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Phase 1
Geo-environmental Report

ON

PROPOSED RESIDENTIAL DEVELOPMENT

AT

LEDGARD MILLS, BACK STATION ROAD, MIRFIELD

FOR

BINKS EXECUTIVE HOMES LTD

FEBRUARY 2023

E23/8012/R001

Haigh Huddleston Associates is the trading name of Haigh Huddleston Associates Limited
Registered Office: Firth Buildings, 99-101 Leeds Road, Dewsbury, WF12 7BU
Registered in England Number 6458196

INDEX

1.0 INTRODUCTION

1.1 This report is commissioned to examine the risk of contamination for the above site in line with the recommendations of Part II of the Environmental Protection Act 1990 PPS 23. It is based on information provided by both the client and statutory bodies in both written and verbal format. It is assumed that all information given is correct and factual at the time of writing this report. No liabilities can be accepted for information provided by third parties and subsequently found to be in error.

2.0 THE SITE

2.1 The site is located to the south of Back Station Road, Mirfield and is situated around Ordnance Survey grid reference 420197, 419455. A site location plan is included in Appendix A.

2.2 The site is an irregular rectangular patch of land surrounding the Ledgard Mills apartment building, which has been converted to residential apartments as a previous phase of the development. To the north is Back Station Road with the Manchester-Leeds Railway line beyond, to the east are residential properties and to the south west is the River Calder. The area of the development is approximately 1.72ha.

2.3 To the north west of Ledgard Mills, the site consists of open grassland with some dilapidated tarmac hardstanding adjacent the northern boundary with Back Station Road. An informal footpath runs along the northern and western boundary of this area of the site as part of the Spen Valley Greenway.

2.4 To the south east of Ledgard Mills is a large tarmacked car parking area with limited formal grassed areas. A single storey brick building is located to the north east of the car park. Adjacent the eastern boundary is a large area of rough grass and mature tree growth extending to the River Calder on the southern boundary. No watercourse was noted within the eastern boundary during a site walk over.

2.5 There was no topographical survey available at the time of writing the report.

3.0 SITE HISTORY

A number of historical Ordnance Survey plans from 1851-2021 have been consulted. These are contained for reference within Appendix C to the rear of the report. Below is a brief description outlining the significant developments that may affect future construction of the site.

Date	Historical uses on site	Historical findings within 100m perimeter of the site	Historical findings further than 100m perimeter of the site
1851	i) Site shown as open field.	i) Mirfield Station and Railway 20m north east of site. ii) River Calder shown on south western boundary. iii) Ledgard Bridge Colliery shown 20m west of site on far side of River Calder. iv) Mill buildings 75m north of site.	i) Calder and Hebble Navigation 100m north of site. ii) Unlabelled buildings 120m north of site.
1892	i) Three large mill buildings shown in north western third of site along with smaller outbuildings and mill ponds. ii) Watercourse shown on eastern boundary of site.	i) Mill building immediately east of site. ii) Lower Hopton residential development built over colliery 20m west of site. iii) Ledgard Bridge Dockyard 75m north east of site.	i) Malthouses and Mill buildings shown 100-250m north east of site.
1907	i) Ledgard Bridge Mills labelled as a yarn spinning mill.	i) No significant developments within 100m of the site.	i) No significant developments within 500m of the site.
1922	i) Several small buildings and chimney constructed in centre of site. ii) Filter tanks shown on western boundary adjacent River Calder.	i) No significant developments within 100m of the site.	i) No significant developments within 500m of the site.
1933	i) Tanks constructed in centre of site.	i) Allotment gardens 50m to the south east.	i) No significant developments within 500m of the site.
1957-1978	i) Further large buildings constructed in centre of site. ii) Filter tanks no longer shown on western boundary.	i) No significant developments within 100m of the site.	i) No significant developments within 500m of the site.
2001-2003	i) Reduced number of buildings on site. ii) Buildings now labelled as industrial units.	i) Mill buildings 75m north east of site now labelled as Works.	i) No significant developments within 500m of the site.

Date	Historical uses on site	Historical findings within 100m perimeter of the site	Historical findings further than 100m perimeter of the site
2010	i) Only two buildings remain on site.	i) No significant developments within 100m of the site.	i) No significant developments within 500m of the site.
2023	i) Site same as previous.	i) Mill building east of site replaced by residential development.	i) No significant developments within 500m of the site.

4.0 SITE GEOLOGY & MINING

4.1 The BGS Digital Geological Map of Great Britain at 1:10,000 and 1:50,000 scale have been consulted and we would report as follows:-

4.2 No artificial strata is shown overlying the site. However, a large area of made ground associated with the railway line is shown immediately north of the site. Additionally, the site has had historical industrial usage and there is the potential for re-engineered ground to have been used in levelling the site and following the demolition of the previous buildings.

4.3 The site is shown to be overlaid by Alluvium consisting of Clay, Sand and Gravel.

4.4 The north eastern third of the site is shown to be underlain by the Clifton Rock Formation consisting of Sandstone. The south western two thirds of the site are shown to be underlain by the Pennine Lower Coal Measures Formation consisting of Mudstone, Siltstone and Sandstone.

4.5 No fault lines are shown in the vicinity of the site.

4.6 The site is noted to be in an area with a low risk of running sands and a moderate risk of compressible materials being present.

4.7 A Coal Authority Report is included in Appendix B and states that the property is not in a surface area that could be affected by any past recorded underground coal mining.

4.8 The property is not in area where the Coal Authority has granted, or plans to grant, a licence to remove or otherwise work coal using underground methods. However, reserves of coal are thought to exist in the local area which could be worked at some time in the future.

4.9 There are no recorded mine entries known to the Coal Authority within, or within 20 metres, of the boundary of the property.

4.10 There are no available deep BGS borehole records in the immediate vicinity of the site.

5.0 ENVIRONMENTAL CONSIDERATIONS

5.1 Radon

The site is not in a Radon Affected Area, as less than 1% of properties are above the Action Level.

No Radon Protective Measures are necessary.

5.2 Landfill Sites

There are no historical or active/recent landfills recorded within 250m of the site.

5.3 Flood Risk

The site is an area designated as both Flood Zone 2 and 3 by the Environment Agency. A Flood Risk Assessment will be required to address this and propose measures to alleviate the flooding.

5.4 Groundwater

The superficial strata overlying the site and the bedrock underlying the site are classed as Secondary A Aquifers. These are 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.

There is a single licensed discharge to controlled waters recorded within 250m of the site. This is a storm sewer overflow located 11m north west of the site and discharges to the River Calder.

There are no recorded groundwater, surface water or potable water extractions within 250m of the site.

There are three recorded pollution incidents to controlled waters within 250m of the site. There were Category 2 (Significant) incidents 52m north west and 100m north of the site and a Category 3 (Minor) incident 112m north of the site. None of there were associated with the site.

The site is not located in a source protection zone.

A culverted watercourse is noted at the north east corner of the site which is shown to become an open watercourse on the eastern boundary. The River Calder is on the western boundary of the site and is an inland river not influenced by normal tidal action.

6.0 PRELIMINARY CONCEPTUAL SITE MODEL

6.1 The initial stage in assessing the risks posed from contaminated land during the redevelopment of a site is to prepare a conceptual model. A generalised conceptual model can be developed highlighting the main pollutant linkages through a contaminant ► pathway ►receptor model for a residential development. In order to prepare the conceptual model for a particular site the following parameters need to be reviewed as discussed below.

6.2 Contamination of existing land can be caused by a number of factors, including:-

i) Possible historical/current industrial activities.

ii) Disposal of waste materials.

iii) Storage of materials.

iv) A number of natural processes can also lead to hazardous gases and elevated heavy metals.

6.3 Potential pathways can include ground and surface water, permeable strata, existing services providing a conduit and voided ground. Potential receptors can include human health, ecosystems, controlled waters and building structures. There are a number of ways that a receptor can be exposed to the contaminant these include, inhalation, direct contact, ingestion, dermal contact and uptake.

6.4 The site has been shown as being developed for commercial/industrial use since 1890, with primarily commercial developments immediately adjacent the site until the recent redevelopment as a residential area. Originally used for yarn spinning, the later uses of the property are unknown. There is therefore the risk of contamination from the following sources:

i) Potential spillages of chemicals used within the yarn spinning industry/leakages of chemicals stored on site.

ii) Demolition material from the former buildings on site.

iii) Possible infill material to former basement/cellar areas to buildings

iv) Possible made ground used to level the site.

v) Historical spillages of stored materials on site from previous industrial usage.

vi) Possible gas generating organic material retained in former filter beds adjacent River Calder

There is therefore considered to be a moderate risk of ground contamination present.

6.5 Considering the proposed residential end use, there will be two possible human receptor groups exposed to the existing onsite contamination:-

a) Site operatives during development.
b) End users, future site visitors (the critical receptor is a 6 year old female).

6.6 Human receptors may be exposed to site contamination by a number of possible pathways. These pathways are summarised in Table 1 below.

Table 1- Potential Human Exposure Pathways

Human Exposure Pathway	Site Visitors	Construction Workers
Soil Ingestion	YES	YES
Consumption of Home Grown Vegetables	YES	NO
Dermal Contact	YES	YES
Dust Inhalation	YES	YES
Gases/Vapours	YES	NO

6.7 The construction workers will come into contact with any contaminated soil to a far greater extent than future residents. The exposure pathways are generally through dermal contact and indirect ingestion. However their exposure will be for a limited time and the provision and correct use of personnel protective equipment and adequate welfare facilities during construction should restrict their risks to acceptable levels.

6.8 The risk of pollution to controlled waters by existing contamination is considered low. There has been no recorded pollution incidents involving the historical uses of the site. However, there is a risk that surface water run-off during construction on site may wash contaminants into the River Calder. It is recommended a surface water management plan is put in place prior to commencing work on site.

6.9 Aside from the River Calder, no specific areas of ecological importance have been identified in the initial desk top study. Therefore the site is considered to be in a low risk environmental setting. The potential for phototoxic materials to exist at shallow depth should be considered, these could pose a potential risk to new planting and soft landscaping areas within the proposed development.

6.10 The proposed planning drawings show a residential development. The presence of elevated sulphates and hydrocarbons could affect the long term integrity of buried concrete structures, including foundations and drainage pipes. Plastic water supply pipes can also be damaged by the presence of hydrocarbon contamination.

7.0 CONCLUSIONS

7.1 From review of the historical plans, the majority of the site has been in continuous use for industrial and commercial purposes from 1890 until the early 2000s. The historical plans show there has been filter tanks and mill ponds and possible basement areas on site so there is potential for the infill to contain ground gas generating organic matter. There is therefore considered to be a moderate risk of ground contamination being present.

7.2 Considering the above, we would recommend that Stage II Ground Investigation should be undertaken to confirm the foundation construction required for the proposed development and to identify any made ground and contamination on site.

7.3 Due to the potential for infilled ponds and former basements, it is recommended that rotary boreholes or window samples are undertaken throughout the site to determine the depth of any infill material and allow the installation of standpipes. A minimum of five standpipes should be installed to allow gas and water level monitoring to be undertaken to ensure this will not adversely affect the proposed development.

7.4 Samples should be taken from any suspected areas of contamination and tested for metals, metalloids, EPA 16 PAHS and asbestos. In addition to this, samples should be taken from beneath parking areas and tested for EPH (Total)

7.5 Samples of any clays encountered should be submitted for geotechnical analysis to determine the volume change potential and effect it will have on the proposed foundations.

7.6 If any contamination is found, a site remediation report should outline the most effective method of dealing with the contamination and any validation requirements.

Prepared by

M. Dean. BSc (Hons) HND

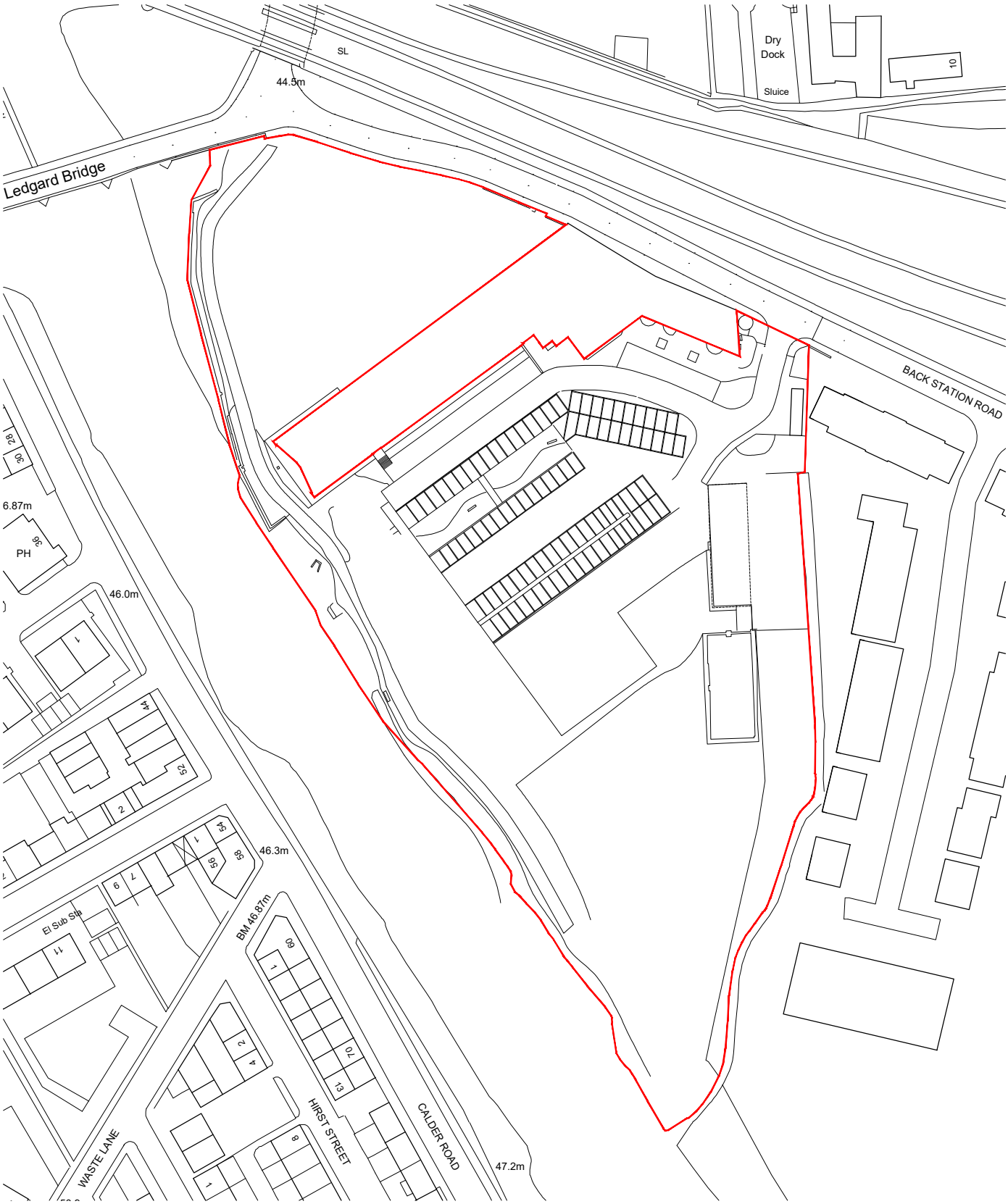
Checked by

M. Huddleston. MEng

February 2023

APPENDIX A

LOCATION PLAN



Drawings based on Ordnance Survey
(Streetwise License No 100047474)

A_ Red line amended Nov 22

Architecture and Design,
The Studio, Coal Pit Lane, Brighouse
HD6 4HW T: 01484 717115
info@jg-d.co.uk www.jg-d.co.uk

Project	Proposed residential scheme at Ledgard Bridge, Mirfield
Client	Binks Vertical, Blakeridge Mill, Batley
Dwg Title	(17001)01_Location Plan — A
Scale	1:1250 @ A4
Date	Vov 22

APPENDIX B

COAL AUTHORITY REPORT

The Coal Authority

CON29M
coal mining report

LEDGARD BRIDGE, MIRFIELD, KIRKLEES, WF14 8LZ

Known or potential coal mining risks

Further action

No further reports from the Coal Authority are required. Further information on any next steps can be found in our Professional opinion.

For more information on our reports please visit www.groundstability.com

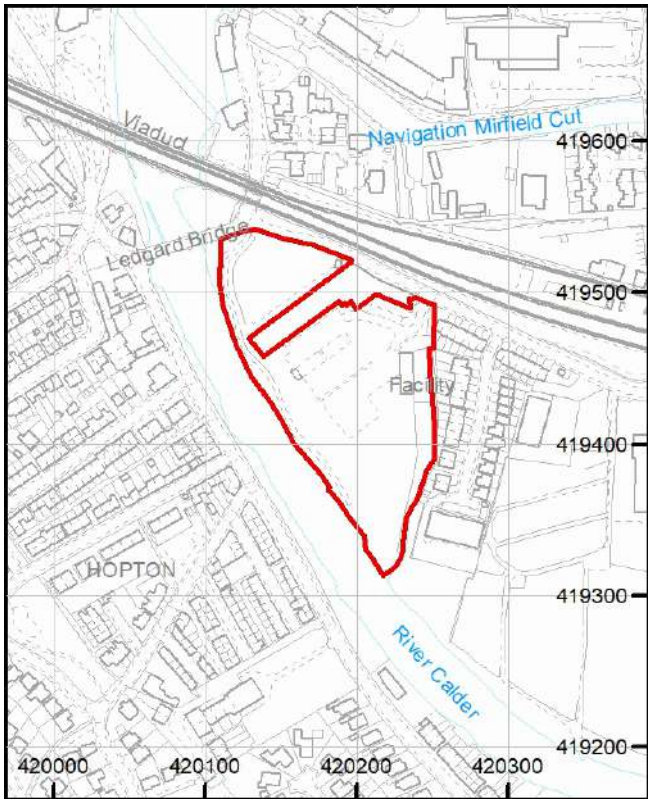
Professional opinion

According to the official mining information records held by the Coal Authority at the time of this search, evidence of, or the potential for, coal mining related features have been identified. It is unlikely that these features will impact on the stability of the enquiry boundary.

Enquiry boundary

Key

Approximate position of enquiry boundary shown



We can confirm that the location is **on the coalfield**

Map data

This report is prepared in accordance with the latest Law Society's Guidance Notes 2018, the User Guide 2018 and the Coal Authority's Terms and Conditions applicable at the time the report was produced.

Accessibility

If you would like this information in an alternative format, please contact our communications team on 0345 762 6848 or email communications@coal.gov.uk.

Professional opinion

Future development

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

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

If you are looking to develop, or undertake works, within a coal mining development high risk area your Local Authority planning department may require a Coal Mining Risk Assessment to be undertaken by a qualified mining geologist or engineer. Should you require any additional information then please contact the Coal Authority on 0345 762 6848 or email cmra@coal.gov.uk.

Site investigations

The following site investigation(s) took place in the location area:

A site investigation was carried out in April 2022 by Structural Soils Ltd, The Potteries, Pottery Street, Castleford, WF10 1NJ on behalf of BAM Nuttall, Tru Compound, Gorton Road, Manchester, M11 2DZ.

Additional information regarding these investigations may be available from the company or companies listed above.

Detailed findings

Information provided by the Coal Authority in this report is compiled in response to the Law Society's CON29M Coal Mining enquiries. The said enquiries are protected by copyright owned by the Law Society of 113 Chancery Lane, London WC2A 1PL.

1 Past underground coal mining

The property is not within a surface area that could be affected by any past recorded underground coal mining.

2 Present underground coal mining

The property is not within a surface area that could be affected by present underground mining.

3 Future underground coal mining

The property is not in an area where the Coal Authority has received an application for, and is currently considering whether to grant a licence to remove or work coal by underground methods.

The property is not in an area where a licence has been granted to remove or otherwise work coal using underground methods.

The property is not in an area likely to be affected from any planned future underground coal mining.

However, reserves of coal exist in the local area which could be worked at some time in the future.

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

4 Mine entries

There are no recorded coal mine entries known to the Coal Authority within, or within 20 metres, of the boundary of the property.

5 Coal mining geology

The Coal Authority is not aware of any damage due to geological faults or other lines of weakness that have been affected by coal mining.

6 Past opencast coal mining

The property is not within the boundary of an opencast site from which coal has been removed by opencast methods.

7 Present opencast coal mining

The property does not lie within 200 metres of the boundary of an opencast site from which coal is being removed by opencast methods.

8 Future opencast coal mining

There are no licence requests outstanding to remove coal by opencast methods within 800 metres of the boundary.

The property is not within 800 metres of the boundary of an opencast site for which a licence to remove coal by opencast methods has been granted.

9 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.

10 Mine gas

The Coal Authority has no record of a mine gas emission requiring action.

11 Hazards related to coal mining

The property has not been subject to remedial works, by or on behalf of the Coal Authority, under its Emergency Surface Hazard Call Out procedures.

12 Withdrawal of support

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.

13 Working facilities order

The property is not in an area where an order has been made, under the provisions of the Mines (Working Facilities and Support) Acts 1923 and 1966 or any statutory modification or amendment thereof.

14 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.

Statutory cover

Coal mining subsidence

In the unlikely event of any coal mining related subsidence damage, the Coal Authority or the mine operator has a duty to take remedial action in respect of subsidence caused by the withdrawal of support from land or property in connection with lawful coal mining operations.

When the works are the responsibility of the Coal Authority, our dedicated public safety and subsidence team will manage the claim. The house or land owner ("the owner") is covered for these works under the terms of the Coal Mining Subsidence Act 1991 (as amended by the Coal Industry Act 1994). Please note, this Act does not apply where coal was worked or gotten by virtue of the grant of a gale in the Forest of Dean, or any other part of the Hundred of St. Briavels in the county of Gloucester.

If you believe your land or property is suffering from coal mining subsidence damage and you need more information on what to do next, please use the following link to our website which sets out what your rights are and what you need to consider before making a claim.
www.gov.uk/government/publications/coal-mining-subsidence-damage-notice-form

Coal mining hazards

Our public safety and subsidence team provide a 24 hour a day, 7 days a week hazard reporting service, to help protect the public from hazards caused by past coal workings, such as a mine shaft or shallow working collapse. To report any hazards please call 0800 288 4242. Further information can be found on our website: www.gov.uk/coalauthority.

Glossary

Key terms

adit - horizontal or sloped entrance to a mine

coal mining subsidence - ground movement caused by the removal of coal by underground mining

Coal Mining Subsidence Act 1991 - the Act setting out the duties of the Coal Authority to repair damage caused by coal mining subsidence

coal mining subsidence damage - damage to land, buildings or structures caused by the removal of coal by underground mining

coal seams - bed of coal of varying thickness

future opencast coal mining - a licence granted, or licence application received, by the Coal Authority to excavate coal from the surface

future underground coal mining - a licence granted, or licence application received, by the Coal Authority to excavate coal underground. Although it is unlikely, remaining coal reserves could create a possibility for future mining, which would be licensed by the Coal Authority

mine entries - collective name for shafts and adits

mine gas - reports of alleged mine gas emissions received by the Coal Authority within the enquiry boundary that subsequently required investigation and action by the Coal Authority to mitigate the effects of the mine gas emission. Please note, if there are no recorded instances of mine gas reported, this does not mean that mine gas is not present within the vicinity. The Coal Authority Mine Gas data is limited to only those sites where a Mine Gas incident has been recorded

payments to owners of former copyhold land - historically, copyhold land gave rights to coal to the copyholder. Legislation was set up to allow others to work this coal, but they had to issue a notice and pay compensation if a copyholder came forward

shaft - vertical entry into a mine

site investigation - investigations of coal mining risks carried out with the Coal Authority's permission

stop notice - a delay to repairs because further coal mining subsidence damage may occur and it would be unwise to carry out permanent repairs

subsidence claim - a formal notice of subsidence damage to the Coal Authority since it was established on 31 October 1994

withdrawal of support - a historic notice informing landowners that the coal beneath their property was going to be worked

working facilities orders - a court order which gave permission, restricted or prevented coal mine workings

APPENDIX C

GROUNDSURE REPORT

HISTORICAL PLANS

Groundsure LOCATION INTELLIGENCE

Enviro+Geo Insight

LEDGARD BRIDGE, MIRFIELD, WF14 8LZ

Order Details

Date: 21/02/2023

Your ref: BINKS_8012

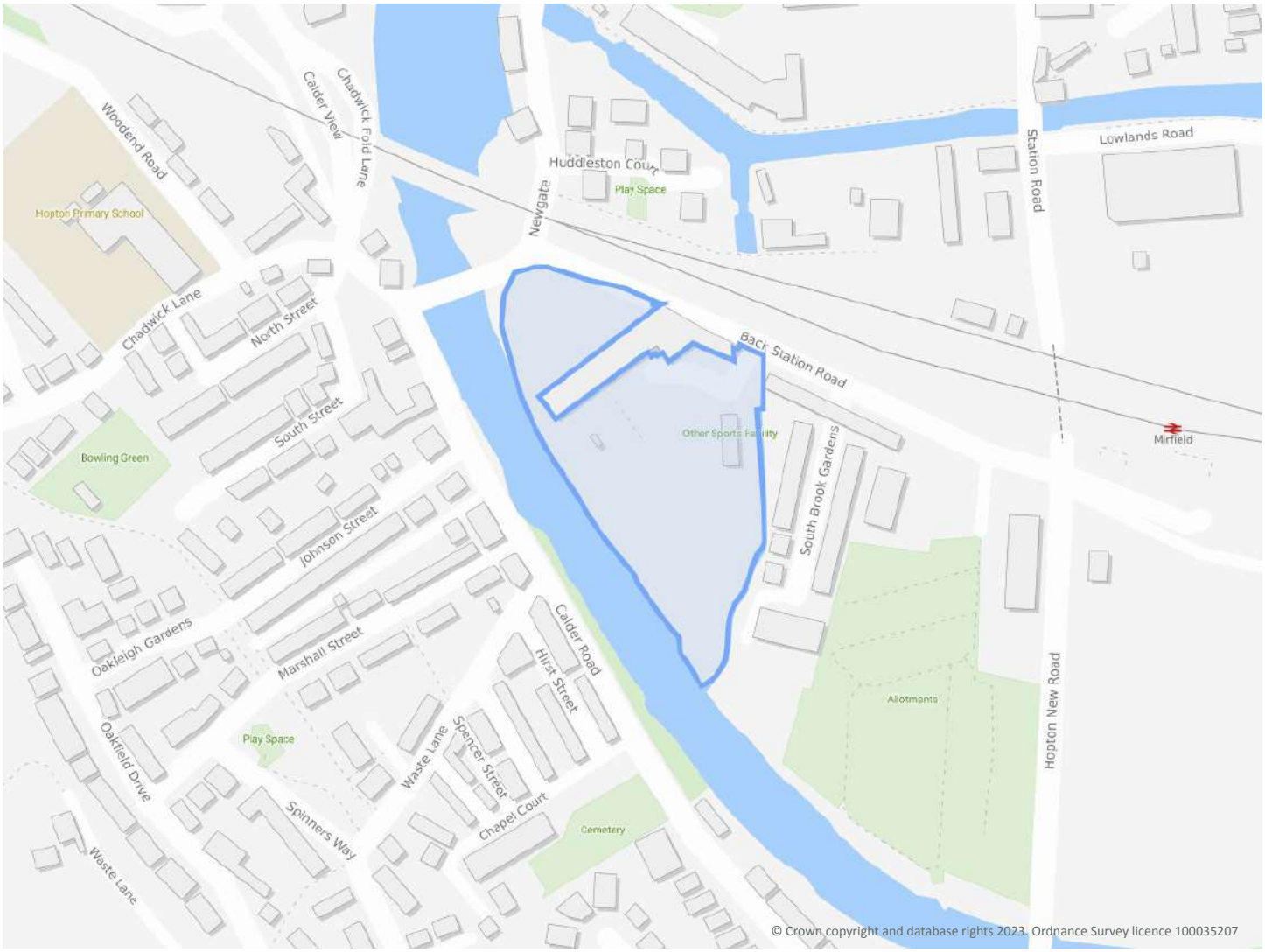
Our Ref: GS-9372287

Site Details

Location: 420197 419455

Area: 1.72 ha

Authority: Kirklees Council



Contact us with any questions at:
info@groundsure.com
01273 257 755

Summary of findings

Page	Section	Past land use	On site	0-50m	50-250m	250-500m	500-2000m
13	1.1	Historical industrial land uses	14	13	43	76	-
19	1.2	Historical tanks	5	2	17	13	-
21	1.3	Historical energy features	1	1	9	8	-
22	1.4	Historical petrol stations	0	0	0	0	-
22	1.5	Historical garages	0	0	10	2	-
23	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
24	2.1	Historical industrial land uses	17	15	66	102	-
32	2.2	Historical tanks	6	2	26	20	-
34	2.3	Historical energy features	1	1	19	14	-
35	2.4	Historical petrol stations	0	0	0	0	-
36	2.5	Historical garages	0	0	14	2	-
Page	Section	Waste and landfill	On site	0-50m	50-250m	250-500m	500-2000m
37	3.1	Active or recent landfill	0	0	0	0	-
37	3.2	Historical landfill (BGS records)	0	0	0	0	-
38	3.3	Historical landfill (LA/mapping records)	0	0	0	0	-
38	3.4	Historical landfill (EA/NRW records)	0	0	0	0	-
38	3.5	Historical waste sites	0	0	1	0	-
38	3.6	Licensed waste sites	0	1	5	1	-
41	3.7	Waste exemptions	0	0	24	18	-
Page	Section	Current industrial land use	On site	0-50m	50-250m	250-500m	500-2000m
45	4.1	Recent industrial land uses	1	0	19	-	-
47	4.2	Current or recent petrol stations	0	0	1	1	-
47	4.3	Electricity cables	0	0	0	0	-
47	4.4	Gas pipelines	0	0	0	0	-
47	4.5	Sites determined as Contaminated Land	0	0	0	0	-

48	4.6	Control of Major Accident Hazards (COMAH)	0	0	0	0	-
48	4.7	Regulated explosive sites	0	0	0	0	-
48	4.8	Hazardous substance storage/usage	0	0	0	0	-
48	4.9	Historical licensed industrial activities (IPC)	0	0	0	0	-
48	4.10	Licensed industrial activities (Part A(1))	0	0	0	0	-
49	**4.11**	**Licensed pollutant release (Part A(2)/B)**	0	0	1	1	-
49	4.12	Radioactive Substance Authorisations	0	0	0	0	-
49	**4.13**	**Licensed Discharges to controlled waters**	0	1	0	0	-
50	4.14	Pollutant release to surface waters (Red List)	0	0	0	0	-
50	4.15	Pollutant release to public sewer	0	0	0	0	-
50	4.16	List 1 Dangerous Substances	0	0	0	0	-
50	4.17	List 2 Dangerous Substances	0	0	0	0	-
50	**4.18**	**Pollution Incidents (EA/NRW)**	0	0	6	3	-
52	4.19	Pollution inventory substances	0	0	0	0	-
52	4.20	Pollution inventory waste transfers	0	0	0	0	-
52	4.21	Pollution inventory radioactive waste	0	0	0	0	-

Page	Section	Hydrogeology	On site	0-50m	50-250m	250-500m	500-2000m
53	**5.1**	**Superficial aquifer**	Identified (within 500m)				
55	**5.2**	**Bedrock aquifer**	Identified (within 500m)				
57	**5.3**	**Groundwater vulnerability**	Identified (within 50m)				
58	5.4	Groundwater vulnerability- soluble rock risk	None (within 0m)				
58	5.5	Groundwater vulnerability- local information	None (within 0m)				
59	**5.6**	**Groundwater abstractions**	0	0	0	0	15
63	**5.7**	**Surface water abstractions**	0	0	0	0	1
63	5.8	Potable abstractions	0	0	0	0	0
63	5.9	Source Protection Zones	0	0	0	0	-
64	5.10	Source Protection Zones (confined aquifer)	0	0	0	0	-

Page	Section	Hydrology	On site	0-50m	50-250m	250-500m	500-2000m
65	**6.1**	**Water Network (OS MasterMap)**	2	5	6	-	-

67	6.2	Surface water features	1	2	3	-	-
67	6.3	WFD Surface water body catchments	1	-	-	-	-
67	6.4	WFD Surface water bodies	0	1	1	-	-
68	6.5	WFD Groundwater bodies	1	-	-	-	-
Page	Section	River and coastal flooding	On site	0-50m	50-250m	250-500m	500-2000m
69	7.1	Risk of flooding from rivers and the sea	High (within 50m)				
70	7.2	Historical Flood Events	4	3	4	-	-
71	7.3	Flood Defences	0	0	0	-	-
71	7.4	Areas Benefiting from Flood Defences	0	0	0	-	-
71	7.5	Flood Storage Areas	1	0	1	-	-
72	7.6	Flood Zone 2	Identified (within 50m)				
73	7.7	Flood Zone 3	Identified (within 50m)				
Page	Section	Surface water flooding					
74	8.1	Surface water flooding	1 in 30 year, Greater than 1.0m (within 50m)				
Page	Section	Groundwater flooding					
76	9.1	Groundwater flooding	Low (within 50m)				
Page	Section	Environmental designations	On site	0-50m	50-250m	250-500m	500-2000m
77	10.1	Sites of Special Scientific Interest (SSSI)	0	0	0	0	0
78	10.2	Conserved wetland sites (Ramsar sites)	0	0	0	0	0
78	10.3	Special Areas of Conservation (SAC)	0	0	0	0	0
78	10.4	Special Protection Areas (SPA)	0	0	0	0	0
78	10.5	National Nature Reserves (NNR)	0	0	0	0	0
79	10.6	Local Nature Reserves (LNR)	0	0	0	0	0
79	10.7	Designated Ancient Woodland	0	0	0	1	8
79	10.8	Biosphere Reserves	0	0	0	0	0
80	10.9	Forest Parks	0	0	0	0	0
80	10.10	Marine Conservation Zones	0	0	0	0	0
80	10.11	Green Belt	0	0	1	0	1
80	10.12	Proposed Ramsar sites	0	0	0	0	0

81	10.13	Possible Special Areas of Conservation (pSAC)	0	0	0	0	0
81	10.14	Potential Special Protection Areas (pSPA)	0	0	0	0	0
81	10.15	Nitrate Sensitive Areas	0	0	0	0	0
81	**10.16**	**Nitrate Vulnerable Zones**	0	0	0	0	1
83	**10.17**	**SSSI Impact Risk Zones**	1	-	-	-	-
84	10.18	SSSI Units	0	0	0	0	0
Page	Section	Visual and cultural designations	On site	0-50m	50-250m	250-500m	500-2000m
85	11.1	World Heritage Sites	0	0	0	-	-
86	11.2	Area of Outstanding Natural Beauty	0	0	0	-	-
86	11.3	National Parks	0	0	0	-	-
86	**11.4**	**Listed Buildings**	0	1	5	-	-
87	11.5	Conservation Areas	0	0	0	-	-
87	11.6	Scheduled Ancient Monuments	0	0	0	-	-
87	11.7	Registered Parks and Gardens	0	0	0	-	-
Page	Section	Agricultural designations	On site	0-50m	50-250m	250-500m	500-2000m
88	**12.1**	**Agricultural Land Classification**	Urban (within 250m)				
89	12.2	Open Access Land	0	0	0	-	-
89	12.3	Tree Felling Licences	0	0	0	-	-
89	12.4	Environmental Stewardship Schemes	0	0	0	-	-
89	12.5	Countryside Stewardship Schemes	0	0	0	-	-
Page	Section	Habitat designations	On site	0-50m	50-250m	250-500m	500-2000m
90	13.1	Priority Habitat Inventory	0	0	0	-	-
90	13.2	Habitat Networks	0	0	0	-	-
91	**13.3**	**Open Mosaic Habitat**	1	0	0	-	-
91	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
92	**14.1**	**10k Availability**	Identified (within 500m)				
94	**14.2**	**Artificial and made ground (10k)**	0	1	2	6	-
96	**14.3**	**Superficial geology (10k)**	1	0	2	1	-

97	14.4	Landslip (10k)	0	0	0	0	-
98	14.5	Bedrock geology (10k)	2	0	3	13	-
99	14.6	Bedrock faults and other linear features (10k)	0	0	1	8	-
Page	Section	Geology 1:50,000 scale	On site	0-50m	50-250m	250-500m	500-2000m
101	15.1	50k Availability	Identified (within 500m)				
102	15.2	Artificial and made ground (50k)	0	1	1	0	-
103	15.3	Artificial ground permeability (50k)	0	1	-	-	-
104	15.4	Superficial geology (50k)	1	0	1	1	-
105	15.5	Superficial permeability (50k)	Identified (within 50m)				
105	15.6	Landslip (50k)	0	0	0	0	-
105	15.7	Landslip permeability (50k)	None (within 50m)				
106	15.8	Bedrock geology (50k)	2	0	1	4	-
107	15.9	Bedrock permeability (50k)	Identified (within 50m)				
107	15.10	Bedrock faults and other linear features (50k)	0	0	1	4	-
Page	Section	Boreholes	On site	0-50m	50-250m	250-500m	500-2000m
109	16.1	BGS Boreholes	0	0	24	-	-
Page	Section	Natural ground subsidence					
111	17.1	Shrink swell clays	Very low (within 50m)				
112	17.2	Running sands	Low (within 50m)				
114	17.3	Compressible deposits	Moderate (within 50m)				
116	17.4	Collapsible deposits	Negligible (within 50m)				
117	17.5	Landslides	Low (within 50m)				
119	17.6	Ground dissolution of soluble rocks	Negligible (within 50m)				
Page	Section	Mining, ground workings and natural cavities	On site	0-50m	50-250m	250-500m	500-2000m
121	18.1	Natural cavities	0	0	0	0	-
122	18.2	BritPits	0	0	0	2	-
122	18.3	Surface ground workings	0	0	11	-	-
123	18.4	Underground workings	0	0	0	1	11
124	18.5	Historical Mineral Planning Areas	0	0	0	0	-

124	18.6	Non-coal mining	0	0	0	0	0
124	18.7	Mining cavities	0	0	0	0	0
124	18.8	JPB mining areas	None (within 0m)				
124	**18.9**	**Coal mining**	Identified (within 0m)				
125	18.10	Brine areas	None (within 0m)				
125	18.11	Gypsum areas	None (within 0m)				
125	18.12	Tin mining	None (within 0m)				
125	18.13	Clay mining	None (within 0m)				

Page	Section	Radon	
126	**19.1**	**Radon**	Less than 1% (within 0m)

Page	Section	Soil chemistry	On site	0-50m	50-250m	250-500m	500-2000m
128	**20.1**	**BGS Estimated Background Soil Chemistry**	4	0	-	-	-
128	20.2	BGS Estimated Urban Soil Chemistry	0	0	-	-	-
129	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
130	21.1	Underground railways (London)	0	0	0	-	-
130	21.2	Underground railways (Non-London)	0	0	0	-	-
131	21.3	Railway tunnels	0	0	0	-	-
131	**21.4**	**Historical railway and tunnel features**	0	23	15	-	-
132	21.5	Royal Mail tunnels	0	0	0	-	-
133	21.6	Historical railways	0	0	0	-	-
133	**21.7**	**Railways**	0	10	11	-	-
134	21.8	Crossrail 1	0	0	0	0	-
134	21.9	Crossrail 2	0	0	0	0	-
134	21.10	HS2	0	0	0	0	-

Recent aerial photograph

Capture Date: 30/05/2021

Site Area: 1.72ha

Recent site history - 2018 aerial photograph

Capture Date: 01/07/2018

Site Area: 1.72ha

Recent site history - 2012 aerial photograph

Capture Date: 26/03/2012

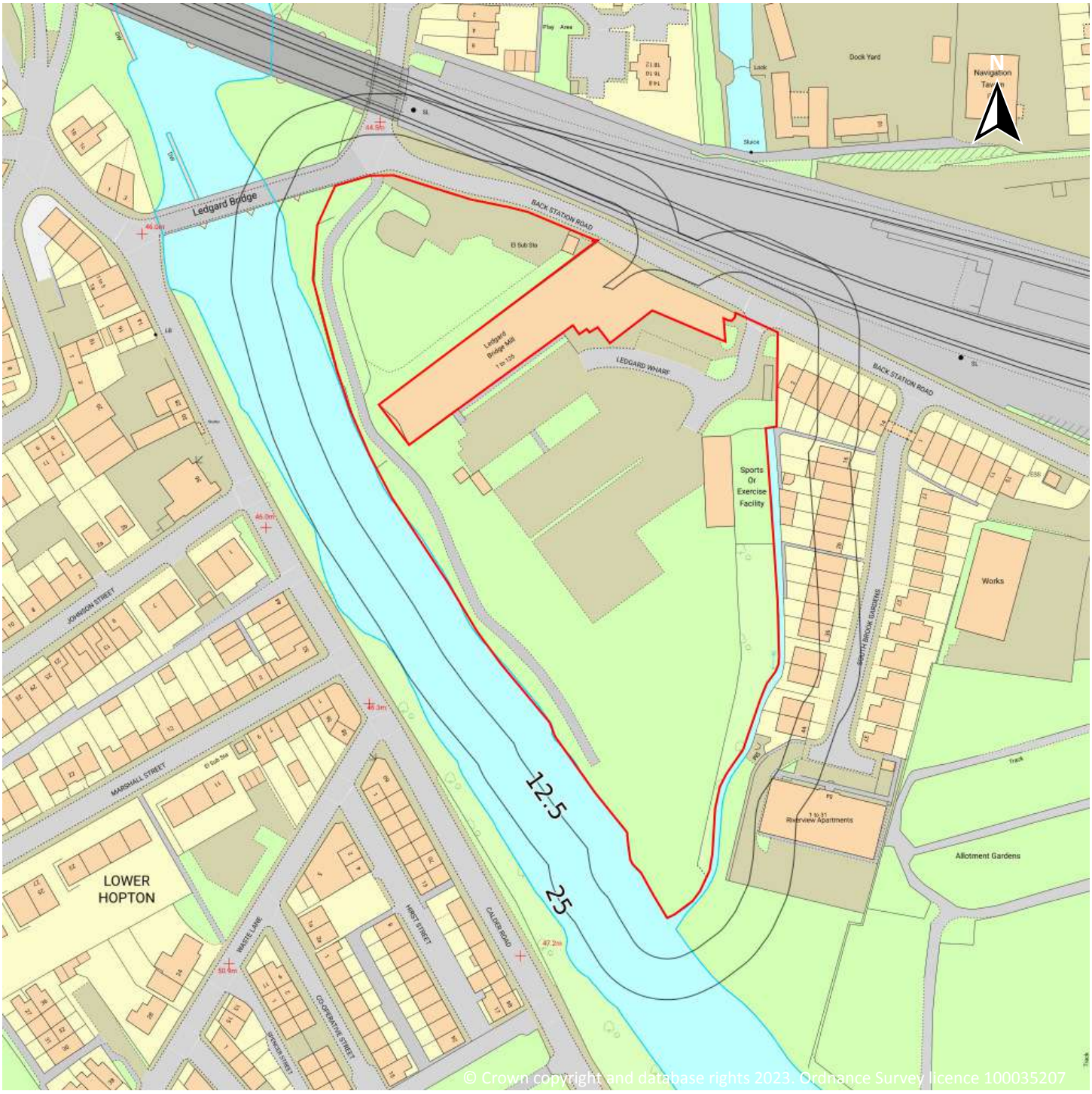
Site Area: 1.72ha

Recent site history - 1999 aerial photograph

Capture Date: 10/07/1999

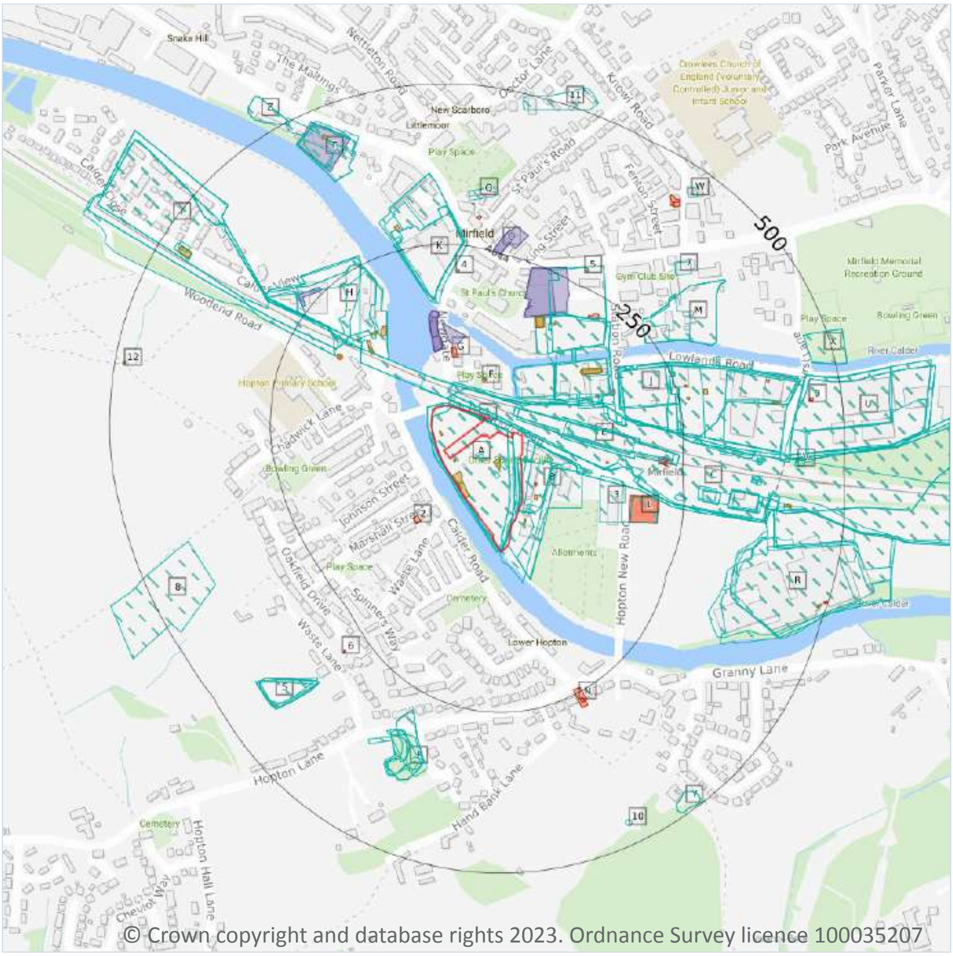
Site Area: 1.72ha

OS MasterMap site plan



Site Area: 1.72ha

1 Past land use



Site Outline

Search buffers in metres (m)

