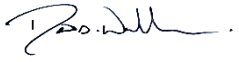
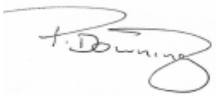
Paul Downing & Associates Ltd

Groundwater Risk Assessment for MLB Autospares Limited, Kilnhurst Road, Kilnhurst, Rawmarsh, Mexborough S64 5TL

Version 1.0

Title	Name	Date	Signature
Author	David Walker	06 February 2025	
Reviewed	Paul Downing	06 February 2025	

Contents

Statement of Limitations & Assumptions

This report was prepared in accordance with the scope of work outlined within this report and is subject to the applicable cost, time and other constraints.

Paul Downing & Associates Ltd performed the services on behalf of the Client in a manner consistent with the normal level of care and expertise exercised by members of the environmental profession. No warranties, expressed or implied, are made.

Except as otherwise stated, Paul Downing & Associates Ltd's assessment is limited strictly to the scope of work outlined in the Scope of Work section and does not evaluate structural or geotechnical conditions of any part of the Site (including any buildings, equipment or infrastructure) or outside the Site boundary.

All conclusions and recommendations made in the report are the professional opinions of Paul Downing & Associates Ltd personnel involved with the project and, while normal checking of the accuracy of data has been conducted, Paul Downing & Associates Ltd assumes no responsibility or liability for errors in data obtained from external sources, regulatory agencies or any other external sources, nor from occurrences outside the scope of this project.

Paul Downing & Associates Ltd is not engaged in environmental consulting and reporting for the purpose of advertising, sales promoting, or endorsement of any client interests, including raising investment capital, recommending investment decisions, or other publicity or investment purposes. This report has been prepared for the sole use of Client. The report may not be relied upon by any other party without the express written agreement of Paul Downing & Associates Ltd. The provision of a copy of this report to any third party is provided for informational purposes only and any reliance on this report by a third party is done so at their own risk and Paul Downing & Associates Ltd disclaim all liability to such third party to the extent permitted by law.

Any use of this report by a third party is deemed to constitute acceptance of this limitation.
This report does not constitute legal advice.

Assumptions

1. *This report presents the groundwater risk assessment only.*
2. *All information provided by the Client and their representatives is correct at the time of writing.*
3. *Sampling and analysis has been carried out effectively to produce accurate results.*

Executive Summary

Paul Downing & Associates Ltd (Consultant) were contacted by MLB Autospares Ltd and requested to provide technical support to their bespoke permit application for the discharge of surface water from their site in Kilnhurst Rd, Kilnhurst, Rawmarsh, Mexborough S64 5TL.

This risk assessment has been carried out with reference to the Environment Agency's Guide to Carrying out a Risk Assessment[1] and follows a tiered structure:

Tier 1: Risk screening.

Tier 2: Generic quantitative risk assessment (GQRA).

Tier 3: Detailed quantitative risk assessment (DQRA).

A qualitative, then quantitative, approach has been adopted to assess the potential impact of the discharge on groundwater, the significance of attenuation and the available dilution for pollutants.

A detailed approach to risk assessment was adopted using the Environment Agency's '*Groundwater Risk Assessment for Treated Effluent Discharges to Infiltration Systems Spreadsheet Version 3.0.'*

Results from the spreadsheet suggest that the potential source would not impact groundwater beneath the site at concentrations above UK Drinking Water Standards. Therefore, no further risk assessment looking at migration to the surface water feature was required.

A very conservative approach was adopted for this risk assessment and the results indicated that there is little environmental risk posed by these discharges to the identified receptors.

[1] https://www.gov.uk/guidance/groundwater-risk-assessment-for-your-environmental-permit

1 Introduction

Paul Downing & Associates Ltd (Consultant) were contacted by MLB Autospares Ltd and requested to provide technical support to their bespoke permit application for the discharge of surface water from their site in Kilnhurst Rd, Kilnhurst, Rawmarsh, Mexborough S64 5TL.

MLB Autospares is a vehicle recycling business where vehicles are stored, dismantled and recycled.

This report provides the supporting groundwater risk assessment required to enable the Environment Agency to determine the application for a bespoke permit and understand the potential risk of pollution as a result of discharging effluent into ground at the site.

The risk assessment has been carried out with reference to the Environment Agency's Guide to Carrying out a Risk Assessment[2] and follows a tiered structure:

1. *Tier 1: Risk screening.*
2. *Tier 2: Generic quantitative risk assessment (GQRA).*
3. *Tier 3: Detailed quantitative risk assessment (DQRA).*

A qualitative, then quantitative, approach has been adopted the to assess the potential impact of the discharge to Controlled Waters, the significance of attenuation and the available dilution for potential pollutants.

2 Tier 1 – Risk Screening

The risk screening involves gathering information in relation to the discharge, the site and surrounding environmental sensitivity referred to as *'Basic Information'*.

2.1 Application & Site Details

2.1.1 Location

The site is located on an industrial trading estate south of Mexborough and east of Rawmarsh in South Yorkshire. The site address is MLB Autospares Ltd, Kilnhurst Rd, Kilnhurst, Rawmarsh, Mexborough S64 5TL and it is centered on national grid reference SK 45751 97035, Easting: 445751, Northing: 397035.

The site location is shown in Figure 1.

2.1.2 Buildings and Layout

The site consists of the following:

- Concrete hard standing for parking and storing of vehicles;
- Three industrial workshops;
- Offices;
- Car storage;
- Car parts storage;
- Depollution Bay;
- Vehicle unloading area;
- Car park;

[2] https://www.gov.uk/guidance/groundwater-risk-assessment-for-your-environmental-permit

- Quarantine Area;
- Scrap metal material handler;
- Excavator and scrap metal storage;
- Battery storage; and
- Access roads.

The site layout is shown in Figure 2.

2.1.3 Topography

The site lies between 23 and 27 metres Above Ordnance Datum (mAOD) and is relatively flat with a gentle fall from south to north.

A contour map is shown in Figure 3 using data sourced from the Ordnance Survey[3] at 10m contour intervals.

2.2 Business Process

On arrival at the site all End-Of-Life Vehicles (ELV) are taken into the site depollution bay to undergo a depollution process to remove all hazardous vehicle fluids. This includes all oils, fuels and other liquids and car batteries.

Once depolluted vehicles either go to the workshop for the parts to be removed and then on to the vehicle storage area awaiting to be dismantled later.

After dismantling ELV shells are moved to the Vehicle Recycling Area where they are baled and removed from site for further recycling.

2.2.1 Potential Pollution

There is a discharge of water via an oil interceptor from areas of the site where polluted vehicles (prior to depollution) and depolluted vehicles are stored. The depollution activity itself takes place within a building with a ramped access to prevent liquids from leaving it.

The drainage layout is shown in Figure 4.

There is no drainage from the building but there is drainage from the outside areas, which are fully concreted, to oil interceptors, which subsequently drain to ground.

Polluted vehicles awaiting depollution are stored outside in these areas therefore, there is a small risk of contamination to groundwater from the interceptor discharge, particularly if a damaged vehicle is bought onto site.

There are two discharge soakaways on site, one to the north near the access Soakaway 1 (National Grid Reference: SK45745 97053, Easting 445745, Northing: 397053) and one to the south east of the site (National Grid Reference: SK45833 96934, Easting 445833, Northing: 396934).

The plan in Figure 5 shows the locations and areas drained by each system:

- System 1 = 8832m^2; and
- System 2 = 7328m^2.

2.3 Effluent Characteristics and Treatment Scheme

2.3.1 Type of Effluent

Samples from the interceptor tanks, one from each, were collected by the applicant on the 4 November 2024. The samples were sent to the DETS Laboratory for analysis of metals and Petroleum Hydrocarbons and the results are presented in Annex A.

2.3.2 Summary of Results

Samples were collected from the interceptor chambers as access to sample points in the soakaways is not feasible. In summary, as anticipated, a range of hydrocarbon chain lengths were detected in the interceptor chambers.

The detections are presented in the table below:

Table 1 Analysis Detections

Test	***Unit***	***UK Drinking Water Standard (Where applicable)***	***Sample 1***	***Sample 2***
Boron	ug/l	1000	760	380
Chromium	ug/l	50	6.0	3.2
Copper	ug/l	2000	1.4	0.6
Lead	ug/l	10	0.54	0.34
Mercury	ug/l	1	0.03	0.01
Nickel	ug/l	20	7.1	3.8
Selenium	ug/l	10	0.89	0.56
Zinc	ug/l		15	12
Suspended Solids	mg/l		54	36
Aliphatic/Aromatic C10 -C44	**ug/l**	**0.10**	**1800**	**120**
Toluene	ug/l	700 (WHO Guideline)	7.6	35
Xylene	ug/l	500 (WHO Guideline)	27	11
Naphthalene	**ug/l**	**0.10 (Total PAHs)**	**9**	**6**

The Aliphatic and Aromatic detections were primarily lighter and medium end Aliphatics C12-C35 and the same with Aromatics C7 to C35.

The only speciated contaminant to exceed drinking water standards or the World Health Organisation's Guidelines was Naphthalene. Naphthalene has been used as a proxy for the contamination on site as it is an Aromatic and has the greatest mobility out of what was detected above the standards.

Naphthalene is considered a non-hazardous pollutant under the The Water Framework Directive (2000/60/EC) and Groundwater Daughter Directive (2006/118/EC) (GDD)[4].

4 https://www.wfduk.org/sites/default/files/Media/JAGDAG/2018%2001%2031%20Confirmed%20hazardous%20substances%20list_0.pdf

2.4 Geology & Environmental Setting

2.4.1 Geology

The geology beneath the site consists of the Pennine Middle Coal Measures Formation. This bedrock is made up of interbedded grey mudstone, siltstone, pale grey sandstone and commonly coal seams, with a bed of mudstone containing marine fossils at the base, and several such marine fossil-bearing mudstones in the upper half of the unit[5].

The Oak Rocks Sandstone outcrops approximately 200m east of the site indicating its presence in the area.

The Pennine Middle Coal Measures Formation deposits are between 200 and 600m thick across the north of England and the geology is shown in Figure 6.

2.4.2 Hydrogeology & Hydrology

The bedrock is classified as a Secondary A Aquifer an there are no Source Protection Zones (SPZs) in the area. Secondary A Aquifers are described as 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.

Groundwater flow directions are likely to be influenced by lithology, geological bed inclination, topography and nearby hydrology.

There are four records of surface water features within 500m of the site relating to water courses and the Collier Brook, 89m, 122m north and an inland river 206m south of the site.

Based on the likely provision of groundwater to nearby river systems, the elevation of ground on site (23-27mAOD) an unsaturated zone of less that 10m would be anticipated beneath the site.

The hydraulic conductivity of the Pennine Middle Coal Measures Formation is generally low, with groundwater movement primarily occurring through fractures in the sandstone layers. The degree of fracturing and the presence of faults can significantly influence local variations in hydraulic conductivity[6].

2.5 Rainfall

The Seasonal Annual Average Rainfall (SAAR) has been taken from the UK Centre for Ecology & Hydrology and the site lies in the 27022 - Don at Rotherham Forge Island catchment[7].

The SAAR = 800mm/year

2.5.1 Environmental Designations

There are no environmental designations within 500m of the site and only eight Ancient Woodlands and one Local Nature Reserve between 500 and 2000m from the site.

The site does not lie in a Flood Zone 2 or 3 but does have a 1 in 30 year chance of flooding with surface water within 50m of the site. Groundwater flooding potential is considered negligible risk.

The details and maps of flood zones are presented in Annex B Section 7.0.

[5] https://webapps.bgs.ac.uk/lexicon/lexicon.cfm?pub=PMCM
[6] https://webapps.bgs.ac.uk/Memoirs/docs/B06061.html?utm_source=chatgpt.com
[7] NRFA Station Data for 27022 - Don at Rotherham Forge Island

3 Conceptual Site Model

A conceptual site model has been constructed to enable the assessment of the potential risks posed to groundwater and surface water from the discharge. It has been built using information about the site in the context of its elevation, geological setting, the potential sources of pollution, pathways and receptors.

The CSM is presented in Figure 7 and shows the gradual topographic fall from the site to the surface water stream 89m north of the site. The following sources, pathways and receptors have been identified.

3.1 Potential Sources

Discharge from the site via interceptors to soakaways has the potential to contain concentrations of metals and hydrocarbons, therefore, the point source discharge soakaways are considered the potential sources of pollutants.

3.2 Potential Pathways

The potential pathways identified are:

- Dermal contact, ingestion and inhalation;
- Vertical leaching through the unsaturated zone into the water table beneath the site; and
- Fracture flow along preferential sandy groundwater pathways in the saturated zone.

3.3 Potential Receptors

The following three receptors have been considered in the risk assessment:

- Onsite personnel and construction workers;
- Groundwater beneath the site; and
- The surface water feature 89m north of the site.

4 Qualitative Risk Assessment

The qualitative risk assessment is considered a conservative approach and identifies the potential linkages between the sources, pathways and receptors.

The site lies on a Secondary A Aquifer and therefore is sensitive to pollution and Controlled Waters are potentially at risk.

There are no significant environmental designations in the area therefore only the risk to human health, Controlled Waters and hydrology has been assessed as part of the risk assessment.

Table 2 shows the potential linkages and their associated risks based on the ‘Likelihood’ versus ‘Significance’ matrix shown in Table 3.

Table 2 Source Pathway Receptor Potential Linkages

Source	Pathway	Receptor	Risk Rationale
Point Source Discharges	Dermal contact with effluent, ingestion through accidental exposure	Onsite personnel and Construction Workers	With the correct personal protective equipment (PPE) and the nature of the potential pollutants this linkage is perceived as low risk
	Vertical migration and leaching through the unsaturated zone	Groundwater beneath the site	This is perceived as medium risk.
	Vertical migration and leaching through the unsaturated zone Fracture flow along preferential groundwater pathways in the saturated zone.	Surface Water Feature 89m north	The surface water feature is down topographical gradient from the site and any contaminants entering the ground on site are potentially up-hydraulic gradient.

Table 3 Risk Matrix

		Likelihood		
		Low	***Medium***	***High***
Significance	***High***	**Medium**	**High**	**High**
	Medium	**Medium**	**Medium**	**High**
	Low	**Low**	**Medium**	**Medium**

Overall the discharges are considered to pose a medium risk to two potential receptors:

1. Groundwater beneath the discharges; and
2. The surface water feature 89m north.

This is considered a conservative approach to the assessment of potential risk the identified that PAHs and, therefore Naphthalene, without mitigation from the interceptors may be entering the sub surface at concentrations exceeding the UK Drinking Water Standards and the World Health Organisation's Guidelines.

Further assessment is required to understand the potential for pollution at receptors and compliance points for Naphthalene.

5 Tier 2 – Generic Risk Assessment

An assessment has been carried out using the Environment Agency's tool for understanding the potential risk to groundwater from the discharge to the sub surface.

This generic risk assessment includes 'Extended Information' the details of which are described below in the following sections:

5.1 Historical Land Use

Historical maps are presented in Annex C dating from 1855 to present. They show the site was located south of a brickworks in 1855 on agricultural land east of Beechwood House. The Warren Vale Colliery Tramway ran east to west north of the site.

The brickworks is shown on site in the 1930 map in the eastern portion of the site and appear backfilled in the 1967 map.

By 1993 the north of the site has been developed and there is still some evidence of spoil heaps in the south. By 2001 the site has been developed as it is today.

5.2 Groundwater Flow Mechanisms

The Pennine Coal Measures consist of a variety of rock types including coal, sandstone, shale, and in places limestone. Groundwater flow is heavily influenced by the composition and structure of these rocks.

The Coal is relatively impermeable but can contain fractures that allow groundwater to flow. The coal seams themselves may not allow significant flow unless they are fractured or have associated permeable strata.

The Sandstone beds interbedded with coal act as aquifers, allowing for groundwater movement. These layers often have higher permeability than the interbedded shale and coal.

Shale layers are typically low-permeability and act as barriers to groundwater flow. They often confine the movement of groundwater within more permeable layers, such as sandstones and coal seams.

In some areas, limestone beds within the Coal Measures can form karst systems that have relatively high permeability, especially where they are fractured.

For the purpose of this risk assessment groundwater flow has been assumed to be in Sandstone, the Oaks Rock Sandstone outcrops approximately 200m east of the site and be by means of fracture flow.

5.3 Groundwater Flow Direction & Hydraulic Gradient

Based on the topography of the area groundwater has been assumed to flow from south to north directly toward the surface waer receptor 89m north of the site.

The hydraulic gradient is based on the topographical gradient between the site and the surface water feature and is estimated to be 0.0122m/m.

5.4 Aquifer Properties

The aquifer properties have been sourced from literature values (ConSim Help File) and the following table presents the anticipated properties:

Table 4 Aquifer Properties

Aquifer Unit	***Aquifer Classification***	***Hydraulic Conductivity (k) m/day***	***Hydraulic Gradient***
Sandstone (Proxy for Coal Measures)	Secondary A	0.518	0.122 m/m (Based on surface topography south to north)

5.5 Compliance Points

Groundwater beneath the site is the first compliance point to be assessed then the surface water feature 89m north of the site if required. This is considered conservative and therefore protective of Controlled Waters.

5.6 Calculations

The Environment Agency's *"Groundwater Risk Assessment for Treated Effluent Discharges to Infiltration Systems Spreadsheet Version 3.0"* has been used to assess the potential concentrations of Naphthalene at the compliance point. The results of the risk assessment are presented below in Table 5.4 and the spreadsheet outputs in Annex D.

Table 5 Summary of Risk Assessment

Determinand	***Analytical Concentration in Interceptor Chamber***	***Water Quality Standard mg/L***	***Predicted Concentration at Groundwater Beneath the Site mg/L***
Naphthalene	0.009mg/L	UK Drinking Water 0.001 PAHs	$1.94x10^{-06}$mg/L

Naphthalene was selected to represent the most mobile and soluble component detected and speciated in the analysis in Annex A, therefore applying the most conservative approach.

6 Summary & Conclusions

The site lies on Pennine Middle Coal Measures Formation.

This bedrock is made up of interbedded grey mudstone, siltstone, pale grey sandstone and commonly coal seams, with a bed of mudstone containing marine fossils at the base, and several such marine fossil-bearing mudstones in the upper half of the unit. The Oak Rocks Sandstone outcrops approximately 200m east of the site indicating its presence in the area.

There is a surface water feature located 89m north of the site.

Testing of the discharge from two interceptor tanks was undertaken and the highest concentration of speciated contaminant that is mobile has been modelled:

- Naphthalene.

The Naphthalene concentration was in excess of the stringent UK Drinking Water Standards in the analysis.

A qualitative risk assessment identified two potentially complete source, pathway and receptor linkages that may impact the following receptors:

1. Groundwater beneath the discharge; and
2. The surface water feature 89m north.

Based on these findings and the presentation of the CSM, a more detailed approach to risk assessment was adopted using the Environment Agency's '*Groundwater Risk Assessment for Treated Effluent Discharges to Infiltration Systems Spreadsheet Version 3.0.'*

Results from the spreadsheet suggest that the potential source would not impact groundwater beneath the site at concentrations above UK Drinking Water Standards. Therefore no further risk assessment looking at migration to the surface water feature was required.

A very conservative approach was adopted for this risk assessment and the results indicated that there is little environmental risk posed by these discharges to the identified receptors.

7 Figures

Figure 1 Site Location

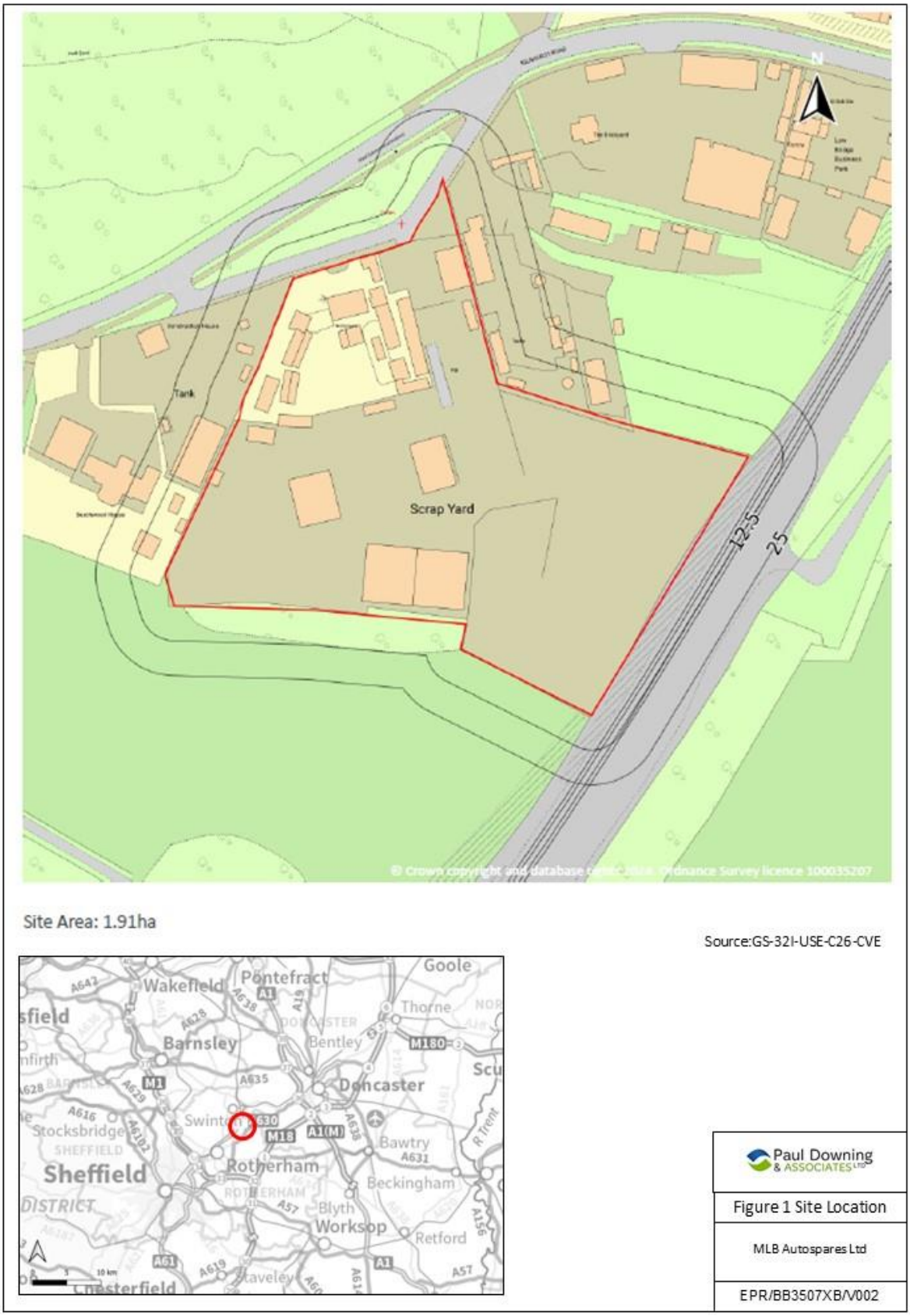
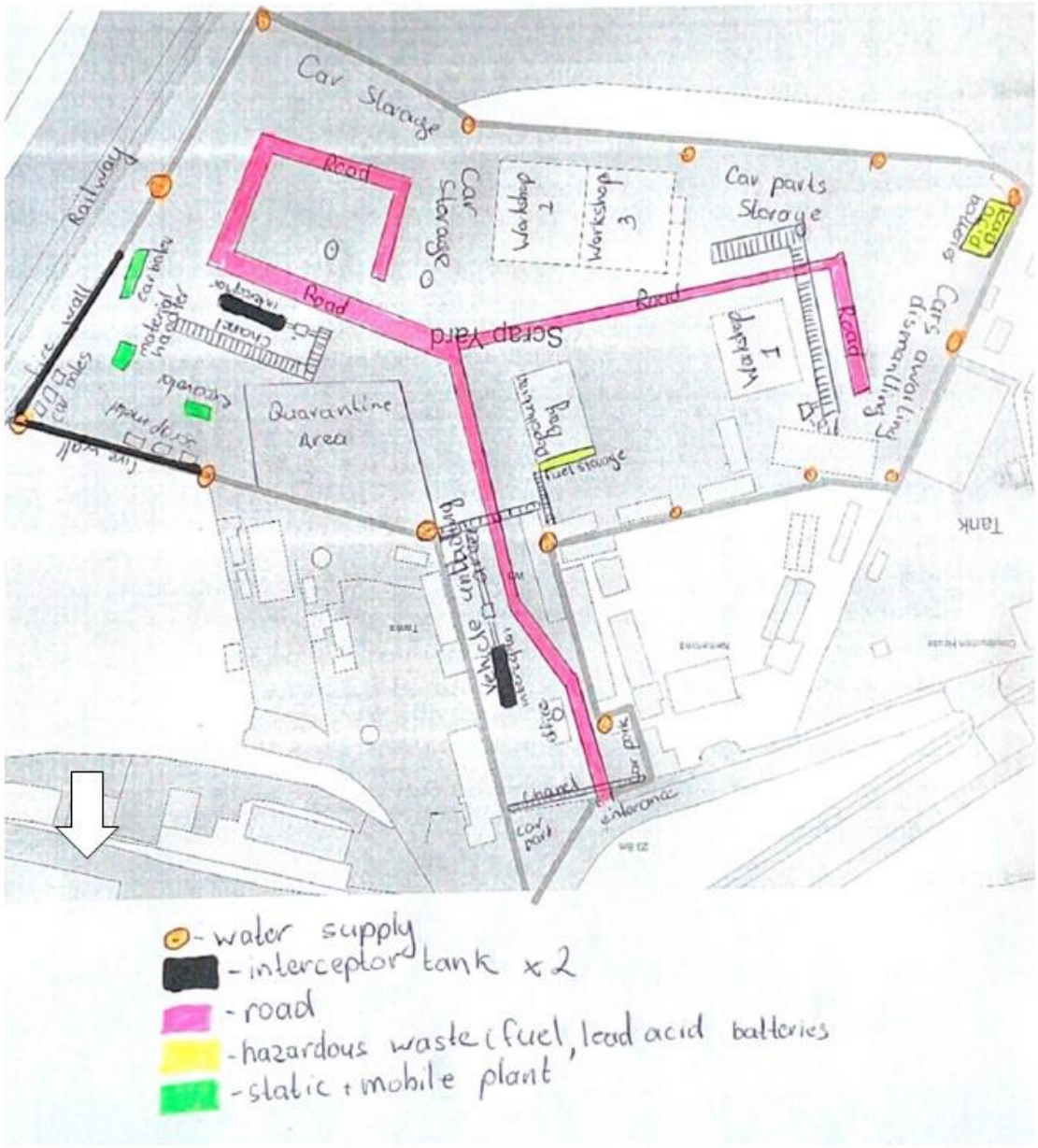


Figure 2 Site Layout



Paul Downing & ASSOCIATES LTD
Figure 1 Site Layout
MLB Autospares Ltd
EPR/BB3507XB/V002

Figure 3 Topography

Paul Downing & ASSOCIATES LTD
Figure 3 Topography
MLB Autospares Ltd
EPR/BB3507XB/V002

Figure 4 Drainage Layout

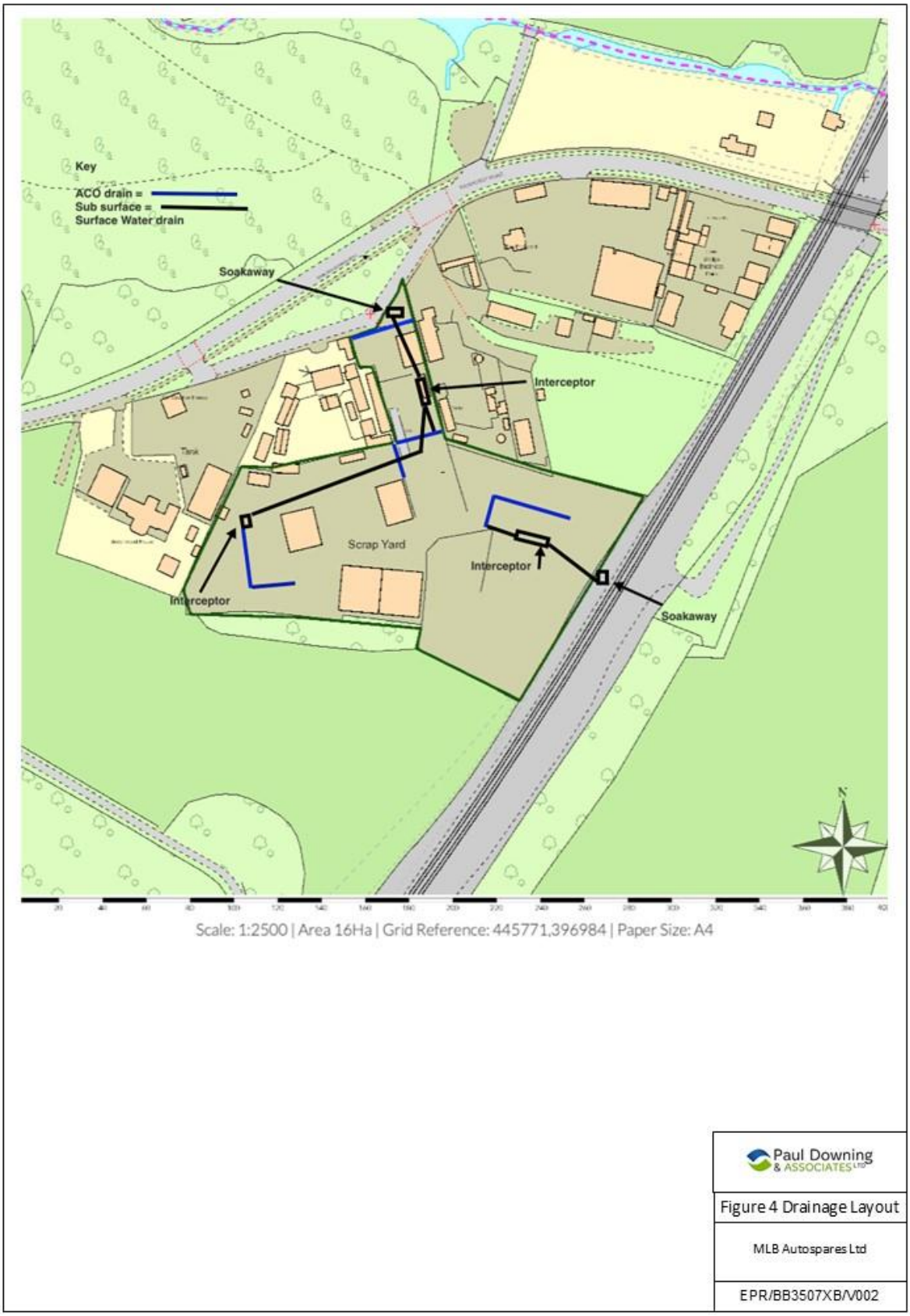
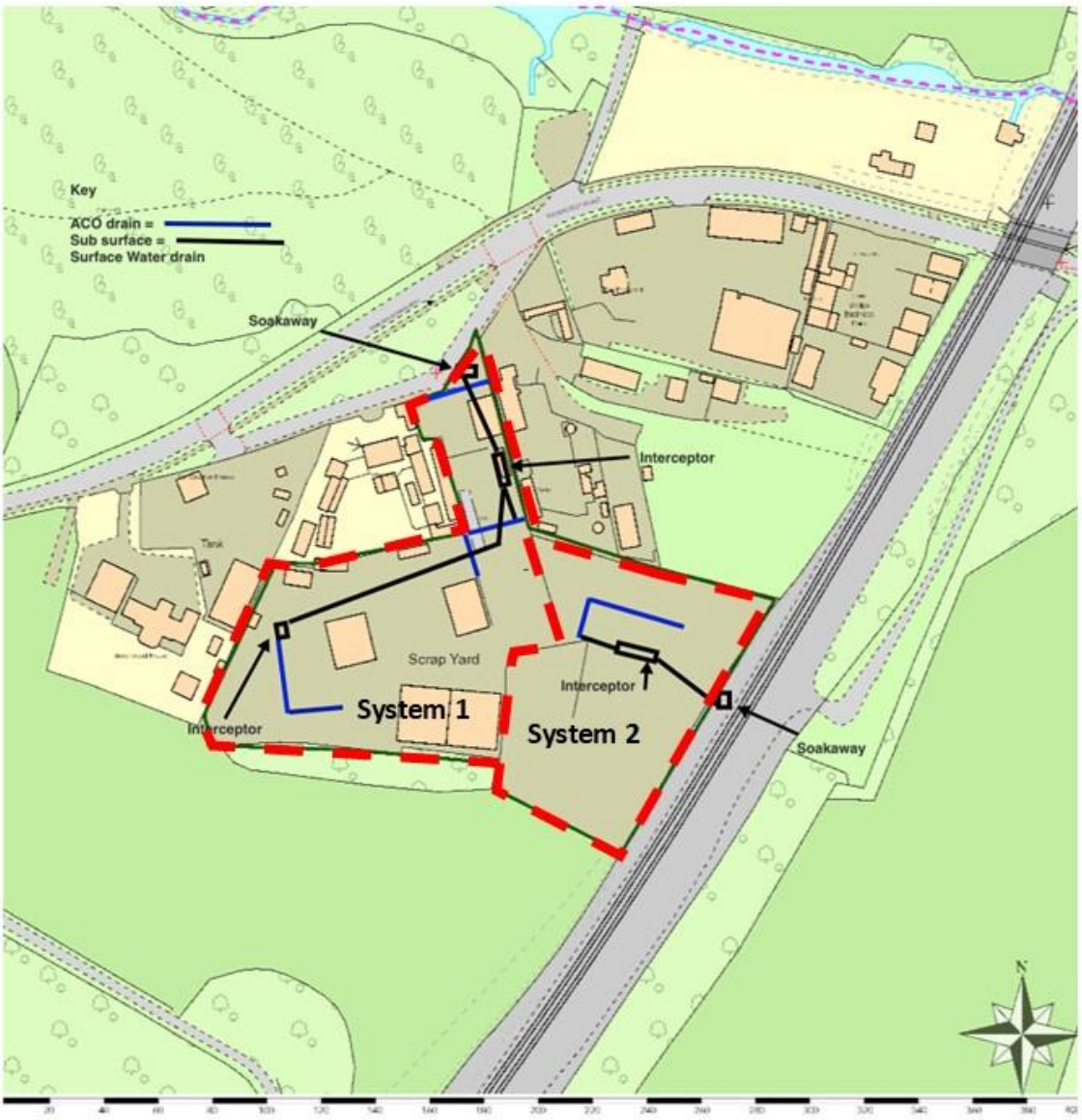


Figure 5 Surface Areas



Scale: 1:2500 | Area 16Ha | Grid Reference: 445771,396984 | Paper Size: A4

System 1 = 8832m^2

System 2 = 7328m^2.

Paul Downing & ASSOCIATES LTD
Figure 5 Surface Area
MLB Autospares Ltd
EPR/BB3507XB/V002

Figure 6 Geology

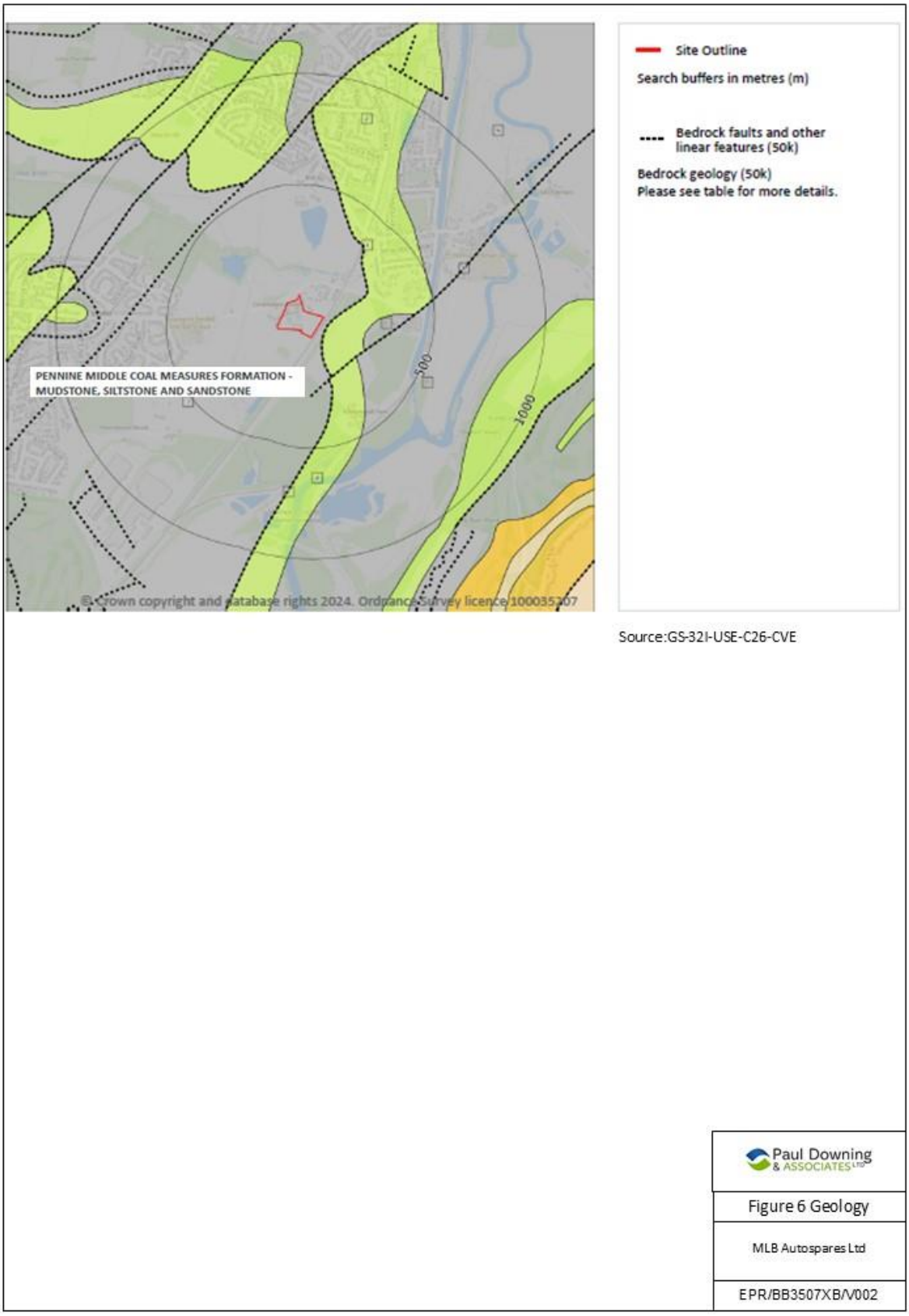
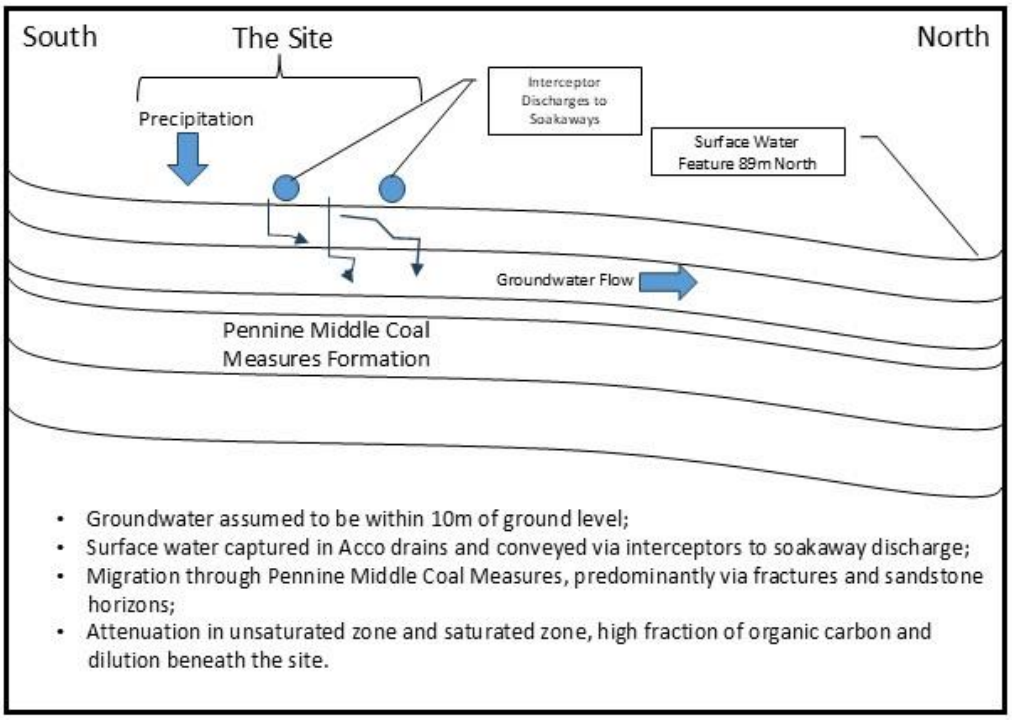


Figure 7 Conceptual Site Model



- Groundwater assumed to be within 10m of ground level;
- Surface water captured in Acco drains and conveyed via interceptors to soakaway discharge;
- Migration through Pennine Middle Coal Measures, predominantly via fractures and sandstone horizons;
- Attenuation in unsaturated zone and saturated zone, high fraction of organic carbon and dilution beneath the site.

Not to Scale

Paul Downing & Associates Ltd
Figure 7 Conceptual Site Model
MLB Autospares Ltd
EPR/BB3507XB/V002

8 Annexes

Annex A Laboratory Analysis

Annex B Groundsure Report

Annex C Historical Mapping

Annex D Groundwater Risk Assessment Worksheets v3.0

Annex A Laboratory Analysis

Certificate of Analysis

Certificate Number 24-24585 *Issued:* 20-Nov-24

Client MBL Autospares Ltd
Kilnhurst Road
Ortherham
S64 5TL

Our Reference 24-24585

Client Reference ~ (not supplied)

Order No ~ (not supplied)

Contract Title ~ Kilnhurst RD, Rotherham

Description 2 Water No Information Supplied samples.

Date Received 13-Nov-24

Date Started 13-Nov-24

Date Completed 20-Nov-24

Test Procedures Identified by prefix DETSn (details on request).

Notes Opinions and interpretations are outside the laboratory's scope of ISO 17025 accreditation. This certificate is issued in accordance with the accreditation requirements of the United Kingdom Accreditation Service. The results reported herein relate only to the material supplied to the laboratory. This certificate shall not be reproduced except in full, without the prior written approval of the laboratory.

Approved By

Kirk Bridgewood
General Manager

2139

Summary of Chemical Analysis
Water Samples

Our Ref 24-24585
Client Ref ~
Contract Title ~ Kilnhurst RD, Rotherham

	Lab No	2423421	2423422
	Sample ID ~	SAMPLE 1	SAMPLE 2
	Depth ~		
	Other ID ~		
	Sample Type ~	WATER UNKNOWN	WATER UNKNOWN
	Sampling Date ~	04/11/2024	04/11/2024
	Sampling Time ~	n/s	n/s

Test	Method	LOD	Units		
Metals					
Arsenic, Dissolved	DETSC 2306	0.16	ug/l	< 0.16	< 0.16
Boron, Dissolved	DETSC 2306*	12	ug/l	760	380
Cadmium, Dissolved	DETSC 2306	0.03	ug/l	< 0.03	< 0.03
Chromium, Dissolved	DETSC 2306	0.25	ug/l	6.0	3.2
Copper, Dissolved	DETSC 2306	0.4	ug/l	1.4	0.6
Lead, Dissolved	DETSC 2306	0.09	ug/l	0.54	0.34
Mercury, Dissolved	DETSC 2306	0.01	ug/l	0.03	0.01
Nickel, Dissolved	DETSC 2306	0.5	ug/l	7.1	3.8
Selenium, Dissolved	DETSC 2306	0.25	ug/l	0.89	0.56
Zinc, Dissolved	DETSC 2306	1.3	ug/l	15	12
Inorganics					
Suspended Solids	DETSC 2034	5	mg/l	54	36
Petroleum Hydrocarbons					
Aliphatic C5-C6	DETSC 3322	0.1	ug/l	< 0.1	< 0.1
Aliphatic C6-C8	DETSC 3322	0.1	ug/l	< 0.1	< 0.1
Aliphatic C8-C10	DETSC 3322	0.1	ug/l	< 0.1	< 0.1
Aliphatic C10-C12	DETSC 3072*	1	ug/l	6.8	< 1.0
Aliphatic C10-C44	DETSC 3072*	1	ug/l	1000	84
Aliphatic C12-C16	DETSC 3072*	1	ug/l	83	6.5
Aliphatic C16-C21	DETSC 3072*	1	ug/l	210	15
Aliphatic C21-C35	DETSC 3072*	1	ug/l	710	62
Aliphatic C35-C44	DETSC 3072*	1	ug/l	< 1.0	< 1.0
Aromatic C5-C7	DETSC 3322	0.1	ug/l	< 0.1	< 0.1
Aromatic C7-C8	DETSC 3322	0.1	ug/l	7.6	3.5
Aromatic C8-C10	DETSC 3322	0.1	ug/l	110	69
Aromatic C10-C12	DETSC 3072*	1	ug/l	120	6.1
Aromatic C12-C16	DETSC 3072*	1	ug/l	210	13
Aromatic C16-C21	DETSC 3072*	1	ug/l	170	4.2
Aromatic C21-C35	DETSC 3072*	1	ug/l	270	8.9
Aromatic C35-C44	DETSC 3072*	1	ug/l	< 1.0	< 1.0
Aromatic C10-C44	DETSC 3072*	1	ug/l	760	32
Ali/Aro C10-C44	DETSC 3072*	1	ug/l	1800	120
Benzene	DETSC 3322	1	ug/l	< 1.0	< 1.0
Toluene	DETSC 3322	1	ug/l	7.6	3.5
Ethylbenzene	DETSC 3322	1	ug/l	< 1.0	< 1.0
Xylene	DETSC 3322	1	ug/l	27	11
MTBE	DETSC 3322	1	ug/l	< 1.0	< 1.0
PAHs					
Naphthalene	DETSC 3304	0.05	ug/l	9.0	6.0
Acenaphthylene	DETSC 3304	0.01	ug/l	< 1.00	< 1.00
Acenaphthene	DETSC 3304	0.01	ug/l	< 1.00	< 1.00

Summary of Chemical Analysis
Water Samples

Our Ref 24-24585
Client Ref ~
Contract Title ~ Kilnhurst RD, Rotherham

			Lab No	2423421	2423422
			Sample ID ~	SAMPLE 1	SAMPLE 2
			Depth ~		
			Other ID ~		
			Sample Type ~	WATER UNKNOWN	WATER UNKNOWN
			Sampling Date ~	04/11/2024	04/11/2024
			Sampling Time ~	n/s	n/s
Test	**Method**	**LOD**	**Units**		
Fluorene	DETSC 3304	0.01	ug/l	< 1.00	< 1.00
Phenanthrene	DETSC 3304	0.01	ug/l	< 1.00	< 1.00
Anthracene	DETSC 3304	0.01	ug/l	< 1.00	< 1.00
Fluoranthene	DETSC 3304	0.01	ug/l	< 1.00	< 1.00
Pyrene	DETSC 3304	0.01	ug/l	< 1.00	< 1.00
Benzo(a)anthracene	DETSC 3304*	0.01	ug/l	< 1.00	< 1.00
Chrysene	DETSC 3304	0.01	ug/l	< 1.00	< 1.00
Benzo(b)fluoranthene	DETSC 3304	0.01	ug/l	< 1.00	< 1.00
Benzo(k)fluoranthene	DETSC 3304	0.01	ug/l	< 1.00	< 1.00
Benzo(a)pyrene	DETSC 3304	0.01	ug/l	< 1.00	< 1.00
Indeno(1,2,3-c,d)pyrene	DETSC 3304	0.01	ug/l	< 1.00	< 1.00
Dibenzo(a,h)anthracene	DETSC 3304	0.01	ug/l	< 1.00	< 1.00
Benzo(g,h,i)perylene	DETSC 3304	0.01	ug/l	< 1.00	< 1.00
PAH Total	DETSC 3304	0.2	ug/l	< 20.00	< 20.00

2423421, 2423422 - WATER UNKNOWN testing is not accredited

Information in Support of the Analytical Results

Our Ref 24-24585
Client Ref ~
Contract ~ Kilnhurst RD, Rotherham

Containers Received & Deviating Samples

Lab No	Sample ID ~	Date Sampled ~	Containers Received	Holding time exceeded for tests	Inappropriate container for tests
2423421	SAMPLE 1 WATER UNKNOWN	04/11/24	P(other)	Aliphatics/Aromatics (4 days), PAH MS (4 days), Suspended s (2 days)	
2423422	SAMPLE 2 WATER UNKNOWN	04/11/24	P(other)	Aliphatics/Aromatics (4 days), PAH MS (4 days), Suspended s (2 days)	

Key: P-Plastic

DETS cannot be held responsible for the integrity of samples received whereby the laboratory did not undertake the sampling. In this instance samples received may be deviating. Deviating Sample criteria are based on British and International standards and laboratory trials in conjunction with the UKAS note 'Guidance on Deviating Samples'. All samples received are listed above. However, those samples that have additional comments in relation to hold time, inappropriate containers etc are deviating due to the reasons stated. This means that the analysis is accredited where applicable, but results may be compromised due to sample deviations. If no sampled date (soils) or date+time (waters) has been supplied then samples are deviating. However, if you are able to supply a sampled date (and time for waters) this will prevent samples being reported as deviating where specific hold times are not exceeded and where the container supplied is suitable.

Disposal

From the issue date of this test certificate, samples will be held for the following times prior to disposal :-
Soils - 1 month, Liquids - 2 weeks, Asbestos (test portion) - 6 months

Key:

~ Sample details are provided by the client and can affect the validity of the results
***** -not accredited.
# -MCERTS (accreditation only applies if report carries the MCERTS logo).
$ -subcontracted.
n/s -not supplied.
I/S -insufficient sample.
U/S -unsuitable sample.
t/f -to follow.
nd -not detected.

