M	293m E	Gasholder Station	1985 - 1990	88747
L	300m N	Unspecified Tank	1910 - 1930	97541
M	311m NE	Gasholder	1973	85852
M	311m NE	Unspecified Tank	1957	95823
M	311m NE	Gas Holder	1993	102245

ID	Location	Land use	Dates present	Group ID
M	311m NE	Tanks	1930	98467
M	311m NE	Gasometers	1890 - 1910	104228
M	312m NE	Gas Holder	1985 - 1990	98797
L	316m N	Unspecified Tank	1890	84207
M	330m NE	Unspecified Tank	1890 - 1930	103378
M	331m NE	Unspecified Tank	1910	84323
P	336m SW	Tanks	1930	87685
M	351m NE	Unspecified Tank	1930	84320
M	351m NE	Oil Tank	1910	88151
M	352m NE	Gas Holder	1985 - 1993	103081
M	352m NE	Unspecified Tank	1957	84321
M	352m NE	Gasholder	1973	85851
M	364m NE	Unspecified Tank	1910 - 1930	89781
S	370m NE	Tanks	1910	87682
P	372m SW	Tanks	1930	87679
M	382m NE	Gas Holder Station	1979 - 1988	102601
M	382m NE	Gasholder Station	1997	101097
16	383m SW	Settling Tanks	1978	78169
M	386m NE	Unspecified Tank	1957	98431
T	387m W	Tanks	1990 - 1993	100900
M	387m NE	Unspecified Tank	1957	95804
18	388m NE	Unspecified Tank	1890 - 1930	95266
M	390m NE	Gas Works	1967	88580
Q	390m N	Tanks	1910	87681
M	394m NE	Unspecified Tank	1890	84324
S	394m NE	Unspecified Tank	1890	84325
M	394m NE	Tanks	1910 - 1930	99934
P	397m SW	Settling Tanks	1910 - 1930	104020

ID	Location	Land use	Dates present	Group ID
P	399m SW	Tanks	1990 - 1992	95739
M	403m NE	Unspecified Tank	1890	93909
S	404m NE	Unspecified Tank	1890	84206
M	404m NE	Unspecified Tank	1910 - 1930	90847
M	405m NE	Oil Tank	1910	88152
M	406m NE	Unspecified Tank	1930	84328
M	406m NE	Gasometer	1890 - 1910	89434
M	412m NE	Unspecified Tank	1959 - 1967	101819
M	422m NE	Tanks	1957	101178
M	422m NE	Tanks	1973	97431
O	438m SW	Tanks	1990	102872
O	438m SW	Tanks	1993	88962
M	444m NE	Unspecified Tank	1910 - 1930	100490
P	460m SW	Unspecified Tank	1957	99740
P	460m SW	Unspecified Tank	1957 - 1964	93341
M	461m NE	Tanks	1930	87687
M	466m NE	Tanks	1890 - 1910	92095
M	467m NE	Tar Tanks	1910	78341
25	478m SW	Settling Tanks	1978	78170
O	479m SW	Unspecified Tank	1978	98113
P	479m SW	Unspecified Tank	1910 - 1930	100652
O	479m SW	Unspecified Tank	1990	92296
O	480m SW	Unspecified Tank	1992	93416
M	496m NE	Tanks	1910 - 1930	100099
M	500m NE	Tanks	1957	103391

This data is sourced from Ordnance Survey / Groundsure.



1.3 Historical energy features

Records within 500m

29

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 13**

ID	Location	Land use	Dates present	Group ID
A	0m SW	Electricity Substation	1984 - 1990	57391
F	65m E	Electricity Substation	1990	45540
F	131m NE	Electricity Substation	1990	45541
M	198m NE	Corporation Gas Works	1890 - 1910	59229
M	254m NE	Gasholder Station	1990	46362
M	259m NE	Gasometer	1910	46132
M	266m NE	Gas Holder	1990	46490
M	284m E	Gasholder Station	1973 - 1974	57081
M	284m E	Gas Holder Station	1993	57023
M	293m E	Gasholder Station	1985 - 1990	51739
M	311m NE	Gasholder	1973	46340
M	311m NE	Gas Holder	1993	58404
M	311m NE	Gasometers	1890 - 1910	49188
M	312m NE	Gas Holder	1985 - 1990	55941
Q	347m N	Electricity Substation	1987 - 1995	57714
M	352m NE	Gas Holder	1985 - 1993	53607
M	352m NE	Gasholder	1973	46339
M	382m NE	Gas Holder Station	1979 - 1988	54374
M	382m NE	Gasholder Station	1997	53887
17	384m E	Electricity Substation	1985 - 1993	57783
M	389m NE	Electricity Substation	1988 - 1997	55227



ID	Location	Land use	Dates present	Group ID
M	390m NE	Gas Works	1967	46625
M	406m NE	Gasometer	1890 - 1910	49944
P	446m SW	Electricity Substation	1990 - 1992	48196
O	479m W	Electricity Substation	1990 - 1993	56892
26	479m NW	Electricity Substation	1992	45491
27	481m SW	Electricity Substation	1990 - 1992	50686
W	486m NE	Corporation Electricity Station	1910	46385
29	490m W	Electricity Substation	1972 - 1993	58765

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

7

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 13**

ID	Location	Land use	Dates present	Group ID
U	412m NW	Garage	1980 - 1992	17535
U	412m NW	Garage	1989	17042
M	443m E	Garage	1973	15329

ID	Location	Land use	Dates present	Group ID
M	444m E	Garage	1993	15733
M	445m E	Garage	1985 - 1990	19160
Z	485m N	Garage	1959 - 1978	17439
Z	500m N	Garage	1959	16797

This data is sourced from Ordnance Survey / Groundsure.

1.6 Historical military land

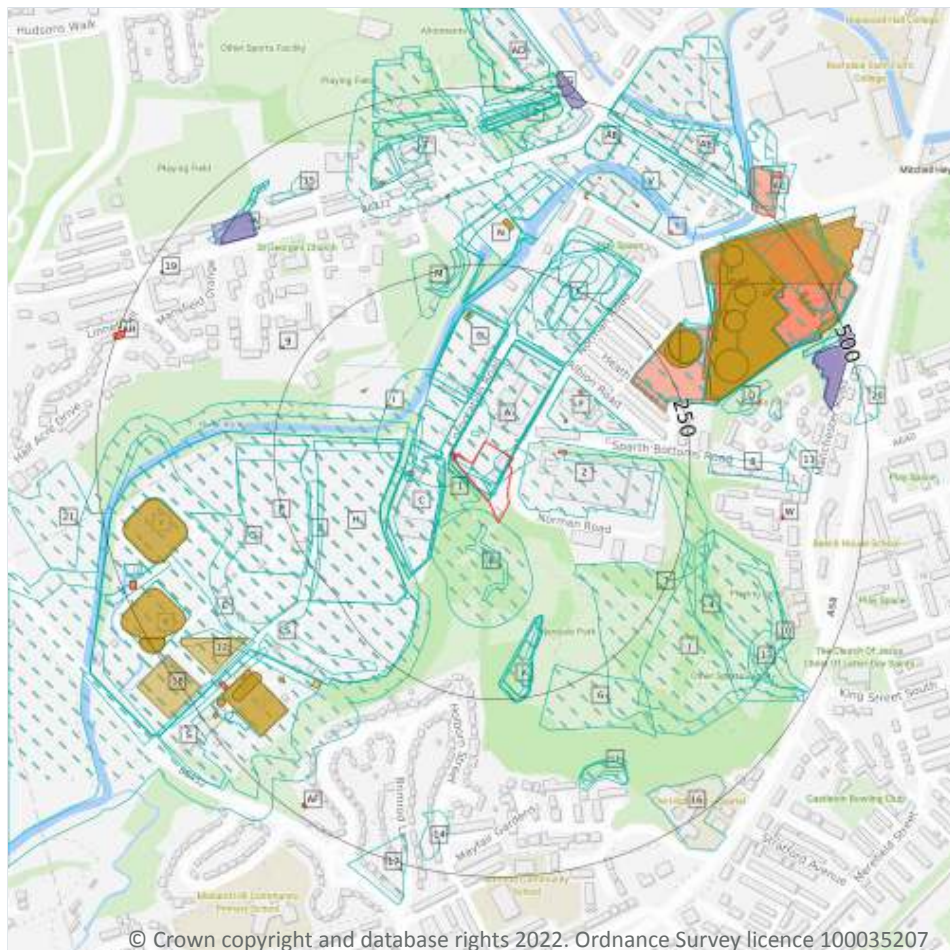
Records within 500m

0

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

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

2 Past land use - un-grouped



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

2.1 Historical industrial land uses

Records within 500m

227

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 26**

ID	Location	Land Use	Date	Group ID
A	On site	Unspecified Mill	1938	702127
A	On site	Unspecified Mill	1908	723008
A	On site	Industrial Estate	1992	770430



ID	Location	Land Use	Date	Group ID
A	On site	Industrial Estate	1987	770430
A	On site	Unspecified Commercial/Industrial	1975	744042
A	On site	Unspecified Works	1968	701380
A	On site	Colliery	1851	645246
A	On site	Unspecified Mill	1949	707027
A	On site	Unspecified Mill	1890	786193
A	On site	Unspecified Commercial/Industrial	1968	744042
A	On site	Unspecified Mill	1928	702127
B	On site	Gravel Pit	1890	652934
1	6m SW	Colliery	1851	645245
C	11m W	Unspecified Mills	1975	772761
C	11m W	Unspecified Mills	1968	772761
A	11m NW	Shed	1851	659583
A	14m W	Unspecified Works	1992	773433
A	14m W	Unspecified Works	1987	773433
2	15m E	Unspecified Works	1992	678966
C	15m SW	Unspecified Mills	1949	759796
A	15m NW	Unspecified Commercial/Industrial	1975	643270
B	19m SW	Unspecified Ground Workings	1908	648046
C	20m W	Unspecified Mill	1908	657015
C	21m W	Unspecified Mills	1938	774238
C	21m W	Unspecified Mills	1928	774238
D	44m N	Unspecified Mill	1975	762738
D	44m N	Unspecified Mill	1968	762738
E	46m W	Sewage Farm	1928	764863
C	58m SW	Unspecified Tank	1949	729033
D	59m NW	Unspecified Mill	1938	788874
D	59m NW	Unspecified Mill	1928	788874



ID	Location	Land Use	Date	Group ID
D	61m NW	Unspecified Mill	1908	788874
D	63m N	Unspecified Mill	1949	750483
C	63m W	Unspecified Tank	1938	729033
C	63m W	Unspecified Tank	1928	729033
C	64m W	Unspecified Tank	1908	729033
E	67m W	Sewage Farm	1949	788969
D	68m NW	Unspecified Mill	1890	788874
G	69m W	Sewage Works	1992	725350
G	69m W	Sewage Works	1987	725350
G	69m W	Sewage Works	1975	725350
3	70m W	Sludge Lagoons	1975	762930
4	71m E	Unspecified Heap	1938	650756
H	72m W	Sludge Lagoons	1992	723894
H	72m W	Sludge Lagoons	1987	723894
F	77m NE	Laundry	1938	746289
F	77m NE	Laundry	1928	746289
J	124m SE	Refuse Heap	1987	734733
K	144m SE	Unspecified Heap	1992	762394
K	144m SE	Unspecified Heap	1987	762394
K	144m SE	Unspecified Heap	1975	762394
K	144m SE	Unspecified Heap	1949	726687
K	144m SE	Unspecified Heap	1968	762394
K	145m S	Unspecified Heap	1938	787494
K	145m S	Unspecified Heap	1928	787494
K	150m S	Unspecified Ground Workings	1908	648045
L	152m NE	Brick Works	1908	749241
L	153m NE	Brick Works	1938	748954
L	153m NE	Brick Works	1928	748954



ID	Location	Land Use	Date	Group ID
L	172m NE	Unspecified Heap	1890	742696
D	173m N	Unspecified Tank	1908	740259
D	176m N	Unspecified Tank	1949	748211
L	184m NE	Railway Sidings	1908	759045
L	184m NE	Railway Sidings	1938	782338
L	184m NE	Railway Sidings	1928	782338
L	184m NE	Unspecified Pit	1975	749474
L	184m NE	Unspecified Pit	1968	749474
5	186m W	Railway Sidings	1949	641623
M	191m NW	Unspecified Heap	1908	650754
N	197m N	Unspecified Mills	1908	747111
N	199m N	Unspecified Mills	1938	707412
N	199m N	Unspecified Mills	1928	707412
P	201m W	Sludge Beds	1992	752789
P	201m W	Sludge Beds	1987	752789
N	201m N	Woollen Mill	1851	670984
O	202m NE	Gas Works	1908	721516
K	203m S	Refuse Heap	1908	677420
N	205m N	Unspecified Mills	1949	766909
O	209m NE	Unspecified Commercial/Industrial	1949	711256
O	209m NE	Unspecified Works	1968	678967
M	211m N	Refuse Heap	1938	724425
M	211m N	Refuse Heap	1928	724425
6	216m S	Unspecified Disused Tip	1992	654671
M	219m N	Refuse Heap	1949	734879
L	227m NE	Unspecified Quarry	1908	768102
L	235m NE	Unspecified Quarry	1938	738831
L	235m NE	Unspecified Quarry	1928	738831

ID	Location	Land Use	Date	Group ID
L	248m NE	Unspecified Heap	1908	742696
N	253m N	Unspecified Mill	1890	657014
O	260m NE	Gasometer	1908	655110
O	260m NE	Unspecified Tank	1938	768365
O	260m NE	Unspecified Tank	1928	768365
L	264m NE	Unspecified Pit	1975	726278
J	264m SE	Refuse Heap	1975	782818
O	267m NE	Unspecified Tank	1992	737435
O	267m NE	Unspecified Tank	1987	737435
O	267m NE	Unspecified Tank	1975	737435
O	267m NE	Unspecified Tank	1949	729919
O	267m NE	Unspecified Tank	1968	737435
J	269m E	Refuse Heap	1949	776854
8	276m E	Cuttings	1851	642618
O	279m E	Unspecified Commercial/Industrial	1938	713479
O	279m E	Unspecified Commercial/Industrial	1928	713479
L	287m N	Unspecified Pit	1968	726278
O	289m E	Unspecified Commercial/Industrial	1992	738979
O	289m E	Unspecified Commercial/Industrial	1987	738979
O	289m E	Unspecified Commercial/Industrial	1975	738979
O	293m NE	Gas Works	1890	735188
Q	303m E	Unspecified Ground Workings	1949	648020
O	314m NE	Gasometers	1890	706696
O	315m NE	Gasometers	1908	706696
O	315m NE	Unspecified Tank	1938	780786
O	315m NE	Unspecified Tank	1928	780786
O	317m NE	Unspecified Tank	1992	756378
O	317m NE	Unspecified Tank	1987	756378



ID	Location	Land Use	Date	Group ID
O	317m NE	Unspecified Tank	1975	756378
O	321m NE	Unspecified Tank	1949	773040
O	321m NE	Unspecified Tank	1968	755852
R	325m W	Unspecified Works	1968	678965
Q	326m E	Unspecified Pit	1890	690685
O	331m NE	Unspecified Tanks	1908	666406
10	333m E	Unspecified Ground Workings	1890	648019
T	344m N	Unspecified Mill	1890	754245
O	346m NE	Unspecified Tank	1938	705447
O	346m NE	Unspecified Tank	1928	705447
O	351m NE	Unspecified Tank	1992	771526
O	351m NE	Unspecified Tank	1987	771526
O	351m NE	Unspecified Tank	1975	771526
O	351m NE	Unspecified Tank	1949	749036
O	351m NE	Unspecified Tank	1968	771526
O	352m NE	Unspecified Tanks	1908	666407
O	356m NE	Unspecified Tank	1949	674712
T	358m N	Sand Pit	1851	643846
U	366m S	Refuse Heap	1949	780948
U	366m S	Refuse Heap	1938	762926
Q	367m E	Unspecified Pit	1890	690687
U	367m S	Refuse Heap	1928	697271
V	373m NE	Unspecified Works	1975	678968
S	373m SW	Unspecified Mills	1890	653215
V	373m NE	Unspecified Commercial/Industrial	1992	768228
V	373m NE	Unspecified Commercial/Industrial	1987	768228
O	380m NE	Unspecified Tank	1938	776653
O	380m NE	Unspecified Tank	1928	776653

ID	Location	Land Use	Date	Group ID
11	382m E	Sand Pit	1851	643845
O	385m NE	Unspecified Tank	1949	736521
O	385m NE	Unspecified Tank	1968	701522
T	385m N	Unspecified Works	1908	700400
T	386m N	Unspecified Works	1938	778348
T	386m N	Unspecified Works	1928	778348
X	388m W	Unspecified Tanks	1992	728221
X	388m W	Unspecified Tanks	1987	728221
T	389m N	Unspecified Works	1949	740262
O	391m NE	Unspecified Tanks	1908	666405
R	393m SW	Sewage Farm	1890	778690
13	394m SE	Refuse Heap	1908	739108
Z	395m N	Unspecified Mill	1908	754245
S	398m SW	Settling Tanks	1908	681806
O	407m NE	Unspecified Tank	1938	787884
O	407m NE	Unspecified Tank	1928	787884
T	407m N	Sand Pit	1851	643847
O	407m NE	Gasometer	1908	790690
O	410m NE	Gasometer	1890	790690
O	410m NE	Unspecified Depot	1992	743479
O	410m NE	Unspecified Depot	1987	743479
AA	412m NW	Garage	1992	745291
AA	412m NW	Garage	1987	745291
Z	414m N	Unspecified Pit	1890	690684
14	416m S	Refuse Heap	1851	677419
Z	417m N	Unspecified Heaps	1992	733057
Z	417m N	Unspecified Heaps	1987	733057
15	418m NW	Sand Pit	1890	643844



ID	Location	Land Use	Date	Group ID
V	420m NE	Unspecified Commercial/Industrial	1992	714400
V	420m NE	Unspecified Commercial/Industrial	1987	714400
R	425m W	Unspecified Heap	1908	650753
AB	427m N	Unspecified Mill	1992	754845
AB	427m N	Unspecified Mill	1987	754845
Z	431m N	Unspecified Quarry	1890	667799
R	431m SW	Unspecified Tanks	1992	748092
R	431m SW	Unspecified Tanks	1987	748092
AC	431m NE	Cotton Mill	1851	644261
O	434m E	Unspecified Ground Workings	1992	757649
O	434m E	Unspecified Ground Workings	1987	757649
O	434m E	Unspecified Ground Workings	1975	757649
O	434m E	Unspecified Ground Workings	1968	757649
T	434m N	Unspecified Heap	1975	717515
Z	435m N	Mill Pond	1938	769736
Z	435m N	Mill Pond	1928	769736
16	437m SE	Hospital	1992	682599
O	438m NE	Gas Works	1851	701538
Z	440m N	Unspecified Pit	1975	775373
Z	440m N	Unspecified Pit	1968	775373
AA	441m NW	Unspecified Ground Workings	1928	740857
Z	443m N	Mill Pond	1949	761387
AA	444m NW	Unspecified Ground Workings	1975	732129
AA	444m NW	Unspecified Ground Workings	1949	734239
AA	444m NW	Unspecified Ground Workings	1968	732129
T	445m N	Unspecified Heap	1992	713231
T	445m N	Unspecified Heap	1987	713231
O	448m E	Unspecified Ground Workings	1890	700601



ID	Location	Land Use	Date	Group ID
S	449m SW	Unspecified Heap	1975	757754
S	449m SW	Unspecified Heap	1968	757754
T	454m N	Nursery	1908	696329
17	460m S	Brick Field	1851	668535
R	464m W	Filter Beds	1992	719807
R	464m W	Filter Beds	1987	719807
O	466m NE	Gasometers	1851	652228
T	468m N	Nursery	1890	696329
AD	474m N	Unspecified Works	1992	730963
AD	474m N	Unspecified Works	1987	730963
AE	479m NE	Iron Works	1938	711428
AE	479m NE	Iron Works	1928	711428
AE	484m NE	Iron Works	1949	776877
20	484m E	Refuse Heap	1851	677421
AE	485m NE	Unspecified Works	1992	737212
AE	485m NE	Unspecified Works	1987	737212
AE	485m NE	Unspecified Mills	1975	724503
AE	486m NE	Unspecified Works	1968	740403
AE	486m NE	Unspecified Commercial/Industrial	1968	643263
AC	492m NE	Unspecified Mills	1949	653259
AD	493m N	Unspecified Ground Workings	1992	696220
AD	493m N	Unspecified Ground Workings	1987	696220
AD	493m N	Unspecified Ground Workings	1975	696220
AD	494m N	Unspecified Quarry	1938	782710
AD	494m N	Unspecified Quarry	1928	782710
21	496m W	Unspecified Disused Tip	1992	654670
AG	497m N	Woollen Mill	1851	670986
AC	498m NE	Unspecified Commercial/Industrial	1968	643264

This data is sourced from Ordnance Survey / Groundsure.



2.2 Historical tanks

Records within 500m

128

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 26**

ID	Location	Land Use	Date	Group ID
A	14m NE	Unspecified Tank	1890	84213
C	59m SW	Unspecified Tank	1957	96780
C	60m SW	Unspecified Tank	1957	96780
F	89m NE	Unspecified Tank	1957	103878
F	89m NE	Unspecified Tank	-	77904
F	90m NE	Unspecified Tank	1957	103878
I	109m NW	Unspecified Tank	1957	102083
I	109m NW	Unspecified Tank	-	77930
I	109m NW	Unspecified Tank	1957	89624
I	109m NW	Unspecified Tank	1984	100022
I	145m W	Unspecified Tank	1957	91675
I	145m W	Unspecified Tank	1957	102249
I	148m NW	Unspecified Tank	1984	84210
I	149m NW	Unspecified Tank	1957	96678
I	149m NW	Unspecified Tank	1957	99854
I	151m NW	Unspecified Tank	-	77879
D	173m N	Unspecified Tank	1890	84208
D	178m N	Unspecified Tank	1957	95963
D	179m N	Unspecified Tank	1957	95963
D	179m N	Unspecified Tank	-	77878
7	242m SE	Unspecified Tank	1891	84317
O	254m NE	Gasholder Station	1990	85874
O	259m NE	Gasometer	1910	78080



ID	Location	Land Use	Date	Group ID
O	259m NE	Unspecified Tank	1930	103497
O	266m NE	Unspecified Tank	1984	96689
O	266m NE	Gas Holder	1990	88188
O	266m NE	Unspecified Tank	-	77847
O	267m NE	Unspecified Tank	1957	96689
O	268m NE	Unspecified Tank	1957	92517
O	272m NE	Unspecified Tank	1993	92553
O	272m NE	Unspecified Tank	1957	92517
O	272m NE	Unspecified Tank	1985	92553
O	272m NE	Unspecified Tank	1990	92553
O	272m NE	Unspecified Tank	1990	92553
O	272m NE	Unspecified Tank	1973	92553
O	272m NE	Unspecified Tank	1957	92517
9	279m NW	Unspecified Tank	1910	84209
O	284m E	Gasholder Station	1973	101994
O	284m E	Gas Holder Station	1993	95263
O	293m E	Gasholder Station	1985	88747
O	293m E	Gasholder Station	1990	88747
O	293m E	Gasholder Station	1990	88747
N	300m N	Unspecified Tank	1910	97541
N	300m N	Unspecified Tank	1930	97541
O	311m NE	Gasholder	1973	85852
O	311m NE	Unspecified Tank	1957	95823
O	311m NE	Gas Holder	1993	102245
O	311m NE	Gasometers	1890	104228
O	311m NE	Gasometers	1910	104228
O	311m NE	Tanks	1930	98467
O	312m NE	Unspecified Tank	1957	95823

ID	Location	Land Use	Date	Group ID
O	312m NE	Gas Holder	1985	98797
O	312m NE	Gas Holder	1990	98797
O	312m NE	Gas Holder	1990	98797
N	316m N	Unspecified Tank	1890	84207
O	330m NE	Unspecified Tank	1890	103378
O	330m NE	Unspecified Tank	1910	103378
O	330m NE	Unspecified Tank	1930	103378
O	331m NE	Unspecified Tank	1910	84323
S	336m SW	Tanks	1930	87685
O	351m NE	Oil Tank	1910	88151
O	351m NE	Unspecified Tank	1930	84320
O	352m NE	Gas Holder	1993	103081
O	352m NE	Gasholder	1973	85851
O	352m NE	Unspecified Tank	1957	84321
O	353m NE	Gas Holder	1985	103081
O	353m NE	Gas Holder	1990	103081
O	353m NE	Gas Holder	1990	103081
O	364m NE	Unspecified Tank	1910	89781
O	364m NE	Unspecified Tank	1930	89781
O	368m NE	Gasholder Station	1974	101994
V	370m NE	Tanks	1910	87682
S	372m SW	Tanks	1930	87679
O	382m NE	Gas Holder Station	1979	102601
O	382m NE	Gas Holder Station	1988	102601
O	382m NE	Gasholder Station	1997	101097
12	383m SW	Settling Tanks	1978	78169
O	386m NE	Unspecified Tank	1957	98431
X	387m W	Tanks	1993	100900



ID	Location	Land Use	Date	Group ID
O	387m NE	Unspecified Tank	1957	95804
X	387m W	Tanks	1990	100900
Y	388m NE	Unspecified Tank	1890	95266
Y	388m NE	Unspecified Tank	1910	95266
Y	388m NE	Unspecified Tank	1930	95266
O	390m NE	Gas Works	1967	88580
T	390m N	Tanks	1910	87681
O	394m NE	Unspecified Tank	1890	84324
V	394m NE	Unspecified Tank	1890	84325
O	394m NE	Tanks	1910	99934
S	397m SW	Settling Tanks	1910	104020
S	397m SW	Settling Tanks	1930	104020
S	399m SW	Tanks	1990	95739
S	399m SW	Tanks	1992	95739
O	403m NE	Tanks	1930	99934
O	403m NE	Unspecified Tank	1890	93909
V	404m NE	Unspecified Tank	1890	84206
O	404m NE	Unspecified Tank	1910	90847
O	404m NE	Unspecified Tank	1930	90847
O	405m NE	Oil Tank	1910	88152
O	406m NE	Gasometer	1890	89434
O	406m NE	Gasometer	1910	89434
O	406m NE	Unspecified Tank	1930	84328
O	412m NE	Unspecified Tank	1959	101819
O	412m NE	Unspecified Tank	1967	101819
O	413m NE	Unspecified Tank	1959	101819
O	422m NE	Tanks	1957	101178
O	422m NE	Tanks	1973	97431

ID	Location	Land Use	Date	Group ID
O	422m NE	Tanks	1957	101178
R	438m SW	Tanks	1990	102872
R	438m SW	Tanks	1993	88962
O	444m NE	Unspecified Tank	1910	100490
O	444m NE	Unspecified Tank	1930	100490
S	460m SW	Unspecified Tank	1957	99740
S	460m SW	Unspecified Tank	1957	93341
S	460m SW	Unspecified Tank	1964	93341
O	461m NE	Tanks	1930	87687
O	466m NE	Tanks	1890	92095
O	466m NE	Tanks	1910	92095
O	467m NE	Tar Tanks	1910	78341
18	478m SW	Settling Tanks	1978	78170
R	479m SW	Unspecified Tank	1978	98113
S	479m SW	Unspecified Tank	1910	100652
S	479m SW	Unspecified Tank	1930	100652
R	479m SW	Unspecified Tank	1990	92296
R	480m SW	Unspecified Tank	1992	93416
O	496m NE	Tanks	1910	100099
O	496m NE	Tanks	1930	100099
O	500m NE	Tanks	1957	103391

This data is sourced from Ordnance Survey / Groundsure.

2.3 Historical energy features

Records within 500m

52

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 26**



ID	Location	Land Use	Date	Group ID
A	0m SW	Electricity Substation	1984	57391
A	0m SW	Electricity Substation	1990	57391
F	65m E	Electricity Substation	1990	45540
F	131m NE	Electricity Substation	1990	45541
O	198m NE	Corporation Gas Works	1910	59229
O	254m NE	Gasholder Station	1990	46362
O	259m NE	Gasometer	1910	46132
O	266m NE	Gas Holder	1990	46490
O	284m E	Gasholder Station	1973	57081
O	284m E	Gas Holder Station	1993	57023
O	290m NE	Corporation Gas Works	1890	59229
O	293m E	Gasholder Station	1985	51739
O	293m E	Gasholder Station	1990	51739
O	293m E	Gasholder Station	1990	51739
O	311m NE	Gasholder	1973	46340
O	311m NE	Gas Holder	1993	58404
O	311m NE	Gasometers	1890	49188
O	311m NE	Gasometers	1910	49188
O	312m NE	Gas Holder	1985	55941
O	312m NE	Gas Holder	1990	55941
O	312m NE	Gas Holder	1990	55941
T	347m N	Electricity Substation	1987	57714
T	348m N	Electricity Substation	1995	57714
O	352m NE	Gas Holder	1993	53607
O	352m NE	Gasholder	1973	46339
O	353m NE	Gas Holder	1985	53607
O	353m NE	Gas Holder	1990	53607
O	353m NE	Gas Holder	1990	53607

ID	Location	Land Use	Date	Group ID
O	368m NE	Gasholder Station	1974	57081
O	382m NE	Gas Holder Station	1979	54374
O	382m NE	Gas Holder Station	1988	54374
O	382m NE	Gasholder Station	1997	53887
W	384m E	Electricity Substation	1993	57783
W	384m E	Electricity Substation	1985	57783
W	384m E	Electricity Substation	1990	57783
W	384m E	Electricity Substation	1990	57783
O	389m NE	Electricity Substation	1997	55227
O	390m NE	Gas Works	1967	46625
O	390m NE	Electricity Substation	1988	55227
O	406m NE	Gasometer	1890	49944
O	406m NE	Gasometer	1910	49944
S	446m SW	Electricity Substation	1990	48196
S	447m SW	Electricity Substation	1992	48196
R	479m W	Electricity Substation	1993	56892
19	479m NW	Electricity Substation	1992	45491
R	479m W	Electricity Substation	1990	56892
AF	481m SW	Electricity Substation	1992	50686
AF	481m SW	Electricity Substation	1990	50686
AC	486m NE	Corporation Electricity Station	1910	46385
AH	490m W	Electricity Substation	1993	58765
AH	490m W	Electricity Substation	1972	58765
AH	490m W	Electricity Substation	1990	58765

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

11

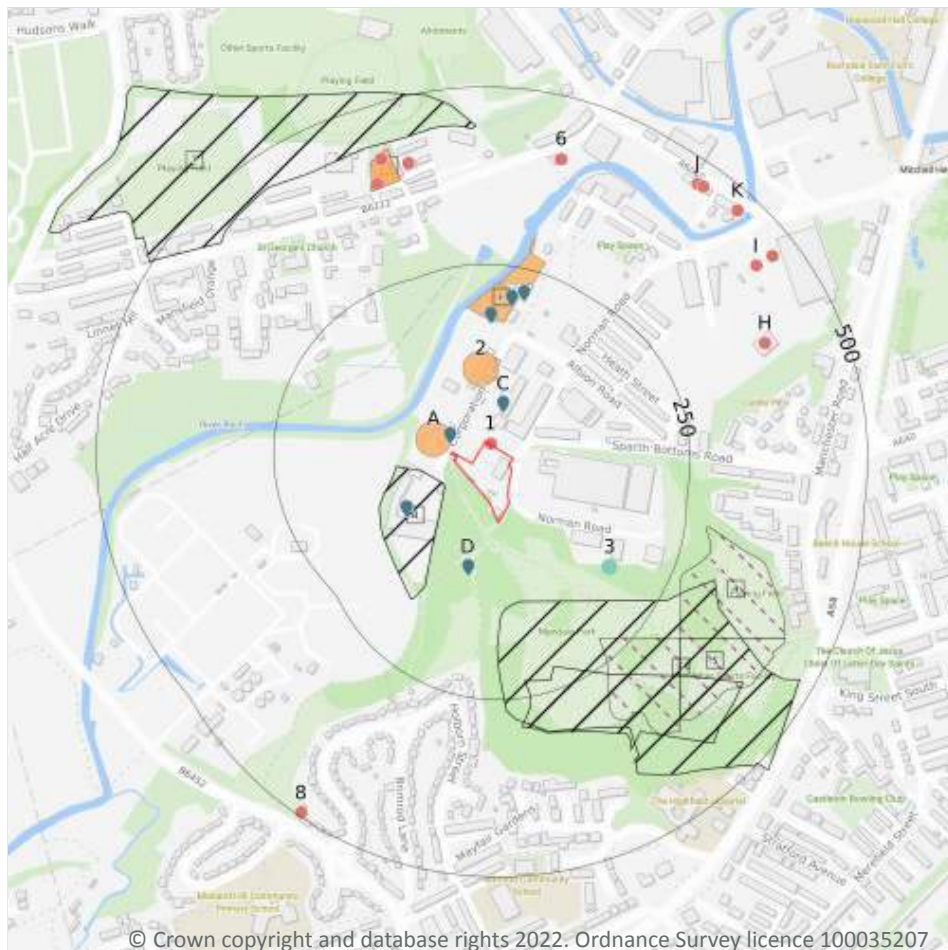
Garages digitised from historical Ordnance Survey mapping at high-detail 1:1,250 and 1:2,500 scale. Any records shown are available intelligently grouped in section 1. Grouped and the original un-grouped features can be cross-referenced across sections 1 and 2 using the 'Group ID'.

Features are displayed on the Past land use - un-grouped map on **page 26**

ID	Location	Land Use	Date	Group ID
AA	412m NW	Garage	1992	17535
AA	412m NW	Garage	1989	17042
AA	413m NW	Garage	1980	17535
O	443m E	Garage	1973	15329
O	444m E	Garage	1993	15733
O	445m E	Garage	1990	19160
O	445m E	Garage	1990	19160
O	445m E	Garage	1985	19160
AG	485m N	Garage	1978	17439
AG	485m N	Garage	1959	17439
AG	500m N	Garage	1959	16797

This data is sourced from Ordnance Survey / Groundsure.

3 Waste and landfill



- Site Outline
- Search buffers in metres (m)
- Historical landfill (EA/NRW)
- Historical landfill (BGS)
- Historical landfill (LA/OS)
- Historical waste sites
- Licensed waste sites
- Waste exemptions

3.1 Active or recent landfill

Records within 500m

0

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

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

3.2 Historical landfill (BGS records)

Records within 500m

1

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.

Features are displayed on the Waste and landfill map on **page 43**

ID	Location	Address	BGS Number	Risk	Waste Type
3	167m SE	Mandale Park, Rochdale, Gt Manchester	1853	No risk to aquifer	N/A

This data is sourced from the British Geological Survey.

3.3 Historical landfill (LA/mapping records)

Records within 500m	3
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Landfill sites identified from Local Authority records and high detail historical mapping.

Features are displayed on the Waste and landfill map on **page 43**

ID	Location	Site address	Source	Data type
E	216m SE	Refuse Tip	1975 mapping	Polygon
4	264m SE	Refuse Tip	1973 mapping	Polygon
5	304m SE	Refuse Tip	1973 mapping	Polygon

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

3.4 Historical landfill (EA/NRW records)

Records within 500m	4
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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.

Features are displayed on the Waste and landfill map on **page 43**

ID	Location	Details		
B	33m SW	Site Address: Sparth Mill, Corporation Road, Rochdale, Greater Manchester Licence Holder Address: -	Waste Licence: - Site Reference: D084 Waste Type: Industrial, Commercial Environmental Permitting Regulations (Waste) Reference: - Licence Issue: - Licence Surrender: -	Operator: - Licence Holder: - First Recorded: - Last Recorded: -

ID	Location	Details		
E	115m S	Site Address: Mandale Park, Rochdale, Greater Manchester Licence Holder Address: -	Waste Licence: - Site Reference: - Waste Type: - Environmental Permitting Regulations (Waste) Reference: - Licence Issue: - Licence Surrender: -	Operator: Rochdale County Borough Council Licence Holder: - First Recorded 31/12/1969 Last Recorded: -
E	217m S	Site Address: Mandale Park Tip, Manchester Road, Rochdale Licence Holder Address: Town Hall, Rochdale	Waste Licence: Yes Site Reference: D006, RD/LIC/228/81 Waste Type: Inert, Commercial, Household Environmental Permitting Regulations (Waste) Reference: - Licence Issue: 30/09/1983 Licence Surrender: -	Operator: - Licence Holder: Rochdale Metropolitan Borough Council (Recs Dept) First Recorded 31/12/1990 Last Recorded: 31/12/1990
7	439m NW	Site Address: Sandy Brow, Rochdale, Sandy Brow, Rochdale, Greater Manchester Licence Holder Address: -	Waste Licence: - Site Reference: D075 Waste Type: - Environmental Permitting Regulations (Waste) Reference: - Licence Issue: - Licence Surrender: -	Operator: - Licence Holder: - First Recorded - Last Recorded: -

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

3.5 Historical waste sites

Records within 500m	6
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Waste site records derived from Local Authority planning records and high detail historical mapping.