Historical industrial land uses

Historical tanks

Historical energy features

Historical garages

1.1 Historical industrial land uses

Records within 500m	146

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**	**Unspecified Commercial/Industrial**	**1951**	**1410517**

ID	Location	Land use	Dates present	Group ID
A	**On site**	**Unspecified Tank**	**1938**	**1433467**
A	**On site**	**Unspecified Tank**	**1948**	**1433468**
A	**On site**	**Unspecified Tank**	**1931**	**1433469**
A	**On site**	**Industrial Units**	**1993**	**1456826**
A	**On site**	**Unspecified Mill**	**1966 - 1982**	**1502372**
A	**On site**	**Unspecified Mills**	**1931**	**1525261**
A	**On site**	**Unspecified Mills**	**1892**	**1527687**
A	**On site**	**Unspecified Mills**	**1938**	**1544368**
B	**On site**	**Unspecified Mill**	**1982 - 1993**	**1466055**
B	**On site**	**Unspecified Mill**	**1938**	**1471418**
B	**On site**	**Unspecified Mill**	**1905 - 1931**	**1484751**
B	**On site**	**Unspecified Mill**	**1948**	**1502845**
B	**On site**	**Unspecified Mill**	**1951**	**1553186**
B	3m SE	Unspecified Mill	1966	1499695
C	4m N	Railway Sidings	1892 - 1905	1494343
C	4m N	Railway Sidings	1948	1528317
C	4m N	Railway Sidings	1931	1549129
D	5m N	Railway Sidings	1966	1458282
D	5m N	Railway Sidings	1965	1458283
C	5m N	Railway Sidings	1982	1507586
C	9m N	Railway Sidings	1938	1493011
C	11m N	Railway Sidings	1951	1472841
E	21m NE	Railway Station	1948	1458550
E	21m NE	Railway Station	1892 - 1931	1486032
E	24m NE	Railway Station	1938	1478218
E	25m NE	Railway Station	1951	1520686
D	53m NE	Dock Yard	1931 - 1948	1557901
D	55m NE	Dock Yard	1951	1536622

ID	Location	Land use	Dates present	Group ID
E	63m NE	Railway Station	1966 - 1982	1523447
E	70m NE	Railway Station	1993	1515714
D	73m NE	Unspecified Works	1966	1438240
D	75m NE	Unspecified Malthouse	1905 - 1931	1476225
D	75m NE	Unspecified Malthouse	1948	1540521
D	78m NE	Unspecified Commercial/Industrial	1982 - 1993	1508470
H	104m NW	Unspecified Mill	1965 - 1988	1512536
H	104m NW	Unspecified Mill	1993	1549967
3	120m E	Unspecified Works	1982 - 1993	1498298
D	133m NE	Unspecified Tanks	1982 - 1993	1476827
D	139m NE	Malthouses	1951	1478043
D	140m NE	Malthouses	1938	1497178
H	142m NW	Unspecified Mill	1931	1461948
H	142m NW	Unspecified Mill	1948	1491971
H	147m NW	Unspecified Mills	1892 - 1905	1541812
I	147m NW	Railway Sidings	1956	1459391
J	157m NE	Unspecified Mill	1931	1504465
J	157m NE	Unspecified Mill	1948	1526565
K	158m N	Unspecified Mill	1966 - 1993	1470860
K	159m N	Unspecified Mill	1905 - 1931	1492316
J	160m NE	Unspecified Mill	1938	1471978
J	160m NE	Unspecified Mill	1951	1531028
J	162m E	Unspecified Works	1982 - 1993	1476135
J	162m E	Unspecified Mill	1966	1494312
K	163m N	Unspecified Mill	1948	1554849
K	166m N	Unspecified Mill	1951	1529822
K	167m N	Unspecified Mill	1938	1535845
L	169m E	Electricity Transformer Station	1982 - 1993	1489310

ID	Location	Land use	Dates present	Group ID
H	171m NW	Unspecified Mill	1956	1504283
I	176m NW	Railway Sidings	1938 - 1948	1530666
I	176m NW	Railway Sidings	1931	1536916
H	182m NW	Unspecified Mill	1938	1536504
J	227m E	Unspecified Works	1966	1555179
C	236m E	Railway Building	1905	1429051
M	240m NE	Unspecified Malthouse	1905	1436346
M	240m NE	Malthouses	1931	1521000
M	240m NE	Malthouses	1948 - 1951	1555922
J	240m E	Unspecified Works	1948 - 1951	1519471
J	241m E	Unspecified Works	1938	1505478
J	246m E	Unspecified Malthouses	1892	1411398
J	246m E	Unspecified Works	1905 - 1931	1535611
M	258m NE	Malthouses	1938	1510569
H	260m NW	Refuse Heap	1965 - 1975	1470884
H	261m NW	Refuse Heap	1988	1546163
C	272m E	Railway Building	1951	1512185
C	273m E	Railway Buildings	1938	1517899
C	277m E	Railway Buildings	1938	1442104
C	280m E	Railway Building	1892 - 1931	1473397
C	280m E	Railway Building	1948	1548283
P	282m S	Unspecified Old Quarry	1905	1440807
P	282m S	Unspecified Quarry	1892	1461850
P	282m S	Unspecified Ground Workings	1948	1496281
I	303m NW	Railway Sidings	1905	1485729
I	303m NW	Railway Sidings	1892	1508854
C	307m E	Railway Building	1892	1459071
J	312m E	Unspecified Works	1982 - 1993	1537782

ID	Location	Land use	Dates present	Group ID
C	314m E	Railway Building	1966	1534760
P	316m S	Unspecified Quarry	1938	1469129
P	317m S	Unspecified Ground Workings	1951	1555996
P	317m S	Unspecified Heap	1966	1415197
C	319m E	Railway Building	1948	1505195
C	319m E	Railway Building	1905 - 1931	1520808
P	319m S	Unspecified Ground Workings	1931	1522720
C	319m E	Railway Buildings	1948 - 1951	1530751
Q	321m N	Fire Engine Station	1966	1420970
C	326m E	Railway Building	1966	1499845
R	328m SE	Unspecified Mills	1982 - 1993	1538510
R	343m SE	Unspecified Mill	1966	1421652
R	343m E	Unspecified Mills	1948 - 1951	1464533
R	344m E	Unspecified Mills	1938	1463020
S	345m SW	Unspecified Pit	1988	1451932
7	346m NE	Fire Station	1982 - 1993	1530017
R	348m E	Unspecified Mills	1892 - 1931	1554455
S	348m SW	Unspecified Quarry	1948	1496384
S	348m SW	Unspecified Quarry	1892	1498529
S	348m SW	Unspecified Old Quarry	1905 - 1931	1540020
S	352m SW	Unspecified Quarry	1965 - 1975	1462906
S	353m SW	Unspecified Quarry	1938	1512351
C	356m E	Railway Building	1931	1518072
C	357m E	Railway Building	1951	1483335
C	358m E	Railway Building	1938	1550179
C	363m E	Railway Building	1892	1464144
C	365m E	Railway Building	1951	1467432
C	365m E	Railway Building	1931	1467044

ID	Location	Land use	Dates present	Group ID
C	367m E	Railway Building	1938	1477989
C	372m E	Railway Buildings	1905 - 1931	1510438
T	385m NW	Unspecified Malthouse	1931	1478156
T	385m NW	Unspecified Malthouse	1948	1549842
C	395m E	Railway Building	1966	1429050
8	402m SW	Nursery	1892 - 1905	1556918
U	407m E	Dye Works	1951	1521762
T	409m NW	Unspecified Heap	1965 - 1988	1475866
T	410m NW	Malthouse	1938	1428933
T	412m N	Unspecified Malthouse	1956	1492508
U	416m E	Unspecified Mill	1982	1525465
U	416m E	Unspecified Works	1993	1547896
U	416m E	Unspecified Works	1966	1550287
U	419m E	Dye Works	1931 - 1938	1474049
U	419m E	Dye Works	1948	1520549
V	424m E	Railway Building	1931 - 1938	1524563
V	426m E	Railway Building	1951	1543926
U	440m E	Unspecified Mills	1931	1419277
U	443m E	Unspecified Mill	1938	1485065
I	447m NW	Railway Building	1948	1459760
I	447m NW	Railway Building	1892 - 1931	1546773
W	453m NE	Police Station	1966 - 1993	1542210
I	455m NW	Railway Building	1956	1540748
I	457m NW	Railway Building	1938	1539656
10	461m S	Unspecified Shaft	1982 - 1993	1483594
X	464m NE	Unspecified Commercial/Industrial	1982	1410514
X	464m NE	Unspecified Works	1966	1438227
T	467m NW	Unspecified Heap	1892 - 1905	1511624

ID	Location	Land use	Dates present	Group ID
Y	469m SE	Unspecified Heap	1892	1415199
Y	469m SE	Refuse Heap	1905	1436659
11	476m N	Unspecified Heap	1981 - 1988	1546220
Z	494m NW	Unspecified Heap	1948	1526659
Z	494m NW	Unspecified Heap	1931	1549073

This data is sourced from Ordnance Survey / Groundsure.

1.2 Historical tanks

Records within 500m	**37**

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

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

ID	Location	Land use	Dates present	Group ID
A	**On site**	**Unspecified Tank**	**1933**	**223670**
A	**On site**	**Unspecified Tank**	**1893**	**223671**
A	**On site**	**Tanks**	**1933**	**230538**
A	**On site**	**Tanks**	**1907**	**230540**
A	**On site**	**Filter Tanks**	**1922 - 1933**	**247855**
B	14m SE	Tanks	1999	230533
B	18m SE	Tanks	1893	230537
F	53m N	Unspecified Tank	1995	243053
F	54m N	Unspecified Tank	1986 - 1989	238512
H	127m NW	Filter Tanks	1922 - 1933	241365
E	131m E	Unspecified Tank	1957	245430
D	133m NE	Tanks	1985 - 1989	234578
D	134m NE	Tanks	1986	249238

ID	Location	Land use	Dates present	Group ID
H	136m NW	Tanks	1933 - 1965	249666
H	146m NW	Unspecified Tank	1933	223680
H	158m NW	Unspecified Tank	1933	223684
D	160m N	Tanks	1985 - 1989	246569
D	161m N	Unspecified Tank	1986	223679
H	164m NW	Unspecified Tank	1922	223683
H	167m NW	Gasometer	1893	229581
D	178m NE	Unspecified Tank	1965	223678
H	201m NW	Unspecified Tank	1957	223681
H	204m NW	Unspecified Tank	1893 - 1907	249408
4	209m N	Unspecified Tank	1907 - 1933	245047
J	262m E	Unspecified Tank	1907	223675
J	263m E	Unspecified Tank	1922	223674
5	274m NE	Unspecified Tank	1965 - 1995	240001
K	281m N	Oil Tanks	1922 - 1933	247185
J	290m E	Tanks	1933	230558
Q	315m N	Unspecified Tank	1986	223677
J	389m E	Unspecified Tank	1989	223673
J	392m E	Unspecified Tank	1989	223676
C	409m E	Unspecified Tank	1957	238217
T	448m NW	Tanks	1957	242526
I	449m NW	Unspecified Tank	1957	239987
12	484m W	Unspecified Tank	1893 - 1907	234731
R	486m E	Unspecified Tank	1986	223669

This data is sourced from Ordnance Survey / Groundsure.

1.3 Historical energy features

Records within 500m	**19**

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

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

ID	Location	Land use	Dates present	Group ID
1	**On site**	**Electricity Substation**	**1985**	**129039**
B	18m E	Electricity Substation	1971	129040
G	76m N	Electricity Substation	1989 - 1995	144389
2	77m SW	Electricity Substation	1971 - 1999	145617
D	130m NE	Electricity Substation	1995	129041
D	153m NE	Electricity Substation	1986 - 1989	146923
L	167m E	Electricity Transformer Station	1971 - 1989	145010
L	167m E	Electricity Transformer Station	1999	135003
H	167m NW	Gasometer	1893	131438
D	211m NE	Electricity Substation	1989 - 1995	142211
N	243m S	Electricity Substation	1971 - 1989	143362
N	260m SE	Electricity Substation	1999	136854
6	286m SW	Electricity Substation	1999	129038
Q	294m N	Electricity Substation	1986 - 1995	141068
W	427m NE	Electricity Substation	1986	140717
W	427m NE	Electricity Substation	1985 - 1989	142696
W	432m NE	Electricity Substation	1995	136378
9	450m E	Electricity Substation	1968 - 1989	140113
R	494m E	Electricity Substation	1971 - 1986	135699

This data is sourced from Ordnance Survey / Groundsure.

1.4 Historical petrol stations

Records within 500m	0

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

This data is sourced from Ordnance Survey / Groundsure.

1.5 Historical garages

Records within 500m	12

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

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

ID	Location	Land use	Dates present	Group ID
G	84m N	Garage	1957	44026
G	84m N	Garage	1965 - 1986	45746
G	84m N	Garage	1957	42366
G	84m N	Garage	1985 - 1989	44752
G	96m N	Garage	1965	41101
G	107m N	Garage	1995	42085
D	168m N	Central Garage	1965	41817
D	168m N	Central Garage	1985 - 1986	45902
O	248m N	Central Garage	1957	42514
O	249m N	Central Garage	1957 - 1965	46465
H	254m NW	Garage	1989	41105
T	402m NW	Garage	1989	41104

This data is sourced from Ordnance Survey / Groundsure.

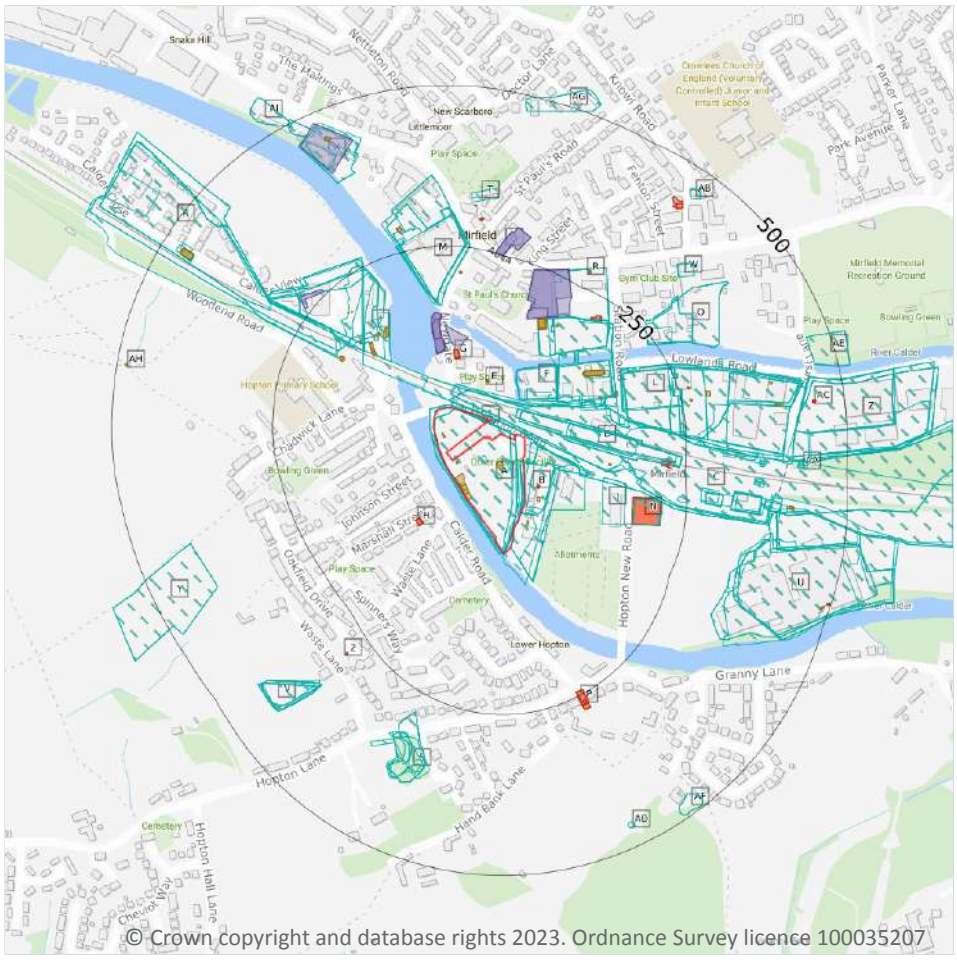
1.6 Historical military land

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	200

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 24**

ID	Location	Land Use	Date	Group ID
A	**On site**	**Unspecified Tank**	**1948**	**1433468**
A	**On site**	**Unspecified Mills**	**1892**	**1527687**
A	**On site**	**Unspecified Mills**	**1931**	**1525261**

ID	Location	Land Use	Date	Group ID
A	**On site**	**Unspecified Tank**	**1931**	**1433469**
A	**On site**	**Industrial Units**	**1993**	**1456826**
A	**On site**	**Unspecified Mill**	**1982**	**1502372**
A	**On site**	**Unspecified Mill**	**1966**	**1502372**
A	**On site**	**Unspecified Commercial/Industrial**	**1951**	**1410517**
A	**On site**	**Unspecified Tank**	**1938**	**1433467**
A	**On site**	**Unspecified Mills**	**1938**	**1544368**
B	**On site**	**Unspecified Mill**	**1948**	**1502845**
B	**On site**	**Unspecified Mill**	**1905**	**1484751**
B	**On site**	**Unspecified Mill**	**1931**	**1484751**
B	**On site**	**Unspecified Mill**	**1993**	**1466055**
B	**On site**	**Unspecified Mill**	**1982**	**1466055**
B	**On site**	**Unspecified Mill**	**1951**	**1553186**
B	**On site**	**Unspecified Mill**	**1938**	**1471418**
B	3m SE	Unspecified Mill	1966	1499695
C	4m N	Railway Sidings	1948	1528317
C	4m N	Railway Sidings	1905	1494343
C	4m N	Railway Sidings	1892	1494343
C	4m N	Railway Sidings	1931	1549129
C	5m N	Railway Sidings	1966	1458282
C	5m N	Railway Sidings	1982	1507586
C	9m N	Railway Sidings	1938	1493011
C	11m N	Railway Sidings	1951	1472841
D	21m NE	Railway Station	1948	1458550
D	21m NE	Railway Station	1905	1486032
D	21m NE	Railway Station	1892	1486032
D	21m NE	Railway Station	1931	1486032
D	24m NE	Railway Station	1938	1478218

ID	Location	Land Use	Date	Group ID
D	25m NE	Railway Station	1951	1520686
F	53m NE	Dock Yard	1938	1557901
F	53m NE	Dock Yard	1938	1557901
F	54m NE	Dock Yard	1948	1557901
F	54m NE	Dock Yard	1931	1557901
F	55m NE	Dock Yard	1951	1536622
D	63m NE	Railway Station	1982	1523447
D	63m NE	Railway Station	1966	1523447
D	70m NE	Railway Station	1993	1515714
F	73m NE	Unspecified Works	1966	1438240
F	75m NE	Unspecified Malthouse	1948	1540521
F	75m NE	Unspecified Malthouse	1905	1476225
F	75m NE	Unspecified Malthouse	1931	1476225
F	78m NE	Unspecified Commercial/Industrial	1993	1508470
F	78m NE	Unspecified Commercial/Industrial	1982	1508470
I	104m NW	Unspecified Mill	1993	1549967
I	104m NW	Unspecified Mill	1982	1512536
I	113m NW	Unspecified Mill	1966	1512536
J	120m E	Unspecified Works	1993	1498298
J	120m E	Unspecified Works	1982	1498298
F	133m NE	Unspecified Tanks	1993	1476827
F	133m NE	Unspecified Tanks	1982	1476827
F	139m NE	Malthouses	1951	1478043
F	140m NE	Malthouses	1938	1497178
I	142m NW	Unspecified Mill	1948	1491971
I	142m NW	Unspecified Mill	1931	1461948
I	147m NW	Unspecified Mills	1905	1541812
I	147m NW	Unspecified Mills	1892	1541812

ID	Location	Land Use	Date	Group ID
I	147m NW	Unspecified Mill	1988	1512536
K	147m NW	Railway Sidings	1965	1458283
K	147m NW	Railway Sidings	1956	1459391
I	152m NW	Unspecified Mill	1965	1512536
I	152m NW	Unspecified Mill	1975	1512536
L	157m NE	Unspecified Mill	1948	1526565
L	157m NE	Unspecified Mill	1931	1504465
M	158m N	Unspecified Mill	1993	1470860
M	158m N	Unspecified Mill	1982	1470860
M	158m N	Unspecified Mill	1966	1470860
M	159m N	Unspecified Mill	1905	1492316
L	160m NE	Unspecified Mill	1938	1471978
L	160m NE	Unspecified Mill	1951	1531028
L	162m E	Unspecified Works	1993	1476135
L	162m E	Unspecified Works	1982	1476135
L	162m E	Unspecified Mill	1966	1494312
M	163m N	Unspecified Mill	1948	1554849
M	163m N	Unspecified Mill	1931	1492316
M	166m N	Unspecified Mill	1951	1529822
M	167m N	Unspecified Mill	1938	1535845
N	169m E	Electricity Transformer Station	1993	1489310
N	169m E	Electricity Transformer Station	1982	1489310
I	171m NW	Unspecified Mill	1956	1504283
K	176m NW	Railway Sidings	1948	1530666
K	176m NW	Railway Sidings	1931	1536916
K	178m NW	Railway Sidings	1938	1530666
I	182m NW	Unspecified Mill	1938	1536504
L	227m E	Unspecified Works	1966	1555179

ID	Location	Land Use	Date	Group ID
C	236m E	Railway Building	1905	1429051
O	240m NE	Malthouses	1948	1555922
O	240m NE	Unspecified Malthouse	1905	1436346
O	240m NE	Malthouses	1931	1521000
L	240m E	Unspecified Works	1951	1519471
L	241m E	Unspecified Works	1938	1505478
O	242m NE	Malthouses	1951	1555922
L	246m E	Unspecified Works	1948	1519471
L	246m E	Unspecified Works	1905	1535611
L	246m E	Unspecified Malthouses	1892	1411398
L	246m E	Unspecified Works	1931	1535611
O	258m NE	Malthouses	1938	1510569
I	260m NW	Refuse Heap	1965	1470884
I	260m NW	Refuse Heap	1975	1470884
I	261m NW	Refuse Heap	1988	1546163
C	272m E	Railway Building	1951	1512185
C	273m E	Railway Buildings	1938	1517899
C	277m E	Railway Buildings	1938	1442104
C	280m E	Railway Building	1948	1548283
C	280m E	Railway Building	1905	1473397
C	280m E	Railway Building	1892	1473397
C	280m E	Railway Building	1931	1473397
S	282m S	Unspecified Old Quarry	1905	1440807
S	282m S	Unspecified Quarry	1892	1461850
S	282m S	Unspecified Ground Workings	1948	1496281
K	303m NW	Railway Sidings	1905	1485729
K	303m NW	Railway Sidings	1892	1508854
C	307m E	Railway Building	1892	1459071

ID	Location	Land Use	Date	Group ID
L	312m E	Unspecified Works	1993	1537782
L	312m E	Unspecified Works	1982	1537782
C	314m E	Railway Building	1966	1534760
S	316m S	Unspecified Quarry	1938	1469129
S	317m S	Unspecified Ground Workings	1951	1555996
S	317m S	Unspecified Heap	1966	1415197
C	319m E	Railway Building	1948	1505195
C	319m E	Railway Building	1905	1520808
C	319m E	Railway Building	1931	1520808
S	319m S	Unspecified Ground Workings	1931	1522720
C	319m E	Railway Buildings	1951	1530751
T	321m N	Fire Engine Station	1966	1420970
C	326m E	Railway Building	1966	1499845
U	328m SE	Unspecified Mills	1993	1538510
U	328m SE	Unspecified Mills	1982	1538510
U	343m SE	Unspecified Mill	1966	1421652
U	343m E	Unspecified Mills	1951	1464533
U	344m E	Unspecified Mills	1938	1463020
V	345m SW	Unspecified Pit	1988	1451932
W	346m NE	Fire Station	1993	1530017
W	346m NE	Fire Station	1982	1530017
U	348m E	Unspecified Mills	1948	1464533
U	348m E	Unspecified Mills	1905	1554455
U	348m E	Unspecified Mills	1892	1554455
U	348m E	Unspecified Mills	1931	1554455
V	348m SW	Unspecified Quarry	1948	1496384
V	348m SW	Unspecified Old Quarry	1905	1540020
V	348m SW	Unspecified Quarry	1892	1498529

ID	Location	Land Use	Date	Group ID
V	348m SW	Unspecified Old Quarry	1931	1540020
V	352m SW	Unspecified Quarry	1965	1462906
V	352m SW	Unspecified Quarry	1975	1462906
V	353m SW	Unspecified Quarry	1938	1512351
C	356m E	Railway Building	1931	1518072
C	357m E	Railway Building	1951	1483335
C	358m E	Railway Building	1938	1550179
C	363m E	Railway Building	1892	1464144
C	365m E	Railway Building	1951	1467432
C	365m E	Railway Building	1931	1467044
C	367m E	Railway Building	1938	1477989
C	372m E	Railway Buildings	1948	1530751
C	372m E	Railway Buildings	1905	1510438
C	372m E	Railway Buildings	1931	1510438
X	385m NW	Unspecified Malthouse	1948	1549842
X	385m NW	Unspecified Malthouse	1931	1478156
C	395m E	Railway Building	1966	1429050
Y	402m SW	Nursery	1905	1556918
Y	402m SW	Nursery	1892	1556918
Z	407m E	Dye Works	1951	1521762
X	409m NW	Unspecified Heap	1988	1475866
X	409m NW	Unspecified Heap	1965	1475866
X	409m NW	Unspecified Heap	1975	1475866
X	410m NW	Malthouse	1938	1428933
X	412m N	Unspecified Malthouse	1956	1492508
Z	416m E	Unspecified Works	1993	1547896
Z	416m E	Unspecified Mill	1982	1525465
Z	416m E	Unspecified Works	1966	1550287

ID	Location	Land Use	Date	Group ID
Z	419m E	Dye Works	1948	1520549
Z	419m E	Dye Works	1931	1474049
Z	421m E	Dye Works	1938	1474049
AA	424m E	Railway Building	1931	1524563
AA	425m E	Railway Building	1938	1524563
AA	426m E	Railway Building	1951	1543926
Z	440m E	Unspecified Mills	1931	1419277
Z	443m E	Unspecified Mill	1938	1485065
K	447m NW	Railway Building	1948	1459760
K	447m NW	Railway Building	1905	1546773
K	447m NW	Railway Building	1892	1546773
K	447m NW	Railway Building	1931	1546773
AB	453m NE	Police Station	1993	1542210
AB	453m NE	Police Station	1982	1542210
AB	453m NE	Police Station	1966	1542210
K	455m NW	Railway Building	1956	1540748
K	457m NW	Railway Building	1938	1539656
AD	461m S	Unspecified Shaft	1993	1483594
AD	461m S	Unspecified Shaft	1982	1483594
AE	464m NE	Unspecified Commercial/Industrial	1982	1410514
AE	464m NE	Unspecified Works	1966	1438227
X	467m NW	Unspecified Heap	1905	1511624
X	467m NW	Unspecified Heap	1892	1511624
AF	469m SE	Refuse Heap	1905	1436659
AF	469m SE	Unspecified Heap	1892	1415199
AG	476m N	Unspecified Heap	1988	1546220
AG	476m N	Unspecified Heap	1981	1546220
AI	494m NW	Unspecified Heap	1948	1526659

ID	Location	Land Use	Date	Group ID
AI	494m NW	Unspecified Heap	1931	1549073

This data is sourced from Ordnance Survey / Groundsure.

2.2 Historical tanks

Records within 500m	**54**

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 24**

ID	Location	Land Use	Date	Group ID
A	**On site**	**Unspecified Tank**	**1893**	**223671**
A	**On site**	**Tanks**	**1907**	**230540**
A	**On site**	**Filter Tanks**	**1922**	**247855**
A	**On site**	**Tanks**	**1933**	**230538**
A	**On site**	**Filter Tanks**	**1933**	**247855**
A	**On site**	**Unspecified Tank**	**1933**	**223670**
B	14m SE	Tanks	1999	230533
B	18m SE	Tanks	1893	230537
E	53m N	Unspecified Tank	1995	243053
E	54m N	Unspecified Tank	1989	238512
E	54m N	Unspecified Tank	1986	238512
I	127m NW	Filter Tanks	1922	241365
I	127m NW	Filter Tanks	1933	241365
D	131m E	Unspecified Tank	1957	245430
D	131m E	Unspecified Tank	1957	245430
F	133m NE	Tanks	1985	234578
F	133m NE	Tanks	1989	234578
F	134m NE	Tanks	1986	249238
I	136m NW	Tanks	1965	249666

ID	Location	Land Use	Date	Group ID
I	136m NW	Tanks	1933	249666
I	146m NW	Unspecified Tank	1933	223680
I	158m NW	Unspecified Tank	1933	223684
F	160m N	Tanks	1985	246569
F	161m N	Unspecified Tank	1986	223679
F	162m N	Tanks	1989	246569
I	164m NW	Unspecified Tank	1922	223683
I	167m NW	Gasometer	1893	229581
F	178m NE	Unspecified Tank	1965	223678
I	201m NW	Unspecified Tank	1957	223681
I	204m NW	Unspecified Tank	1893	249408
I	204m NW	Unspecified Tank	1907	249408
M	209m N	Unspecified Tank	1907	245047
M	209m N	Unspecified Tank	1922	245047
M	209m N	Unspecified Tank	1933	245047
L	262m E	Unspecified Tank	1907	223675
L	263m E	Unspecified Tank	1922	223674
R	274m NE	Unspecified Tank	1995	240001
R	275m NE	Unspecified Tank	1965	240001
R	275m NE	Unspecified Tank	1986	240001
M	281m N	Oil Tanks	1922	247185
M	281m N	Oil Tanks	1933	247185
L	290m E	Tanks	1933	230558
T	315m N	Unspecified Tank	1986	223677
L	389m E	Unspecified Tank	1989	223673
L	392m E	Unspecified Tank	1989	223676
C	409m E	Unspecified Tank	1957	238217
C	409m E	Unspecified Tank	1957	238217

ID	Location	Land Use	Date	Group ID
X	448m NW	Tanks	1957	242526
X	449m NW	Tanks	1957	242526
K	449m NW	Unspecified Tank	1957	239987
K	450m NW	Unspecified Tank	1957	239987
AH	484m W	Unspecified Tank	1893	234731
AH	484m W	Unspecified Tank	1907	234731
U	486m E	Unspecified Tank	1986	223669

This data is sourced from Ordnance Survey / Groundsure.

2.3 Historical energy features

Records within 500m	**35**

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 24**

ID	Location	Land Use	Date	Group ID
1	**On site**	**Electricity Substation**	**1985**	**129039**
B	18m E	Electricity Substation	1971	129040
G	76m N	Electricity Substation	1995	144389
G	77m N	Electricity Substation	1989	144389
H	77m SW	Electricity Substation	1971	145617
H	78m SW	Electricity Substation	1999	145617
H	78m SW	Electricity Substation	1989	145617
H	78m SW	Electricity Substation	1988	145617
F	130m NE	Electricity Substation	1995	129041
F	153m NE	Electricity Substation	1989	146923
F	154m NE	Electricity Substation	1986	146923
N	167m E	Electricity Transformer Station	1971	145010
N	167m E	Electricity Transformer Station	1999	135003

ID	Location	Land Use	Date	Group ID
N	167m E	Electricity Transformer Station	1989	145010
N	167m E	Electricity Transformer Station	1988	145010
I	167m NW	Gasometer	1893	131438
F	211m NE	Electricity Substation	1995	142211
F	211m NE	Electricity Substation	1989	142211
P	243m S	Electricity Substation	1989	143362
P	243m S	Electricity Substation	1988	143362
P	244m S	Electricity Substation	1971	143362
P	260m SE	Electricity Substation	1999	136854
2	286m SW	Electricity Substation	1999	129038
T	294m N	Electricity Substation	1989	141068
T	294m N	Electricity Substation	1986	141068
T	295m N	Electricity Substation	1995	141068
AB	427m NE	Electricity Substation	1986	140717
AB	427m NE	Electricity Substation	1985	142696
AB	427m NE	Electricity Substation	1989	142696
AB	432m NE	Electricity Substation	1995	136378
AC	450m E	Electricity Substation	1985	140113
AC	450m E	Electricity Substation	1989	140113
AC	451m E	Electricity Substation	1968	140113
U	494m E	Electricity Substation	1986	135699
U	495m E	Electricity Substation	1971	135699

This data is sourced from Ordnance Survey / Groundsure.

2.4 Historical petrol stations

Records within 500m	0

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

This data is sourced from Ordnance Survey / Groundsure.

2.5 Historical garages

Records within 500m	16

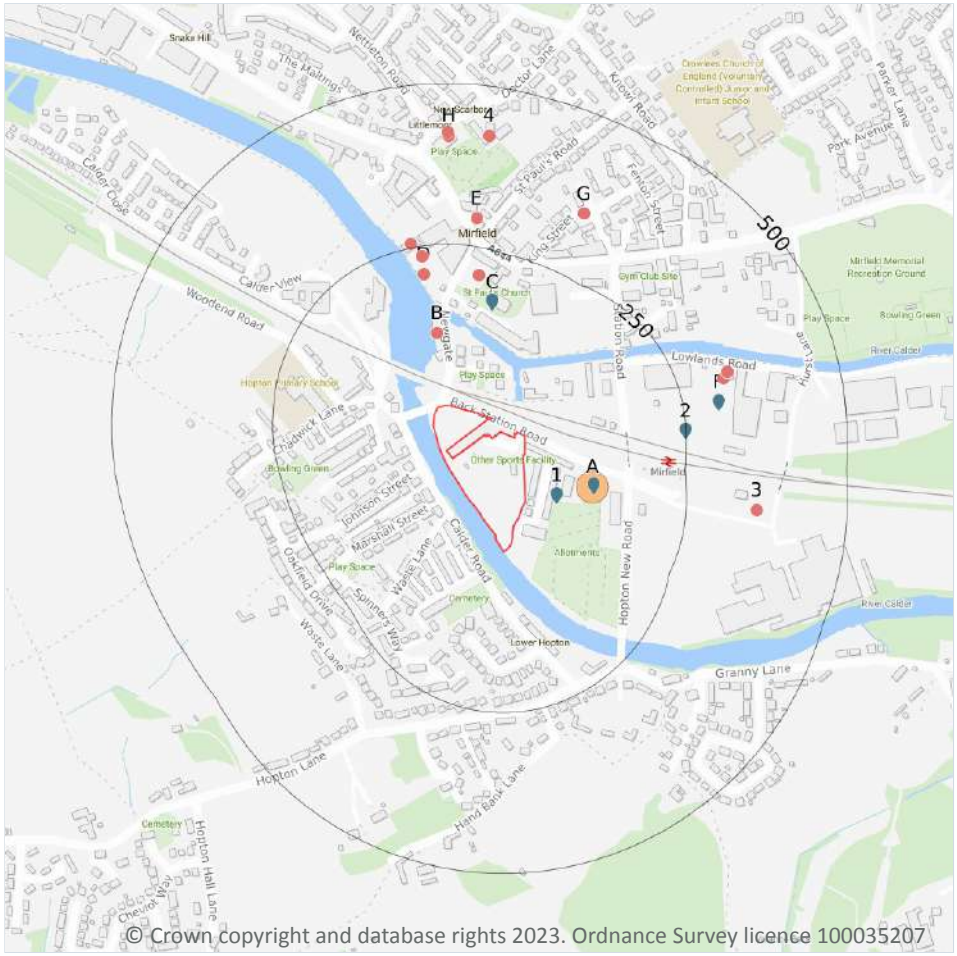
Garages digitised from historical Ordnance Survey mapping at high-detail 1:1,250 and 1:2,500 scale. Any records shown are available intelligently grouped in section 1. Grouped and the original un-grouped features can be cross-referenced across sections 1 and 2 using the 'Group ID'.

Features are displayed on the Past land use - un-grouped map on **page 24**

ID	Location	Land Use	Date	Group ID
G	84m N	Garage	1957	44026
G	84m N	Garage	1965	45746
G	84m N	Garage	1986	45746
G	84m N	Garage	1957	42366
G	84m N	Garage	1985	44752
G	84m N	Garage	1989	44752
G	96m N	Garage	1965	41101
G	107m N	Garage	1995	42085
F	168m N	Central Garage	1965	41817
F	168m N	Central Garage	1986	45902
F	183m N	Central Garage	1985	45902
Q	248m N	Central Garage	1957	42514
Q	249m N	Central Garage	1965	46465
Q	249m N	Central Garage	1957	46465
I	254m NW	Garage	1989	41105
X	402m NW	Garage	1989	41104

This data is sourced from Ordnance Survey / Groundsure.

3 Waste and landfill



Site Outline

Search buffers in metres (m)

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	0

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

This data is sourced from the British Geological Survey.