End of Report

Annex B Groundsure Report

Groundsure
LOCATION INTELLIGENCE

Enviro+Geo Insight

M L B AUTOSPARES LTD, ADJ BRICKEYARD, KILNHURST ROAD, RAWMARSH, ROTHERHAM, S64 5TL

Order Details

Date: 22/10/2024

Your ref: MLB_Autospares_Ltd

Our Ref: GS-32I-USE-C26-CVE

Site Details

Location: 445747 397022

Area: 1.91 ha

Authority: Rotherham Metropolitan Borough 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
15 >	1.1 >	Historical industrial land uses >	26	14	35	97	-
22 >	1.2 >	Historical tanks >	0	1	2	16	-
23 >	1.3 >	Historical energy features >	0	0	3	3	-
23	1.4	Historical petrol stations	0	0	0	0	-
24 >	1.5 >	Historical garages >	1	0	0	6	-
24	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
25 >	2.1 >	Historical industrial land uses >	24	16	48	132	-
33 >	2.2 >	Historical tanks >	0	2	3	19	-
35 >	2.3 >	Historical energy features >	0	0	4	4	-
35	2.4	Historical petrol stations	0	0	0	0	-
35 >	2.5 >	Historical garages >	1	0	0	6	-
Page	Section	Waste and landfill >	On site	0-50m	50-250m	250-500m	500-2000m
37 >	3.1 >	Active or recent landfill >	1	0	0	1	-
38	3.2	Historical landfill (BGS records)	0	0	0	0	-
38 >	3.3 >	Historical landfill (LA/mapping records) >	0	0	0	1	-
38 >	3.4 >	Historical landfill (EA/NRW records) >	0	1	3	0	-
39 >	3.5 >	Historical waste sites >	1	2	1	5	-
41 >	3.6 >	Licensed waste sites >	0	8	3	5	-
46 >	3.7 >	Waste exemptions >	0	0	0	12	-
Page	Section	Current industrial land use >	On site	0-50m	50-250m	250-500m	500-2000m
48 >	4.1 >	Recent industrial land uses >	2	3	4	-	-
49	4.2	Current or recent petrol stations	0	0	0	0	-
49	4.3	Electricity cables	0	0	0	0	-
49	4.4	Gas pipelines	0	0	0	0	-
50	4.5	Sites determined as Contaminated Land	0	0	0	0	-

50	4.6	Control of Major Accident Hazards (COMAH)	0	0	0	0	-
50	4.7	Regulated explosive sites	0	0	0	0	-
50	4.8	Hazardous substance storage/usage	0	0	0	0	-
50	4.9	Historical licensed industrial activities (IPC)	0	0	0	0	-
51 >	4.10 >	Licensed industrial activities (Part A(1)) >	0	8	0	0	-
52 >	4.11 >	Licensed pollutant release (Part A(2)/B) >	0	1	0	0	-
52	4.12	Radioactive Substance Authorisations	0	0	0	0	-
53 >	4.13 >	Licensed Discharges to controlled waters >	0	0	4	4	-
54	4.14	Pollutant release to surface waters (Red List)	0	0	0	0	-
54	4.15	Pollutant release to public sewer	0	0	0	0	-
54	4.16	List 1 Dangerous Substances	0	0	0	0	-
55	4.17	List 2 Dangerous Substances	0	0	0	0	-
55 >	4.18 >	Pollution Incidents (EA/NRW) >	0	0	2	6	-
56 >	4.19 >	Pollution inventory substances >	0	1	0	0	-
57 >	4.20 >	Pollution inventory waste transfers >	0	1	0	0	-
59	4.21	Pollution inventory radioactive waste	0	0	0	0	-

Page	Section	Hydrogeology >	On site	0-50m	50-250m	250-500m	500-2000m
60 >	5.1 >	Superficial aquifer >	Identified (within 500m)				
61 >	5.2 >	Bedrock aquifer >	Identified (within 500m)				
62 >	5.3 >	Groundwater vulnerability >	Identified (within 50m)				
63	5.4	Groundwater vulnerability- soluble rock risk	None (within 0m)				
63	5.5	Groundwater vulnerability- local information	None (within 0m)				
64 >	5.6 >	Groundwater abstractions >	0	0	0	0	7
66 >	5.7 >	Surface water abstractions >	0	0	0	0	6
68	5.8	Potable abstractions	0	0	0	0	0
68	5.9	Source Protection Zones	0	0	0	0	-
68	5.10	Source Protection Zones (confined aquifer)	0	0	0	0	-

Page	Section	Hydrology >	On site	0-50m	50-250m	250-500m	500-2000m
69 >	6.1 >	Water Network (OS MasterMap) >	0	0	4	-	-

70 >	6.2 >	Surface water features >	0	0	5	-	-
70 >	6.3 >	WFD Surface water body catchments >	1	-	-	-	-
71 >	6.4 >	WFD Surface water bodies >	0	0	0	-	-
71 >	6.5 >	WFD Groundwater bodies >	1	-	-	-	-
Page	Section	River and coastal flooding >	On site	0-50m	50-250m	250-500m	500-2000m
72	7.1	Risk of flooding from rivers and the sea	None (within 50m)				
73 >	7.2 >	Historical Flood Events >	0	0	2	-	-
73	7.3	Flood Defences	0	0	0	-	-
73	7.4	Areas Benefiting from Flood Defences	0	0	0	-	-
74	7.5	Flood Storage Areas	0	0	0	-	-
75	7.6	Flood Zone 2	None (within 50m)				
75	7.7	Flood Zone 3	None (within 50m)				
Page	Section	Surface water flooding >					
76 >	8.1 >	Surface water flooding >	1 in 30 year, 0.3m - 1.0m (within 50m)				
Page	Section	Groundwater flooding >					
78 >	9.1 >	Groundwater flooding >	Negligible (within 50m)				
Page	Section	Environmental designations >	On site	0-50m	50-250m	250-500m	500-2000m
79	10.1	Sites of Special Scientific Interest (SSSI)	0	0	0	0	0
80	10.2	Conserved wetland sites (Ramsar sites)	0	0	0	0	0
80	10.3	Special Areas of Conservation (SAC)	0	0	0	0	0
80	10.4	Special Protection Areas (SPA)	0	0	0	0	0
80	10.5	National Nature Reserves (NNR)	0	0	0	0	0
81 >	10.6 >	Local Nature Reserves (LNR) >	0	0	0	0	1
81 >	10.7 >	Designated Ancient Woodland >	0	0	0	0	8
82	10.8	Biosphere Reserves	0	0	0	0	0
82	10.9	Forest Parks	0	0	0	0	0
82	10.10	Marine Conservation Zones	0	0	0	0	0
82 >	10.11 >	Green Belt >	1	0	0	0	1
83	10.12	Proposed Ramsar sites	0	0	0	0	0

83	10.13	Possible Special Areas of Conservation (pSAC)	0	0	0	0	0
83	10.14	Potential Special Protection Areas (pSPA)	0	0	0	0	0
83	10.15	Nitrate Sensitive Areas	0	0	0	0	0
84 >	10.16 >	Nitrate Vulnerable Zones >	1	0	0	0	5
85 >	10.17 >	SSSI Impact Risk Zones >	1	-	-	-	-
86	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
87	11.1	World Heritage Sites	0	0	0	-	-
87	11.2	Area of Outstanding Natural Beauty	0	0	0	-	-
87	11.3	National Parks	0	0	0	-	-
87	11.4	Listed Buildings	0	0	0	-	-
88	11.5	Conservation Areas	0	0	0	-	-
88	11.6	Scheduled Ancient Monuments	0	0	0	-	-
88	11.7	Registered Parks and Gardens	0	0	0	-	-
Page	Section	Agricultural designations >	On site	0-50m	50-250m	250-500m	500-2000m
89 >	12.1 >	Agricultural Land Classification >	Urban (within 250m)				
90	12.2	Open Access Land	0	0	0	-	-
90	12.3	Tree Felling Licences	0	0	0	-	-
90	12.4	Environmental Stewardship Schemes	0	0	0	-	-
90	12.5	Countryside Stewardship Schemes	0	0	0	-	-
Page	Section	Habitat designations >	On site	0-50m	50-250m	250-500m	500-2000m
91 >	13.1 >	Priority Habitat Inventory >	0	3	3	-	-
92	13.2	Habitat Networks	0	0	0	-	-
92 >	13.3 >	Open Mosaic Habitat >	0	0	1	-	-
92	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
94 >	14.1 >	10k Availability >	Identified (within 500m)				
95 >	14.2 >	Artificial and made ground (10k) >	1	2	3	4	-
97 >	14.3 >	Superficial geology (10k) >	0	0	1	0	-

98	14.4	Landslip (10k)	0	0	0	0	-
99 >	14.5 >	Bedrock geology (10k) >	1	1	3	1	-
100 >	14.6 >	Bedrock faults and other linear features (10k) >	0	1	3	0	-
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) >	1	2	1	3	-
103 >	15.3 >	Artificial ground permeability (50k) >	1	2	-	-	-
104 >	15.4 >	Superficial geology (50k) >	0	0	1	0	-
105	15.5	Superficial permeability (50k)	None (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) >	1	1	3	1	-
107 >	15.9 >	Bedrock permeability (50k) >	Identified (within 50m)				
107 >	15.10 >	Bedrock faults and other linear features (50k) >	0	1	2	0	-
Page	Section	Boreholes >	On site	0-50m	50-250m	250-500m	500-2000m
108 >	16.1 >	BGS Boreholes >	0	0	4	-	-
Page	Section	Natural ground subsidence >					
110 >	17.1 >	Shrink swell clays >	Very low (within 50m)				
111 >	17.2 >	Running sands >	Very low (within 50m)				
113 >	17.3 >	Compressible deposits >	Very low (within 50m)				
115 >	17.4 >	Collapsible deposits >	Very low (within 50m)				
116 >	17.5 >	Landslides >	Low (within 50m)				
118 >	17.6 >	Ground dissolution of soluble rocks >	Negligible (within 50m)				
Page	Section	Mining and ground workings >	On site	0-50m	50-250m	250-500m	500-2000m
120 >	18.1 >	BritPits >	1	0	3	5	-
122 >	18.2 >	Surface ground workings >	17	8	48	-	-
125 >	18.3 >	Underground workings >	0	2	1	0	22
126	18.4	Underground mining extents	0	0	0	0	-
127 >	18.5 >	Historical Mineral Planning Areas >	0	1	0	0	-

127	18.6	Non-coal mining	0	0	0	0	0
127	18.7	JPB mining areas	None (within 0m)				
127	18.8	The Coal Authority non-coal mining	0	0	0	0	-
128	18.9	Researched mining	0	0	0	0	-
128	18.10	Mining record office plans	0	0	0	0	-
128	18.11	BGS mine plans	0	0	0	0	-
128 >	**18.12 >**	**Coal mining >**	Identified (within 0m)				
129	18.13	Brine areas	None (within 0m)				
129	18.14	Gypsum areas	None (within 0m)				
129	18.15	Tin mining	None (within 0m)				
129	18.16	Clay mining	None (within 0m)				
Page	Section	Ground cavities and sinkholes	On site	0-50m	50-250m	250-500m	500-2000m
130	19.1	Natural cavities	0	0	0	0	-
130	19.2	Mining cavities	0	0	0	0	0
130	19.3	Reported recent incidents	0	0	0	0	-
130	19.4	Historical incidents	0	0	0	0	-
131	19.5	National karst database	0	0	0	0	-
Page	Section	**Radon >**					
132 >	**20.1 >**	**Radon >**	Between 1% and 3% (within 0m)				
Page	Section	**Soil chemistry >**	On site	0-50m	50-250m	250-500m	500-2000m
134 >	**21.1 >**	**BGS Estimated Background Soil Chemistry >**	3	1	-	-	-
134	21.2	BGS Estimated Urban Soil Chemistry	0	0	-	-	-
135	21.3	BGS Measured Urban Soil Chemistry	0	0	-	-	-
Page	Section	**Railway infrastructure and projects >**	On site	0-50m	50-250m	250-500m	500-2000m
136	22.1	Underground railways (London)	0	0	0	-	-
136	22.2	Underground railways (Non-London)	0	0	0	-	-
137	22.3	Railway tunnels	0	0	0	-	-
137 >	**22.4 >**	**Historical railway and tunnel features >**	8	12	53	-	-
140	22.5	Royal Mail tunnels	0	0	0	-	-

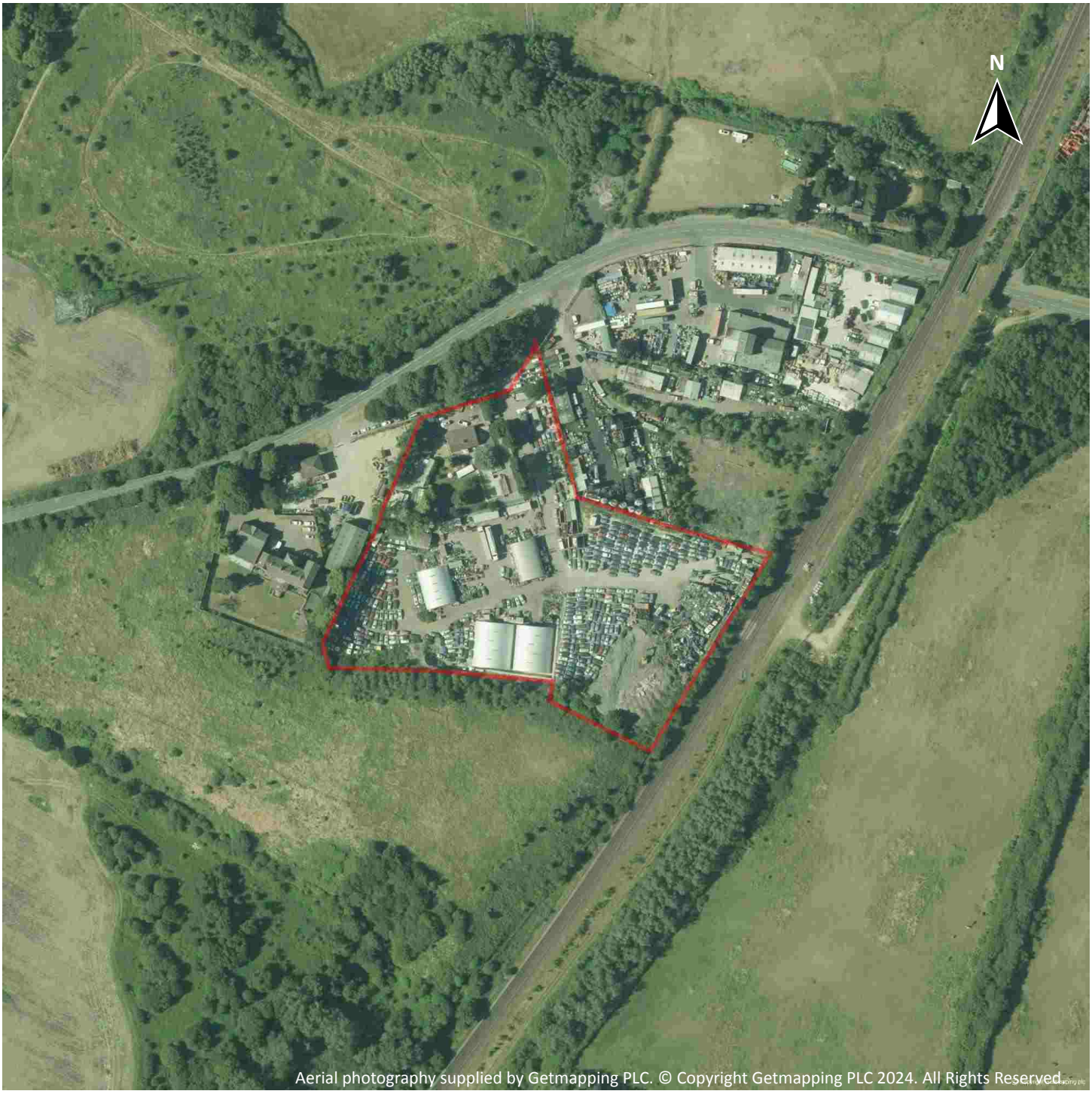
140	22.6	Historical railways	0	0	0	-	-
140 >	**22.7 >**	**Railways >**	0	5	7	-	-
141	22.8	Crossrail 1	0	0	0	0	-
141	22.9	Crossrail 2	0	0	0	0	-
141	22.10	HS2	0	0	0	0	-

Recent aerial photograph

Capture Date: 12/04/2021

Site Area: 1.91ha

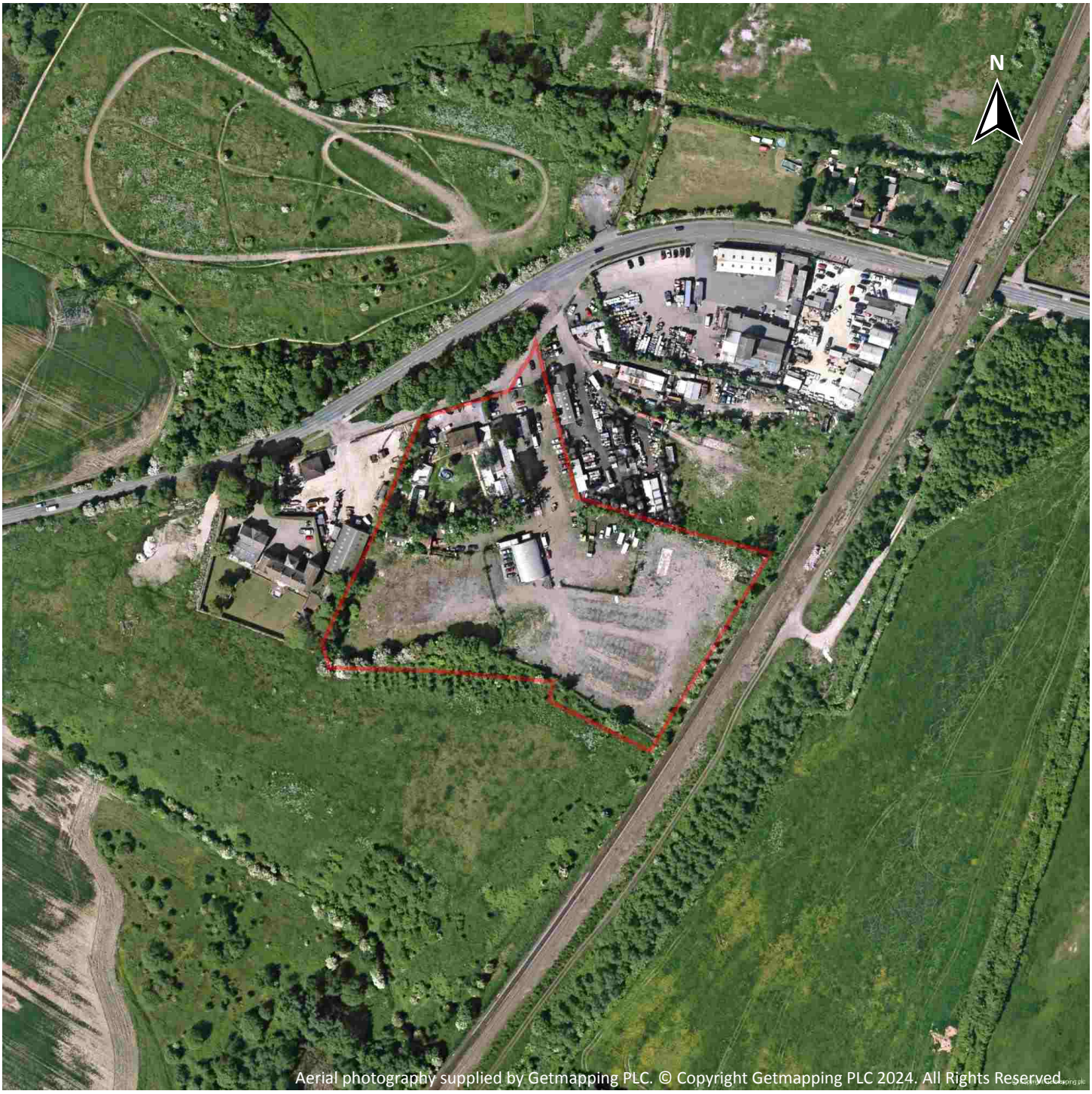
Recent site history - 2018 aerial photograph



Capture Date: 30/06/2018

Site Area: 1.91ha

Recent site history - 2013 aerial photograph



Capture Date: 07/06/2013

Site Area: 1.91ha

Recent site history - 2009 aerial photograph

Capture Date: 11/09/2009

Site Area: 1.91ha

Recent site history - 1999 aerial photograph

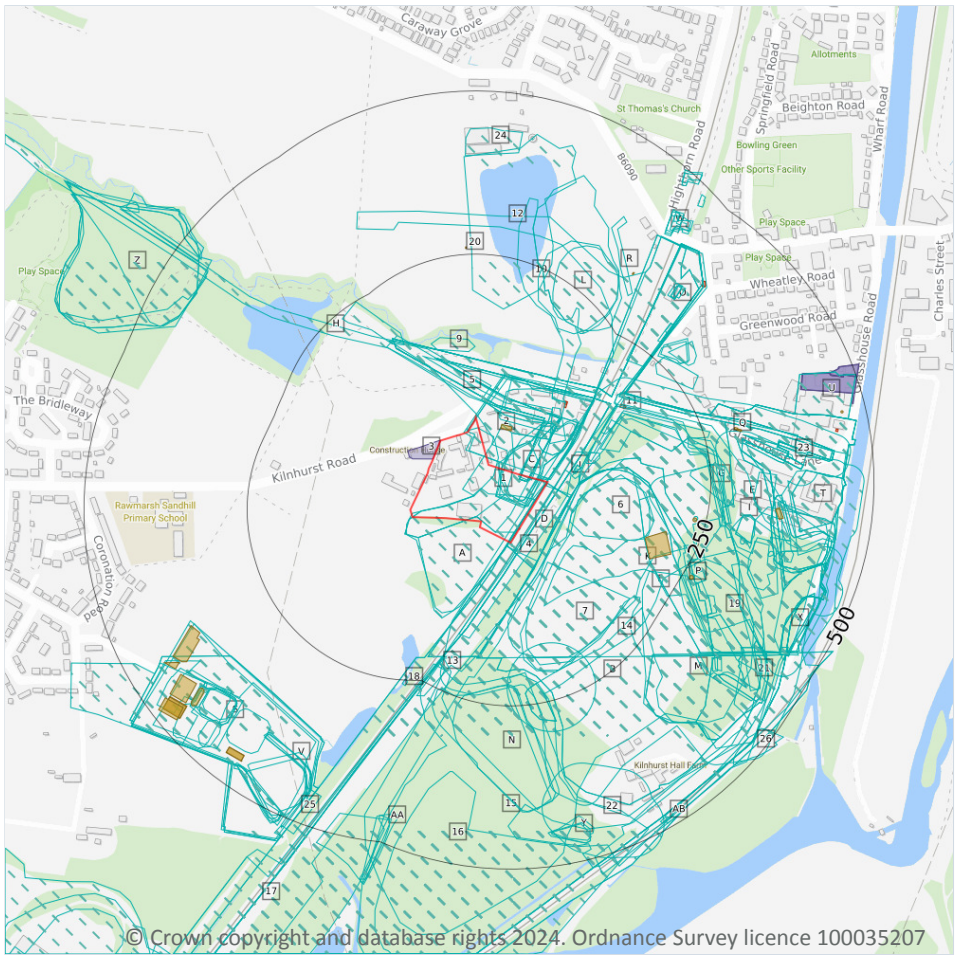
Capture Date: 06/07/1999

Site Area: 1.91ha

OS MasterMap site plan

Site Area: 1.91ha

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	172

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

Features are displayed on the Past land use map on **page 15 >**

ID	Location	Land use	Dates present	Group ID
1	**On site**	**Refuse Heap**	**1967**	**1700041**

ID	Location	Land use	Dates present	Group ID
2	**On site**	**Railway Sidings**	**1967**	**1719200**
A	**On site**	**Unspecified Heap**	**1967**	**1621995**
A	**On site**	**Refuse Heap**	**1978 - 1984**	**1776014**
B	**On site**	**Railway Sidings**	**1956**	**1637389**
B	**On site**	**Railway Sidings**	**1951**	**1637390**
B	**On site**	**Railway Sidings**	**1951**	**1637391**
B	**On site**	**Railway Sidings**	**1951**	**1637392**
B	**On site**	**Railway Sidings**	**1956**	**1637393**
B	**On site**	**Railway Sidings**	**1921 - 1924**	**1709081**
B	**On site**	**Railway Sidings**	**1938 - 1948**	**1760206**
C	**On site**	**Unspecified Pit**	**1951**	**1644750**
C	**On site**	**Brick Works**	**1938**	**1655752**
C	**On site**	**Brick Works**	**1948**	**1661083**
C	**On site**	**Brick Works**	**1901**	**1661710**
C	**On site**	**Unspecified Pit**	**1938**	**1662837**
C	**On site**	**Brick Works**	**1951**	**1711875**
C	**On site**	**Railway Sidings**	**1938**	**1732801**
C	**On site**	**Unspecified Ground Workings**	**1948**	**1773502**
D	**On site**	**Cuttings**	**1938**	**1690872**
D	**On site**	**Cuttings**	**1948**	**1705663**
D	**On site**	**Cuttings**	**1901**	**1769443**
E	**On site**	**Railway Sidings**	**1938**	**1720973**
F	**On site**	**Collieries**	**1951**	**1733264**
G	**On site**	**Railway Sidings**	**1901**	**1743555**
H	**On site**	**Tramway Sidings**	**1948**	**1754920**
4	11m SE	Railway Sidings	1984	1682576
B	14m SE	Railway Sidings	1966 - 1968	1675496
5	26m N	Tramway Sidings	1938	1667154

ID	Location	Land use	Dates present	Group ID
C	28m N	Unspecified Works	1967	1725226
C	35m N	Unspecified Works	1978 - 1984	1651842
I	39m E	Collieries	1938	1707469
J	41m E	Railway Building	1948	1716229
C	42m NE	Unspecified Pit	1901	1675845
C	42m NE	Unspecified Pit	1938	1685100
K	43m E	Collieries	1948	1666766
J	45m E	Railway Building	1901	1667323
J	45m E	Railway Building	1938	1734848
B	47m E	Refuse Heap	1978	1760575
I	49m E	Colliery	1901 - 1984	1726413
F	54m E	Refuse Heap	1967	1641158
6	55m E	Refuse Heap	1951	1700806
7	56m SE	Refuse Heaps	1948	1672887
C	58m NE	Railway Sidings	1901	1739051
8	64m SE	Refuse Heaps	1951	1754293
J	66m E	Unspecified Heap	1901	1622131
G	71m E	Refuse Heap	1938	1676334
G	96m E	Refuse Heap	1967	1668892
9	101m N	Unspecified Heap	1978 - 1984	1694820
G	112m NE	Refuse Heaps	1948	1749459
10	121m NE	Railway Sidings	1967	1767272
H	156m NW	Unspecified Heap	1978 - 1984	1752257
I	156m E	Unspecified Mine	1967 - 1978	1696105
B	162m S	Disused Workings	1984	1609893
12	171m N	Clay Pit	1978 - 1984	1724051
B	178m S	Refuse Heap	1948	1638045
13	182m S	Railway Sidings	1901	1704803

ID	Location	Land use	Dates present	Group ID
L	186m NE	Unspecified Pit	1951	1672528
14	195m SE	Railway Sidings	1967	1693051
L	199m NE	Unspecified Pit	1948	1757891
15	200m S	Railway Sidings	1921 - 1924	1655769
L	202m NE	Unspecified Pit	1967	1760738
16	202m S	Sewage Works	1938	1694154
M	204m SE	Refuse Heap	1951	1739703
N	217m S	Unspecified Pits	1948	1634275
E	219m E	Unspecified Heap	1901	1621996
17	219m S	Railway Sidings	1974 - 1987	1742259
N	219m S	Unspecified Ground Workings	1938	1656826
B	219m S	Refuse Heap	1967	1748056
E	222m E	Refuse Heap	1951	1717683
O	223m NE	Railway Sidings	1967 - 1978	1716049
I	231m E	Railway Buildings	1951	1588860
E	231m E	Unspecified Tank	1967	1628322
O	236m NE	Unspecified Heap	1967	1621994
18	249m S	Railway Building	1924	1633306
19	250m E	Unspecified Disused Tip	1984	1636206
O	257m NE	Unspecified Pit	1948	1670250
P	261m E	Unspecified Tank	1938 - 1948	1727058
O	262m NE	Unspecified Pit	1951	1687801
I	271m E	Pottery	1948	1700754
O	272m NE	Unspecified Heap	1967	1621993
O	275m NE	Railway Buildings	1948	1588861
M	277m SE	Refuse Heap	1921	1646555
M	277m SE	Refuse Heap	1938 - 1948	1738007
I	291m E	Unspecified Heap	1948	1713801

ID	Location	Land use	Dates present	Group ID
O	292m NE	Railway Building	1901	1633307
R	299m NE	Unspecified Ground Workings	1978 - 1984	1680324
I	299m E	Unspecified Heap	1938	1640598
I	299m E	Unspecified Heap	1901	1745099
I	309m E	Unspecified Tank	1938 - 1948	1699791
I	316m E	Railway Sidings	1984	1768488
I	323m E	Railway Sidings	1978	1675385
M	332m SE	Railway Sidings	1924	1764243
21	333m SE	Railway Sidings	1901	1772763
O	340m NE	Railway Building	1948 - 1951	1700629
O	341m NE	Railway Building	1901	1724269
O	341m NE	Railway Building	1938	1752708
S	343m SW	Sewage Works	1921	1652779
S	343m SW	Sewage Works	1938 - 1948	1767813
S	345m SW	Sewage Works	1951	1756329
O	346m NE	Railway Building	1967	1679340
I	347m E	Unspecified Heaps	1901	1657059
I	347m E	Unspecified Heaps	1938	1728497
S	352m SW	Sewage Works	1924	1679019
22	353m S	Sewage Work	1948	1598713
I	354m E	Unspecified Ground Workings	1948	1744498
S	355m SW	Sewage Works	1978 - 1984	1683512
M	355m SE	Railway Building	1924	1686514
I	355m E	Unspecified Tank	1938 - 1948	1692870
I	357m E	Unspecified Ground Workings	1951	1696802
23	358m E	Railway Building	1951	1633034
M	359m SE	Railway Building	1901	1674235
I	373m E	Railway Buildings	1967	1588883

ID	Location	Land use	Dates present	Group ID
M	373m SE	Sand Pit	1924	1604174
T	375m E	Pottery	1938	1709859
T	375m E	Pottery	1901	1763194
I	375m E	Unspecified Heap	1951	1621730
M	379m SE	Refuse Heap	1901	1651448
S	383m SW	Unspecified Works	1967	1612759
S	383m SW	Unspecified Tanks	1978 - 1984	1686184
S	385m SW	Unspecified Tanks	1921 - 1924	1719025
S	388m SW	Unspecified Tanks	1967 - 1984	1664709
S	388m SW	Unspecified Tanks	1951	1771790
S	389m SW	Unspecified Tanks	1948	1686452
S	392m SW	Unspecified Tanks	1938	1730159
I	392m E	Unspecified Tank	1938	1628021
U	393m E	Glass Works	1901	1599697
U	393m E	Unspecified Commercial/Industrial	1938	1600062
S	393m SW	Sewage Works	1901	1697087
V	395m SW	Unspecified Ground Workings	1951	1704782
V	396m SW	Unspecified Ground Workings	1948	1776734
V	399m SW	Unspecified Ground Workings	1938	1653133
M	400m SE	Unspecified Pit	1938	1607481
M	400m SE	Refuse Heap	1901	1753436
V	400m SW	Unspecified Heap	1921	1689534
24	401m N	Unspecified Works	1967	1612760
W	404m NE	Railway Station	1948	1708867
S	405m SW	Filter Beds	1921 - 1924	1773655
W	406m NE	Railway Station	1951	1675443
V	408m SW	Refuse Heap	1924	1587987
S	408m SW	Unspecified Tanks	1948	1721127

ID	Location	Land use	Dates present	Group ID
W	409m NE	Railway Station	1938	1654330
W	414m NE	Railway Station	1967	1711058
X	422m SE	Unspecified Heap	1938	1672252
X	422m SE	Unspecified Heap	1901	1720139
X	424m SE	Unspecified Heap	1948	1714659
W	427m NE	Railway Station	1901	1735531
Y	431m S	Unspecified Pit	1951 - 1967	1649336
S	432m SW	Unspecified Tanks	1978 - 1984	1776601
Z	436m NW	Refuse Heap	1948	1727918
Z	436m NW	Refuse Heap	1948	1748079
Z	437m NW	Refuse Heap	1951 - 1967	1657333
Z	439m NW	Refuse Heap	1938	1760535
Z	439m NW	Refuse Heaps	1978 - 1984	1748943
Y	442m S	Unspecified Pit	1948	1734756
Y	444m S	Unspecified Pit	1938	1707671
25	444m SW	Cuttings	1978 - 1984	1691318
AA	451m S	Unspecified Ground Workings	1948	1593603
AA	459m S	Unspecified Pit	1951	1710202
Z	460m NW	Refuse Heap	1978 - 1984	1777283
Z	462m NW	Refuse Heap	1951	1723532
V	462m SW	Unspecified Heap	1951	1707601
V	463m SW	Unspecified Ground Workings	1948	1593945
V	463m SW	Unspecified Heap	1938	1693058
AA	464m S	Unspecified Pit	1938	1775558
W	470m NE	Railway Building	1938 - 1948	1752067
26	471m SE	Unspecified Pit	1921 - 1924	1769011
W	476m NE	Railway Buildings	1948 - 1951	1642541
AB	479m SE	Railway Building	1921	1694826

ID	Location	Land use	Dates present	Group ID
W	479m NE	Railway Buildings	1938	1739153
AB	483m SE	Railway Building	1924	1721619
AB	484m SE	Railway Building	1938	1702703

This data is sourced from Ordnance Survey / Groundsure.

1.2 Historical tanks

Records within 500m	**19**

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 15 >**

ID	Location	Land use	Dates present	Group ID
C	33m NE	Unspecified Tank	1972 - 1993	285201
K	173m E	Unspecified Tank	1892 - 1903	284894
E	230m E	Unspecified Tank	1959	274057
20	259m N	Unspecified Tank	1903	273949
P	261m E	Unspecified Tank	1930	274056
Q	297m E	Unspecified Tank	1930	273953
Q	301m E	Unspecified Tank	1957 - 1959	288534
R	325m NE	Unspecified Tank	1903	273950
I	352m E	Tanks	1930	265032
S	371m SW	Tanks	1903	264771
S	415m SW	Tanks	1935	264769
S	418m SW	Tanks	1935	264772
S	421m SW	Tanks	1935	262902
S	447m SW	Settling Tank	1970	277841
S	447m SW	Settling Tank	1968	281109

ID	Location	Land use	Dates present	Group ID
S	451m SW	Settling Tanks	1968 - 1970	286047
S	452m SW	Settling Tanks	1968	280725
S	457m SW	Tanks	1935	264770
U	462m E	Unspecified Tank	1892	274055

This data is sourced from Ordnance Survey / Groundsure.

1.3 Historical energy features

Records within 500m	**6**

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 15 >**

ID	Location	Land use	Dates present	Group ID
C	117m NE	Electricity Substation	1972	170764
C	122m NE	Electricity Substation	1993	169892
11	160m NE	Electricity Substation	1972 - 1993	167903
O	382m NE	Electricity Substation	1973 - 1982	185170
O	382m NE	Electricity Substation	1993	181749
U	448m E	Electricity Substation	1993	164794

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	7

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

Features are displayed on the Past land use map on **page 15 >**

ID	Location	Land use	Dates present	Group ID
3	**On site**	**Garage**	**1972**	**52891**
U	413m E	Garage	1982	55997
U	413m E	Garage	1973	59299
U	414m E	Garage	1993	56028
U	463m E	Garage	1982	60435
U	463m E	Garage	1993	54732
U	464m E	Garage	1973	60060

This data is sourced from Ordnance Survey / Groundsure.

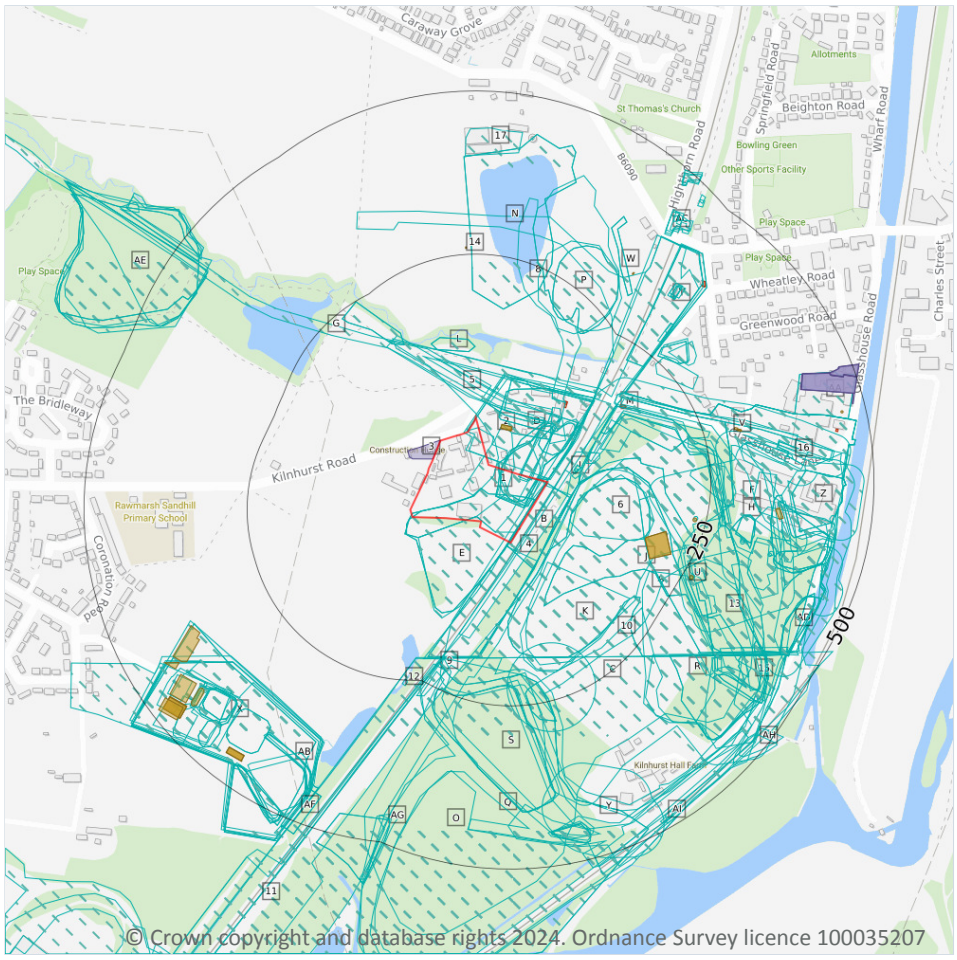
1.6 Historical military land

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	220

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 25 >**

ID	Location	Land Use	Date	Group ID
1	On site	Refuse Heap	1967	1700041
2	On site	Railway Sidings	1967	1719200
A	On site	Collieries	1951	1733264

ID	Location	Land Use	Date	Group ID
B	**On site**	**Cuttings**	**1938**	**1690872**
B	**On site**	**Cuttings**	**1901**	**1769443**
B	**On site**	**Cuttings**	**1948**	**1705663**
C	**On site**	**Railway Sidings**	**1951**	**1637392**
D	**On site**	**Brick Works**	**1951**	**1711875**
D	**On site**	**Unspecified Pit**	**1951**	**1644750**
D	**On site**	**Brick Works**	**1938**	**1655752**
D	**On site**	**Unspecified Pit**	**1938**	**1662837**
D	**On site**	**Railway Sidings**	**1938**	**1732801**
D	**On site**	**Brick Works**	**1901**	**1661710**
D	**On site**	**Brick Works**	**1948**	**1661083**
D	**On site**	**Unspecified Ground Workings**	**1948**	**1773502**
D	**On site**	**Brick Works**	**1948**	**1661083**
D	**On site**	**Unspecified Ground Workings**	**1948**	**1773502**
E	**On site**	**Unspecified Heap**	**1967**	**1621995**
E	**On site**	**Refuse Heap**	**1978**	**1776014**
E	**On site**	**Refuse Heap**	**1984**	**1776014**
F	**On site**	**Railway Sidings**	**1938**	**1720973**
F	**On site**	**Railway Sidings**	**1901**	**1743555**
F	**On site**	**Railway Sidings**	**1948**	**1760206**
G	**On site**	**Tramway Sidings**	**1948**	**1754920**
4	11m SE	Railway Sidings	1984	1682576
C	14m SE	Railway Sidings	1967	1675496
5	26m N	Tramway Sidings	1938	1667154
D	28m N	Unspecified Works	1967	1725226
D	35m N	Unspecified Works	1978	1651842
D	35m N	Unspecified Works	1984	1651842
H	39m E	Collieries	1938	1707469

ID	Location	Land Use	Date	Group ID
I	41m E	Railway Building	1948	1716229
D	42m NE	Unspecified Pit	1938	1685100
D	42m NE	Unspecified Pit	1901	1675845
J	43m E	Collieries	1948	1666766
J	43m E	Collieries	1948	1666766
I	45m E	Railway Building	1938	1734848
I	45m E	Railway Building	1901	1667323
C	47m E	Refuse Heap	1978	1760575
H	49m E	Colliery	1901	1726413
A	54m E	Refuse Heap	1967	1641158
6	55m E	Refuse Heap	1951	1700806
K	56m SE	Refuse Heaps	1948	1672887
K	56m SE	Refuse Heaps	1948	1672887
D	58m NE	Railway Sidings	1901	1739051
7	64m SE	Refuse Heaps	1951	1754293
I	66m E	Unspecified Heap	1901	1622131
F	71m E	Refuse Heap	1938	1676334
F	96m E	Refuse Heap	1967	1668892
L	101m N	Unspecified Heap	1978	1694820
L	101m N	Unspecified Heap	1984	1694820
F	112m NE	Refuse Heaps	1948	1749459
F	112m NE	Refuse Heaps	1948	1749459
8	121m NE	Railway Sidings	1967	1767272
G	156m NW	Unspecified Heap	1978	1752257
G	156m NW	Unspecified Heap	1984	1752257
H	156m E	Unspecified Mine	1967	1696105
C	162m S	Disused Workings	1984	1609893
N	171m N	Clay Pit	1978	1724051

ID	Location	Land Use	Date	Group ID
N	171m N	Clay Pit	1984	1724051
O	177m S	Railway Sidings	1948	1760206
C	178m S	Refuse Heap	1948	1638045
9	182m S	Railway Sidings	1901	1704803
P	186m NE	Unspecified Pit	1951	1672528
O	194m S	Railway Sidings	1938	1760206
10	195m SE	Railway Sidings	1967	1693051
P	199m NE	Unspecified Pit	1948	1757891
P	199m NE	Unspecified Pit	1948	1757891
Q	200m S	Railway Sidings	1921	1655769
P	202m NE	Unspecified Pit	1967	1760738
O	202m S	Sewage Works	1938	1694154
O	202m S	Sewage Works	1938	1694154
R	204m SE	Refuse Heap	1951	1739703
Q	211m S	Railway Sidings	1924	1655769
S	217m S	Unspecified Pits	1948	1634275
F	219m E	Unspecified Heap	1901	1621996
11	219m S	Railway Sidings	1978	1742259
S	219m S	Unspecified Ground Workings	1938	1656826
S	219m S	Unspecified Ground Workings	1938	1656826
C	219m S	Refuse Heap	1967	1748056
F	222m E	Refuse Heap	1951	1717683
T	223m NE	Railway Sidings	1967	1716049
T	223m NE	Railway Sidings	1978	1716049
H	229m E	Colliery	1984	1726413
H	231m E	Railway Buildings	1951	1588860
F	231m E	Unspecified Tank	1967	1628322
T	236m NE	Unspecified Heap	1967	1621994

ID	Location	Land Use	Date	Group ID
12	249m S	Railway Building	1924	1633306
13	250m E	Unspecified Disused Tip	1984	1636206
T	257m NE	Unspecified Pit	1948	1670250
T	257m NE	Unspecified Pit	1948	1670250
H	257m E	Unspecified Mine	1978	1696105
U	261m E	Unspecified Tank	1948	1727058
U	262m E	Unspecified Tank	1938	1727058
T	262m NE	Unspecified Pit	1951	1687801
H	271m E	Pottery	1948	1700754
T	272m NE	Unspecified Heap	1967	1621993
T	275m NE	Railway Buildings	1948	1588861
R	277m SE	Refuse Heap	1948	1738007
H	291m E	Unspecified Heap	1948	1713801
H	291m E	Unspecified Heap	1948	1713801
T	292m NE	Railway Building	1901	1633307
R	298m SE	Refuse Heap	1938	1738007
R	298m SE	Refuse Heap	1938	1738007
W	299m NE	Unspecified Ground Workings	1978	1680324
W	299m NE	Unspecified Ground Workings	1984	1680324
H	299m E	Unspecified Heap	1938	1640598
H	299m E	Unspecified Heap	1901	1745099
H	309m E	Unspecified Tank	1938	1699791
H	309m E	Unspecified Tank	1948	1699791
H	316m E	Railway Sidings	1984	1768488
H	323m E	Railway Sidings	1978	1675385
R	332m SE	Railway Sidings	1924	1764243
15	333m SE	Railway Sidings	1901	1772763
T	340m NE	Railway Building	1948	1700629

ID	Location	Land Use	Date	Group ID
T	341m NE	Railway Building	1938	1752708
T	341m NE	Railway Building	1901	1724269
X	343m SW	Sewage Works	1921	1652779
T	344m NE	Railway Building	1951	1700629
X	345m SW	Sewage Works	1951	1756329
T	346m NE	Railway Building	1967	1679340
H	347m E	Unspecified Heaps	1938	1728497
H	347m E	Unspecified Heaps	1901	1657059
X	348m SW	Sewage Works	1948	1767813
X	349m SW	Sewage Works	1938	1767813
X	349m SW	Sewage Works	1938	1767813
X	352m SW	Sewage Works	1924	1679019
Y	353m S	Sewage Work	1948	1598713
H	354m E	Unspecified Ground Workings	1948	1744498
H	354m E	Unspecified Ground Workings	1948	1744498
X	355m SW	Sewage Works	1978	1683512
X	355m SW	Sewage Works	1984	1683512
R	355m SE	Railway Building	1924	1686514
H	355m E	Unspecified Tank	1948	1692870
R	356m SE	Railway Sidings	1948	1760206
H	356m E	Unspecified Tank	1938	1692870
H	357m E	Unspecified Ground Workings	1951	1696802
16	358m E	Railway Building	1951	1633034
R	358m SE	Railway Sidings	1921	1709081
R	359m SE	Railway Building	1901	1674235
R	371m SE	Refuse Heap	1921	1646555
H	373m E	Railway Buildings	1967	1588883
R	373m SE	Sand Pit	1924	1604174

ID	Location	Land Use	Date	Group ID
Z	375m E	Pottery	1938	1709859
Z	375m E	Pottery	1901	1763194
H	375m E	Unspecified Heap	1951	1621730
R	379m SE	Refuse Heap	1901	1651448
X	383m SW	Unspecified Works	1967	1612759
X	383m SW	Unspecified Tanks	1978	1686184
X	383m SW	Unspecified Tanks	1984	1686184
X	385m SW	Unspecified Tanks	1921	1719025
X	388m SW	Unspecified Tanks	1967	1664709
X	388m SW	Unspecified Tanks	1978	1664709
X	388m SW	Unspecified Tanks	1984	1664709
X	388m SW	Unspecified Tanks	1951	1771790
X	389m SW	Unspecified Tanks	1948	1686452
X	392m SW	Unspecified Tanks	1938	1730159
H	392m E	Unspecified Tank	1938	1628021
X	392m SW	Unspecified Tanks	1924	1719025
AA	393m E	Unspecified Commercial/Industrial	1938	1600062
AA	393m E	Glass Works	1901	1599697
X	393m SW	Sewage Works	1901	1697087
AB	395m SW	Unspecified Ground Workings	1951	1704782
AB	396m SW	Unspecified Ground Workings	1948	1776734
AB	399m SW	Unspecified Ground Workings	1938	1653133
AB	399m SW	Unspecified Ground Workings	1938	1653133
R	400m SE	Unspecified Pit	1938	1607481
R	400m SE	Refuse Heap	1901	1753436
AB	400m SW	Unspecified Heap	1921	1689534
17	401m N	Unspecified Works	1967	1612760
AC	404m NE	Railway Station	1948	1708867

ID	Location	Land Use	Date	Group ID
X	405m SW	Filter Beds	1921	1773655
AC	406m NE	Railway Station	1951	1675443
AB	408m SW	Refuse Heap	1924	1587987
X	408m SW	Unspecified Tanks	1948	1721127
AC	409m NE	Railway Station	1938	1654330
AC	414m NE	Railway Station	1967	1711058
X	421m SW	Filter Beds	1924	1773655
AD	422m SE	Unspecified Heap	1938	1672252
AD	422m SE	Unspecified Heap	1901	1720139
AD	424m SE	Unspecified Heap	1948	1714659
AD	424m SE	Unspecified Heap	1948	1714659
AC	427m NE	Railway Station	1901	1735531
Y	431m S	Unspecified Pit	1967	1649336
X	432m SW	Unspecified Tanks	1978	1776601
X	432m SW	Unspecified Tanks	1984	1776601
AE	436m NW	Refuse Heap	1948	1748079
AE	436m NW	Refuse Heap	1948	1727918
AE	437m NW	Refuse Heap	1951	1657333
AE	439m NW	Refuse Heap	1938	1760535
AE	439m NW	Refuse Heap	1967	1657333
AE	439m NW	Refuse Heaps	1978	1748943
AE	439m NW	Refuse Heaps	1984	1748943
Y	440m S	Unspecified Pit	1951	1649336
Y	442m S	Unspecified Pit	1948	1734756
Y	444m S	Unspecified Pit	1938	1707671
Y	444m S	Unspecified Pit	1938	1707671
AF	444m SW	Cuttings	1978	1691318
AF	444m SW	Cuttings	1984	1691318

ID	Location	Land Use	Date	Group ID
AG	451m S	Unspecified Ground Workings	1948	1593603
AG	459m S	Unspecified Pit	1951	1710202
AE	460m NW	Refuse Heap	1978	1777283
AE	462m NW	Refuse Heap	1951	1723532
AB	462m SW	Unspecified Heap	1951	1707601
AB	463m SW	Unspecified Ground Workings	1948	1593945
AB	463m SW	Unspecified Heap	1938	1693058
AB	463m SW	Unspecified Heap	1938	1693058
AG	464m S	Unspecified Pit	1938	1775558
AG	464m S	Unspecified Pit	1938	1775558
AE	464m NW	Refuse Heap	1984	1777283
AC	470m NE	Railway Building	1948	1752067
AH	471m SE	Unspecified Pit	1921	1769011
AH	471m SE	Unspecified Pit	1924	1769011
AC	476m NE	Railway Buildings	1948	1642541
AC	477m NE	Railway Building	1938	1752067
AC	478m NE	Railway Buildings	1951	1642541
AI	479m SE	Railway Building	1921	1694826
AC	479m NE	Railway Buildings	1938	1739153
AI	483m SE	Railway Building	1924	1721619
AI	484m SE	Railway Building	1938	1702703

This data is sourced from Ordnance Survey / Groundsure.

2.2 Historical tanks

Records within 500m	24

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 25 >**

ID	Location	Land Use	Date	Group ID
D	33m NE	Unspecified Tank	1993	285201
D	33m NE	Unspecified Tank	1972	285201
J	173m E	Unspecified Tank	1892	284894
J	173m E	Unspecified Tank	1903	284894
F	230m E	Unspecified Tank	1959	274057
14	259m N	Unspecified Tank	1903	273949
U	261m E	Unspecified Tank	1930	274056
V	297m E	Unspecified Tank	1930	273953
V	301m E	Unspecified Tank	1957	288534
V	302m E	Unspecified Tank	1959	288534
W	325m NE	Unspecified Tank	1903	273950
H	352m E	Tanks	1930	265032
X	371m SW	Tanks	1903	264771
X	415m SW	Tanks	1935	264769
X	418m SW	Tanks	1935	264772
X	421m SW	Tanks	1935	262902
X	447m SW	Settling Tank	1970	277841
X	447m SW	Settling Tank	1968	281109
X	448m SW	Settling Tank	1968	281109
X	451m SW	Settling Tanks	1968	286047
X	451m SW	Settling Tanks	1970	286047
X	452m SW	Settling Tanks	1968	280725
X	457m SW	Tanks	1935	264770
AA	462m E	Unspecified Tank	1892	274055

This data is sourced from Ordnance Survey / Groundsure.