Features are displayed on the Waste and landfill map on **page 43**

ID	Location	Address	Further Details	Date
A	7m NW	Site Address: Corporation Road, ROCHDALE, Greater Manchester, OL11 4HJ	Type of Site: Waste Transfer Unit Planning application reference: D33666 Description: An application (ref: D33666) for Detailed Planning permission was submitted to Rochdale B.C. on 22nd October 1996. Data source: Historic Planning Application Data Type: Point	-



ID	Location	Address	Further Details	Date
2	78m N	Site Address: Rochdale WWTW, Roch Valley Way, ROCHDALE, Greater Manchester, OL11 4HQ	Type of Site: Waste Water Transfer Station Planning application reference: 09/D51654 Description: Scheme comprises construction of strain press building with integral odour controlled skip removal facility. An application (ref: 09/D51654) for detailed planning permission was granted by Rochdale B.C. A detailed planning application has been granted. Data source: Historic Planning Application Data Type: Point	30/06/2009
F	168m N	Site Address: N/A	Type of Site: Scrap Yard Planning application reference: N/A Description: N/A Data source: Historic Mapping Data Type: Polygon	1990
F	224m N	Site Address: N/A	Type of Site: Scrap Yard Planning application reference: N/A Description: N/A Data source: Historic Mapping Data Type: Polygon	1995
G	383m N	Site Address: N/A	Type of Site: Waste Rubber Works Planning application reference: N/A Description: N/A Data source: Historic Mapping Data Type: Polygon	1910
G	383m N	Site Address: N/A	Type of Site: Waste Rubber Works Planning application reference: N/A Description: N/A Data source: Historic Mapping Data Type: Polygon	1930

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

3.6 Licensed waste sites

Records within 500m

14

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

Features are displayed on the Waste and landfill map on **page 43**



ID	Location	Details		
A	24m N	Site Name: Slates Yard Site Address: Slates Yard, Corporation Road, Rochdale, Lancashire, OL11 4EU Correspondence Address: -	Type of Site: Vehicle Depollution Facility 5000 tps Size: 25000 tonnes Environmental Permitting Regulations (Waste) Licence Number: SUL008 EPR reference: EA/EPR/UP3793VL/V002 Operator: Mr Shehzad Suleman And Mr Arsalan Asim Waste Management licence No: 53515 Annual Tonnage: 4999	Issue Date: 06/01/1998 Effective Date: 21/09/2011 Modified: 30/09/2011 Surrendered Date: - Expiry Date: - Cancelled Date: - Status: Modified
C	58m NE	Site Name: Mohammed Saeed Site Address: Brimrod Yard, Corporation Road, Sparth Bottoms, Rochdale, Lancashire, OL11 4HJ Correspondence Address: -	Type of Site: Metal Recycling Site (Vehicle Dismantler) Size: 25000 tonnes Environmental Permitting Regulations (Waste) Licence Number: JAP004 EPR reference: VP3495ET/V002 Operator: Mohammed Saeed Waste Management licence No: 100110 Annual Tonnage: 0	Issue Date: 26/09/2007 Effective Date: - Modified: 29/07/2009 Surrendered Date: - Expiry Date: - Cancelled Date: - Status: Modified
C	58m NE	Site Name: Mohammed Saeed Site Address: Brimrod Yard, Corporation Road, Sparth Bottoms, Rochdale, Lancashire, OL11 4HJ Correspondence Address: -	Type of Site: ELV Facility Size: 25000 tonnes Environmental Permitting Regulations (Waste) Licence Number: JAP004 EPR reference: EA/EPR/VP3495ET/V002 Operator: Mohammed Saeed Waste Management licence No: 100110 Annual Tonnage: 2499	Issue Date: 26/09/2007 Effective Date: - Modified: 29/07/2009 Surrendered Date: - Expiry Date: - Cancelled Date: - Status: Modified
D	76m SW	Site Name: Dickinson Environmental Site Address: Corporation Road, Rochdale, Lancashire, OL11 4EU Correspondence Address: Lower Stakehill Farm, Stakehill Lane, Middleton, Manchester, M24 2RY	Type of Site: Household, Commercial & Industrial Waste T Stn Size: 25000 tonnes Environmental Permitting Regulations (Waste) Licence Number: PDI001 EPR reference: - Operator: Dickinson Phil Waste Management licence No: 53515 Annual Tonnage: 2084	Issue Date: 06/01/1998 Effective Date: - Modified: - Surrendered Date: - Expiry Date: - Cancelled Date: - Status: Issued



ID	Location	Details		
D	76m SW	Site Name: Kingsway Car Parts Site Address: Slates Yard, Corporation Road, Rochdale, Lancashire, OL11 4EU Correspondence Address: -	Type of Site: Metal Recycling Site (Vehicle Dismantler) Size: 25000 tonnes Environmental Permitting Regulations (Waste) Licence Number: SUL008 EPR reference: EA/EPR/UP3793VL/T001 Operator: Mr Shehzad Suleman And Mr Arsalan Asim Waste Management licence No: 53515 Annual Tonnage: 4999	Issue Date: 06/01/1998 Effective Date: 21/09/2011 Modified: 30/06/2003 Surrendered Date: - Expiry Date: - Cancelled Date: - Status: Transferred
D	76m SW	Site Name: Kingsway Car Parts Site Address: Slates Yard, Corporation Road, Rochdale, Lancashire, OL11 4EU Correspondence Address: -	Type of Site: Metal Recycling Site (Vehicle Dismantler) Size: 25000 tonnes Environmental Permitting Regulations (Waste) Licence Number: AHK001 EPR reference: EA/EPR/CP3092CJ/V002 Operator: Hayto Andrew Waste Management licence No: 53515 Annual Tonnage: 2084	Issue Date: 06/01/1998 Effective Date: 10/07/2003 Modified: 30/06/2003 Surrendered Date: - Expiry Date: - Cancelled Date: - Status: Transferred
B	95m SW	Site Name: Dickinson Environmental Site Address: End Yard, Corporation Road, Rochdale, Lancashire, OL11 4EU Correspondence Address: Lower Stakehill Farm, Stakehill Lane, Middleton, Manchester, M24 2RY	Type of Site: Metal Recycling Site (mixed MRS's) Size: 25000 tonnes Environmental Permitting Regulations (Waste) Licence Number: DIC001 EPR reference: - Operator: Mr P Dickinson & Mr D Dickinson Waste Management licence No: 50016 Annual Tonnage: 417	Issue Date: 20/09/1999 Effective Date: 24/05/2002 Modified: 23/05/2002 Surrendered Date: - Expiry Date: - Cancelled Date: - Status: Modified



ID	Location	Details		
B	95m SW	Site Name: Dickinson Environmental Transfer Station Site Address: End Yard, Corporation Road, Rochdale, Lancashire, OL11 4EU Correspondence Address: -	Type of Site: Household, Commercial & Industrial Waste T Stn Size: 25000 tonnes Environmental Permitting Regulations (Waste) Licence Number: DIC001 EPR reference: EA/EPR/CP3098CH/V004 Operator: Mr P Dickinson Waste Management licence No: 50016 Annual Tonnage: 25000	Issue Date: 20/09/1999 Effective Date: 24/05/2002 Modified: 30/06/2003 Surrendered Date: - Expiry Date: - Cancelled Date: - Status: Modified
B	95m SW	Site Name: Dickinson Environmental Transfer Station Site Address: End Yard, Corporation Road, Rochdale, Lancashire, OL11 4EU Correspondence Address: -	Type of Site: 75kte HCI Waste TS + treatment Size: >= 75000 tonnes Environmental Permitting Regulations (Waste) Licence Number: DIC001 EPR reference: EA/EPR/CP3098CH/V006 Operator: Mr P Dickinson Waste Management licence No: 50016 Annual Tonnage: 75000	Issue Date: 20/09/1999 Effective Date: 24/05/2002 Modified: 17/02/2014 Surrendered Date: - Expiry Date: - Cancelled Date: - Status: Modified
B	95m SW	Site Name: Dickinson Environmental Transfer Station Site Address: End Yard, Corporation Road, Rochdale, Lancashire, OL11 4EU Correspondence Address: -	Type of Site: 75kte HCI Waste TS + treatment Size: 25000 tonnes Environmental Permitting Regulations (Waste) Licence Number: DIC001 EPR reference: EA/EPR/CP3098CH/V006 Operator: Mr P Dickinson Waste Management licence No: 50016 Annual Tonnage: 75000	Issue Date: 20/09/1999 Effective Date: 24/05/2002 Modified: 17/02/2014 Surrendered Date: - Expiry Date: - Cancelled Date: - Status: Modified

ID	Location	Details		
F	178m N	Site Name: Mazda Spares Site Address: Mandale Park, Corporation Road, Rochdale, Lancashire, OL11 4HJ Correspondence Address: -	Type of Site: Metal Recycling Site (Vehicle Dismantler) Size: 25000 tonnes Environmental Permitting Regulations (Waste) Licence Number: AMS001 EPR reference: EA/EPR/FP3798CL/A001 Operator: Arshad Mahmood & Shiraz Khan Waste Management licence No: 50013 Annual Tonnage: 417	Issue Date: 30/04/1999 Effective Date: - Modified: - Surrendered Date: - Expiry Date: - Cancelled Date: - Status: Issued
F	205m N	Site Name: Japs Of Rochdale Site Address: Mandale Park, Corporation Road, Rochdale, Lancashire, OL11 4HJ Correspondence Address: -	Type of Site: Metal Recycling Site (Vehicle Dismantler) Size: 25000 tonnes Environmental Permitting Regulations (Waste) Licence Number: ALI001 EPR reference: EA/EPR/PP3394CY/A001 Operator: Ali Saeed Waste Management licence No: 50175 Annual Tonnage: 200	Issue Date: 05/12/2003 Effective Date: - Modified: - Surrendered Date: - Expiry Date: - Cancelled Date: - Status: Issued
F	205m N	Site Name: Rochdale Motor Breakers Site Address: Mandale Park, Corporation Road, Rochdale, Lancashire, OL11 4HJ Correspondence Address: -	Type of Site: Metal Recycling Site (Vehicle Dismantler) Size: 25000 tonnes Environmental Permitting Regulations (Waste) Licence Number: MUH001 EPR reference: EA/EPR/BB3301UX/T001 Operator: Ikram Muhammad Waste Management licence No: 50175 Annual Tonnage: 200	Issue Date: 05/12/2003 Effective Date: 13/09/2018 Modified: - Surrendered Date: - Expiry Date: - Cancelled Date: - Status: Transferred

ID	Location	Details		
F	215m N	Site Name: Mazda & Mitsubishi Spares Site Address: Mazda & Mitsubishi Spares, Corporation Road, Rochdale, Lancashire, OL11 4HJ Correspondence Address: -	Type of Site: Vehicle Depollution Facility 5000 tps Size: 25000 tonnes Environmental Permitting Regulations (Waste) Licence Number: AMS001 EPR reference: EA/EPR/FP3798CL/V002 Operator: Mr Arshad Mahmood & Mr Shiraz Khan Waste Management licence No: 50013 Annual Tonnage: 4999	Issue Date: 30/04/1999 Effective Date: - Modified: 28/02/2012 Surrendered Date: - Expiry Date: - Cancelled Date: - Status: Modified

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

3.7 Waste exemptions

Records within 500m	32
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Activities involving the storage, treatment, use or disposal of waste that are exempt from needing a permit. Exemptions have specific limits and conditions that must be adhered to.

Features are displayed on the Waste and landfill map on **page 43**

ID	Location	Site	Reference	Category	Sub-Category	Description
1	1m NE	NORMAN ROAD, ROCHDALE, OL11 4HS	WEX144000	Storing waste exemption	Not on a farm	Storage of waste in a secure place
H	390m NE	DANE STREET, ROCHDALE, OL11 4EZ	WEX293314	Storing waste exemption	Not on a Farm	Storage of waste in a secure place
H	390m NE	DANE STREET, ROCHDALE, OL11 4EZ	WEX293314	Treating waste exemption	Not on a Farm	Preparatory treatments (baling, sorting, shredding etc)
H	390m NE	DANE STREET, ROCHDALE, OL11 4EZ	WEX157469	Storing waste exemption	Not on a Farm	Storage of waste in a secure place
H	390m NE	DANE STREET, ROCHDALE, OL11 4EZ	WEX157469	Treating waste exemption	Not on a Farm	Preparatory treatments (baling, sorting, shredding etc)
G	393m N	BRITANNIA METALS LIMITED, CHADWICK STREET, ROCHDALE, OL11 5HD	WEX295188	Treating waste exemption	Not on a Farm	Recovery of scrap metal



ID	Location	Site	Reference	Category	Sub-Category	Description
G	407m N	BRITANNIA METALS LIMITED, CHADWICK STREET, ROCHDALE, OL11 5HD	WEX157799	Treating waste exemption	Not on a Farm	Recovery of scrap metal
G	407m N	CHADWICK STREET, ROCHDALE, OL11 5HD	WEX153602	Treating waste exemption	Not on a farm	Recovery of scrap metal
G	407m N	Land at Chadwick Street ROCHDALE Lancashire OL11 5HD	EPR/ZF0503EL /A001	Treating waste exemption	Non-Agricultural Waste Only	Recovery of scrap metal
6	412m N	262-266, Bury Road, Rochdale, OL11 4EE	WEX293130	Treating waste exemption	Not on a farm	Sorting and de-naturing of controlled drugs for disposal
G	424m N	Land at Chadwick Street ROCHDALE Lancashire OL11 5HD	EPR/HE5259FP /A001	Storing waste exemption	Non-Agricultural Waste Only	Storage of waste in secure containers
G	424m N	Land at Chadwick Street ROCHDALE Lancashire OL11 5HD	EPR/HE5259FP /A001	Storing waste exemption	Non-Agricultural Waste Only	Storage of waste in a secure place
G	424m N	Land at Chadwick Street ROCHDALE Lancashire OL11 5HD	EPR/HE5259FP /A001	Treating waste exemption	Non-Agricultural Waste Only	Recovery of scrap metal
I	436m NE	-	WEX244774	Using waste exemption	Not on a farm	Use of waste in construction
I	463m NE	National Grid Dane Street OL11 4EZ	EPR/ZE5848VR /A001	Treating waste exemption	Non-Agricultural Waste Only	Preparatory treatments (baling, sorting, shredding etc)
J	466m NE	-	WEX259767	Storing waste exemption	Not on a farm	Storage of waste in a secure place
J	466m NE	-	WEX259767	Storing waste exemption	Not on a farm	Storage of waste in secure containers
J	466m NE	-	WEX259767	Treating waste exemption	Not on a farm	Recovery of scrap metal
J	466m NE	-	WEX259767	Treating waste exemption	Not on a farm	Screening and blending of waste
J	466m NE	-	WEX259767	Using waste exemption	Not on a farm	Incorporation of ash into soil
J	466m NE	-	WEX259767	Using waste exemption	Not on a farm	Spreading waste on non-agricultural land to confer benefit

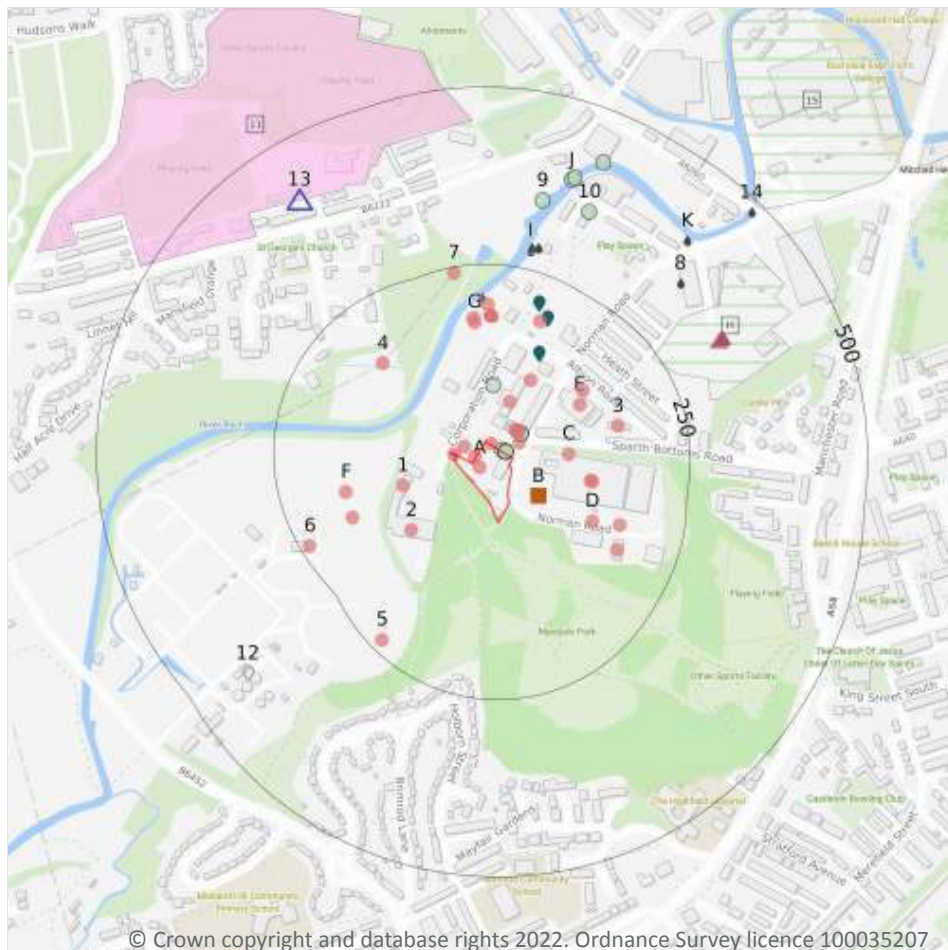


ID	Location	Site	Reference	Category	Sub-Category	Description
J	466m NE	-	WEX259767	Using waste exemption	Not on a farm	Spreading waste on agricultural land to confer benefit
J	466m NE	-	WEX259767	Using waste exemption	Not on a farm	Use of waste in construction
J	466m NE	Mellor Street Storage Depot, Mellor Street, Rochdale, OL12 6XD	WEX099953	Treating waste exemption	Not on a farm	Sorting mixed waste
J	466m NE	Mellor Street Storage Depot, Mellor Street, Rochdale, OL12 6XD	WEX099953	Using waste exemption	Not on a farm	Use of waste in construction
J	466m NE	Mellor Street Storage Depot, Mellor Street, Rochdale, OL12 6XD	WEX099953	Storing waste exemption	Not on a farm	Storage of waste in secure containers
J	466m NE	Mellor Street Storage Depot, Mellor Street, Rochdale, OL12 6XD	WEX099953	Treating waste exemption	Not on a farm	Recovery of scrap metal
K	471m NE	Mellor Street Storage Depot, Mellor Street, Rochdale, OL12 6XD	WEX244166	Storing waste exemption	Not on a farm	Storage of waste in secure containers
K	471m NE	Mellor Street Storage Depot, Mellor Street, Rochdale, OL12 6XD	WEX244166	Treating waste exemption	Not on a farm	Sorting mixed waste
K	471m NE	Mellor Street Storage Depot, Mellor Street, Rochdale, OL12 6XD	WEX244166	Treating waste exemption	Not on a farm	Recovery of scrap metal
K	471m NE	Mellor Street Storage Depot, Mellor Street, Rochdale, OL12 6XD	WEX244166	Using waste exemption	Not on a farm	Use of waste in construction
8	496m SW	Sewage Works Roch Valley Way ROCHDALE Lancashire OL11 4QH	EPR/PH0976XZ /A001	Using waste exemption	Non-Agricultural Waste Only	Use of waste in construction

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



4 Current industrial land use



- Site Outline
- Search buffers in metres (m)
- Recent industrial land uses
- △ Current or recent petrol stations
- Sites determined as Contaminated Land
- Control of Major Accident Hazards
- ▲ Hazardous substance storage/usage
- Part A(1) industrial activities
- Licensed pollutant release (Part A(2)/B)
- Licensed Discharges to controlled waters
- Pollutant release to public sewer
- Pollution Incidents (EA/NRW)

4.1 Recent industrial land uses

Records within 250m

35

Current potentially contaminative industrial sites.

Features are displayed on the Current industrial land use map on **page 54**

ID	Location	Company	Address	Activity	Category
A	On site	Car & Van Dismantlers	Brimrod Mill, Corporation Road, Rochdale, Greater Manchester, OL11 4EU	Scrap Metal Merchants	Recycling Services
A	On site	Electricity Sub Station	Greater Manchester, OL11	Electrical Features	Infrastructure and Facilities



ID	Location	Company	Address	Activity	Category
A	1m NW	Global Parts Specialists Ltd	Unit 1, Norman Road, Rochdale, Greater Manchester, OL11 4HS	Scrap Metal Merchants	Recycling Services
A	2m NE	M A - M O T Centre	Unit 1, Norman Road, Rochdale, Greater Manchester, OL11 4HS	Vehicle Repair, Testing and Servicing	Repair and Servicing
A	15m NE	Mac's Skips	Corporation Road, Rochdale, Greater Manchester, OL11 4EU	Construction and Tool Hire	Hire Services
A	23m NE	Chimney	Greater Manchester, OL11	Chimneys	Industrial Features
A	36m NE	W & S Allely Ltd	Unit 9, Albion Road Industrial Estate, Rochdale, Greater Manchester, OL11 4JB	Metals Manufacturers, Fabricators and Stockholders	Industrial Products
A	36m NE	Eden Material Services Ltd	Unit 9, Albion Road Industrial Estate, Rochdale, Greater Manchester, OL11 4JB	Metals Manufacturers, Fabricators and Stockholders	Industrial Products
A	38m NE	Allely	Unit 9 Albion Industrial Estate, Albion Road, Rochdale, Greater Manchester, OL11 4JB	Metals Manufacturers, Fabricators and Stockholders	Industrial Products
A	66m NE	Damar Interiors N W Ltd	Unit 11, Albion Industrial Estate, Albion Road, Rochdale, Greater Manchester, OL11 4JB	Building and Component Suppliers	Construction Services
C	79m E	Electricity Sub Station	Greater Manchester, OL11	Electrical Features	Infrastructure and Facilities
1	80m SW	Technical Welding Services	Corporation Road, Rochdale, Greater Manchester, OL11 4HJ	Packaging	Industrial Products
A	107m NE	Rochdale Industrial Centre	Greater Manchester, OL11	Business Parks and Industrial Estates	Industrial Features
2	109m SW	Dickinson Environmental Ltd	Corporation Road, Rochdale, Greater Manchester, OL11 4EU	Construction and Tool Hire	Hire Services
C	112m E	Works	Greater Manchester, OL11	Unspecified Works Or Factories	Industrial Features
C	115m E	United Springs	Norman Road, Rochdale, Greater Manchester, OL11 4HP	Special Purpose Machinery and Equipment	Industrial Products
D	120m E	Electricity Sub Station	Greater Manchester, OL11	Electrical Features	Infrastructure and Facilities



ID	Location	Company	Address	Activity	Category
E	121m NE	Works	Greater Manchester, OL11	Unspecified Works Or Factories	Industrial Features
E	138m NE	Electricity Sub Station	Greater Manchester, OL11	Electrical Features	Infrastructure and Facilities
3	155m E	J Cooney Ltd	Albion Road, Rochdale, Greater Manchester, OL11 4HQ	Civil Engineers	Engineering Services
F	157m W	Solar Panels	Greater Manchester, OL11	Energy Production	Industrial Features
4	158m NW	Pylon	Greater Manchester, OL11	Electrical Features	Infrastructure and Facilities
D	158m E	Karmo Industrial Estate	Greater Manchester, OL11	Business Parks and Industrial Estates	Industrial Features
F	164m SW	Sewage Works	Greater Manchester, OL11	Waste Storage, Processing and Disposal	Infrastructure and Facilities
D	166m SE	Multiwal UK Ltd	Unit B Karmo Industrial Estate, Norman Road, Rochdale, Greater Manchester, OL11 4HS	Building and Component Suppliers	Construction Services
G	169m N	Mast	Greater Manchester, OL11	Telecommunications Features	Infrastructure and Facilities
G	174m N	Pylon	Greater Manchester, OL11	Electrical Features	Infrastructure and Facilities
G	178m N	Mazda & Mitsubishi Spares Ltd	Mandale Park, Corporation Road, Rochdale, Greater Manchester, OL11 4HJ	Vehicle Parts and Accessories	Motoring
G	178m N	M M K Repairs	Mandale Park, Corporation Road, Rochdale, Greater Manchester, OL11 4HJ	Vehicle Parts and Accessories	Motoring
G	178m N	Rochdale Vehicle Breakers	Mandale Park, Corporation Road, Rochdale, Greater Manchester, OL11 4HJ	Scrap Metal Merchants	Recycling Services
A	186m NE	Hopper	Greater Manchester, OL11	Hoppers and Silos	Farming
G	194m N	Recycling Business	Greater Manchester, OL11	Recycling Centres	Infrastructure and Facilities
5	232m SW	Solar Panels	Greater Manchester, OL11	Energy Production	Industrial Features
6	236m SW	Electricity Sub Station	Greater Manchester, OL11	Electrical Features	Infrastructure and Facilities



ID	Location	Company	Address	Activity	Category
7	242m N	Pylon	Greater Manchester, OL11	Electrical Features	Infrastructure and Facilities

This data is sourced from Ordnance Survey.

4.2 Current or recent petrol stations

Records within 500m	1
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Open, closed, under development and obsolete petrol stations.

Features are displayed on the Current industrial land use map on **page 54**

ID	Location	Company	Address	LPG	Status
13	416m NW	OBSOLETE	Bury Road, Rochdale, Greater Manchester, OL11 4EB	Not Applicable	Obsolete

This data is sourced from Experian.

4.3 Electricity cables

Records within 500m	0
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High voltage underground electricity transmission cables.

This data is sourced from National Grid.

4.4 Gas pipelines

Records within 500m	0
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High pressure underground gas transmission pipelines.

This data is sourced from National Grid.

4.5 Sites determined as Contaminated Land

Records within 500m	1
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Contaminated Land Register of sites designated under Part 2a of the Environmental Protection Act 1990.

Features are displayed on the Current industrial land use map on **page 54**

ID	Location	Description	Site name	Category	Year identified
11	397m N	Former landfill site. Assessment concluded that not meet the legal definition of "contaminated land" as defined by the 1990 Environmental Protection Act	Sandy Brow former landfill site. Spotland, Rochdale	Potentially Contaminated Land - Revoked	2013

This data is sourced from Local Authority records.

4.6 Control of Major Accident Hazards (COMAH)

Records within 500m

2

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.

Features are displayed on the Current industrial land use map on **page 54**

ID	Location	Company	Address	Operational status	Tier
H	242m NE	National Grid Gas Plc	National Grid Gas Plc, Rochdale Holder Station, Dane Street, Rochdale, Greater Manchester, OL11 4ES	Historical COMAH Site	-
15	496m NE	British Gas	British Gas, Dane Street, Rochdale	Historical NIHHS Site	-

This data is sourced from the Health and Safety Executive.

4.7 Regulated explosive sites

Records within 500m

0

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

This data is sourced from the Health and Safety Executive.

4.8 Hazardous substance storage/usage

Records within 500m

2

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.

Features are displayed on the Current industrial land use map on **page 54**



ID	Location	Details	
H	334m NE	Application reference number: 92/D28632 Application status: Historical Consent Application date: 15/09/1992 Address: British Gas North Western, Dane Street, Rochdale, OL12 6XB	Details: Application for Hazardous Substances Consent (Deemed Consent). Enforcement: No Enforcement Notified Date of enforcement: No Enforcement Notified Comment: No Enforcement Notified
H	340m NE	Application reference number: 00/D37592 Application status: Approved Application date: 28/04/2000 Address: National Grid Gas PLC, Rochdale Holder Station, Dane Street, Rochdale, Greater Manchester, England, OL11 4HD	Details: Application for consent to store hazardous substances at Dane Street depot. Enforcement: No Enforcement Notified Date of enforcement: No Enforcement Notified Comment: No Enforcement Notified

This data is sourced from Local Authority records.

4.9 Historical licensed industrial activities (IPC)

Records within 500m

0

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

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

4.10 Licensed industrial activities (Part A(1))

Records within 500m

1

Records of Part A(1) 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 54**

ID	Location	Details	
12	412m SW	Operator: UNITED UTILITIES WATER PLC Installation Name: ROCHDALE WWTW EPR/FP3638MU Process: OTHER WASTE DISPOSAL; NON-HAZARDOUS WASTE >50T/D BY PHYSICO-CHEMICAL TREATMENT Permit Number: FP3638MU Original Permit Number: FP3638MU	EPR Reference: EA/EPR/FP3638MU/V003 Issue Date: 24/10/2007 Effective Date: 24/10/2007 Last date noted as effective: 13/06/2022 Status: SUPERCEDED

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



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

Records within 500m

3

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 54**

ID	Location	Address	Details	
A	144m NE	Tarmac Central Ltd, Albion Road, Rochdale	Process: Use of Bulk Cement Status: Historical Permit Permit Type: Part B	Enforcement: No Enforcements Notified Date of enforcement: No Enforcements Notified Comment: No Enforcements Notified
A	194m NE	Breedon Southern Ltd, Albion Road, Rochdale, Lancashire, OL11 4HQ	Process: Use of Bulk Cement Status: Current Permit Permit Type: Part B	Enforcement: No Enforcements Notified Date of enforcement: No Enforcements Notified Comment: No Enforcements Notified
A	208m N	Topmix, Albion Road, Rochdale, OL11 4HQ	Process: Use of Bulk Cement Status: Historical 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.

4.12 Radioactive Substance Authorisations

Records within 500m

0

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

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

4.13 Licensed Discharges to controlled waters

Records within 500m

12

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 54**



ID	Location	Address	Details	
G	203m N	ALBION RD W48, ROCHDALE, GREATER MANCHESTER	Effluent Type: SEWAGE DISCHARGES - SEWER STORM OVERFLOW - WATER COMPANY Permit Number: 01ROC0088 Permit Version: 1 Receiving Water: -	Status: REVOKED - UNSPECIFIED Issue date: - Effective Date: 13/05/1993 Revocation Date: 01/01/1995
I	276m N	OAKENROD COMBINED SEWER OVERFLOW, DOWNSTREAM OF CORPORATION ROAD, OAKENROD, ROCHDALE, GREATER MANCHESTER, OL11 4EU	Effluent Type: SEWAGE DISCHARGES - SEWER STORM OVERFLOW - WATER COMPANY Permit Number: 016982276 Permit Version: 5 Receiving Water: RIVER ROCH	Status: VARIED UNDER EPR 2010 Issue date: 16/01/2020 Effective Date: 16/01/2020 Revocation Date: -
I	280m N	OAKENROD COMBINED SEWER OVERFLOW, DOWNSTREAM OF CORPORATION ROAD, OAKENROD, ROCHDALE, GREATER MANCHESTER, OL11 4EU	Effluent Type: SEWAGE DISCHARGES - SEWER STORM OVERFLOW - WATER COMPANY Permit Number: 016982276 Permit Version: 1 Receiving Water: RIVER ROCH	Status: REVOKED - UNSPECIFIED Issue date: - Effective Date: 01/11/1991 Revocation Date: 14/02/1993
I	280m N	OAKENROD COMBINED SEWER OVERFLOW, DOWNSTREAM OF CORPORATION ROAD, OAKENROD, ROCHDALE, GREATER MANCHESTER, OL11 4EU	Effluent Type: SEWAGE DISCHARGES - SEWER STORM OVERFLOW - WATER COMPANY Permit Number: 016982276 Permit Version: 2 Receiving Water: RIVER ROCH	Status: POST NRA LEGISLATION WHERE ISSUE DATE > 31-AUG-89 (HISTORIC ONLY) Issue date: - Effective Date: 15/02/1993 Revocation Date: 25/03/2010
I	280m N	OAKENROD COMBINED SEWER OVERFLOW, DOWNSTREAM OF CORPORATION ROAD, OAKENROD, ROCHDALE, GREATER MANCHESTER, OL11 4EU	Effluent Type: SEWAGE DISCHARGES - SEWER STORM OVERFLOW - WATER COMPANY Permit Number: 016982276 Permit Version: 3 Receiving Water: RIVER ROCH	Status: MODIFIED - (WRA 91 SCHED 10 - AS AMENDED BY ENV ACT 1995) Issue date: 26/03/2010 Effective Date: 26/03/2010 Revocation Date: 29/04/2015
I	280m N	OAKENROD COMBINED SEWER OVERFLOW, DOWNSTREAM OF CORPORATION ROAD, OAKENROD, ROCHDALE, GREATER MANCHESTER, OL11 4EU	Effluent Type: SEWAGE DISCHARGES - SEWER STORM OVERFLOW - WATER COMPANY Permit Number: 016982276 Permit Version: 4 Receiving Water: RIVER ROCH	Status: MODIFIED - (WRA 91 SCHED 10 - AS AMENDED BY ENV ACT 1995) Issue date: 30/04/2015 Effective Date: 30/04/2015 Revocation Date: 15/01/2020
I	283m N	OAKENROD COMBINED SEWER OVERFLOW, DOWNSTREAM OF CORPORATION ROAD, OAKENROD, ROCHDALE, GREATER MANCHESTER, OL11 4EU	Effluent Type: SEWAGE DISCHARGES - SEWER STORM OVERFLOW - WATER COMPANY Permit Number: 01ROC0080 Permit Version: 1 Receiving Water: -	Status: REVOKED - UNSPECIFIED Issue date: - Effective Date: 15/02/1993 Revocation Date: 31/12/1994

ID	Location	Address	Details	
I	283m N	OAKENROD COMBINED SEWER OVERFLOW, DOWNSTREAM OF CORPORATION ROAD, OAKENROD, ROCHDALE, GREATER MANCHESTER, OL11 4EU	Effluent Type: SEWAGE DISCHARGES - SEWER STORM OVERFLOW - WATER COMPANY Permit Number: 01ROC0080 Permit Version: 2 Receiving Water: -	Status: CONSENT REVOKED OR REVISED - NEW CONSENT ISSUED (37(1)) Issue date: - Effective Date: 01/01/1995 Revocation Date: 01/01/1995
8	341m NE	OXFORD MILL, BENTLEY STREET, ROCHDALE, GREATER MANCHESTER	Effluent Type: TRADE DISCHARGES - PROCESS EFFLUENT - NOT WATER COMPANY Permit Number: 0167/630 Permit Version: 1 Receiving Water: SHAWCLOUGH BROOK	Status: REVOKED - UNSPECIFIED Issue date: - Effective Date: 23/09/1993 Revocation Date: 23/09/1993
K	393m NE	ROCH SYPHON, FENWICK STREET, ROCHDALE, GREATER MANCHESTER	Effluent Type: TRADE DISCHARGES - BOILER BLOWDOWN EFFLUENT Permit Number: 016981384 Permit Version: 1 Receiving Water: RIVER ROCH	Status: REVOKED - UNSPECIFIED Issue date: - Effective Date: 13/07/1990 Revocation Date: 14/02/1993
K	393m NE	ROCH SYPHON, FENWICK STREET, ROCHDALE, GREATER MANCHESTER	Effluent Type: SEWAGE DISCHARGES - PUMPING STATION - WATER COMPANY Permit Number: 016981384 Permit Version: 2 Receiving Water: RIVER ROCH	Status: POST NRA LEGISLATION WHERE ISSUE DATE > 31-AUG-89 (HISTORIC ONLY) Issue date: - Effective Date: 15/02/1993 Revocation Date: -
14	482m NE	CHARLIE BROWNS AUTOCENTRE SWO, ENTWISTLE ROAD, MOLESWORTH STREET, ROCHDALE, GREATER MANCHESTER	Effluent Type: MISCELLANEOUS DISCHARGES - SURFACE WATER Permit Number: 016991347 Permit Version: 1 Receiving Water: RIVER ROCH	Status: REVOKED - UNSPECIFIED Issue date: - Effective Date: 01/11/1994 Revocation Date: 01/11/1994

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

4.14 Pollutant release to surface waters (Red List)

Records within 500m

0

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

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



4.15 Pollutant release to public sewer

Records within 500m

2

Discharges of Special Category Effluents to the public sewer.