3.3 Historical landfill (LA/mapping records)

Records within 500m	0

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

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

3.4 Historical landfill (EA/NRW records)

Records within 500m	0

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

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

3.5 Historical waste sites

Records within 500m	1

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 37**

ID	Location	Address	Further Details	Date
A	79m E	Site Address: The Stone Yard, Back Station Road, MIRFIELD, West Yorkshire	Type of Site: Waste Transfer Station (c/u) Planning application reference: 94/62/90642/EO Description: Comprises c/u from storage compound into waste transfer station. An application (ref: 94/62/90642/EO) for Detailed Planning permission was submitted to Kirklees B.C. on 22nd February 1994. Data source: Historic Planning Application Data Type: Point	-

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

3.6 Licensed waste sites

Records within 500m	7

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

Features are displayed on the Waste and landfill map on **page 37**

ID	Location	Details		
1	48m E	Site Name: Boulds Bins Site Address: The Stone Yard, Back Station Road, Mirfield, Dewsbury, West Yorkshire, WF14 8NL Correspondence Address: -	Type of Site: Household, Commercial & Industrial Waste T Stn Size: 25000 tonnes Environmental Permitting Regulations (Waste) Licence Number: BOU001 EPR reference: EA/EPR/TP3795ZH/A001 Operator: Bould Peter Waste Management licence No: 61040 Annual Tonnage: 4999	Issue Date: 07/12/1994 Effective Date: - Modified: - Surrendered Date: - Expiry Date: - Cancelled Date: - Status: Issued
A	106m E	Site Name: The Stone Yard Site Address: The Stone Yard, Back Station Road, Mirfield, West Yorkshire, WF14 8NL Correspondence Address: -	Type of Site: Household, Commercial & Industrial Waste T Stn Size: 25000 tonnes Environmental Permitting Regulations (Waste) Licence Number: TIG001 EPR reference: EA/EPR/FB3204GP/T001 Operator: Tiger Skip Hire Ltd Waste Management licence No: 61040 Annual Tonnage: 4999	Issue Date: 07/12/1994 Effective Date: 14/07/2017 Modified: - Surrendered Date: - Expiry Date: - Cancelled Date: - Status: Transferred
C	172m N	Site Name: Fold Head Mills Site Address: Newgate, Mirfield, Dewsbury, West Yorkshire Correspondence Address: -	Type of Site: Household, Commercial & Industrial Waste Landfill Size: >= 25000 tonnes 75000 tonnes Environmental Permitting Regulations (Waste) Licence Number: BIF003 EPR reference: UP3195ZQ/S002 Operator: Biffa Waste Services Limited Waste Management licence No: 60994 Annual Tonnage: 250000	Issue Date: 31/07/1980 Effective Date: - Modified: - Surrendered Date: 23/10/2000 Expiry Date: - Cancelled Date: - Status: Surrendered

ID	Location	Details		
C	172m N	Site Name: Fold Head Mills Site Address: Newgate, Mirfield, Dewsbury, West Yorkshir Correspondence Address: -	Type of Site: Household, Commercial & Industrial Waste Landfill Size: >= 25000 tonnes 75000 tonnes Environmental Permitting Regulations (Waste) Licence Number: BIF003 EPR reference: EA/EPR/UP3195ZQ/S002 Operator: Biffa Waste Services Ltd Waste Management licence No: 60994 Annual Tonnage: 250000	Issue Date: 31/07/1980 Effective Date: - Modified: - Surrendered Date: Oct 23 2000 12:00AM Expiry Date: - Cancelled Date: - Status: Surrendered
C	172m N	Site Name: Fold Head Mills Site Address: Newgate, Mirfield, Dewsbury, West Yorkshir Correspondence Address: -	Type of Site: Household, Commercial & Industrial Waste Landfill Size: >= 75000 tonnes Environmental Permitting Regulations (Waste) Licence Number: BIF003 EPR reference: EA/EPR/UP3195ZQ/S002 Operator: Biffa Waste Services Ltd Waste Management licence No: 60994 Annual Tonnage: 250000	Issue Date: 31/07/1980 Effective Date: - Modified: - Surrendered Date: Oct 23 2000 12:00AM Expiry Date: - Cancelled Date: - Status: Surrendered
2	249m E	Site Name: Mirfield Auto Spares Site Address: Mirfield Auto Spares, Lowlands Road, Off Station Road, Mirfield, West Yorkshire, WF14 8LX Correspondence Address: -	Type of Site: ELV Facility Size: 25000 tonnes Environmental Permitting Regulations (Waste) Licence Number: 000138 EPR reference: EA/EPR/CP3792ZF/A001 Operator: Mr Khadim Hussain & Mrs Tanveer Kauser Hussain Waste Management licence No: 65371 Annual Tonnage: 2500	Issue Date: 08/07/2005 Effective Date: - Modified: - Surrendered Date: - Expiry Date: - Cancelled Date: - Status: Issued

ID	Location	Details		
F	304m E	Site Name: Mirfield Auto Spares Site Address: Mirfield Auto Spares, Lowlands Road, Off Station Road, Mirfield, West Yorkshire, WF14 8LX Correspondence Address: -	Type of Site: ELV Facility Size: 25000 tonnes Environmental Permitting Regulations (Waste) Licence Number: MIR007 EPR reference: EA/EPR/CB3103XH/T001 Operator: Mirfield Auto Spares Limited Waste Management licence No: 65371 Annual Tonnage: 2500	Issue Date: 08/07/2005 Effective Date: 15/03/2016 Modified: - Surrendered Date: - Expiry Date: - Cancelled Date: - Status: Transferred

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

3.7 Waste exemptions

Records within 500m **42**

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 37**

ID	Location	Site	Reference	Category	Sub-Category	Description
B	112m N	UNIT B2 Foldhead Mills, Newgate, Mirfield, WF14 8DB	WEX232900	Storing waste exemption	Not on a farm	Storage of waste in a secure place
B	112m N	UNIT B2 Foldhead Mills, Newgate, Mirfield, WF14 8DB	WEX232900	Storing waste exemption	Not on a farm	Storage of waste in secure containers
B	112m N	UNIT B2 Foldhead Mills, Newgate, Mirfield, WF14 8DB	WEX232900	Disposing of waste exemption	Not on a farm	Burning waste in the open
B	112m N	UNIT B2 Foldhead Mills, Newgate, Mirfield, WF14 8DB	WEX232900	Treating waste exemption	Not on a farm	Sorting mixed waste
B	112m N	UNIT B2 Foldhead Mills, Newgate, Mirfield, WF14 8DB	WEX232900	Treating waste exemption	Not on a farm	Recovery of scrap metal
B	112m N	UNIT B2 Foldhead Mills, Newgate, Mirfield, WF14 8DB	WEX232900	Treating waste exemption	Not on a farm	Preparatory treatments (baling, sorting, shredding etc)

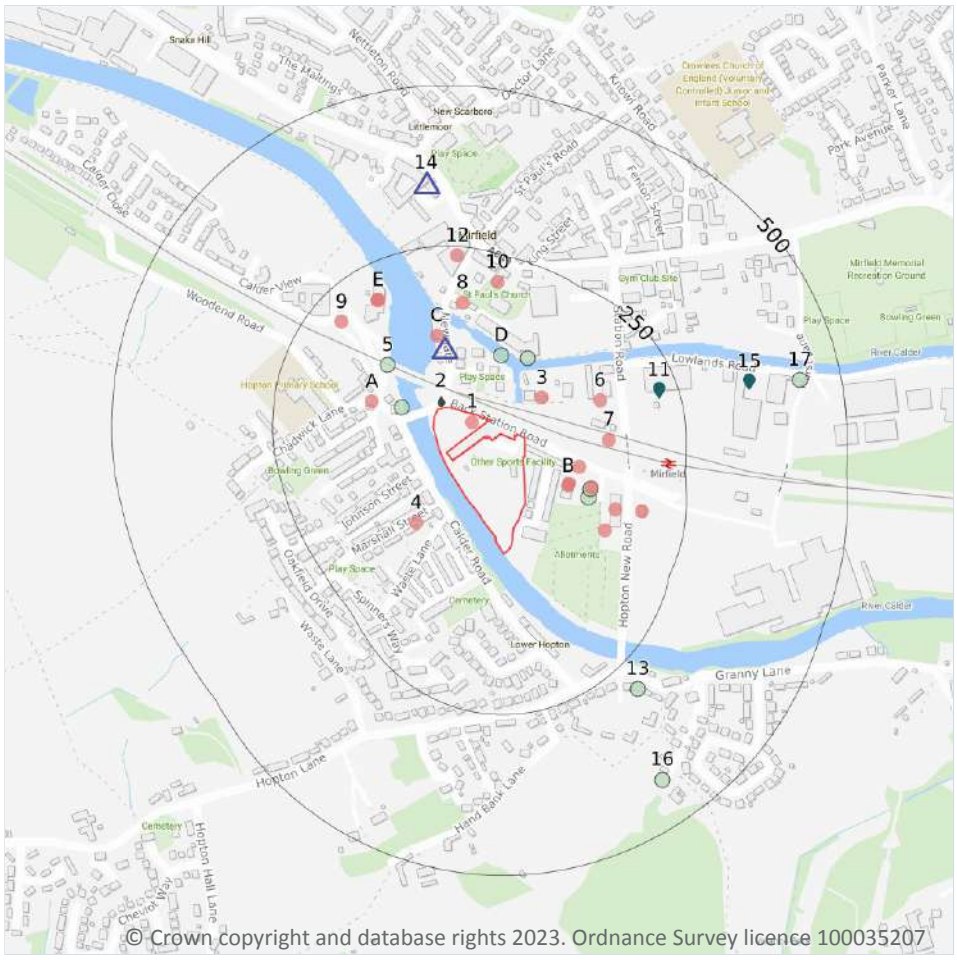
ID	Location	Site	Reference	Category	Sub-Category	Description
B	112m N	UNIT B2 Foldhead Mills, Newgate, Mirfield, WF14 8DB	WEX232900	Using waste exemption	Not on a farm	Burning of waste as a fuel in a small appliance
B	112m N	UNIT B2 Foldhead Mills, Newgate, Mirfield, WF14 8DB	WEX087113	Disposing of waste exemption	Not on a farm	Burning waste in the open
B	112m N	UNIT B2 Foldhead Mills, Newgate, Mirfield, WF14 8DB	WEX087113	Storing waste exemption	Not on a farm	Storage of waste in secure containers
B	112m N	UNIT B2 Foldhead Mills, Newgate, Mirfield, WF14 8DB	WEX087113	Storing waste exemption	Not on a farm	Storage of waste in a secure place
B	112m N	UNIT B2 Foldhead Mills, Newgate, Mirfield, WF14 8DB	WEX087113	Treating waste exemption	Not on a farm	Sorting mixed waste
B	112m N	UNIT B2 Foldhead Mills, Newgate, Mirfield, WF14 8DB	WEX087113	Treating waste exemption	Not on a farm	Preparatory treatments (baling, sorting, shredding etc)
B	112m N	UNIT B2 Foldhead Mills, Newgate, Mirfield, WF14 8DB	WEX087113	Treating waste exemption	Not on a farm	Recovery of scrap metal
B	112m N	UNIT B2 Foldhead Mills, Newgate, Mirfield, WF14 8DB	WEX087113	Using waste exemption	Not on a farm	Burning of waste as a fuel in a small appliance
D	206m N	UNIT 3 FOLDHEAD MILL WEST YORKSHIRE WF14 8DD	EPR/PF0001GU/A001	Using waste exemption	Non-Agricultural Waste Only	Burning of waste as a fuel in a small appliance
C	207m N	UNIT B2 Foldhead Mills, New gate, Mirfield, Dewsbury, WF14 8DD	WEX003048	Storing waste exemption	Not on a farm	Storage of waste in secure containers
C	207m N	UNIT B2 Foldhead Mills, New gate, Mirfield, Dewsbury, WF14 8DD	WEX003048	Storing waste exemption	Not on a farm	Storage of waste in a secure place
C	207m N	UNIT B2 Foldhead Mills, New gate, Mirfield, Dewsbury, WF14 8DD	WEX003048	Treating waste exemption	Not on a farm	Cleaning, washing, spraying or coating relevant waste
C	207m N	UNIT B2 Foldhead Mills, New gate, Mirfield, Dewsbury, WF14 8DD	WEX003048	Treating waste exemption	Not on a farm	Sorting mixed waste

ID	Location	Site	Reference	Category	Sub-Category	Description
C	207m N	UNIT B2 Foldhead Mills, New gate, Mirfield, Dewsbury, WF14 8DD	WEX003048	Treating waste exemption	Not on a farm	Manual treatment of waste
C	207m N	UNIT B2 Foldhead Mills, New gate, Mirfield, Dewsbury, WF14 8DD	WEX003048	Treating waste exemption	Not on a farm	Preparatory treatments (baling, sorting, shredding etc)
D	233m N	Foldhead Mills Newgate MIRFIELD West Yorkshire WF14 8DD	EPR/KF0739YL/A001	Storing waste exemption	Non-Agricultural Waste Only	Storage of waste in secure containers
D	233m N	Foldhead Mills Newgate MIRFIELD West Yorkshire WF14 8DD	EPR/KF0739YL/A001	Treating waste exemption	Non-Agricultural Waste Only	Cleaning, washing, spraying or coating relevant waste
D	233m N	Foldhead Mills Newgate MIRFIELD West Yorkshire WF14 8DD	EPR/KF0739YL/A001	Treating waste exemption	Non-Agricultural Waste Only	Preparatory treatments (baling, sorting, shredding etc)
D	256m N	Foldhead Mills Newgate MIRFIELD West Yorkshire WF14 8DD	EPR/HE5545NU/A001	Storing waste exemption	Non-Agricultural Waste Only	Storage of waste in a secure place
E	293m N	196, HUDDERSFIELD ROAD, MIRFIELD, WF14 8AZ	WEX155570	Storing waste exemption	Not on a Farm	Storage of waste in a secure place
E	293m N	196, HUDDERSFIELD ROAD, MIRFIELD, WF14 8AZ	WEX155570	Treating waste exemption	Not on a Farm	Sorting and de-naturing of controlled drugs for disposal
E	293m N	196, HUDDERSFIELD ROAD, MIRFIELD, WF14 8AZ	WEX155570	Storing waste exemption	Not on a Farm	Storage of waste in secure containers
E	293m N	196, HUDDERSFIELD ROAD, MIRFIELD, WF14 8AZ	WEX029777	Treating waste exemption	Not on a farm	Sorting and de-naturing of controlled drugs for disposal
F	321m E	Mirfield Auto Spares Ltd Lowlands road	EPR/UF0404LU/A001	Using waste exemption	Both agricultural and non-agricultural waste	Burning of waste as a fuel in a small appliance
F	329m E	LOWLANDS ROAD, MIRFIELD, WF14 8LX	WEX256850	Using waste exemption	Not on a farm	Use of depolluted end-of-life vehicles for vehicle parts
F	329m E	LOWLANDS ROAD, MIRFIELD, WF14 8LX	WEX256849	Disposing of waste exemption	Not on a farm	Burning waste in the open
F	329m E	LOWLANDS ROAD, MIRFIELD, WF14 8LX	WEX115652	Disposing of waste exemption	Not on a farm	Burning waste in the open

ID	Location	Site	Reference	Category	Sub-Category	Description
F	329m E	LOWLANDS ROAD, MIRFIELD, WF14 8LX	WEX082484	Disposing of waste exemption	Not on a farm	Burning waste in the open
G	349m N	CAVENDISH HOUSE 7-9, QUEEN STREET, MIRFIELD, WF14 8AH	WEX304656	Treating waste exemption	Not on a Farm	Sorting and de-naturing of controlled drugs for disposal
G	349m N	CAVENDISH HOUSE 7-9, QUEEN STREET, MIRFIELD, WF14 8AH	WEX316271	Treating waste exemption	Not on a Farm	Sorting and de-naturing of controlled drugs for disposal
G	349m N	CAVENDISH HOUSE 7-9, QUEEN STREET, MIRFIELD, WF14 8AH	WEX187819	Treating waste exemption	Not on a farm	Sorting and de-naturing of controlled drugs for disposal
3	359m E	Kirklees Roofing Hopton New Road Mirfield West Yorkshire WF14 8NF	EPR/RE5752FX/A001	Disposing of waste exemption	Agricultural Waste Only	Burning waste in the open
H	419m N	DOCTOR LANE, MIRFIELD, WF14 8DU	WEX231599	Storing waste exemption	Not on a farm	Storage of waste in secure containers
H	419m N	DOCTOR LANE, MIRFIELD, WF14 8DU	WEX087249	Storing waste exemption	Not on a farm	Storage of waste in secure containers
4	423m N	DOCTOR LANE, MIRFIELD, WF14 8DP	WEX250972	Treating waste exemption	Not on a farm	Sorting and de-naturing of controlled drugs for disposal
H	424m N	Mirfield Health Centre Doctor Lane MIRFIELD West Yorkshire WF14 8DU	EPR/NF0930VZ/A001	Treating waste exemption	Non-Agricultural Waste Only	Sorting and de-naturing of controlled drugs for disposal

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

4 Current industrial land use



4.1 Recent industrial land uses

Records within 250m	20

Current potentially contaminative industrial sites.

Features are displayed on the Current industrial land use map on **page 45**

ID	Location	Company	Address	Activity	Category
1	**On site**	**Electricity Sub Station**	**West Yorkshire, WF14**	**Electrical Features**	**Infrastructure and Facilities**
B	67m E	Works	West Yorkshire, WF14	Unspecified Works Or Factories	Industrial Features
3	68m NE	Mirfield Marina	10, Station Road, Mirfield, West Yorkshire, WF14 8NL	Moorings and Unloading Facilities	Water

ID	Location	Company	Address	Activity	Category
B	69m E	Automotive Electrical	Back Station Road, Mirfield, West Yorkshire, WF14 8NG	Vehicle Components	Industrial Products
B	86m E	Electricity Sub Station	West Yorkshire, WF14	Electrical Features	Infrastructure and Facilities
4	87m SW	Electricity Sub Station	West Yorkshire, WF14	Electrical Features	Infrastructure and Facilities
A	100m NW	Electricity Sub Station	West Yorkshire, WF14	Electrical Features	Infrastructure and Facilities
B	104m E	Tiger Skip Hire	The Stoneyard, Back Station Road, Mirfield, West Yorkshire, WF14 8NF	Construction and Tool Hire	Hire Services
C	112m N	Newgate Garage	Newgate, Mirfield, West Yorkshire, WF14 8DB	Vehicle Repair, Testing and Servicing	Repair and Servicing
6	130m NE	Electricity Sub Station	West Yorkshire, WF14	Electrical Features	Infrastructure and Facilities
7	130m E	Mirfield Rail Station	West Yorkshire, WF14	Railway Stations, Junctions and Halts	Public Transport, Stations and Infrastructure
B	131m SE	Station Business Park	West Yorkshire, WF14	Business Parks and Industrial Estates	Industrial Features
B	140m E	Mirfield Motor Care	Unit 1 Station Business Park, Back Station Road, Mirfield, West Yorkshire, WF14 8QF	Vehicle Repair, Testing and Servicing	Repair and Servicing
8	164m N	Electricity Sub Station	West Yorkshire, WF14	Electrical Features	Infrastructure and Facilities
B	182m E	Electricity Transformer Station	West Yorkshire, WF14	Electrical Features	Infrastructure and Facilities
E	194m NW	Murfield Tyres & Batteries	Butt End Mills, Chadwick Lane, Lower Hopton, Mirfield, West Yorkshire, WF14 8PW	Vehicle Parts and Accessories	Motoring
E	194m NW	Navigation Garage	Unit 23 Butt End Mills, Chadwick Lane, Lower Hopton, Mirfield, West Yorkshire, WF14 8PW	Vehicle Repair, Testing and Servicing	Repair and Servicing
9	202m NW	Electricity Sub Station	West Yorkshire, WF14	Electrical Features	Infrastructure and Facilities
10	208m N	Print Workshop	West Yorkshire, WF14	Unspecified Works Or Factories	Industrial Features

ID	Location	Company	Address	Activity	Category
12	236m N	Works	West Yorkshire, WF14	Unspecified Works Or Factories	Industrial Features

This data is sourced from Ordnance Survey.

4.2 Current or recent petrol stations

Records within 500m	**2**

Open, closed, under development and obsolete petrol stations.

Features are displayed on the Current industrial land use map on **page 45**

ID	Location	Company	Address	LPG	Status
C	93m N	WCF	Newgate, Mirfield, West Yorkshire, WF14 8DB	Not Applicable	Obsolete
14	350m N	OBSOLETE	117, Huddersfield Road, Mirfield, West Yorkshire, WF14 9DA	Not Applicable	Obsolete

This data is sourced from Experian.

4.3 Electricity cables

Records within 500m	**0**

High voltage underground electricity transmission cables.

This data is sourced from National Grid.

4.4 Gas pipelines

Records within 500m	**0**

High pressure underground gas transmission pipelines.

This data is sourced from National Grid.

4.5 Sites determined as Contaminated Land

Records within 500m	**0**

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

This data is sourced from Local Authority records.

4.6 Control of Major Accident Hazards (COMAH)

Records within 500m	0

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

This data is sourced from the Health and Safety Executive.

4.7 Regulated explosive sites

Records within 500m	0

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

This data is sourced from the Health and Safety Executive.

4.8 Hazardous substance storage/usage

Records within 500m	0

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

This data is sourced from Local Authority records.

4.9 Historical licensed industrial activities (IPC)

Records within 500m	0

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

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

4.10 Licensed industrial activities (Part A(1))

Records within 500m	0

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

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

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

Records within 500m	2

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 45**

ID	Location	Address	Details	
11	221m NE	Kruger Uk-Veolia Water Systems Ltd, Britannia Mills, Station Rd, Mirfield, WF14 8PT	Process: Coating Processes Status: Historical Permit Permit Type: Part B	Enforcement: No Enforcements Notified Date of enforcement: No Enforcements Notified Comment: No Enforcements Notified
15	358m E	British Bung Manufacturer, Lowland Rd, Mirfield, WF14 8LX	Process: Timber Manufacture 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	1

Discharges of treated or untreated effluent to controlled waters under the Water Resources Act 1991.

Features are displayed on the Current industrial land use map on **page 45**

ID	Location	Address	Details	
2	11m NW	NEWGATE CSO, NEWGATE/BACK STATION ROAD JCT, MIRFIELD, WEST YORKSHIRE	Effluent Type: SEWAGE DISCHARGES - SEWER STORM OVERFLOW - WATER COMPANY Permit Number: WRA9242 Permit Version: 1 Receiving Water: RIVER CALDER	Status: NEW CONSENT (WRA 91, S88 & SCHED 10 AS AMENDED BY ENV ACT 1995) Issue date: 03/09/2007 Effective Date: 03/09/2007 Revocation Date: -

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

4.14 Pollutant release to surface waters (Red List)

Records within 500m	0

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

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

4.15 Pollutant release to public sewer

Records within 500m	0

Discharges of Special Category Effluents to the public sewer.

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

4.16 List 1 Dangerous Substances

Records within 500m	0

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

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

4.17 List 2 Dangerous Substances

Records within 500m	0

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

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

4.18 Pollution Incidents (EA/NRW)

Records within 500m	9

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 45**

ID	Location	Details	
A	52m NW	Incident Date: 27/09/2007 Incident Identification: 534480 Pollutant: Contaminated Water Pollutant Description: Suspended Solids	Water Impact: Category 2 (Significant) Land Impact: Category 4 (No Impact) Air Impact: Category 4 (No Impact)
B	97m E	Incident Date: 24/03/2003 Incident Identification: 145532 Pollutant: Atmospheric Pollutants and Effects Pollutant Description: Smoke	Water Impact: Category 4 (No Impact) Land Impact: Category 4 (No Impact) Air Impact: Category 3 (Minor)
D	100m N	Incident Date: 08/06/2012 Incident Identification: 998956 Pollutant: Oils and Fuel Pollutant Description: Lubricating Oils	Water Impact: Category 2 (Significant) Land Impact: Category 4 (No Impact) Air Impact: Category 4 (No Impact)
B	101m E	Incident Date: 16/05/2003 Incident Identification: 158736 Pollutant: Atmospheric Pollutants and Effects Pollutant Description: Smoke	Water Impact: Category 4 (No Impact) Land Impact: Category 4 (No Impact) Air Impact: Category 3 (Minor)
5	103m NW	Incident Date: 16/09/2002 Incident Identification: 108185 Pollutant: Sewage Materials Pollutant Description: Crude Sewage	Water Impact: Category 4 (No Impact) Land Impact: Category 3 (Minor) Air Impact: Category 3 (Minor)
D	112m N	Incident Date: 10/08/2003 Incident Identification: 180780 Pollutant: Oils and Fuel Pollutant Description: Diesel	Water Impact: Category 3 (Minor) Land Impact: Category 4 (No Impact) Air Impact: Category 3 (Minor)
13	294m SE	Incident Date: 19/10/2001 Incident Identification: 37731 Pollutant: General Biodegradable Materials and Wastes Pollutant Description: Other General Biodegradable Material or Waste	Water Impact: Category 4 (No Impact) Land Impact: Category 3 (Minor) Air Impact: Category 3 (Minor)
16	428m SE	Incident Date: 11/10/2001 Incident Identification: 35924 Pollutant: Specific Waste Materials Pollutant Description: Other Specific Waste Material	Water Impact: Category 4 (No Impact) Land Impact: Category 3 (Minor) Air Impact: Category 4 (No Impact)
17	436m E	Incident Date: 16/08/2002 Incident Identification: 100963 Pollutant: Other Pollutant Pollutant Description: Other	Water Impact: Category 3 (Minor) Land Impact: Category 4 (No Impact) Air Impact: Category 4 (No Impact)

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

4.19 Pollution inventory substances

Records within 500m	0

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

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

4.20 Pollution inventory waste transfers

Records within 500m	0

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

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

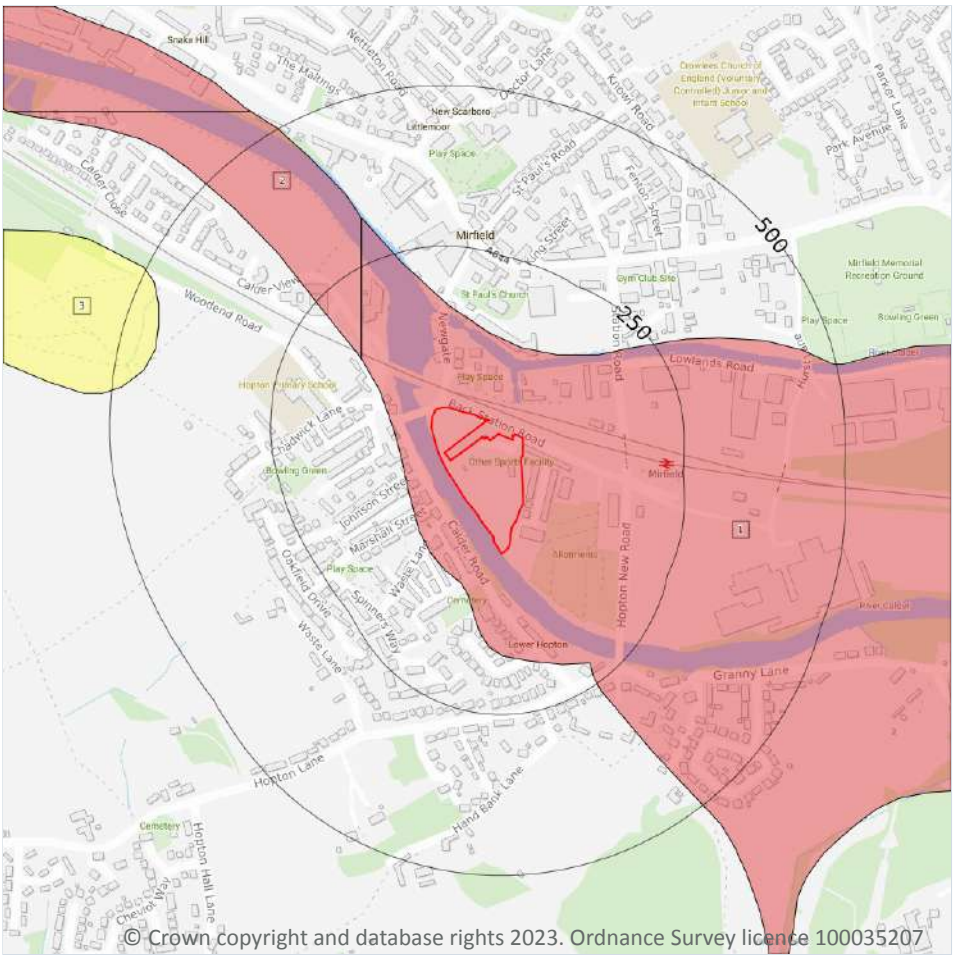
4.21 Pollution inventory radioactive waste

Records within 500m	0

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

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

5 Hydrogeology - Superficial aquifer



5.1 Superficial aquifer

Records within 500m	3

Aquifer status of groundwater held within superficial geology.

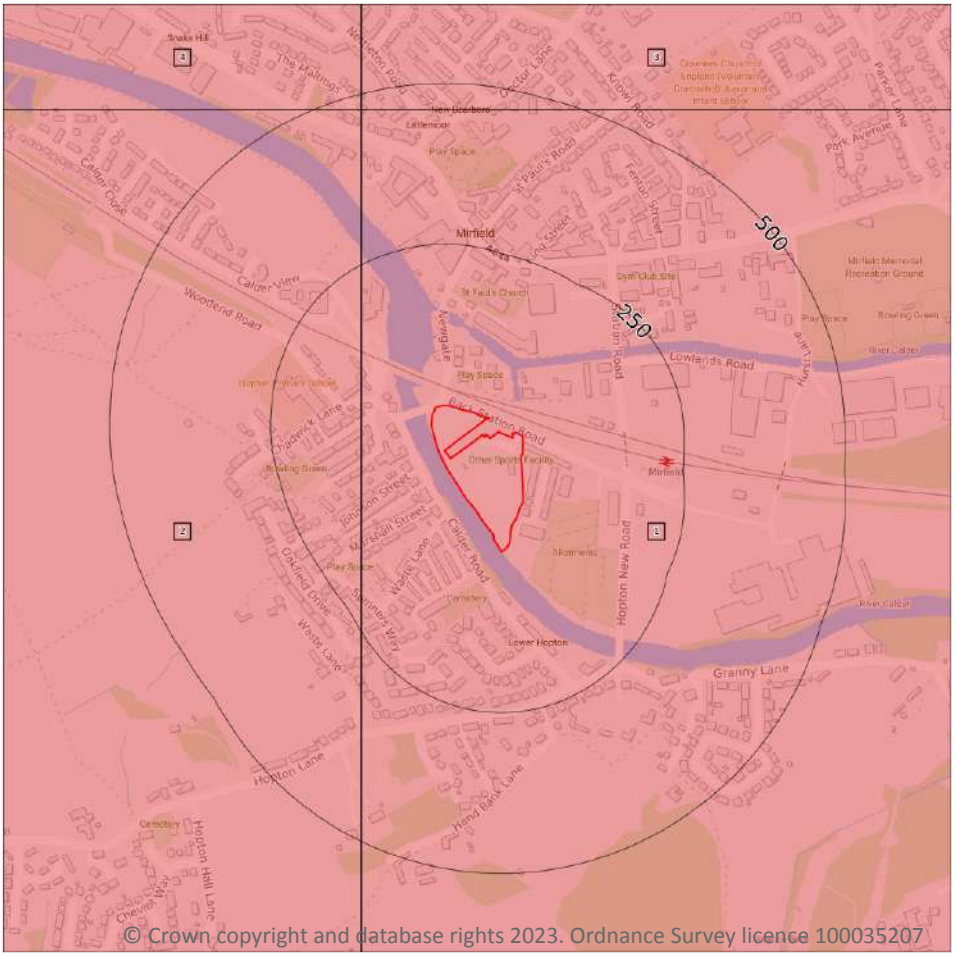
Features are displayed on the Hydrogeology map on **page 53**

ID	Location	Designation	Description
1	**On site**	**Secondary A**	**Permeable layers capable of supporting water supplies at a local rather than strategic scale, and in some cases forming an important source of base flow to rivers. These are generally aquifers formerly classified as minor aquifers**
2	140m NW	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

ID	Location	Designation	Description
3	443m W	Secondary Undifferentiated	Assigned where it is not possible to attribute either category A or B to a rock type. In general these layers have previously been designated as both minor and non-aquifer in different locations due to the variable characteristics of the rock type

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

Bedrock aquifer



Site Outline

Search buffers in metres (m)

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

5.2 Bedrock aquifer

Records within 500m	4

Aquifer status of groundwater held within bedrock geology.

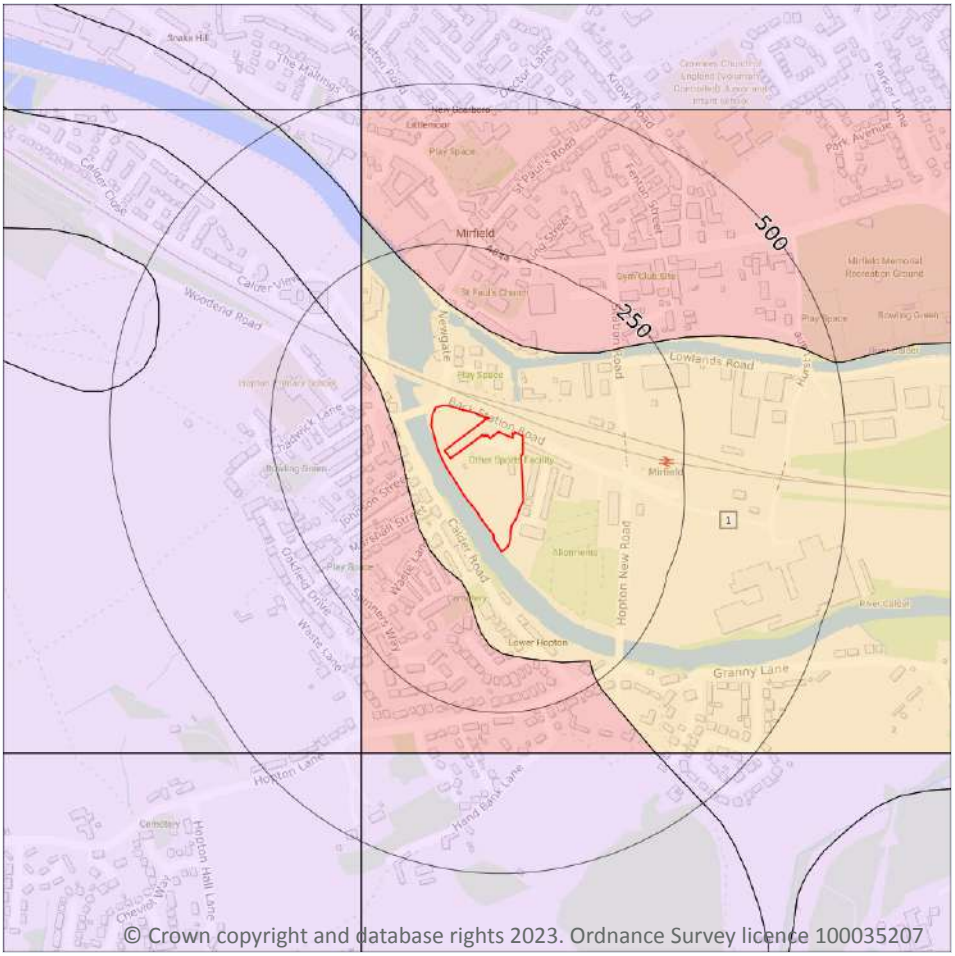
Features are displayed on the Bedrock aquifer map on **page 55**

ID	Location	Designation	Description
1	**On site**	**Secondary A**	**Permeable layers capable of supporting water supplies at a local rather than strategic scale, and in some cases forming an important source of base flow to rivers. These are generally aquifers formerly classified as minor aquifers**
2	109m W	Secondary A	Permeable layers capable of supporting water supplies at a local rather than strategic scale, and in some cases forming an important source of base flow to rivers. These are generally aquifers formerly classified as minor aquifers

ID	Location	Designation	Description
3	460m N	Secondary A	Permeable layers capable of supporting water supplies at a local rather than strategic scale, and in some cases forming an important source of base flow to rivers. These are generally aquifers formerly classified as minor aquifers
4	477m N	Secondary A	Permeable layers capable of supporting water supplies at a local rather than strategic scale, and in some cases forming an important source of base flow to rivers. These are generally aquifers formerly classified as minor aquifers

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

Groundwater vulnerability



Site Outline

Search buffers in metres (m)

Superficial vulnerability

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

Bedrock vulnerability

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

Other information

- Unproductive aquifer
- Soluble rock risk
- Local information

5.3 Groundwater vulnerability

Records within 50m	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 57**

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: 300-550mm/year**	**Vulnerability: High Aquifer type: Secondary Thickness: 3-10m Patchiness value: <90% Recharge potential: High**	**Vulnerability: High Aquifer type: Secondary Flow mechanism: Well connected fractures**

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

5.4 Groundwater vulnerability- soluble rock risk

Records on site	**0**

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

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

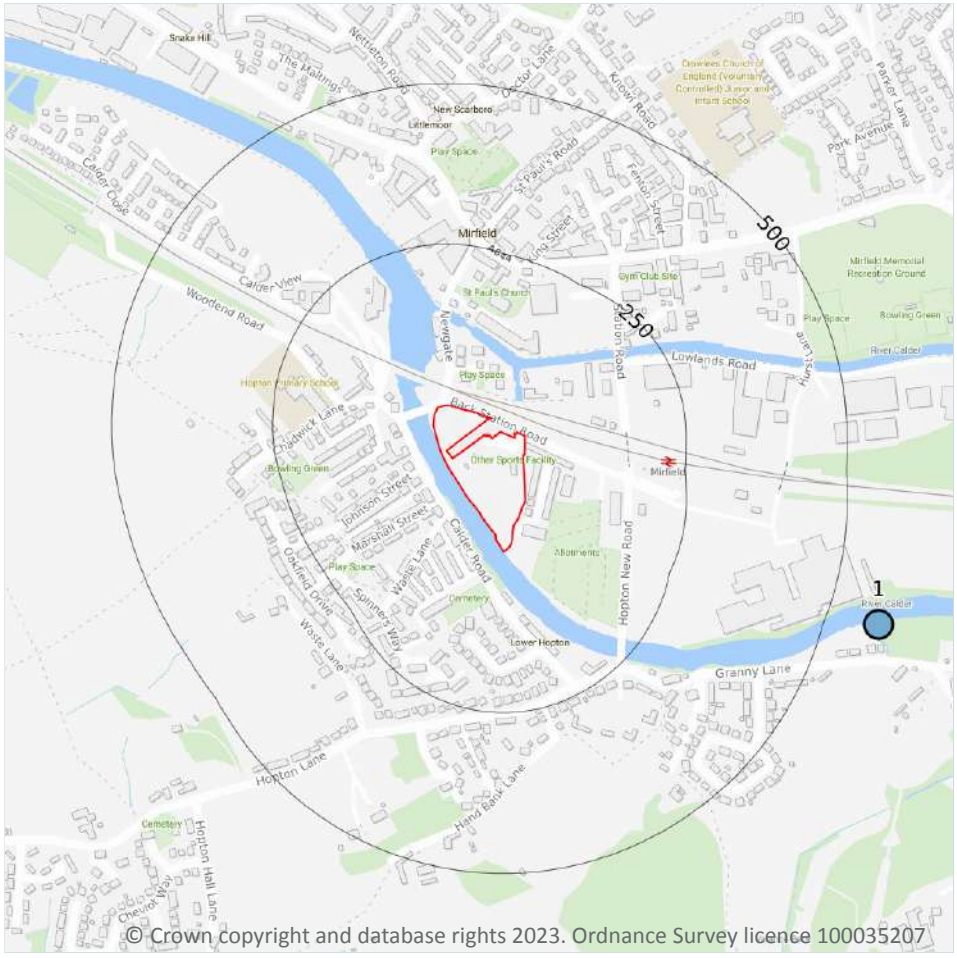
5.5 Groundwater vulnerability- local information

Records on site	**0**

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

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

Abstractions and Source Protection Zones



- Site Outline

Search buffers in metres (m)

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

5.6 Groundwater abstractions

Records within 2000m	15

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 59**

ID	Location	Details	
-	828m W	Status: Historical Licence No: 2/27/13/090 Details: General Farming & Domestic Direct Source: GROUNDWATERS Point: -- WELL Data Type: Point Name: DEWS Easting: 419300 Northing: 419700	Annual Volume (m^3): - Max Daily Volume (m^3): - Original Application No: - Original Start Date: 17/03/1966 Expiry Date: - Issue No: 100 Version Start Date: 26/03/1974 Version End Date: -
-	828m W	Status: Historical Licence No: 2/27/13/090 Details: General Farming & Domestic Direct Source: GROUNDWATERS Point: WELL - COAL MEASURES - COLNSBRIDGE BRADLEY Data Type: Point Name: DEWS Easting: 419300 Northing: 419700	Annual Volume (m^3): - Max Daily Volume (m^3): - Original Application No: - Original Start Date: 17/03/1966 Expiry Date: - Issue No: 100 Version Start Date: 26/03/1974 Version End Date: -
-	1149m E	Status: Historical Licence No: 2/27/13/192 Details: General use relating to Secondary Category (Medium Loss) Direct Source: GROUNDWATERS Point: BOREHOLE Data Type: Point Name: MITCHELL COTTS CHEMICALS LIMITED Easting: 421400 Northing: 419500	Annual Volume (m^3): - Max Daily Volume (m^3): - Original Application No: - Original Start Date: 03/09/1997 Expiry Date: 31/12/2006 Issue No: 100 Version Start Date: 03/09/1997 Version End Date: -
-	1149m E	Status: Historical Licence No: 2/27/13/192 Details: Non-Evaporative Cooling Direct Source: GROUNDWATERS Point: BOREHOLE Data Type: Point Name: MITCHELL COTTS CHEMICALS LIMITED Easting: 421400 Northing: 419500	Annual Volume (m^3): - Max Daily Volume (m^3): - Original Application No: - Original Start Date: 03/09/1997 Expiry Date: 31/12/2006 Issue No: 100 Version Start Date: 03/09/1997 Version End Date: -
-	1149m E	Status: Historical Licence No: 2/27/13/192 Details: General use relating to Secondary Category (Medium Loss) Direct Source: GROUNDWATERS Point: BOREHOLE - COAL MEASURES - MIRFIELD Data Type: Point Name: MITCHELL COTTS CHEMICALS LTD Easting: 421400 Northing: 419500	Annual Volume (m^3): - Max Daily Volume (m^3): - Original Application No: - Original Start Date: 03/09/1997 Expiry Date: 31/12/2006 Issue No: 100 Version Start Date: 03/09/1997 Version End Date: -

ID	Location	Details	
-	1149m E	Status: Historical Licence No: 2/27/13/192 Details: Non-Evaporative Cooling Direct Source: GROUNDWATERS Point: BOREHOLE - COAL MEASURES - MIRFIELD Data Type: Point Name: MITCHELL COTTS CHEMICALS LTD Easting: 421400 Northing: 419500	Annual Volume (m^3): - Max Daily Volume (m^3): - Original Application No: - Original Start Date: 03/09/1997 Expiry Date: 31/12/2006 Issue No: 100 Version Start Date: 03/09/1997 Version End Date: -
-	1151m E	Status: Active Licence No: NE/027/0013/014 Details: General Use Relating To Secondary Category (Medium Loss) Direct Source: GROUNDWATERS Point: BOREHOLE - COAL MEASURES - MIRFIELD Data Type: Point Name: DR REDDY'S LABORATORIES (EU) LTD Easting: 421401 Northing: 419548	Annual Volume (m^3): 13,800 Max Daily Volume (m^3): 80 Original Application No: NPS/WR/015219 Original Start Date: 08/07/2014 Expiry Date: 31/03/2027 Issue No: 1 Version Start Date: 08/07/2014 Version End Date: -
-	1151m E	Status: Active Licence No: NE/027/0013/014 Details: Non-Evaporative Cooling Direct Source: GROUNDWATERS Point: BOREHOLE - COAL MEASURES - MIRFIELD Data Type: Point Name: DR REDDY'S LABORATORIES (EU) LTD Easting: 421401 Northing: 419548	Annual Volume (m^3): 13,800 Max Daily Volume (m^3): 80 Original Application No: NPS/WR/015219 Original Start Date: 08/07/2014 Expiry Date: 31/03/2027 Issue No: 1 Version Start Date: 08/07/2014 Version End Date: -
-	1185m SE	Status: Historical Licence No: 2/27/13/219 Details: General Use Relating To Secondary Category (Medium Loss) Direct Source: GROUNDWATERS Point: BOREHOLE-COAL MEASURES-MIRFIELD Data Type: Point Name: HOPTON MILLS LTD Easting: 421160 Northing: 418590	Annual Volume (m^3): 100000 Max Daily Volume (m^3): 400 Original Application No: - Original Start Date: 01/01/2006 Expiry Date: 31/03/2015 Issue No: 3 Version Start Date: 02/06/2009 Version End Date: -
-	1185m SE	Status: Historical Licence No: 2/27/13/219 Details: Non-Evaporative Cooling Direct Source: GROUNDWATERS Point: BOREHOLE-COAL MEASURES-MIRFIELD Data Type: Point Name: YCPD (Wheatley Park) Ltd Easting: 421160 Northing: 418590	Annual Volume (m^3): 15100 Max Daily Volume (m^3): 145 Original Application No: - Original Start Date: 01/01/2006 Expiry Date: 31/03/2015 Issue No: 6 Version Start Date: 24/03/2013 Version End Date: -

ID	Location	Details	
-	1185m SE	Status: Active Licence No: 2/27/13/219/R01 Details: Non-Evaporative Cooling Direct Source: GROUNDWATERS Point: BOREHOLE-COAL MEASURES-MIRFIELD Data Type: Point Name: Wheatley Park Management Ltd Easting: 421160 Northing: 418590	Annual Volume (m^3): 15,100 Max Daily Volume (m^3): 145 Original Application No: NPS/WR/030859 Original Start Date: 01/04/2015 Expiry Date: 31/03/2027 Issue No: 4 Version Start Date: 03/05/2019 Version End Date: -
-	1292m SE	Status: Historical Licence No: 2/27/13/182 Details: General use relating to Secondary Category (Medium Loss) Direct Source: GROUNDWATERS Point: BOREHOLE Data Type: Point Name: INTERFACE FABRICS LIMITED Easting: 421300 Northing: 418600	Annual Volume (m^3): - Max Daily Volume (m^3): - Original Application No: - Original Start Date: 26/08/1996 Expiry Date: 31/12/2005 Issue No: 101 Version Start Date: 14/09/1999 Version End Date: -
-	1292m SE	Status: Historical Licence No: 2/27/13/182 Details: General use relating to Secondary Category (Medium Loss) Direct Source: GROUNDWATERS Point: BOREHOLE - COAL MEASURES - MIRFIELD Data Type: Point Name: INTERFACE FABRICS LTD Easting: 421300 Northing: 418600	Annual Volume (m^3): - Max Daily Volume (m^3): - Original Application No: - Original Start Date: 26/08/1996 Expiry Date: 31/12/2005 Issue No: 101 Version Start Date: 14/09/1999 Version End Date: -
-	1441m E	Status: Historical Licence No: 2/27/13/063 Details: General Farming & Domestic Direct Source: GROUNDWATERS Point: WELL Data Type: Point Name: BROOK Easting: 421600 Northing: 420000	Annual Volume (m^3): - Max Daily Volume (m^3): - Original Application No: - Original Start Date: 27/01/1966 Expiry Date: - Issue No: 100 Version Start Date: 12/01/1972 Version End Date: -
-	1441m E	Status: Historical Licence No: 2/27/13/063 Details: General Farming & Domestic Direct Source: GROUNDWATERS Point: WELL - COAL MEASURES - MIRFIELD Data Type: Point Name: BROOK Easting: 421600 Northing: 420000	Annual Volume (m^3): - Max Daily Volume (m^3): - Original Application No: - Original Start Date: 27/01/1966 Expiry Date: - Issue No: 100 Version Start Date: 12/01/1972 Version End Date: -

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

5.7 Surface water abstractions

Records within 2000m	1

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 59**

ID	Location	Details	
1	580m E	Status: Active Licence No: 2/27/13/050 Details: General Use Relating To Secondary Category (Medium Loss) Direct Source: SURFACE WATER Point: RIVER CALDER - HOLME BANK MILLS Data Type: Point Name: James Walker Textiles Ltd Easting: 420800 Northing: 419200	Annual Volume (m^3): 36,368 Max Daily Volume (m^3): 227.30 Original Application No: NPS/WR/001627 Original Start Date: 20/01/1966 Expiry Date: - Issue No: 101 Version Start Date: 15/06/2009 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.