2.3 Historical energy features

Records within 500m	8

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 25 >**

ID	Location	Land Use	Date	Group ID
D	117m NE	Electricity Substation	1972	170764
D	122m NE	Electricity Substation	1993	169892
M	160m NE	Electricity Substation	1972	167903
M	161m NE	Electricity Substation	1993	167903
T	382m NE	Electricity Substation	1982	185170
T	382m NE	Electricity Substation	1993	181749
T	382m NE	Electricity Substation	1973	185170
AA	448m E	Electricity Substation	1993	164794

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	7

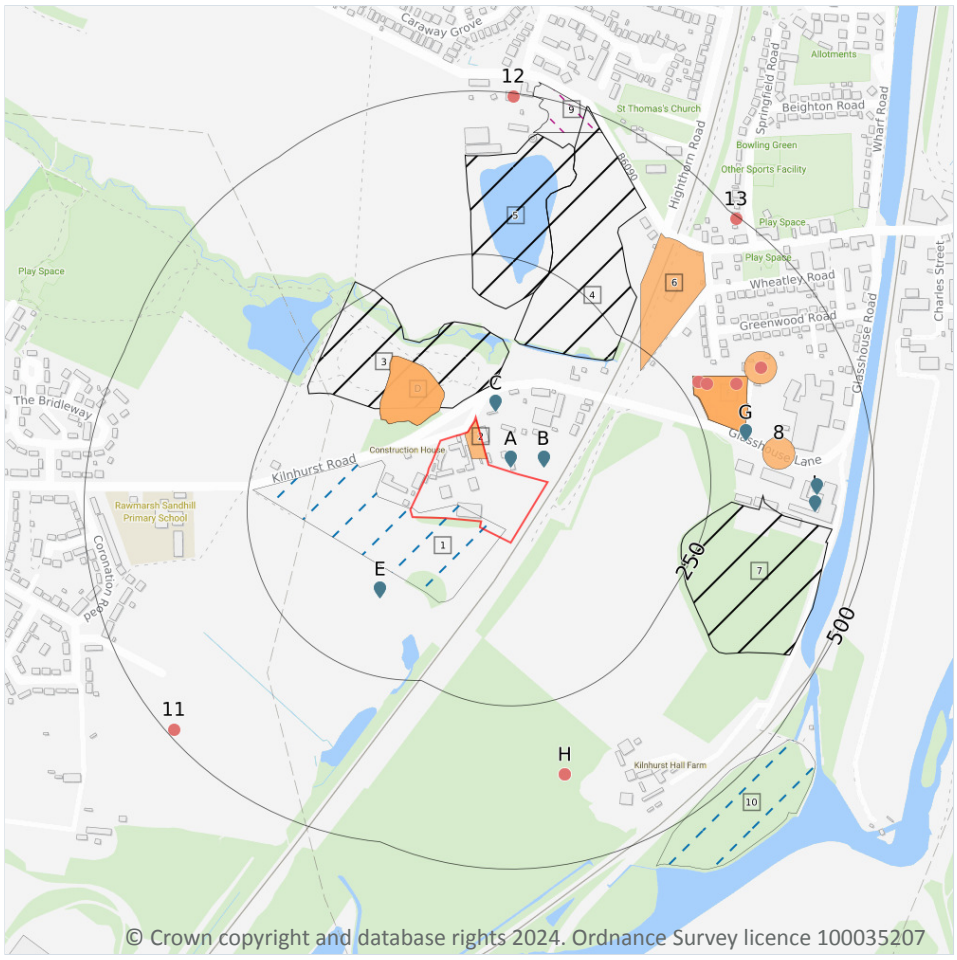
Garages digitised from historical Ordnance Survey mapping at high-detail 1:1,250 and 1:2,500 scale. Any records shown are available intelligently grouped in section 1. Grouped and the original un-grouped features can be cross-referenced across sections 1 and 2 using the 'Group ID'.

Features are displayed on the Past land use - un-grouped map on **page 25 >**

ID	Location	Land Use	Date	Group ID
3	**On site**	**Garage**	**1972**	**52891**
AA	413m E	Garage	1982	55997
AA	413m E	Garage	1973	59299
AA	414m E	Garage	1993	56028
AA	463m E	Garage	1982	60435
AA	463m E	Garage	1993	54732
AA	464m E	Garage	1973	60060

This data is sourced from Ordnance Survey / Groundsure.

3 Waste and landfill



Site Outline

Search buffers in metres (m)

- Active or recent landfill
- Historical landfill (EA/NRW)
- Historical landfill (LA/OS)
- Historical waste sites
- Licensed waste sites
- Waste exemptions

3.1 Active or recent landfill

Records within 500m	2

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

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

ID	Location	Details	
1	**On site**	**Operator: T.k. Lynskey (Excavations) Limited** **Site Address: T.k. Lynskey (Excavations) Limited, Beechwood House, Kilnhurst Road, Kilnhurst, Rotherham, South Yorkshire, S62 5TL**	**WML Number: 61567** **EPR Reference: 637116** **Landfill type: A05: Landfill taking Non-Biodegradeable Wastes** **Status: Closure** **IPPC Reference: -** **EPR Number: EA/EPR/DP3095ZM**

ID	Location	Details	
10	484m SE	Operator: British Waterways South Yorkshire Navigations Site Address: British Waterways South Yorkshire Navigations, Railway Junction, Kilnhurst Floor Lock, Thrybergh Swinton, Rotherham, South Yorkshire, S64 5TJ	WML Number: 61552 EPR Reference: 627000 Landfill type: A06: Landfill taking other wastes Status: Closure IPPC Reference: - EPR Number: EA/EPR/AP3695ZZ

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	**1**

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

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

ID	Location	Site address	Source	Data type
9	445m N	Refuse Tip	1970 mapping	Polygon

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

3.4 Historical landfill (EA/NRW records)

Records within 500m	**4**

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

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

ID	Location	Details		
3	32m N	Site Address: Ickles Steelworks Site 7, Sheffield Road, Templeborough, Rotherham Licence Holder Address: -	Waste Licence: Yes Site Reference: 4400/R20, WD20/R20(72) Waste Type: Inert, Industrial, Commercial, Household Environmental Permitting Regulations (Waste) Reference: - Licence Issue: 10/11/1977 Licence Surrender: 12/07/1989	Operator: Wimpey Waste Management Limited Licence Holder: Wimpey Waste Management Limited First Recorded 10/11/1977 Last Recorded: 12/07/1989
4	131m N	Site Address: Kilnhurst Brick Rotherham Limited, Wentworth Road Quarry, Kilnhurst, Rotherham Licence Holder Address: Haddon Works, Staveley, Chesterfield	Waste Licence: Yes Site Reference: 4400/R111, WD20 R111 Waste Type: Inert Environmental Permitting Regulations (Waste) Reference: - Licence Issue: 01/07/1977 Licence Surrender: 28/11/1979	Operator: Kilnhurst Brick Company Limited Licence Holder: Thomas Black Limited First Recorded - Last Recorded: -
5	172m N	Site Address: Wentworth Road Quarry, Kilnhirst Licence Holder Address: -	Waste Licence: - Site Reference: 4400/(49) Waste Type: Inert, Industrial Environmental Permitting Regulations (Waste) Reference: - Licence Issue: - Licence Surrender: -	Operator: - Licence Holder: Kilnhurst Brick Company Limited First Recorded 31/12/1958 Last Recorded: -
7	225m E	Site Address: Kilnhurst Colliery, Glasshouse Lane, Kilnhurst, Rotherham Licence Holder Address: Civic Offices, Rotherham	Waste Licence: Yes Site Reference: WD2 R22, 4400/R22 Waste Type: Inert Environmental Permitting Regulations (Waste) Reference: - Licence Issue: 11/09/1992 Licence Surrender: -	Operator: Director of Engineering, Rotherham Metropolitan Borough Council Licence Holder: Rotherham Metropolitan Borough Council First Recorded - Last Recorded: -

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

3.5 Historical waste sites

Records within 500m	**9**

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
2	**On site**	**Site Address: N/A**	**Type of Site: Breaker's Yard** **Planning application reference: N/A** **Description: N/A** **Data source: Historic Mapping** **Data Type: Polygon**	**1972**
D	39m NW	Site Address: N/A	Type of Site: Industrial Waste Beds Planning application reference: N/A Description: N/A Data source: Historic Mapping Data Type: Polygon	1972
D	39m NW	Site Address: N/A	Type of Site: Industrial Waste Beds Planning application reference: N/A Description: N/A Data source: Historic Mapping Data Type: Polygon	1993
6	222m NE	Site Address: N/A	Type of Site: Scrap Metal Yard Planning application reference: N/A Description: N/A Data source: Historic Mapping Data Type: Polygon	1973
F	260m NE	Site Address: N/A	Type of Site: Scrap Yard Planning application reference: N/A Description: N/A Data source: Historic Mapping Data Type: Polygon	1982
F	261m NE	Site Address: N/A	Type of Site: Scrap Metal Yard Planning application reference: N/A Description: N/A Data source: Historic Mapping Data Type: Polygon	1973
F	262m NE	Site Address: N/A	Type of Site: Scrap Yard Planning application reference: N/A Description: N/A Data source: Historic Mapping Data Type: Polygon	1993
8	332m E	Site Address: 2 Glasshouse Road, Kilnhurst, Mexborough, South Yorkshire, S64 5T	Type of Site: Vehicle Dismantling Facility (Conversion) Planning application reference: RB2019/1324 Description: Scheme comprises change of use to vehicle dismantling facility (use class sui generis). Data source: Historic Planning Application Data Type: Point	21/08/2019

ID	Location	Address	Further Details	Date
F	345m NE	Site Address: 1 - 8, Kilnhurst Busine, Glasshouse Lane, Kilnhurst, Mexborough, South Yorkshire, S64 5TT	Type of Site: Vehicle Dismantling/Storage (Conversion) Planning application reference: RB2017/1165 Description: Scheme comprises change of use to vehicle dismantling and storage facility (use class sui generis). Data source: Historic Planning Application Data Type: Point	26/09/2017

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

3.6 Licensed waste sites

Records within 500m **16**

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		
A	19m NE	Site Name: M L B Autospares Limited Site Address: Kilnhurst Road, Kilnhurst, Rotherham, South Yorkshire, S64 5TL Correspondence Address: -	Type of Site: Vehicle Depollution Facility 5000 tps Size: 25000 tonnes Environmental Permitting Regulations (Waste) Licence Number: 628469 EPR reference: EA/EPR/BB3507XB Operator: M L B Autospares Limited Waste Management licence No: 401405 Annual Tonnage: 4999	Issue Date: 11/08/2014 Effective Date: 11/08/2014 Modified: - Surrendered Date: - Expiry Date: - Cancelled Date: - Status: Issued
A	19m NE	Site Name: Steve's Autos Site Address: Land/premises At, Kilnhurst Road, Kilnhurst, Rotherham, South Yorkshire, S64 5TL Correspondence Address: -	Type of Site: Metal Recycling Site (Vehicle Dismantler) Size: 25000 tonnes Environmental Permitting Regulations (Waste) Licence Number: 655080 EPR reference: EA/EPR/RP3495ZS Operator: Afos Vehicle Dismantlers Ltd Waste Management licence No: 61560 Annual Tonnage: 4999	Issue Date: 04/11/1996 Effective Date: 04/11/1996 Modified: - Surrendered Date: - Expiry Date: - Cancelled Date: - Status: Part revoke

ID	Location	Details		
A	19m NE	Site Name: Quarry Oil Depot Site Address: Quarry Oil Depot, Kilnhurst Road, Kilnhurst, Rotherham, South Yorkshire, S64 5TL Correspondence Address: -	Type of Site: Special Waste Transfer Station Size: >= 75000 tonnes Environmental Permitting Regulations (Waste) Licence Number: 647998 EPR reference: EA/EPR/DP3695ZV Operator: Rotherham Waste Oil Collectors & Tank Cleaning Services Waste Management licence No: 61575 Annual Tonnage: 75000	Issue Date: 10/04/1987 Effective Date: 10/04/1987 Modified: - Surrendered Date: - Expiry Date: - Cancelled Date: - Status: Issued
B	32m NE	Site Name: Kcm Metals & Skip Hire Site Address: Unit 3, Kilnhurst Road, Rawmarsh, Rotherham, South Yorkshire, S62 5TL Correspondence Address: -	Type of Site: Household, Commercial & Industrial Waste T Stn Size: 25000 tonnes Environmental Permitting Regulations (Waste) Licence Number: MES010 EPR reference: RP3995ZC/A001 Operator: Messrs K, C P & K M Hickling Waste Management licence No: 61557 Annual Tonnage: 4999	Issue Date: 11/10/1994 Effective Date: - Modified: - Surrendered Date: - Expiry Date: - Cancelled Date: - Status: Issued
B	32m NE	Site Name: Kcm Metals & Skip Hire Site Address: Unit 3, Kilnhurst Road, Rawmarsh, Rotherham, South Yorkshire, S62 5TL Correspondence Address: -	Type of Site: Household, Commercial & Industrial Waste T Stn Size: 25000 tonnes Environmental Permitting Regulations (Waste) Licence Number: MES010 EPR reference: EA/EPR/RP3995ZC/A001 Operator: Messrs K, C P & K M Hickling Waste Management licence No: 61557 Annual Tonnage: 4999	Issue Date: 11/10/1994 Effective Date: - Modified: - Surrendered Date: - Expiry Date: - Cancelled Date: - Status: Issued

ID	Location	Details		
B	32m NE	Site Name: The Old Back Yard Site Address: Unit 3, Kilnhurst Road, Rawmarsh, Rotherham, South Yorkshire, S62 5TL Correspondence Address: -	Type of Site: Household, Commercial & Industrial Waste T Stn Size: 25000 tonnes Environmental Permitting Regulations (Waste) Licence Number: 655450 EPR reference: EA/EPR/RP3995ZC Operator: Mr Charles Philip Hickling & Mr Keith Mark Hickling Waste Management licence No: 61557 Annual Tonnage: 0	Issue Date: 11/10/1994 Effective Date: 11/10/1994 Modified: - Surrendered Date: 11/10/1994 Expiry Date: - Cancelled Date: - Status: Surrendered
C	37m N	Site Name: Rotherham Waste Oils Site Address: Land At, 500, Sheffield Road, Tinsley, Sheffield, South Yorkshire, S9 1RT Correspondence Address: -	Type of Site: Household, Commercial & Industrial Waste T Stn Size: 25000 tonnes Environmental Permitting Regulations (Waste) Licence Number: ROT001 EPR reference: EA/EPR/EP3892ZE/A001 Operator: Derek Neil Rose And Roberta Rose Waste Management licence No: 65409 Annual Tonnage: 25000	Issue Date: 16/05/2005 Effective Date: - Modified: - Surrendered Date: - Expiry Date: - Cancelled Date: - Status: Issued
C	37m N	Site Name: Rotherham Waste Oils Site Address: 500 Land At, Sheffield Road, Tinsley, Sheffield, South Yorkshire, S9 1RT Correspondence Address: -	Type of Site: Household, Commercial & Industrial Waste T Stn Size: >= 25000 tonnes 75000 tonnes Environmental Permitting Regulations (Waste) Licence Number: 650216 EPR reference: EA/EPR/EP3892ZE Operator: Derek Neil Rose And Roberta Rose Waste Management licence No: 65409 Annual Tonnage: 25000	Issue Date: 16/05/2005 Effective Date: 16/05/2005 Modified: - Surrendered Date: - Expiry Date: - Cancelled Date: - Status: Issued

ID	Location	Details		
E	122m SW	Site Name: T K Lynskey Excavations Limited Site Address: Beechwood House, Kilnhurst Road, Kilnhurst, Rotherham, S Yorks, S62 5TL Correspondence Address: The Foundry, Common Lane, Wath, Wath Upon Dearne, S Yorks, S63	Type of Site: Landfill taking Non-Biodegradeable Wastes Size: >= 75000 tonnes Environmental Permitting Regulations (Waste) Licence Number: TKL001 EPR reference: - Operator: T K Lynskey Excavations Ltd Waste Management licence No: 61567 Annual Tonnage: 0	Issue Date: 13/01/1983 Effective Date: - Modified: - Surrendered Date: - Expiry Date: - Cancelled Date: - Status: Issued
E	122m SW	Site Name: T K Lynskey Excavations Limited Site Address: Beechwood House, Kilnhurst Road, Kilnhurst, Rotherham, S Yorks, S62 5TL Correspondence Address: The Foundry, Common Lane, Wath, Wath Upon Dearne, S Yorks, S63	Type of Site: Landfill taking Non-Biodegradeable Wastes Size: 25000 tonnes Environmental Permitting Regulations (Waste) Licence Number: TKL001 EPR reference: - Operator: T K Lynskey Excavations Ltd Waste Management licence No: 61567 Annual Tonnage: 0	Issue Date: 13/01/1983 Effective Date: - Modified: - Surrendered Date: - Expiry Date: - Cancelled Date: - Status: Issued
E	122m SW	Site Name: T K Lynskey Excavations Limited Site Address: Beechwood House, Kilnhurst Road, Kilnhurst, Rotherham, South Yorkshire, S62 5TL Correspondence Address: -	Type of Site: Landfill taking Non-Biodegradeable Wastes Size: 25000 tonnes Environmental Permitting Regulations (Waste) Licence Number: 637269 EPR reference: EA/EPR/DP3095ZM Operator: T.k. Lynskey (Excavations) Limited Waste Management licence No: 61567 Annual Tonnage: 4999	Issue Date: 13/01/1983 Effective Date: 13/01/1983 Modified: - Surrendered Date: - Expiry Date: - Cancelled Date: - Status: Closure
G	312m E	Site Name: A B S Distribution Services Ltd Site Address: Harry Works, Glasshouse Lane, Kilnhurst, Rotherham, South Yorkshire, S64 5TE Correspondence Address: -	Type of Site: Metal Recycling Site (mixed MRS's) Size: 25000 tonnes Environmental Permitting Regulations (Waste) Licence Number: ABS001 EPR reference: EA/EPR/QP3995ZF/V005 Operator: A B S Industrial Resources Ltd Waste Management licence No: 61605 Annual Tonnage: 25000	Issue Date: 14/06/1993 Effective Date: - Modified: 23/12/2014 Surrendered Date: - Expiry Date: - Cancelled Date: - Status: Modified

ID	Location	Details		
G	312m E	Site Name: Harry Works Site Address: Harry Works, Glasshouse Lane, Kilnhurst, Rotherham, South Yorkshire, S64 5TH Correspondence Address: -	Type of Site: Metal Recycling Site (mixed MRS's) Size: >= 25000 tonnes 75000 tonnes Environmental Permitting Regulations (Waste) Licence Number: ABS001 EPR reference: EA/EPR/QP3995ZF/V007 Operator: E L G Utica Alloys Limited Waste Management licence No: 61605 Annual Tonnage: 25000	Issue Date: 14/06/1993 Effective Date: - Modified: 19/12/2016 Surrendered Date: - Expiry Date: - Cancelled Date: - Status: Modified
G	312m E	Site Name: Harry Works Site Address: Harry Works, Glasshouse Lane, Kilnhurst, Rotherham, South Yorkshire, S64 5TH Correspondence Address: -	Type of Site: Metal Recycling Site (mixed MRS's) Size: 25000 tonnes Environmental Permitting Regulations (Waste) Licence Number: 637837 EPR reference: EA/EPR/QP3995ZF Operator: Elg Utica Alloys Limited Waste Management licence No: 61605 Annual Tonnage: 0	Issue Date: 14/06/1993 Effective Date: 14/06/1993 Modified: - Surrendered Date: 14/06/1993 Expiry Date: - Cancelled Date: - Status: Surrendered
I	410m E	Site Name: Phoenix Motors Limited Site Address: Units 1 & 8, Glasshouse Road, Kilnhurst, Rotherham, South Yorkshire, S64 5TH Correspondence Address: -	Type of Site: Vehicle Depollution Facility Size: 25000 tonnes Environmental Permitting Regulations (Waste) Licence Number: 637829 EPR reference: EA/EPR/FB3902UP Operator: Adil Galeel Waste Management licence No: 404582 Annual Tonnage: 0	Issue Date: 19/03/2018 Effective Date: 19/03/2018 Modified: 19/03/2018 Surrendered Date: - Expiry Date: - Cancelled Date: - Status: Issued
I	412m E	Site Name: K B P Vauxhall Site Address: 5b Kilnhurst Business Park, Glasshouse Lane, Kilnhurst, Rotherham, South Yorkshire, S64 5TH Correspondence Address: -	Type of Site: Vehicle Depollution Facility 5000 tps Size: 25000 tonnes Environmental Permitting Regulations (Waste) Licence Number: 643427 EPR reference: EA/EPR/BB3002KV Operator: Wayne Manton Waste Management licence No: 401011 Annual Tonnage: 4999	Issue Date: 26/11/2013 Effective Date: 26/11/2013 Modified: - Surrendered Date: - Expiry Date: - Cancelled Date: - Status: Issued

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

3.7 Waste exemptions

Records within 500m	12

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.

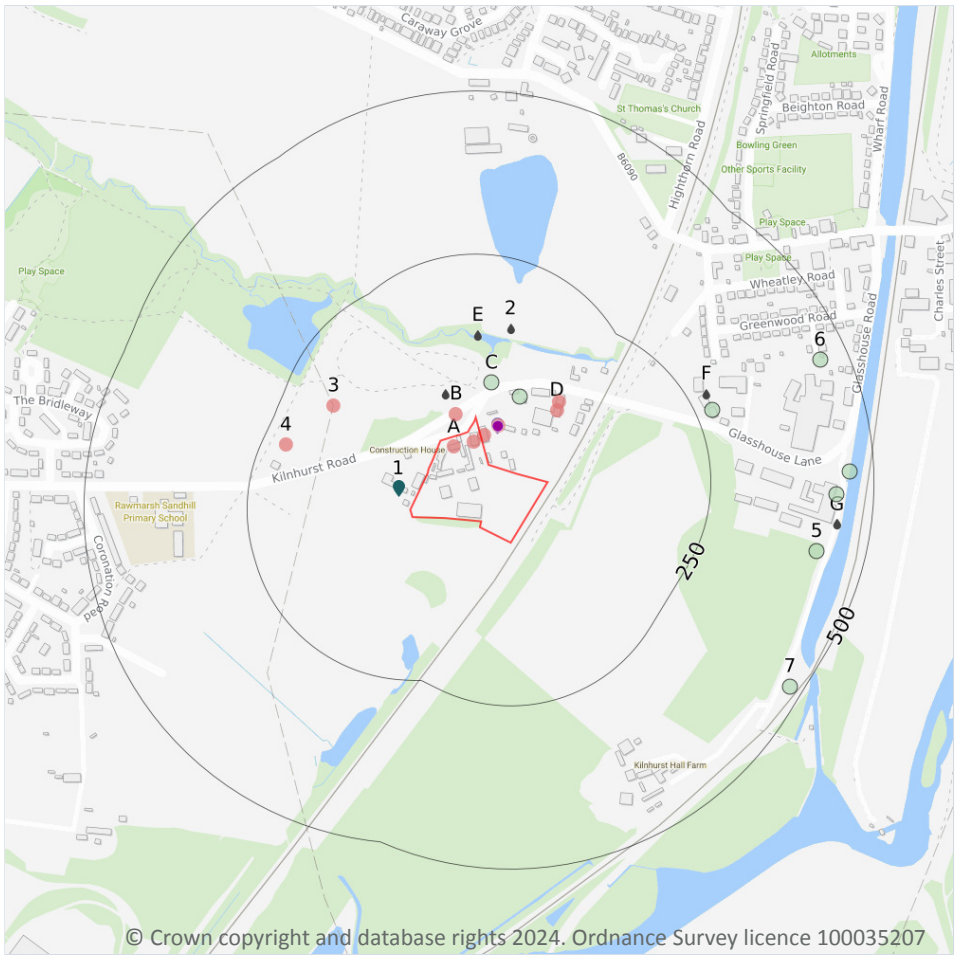
Features are displayed on the Waste and landfill map on **page 37 >**

ID	Location	Site	Reference	Category	Sub-Category	Description
F	276m NE	The Brickworks, Kilnhurst Road, Mexborough, Rotherham, S64 5te	WEX136995	Storing waste exemption	Not on a farm	Storage of waste in a secure place
F	276m NE	The Brickworks, Kilnhurst Road, Mexborough, Rotherham, S64 5te	WEX276476	Storing waste exemption	Not on a farm	Storage of waste in a secure place
F	285m NE	The Brickworks Kilnhurst Road Mexborough S64 5te	EPR/DF0009FK/A001	Storing waste exemption	Non-agricultural waste only	Storage of waste in a secure place
F	326m E	Kilnhurst Business Park, Glasshouse Road, Kilnhurst, Mexborough, S64 5th	WEX313925	Storing waste exemption	Not on a farm	Storage of waste in a secure place
H	365m S	Kilnhirst Hall Farm Off Glasshouse Lane South Yorkshire S64 5tj	EPR/JE5985WM/A001	Using waste exemption	Both agricultural and non-agricultural waste	Use of waste in construction
H	365m S	Kilnhirst Hall Farm Off Glasshouse Lane South Yorkshire S64 5tj	EPR/JE5985WM/A001	Using waste exemption	Both agricultural and non-agricultural waste	Spreading of plant matter to confer benefit
H	365m S	Kilnhirst Hall Farm Off Glasshouse Lane South Yorkshire S64 5tj	EPR/JE5985WM/A001	Disposing of waste exemption	Both agricultural and non-agricultural waste	Burning waste in the open
H	365m S	Kilnhirst Hall Farm Off Glasshouse Lane South Yorkshire S64 5tj	EPR/JE5985WM/A001	Using waste exemption	Both agricultural and non-agricultural waste	Spreading waste on agricultural land to confer benefit
F	370m NE	Kilnhurst Hall Farm, Glass House Road, Kilnhurst, Kilnhurst, S64 5tt	WEX347023	Using waste exemption	On a farm	Use of waste in construction
11	490m SW	-	WEX406868	Using waste exemption	On a farm	Use of waste in construction
12	494m N	Holywell Farm, Wentworth Road, Kilnhurst, Mexborough, S64 5tn	WEX347021	Using waste exemption	On a farm	Use of waste in construction

ID	Location	Site	Reference	Category	Sub-Category	Description
13	495m NE	Baker's Pond, Springfield Rd, Kilnhurst, S64 5sn	WEX301222	Disposing of waste exemption	Not on a farm	Burning waste in the open

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

4 Current industrial land use



Site Outline

Search buffers in metres (m)

- Recent industrial land uses
- Part A(1) industrial activities
- Licensed pollutant release (Part A(2)/B)
- Licensed Discharges to controlled waters
- Pollution Incidents (EA/NRW)
- Pollution inventory substances
- Pollution inventory waste transfers

4.1 Recent industrial land uses

Records within 250m	9

Current potentially contaminative industrial sites.

Features are displayed on the Current industrial land use map on **page 48 >**

ID	Location	Company	Address	Activity	Category
A	**On site**	**R W Oils**	**Kilnhurst Road, Rawmarsh, Rotherham, South Yorkshire, S64 5TL**	**Recycling, Reclamation and Disposal**	**Recycling Services**
A	**On site**	**Raw2k - Scrap My Car**	**Kilnhurst Road, Kilnhurst, Mexborough, South Yorkshire, S64 5TL**	**Scrap Metal Merchants**	**Recycling Services**

ID	Location	Company	Address	Activity	Category
A	6m N	M L B Autospares Ltd	Adj Brickeyard, Kilnhurst Road, Rawmarsh, Rotherham, South Yorkshire, S64 5TL	Scrap Metal Merchants	Recycling Services
B	30m N	Mast (Telecommunication)	South Yorkshire, S64	Telecommunications Features	Infrastructure and Facilities
A	31m N	Tank	South Yorkshire, S64	Tanks (Generic)	Industrial Features
D	110m NE	Factory	South Yorkshire, S64	Unspecified Works Or Factories	Industrial Features
D	123m NE	Electricity Sub Station	South Yorkshire, S64	Electrical Features	Infrastructure and Facilities
3	172m NW	Pylon	South Yorkshire, S64	Electrical Features	Infrastructure and Facilities
4	215m W	Electricity Sub Station	South Yorkshire, S64	Electrical Features	Infrastructure and Facilities

This data is sourced from Ordnance Survey.

4.2 Current or recent petrol stations

Records within 500m	0

Open, closed, under development and obsolete petrol stations.

This data is sourced from Experian.

4.3 Electricity cables

Records within 500m	0

High voltage underground electricity transmission cables.

This data is sourced from National Grid.

4.4 Gas pipelines

Records within 500m	0

High pressure underground gas transmission pipelines.

This data is sourced from National Grid.

4.5 Sites determined as Contaminated Land

Records within 500m	0

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

This data is sourced from Local Authority records.

4.6 Control of Major Accident Hazards (COMAH)

Records within 500m	0

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

This data is sourced from the Health and Safety Executive.

4.7 Regulated explosive sites

Records within 500m	0

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

This data is sourced from the Health and Safety Executive.

4.8 Hazardous substance storage/usage

Records within 500m	0

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

This data is sourced from Local Authority records.

4.9 Historical licensed industrial activities (IPC)

Records within 500m	0

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

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

4.10 Licensed industrial activities (Part A(1))

Records within 500m	8

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

Features are displayed on the Current industrial land use map on **page 48 >**

ID	Location	Details	
A	28m N	Operator: ROTHERHAM WASTE OILS LIMITED Installation Name: Rotherham Waste Oils Process: OTHER WASTE DISPOSAL; WASTE OILS >10 T/D Permit Number: QP3931MK Original Permit Number: QP3931MK	EPR Reference: EPR/QP3931MK Issue Date: 24/10/2007 Effective Date: 24/10/2007 Last date noted as effective: 06/08/2024 Status: Superseded
A	28m N	Operator: ROTHERHAM WASTE OILS LIMITED Installation Name: Rotherham Waste Oils - EPR/KP3732KJ Process: ASSOCIATED PROCESS Permit Number: KP3732KJ Original Permit Number: KP3732KJ	EPR Reference: EPR/KP3732KJ Issue Date: 03/06/2013 Effective Date: 03/06/2013 Last date noted as effective: 06/08/2024 Status: Effective
A	28m N	Operator: ROTHERHAM WASTE OILS LIMITED Installation Name: Rotherham Waste Oils - EPR/KP3732KJ Process: OTHER WASTE DISPOSAL; WASTE OILS >10 T/D Permit Number: KP3732KJ Original Permit Number: KP3732KJ	EPR Reference: EPR/KP3732KJ Issue Date: 03/06/2013 Effective Date: 03/06/2013 Last date noted as effective: 06/08/2024 Status: Effective
A	28m N	Operator: ROTHERHAM WASTE OILS LIMITED Installation Name: Rotherham Waste Oils Process: ASSOCIATED PROCESS Permit Number: QP3931MK Original Permit Number: QP3931MK	EPR Reference: EPR/QP3931MK Issue Date: 24/10/2007 Effective Date: 24/10/2007 Last date noted as effective: 06/08/2024 Status: Superseded
A	28m N	Operator: ROTHERHAM WASTE OILS LIMITED Installation Name: Rotherham Waste Oils - EPR/KP3732KJ Process: OTHER WASTE DISPOSAL; HAZARDOUS WASTE >10T/D Permit Number: KP3732KJ Original Permit Number: KP3732KJ	EPR Reference: EPR/KP3732KJ Issue Date: 03/06/2013 Effective Date: 03/06/2013 Last date noted as effective: 06/08/2024 Status: Effective
A	28m N	Operator: Rotherham Waste Oils Ltd Installation Name: Rotherham Waste Oils - EPR/KP3732KJ Process: OTHER WASTE DISPOSAL; WASTE OILS >10 T/D Permit Number: LP3130NH Original Permit Number: KP3732KJ	EPR Reference: - Issue Date: 03/06/2013 Effective Date: 03/06/2013 Last date noted as effective: 21/03/2023 Status: Effective

ID	Location	Details	
A	28m N	Operator: Rotherham Waste Oils Ltd Installation Name: Rotherham Waste Oils - EPR/KP3732KJ Process: ASSOCIATED PROCESS Permit Number: LP3130NH Original Permit Number: KP3732KJ	EPR Reference: - Issue Date: 03/06/2013 Effective Date: 03/06/2013 Last date noted as effective: 21/03/2023 Status: Effective
A	28m N	Operator: Rotherham Waste Oils Ltd Installation Name: Rotherham Waste Oils - EPR/KP3732KJ Process: OTHER WASTE DISPOSAL; HAZARDOUS WASTE >10T/D Permit Number: LP3130NH Original Permit Number: KP3732KJ	EPR Reference: - Issue Date: 03/06/2013 Effective Date: 03/06/2013 Last date noted as effective: 21/03/2023 Status: Effective

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

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

Records within 500m **1**

Records of Part A(2) and Part B installations regulated under the Environmental Permitting (England and Wales) Regulations 2016 for the release of substances to the environment.

Features are displayed on the Current industrial land use map on **page 48 >**

ID	Location	Address	Details	
1	31m W	T K Lynskey Excavations Ltd, Beechwood House, Kilnhurst Rd, Kilnhurst, S64 5TL	Process: Other Mineral Processes Status: Historical Permit Permit Type: Part B	Enforcement: No Enforcements Notified Date of enforcement: No Enforcement Notified Comment: No Enforcement 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 **8**

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 48 >**

ID	Location	Address	Details	
B	59m N	LAND OFF KILNHURST ROAD, KILNHURST	Effluent Type: TRADE DISCHARGES - SITE DRAINAGE (CONTAM SURFACE WATER, NOT WASTE SIT Permit Number: C3992 Permit Version: 1 Receiving Water: SOAKAWAY ADJ. TO KILNHURST RD	Status: TRANSFERRED FROM COPA 1974 Issue date: 02/09/1985 Effective Date: 02/09/1985 Revocation Date: -
E	126m N	SWINTON KILNHURST-WENTWORTH SPS, SWINTON, MEXBOROUGH, SOUTH YORKSHIRE	Effluent Type: SEWAGE DISCHARGES - SEWER STORM OVERFLOW - WATER COMPANY Permit Number: WRA7668 Permit Version: 1 Receiving Water: COLLIER BROOK	Status: NEW CONSENT (WRA 91, S88 & SCHED 10 AS AMENDED BY ENV ACT 1995) Issue date: 13/03/2001 Effective Date: 13/03/2001 Revocation Date: -
E	126m N	SWINTON KILNHURST-WENTWORTH SPS, SWINTON, MEXBOROUGH, SOUTH YORKSHIRE	Effluent Type: SEWAGE DISCHARGES - PUMPING STATION - WATER COMPANY Permit Number: WRA7668 Permit Version: 1 Receiving Water: COLLIER BROOK	Status: NEW CONSENT (WRA 91, S88 & SCHED 10 AS AMENDED BY ENV ACT 1995) Issue date: 13/03/2001 Effective Date: 13/03/2001 Revocation Date: -
2	146m N	KILNHURST QUARRY, OFF KILNHURST ROAD, KILNHURST, ROTHERHAM, SOUTH YORKSHIRE	Effluent Type: TRADE DISCHARGES - SITE DRAINAGE (CONTAM SURFACE WATER, NOT WASTE SIT Permit Number: C3876 Permit Version: 1 Receiving Water: COLLIER BROOK	Status: SURRENDERED UNDER EPR 2010 Issue date: 28/03/1985 Effective Date: 28/03/1985 Revocation Date: 07/02/2013
F	278m E	ARS CONSTRUCTION, GLASSHOUSE LANE PREMISES, KILNHURST, ROTHERHAM	Effluent Type: TRADE DISCHARGES - SITE DRAINAGE (CONTAM SURFACE WATER, NOT WASTE SIT Permit Number: WRA6764 Permit Version: 1 Receiving Water: COLLIER BROOK	Status: SURRENDERED UNDER EPR 2010 Issue date: 20/10/1992 Effective Date: 20/10/1992 Revocation Date: 16/01/2023
G	448m E	KILNHURST COLLIERY (MINEWATER), RAWMARSH, ROTHERHAM, SOUTH YORKSHIRE	Effluent Type: TRADE DISCHARGES - MINERAL WORKINGS Permit Number: E897 Permit Version: 3 Receiving Water: SHEFF & SOUTH YORKS NAV CANAL	Status: REVOKED UNDER EPR 2010 Issue date: 03/11/1994 Effective Date: 03/11/1994 Revocation Date: 01/01/2024

ID	Location	Address	Details	
G	448m E	KILNHURST COLLIERY (MINEWATER), RAWMARSH, ROTHERHAM, SOUTH YORKSHIRE	Effluent Type: TRADE DISCHARGES - SITE DRAINAGE Permit Number: E897 Permit Version: 2 Receiving Water: SHEFF & SOUTH YORKS NAV CANAL	Status: REVISED CONSENT, BY NOTICE (SECTION 37(1)) Issue date: 13/12/1991 Effective Date: 13/12/1991 Revocation Date: 02/11/1994
G	448m E	KILNHURST COLLIERY (MINEWATER), RAWMARSH, ROTHERHAM, SOUTH YORKSHIRE	Effluent Type: TRADE DISCHARGES - SITE DRAINAGE Permit Number: E897 Permit Version: 1 Receiving Water: SHEFF & SOUTH YORKS NAV CANAL	Status: TRANSFERRED FROM R(PP)A 1951-1961 Issue date: 17/12/1984 Effective Date: 17/12/1984 Revocation Date: 12/12/1991

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	8

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 48 >**

ID	Location	Details	
C	58m N	Incident Date: 22/11/2002 Incident Identification: 122413 Pollutant: Oils and Fuel Pollutant Description: Mixed/Waste Oils	Water Impact: Category 4 (No Impact) Land Impact: Category 3 (Minor) Air Impact: Category 4 (No Impact)
C	74m NE	Incident Date: 19/08/2003 Incident Identification: 183279 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)
F	276m E	Incident Date: 28/11/2001 Incident Identification: 45338 Pollutant: Oils and Fuel Pollutant Description: Unidentified Oil	Water Impact: Category 3 (Minor) Land Impact: Category 4 (No Impact) Air Impact: Category 4 (No Impact)
5	425m E	Incident Date: 13/04/2003 Incident Identification: 150771 Pollutant: Contaminated Water Pollutant Description: Firefighting Run-Off	Water Impact: Category 3 (Minor) Land Impact: Category 3 (Minor) Air Impact: Category 3 (Minor)
G	443m E	Incident Date: 02/08/2006 Incident Identification: 423787 Pollutant: Atmospheric Pollutants and Effects Pollutant Description: Smoke	Water Impact: Category 4 (No Impact) Land Impact: Category 3 (Minor) Air Impact: Category 2 (Significant)
6	457m E	Incident Date: 19/09/2002 Incident Identification: 108889 Pollutant: Specific Waste Materials Pollutant Description: Tyres	Water Impact: Category 4 (No Impact) Land Impact: Category 2 (Significant) Air Impact: Category 4 (No Impact)

ID	Location	Details	
G	463m E	Incident Date: 01/08/2002 Incident Identification: 96448 Pollutant: Oils and Fuel Pollutant Description: Unidentified Oil	Water Impact: Category 3 (Minor) Land Impact: Category 4 (No Impact) Air Impact: Category 4 (No Impact)
7	480m SE	Incident Date: 15/11/2006 Incident Identification: 450443 Pollutant: Specific Waste Materials Pollutant Description: Household Waste	Water Impact: Category 4 (No Impact) Land Impact: Category 2 (Significant) Air Impact: Category 2 (Significant)

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

4.19 Pollution inventory substances

Records within 500m	**1**

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.

Features are displayed on the Current industrial land use map on **page 48 >**

ID: A, Location: 28m N, Permit: KP3732KJ
Operator: Rotherham Waste Oils Ltd
Activity: OTHER WASTE DISPOSAL; WASTE OILS >10 T/D
Address: Quarry Oil Depot Kilnhurst Road Kilnhurst South Yorkshire S64 5TL
Sector: Hazardous Waste, Sub-sector: Hazardous Waste
Releases:

Route	Substance	Reporting threshold (kg)	Quantity (kg)
Air	Carbon dioxide	10000000kg	Below Reporting Threshold
Air	Carbon monoxide	100000kg	Below Reporting Threshold
Air	Benzene	1000kg	Below Reporting Threshold
Wastewater	Arsenic	5kg	Below Reporting Threshold
Wastewater	Cadmium	1kg	Below Reporting Threshold
Wastewater	Copper	20kg	Below Reporting Threshold
Wastewater	Lead	20kg	Below Reporting Threshold
Wastewater	Toluene	10kg	Below Reporting Threshold
Wastewater	Nickel	20kg	Below Reporting Threshold

Route	Substance	Reporting threshold (kg)	Quantity (kg)
Wastewater	Zinc	100kg	Below Reporting Threshold
Wastewater	Chromium	20kg	Below Reporting Threshold

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

4.20 Pollution inventory waste transfers

Records within 500m	**1**

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.

Features are displayed on the Current industrial land use map on **page 48 >**

ID: A, Location: 28m N, Permit: KP3732KJ
Operator: Rotherham Waste Oils Ltd
Activity: OTHER WASTE DISPOSAL; WASTE OILS >10 T/D
Address: Quarry Oil Depot Kilnhurst Road Kilnhurst South Yorkshire S64 5TL
Sector: Hazardous Waste, Sub-sector: Hazardous Waste
Releases:

Route	Route description	Quantity (tonnes)	Release level	EWC code	EWC description	Hazardous waste
D9	Physio-chemical treatment not specified elsewhere in this Table which results in final compounds or mixtures which are discarded by means of any of the operations numberes D1 to D12 (eg evaporation, drying, calcination, etc.)	2408.48	Absolute Value	13 02 05	mineral-based non-chlorinated engine, gear and lubricating oils	Yes
R1	Use principally as a fuel or other means to generate energy	2070.449	Absolute Value	13 02 05	mineral-based non-chlorinated engine, gear and lubricating oils	Yes
R1	Use principally as a fuel or other means to generate energy	5.7	Absolute Value	10 02 11	wastes from cooling-water treatment containing oil	Yes
R1	Use principally as a fuel or other means to generate energy	1188.265	Absolute Value	12 01 09	machining emulsions and solutions free of halogens	Yes
R1	Use principally as a fuel or other means to generate energy	206.6	Absolute Value	13 01 05	non-chlorinated emulsions	Yes

Route	Route description	Quantity (tonnes)	Release level	EWC code	EWC description	Hazardous waste
R1	Use principally as a fuel or other means to generate energy	2	Absolute Value	13 01 10	mineral based non-chlorinated hydraulic oils	Yes
R1	Use principally as a fuel or other means to generate energy	328.12	Absolute Value	13 01 13	other hydraulic oils	Yes
R1	Use principally as a fuel or other means to generate energy	115	Absolute Value	13 02 04	mineral-based chlorinated engine, gear and lubricating oils	Yes
R1	Use principally as a fuel or other means to generate energy	1.2	Absolute Value	13 02 08	other engine, gear and lubricating oils	Yes
D9	Physio-chemical treatment not specified elsewhere in this Table which results in final compounds or mixtures which are discarded by means of any of the operations numberes D1 to D12 (eg evaporation, drying, calcination, etc.)	57	Absolute Value	13 05 03	interceptor sludges	Yes
R1	Use principally as a fuel or other means to generate energy	244.432	Absolute Value	13 05 03	interceptor sludges	Yes
R1	Use principally as a fuel or other means to generate energy	6985.3	Absolute Value	13 05 07	oily water from oil/water separators	Yes
R1	Use principally as a fuel or other means to generate energy	0.38	Absolute Value	13 07 01	fuel oil and diesel	Yes
R1	Use principally as a fuel or other means to generate energy	2754.731	Absolute Value	13 08 02	other emulsions	Yes
D9	Physio-chemical treatment not specified elsewhere in this Table which results in final compounds or mixtures which are discarded by means of any of the operations numberes D1 to D12 (eg evaporation, drying, calcination, etc.)	61.06	Absolute Value	15 02 02	absorbents, filter materials (including oil filters not otherwise specified), wiping cloths, protective clothing contaminated by dangerous substances	Yes
R3	Recycling/Reclamation of organic substances which are not used as solvents (including composting and other biological transformatin processes)	25.32	Absolute Value	15 02 02	absorbents, filter materials (including oil filters not otherwise specified), wiping cloths, protective clothing contaminated by dangerous substances	Yes

Route	Route description	Quantity (tonnes)	Release level	EWC code	EWC description	Hazardous waste
D9	Physio-chemical treatment not specified elsewhere in this Table which results in final compounds or mixtures which are discarded by means of any of the operations numberes D1 to D12 (eg evaporation, drying, calcination, etc.)	13.7	Absolute Value	16 01 07	oil filters	Yes
D9	Physio-chemical treatment not specified elsewhere in this Table which results in final compounds or mixtures which are discarded by means of any of the operations numberes D1 to D12 (eg evaporation, drying, calcination, etc.)	35.085	Absolute Value	16 01 14	antifreeze fluids containing dangerous substances	Yes
R1	Use principally as a fuel or other means to generate energy	33.075	Absolute Value	16 01 14	antifreeze fluids containing dangerous substances	Yes
R1	Use principally as a fuel or other means to generate energy	3967.975	Absolute Value	16 07 08	wastes containing oil	Yes
R1	Use principally as a fuel or other means to generate energy	748.5	Absolute Value	19 02 07	oil and concentrates from separation	Yes
D9	Physio-chemical treatment not specified elsewhere in this Table which results in final compounds or mixtures which are discarded by means of any of the operations numberes D1 to D12 (eg evaporation, drying, calcination, etc.)	15978	Absolute Value	16 10 04	aqueous concentrates other than those mentioned in 16 10 03	No

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

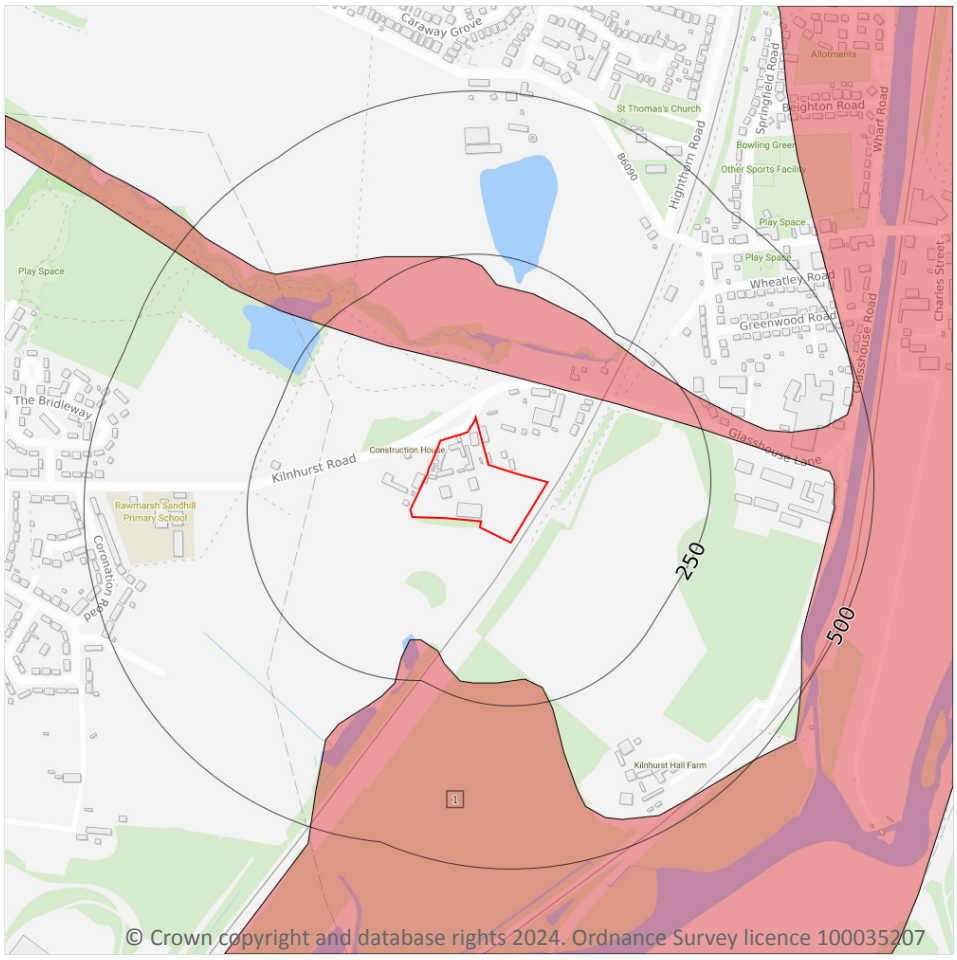
4.21 Pollution inventory radioactive waste

Records within 500m	0

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

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

5 Hydrogeology - Superficial aquifer



Site Outline

Search buffers in metres (m)

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

5.1 Superficial aquifer

Records within 500m	1

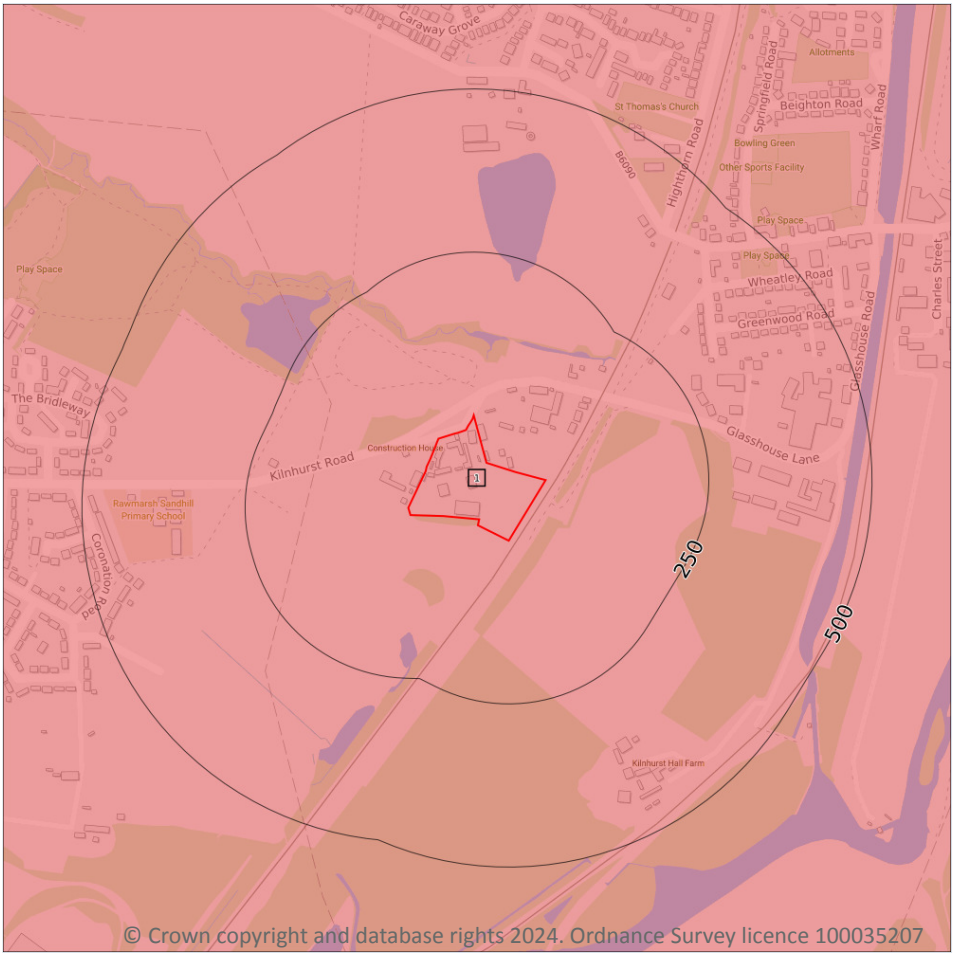
Aquifer status of groundwater held within superficial geology.