Features are displayed on the Current industrial land use map on **page 54**

ID	Location	Address	Details	
B	41m E	UNITED SPRINGS LTD, MANDALE PARK, NORMAN ROAD, NORMAN ROAD, ROCHDALE, LANCASHIRE, OL11 4HP	Permission reference: BB6505 Local Authority: ROCHDALE METROPOLITAN BOROUGH COUNCIL First received date: 01/06/2001	Last received date: 01/01/2018 Status: RECEIVED
B	41m E	ROBERT RILEY LTD, MANDALE PARK, NORMAN ROAD, ROCHDALE, LANCASHIRE, OL11 4HP	Permission reference: AT4538 Local Authority: ROCHDALE METROPOLITAN BOROUGH COUNCIL First received date: 01/07/2010	Last received date: 01/01/2018 Status: RECEIVED

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

4.16 List 1 Dangerous Substances

Records within 500m

0

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

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

4.17 List 2 Dangerous Substances

Records within 500m

0

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

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

4.18 Pollution Incidents (EA/NRW)

Records within 500m

15

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 54**

ID	Location	Details	
A	3m NE	Incident Date: 06/10/2003 Incident Identification: 164561 Pollutant: Specific Waste Materials Pollutant Description: Smoke Tyres	Water Impact: Category 4 (No Impact) Land Impact: Category 2 (Significant) Air Impact: Category 3 (Minor)
A	3m NE	Incident Date: 28/07/2003 Incident Identification: 177133 Pollutant: Specific Waste Materials Pollutant Description: Tyres	Water Impact: Category 4 (No Impact) Land Impact: Category 3 (Minor) Air Impact: Category 3 (Minor)
A	3m NE	Incident Date: 10/06/2003 Incident Identification: 164561 Pollutant: Atmospheric Pollutants and Effects:Specific Waste Materials Pollutant Description: Smoke:Tyres	Water Impact: Category 4 (No Impact) Land Impact: Category 2 (Significant) Air Impact: Category 3 (Minor)
A	3m NE	Incident Date: 10/06/2003 Incident Identification: 164561 Pollutant: Atmospheric Pollutants and Effects Pollutant Description: Smoke	Water Impact: Category 4 (No Impact) Land Impact: Category 2 (Significant) Air Impact: Category 3 (Minor)
A	3m NE	Incident Date: 10/06/2003 Incident Identification: 164561 Pollutant: Specific Waste Materials Pollutant Description: Tyres	Water Impact: Category 4 (No Impact) Land Impact: Category 2 (Significant) Air Impact: Category 3 (Minor)
A	3m NE	Incident Date: 06/10/2003 Incident Identification: 164561 Pollutant: Atmospheric Pollutants and Effects : Specific Waste Materials Pollutant Description: Smoke :Tyres	Water Impact: Category 4 (No Impact) Land Impact: Category 2 (Significant) Air Impact: Category 3 (Minor)
A	35m NE	Incident Date: 07/01/2002 Incident Identification: 51014 Pollutant: Atmospheric Pollutants and Effects:Specific Waste Materials Pollutant Description: Smoke:Tyres	Water Impact: Category 4 (No Impact) Land Impact: Category 3 (Minor) Air Impact: Category 3 (Minor)
A	35m NE	Incident Date: 07/01/2002 Incident Identification: 51014 Pollutant: Specific Waste Materials Pollutant Description: Tyres	Water Impact: Category 4 (No Impact) Land Impact: Category 3 (Minor) Air Impact: Category 3 (Minor)
A	35m NE	Incident Date: 07/01/2002 Incident Identification: 51014 Pollutant: Atmospheric Pollutants and Effects Pollutant Description: Smoke	Water Impact: Category 4 (No Impact) Land Impact: Category 3 (Minor) Air Impact: Category 3 (Minor)
A	80m N	Incident Date: 27/07/2001 Incident Identification: 20284 Pollutant: Specific Waste Materials Pollutant Description: Tyres	Water Impact: Category 4 (No Impact) Land Impact: Category 3 (Minor) Air Impact: Category 4 (No Impact)



ID	Location	Details	
9	349m N	Incident Date: 26/03/2002 Incident Identification: 66759 Pollutant: Inert Materials and Wastes Pollutant Description: Construction and Demolition Materials and Wastes	Water Impact: Category 4 (No Impact) Land Impact: Category 3 (Minor) Air Impact: Category 4 (No Impact)
10	355m NE	Incident Date: 10/05/2002 Incident Identification: 77835 Pollutant: Atmospheric Pollutants and Effects Pollutant Description: Dust	Water Impact: Category 4 (No Impact) Land Impact: Category 4 (No Impact) Air Impact: Category 3 (Minor)
J	388m N	Incident Date: 17/09/2002 Incident Identification: 110397 Pollutant: Oils and Fuel Pollutant Description: Mixed/Waste Oils	Water Impact: Category 3 (Minor) Land Impact: Category 4 (No Impact) Air Impact: Category 4 (No Impact)
J	393m N	Incident Date: 14/05/2003 Incident Identification: 158262 Pollutant: Oils and Fuel Pollutant Description: Unidentified Oil	Water Impact: Category 3 (Minor) Land Impact: Category 4 (No Impact) Air Impact: Category 4 (No Impact)
J	427m NE	Incident Date: 26/02/2003 Incident Identification: 139529 Pollutant: Oils and Fuel Pollutant Description: Diesel	Water Impact: Category 3 (Minor) Land Impact: Category 4 (No Impact) Air Impact: Category 4 (No Impact)

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

4.19 Pollution inventory substances

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

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

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

4.20 Pollution inventory waste transfers

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

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

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



4.21 Pollution inventory radioactive waste

Records within 500m

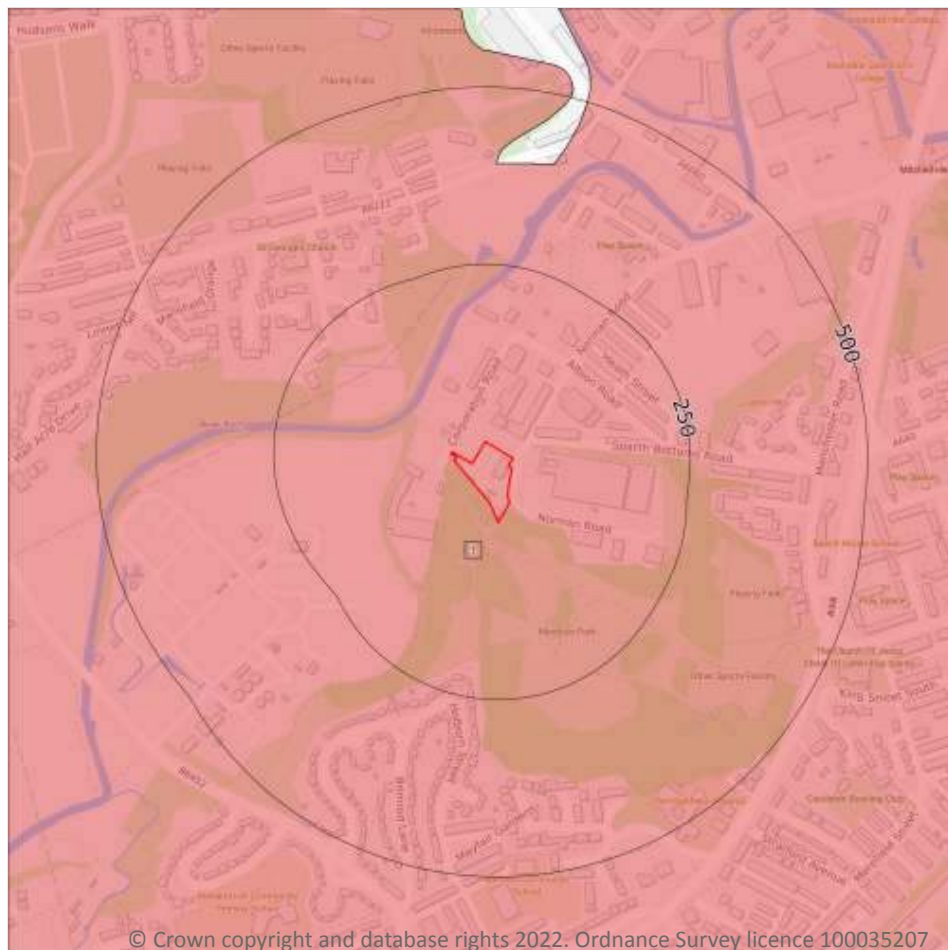
0

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

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



5 Hydrogeology - Superficial aquifer



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

5.1 Superficial aquifer

Records within 500m

1

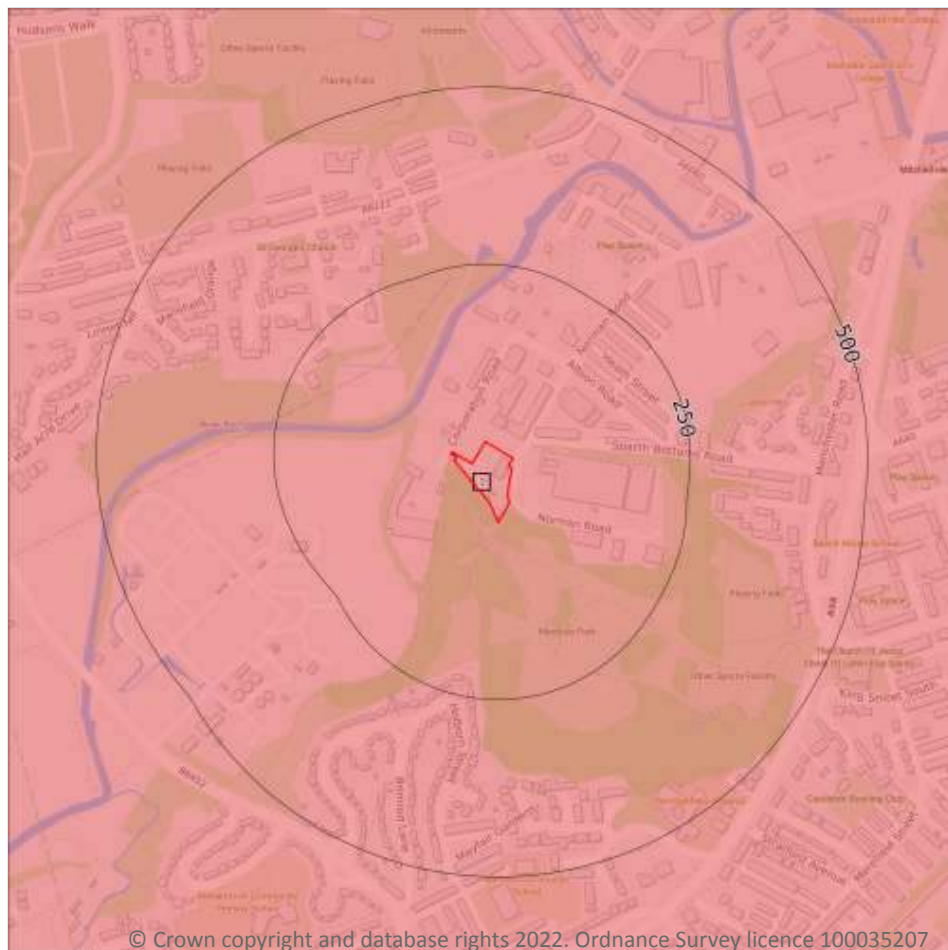
Aquifer status of groundwater held within superficial geology.

Features are displayed on the Hydrogeology map on **page 67**

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.

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

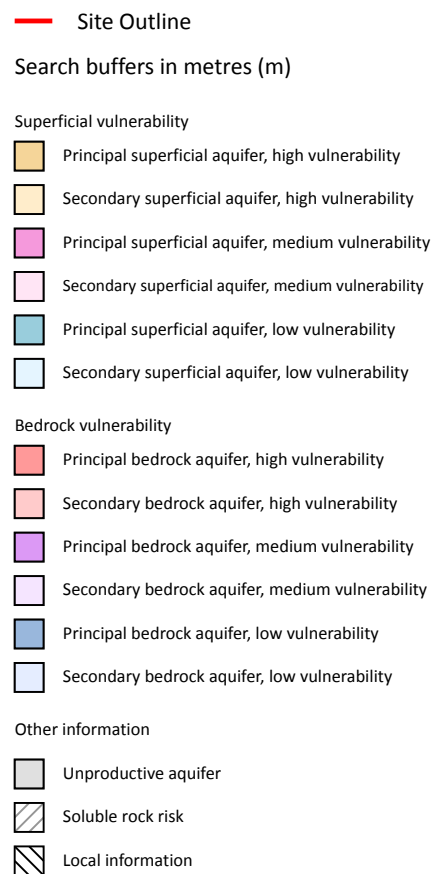
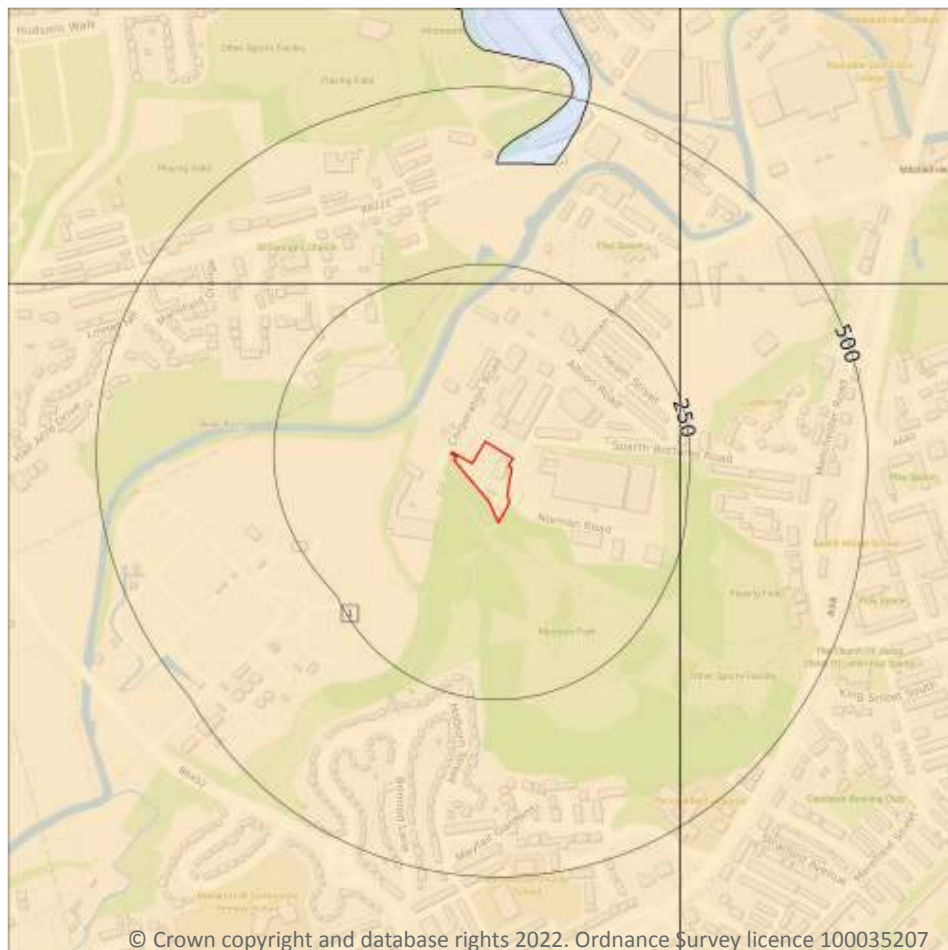
Aquifer status of groundwater held within bedrock geology.

Features are displayed on the Bedrock aquifer map on [page 68](#)

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 69**

ID	Location	Summary	Soil / surface	Superficial geology	Bedrock geology
1	On site	Summary Classification: Secondary superficial aquifer - High Vulnerability Combined classification: Productive Bedrock Aquifer, Productive Superficial Aquifer	Leaching class: High Infiltration value: >70% Dilution value: >550mm/year	Vulnerability: High Aquifer type: Secondary Thickness: >10m Patchiness value: >90% Recharge potential: High	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

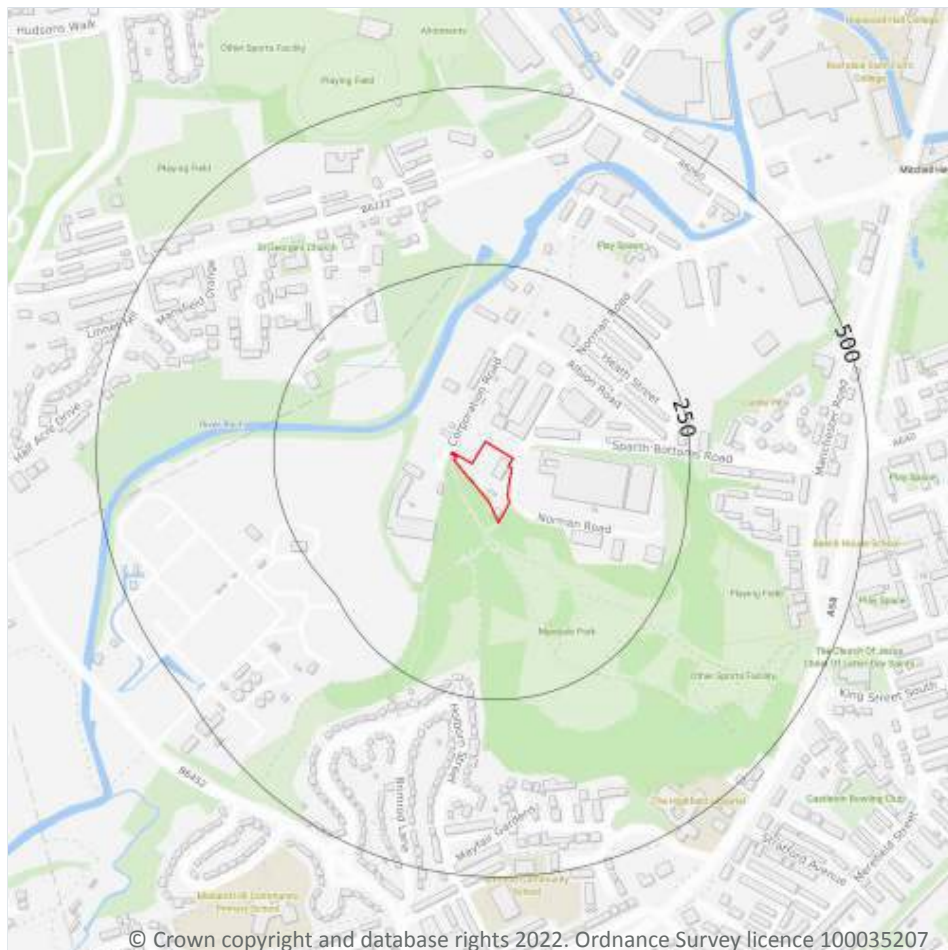
Records on site

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

3

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

Features are displayed on the Abstractions and Source Protection Zones map on **page 71**

ID	Location	Details	
-	723m N	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: -
-	723m N	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: -
-	723m N	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: -

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

5.7 Surface water abstractions

Records within 2000m

12

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 71**



ID	Location	Details	
-	1286m NE	Status: Active Licence No: NW/069/0002/003 Details: Transfer Between Sources (Post Water Act 2003) Direct Source: Surface, Non-Tidal - North West Region Point: RIVER ROCH AT ROCHDALE WEIR Data Type: Point Name: Transport for Greater Manchester Easting: 389916 Northing: 413325	Annual Volume (m ³): - Max Daily Volume (m ³): - Original Application No: NPS/WR/007633 Original Start Date: 15/06/2010 Expiry Date: 31/03/2026 Issue No: 2 Version Start Date: 23/06/2011 Version End Date: -
-	1286m NE	Status: Active Licence No: NW/069/0002/001 Details: Hydroelectric Power Generation Direct Source: Surface, Non-Tidal - North West Region Point: RIVER ROCH AT ROCHDALE WEIR Data Type: Point Name: Transport for Greater Manchester Easting: 389917 Northing: 413325	Annual Volume (m ³): 36,100,000 Max Daily Volume (m ³): 164,160 Original Application No: NPS/WR/007499 Original Start Date: 15/06/2010 Expiry Date: 31/03/2026 Issue No: 2 Version Start Date: 01/04/2015 Version End Date: -
-	1500m SE	Status: Historical Licence No: 2569002107 Details: Boiler Feed Direct Source: "Surface, Non-Tidal - North West Region" Point: "ROCHDALE CANAL AT QUEENSWAY,ROCHDALE" Data Type: Point Name: SEALOCRETE PLA LTD Easting: 390070 Northing: 411960	Annual Volume (m ³): - Max Daily Volume (m ³): - Original Application No: - Original Start Date: 02/02/1966 Expiry Date: - Issue No: 100 Version Start Date: 20/12/1993 Version End Date: -
-	1500m SE	Status: Historical Licence No: 2569002107 Details: General Cooling (Existing Licences Only) (Low Loss) Direct Source: "Surface, Non-Tidal - North West Region" Point: "ROCHDALE CANAL AT QUEENSWAY,ROCHDALE" Data Type: Point Name: SEALOCRETE PLA LTD Easting: 390070 Northing: 411960	Annual Volume (m ³): - Max Daily Volume (m ³): - Original Application No: - Original Start Date: 02/02/1966 Expiry Date: - Issue No: 100 Version Start Date: 20/12/1993 Version End Date: -

ID	Location	Details	
-	1500m SE	Status: Historical Licence No: 2569002107 Details: Boiler Feed Direct Source: Surface, Non-Tidal - North West Region Point: ROCHDALE CANAL AT QUEENSWAY,ROCHDALE Data Type: Point Name: SEALOCRETE PLA LTD Easting: 390070 Northing: 411960	Annual Volume (m ³): 10455.8 Max Daily Volume (m ³): 45.46 Original Application No: - Original Start Date: 02/02/1966 Expiry Date: - Issue No: 100 Version Start Date: 01/04/2008 Version End Date: -
-	1500m SE	Status: Historical Licence No: 2569002107 Details: General Cooling (Existing Licences Only) (Low Loss) Direct Source: Surface, Non-Tidal - North West Region Point: ROCHDALE CANAL AT QUEENSWAY,ROCHDALE Data Type: Point Name: SEALOCRETE PLA LTD Easting: 390070 Northing: 411960	Annual Volume (m ³): 10455.8 Max Daily Volume (m ³): 45.46 Original Application No: - Original Start Date: 02/02/1966 Expiry Date: - Issue No: 100 Version Start Date: 01/04/2008 Version End Date: -
-	1589m E	Status: Historical Licence No: 2569002076 Details: Boiler Feed Direct Source: Surface, Non-Tidal - North West Region Point: ROCHDALE CANAL AT ROCHDALE, LANCS Data Type: Point Name: J & J MAKIN CONVERTORS LTD Easting: 390300 Northing: 412300	Annual Volume (m ³): - Max Daily Volume (m ³): - Original Application No: - Original Start Date: 18/01/1966 Expiry Date: - Issue No: 100 Version Start Date: 01/04/1993 Version End Date: -
-	1692m SE	Status: Historical Licence No: 2569002178 Details: Boiler Feed Direct Source: "Surface, Non-Tidal - North West Region" Point: "CATCHPIT FED BY SURFACE DRAINAGE AT PREMISES, ROCHDALE" Data Type: Point Name: DUNPHY COMBUSTION LTD. Easting: 390200 Northing: 411800	Annual Volume (m ³): - Max Daily Volume (m ³): - Original Application No: - Original Start Date: 18/02/1966 Expiry Date: - Issue No: 101 Version Start Date: 12/02/1991 Version End Date: -

ID	Location	Details	
-	1692m SE	Status: Active Licence No: 2569002178 Details: Boiler Feed Direct Source: Surface, Non-Tidal - North West Region Point: CATCHPIT FED BY SURFACE DRAINAGE AT PREMISES, ROCHDALE Data Type: Point Name: DUNPHY COMBUSTION LTD Easting: 390200 Northing: 411800	Annual Volume (m ³): 2,318.46 Max Daily Volume (m ³): 34.09 Original Application No: CW 1093 Original Start Date: 18/02/1966 Expiry Date: - Issue No: 101 Version Start Date: 12/02/1991 Version End Date: -
-	1801m N	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: -
-	1801m N	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: -
-	1801m N	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: -

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



5.8 Potable abstractions

Records within 2000m

0

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

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

5.9 Source Protection Zones

Records within 500m

0

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

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

5.10 Source Protection Zones (confined aquifer)

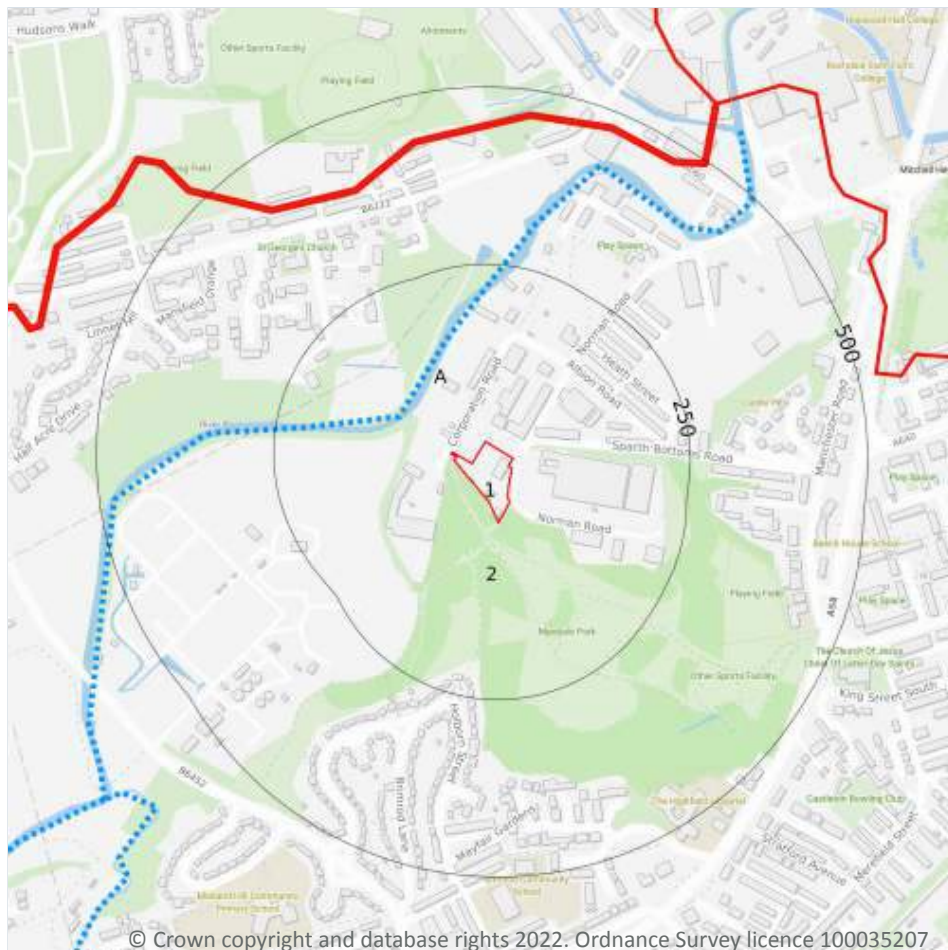
Records within 500m

0

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

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

6 Hydrology



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

6.1 Water Network (OS MasterMap)

Records within 250m

3

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

Features are displayed on the Hydrology map on **page 77**

ID	Location	Type of water feature	Ground level	Permanence	Name
A	86m NW	Inland river not influenced by normal tidal action.	On ground surface	Watercourse contains water year round (in normal circumstances)	River Roch

ID	Location	Type of water feature	Ground level	Permanence	Name
A	141m NW	Inland river not influenced by normal tidal action.	On ground surface	Watercourse contains water year round (in normal circumstances)	-
A	151m NW	Inland river not influenced by normal tidal action.	On ground surface	Watercourse contains water year round (in normal circumstances)	-

This data is sourced from the Ordnance Survey.

6.2 Surface water features

Records within 250m

4

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 77**

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 77**

ID	Location	Type	Water body catchment	Water body ID	Operational catchment	Management catchment
2	On site	River	Roch (Spodden to Irwell)	GB112069064600	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 77**

ID	Location	Type	Name	Water body ID	Overall rating	Chemical rating	Ecological rating	Year
3	90m NW	River	Roch (Spodden to Irwell)	GB112069064600	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.

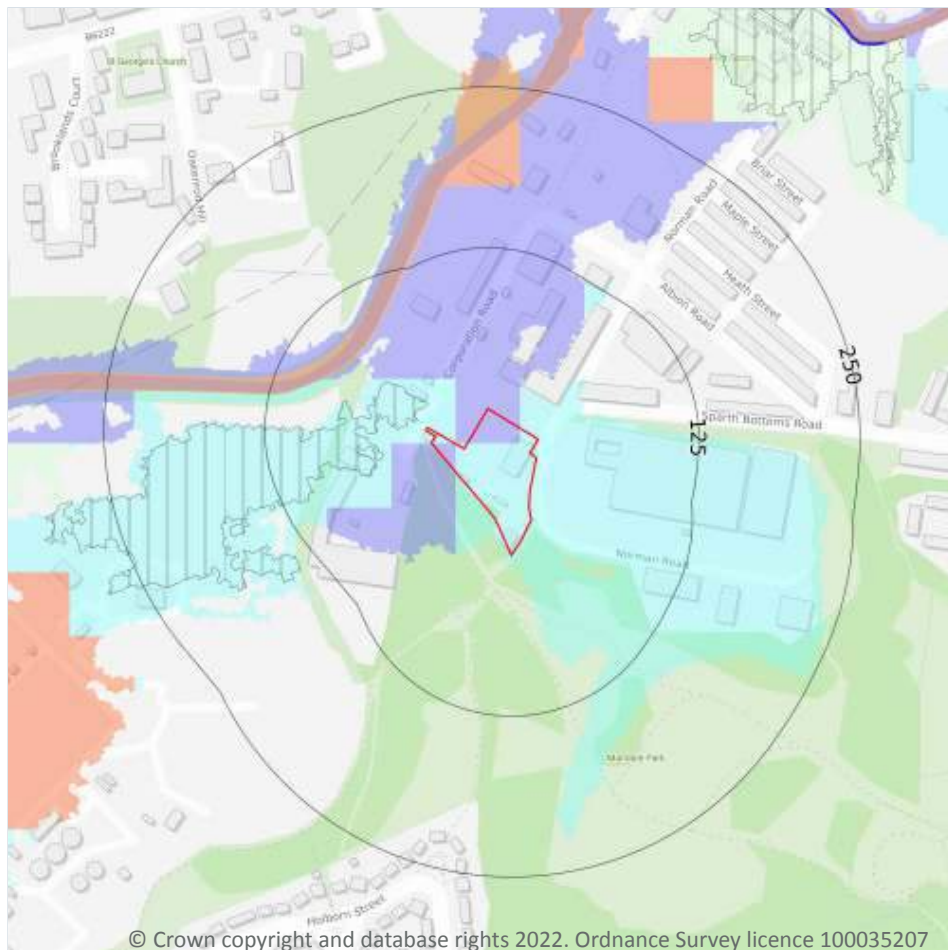
Features are displayed on the Hydrology map on **page 77**

ID	Location	Name	Water body ID	Overall rating	Chemical rating	Quantitative	Year
1	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

5

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).

Features are displayed on the River and coastal flooding map on **page 80**

Distance	Flood risk category
On site	Medium
0 - 50m	Medium

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

7.2 Historical Flood Events

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

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

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

7.3 Flood Defences

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

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

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

7.4 Areas Benefiting from Flood Defences

Records within 250m	1
----------------------------	----------

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.

Features are displayed on the River and coastal flooding map on **page 80**

ID	Location	
A	10m NW	Area benefiting from flood defences

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

7.5 Flood Storage Areas

Records within 250m

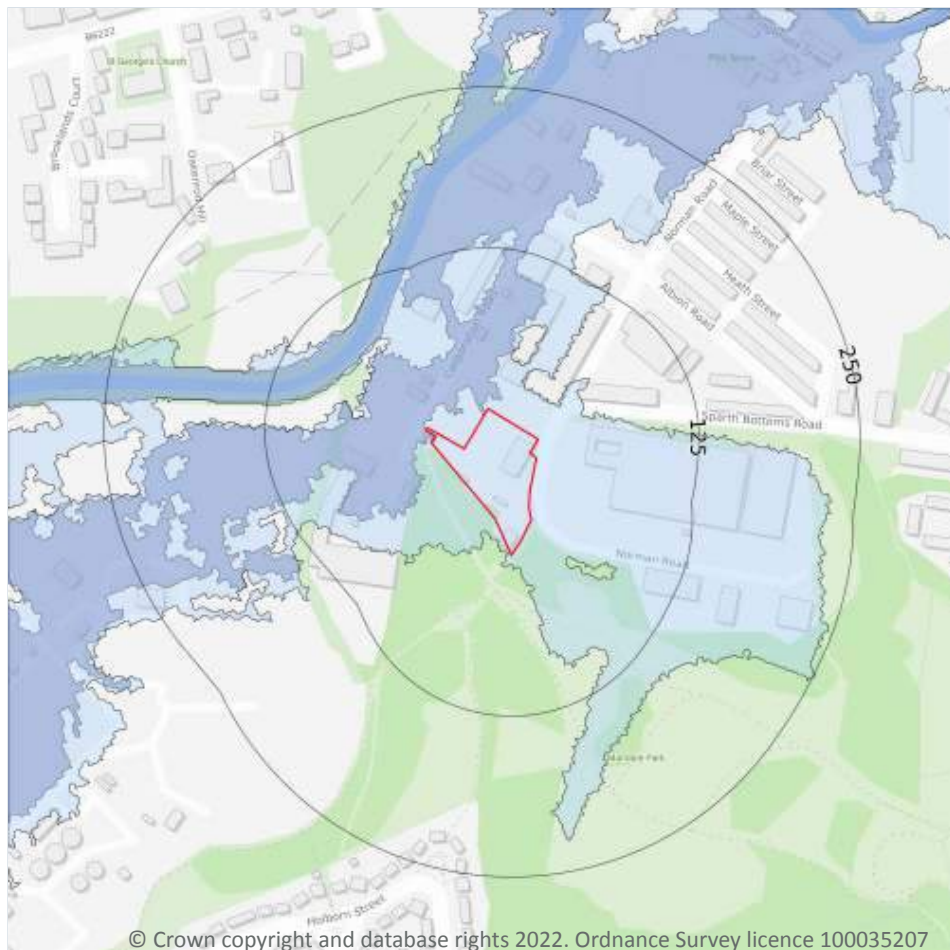
0

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



- Site Outline
- Search buffers in metres (m)
- Flood zone 2
- Flood zone 3

7.6 Flood Zone 2

Records within 50m

1

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.

Features are displayed on the River and coastal flooding map on **page 80**

Location	Type
On site	Zone 2 - (Fluvial /Tidal Models)

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

7.7 Flood Zone 3

Records within 50m

1

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.