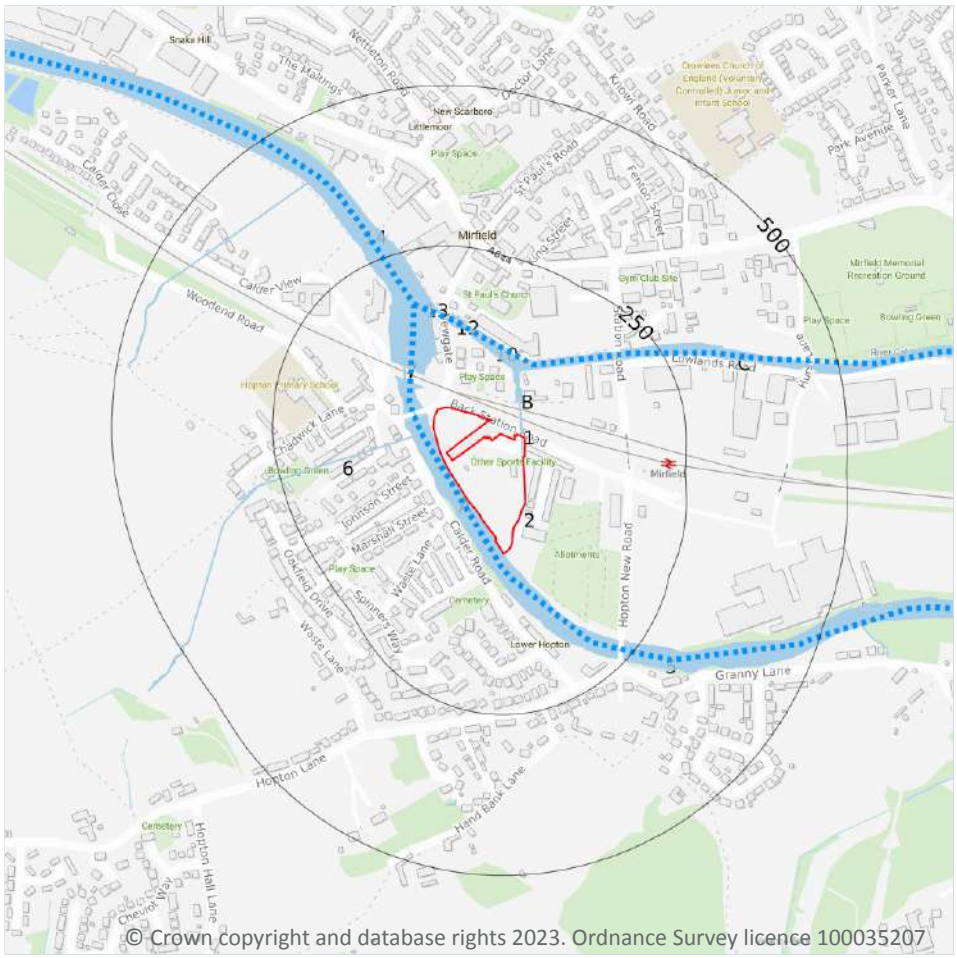
5.10 Source Protection Zones (confined aquifer)

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	13

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 65**

ID	Location	Type of water feature	Ground level	Permanence	Name
1	**On site**	**Inland river not influenced by normal tidal action.**	**Underground**	**Watercourse contains water year round (in normal circumstances)**	-

ID	Location	Type of water feature	Ground level	Permanence	Name
2	**On site**	**Inland river not influenced by normal tidal action.**	**On ground surface**	**Watercourse contains water year round (in normal circumstances)**	**-**
A	12m SW	Inland river not influenced by normal tidal action.	On ground surface	Watercourse contains water year round (in normal circumstances)	River Calder
5	15m S	Inland river not influenced by normal tidal action.	On ground surface	Watercourse contains water year round (in normal circumstances)	River Calder
6	20m NW	Inland river not influenced by normal tidal action.	Underground	Watercourse contains water year round (in normal circumstances)	-
7	20m NW	Inland river not influenced by normal tidal action.	On ground surface	Watercourse contains water year round (in normal circumstances)	River Calder
B	49m NE	Lock or flight of locks. An enclosure in a canal or navigable river with gates and sluices at either end.	On ground surface	Watercourse contains water year round (in normal circumstances)	-
B	69m N	Canal. A manmade watercourse for inland navigation.	On ground surface	Watercourse contains water year round (in normal circumstances)	-
10	94m N	Canal. A manmade watercourse for inland navigation.	On ground surface	Watercourse contains water year round (in normal circumstances)	River Calder
C	94m N	Canal. A manmade watercourse for inland navigation.	On ground surface	Watercourse contains water year round (in normal circumstances)	River Calder
12	125m N	Lock or flight of locks. An enclosure in a canal or navigable river with gates and sluices at either end.	On ground surface	Watercourse contains water year round (in normal circumstances)	River Calder
13	148m N	Canal. A manmade watercourse for inland navigation.	On ground surface	Watercourse contains water year round (in normal circumstances)	River Calder
14	189m NW	Inland river not influenced by normal tidal action.	On ground surface	Watercourse contains water year round (in normal circumstances)	River Calder

This data is sourced from the Ordnance Survey.

6.2 Surface water features

Records within 250m	6

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 65**

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 65**

ID	Location	Type	Water body catchment	Water body ID	Operational catchment	Management catchment
A	**On site**	**River**	**Calder from River Colne to River Chald**	**GB104027062631**	**Calder Lower**	**Aire and Calder**

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

6.4 WFD Surface water bodies

Records identified	2

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 65**

ID	Location	Type	Name	Water body ID	Overall rating	Chemical rating	Ecological rating	Year
4	7m W	River	Calder from River Colne to River Chald	GB104027062631	Moderate	Fail	Moderate	2019
11	108m N	Canal	Calder and Hebble Navigation (river and canal sections)	GB70410521	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**

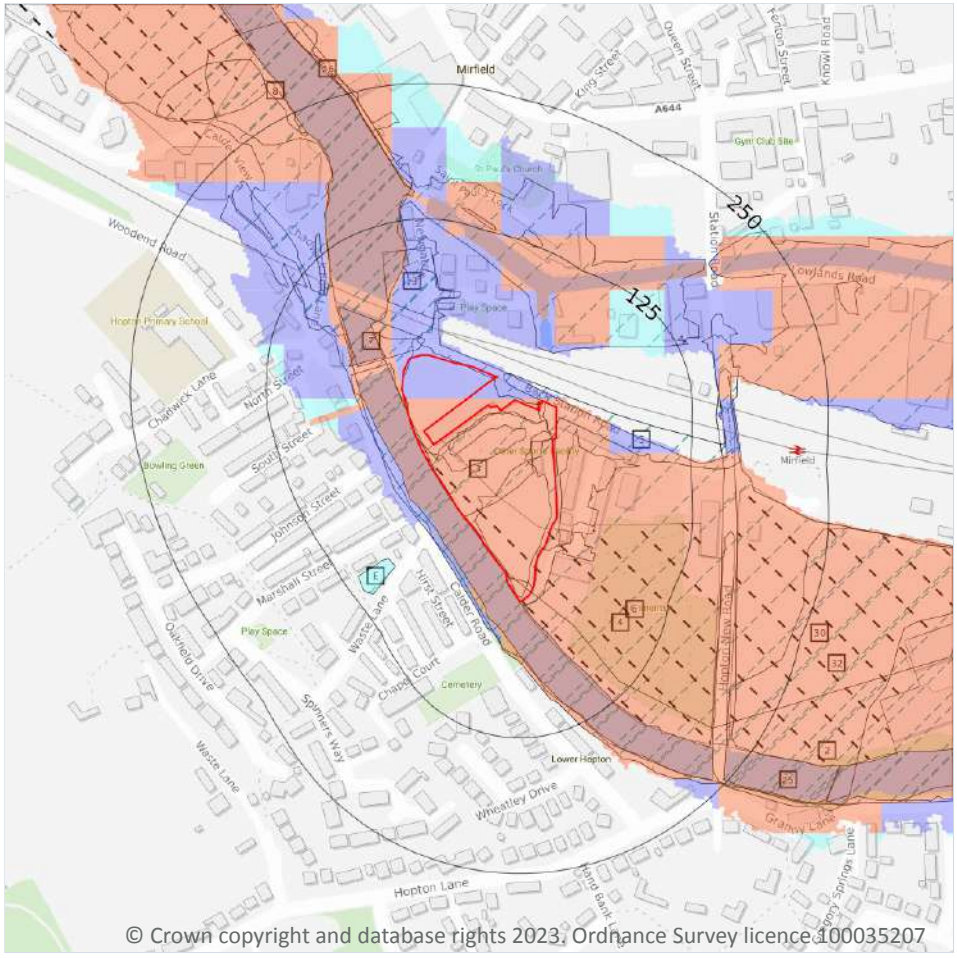
Groundwater bodies are also covered by the Directive and the same regime of objectives and reporting detailed in the previous section is in place. Click on the water body ID in the table to visit the EA Catchment Explorer to find out more about each groundwater body listed.

Features are displayed on the Hydrology map on **page 65**

ID	Location	Name	Water body ID	Overall rating	Chemical rating	Quantitative	Year
A	**On site**	**Aire & Calder Carb Limestone / Millstone Grit / Coal Measures.**	**GB40402G700400**	**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	15

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 69**

Distance	Flood risk category
On site	**High**
0 - 50m	High

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

7.2 Historical Flood Events

Records within 250m	**11**

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

Features are displayed on the River and coastal flooding map on **page 69**

ID	Location	Event name	Date of flood	Flood source	Flood cause	Type of flood
2	**On site**	**2020 February Flood Incident - Storm Ciara/dennis**	**2020-02-08 2020-03-19**	**Main river**	**Channel capacity exceeded (no raised defences)**	**Fluvial**
3	**On site**	**2020 February Flood Incident - Storm Ciara**	**2020-02-08 2020-02-14**	**Main river**	**Channel capacity exceeded (no raised defences)**	**Fluvial**
4	**On site**	**December 2015 Flood Event**	**2015-12-25 2015-12-29**	**Main river**	**Channel capacity exceeded (no raised defences)**	**Fluvial**
5	**On site**	**2020 February Flood Incident - Storm Ciara**	**2020-02-08 2020-02-14**	**Ordinary watercourse**	**Channel capacity exceeded (no raised defences)**	**Fluvial**
7	6m NW	2019 March Flooding Yorkshire	2019-03-14 2019-03-17	Main river	Unknown	Fluvial
8	16m NW	2020 February Flood Incident - Storm Ciara	2020-02-08 2020-02-14	Main river	Channel capacity exceeded (no raised defences)	Fluvial
13	33m N	2019 March Flooding Yorkshire	2019-03-14 2019-03-17	Main river	Unknown	Fluvial
E	78m SW	River Calder. Brighouse To Dewsbury	2002-02-10 2002-02-13	Main river	Channel capacity exceeded (no raised defences)	Fluvial
25	147m E	2022 February Flood Incident -Storm Dudley, Eunice	2022-02-20 2022-03-28	Main river	Channel capacity exceeded (no raised defences)	Fluvial
26	154m N	River Calder. Brighouse To Dewsbury	2002-02-10 2002-02-13	Main river	Channel capacity exceeded (no raised defences)	Fluvial

ID	Location	Event name	Date of flood	Flood source	Flood cause	Type of flood
32	203m SE	2020 February Flood Incident - Storm Ciara	2020-02-08 2020-02-14	Main river	Channel capacity exceeded (no raised defences)	Fluvial

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

7.3 Flood Defences

Records within 250m	**0**

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

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

7.4 Areas Benefiting from Flood Defences

Records within 250m	**0**

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

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

7.5 Flood Storage Areas

Records within 250m	**2**

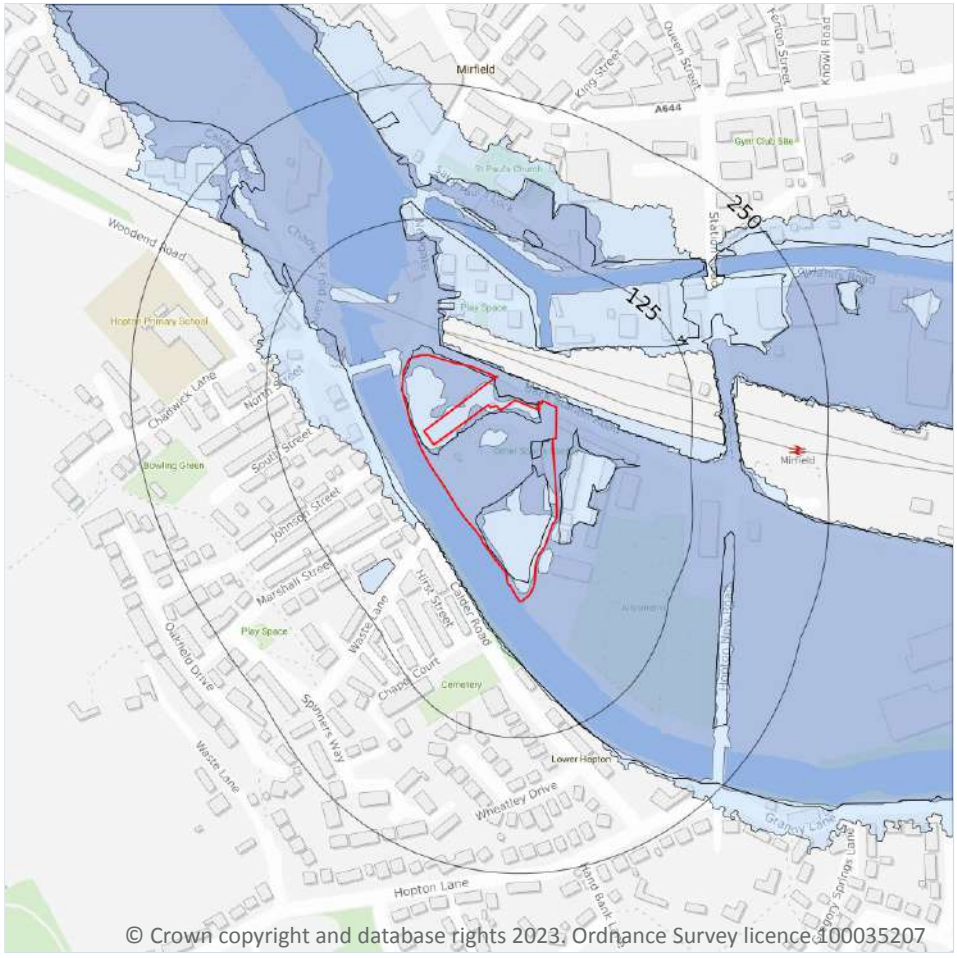
Areas that act as a balancing reservoir, storage basin or balancing pond to attenuate an incoming flood peak to a flow level that can be accepted by the downstream channel or to delay the timing of a flood peak so that its volume is discharged over a longer period.

Features are displayed on the River and coastal flooding map on **page 69**

ID	Location	Update
6	**On site**	**Flood Storage Area**
30	167m E	Flood Storage Area

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

River and coastal flooding - Flood Zones



7.6 Flood Zone 2

Records within 50m	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 69**

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

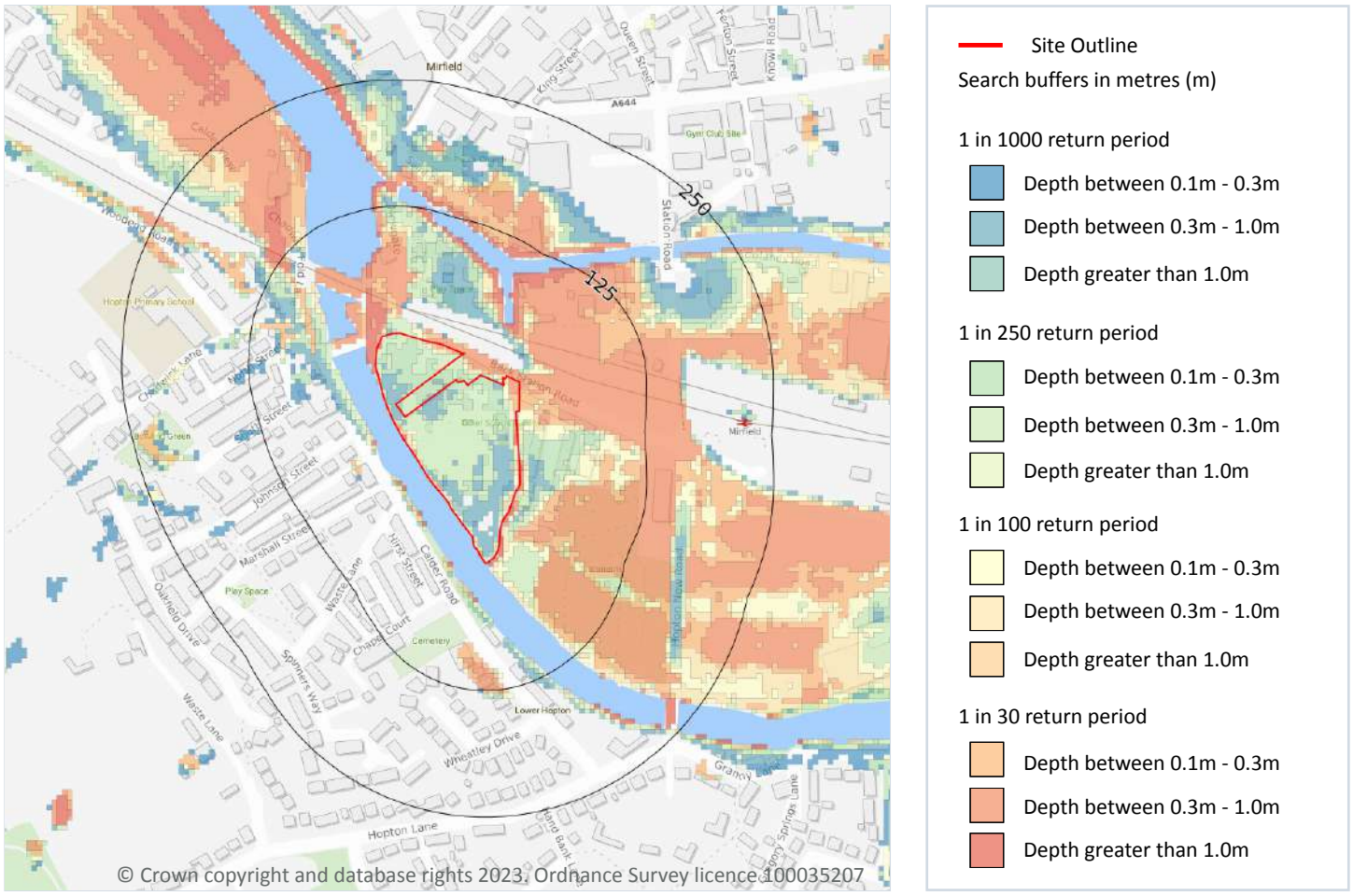
Areas of land at risk of flooding, when the presence of flood defences are ignored. Covering land with a 1 in 100 (1%) or greater chance of flooding each year from rivers or a 1 in 200 (0.5%) or greater chance of flooding each year from the sea.

Features are displayed on the River and coastal flooding map on **page 69**

Location	Type
On site	**Zone 3 - (Fluvial /Tidal Models)**

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

8 Surface water flooding



8.1 Surface water flooding

Highest risk on site	**1 in 30 year, Greater than 1.0m**
Highest risk within 50m	**1 in 30 year, Greater than 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 74**

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	Greater than 1.0m
1 in 250 year	Greater than 1.0m
1 in 100 year	Greater than 1.0m
1 in 30 year	Greater than 1.0m

This data is sourced from Ambiental Risk Analytics.

9 Groundwater flooding

Site Outline

Search buffers in metres (m)

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

9.1 Groundwater flooding

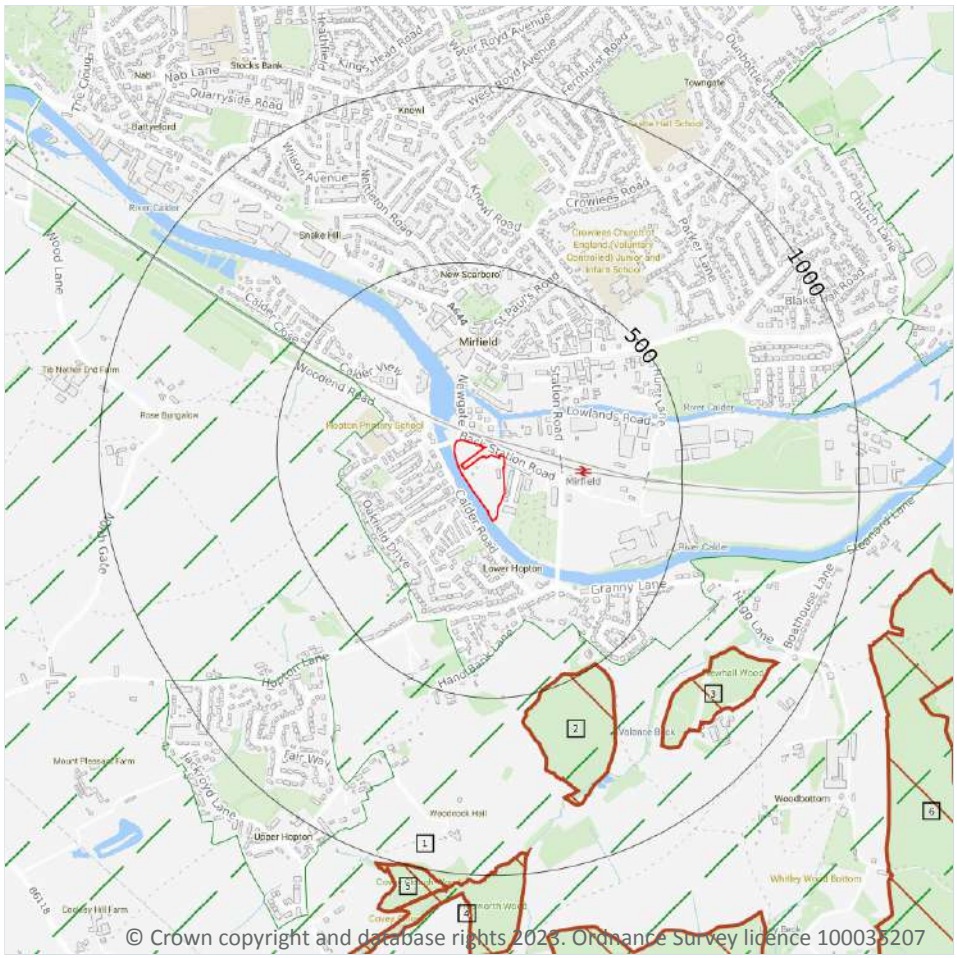
Highest risk on site	**Low**
Highest risk within 50m	**Low**

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

Features are displayed on the Groundwater flooding map on **page 76**

This data is sourced from Ambiental Risk Analytics.

10 Environmental designations



10.1 Sites of Special Scientific Interest (SSSI)

Records within 2000m	0

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

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

10.2 Conserved wetland sites (Ramsar sites)

Records within 2000m	0

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

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

10.3 Special Areas of Conservation (SAC)

Records within 2000m	0

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

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

10.4 Special Protection Areas (SPA)

Records within 2000m	0

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

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

10.5 National Nature Reserves (NNR)

Records within 2000m	0

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

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

10.6 Local Nature Reserves (LNR)

Records within 2000m	0

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

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

10.7 Designated Ancient Woodland

Records within 2000m	9

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 77**

ID	Location	Name	Woodland Type
2	476m S	Briery Bank	Ancient Replanted Woodland
3	703m SE	Newhall Wood	Ancient Replanted Woodland
4	939m S	Hepworth Wood	Ancient Replanted Woodland
5	999m S	Hepworth Wood	Ancient & Semi-Natural Woodland
6	1112m SE	Whitley Wood/hagg Wood	Ancient Replanted Woodland
7	1171m S	Gregory Spring	Ancient Replanted Woodland
-	1558m W	Heaton Hall Wood	Ancient Replanted Woodland
-	1793m E	Oliver Wood	Ancient Replanted Woodland
-	1946m S	Hutchin Wood	Ancient & Semi-Natural Woodland

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

10.8 Biosphere Reserves

Records within 2000m	0

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

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

10.9 Forest Parks

Records within 2000m	0

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

This data is sourced from the Forestry Commission.

10.10 Marine Conservation Zones

Records within 2000m	0

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

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

10.11 Green Belt

Records within 2000m	2

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

Features are displayed on the Environmental designations map on **page 77**

ID	Location	Name	Local Authority name
1	215m NW	South and West Yorkshire	Kirklees
8	1195m E	South and West Yorkshire	Kirklees

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

10.12 Proposed Ramsar sites

Records within 2000m	0

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

This data is sourced from Natural England.

10.13 Possible Special Areas of Conservation (pSAC)

Records within 2000m	0

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

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

10.14 Potential Special Protection Areas (pSPA)

Records within 2000m	0

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

This data is sourced from Natural England.

10.15 Nitrate Sensitive Areas

Records within 2000m	0

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

This data is sourced from Natural England.

10.16 Nitrate Vulnerable Zones

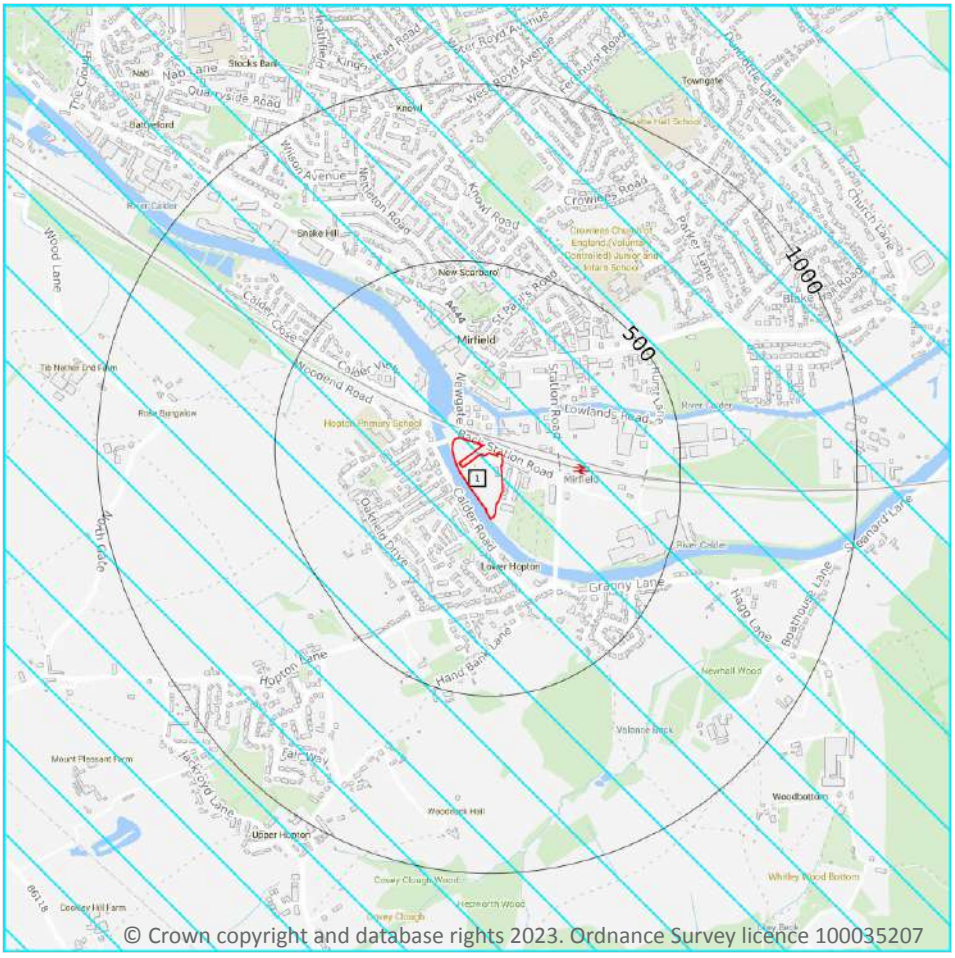
Records within 2000m	1

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

Location	Name	Type	NVZ ID	Status
1686m NE	Spen Beck from Source to River Calder NVZ	Surface Water	271	Existing

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 83**

ID	Location	Type of developments requiring consultation
1	On site	**Air pollution - Livestock & poultry units with floorspace > 500m², slurry lagoons & digestate stores > 4000m². Combustion - General combustion processes >50mw energy input. incl: energy from waste incineration, other incineration, landfill gas generation plant, pyrolysis/gasification, anaerobic digestion, sewage treatment works, other incineration/ combustion.**

This data is sourced from Natural England.

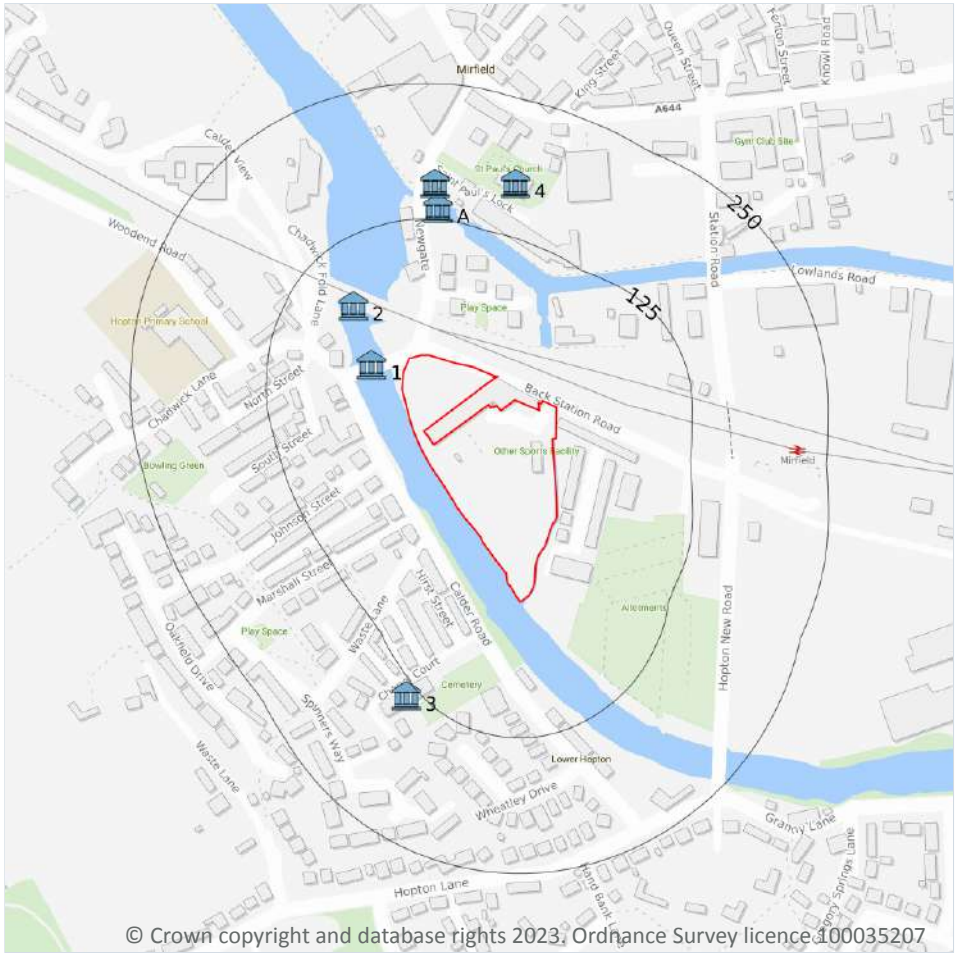
10.18 SSSI Units

Records within 2000m	0

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

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

11 Visual and cultural designations



11.1 World Heritage Sites

Records within 250m	0

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

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

11.2 Area of Outstanding Natural Beauty

Records within 250m	0

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

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

11.3 National Parks

Records within 250m	0

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

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

11.4 Listed Buildings

Records within 250m	6

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

Features are displayed on the Visual and cultural designations map on **page 85**

ID	Location	Name	Grade	Reference Number	Listed date
1	30m NW	Ledgard Bridge (Over River Calder), Mirfield, Kirklees, WF14	II	1183989	03/07/1985
2	71m NW	Railway Bridge Over River Calder (Mirfield Cooper Bridge Line), Mirfield, Kirklees, WF14	II	1313676	03/07/1985
A	135m N	Calder and Hebble Navigation Flood Lock At Newgate Bridge, Mirfield, Kirklees, WF14	II	1134676	03/07/1985
3	136m S	Hopton Congregational Church, Mirfield, Kirklees, WF14	II*	1134675	30/04/1982
A	158m N	Former Lock-Keepers Cottage, Mirfield, Kirklees, WF14	II	1134688	03/07/1985

ID	Location	Name	Grade	Reference Number	Listed date
4	174m N	Church of St Paul, Mirfield, Kirklees, WF14	II	1134683	03/07/1985

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

11.5 Conservation Areas

Records within 250m	0

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

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

11.6 Scheduled Ancient Monuments

Records within 250m	0

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

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

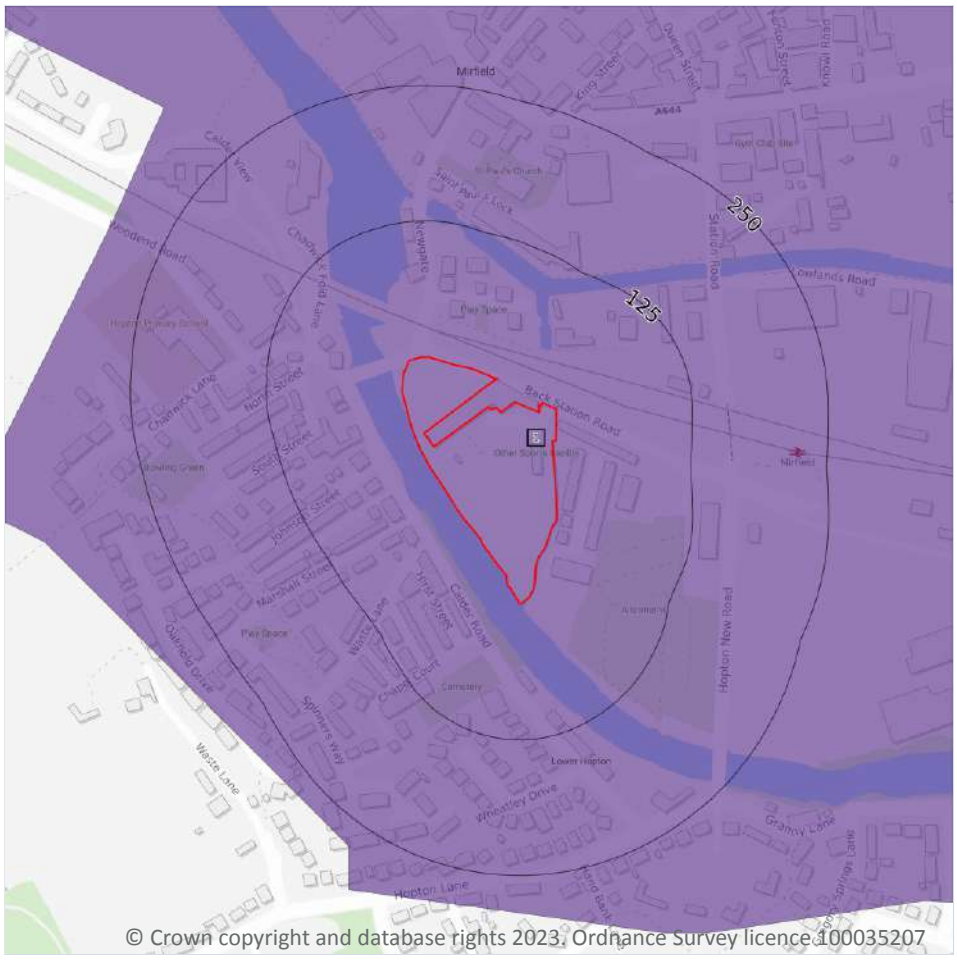
11.7 Registered Parks and Gardens

Records within 250m	0

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

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

12 Agricultural designations



Site Outline

Search buffers in metres (m)

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

12.1 Agricultural Land Classification

Records within 250m	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 88**

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.

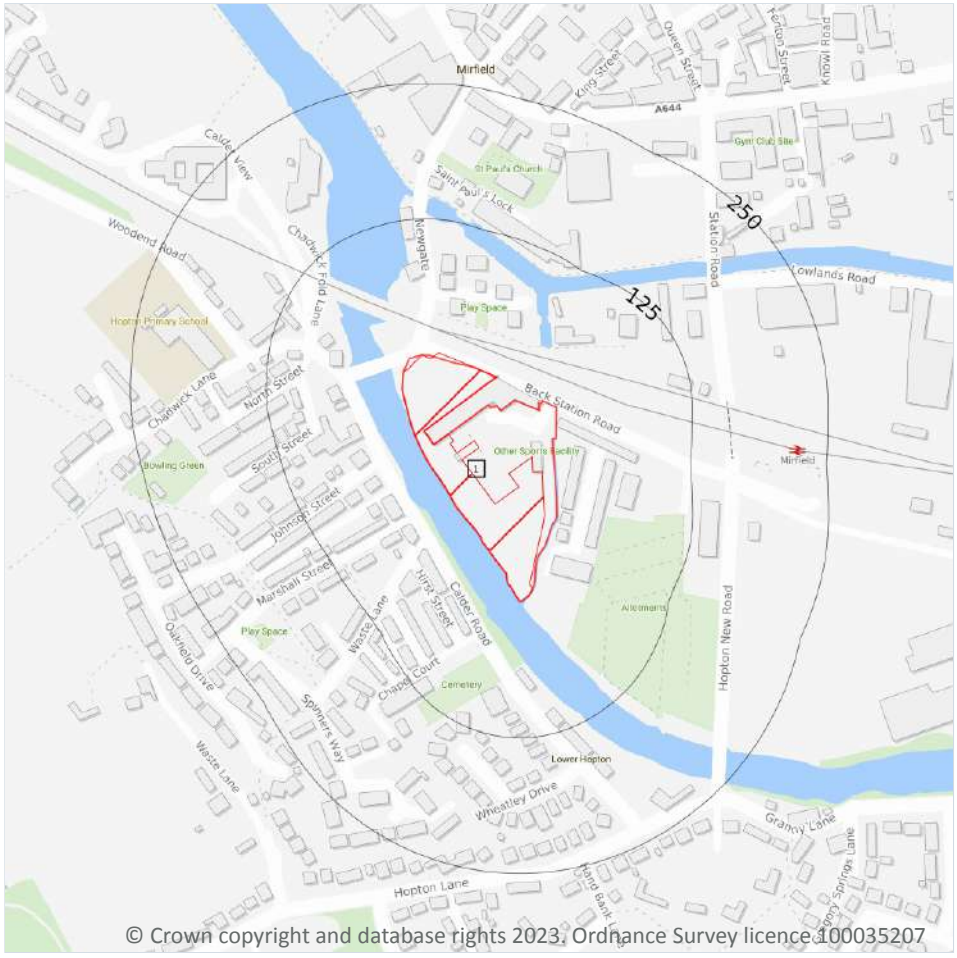
12.5 Countryside Stewardship Schemes

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	0

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

This data is sourced from Natural England.

13.2 Habitat Networks

Records within 250m	0

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

This data is sourced from Natural England.

13.3 Open Mosaic Habitat

Records within 250m	1

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.

Features are displayed on the Habitat designations map on **page 90**

ID	Location	Site reference	Identification confidence	Primary source	Secondary source	Tertiary source
1	**On site**	**NLUD Ref: 471801651**	**Low**	**National Land Use Database - Previously Developed Land**	**UK Perspectives Aerial Photography**	**-**

This data is sourced from Natural England.

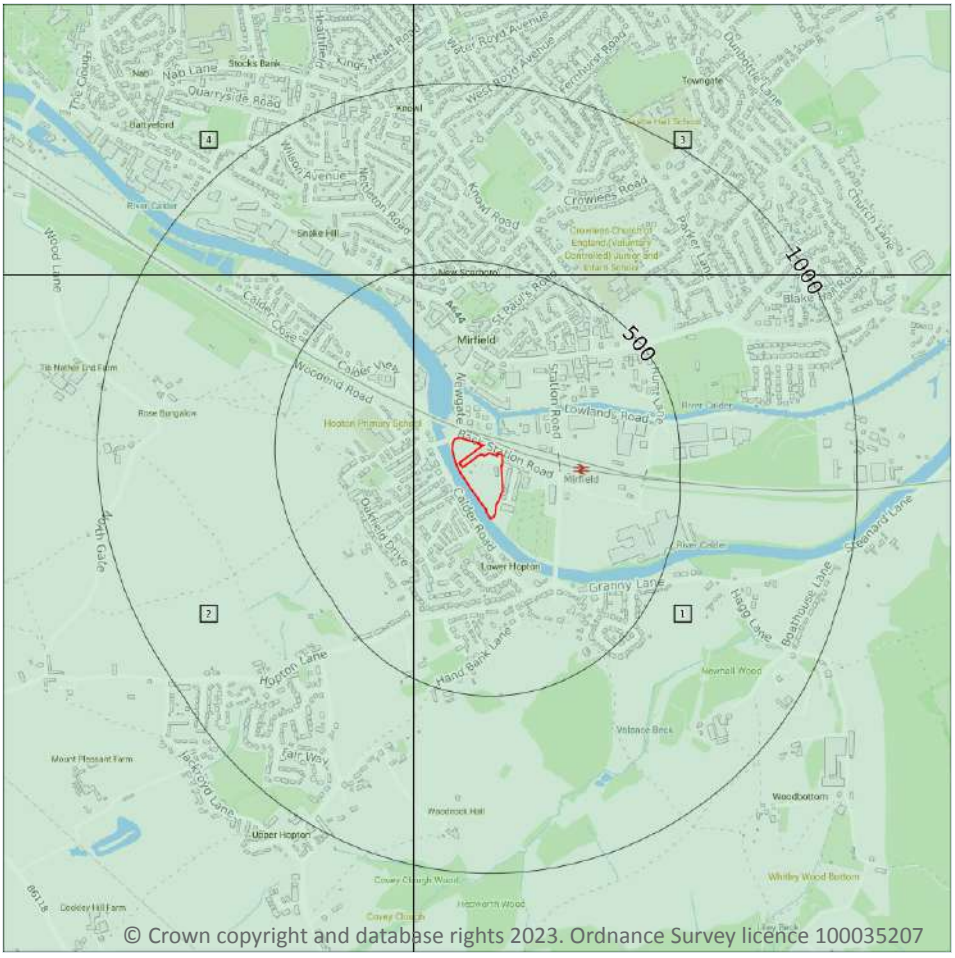
13.4 Limestone Pavement Orders

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	4

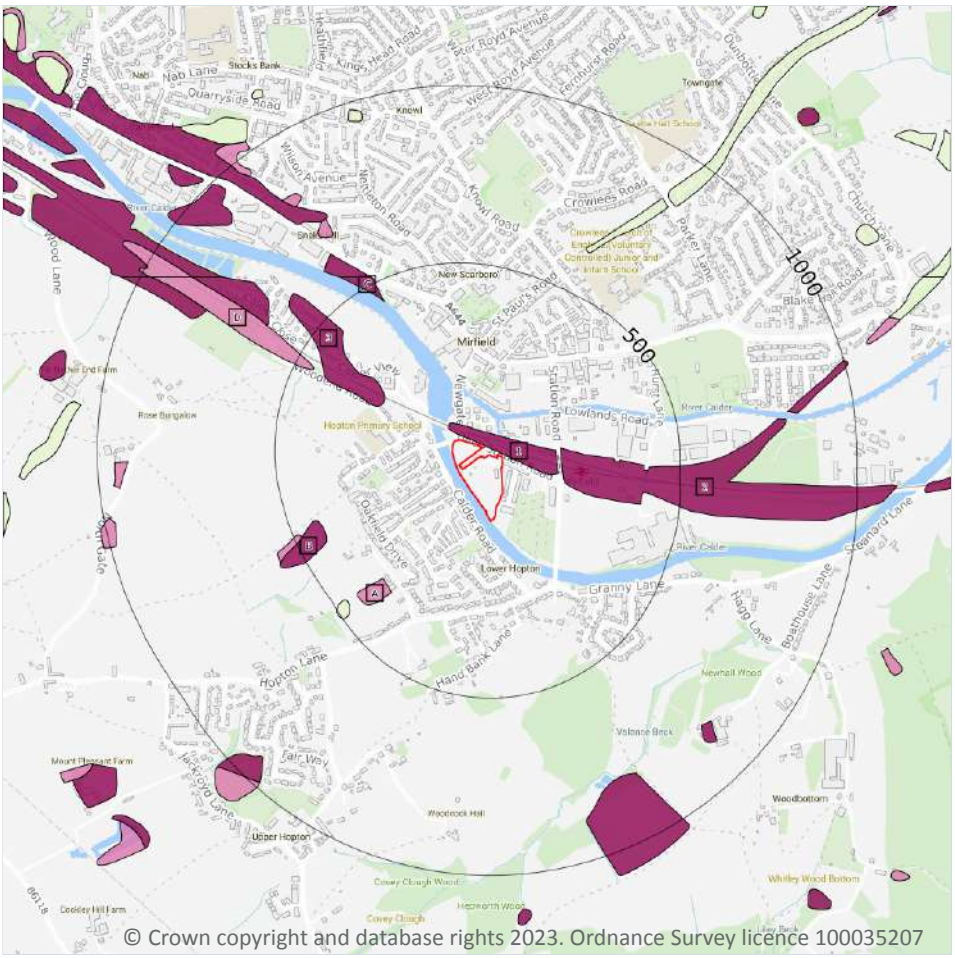
An indication on the coverage of 1:10,000 scale geology data for the site, the most detailed dataset provided by the British Geological Survey. Either 'Full', 'Partial' or 'No coverage' for each geological theme.