Features are displayed on the Hydrogeology map on **page 60 >**

ID	Location	Designation	Description
1	75m 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.

Bedrock aquifer



Site Outline

Search buffers in metres (m)

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

5.2 Bedrock aquifer

Records within 500m	1

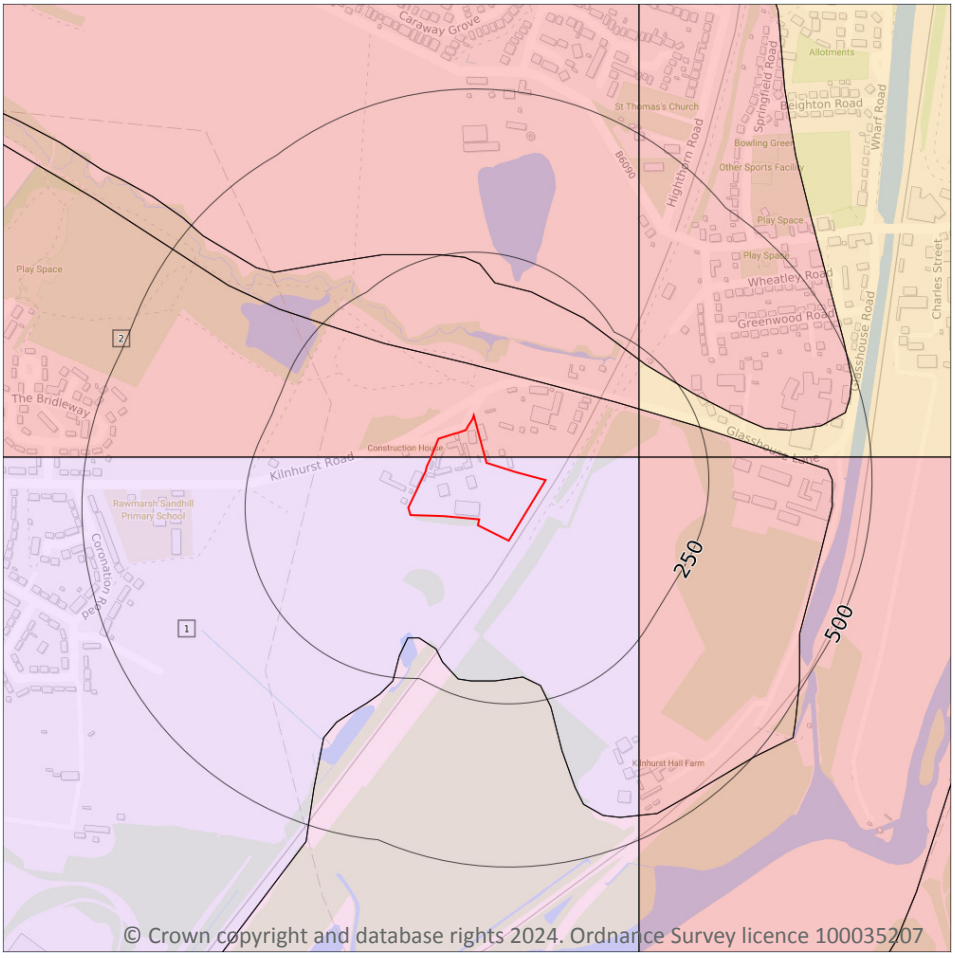
Aquifer status of groundwater held within bedrock geology.

Features are displayed on the Bedrock aquifer map on **page 61 >**

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

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

Groundwater vulnerability



Site Outline

Search buffers in metres (m)

Superficial vulnerability

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

Bedrock vulnerability

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

Other information

- Unproductive aquifer
- Soluble rock risk
- Local information

5.3 Groundwater vulnerability

Records within 50m	2

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 62 >**

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

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	7

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

Features are displayed on the Abstractions and Source Protection Zones map on **page 64 >**

ID	Location	Details	
-	928m SE	Status: Active Licence No: 2/27/07/066/R01 Details: General Use Relating To Secondary Category (Medium Loss) Direct Source: GROUNDWATERS Point: BOREHOLE - COAL MEASURES - ROTHERHAM Data Type: Point Name: ROTHERHAM GOLF CLUB LTD Easting: 446600 Northing: 396400	Annual Volume (m^3): 20500 Max Daily Volume (m^3): 130 Original Application No: NPS/WR/031532 Original Start Date: 01/04/2017 Expiry Date: 31/03/2029 Issue No: 2 Version Start Date: 01/10/2020 Version End Date: -
-	928m SE	Status: Active Licence No: 2/27/07/066/R01 Details: Spray Irrigation - Direct Direct Source: GROUNDWATERS Point: BOREHOLE - COAL MEASURES - ROTHERHAM Data Type: Point Name: ROTHERHAM GOLF CLUB LTD Easting: 446600 Northing: 396400	Annual Volume (m^3): 20500 Max Daily Volume (m^3): 130 Original Application No: NPS/WR/031532 Original Start Date: 01/04/2017 Expiry Date: 31/03/2029 Issue No: 2 Version Start Date: 01/10/2020 Version End Date: -
-	928m SE	Status: Historical Licence No: 2/27/07/058 Details: General use relating to Secondary Category (Medium Loss) Direct Source: GROUNDWATERS Point: BOREHOLE - COAL MEASURES - ROTHERHAM Data Type: Point Name: ROTHERHAM GOLF CLUB LTD Easting: 446600 Northing: 396400	Annual Volume (m^3): - Max Daily Volume (m^3): - Original Application No: - Original Start Date: 24/04/1998 Expiry Date: 31/10/2007 Issue No: 101 Version Start Date: 24/06/2001 Version End Date: -
-	928m SE	Status: Historical Licence No: 2/27/07/058 Details: General Farming & Domestic Direct Source: GROUNDWATERS Point: BOREHOLE - COAL MEASURES - ROTHERHAM Data Type: Point Name: ROTHERHAM GOLF CLUB LTD Easting: 446600 Northing: 396400	Annual Volume (m^3): 10500 Max Daily Volume (m^3): 88 Original Application No: - Original Start Date: 24/04/1998 Expiry Date: 31/10/2007 Issue No: 101 Version Start Date: 24/06/2001 Version End Date: -
-	928m SE	Status: Historical Licence No: 2/27/07/058 Details: Spray Irrigation - Direct Direct Source: GROUNDWATERS Point: BOREHOLE - COAL MEASURES - ROTHERHAM Data Type: Point Name: ROTHERHAM GOLF CLUB LTD Easting: 446600 Northing: 396400	Annual Volume (m^3): 10500 Max Daily Volume (m^3): 88 Original Application No: - Original Start Date: 24/04/1998 Expiry Date: 31/10/2007 Issue No: 101 Version Start Date: 24/06/2001 Version End Date: -

ID	Location	Details	
-	928m SE	Status: Historical Licence No: 2/27/07/066 Details: Spray Irrigation - Direct Direct Source: GROUNDWATERS Point: BOREHOLE - COAL MEASURES - ROTHERHAM Data Type: Point Name: ROTHERHAM GOLF CLUB LTD Easting: 446600 Northing: 396400	Annual Volume (m^3): 10000 Max Daily Volume (m^3): 78 Original Application No: - Original Start Date: 15/01/2008 Expiry Date: 31/03/2017 Issue No: 1 Version Start Date: 15/01/2008 Version End Date: -
-	928m SE	Status: Historical Licence No: 2/27/07/066/R01 Details: General Washing/Process Washing Direct Source: GROUNDWATERS Point: BOREHOLE - COAL MEASURES - ROTHERHAM Data Type: Point Name: ROTHERHAM GOLF CLUB LTD Easting: 446600 Northing: 396400	Annual Volume (m^3): 10500 Max Daily Volume (m^3): 88 Original Application No: - Original Start Date: 01/04/2017 Expiry Date: 31/03/2029 Issue No: 1 Version Start Date: 01/04/2017 Version End Date: -

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

5.7 Surface water abstractions

Records within 2000m	**6**

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 64 >**

ID	Location	Details	
A	722m SE	Status: Active Licence No: NE/027/0007/008 Details: Hydroelectric Power Generation Direct Source: SURFACE WATER Point: RIVER DON AT KILNHURST WEIR, ROTHERHAM Data Type: Point Name: Canal and River Trust Easting: 446363 Northing: 396419	Annual Volume (m^3): - Max Daily Volume (m^3): - Original Application No: NPS/WR/013434 Original Start Date: 31/03/2014 Expiry Date: 31/03/2036 Issue No: 1 Version Start Date: 01/04/2017 Version End Date: -

ID	Location	Details	
A	722m SE	Status: Active Licence No: NE/027/0007/008 Details: Transfer Between Sources (Post Water Act 2003) Direct Source: SURFACE WATER Point: RIVER DON AT KILNHURST WEIR, ROTHERHAM Data Type: Point Name: Canal and River Trust Easting: 446363 Northing: 396419	Annual Volume (m^3): - Max Daily Volume (m^3): - Original Application No: NPS/WR/013434 Original Start Date: 31/03/2014 Expiry Date: 31/03/2036 Issue No: 1 Version Start Date: 01/04/2017 Version End Date: -
A	722m SE	Status: Active Licence No: NE/027/0007/008 Details: Fish Pass/Canoe Pass Direct Source: SURFACE WATER Point: RIVER DON AT KILNHURST WEIR, ROTHERHAM Data Type: Point Name: Canal and River Trust Easting: 446363 Northing: 396419	Annual Volume (m^3): - Max Daily Volume (m^3): - Original Application No: NPS/WR/013434 Original Start Date: 31/03/2014 Expiry Date: 31/03/2036 Issue No: 1 Version Start Date: 01/04/2017 Version End Date: -
-	1069m E	Status: Historical Licence No: 2/27/07/056 Details: Spray Irrigation - Direct Direct Source: SURFACE WATER Point: HOOTON BROOK Data Type: Point Name: ROTHERHAM UNITED FOOTBALL CLUB Easting: 446900 Northing: 397200	Annual Volume (m^3): - Max Daily Volume (m^3): - Original Application No: - Original Start Date: 27/03/1997 Expiry Date: 31/10/2006 Issue No: 100 Version Start Date: 27/03/1997 Version End Date: -
-	1113m E	Status: Historical Licence No: 2/27/07/056 Details: Spray Irrigation - Direct Direct Source: SURFACE WATER Point: HOOTON BROOK-ROTHERHAM Data Type: Point Name: ROTHERHAM UNITED FOOTBALL CLUB Easting: 446940 Northing: 397220	Annual Volume (m^3): 8000 Max Daily Volume (m^3): 90 Original Application No: - Original Start Date: 27/03/1997 Expiry Date: 31/10/2006 Issue No: 101 Version Start Date: 12/07/2004 Version End Date: -
-	1113m E	Status: Historical Licence No: 2/27/07/065 Details: Spray Irrigation - Direct Direct Source: SURFACE WATER Point: HOOTON BROOK-ROTHERHAM Data Type: Point Name: ROTHERHAM UNITED FOOTBALL CLUB Easting: 446940 Northing: 397220	Annual Volume (m^3): 8000 Max Daily Volume (m^3): 90 Original Application No: - Original Start Date: 15/01/2008 Expiry Date: 31/03/2017 Issue No: 1 Version Start Date: 15/01/2008 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.

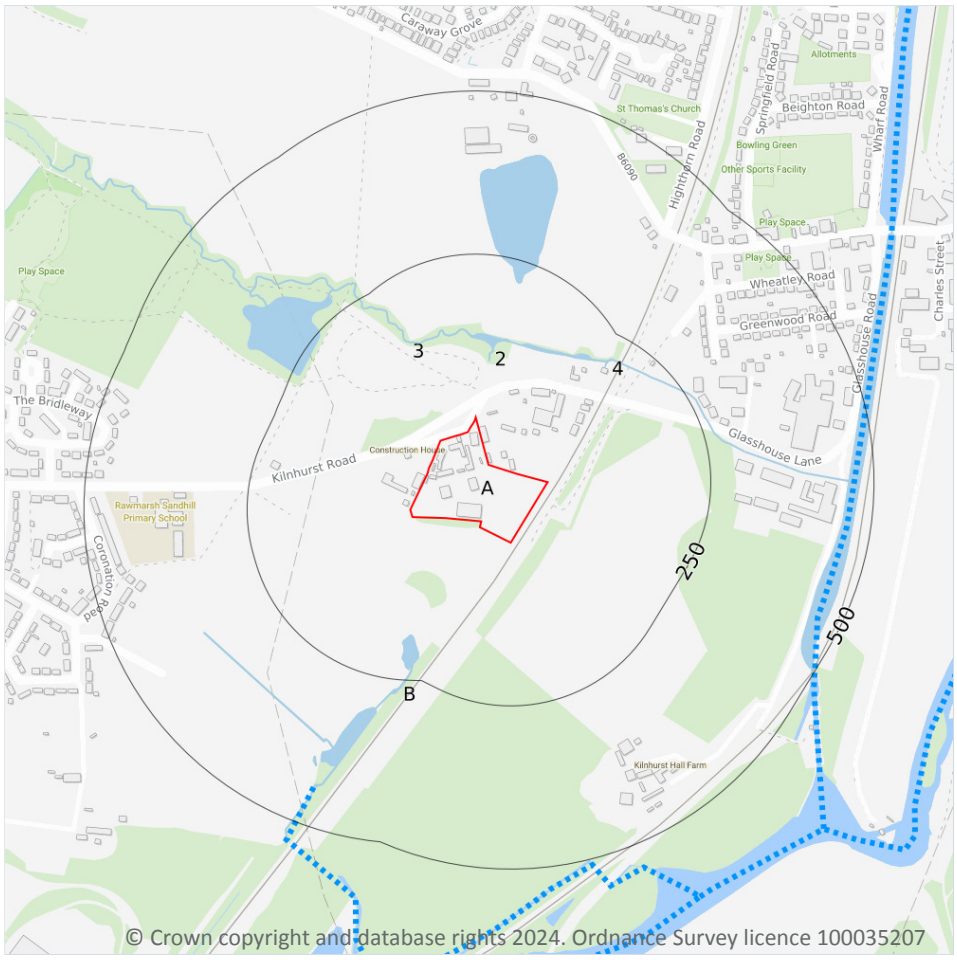
5.10 Source Protection Zones (confined aquifer)

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	4

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 69 >**

ID	Location	Type of water feature	Ground level	Permanence	Name
2	89m N	Inland river not influenced by normal tidal action.	On ground surface	Watercourse contains water year round (in normal circumstances)	-

ID	Location	Type of water feature	Ground level	Permanence	Name
3	122m N	Inland river not influenced by normal tidal action.	On ground surface	Watercourse contains water year round (in normal circumstances)	Collier Brook
4	122m N	Inland river not influenced by normal tidal action.	On ground surface	Watercourse contains water year round (in normal circumstances)	Collier Brook
B	206m S	Inland river not influenced by normal tidal action.	On ground surface	Watercourse contains water year round (in normal circumstances)	-

This data is sourced from the Ordnance Survey.

6.2 Surface water features

Records within 250m	**5**

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 69 >**

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 69 >**

ID	Location	Type	Water body catchment	Water body ID	Operational catchment	Management catchment
A	**On site**	**River**	**Don from River Rother to River Dearne**	**GB104027057452**	**Don Middle**	**Don and Rother**

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

6.4 WFD Surface water bodies

Records identified	1

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

Features are displayed on the Hydrology map on **page 69 >**

ID	Location	Type	Name	Water body ID	Overall rating	Chemical rating	Ecological rating	Year
9	441m SW	River	Don from River Rother to River Dearne	GB104027057452 ↗	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

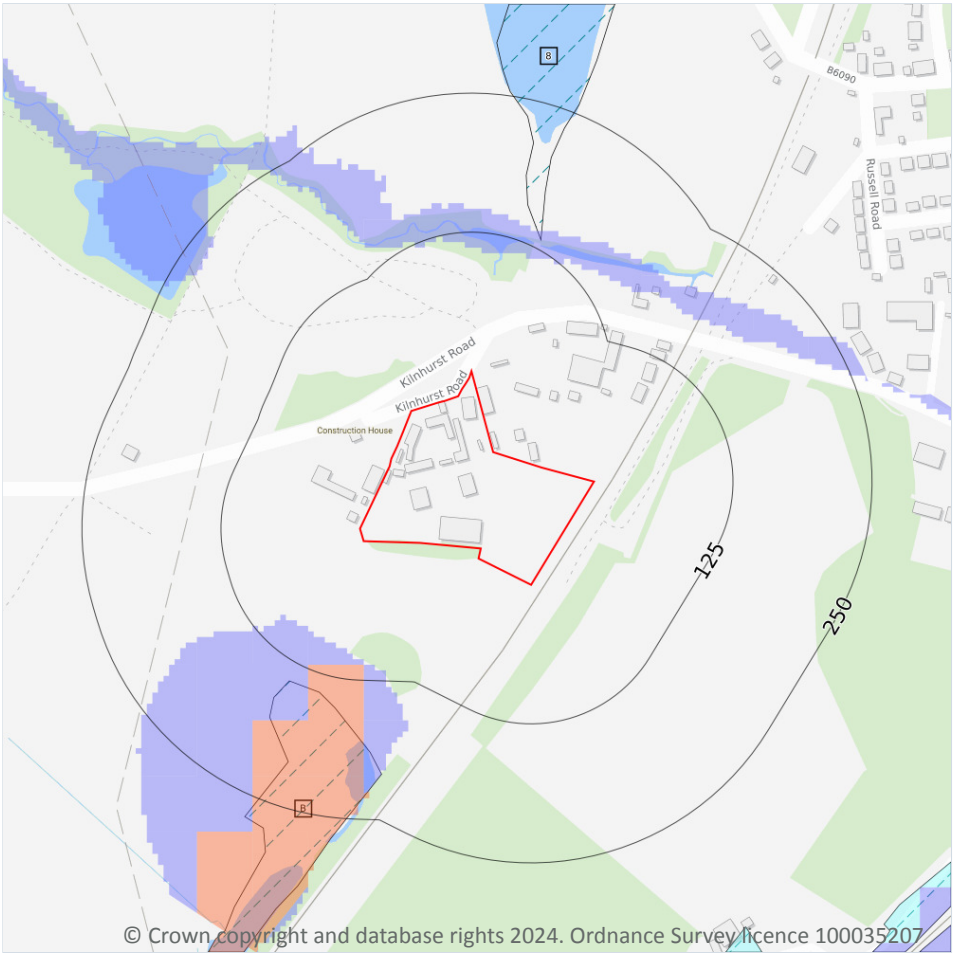
Groundwater bodies are also covered by the Directive and the same regime of objectives and reporting detailed in the previous section is in place. Click on the water body ID in the table to visit the EA Catchment Explorer to find out more about each groundwater body listed.

Features are displayed on the Hydrology map on **page 69 >**

ID	Location	Name	Water body ID	Overall rating	Chemical rating	Quantitative	Year
A	**On site**	**Don & Rother Millstone grit & Coal Measures**	**GB40402G992300 ↗**	**Poor**	**Poor**	**Good**	**2019**

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

7 River and coastal flooding



Site Outline

Search buffers in metres (m)

River and coastal flooding:

- High
- Medium
- Low
- Very Low
- Historical Flood Events
- Areas Used for Flood Storage
- Areas Benefiting from Flood Defences
- Flood Defences

7.1 Risk of flooding from rivers and the sea

Records within 50m	0

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

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

7.2 Historical Flood Events

Records within 250m	2

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

Features are displayed on the River and coastal flooding map on **page 72 >**

ID	Location	Event name	Date of flood	Flood source	Flood cause	Type of flood
8	134m N	2019 November Flood Incident	2019-11-07 2019-11-08	Drainage	Local drainage/surface water	No data
B	141m SW	June 2007	2007-06-26 2007-06-28	Main river	Channel capacity exceeded (no raised defences)	No data

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

7.3 Flood Defences

Records within 250m	0

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

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

7.4 Areas Benefiting from Flood Defences

Records within 250m	0

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

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

7.5 Flood Storage Areas

Records within 250m	0

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

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

River and coastal flooding - Flood Zones

7.6 Flood Zone 2

Records within 50m	0

Areas of land at risk of flooding, when the presence of flood defences are ignored. Covering land between Flood Zone 3 (see next section) and the extent of the flooding from rivers or the sea with a 1 in 1000 (0.1%) chance of flooding each year.

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

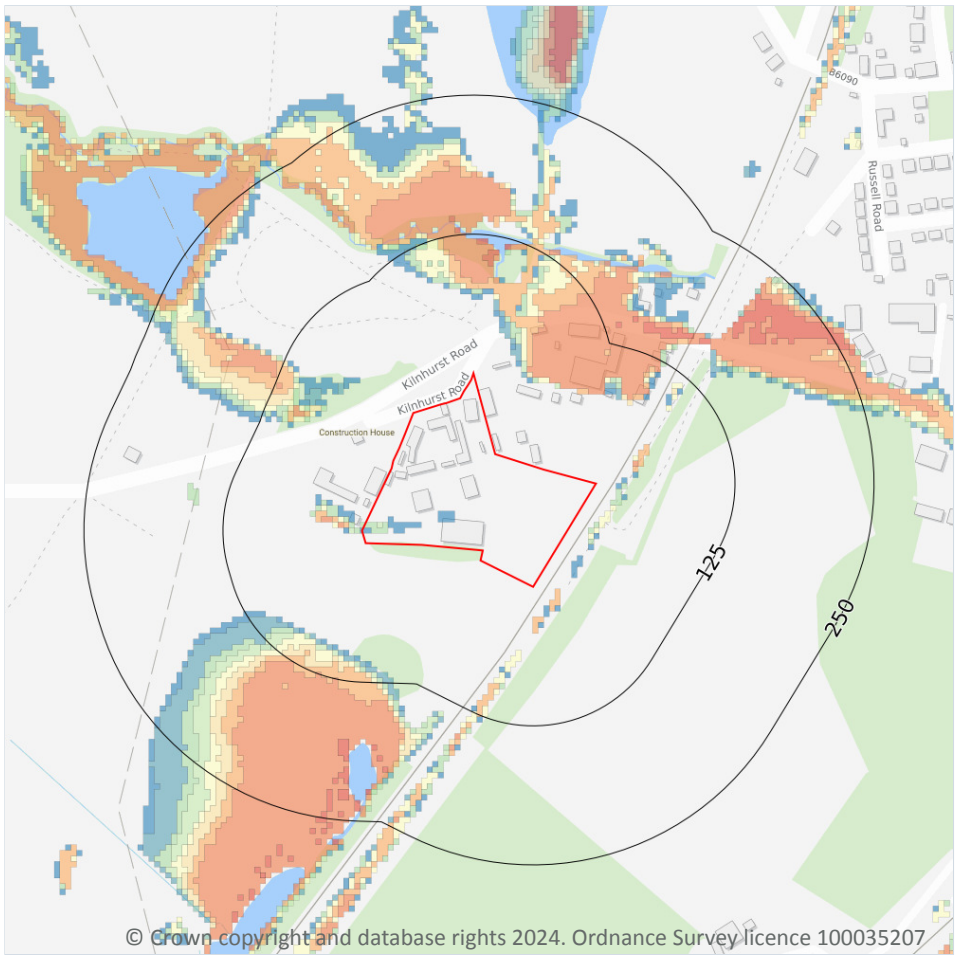
7.7 Flood Zone 3

Records within 50m	0

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

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

8 Surface water flooding



Site Outline
Search buffers in metres (m)

1 in 1000 return period
- Depth between 0.1m - 0.3m
- Depth between 0.3m - 1.0m
- Depth greater than 1.0m

1 in 250 return period
- Depth between 0.1m - 0.3m
- Depth between 0.3m - 1.0m
- Depth greater than 1.0m

1 in 100 return period
- Depth between 0.1m - 0.3m
- Depth between 0.3m - 1.0m
- Depth greater than 1.0m

1 in 30 return period
- Depth between 0.1m - 0.3m
- Depth between 0.3m - 1.0m
- Depth greater than 1.0m

8.1 Surface water flooding

Highest risk on site	**1 in 250 year, 0.3m - 1.0m**
Highest risk within 50m	**1 in 30 year, 0.3m - 1.0m**

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

Features are displayed on the Surface water flooding map on **page 76 >**

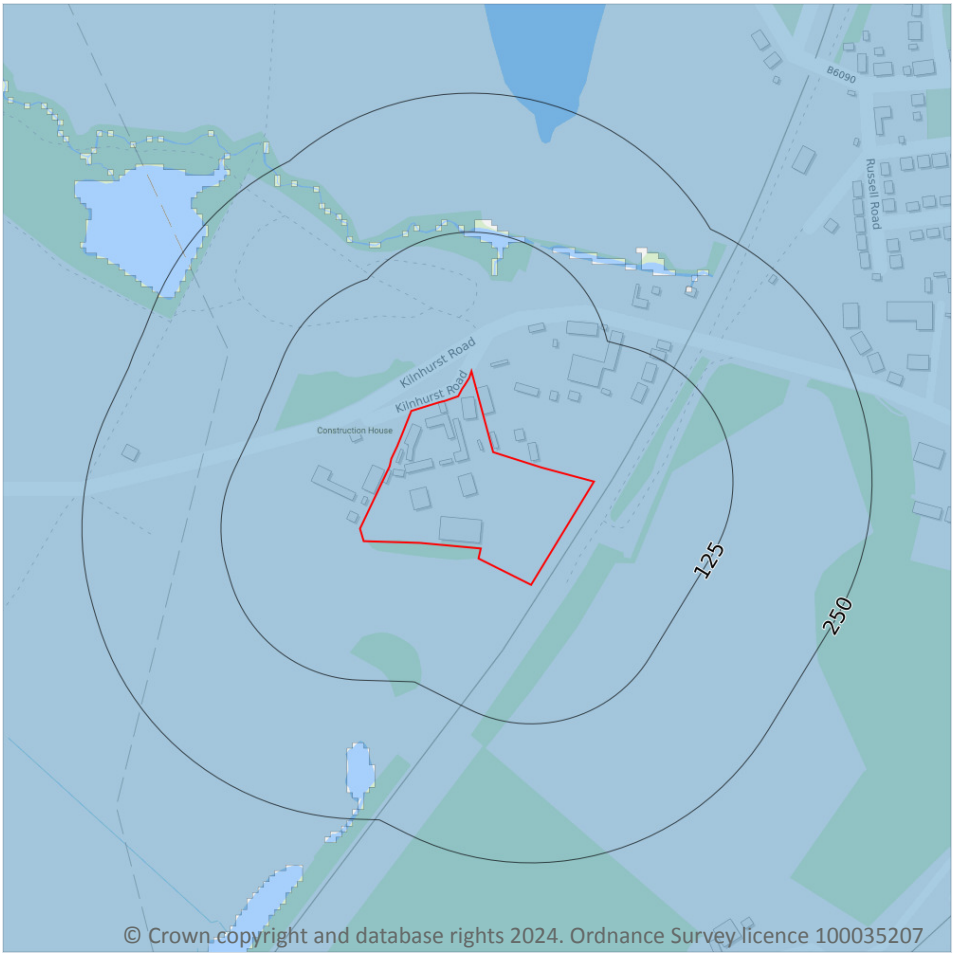
The data shown on the map and in the table above shows the highest likelihood of flood events happening at the site. Lower likelihood events may have greater flood depths and hence a greater potential impact on a site.

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

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

This data is sourced from Ambiental Risk Analytics.

9 Groundwater flooding



Site Outline

Search buffers in metres (m)

High

Moderate - High

Moderate

Low

Negligible

9.1 Groundwater flooding

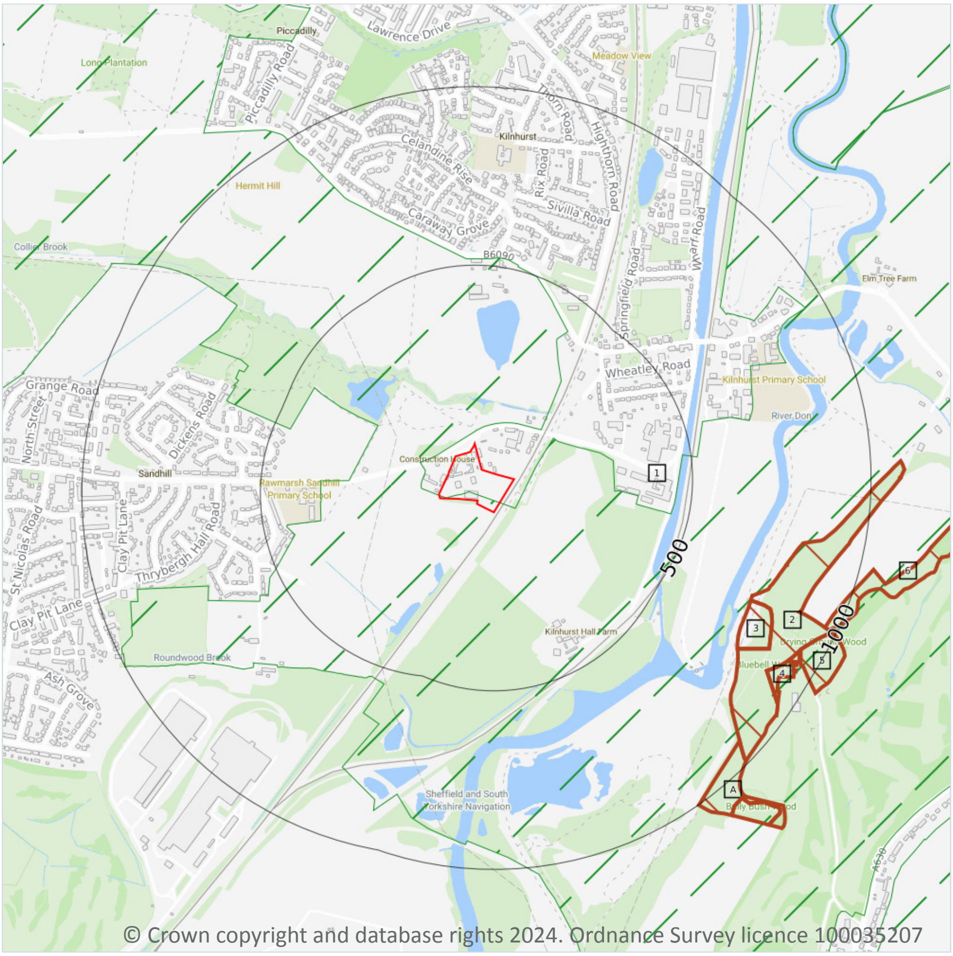
Highest risk on site	**Negligible**
Highest risk within 50m	**Negligible**

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

Features are displayed on the Groundwater flooding map on **page 78 >**

This data is sourced from Ambiental Risk Analytics.

10 Environmental designations



Site Outline

Search buffers in metres (m)

Local Nature Reserves (LNR)

Designated Ancient Woodland

Green Belt

10.1 Sites of Special Scientific Interest (SSSI)

Records within 2000m	0

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

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

10.2 Conserved wetland sites (Ramsar sites)

Records within 2000m	0

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

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

10.3 Special Areas of Conservation (SAC)

Records within 2000m	0

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

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

10.4 Special Protection Areas (SPA)

Records within 2000m	0

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

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

10.5 National Nature Reserves (NNR)

Records within 2000m	0

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

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

10.6 Local Nature Reserves (LNR)

Records within 2000m	1

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

Features are displayed on the Environmental designations map on **page 79 >**

ID	Location	Name	Data source
-	1680m W	Warren Vale	Natural England

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

10.7 Designated Ancient Woodland

Records within 2000m	8

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 79 >**

ID	Location	Name	Woodland Type
2	742m E	Bluebell Wood	Ancient Replanted Woodland
3	745m SE	Bluebell Wood	Ancient & Semi-Natural Woodland
4	884m SE	Bluebell Wood	Ancient & Semi-Natural Woodland
5	934m SE	Bluebell Wood	Ancient & Semi-Natural Woodland
A	940m SE	Bluebell Wood	Ancient & Semi-Natural Woodland
6	964m E	Bluebell Wood	Ancient & Semi-Natural Woodland
A	1060m SE	Bluebell Wood	Ancient Replanted Woodland
-	1669m NW	Creighton Woods	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 79 >**

ID	Location	Name	Local Authority name
1	**On site**	**South and West Yorkshire**	**Rotherham**
7	1215m NE	South and West Yorkshire	Doncaster

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

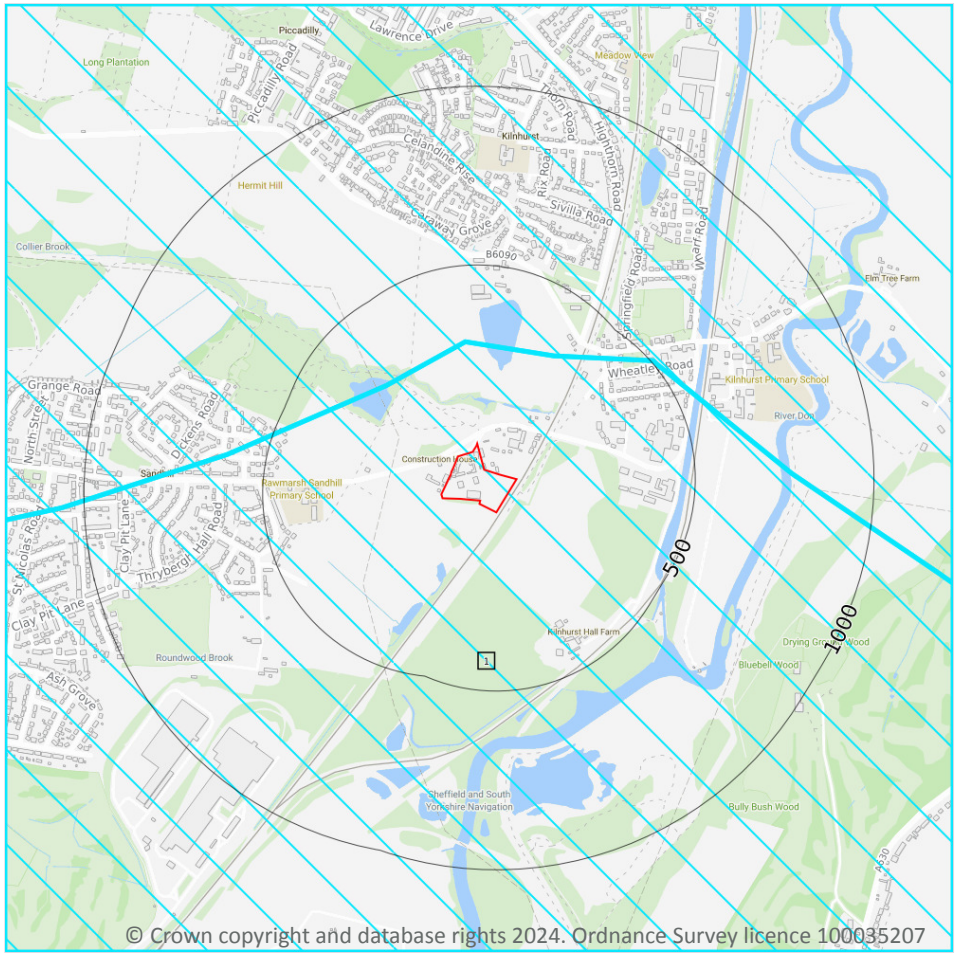
Records within 2000m	6

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

Location	Name	Type	NVZ ID	Status
On site	**RIVER DON (FROM ROTHER TO DEARNE) NVZ**	**Surface Water**	**262**	**Existing**
881m E	Hooton Brook from Source to River Don NVZ	Surface Water	260	Existing
890m S	RIVER DON (FROM ROTHER TO DEARNE) NVZ	Surface Water	262	Existing
1265m SE	Hooton Brook from Source to River Don NVZ	Surface Water	260	Existing
1555m W	RIVER DON (FROM ROTHER TO DEARNE) NVZ	Surface Water	262	Existing
1814m SW	RIVER DON (FROM ROTHER TO DEARNE) NVZ	Surface Water	262	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 85 >**

ID	Location	Type of developments requiring consultation
1	On site	**Infrastructure - Airports, helipads and other aviation proposals.** **Discharges - Any discharge of water or liquid waste of more than 20m³/day to ground (ie to seep away) or to surface water, such as a beck or stream.**

This data is sourced from Natural England.

10.18 SSSI Units

Records within 2000m	0

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

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

11 Visual and cultural designations

11.1 World Heritage Sites

Records within 250m	0

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

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

11.2 Area of Outstanding Natural Beauty

Records within 250m	0

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

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

11.3 National Parks

Records within 250m	0

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

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

11.4 Listed Buildings

Records within 250m	0

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

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

11.5 Conservation Areas

Records within 250m	0

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

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

11.6 Scheduled Ancient Monuments

Records within 250m	0

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

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

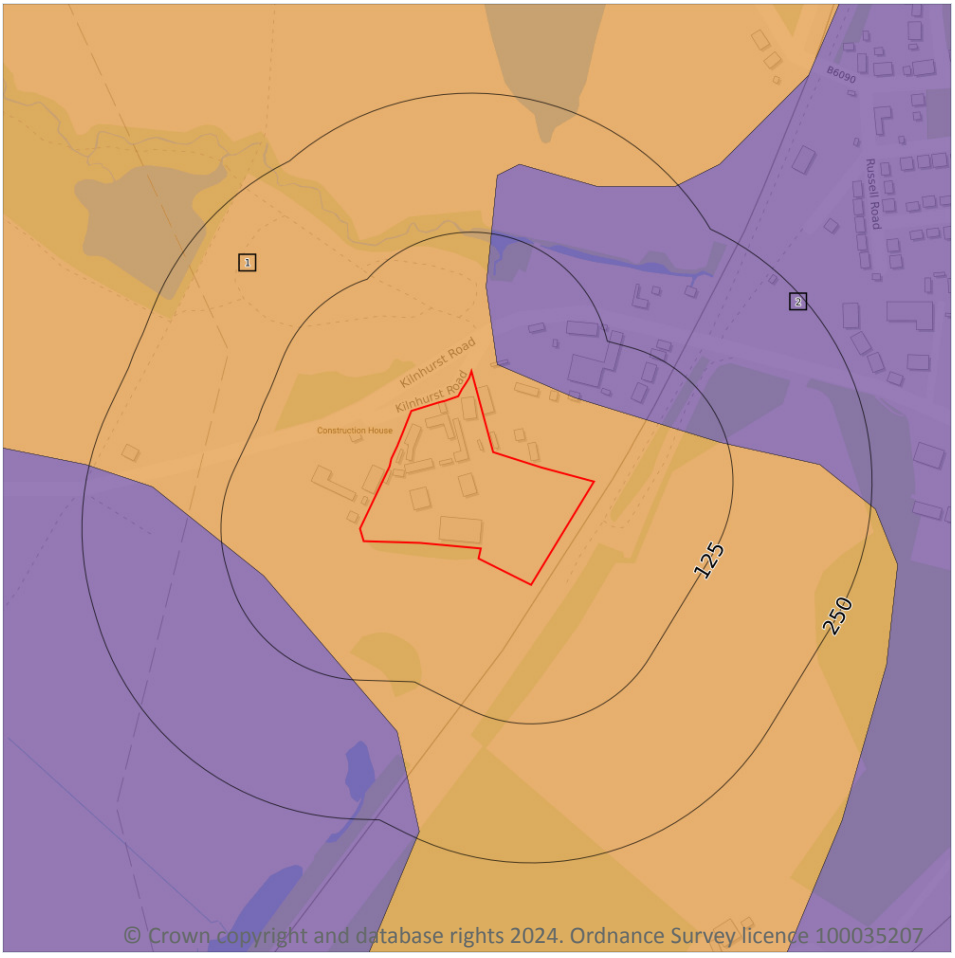
11.7 Registered Parks and Gardens

Records within 250m	0

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

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

12 Agricultural designations



Site Outline

Search buffers in metres (m)

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

12.1 Agricultural Land Classification

Records within 250m	2

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

Features are displayed on the Agricultural designations map on **page 89 >**

ID	Location	Classification	Description
1	**On site**	**Grade 3**	**Good to moderate quality agricultural land. Land with moderate limitations which affect the choice of crops, timing and type of cultivation, harvesting or the level of yield. Where more demanding crops are grown yields are generally lower or more variable than on land in Grades 1 and 2.**
2	24m N	Urban	Non-agricultural/no quality assigned

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.

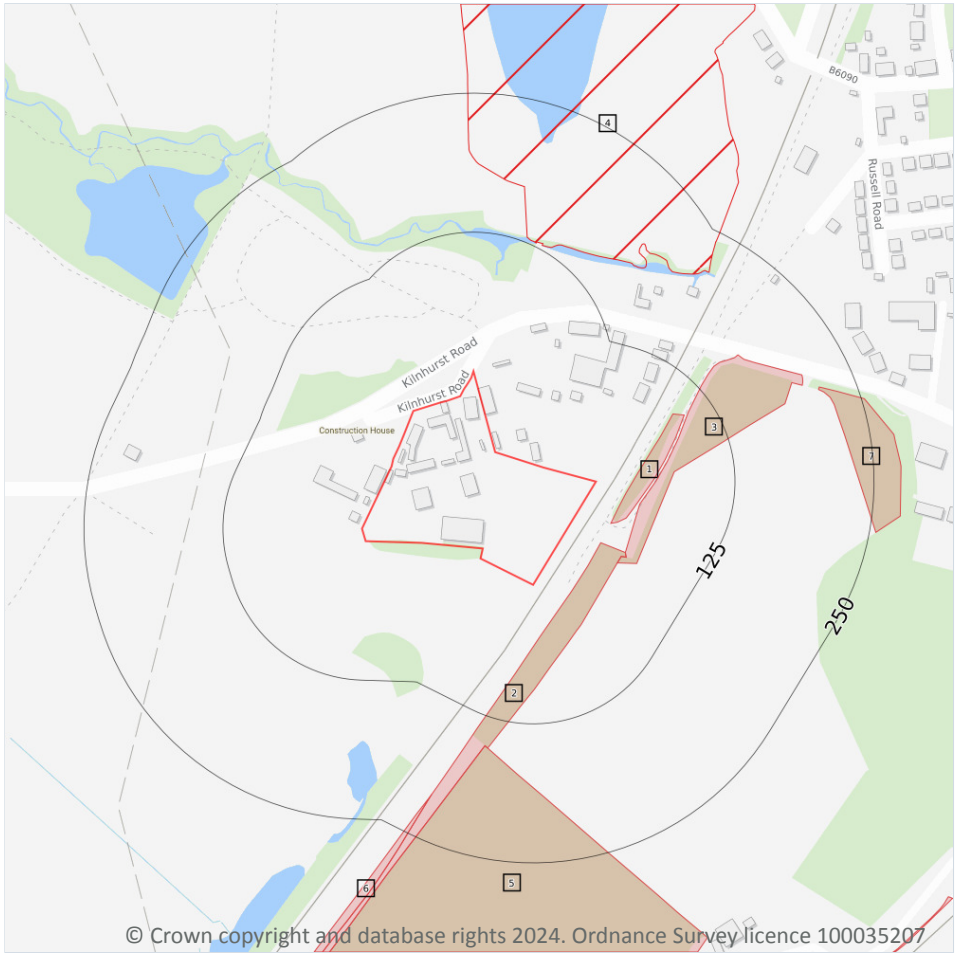
12.5 Countryside Stewardship Schemes

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	6

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

Features are displayed on the Habitat designations map on **page 91 >**

ID	Location	Main Habitat	Other habitats
1	29m E	Deciduous woodland	Main habitat: DWOOD (INV > 50%)
2	32m SE	Good quality semi-improved grassland	Main habitat: GQSIG (INV > 50%)
3	44m E	Deciduous woodland	Main habitat: DWOOD (INV > 50%)
5	151m S	Deciduous woodland	Main habitat: DWOOD (INV > 50%)

ID	Location	Main Habitat	Other habitats
6	211m S	Deciduous woodland	Main habitat: DWOOD (INV > 50%); GQSIG (INV > 50%)
7	217m E	Deciduous woodland	Main habitat: DWOOD (INV > 50%)

This data is sourced from Natural England.

13.2 Habitat Networks

Records within 250m	0

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

This data is sourced from Natural England.

13.3 Open Mosaic Habitat

Records within 250m	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 91 >**

ID	Location	Site reference	Identification confidence	Primary source	Secondary source	Tertiary source
4	128m N	BRITPITS ref: 16757	Low	British Geological Survey BRITPITS database	Environment Agency Historic Landfill Sites	UK Perspectives Aerial Photography

This data is sourced from Natural England.

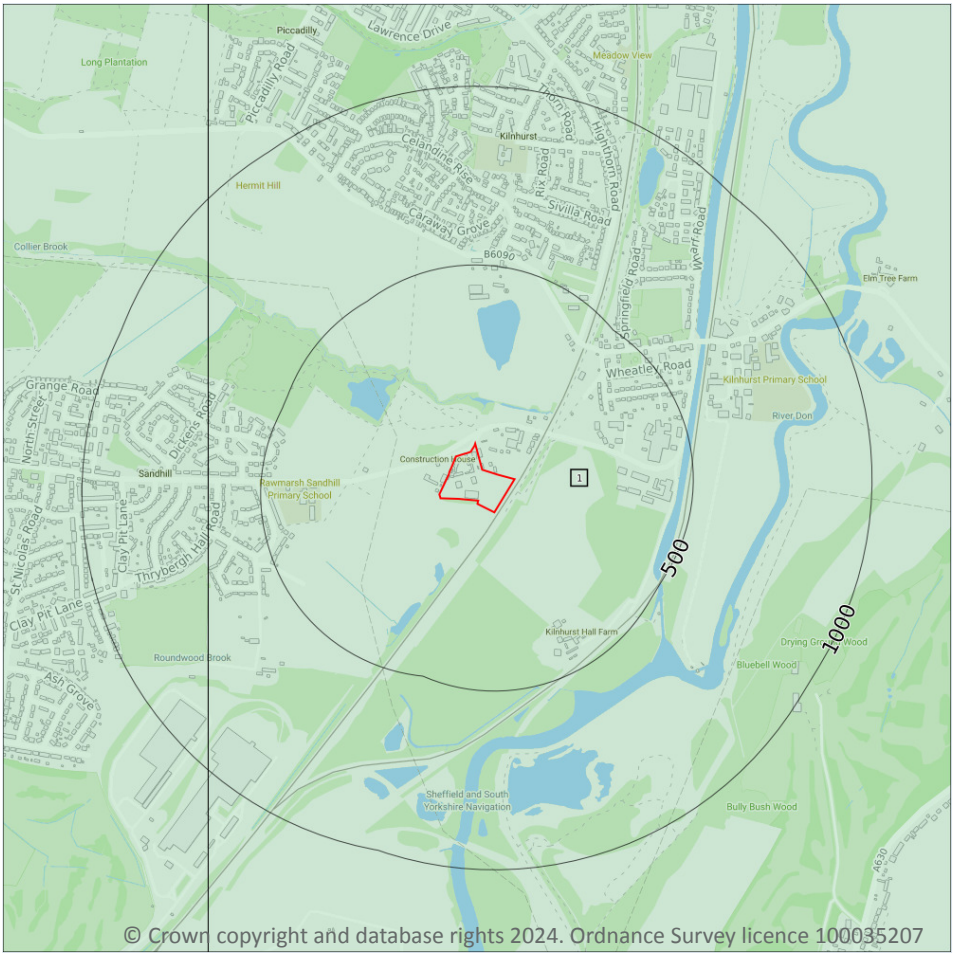
13.4 Limestone Pavement Orders

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	1

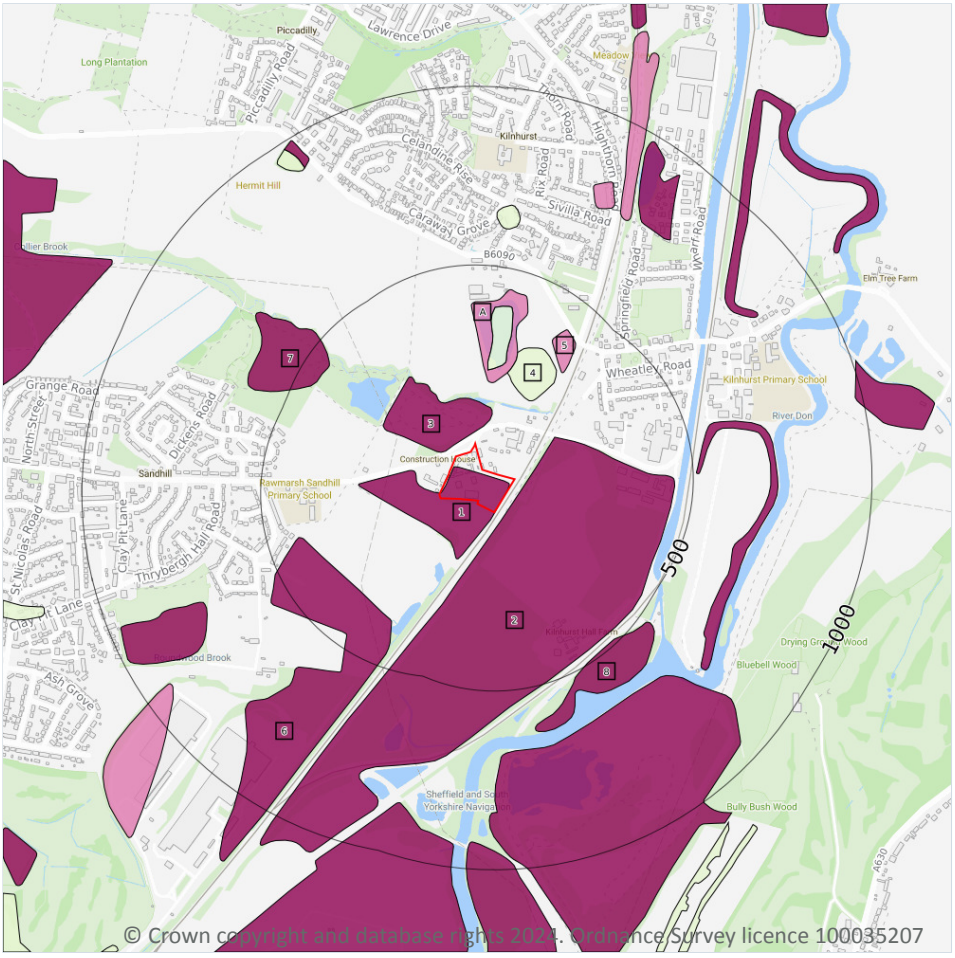
An indication on the coverage of 1:10,000 scale geology data for the site, the most detailed dataset provided by the British Geological Survey. Either 'Full', 'Partial' or 'No coverage' for each geological theme.