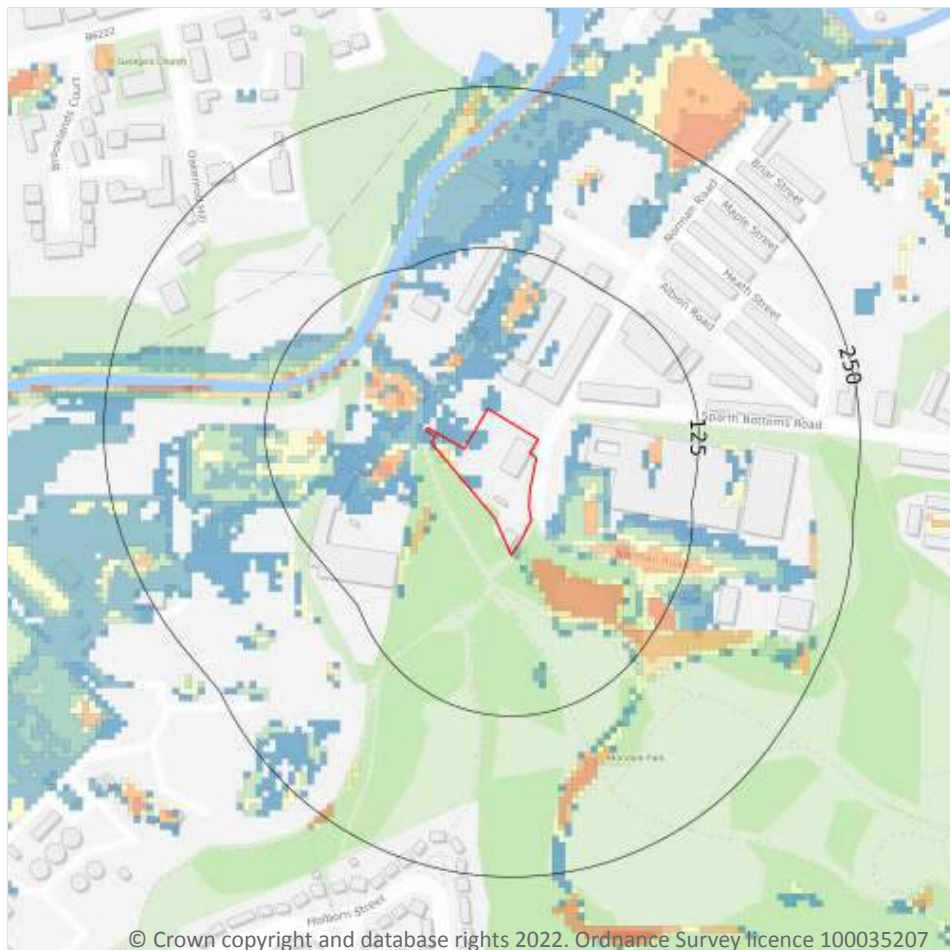
Features are displayed on the River and coastal flooding map on **page 80**

Location	Type
On site	Zone 3 - (Fluvial Models)

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



8 Surface water flooding



— Site Outline

Search buffers in metres (m)

1 in 1000 return period

- Depth between 0.1m - 0.3m
- Depth between 0.3m - 1.0m
- Depth greater than 1.0m

1 in 250 return period

- Depth between 0.1m - 0.3m
- Depth between 0.3m - 1.0m
- Depth greater than 1.0m

1 in 100 return period

- Depth between 0.1m - 0.3m
- Depth between 0.3m - 1.0m
- Depth greater than 1.0m

1 in 30 return period

- Depth between 0.1m - 0.3m
- Depth between 0.3m - 1.0m
- Depth greater than 1.0m

8.1 Surface water flooding

Highest risk on site

1 in 100 year, 0.3m - 1.0m

Highest risk within 50m

1 in 30 year, 0.3m - 1.0m

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

Features are displayed on the Surface water flooding map on **page 85**

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

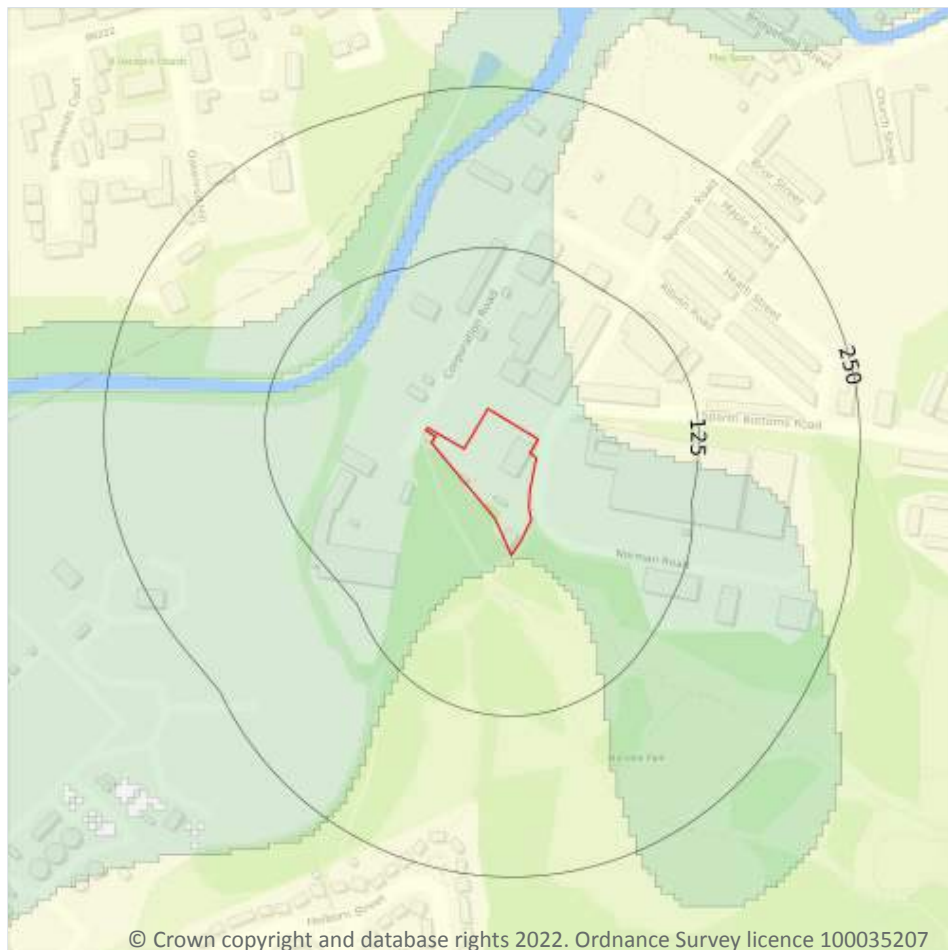
The table below shows the maximum flood depths for a range of return periods for the site.

Return period	Maximum modelled depth
1 in 1000 year	Between 0.3m and 1.0m
1 in 250 year	Between 0.3m and 1.0m
1 in 100 year	Between 0.3m and 1.0m
1 in 30 year	Negligible

This data is sourced from Ambiantal Risk Analytics.



9 Groundwater flooding



— Site Outline
Search buffers in metres (m)

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

9.1 Groundwater flooding

Highest risk on site

Low

Highest risk within 50m

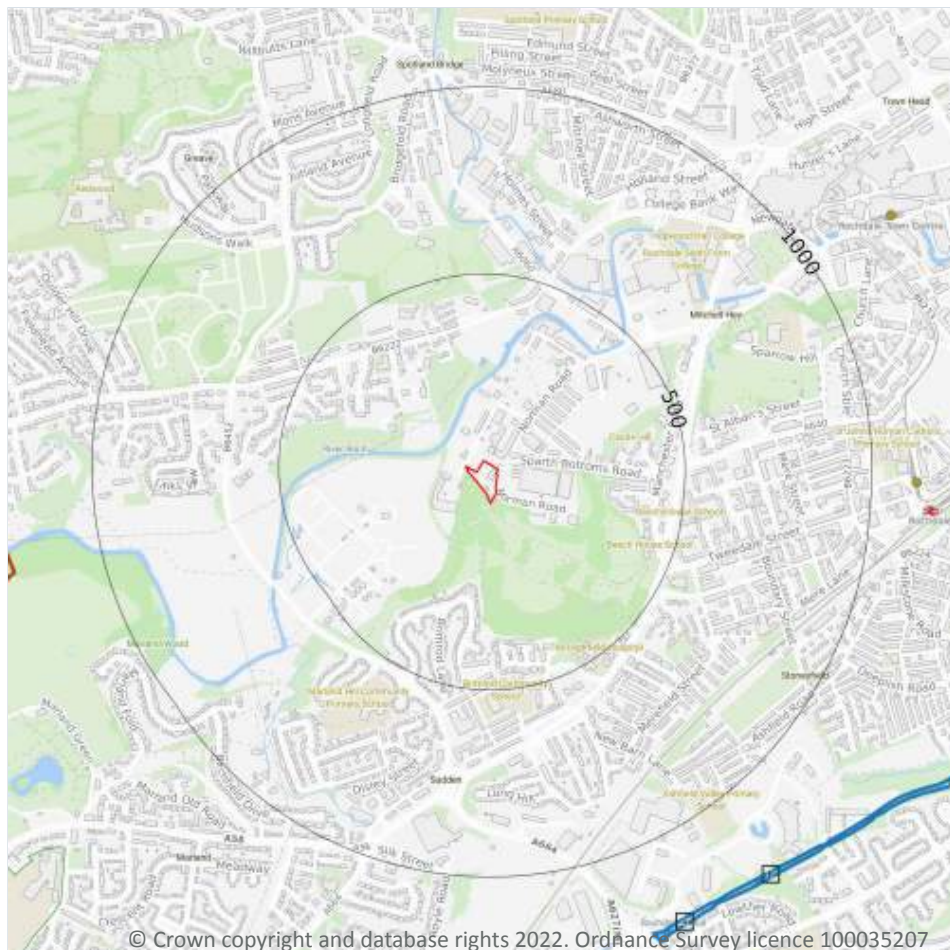
Moderate

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 87**

This data is sourced from Ambiantal Risk Analytics.

10 Environmental designations



- Site Outline
- Search buffers in metres (m)
- Sites of Special Scientific Interest (SSSI)
- + Special Areas of Conservation (SAC)
- Designated Ancient Woodland
- Green Belt

10.1 Sites of Special Scientific Interest (SSSI)

Records within 2000m

4

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.

Features are displayed on the Environmental designations map on **page 88**

ID	Location	Name	Data source
A	1222m SE	Rochdale Canal	Natural England

ID	Location	Name	Data source
B	1223m SE	Rochdale Canal	Natural England
C	1279m SE	Rochdale Canal	Natural England
-	1361m S	Rochdale Canal	Natural England

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

4

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.

Features are displayed on the Environmental designations map on **page 88**

ID	Location	Name	Features of interest	Habitat description	Data source
A	1222m SE	Rochdale Canal	Floating water-plantain.	Other land (including Towns, Villages, Roads, Waste places, Mines, Industrial sites); Inland water bodies (Standing water, Running water)	Natural England
B	1223m SE	Rochdale Canal	Floating water-plantain.	Other land (including Towns, Villages, Roads, Waste places, Mines, Industrial sites); Inland water bodies (Standing water, Running water)	Natural England
C	1279m SE	Rochdale Canal	Floating water-plantain.	Other land (including Towns, Villages, Roads, Waste places, Mines, Industrial sites); Inland water bodies (Standing water, Running water)	Natural England



ID	Location	Name	Features of interest	Habitat description	Data source
-	1361m S	Rochdale Canal	Floating water-plantain.	Other land (including Towns, Villages, Roads, Waste places, Mines, Industrial sites); Inland water bodies (Standing water, Running water)	Natural England

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

10.4 Special Protection Areas (SPA)

Records within 2000m

0

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

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

10.5 National Nature Reserves (NNR)

Records within 2000m

0

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

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

10.6 Local Nature Reserves (LNR)

Records within 2000m

0

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

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

10.7 Designated Ancient Woodland

Records within 2000m

3

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 88**

ID	Location	Name	Woodland Type
1	1240m W	Springfield Wood	Ancient & Semi-Natural Woodland
-	1279m W	River Rock Wood (2)	Ancient & Semi-Natural Woodland
-	1794m W	Unknown	Ancient & Semi-Natural Woodland

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

10.8 Biosphere Reserves

Records within 2000m

0

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

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

10.9 Forest Parks

Records within 2000m

0

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

This data is sourced from the Forestry Commission.

10.10 Marine Conservation Zones

Records within 2000m

0

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

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

10.11 Green Belt

Records within 2000m

1

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

Features are displayed on the Environmental designations map on **page 88**

ID	Location	Name	Local Authority name
3	1465m SW	Merseyside and Greater Manchester	Rochdale

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 fall 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



- Site Outline
- Search buffers in metres (m)
- SSSI Impact Risk Zones
- SSSI Units
- Not recorded
- Favourable
- Unfavourable - Recovering
- Unfavourable - No change
- Unfavourable - Declining
- Partially destroyed
- Destroyed

10.17 SSSI Impact Risk Zones

Records on site

1

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

Features are displayed on the SSSI Impact Zones and Units map on **page 94**

ID	Location	Type of developments requiring consultation
1	On site	Infrastructure - Pipelines, pylons and overhead cables. any transport proposal including road, rail and by water (excluding routine maintenance). airports, helipads and other aviation proposals. Minerals, Oil and Gas - Planning applications for quarries, including: new proposals, review of minerals permissions (romp), extensions, variations to conditions etc. oil & gas exploration/extraction. Air pollution - Any industrial/agricultural development that could cause air pollution (incl: industrial processes, livestock & poultry units with floorspace > 500m², slurry lagoons & digestate stores > 200m², manure stores > 250t). Combustion - General combustion processes >20mw energy input. incl: energy from waste incineration, other incineration, landfill gas generation plant, pyrolysis/gasification, anaerobic digestion, sewage treatment works, other incineration/ combustion. Waste - Landfill. incl: inert landfill, non-hazardous landfill, hazardous landfill. Composting - Any composting proposal with more than 75000 tonnes maximum annual operational throughput. incl: open windrow composting, in-vessel composting, anaerobic digestion, other waste management. Water supply - Large infrastructure such as warehousing / industry where total net additional gross internal floorspace following development is 1,000m² or more.

This data is sourced from Natural England.

10.18 SSSI Units

Records within 2000m	4
-----------------------------	----------

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.

Features are displayed on the SSSI Impact Zones and Units map on **page 94**

ID: 7
 Location: 1222m SE
 SSSI name: Rochdale Canal
 Unit name: Failsworth
 Broad habitat: Standing Open Water And Canals
 Condition: Unfavourable - Recovering
 Reportable features:

Feature name	Feature condition	Date of assessment
Population of Schedule 8 plant - Luronium natans, Floating Water-plantain	Unfavourable - Recovering	25/11/2010



ID: A
Location: 1223m SE
SSSI name: Rochdale Canal
Unit name: Failsworth
Broad habitat: Standing Open Water And Canals
Condition: Unfavourable - Recovering
Reportable features:

Feature name	Feature condition	Date of assessment
Population of Schedule 8 plant - Luronium natans, Floating Water-plantain	Unfavourable - Recovering	25/11/2010

ID: 9
Location: 1279m SE
SSSI name: Rochdale Canal
Unit name: Failsworth
Broad habitat: Standing Open Water And Canals
Condition: Unfavourable - Recovering
Reportable features:

Feature name	Feature condition	Date of assessment
Population of Schedule 8 plant - Luronium natans, Floating Water-plantain	Unfavourable - Recovering	25/11/2010

ID: -
Location: 1361m S
SSSI name: Rochdale Canal
Unit name: Failsworth
Broad habitat: Standing Open Water And Canals
Condition: Unfavourable - Recovering
Reportable features:

Feature name	Feature condition	Date of assessment
Population of Schedule 8 plant - Luronium natans, Floating Water-plantain	Unfavourable - Recovering	25/11/2010

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



11 Visual and cultural designations

11.1 World Heritage Sites

Records within 250m

0

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

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

11.2 Area of Outstanding Natural Beauty

Records within 250m

0

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

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

11.3 National Parks

Records within 250m

0

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

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

11.4 Listed Buildings

Records within 250m

0

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



This data is sourced from 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

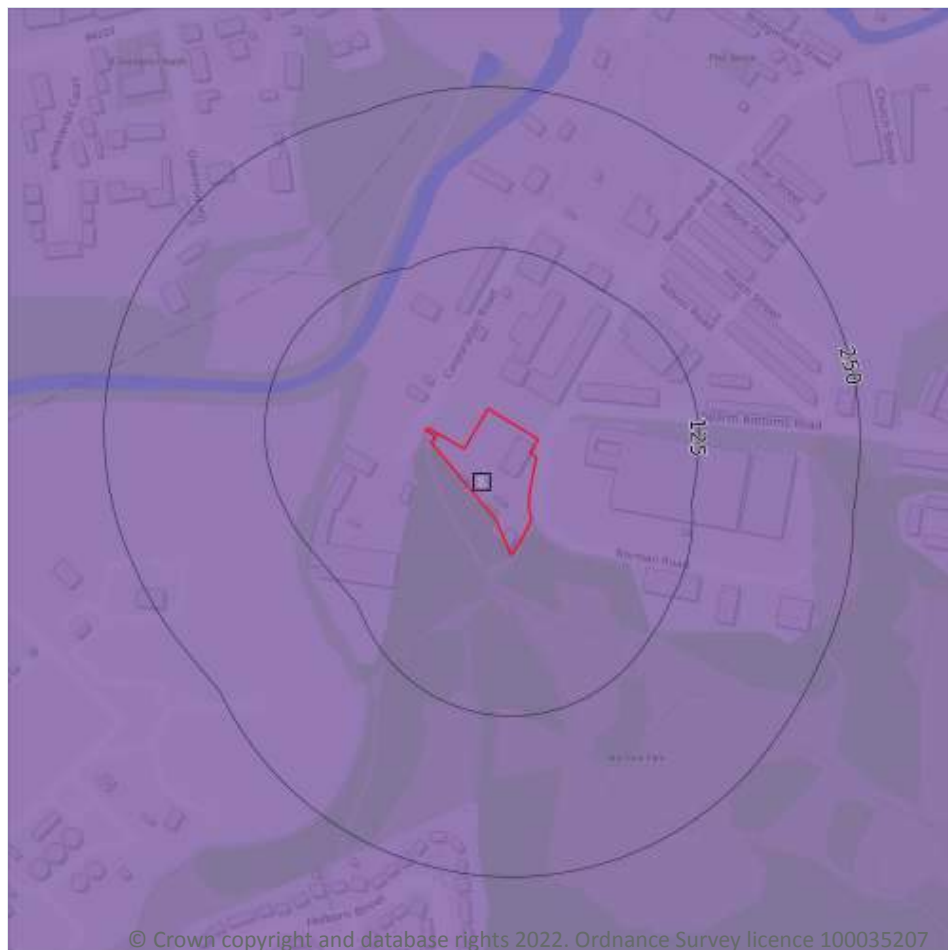
0

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

1

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 99**

ID	Location	Classification	Description
1	On site	Urban	-

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

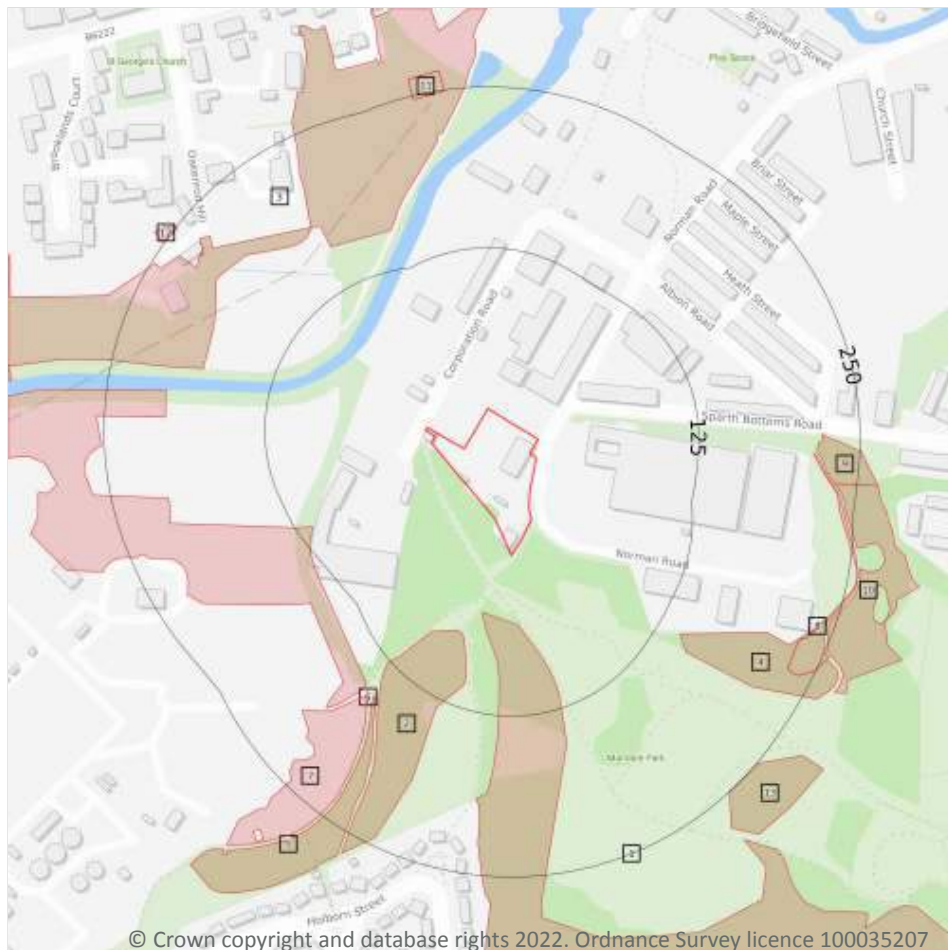
Records within 250m

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



- Site Outline**
- Search buffers in metres (m)**
- Priority Habitat Inventory
 - Open Mosaic Habitat
 - Limestone Pavement Orders
- Habitat Networks**
- Primary Habitat
 - Restorable Habitat
 - Associated Habitats
 - Habitat Restoration-Creation
 - Network Enhancement Zone 1
 - Network Enhancement Zone 2

13.1 Priority Habitat Inventory

Records within 250m

13

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

Features are displayed on the Habitat designations map on **page 101**

ID	Location	Main Habitat	Other habitats
1	49m S	Deciduous woodland	Main habitat: DWOOD (INV > 50%)
2	72m SW	Deciduous woodland	Main habitat: DWOOD (INV > 50%)
3	113m SW	Deciduous woodland	Main habitat: DWOOD (INV > 50%)
4	143m SE	Deciduous woodland	Main habitat: DWOOD (INV > 50%)



ID	Location	Main Habitat	Other habitats
5	153m SW	Deciduous woodland	Main habitat: DWOOD (INV > 50%)
6	154m SW	Deciduous woodland	Main habitat: DWOOD (INV > 50%)
7	156m SW	Deciduous woodland	Main habitat: DWOOD (INV > 50%)
8	215m E	Deciduous woodland	Main habitat: DWOOD (INV > 50%)
9	217m E	Deciduous woodland	Main habitat: DWOOD (INV > 50%)
10	233m E	Deciduous woodland	Main habitat: DWOOD (INV > 50%)
11	247m N	Deciduous woodland	Main habitat: DWOOD (INV > 50%)
12	248m NW	Deciduous woodland	Main habitat: DWOOD (INV > 50%)
13	250m SE	Deciduous woodland	Main habitat: DWOOD (INV > 50%)

This data is sourced from Natural England.

13.2 Habitat Networks

Records within 250m

0

Habitat networks for 18 priority habitat networks (based primarily, but not exclusively, on the priority habitat inventory) and areas suitable for the expansion of networks through restoration and habitat creation.

This data is sourced from Natural England.

13.3 Open Mosaic Habitat

Records within 250m

0

Sites verified as Open Mosaic Habitat. Mosaic habitats are brownfield sites that are identified under the UK Biodiversity Action Plan as a priority habitat due to the habitat variation within a single site, supporting an array of invertebrates.

This data is sourced from Natural England.

13.4 Limestone Pavement Orders

Records within 250m

0

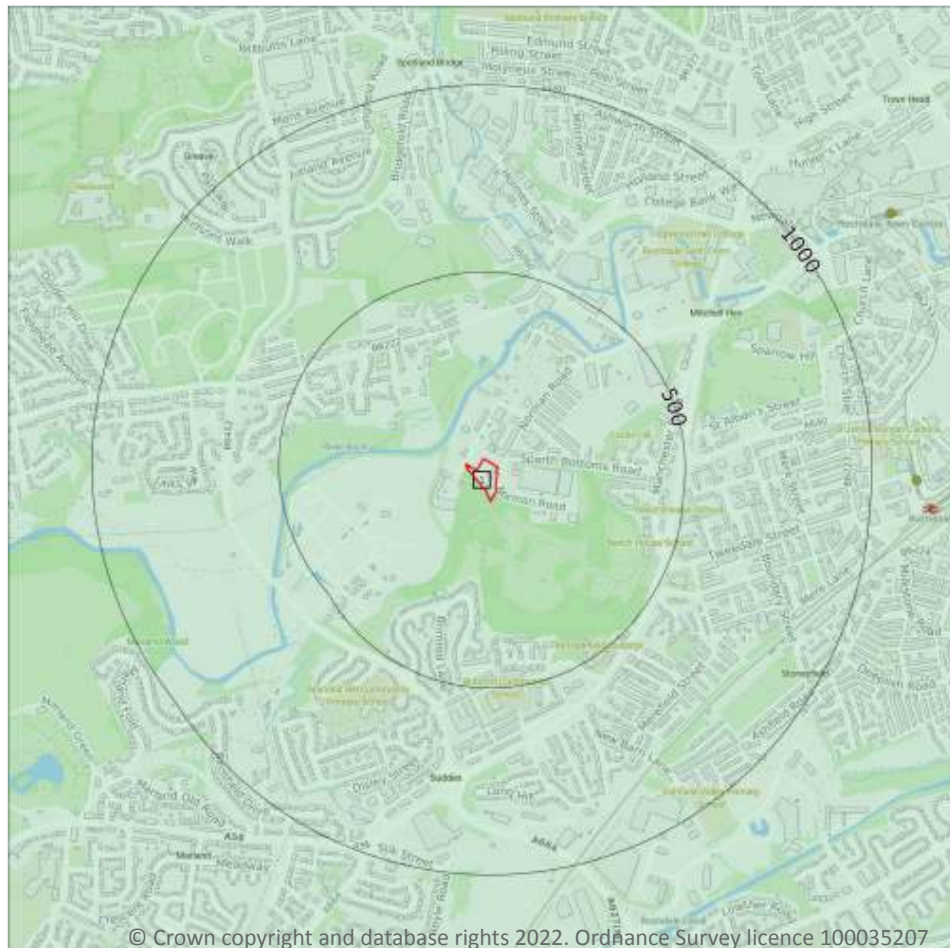
Limestone pavements are outcrops of limestone where the surface has been worn away by natural means over millennia. These rocks have the appearance of paving blocks, hence their name. Not only do they have geological interest, they also provide valuable habitats for wildlife. These habitats are threatened due to their removal for use in gardens and water features. Many limestone pavements have been designated as SSSIs which affords them some protection. In addition, Section 34 of the Wildlife and Countryside Act 1981 gave

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

This data is sourced from Natural England.



14 Geology 1:10,000 scale - Availability



— Site Outline
Search buffers in metres (m)

- Full coverage
- Partial coverage
- No coverage

14.1 10k Availability

Records within 500m

1

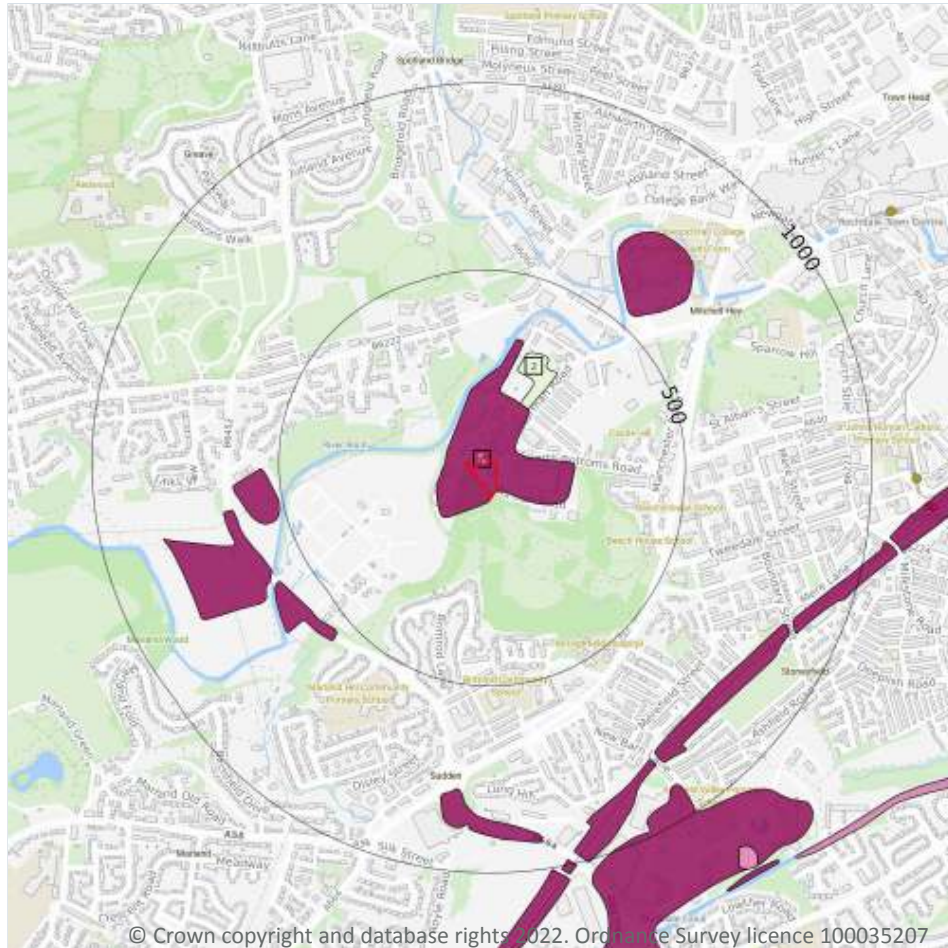
An indication on the coverage of 1:10,000 scale geology data for the site, the most detailed dataset provided by the British Geological Survey. Either 'Full', 'Partial' or 'No coverage' for each geological theme.

Features are displayed on the Geology 1:10,000 scale - Availability map on **page 104**

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

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14.2 Artificial and made ground (10k)

Records within 500m

2

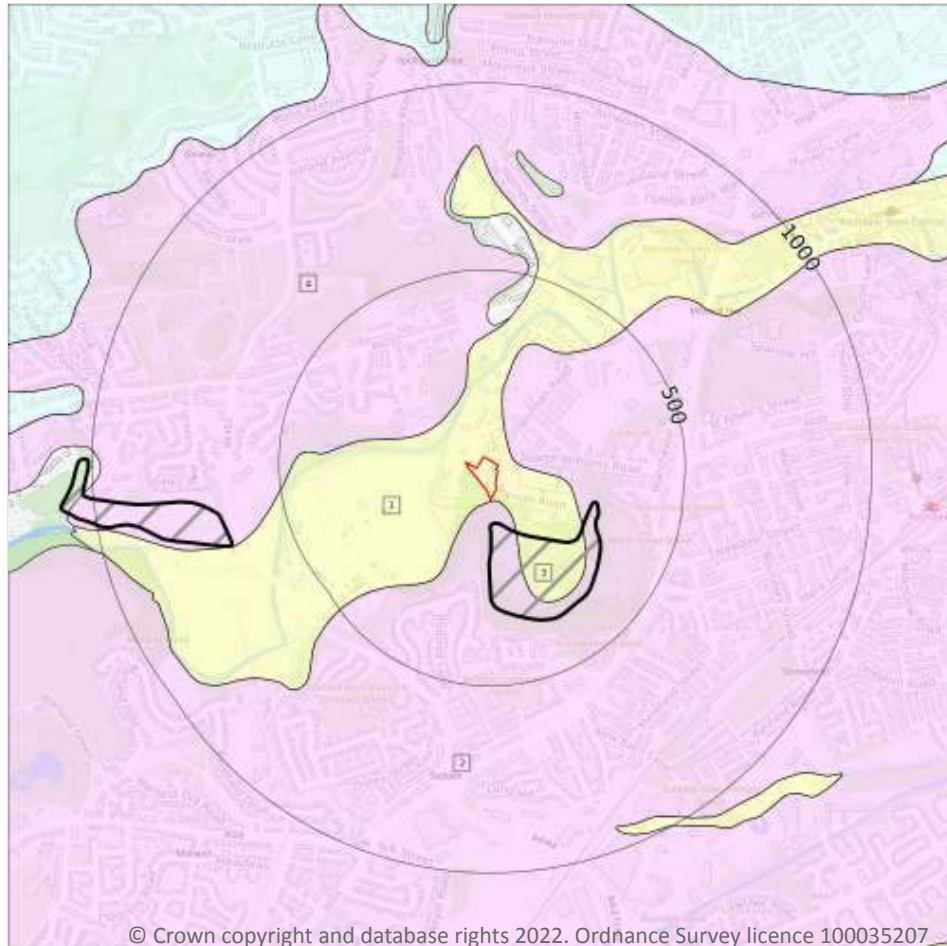
Details of made, worked, infilled, disturbed and landscaped ground at 1:10,000 scale. Artificial ground can be associated with potentially contaminated material, unpredictable engineering conditions and instability.

Features are displayed on the Geology 1:10,000 scale - Artificial and made ground map on **page 105**

ID	Location	LEX Code	Description	Rock description
1	On site	MGR-ARTDP	Made Ground (Undivided)	Artificial Deposit
2	171m NE	WMGR-ARTDP	Infilled Ground	Artificial Deposit

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

3

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 106**

ID	Location	LEX Code	Description	Rock description
1	On site	ALV-XCZSV	Alluvium - Clay, Silt, Sand And Gravel	Clay, Silt, Sand And Gravel
2	6m S	GFDUD-XSV	Glaciofluvial Deposits, Devensian - Sand And Gravel	Sand And Gravel
4	127m NW	GFDUD-XSV	Glaciofluvial Deposits, Devensian - Sand And Gravel	Sand And Gravel

This data is sourced from the British Geological Survey.

14.4 Landslip (10k)

Records within 500m

1

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.

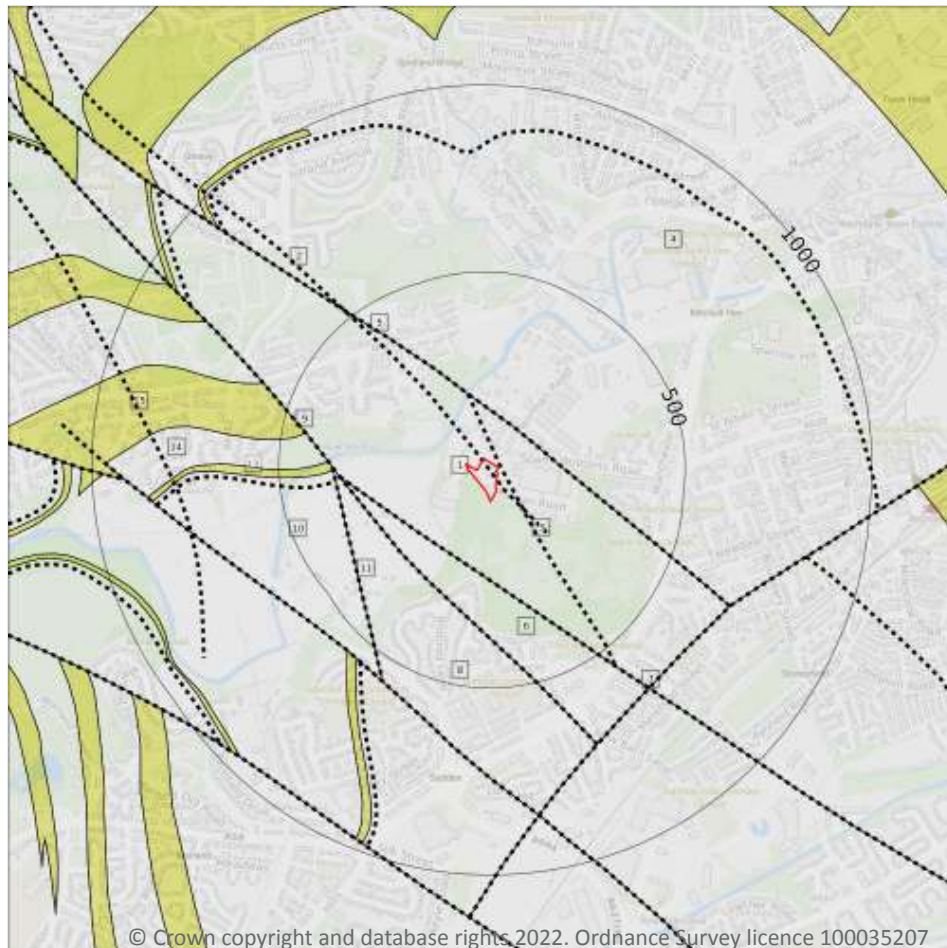
Features are displayed on the Geology 1:10,000 scale - Superficial map on **page 106**

ID	Location	LEX Code	Description	Rock description
3	65m S	SLIP-UNKNOWN	Landslide Deposits	Unknown/unclassified Entry

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

8

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 108**

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	110m NE	PLCM-MDSS	Pennine Lower Coal Measures Formation - Mudstone, Siltstone And Sandstone	Langsettian Sub-age

ID	Location	LEX Code	Description	Rock age
6	177m SW	PLCM-MDSS	Pennine Lower Coal Measures Formation - Mudstone, Siltstone And Sandstone	Langsettian Sub-age
8	268m SW	PLCM-MDSS	Pennine Lower Coal Measures Formation - Mudstone, Siltstone And Sandstone	Langsettian Sub-age
10	349m W	PLCM-MDSS	Pennine Lower Coal Measures Formation - Mudstone, Siltstone And Sandstone	Langsettian Sub-age
13	355m W	RSC-SDST	Riddle Scout Rock - Sandstone	Langsettian Sub-age
14	367m W	PLCM-MDSS	Pennine Lower Coal Measures Formation - Mudstone, Siltstone And Sandstone	Langsettian Sub-age
15	436m W	OL-SDST	Old Lawrence 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

7

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.