Features are displayed on the Geology 1:10,000 scale - Availability map on **page 92**

ID	Location	Artificial	Superficial	Bedrock	Mass movement	Sheet No.
1	**On site**	**Full**	**Full**	**Full**	**Full**	**SE21NW**
2	109m W	Full	Full	Full	Full	SE11NE
3	460m N	Full	Full	Full	Full	SE22SW
4	477m N	Full	Full	Full	Full	SE12SE

This data is sourced from the British Geological Survey.

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



14.2 Artificial and made ground (10k)

Records within 500m	9

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.

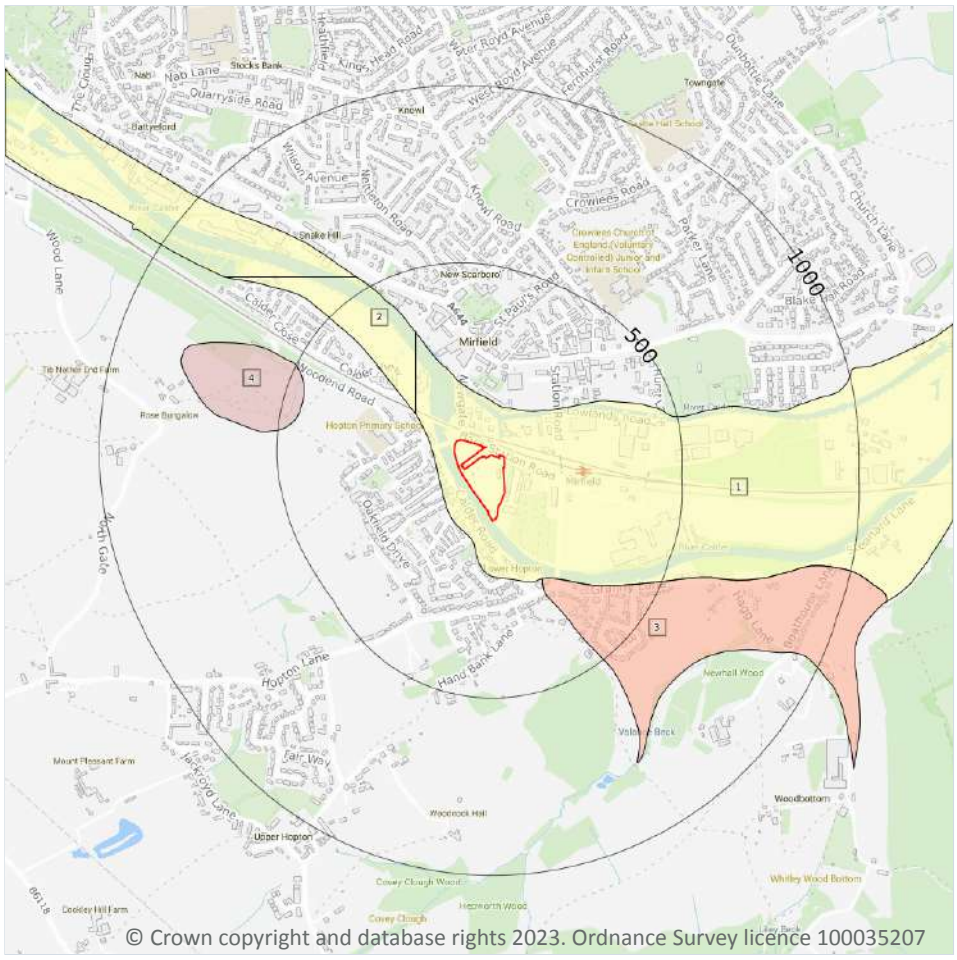
Features are displayed on the Geology 1:10,000 scale - Artificial and made ground map on **page 94**

ID	Location	LEX Code	Description	Rock description
1	6m N	MGR-ARTDP	Made Ground (Undivided)	Artificial Deposit
2	164m E	MGR-ARTDP	Made Ground (Undivided)	Artificial Deposit
3	228m NW	MGR-ARTDP	Made Ground (Undivided)	Artificial Deposit
A	343m SW	WGR-VOID	Worked Ground (Undivided)	Void

ID	Location	LEX Code	Description	Rock description
B	414m W	MGR-ARTDP	Made Ground (Undivided)	Artificial Deposit
C	441m NW	MGR-ARTDP	Made Ground (Undivided)	Artificial Deposit
D	446m NW	WGR-VOID	Worked Ground (Undivided)	Void
A	462m SW	WMGR-ARTDP	Infilled Ground	Artificial Deposit
B	480m W	WGR-VOID	Worked Ground (Undivided)	Void

This data is sourced from the British Geological Survey.

Geology 1:10,000 scale - Superficial



Site Outline

Search buffers in metres (m)

Landslip (10k)

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

14.3 Superficial geology (10k)

Records within 500m **4**

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 96**

ID	Location	LEX Code	Description	Rock description
1	**On site**	**ALV-XCSV**	**Alluvium - Clay, Sand And Gravel**	**Clay, Sand And Gravel**
2	139m NW	ALV-XCSV	Alluvium - Clay, Sand And Gravel	Clay, Sand And Gravel
3	214m SE	ALF-XSV	Alluvial Fan Deposits - Sand And Gravel	Sand And Gravel

ID	Location	LEX Code	Description	Rock description
4	446m W	HEAD-XCZSV	Head - Clay, Silt, Sand And Gravel	Clay, Silt, Sand And Gravel

This data is sourced from the British Geological Survey.

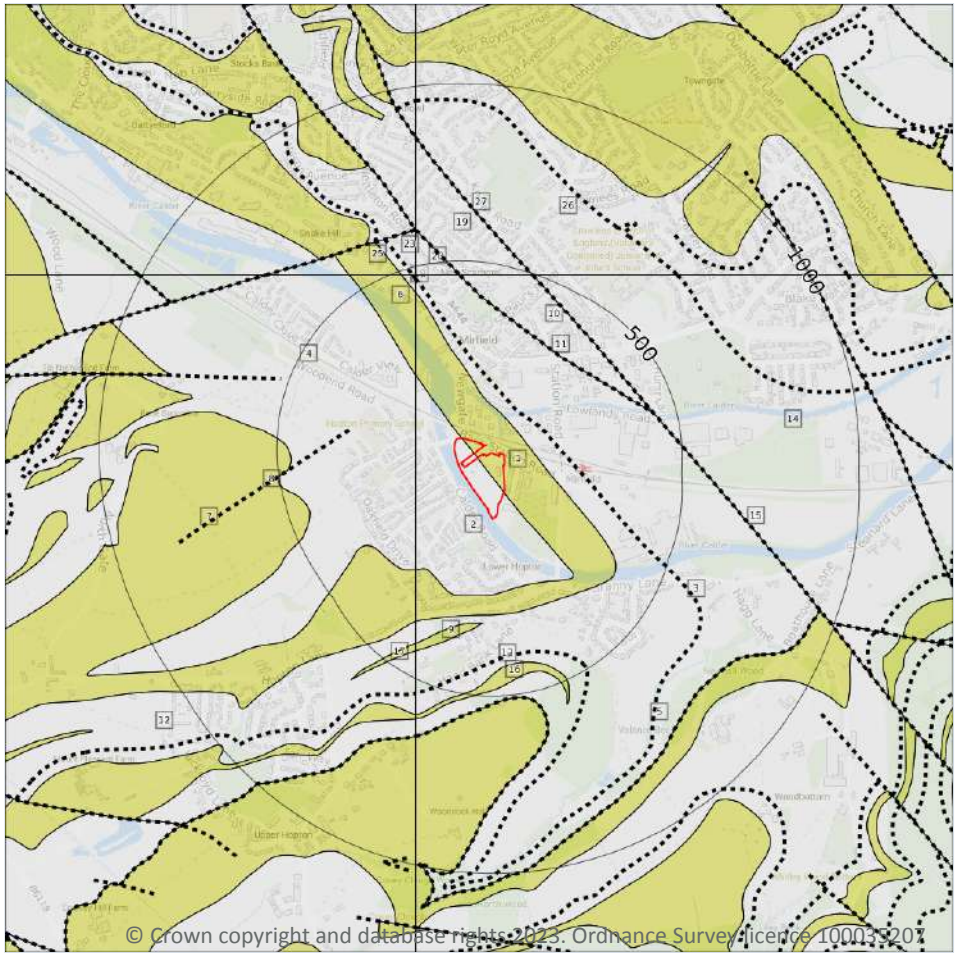
14.4 Landslip (10k)

Records within 500m	**0**

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

This data is sourced from the British Geological Survey.

Geology 1:10,000 scale - Bedrock



Site Outline

Search buffers in metres (m)

Bedrock faults and other linear features (10k)

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

14.5 Bedrock geology (10k)

Records within 500m	18

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 98**

ID	Location	LEX Code	Description	Rock age
1	**On site**	**CLRK-SDST**	**Clifton Rock - Sandstone**	**Langsettian Sub-age**
2	**On site**	**PLCM-MDSS**	**Pennine Lower Coal Measures Formation - Mudstone, Siltstone And Sandstone**	**Langsettian Sub-age**
3	70m NE	PLCM-MDSS	Pennine Lower Coal Measures Formation - Mudstone, Siltstone And Sandstone	Langsettian Sub-age

ID	Location	LEX Code	Description	Rock age
4	109m W	PLCM-MDSS	Pennine Lower Coal Measures Formation - Mudstone, Siltstone And Sandstone	Langsettian Sub-age
6	216m NW	CLRK-SDST	Clifton Rock - Sandstone	Langsettian Sub-age
7	261m SW	CLRK-SDST	Clifton Rock - Sandstone	Langsettian Sub-age
9	296m S	PLCM-SDST	Pennine Lower Coal Measures Formation - Sandstone	Langsettian Sub-age
10	319m NE	PLCM-MDSS	Pennine Lower Coal Measures Formation - Mudstone, Siltstone And Sandstone	Langsettian Sub-age
12	362m SW	PLCM-MDSS	Pennine Lower Coal Measures Formation - Mudstone, Siltstone And Sandstone	Langsettian Sub-age
14	397m NE	PLCM-MDSS	Pennine Lower Coal Measures Formation - Mudstone, Siltstone And Sandstone	Langsettian Sub-age
16	412m S	PLCM-SDST	Pennine Lower Coal Measures Formation - Sandstone	Langsettian Sub-age
17	413m S	PLCM-SDST	Pennine Lower Coal Measures Formation - Sandstone	Langsettian Sub-age
18	431m N	PLCM-MDSS	Pennine Lower Coal Measures Formation - Mudstone, Siltstone And Sandstone	Langsettian Sub-age
19	460m N	PLCM-MDSS	Pennine Lower Coal Measures Formation - Mudstone, Siltstone And Sandstone	Langsettian Sub-age
20	460m N	PLCM-MDSS	Pennine Lower Coal Measures Formation - Mudstone, Siltstone And Sandstone	Langsettian Sub-age
23	477m N	PLCM-MDSS	Pennine Lower Coal Measures Formation - Mudstone, Siltstone And Sandstone	Langsettian Sub-age
25	488m N	CLRK-SDST	Clifton Rock - Sandstone	Langsettian Sub-age
26	496m N	PLCM-MDSS	Pennine Lower Coal Measures Formation - Mudstone, Siltstone And 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	**9**

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 98**

ID	Location	Category	Description
5	123m NE	ROCK	Coal seam, inferred
8	291m W	FAULT	Normal fault, inferred; crossmarks on downthrow side
11	319m NE	FAULT	Normal fault, inferred; downthrow not specified
13	387m S	ROCK	Coal seam, inferred
15	397m NE	FAULT	Normal fault, inferred; crossmarks on downthrow side
21	460m N	FAULT	Normal fault, inferred; downthrow not specified
22	468m N	ROCK	Coal seam, inferred
24	479m N	ROCK	Coal seam, inferred
27	496m N	FAULT	Normal fault, inferred; downthrow not specified

This data is sourced from the British Geological Survey.

15 Geology 1:50,000 scale - Availability

Site Outline

Search buffers in metres (m)

Geological map tile

15.1 50k Availability

Records within 500m	1

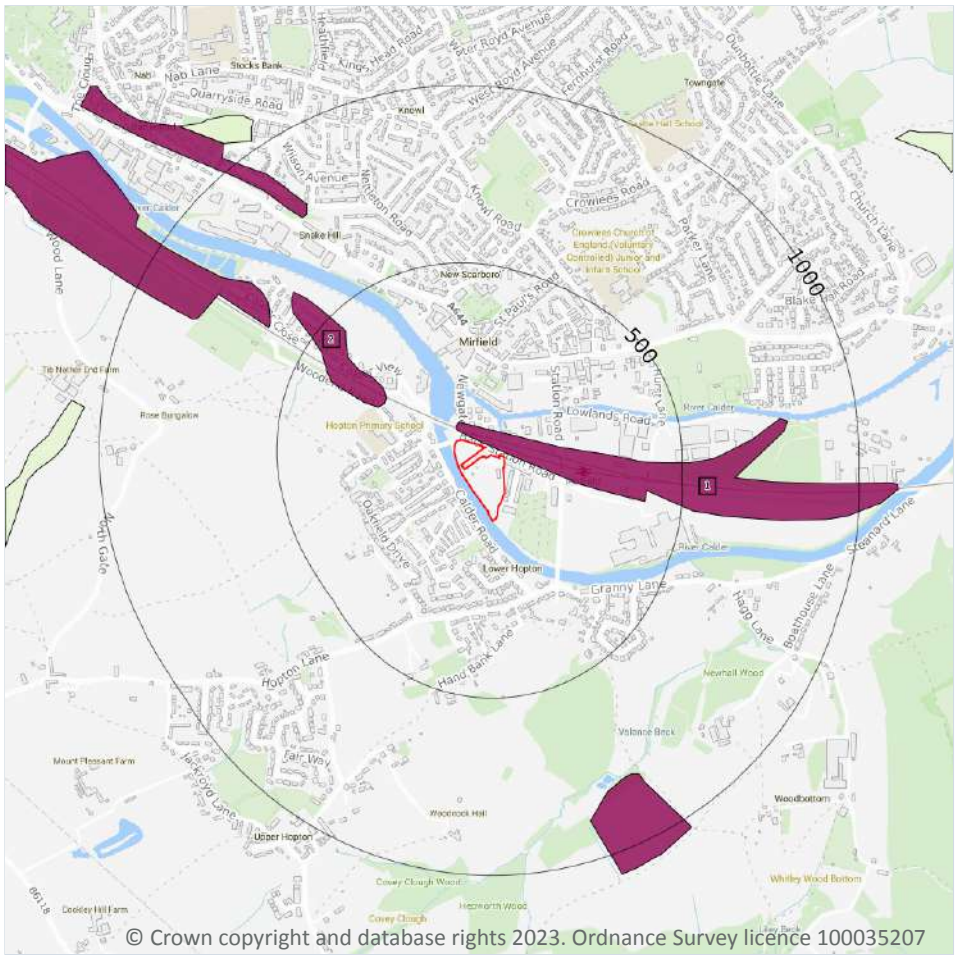
An indication on the coverage of 1:50,000 scale geology data for the site. Either 'Full' or 'No coverage' for each geological theme.

Features are displayed on the Geology 1:50,000 scale - Availability map on **page 101**

ID	Location	Artificial	Superficial	Bedrock	Mass movement	Sheet No.
1	**On site**	**Full**	**Full**	**Full**	**Full**	**EW077_huddersfield_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	2

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

Features are displayed on the Geology 1:50,000 scale - Artificial and made ground map on **page 102**

ID	Location	LEX Code	Description	Rock description
1	9m N	MGR-ARTDP	MADE GROUND (UNDIVIDED)	ARTIFICIAL DEPOSIT
2	229m NW	MGR-ARTDP	MADE GROUND (UNDIVIDED)	ARTIFICIAL DEPOSIT

This data is sourced from the British Geological Survey.

15.3 Artificial ground permeability (50k)

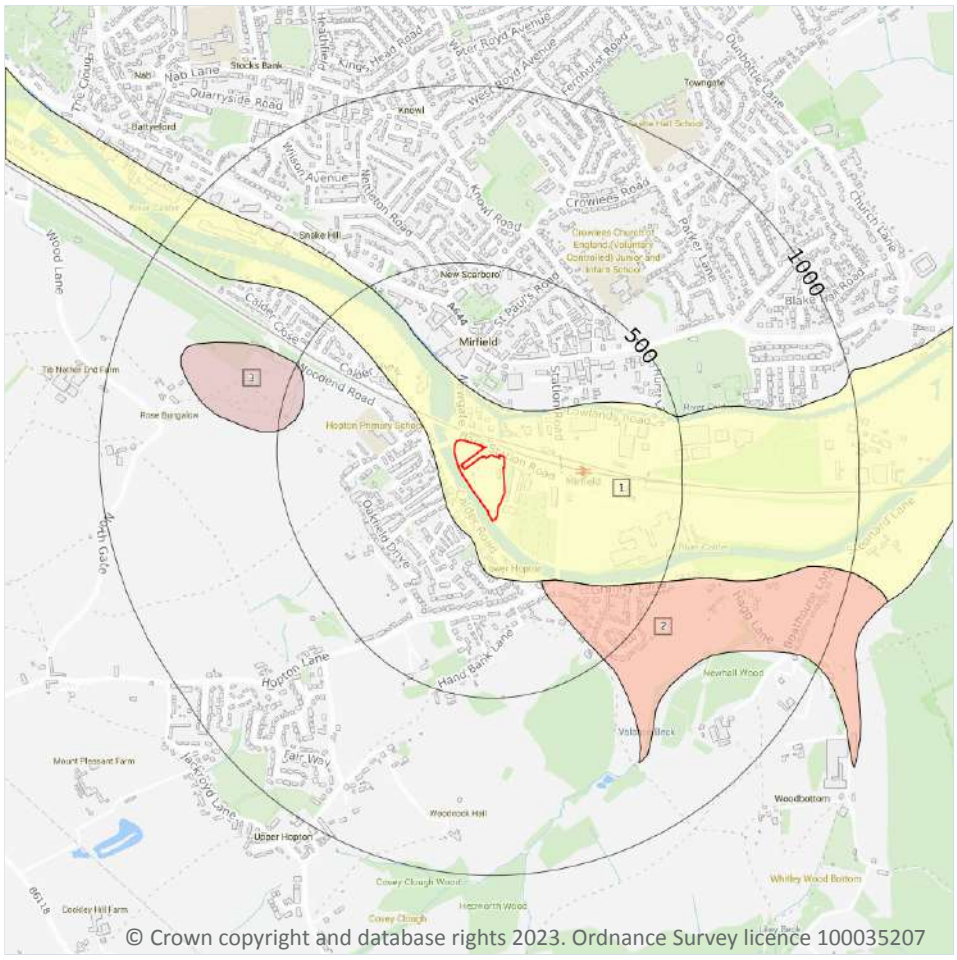
Records within 50m	**1**

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

Location	Flow type	Maximum permeability	Minimum permeability
9m N	Mixed	Very High	Low

This data is sourced from the British Geological Survey.

Geology 1:50,000 scale - Superficial



Site Outline

Search buffers in metres (m)

Landslip (50k)

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

15.4 Superficial geology (50k)

Records within 500m **3**

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 104**

ID	Location	LEX Code	Description	Rock description
1	**On site**	**ALV-XCZSV**	**ALLUVIUM**	**CLAY, SILT, SAND AND GRAVEL**
2	218m SE	ALF-XSV	ALLUVIAL FAN DEPOSITS	SAND AND GRAVEL
3	443m W	HEAD-XCZSV	HEAD	CLAY, SILT, SAND AND GRAVEL

This data is sourced from the British Geological Survey.

15.5 Superficial permeability (50k)

Records within 50m	1

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

Location	Flow type	Maximum permeability	Minimum permeability
On site	**Intergranular**	**High**	**Very Low**

This data is sourced from the British Geological Survey.

15.6 Landslip (50k)

Records within 500m	0

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

This data is sourced from the British Geological Survey.

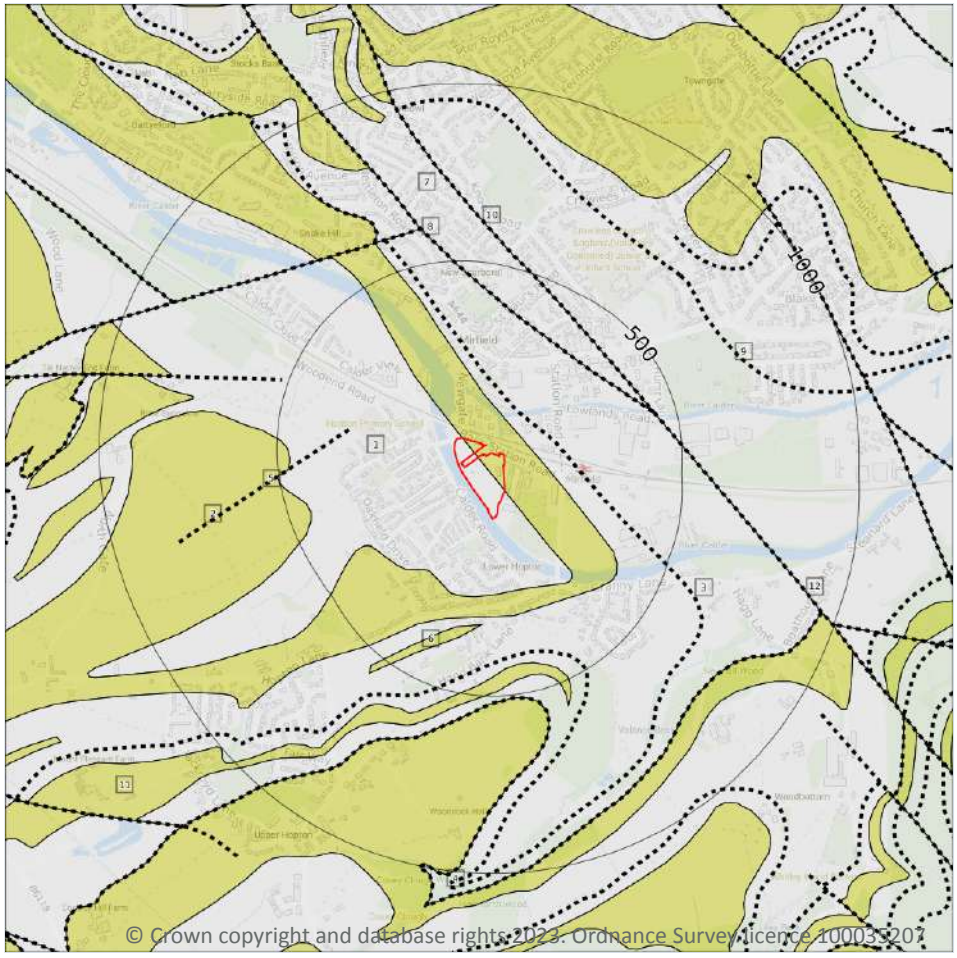
15.7 Landslip permeability (50k)

Records within 50m	0

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

This data is sourced from the British Geological Survey.

Geology 1:50,000 scale - Bedrock



Site Outline

Search buffers in metres (m)

Bedrock faults and other linear features (50k)

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

15.8 Bedrock geology (50k)

Records within 500m **7**

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 106**

ID	Location	LEX Code	Description	Rock age
1	**On site**	**PLCM-MDSS**	**PENNINE LOWER COAL MEASURES FORMATION - MUDSTONE, SILTSTONE AND SANDSTONE**	**WESTPHALIAN**
2	**On site**	**CLRK-SDST**	**CLIFTON ROCK - SANDSTONE**	**WESTPHALIAN**
3	68m NE	PLCM-MDSS	PENNINE LOWER COAL MEASURES FORMATION - MUDSTONE, SILTSTONE AND SANDSTONE	WESTPHALIAN

ID	Location	LEX Code	Description	Rock age
6	301m S	CLRK-SDST	CLIFTON ROCK - SANDSTONE	WESTPHALIAN
7	337m NE	PLCM-MDSS	PENNINE LOWER COAL MEASURES FORMATION - MUDSTONE, SILTSTONE AND SANDSTONE	WESTPHALIAN
9	399m NE	PLCM-MDSS	PENNINE LOWER COAL MEASURES FORMATION - MUDSTONE, SILTSTONE AND SANDSTONE	WESTPHALIAN
11	415m S	PLCM-SDST	PENNINE LOWER COAL MEASURES FORMATION - SANDSTONE	WESTPHALIAN

This data is sourced from the British Geological Survey.

15.9 Bedrock permeability (50k)

Records within 50m **2**

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

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

This data is sourced from the British Geological Survey.

15.10 Bedrock faults and other linear features (50k)

Records within 500m **5**

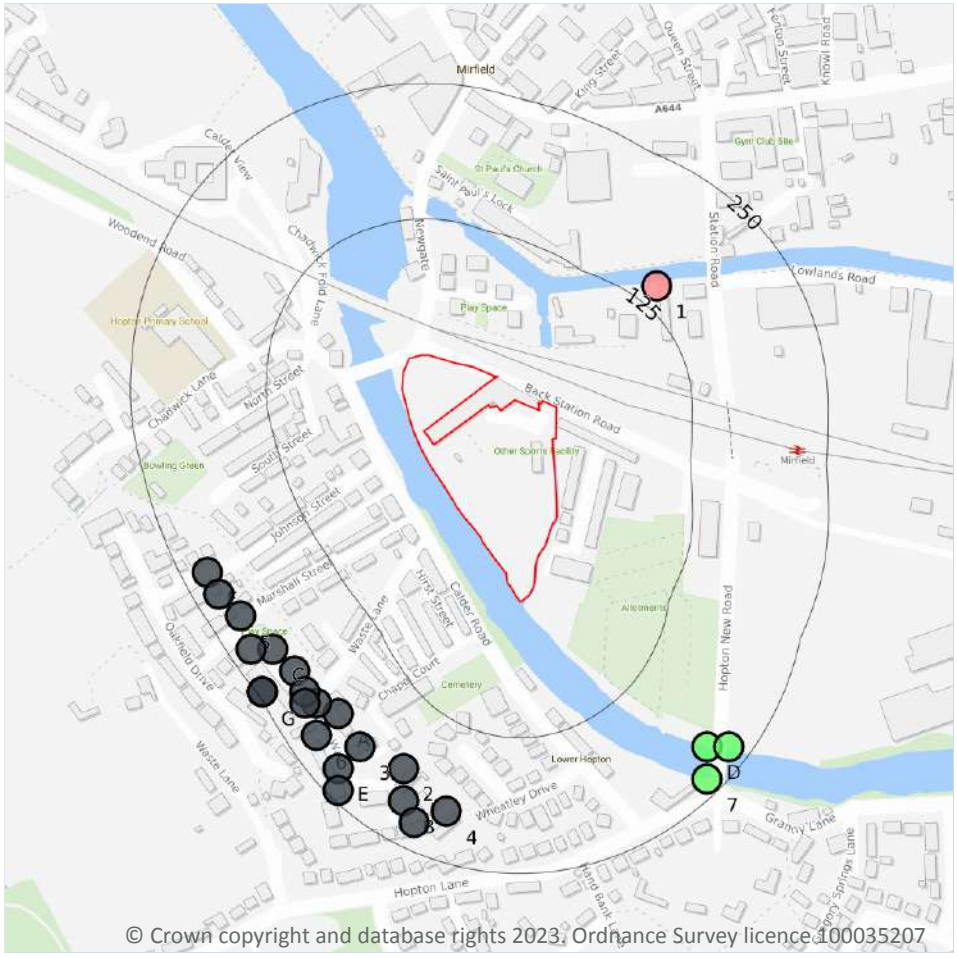
Linear features at the ground or bedrock surface at 1:50,000 scale of six main types; rock, fault, fold axis, mineral vein, alteration area or landform. Features are either observed or inferred, and relate primarily to bedrock.

Features are displayed on the Geology 1:50,000 scale - Bedrock map on **page 106**

ID	Location	Category	Description
4	119m NE	ROCK	Coal seam, inferred
5	293m W	FAULT	Fault, inferred
8	337m NE	FAULT	Fault, inferred
10	399m NE	FAULT	Fault, inferred
12	439m E	FAULT	Fault, 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	24

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.

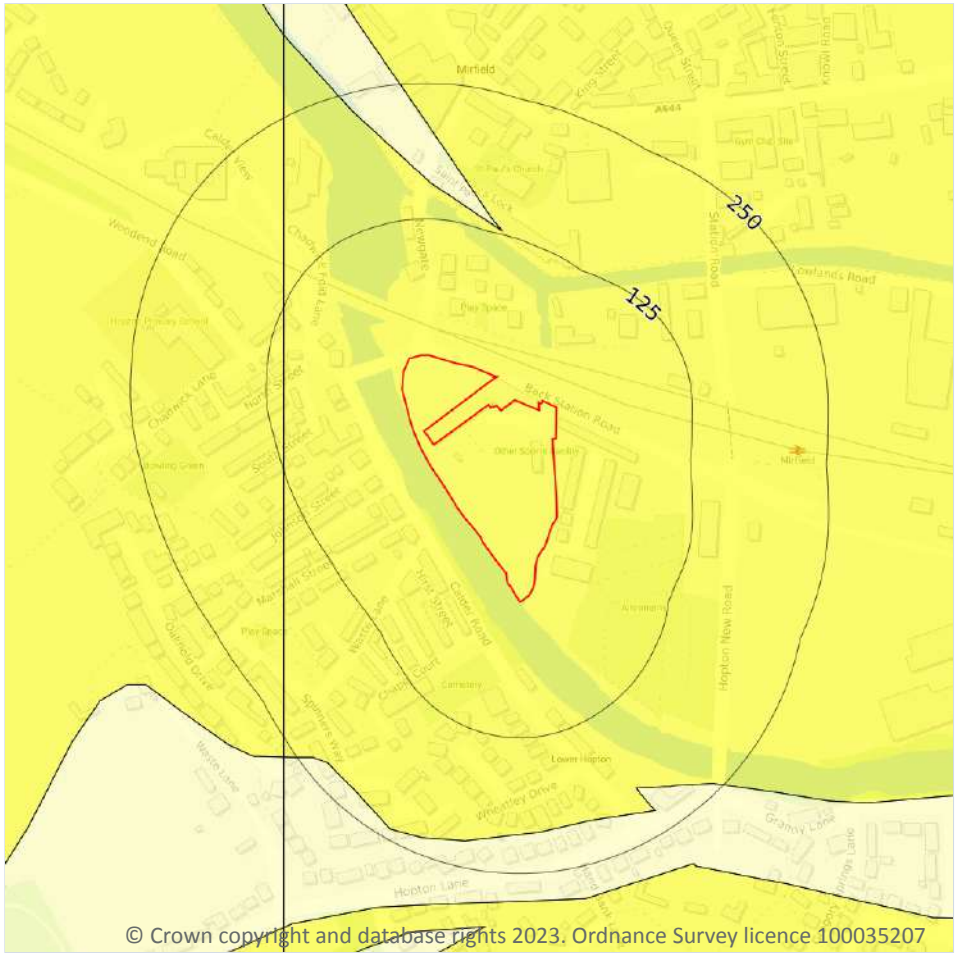
Features are displayed on the Boreholes map on **page 109**

ID	Location	Grid reference	Name	Length	Confidential	Web link
1	145m NE	420343 419604	MESSRS J CROWTHER LTD MIRFIELD	91.44	N	56624
2	187m S	420110 419160	HOPTON LANE MIRFIELD TP14	-	Y	N/A
A	196m SW	420050 419210	HOPTON LANE MIRFIELD TP5	-	Y	N/A

ID	Location	Grid reference	Name	Length	Confidential	Web link
3	198m SW	420070 419180	HOPTON LANE MIRFIELD TP6	-	Y	N/A
4	204m S	420150 419120	HOPTON LANE MIRFIELD TP12	-	Y	N/A
A	208m SW	420030 419220	HOPTON LANE MIRFIELD TP4	-	Y	N/A
A	210m SW	420010 419250	HOPTON LANE MIRFIELD TP20	-	Y	N/A
A	212m SW	420020 419230	HOPTON LANE MIRFIELD 1	-	Y	N/A
B	212m S	420110 419130	HOPTON LANE MIRFIELD TP13	-	Y	N/A
C	214m SW	419990 419270	HOPTON LANE MIRFIELD 2	-	Y	N/A
D	215m SE	420390 419180	HOPTON RIVER BRIDGE BH2	12.45	N	56737
A	216m SW	420020 419220	HOPTON LANE MIRFIELD TP21	-	Y	N/A
5	222m SW	419960 419300	HOPTON LANE MIRFIELD TP27	-	Y	N/A
6	224m SW	420030 419190	HOPTON LANE MIRFIELD TP3	-	Y	N/A
B	225m S	420120 419110	HOPTON LANE MIRFIELD TP11	-	Y	N/A
E	227m SW	420050 419160	HOPTON LANE MIRFIELD TP7	-	Y	N/A
F	227m W	419930 419340	HOPTON LANE MIRFIELD TP30	-	Y	N/A
F	228m SW	419940 419320	HOPTON LANE MIRFIELD 5	-	Y	N/A
C	230m SW	419970 419270	HOPTON LANE MIRFIELD TP19	-	Y	N/A
D	231m SE	420410 419180	HOPTON RIVER BRIDGE BH1	23.1	N	56736
7	236m SE	420390 419150	HOPTON RIVER BRIDGE BH3	17.0	N	56738
E	241m SW	420050 419140	HOPTON LANE MIRFIELD TP9	-	Y	N/A
G	246m SW	419980 419230	HOPTON LANE MIRFIELD 3	-	Y	N/A
G	246m SW	419980 419230	HOPTON LANE MIRFIELD TP18	-	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	1

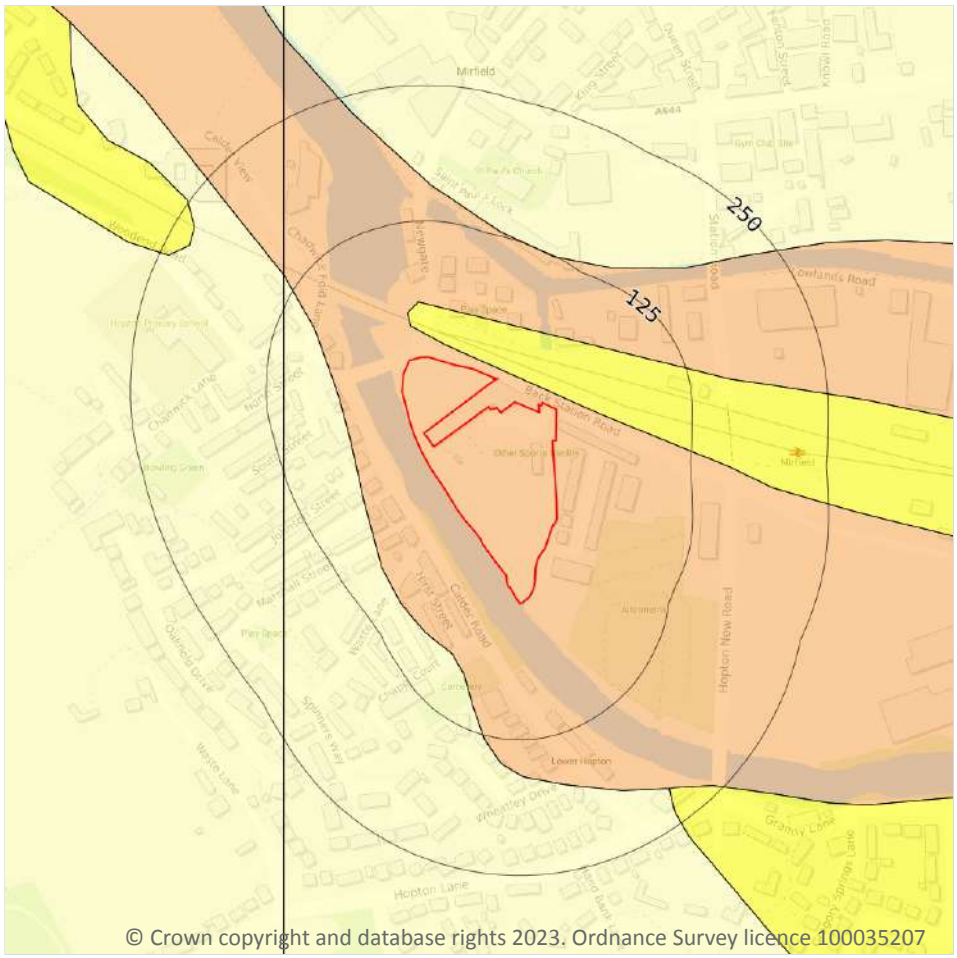
The potential hazard presented by soils that absorb water when wet (making them swell), and lose water as they dry (making them shrink). This shrink-swell behaviour is controlled by the type and amount of clay in the soil, and by seasonal changes in the soil moisture content (related to rainfall and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

Features are displayed on the Natural ground subsidence - Shrink swell clays map on **page 111**

Location	Hazard rating	Details
On site	**Very low**	**Ground conditions predominantly low plasticity.**

This data is sourced from the British Geological Survey.

Natural ground subsidence - Running sands



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.

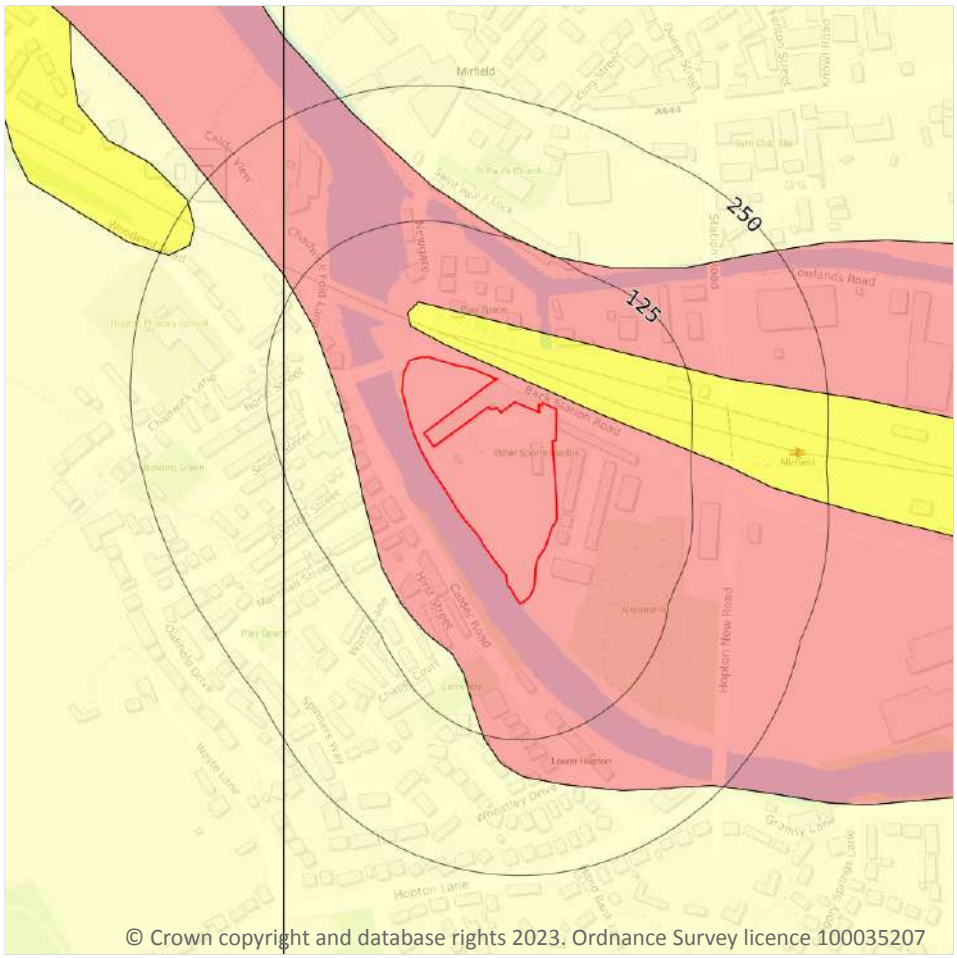
Features are displayed on the Natural ground subsidence - Running sands map on **page 112**

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
9m N	Very low	Running sand conditions are unlikely. No identified constraints on land use due to running conditions unless water table rises rapidly.

This data is sourced from the British Geological Survey.

Natural ground subsidence - Compressible deposits



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.