Features are displayed on the Geology 1:10,000 scale - Availability map on **page 94 >**

ID	Location	Artificial	Superficial	Bedrock	Mass movement	Sheet No.
1	**On site**	**Full**	**Full**	**Full**	**Full**	**SK49NE**

This data is sourced from the British Geological Survey.

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



Site Outline

Search buffers in metres (m)

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

14.2 Artificial and made ground (10k)

Records within 500m	10

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.

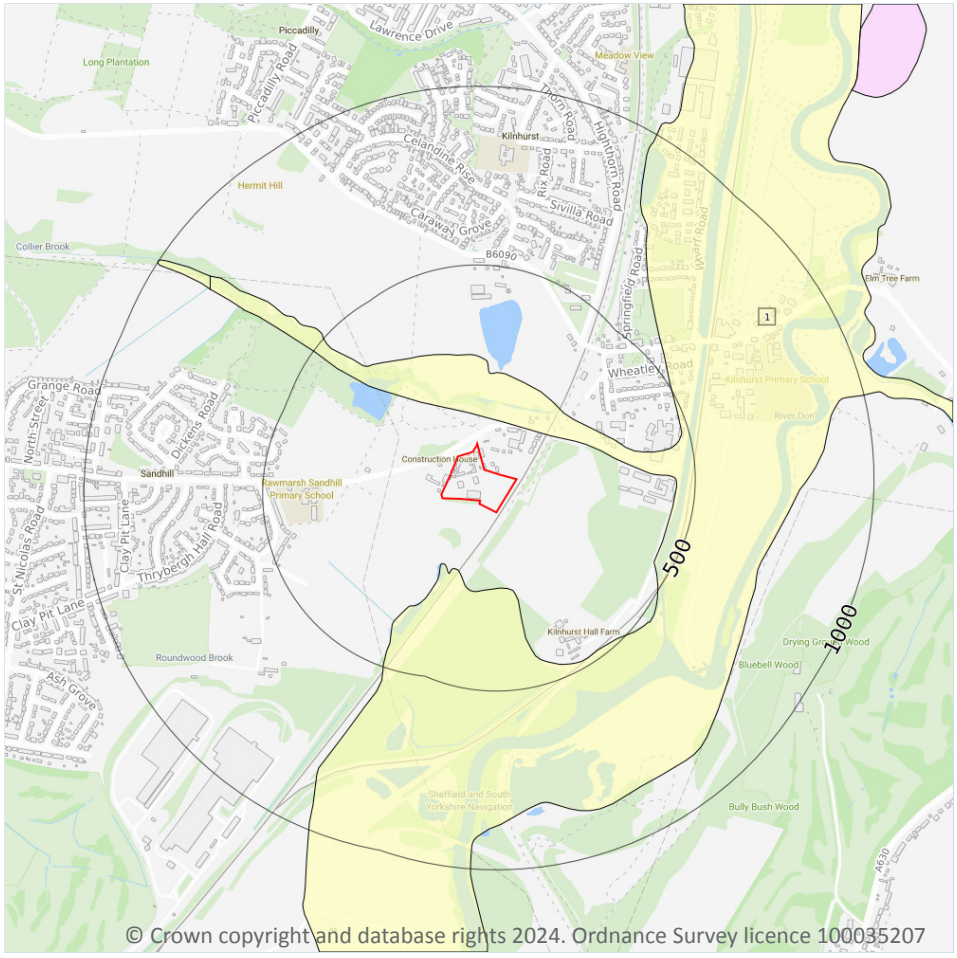
Features are displayed on the Geology 1:10,000 scale - Artificial and made ground map on **page 95 >**

ID	Location	LEX Code	Description	Rock description
1	**On site**	**MGR-ARTDP**	**Made Ground (Undivided)**	**Artificial Deposit**
2	28m SE	MGR-ARTDP	Made Ground (Undivided)	Artificial Deposit
3	29m N	MGR-ARTDP	Made Ground (Undivided)	Artificial Deposit
A	177m N	WGR-VOID	Worked Ground (Undivided)	Void

ID	Location	LEX Code	Description	Rock description
4	189m NE	WMGR-ARTDP	Infilled Ground	Artificial Deposit
A	210m N	WMGR-ARTDP	Infilled Ground	Artificial Deposit
5	314m NE	WGR-VOID	Worked Ground (Undivided)	Void
6	343m SW	MGR-ARTDP	Made Ground (Undivided)	Artificial Deposit
7	435m NW	MGR-ARTDP	Made Ground (Undivided)	Artificial Deposit
8	488m SE	MGR-ARTDP	Made Ground (Undivided)	Artificial Deposit

This data is sourced from the British Geological Survey.

Geology 1:10,000 scale - Superficial



Site Outline

Search buffers in metres (m)

Landslip (10k)

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

14.3 Superficial geology (10k)

Records within 500m	1

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

Features are displayed on the Geology 1:10,000 scale - Superficial map on **page 97 >**

ID	Location	LEX Code	Description	Rock description
1	78m N	ALV-XCZ	Alluvium - Clay And Silt	Clay And Silt

This data is sourced from the British Geological Survey.

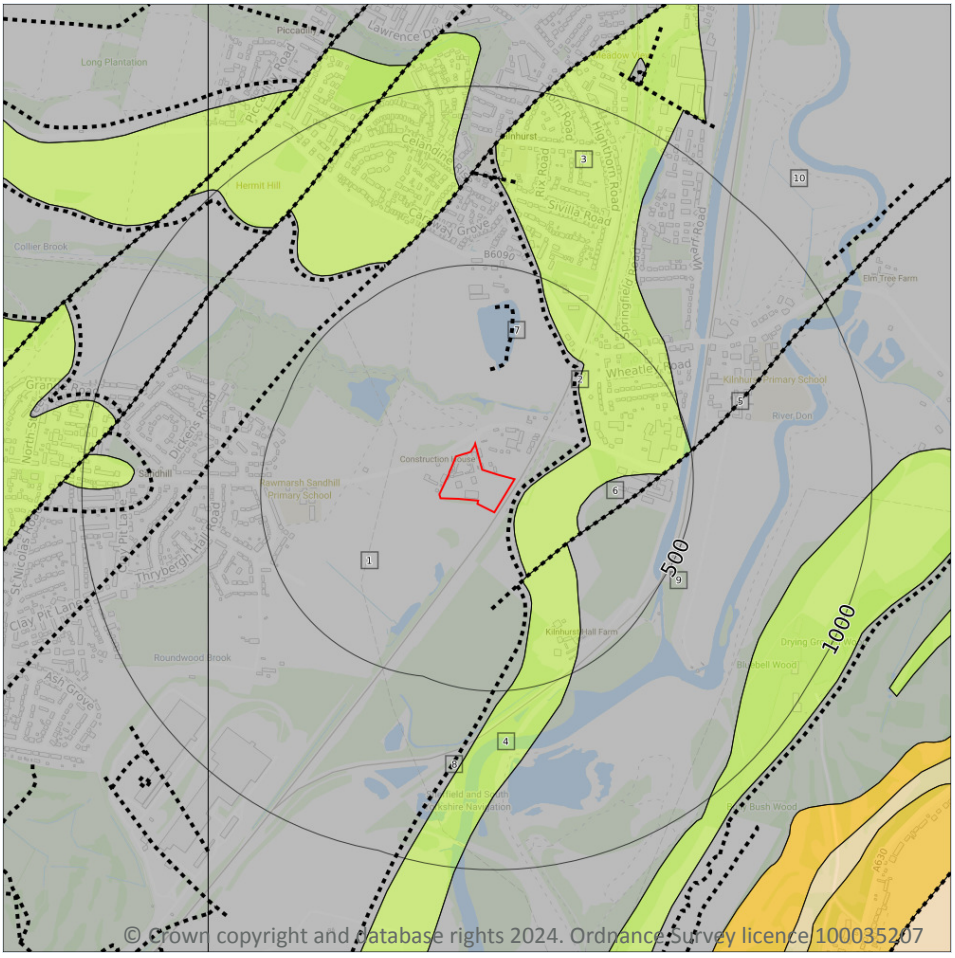
14.4 Landslip (10k)

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 **6**

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 99 >**

ID	Location	LEX Code	Description	Rock age
1	**On site**	**PMCM-MDSS**	**Pennine Middle Coal Measures Formation - Mudstone, Siltstone And Sandstone**	**Bolsovian Sub-age - Duckmantian Sub-age**
3	43m E	OR-SDST	Oaks Rock - Sandstone	Duckmantian Sub-age
4	196m SE	OR-SDST	Oaks Rock - Sandstone	Duckmantian Sub-age

ID	Location	LEX Code	Description	Rock age
6	200m E	PMCM-MDSS	Pennine Middle Coal Measures Formation - Mudstone, Siltstone And Sandstone	Bolsovian Sub-age - Duckmantian Sub-age
9	218m SE	PMCM-MDSS	Pennine Middle Coal Measures Formation - Mudstone, Siltstone And Sandstone	Bolsovian Sub-age - Duckmantian Sub-age
10	495m E	PMCM-MDSS	Pennine Middle Coal Measures Formation - Mudstone, Siltstone And Sandstone	Bolsovian Sub-age - Duckmantian Sub-age

This data is sourced from the British Geological Survey.

14.6 Bedrock faults and other linear features (10k)

Records within 500m	**4**

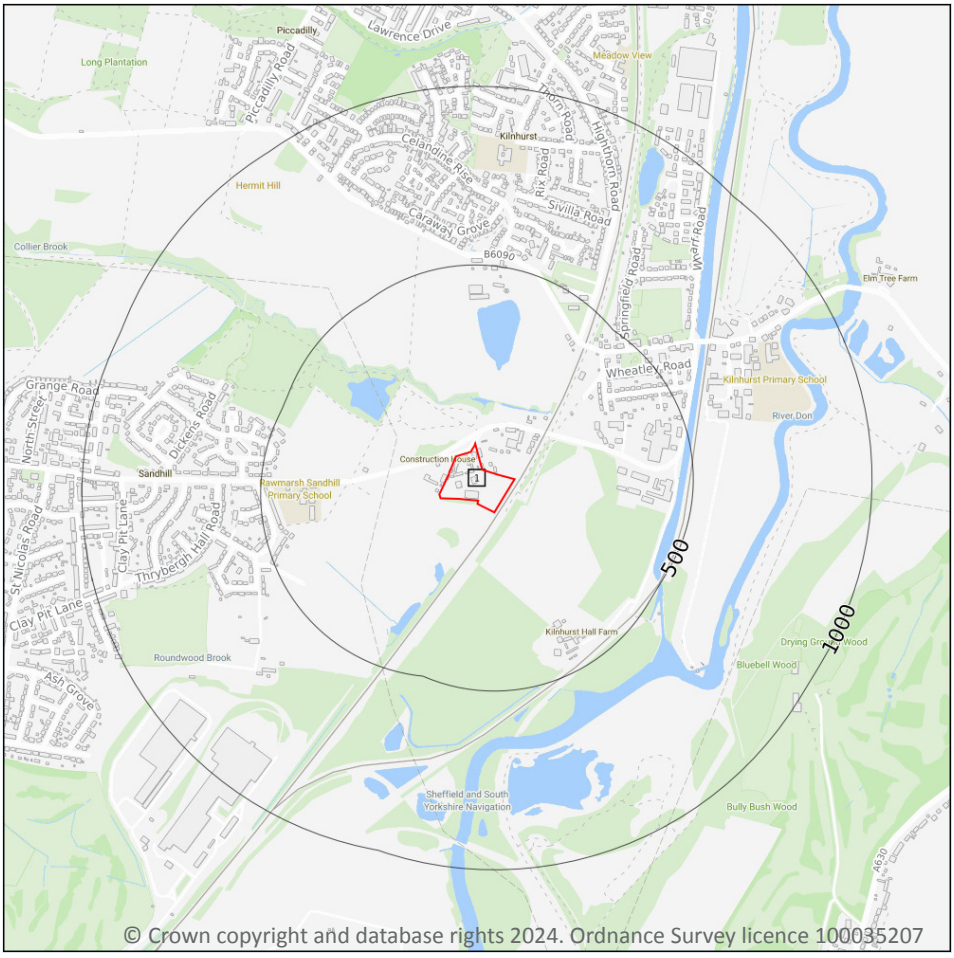
Linear features at the ground or bedrock surface at 1:10,000 scale of six main types; rock, fault, fold axis, mineral vein, alteration area or landform. Features are either observed or inferred, and relate primarily to bedrock.

Features are displayed on the Geology 1:10,000 scale - Bedrock map on **page 99 >**

ID	Location	Category	Description
2	29m E	ROCK	Coal seam, inferred
5	196m SE	FAULT	Normal fault, inferred
7	210m N	ROCK	Coal seam, inferred
8	215m S	ROCK	Coal seam, inferred

This data is sourced from the British Geological Survey.

15 Geology 1:50,000 scale - Availability



Site Outline

Search buffers in metres (m)

Geological map tile

15.1 50k Availability

Records within 500m	1

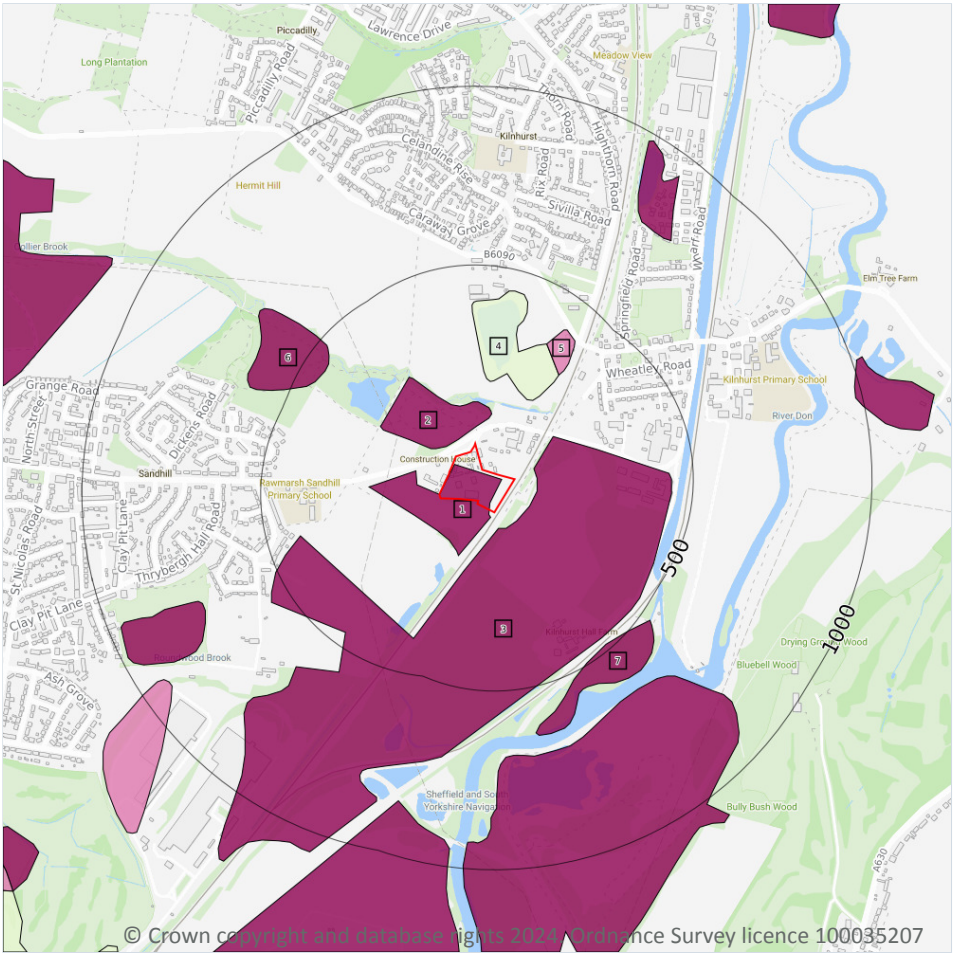
An indication on the coverage of 1:50,000 scale geology data for the site. Either 'Full' or 'No coverage' for each geological theme.

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

ID	Location	Artificial	Superficial	Bedrock	Mass movement	Sheet No.
1	**On site**	**No coverage**	**Full**	**Full**	**Full**	**EW087_barnsley_v4**

This data is sourced from the British Geological Survey.

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



Site Outline

Search buffers in metres (m)

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

15.2 Artificial and made ground (50k)

Records within 500m	7

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

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

ID	Location	LEX Code	Description	Rock description
1	**On site**	**MGR-ARTDP**	**MADE GROUND (UNDIVIDED)**	**ARTIFICIAL DEPOSIT**
2	37m N	MGR-ARTDP	MADE GROUND (UNDIVIDED)	ARTIFICIAL DEPOSIT
3	46m SE	MGR-ARTDP	MADE GROUND (UNDIVIDED)	ARTIFICIAL DEPOSIT
4	179m N	WMGR-ARTDP	INFILLED GROUND	ARTIFICIAL DEPOSIT

ID	Location	LEX Code	Description	Rock description
5	303m NE	WGR-VOID	WORKED GROUND (UNDIVIDED)	VOID
6	437m NW	MGR-ARTDP	MADE GROUND (UNDIVIDED)	ARTIFICIAL DEPOSIT
7	484m SE	MGR-ARTDP	MADE GROUND (UNDIVIDED)	ARTIFICIAL DEPOSIT

This data is sourced from the British Geological Survey.

15.3 Artificial ground permeability (50k)

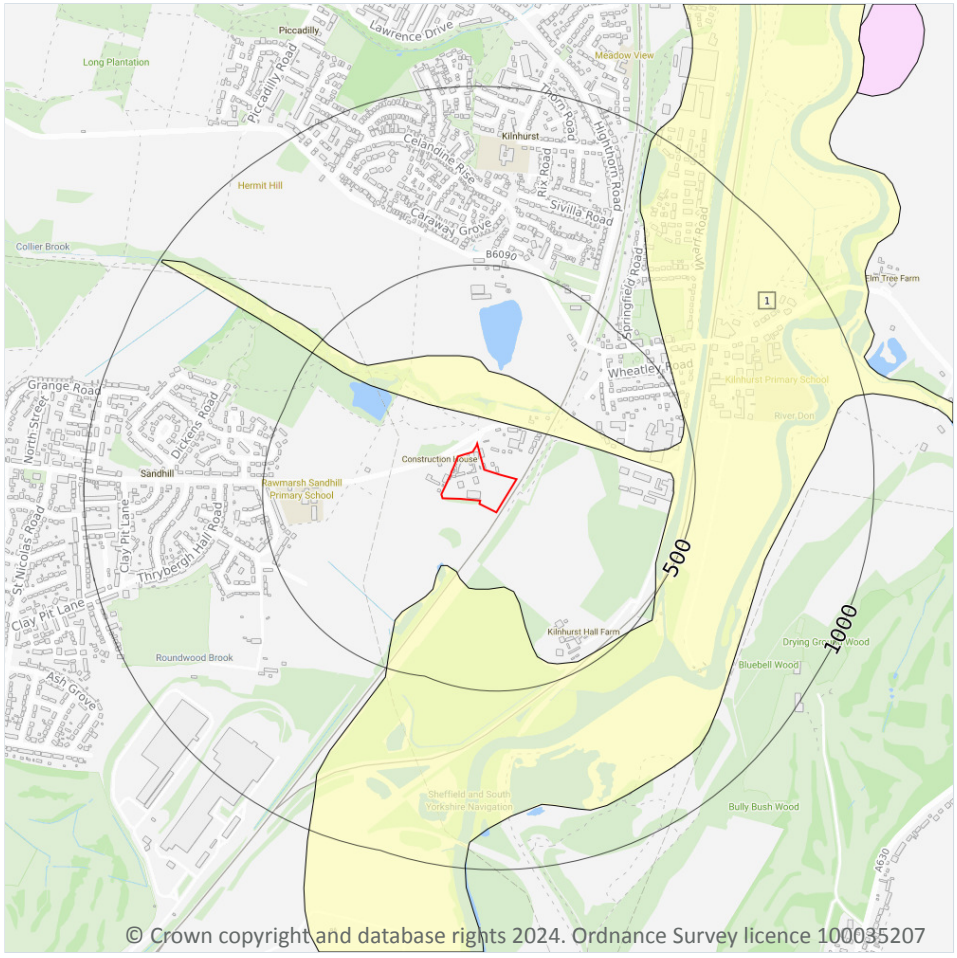
Records within 50m	**3**

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

Location	Flow type	Maximum permeability	Minimum permeability
On site	**Mixed**	**Very High**	**Low**
37m N	Mixed	Very High	Low
46m SE	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	1

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

Features are displayed on the Geology 1:50,000 scale - Superficial map on **page 104 >**

ID	Location	LEX Code	Description	Rock description
1	75m N	ALV-XCZSV	ALLUVIUM	CLAY, SILT, SAND AND GRAVEL

This data is sourced from the British Geological Survey.

15.5 Superficial permeability (50k)

Records within 50m	0

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

This data is sourced from the British Geological Survey.

15.6 Landslip (50k)

Records within 500m	0

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

This data is sourced from the British Geological Survey.

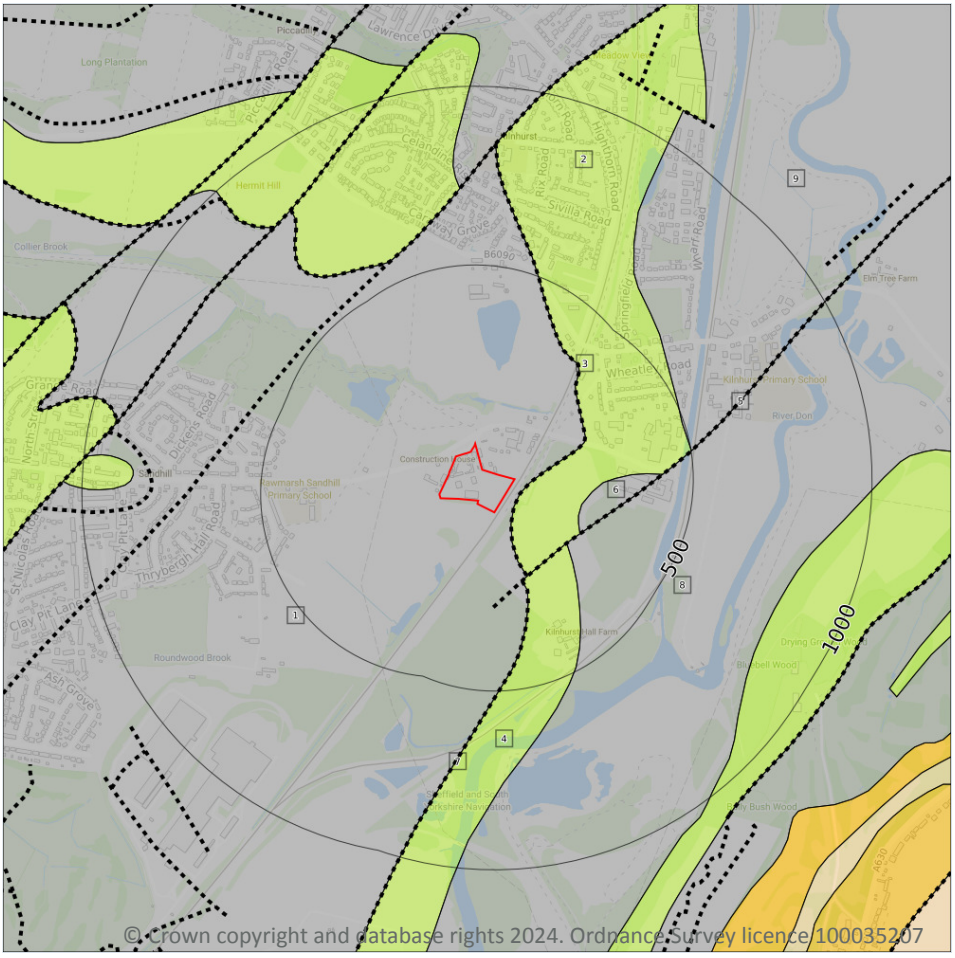
15.7 Landslip permeability (50k)

Records within 50m	0

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

This data is sourced from the British Geological Survey.

Geology 1:50,000 scale - Bedrock



Site Outline

Search buffers in metres (m)

Bedrock faults and other linear features (50k)

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

15.8 Bedrock geology (50k)

Records within 500m **6**

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**	**PMCM-MDSS**	**PENNINE MIDDLE COAL MEASURES FORMATION - MUDSTONE, SILTSTONE AND SANDSTONE**	**WESTPHALIAN**
2	34m E	OR-SDST	OAKS ROCK - SANDSTONE	WESTPHALIAN
4	196m SE	OR-SDST	OAKS ROCK - SANDSTONE	WESTPHALIAN

ID	Location	LEX Code	Description	Rock age
6	201m E	PMCM-MDSS	PENNINE MIDDLE COAL MEASURES FORMATION - MUDSTONE, SILTSTONE AND SANDSTONE	WESTPHALIAN
8	218m SE	PMCM-MDSS	PENNINE MIDDLE COAL MEASURES FORMATION - MUDSTONE, SILTSTONE AND SANDSTONE	WESTPHALIAN
9	494m E	PMCM-MDSS	PENNINE MIDDLE COAL MEASURES FORMATION - MUDSTONE, SILTSTONE AND SANDSTONE	WESTPHALIAN

This data is sourced from the British Geological Survey.

15.9 Bedrock permeability (50k)

Records within 50m **2**

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

Location	Flow type	Maximum permeability	Minimum permeability
On site	**Fracture**	**Moderate**	**Low**
34m E	Fracture	High	Moderate

This data is sourced from the British Geological Survey.

15.10 Bedrock faults and other linear features (50k)

Records within 500m **3**

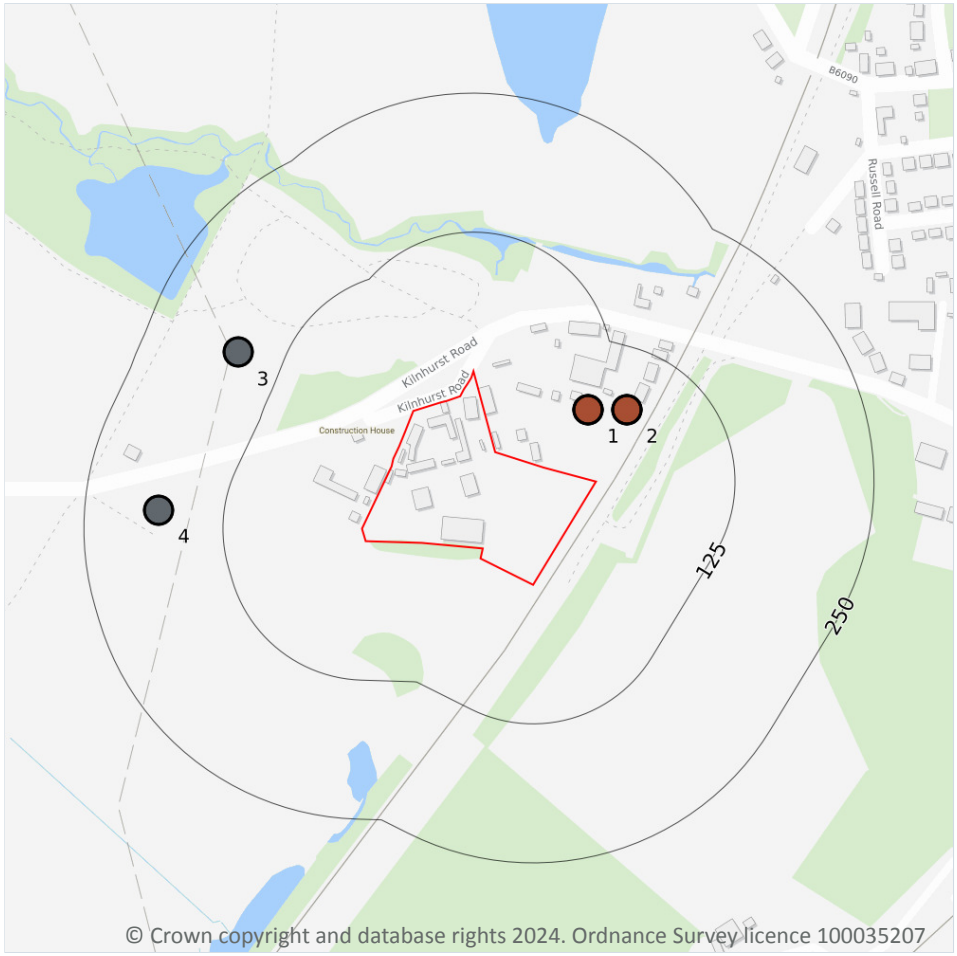
Linear features at the ground or bedrock surface at 1:50,000 scale of six main types; rock, fault, fold axis, mineral vein, alteration area or landform. Features are either observed or inferred, and relate primarily to bedrock.

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

ID	Location	Category	Description
3	34m E	ROCK	Coal seam, inferred
5	196m SE	FAULT	Fault, inferred
7	207m SE	ROCK	Coal seam, inferred

This data is sourced from the British Geological Survey.

16 Boreholes



Site Outline

Search buffers in metres (m)

- Confidential
- 0 - 10m
- 10 - 30m
- 30m+
- Unknown

16.1 BGS Boreholes

Records within 250m	4

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.

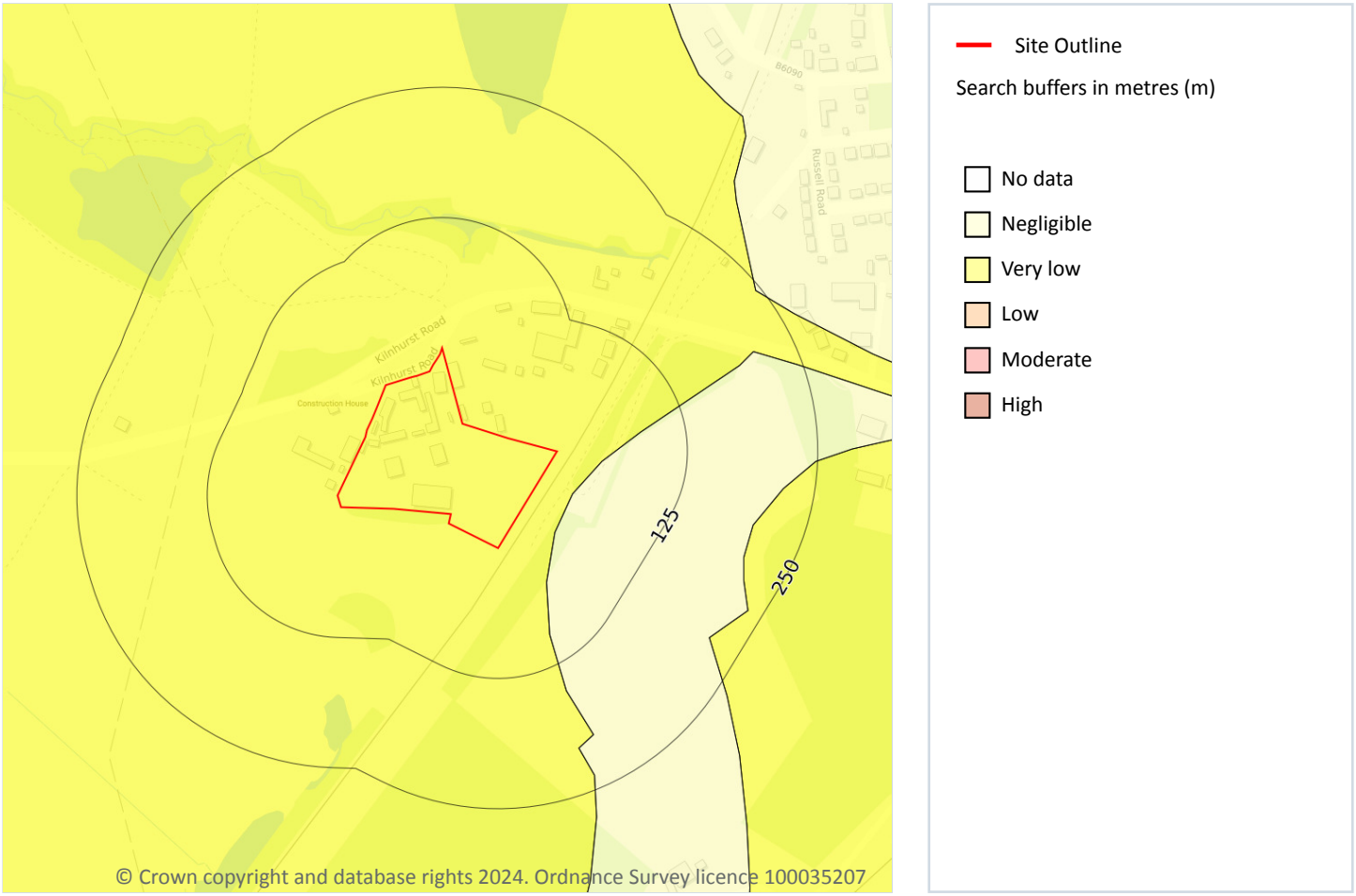
Features are displayed on the Boreholes map on **page 108 >**

ID	Location	Grid reference	Name	Length	Confidential	Web link
1	60m NE	445850 397029	THRYBERGH HALL COLLIERY (PRIOR 1855)NCB	-1.0	N	779224 ↗
2	70m NE	445885 397029	THRYBERGH HALL COLLIERY (PRIOR 1855)NCB	-1.0	N	779225 ↗
3	166m NW	445535 397081	WEST MELTON-ALDWARKE 275 KV O/HEADLINE	-	Y	N/A

ID	Location	Grid reference	Name	Length	Confidential	Web link
4	183m W	445464 396939	WEST MELTON-ALDWARKE 275KV O/HEAD LINE	-	Y	N/A

This data is sourced from the British Geological Survey.

17 Natural ground subsidence - Shrink swell clays



17.1 Shrink swell clays

Records within 50m	2

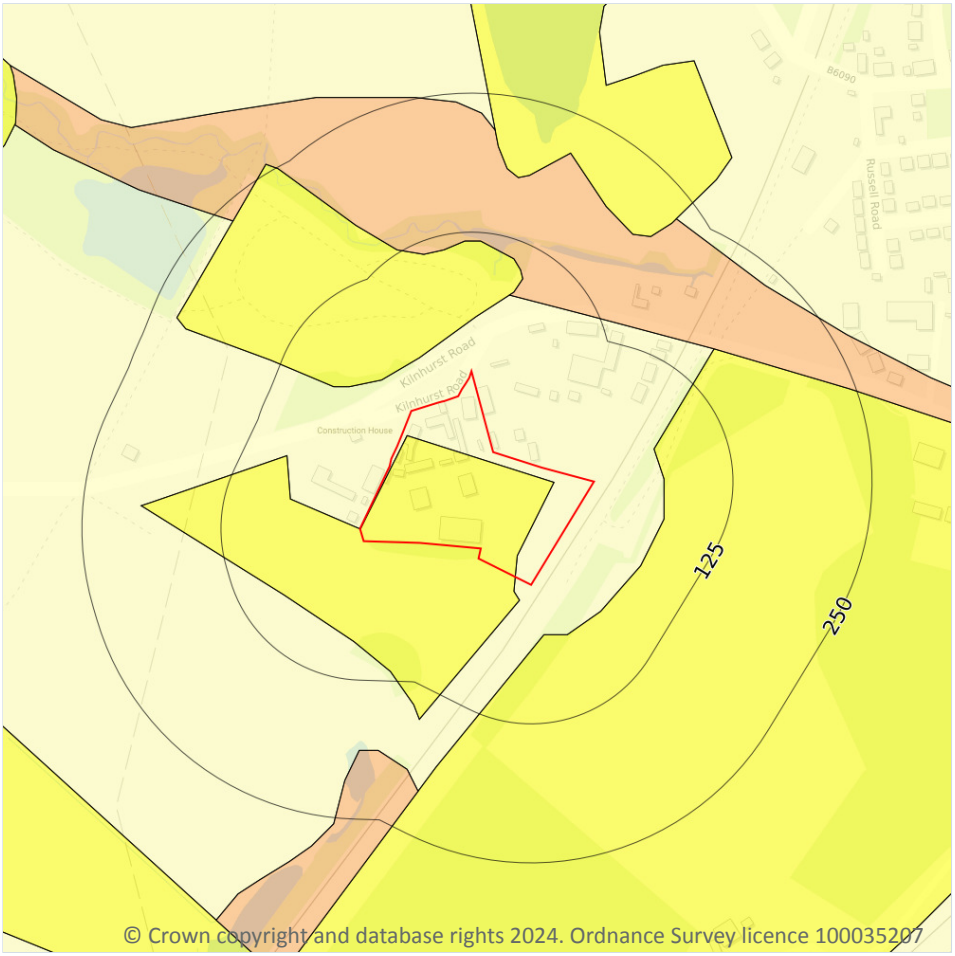
The potential hazard presented by soils that absorb water when wet (making them swell), and lose water as they dry (making them shrink). This shrink-swell behaviour is controlled by the type and amount of clay in the soil, and by seasonal changes in the soil moisture content (related to rainfall and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

Features are displayed on the Natural ground subsidence - Shrink swell clays map on **page 110 >**

Location	Hazard rating	Details
On site	**Very low**	**Ground conditions predominantly low plasticity.**
34m E	Negligible	Ground conditions predominantly non-plastic.

This data is sourced from the British Geological Survey.

Natural ground subsidence - Running sands



Site Outline

Search buffers in metres (m)

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

17.2 Running sands

Records within 50m	4

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

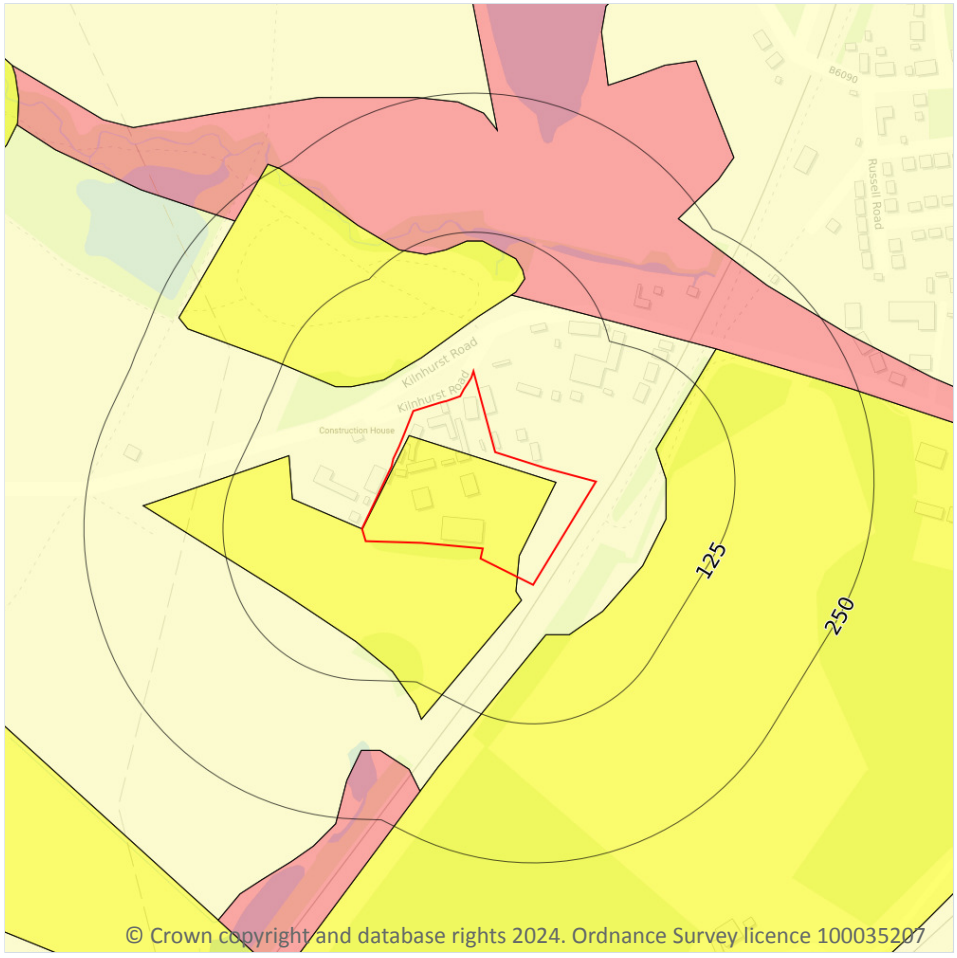
Features are displayed on the Natural ground subsidence - Running sands map on **page 111 >**

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

Location	Hazard rating	Details
On site	**Very low**	**Running sand conditions are unlikely. No identified constraints on land use due to running conditions unless water table rises rapidly.**
37m N	Very low	Running sand conditions are unlikely. No identified constraints on land use due to running conditions unless water table rises rapidly.
46m SE	Very low	Running sand conditions are unlikely. No identified constraints on land use due to running conditions unless water table rises rapidly.

This data is sourced from the British Geological Survey.

Natural ground subsidence - Compressible deposits



Site Outline

Search buffers in metres (m)

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

17.3 Compressible deposits

Records within 50m	4

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

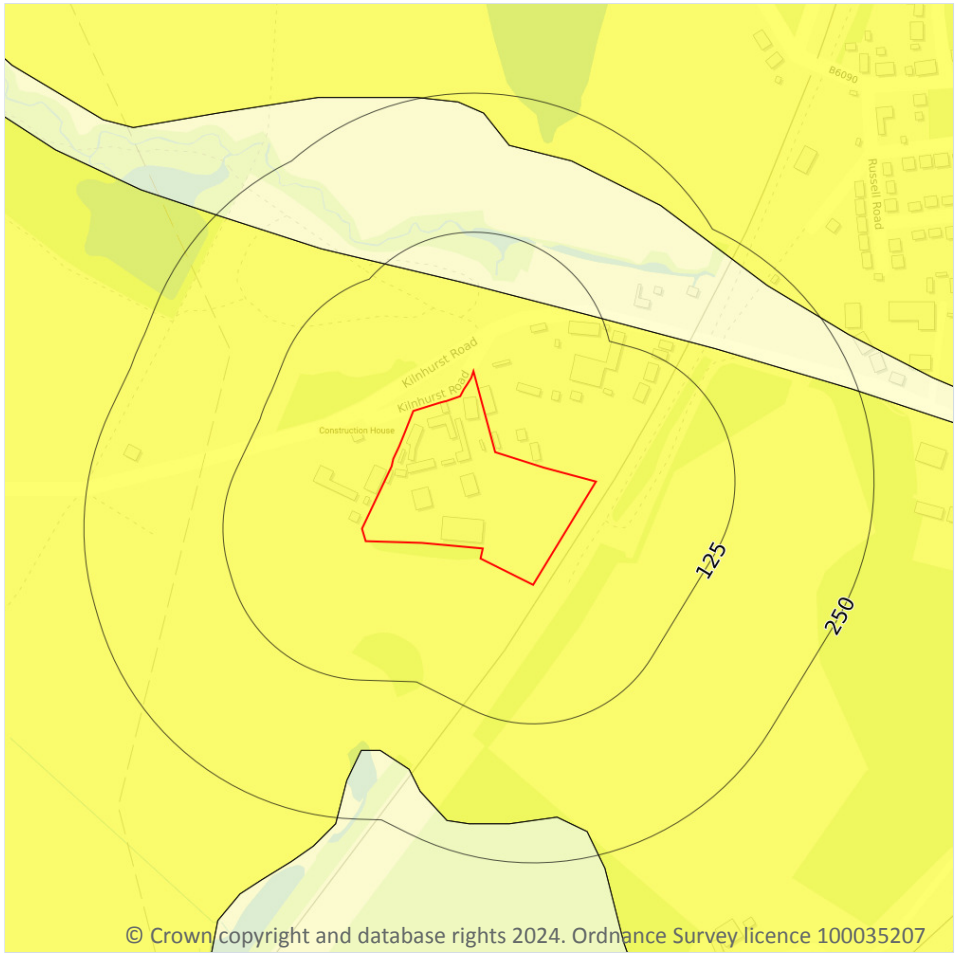
Features are displayed on the Natural ground subsidence - Compressible deposits map on **page 113 >**

Location	Hazard rating	Details
On site	**Negligible**	**Compressible strata are not thought to occur.**
On site	**Very low**	**Compressibility and uneven settlement problems are not likely to be significant on the site for most land uses.**

Location	Hazard rating	Details
37m N	Very low	Compressibility and uneven settlement problems are not likely to be significant on the site for most land uses.
46m SE	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

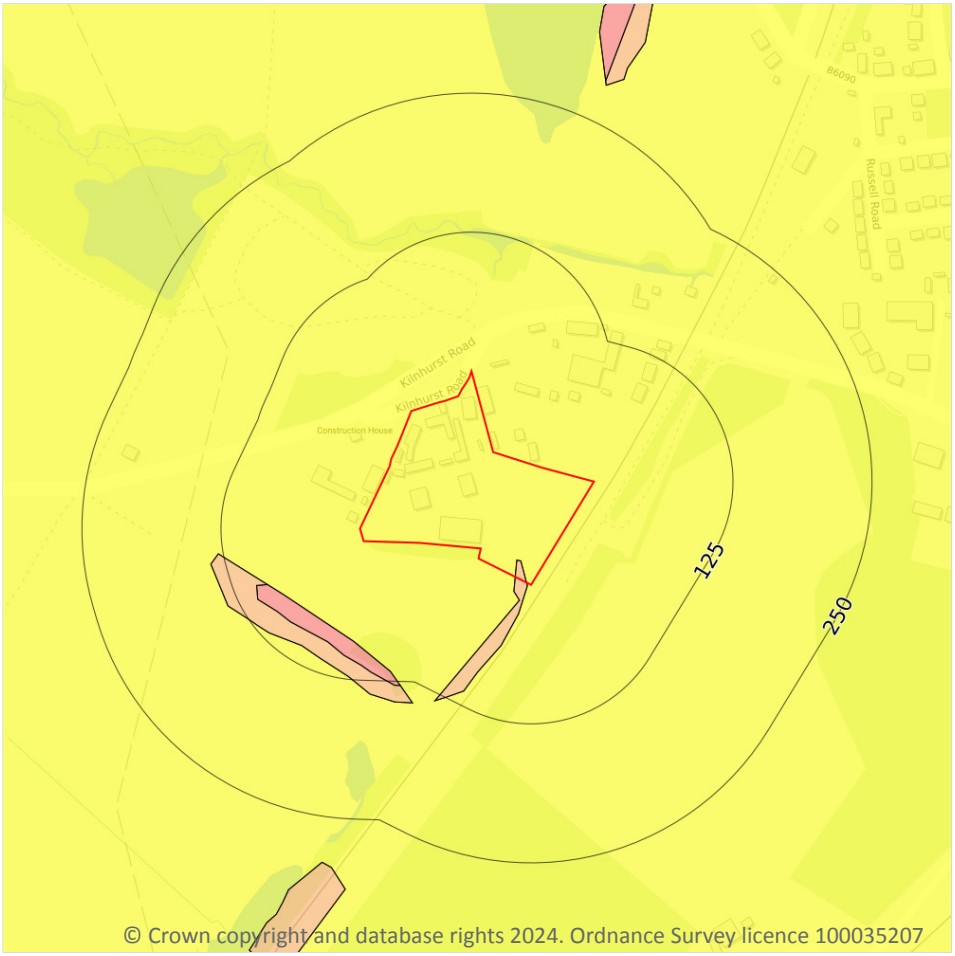
The potential hazard presented by natural deposits that could collapse when a load (such as a building) is placed on them or they become saturated with water.

Features are displayed on the Natural ground subsidence - Collapsible deposits map on **page 115 >**

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

This data is sourced from the British Geological Survey.

Natural ground subsidence - Landslides



Site Outline

Search buffers in metres (m)

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

17.5 Landslides

Records within 50m	2

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

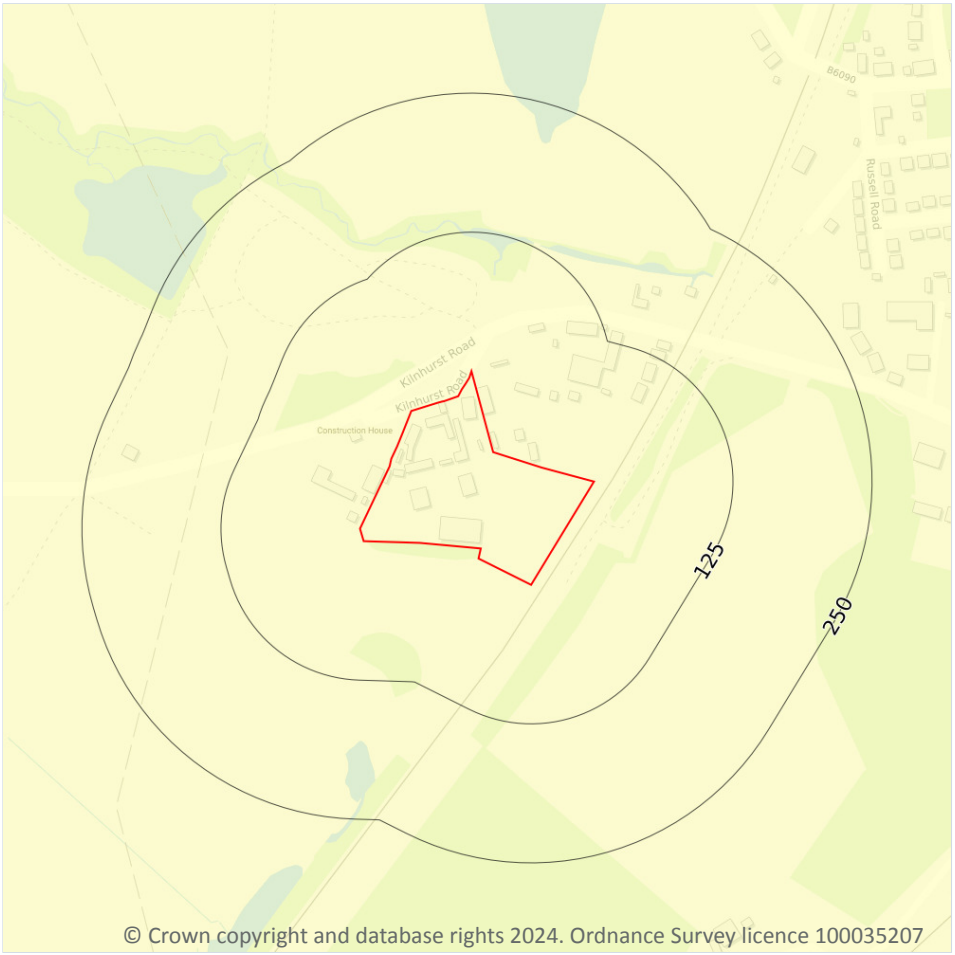
Features are displayed on the Natural ground subsidence - Landslides map on **page 116 >**

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

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

This data is sourced from the British Geological Survey.