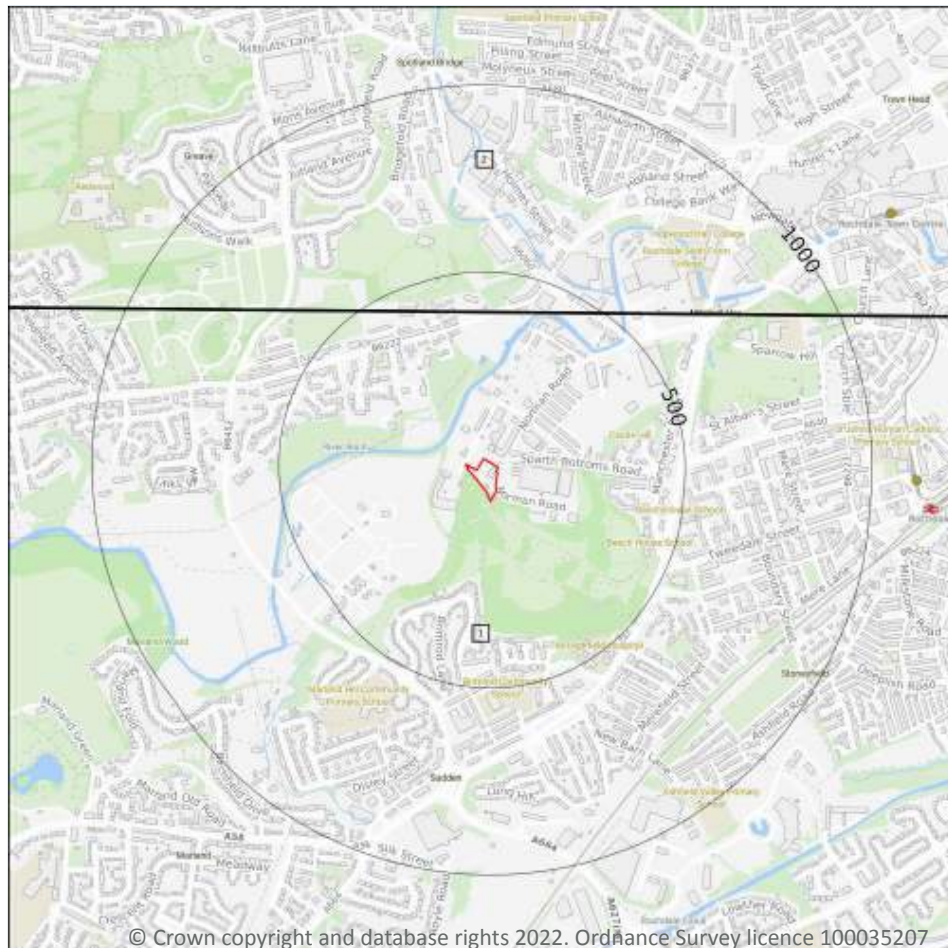
Features are displayed on the Geology 1:10,000 scale - Bedrock map on **page 108**

ID	Location	Category	Description
2	On site	LANDFORM	Buried channel or valley margin
3	7m NE	FAULT	Normal fault, inferred; crossmarks on downthrow side
5	110m NE	FAULT	Normal fault, inferred; crossmarks on downthrow side
7	177m SW	FAULT	Normal fault, inferred; crossmarks on downthrow side
9	268m SW	FAULT	Normal fault, inferred; crossmarks on downthrow side
11	349m W	FAULT	Normal fault, inferred; crossmarks on downthrow side
12	351m W	ROCK	Coal seam, inferred

This data is sourced from the British Geological Survey.



15 Geology 1:50,000 scale - Availability



— Site Outline
Search buffers in metres (m)

☐ Geological map tile

15.1 50k Availability

Records within 500m

2

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 110**

ID	Location	Artificial	Superficial	Bedrock	Mass movement	Sheet No.
1	On site	No coverage	Full	Full	No coverage	EW085_manchester_v4
2	392m N	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

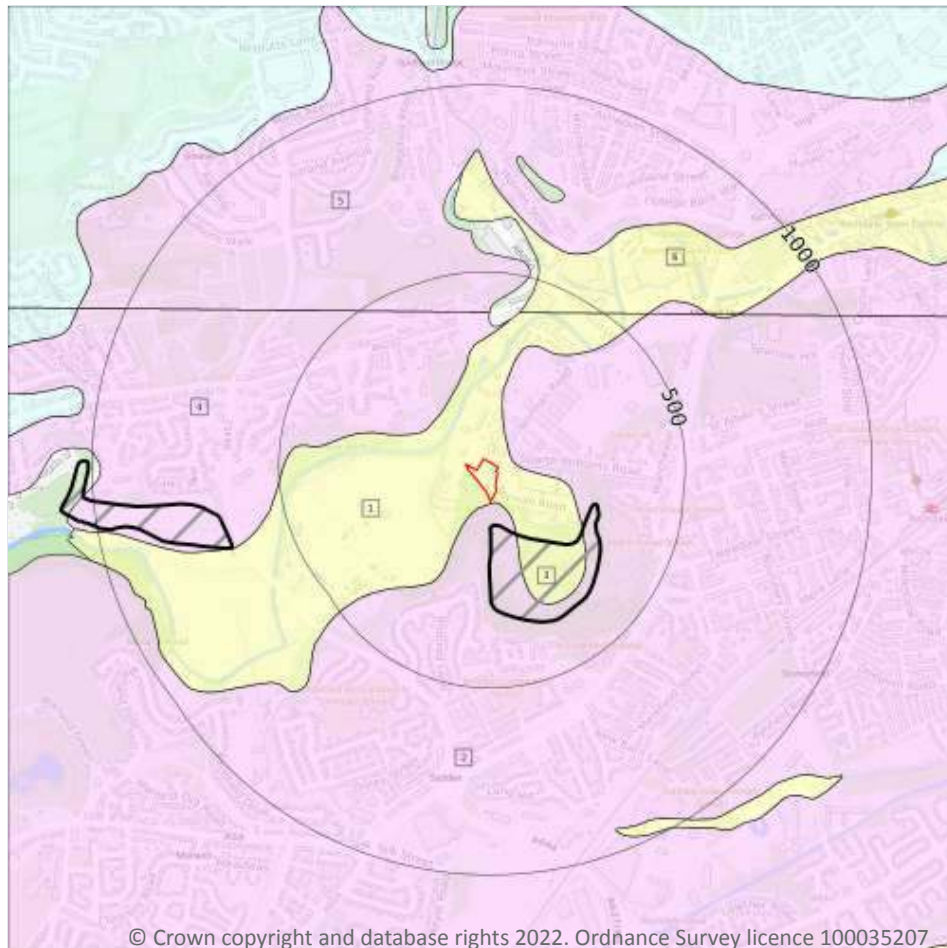
0

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.

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15.4 Superficial geology (50k)

Records within 500m

5

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 112**

ID	Location	LEX Code	Description	Rock description
1	On site	ALV-XCZSV	ALLUVIUM	CLAY, SILT, SAND AND GRAVEL
2	6m S	GFDUD-XSV	GLACIOFLUVIAL DEPOSITS, DEVENSIAN	SAND AND GRAVEL
4	141m NW	GFDUD-XSV	GLACIOFLUVIAL DEPOSITS, DEVENSIAN	SAND AND GRAVEL
5	392m N	GFDUD-XSV	GLACIOFLUVIAL DEPOSITS, DEVENSIAN	SAND AND GRAVEL



ID	Location	LEX Code	Description	Rock description
6	403m N	ALV-XCZSV	ALLUVIUM	CLAY, SILT, SAND AND GRAVEL

This data is sourced from the British Geological Survey.

15.5 Superficial 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 any superficial deposits (the zone between the land surface and the water table).

Location	Flow type	Maximum permeability	Minimum permeability
On site	Intergranular	High	Very Low
6m SW	Intergranular	Very High	High

This data is sourced from the British Geological Survey.

15.6 Landslip (50k)

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

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.

Features are displayed on the Geology 1:50,000 scale - Superficial map on **page 112**

ID	Location	LEX Code	Description	Rock description
3	66m S	SLIP-UNKNOWN	LANDSLIDE DEPOSITS	UNKNOWN/UNCLASSIFIED ENTRY

This data is sourced from the British Geological Survey.

15.7 Landslip permeability (50k)

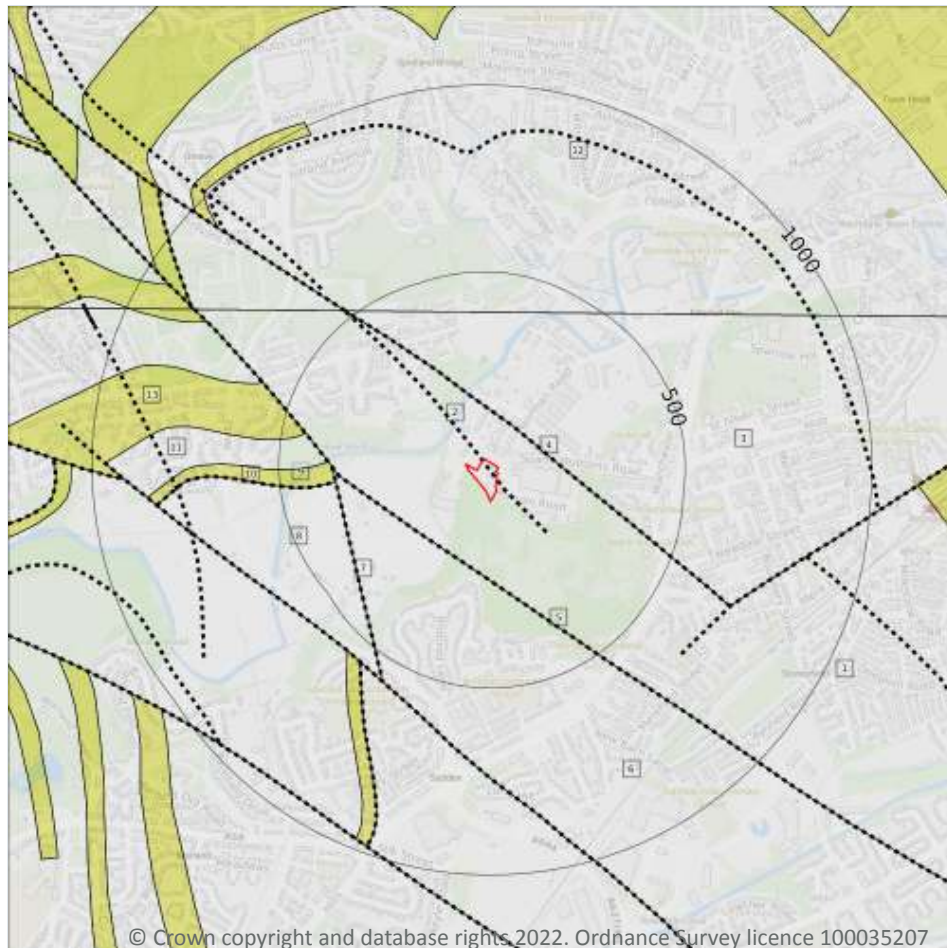
Records within 50m	0
---------------------------	----------

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

8

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 114**

ID	Location	LEX Code	Description	Rock age
1	On site	PLCM-MDSS	PENNINE LOWER COAL MEASURES FORMATION - MUDSTONE, SILTSTONE AND SANDSTONE	WESTPHALIAN
3	111m NE	PLCM-MDSS	PENNINE LOWER COAL MEASURES FORMATION - MUDSTONE, SILTSTONE AND SANDSTONE	WESTPHALIAN

ID	Location	LEX Code	Description	Rock age
6	177m SW	PLCM-MDSS	PENNINE LOWER COAL MEASURES FORMATION - MUDSTONE, SILTSTONE AND SANDSTONE	WESTPHALIAN
8	349m W	PLCM-MDSS	PENNINE LOWER COAL MEASURES FORMATION - MUDSTONE, SILTSTONE AND SANDSTONE	WESTPHALIAN
9	351m W	RSC-SDST	RIDDLE SCOUT ROCK - SANDSTONE	WESTPHALIAN
11	367m W	PLCM-MDSS	PENNINE LOWER COAL MEASURES FORMATION - MUDSTONE, SILTSTONE AND SANDSTONE	WESTPHALIAN
12	392m N	PLCM-MDSS	PENNINE LOWER COAL MEASURES FORMATION - MUDSTONE, SILTSTONE AND SANDSTONE	WESTPHALIAN
13	436m W	OL-SDST	OLD LAWRENCE ROCK - SANDSTONE	WESTPHALIAN

This data is sourced from the British Geological Survey.

15.9 Bedrock permeability (50k)

Records within 50m

1

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

Location	Flow type	Maximum permeability	Minimum permeability
On site	Fracture	Moderate	Low

This data is sourced from the British Geological Survey.

15.10 Bedrock faults and other linear features (50k)

Records within 500m

5

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 114**

ID	Location	Category	Description
2	On site	LANDFORM	Approximate margin of buried (superficial deposit-filled) channel or valley
4	111m NE	FAULT	Fault, inferred
5	177m SW	FAULT	Fault, inferred

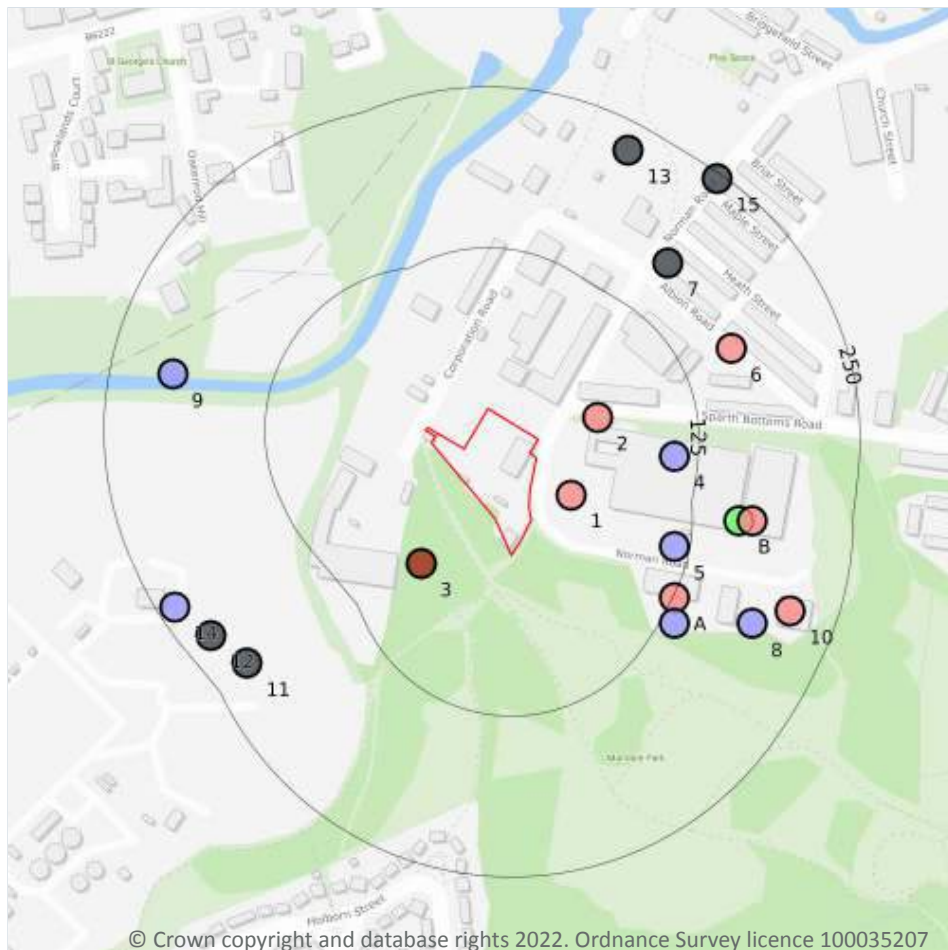


ID	Location	Category	Description
7	349m W	FAULT	Fault, inferred
10	351m W	ROCK	Coal seam, inferred

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

19

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 117**

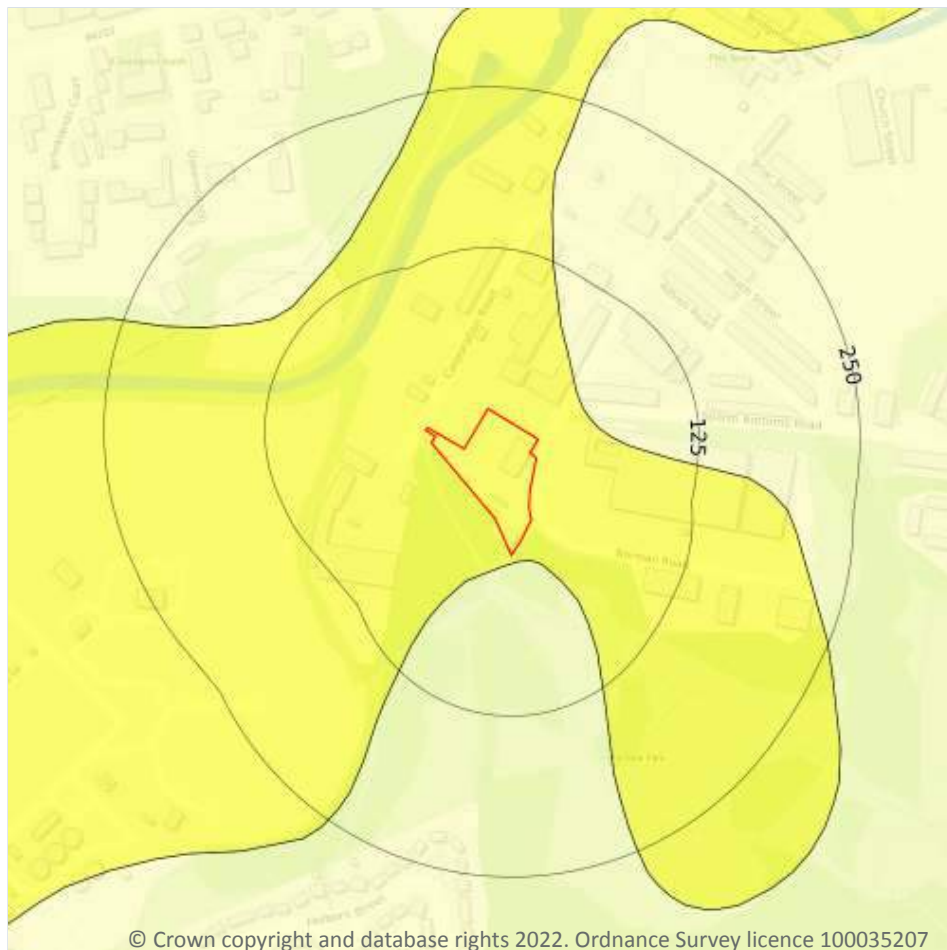
ID	Location	Grid reference	Name	Length	Confidential	Web link
1	32m E	388790 412710	SPARTH BOTTOMS ROAD ROCHDALE R5	30.5	N	30210
2	49m E	388810 412770	SPARTH BOTTOMS ROAD ROCHDALE R1	30.5	N	30206
3	66m SW	388673 412657	SPARN MILL	-1.0	N	29737

ID	Location	Grid reference	Name	Length	Confidential	Web link
4	107m E	388870 412740	SPARTH BOTTOMS ROAD ROCHDALE 1	7.0	N	30201
5	113m E	388870 412670	SPARTH BOTTOMS ROAD ROCHDALE 5	7.5	N	30205
A	127m SE	388870 412630	SPARTH BOTTOMS ROAD ROCHDALE R4	30.5	N	30209
A	136m SE	388870 412610	SPARTH BOTTOMS ROAD ROCHDALE 4	8.0	N	30204
B	161m E	388920 412690	SPARTH BOTTOMS ROAD ROCHDALE 2	10.8	N	30202
6	166m NE	388914 412824	ROCHDALE CO-OP LAUNDRY ALBION ROAD	71.81	N	29738
7	170m NE	388865 412890	W CENTRAL DIST ROCHDALE 19	-	Y	N/A
B	171m E	388930 412690	SPARTH BOTTOMS ROAD ROCHDALE R2	30.5	N	30207
8	189m SE	388930 412610	SPARTH BOTTOMS ROAD ROCHDALE 3	8.5	N	30203
9	202m W	388480 412804	ROCH MILLS TREATMENT WRKS BH44	8.23	N	29964
10	213m E	388960 412620	SPARTH BOTTOMS ROAD ROCHDALE R3	30.5	N	30208
11	220m SW	388538 412579	Rochdale WwTW BH3	-	Y	N/A
12	227m SW	388510 412601	Rochdale WwTW BH1	-	Y	N/A
13	229m NE	388834 412978	W CENTRAL DIST ROCHDALE 21	-	Y	N/A
14	236m SW	388482 412623	ROCH MILLS TREATMENT WRKS BH43	9.75	N	29963
15	246m NE	388903 412956	W CENTRAL DIST ROCHDALE 20	-	Y	N/A

This data is sourced from the British Geological Survey.



17 Natural ground subsidence - Shrink swell clays



— Site Outline
Search buffers in metres (m)

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

17.1 Shrink swell clays

Records within 50m

2

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

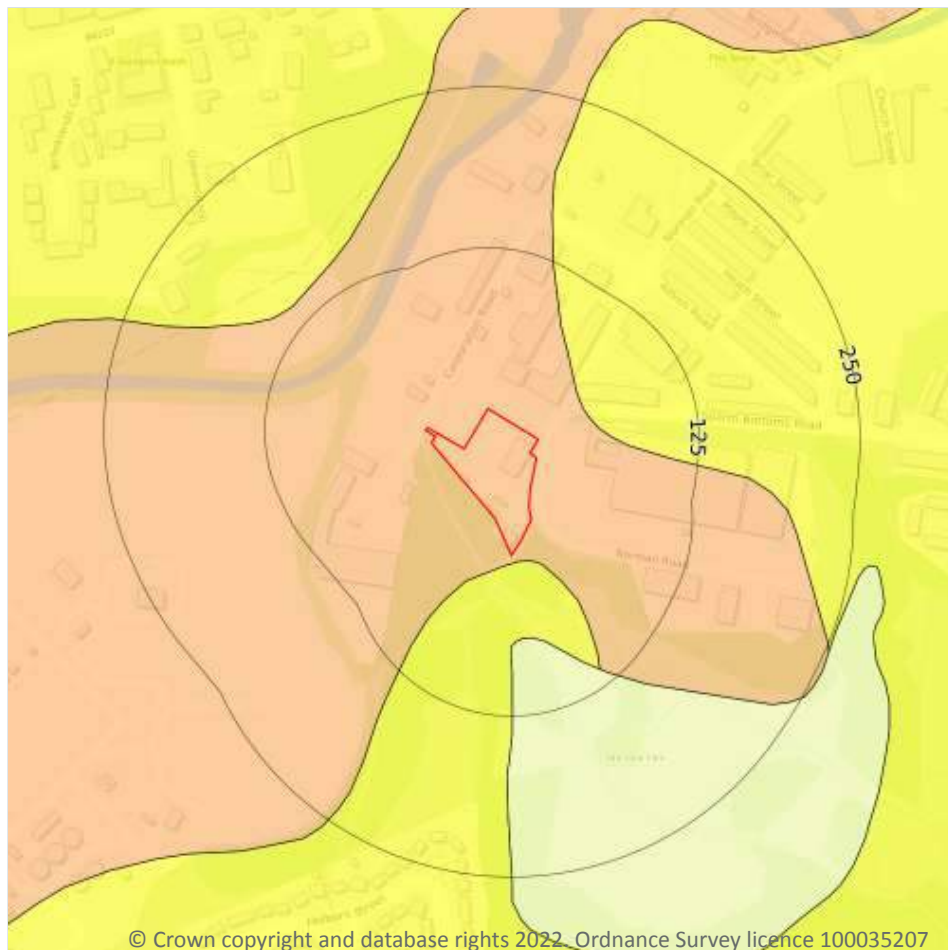
Features are displayed on the Natural ground subsidence - Shrink swell clays map on **page 119**

Location	Hazard rating	Details
On site	Very low	Ground conditions predominantly low plasticity.
6m S	Negligible	Ground conditions predominantly non-plastic.

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

2

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 120**

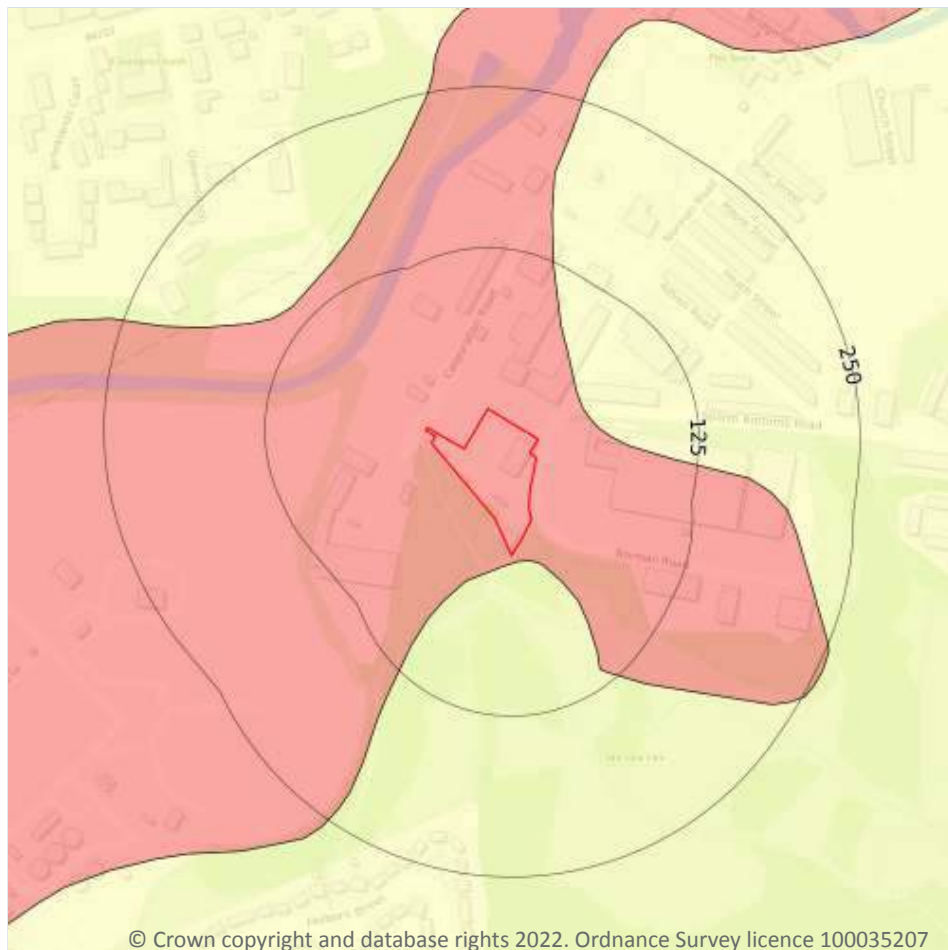
Location	Hazard rating	Details
On site	Low	Running sand conditions may be present. Constraints may apply to land uses involving excavation or the addition or removal of water.

Location	Hazard rating	Details
6m S	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

2

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

Features are displayed on the Natural ground subsidence - Compressible deposits map on **page 122**

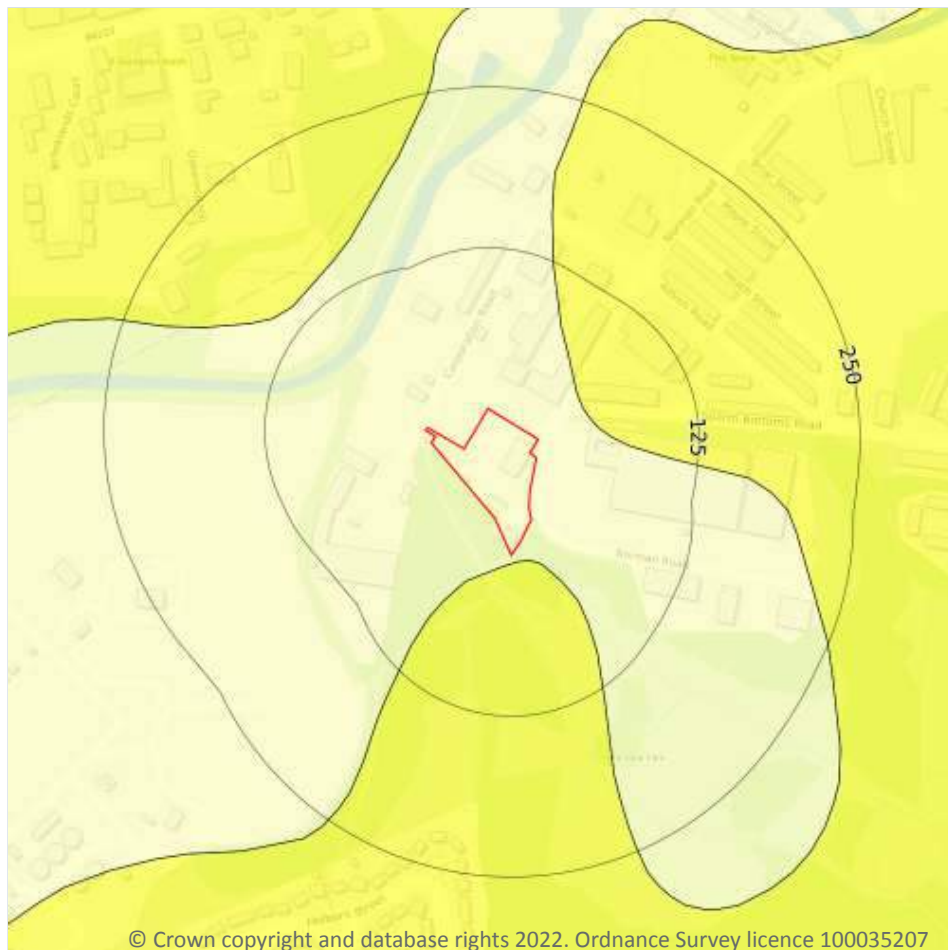
Location	Hazard rating	Details
On site	Moderate	Compressibility and uneven settlement hazards are probably present. Land use should consider specifically the compressibility and variability of the site.
6m S	Negligible	Compressible strata are not thought to occur.



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

2

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

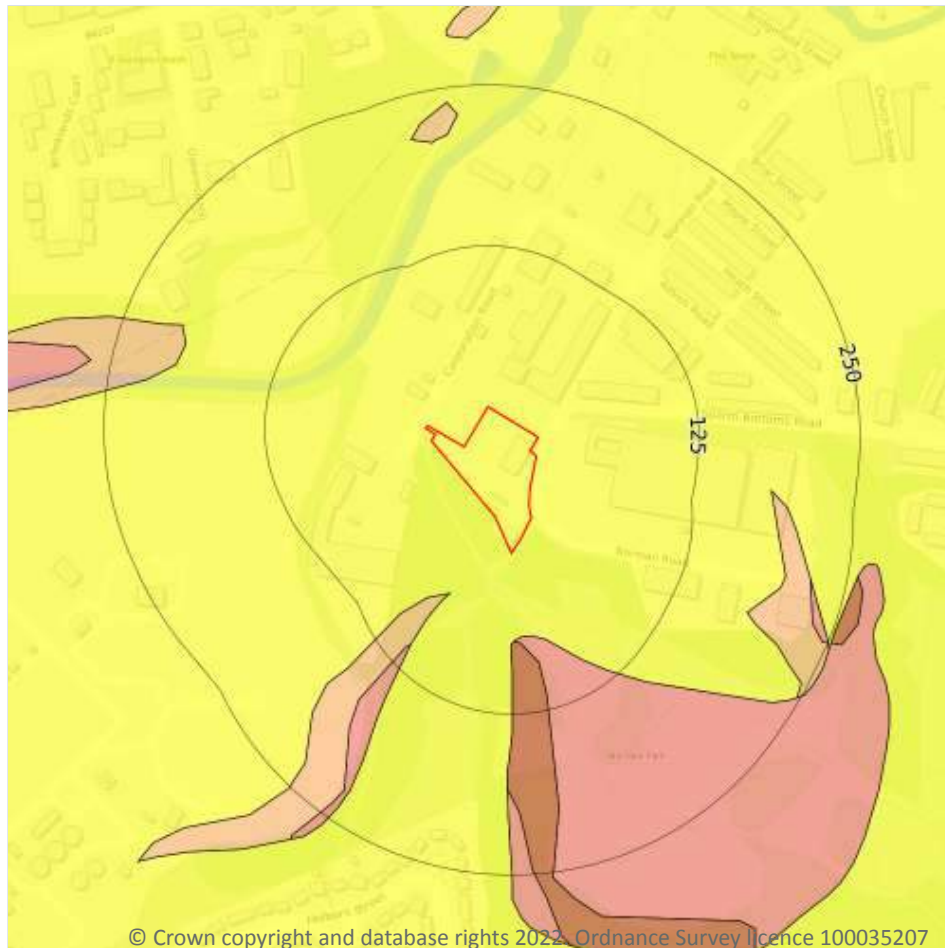
Features are displayed on the Natural ground subsidence - Collapsible deposits map on **page 124**

Location	Hazard rating	Details
On site	Negligible	Deposits with potential to collapse when loaded and saturated are believed not to be present.
6m S	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

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17.5 Landslides

Records within 50m

1

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

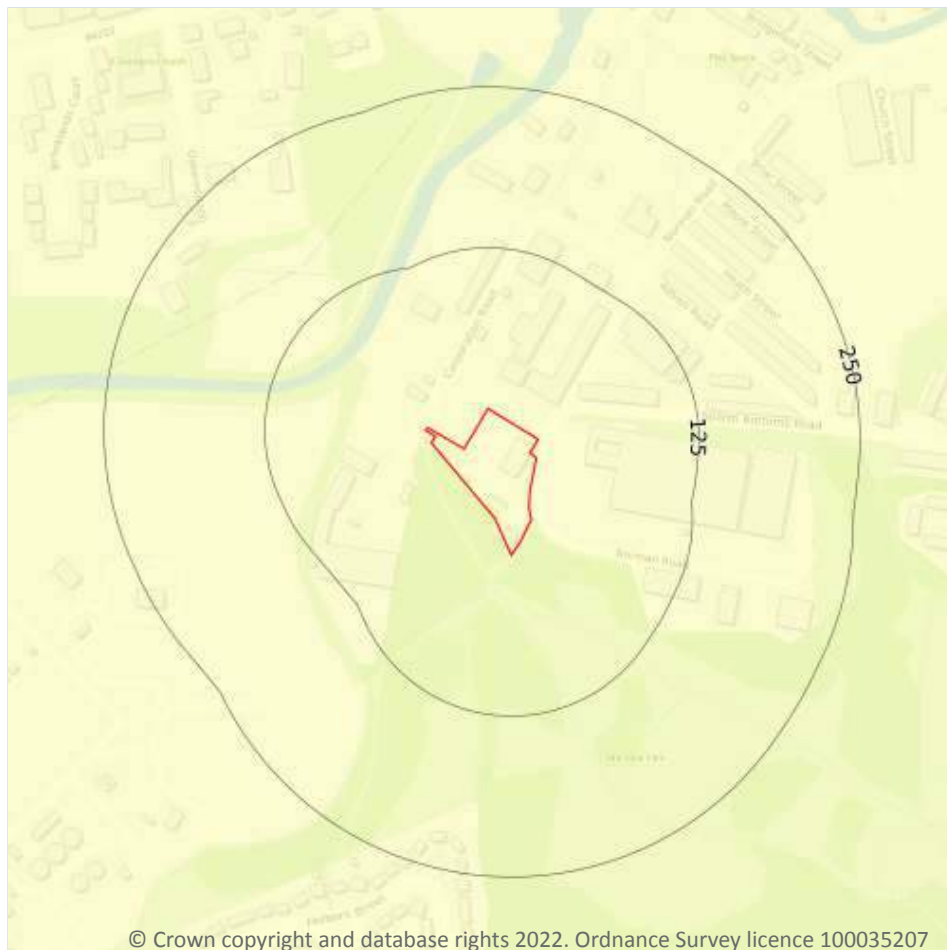
Features are displayed on the Natural ground subsidence - Landslides map on **page 125**

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

This data is sourced from the British Geological Survey.