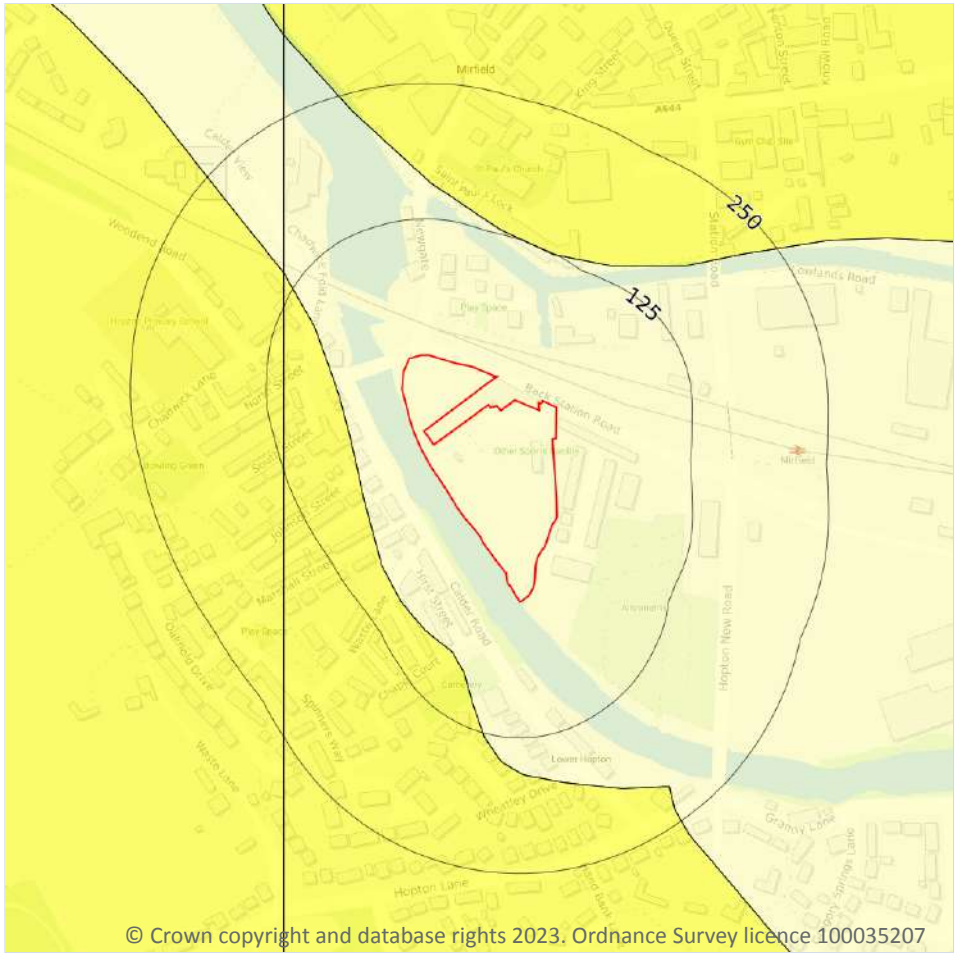
Features are displayed on the Natural ground subsidence - Compressible deposits map on **page 114**

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.**

Location	Hazard rating	Details
9m N	Very low	Compressibility and uneven settlement problems are not likely to be significant on the site for most land uses.

This data is sourced from the British Geological Survey.

Natural ground subsidence - Collapsible deposits



Site Outline

Search buffers in metres (m)

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

17.4 Collapsible deposits

Records within 50m	**1**

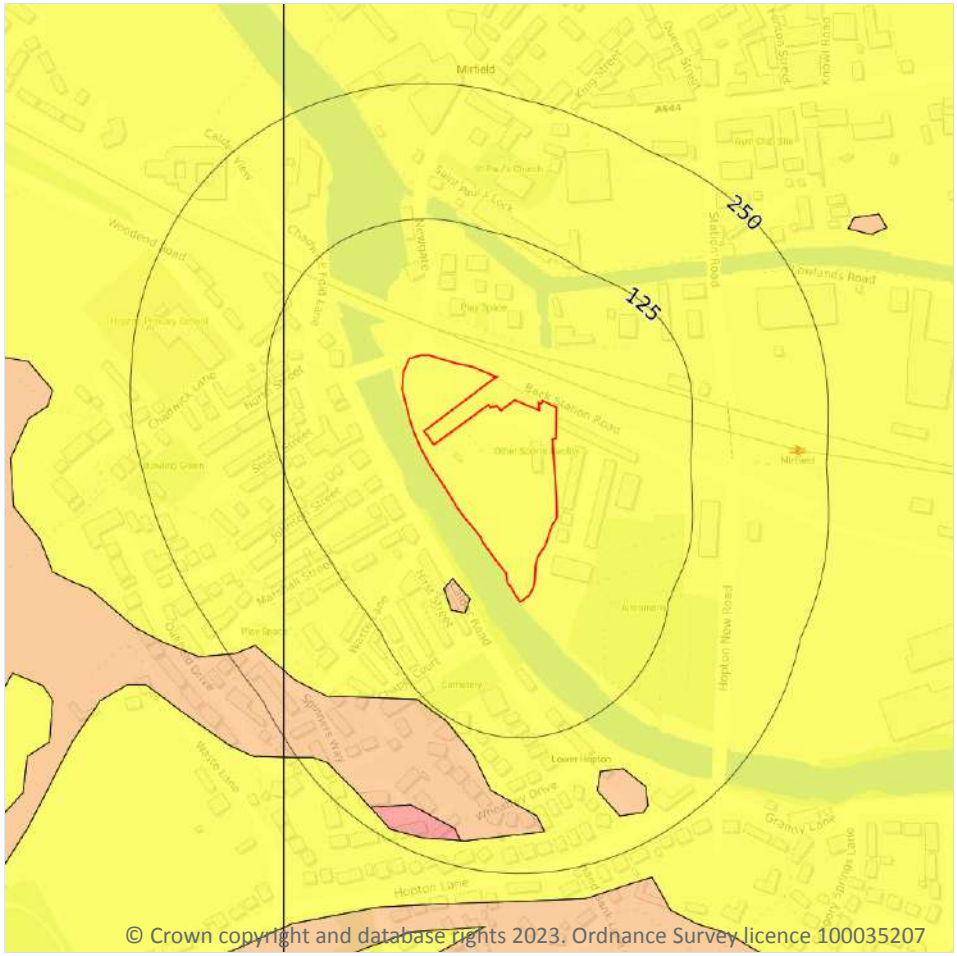
The potential hazard presented by natural deposits that could collapse when a load (such as a building) is placed on them or they become saturated with water.

Features are displayed on the Natural ground subsidence - Collapsible deposits map on **page 116**

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

This data is sourced from the British Geological Survey.

Natural ground subsidence - Landslides



17.5 Landslides

Records within 50m	2

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

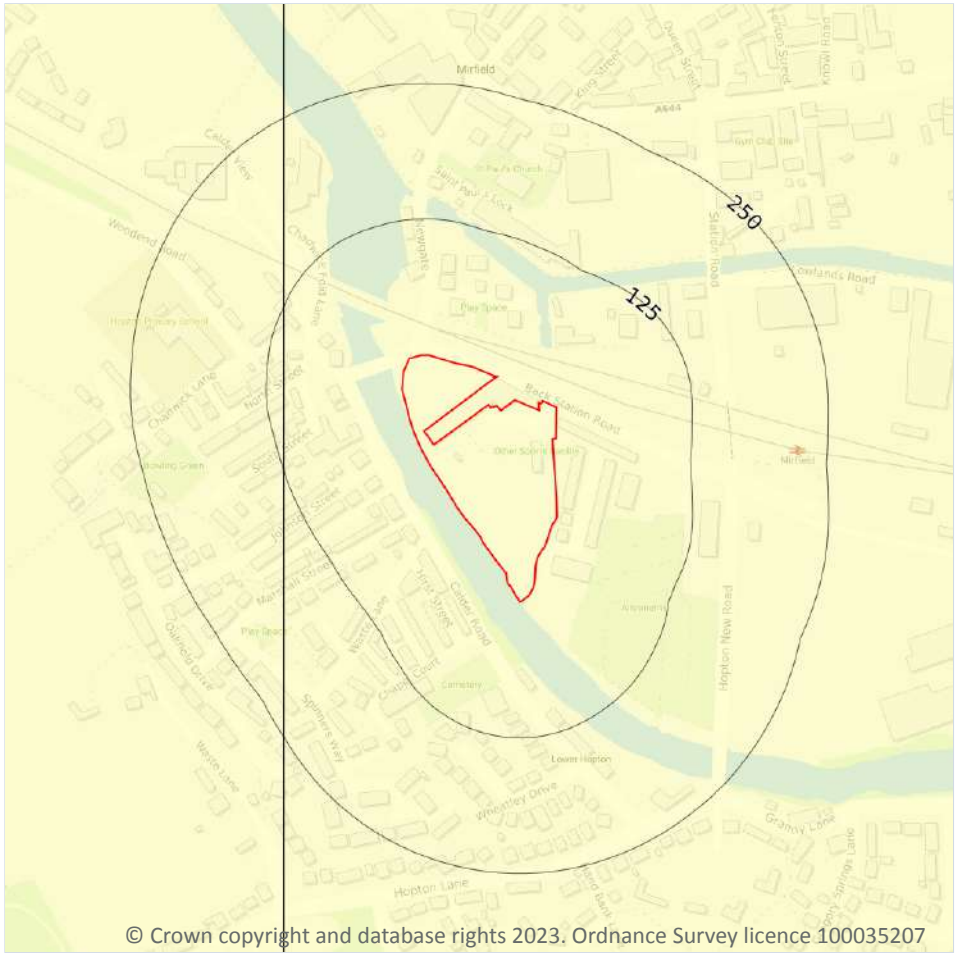
Features are displayed on the Natural ground subsidence - Landslides map on **page 117**

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

Location	Hazard rating	Details
38m S	Low	Slope instability problems may be present or anticipated. Site investigation should consider specifically the slope stability of the site.

This data is sourced from the British Geological Survey.

Natural ground subsidence - Ground dissolution of soluble rocks



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

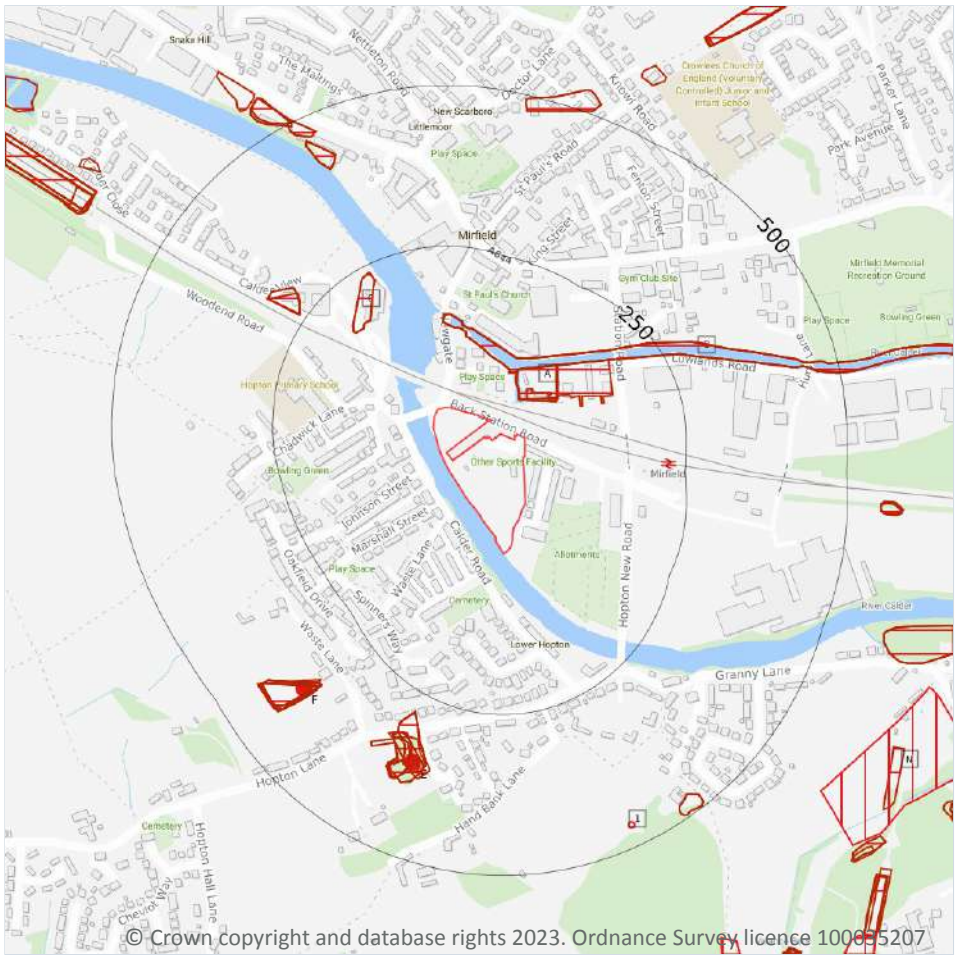
The potential hazard presented by ground dissolution, which occurs when water passing through soluble rocks produces underground cavities and cave systems. These cavities reduce support to the ground above and can cause localised collapse of the overlying rocks and deposits.

Features are displayed on the Natural ground subsidence - Ground dissolution of soluble rocks map on **page 119**

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	2

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

Features are displayed on the Mining, ground workings and natural cavities map on **page 121**

ID	Location	Details	Description
E	353m S	Name: Round Oak Address: Upper Hopton, MIRFIELD, West Yorkshire Commodity: Sandstone Status: Ceased	Type: A surface mineral working. It may be termed Quarry, Sand Pit, Clay Pit or Opencast Coal Site Status description: Site which, at date of entry, has ceased to extract minerals. May be considered as Closed by operator. May be considered to have Active, Dormant or Expired planning permissions by Mineral Planning Authority
F	374m SW	Name: The Waste Address: Upper Hopton, MIRFIELD, West Yorkshire Commodity: Sandstone Status: Ceased	Type: A surface mineral working. It may be termed Quarry, Sand Pit, Clay Pit or Opencast Coal Site Status description: Site which, at date of entry, has ceased to extract minerals. May be considered as Closed by operator. May be considered to have Active, Dormant or Expired planning permissions by Mineral Planning Authority

This data is sourced from the British Geological Survey.

18.3 Surface ground workings

Records within 250m	11

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

Features are displayed on the Mining, ground workings and natural cavities map on **page 121**

ID	Location	Land Use	Year of mapping	Mapping scale
A	53m NE	Dock Yard	1938	1:10560
A	53m NE	Dock Yard	1938	1:10560
A	54m NE	Dock Yard	1948	1:10560
A	54m NE	Dock Yard	1931	1:10560
A	55m NE	Dock Yard	1951	1:10560
B	80m N	Canal	1993	1:10000

ID	Location	Land Use	Year of mapping	Mapping scale
B	80m N	Canal	1982	1:10000
B	80m N	Canal	1966	1:10560
B	80m N	Canal	1951	1:10560
C	171m NW	Pond	1905	1:10560
C	171m NW	Pond	1892	1:10560

This is data is sourced from Ordnance Survey/Groundsure.

18.4 Underground workings

Records within 1000m	**12**

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 121**

ID	Location	Land Use	Year of mapping	Mapping scale
1	461m S	Unspecified Shaft	1982	1:10000
N	613m SE	Unspecified Mine	1966	1:10560
5	687m SE	Colliery	1951	1:10560
-	761m SE	Unspecified Mine	1966	1:10560
-	827m SE	Unspecified Old Shaft	1948	1:10560
-	827m SE	Unspecified Old Shaft	1931	1:10560
-	840m SE	Unspecified Old Shaft	1951	1:10560
-	841m SE	Unspecified Old Shaft	1948	1:10560
-	841m SE	Air Shaft	1904	1:10560
-	898m S	Unspecified Level	1904	1:10560
-	980m SE	Colliery	1948	1:10560
-	997m SE	Unspecified Level	1904	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**

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.

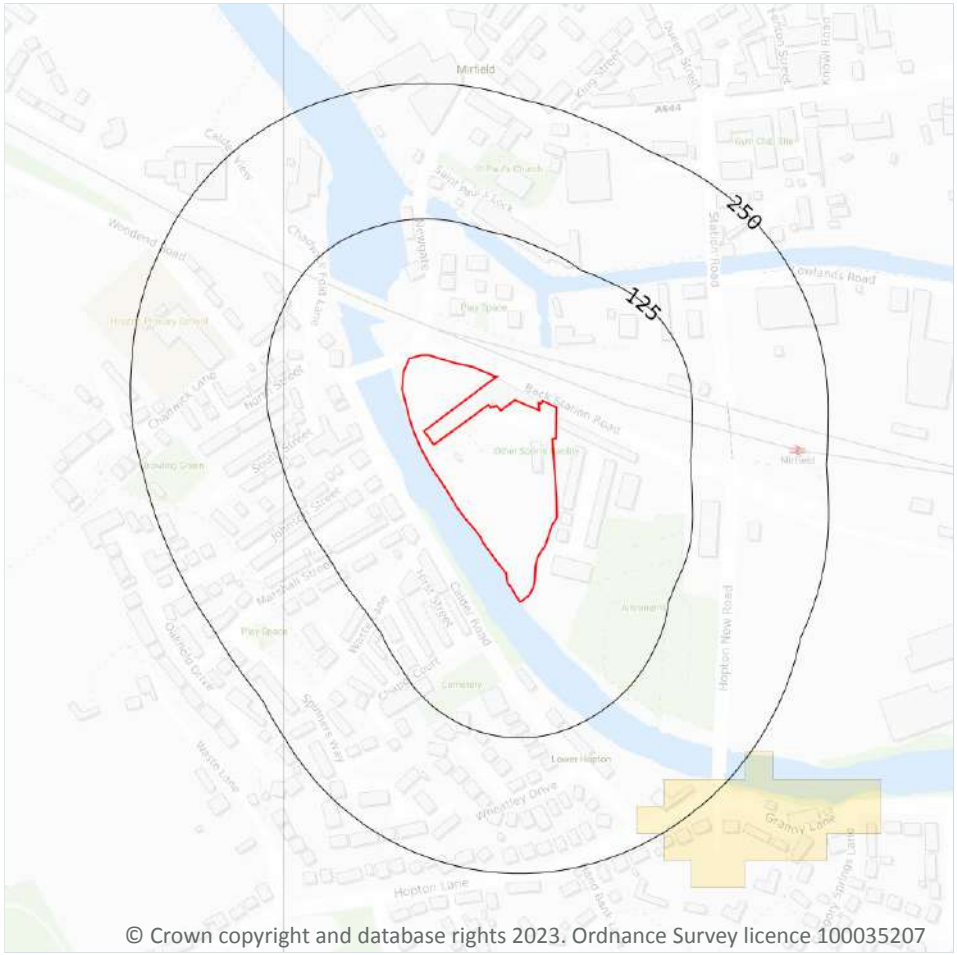
18.13 Clay mining

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



Site Outline

Search buffers in metres (m)

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

19.1 Radon

Records on site	1

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

Features are displayed on the Radon map on **page 126**

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

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

20 Soil chemistry

20.1 BGS Estimated Background Soil Chemistry

Records within 50m **4**

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

Location	Arsenic	Bioaccessible Arsenic	Lead	Bioaccessible Lead	Cadmium	Chromium	Nickel
On site	**15 - 25 mg/kg**	**No data**	**100 - 200 mg/kg**	**60 - 120 mg/kg**	**1.8 mg/kg**	**60 - 90 mg/kg**	**15 - 30 mg/kg**
On site	**15 - 25 mg/kg**	**No data**	**100 - 200 mg/kg**	**60 - 120 mg/kg**	**1.8 mg/kg**	**60 - 90 mg/kg**	**15 - 30 mg/kg**
On site	**25 - 35 mg/kg**	**No data**	**100 - 200 mg/kg**	**60 - 120 mg/kg**	**1.8 mg/kg**	**120 - 180 mg/kg**	**30 - 45 mg/kg**
On site	**25 - 35 mg/kg**	**No data**	**100 - 200 mg/kg**	**60 - 120 mg/kg**	**1.8 mg/kg**	**120 - 180 mg/kg**	**30 - 45 mg/kg**

This data is sourced from the British Geological Survey.

20.2 BGS Estimated Urban Soil Chemistry

Records within 50m **0**

Estimated topsoil chemistry of Arsenic, Cadmium, Chromium, Copper, Nickel, Lead, Tin and Zinc and bioaccessible Arsenic and Lead in 23 urban centres across Great Britain. These estimates are derived from interpolation of the measured urban topsoil data referred to above and provide information across each city between the measured sample locations (4 per km^2).

This data is sourced from the British Geological Survey.

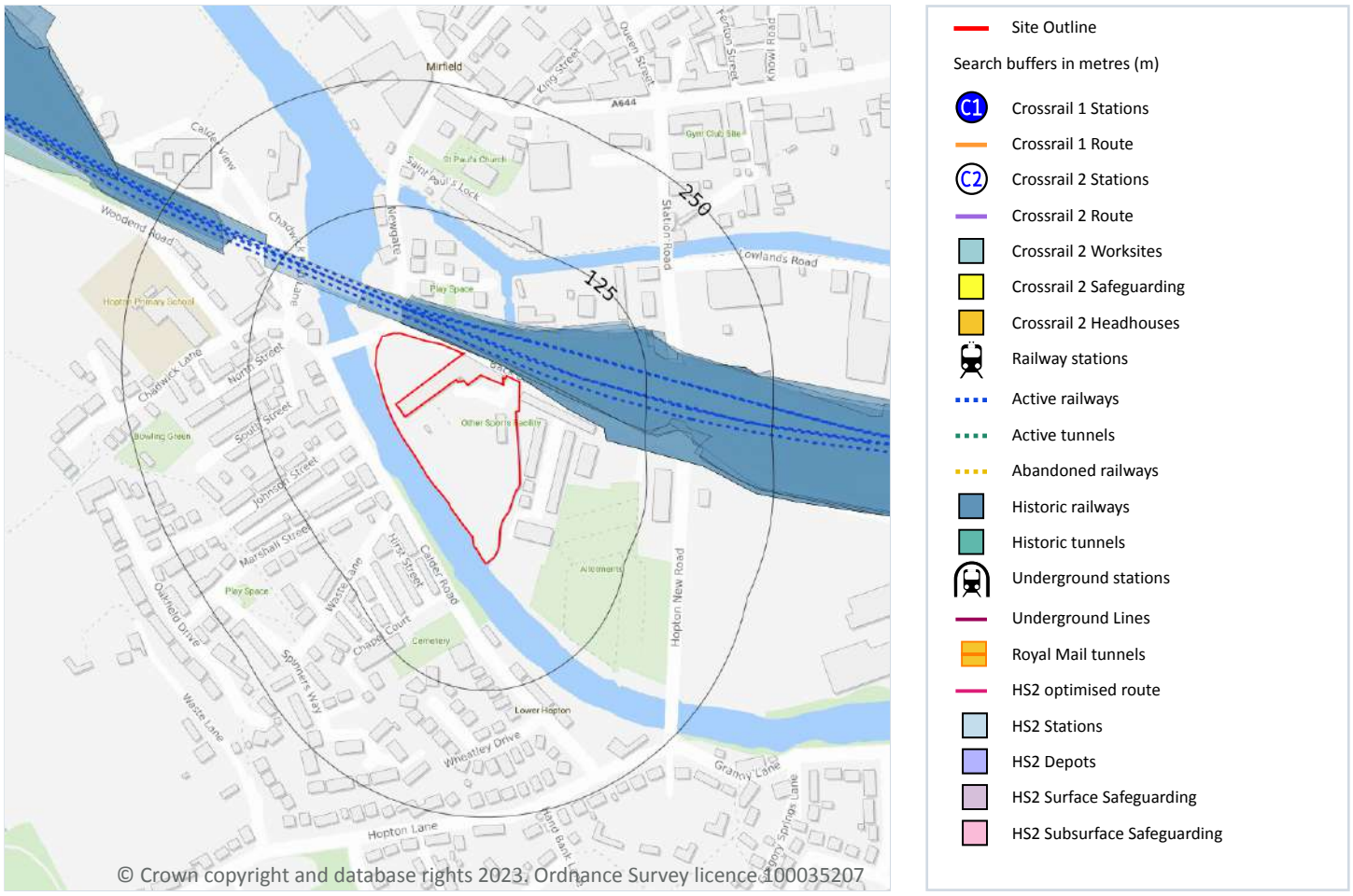
20.3 BGS Measured Urban Soil Chemistry

Records within 50m	0

The locations and measured total concentrations (mg/kg) of Arsenic, Cadmium, Chromium, Copper, Nickel, Lead, Tin and Zinc in urban topsoil samples from 23 urban centres across Great Britain. These are collected at a sample density of 4 per km^2.

This data is sourced from the British Geological Survey.

21 Railway infrastructure and projects



21.1 Underground railways (London)

Records within 250m	0

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

This data is sourced from publicly available information by Groundsure.

21.2 Underground railways (Non-London)

Records within 250m	0

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

This data is sourced from publicly available information by Groundsure.

21.3 Railway tunnels

Records within 250m	0

Railway tunnels taken from contemporary Ordnance Survey mapping.

This data is sourced from the Ordnance Survey.

21.4 Historical railway and tunnel features

Records within 250m	38

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 130**

Location	Land Use	Year of mapping	Mapping scale
4m N	Railway Sidings	1948	10560
4m N	Railway Sidings	1905	10560
4m N	Railway Sidings	1892	10560
4m N	Railway Sidings	1931	10560
5m N	Railway Sidings	1966	10560
5m N	Railway Sidings	1982	10000
9m N	Railway Sidings	1938	10560
9m N	Railway Sidings	1893	2500
9m N	Railway Sidings	1907	2500
9m N	Railway Sidings	1922	2500
9m NE	Railway Sidings	1957	1250
10m N	Railway Sidings	1957	2500
11m NE	Railway Sidings	1971	1250
11m N	Railway Sidings	1951	10560
13m NE	Railway Sidings	1907	2500
13m NE	Railway Sidings	1893	2500
13m NE	Railway Sidings	1922	2500

Location	Land Use	Year of mapping	Mapping scale
13m NE	Railway Sidings	1933	2500
18m N	Railway Sidings	1965	1250
26m N	Railway Sidings	1957	1250
27m N	Railway Sidings	1893	2500
27m N	Railway Sidings	1907	2500
27m N	Railway Sidings	1922	2500
147m NW	Railway Sidings	1965	10560
147m NW	Railway Sidings	1956	10560
176m NW	Railway Sidings	1948	10560
176m NW	Railway Sidings	1931	10560
178m NW	Railway Sidings	1933	2500
178m NW	Railway Sidings	1938	10560
227m NW	Railway Sidings	1957	1250
229m NW	Railway Sidings	1957	2500
234m NW	Railway Sidings	1893	2500
234m NW	Railway Sidings	1907	2500
234m NW	Railway Sidings	1922	2500
249m E	Railway Sidings	1957	1250
249m E	Railway Sidings	1957	1250
249m E	Railway Sidings	1957	1250
249m E	Railway Sidings	1957	1250

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	21

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

Features are displayed on the Railway infrastructure and projects map on **page 130**

Location	Name	Type
11m N	Huddersfield Line	rail
17m NW	Huddersfield Line	rail
19m N	Huddersfield Line	rail
20m N	Not given	Multi Track
24m N	Huddersfield Line	rail
25m N	Not given	Single Track
25m N	Not given	Single Track
27m N	Huddersfield Line	rail
29m N	Huddersfield Line	rail
40m NE	Not given	Single Track
52m NE	Not given	Single Track
150m E	Huddersfield Line	rail
153m E	Huddersfield Line	rail
155m E	Huddersfield Line	rail
158m NW	Huddersfield Line	rail
164m NW	Huddersfield Line	rail
166m E	Huddersfield Line	rail
168m E	Huddersfield Line	rail

Location	Name	Type
170m NW	Huddersfield Line	rail
170m E	Huddersfield Line	rail
249m E	Not given	Single Track

This data is sourced from Ordnance Survey and OpenStreetMap.

21.8 Crossrail 1

Records within 500m	**0**

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

This data is sourced from publicly available information by Groundsure.

21.9 Crossrail 2

Records within 500m	**0**

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

This data is sourced from publicly available information by Groundsure.

21.10 HS2

Records within 500m	**0**

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

This data is sourced from HS2 ltd.

Data providers

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

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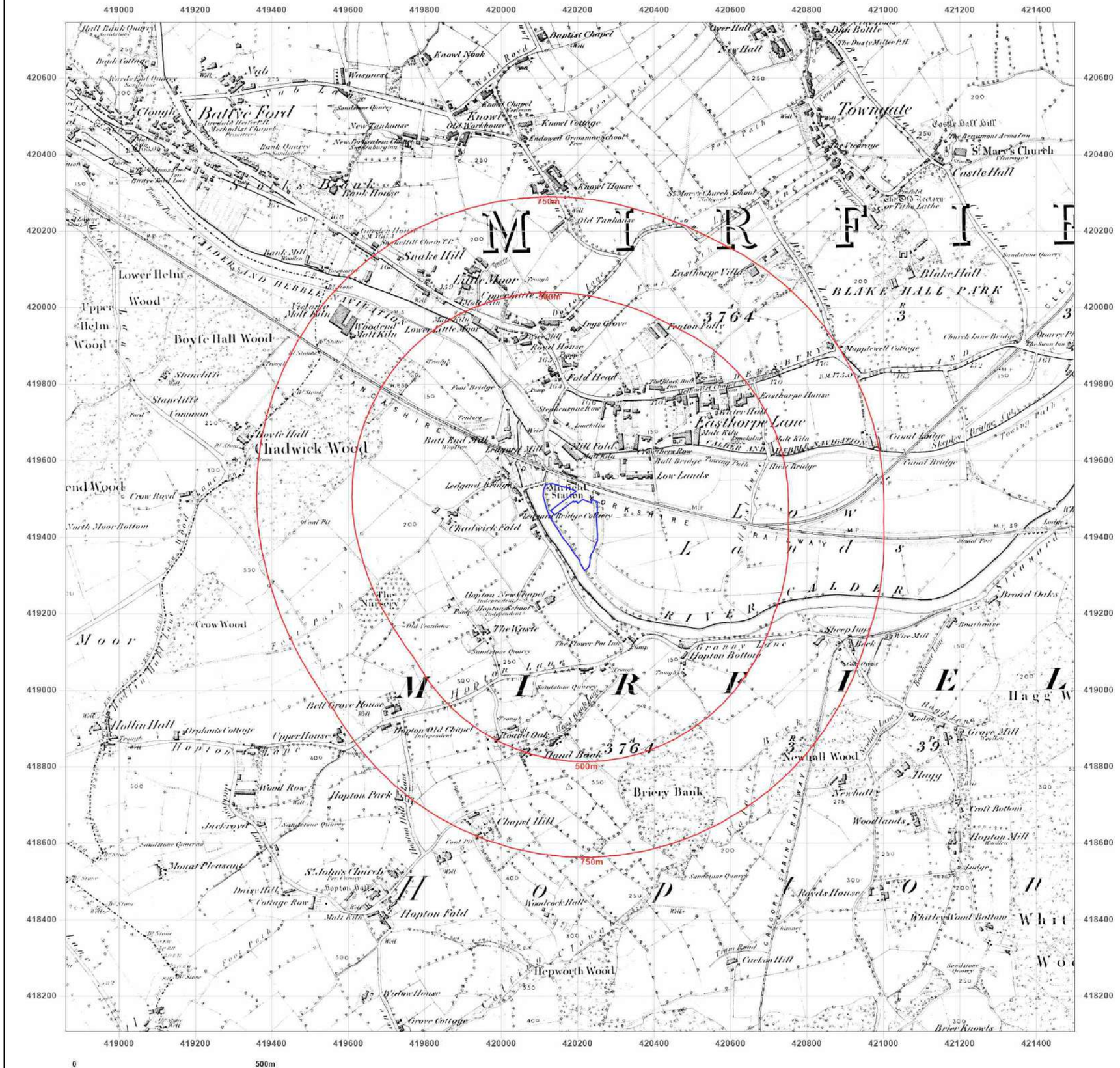

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Site Details:

LEDGARD BRIDGE, MIRFIELD, WF14 8LZ

Client Ref: BINKS_8012
Report Ref: GS-9372286
Grid Ref: 420180, 419426

Map Name: County Series

Map date: **1855**

Scale: 1:10,560

Printed at: 1:10,560

N
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Surveyed 1851
Revised N/A
Edition 1855
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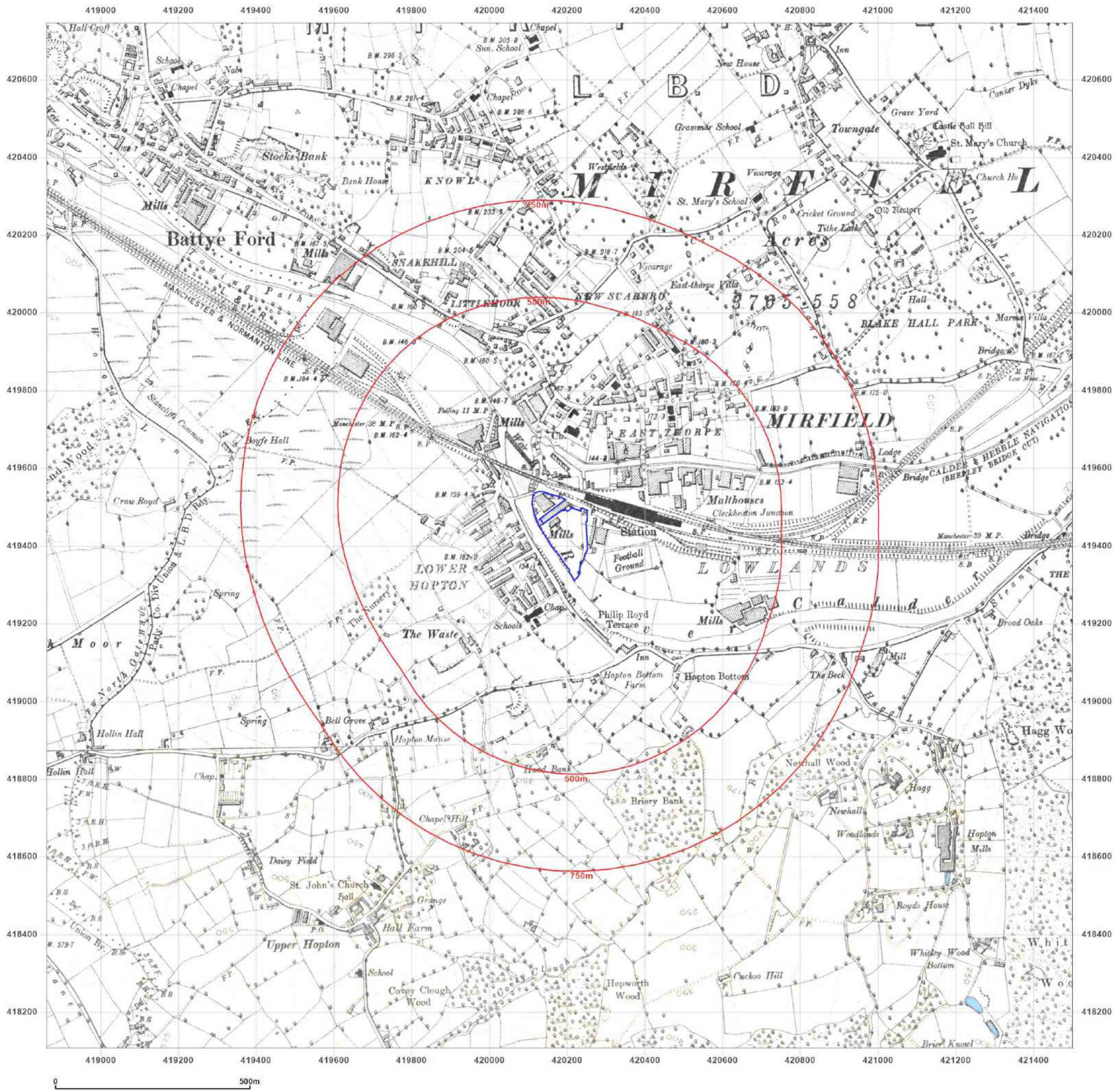

Site Details:

LEDGARD BRIDGE, MIRFIELD,
WF14 8LZ

Client Ref: BINKS_8012
Report Ref: GS-9372286
Grid Ref: 420180, 419426

Map Name: County Series

Map date: **1888-1892**

Scale: 1:10,560

Printed at: 1:10,560

N
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Surveyed 1892
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Revised 1888
Edition N/A
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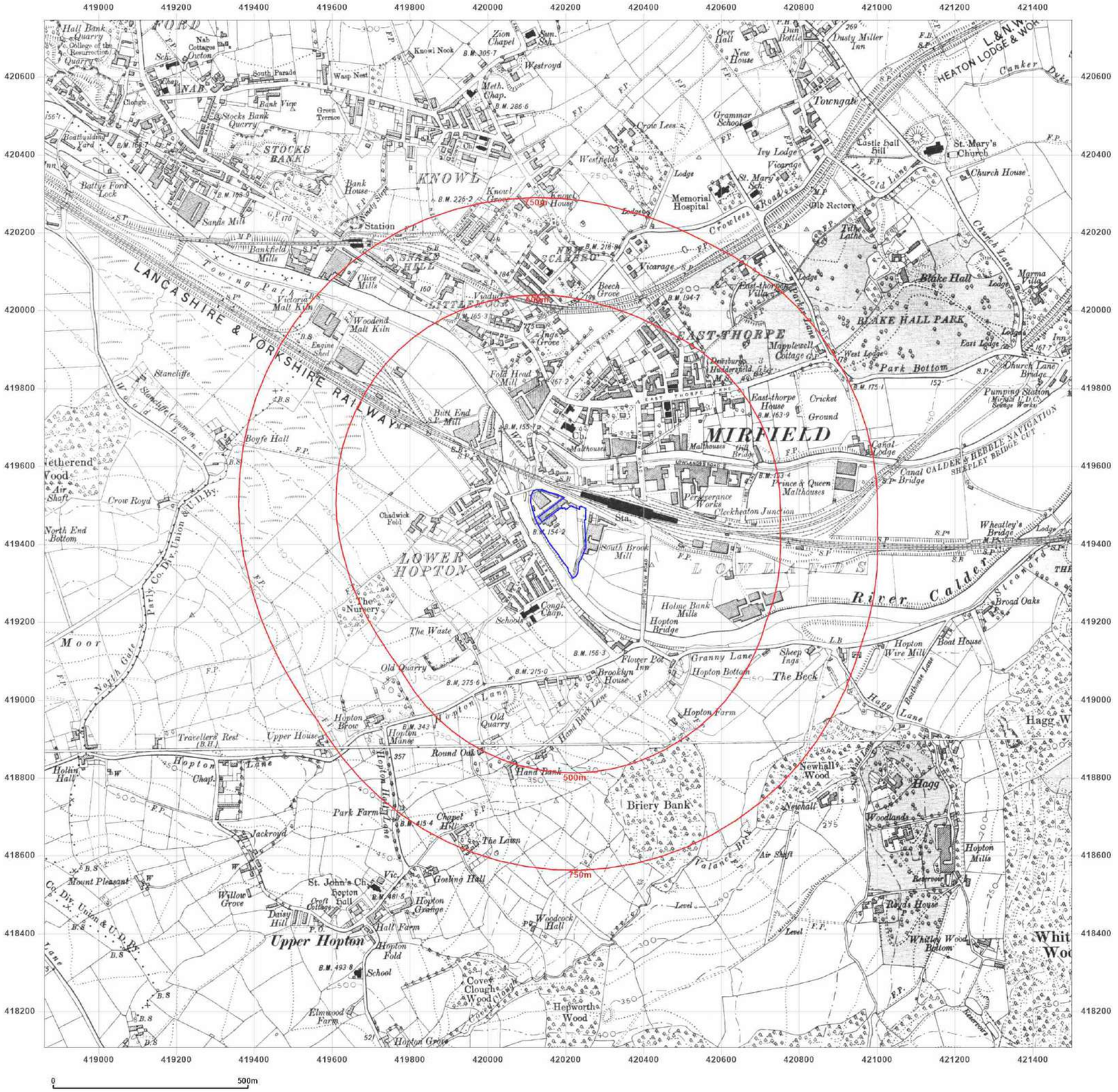

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Site Details:

LEDGARD BRIDGE, MIRFIELD,
WF14 8LZ

Client Ref: BINKS_8012
Report Ref: GS-9372286
Grid Ref: 420180, 419426

Map Name: County Series

Map date: **1904-1905**

Scale: 1:10,560

Printed at: 1:10,560

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Revised 1904
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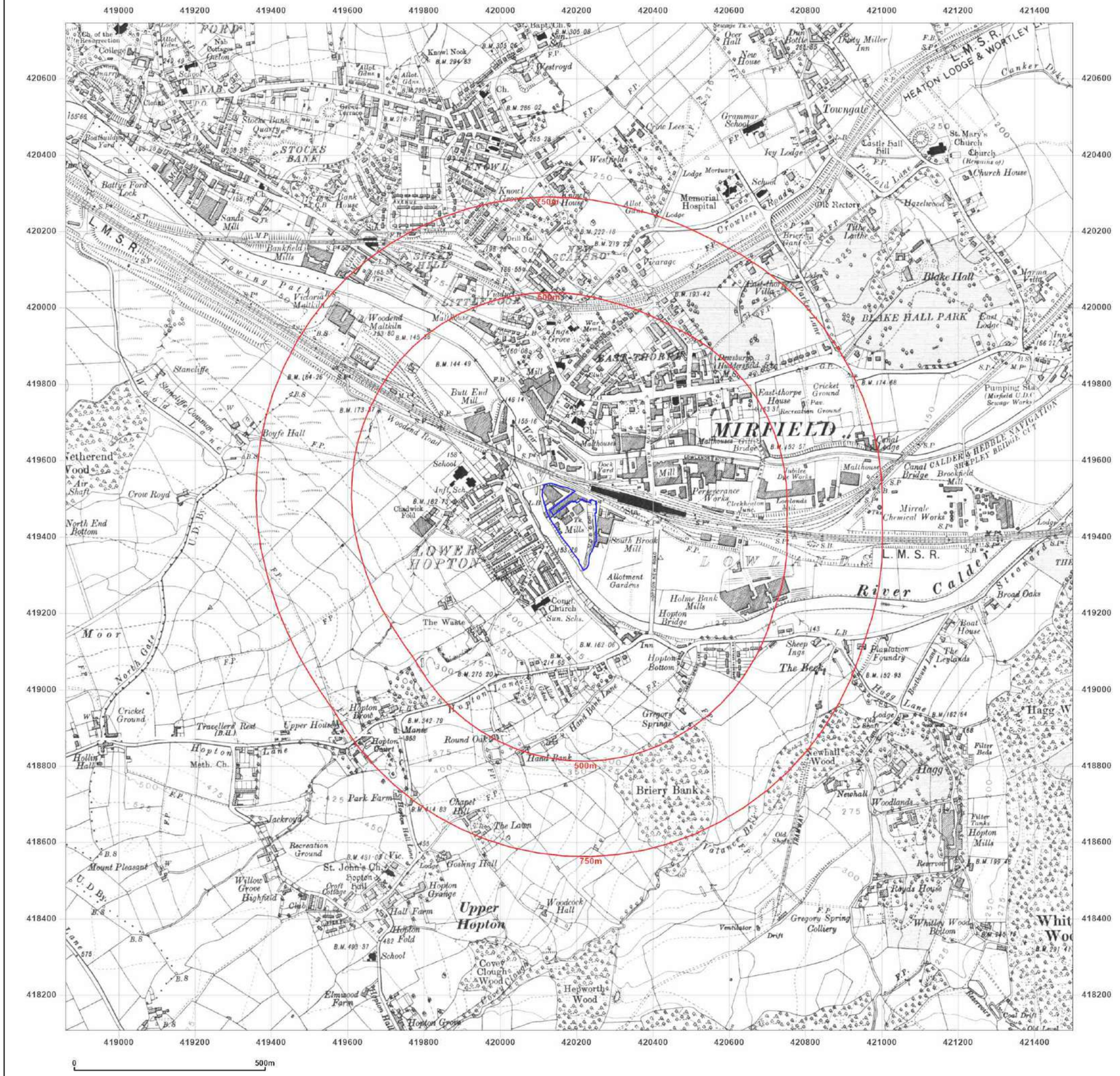