Natural ground subsidence - Ground dissolution of soluble rocks



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

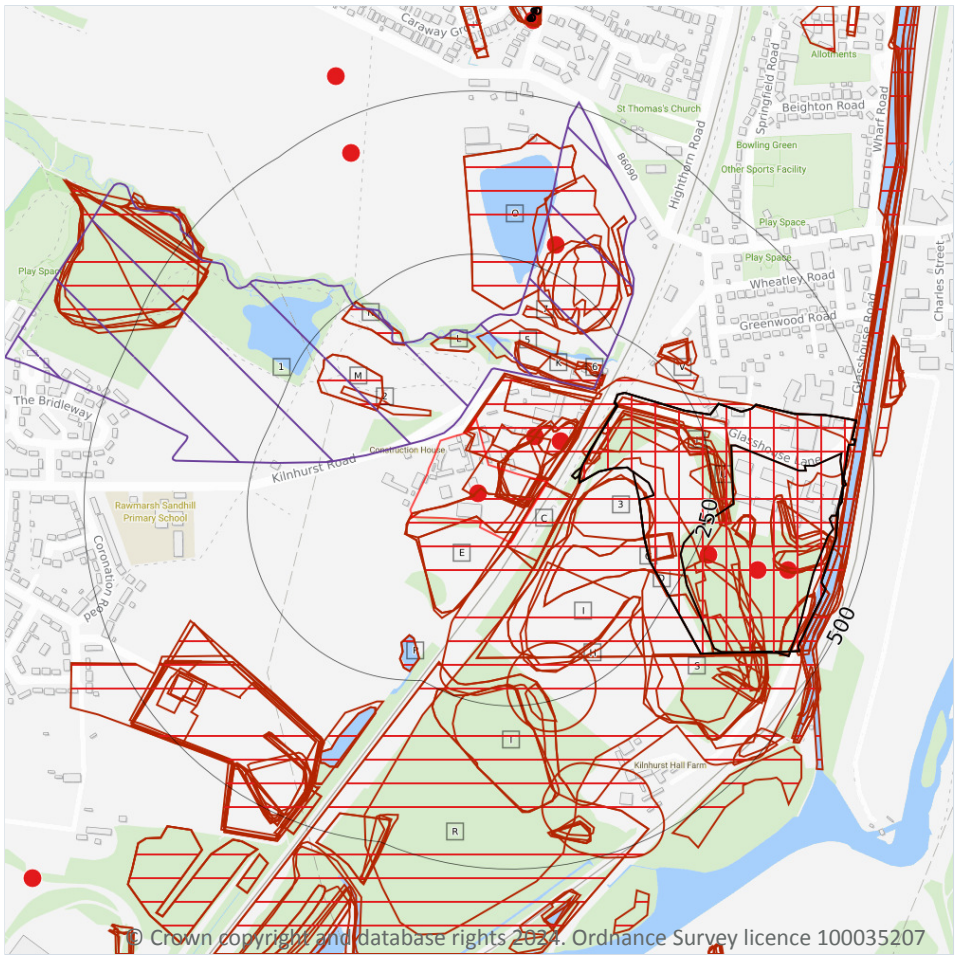
The potential hazard presented by ground dissolution, which occurs when water passing through soluble rocks produces underground cavities and cave systems. These cavities reduce support to the ground above and can cause localised collapse of the overlying rocks and deposits.

Features are displayed on the Natural ground subsidence - Ground dissolution of soluble rocks map on **page 118 >**

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

This data is sourced from the British Geological Survey.

18 Mining and ground workings



Site Outline

Search buffers in metres (m)

BritPits

Surface ground workings

Underground workings

Underground mining extents

Historical mineral planning areas

TCA non-coal mining

Non Coal Mining

Sporadic underground mining of restricted extent possible

Localised small scale underground mining possible

Small scale mining possible

Underground mining known or likely within or in close proximity

Underground mining known within or in very close proximity

18.1 BritPits

Records within 500m	9

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

Features are displayed on the Mining and ground workings map on **page 120 >**

ID	Location	Details	Description
A	**On site**	**Name: Kilnhurst Brick Works** **Address: Kilnhurst, ROTHERHAM, South Yorkshire** **Commodity: Clay & Shale** **Status: Ceased**	**Type: A surface mineral working. It may be termed Quarry, Sand Pit, Clay Pit or Opencast Coal Site** **Status description: Site which, at date of entry, has ceased to extract minerals. May be considered as Closed by operator. May be considered to have Active, Dormant or Expired planning permissions by Mineral Planning Authority**
B	63m NE	Name: Kilnhurst Brickworks Pit Address: Kilnhurst, SWINTON, South Yorkshire Commodity: Fireclay Status: Ceased	Type: Working is wholly underground, access by shaft, adit or drift. Working may be termed Colliery, Mine, Drift Mine, Slant, Level, Adit or Ingoing Eye (Ingaun Ee - Scots) 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
B	66m NE	Name: Kilnhurst Brick Works Address: Kilnhurst, SWINTON, South Yorkshire Commodity: Clay & Shale Status: Ceased	Type: A surface mineral working. It may be termed Quarry, Sand Pit, Clay Pit or Opencast Coal Site Status description: Site which, at date of entry, has ceased to extract minerals. May be considered as Closed by operator. May be considered to have Active, Dormant or Expired planning permissions by Mineral Planning Authority
B	74m NE	Name: Kilnhurst Brickworks Pit Address: Kilnhurst, SWINTON, South Yorkshire Commodity: Fireclay Status: Ceased	Type: Working is wholly underground, access by shaft, adit or drift. Working may be termed Colliery, Mine, Drift Mine, Slant, Level, Adit or Ingoing Eye (Ingaun Ee - Scots) 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
9	270m E	Name: Kilnhurst Collieries Address: Kilnhurst, SWINTON, South Yorkshire Commodity: Coal, Deep Status: Ceased	Type: Working is wholly underground, access by shaft, adit or drift. Working may be termed Colliery, Mine, Drift Mine, Slant, Level, Adit or Ingoing Eye (Ingaun Ee - Scots) Status description: Site which, at date of entry, has ceased to extract minerals. May be considered as Closed by operator. May be considered to have Active, Dormant or Expired planning permissions by Mineral Planning Authority

ID	Location	Details	Description
Q	291m N	Name: Kilnhurst Brickworks Address: Kilnhurst, SWINTON, South Yorkshire Commodity: Clay & Shale Status: Ceased	Type: A surface mineral working. It may be termed Quarry, Sand Pit, Clay Pit or Opencast Coal Site Status description: Site which, at date of entry, has ceased to extract minerals. May be considered as Closed by operator. May be considered to have Active, Dormant or Expired planning permissions by Mineral Planning Authority
F	348m E	Name: Kilnhurst Collieries Address: Kilnhurst, SWINTON, South Yorkshire Commodity: Coal, Deep Status: Ceased	Type: Working is wholly underground, access by shaft, adit or drift. Working may be termed Colliery, Mine, Drift Mine, Slant, Level, Adit or Ingoing Eye (Ingaun Ee - Scots) 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	392m E	Name: Kilnhurst Collieries Address: Kilnhurst, SWINTON, South Yorkshire Commodity: Coal, Deep Status: Ceased	Type: Working is wholly underground, access by shaft, adit or drift. Working may be termed Colliery, Mine, Drift Mine, Slant, Level, Adit or Ingoing Eye (Ingaun Ee - Scots) 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
10	448m N	Name: Holywell House Coal Pit Address: Kilnhurst, SWINTON, South Yorkshire Commodity: Coal, Deep Status: Ceased	Type: Working is wholly underground, access by shaft, adit or drift. Working may be termed Colliery, Mine, Drift Mine, Slant, Level, Adit or Ingoing Eye (Ingaun Ee - Scots) Status description: Site which, at date of entry, has ceased to extract minerals. May be considered as Closed by operator. May be considered to have Active, Dormant or Expired planning permissions by Mineral Planning Authority

This data is sourced from the British Geological Survey.

18.2 Surface ground workings

Records within 250m	**73**

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

Features are displayed on the Mining and ground workings map on **page 120 >**

ID	Location	Land Use	Year of mapping	Mapping scale
A	**On site**	**Refuse Heap**	**1967**	**1:10560**
B	**On site**	**Brick Works**	**1948**	**1:10560**
B	**On site**	**Unspecified Ground Workings**	**1948**	**1:10560**
B	**On site**	**Brick Works**	**1948**	**1:10560**
B	**On site**	**Unspecified Ground Workings**	**1948**	**1:10560**
B	**On site**	**Brick Works**	**1951**	**1:10560**
B	**On site**	**Unspecified Pit**	**1951**	**1:10560**
B	**On site**	**Brick Works**	**1938**	**1:10560**
B	**On site**	**Unspecified Pit**	**1938**	**1:10560**
B	**On site**	**Brick Works**	**1901**	**1:10560**
C	**On site**	**Cuttings**	**1938**	**1:10560**
C	**On site**	**Cuttings**	**1901**	**1:10560**
C	**On site**	**Cuttings**	**1948**	**1:10560**
D	**On site**	**Collieries**	**1951**	**1:10560**
E	**On site**	**Unspecified Heap**	**1967**	**1:10560**
E	**On site**	**Refuse Heap**	**1978**	**1:10000**
E	**On site**	**Refuse Heap**	**1984**	**1:10000**
F	39m E	Collieries	1938	1:10560
2	41m NW	Pond	1967	1:10560
B	42m NE	Unspecified Pit	1938	1:10560
B	42m NE	Unspecified Pit	1901	1:10560
G	43m E	Collieries	1948	1:10560
G	43m E	Collieries	1948	1:10560
H	47m E	Refuse Heap	1978	1:10000
F	49m E	Colliery	1901	1:10560
D	54m E	Refuse Heap	1967	1:10560
3	55m E	Refuse Heap	1951	1:10560
I	56m SE	Refuse Heaps	1948	1:10560

ID	Location	Land Use	Year of mapping	Mapping scale
I	56m SE	Refuse Heaps	1948	1:10560
4	64m SE	Refuse Heaps	1951	1:10560
B	66m E	Unspecified Heap	1901	1:10560
J	71m E	Refuse Heap	1938	1:10560
J	96m E	Refuse Heap	1967	1:10560
5	96m N	Pond	1967	1:10560
K	100m N	Pond	1948	1:10560
L	101m N	Unspecified Heap	1978	1:10000
L	101m N	Unspecified Heap	1984	1:10000
K	105m N	Pond	1938	1:10560
K	107m N	Pond	1951	1:10560
M	108m NW	Ponds	1978	1:10000
M	108m NW	Ponds	1984	1:10000
J	112m NE	Refuse Heaps	1948	1:10560
J	112m NE	Refuse Heaps	1948	1:10560
N	156m NW	Unspecified Heap	1978	1:10000
N	156m NW	Unspecified Heap	1984	1:10000
H	162m S	Disused Workings	1984	1:10000
6	164m NE	Pond	1967	1:10560
G	170m E	Reservoir	1938	1:10560
G	170m E	Pond	1901	1:10560
O	171m N	Clay Pit	1978	1:10000
O	171m N	Clay Pit	1984	1:10000
G	172m E	Reservoir	1948	1:10560
7	173m N	Pond	1967	1:10560
G	174m E	Reservoir	1951	1:10560
H	178m S	Refuse Heap	1948	1:10560
P	181m SW	Pond	1978	1:10000

ID	Location	Land Use	Year of mapping	Mapping scale
P	181m SW	Pond	1984	1:10000
Q	186m NE	Unspecified Pit	1951	1:10560
Q	199m NE	Unspecified Pit	1948	1:10560
Q	199m NE	Unspecified Pit	1948	1:10560
Q	202m NE	Unspecified Pit	1967	1:10560
R	202m S	Sewage Works	1938	1:10560
R	202m S	Sewage Works	1938	1:10560
S	204m SE	Refuse Heap	1951	1:10560
T	217m S	Unspecified Pits	1948	1:10560
U	219m E	Unspecified Heap	1901	1:10560
T	219m S	Unspecified Ground Workings	1938	1:10560
T	219m S	Unspecified Ground Workings	1938	1:10560
H	219m S	Refuse Heap	1967	1:10560
U	222m E	Refuse Heap	1951	1:10560
Q	228m NE	Pond	1967	1:10560
F	229m E	Colliery	1984	1:10000
V	236m NE	Unspecified Heap	1967	1:10560

This is data is sourced from Ordnance Survey/Groundsure.

18.3 Underground workings

Records within 1000m	**25**

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

Features are displayed on the Mining and ground workings map on **page 120 >**

ID	Location	Land Use	Year of mapping	Mapping scale
F	39m E	Collieries	1938	1:10560
F	49m E	Colliery	1901	1:10560
F	229m E	Colliery	1984	1:10000

ID	Location	Land Use	Year of mapping	Mapping scale
AO	613m N	Unspecified Old Shafts	1938	1:10560
AO	613m N	Unspecified Old Shafts	1901	1:10560
AO	613m N	Unspecified Disused Shafts	1967	1:10560
AO	613m N	Unspecified Disused Shafts	1978	1:10000
AO	616m N	Unspecified Old Shafts	1951	1:10000
AO	625m N	Unspecified Disused Shafts	1967	1:10560
AO	625m N	Unspecified Disused Shafts	1978	1:10000
AO	626m N	Unspecified Old Shafts	1938	1:10560
AO	626m N	Unspecified Old Shafts	1901	1:10560
AO	628m N	Unspecified Old Shafts	1951	1:10000
-	878m N	Unspecified Old Shafts	1938	1:10560
-	878m N	Unspecified Old Shafts	1901	1:10560
-	882m N	Unspecified Disused Shafts	1967	1:10560
-	882m N	Unspecified Disused Shafts	1978	1:10000
-	882m N	Unspecified Disused Shafts	1984	1:10000
-	882m N	Unspecified Old Shafts	1951	1:10000
-	907m N	Unspecified Old Shafts	1938	1:10560
-	907m N	Unspecified Old Shafts	1901	1:10560
-	910m N	Unspecified Disused Shafts	1967	1:10560
-	910m N	Unspecified Disused Shafts	1978	1:10000
-	910m N	Unspecified Disused Shafts	1984	1:10000
-	911m N	Unspecified Old Shafts	1951	1:10000

This is data is sourced from Ordnance Survey/Groundsure.

18.4 Underground mining extents

Records within 500m	0

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

This data is sourced from Groundsure.

18.5 Historical Mineral Planning Areas

Records within 500m	1

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.

Features are displayed on the Mining and ground workings map on **page 120 >**

ID	Location	Site Name	Mineral	Type	Planning Status	Planning Status Date
1	9m NW	Kilnhurst	Clay	Surface mineral working	Valid	Not available

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 JPB mining areas

Records on site	0

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

This data is sourced from Johnson Poole and Bloomer.

18.8 The Coal Authority non-coal mining

Records within 500m	0

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

This data is sourced from The Coal Authority.

18.9 Researched mining

Records within 500m	0

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

This data is sourced from Groundsure.

18.10 Mining record office plans

Records within 500m	0

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

This data is sourced from Groundsure.

18.11 BGS mine plans

Records within 500m	0

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

This data is sourced from Groundsure.

18.12 Coal mining

Records on site	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.

18.13 Brine areas

Records on site	0

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

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

18.14 Gypsum areas

Records on site	0

Generalised areas that may be affected by gypsum extraction.

This data is sourced from British Gypsum.

18.15 Tin mining

Records on site	0

Generalised areas that may be affected by historical tin mining.

This data is sourced from Groundsure.

18.16 Clay mining

Records on site	0

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

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

19 Ground cavities and sinkholes

19.1 Natural cavities

Records within 500m	0

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

This data is sourced from Stantec UK Ltd.

19.2 Mining cavities

Records within 1000m	0

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

This data is sourced from Stantec UK Ltd.

19.3 Reported recent incidents

Records within 500m	0

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

This data is sourced from Groundsure.

19.4 Historical incidents

Records within 500m	0

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

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

This data is sourced from Groundsure.

19.5 National karst database

Records within 500m	0

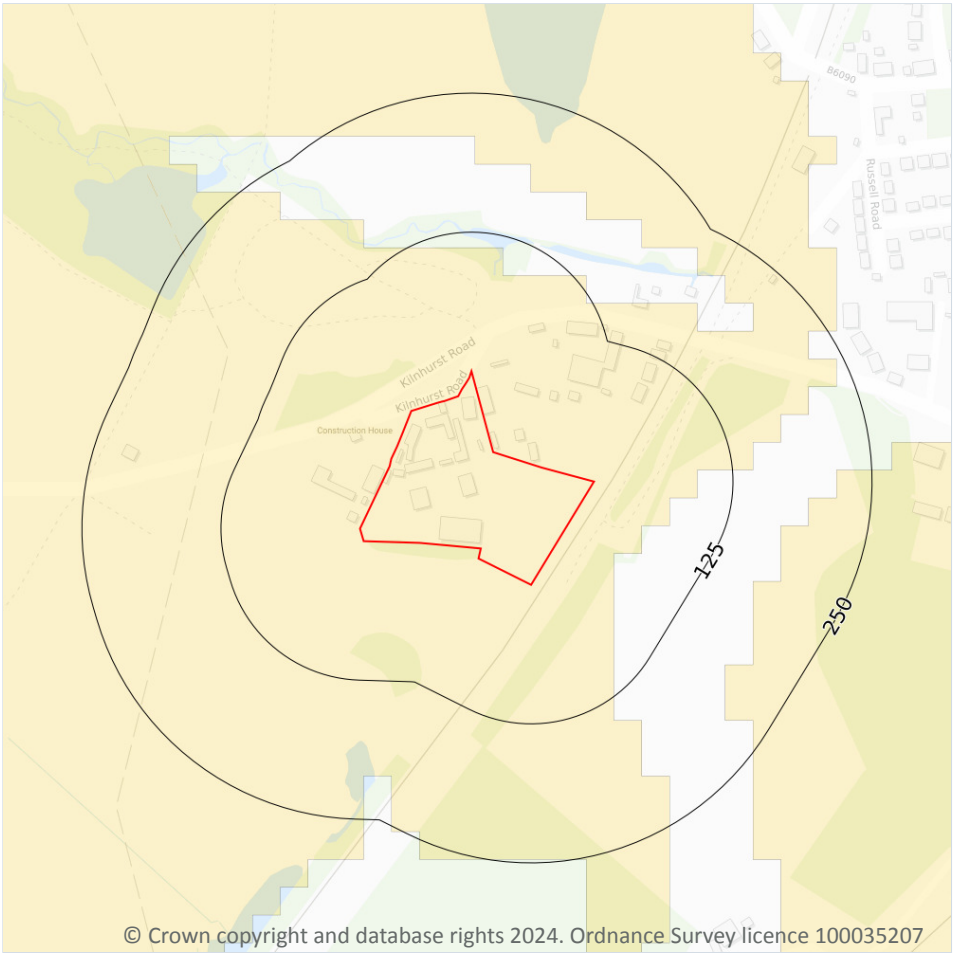
This is a comprehensive database of national karst information gathered from a wide range of sources. BGS have collected data on five main types of karst feature: Sinkholes, stream links, caves, springs, and incidences of associated damage to buildings, roads, bridges and other engineered works.

Since the database was set up in 2002 data covering most of the evaporite karst areas of the UK have now been added, along with data covering about 60% of the Chalk, and 35% of the Carboniferous Limestone outcrops. Many of the classic upland karst areas have yet to be included. Recorded so far are: Over 800 caves, 1300 stream sinks, 5600 springs, 10,000 sinkholes.

The database is not yet complete, and not all records have been verified. The absence of data does not mean that karst features are not present at a site. A reliability rating is included with each record.

This data is sourced from the British Geological Survey.

20 Radon



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%

20.1 Radon

Records on site	1

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

Features are displayed on the Radon map on **page 132 >**

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

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

21 Soil chemistry

21.1 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**	**90 - 120 mg/kg**	**15 - 30 mg/kg**
On site	**15 mg/kg**	**No data**	**100 - 200 mg/kg**	**60 - 120 mg/kg**	**1.8 mg/kg**	**90 - 120 mg/kg**	**15 - 30 mg/kg**
On site	**15 mg/kg**	**No data**	**100 - 200 mg/kg**	**60 - 120 mg/kg**	**1.8 mg/kg**	**90 - 120 mg/kg**	**15 - 30 mg/kg**
37m SE	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

This data is sourced from the British Geological Survey.

21.2 BGS Estimated Urban Soil Chemistry

Records within 50m	0

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

This data is sourced from the British Geological Survey.

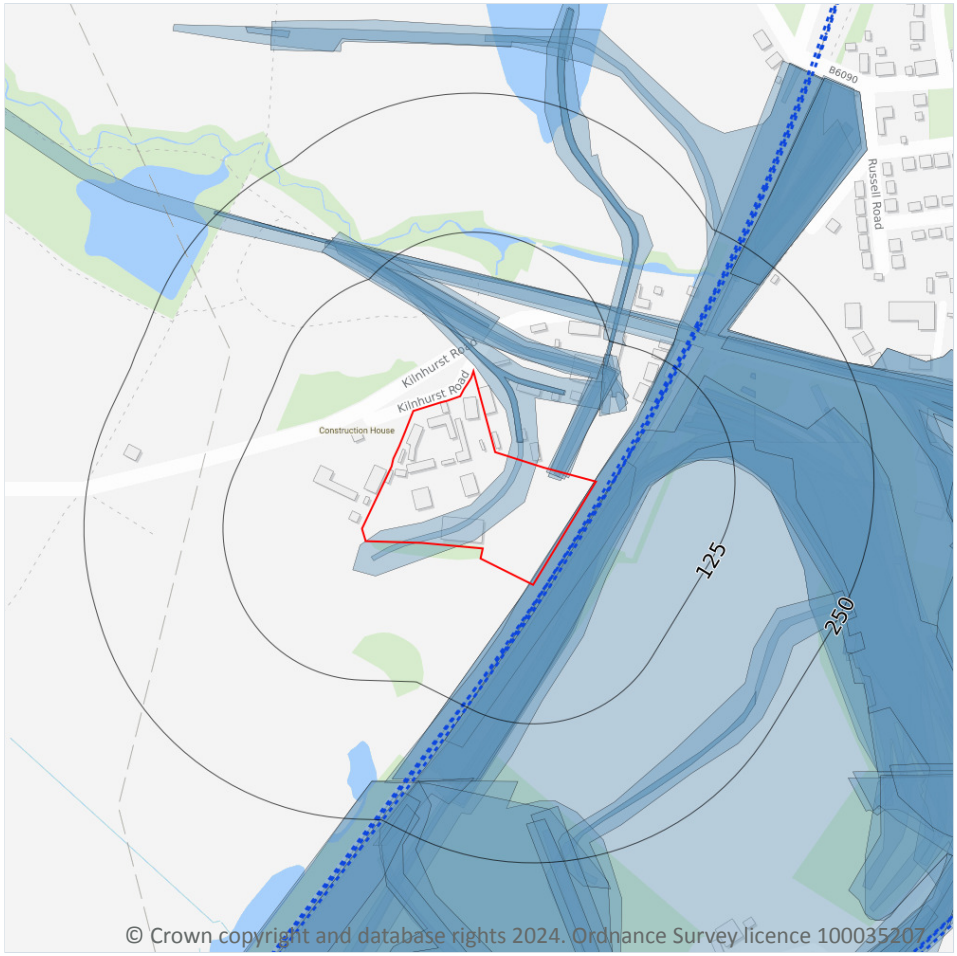
21.3 BGS Measured Urban Soil Chemistry

Records within 50m	0

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

This data is sourced from the British Geological Survey.

22 Railway infrastructure and projects



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

22.1 Underground railways (London)

Records within 250m	0

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

This data is sourced from publicly available information by Groundsure.

22.2 Underground railways (Non-London)

Records within 250m	0

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

This data is sourced from publicly available information by Groundsure.

22.3 Railway tunnels

Records within 250m	0

Railway tunnels taken from contemporary Ordnance Survey mapping.

This data is sourced from the Ordnance Survey.

22.4 Historical railway and tunnel features

Records within 250m	73

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 136 >**

Location	Land Use	Year of mapping	Mapping scale
On site	**Railway Sidings**	**1960**	**2500**
On site	**Railway Sidings**	**1930**	**2500**
On site	**Railway Sidings**	**1938**	**10560**
On site	**Railway Sidings**	**1901**	**10560**
On site	**Railway Sidings**	**1951**	**10560**
On site	**Railway Sidings**	**1967**	**10560**
On site	**Tramway Sidings**	**1948**	**10560**
On site	**Railway Sidings**	**1948**	**10560**
11m N	Railway Sidings	1957	1250
11m SE	Railway Sidings	1984	10000
12m N	Railway Sidings	1968	2500
12m N	Railway Sidings	1958	2500
13m E	Tramway Sidings	1892	2500
14m SE	Railway Sidings	1967	10560
14m SE	Tramway Sidings	1903	2500
16m SE	Railway Sidings	1930	2500
17m E	Railway Sidings	1970	2500

Location	Land Use	Year of mapping	Mapping scale
26m N	Tramway Sidings	1938	10560
28m E	Railway Sidings	1960	2500
34m N	Tramway Sidings	1930	2500
58m NE	Railway Sidings	1901	10560
61m NE	Railway Sidings	1903	2500
77m NE	Railway Sidings	1892	2500
91m E	Railway Sidings	1968	2500
91m E	Railway Sidings	1958	2500
93m E	Railway Sidings	1957	1250
95m NE	Railway Sidings	1968	2500
95m NE	Railway Sidings	1958	2500
95m NE	Railway Sidings	1957	1250
121m NE	Railway Sidings	1967	10560
125m NE	Railway Sidings	1957	1250
147m E	Railway Sidings	1959	2500
148m E	Railway Sidings	1959	2500
148m E	Railway Sidings	1957	1250
151m E	Railway Sidings	1957	1250
154m E	Railway Sidings	1968	2500
154m E	Railway Sidings	1958	2500
154m E	Railway Sidings	1957	1250
156m E	Railway Sidings	1957	1250
157m E	Railway Sidings	1959	2500
167m NE	Railway Sidings	1993	1250
168m E	Railway Sidings	1968	2500
168m E	Railway Sidings	1958	2500
168m E	Railway Sidings	1957	1250
169m NE	Railway Sidings	1892	2500

Location	Land Use	Year of mapping	Mapping scale
177m S	Railway Sidings	1948	10560
182m S	Railway Sidings	1901	10560
186m NE	Railway Sidings	1959	2500
186m NE	Railway Sidings	1957	1250
187m S	Railway Sidings	1903	2500
188m S	Railway Sidings	1935	2500
194m S	Railway Sidings	1938	10560
195m SE	Railway Sidings	1967	10560
200m S	Railway Sidings	1921	10560
202m S	Railway Sidings	1903	2500
203m E	Railway Sidings	1957	1250
204m E	Railway Sidings	1959	2500
207m SE	Railway Sidings	1959	2500
208m SE	Railway Sidings	1960	2500
208m SE	Railway Sidings	1970	2500
211m S	Railway Sidings	1924	10560
215m E	Railway Sidings	1957	1250
215m E	Railway Sidings	1959	2500
219m S	Railway Sidings	1978	10000
220m NE	Railway Sidings	1903	2500
220m S	Railway Sidings	1935	2500
222m NE	Railway Sidings	1930	2500
223m NE	Railway Sidings	1967	10560
223m NE	Railway Sidings	1978	10000
246m NE	Railway Sidings	1903	2500
246m NE	Railway Sidings	1957	1250
246m NE	Railway Sidings	1973	1250
246m NE	Railway Sidings	1959	2500

This data is sourced from Ordnance Survey/Groundsure.

22.5 Royal Mail tunnels

Records within 250m	0

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

This data is sourced from Groundsure/the Postal Museum.

22.6 Historical railways

Records within 250m	0

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

This data is sourced from OpenStreetMap.

22.7 Railways

Records within 250m	12

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 136 >**

Location	Name	Type
10m SE	Tapton Junction (Chesterfield) to Colne	rail
10m SE	Not given	Multi Track
13m SE	Tapton Junction (Chesterfield) to Colne	rail
17m E	Not given	Multi Track
42m E	Not given	Multi Track
51m E	Not given	Multi Track
64m S	Not given	Multi Track
86m NE	Not given	Multi Track
148m NE	Tapton Junction (Chesterfield) to Colne	rail
148m NE	Tapton Junction (Chesterfield) to Colne	rail
166m NE	Tapton Junction (Chesterfield) to Colne	rail
167m NE	Tapton Junction (Chesterfield) to Colne	rail

This data is sourced from Ordnance Survey and OpenStreetMap.

22.8 Crossrail 1

Records within 500m	0

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

This data is sourced from publicly available information by Groundsure.

22.9 Crossrail 2

Records within 500m	0

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

This data is sourced from publicly available information by Groundsure.

22.10 HS2

Records within 500m	0

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

This data is sourced from HS2 ltd.

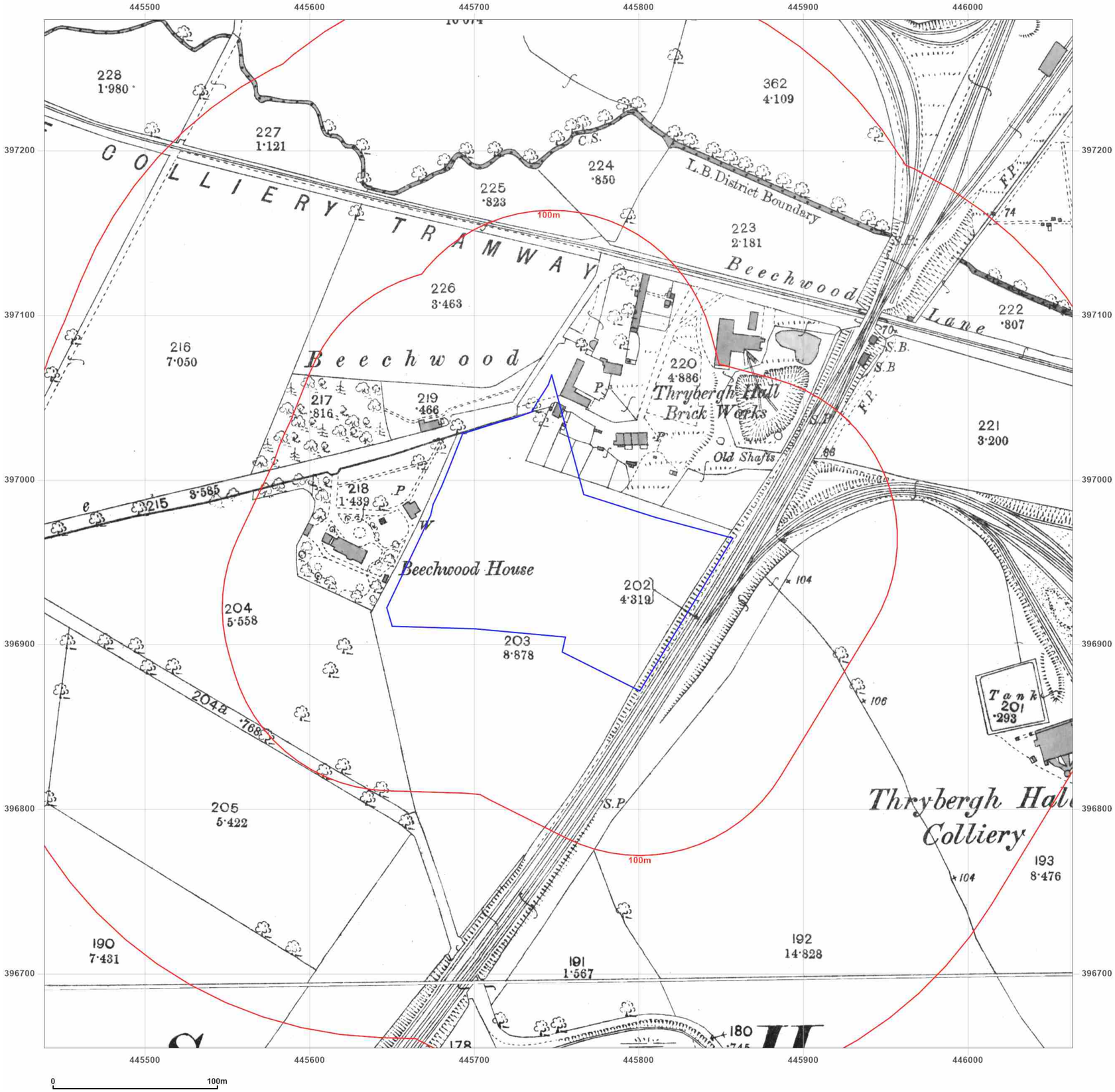
Data providers

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

Terms and conditions

Groundsure's Terms and Conditions can be accessed at this link: www.groundsure.com/terms-and-conditions-april-2023/ ↗.

Annex C Historical Mapping



Groundsure INSIGHTS

Site Details:

M L B AUTOSPARES LTD, ADJ BRICKEYARD, KILNHURST ROAD, RAWMARSH, ROTHERHAM, S64 5TL

Client Ref: MLB_Autospares_Ltd
Report Ref: GS-CBE-K8T-KAP-8KG
Grid Ref: 445751, 396967

Map Name: County Series

Map date: **1892**

Scale: 1:2,500

Printed at: 1:2,500

N
W E
S

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

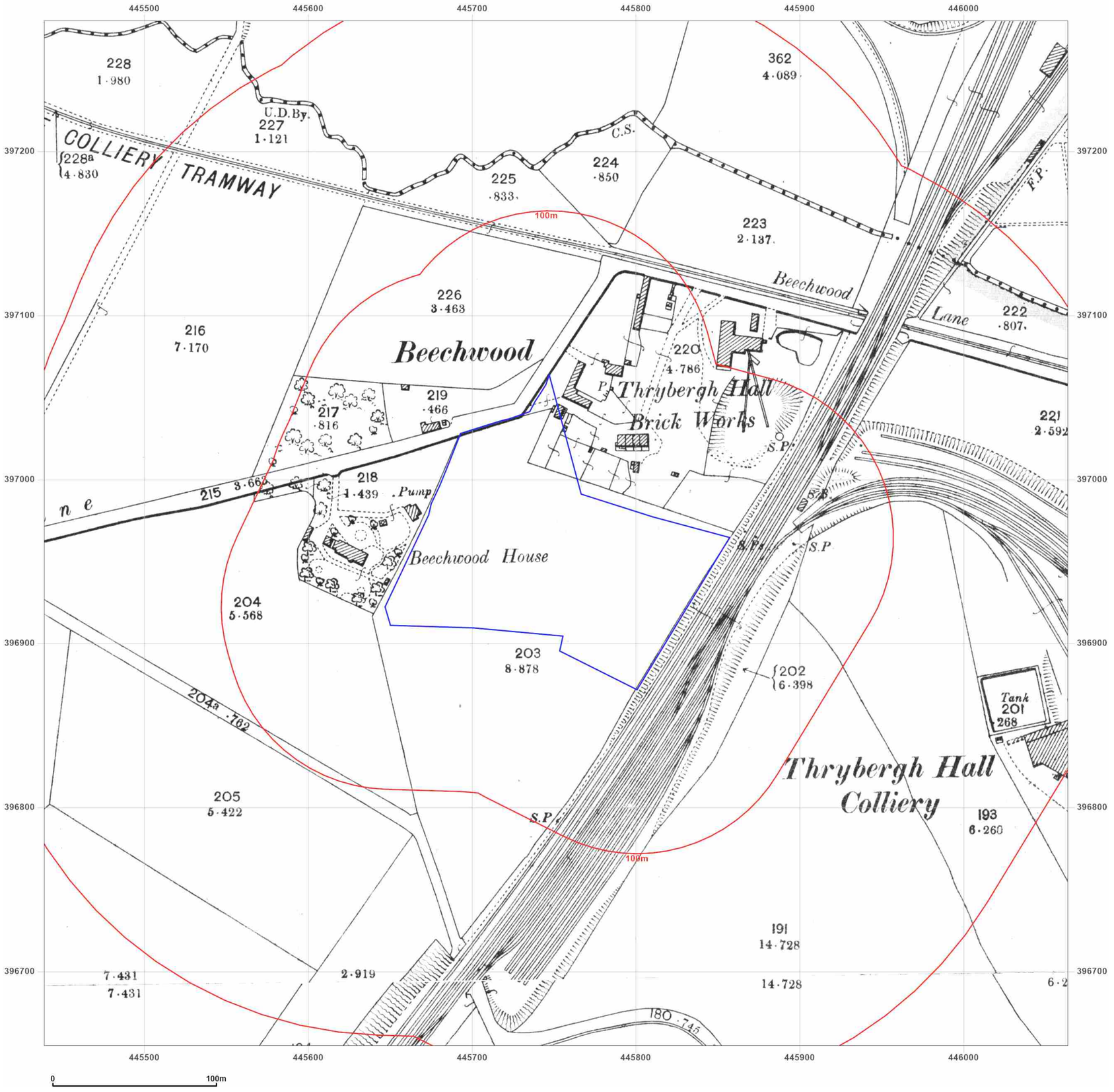
Surveyed 1892
Revised 1892
Edition N/A
Copyright N/A
Levelled N/A

Powered by OS

Produced by
Groundsure Insights
T: 08444 159000
E: info@groundsure.com
W: www.groundsure.com

Production date: 22 October 2024

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



Groundsure INSIGHTS

Site Details:

M L B AUTOSPARES LTD, ADJ BRICKEYARD, KILNHURST ROAD, RAWMARSH, ROTHERHAM, S64 5TL

Client Ref: MLB_Autospares_Ltd
Report Ref: GS-CBE-K8T-KAP-8KG
Grid Ref: 445751, 396967

Map Name: County Series

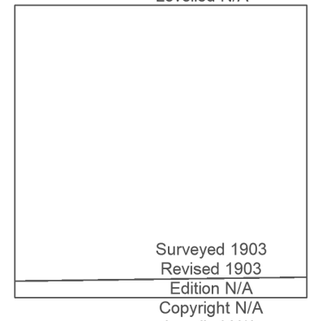
Map date: **1903**

Scale: 1:2,500

Printed at: 1:2,500

N
W E
S

Surveyed 1903
Revised 1903
Edition N/A
Copyright N/A
Levelled N/A



Powered by OS

Produced by
Groundsure Insights
T: 08444 159000
E: info@groundsure.com
W: www.groundsure.com

Production date: 22 October 2024

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

Groundsure INSIGHTS

Site Details:

M L B AUTOSPARES LTD, ADJ BRICKEYARD, KILNHURST ROAD, RAWMARSH, ROTHERHAM, S64 5TL

Client Ref: MLB_Autospares_Ltd
Report Ref: GS-CBE-K8T-KAP-8KG
Grid Ref: 445751, 396967

Map Name: County Series

Map date: **1930-1935**

Scale: 1:2,500

Printed at: 1:2,500

N
W E
S

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

Surveyed 1935
Revised 1935
Edition N/A
Copyright N/A
Levelled N/A

Powered by OS

Produced by
Groundsure Insights
T: 08444 159000
E: info@groundsure.com
W: www.groundsure.com

Production date: 22 October 2024

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

Groundsure INSIGHTS

Site Details:

M L B AUTOSPARES LTD, ADJ BRICKEYARD, KILNHURST ROAD, RAWMARSH, ROTHERHAM, S64 5TL

Client Ref: MLB_Autospares_Ltd
Report Ref: GS-CBE-K8T-KAP-8KG
Grid Ref: 445751, 396967

Map Name: National Grid

Map date: **1957**

Scale: 1:1,250

Printed at: 1:2,000

N
W E
S

Surveyed 1957
Revised 1957
Edition N/A
Copyright N/A
Levelled 1928

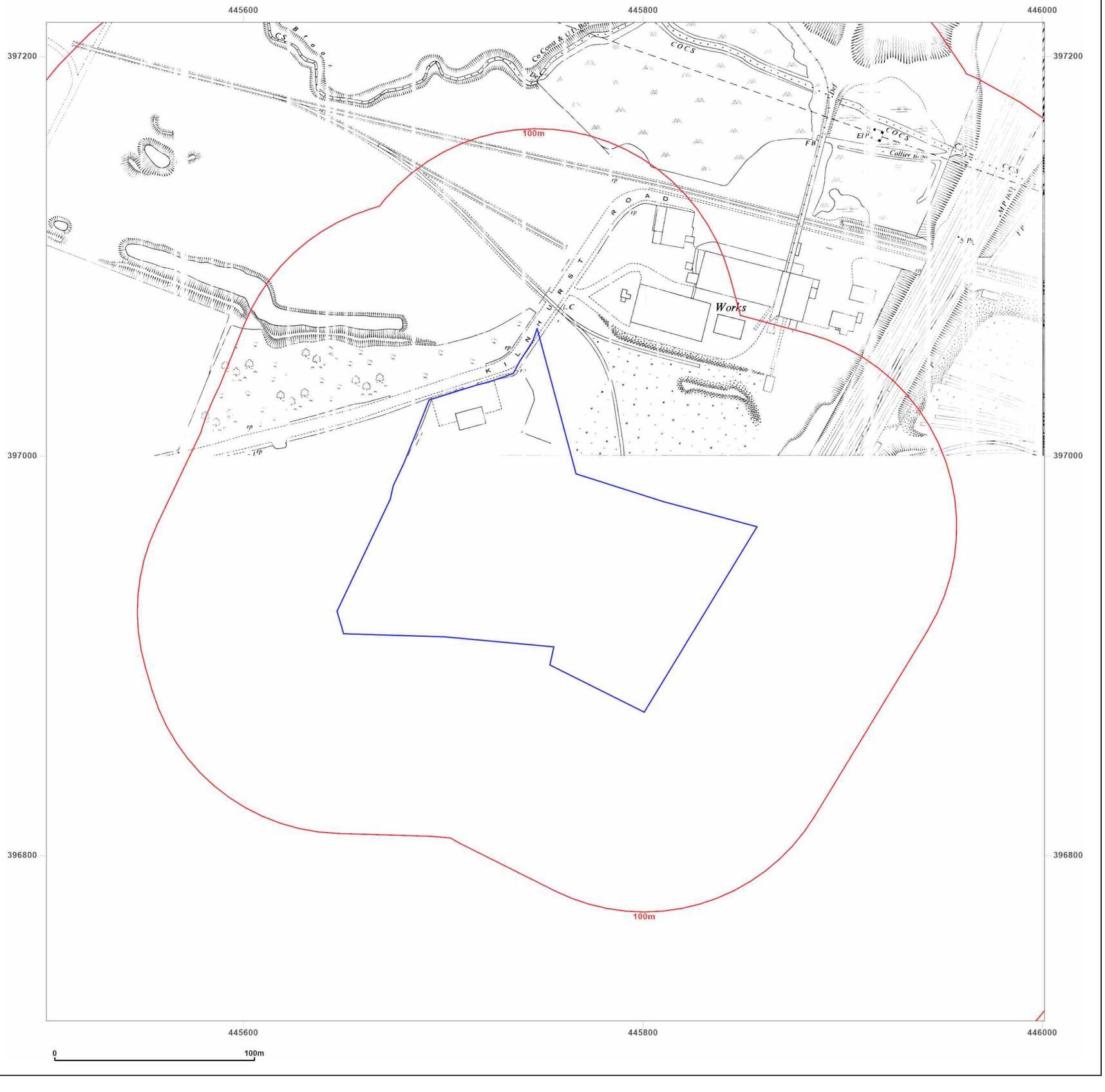
Surveyed 1957
Revised 1957
Edition N/A
Copyright N/A
Levelled 1928

Powered by OS

Produced by
Groundsure Insights
T: 08444 159000
E: info@groundsure.com
W: www.groundsure.com

Production date: 22 October 2024

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



Groundsure INSIGHTS

Site Details:

M L B AUTOSPARES LTD, ADJ BRICKEYARD, KILNHURST ROAD, RAWMARSH, ROTHERHAM, S64 5TL

Client Ref: MLB_Autospares_Ltd
Report Ref: GS-CBE-K8T-KAP-8KG
Grid Ref: 445751, 396967

Map Name: National Grid

Map date: **1958**

Scale: 1:1,250

Printed at: 1:2,000

N
W E
S

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

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

Powered by OS

Produced by
Groundsure Insights
T: 08444 159000
E: info@groundsure.com
W: www.groundsure.com

Production date: 22 October 2024

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

Groundsure INSIGHTS

Site Details:

M L B AUTOSPARES LTD, ADJ BRICKEYARD, KILNHURST ROAD, RAWMARSH, ROTHERHAM, S64 5TL

Client Ref: MLB_Autospares_Ltd
Report Ref: GS-CBE-K8T-KAP-8KG
Grid Ref: 445751, 396967

Map Name: National Grid

Map date: **1958-1960**

Scale: 1:2,500

Printed at: 1:2,500

N
W E
S

Surveyed 1957
Revised 1957
Edition 1958
Copyright N/A
Levelled 1928

Surveyed 1957
Revised 1957
Edition 1959
Copyright 1959
Levelled 1928

Surveyed 1958
Revised 1958
Edition 1960
Copyright 1960
Levelled 1928

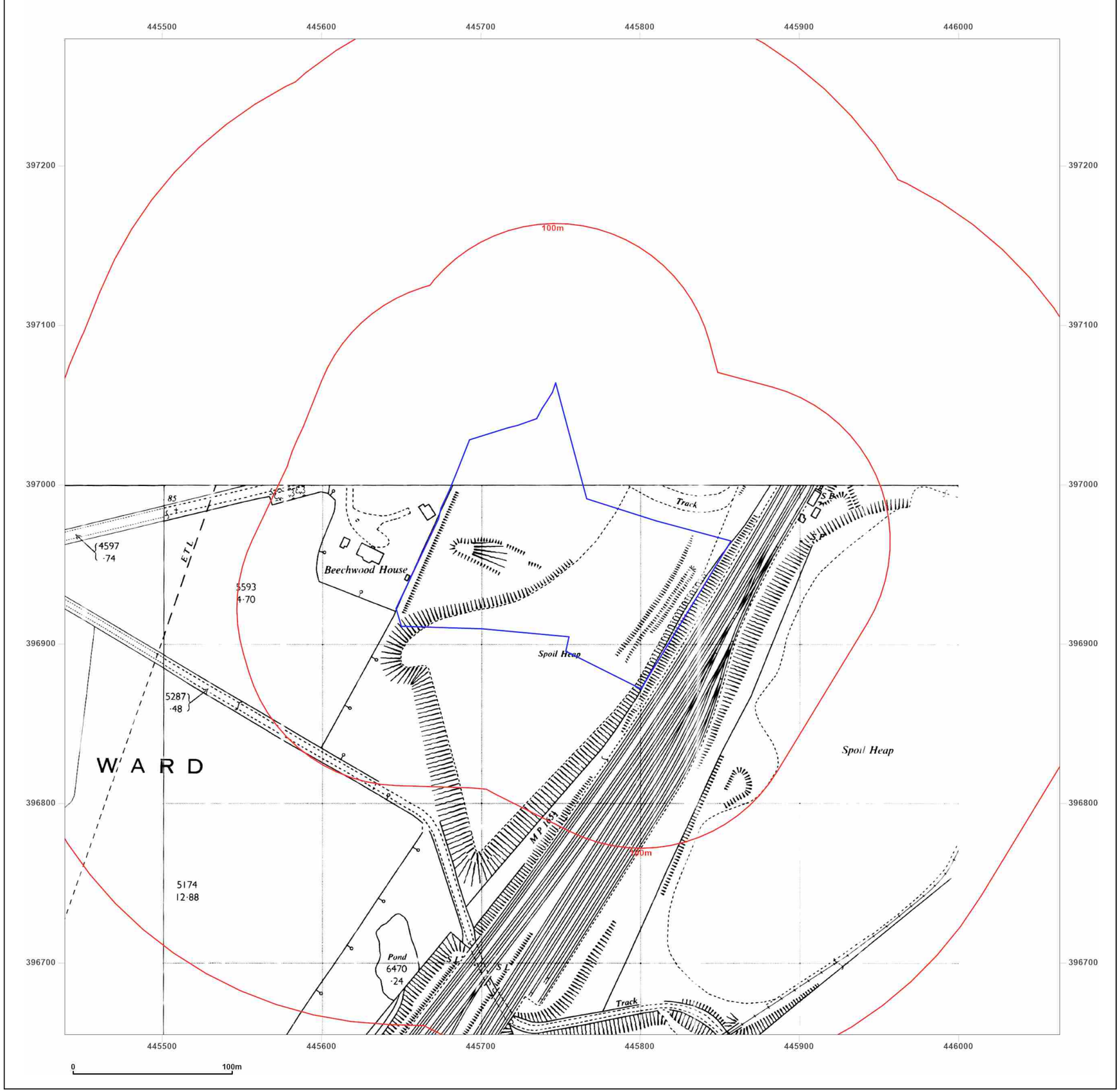
Surveyed 1958
Revised 1958
Edition N/A
Copyright 1959
Levelled 1928

Powered by OS

Produced by
Groundsure Insights
T: 08444 159000
E: info@groundsure.com
W: www.groundsure.com

Production date: 22 October 2024

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



Groundsure INSIGHTS

Site Details:

M L B AUTOSPARES LTD, ADJ BRICKEYARD, KILNHURST ROAD, RAWMARSH, ROTHERHAM, S64 5TL

Client Ref: MLB_Autospares_Ltd
Report Ref: GS-CBE-K8T-KAP-8KG
Grid Ref: 445751, 396967