Natural ground subsidence - Ground dissolution of soluble rocks



— Site Outline
Search buffers in metres (m)

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

17.6 Ground dissolution of soluble rocks

Records within 50m

1

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

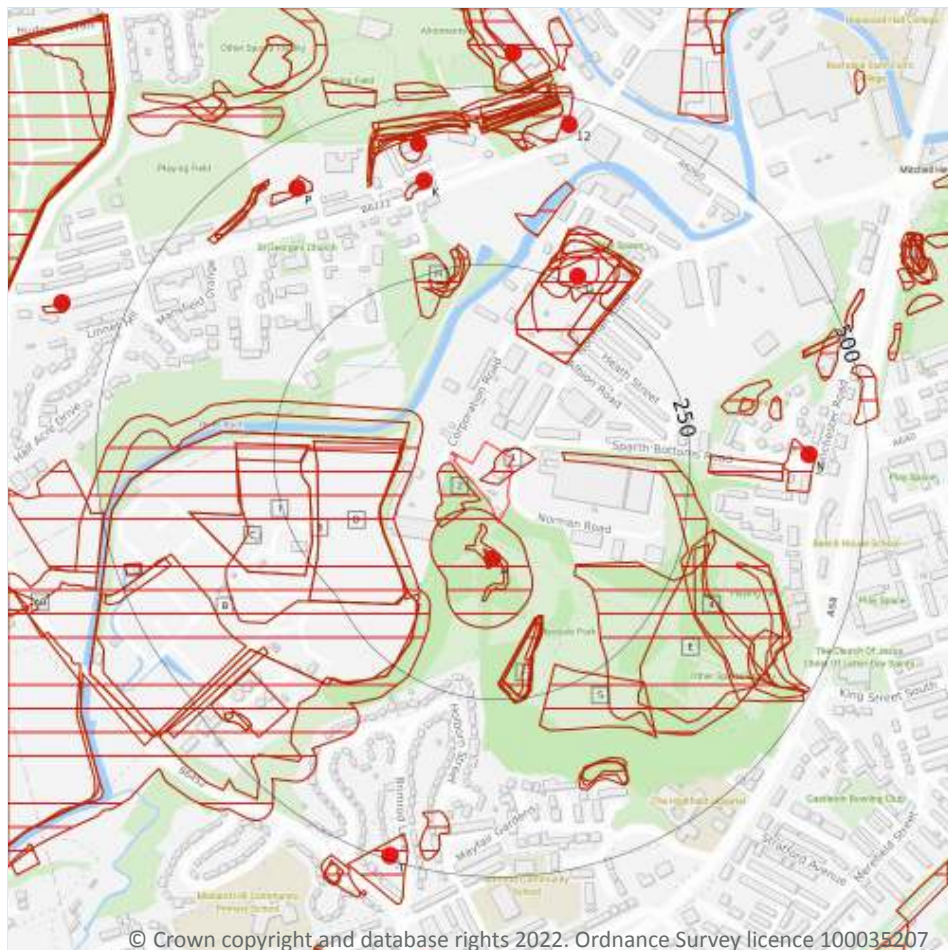
Features are displayed on the Natural ground subsidence - Ground dissolution of soluble rocks map on **page 126**

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

This data is sourced from the British Geological Survey.



18 Mining, ground workings and natural cavities



- Site Outline
- Search buffers in metres (m)
- Natural cavities (Area)
- Natural cavities (Point)
- BritPits
- Surface ground workings
- Underground workings
- Historical Mineral Planning Areas
- Mining Cavities
- 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 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.

18.2 BritPits

Records within 500m

8

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

Features are displayed on the Mining, ground workings and natural cavities map on **page 128**

ID	Location	Details	Description
A	51m S	Name: West Hill Gravel Pit Address: Mitchell Hey, ROCHDALE, Lancashire Commodity: Sand & Gravel Status: Ceased	Type: A surface mineral working. It may be termed Quarry, Sand Pit, Clay Pit or Opencast Coal Site Status description: Site which, at date of entry, has ceased to extract minerals. May be considered as Closed by operator. May be considered to have Active, Dormant or Expired planning permissions by Mineral Planning Authority
G	266m NE	Name: Sparth Brick Works Address: ROCHDALE, Lancashire Commodity: Clay & Shale Status: Ceased	Type: A surface mineral working. It may be termed Quarry, Sand Pit, Clay Pit or Opencast Coal Site Status description: Site which, at date of entry, has ceased to extract minerals. May be considered as Closed by operator. May be considered to have Active, Dormant or Expired planning permissions by Mineral Planning Authority
K	378m N	Name: Oaken House Sand Pit Address: Mitchell Hey, ROCHDALE, Lancashire Commodity: Sand Status: Ceased	Type: A surface mineral working. It may be termed Quarry, Sand Pit, Clay Pit or Opencast Coal Site Status description: Site which, at date of entry, has ceased to extract minerals. May be considered as Closed by operator. May be considered to have Active, Dormant or Expired planning permissions by Mineral Planning Authority
N	416m E	Name: Castle Hill Sand Pit Address: Mitchell Hey, ROCHDALE, Lancashire Commodity: Sand Status: Ceased	Type: A surface mineral working. It may be termed Quarry, Sand Pit, Clay Pit or Opencast Coal Site Status description: Site which, at date of entry, has ceased to extract minerals. May be considered as Closed by operator. May be considered to have Active, Dormant or Expired planning permissions by Mineral Planning Authority
K	430m N	Name: Oaken House Sand Pit Address: Mitchell Hey, ROCHDALE, Lancashire Commodity: Sand Status: Ceased	Type: A surface mineral working. It may be termed Quarry, Sand Pit, Clay Pit or Opencast Coal Site Status description: Site which, at date of entry, has ceased to extract minerals. May be considered as Closed by operator. May be considered to have Active, Dormant or Expired planning permissions by Mineral Planning Authority



ID	Location	Details	Description
P	431m NW	Name: Sandy Brow Sand Pit Address: Mitchell Hey, ROCHDALE, Lancashire Commodity: Sand Status: Ceased	Type: A surface mineral working. It may be termed Quarry, Sand Pit, Clay Pit or Opencast Coal Site Status description: Site which, at date of entry, has ceased to extract minerals. May be considered as Closed by operator. May be considered to have Active, Dormant or Expired planning permissions by Mineral Planning Authority
12	462m N	Name: Coptrod Wood Address: Mitchell Hey, ROCHDALE, Lancashire Commodity: Sandstone Status: Ceased	Type: A surface mineral working. It may be termed Quarry, Sand Pit, Clay Pit or Opencast Coal Site Status description: Site which, at date of entry, has ceased to extract minerals. May be considered as Closed by operator. May be considered to have Active, Dormant or Expired planning permissions by Mineral Planning Authority
T	494m S	Name: Brimrod Brick Field Address: Mitchell Hey, ROCHDALE, Lancashire Commodity: Clay & Shale Status: Ceased	Type: A surface mineral working. It may be termed Quarry, Sand Pit, Clay Pit or Opencast Coal Site Status description: Site which, at date of entry, has ceased to extract minerals. May be considered as Closed by operator. May be considered to have Active, Dormant or Expired planning permissions by Mineral Planning Authority

This data is sourced from the British Geological Survey.

18.3 Surface ground workings

Records within 250m

40

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

Features are displayed on the Mining, ground workings and natural cavities map on **page 128**

ID	Location	Land Use	Year of mapping	Mapping scale
1	On site	Colliery	1851	1:10560
A	On site	Gravel Pit	1890	1:10560
2	6m SW	Colliery	1851	1:10560
A	19m SW	Unspecified Ground Workings	1908	1:10560
B	46m W	Sewage Farm	1928	1:10560
B	67m W	Sewage Farm	1949	1:10560
C	69m W	Sewage Works	1992	1:10000



ID	Location	Land Use	Year of mapping	Mapping scale
C	69m W	Sewage Works	1987	1:10000
C	69m W	Sewage Works	1975	1:10000
3	70m W	Sludge Lagoons	1975	1:10000
4	71m E	Unspecified Heap	1938	1:10560
D	72m W	Sludge Lagoons	1992	1:10000
D	72m W	Sludge Lagoons	1987	1:10000
E	124m SE	Refuse Heap	1987	1:10000
F	144m SE	Unspecified Heap	1992	1:10000
F	144m SE	Unspecified Heap	1987	1:10000
F	144m SE	Unspecified Heap	1975	1:10000
F	144m SE	Unspecified Heap	1949	1:10560
F	144m SE	Unspecified Heap	1968	1:10560
F	145m S	Unspecified Heap	1928	1:10560
F	145m S	Unspecified Heap	1938	1:10560
F	150m S	Unspecified Ground Workings	1908	1:10560
G	152m NE	Brick Works	1908	1:10560
G	153m NE	Brick Works	1928	1:10560
G	153m NE	Brick Works	1938	1:10560
G	172m NE	Unspecified Heap	1890	1:10560
G	184m NE	Unspecified Pit	1975	1:10000
G	184m NE	Unspecified Pit	1968	1:10560
H	191m NW	Unspecified Heap	1908	1:10560
I	201m W	Sludge Beds	1992	1:10000
I	201m W	Sludge Beds	1987	1:10000
F	203m S	Refuse Heap	1908	1:10560
H	211m N	Refuse Heap	1928	1:10560
H	211m N	Refuse Heap	1938	1:10560
5	216m S	Unspecified Disused Tip	1992	1:10000



ID	Location	Land Use	Year of mapping	Mapping scale
H	219m N	Refuse Heap	1949	1:10560
G	227m NE	Unspecified Quarry	1908	1:10560
G	235m NE	Unspecified Quarry	1938	1:10560
G	235m NE	Unspecified Quarry	1928	1:10560
G	248m NE	Unspecified Heap	1908	1:10560

This is data is sourced from Ordnance Survey/Groundsure.

18.4 Underground workings

Records within 1000m

2

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

Features are displayed on the Mining, ground workings and natural cavities map on **page 128**

ID	Location	Land Use	Year of mapping	Mapping scale
T	553m S	Unspecified Shaft	1890	1:10560
AB	622m W	Tunnel	1968	1:10560

This is data is sourced from Ordnance Survey/Groundsure.

18.5 Historical Mineral Planning Areas

Records within 500m

0

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

This data is sourced from the British Geological Survey.

18.6 Non-coal mining

Records within 1000m

0

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



This data is sourced from the British Geological Survey.

18.7 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.

18.8 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.

18.9 Coal mining

Records on site

1

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

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

This data is sourced from the Coal Authority.

18.10 Brine areas

Records on site

0

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

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



18.11 Gypsum areas

Records on site	0
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Generalised areas that may be affected by gypsum extraction.

This data is sourced from British Gypsum.

18.12 Tin mining

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

Generalised areas that may be affected by historical tin mining.

This data is sourced from Groundsure.

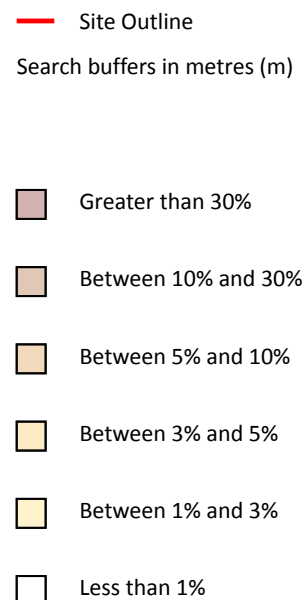
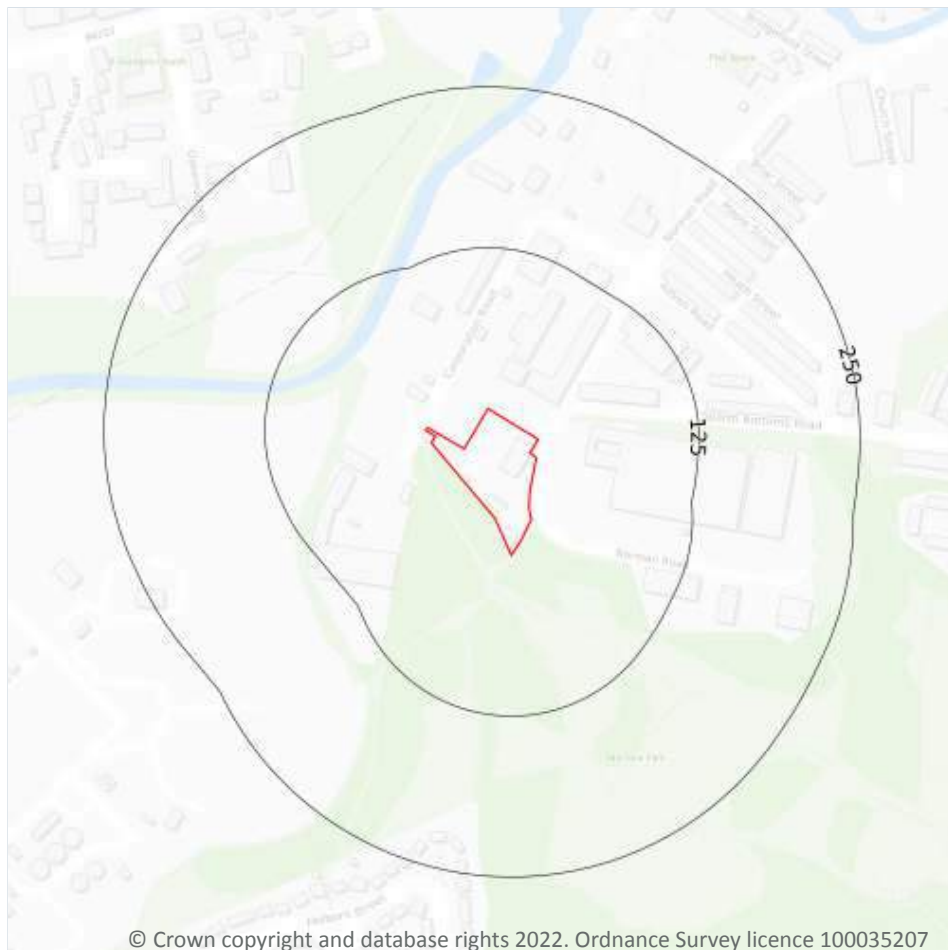
18.13 Clay mining

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

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

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

19 Radon



19.1 Radon

Records on site

1

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

Features are displayed on the Radon map on **page 135**

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

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



20 Soil chemistry

20.1 BGS Estimated Background Soil Chemistry

Records within 50m

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 - 25 mg/kg	No data	200 - 300 mg/kg	120 - 240 mg/kg	1.8 - 2.2 mg/kg	60 - 90 mg/kg	30 - 45 mg/kg
35m E	15 - 25 mg/kg	No data	200 - 300 mg/kg	120 - 240 mg/kg	1.8 - 2.2 mg/kg	60 - 90 mg/kg	15 - 30 mg/kg

This data is sourced from the British Geological Survey.

20.2 BGS Estimated Urban Soil Chemistry

Records within 50m

0

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

This data is sourced from the British Geological Survey.

20.3 BGS Measured Urban Soil Chemistry

Records within 50m

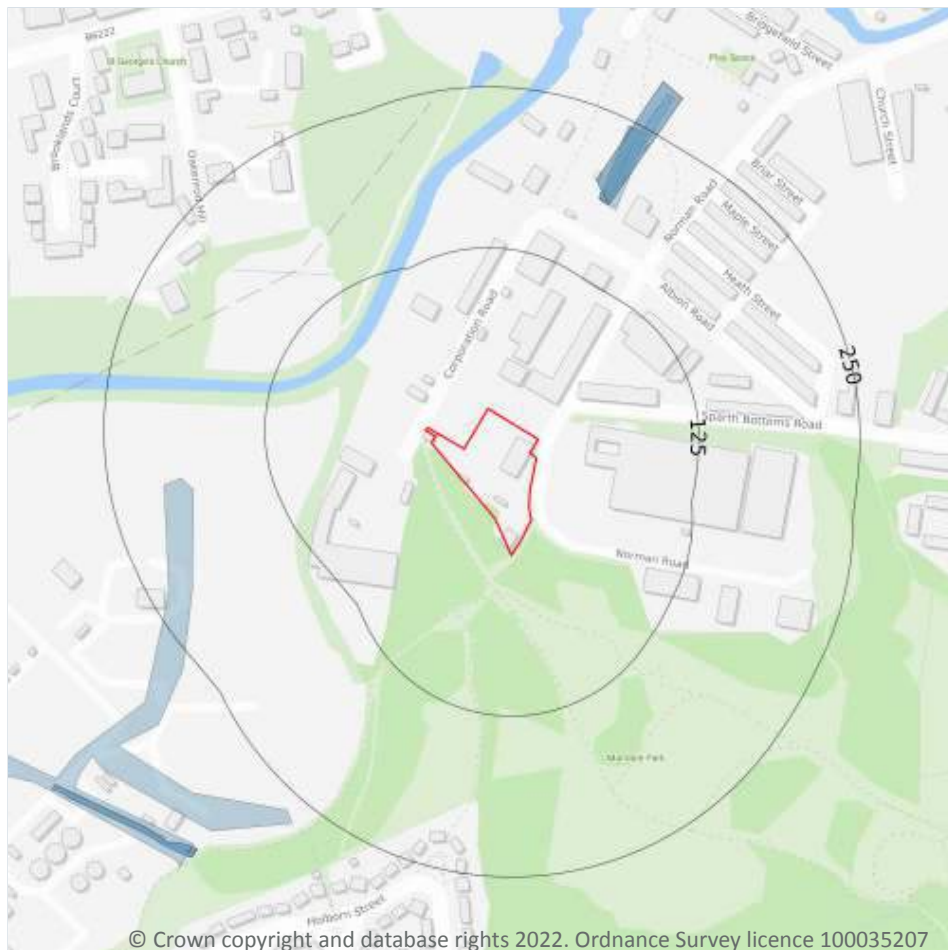
0

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

This data is sourced from the British Geological Survey.



21 Railway infrastructure and projects



- Site Outline
- Search buffers in metres (m)
- C1 Crossrail 1 Stations
- Crossrail 1 Route
- C2 Crossrail 2 Stations
- Crossrail 2 Route
- Crossrail 2 Worksites
- Crossrail 2 Safeguarding
- Crossrail 2 Headhouses
- Railway stations
- Active railways
- Active tunnels
- Abandoned railways
- Historic railways
- Historic tunnels
- Underground stations
- Underground Lines
- Royal Mail tunnels
- HS2 optimised route
- HS2 Stations
- HS2 Depots
- HS2 Surface Safeguarding
- HS2 Subsurface Safeguarding

21.1 Underground railways (London)

Records within 250m

0

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

This data is sourced from publicly available information by Groundsure.

21.2 Underground railways (Non-London)

Records within 250m

0

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



This data is sourced from publicly available information by Groundsure.

21.3 Railway tunnels

Records within 250m

0

Railway tunnels taken from contemporary Ordnance Survey mapping.

This data is sourced from the Ordnance Survey.

21.4 Historical railway and tunnel features

Records within 250m

6

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.

Features are displayed on the Railway infrastructure and projects map on **page 137**

Location	Land Use	Year of mapping	Mapping scale
184m NE	Railway Sidings	1908	10560
184m NE	Railway Sidings	1930	2500
184m NE	Railway Sidings	1938	10560
184m NE	Railway Sidings	1928	10560
184m NE	Railway Sidings	1910	2500
186m W	Railway Sidings	1949	10560

This data is sourced from Ordnance Survey/Groundsure.

21.5 Royal Mail tunnels

Records within 250m

0

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

This data is sourced from Groundsure/the Postal Museum.



21.6 Historical railways

Records within 250m**0**

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

This data is sourced from OpenStreetMap.

21.7 Railways

Records within 250m**0**

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

This data is sourced from Ordnance Survey and OpenStreetMap.

21.8 Crossrail 1

Records within 500m**0**

The Crossrail railway project links 41 stations over 100 kilometres from Reading and Heathrow in the west, through underground sections in central London, to Shenfield and Abbey Wood in the east.

This data is sourced from publicly available information by Groundsure.

21.9 Crossrail 2

Records within 500m**0**

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

This data is sourced from publicly available information by Groundsure.

21.10 HS2

Records within 500m**0**

HS2 is a proposed high speed rail network running from London to Manchester and Leeds via Birmingham. Main civils construction on Phase 1 (London to Birmingham) of the project began in 2019, and it is currently anticipated that this phase will be fully operational by 2026. Construction on Phase 2a (Birmingham to Crewe) is anticipated to commence in 2021, with the service fully operational by 2027. Construction on Phase 2b (Crewe to Manchester and Birmingham to Leeds) is scheduled to begin in 2023 and be operational by 2033.

This data is sourced from HS2 Ltd.



Data providers

Groundsure works with respected data providers to bring you the most relevant and accurate information. To find out who they are and their areas of expertise see <https://www.groundsure.com/sources-reference>.

Terms and conditions

Groundsure's Terms and Conditions can be accessed at this link: <https://www.groundsure.com/terms-and-conditions-jan-2020/>.



COAL AUTHORITY MINING REPORT

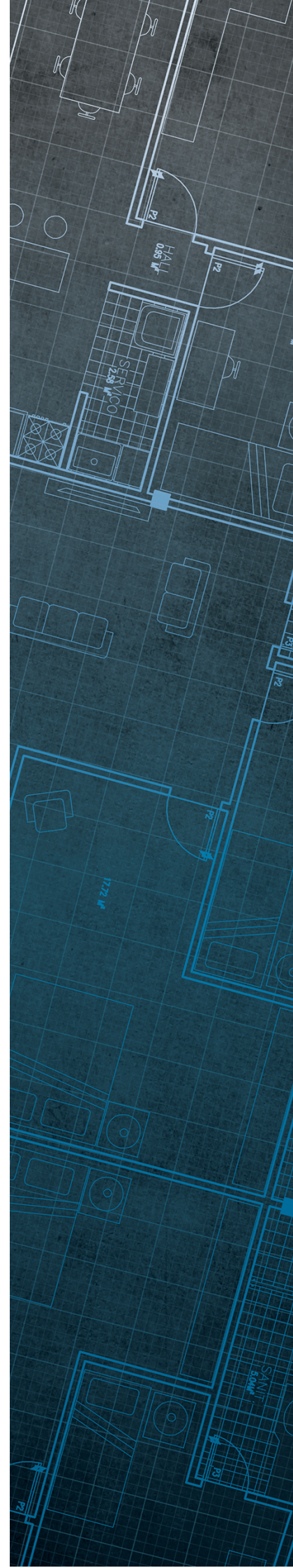


The Coal
Authority

Consultants Coal Mining Report

Norman Road
Rochdale
OL11 4HS

Date of enquiry:	8 September 2022
Date enquiry received:	8 September 2022
Issue date:	8 September 2022
Our reference:	51003310377001
Your reference:	7569



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

SUB SURFACE LIMITED

Enquiry address

Norman Road
Rochdale
OL11 4HS

How to contact us

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

200 Lichfield Lane
Mansfield
Nottinghamshire
NG18 4RG

www.groundstability.com

 @coalauthority

 /company/the-coal-authority

 /thecoalauthority

 /thecoalauthority



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	ARLEY	Coal	3XOI	71	North-East	15.1	South-West	120	1849
unnamed	ARLEY	Coal	3XO6	89	Beneath Property	15.0	South-West	120	1849
unnamed	ARLEY	Coal	3XNR	92	Beneath Property	15.0	South-West	120	1849

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	388412-002	388796 412781		Coal	
Shaft	388412-003	388802 412770	This shaft was located in 1989 and was found to be filled to an unknown specification	Coal	
Shaft	388412-004	388688 412673		Coal	
Shaft	388412-005	388641 412646		Coal	

Abandoned mine plan catalogue numbers

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

NW1178	NW162	16820
PO0	NW1177	

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

Outcrops

Seam name	Mineral	Seam workable	Distance to outcrop (m)	Direction to outcrop	Bearing of outcrop
HALF YARD	Coal	Yes	3.4	North	268

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.

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 call us on 0345 762 6848 or email us at groundstability@coal.gov.uk.

Section 5 – Data definitions

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

Past underground coal mining

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

Probable unrecorded shallow workings

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

Spine roadways at shallow depth

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

Mine entries

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

Abandoned mine plan catalogue numbers

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

Outcrops

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

Geological faults, fissures and breaklines

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

Opencast mines

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

Coal Authority managed tips

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

Site investigations

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

Remediated sites

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

Coal mining subsidence

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

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

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

Mine gas

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

Mine water treatment schemes

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

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

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

Future underground mining

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

Coal mining licensing

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

Court orders

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

Section 46 notices

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

Withdrawal of support notices

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

Payment to owners of former copyhold land

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

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

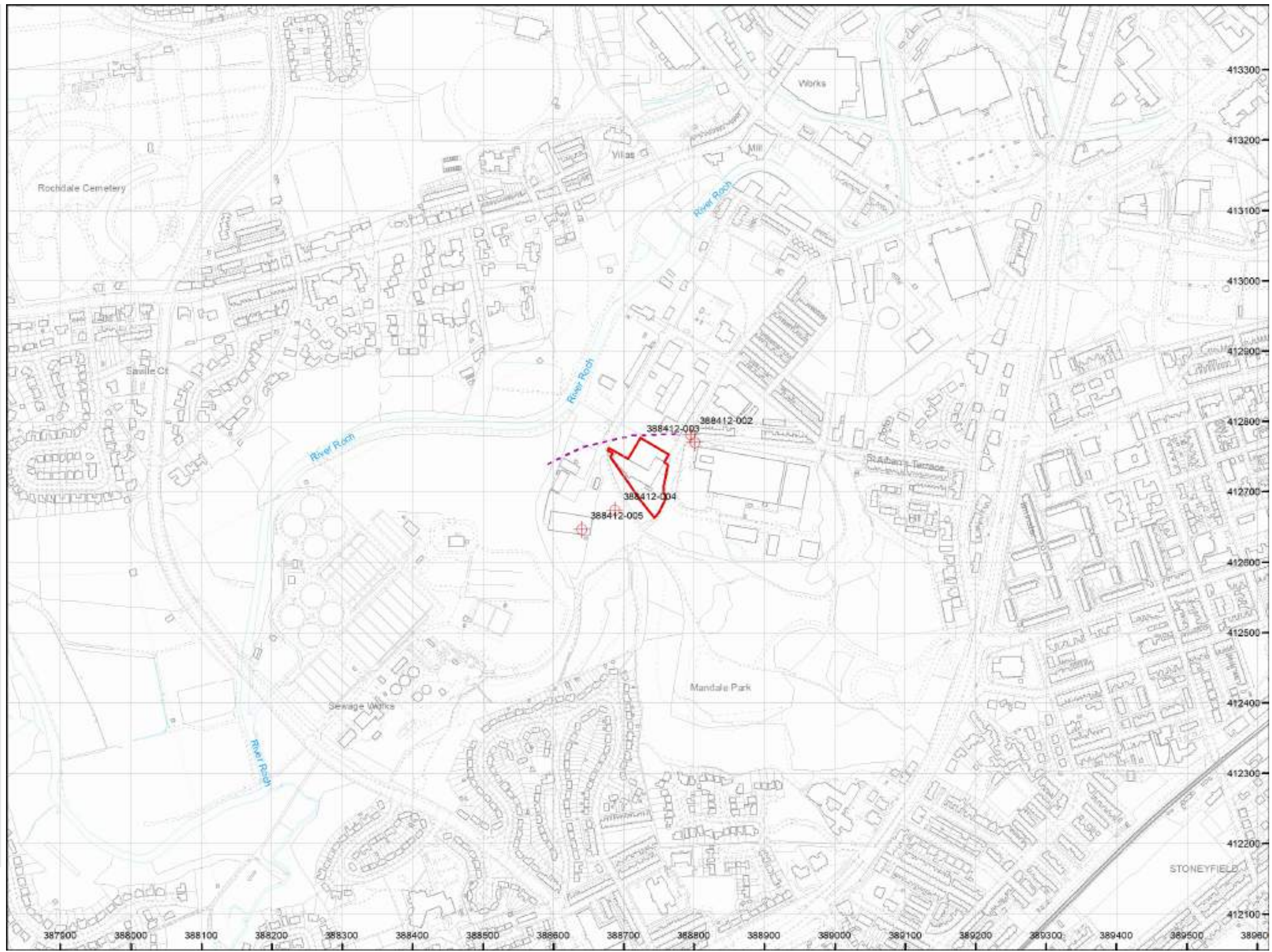
Key

Approximate position of the enquiry boundary shown 

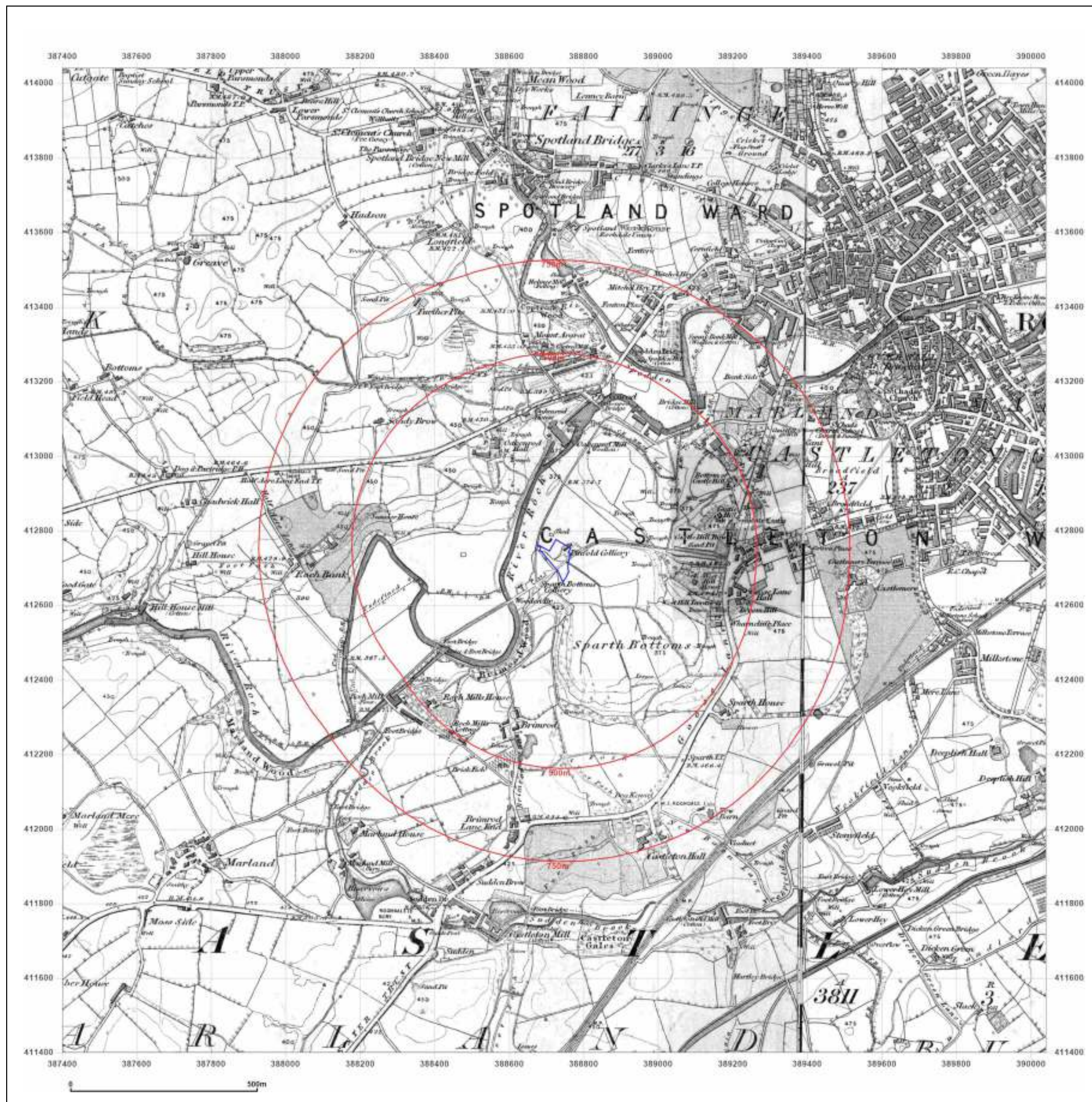
Disused mine shaft 

Outcrop (Conjectured) 

How to contact us
0345 762 6848 (UK)
+44 (0)1623 637 000 (International)
www.groundstability.com



SMALL SCALE SURVEY PLANS



Site Details:

Norman Road, Rochdale

Client Ref: CMAPS-CM-1055535-4199-120822
Report Ref: CMAPS-CM-1055535-4199-120822HIS
Grid Ref: 388720, 412720

Map Name: County Series

Map date: 1851

Scale: 1:10,560

Printed at: 1:10,560



Surveyed 1847
Revised N/A
Edition 1851
Copyright N/A
Levelled N/A

Surveyed 1848
Revised N/A
Edition 1851
Copyright N/A
Levelled N/A



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Groundsure Insights
www.groundsure.com



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www.centremapslive.com
groundsure@centremaps.com

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Production date: 12 August 2022

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



Site Details:

Norman Road, Rochdale

Client Ref: CMAPS-CM-1055535-4199-120822
Report Ref: CMAPS-CM-1055535-4199-120822HIS
Grid Ref: 388720, 412720