Groundsure INSIGHTS

Site Details:

LEDGARD BRIDGE, MIRFIELD,
WF14 8LZ

Client Ref: BINKS_8012
Report Ref: GS-9372286
Grid Ref: 420180, 419426

Map Name: County Series

Map date: **1930-1931**

Scale: 1:10,560

Printed at: 1:10,560

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Edition N/A
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Revised 1930
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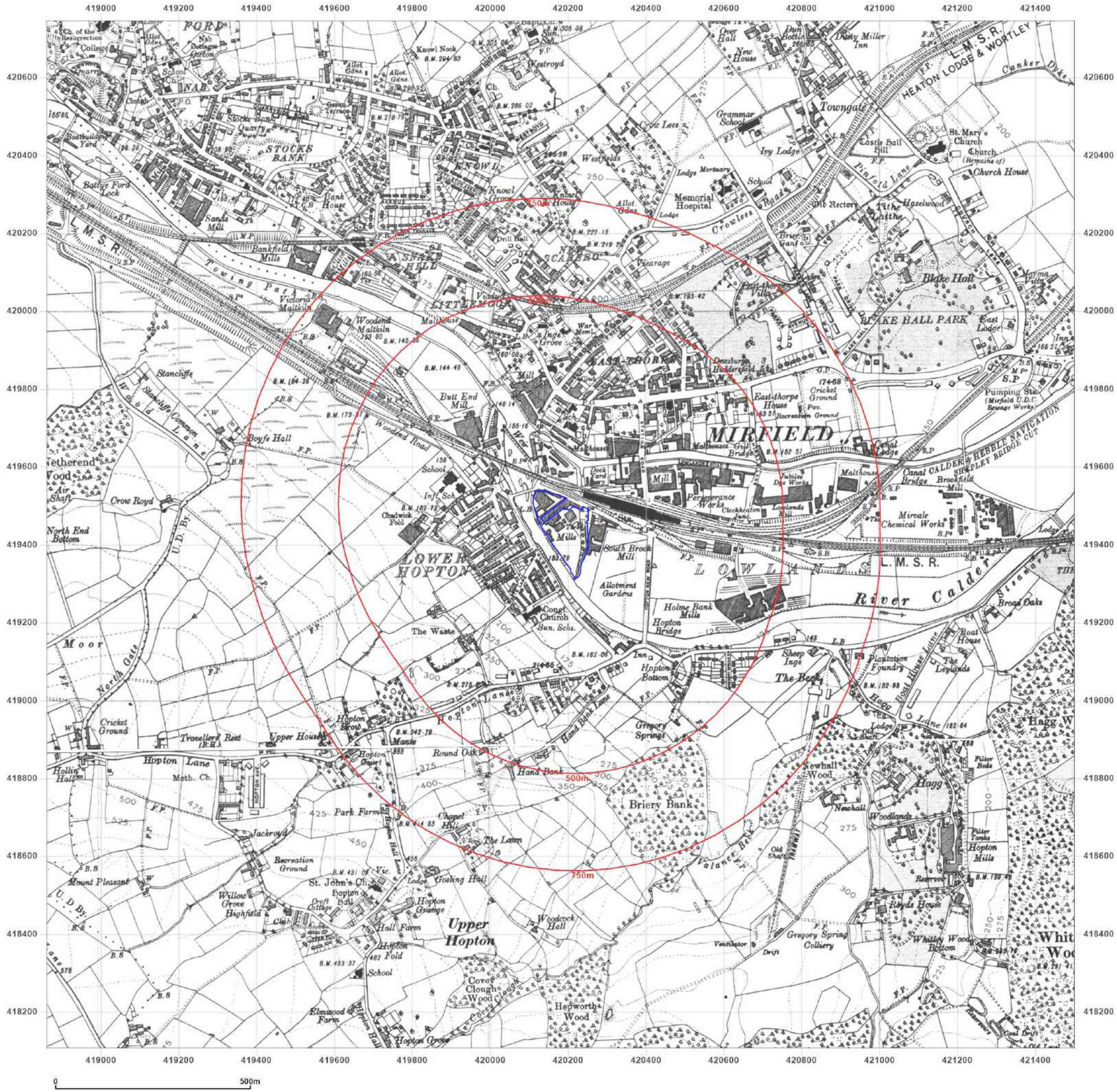

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LEDGARD BRIDGE, MIRFIELD,
WF14 8LZ

Client Ref: BINKS_8012
Report Ref: GS-9372286
Grid Ref: 420180, 419426

Map Name: County Series

Map date: **1938**

Scale: 1:10,560

Printed at: 1:10,560

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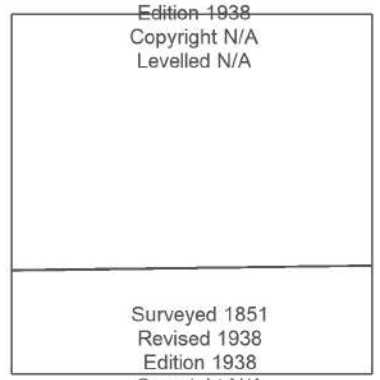

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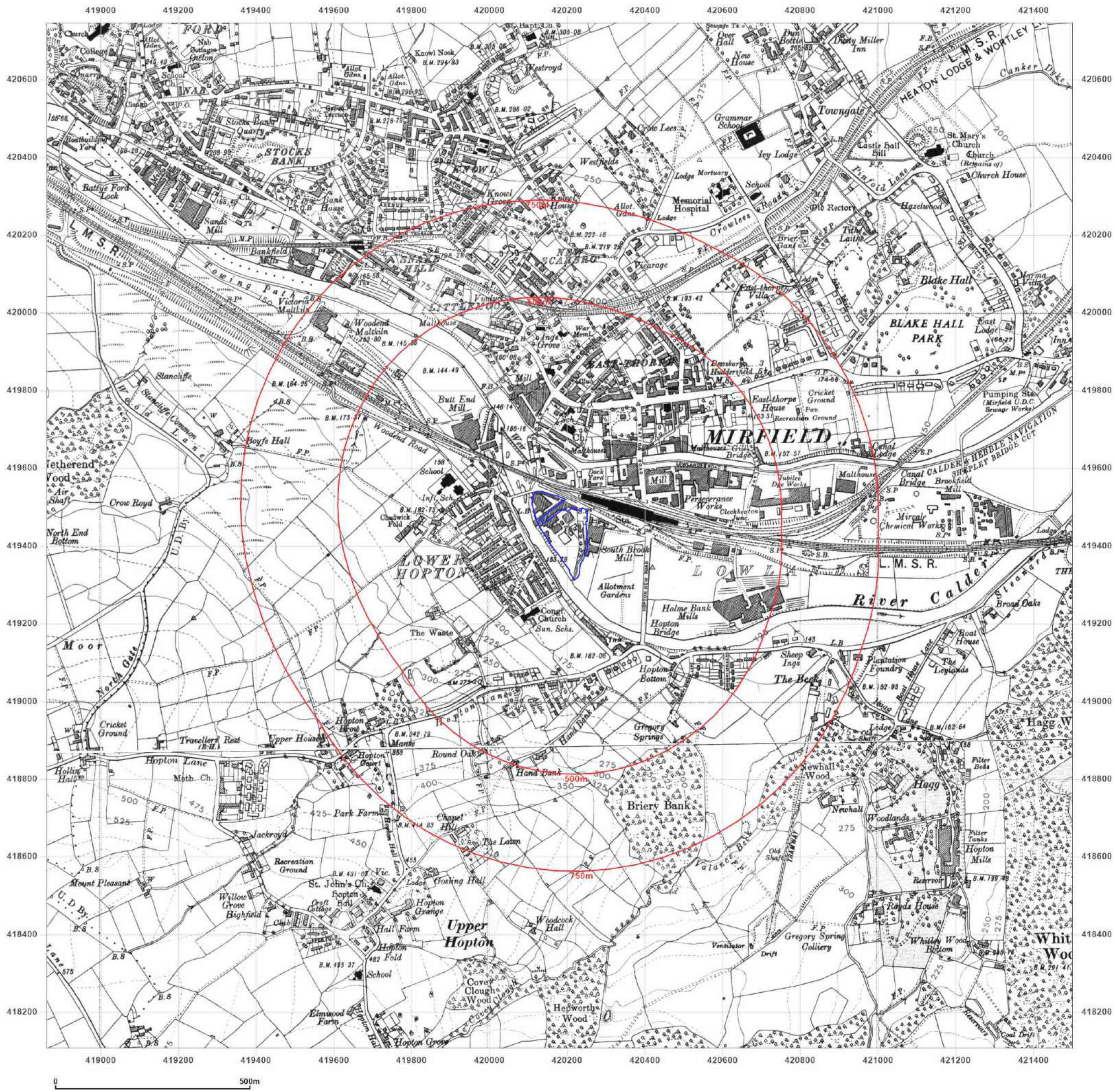

Site Details:

LEDGARD BRIDGE, MIRFIELD,
WF14 8LZ

Client Ref: BINKS_8012
Report Ref: GS-9372286
Grid Ref: 420180, 419426

Map Name: County Series

Map date: **1948**

Scale: 1:10,560

Printed at: 1:10,560

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Surveyed N/A
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Revised 1948
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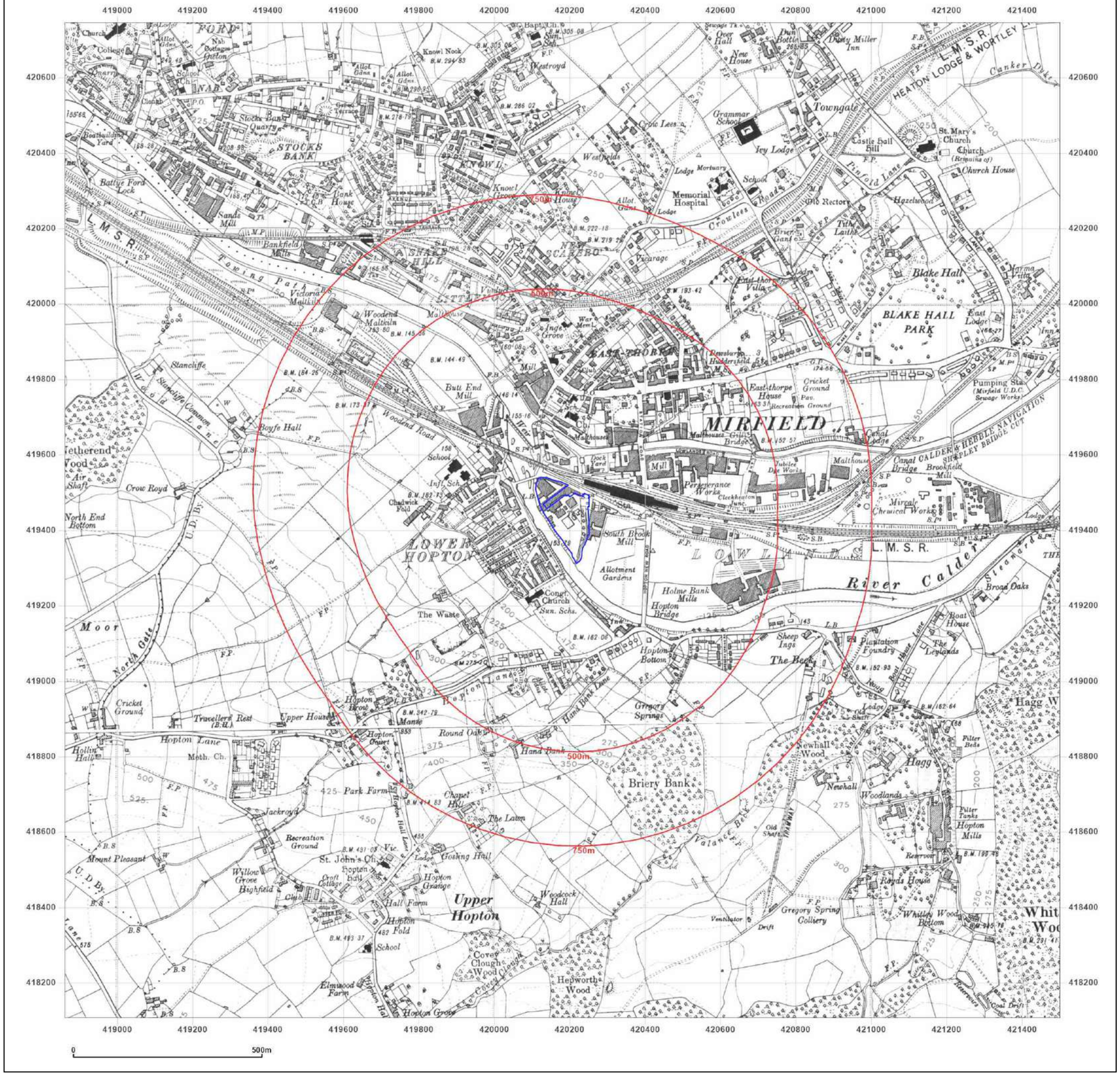

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Site Details:

LEDGARD BRIDGE, MIRFIELD,
WF14 8LZ

Client Ref: BINKS_8012
Report Ref: GS-9372286
Grid Ref: 420180, 419426

Map Name: County Series

Map date: **1948**

Scale: 1:10,560

Printed at: 1:10,560

N
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Revised 1948
Edition N/A
Copyright N/A
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Surveyed 1851
Revised 1948
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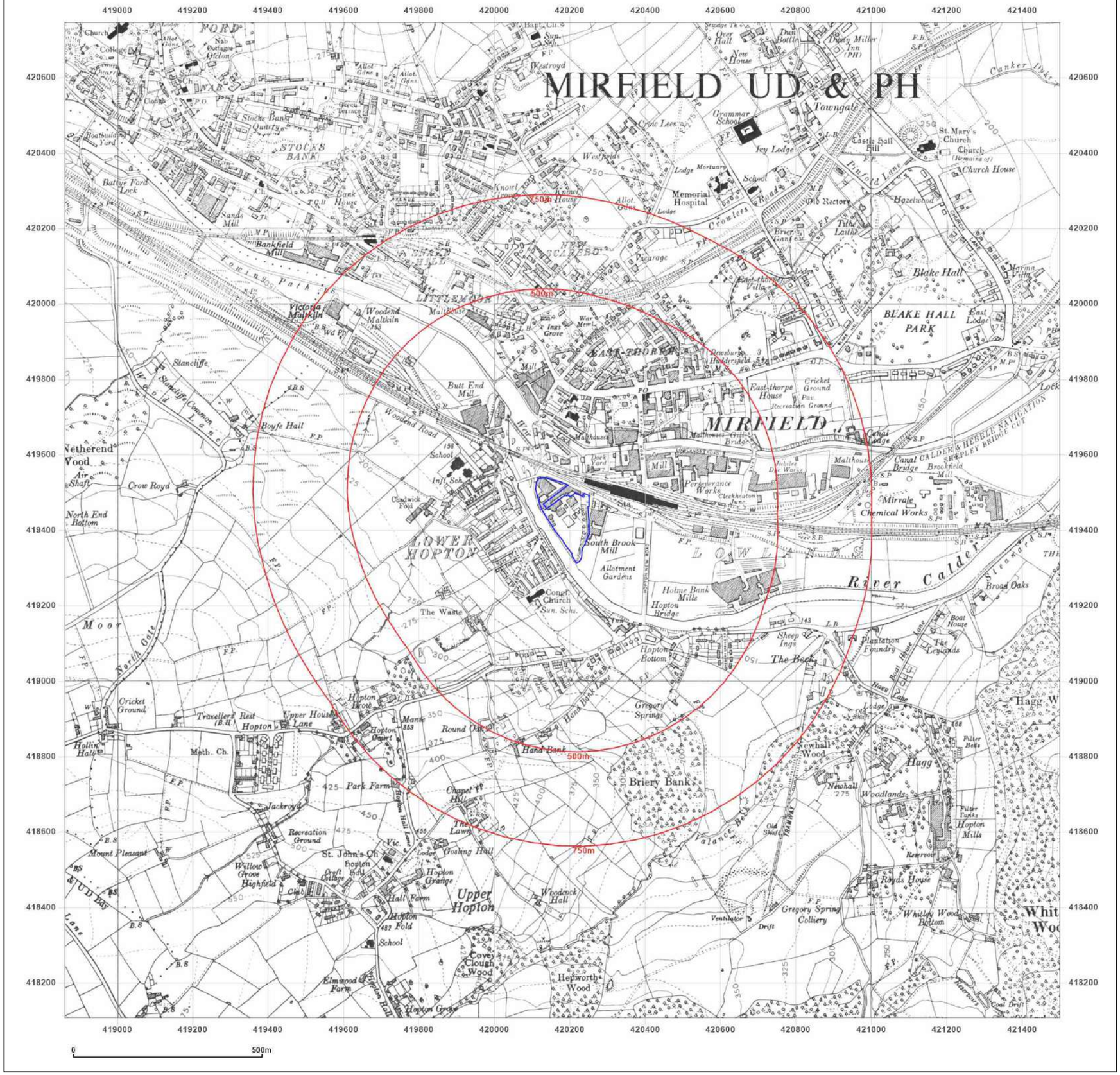

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Site Details:

LEDGARD BRIDGE, MIRFIELD,
WF14 8LZ

Client Ref: BINKS_8012
Report Ref: GS-9372286
Grid Ref: 420180, 419426

Map Name: Provisional

Map date: **1951-1956**

Scale: 1:10,560

Printed at: 1:10,560

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

Surveyed 1951
Revised 1955
Edition N/A
Copyright N/A
Levelled N/A

Surveyed 1951
Revised 1951
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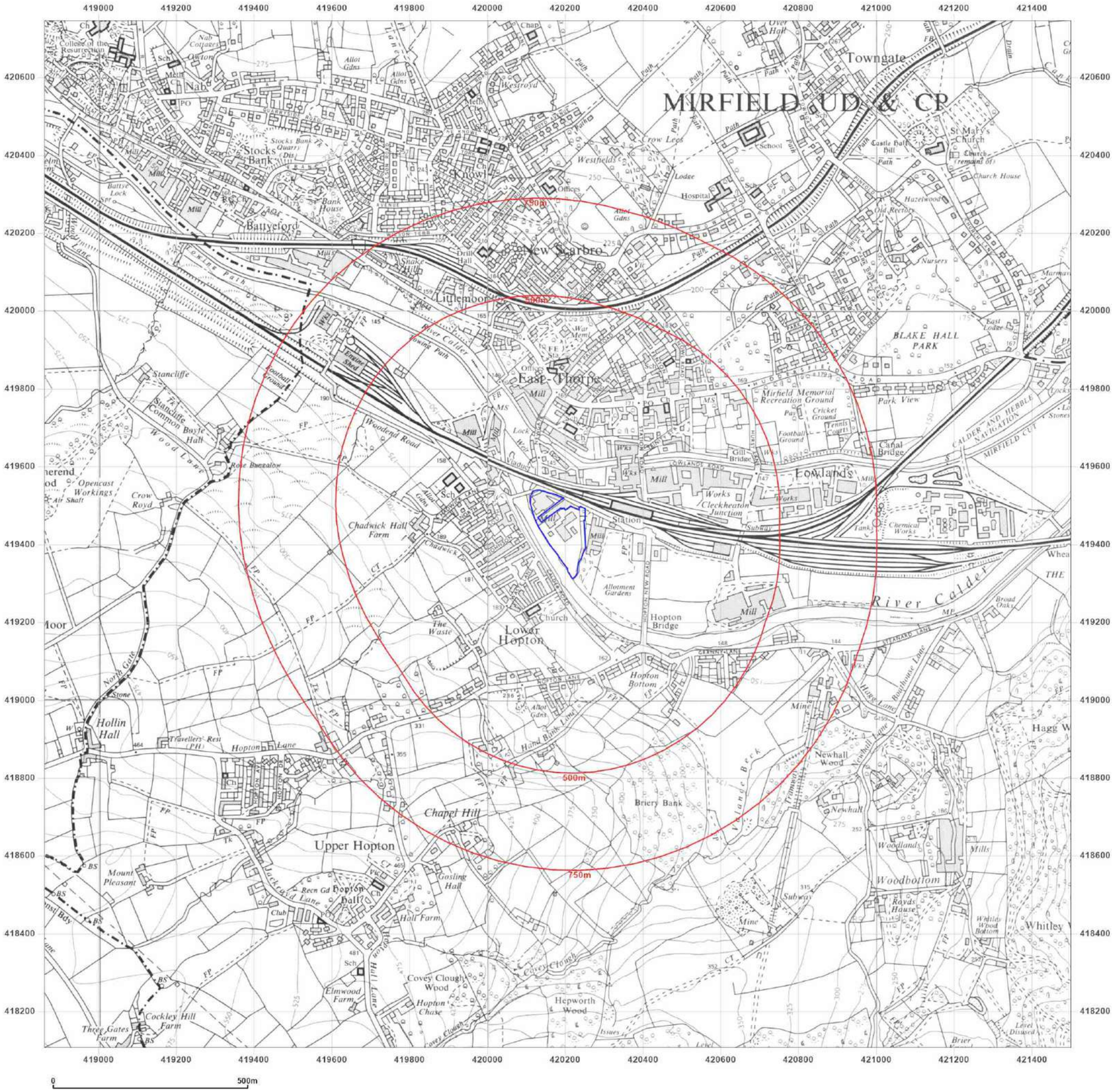

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Site Details:

LEDGARD BRIDGE, MIRFIELD,
WF14 8LZ

Client Ref: BINKS_8012
Report Ref: GS-9372286
Grid Ref: 420180, 419426

Map Name: Provisional

Map date: **1965-1967**

Scale: 1:10,560

Printed at: 1:10,560

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

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

Surveyed 1965
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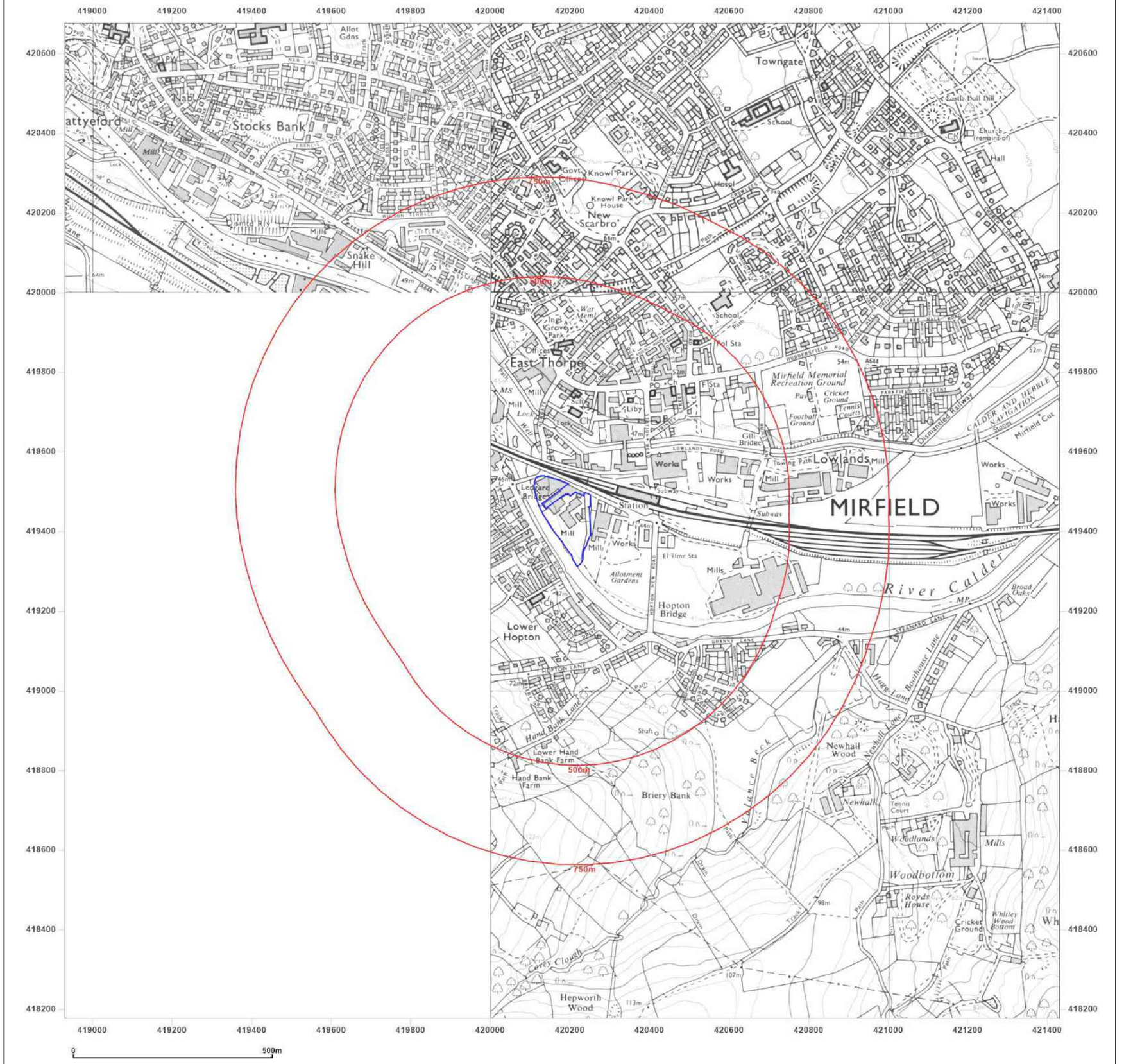

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Site Details:

LEDGARD BRIDGE, MIRFIELD,
WF14 8LZ

Client Ref: BINKS_8012
Report Ref: GS-9372286
Grid Ref: 420180, 419426

Map Name: National Grid

Map date: **1981-1985**

Scale: 1:10,000

Printed at: 1:10,000

N
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Edition N/A
Copyright N/A
Levelled N/A

Surveyed 1977
Revised 1981
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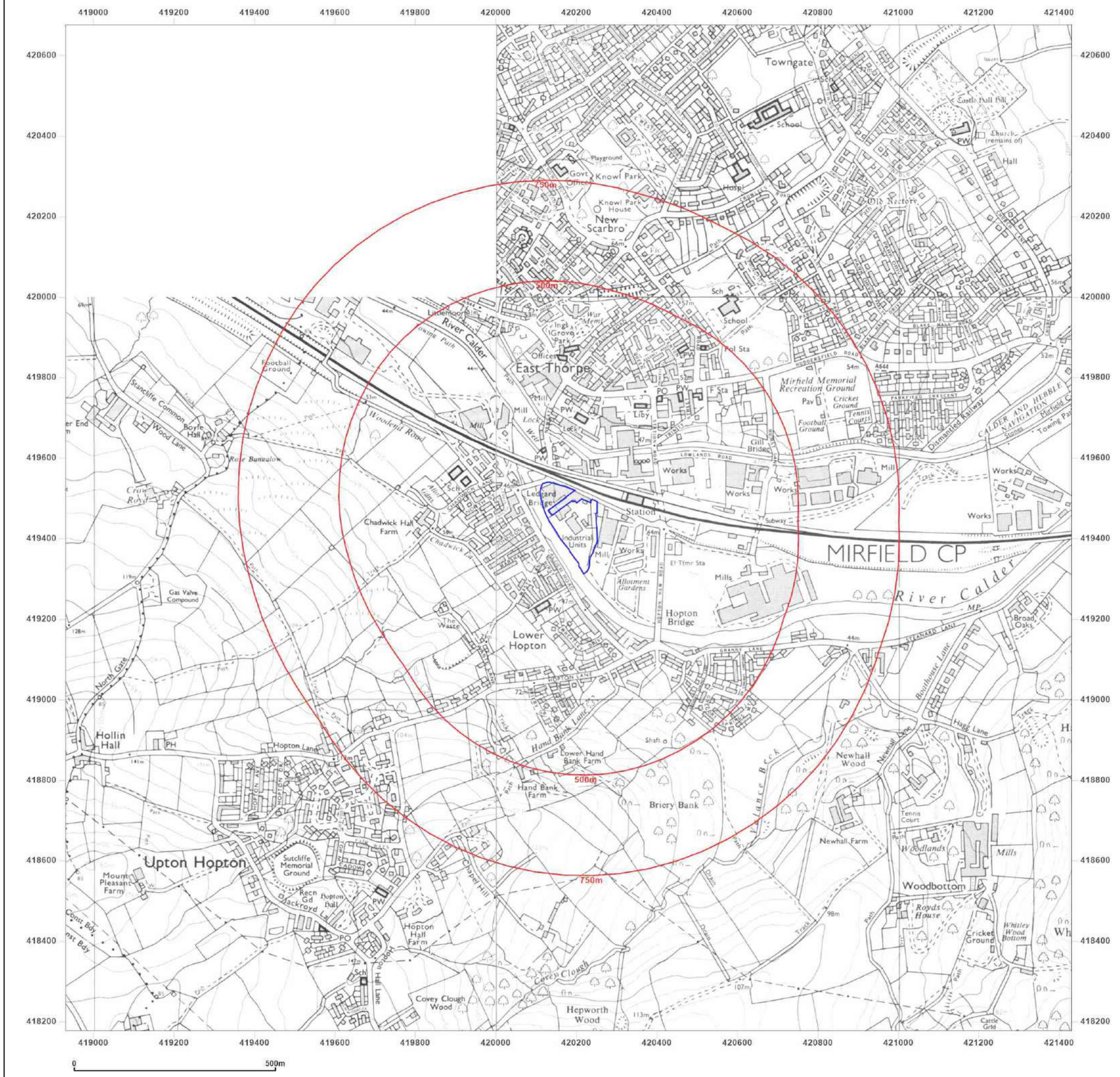

Groundsure INSIGHTS

Site Details:

LEDGARD BRIDGE, MIRFIELD,
WF14 8LZ

Client Ref: BINKS_8012
Report Ref: GS-9372286
Grid Ref: 420180, 419426

Map Name: National Grid

Map date: **1988-1993**

Scale: 1:10,000

Printed at: 1:10,000

N
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Surveyed 1985
Revised 1988
Edition N/A
Copyright N/A
Levelled N/A

Surveyed 1984
Revised 1988
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Revised 1993
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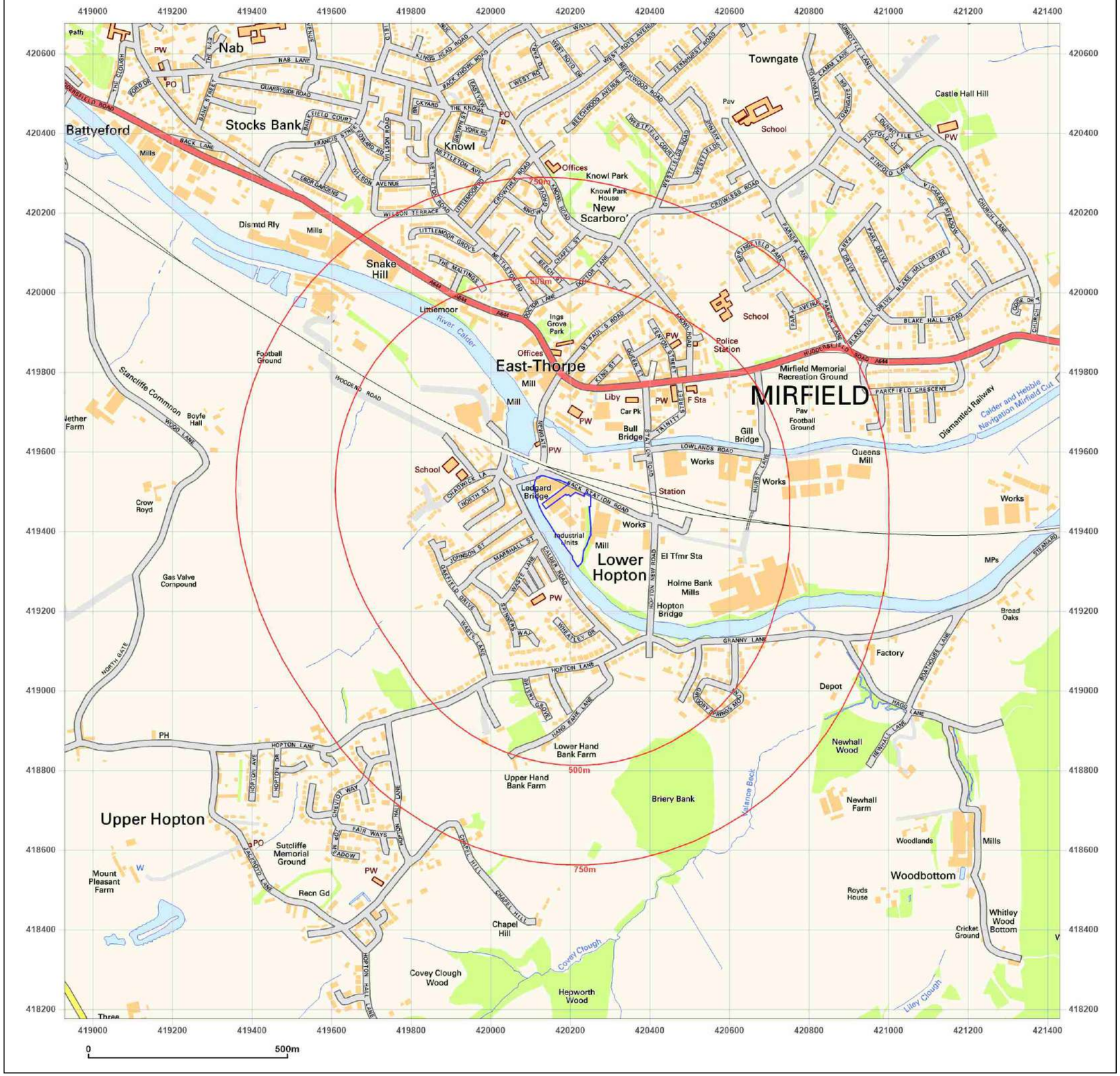

Groundsure INSIGHTS

Site Details:

LEDGARD BRIDGE, MIRFIELD, WF14 8LZ

Client Ref: BINKS_8012
Report Ref: GS-9372286
Grid Ref: 420180, 419426

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

N W E S

2001

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Production date: 21 February 2023

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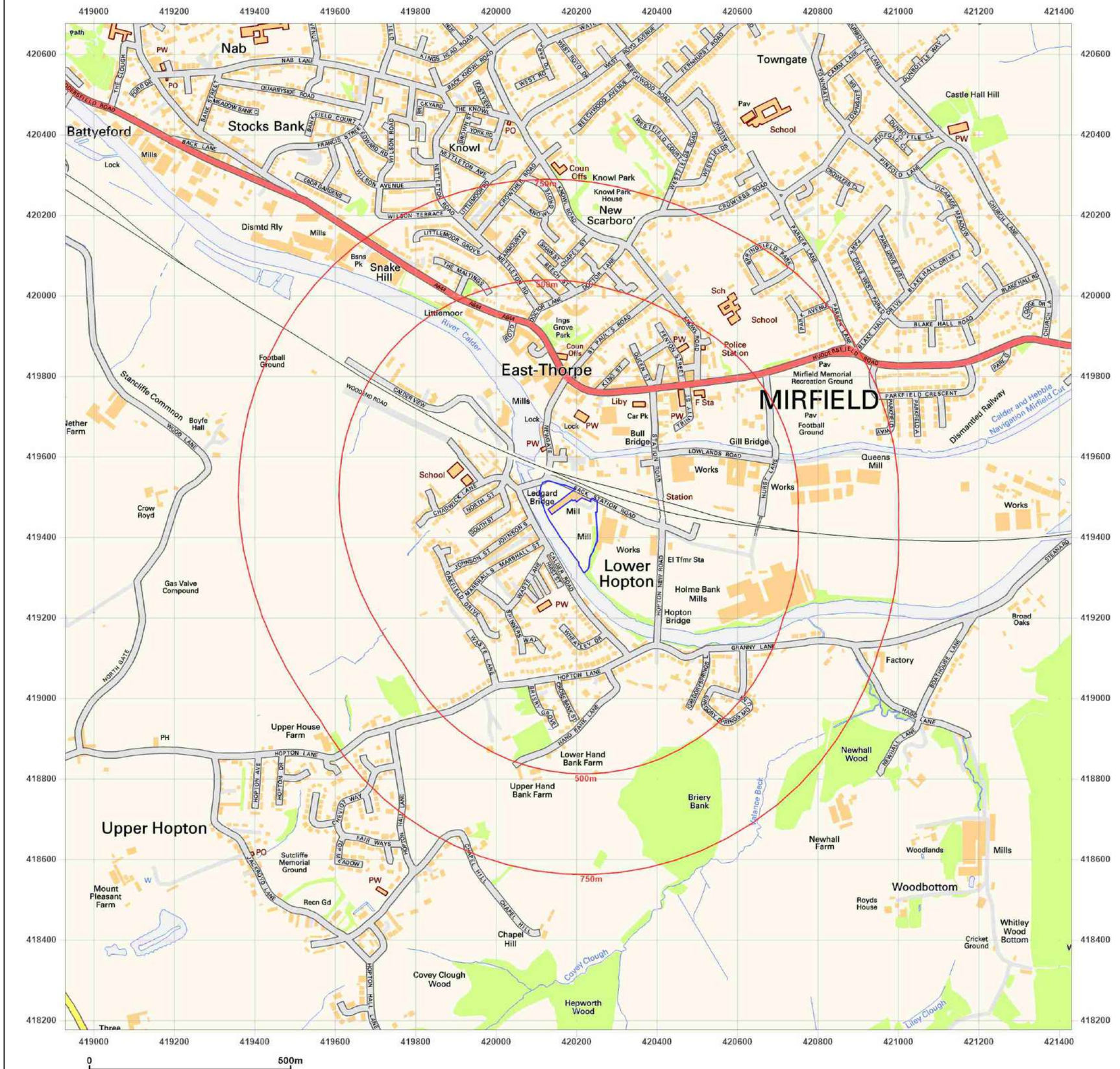

Groundsure INSIGHTS

Site Details:

LEDGARD BRIDGE, MIRFIELD,
WF14 8LZ

Client Ref: BINKS_8012
Report Ref: GS-9372286
Grid Ref: 420180, 419426

Map Name: National Grid

Map date: **2010**

Scale: 1:10,000

Printed at: 1:10,000

N W E S

2010

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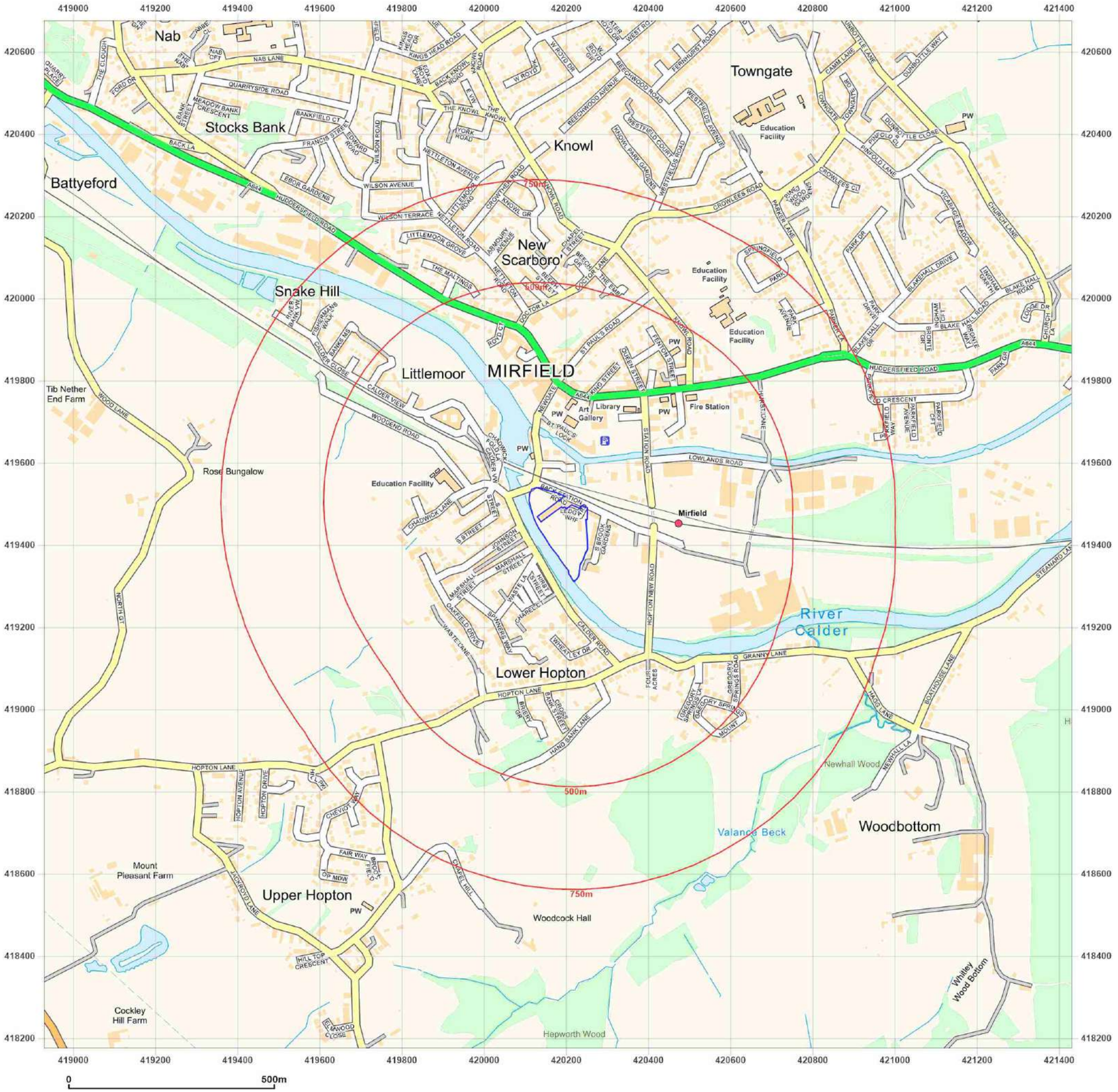

Groundsure INSIGHTS

Site Details:

LEDGARD BRIDGE, MIRFIELD, WF14 8LZ

Client Ref: BINKS_8012
Report Ref: GS-9372286
Grid Ref: 420180, 419426

Map Name: National Grid
Map date: **2023**
Scale: 1:10,000
Printed at: 1:10,000

N W E S

2023

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Site Details:

LEDGARD BRIDGE, MIRFIELD,
WF14 8LZ

Client Ref: BINKS_8012
Report Ref: GS-9372286
Grid Ref: 420180, 419426

Map Name: County Series Town Plan
Map date: **1890**
Scale: 1:500
Printed at: 1:1,000

N
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Surveyed 1890
Revised N/A
Edition N/A
Copyright N/A
Levelled N/A

Surveyed 1890
Revised N/A
Edition N/A
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Surveyed 1890
Revised N/A
Edition N/A
Copyright N/A
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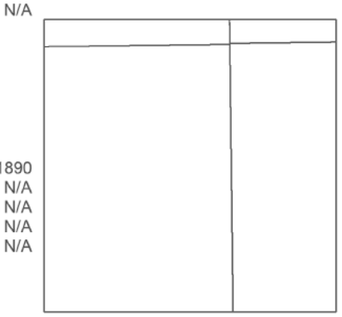

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Site Details:

LEDGARD BRIDGE, MIRFIELD, WF14 8LZ

Client Ref: BINKS_8012
Report Ref: GS-9372286
Grid Ref: 420180, 419426

Map Name: County Series

Map date: **1893**

Scale: 1:2,500

Printed at: 1:2,500

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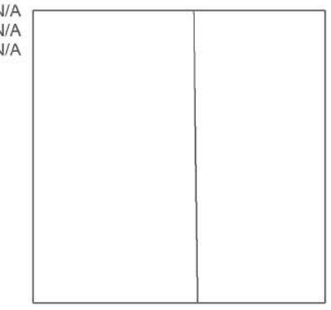
Revised 1893
Edition N/A
Copyright N/A
Levelled N/A