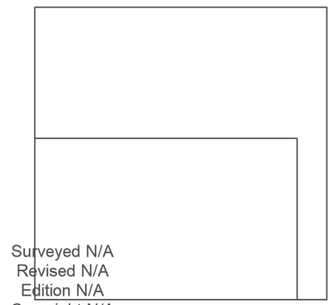
Map Name: National Grid

Map date: **1970**

Scale: 1:2,500

Printed at: 1:2,500

N
W E
S

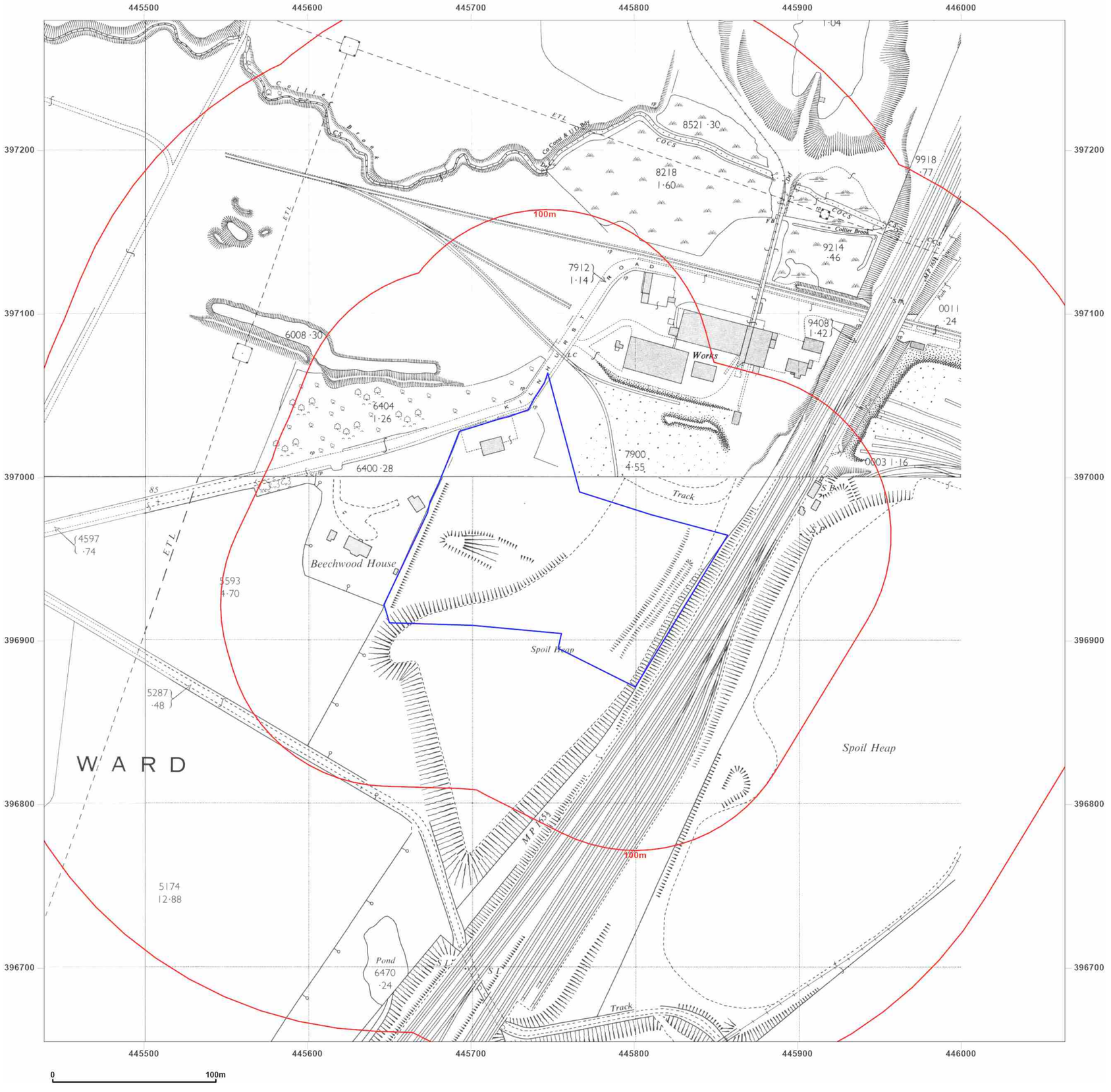


Powered by OS

Produced by
Groundsure Insights
T: 08444 159000
E: info@groundsure.com
W: www.groundsure.com

Production date: 22 October 2024

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



Groundsure INSIGHTS

Site Details:

M L B AUTOSPARES LTD, ADJ BRICKEYARD, KILNHURST ROAD, RAWMARSH, ROTHERHAM, S64 5TL

Client Ref: MLB_Autospares_Ltd
Report Ref: GS-CBE-K8T-KAP-8KG
Grid Ref: 445751, 396967

Map Name: National Grid

Map date: **1968-1970**

Scale: 1:2,500

Printed at: 1:2,500

N
W E
S

Surveyed 1967
Revised 1967
Edition N/A
Copyright 1968
Levelled 1963

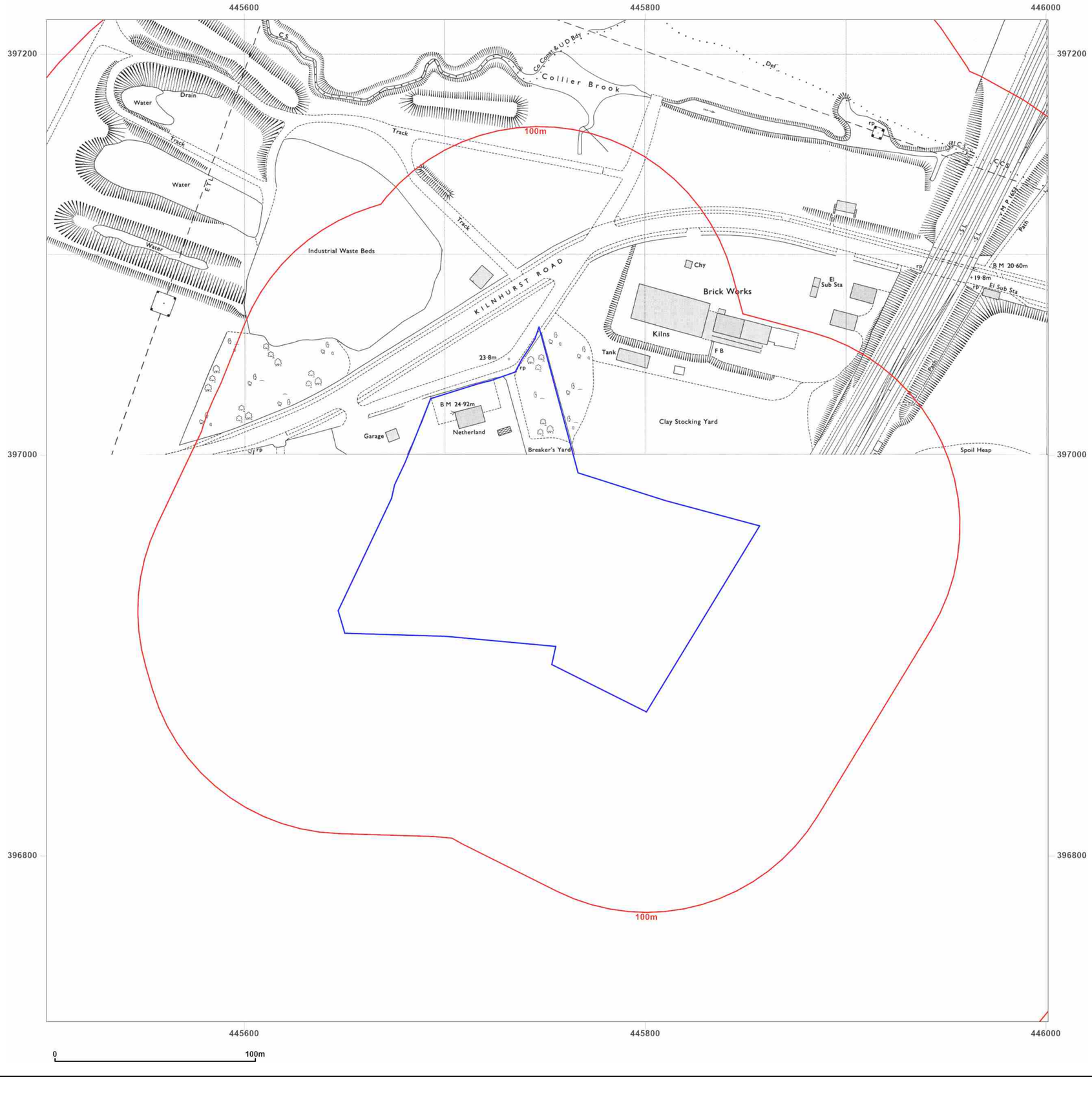
Surveyed 1968
Revised 1968
Edition N/A
Copyright 1970
Levelled 1963

Powered by OS

Produced by
Groundsure Insights
T: 08444 159000
E: info@groundsure.com
W: www.groundsure.com

Production date: 22 October 2024

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



Groundsure INSIGHTS

Site Details:

M L B AUTOSPARES LTD, ADJ BRICKEYARD, KILNHURST ROAD, RAWMARSH, ROTHERHAM, S64 5TL

Client Ref: MLB_Autospares_Ltd
Report Ref: GS-CBE-K8T-KAP-8KG
Grid Ref: 445751, 396967

Map Name: National Grid

Map date: **1972-1973**

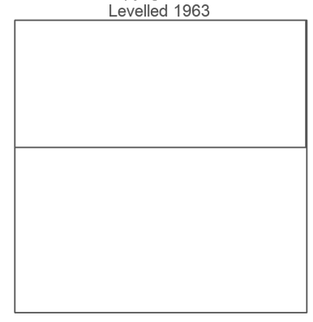
Scale: 1:1,250

Printed at: 1:2,000

N
W E
S

Surveyed 1957
Revised 1972
Edition N/A
Copyright 1972
Levelled 1963

Surveyed 1957
Revised 1972
Edition N/A
Copyright 1973
Levelled 1963

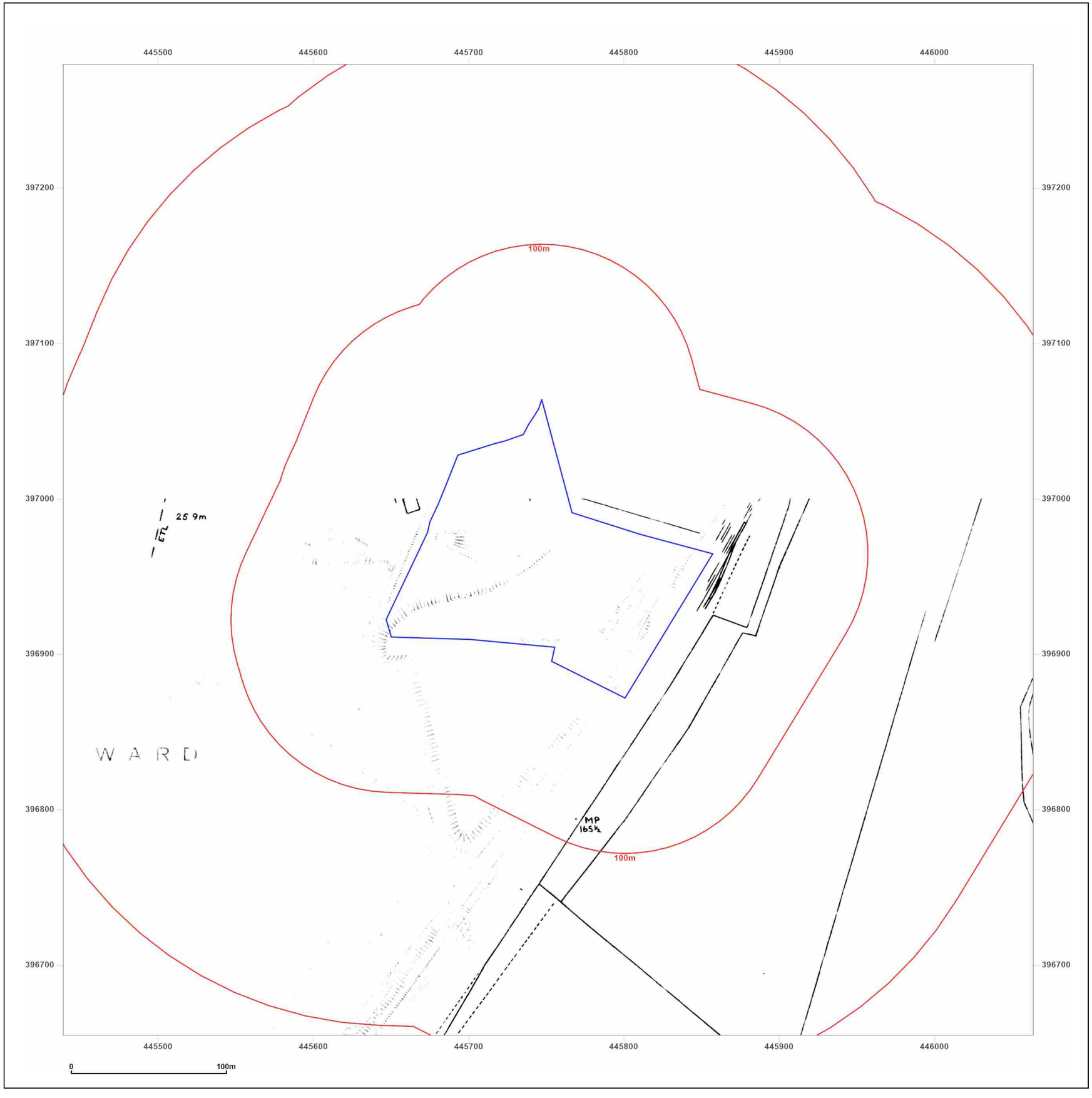


Powered by OS

Produced by
Groundsure Insights
T: 08444 159000
E: info@groundsure.com
W: www.groundsure.com

Production date: 22 October 2024

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



Groundsure INSIGHTS

Site Details:

M L B AUTOSPARES LTD, ADJ BRICKEYARD, KILNHURST ROAD, RAWMARSH, ROTHERHAM, S64 5TL

Client Ref: MLB_Autospares_Ltd
Report Ref: GS-CBE-K8T-KAP-8KG
Grid Ref: 445751, 396967

Map Name: National Grid

Map date: **1983-1986**

Scale: 1:2,500

Printed at: 1:2,500

N
W E
S

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

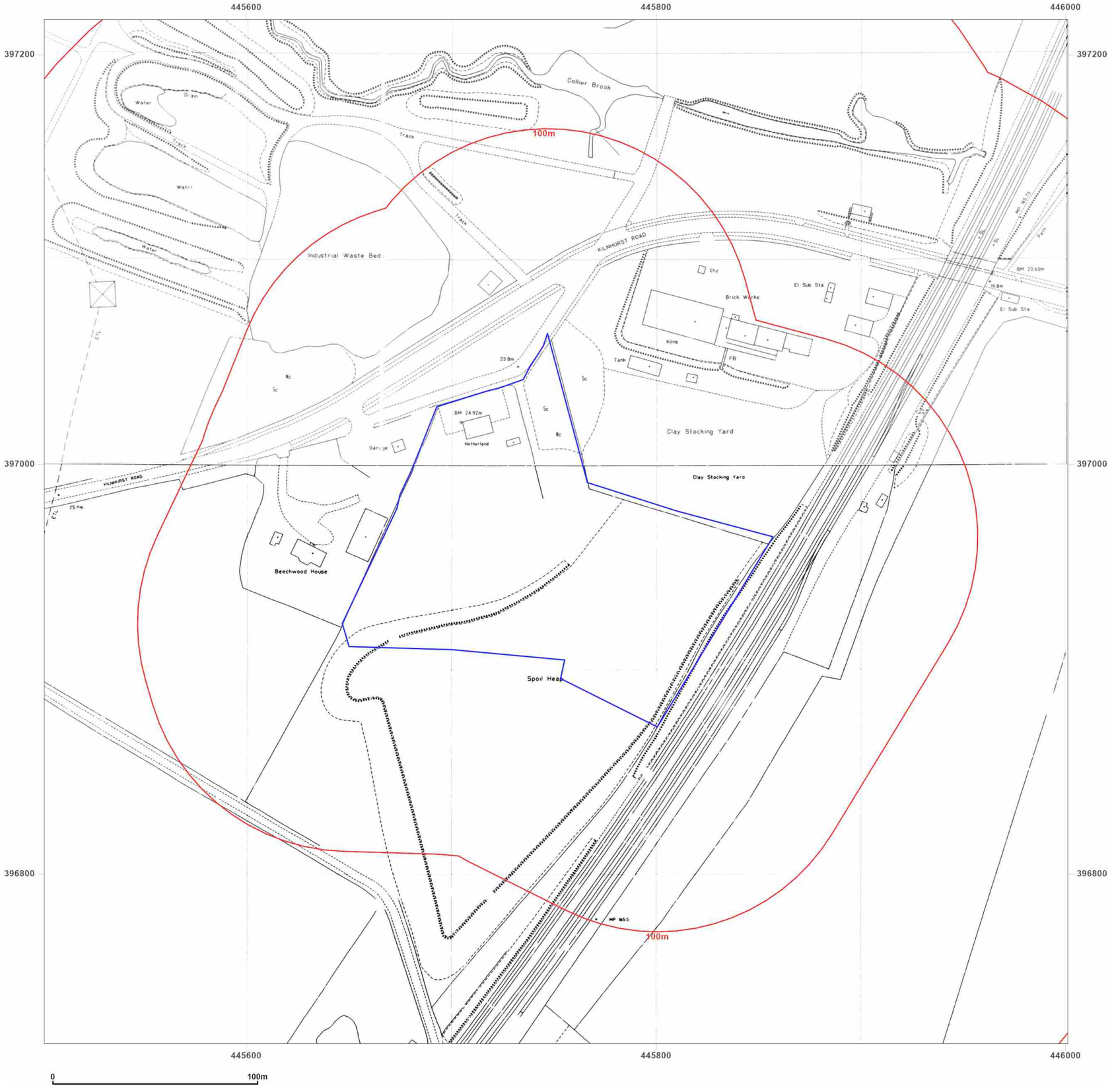
Surveyed N/A
Revised N/A
Edition N/A
Copyright N/A
Levelled N/A

Powered by OS

Produced by
Groundsure Insights
T: 08444 159000
E: info@groundsure.com
W: www.groundsure.com

Production date: 22 October 2024

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



Groundsure INSIGHTS

Site Details:

M L B AUTOSPARES LTD, ADJ BRICKEYARD, KILNHURST ROAD, RAWMARSH, ROTHERHAM, S64 5TL

Client Ref: MLB_Autospares_Ltd
Report Ref: GS-CBE-K8T-KAP-8KG
Grid Ref: 445751, 396967

Map Name: National Grid

Map date: **1993**

Scale: 1:1,250

Printed at: 1:2,000

N
W E
S

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

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

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

Powered by

Produced by
Groundsure Insights
T: 08444 159000
E: info@groundsure.com
W: www.groundsure.com

Production date: 22 October 2024

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

Groundsure INSIGHTS

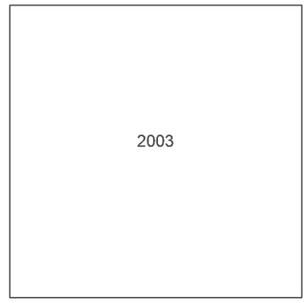
Site Details:

M L B AUTOSPARES LTD, ADJ BRICKEYARD, KILNHURST ROAD, RAWMARSH, ROTHERHAM, S64 5TL

Client Ref: MLB_Autospares_Ltd
Report Ref: GS-CBE-K8T-KAP-8KG
Grid Ref: 445751, 396967

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

N
W E
S

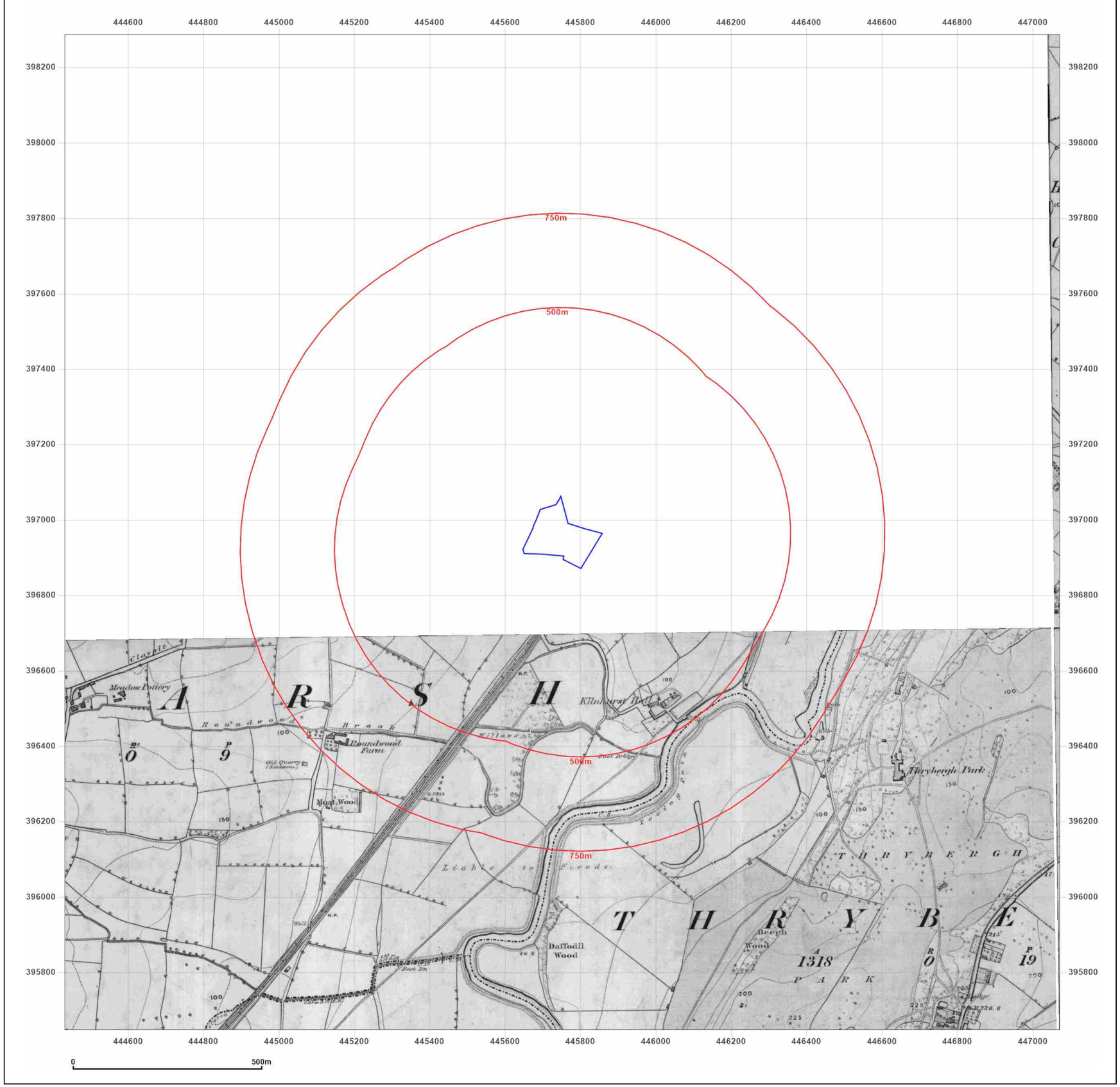


Powered by OS

Produced by
Groundsure Insights
T: 08444 159000
E: info@groundsure.com
W: www.groundsure.com

Production date: 22 October 2024

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



Groundsure INSIGHTS

Site Details:

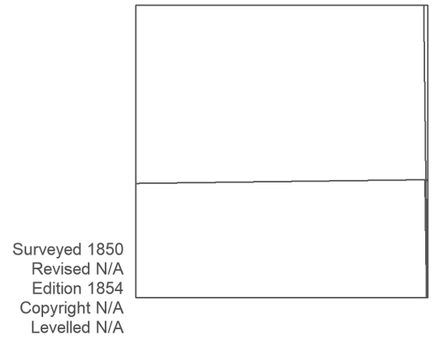
M L B AUTOSPARES LTD, ADJ BRICKEYARD, KILNHURST ROAD, RAWMARSH, ROTHERHAM, S64 5TL

Client Ref: MLB_Autospares_Ltd
Report Ref: GS-CBE-K8T-KAP-8KG
Grid Ref: 445751, 396967

Map Name: County Series
Map date: **1854**
Scale: 1:10,560
Printed at: 1:10,560

N
W E
S

Surveyed 1850
Revised N/A
Edition 1854
Copyright N/A
Levelled N/A



Surveyed 1850
Revised N/A
Edition 1854
Copyright N/A
Levelled N/A

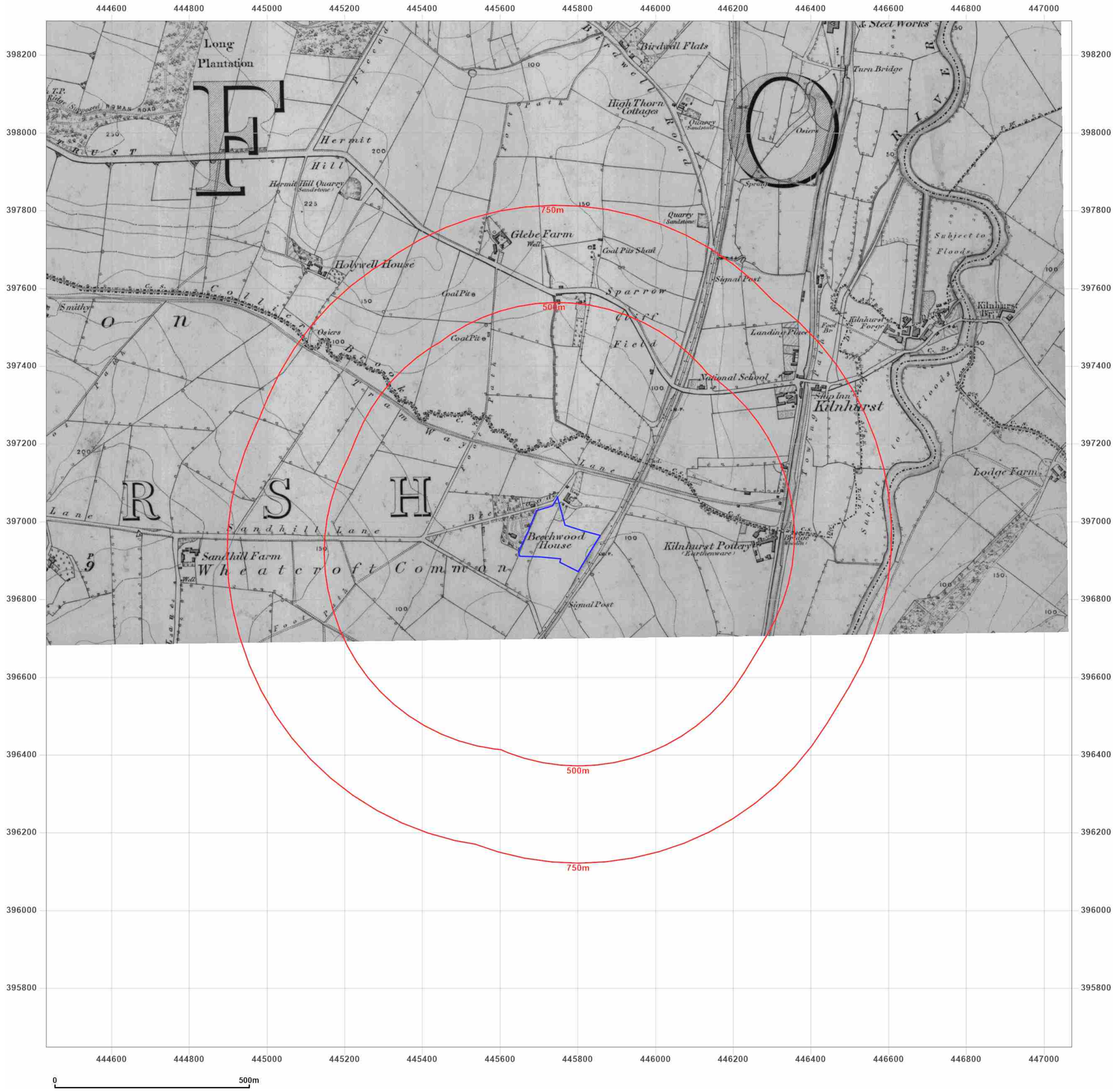
Surveyed 1850
Revised N/A
Edition 1854
Copyright N/A
Levelled N/A

Powered by OS

Produced by
Groundsure Insights
T: 08444 159000
E: info@groundsure.com
W: www.groundsure.com

Production date: 22 October 2024

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



Groundsure INSIGHTS

Site Details:

M L B AUTOSPARES LTD, ADJ BRICKEYARD, KILNHURST ROAD, RAWMARSH, ROTHERHAM, S64 5TL

Client Ref: MLB_Autospares_Ltd
Report Ref: GS-CBE-K8T-KAP-8KG
Grid Ref: 445751, 396967

Map Name: County Series

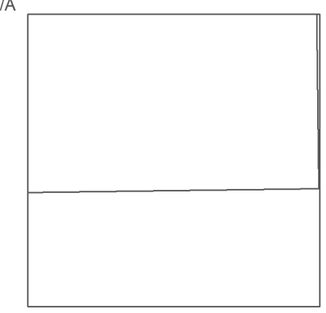
Map date: **1855**

Scale: 1:10,560

Printed at: 1:10,560

N
W E
S

Surveyed 1850
Revised N/A
Edition 1855
Copyright N/A
Levelled N/A

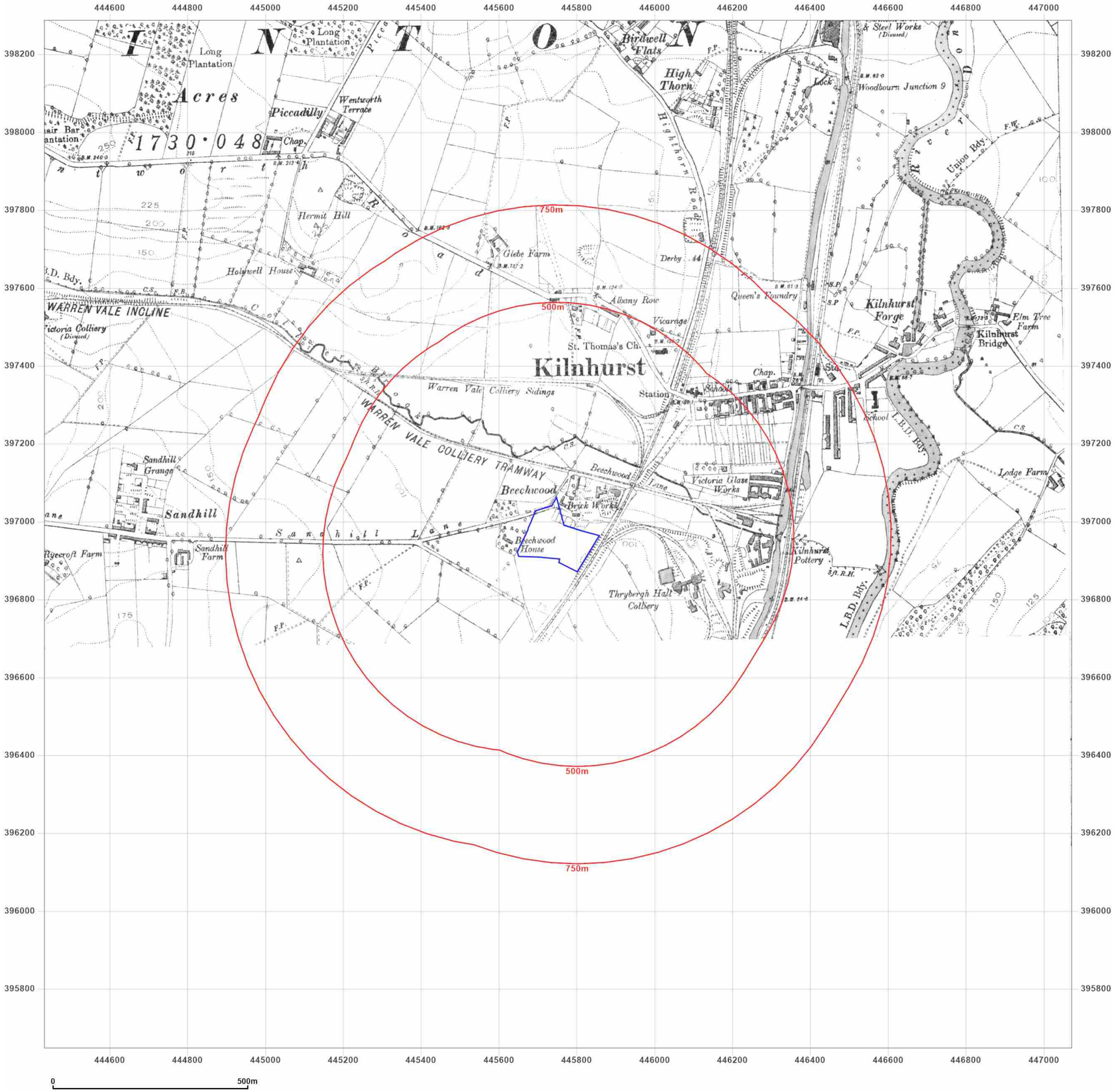


Powered by OS

Produced by
Groundsure Insights
T: 08444 159000
E: info@groundsure.com
W: www.groundsure.com

Production date: 22 October 2024

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



Groundsure INSIGHTS

Site Details:

M L B AUTOSPARES LTD, ADJ BRICKEYARD, KILNHURST ROAD, RAWMARSH, ROTHERHAM, S64 5TL

Client Ref: MLB_Autospares_Ltd
Report Ref: GS-CBE-K8T-KAP-8KG
Grid Ref: 445751, 396967

Map Name: County Series

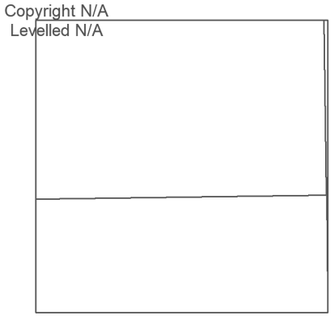
Map date: **1891-1893**

Scale: 1:10,560

Printed at: 1:10,560

N
W E
S

Surveyed 1890
Revised N/A
Edition 1893
Copyright N/A
Levelled N/A



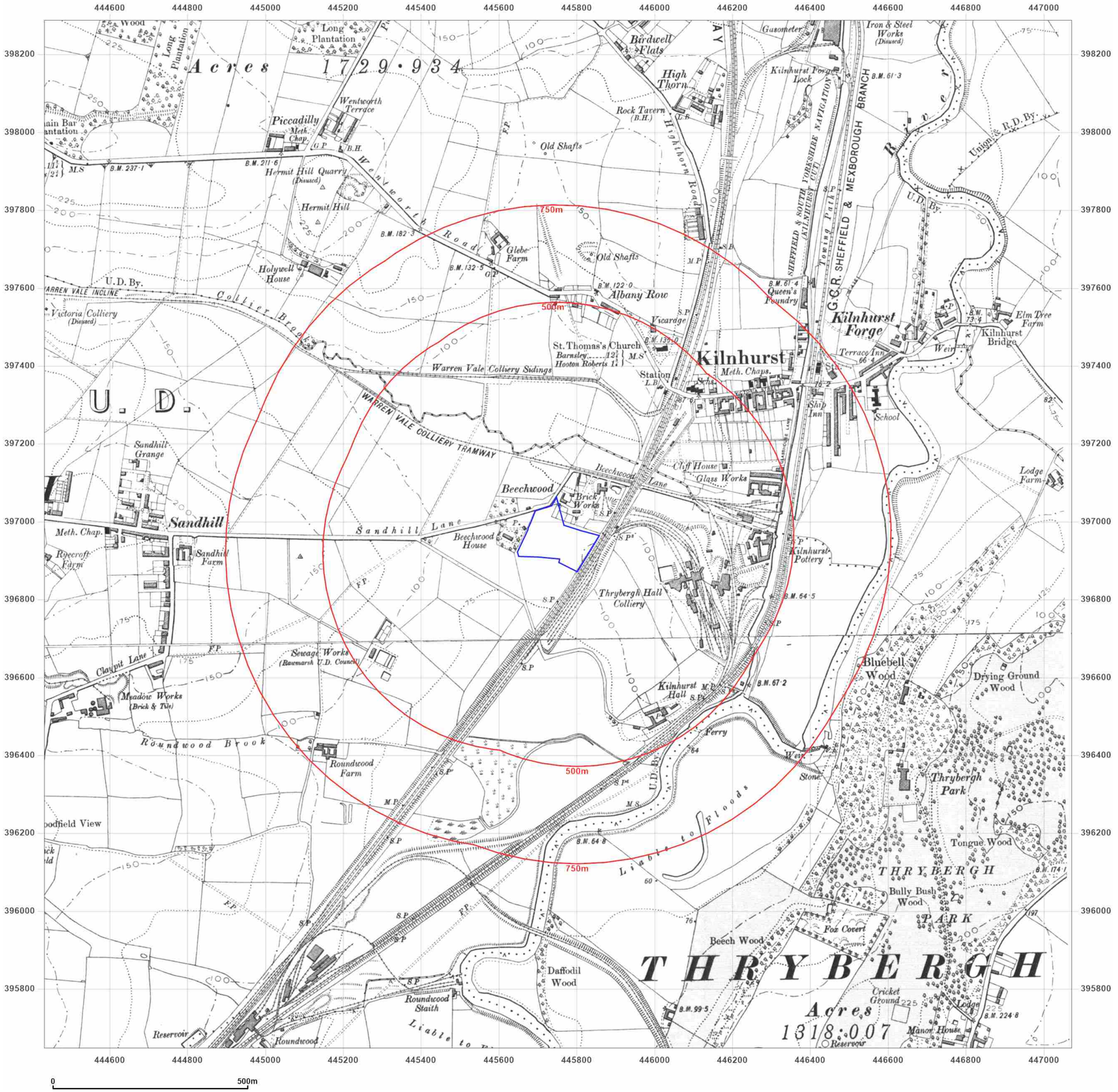
Surveyed N/A
Revised N/A
Edition N/A
Copyright N/A
Levelled N/A

Powered by OS

Produced by
Groundsure Insights
T: 08444 159000
E: info@groundsure.com
W: www.groundsure.com

Production date: 22 October 2024

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



Groundsure INSIGHTS

Site Details:

M L B AUTOSPARES LTD, ADJ BRICKEYARD, KILNHURST ROAD, RAWMARSH, ROTHERHAM, S64 5TL

Client Ref: MLB_Autospares_Ltd
Report Ref: GS-CBE-K8T-KAP-8KG
Grid Ref: 445751, 396967

Map Name: County Series

Map date: **1901**

Scale: 1:10,560

Printed at: 1:10,560

N
W E
S

Surveyed 1890
Revised 1901
Edition N/A
Copyright N/A
Levelled N/A

Surveyed 1890
Revised 1901
Edition N/A
Copyright N/A
Levelled N/A

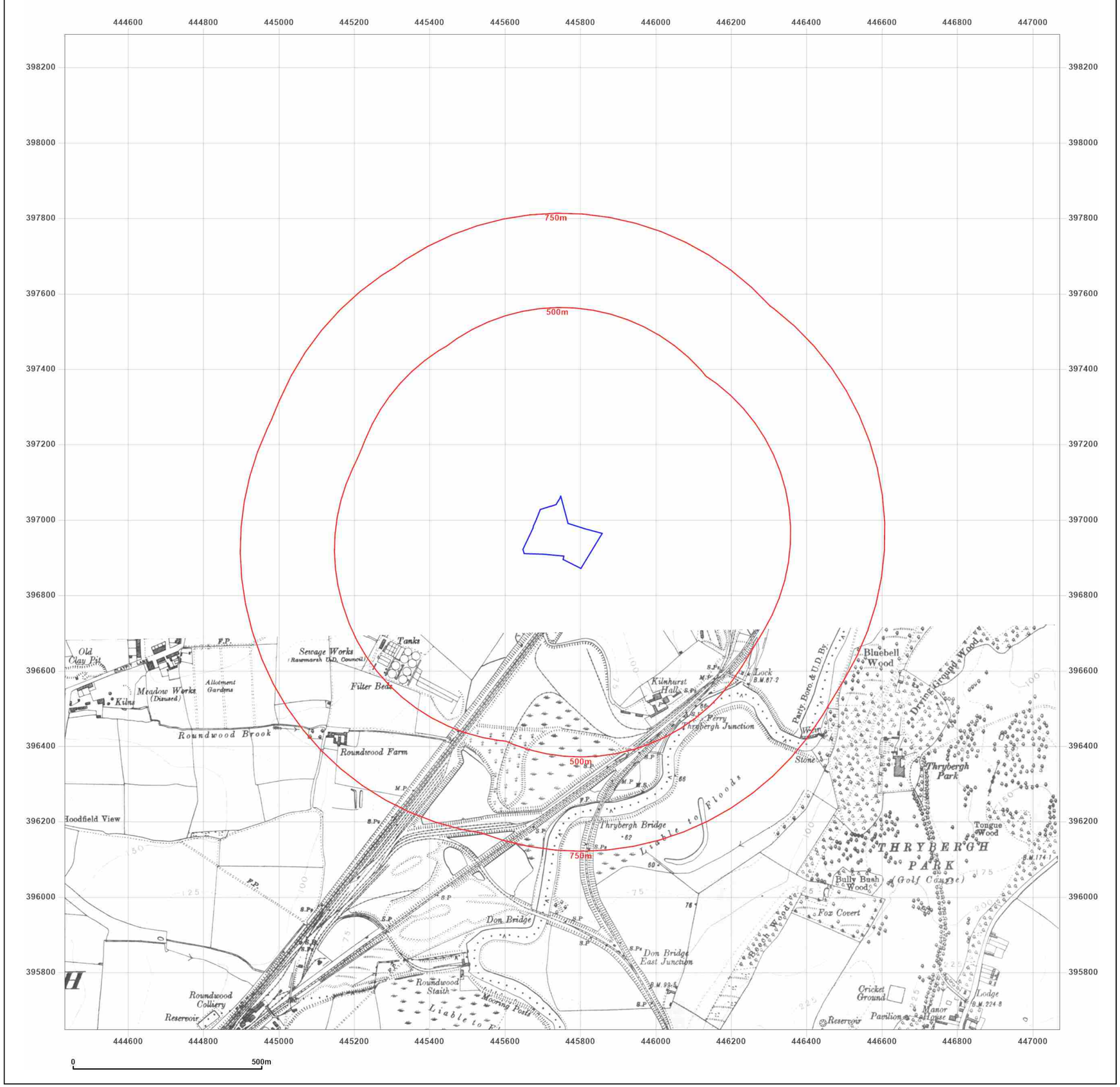
Surveyed 1891
Revised 1901
Edition N/A
Copyright N/A
Levelled N/A

Powered by OS

Produced by
Groundsure Insights
T: 08444 159000
E: info@groundsure.com
W: www.groundsure.com

Production date: 22 October 2024

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



Groundsure INSIGHTS

Site Details:

M L B AUTOSPARES LTD, ADJ BRICKEYARD, KILNHURST ROAD, RAWMARSH, ROTHERHAM, S64 5TL

Client Ref: MLB_Autospares_Ltd
Report Ref: GS-CBE-K8T-KAP-8KG
Grid Ref: 445751, 396967

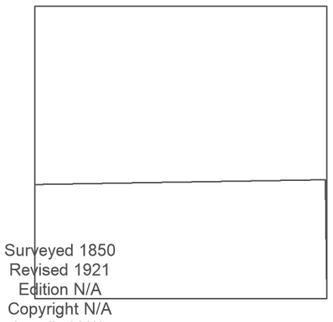
Map Name: County Series

Map date: **1921**

Scale: 1:10,560

Printed at: 1:10,560

N
W E
S



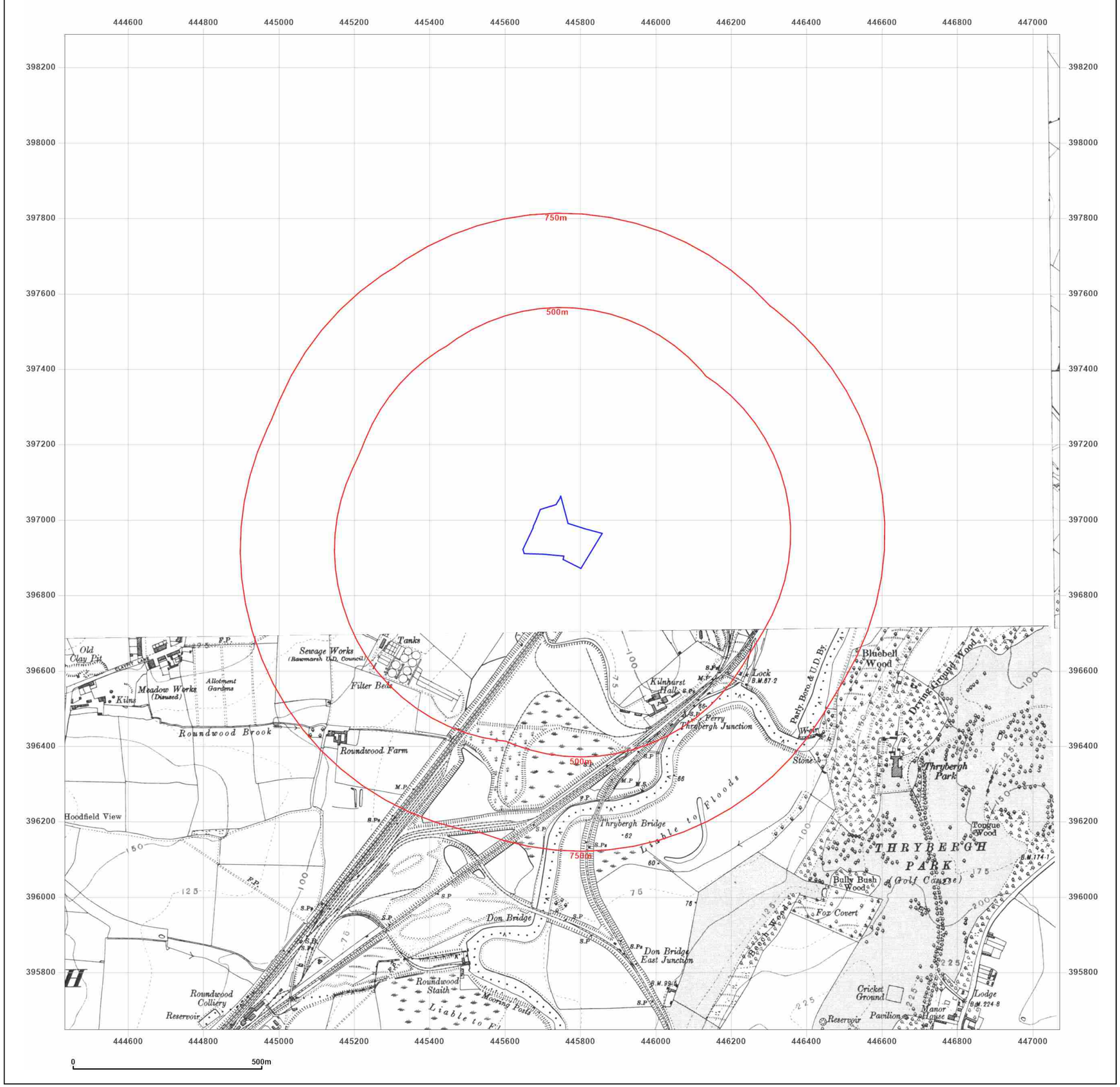
Surveyed 1850
Revised 1921
Edition N/A
Copyright N/A
Levelled N/A

Powered by OS

Produced by
Groundsure Insights
T: 08444 159000
E: info@groundsure.com
W: www.groundsure.com

Production date: 22 October 2024

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



Groundsure INSIGHTS

Site Details:

M L B AUTOSPARES LTD, ADJ BRICKEYARD, KILNHURST ROAD, RAWMARSH, ROTHERHAM, S64 5TL

Client Ref: MLB_Autospares_Ltd
Report Ref: GS-CBE-K8T-KAP-8KG
Grid Ref: 445751, 396967

Map Name: County Series

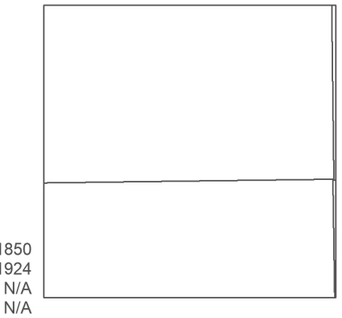
Map date: **1924-1928**

Scale: 1:10,560

Printed at: 1:10,560

N
W E
S

Surveyed 1850
Revised 1928
Edition N/A
Copyright N/A
Levelled N/A



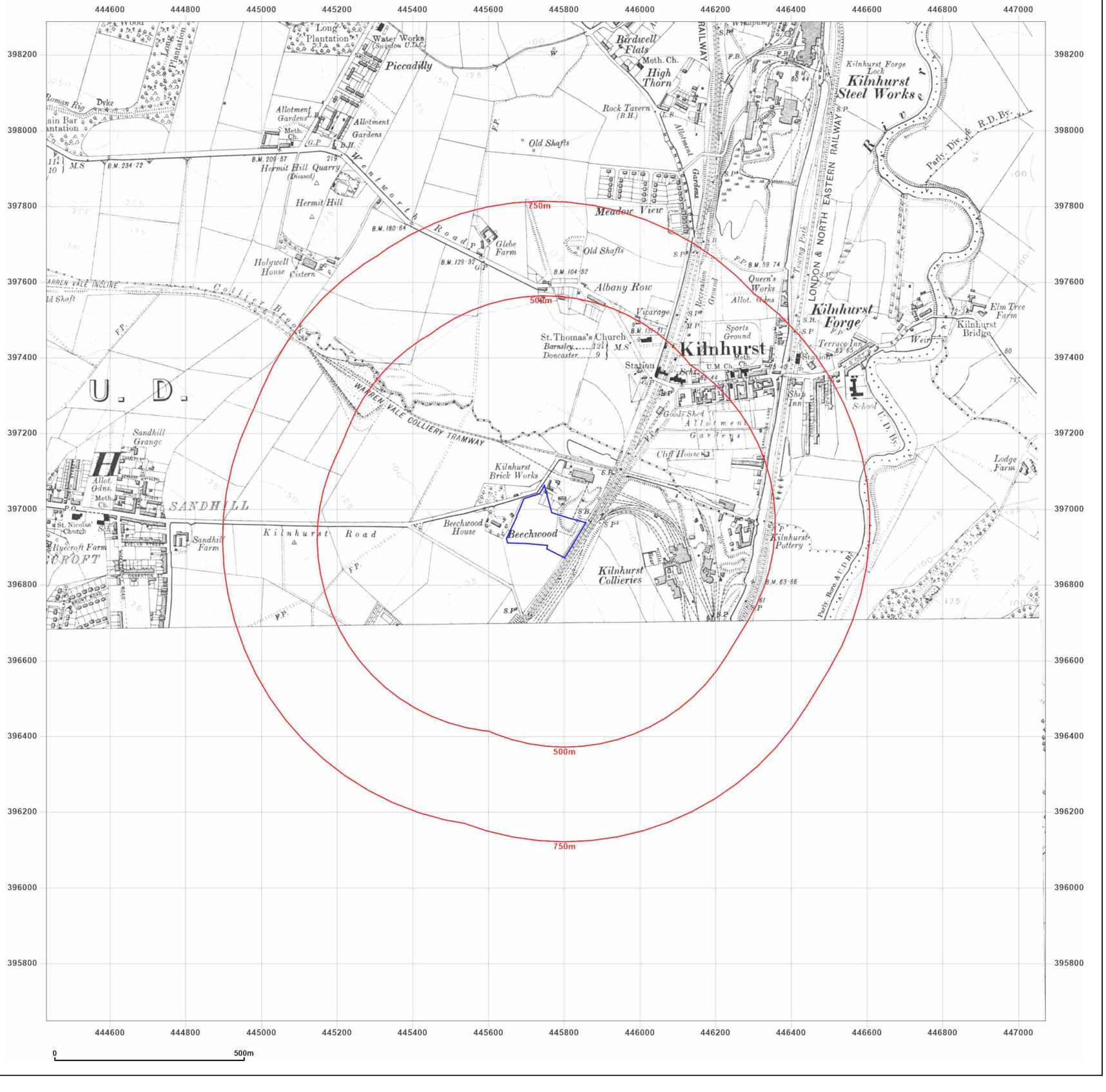
Surveyed 1850
Revised 1924
Edition N/A
Copyright N/A
Levelled N/A

Powered by OS

Produced by
Groundsure Insights
T: 08444 159000
E: info@groundsure.com
W: www.groundsure.com

Production date: 22 October 2024

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



Groundsure INSIGHTS

Site Details:

M L B AUTOSPARES LTD, ADJ BRICKEYARD, KILNHURST ROAD, RAWMARSH, ROTHERHAM, S64 5TL

Client Ref: MLB_Autospares_Ltd
Report Ref: GS-CBE-K8T-KAP-8KG
Grid Ref: 445751, 396967