Map Name: County Series

Map date: 1890-1891

Scale: 1:10,560

Printed at: 1:10,560



Surveyed 1890
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Edition N/A
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Surveyed 1891
Revised 1891
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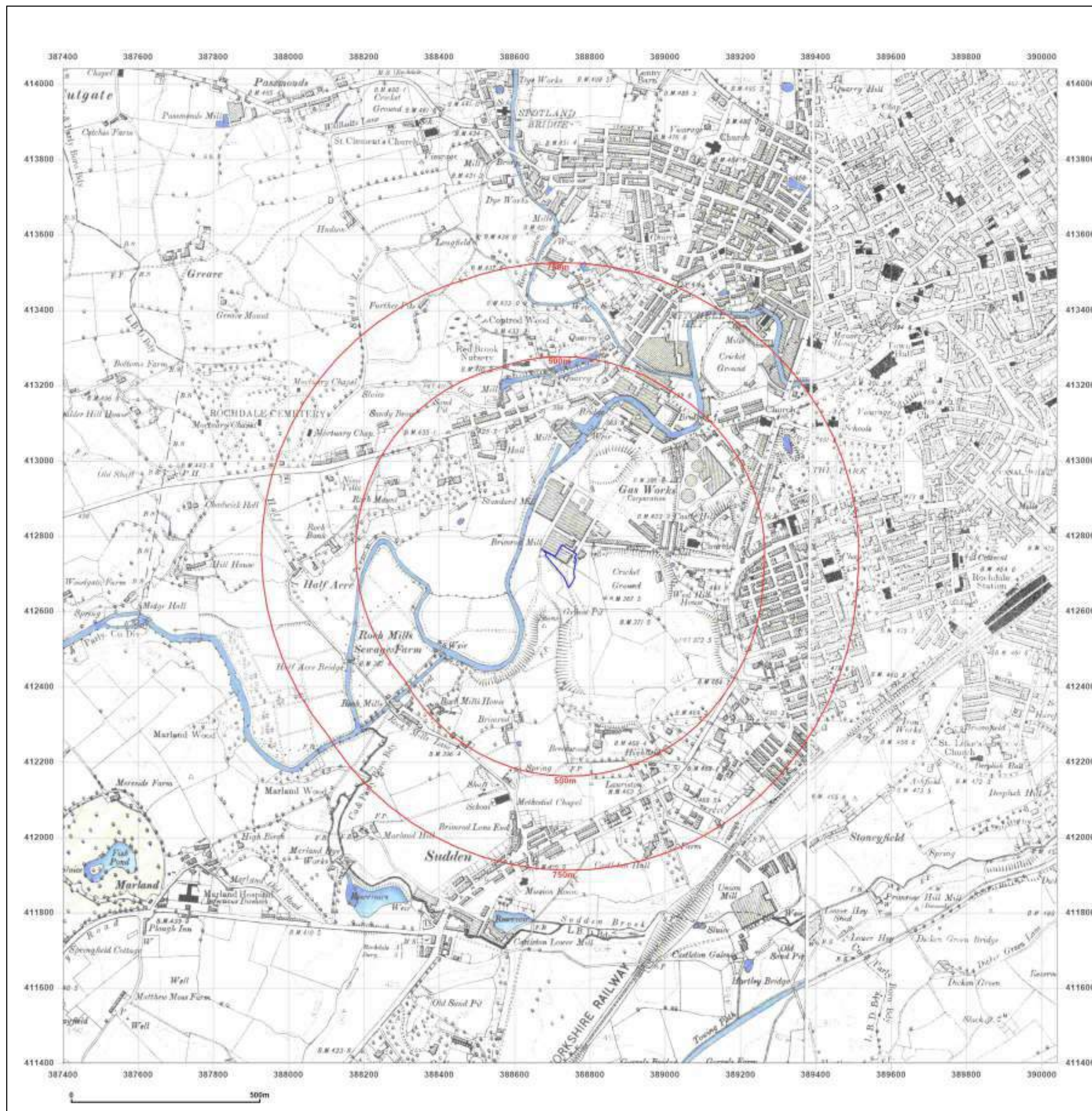


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Site Details:

Norman Road, Rochdale

Client Ref: CMAPS-CM-1055535-4199-120822
Report Ref: CMAPS-CM-1055535-4199-120822HIS
Grid Ref: 388720, 412720

Map Name: County Series

Map date: 1908

Scale: 1:10,560

Printed at: 1:10,560



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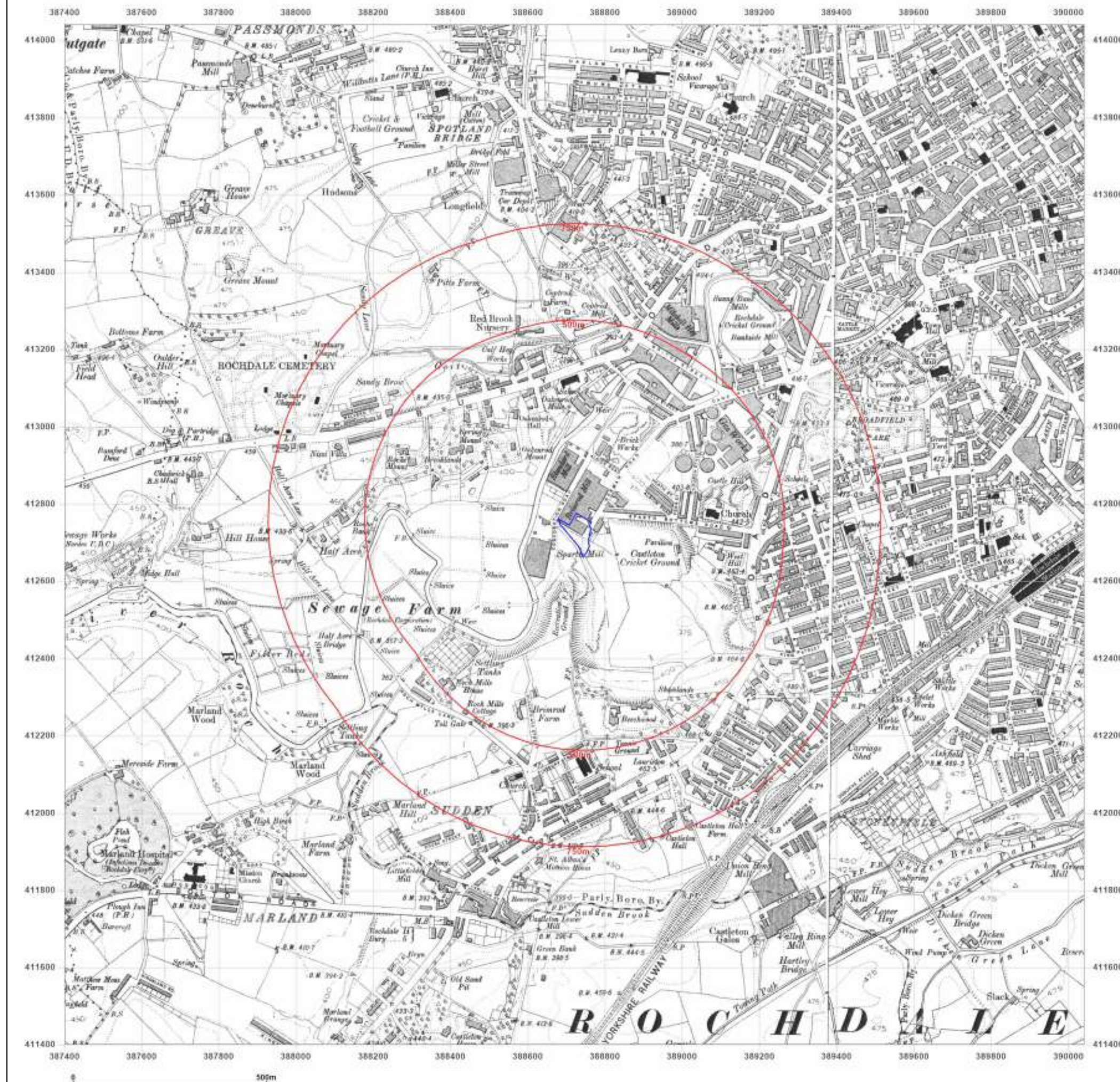


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Site Details:

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Client Ref: CMAPS-CM-1055535-4199-120822
Report Ref: CMAPS-CM-1055535-4199-120822HIS
Grid Ref: 388720, 412720

Map Name: County Series

Map date: 1928

Scale: 1:10,560

Printed at: 1:10,560



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Surveyed 1848
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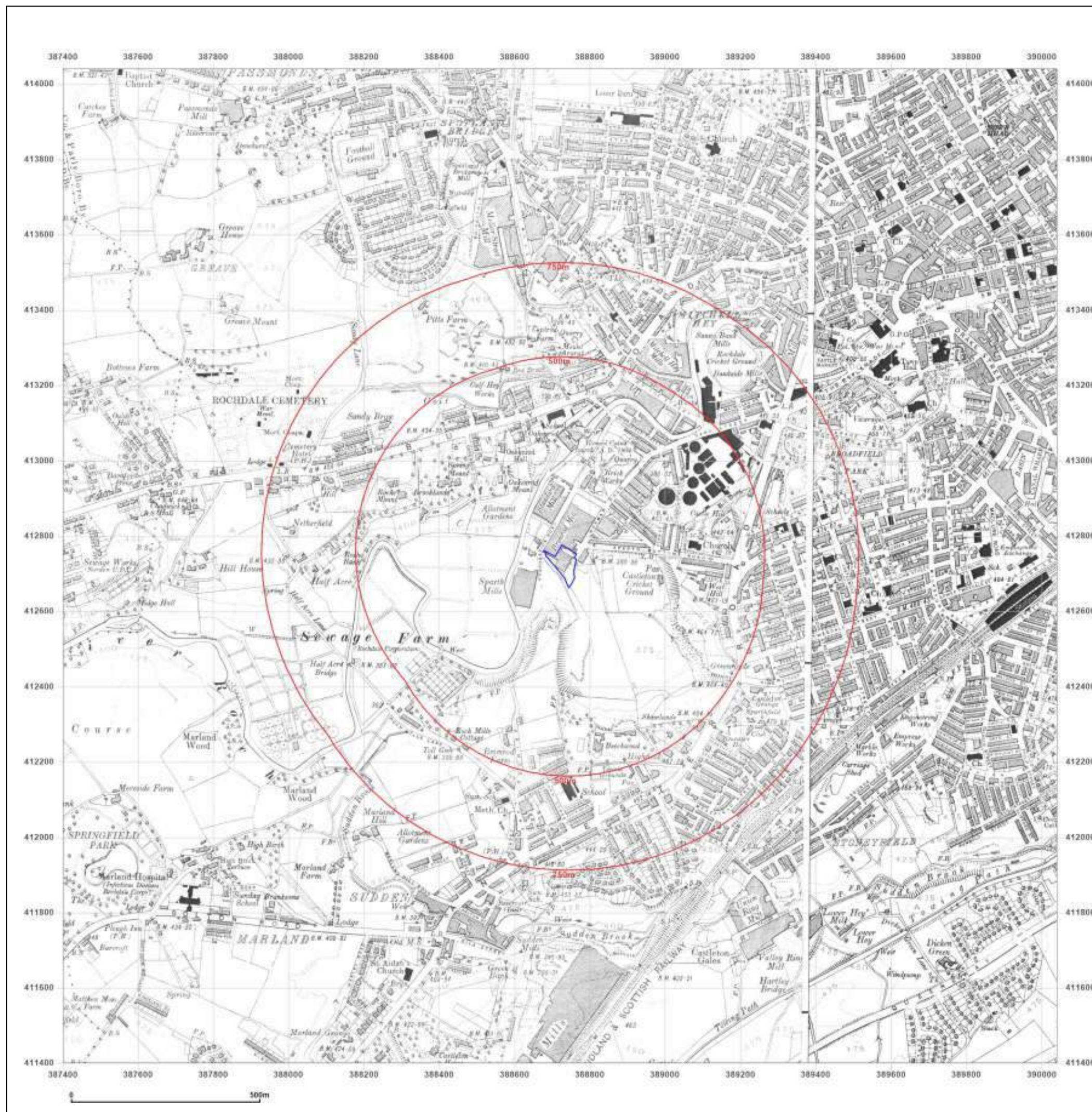


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Site Details:

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Client Ref: CMAPS-CM-1055535-4199-120822
Report Ref: CMAPS-CM-1055535-4199-120822HIS
Grid Ref: 388720, 412720

Map Name: County Series

Map date: 1938

Scale: 1:10,560

Printed at: 1:10,560



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Surveyed 1848
Revised 1938
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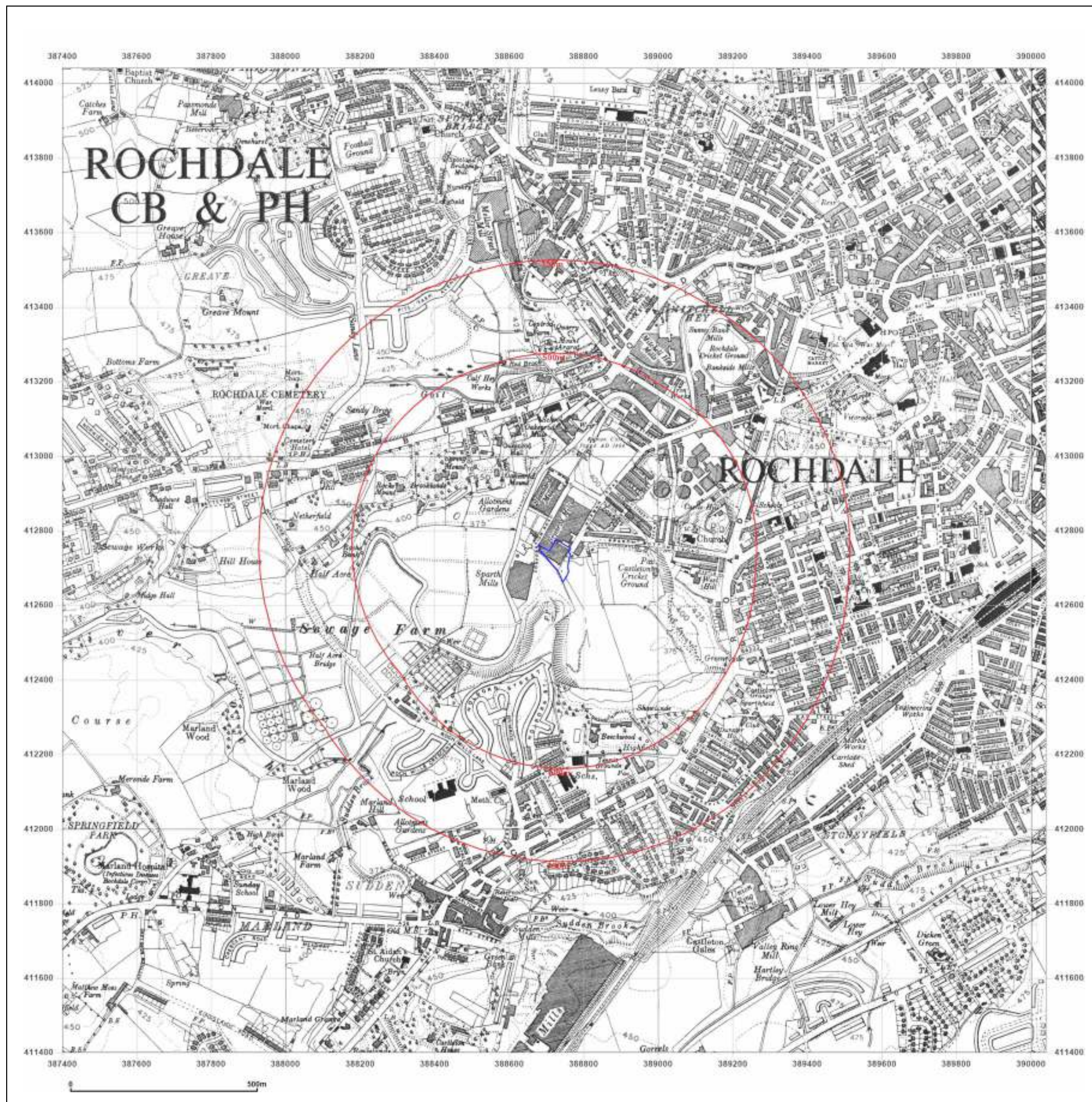
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Client Ref: CMAPS-CM-1055535-4199-120822
Report Ref: CMAPS-CM-1055535-4199-120822HIS
Grid Ref: 388720, 412720

Map Name: Provisional

Map date: 1954-1956

Scale: 1:10,560

Printed at: 1:10,560



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 Edition 1956
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Surveyed 1954
 Revised 1954
 Edition N/A
 Copyright N/A
 Levelled N/A



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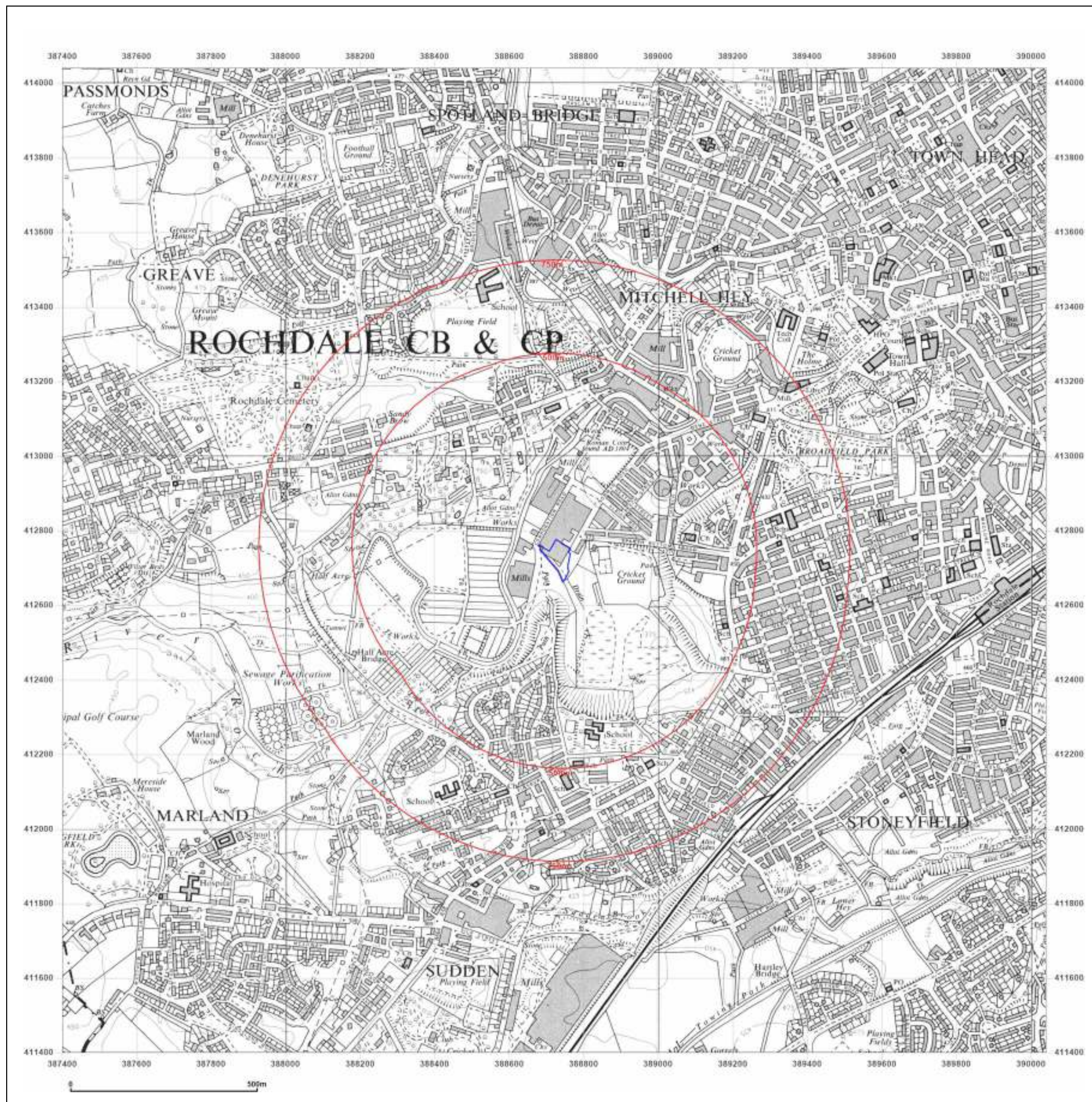


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Site Details:

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Client Ref: CMAPS-CM-1055535-4199-120822
Report Ref: CMAPS-CM-1055535-4199-120822HIS
Grid Ref: 388720, 412720

Map Name: Provisional

Map date: 1967-1968

Scale: 1:10,560

Printed at: 1:10,560



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Client Ref: CMAPS-CM-1055535-4199-120822
Report Ref: CMAPS-CM-1055535-4199-120822HIS
Grid Ref: 388720, 412720

Map Name: National Grid

Map date: 1975

Scale: 1:10,000

Printed at: 1:10,000



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Client Ref: CMAPS-CM-1055535-4199-120822
Report Ref: CMAPS-CM-1055535-4199-120822HIS
Grid Ref: 388720, 412720

Map Name: National Grid

Map date: 1987

Scale: 1:10,000

Printed at: 1:10,000



Surveyed 1984
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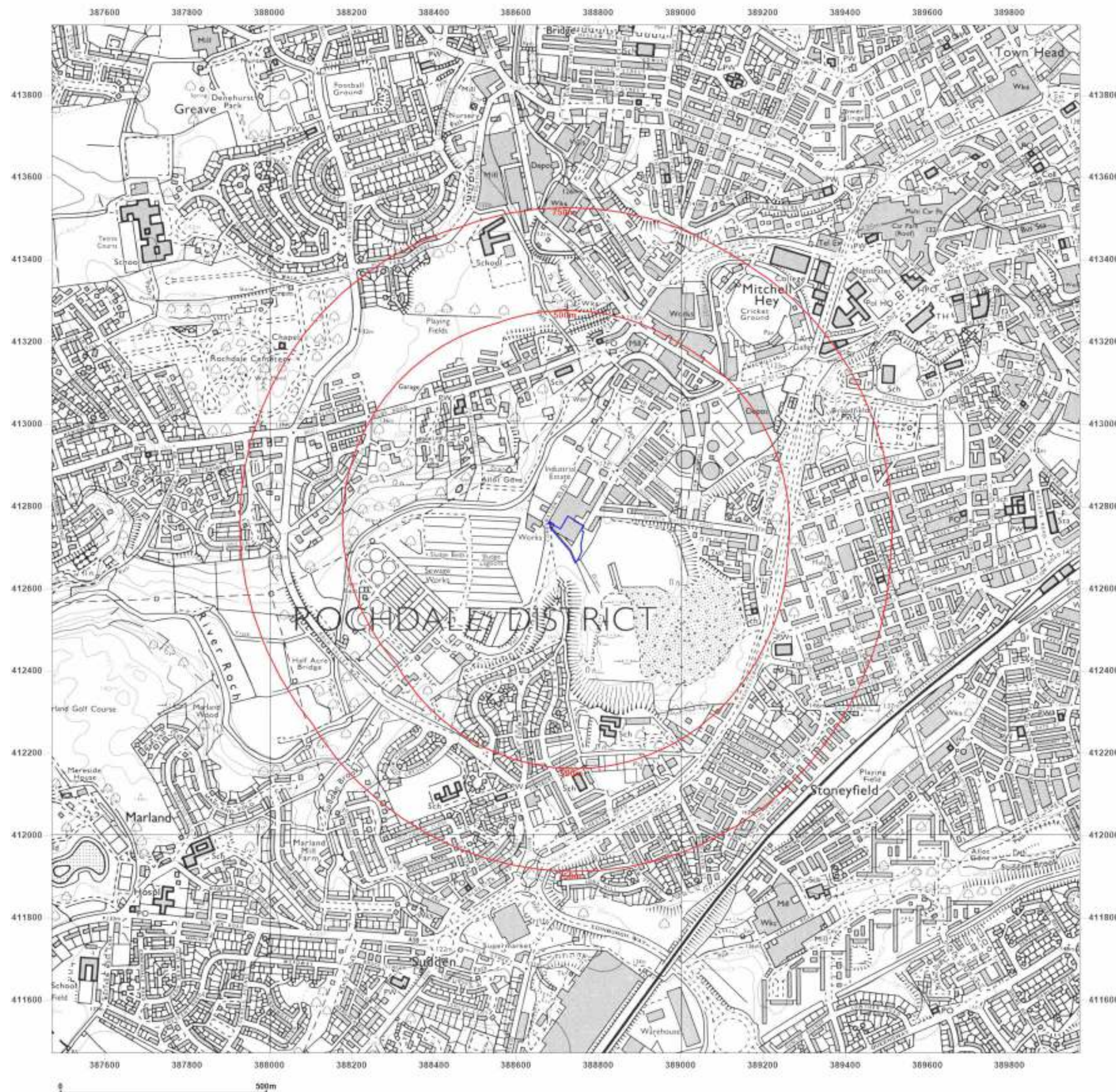


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Client Ref: CMAPS-CM-1055535-4199-120822
Report Ref: CMAPS-CM-1055535-4199-120822HIS
Grid Ref: 388720, 412720

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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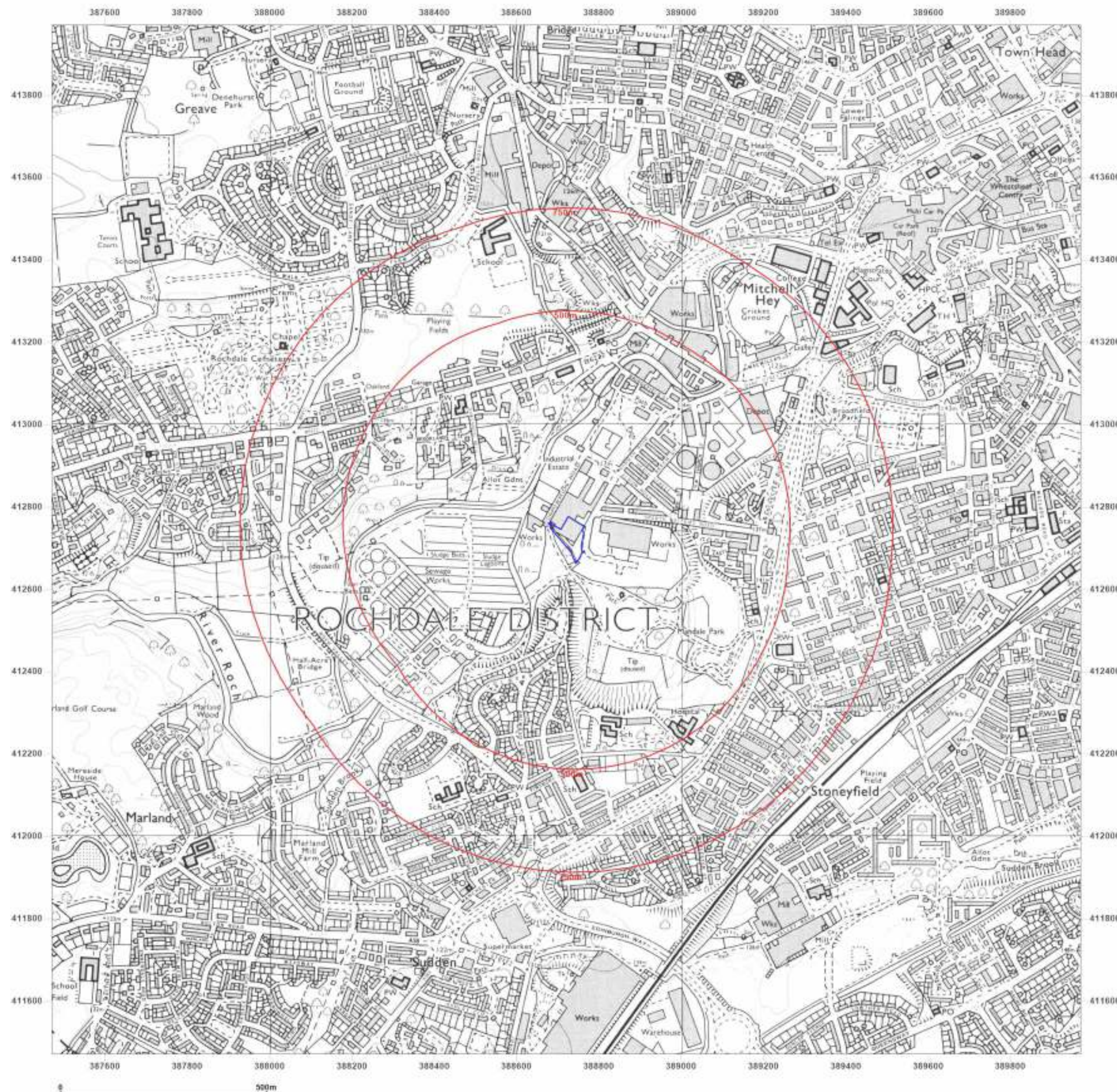


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Site Details:

Norman Road, Rochdale

Client Ref: CMAPS-CM-1055535-4199-120822
Report Ref: CMAPS-CM-1055535-4199-120822HIS
Grid Ref: 388720, 412720

Map Name: National Grid

Map date: 2001

Scale: 1:10,000

Printed at: 1:10,000



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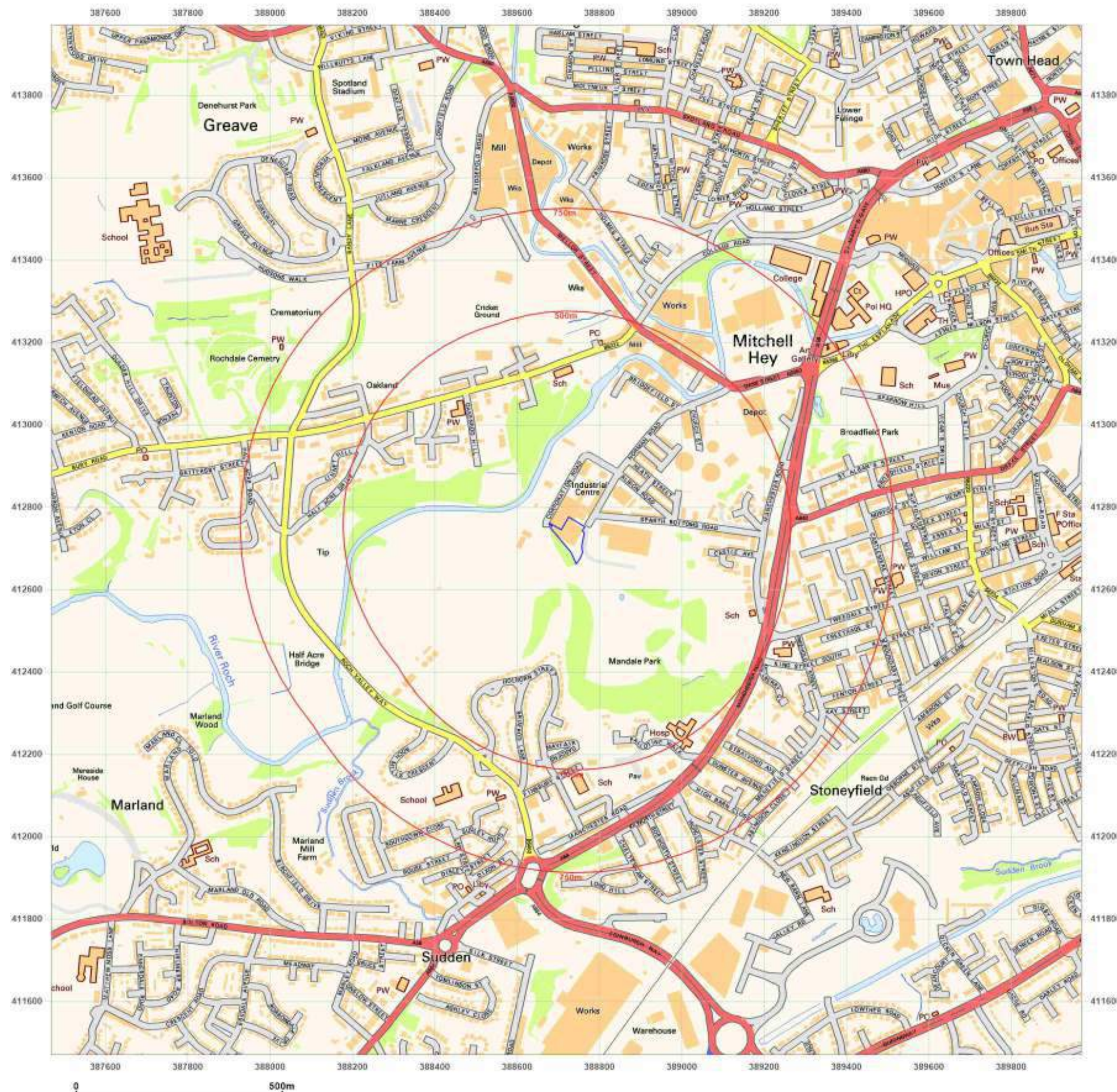


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Site Details:

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Client Ref: CMAPS-CM-1055535-4199-120822
Report Ref: CMAPS-CM-1055535-4199-120822HIS
Grid Ref: 388720, 412720

Map Name: National Grid

Map date: 2010

Scale: 1:10,000

Printed at: 1:10,000



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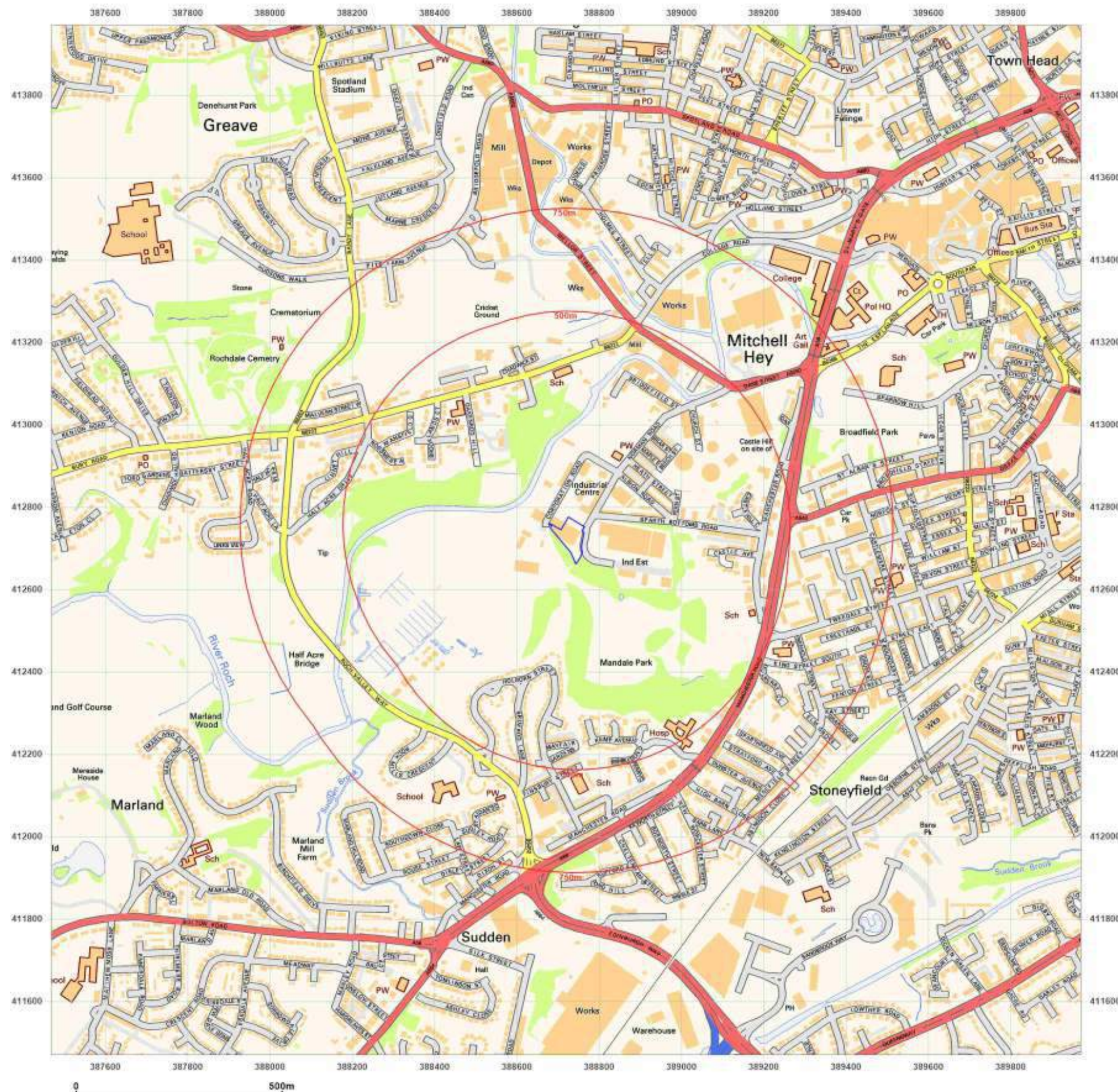


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Site Details:

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Client Ref: CMAPS-CM-1055535-4199-120822
Report Ref: CMAPS-CM-1055535-4199-120822HIS
Grid Ref: 388720, 412720