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



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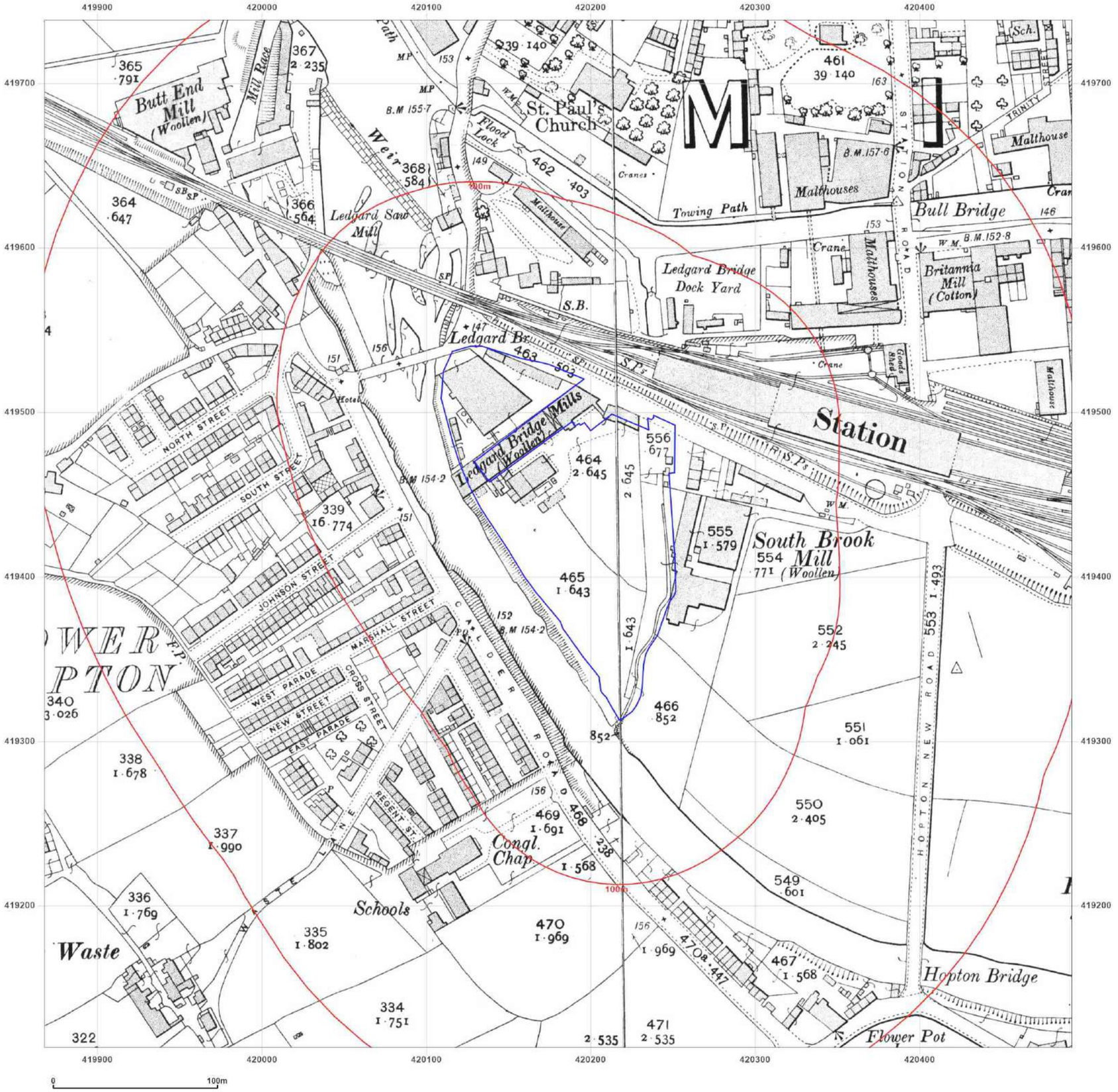

Groundsure INSIGHTS

Site Details:

LEDGARD BRIDGE, MIRFIELD, WF14 8LZ

Client Ref: BINKS_8012
Report Ref: GS-9372286
Grid Ref: 420180, 419426

Map Name: County Series
Map date: **1907**
Scale: 1:2,500
Printed at: 1:2,500

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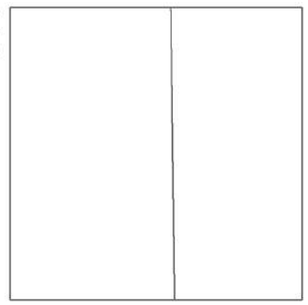
Surveyed 1907
Revised 1907
Edition N/A
Copyright N/A
Levelled N/A



Surveyed 1907
Revised 1907
Edition N/A
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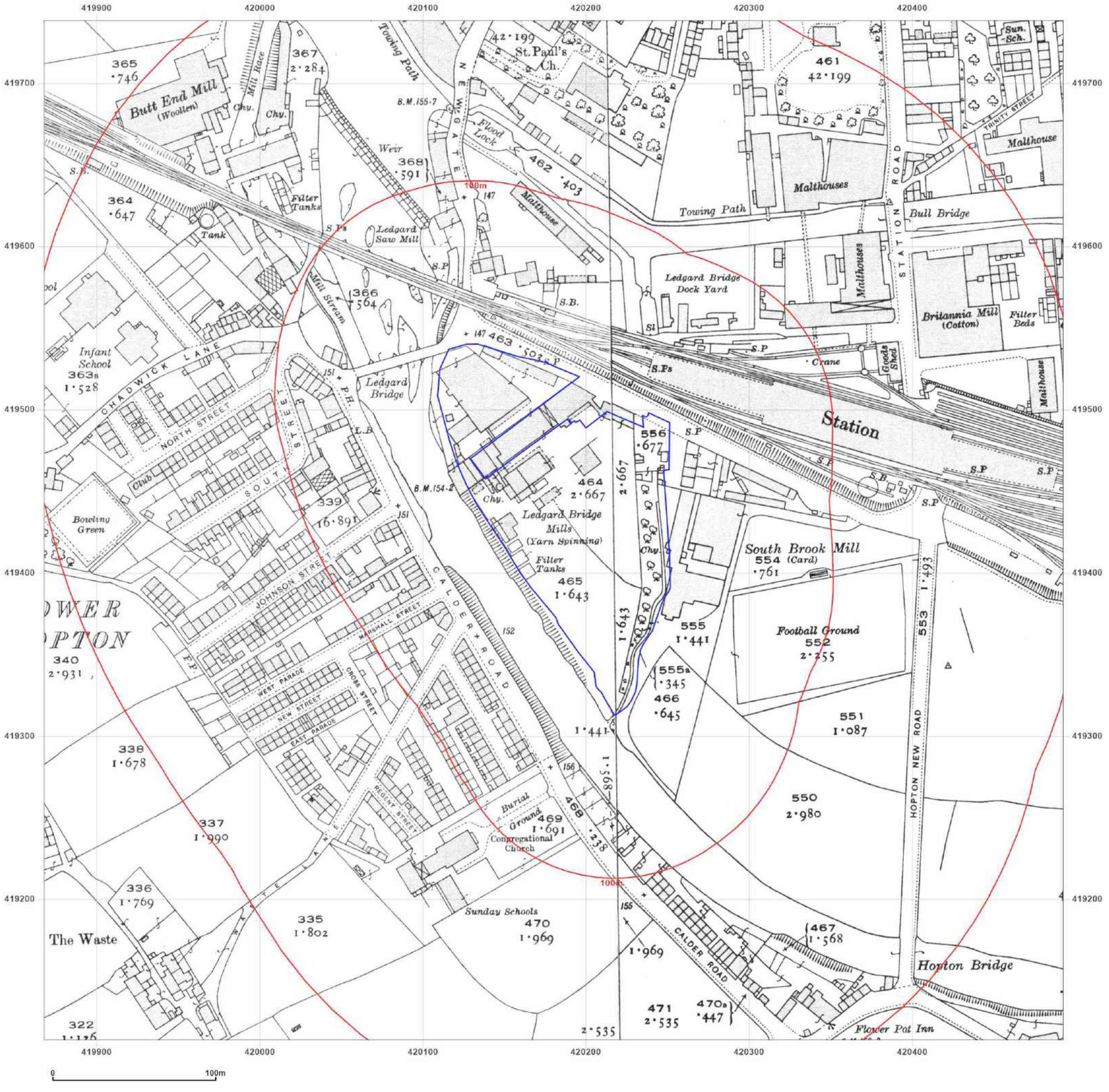

Groundsure INSIGHTS

Site Details:

LEDGARD BRIDGE, MIRFIELD, WF14 8LZ

Client Ref: BINKS_8012
Report Ref: GS-9372286
Grid Ref: 420180, 419426

Map Name: County Series

Map date: **1922**

Scale: 1:2,500

Printed at: 1:2,500

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Edition N/A
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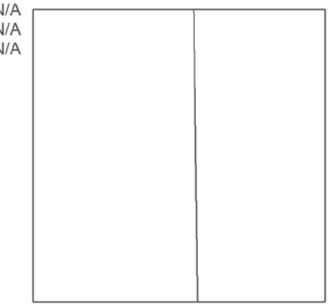
Levelled N/A

Surveyed 1922
Revised 1922
Edition N/A
Copyright N/A
Levelled N/A



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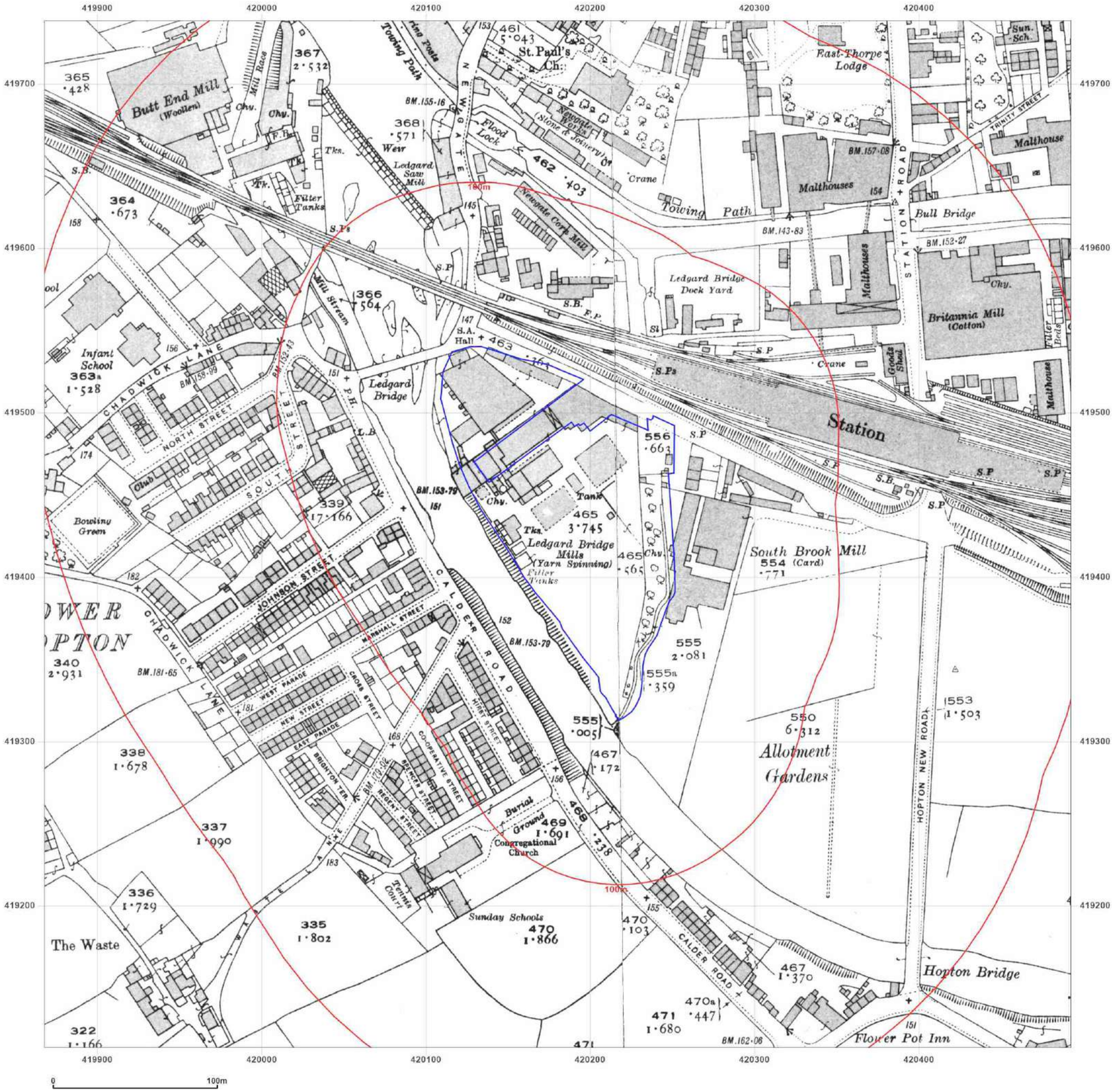

Groundsure INSIGHTS

Site Details:

LEDGARD BRIDGE, MIRFIELD,
WF14 8LZ

Client Ref: BINKS_8012
Report Ref: GS-9372286
Grid Ref: 420180, 419426

Map Name: County Series

Map date: **1933**

Scale: 1:2,500

Printed at: 1:2,500

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Revised 1933
Edition N/A
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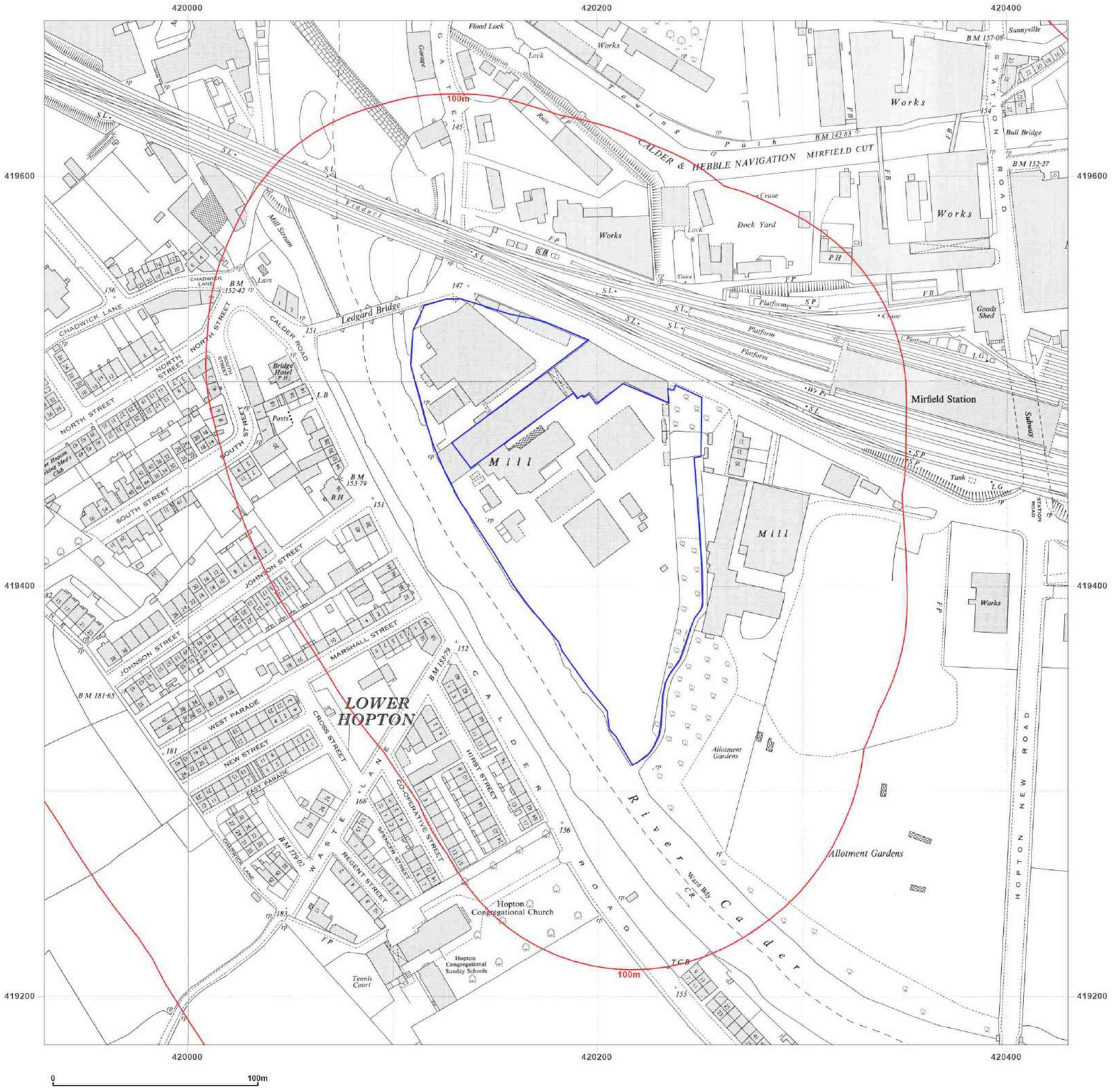

Site Details:

LEDGARD BRIDGE, MIRFIELD,
WF14 8LZ

Client Ref: BINKS_8012
Report Ref: GS-9372286
Grid Ref: 420180, 419426

Map Name: National Grid

Map date: **1957**

Scale: 1:1,250

Printed at: 1:2,000

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Surveyed 1957 Revised 1957 Edition N/A Copyright N/A Levelled 1931	Surveyed 1957 Revised 1957 Edition N/A Copyright N/A Levelled 1931
Surveyed 1957 Revised 1957 Edition N/A Copyright N/A Levelled 1931	Surveyed 1957 Revised 1957 Edition N/A Copyright N/A Levelled 1931

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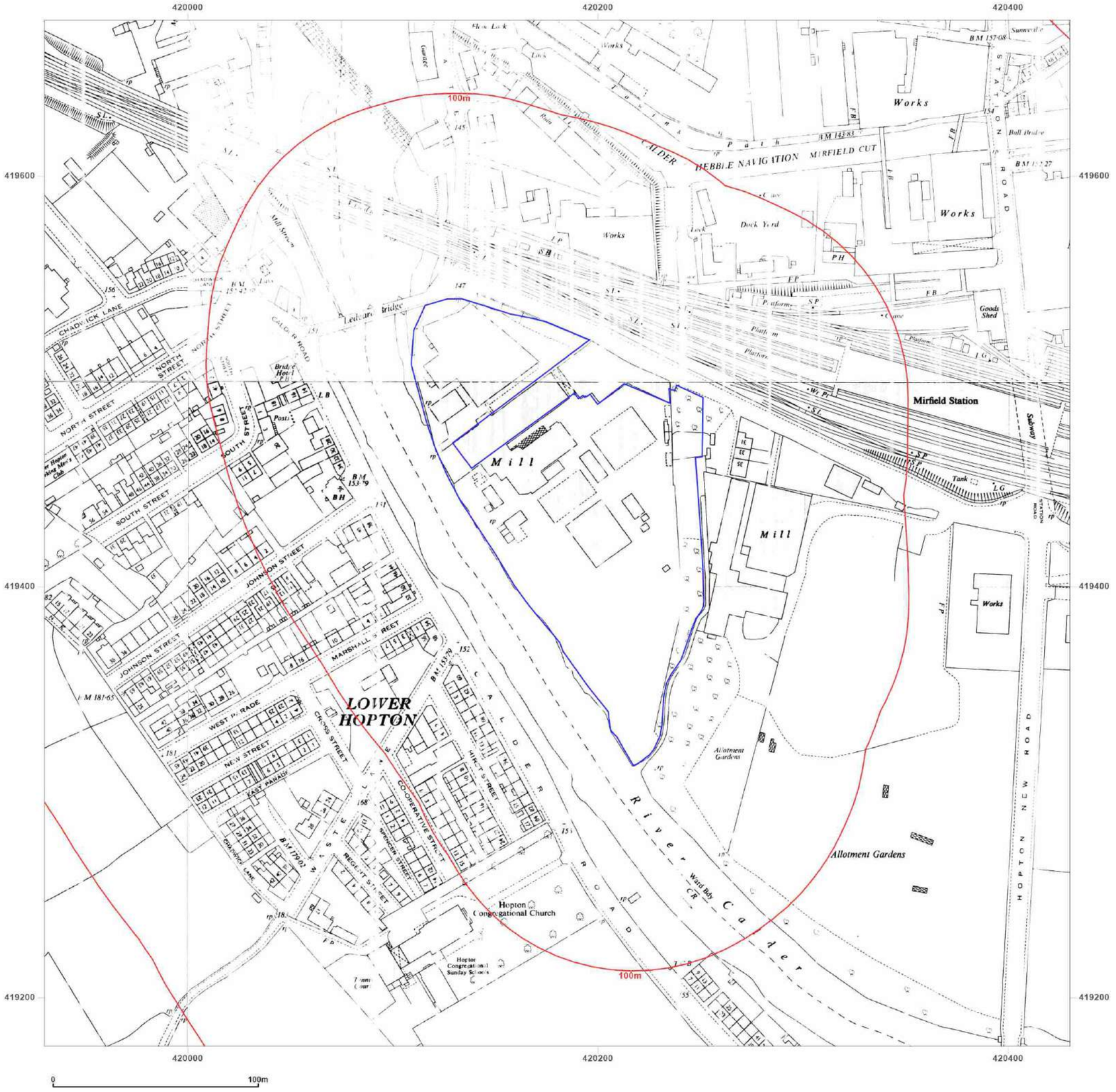

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Site Details:

LEDGARD BRIDGE, MIRFIELD,
WF14 8LZ

Client Ref: BINKS_8012
Report Ref: GS-9372286
Grid Ref: 420180, 419426

Map Name: National Grid

Map date: **1958**

Scale: 1:1,250

Printed at: 1:2,000

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

Surveyed N/A
Revised N/A
Edition N/A
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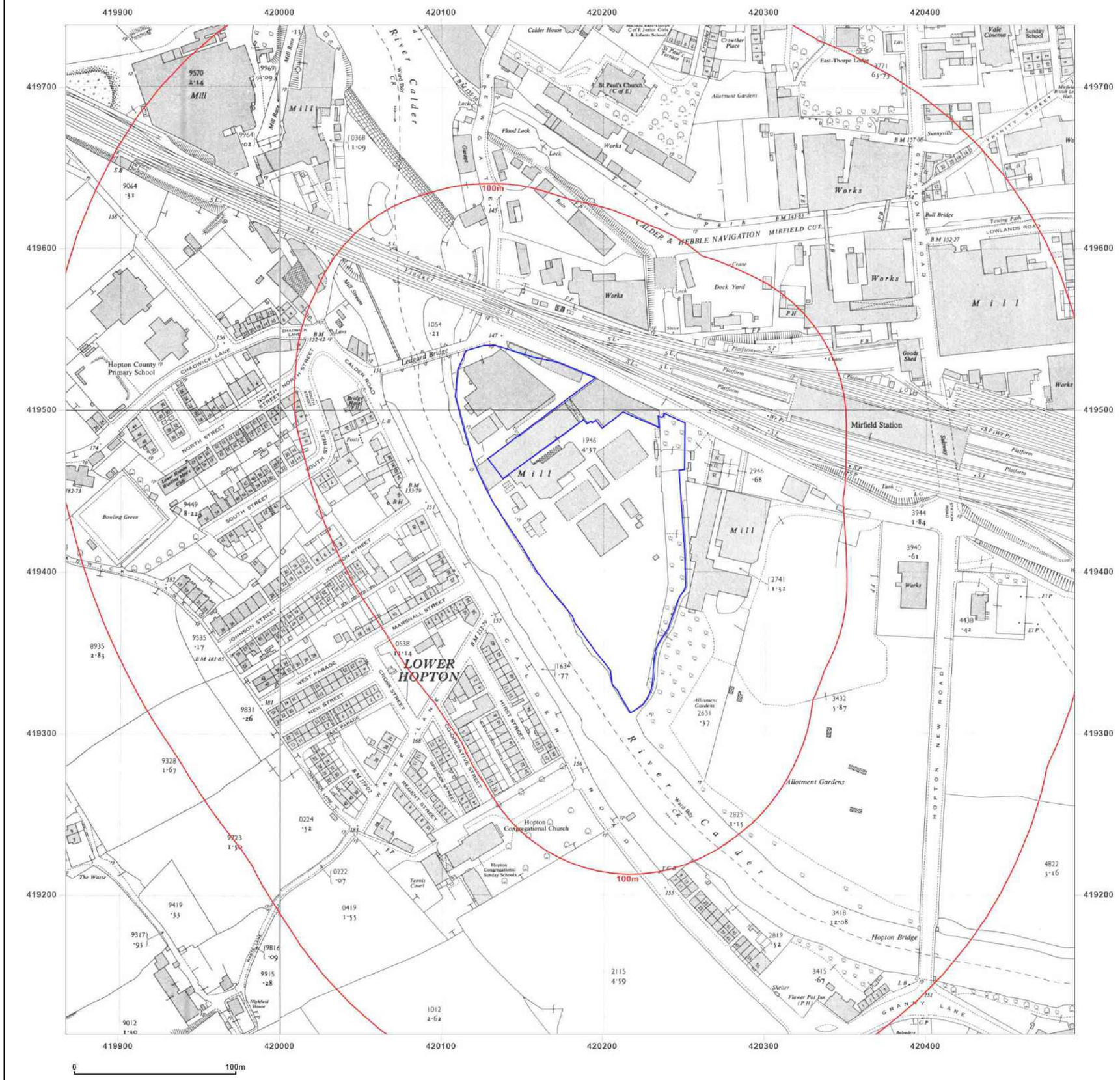

Groundsure INSIGHTS

Site Details:

LEDGARD BRIDGE, MIRFIELD,
WF14 8LZ

Client Ref: BINKS_8012
Report Ref: GS-9372286
Grid Ref: 420180, 419426

Map Name: National Grid

Map date: **1958**

Scale: 1:2,500

Printed at: 1:2,500

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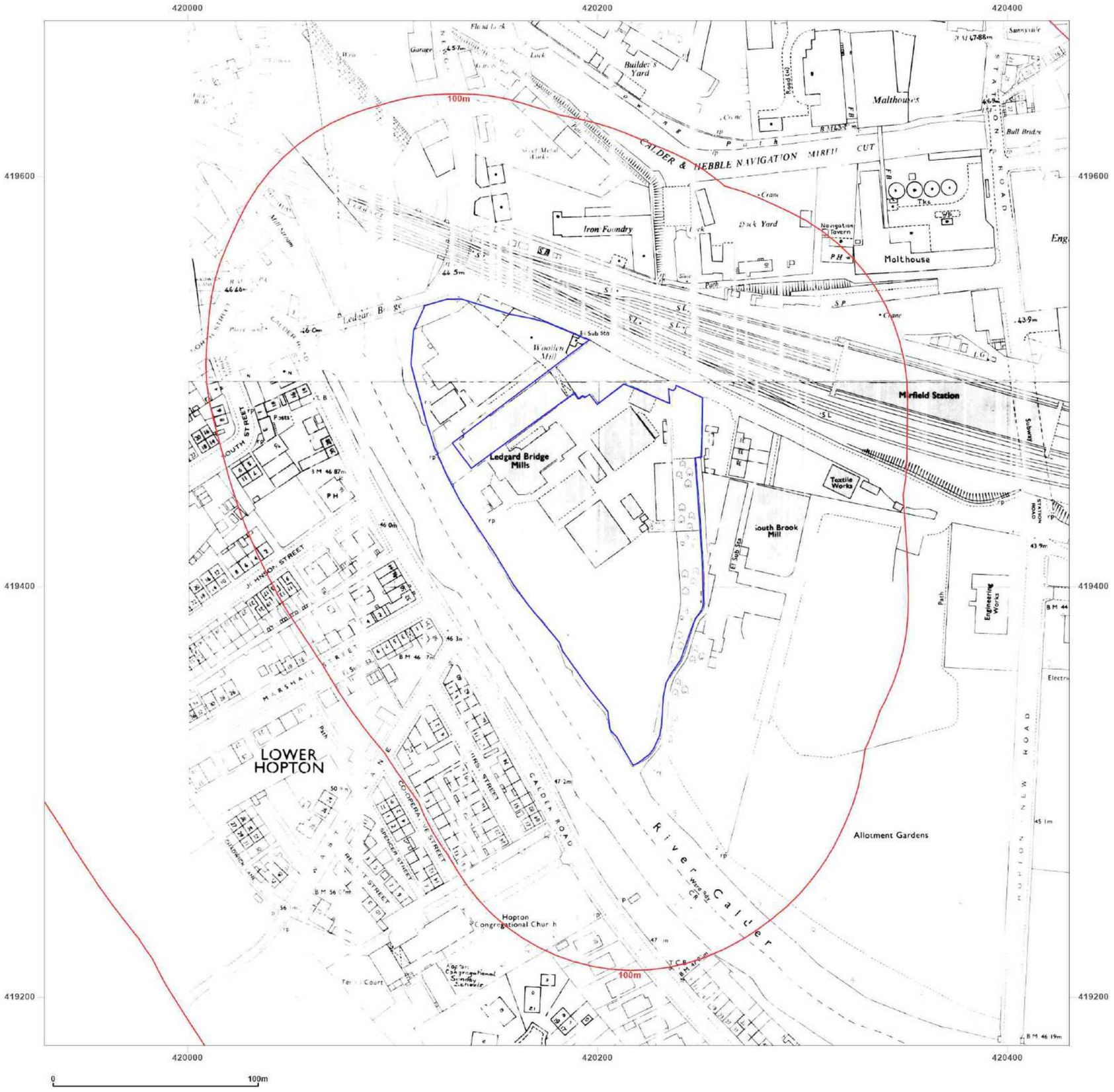

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Site Details:

LEDGARD BRIDGE, MIRFIELD,
WF14 8LZ

Client Ref: BINKS_8012
Report Ref: GS-9372286
Grid Ref: 420180, 419426

Map Name: National Grid

Map date: **1973-1978**

Scale: 1:1,250

Printed at: 1:2,000

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Edition N/A
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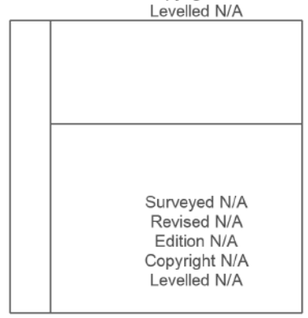
Levelled N/A



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Site Details:

LEDGARD BRIDGE, MIRFIELD,
WF14 8LZ

Client Ref: BINKS_8012
Report Ref: GS-9372286
Grid Ref: 420180, 419426

Map Name: National Grid

Map date: **1985-1989**

Scale: 1:1,250

Printed at: 1:2,000

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Surveyed 1957
Revised 1989
Edition N/A
Copyright 1989
Levelled N/A

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Revised 1985
Edition N/A
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Surveyed 1988
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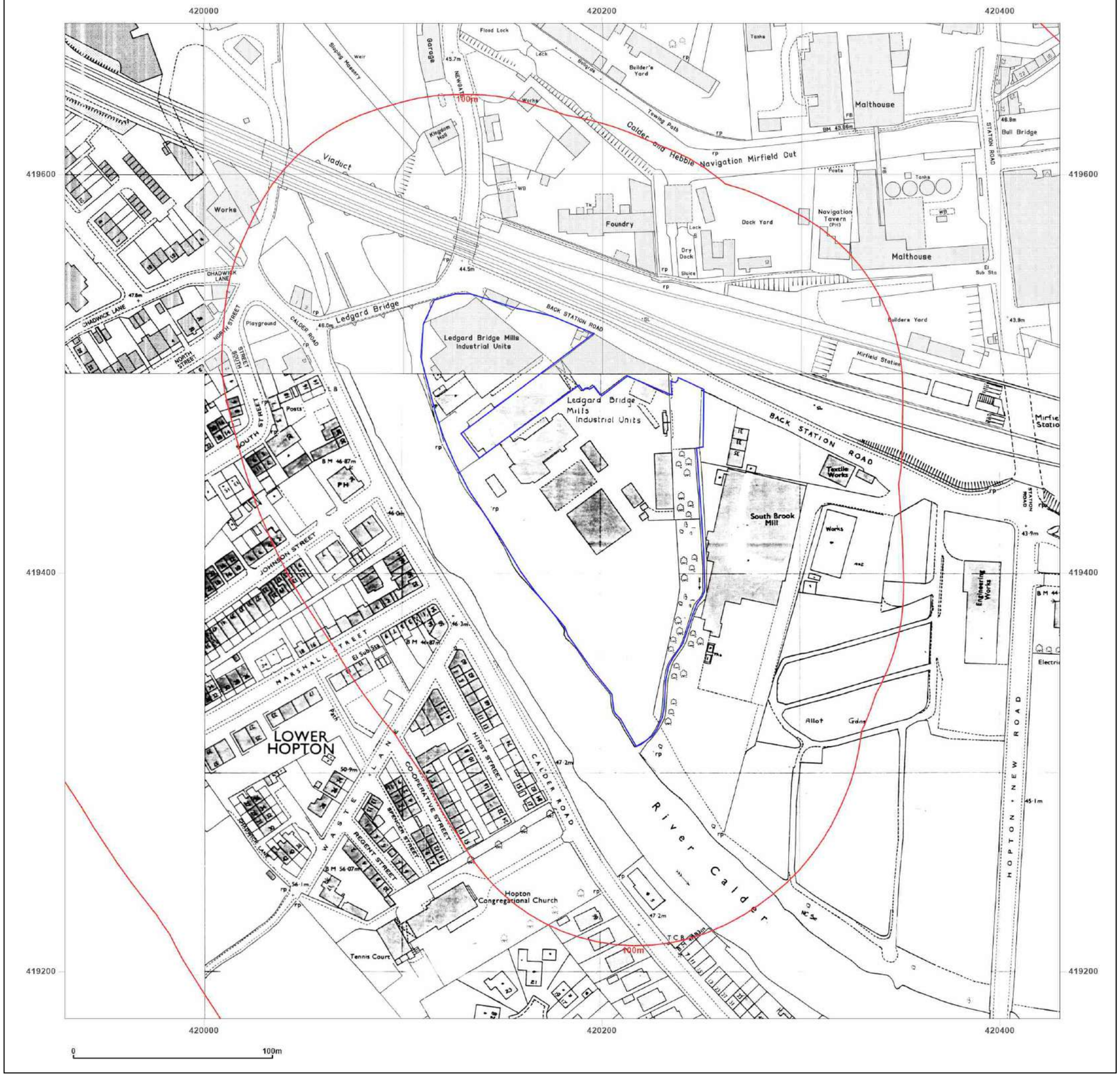

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Site Details:

LEDGARD BRIDGE, MIRFIELD,
WF14 8LZ

Client Ref: BINKS_8012
Report Ref: GS-9372286
Grid Ref: 420180, 419426

Map Name: National Grid

Map date: **1986-1990**

Scale: 1:1,250

Printed at: 1:2,000

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

Surveyed 1957
Revised 1985
Edition N/A
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Levelled 1963

Surveyed 1989
Revised 1989
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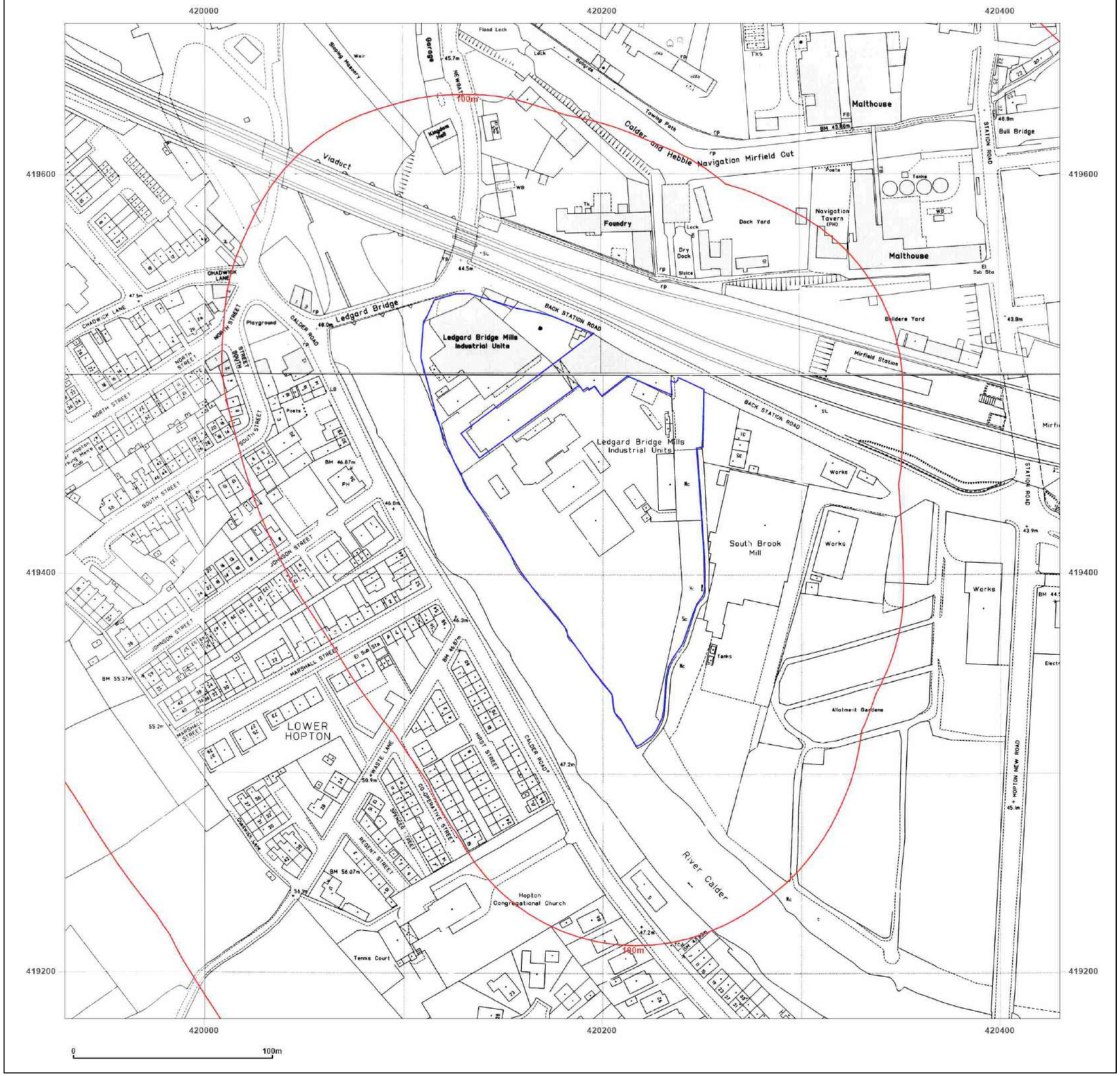

Groundsure INSIGHTS

Site Details:

LEDGARD BRIDGE, MIRFIELD,
WF14 8LZ

Client Ref: BINKS_8012
Report Ref: GS-9372286
Grid Ref: 420180, 419426

Map Name: National Grid

Map date: **1989-1993**

Scale: 1:1,250

Printed at: 1:2,000

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Edition N/A
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Levelled 1963

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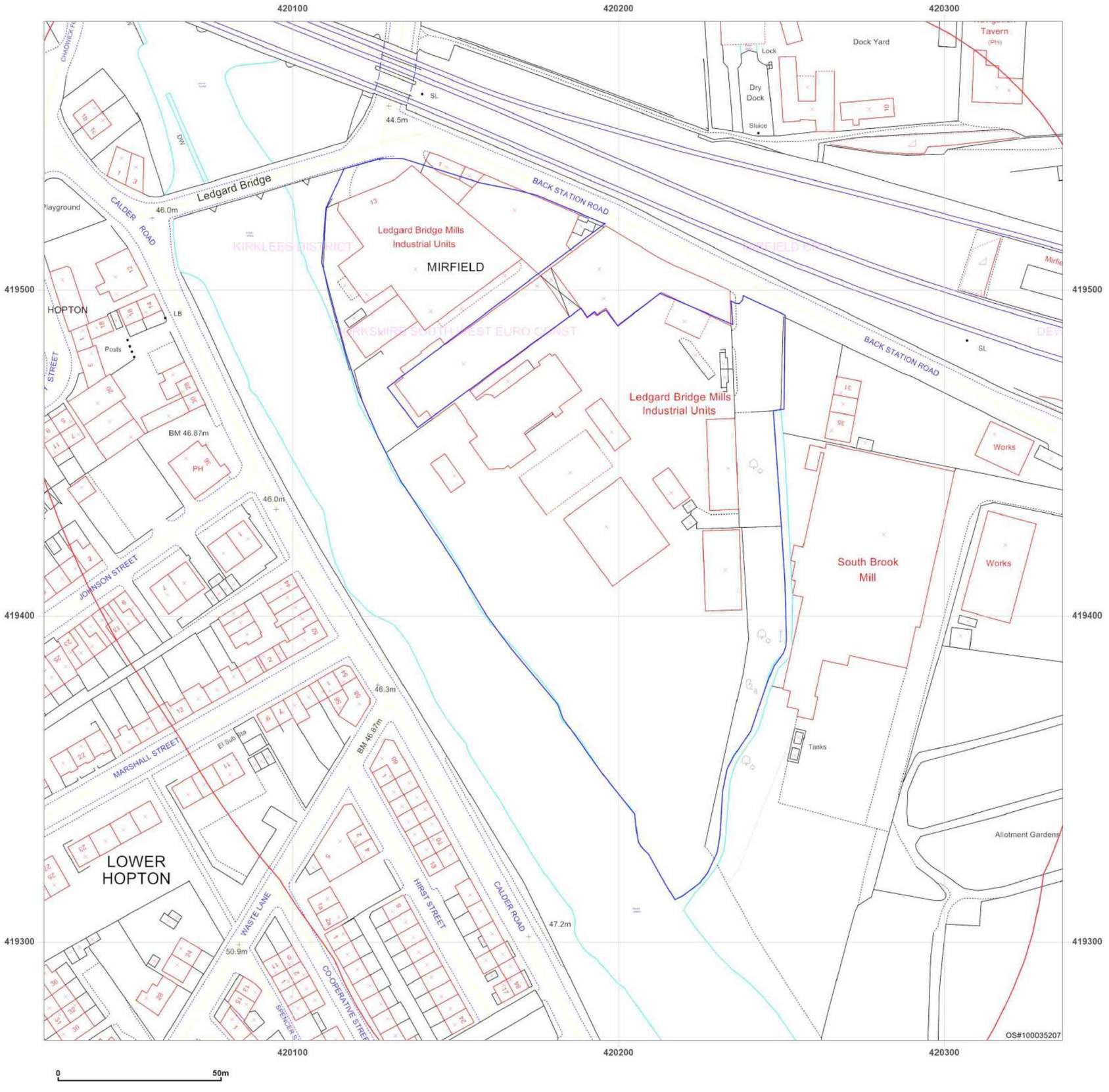

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Site Details:

LEDGARD BRIDGE, MIRFIELD,
WF14 8LZ

Client Ref: BINKS_8012
Report Ref: GS-9372286
Grid Ref: 420180, 419426

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

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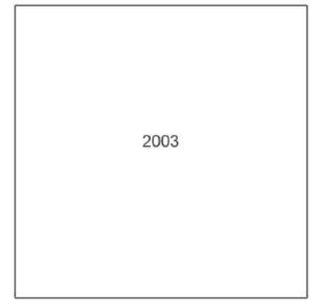

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