Map Name: County Series

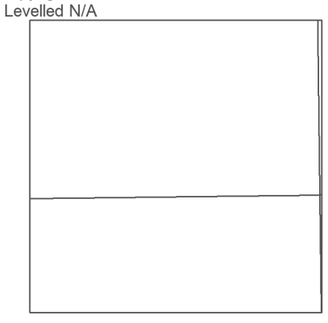
Map date: **1929-1930**

Scale: 1:10,560

Printed at: 1:10,560

N
W E
S

Surveyed 1850
Revised 1929
Edition N/A
Copyright N/A
Levelled N/A



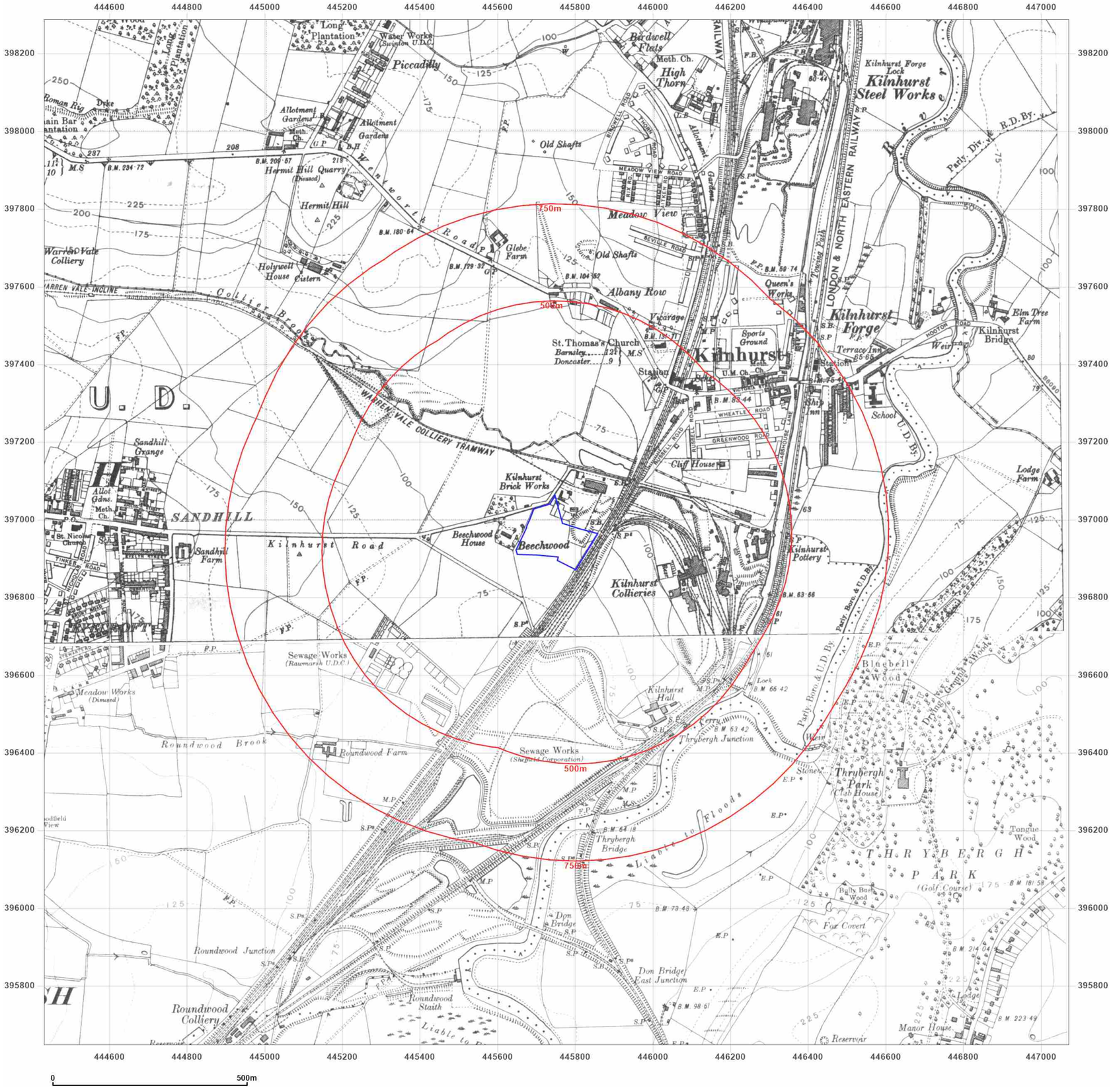
Surveyed 1851
Revised 1930
Edition 1930
Copyright N/A
Levelled N/A

Powered by OS

Produced by
Groundsure Insights
T: 08444 159000
E: info@groundsure.com
W: www.groundsure.com

Production date: 22 October 2024

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



Groundsure INSIGHTS

Site Details:

M L B AUTOSPARES LTD, ADJ BRICKEYARD, KILNHURST ROAD, RAWMARSH, ROTHERHAM, S64 5TL

Client Ref: MLB_Autospares_Ltd
Report Ref: GS-CBE-K8T-KAP-8KG
Grid Ref: 445751, 396967

Map Name: County Series

Map date: **1935-1938**

Scale: 1:10,560

Printed at: 1:10,560

N
W E
S

Surveyed 1850
Revised 1938
Edition N/A
Copyright N/A
Levelled N/A

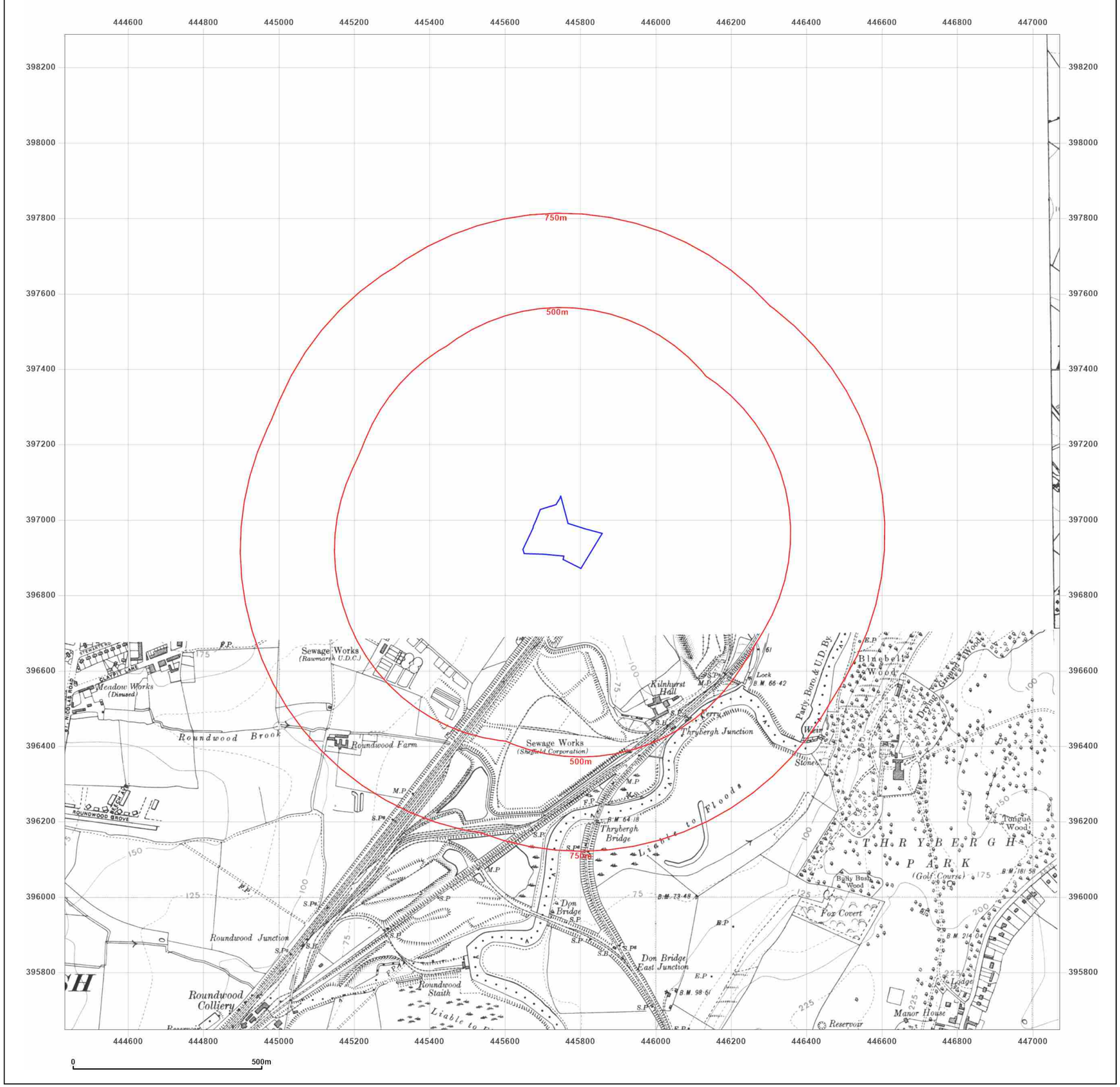
Surveyed 1850
Revised 1935
Edition N/A
Copyright N/A
Levelled N/A

Powered by OS

Produced by
Groundsure Insights
T: 08444 159000
E: info@groundsure.com
W: www.groundsure.com

Production date: 22 October 2024

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



Groundsure INSIGHTS

Site Details:

M L B AUTOSPARES LTD, ADJ BRICKEYARD, KILNHURST ROAD, RAWMARSH, ROTHERHAM, S64 5TL

Client Ref: MLB_Autospares_Ltd
Report Ref: GS-CBE-K8T-KAP-8KG
Grid Ref: 445751, 396967

Map Name: County Series

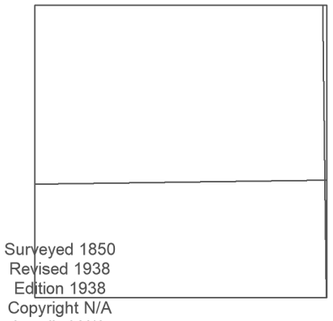
Map date: **1938**

Scale: 1:10,560

Printed at: 1:10,560

N
W E
S

Surveyed 1850
Revised 1938
Edition N/A
Copyright N/A
Levelled N/A

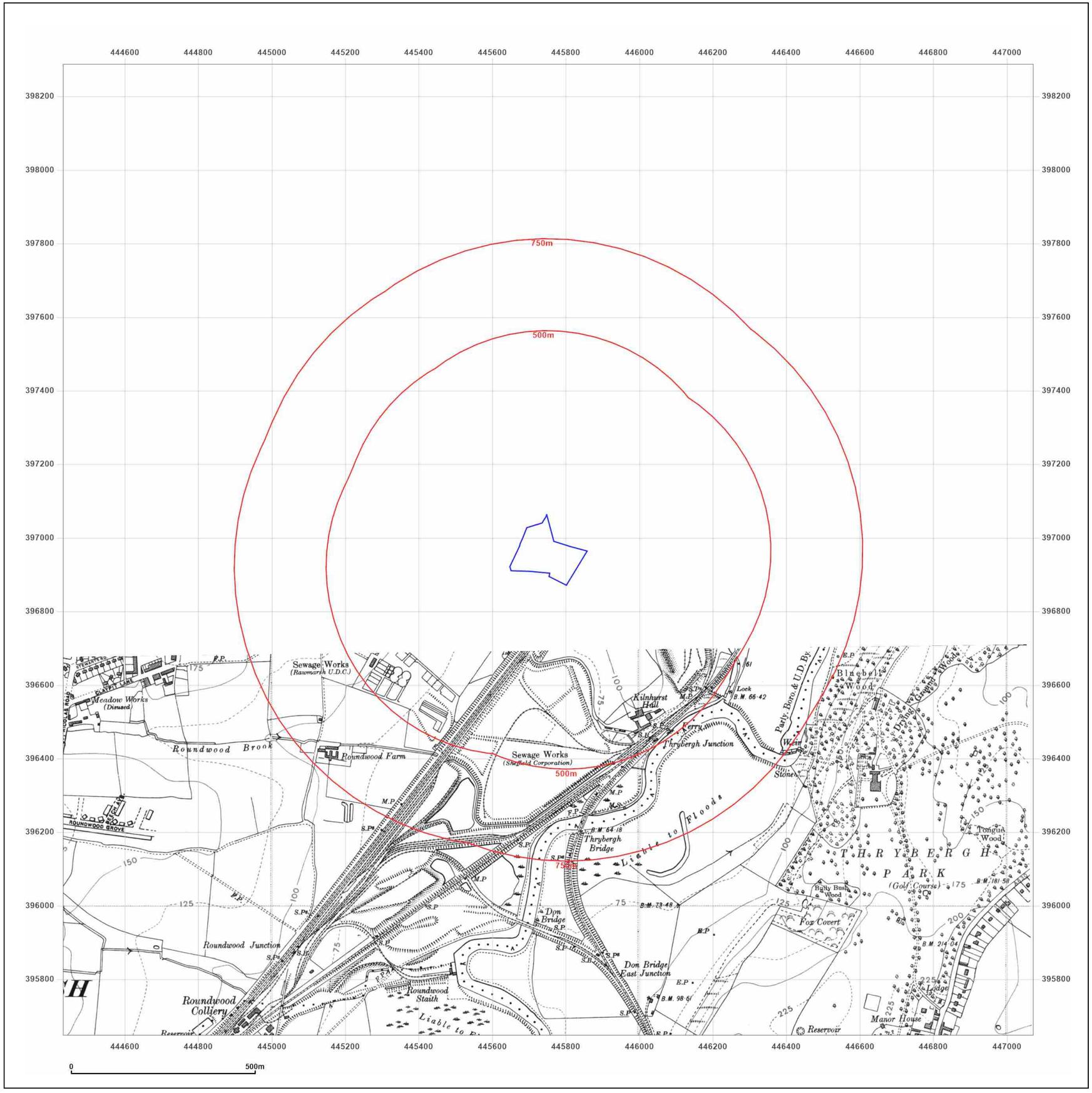


Powered by OS

Produced by
Groundsure Insights
T: 08444 159000
E: info@groundsure.com
W: www.groundsure.com

Production date: 22 October 2024

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



Groundsure INSIGHTS

Site Details:

M L B AUTOSPARES LTD, ADJ BRICKEYARD, KILNHURST ROAD, RAWMARSH, ROTHERHAM, S64 5TL

Client Ref: MLB_Autospares_Ltd
Report Ref: GS-CBE-K8T-KAP-8KG
Grid Ref: 445751, 396967

Map Name: County Series

Map date: **1938**

Scale: 1:10,560

Printed at: 1:10,560

N
W E
S

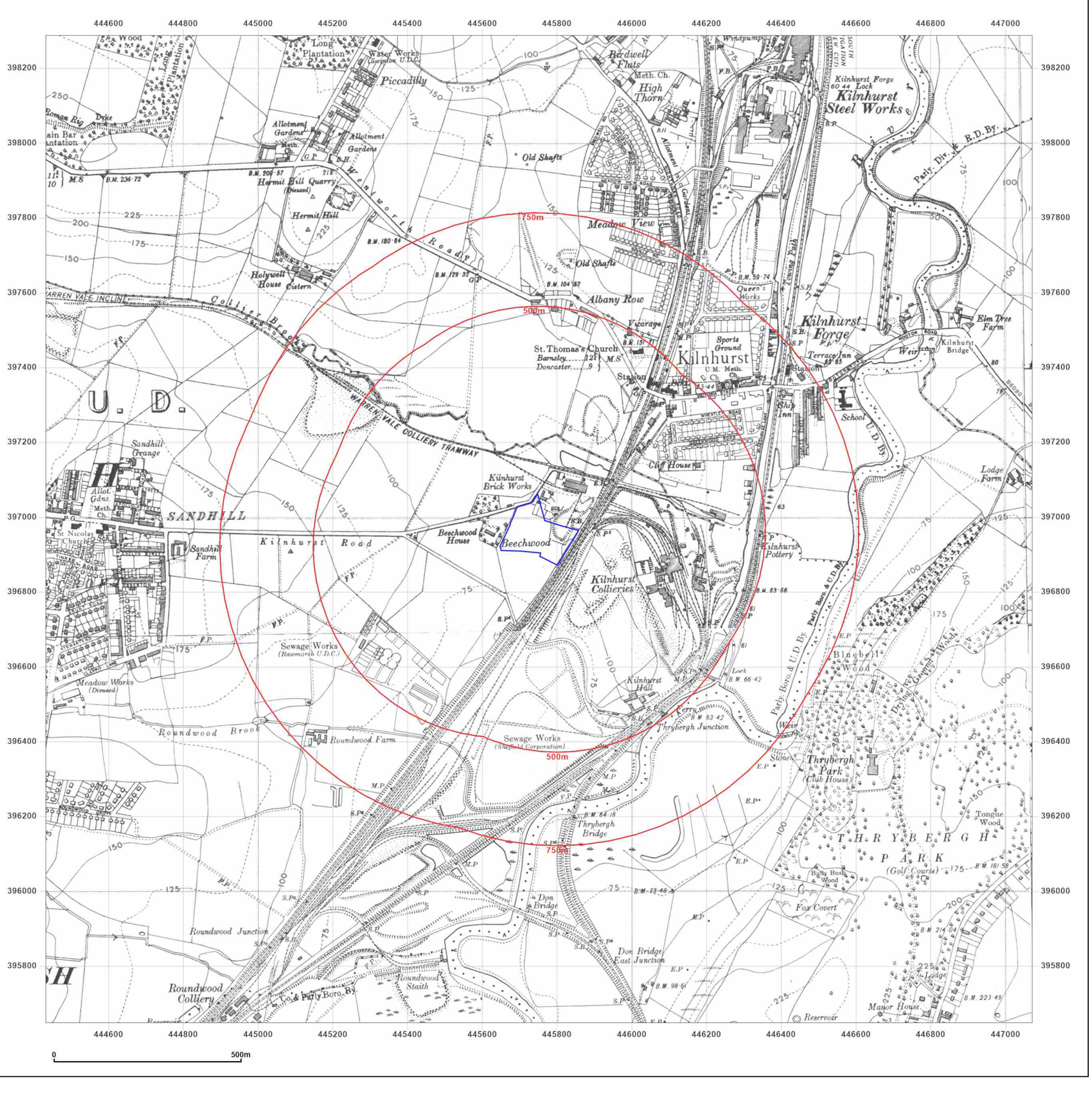
Surveyed 1850
Revised 1938
Edition N/A
Copyright N/A
Levelled 1928

Powered by OS

Produced by
Groundsure Insights
T: 08444 159000
E: info@groundsure.com
W: www.groundsure.com

Production date: 22 October 2024

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



Groundsure INSIGHTS

Site Details:

M L B AUTOSPARES LTD, ADJ BRICKEYARD, KILNHURST ROAD, RAWMARSH, ROTHERHAM, S64 5TL

Client Ref: MLB_Autospares_Ltd
Report Ref: GS-CBE-K8T-KAP-8KG
Grid Ref: 445751, 396967

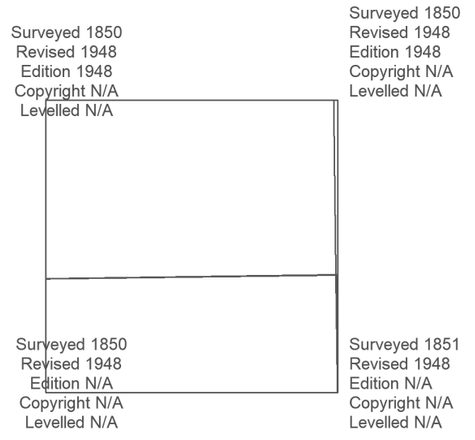
Map Name: County Series

Map date: **1948**

Scale: 1:10,560

Printed at: 1:10,560

N
W E
S

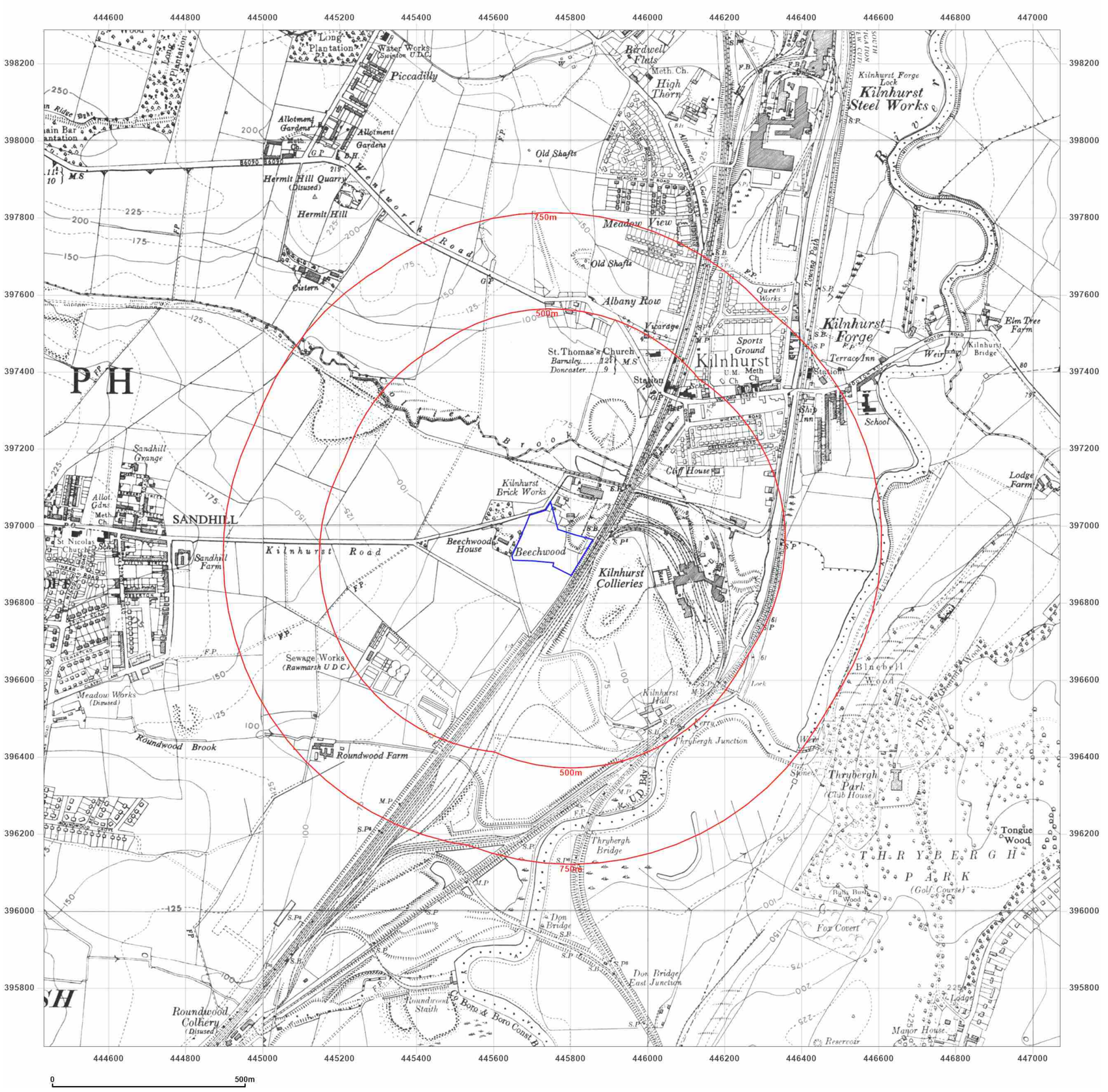


Powered by OS

Produced by
Groundsure Insights
T: 08444 159000
E: info@groundsure.com
W: www.groundsure.com

Production date: 22 October 2024

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



Groundsure INSIGHTS

Site Details:

M L B AUTOSPARES LTD, ADJ BRICKEYARD, KILNHURST ROAD, RAWMARSH, ROTHERHAM, S64 5TL

Client Ref: MLB_Autospares_Ltd
Report Ref: GS-CBE-K8T-KAP-8KG
Grid Ref: 445751, 396967

Map Name: Provisional

Map date: **1951**

Scale: 1:10,560

Printed at: 1:10,560

N
W E
S

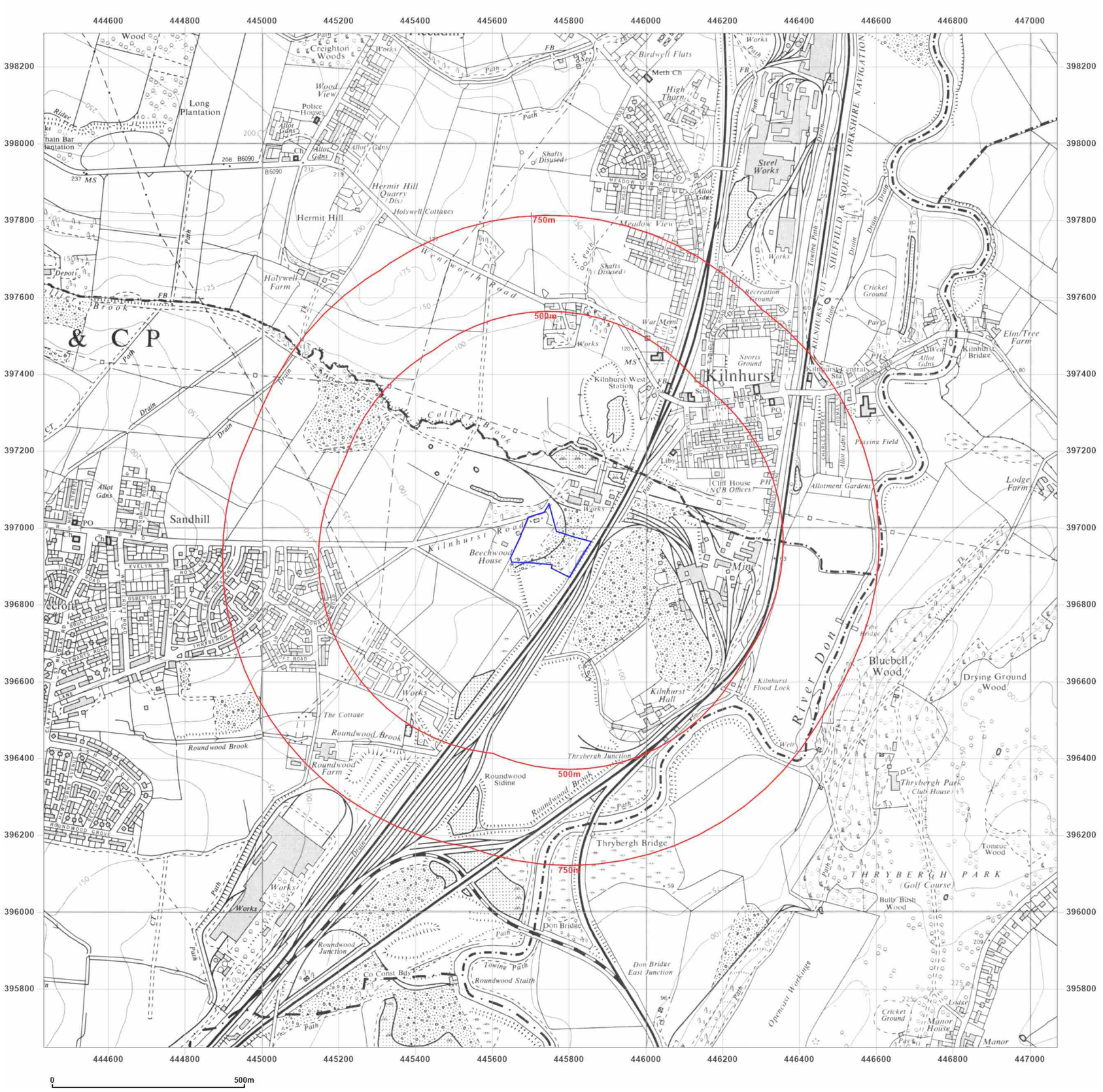
Surveyed 1951	Surveyed 1951
Revised 1951	Revised 1951
Edition N/A	Edition N/A
Copyright N/A	Copyright N/A
Levelled N/A	Levelled N/A

Powered by

Produced by
Groundsure Insights
T: 08444 159000
E: info@groundsure.com
W: www.groundsure.com

Production date: 22 October 2024

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



Groundsure INSIGHTS

Site Details:

M L B AUTOSPARES LTD, ADJ BRICKEYARD, KILNHURST ROAD, RAWMARSH, ROTHERHAM, S64 5TL

Client Ref: MLB_Autospares_Ltd
Report Ref: GS-CBE-K8T-KAP-8KG
Grid Ref: 445751, 396967

Map Name: Provisional
Map date: **1966-1967**
Scale: 1:10,560
Printed at: 1:10,560

N
W E
S

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

Powered by OS

Produced by
Groundsure Insights
T: 08444 159000
E: info@groundsure.com
W: www.groundsure.com

Production date: 22 October 2024

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

Site Details:

M L B AUTOSPARES LTD, ADJ BRICKEYARD, KILNHURST ROAD, RAWMARSH, ROTHERHAM, S64 5TL

Client Ref: MLB_Autospares_Ltd
Report Ref: GS-CBE-K8T-KAP-8KG
Grid Ref: 445751, 396967

Map Name: National Grid

Map date: **1974-1978**

Scale: 1:10,000

Printed at: 1:10,000

N
W E
S

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

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

Powered by OS

Produced by
Groundsure Insights
T: 08444 159000
E: info@groundsure.com
W: www.groundsure.com

Production date: 22 October 2024

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

Groundsure INSIGHTS

Site Details:

M L B AUTOSPARES LTD, ADJ BRICKEYARD, KILNHURST ROAD, RAWMARSH, ROTHERHAM, S64 5TL

Client Ref: MLB_Autospares_Ltd
Report Ref: GS-CBE-K8T-KAP-8KG
Grid Ref: 445751, 396967

Map Name: National Grid

Map date: **1983-1984**

Scale: 1:10,000

Printed at: 1:10,000

N
W E
S

Surveyed 1980
Revised 1983
Edition N/A
Copyright N/A
Levelled N/A

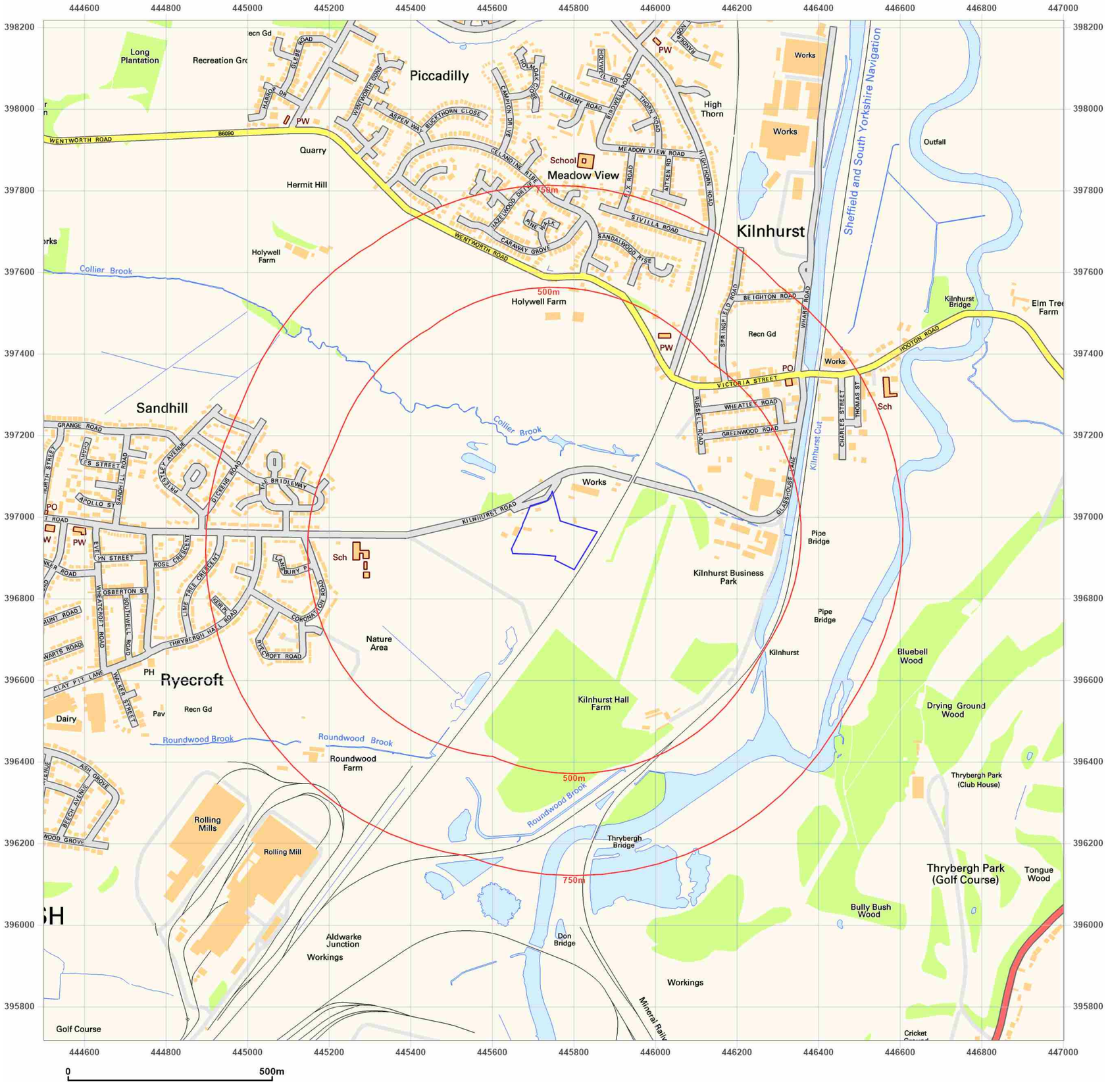
Surveyed 1980
Revised 1984
Edition N/A
Copyright N/A
Levelled N/A

Powered by OS

Produced by
Groundsure Insights
T: 08444 159000
E: info@groundsure.com
W: www.groundsure.com

Production date: 22 October 2024

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



Groundsure INSIGHTS

Site Details:

M L B AUTOSPARES LTD, ADJ BRICKEYARD, KILNHURST ROAD, RAWMARSH, ROTHERHAM, S64 5TL

Client Ref: MLB_Autospares_Ltd
Report Ref: GS-CBE-K8T-KAP-8KG
Grid Ref: 445751, 396967

Map Name: National Grid

Map date: **2001**

Scale: 1:10,000

Printed at: 1:10,000

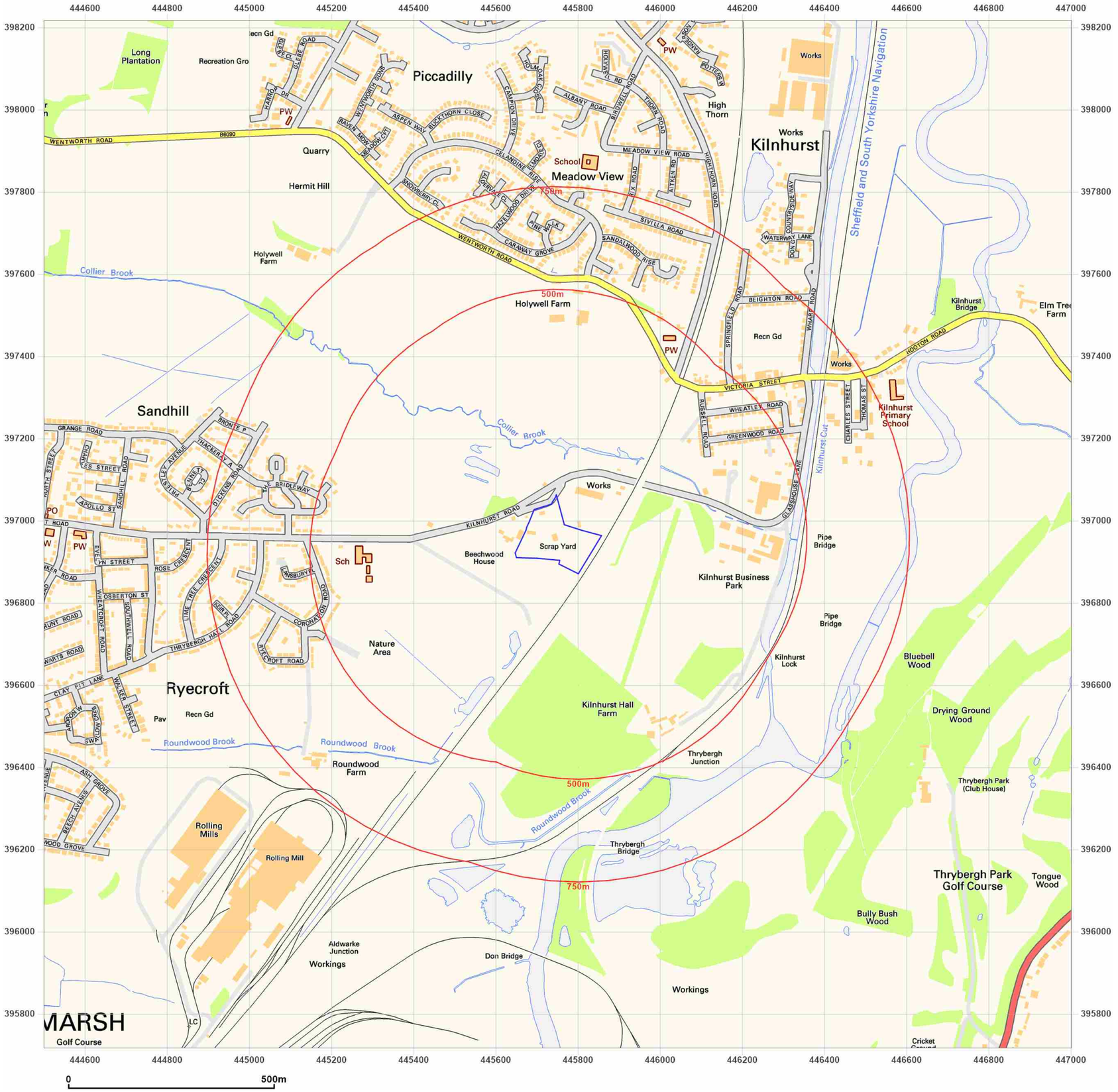
N
W E
S

Powered by OS

Produced by
Groundsure Insights
T: 08444 159000
E: info@groundsure.com
W: www.groundsure.com

Production date: 22 October 2024

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



Groundsure INSIGHTS

Site Details:

M L B AUTOSPARES LTD, ADJ BRICKEYARD, KILNHURST ROAD, RAWMARSH, ROTHERHAM, S64 5TL

Client Ref: MLB_Autospares_Ltd
Report Ref: GS-CBE-K8T-KAP-8KG
Grid Ref: 445751, 396967

Map Name: National Grid

Map date: **2010**

Scale: 1:10,000

Printed at: 1:10,000

N
W E
S

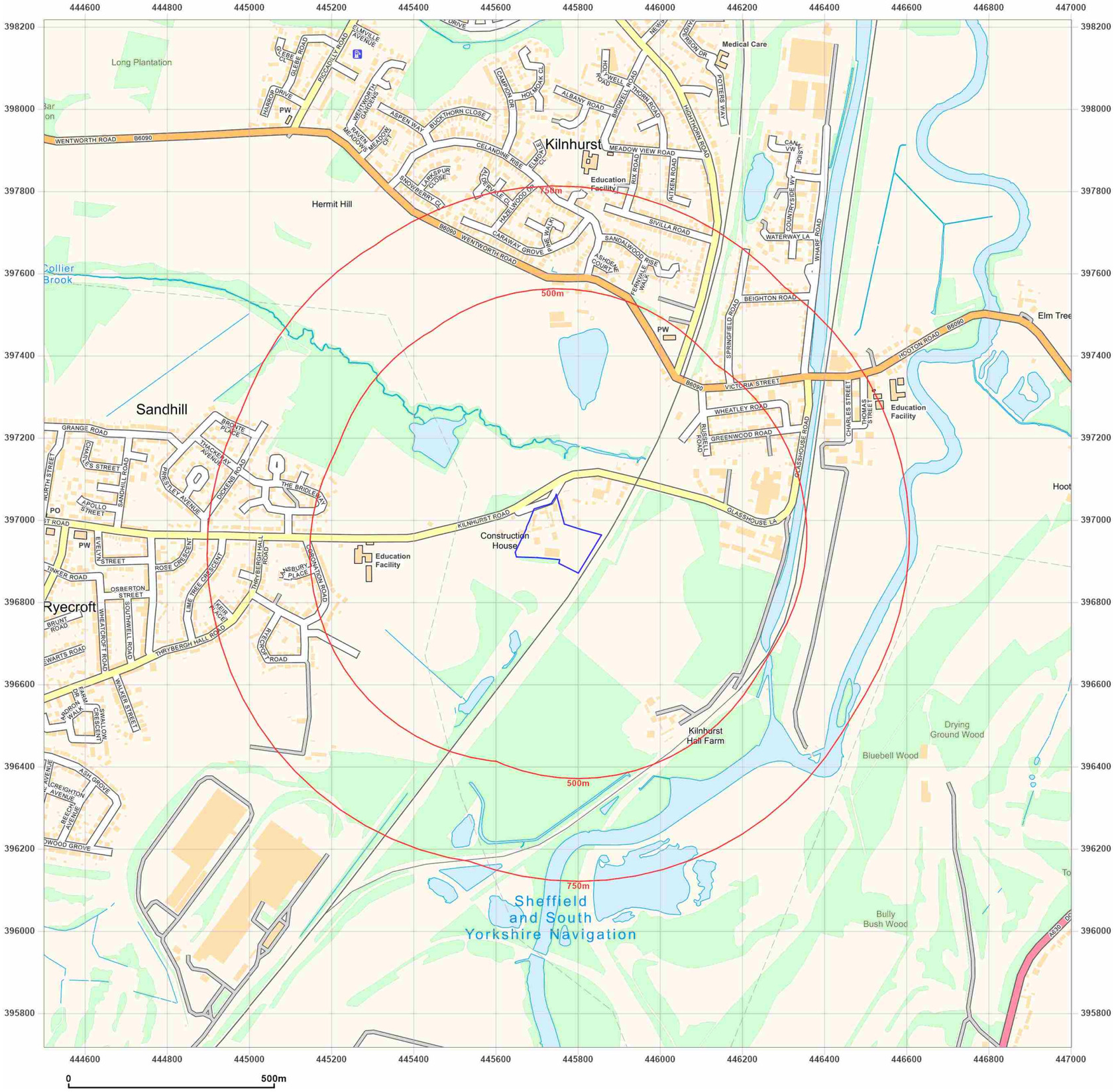
2010

Powered by OS

Produced by
Groundsure Insights
T: 08444 159000
E: info@groundsure.com
W: www.groundsure.com

Production date: 22 October 2024

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



Groundsure INSIGHTS

Site Details:

M L B AUTOSPARES LTD, ADJ BRICKEYARD, KILNHURST ROAD, RAWMARSH, ROTHERHAM, S64 5TL

Client Ref: MLB_Autospares_Ltd
Report Ref: GS-CBE-K8T-KAP-8KG
Grid Ref: 445751, 396967

Map Name: National Grid
Map date: **2024**
Scale: 1:10,000
Printed at: 1:10,000

N
W E
S

2024

Powered by

Produced by
Groundsure Insights
T: 08444 159000
E: info@groundsure.com
W: www.groundsure.com

Production date: 22 October 2024

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

Annex D Groundwater Risk Assessment Worksheets v3.0

Groundwater risk assessment for treated effluent discharges to infiltration systems

Infiltration Worksheet , Release v3.0

Date of Workbook Issue: March 2022

This worksheet has been produced in combination with the document: H1 Annex J5 User Manual version 2.0 (Environment Agency, 2014).

IMPORTANT: To enable MS Excel worksheet, click the Microsoft Office Button cl Excel Options, click Add-Ins. In the Manage box, select Excel Add-ins. Click Go. Select **Analysis ToolPak** and **Analysis ToolPak-VBA** (to calculate error functions)

Details to be completed for each assessment

Site Name:	**MLB Autospares Ltd**			
Site Address:	**Kilnhurst Road, Rawmarsh, S64 5TL**			
Completed by:	**David Walker**			
Date:	**05-Feb-25**		**Version:**	**1**
Substance	**Naphthalene**			
Environmental Standard (C_T)	**0.001**	**mg/l**	**Origin of C_T:**	**UK DWS PAHs**

This spreadsheet has been developed as a tool to assist groundwater risk assessment for effluent discharges to infiltration systems. The following worksheets are available:

Infiltration System
Attenuation_unsatzone
Dilution
Attenuation_satzone
Summary
Simple calcs

Site details entered on this page are automatically copied to each worksheet.
The worksheet uses the following colour coding:

	Worksheet option with pull down menu
	Data entry
	Data origin / justification should be noted in cells coloured yellow and fully documented in subsequent reports.
	Data carried forward from an earlier worksheet
	Calculation

It is recommended that a copy of the original worksheet is saved (all data fields in the original copy are blank).

Infiltration Worksheet

Infiltration System

This sheet allows user to enter effluent concentration and details of infiltration system

Substance		**Naphthalene**		From introduction sheet
Compliance value or environmental standard	C_T	**1.00E-03**	**mg/l**	From introduction sheet

Input Parameters	Variable	Value	Unit	Source of parameter value	
Standard entry					
Concentration of substance in discharge (entering infiltration system)	C_e	9.00E-03	mg/l	Concentration in interceptor chamber	
Type of treatment plant		**Other**			
Water use and percolation rate (for use only with septic tanls and package treatment plants)					
Number of persons	p				*Not valid for this treatment plant option*
Water use		1.80E+02	litres/person/day		*Not valid for this treatment plant option*
Percolation rate	Vp		s/mm		*Not valid for this treatment plant option*
Specify discharge (Q1) or calculate based on use (Q2)		**Specified discharge Q1**			
Discharge rate	Q1	1.40E+01	m^3/d	Maximum passing through the interceptor	
Calculated discharge	Q2	0.00E+00	m^3/d		*Value specifed by user and not calculated*
Area of drainage fied and hydraulic loading					
Specify area of drainage field or calculate based on percolation rate		**Specify**			
Enter area of drainage field	A	4.00E+00	m^2	2x2m Soakaway	
Calculated area of drainage field	A	0.00E+00	m^2		*Value specifed by user and not calculated*
Calculated infiltration rate	Inf	3.50E+00	m/d		

Site being assessed:	MLB Autospares Ltd
Completed by:	David Walker
Date:	05-Feb-25
Version:	1

Infiltration Worksheet

Attenuation unsaturated zone

This sheet calculates attenuation factor for the unsaturated zone; concentration at base of unsaturated zone and discharge consent limit

Contaminant		**Naphthalene**		From introduction sheet
Compliance value or environmental standard	C_T	**1.00E-03**	mg/l	From introduction sheet
Concentration of substance in substance in discharge (entering infiltration system)	C_e	**9.00E-03**	mg/l	From infiltration sheet

Input Parameters	**Variable**	**Value**	**Unit**	**Source of parameter value**	
Standard entry					
Drainage Layer					
Infiltraton rate	**Inf**	**3.50E+00**	**m/d**	From infiltration sheet	
Thickness of drainage layer	S_1	2.00E+00	m		
Water filled porosity	θ_1	1.00E-01	fraction	Lower range for sandy soils	
Bulk density	ρ_1	2.50E+00	g/cm^3	Bulk Density of crushed concrete - typical backfill of soakaway	
Calculated dispersivity	D_1	2.00E-01	m	calculated	
Option to select degradation	**Degradation occurs - sorbed and dissolved phases**				
Half life for degradation of substance	$t_{1/2}$	5.00E+00	days	Average 1 to 10 days in water	
Calculated decay rate	λ_1	1.39E-01	days^{-1}	calculated (very low value set if no degradation)	*Calculated from half life (above)*
Enter method of defining partition co-efficient (using pull down list)	**User specified value for partition coefficient**				
Entry if specify partition coefficient (option)					
Soil water partition coefficient	Kd_1	5.00E+01	l/kg	High Kd due to likely high FOC	
Entry for organic chemicals (option)					
Fraction of organic carbon (in soil)	foc_1	1.00E-02	fraction		*Not valid - User specified value used*
Organic carbon partition coefficient	Koc_1	1.00E+01	l/kg		*Not valid - User specified value used*
Soil water partition coefficient used in assessment	**Kd_1**	**5.00E+01**	**l/kg**	*Specified value*	
Retardation factor	Rfu_1	1.25E+03			
Unretarded travel time (no dispersion)	tu_1	5.71E-02	d		
Unretarded travel time (with dispersion)	tu_1	5.14E-02	d		
Retarded travel time (with dispersion)	tr_1	6.43E+01	d		
Attenuation factor	AFu_1	4.64E+02			
Unsaturated Zone					
Thickness of unsaturated zone below drainage field	S_2	1.00E+01	m	10m to groundwater	
Water filled porosity	θ_2	1.50E-01	fraction	Average for sandstone	
Bulk density of unsaturated zone	ρ_2	2.40E+00	g/cm^3	Well cemented sandstone	
Calculated dispersivity	D_2	1.00E+00	m	calculated	
Option to select degradation	**Degradation occurs - sorbed and dissolved phases**				
Half life for degradation of substance	$t_{1/2}$	5.00E+00	days	Average 1 to 10 days in water	
Calculated decay rate	λ_2	1.39E-01	days^{-1}	calculated (very low value set if no degradation)	*Default value of 1/10^99 used*
Fraction of rapid flow through unsaturated zone	B	1.00E-01	fraction	*10% rapid flow through potential fractures*	
Enter method of defining partition co-efficient (using pull down list)	**User specified value for partition coefficient**				
Entry if specify partition coefficient (option)					
Soil water partition coefficient	Kd_2	5.00E+01	l/kg	High Kd due to likely high FOC	
Entry for organic chemicals (option)					
Fraction of organic carbon (in soil)	foc_2	6.00E-01	fraction		*Not valid - User specified value used*
Organic carbon partition coefficient	Koc_2	1.00E+01	l/kg		*Not valid - User specified value used*
Soil water partition coefficient used in assessment	**Kd_2**	**5.00E+01**	**l/kg**	*Specified value*	
Retardation factor	Rfu_2	8.01E+02			
Unretarded travel time (no dispersion)	tu_2	4.29E-01	d		
Unretarded travel time (with dispersion)	tu_2	3.86E-01	d		
Retarded travel time (with dispersion)	tr_2	3.09E+02	d		
Attenuation factor	AFu_2	3.53E+07			
Total unretarded travel time	$tu_1 + tu_2$	4.86E-01	d		
Total retarded travel time	$tr_1 + tr_2$	4.15E+02	d		

Attenuation factor and discharge consent limit

Drainage layer attenuation factor	**AFu_1**	**4.64E+02**		
Unsaturated zone attenuation factor	**AFu_2**	**3.53E+07**		
Concentration at base of drainage layer	**C_{dl}**	**1.94E-05**	**mg/l**	**below compliance value**
Concentration at base of unsaturated zone	**C_{wt}**	**1.94E-06**	**mg/l**	
		and		

Site being assessed:	MLB Autospares Ltd
Completed by:	David Walker
Date:	05-Feb-25
Version:	1