Map Name: National Grid

Map date: 2022

Scale: 1:10,000

Printed at: 1:10,000



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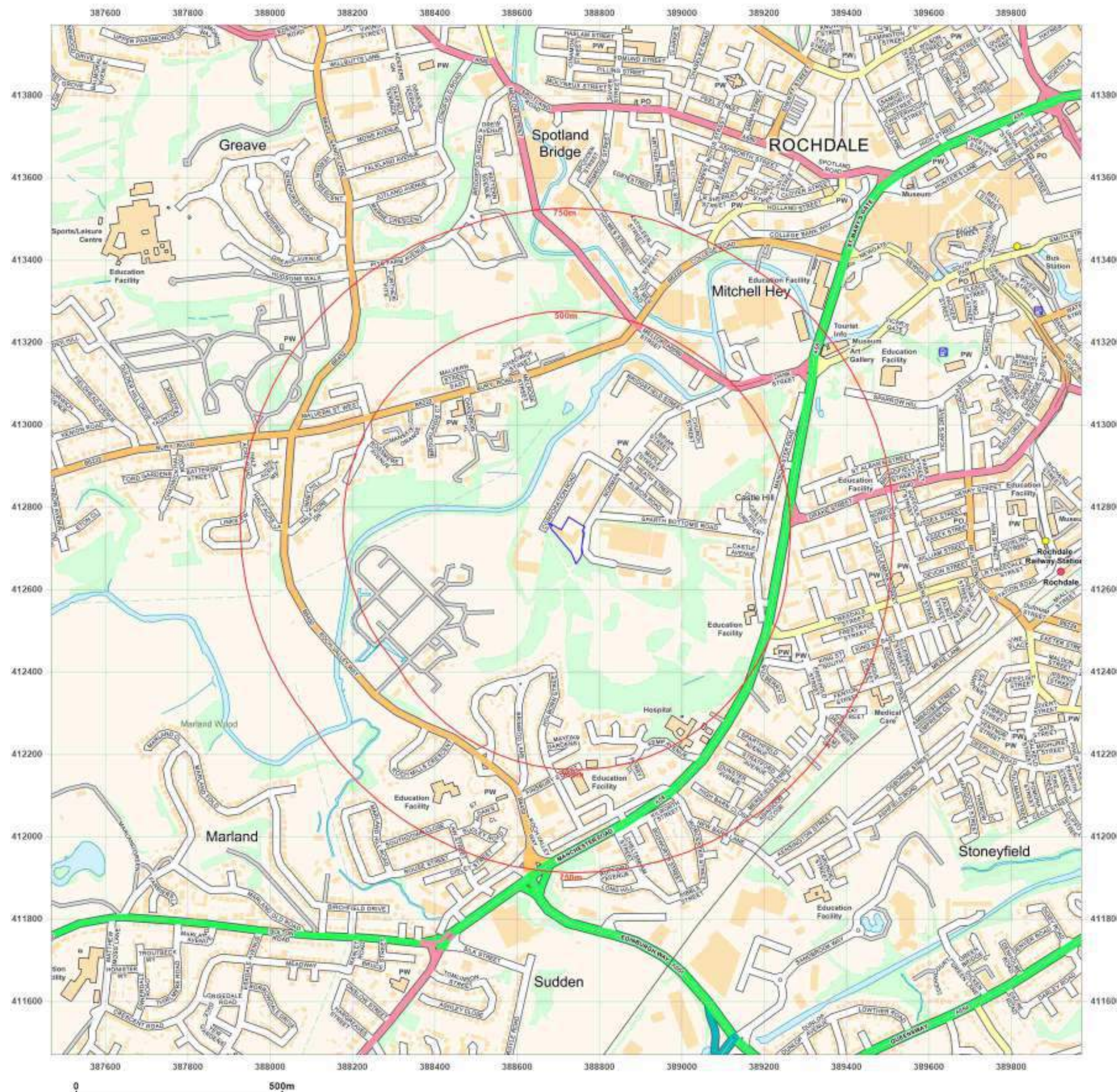


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LARGE SCALE SURVEY PLANS



Site Details:

Norman Road, Rochdale

Client Ref: CMAPS-CM-1055535-4199-120822
Report Ref: CMAPS-CM-1055535-4199-120822HIS
Grid Ref: 388720, 412720

Map Name: 1056 Scale Town Plan

Map date: 1851

Scale: 1:1,056

Printed at: 1:1,056



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Edition N/A
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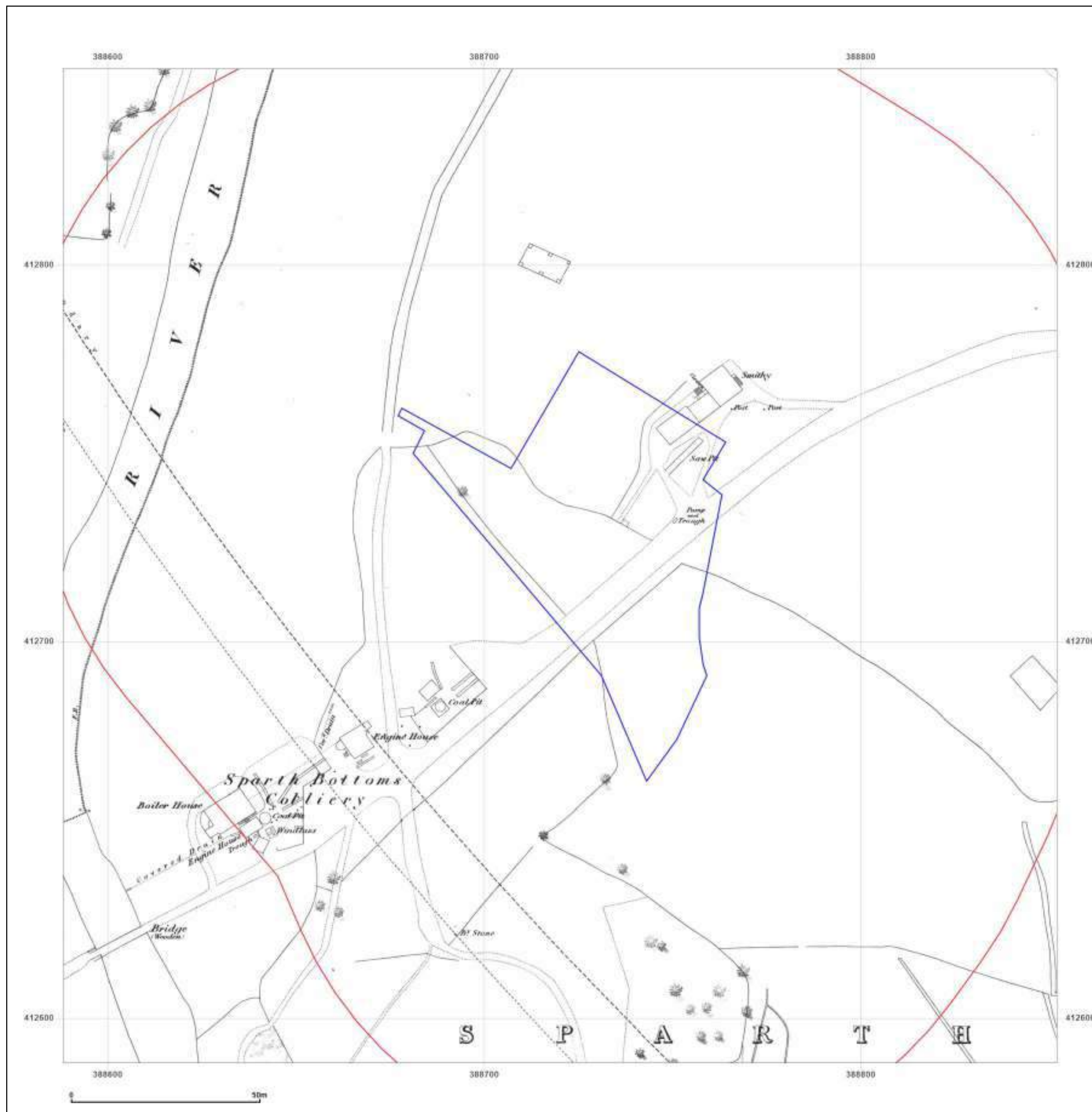


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Site Details:

Norman Road, Rochdale

Client Ref: CMAPS-CM-1055535-4199-120822
Report Ref: CMAPS-CM-1055535-4199-120822HIS
Grid Ref: 388720, 412720

Map Name: County Series

Map date: 1890-1891

Scale: 1:2,500

Printed at: 1:2,500



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Site Details:

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Client Ref: CMAPS-CM-1055535-4199-120822
Report Ref: CMAPS-CM-1055535-4199-120822HIS
Grid Ref: 388720, 412720

Map Name: County Series

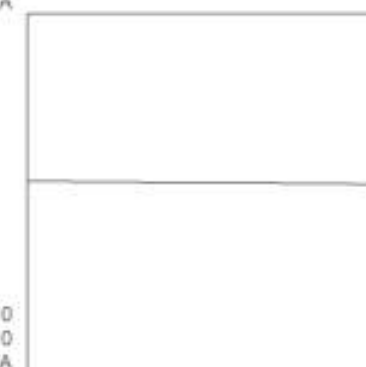
Map date: 1910

Scale: 1:2,500

Printed at: 1:2,500



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Site Details:

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Client Ref: CMAPS-CM-1055535-4199-120822
Report Ref: CMAPS-CM-1055535-4199-120822HIS
Grid Ref: 388720, 412720

Map Name: County Series

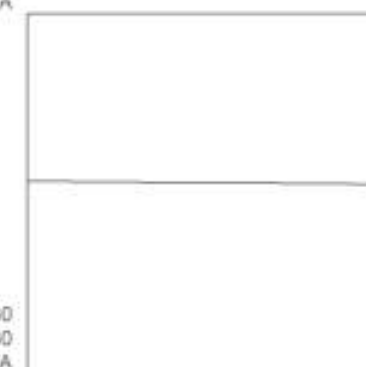
Map date: 1930

Scale: 1:2,500

Printed at: 1:2,500



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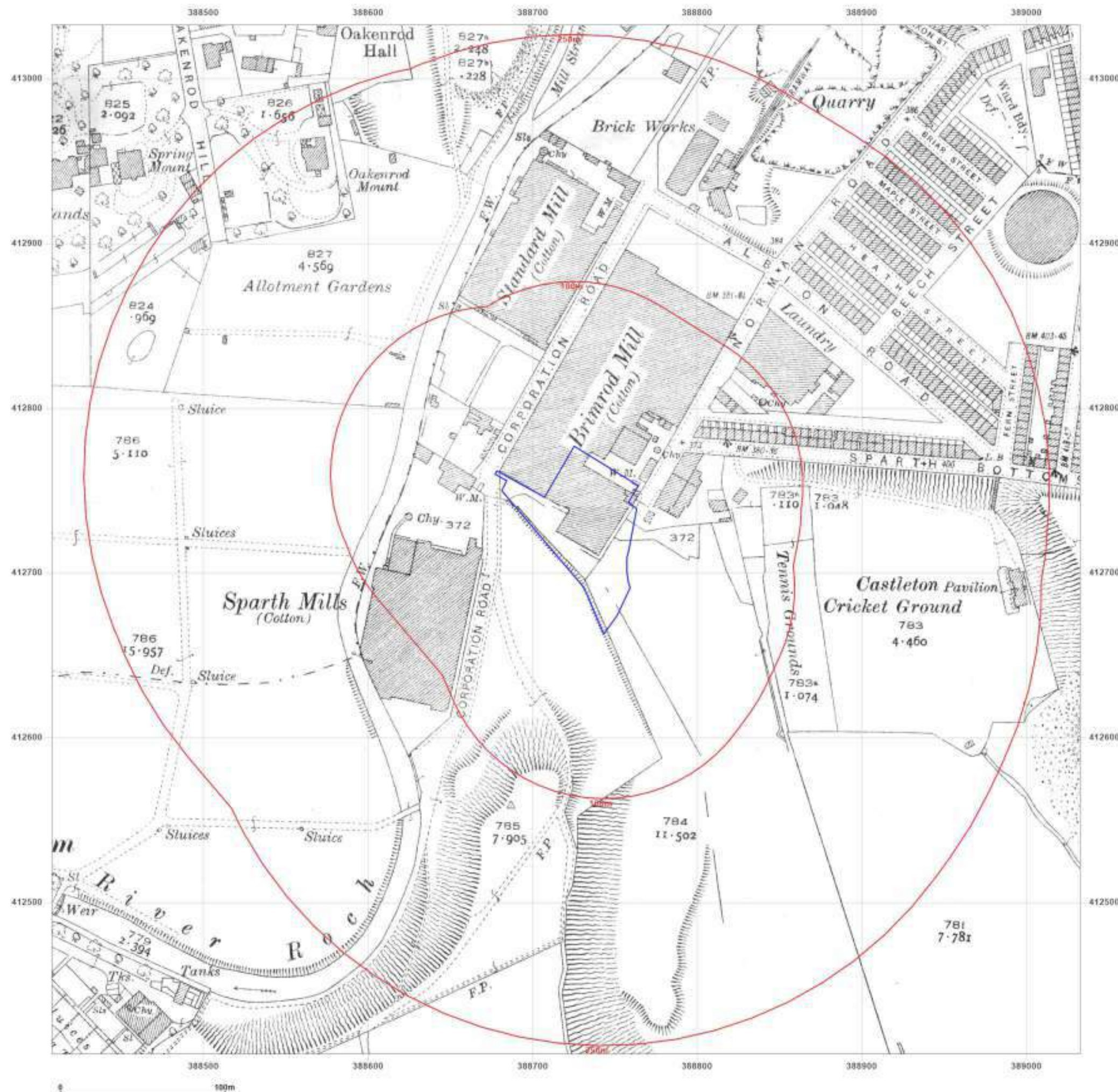


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Site Details:

Norman Road, Rochdale

Client Ref: CMAPS-CM-1055535-4199-120822
Report Ref: CMAPS-CM-1055535-4199-120822HIS
Grid Ref: 388720, 412720

Map Name: National Grid

Map date: 1957

Scale: 1:1,250

Printed at: 1:2,000



Surveyed 1957
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Surveyed 1957
Revised 1957
Edition N/A
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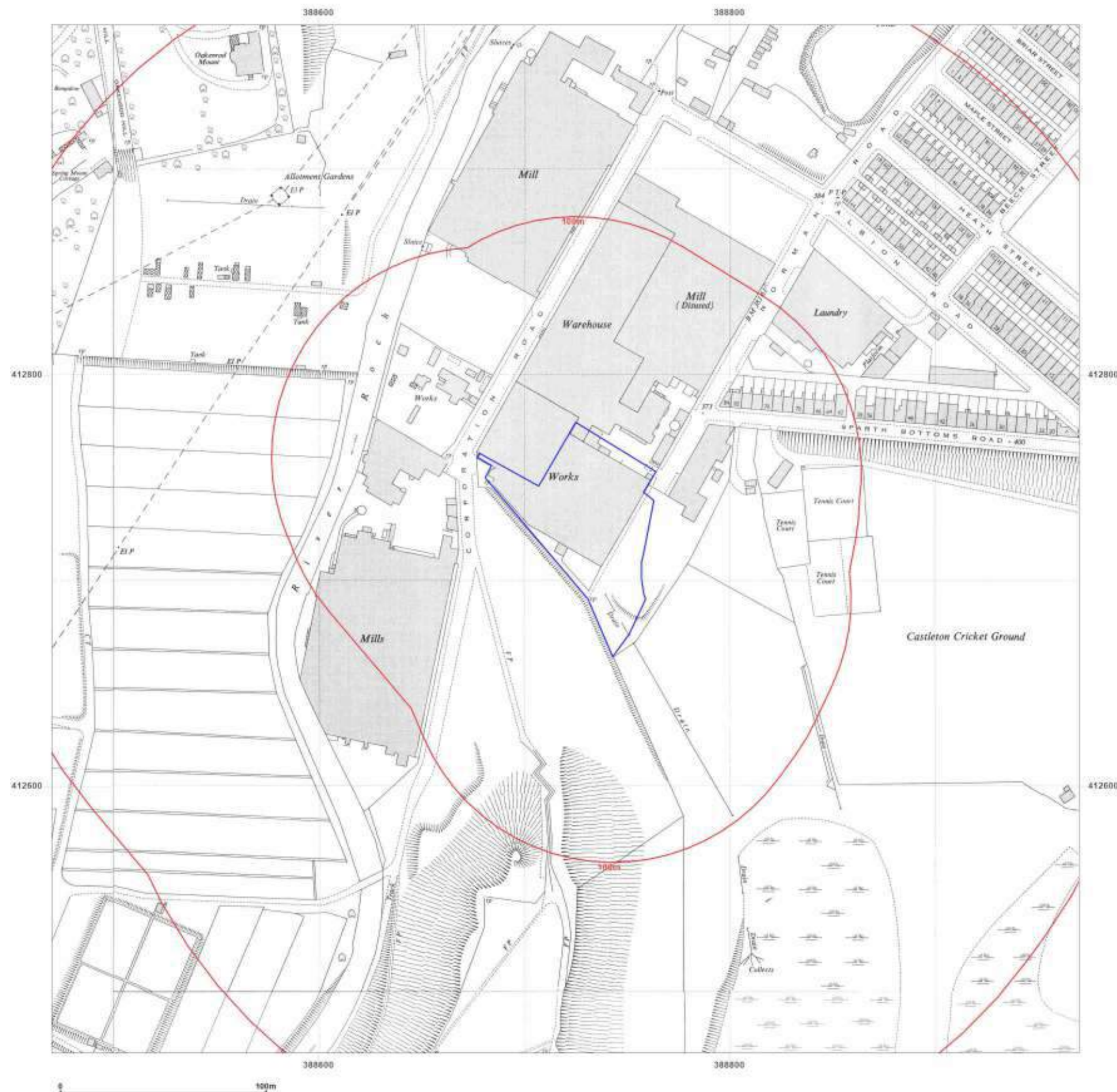


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Site Details:

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Client Ref: CMAPS-CM-1055535-4199-120822
Report Ref: CMAPS-CM-1055535-4199-120822HIS
Grid Ref: 388720, 412720

Map Name: National Grid

Map date: 1958-1959

Scale: 1:2,500

Printed at: 1:2,500



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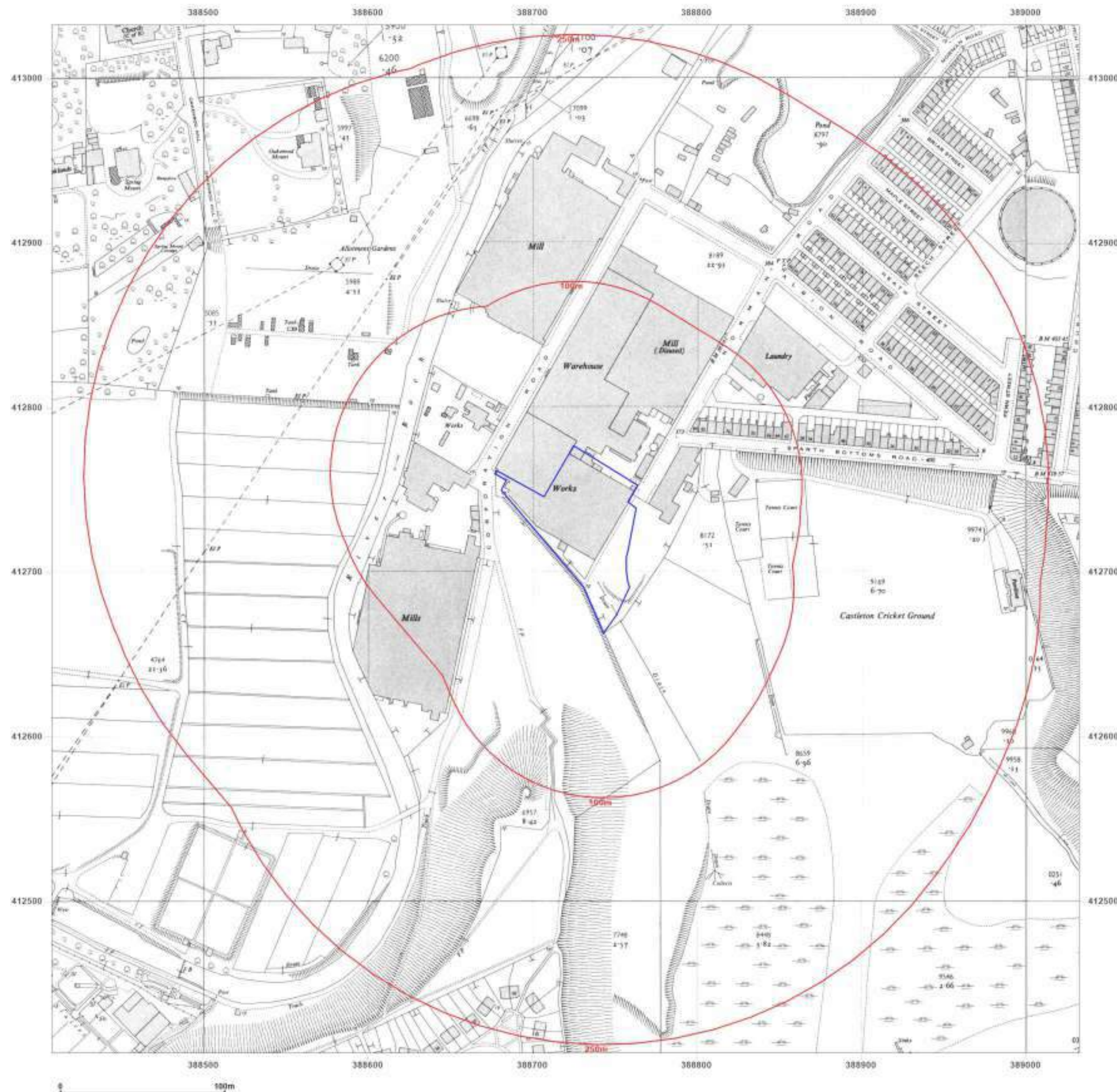


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Site Details:

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Client Ref: CMAPS-CM-1055535-4199-120822
Report Ref: CMAPS-CM-1055535-4199-120822HIS
Grid Ref: 388720, 412720

Map Name: National Grid

Map date: 1972-1975

Scale: 1:1,250

Printed at: 1:2,000



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Revised N/A
Edition N/A
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Surveyed N/A
Revised N/A
Edition N/A
Copyright 1975
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Site Details:

Norman Road, Rochdale

Client Ref: CMAPS-CM-1055535-4199-120822
Report Ref: CMAPS-CM-1055535-4199-120822HIS
Grid Ref: 388720, 412720

Map Name: National Grid

Map date: 1984

Scale: 1:1,250

Printed at: 1:2,000



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Edition N/A
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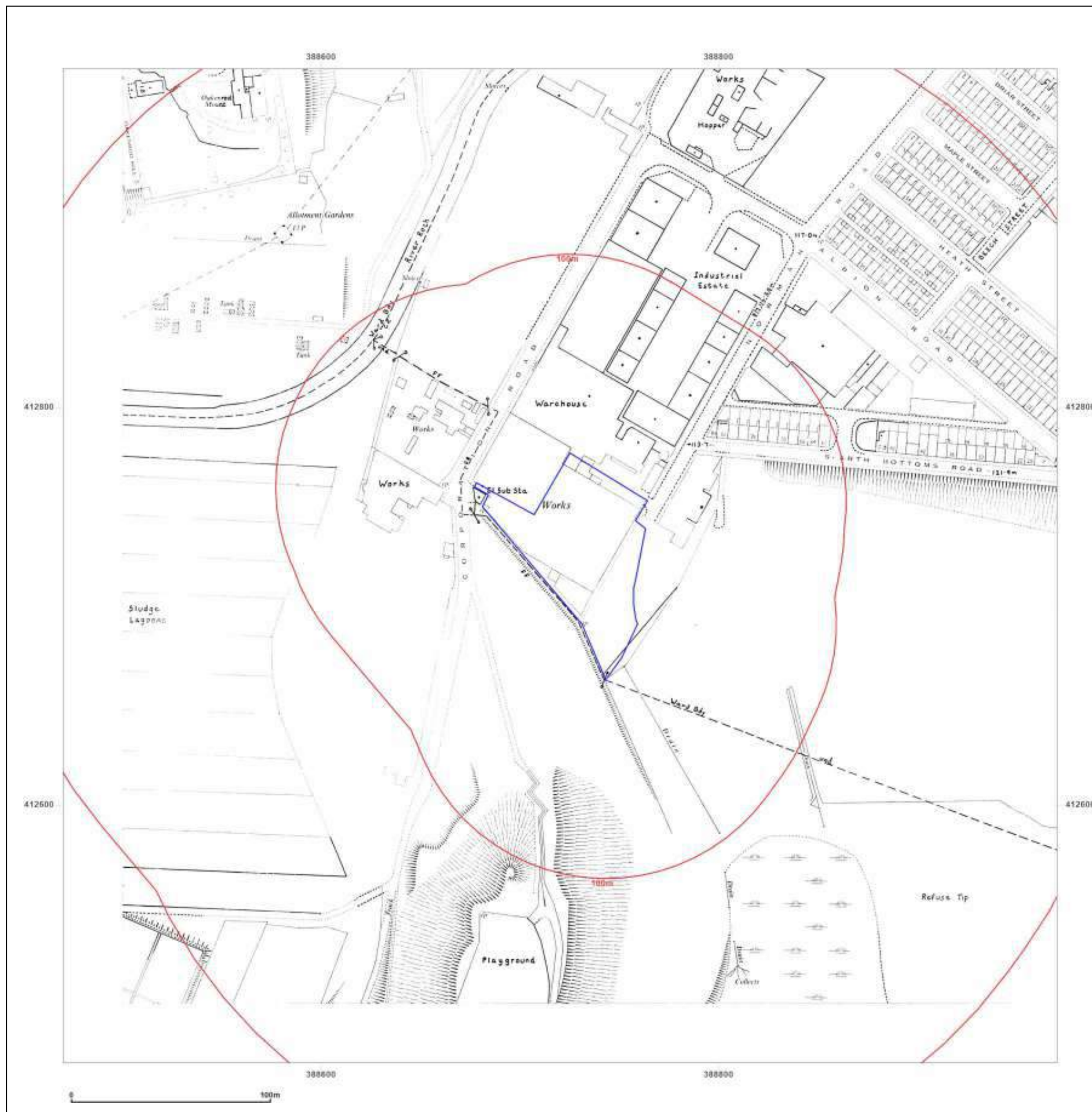


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Site Details:

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Client Ref: CMAPS-CM-1055535-4199-120822
Report Ref: CMAPS-CM-1055535-4199-120822HIS
Grid Ref: 388720, 412720

Map Name: National Grid

Map date: 1990

Scale: 1:1,250

Printed at: 1:2,000



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Site Details:

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Client Ref: CMAPS-CM-1055535-4199-120822
Report Ref: CMAPS-CM-1055535-4199-120822HIS
Grid Ref: 388720, 412720

Map Name: National Grid

Map date: 1992-1993

Scale: 1:1,250

Printed at: 1:2,000



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Edition N/A
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Revised N/A
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Site Details:

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Client Ref: CMAPS-CM-1055535-4199-120822
Report Ref: CMAPS-CM-1055535-4199-120822HIS
Grid Ref: 388720, 412720

Map Name: LandLine

Map date: 2003

Scale: 1:1,250

Printed at: 1:1,250



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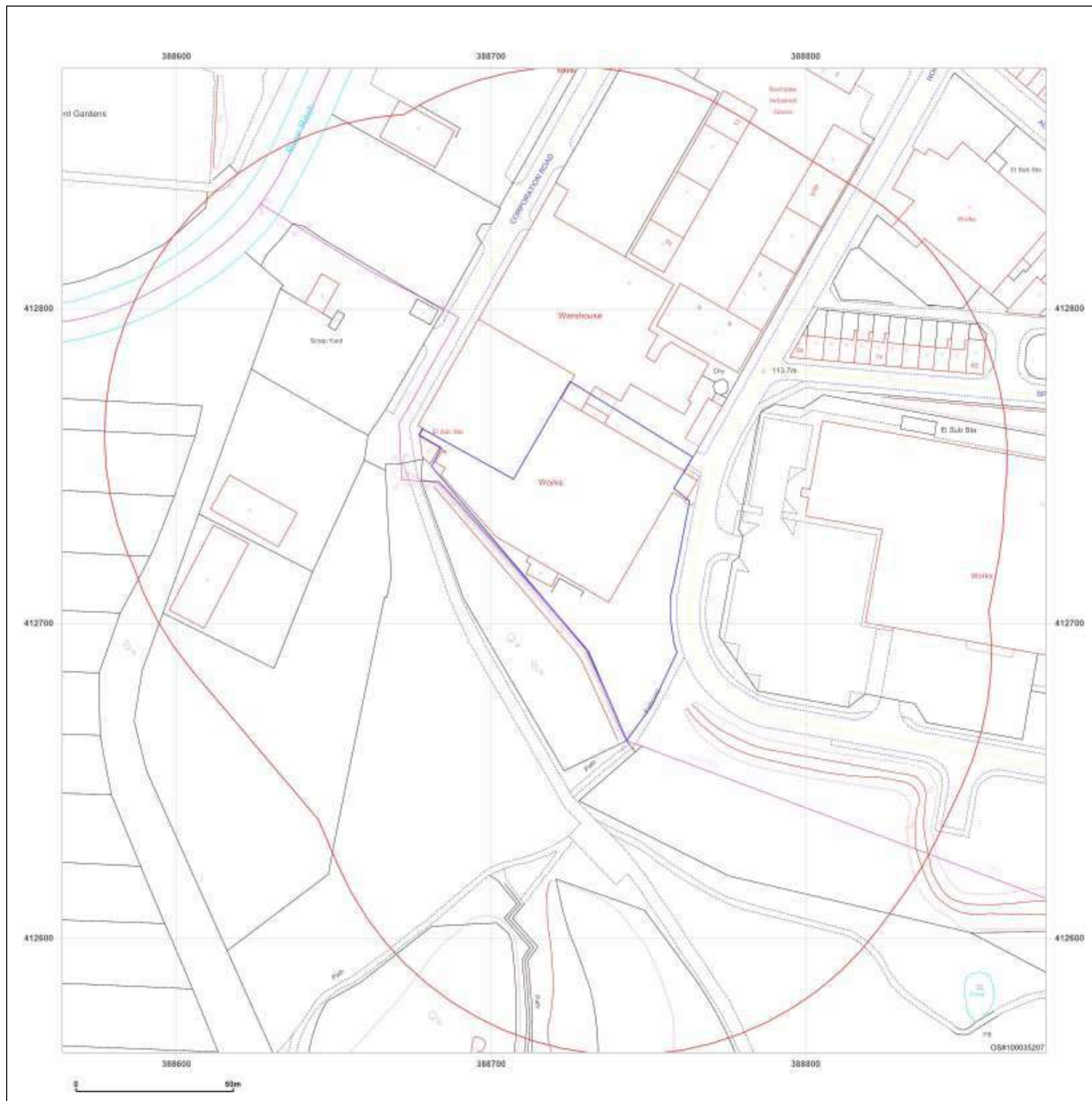


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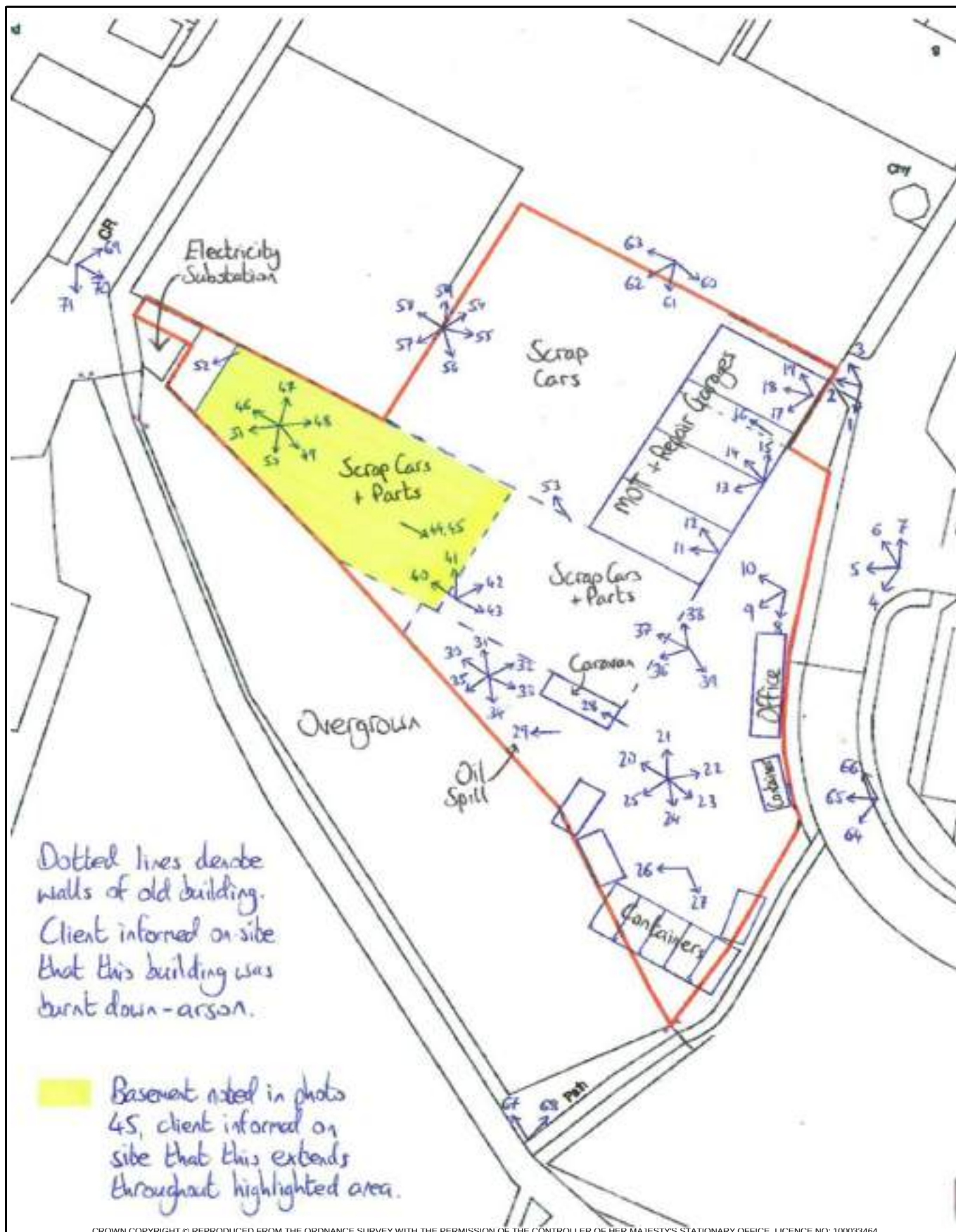
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FIGURES



SS SUB SURFACE SITE INVESTIGATION SPECIALISTS, GEOTECHNICAL & ENVIRONMENTAL CONSULTANTS 3 Peel Street, Preston, Lancashire, PR2 2QS. Tel: (01772) 561135 Fax: (01772) 204907	Site Location Plan			
Site: NORMAN ROAD, ROCHDALE	Date Drawn: 08-Sep-22	Date Checked:	Orientation: 	Job Number: 7569
Client: SHEHZAD SULEMAN	Drawn By: WP	Checked By:	Scale: —	Figure Number: 1



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Site: NORMAN ROAD, ROCHDALE	Date Drawn: 08-Sep-22	Date Checked:	Orientation: 	Job Number: 7569
Client: SHEHZAD SULEMAN	Drawn By: WP	Checked By:	Scale: -	Figure Number: 2



SUB SURFACE SITE INVESTIGATION SPECIALISTS, GEOTECHNICAL & ENVIRONMENTAL CONSULTANTS 3 Peel Street, Preston, Lancashire, PR2 2QS. Tel: (01772) 561135 Fax: (01772) 204907	Proposed Development			
Site: NORMAN ROAD, ROCHDALE	Date Drawn: 08-Sep-22	Date Checked:	Orientation: 	Job Number: 7569
Client: SHEHZAD SULEMAN	Drawn By: WP	Checked By:	Scale: —	Figure Number: 3

